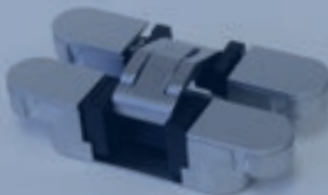


Furniture & Architectural Hardware

SUGATSUNE



No.201C





Our Mission

To create convenience and
satisfaction for people.

Quality Forward

To hear is to know, to touch is to understand. When you touch Sugatsune's products, you can understand the quality our company exhibits. That quality is shown in our exceptional customer support, meticulous detail in product development, prompt service with adequate inventory, and helpful distributors in your area to service you.

Customer Service

For over 30 years we have provided North America with outstanding and quality customer support; our customer service team has extensive product knowledge so we can assist our customers with timely and clear information. We ensure not only will our products be of high quality, but that you will be completely satisfied with our customer service team. We believe that you cannot have great products without great customer service.



Product Development

Our company dedicates a large staff for research and development of new and innovative products, making us the first in product development. We determine each product by functionality and convenience, making us able to set the market trends; however, we also encourage new designs suggested by the consumers. Each new product is tested and rated for exceptional durability and quality, assuring that you will get the finest finished product.



Customer Service

Product Development

Quality Forward

Inventory

Sales Channel

Inventory

Quality service requires fast processing and shipping lead times. Our purchasing ensures that each stock item is kept to the maximum quantity and our customer service team will work with you on special order items. With over 5,000 items stocked, our facility has the capacity to service the demands of our customers in North America.



Sales Channel

Our customers deserve fast and adequate service so our extensive distributor network is prepared to assist you with Sugatsune products. Our distributors have been evaluated to be the best so you can establish a relationship, receive excellent service, and receive fair pricing. Conveniently locate your local distributor on our website or call us for recommendations.



North American Offices

For more than 30 years, Sugatsune America, Inc. has provided unique solutions to a wide range of industries. Our hardware is sought after and used by architects, designers, builders, OEM's, and countless homeowners. No matter the application or industry we are proud to supply innovative and high quality hardware solutions.

North American Headquarters

Carson, CA



In August 1982, Sugatsune America, Inc. established its headquarters in Carson, California. Just minutes away from Los Angeles, the Carson facility continues to be at the core of the U.S. operations serving as home to U.S. management, customer service, purchasing, marketing and warehouse distribution. To minimize distribution lead-times and provide the best service to our customers, a second distribution center was established just outside of Chicago in Addison, IL.

Premiere Showroom

Chicago, IL



In June 2011, Sugatsune America, Inc. unveiled its first North American showroom located in the heart of Chicago, IL. Our mission is to provide a comfortable environment for local architects, designers and clients to learn about and experience our products first hand. Conveniently located across from the Design Mart, our Chicago showroom is a place to drop by and see many product applications to inspire ideas for the A&D community.

Since 1930, Sugatsune has engineered and manufactured products that combine unparalleled quality, ingenious design and meticulous attention to detail. Headquartered in Tokyo, Japan, Sugatsune has global offices in the U.S., Canada, India, England, Germany and China where we continue to build upon our rich heritage for delivering precision engineered hardware solutions that incorporate safety, easy motion, efficiency and versatility. Sugatsune prides itself on our ability to develop and incorporate technology into our hardware so we can take concepts and turn them into trends.

In 1982, Sugatsune America, Inc. was established to inspire designers and industrial engineers in the U.S. to create new solutions with a line-up of precision engineered products hardware which today, totals over 6,000 products. We also have the capability to create customized solutions to meet unique application needs throughout a multitude of industries and the scale to maintain high quality standards throughout the development process even for modest production quantities.

Over the years, Sugastune has built a reputation for delivering exceptional product-technical and client service support with a knowledgeable staff that is available to help industrial engineers and designers realize their creations. And with local U.S. inventory at distribution centers strategically located in Carson, CA and Addison, IL, delivery of most products to most locations are within 1 to 2-days.

North America Offices

- **US Headquarters**
Carson, CA
1982
- **Showroom**
Chicago, IL
2011
- **Canadian Headquarters**
Montreal, QC
2016



Global Offices

● Global Headquarters
Tokyo, Japan

● Shanghai, China

● London, England (UK)

● Guangzhou, China

● Mumbai, India

● Dusseldorf, Germany



AS9120B



This standard includes ISO 9001:2015 quality management system requirements and specifies additional aviation, space, and defense industry requirements, definitions, and notes.

It is emphasized that the requirements specified in this standard are complementary (not alternative) to customer and applicable statutory and regulatory requirements.

*Registered for Sugatsune America, Inc.

ISO 9001



Sugatsune Kogyo Co. LTD.

Management Systems Enhancement Department of the Japanese Standards Association (JSA) registers the Quality Management system of these organizations, which conforms to JIS Q 9001:2008, ISO 9001:2008

Design development, production and purchase sale of Furniture Fittings, Building Hardware, Machinery Hardware, Electronic and Communication Equipment Steel Furniture and Lobby Furnishings.

*Registered for Global Headquarter Sugatsune Kogyo Co.,Ltd.

ISO 14001



Sugatsune Kogyo Co. LTD.

Management Systems Enhancement Department of the Japanese Standards Association (JSA) registers the Environmental Management System of the above organization, which conforms to the following Environmental Management System standards within the scope in the Appendix specified below:

Environmental Management System Standard: JIS Q 14001:1996, ISO 14001:1996

Appendix: Appendix to the Certificate of Registration JSAE 597-2002

*Registered for Global Headquarter Sugatsune Kogyo Co.,Ltd.

NSF



NSF International RECOGNIZES SUGATSUNE AMERICA, INC. CARSON, CA

AS COMPLYING WITH NSF C2.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.

SUGATSUNE's NSF Certified Products are designed to meet Food Equipment Industry Standard.
SUGATSUNE's NSF Certified part numbers are subject to change without notice.
When placing an order please specify NSF products.

RoHS



SUGATSUNE has started changing products to comply with the European RoHS directive. Hexavalent Chromium is changed to either chromium free or trivalent chromium. Most of the stainless steel products do not contain Hexavalent Chromium. Please contact sales for RoHS compliant product information.

SEMI



SUGATSUNE's SEMI compliant products are designed to meet SEMI S8, a safety guideline for ergonomics engineering of semiconductor manufacturing equipment.

This catalog is specifically designed to provide to you complete technical information & drawings.

SPRING LOADED PIVOT HINGE (WELDABLE) HG-PV60AC

- Spring loaded for self closing.
- 20 lbs per inch door installation cost removed.
- Replaces standard hinge (sold separately).
- 0.75 inch (2.00 mm) per piece.

Item No.	Weight (lb)	Box (inch)	Carton (inch)	Material	Finish
HG-PV60AC-L	38	50	200	304 Stainless Steel	Plain
HG-PV60AC-R	38	50	200	304 Stainless Steel	Plain

DOUBLE ACTION HINGE HG-BH

- Opens 90° in both left and right direction.
- Door Size: Max. 96" x 110" (2413 x 2794)
- Weight: 2.50 lbs (1.13 kg)
- Door weight: Max. 2.8 lbs (1.27 kg)

Item No.	W	H	T	C1	C2	C3	Weight (lb)	Box (inch)	Carton (inch)	Material	Finish
HG-BH-010	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-015	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-020	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-025	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-030	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-035	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-040	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-045	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-050	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-055	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-060	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-065	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-070	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-075	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-080	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-085	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-090	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-095	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain
HG-BH-100	1.4	2.0	0.15	1.3	1.3	1.3	1.4	10	100	304 Stainless Steel	Plain

INSET DOOR PIVOT HINGE

- Door Size: Max. 96" x 110" (2413 x 2794)
- Weight: 2.50 lbs (1.13 kg)
- Door weight: Max. 2.8 lbs (1.27 kg)

Item No.	Weight (lb)	Box (inch)	Carton (inch)	Material	Finish
PL-60-L	27	100	1000	304 Stainless Steel	Plain
PL-60-R	27	100	1000	304 Stainless Steel	Plain

OVERLAY DOOR PIVOT HINGE PL-60

- Door Size: Max. 96" x 110" (2413 x 2794)
- Weight: 2.50 lbs (1.13 kg)
- Door weight: Max. 2.8 lbs (1.27 kg)

Item No.	Weight (lb)	Box (inch)	Carton (inch)	Material	Finish
PL-60-L	27	100	1000	304 Stainless Steel	Plain
PL-60-R	27	100	1000	304 Stainless Steel	Plain

www.sugatsune.net LAMP 1-888-557-5267 (U.S.A. Only)

Features



Lapcon
Patented products as Lapcon



NSF
NSF certified products



SEMI
Products Compliant with Semi Guideline (SEMI S8)



RoHS
ROHS certified products



M4 NUT
Stainless Nut



SCREW
Stainless Screw



STAINLESS 430 STEEL
430 Stainless Steel



ALUMINUM



M4 NUT
Steel Nut



SCREW
Steel Screw



STAINLESS 303 STEEL
303 Stainless Steel



TITANIUM



M4x10 M4x14 SCREW
Stainless Screw with Size



NO SCREW
No Screw



STAINLESS 304 STEEL
304 Stainless Steel



UL CERTIFIED PRODUCT



M5x30 SCREW
Steel Screw with Size



NEODYMIUM
Strong Magnet



STAINLESS 316 STEEL
316 Stainless Steel



Recognizable brand under Sugatsune



New motion developed with technology



Soft motion dampening technology

- All items, unless specified, are made to exact metric dimension.
- Changes in dimensions, finishes, packing, etc., and suspension of production may occur without notice.
- Our liability is limited to the replacement of the merchandise.

DOOR HANDLES, DOOR KNOBS

P. 1~

- DOOR HANDLES
- LARGE HANDLES
- SLIDING DOOR HANDLES
- GLASS DOOR KNOBS
- LEVER HANDLES



CABINET HANDLES, PULLS & KNOBS

P. 29~

- HANDLES
- RECESSED PULLS
- TRUNK HANDLES
- PULLS
- FOLDING RING PULLS
- EDGE PULLS
- HATCH PULLS
- KNOBS
- PUSH KNOBS



CATCHES & LATCHES

P. 99~

- MAGNETIC CATCHES
- MAGNETIC TOUCH LATCHES
- NON MAGNETIC CATCHES
- PLASTIC CATCHES
- BALL CATCHES
- LATCHES
- PUSH KNOB LATCHES
- SLIDE/BARREL BOLTS
- HASPS
- SLIDING DOOR LATCHES



HINGES & DOOR ACCESSORIES

P. 177~

- 3-WAY ADJUSTABLE CONCEALED HINGES
- 2-WAY ADJUSTABLE PIVOT HINGES
- LIFT-OFF HINGES
- BUTT HINGES
- SPRING HINGES
- GLASS HINGES
- DOOR ACCESSORIES
- DOOR STOPPERS



CABINET HINGES

P. 211~

- BUTT / PIANO HINGES
- SPRING / QUICK RELEASE HINGES
- LIFT-OFF HINGES
- OVERLAY DOOR ANGLE HINGES
- PIVOT HINGES
- DROP/TABLETOP HINGES
- DETENT HINGES
- TORQUE HINGES
- GLASS SHOWCASE HARDWARE
- CONCEALED HINGES



LID SUPPORTS

P. 313~

- SOFT-DOWN STAYS
- VERTICAL SWING LIFT-UP MECHANISM
- HORIZONTAL BI-FOLD DOOR MECHANISM
- SOFT CLOSING SYSTEM
- LID STAYS
- SPRING LOADED LID STAYS
- MULTI ANGLE LID STAYS
- DOOR HOLDERS



DRAWER SLIDES

P. 383~

- STAINLESS STEEL DRAWER SLIDES
- ALUMINUM DRAWER SLIDES
- LINEAR SLIDES
- MINI GUIDES



HOOKS P. 419~

- HOOKS
- LATCH HOOKS
- SWING HOOKS
- HANGER PLATES
- RECESSED HOOKS
- VANITY HOOKS
- MAGNET HOOKS
- COAT HOOKS
- PXB HOOK SERIES



SHELF & SUPPORT HARDWARE P. 457~

- GLASS CLAMPS
- GLASS SHELF SUPPORTS
- SOAP HOLDERS
- BRACKETS
- MIRROR SUPPORTS
- GLASS STANDOFFS
- SHELF STANDARDS & ACCESSORIES
- SHELVING SYSTEM



CLOSET HARDWARE P. 519~

- CLOSET ROD LIFT MECHANISM
- HANGERS
- TIE RACKS



SLIDING & FOLDING DOOR HARDWARE P. 531~

- SLIDING DOOR HARDWARE
- SYNCHRONIZED SLIDING DOOR HARDWARE
- LATERAL OPENING DOOR HARDWARE
- GLASS SLIDING DOOR HARDWARE
- FOLDING DOOR HARDWARE
- ALUMINUM FRAME DOOR HARDWARE



CABINET DOOR HARDWARE P. 585~

- MULTI-MOTION FLAT MULTIPLE MOTION DOOR SYSTEM
- LATERAL OPENING DOOR SYSTEM
- GLASS SHOWCASE HARDWARE



LOCKS P. 611~

- GLASS LOCKS
- CABINET LOCKS
- SHEET METAL CAM LOCKS
- PUSH LOCKS
- CAM LOCKS



CASTERS & LEVELING GLIDES P. 641~

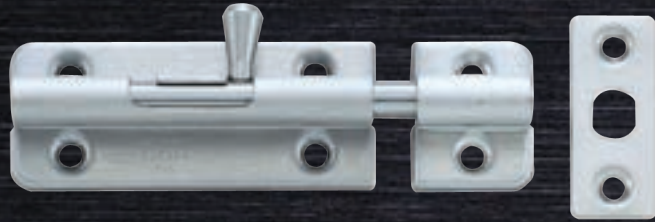
- TWIN WHEEL CASTERS
- DUAL BRAKE SYSTEM CASTERS
- LOW PROFILE HEAVY DUTY CASTERS
- CASTER WITH LEVELING GLIDES
- LEVELING GLIDES
- ACCESSORIES



MISCELLANEOUS P. 669~

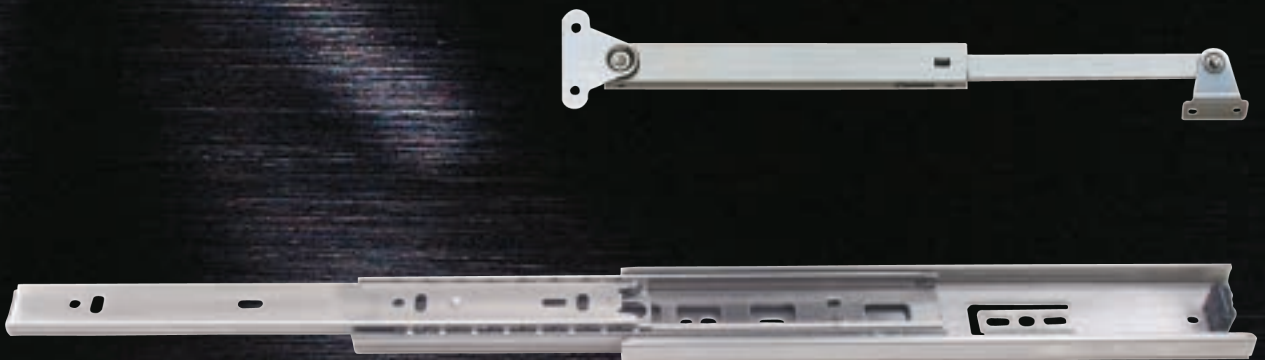
- CABLE GROMMETS
- VENTILATORS
- BATHROOM ACCESSORIES
- MULTI-PURPOSE DOORS, LIDS
- TOWEL BARS, RACKS





Stainless Steel Quality Products

Stainless steel products are favorable for all applications because of their modern finish, durability, and non-corrosive quality. This material is also known for its low-maintenance properties so using stainless steel is easy to maintain while being great to look at. Sugatsune is able to offer the widest range of products, from simple decorative hardware to complicated functional hardware. Using Sugatsune's quality stainless steel products, not only will products look great but will last forever.





Solutions For Architects



NOT ALL DOORS SWING ALIKE

Transform your ordinary door opening motion into an elegant experience with award winning, **LIN-X1000**. A unique, space saving system designed to move large doors, with minimal effort. See page 560~562.

* Available in White and Matte Black.

3-Way Adjustable Concealed Hinge

HES3D-E190

Finishes: Dull Chrome, Dull Nickel,
Polished Nickel, Black, and White



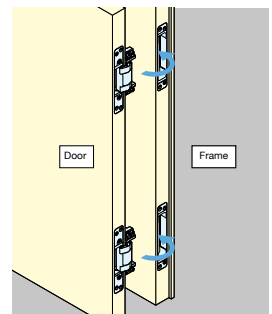
More from the series:



Sizes vary for use with 1-1/2" thick doors to a minimum of 3/4" thick doors. Find more sizes, finishes and information about the HES3D Series Hinges on page 180~184, 309~311.

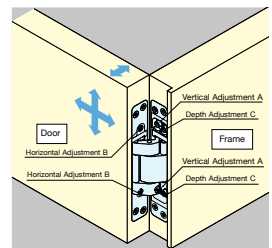
EASY INSTALLATION

Here's Why:
Sugatsune's HES3D series hinges incorporate a feature that allow the hinge leaves to separate. One leaf is installed in the door frame, while the other is installed into the door itself. You can then install and adjust the door at any time.



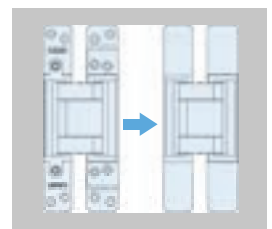
3-WAY ADJUSTABLE FEATURE

Explained:
HES3D series hinges have vertical, horizontal, and depth adjustment features, so if your door isn't perfectly aligned on the first try, this feature allows adjustments in each direction.



OVERALL LOOK

HES3D series hinges come with cover caps to hide all screws on the face of the hinge. So when your hinge is installed, it has a clean, sleek appearance.



Universal Design - Design For Everyone

As the leader in innovation, Sugatsune offers quality products centered around universal design. People's lifestyles will change and architects and designers will be able to offer lifelong solutions that incorporate safety, modern design, easy motion, space-saving solution, and versatility. Users can open doors laterally which save space in front of the cabinet while allowing full access to the inside of the cabinet. Dampers allow cabinets, sliding and swinging doors to open and close safely and securely, and shelving wall units can be changed according to the lifestyle of the household. Be sure to find a solution in Sugatsune's products.





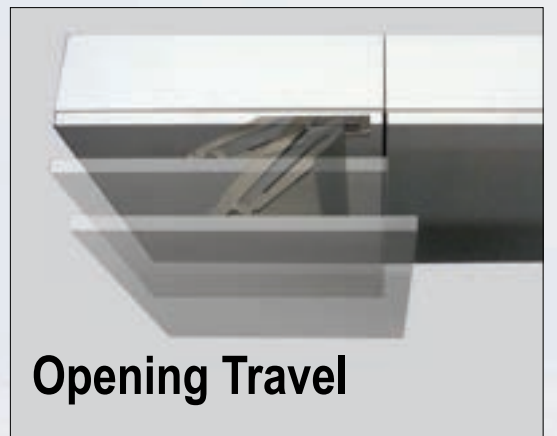
Versatility



Motion



Safety



Opening Travel

The Zwei L line combines a unique concept with high quality hardware. Each Zwei L product is hand made from solid 316 grade stainless steel and is finished with a mirror and satin combination. These products boast fantastic quality while evoking luxury.



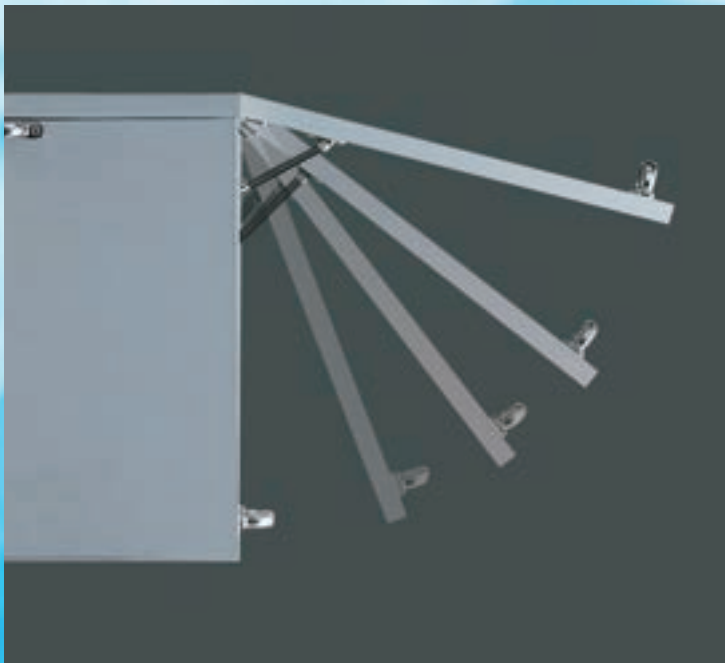
Coherent Design

An environment with a strong visual theme supported by hardware is an expression of one thought, one approach. Glass hardware, such as the XL-GC series, has every element conform to a smooth, beveled design. Glass cabinetry will function perfectly while maintaining a consistent look.



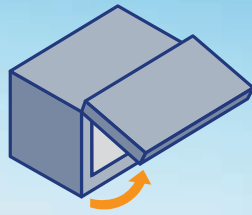
ELAN – Next Generation Lapcon Technology

Over 30 years ago Sugatsune was the first company to introduce soft closing technology to the North American market with its Lapcon hardware. With our recent ELAN line, Sugatsune once again leads the market by building upon its most reliable Lapcon hardware as well as expanding its range of usage. The main features of Elan products include lift assist, free stop, and an easy corner installation, all while maintaining the reliability of Sugatsune's soft closing technology. The ELAN line's slim and svelte profile has an aesthetic appeal that provides the homeowner more function to their cabinetry.

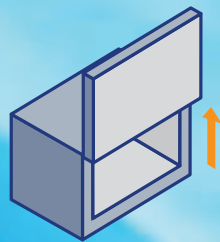


Built-in LAPCON dampening mechanism gives soft and silent closing

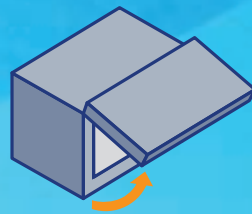
SLS-ELAN
Single flap upward



SLU-ELAN
Lift up mechanism



EZS-ELAN
Vertical semi upward



Traditional Look + Modern Hardware =

SLS-ELAN
– Upward Opening



FFCB-SLS

SLU-ELAN
– Swing Lift Up



FFCB-SLU



Sugatsune Face Frame Solutions

Face frame cabinetry in the American household presents a timeless and classic look. Sugatsune is proud to offer a solution that discreetly adds modern function while maintaining that image. Our face frame bracket adaptors allow for installation of a variety of our hinges and soft closing stays normally found in frameless cabinetry. Your classic cabinetry now has options for modern movement and utility.

LIN-X
– Lateral Open Hinge



FFCB-HG-1

SDS
– Soft Down Stay



FFCB-SD-1



Lateral Opening Door Systems

A recent development, flush-closing sliding door systems offer a clean surface for storage system, allowing a minimalist and modern look.

Sugatsune's approach is to give the designer a complete range of flush-closing options from small cabinets to full height walk-in wardrobe or partition doors.





Lateral Opening Door System with Built-in Dampening Technology.

LIN-X1000 was designed to transform your ordinary door opening movement into something spectacular. See page 560~562.



Sleek, flush finish when doors are closed.



Two-Way Soft Close



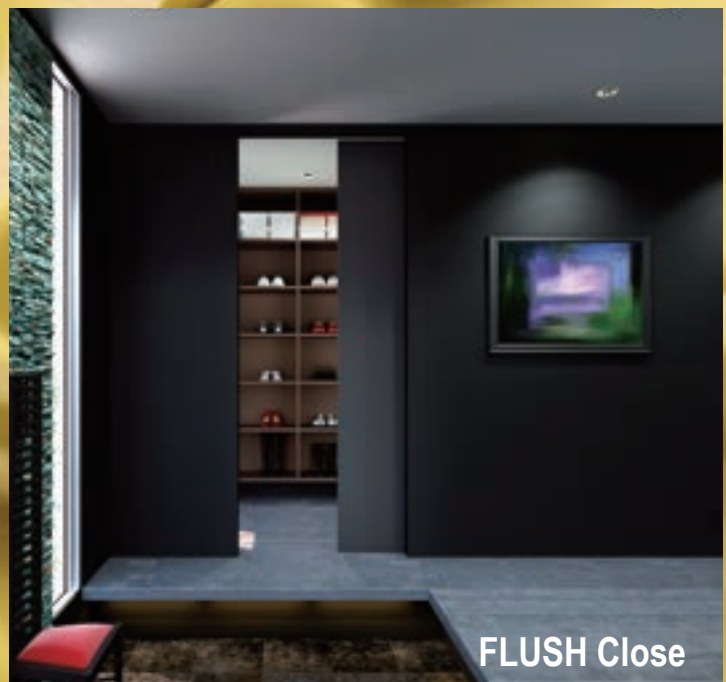
Folding Door



Synchronized Sliding Door

Functional Sliding Door Systems

Sugatsune - progressive sliding door systems for the modern interior. Compared to traditional hinged doors, sliding doors allow home dwellers to maximize more space in a room because of its minimal opening and closing profile. Our innovative sliding door systems add unique features such as soft closing, soft opening, a discreet flush appearance, folding ability, and frameless glass mounting. If you're looking for an unparalleled look within your home, look no further than Sugatsune's sliding door systems.



Motion Design Tec®



For smooth movement
Soft motion



Hold in any position
Free-stop motion



Helps you open
Power assist motion

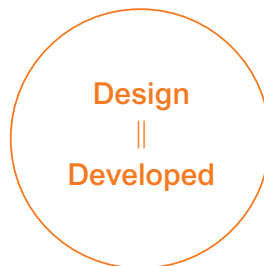


Snap and stop
Click motion



New openings
Unique motion

What is Sugatsune's "Motion Design Tech"?



Motion Design Tech is Sugatsune's unique product concept to provide specialized movement solutions for your flaps and doors.

The operability of doors or lids can be improved by incorporating the 5 types of motions in the work environment. It can also improve the efficiency of work involving opening and closing movements, increasing the added value of the device and equipment.

Motion Design Tech Lab (Development laboratory)
Mr. ISHIGAYA, researcher



For smooth movement Soft Motion

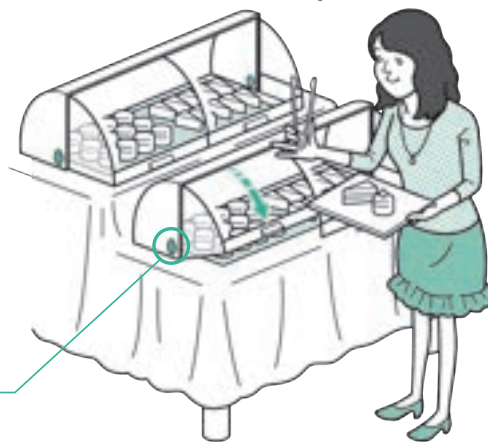
Reduces the opening/closing speed of doors, lids or drawers.

Applicable Places

This is ideal for wall-storage or information terminals in hospitals. Once used and the flap is lightly pushed up, it will slowly and naturally close. This is a perfect solution for quiet environments.



Self-close Stay
HDS-10S P.333

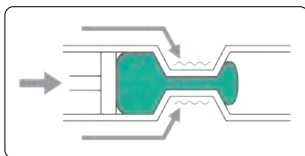


Disk Damper
UDD P.323

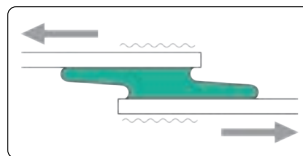
This is suitable for food display cases such as self-serve bakery cases and candy or sweet cases, etc. If the flap is pushed down slightly, it will close naturally and slowly by itself. (It isn't necessary to hold the flap until it closes completely)



Reduces speed by means of resistance



Orifice Structure
Resistance develops when a viscous medium flows from a thick diameter to a thin diameter.



Shear Structure
Resistance develops when moving the two plates with the viscous medium between.



"Lapcon" refers to Sugatsune's patented damper mechanism using left structures.

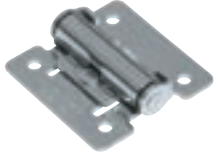


Hold in any position

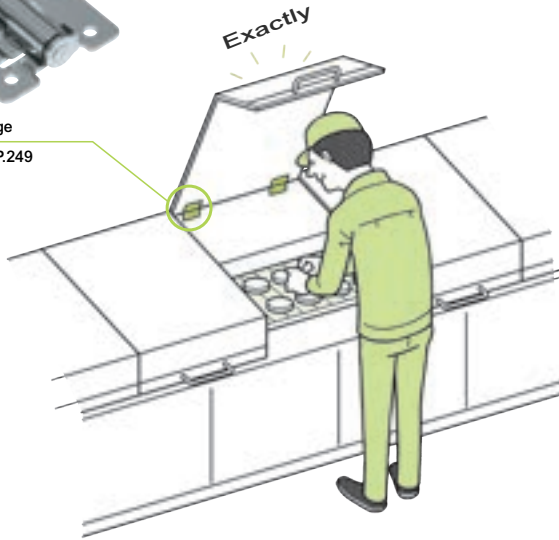
Free Stop Motion

It can hold the door, lid or cover in any position during opening or closing.

Applicable Places



Torque Hinge
HG-TS P.249



Ideal for top-opening covers in a production line, as it allows for the cover to be held open in any position. Because no stopper is necessary, speedy checks and maintenance is possible. No stay is needed, clearing additional space inside the machine. Users don't have to worry about slamming the lid closed, bringing additional safety and ensuring it remains damage-free.

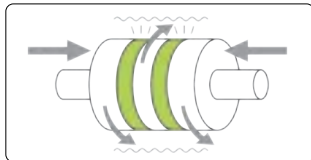
Suitable for displays of airplane seats. Enables a monitor to be adjusted to a level of adults or children's eyes.



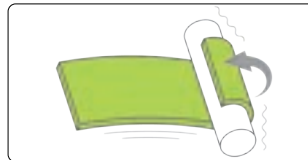
Torque Hinge
HG-TB
P.252



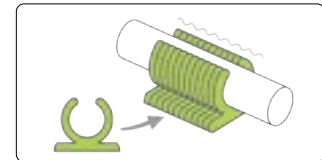
Stops by means of friction



Disk Structure
Friction occurs when rotating the movable disks with the fixed disk inserted between them.



Curl Structure
Friction occurs when rotating the shaft with the leaf spring twined on it.



Clip Structure
Friction occurs when rotating the shaft supported with clips.

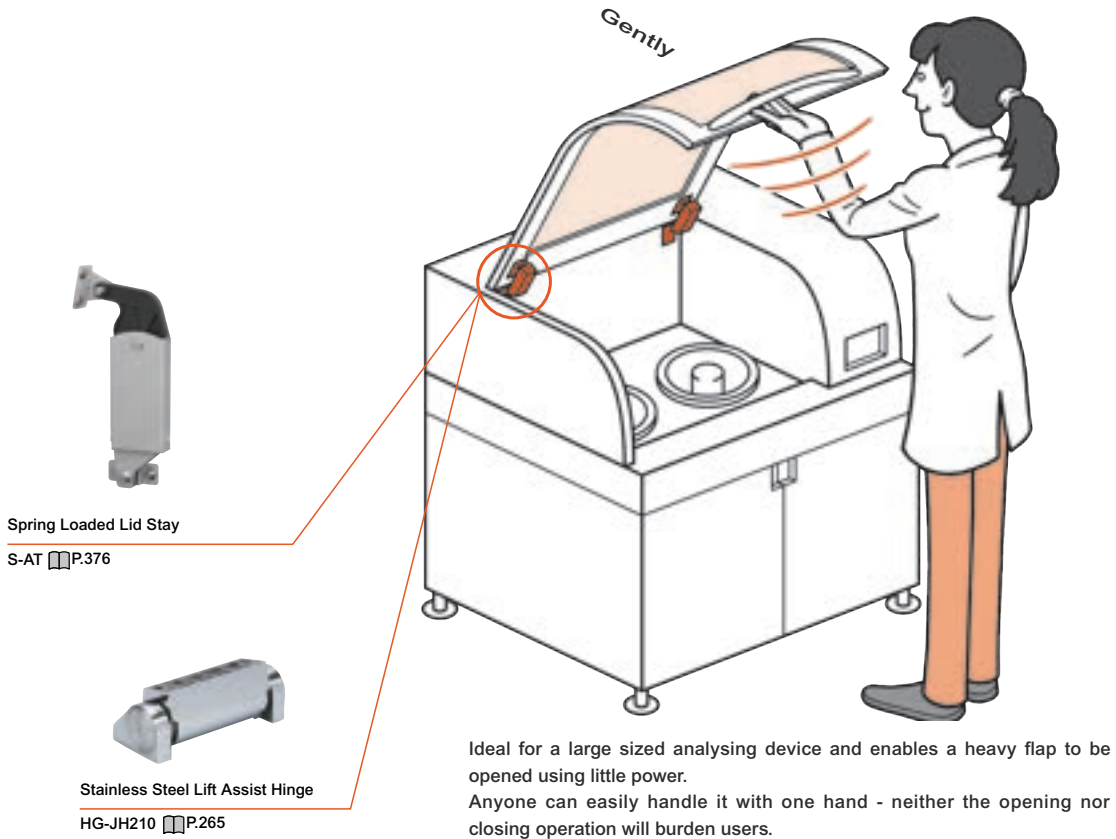


Helps you open

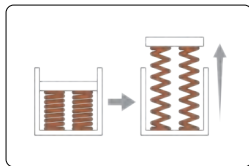
Power Assist Motion

Assists in opening/closing heavy doors, lids or covers.

Applicable Places

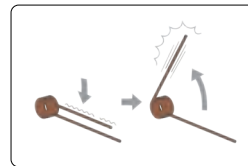
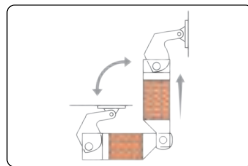


Lifts by means of reaction force



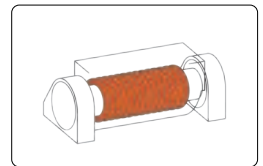
Compression Spring

Reaction force is generated when the shrunken spring returns to its original shape.



Torsion Spring

Reaction force is generated when the curled spring returns to its original shape.



Easy and fine operation can be achieved by using a spring suitable for the application.



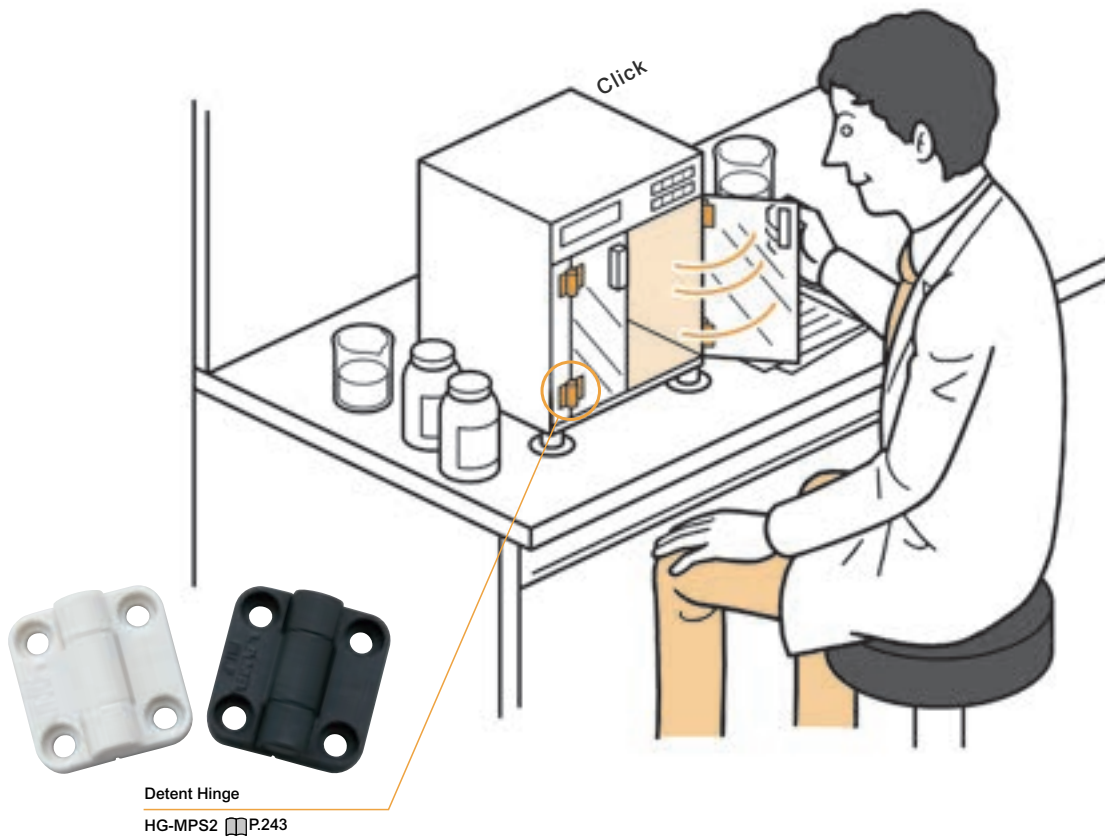
Snap and stop

Click Motion

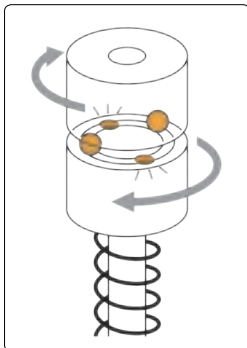
Temporarily holds door, lid or cover during opening/closing at a certain angle with a unique feel.

Applicable Places

Ideal for a measuring device in a laboratory and enables a flap to be held at a certain angle. It also prevents a flap moving freely so users don't have to worry about it knocking down an instrument.



Detent Hinge
HG-MPS2 P.243



Temporarily holds with detent mechanism

When rotating two grooved parts with balls between them, the moving balls will fall into the grooves, realising temporary holding.





New openings

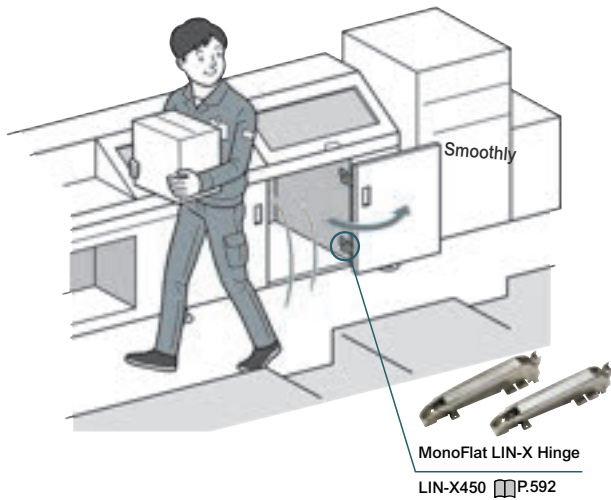
Unique Motion

Expand variations of opening/closing locus.

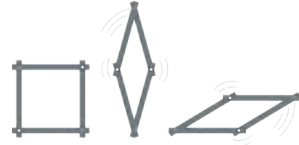
Applicable Places

Ideal for large-size machines such as in food processing or printing. It enables a flap to move parallel to a body and decreases the space needed to open the door.

By using this mechanism, an open door will not obstruct narrow corridors in a factory where several machines are operating. The wide opening makes it easier to take something in and out.



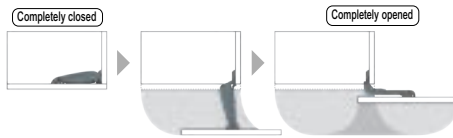
Moves by using link mechanism



Combining multiple shafts and arms creates more versatile locus than moving with one shaft.

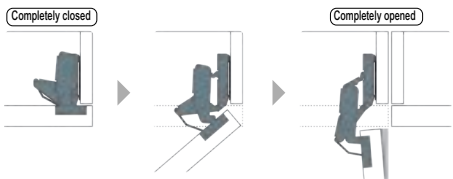
Example 1 Locus of MonoFlat LIN-X hinge

Door projection is less than that of common swing doors.



Example 2 Locus of concealed hinge

Even for overlay doors, the door hinge side moves inward and will not hit the door next.



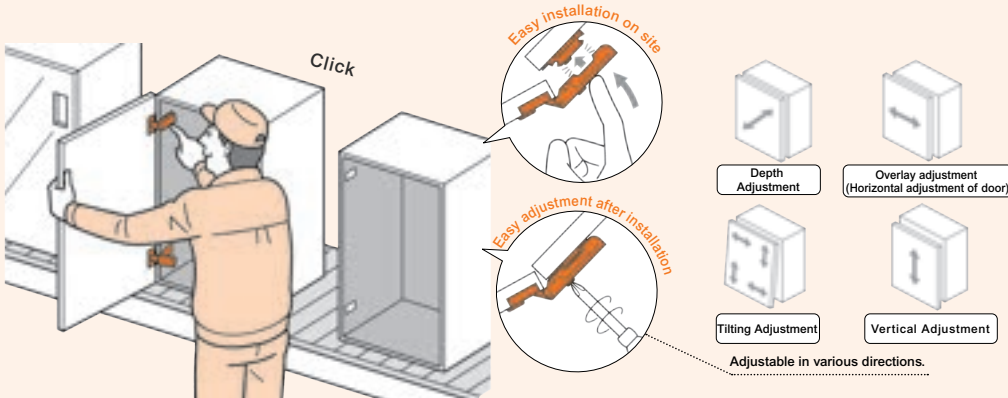
One major advantage of "Motion Design Tech" supporting 5 types of motion

Easy Installation & Adjustment Function

Proper installation is very important for the functioning of the industrial components.

Since "Motion Design Tech" is a technology of motion, to further improve that "motion", installation support function is incorporated in various products.

Easy installation and possible door adjustment after installation realises a comfortable fine opening and closing operation.



High durability is also proprietary to Sugatsune. Comfortable movement lasts for a long time.





DOOR HANDLES, KNOBS

DOOR HANDLES
LEVER HANDLES
SLIDING DOOR HANDLES
GLASS DOOR KNOBS

DOOR HANDLES (Back to Back)

Picture	Item No.	Center to Center	Page
	ZL-1501	12-19/32"~75-19/32"	4~5
	ZL-1502	7-9/16"~37-51/64"	6~7
	ZL-1506	7-9/16"~37-13/16"	8~9
	DSI-2000-20	7-7/8"~19-11/16"	11
	DSI-2000-30	9-7/8"~23-5/8"	11
	DSI-3310-15	5-29/32"~11-13/16"	12
	DSI-3310-20	7-7/8" ~ 11-13/16"	12
	DSI-3310-30	9-27/32"~23-5/8"	12
	DSI-3330-30	11-13/16"	12
	DSI-3330-50	19-11/16"	12
	DSI-4400-15	5-29/32"~11-13/16"	13
	DSI-4400-20	7-7/8"~11-13/16"	13
	DSI-4400-30	9-27/32"~23-5/8"	13
	DSI-1630	9-7/8"~23-5/8"	13

DOOR HANDLES (Back Screw Mount / Front Screw Mount)

Picture	Item No.	Center to Center	Page
	TBH-400	4-21/64"	14
	TBH-600	4-21/64"	14
	SBH-400	12-13/64"	14
	SBH-600	20-5/64"	14
	SBH-800	27-61/64"	14
	MDH	7-9/16"~47-1/4"	15
	MP (FRONT SCREW MOUNT)	18-17/64"~37-61/64"	16
	RH-760 (BACK SCREW MOUNT)	29-59/64"	16
	SSH (BACK SCREW MOUNT)	12-7/16"~28-3/16"	17
	SOR (BACK SCREW MOUNT)	13-3/16"~27-61/64"	17
	SRH (BACK SCREW MOUNT)	5-1/16"~14-3/16"	17.1
	SLH (BACK SCREW MOUNT)	13-25/32"~29-17/32"	17.2
	ALH (BACK SCREW MOUNT)	Length: 1-31/32"~39-3/8"	17.3

SLIDING DOOR HANDLES/PULLS

Picture	Item No.		Page
	DSI-4251	STAINLESS 304 STEEL	18
	DSI-4253	STAINLESS 304 STEEL	19
	DSI-3250	BRASS STAINLESS 304 STEEL	19
	DSI-4275	STAINLESS 304 STEEL	19.1
	DSI-4258	STAINLESS 304 STEEL	19.1
	DSI-4501	STAINLESS 304 STEEL	19.2
	DSI-4502	STAINLESS 304 STEEL	19.2
	DSI-4503	STAINLESS 304 STEEL	19.3
	DSI-4504	STAINLESS 304 STEEL	19.3
	DSI-3010	STAINLESS 304 STEEL	20
	DSI-3020	STAINLESS 304 STEEL	21
	DSI-4020	STAINLESS 304 STEEL	21
	DSI-4040	STAINLESS 304 STEEL	21

GLASS DOOR KNOBS AND PULLS (Back to Back)

Picture	Item No.		Page
	ZL-1503	RoHS STAINLESS 316 STEEL	22
	ZL-1504	RoHS STAINLESS 316 STEEL	23
	ZL-1505	RoHS STAINLESS 316 STEEL	23

LEVER HANDLES AND ACCESSORIES

Picture	Item No.		Page
	ZL-1101	STAINLESS 316 STEEL	24
	ZL-1102	STAINLESS 316 STEEL	24
	ZL-1103	STAINLESS 316 STEEL	25
	ZL-1601 (GLASS DOOR LATCH)	STAINLESS 316 STEEL	25
	ZL-1202 (ESCUTCHEON)	STAINLESS 316 STEEL	26
	ZL-1301-INR (INDICATOR)	STAINLESS 316 STEEL	26
	ZL-1302 (INDICATOR)	STAINLESS 316 STEEL	26
	ZL-1401-SMR (THUMBTURN)	STAINLESS 316 STEEL	27
	ZL-1402 (THUMBTURN)	STAINLESS 316 STEEL	27
	ZL-1403 (THUMBTURN KNOB)	STAINLESS 316 STEEL	27



ZL-1506



DSI-4251

DSI-4020

Zwei L Door Handle



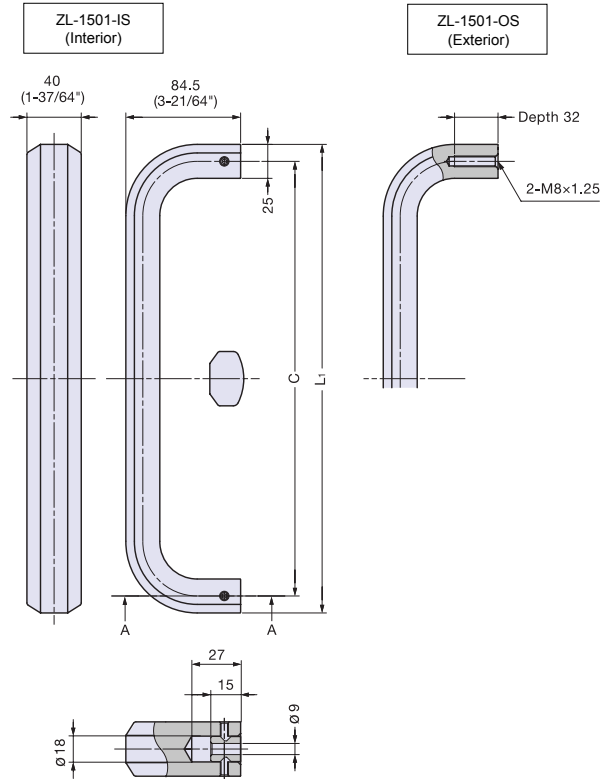
ZL-1501

HANDLES

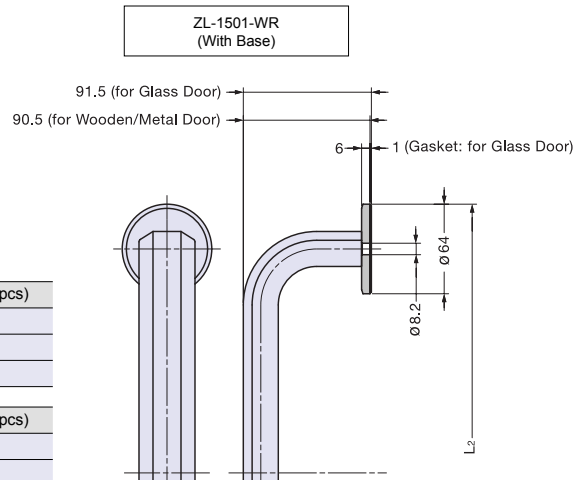
Zwei L DOOR HANDLES



- Can be installed on Glass Door, Wooden or Metal Frame Door.
- Tolerance of screw pitch is ± 1 mm.
- Only ZL-1501-WR comes with base (ZL1501-R).
- Order base ZL1501-R separately if baseplate needed for Exterior or Interior type.



ZL-1501-WR



Item No.	Weight (g)	Box (pcs)	Item No.	Weight (g)	Box (pcs)
ZL-1501-IS-320	3103	1	ZL-1501-OS-320	3103	1
ZL-1501-IS-640	5500	1	ZL-1501-OS-640	5500	1
ZL-1501-IS-960	8000	1	ZL-1501-OS-960	8000	1

Item No.	Weight (g)	Box (pcs)	Item No.	Weight (g)	Box (pcs)
ZL-1501-WN-320	6471	1	ZL-1501-WR-320	6783	1
ZL-1501-WN-640	11265	1	ZL-1501-WR-640	11577	1
ZL-1501-WN-960	16265	1	ZL-1501-WR-960	16577	1

Item No.				Material	Finish/Color	Dimensions		
Exterior	Interior	Back-to-Back	Back-to-Back with Base			C	L ₁	L ₂
ZL-1501-OS-320	ZL-1501-IS-320	ZL-1501-WN-320	ZL-1501-WR-320	316 Stainless Steel	Zwei L	320 (12-19/32")	345 (13-37/64")	384
ZL-1501-OS-640	ZL-1501-IS-640	ZL-1501-WN-640	ZL-1501-WR-640			640 (25-13/64")	665 (26-3/16")	704
ZL-1501-OS-960	ZL-1501-IS-960	ZL-1501-WN-960	ZL-1501-WR-960			960 (37-51/64")	985 (38-25/32")	1024
*ZL-1501-OS-1280	*ZL-1501-IS-1280	*ZL-1501-WN-1280	*ZL-1501-WR-1280			1280 (50-25/64")	1305 (51-3/8")	1344
*ZL-1501-OS-1600	*ZL-1501-IS-1600	*ZL-1501-WN-1600	*ZL-1501-WR-1600			1600 (62-63/64")	1625 (63-31/32")	1664
*ZL-1501-OS-1920	*ZL-1501-IS-1920	*ZL-1501-WN-1920	*ZL-1501-WR-1920			1920 (75-19/32")	1945 (76-37/64")	1984

*Length over 960 are special order item.

Working Diagram		Door Thickness (mm)	Door Hole (mm)	Item No.	
Back-to-Back on Glass Door	With Base Plate		6~16 (15/64"~5/8")	ø 16 (5/8")	ZL-1501-WR
	Without Base Plate		25~45 (63/64"~1-49/64")	ø 9 (23/64")	ZL-1501-WR
Back-to-Back on Wooden/Metal Frame Door	With Base Plate		37~57 (1-29/64"~2-1/4")	ø 9 (23/64")	ZL-1501-WN
	Without Base Plate				
Single use on Wooden/Metal Frame Door	With Base Plate		Screws not included Base Plate (ZL-1501-R) sold separately	ø 9 (23/64")	ZL-1501-OS ZL-1501-R
				-	ZL-1501-IS ZL-1501-R
	Without Base Plate		ø 9 (23/64")	ZL-1501-OS	
			-	ZL-1501-IS	

*If door thickness exceeds recommended thickness, a longer bolt (not supplied) should be used.

Zwei L Door Handle

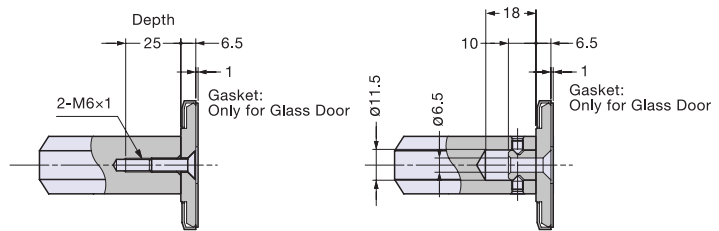
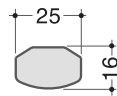
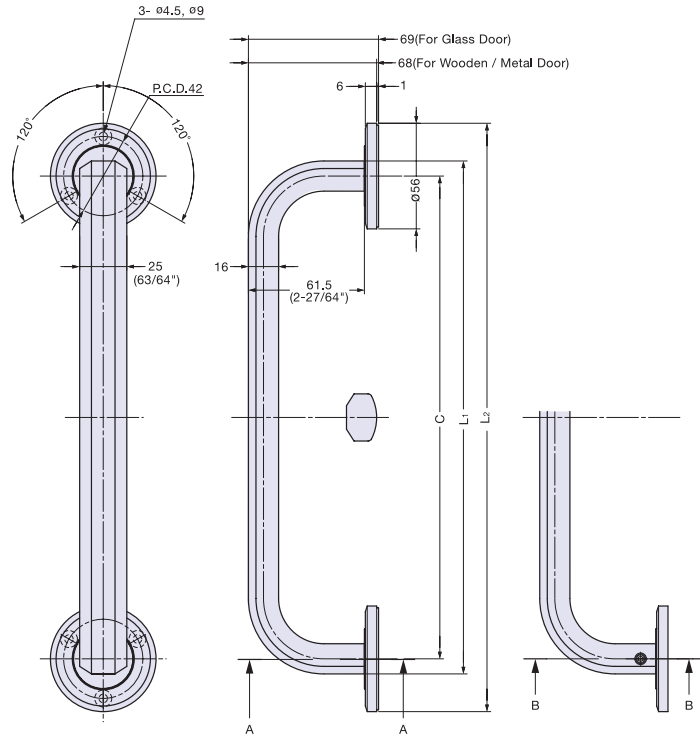


ZL-1502

HANDLES

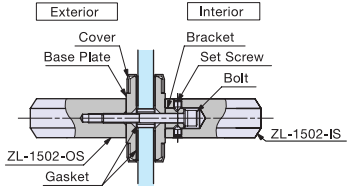
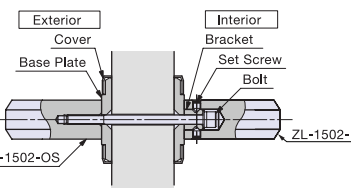
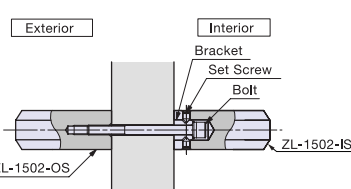
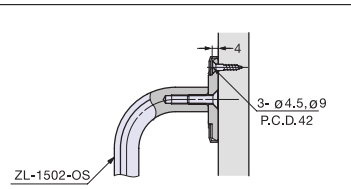
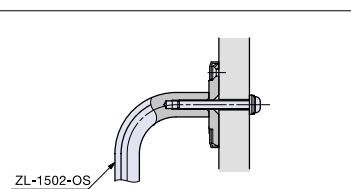
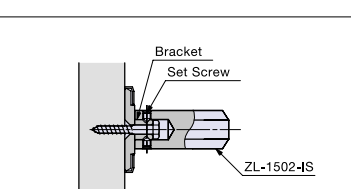
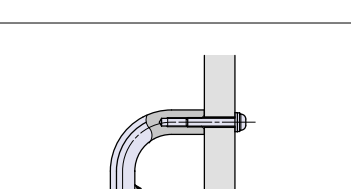
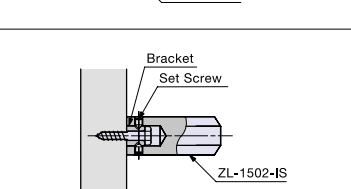
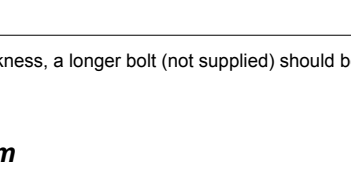
Zwei L DOOR HANDLES

- Can be installed on Glass Door, Wooden or Metal Frame Door.
- Tolerance of screw pitch is ± 1 mm.
- Base Plate included.



Item No.	Weight (g)	Box (pcs)	Item No.	Weight (g)	Box (pcs)	Item No.	Weight (g)	Box (pcs)
ZL-1502-IS-192	1081	1	ZL-1502-OS-192	1081	1	ZL-1502-WR-192	2297	1
ZL-1502-IS-320	1499	1	ZL-1502-OS-320	1499	1	ZL-1502-WR-320	3133	1
ZL-1502-IS-640	2530	1	ZL-1502-OS-640	2530	1	ZL-1502-WR-640	5195	1
ZL-1502-IS-960	3600	1	ZL-1502-OS-960	3600	1	ZL-1502-WR-960	7335	1

Item No.			Material	Finish/Color	Dimensions		
Exterior	Interior	Back-to-Back			C	L ₁	L ₂
ZL-1502-OS-192	ZL-1502-IS-192	ZL-1502-WR-192	316 Stainless Steel	Zwei L	192 (7-9/16")	208 (8-3/16")	248
ZL-1502-OS-320	ZL-1502-IS-320	ZL-1502-WR-320			320 (12-19/32")	336 (13-15/64")	376
ZL-1502-OS-640	ZL-1502-IS-640	ZL-1502-WR-640			640 (25-13/64")	656 (25-53/64")	696
ZL-1502-OS-960	ZL-1502-IS-960	ZL-1502-WR-960			960 (37-51/64")	976 (38-27/64")	1016

Working Diagram		Door Thickness (mm)	Door Hole (mm)	Item No.	
Back-to-Back on Glass Door	With Base Plate		6~12 (15/64"~15/32")	ø 12 (15/32")	ZL-1502-WR
	Without Base Plate		40~52 (1-37/64"~2-15/32")	ø 7 (9/32")	ZL-1502-WR
Back-to-Back on Wooden/Metal Frame Door	With Base Plate		38~50 (1-1/2"~1-31/32")	ø 7 (9/32")	ZL-1502-WR
	Without Base Plate				
Single use on Wooden/Metal Frame Door	With Base Plate			-	ZL-1502-OS
				ø 7 (9/32")	ZL-1502-OS
	Without Base Plate		Screws not included	-	ZL-1502-IS
				ø 7 (9/32")	ZL-1502-OS
				-	ZL-1502-IS

*If door thickness exceeds recommended thickness, a longer bolt (not supplied) should be used.

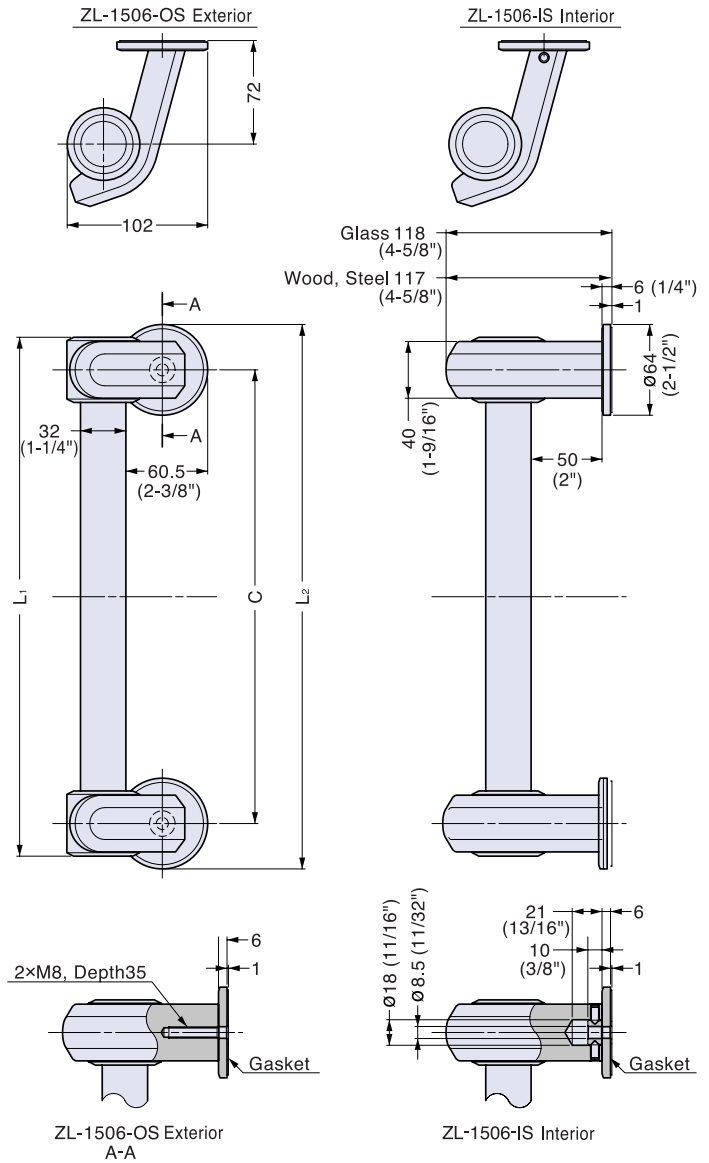
Zwei L Door Handle



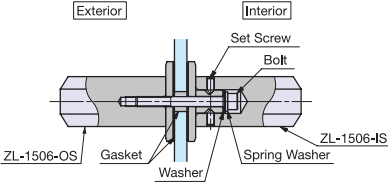
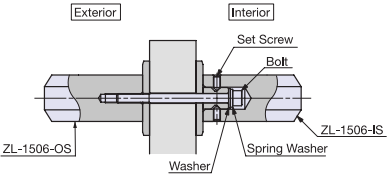
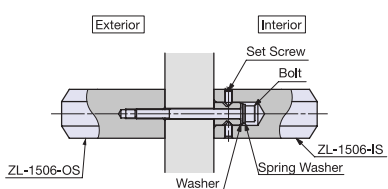
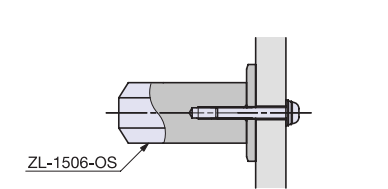
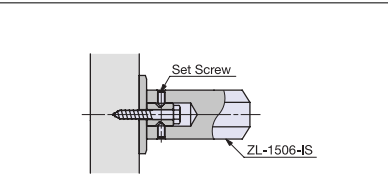
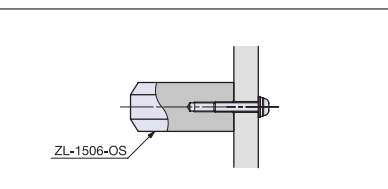
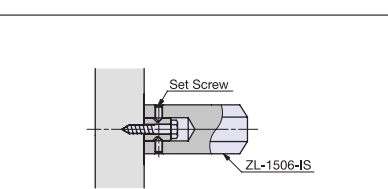
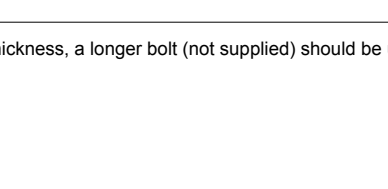
ZL-1506

HANDLES

Zwei L DOOR HANDLES



Item No.			Material	Finish/Color	L ₁	L ₂	C
Exterior	Interior	Back-to-Back					
ZL-1506-OS-192	ZL-1506-IS-192	ZL-1506-WR-192	316 Stainless Steel	Zwei L	237 (9-5/16")	256 (10-1/16")	192 (7-9/16")
ZL-1506-OS-320	ZL-1506-IS-320	ZL-1506-WR-320			365 (14-3/8")	384 (15-1/8")	320 (12-5/8")
ZL-1506-OS-640	ZL-1506-IS-640	ZL-1506-WR-640			685 (27")	704 (27-3/4")	640 (25-3/8")
ZL-1506-OS-960	ZL-1506-IS-960	ZL-1506-WR-960			1005 (39-9/16")	1024 (40-5/16")	960 (37-13/16")

Working Diagram		Door Thickness (mm)	Door Hole (mm)	Item No.	
Back-to-Back on Glass Door	With Base Plate		6~15 (15/64"~5/8")	ø 16 (5/8")	ZL-1506-WR
	Without Base Plate		25~45 (63/64"~1-49/64")	ø 9 (23/64")	ZL-1506-WR
Back-to-Back on Wooden/Metal Frame Door	With Base Plate		37~57 (1-29/64"~2-1/4")	ø 9 (23/64")	ZL-1506-WR
	Without Base Plate				
Single use on Wooden/Metal Frame Door	With Base Plate		Screws not included	ø 9 (23/64")	ZL-1506-OS
				-	ZL-1506-IS
	Without Base Plate			ø 9 (23/64")	ZL-1506-OS
				-	ZL-1506-IS

*If door thickness exceeds recommended thickness, a longer bolt (not supplied) should be used.

DOOR HANDLES AND APPLIANCE PULLS

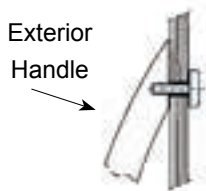
HANDLES

DOOR HANDLES AND APPLIANCE PULLS



Mounting Kit for DSI Series Door Handles

Single handle installation kit for wood/glass/metal doors

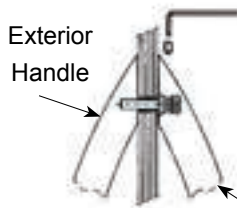


Max. Door Thickness:

DSI-1630-30: 100 mm (4")	DSI-3310-30: 60 mm (2-3/8")
DSI-2000-20: 80 mm (3-3/16")	DSI-3330-30: 100 mm (4")
DSI-2000-30: 80 mm (3-3/16")	DSI-4400-15: 60 mm (2-3/8")
DSI-3310-15: 60 mm (2-3/8")	DSI-4400-20: 60 mm (2-3/8")
DSI-3310-20: 60 mm (2-3/8")	DSI-4400-30: 60 mm (2-3/8")

Item No.	For use with
DKIT-2/15-1	DSI-3310-15
DKIT-2/15-2	DSI-4400-15
DKIT-2/20-1	DSI-2000-20/DSI-3310-20
DKIT-2/20-2	DSI-4400-20
DKIT-2/30-1	DSI-1630-30/DSI-2000-30/DSI-3310-30/DSI-3330-30
DKIT-2/30-2	DSI-4400-30

Back-to-back handle installation kit for wood/glass/metal doors

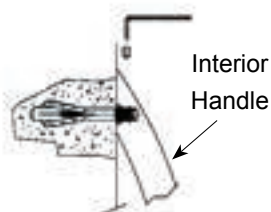


Max. Door Thickness:

DSI-1630-30: 90 mm (3-1/2")	DSI-3310-30: 100 mm (4")
DSI-2000-20: 100 mm (4")	DSI-3330-30: 100 mm (4")
DSI-2000-30: 45 mm (1-3/4")	DSI-4400-15: 100 mm (4")
DSI-3310-15: 100 mm (4")	DSI-4400-20: 100 mm (4")
DSI-3310-20: 100 mm (4")	DSI-4400-30: 100 mm (4")

Interior
Handle

Item No.	For use with
DKIT-4/15-1	DSI-3310-15
DKIT-4/15-2	DSI-4400-15
DKIT-4/20-1	DSI-2000-20/DSI-3310-20
DKIT-4/20-2	DSI-4400-20
DKIT-4/30-1	DSI-1630-30/DSI-2000-30/DSI-3310-30/DSI-3330-30
DKIT-4/30-2	DSI-4400-30



Single handle installation for concrete walls

Interior
Handle

Item No.	For use with
DKIT-5/15	DSI-3310-15/DSI-4400-15
DKIT-5/20	DSI-2000-20/DSI-3310-20/DSI-4400-20
DKIT-5/30	DSI-1630-30/DSI-2000-30/DSI-3310-30/DSI-3330-30/DSI-4400-30

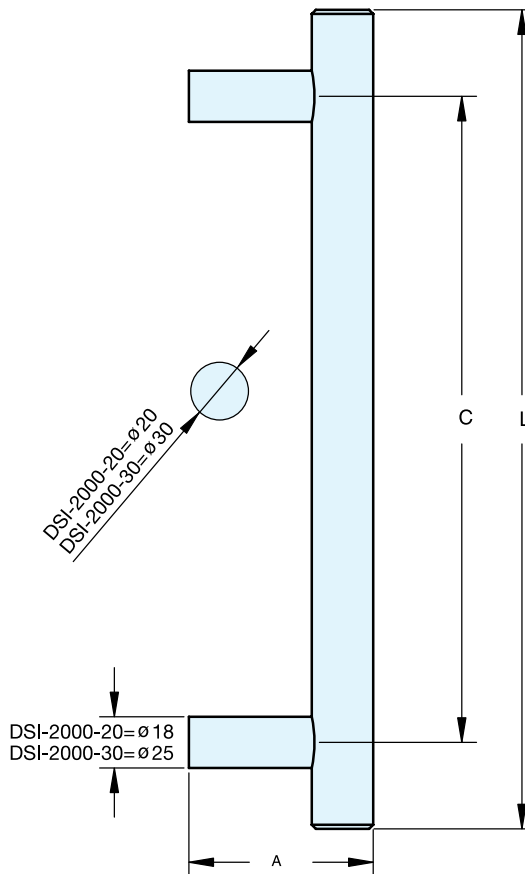
DOOR HANDLE

STAINLESS
304
STEEL

DSI-2000



- For use with DSI mounting kits (sold separately, See P.10).
- Please specify Interior/Exterior type when ordering:
 - Posts for Exterior handles are threaded to accept screws.
 - Posts for Interior handles have set screws for DSI mounting kits.
- Similar style to 26 and 28 series cabinet handles. (P.37)



Material	Finish
304 Stainless Steel	Satin

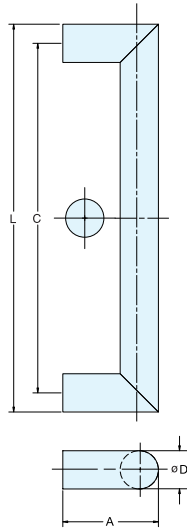
Item No.		L	C	A	Weight (kg)		Box (pcs)	Carton (pcs)
Interior	Exterior				Interior	Exterior		
DSI-2000-20-20I	DSI-2000-20-20E	300 (11-13/16")	200 (7-7/8")	65 (2-9/16")	0.89 (1.9 lbs)	0.89 (1.9 lbs)	2	10
DSI-2000-20-25I	DSI-2000-20-25E	400 (15-3/4")	250 (9-7/8")		1.11 (2.4 lbs)	1.11 (2.4 lbs)		
DSI-2000-20-30I	DSI-2000-20-30E	450 (17-3/4")	300 (11-13/16")		1.26 (2.8 lbs)	1.26 (2.8 lbs)		
DSI-2000-20-50I	DSI-2000-20-50E	700 (27-9/16")	500 (19-11/16")		0.54 (1.2 lbs)	0.54 (1.2 lbs)		

Item No.		L	C	A	Weight (kg)		Box (pcs)	Carton (pcs)
Interior	Exterior				Interior	Exterior		
DSI-2000-30-25I	DSI-2000-30-25E	550 (21-5/8")	250 (9-7/8")	90 (3-9/16")	1.34 (3.0 lbs)	1.11 (2.4 lbs)	2	10
DSI-2000-30-35I	DSI-2000-30-35E	650 (25-9/16")	350 (13-3/4")		1.22 (2.7 lbs)	1.20 (2.8 lbs)		
DSI-2000-30-45I	DSI-2000-30-45E	750 (29-1/2")	450 (17-3/4")		1.34 (3.0 lbs)	1.29 (2.8 lbs)		
DSI-2000-30-60I	DSI-2000-30-60E	900 (35-7/16")	600 (23-5/8")		1.50 (3.0 lbs)	1.50 (3.0 lbs)		

DOOR HANDLE

STAINLESS
304
STEEL

DSI-3310



- For use with DSI mounting kits (sold separately, See P.10).
- Please specify Interior/Exterior type when ordering:
 - Posts for Exterior handles are threaded to accept screws.
 - Posts for Interior handles have set screws for DSI mounting kits.
- Similar style to DIH series cabinet handles. (P.36)

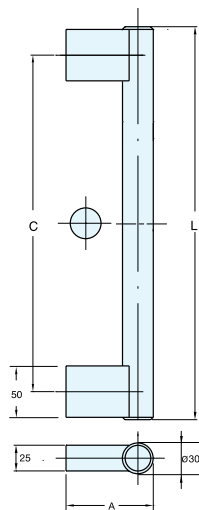
Material	Finish
304 Stainless Steel	Satin

Item No.		D	L	C	A	Weight (kg)		Box (pcs)	Carton (pcs)
Interior	Exterior					Interior	Exterior		
DSI-3310-15-15I	DSI-3310-15-15E	15	165 (6-1/2")	150 (5-29/32")	55 (2-3/16")	0.32 (0.7 lbs)	0.32 (0.7 lbs)	1	10
DSI-3310-15-20I	DSI-3310-15-20E		215 (8-1/2")	200 (7-7/8")		0.39 (0.9 lbs)	0.40 (0.9 lbs)		
DSI-3310-15-30I	DSI-3310-15-30E		315 (12-3/8")	300 (11-13/16")		0.52 (1.1 lbs)	0.54 (1.2 lbs)		
DSI-3310-20-20I	DSI-3310-20-20E	20	220 (8-11/16")	200 (7-7/8")	65 (2-9/16")	0.16 (0.4 lbs)	0.18 (0.4 lbs)		
DSI-3310-20-25I	DSI-3310-20-25E		270 (10-5/8")	250 (9-27/32")		0.18 (0.4 lbs)	0.20 (0.4 lbs)		
DSI-3310-20-30I	DSI-3310-20-30E		320 (12-5/8")	300 (11-13/16")		0.20 (0.4 lbs)	0.23 (0.5 lbs)		
DSI-3310-30-25I	DSI-3310-30-25E	30	280 (11")	250 (9-27/32")	90 (3-9/16")	0.48 (1.1 lbs)	0.48 (1.1 lbs)		
DSI-3310-30-30I	DSI-3310-30-30E		330 (12")	300 (11-13/16")		0.52 (1.1 lbs)	0.52 (1.1 lbs)		
DSI-3310-30-35I	DSI-3310-30-35E		380 (14-15/16")	350 (13-25/32")		0.59 (1.3 lbs)	0.57 (1.3 lbs)		
DSI-3310-30-60I	DSI-3310-30-60E		630 (24-13/16")	600 (23-5/8")		0.95 (2.1 lbs)	0.95 (2.1 lbs)		

DOOR HANDLE

STAINLESS
304
STEEL

DSI-3330



- For use with DSI mounting kits (sold separately, See P.10).
- Please specify Interior/Exterior type when ordering:
 - Posts for Exterior handles are threaded to accept screws.
 - Posts for Interior handles have set screws for DSI mounting kits.
- Similar style to 16 and 27 series cabinet handles. (P.36)

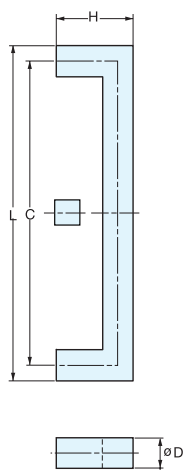
Material	Finish
304 Stainless Steel	Satin

Item No.		L	C	A	Weight (kg)		Box (pcs)	Carton (pcs)
Interior	Exterior				Interior	Exterior		
DSI-3330-30-30I	DSI-3330-30-30E	350	300 (11-13/16")	90 (3-9/16")	1.49 (3.3 lbs)	1.57 (3.5 lbs)	1	10
DSI-3330-30-50I	DSI-3330-30-50E	550	500 (19-11/16")		1.70 (3.7 lbs)	1.70 (3.7 lbs)		

DOOR HANDLE



DSI-4400



- For use with DSI mounting kits (sold separately, See P.10).
- Please specify Interior/Exterior type when ordering:
 - Posts for Exterior handles are threaded to accept screws.
 - Posts for Interior handles have set screws for DSI mounting kits.
- Similar style to KPH series cabinet handles. (P.45)

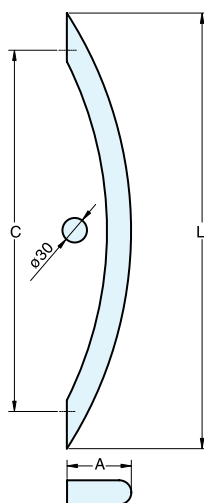
Material	Finish
304 Stainless Steel	Satin

Item No.		D	L	C	H	Weight (kg)		Box (pcs)	Carton (pcs)
Interior	Exterior					Interior	Exterior		
DSI-4400-15-15I	DSI-4400-15-15E	15	165 (6-1/2")	150 (5-29/32")	55 (2-3/16")	0.41 (0.9 lbs)	0.42 (0.9 lbs)	1	10
DSI-4400-15-20I	DSI-4400-15-20E		215 (8-1/2")	200 (7-7/8")		0.48 (1.1 lbs)	0.50 (1.1 lbs)		
DSI-4400-15-30I	DSI-4400-15-30E		315 (12-3/8")	300 (11-13/16")		0.67 (1.5 lbs)	0.68 (1.5 lbs)		
DSI-4400-20-20I	DSI-4400-20-20E	20	220 (8-11/16")	200 (7-7/8")	65 (2-9/16")	0.18 (0.4 lbs)	0.23 (0.5 lbs)		
DSI-4400-20-25I	DSI-4400-20-25E		270 (10-5/8")	250 (9-27/32")		0.22 (0.5 lbs)	0.24 (0.5 lbs)		
DSI-4400-20-30I	DSI-4400-20-30E		320 (12-5/8")	300 (11-13/16")		0.26 (0.6 lbs)	0.26 (0.6 lbs)		
DSI-4400-30-25I	DSI-4400-30-25E	30	280 (11")	250 (9-27/32")	90 (3-9/16")	0.56 (1.2 lbs)	0.59 (1.3 lbs)		
DSI-4400-30-30I	DSI-4400-30-30E		330 (12")	300 (11-13/16")		0.51 (1.1 lbs)	0.50 (1.1 lbs)		
DSI-4400-30-35I	DSI-4400-30-35E		380 (14-15/16")	350 (13-25/32")		0.71 (1.6 lbs)	0.57 (1.3 lbs)		
DSI-4400-30-60I	DSI-4400-30-60E		630 (24-13/16")	600 (23-5/8")		1.09 (2.4 lbs)	1.09 (2.4 lbs)		

DOOR HANDLE



DSI-1630



- For use with DSI mounting kits (sold separately, See P.10).
- Please specify Interior/Exterior type when ordering:
 - Posts for Exterior handles are threaded to accept screws.
 - Posts for Interior handles have set screws for DSI mounting kits.
- Similar style to 30 series cabinet handles. (P.38)



Material	Finish
304 Stainless Steel	Satin

Item No.		L	C	A	Weight (kg)	Box (pcs)	Carton (pcs)
Interior	Exterior						
DSI-1630-30-25I	DSI-1630-30-25E	314 (12-3/8")	250 (9-7/8")	66 (2-19/32")	0.8 (1.8 lbs)	1	10
DSI-1630-30-35I	DSI-1630-30-35E	430 (16-15/16")	350 (13-3/4")	74 (2-29/32")	1.2 (2.7 lbs)		
DSI-1630-30-45I	DSI-1630-30-45E	542 (21-5/16")	450 (17-3/4")	80 (3-5/32")	1.5 (3.3 lbs)		
DSI-1630-30-60I	DSI-1630-30-60E	721 (28-3/8")	600 (23-5/8")	79 (3-7/64")	1.8 (4.0 lbs)		

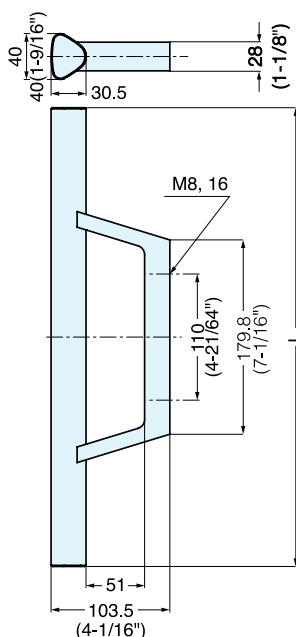
LARGE HANDLE (STRAIGHT DESIGN)



TBH



TBH-600SL



- Revolutionary design aesthetic combines purity of form with solidity of feel.
- Consists of a triangle-shaped bar and a bracket in the center.
- Rich individuality and excellent overall coordination.

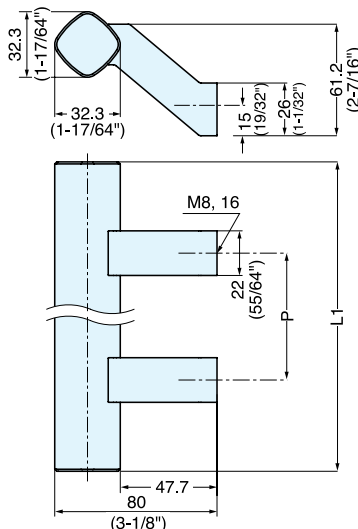
Item No.	Finish(Bar Handle)	L	Weight(g)
TBH-400SL	Silver	400 (15-3/4")	1300
TBH-400BL	Black		
TBH-600SL	Silver	600 (23-5/8")	1770
TBH-600BL	Black		

Part Name	Material	Finish
Bar Handle	Aluminum Alloy	Silver/Black
Bracket	Zinc Alloy	Black

LARGE HANDLE (OFF-SET DESIGN)



SBH



- A minimalist yet functional profile.
- Square handle fits perfectly in the hand.
- The unique design creates the impression of a floating handle.

Item No.	Finish	L ₁	P	Weight(g)
SBH-400SL	Silver	400 (15-3/4")	310 (12-13/64")	893
SBH-400BL	Black			
SBH-600SL	Silver	600 (23-5/8")	510 (20-5/64")	1270
SBH-600BL	Black			
SBH-800SL	Silver	800 (31-1/2")	710 (27-61/64")	1647
SBH-800BL	Black			

Part Name	Material	Finish/Color
Bar Handle	Aluminum Alloy	Silver/Black
Bracket	Zinc Alloy	Black

LARGE HANDLE



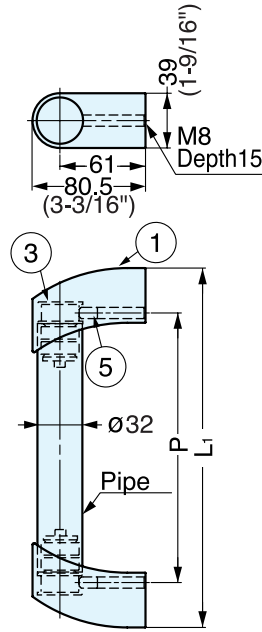
MDH

- Handle bars available in 304 stainless steel (304SS) or carbon fiber reinforced polymer (CFRP). Posts are zinc die cast with a chrome (CR) finish.
- Includes hexagonal M8 × 15 bolts.
- Assembly required.

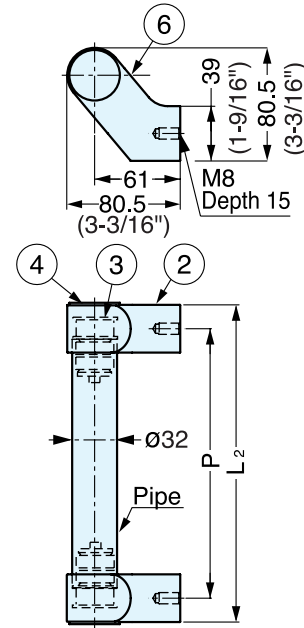


MDH-PS

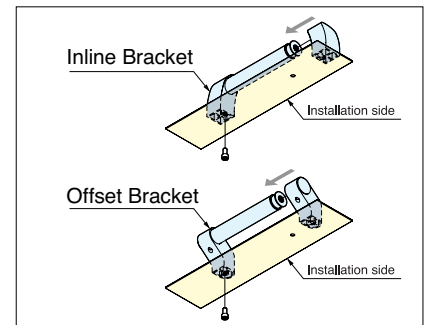
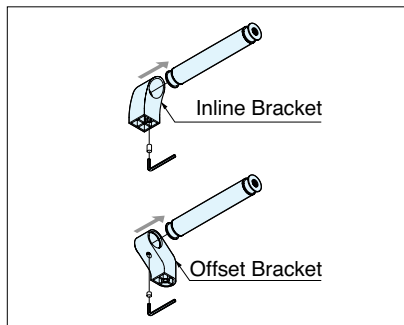
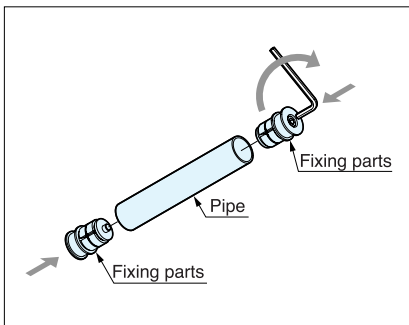
MDH-PC



INLINE



OFFSET



No.	Part Name	Material	Finish/Color
①	Bracket (Straight)	Zinc Alloy	Matte Chrome
②	Bracket (Offset)		
③	Fixing Parts		
④	Cover	Polyacetal	
⑤	HEX set screw M8x15	Stainless Steel	Black
⑥	HEX set screw M8x8		Plain

Item No.		Material	P (mm)	L ₁ (mm)	L ₂ (mm)	Weight (g)	
Inline Posts	Offset Posts					Inline	Offset
MDH-PS192-IH	MDH-PS192-OH	304 Stainless Steel	192 (7-9/16")	256	226	1386	1506
MDH-PS350-IH	MDH-PS350-OH		350 (13-25/32")	414	384	1729	1849
MDH-PS500-IH	MDH-PS500-OH		500 (19-11/16")	564	534	2052	2172
MDH-PS800-IH	MDH-PS800-OH		800 (31-1/2")	864	834	2702	2822
MDH-PS1200-IH	MDH-PS1200-OH		1200 (47-1/4")	1264	1234	3572	3692
MDH-PC192-IH	MDH-PC192-OH	CFRP	192 (7-9/16")	256	226	1072	1192
MDH-PC350-IH	MDH-PC350-OH		350 (13-25/32")	414	384	1134	1254
MDH-PC500-IH	MDH-PC500-OH		500 (19-11/16")	564	534	1193	1313
MDH-PC800-IH	MDH-PC800-OH		800 (31-1/2")	864	834	1311	1431
MDH-PC1200-IH	MDH-PC1200-OH		1200 (47-1/4")	1264	1234	1469	1589

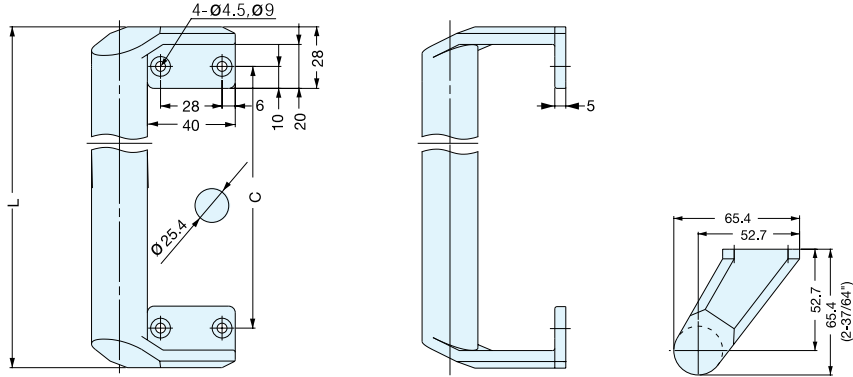
LARGE HANDLE



MP-500, 750, 1000



- Ideal for harsh and high corrosive environments.
- Designed for machinery applications where a heavy duty handle is required.



Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
MP-500	500	464 (18-17/64")	1000	2	20
MP-750	750	714 (28-7/64")	1300		16
MP-1000	1000	964 (37-61/64")	1600		12

Material	Finish
316 Stainless Steel	Mirror

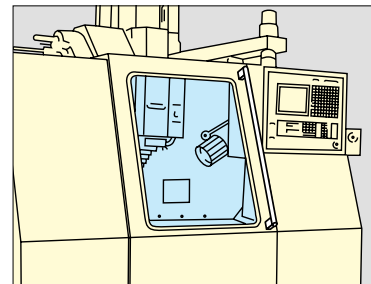
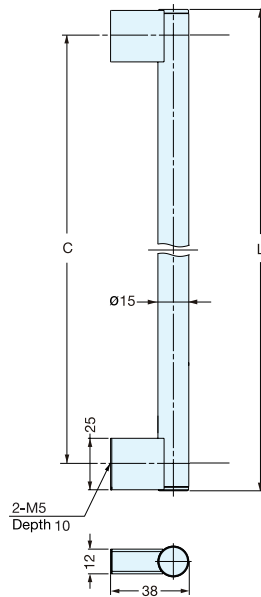
LARGE HANDLE



RH-760



- Low profile design.
- Designed for machinery applications where a heavy duty handle is required.
- Recommended screw size: M5



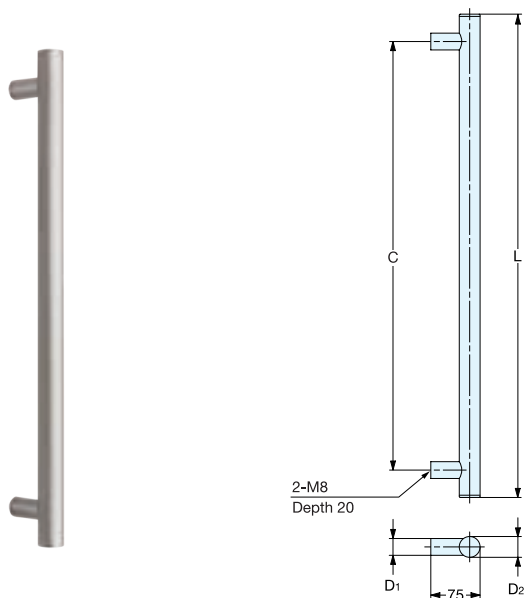
Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
RH-760	786	760 (29-59/64")	340	20	200

Material	Finish
304 Stainless Steel	Satin

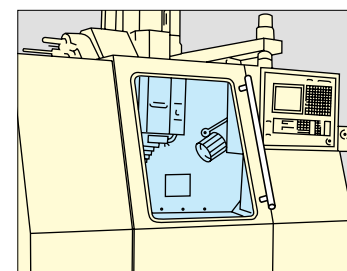
LARGE HANDLE



SSH



- Ideal in high corrosive environments and machinery applications.
- Designed for applications where a heavy duty handle is required.
- Recommended screw size: M8



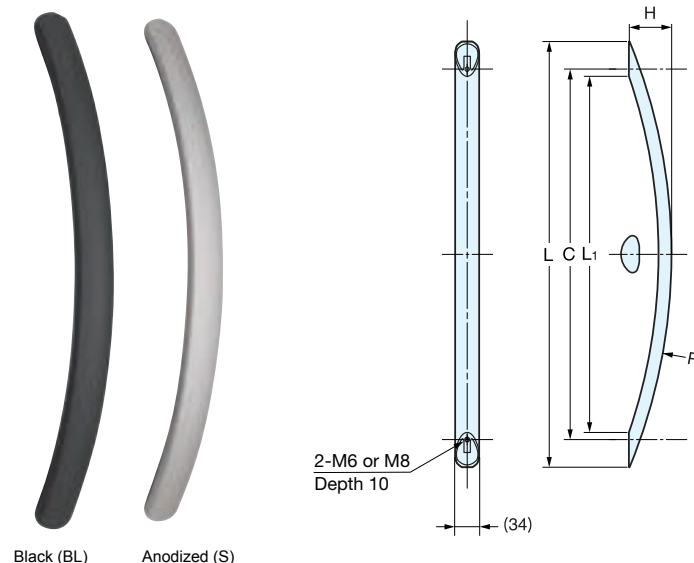
Item No.	L	C	D ₁	D ₂	Weight (g)	Box (pcs)	Carton (pcs)
SSH-2540	400	316 (12-7/16")	19	25	665	10	100
SSH-2560	600	516 (20-5/16")			750		
SSH-2580	800	716 (28-3/16")			840		
SSH-3240	400	316 (12-7/16")	25	32	1175	5	50
SSH-3260	600	516 (20-5/16")			1290		
SSH-3280	800	716 (28-3/16")			1400		

Material	Finish
304 Stainless Steel	Satin

ALUMINUM LARGE HANDLE



SOR



- Ideal for machinery applications where a large handle is required.
- Recommended screw size:
M6 (400 and 600)
M8 (800)

Black (BL) Anodized (S)

Material	Finish
Aluminum	Anodized (S) Black (BL)

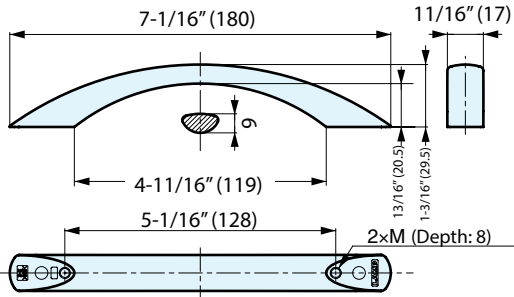
Item No.	L	L ₁	C	H	R	Weight (g)	Box (pcs)	Carton (pcs)
SOR-400/S	SOR-400/BL	(390) (15-23/64")	(323)	335 (13-3/16")	(60) (2-23/64")	385	30	300
SOR-600/S	SOR-600/BL	(600) (23-5/8")	(502)	522 (20-35/64")		790	20	200
SOR-800/S	SOR-800/BL	(816) (32-1/8")	(686)	710 (27-61/64")		1440	15	150

LARGE HANDLE

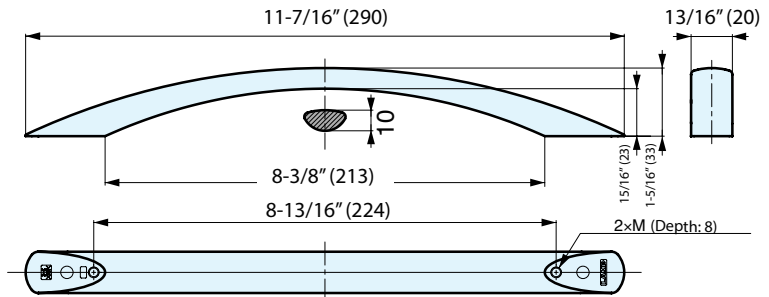


SRH

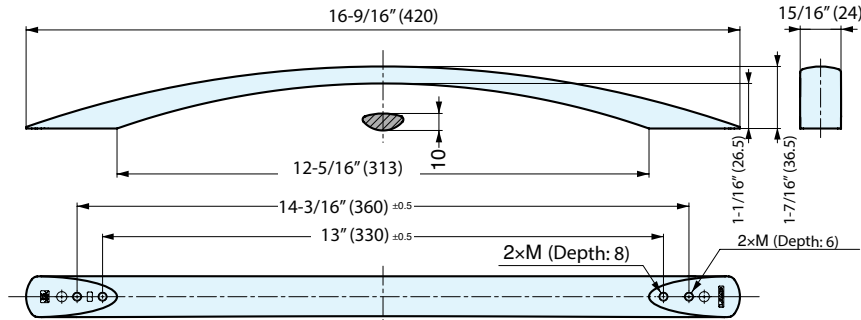
- Silver ion coated handle, ideal for medical and food equipment.
- Sleek, curved design with low profile.
- Available in three sizes and two colors to suit application requirements.



SRH-128



SRH-224



SRH-330

Material	Finish/Color
Aluminum	Anodized (S)/Black (BL)

Item No.	L	L ₁	C	H	Weight (g)	Box (pcs)	Carton (pcs)
SRH-128SL-M4	SRH-128BL-M4	7-1/16" (180)	119	5-1/16" (128)	1-3/16" (29.5)	68	80
SRH-128SL-M5	SRH-128BL-M5						
SRH-224SL-M4	SRH-224BL-M4	11-7/16" (290)	213	8-13/16" (224)	1-5/16" (33)	130	
SRH-224SL-M5	SRH-224BL-M5						
SRH-330SL-M4	SRH-330BL-M4	16-9/16" (420)	313	14-3/16" (360)	1-7/16" (36.5)	233	40
SRH-330SL-M5	SRH-330BL-M5						

LARGE HANDLE

STAINLESS
304
STEEL

SLH

HANDLES

LARGE HANDLE

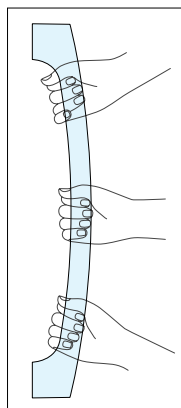


SLH-3240SH

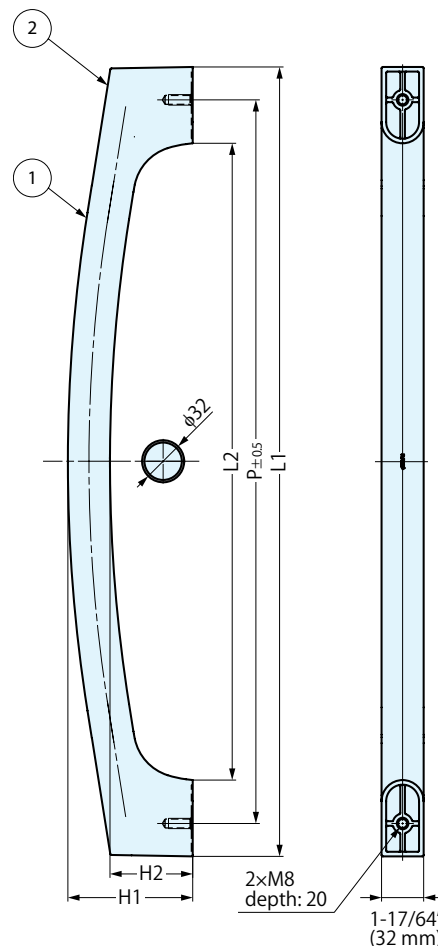
SLH-3260SH

SLH-3280SH

- Stainless steel for high corrosion resistance.
- Has smooth modern shape with a premium satin finish.
- Ergonomically designed to comfortably grab any part of the handle.



Easy to hold any part of the handle.



No.	Part Name	Material	Finish
①	Bracket	Stainless Steel	Satin
②	Pipe	304 Stainless Steel	

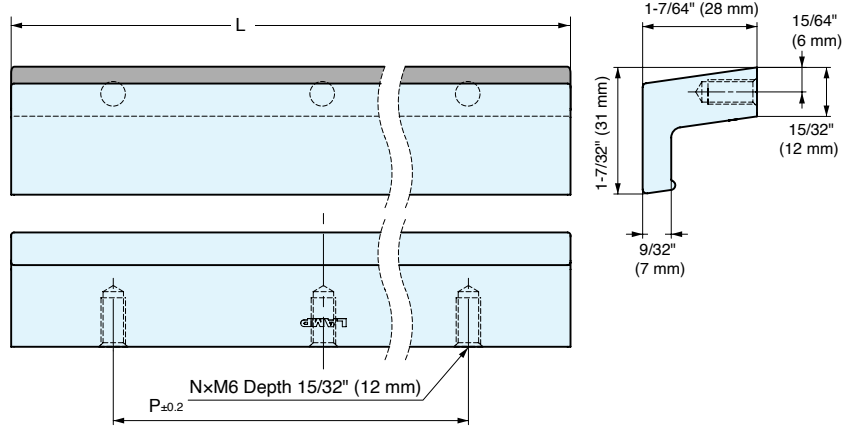
Item No.	L ₁	L ₂	P	H ₁	H ₂	Weight (g)	Box (pcs)	Carton (pcs)
SLH-3240SH	400 (15-3/4")	284 (11-3/16")	350 (13-25/32")	87 (3-27/64")	55 (2-11/64")	2030	5	10
SLH-3260SH	600 (23-5/8")	484 (19-1/16")	550 (21-21/32")	95 (3-47/64")	63 (2-31/64")	2290		
SLH-3280SH	800 (31-1/2")	684 (26-59/64")	750 (29-17/32")	102 (4-1/64")	70 (2-3/4")	2560		

LARGE HANDLE



ALH

- Aluminum casted and ergonomically designed.
- Corrosion Resistant.
- Angled design to reduce dust accumulation.
- Features an anti-slip design.
- Available in a variety of sizes and modern finishes.
- Ideal for medical, laboratory or industrial equipment where durability and aesthetics are required.



The anodized finish over a shot blasted surface produces a balance of *Toughness & Beauty* that can be experienced when people and machine connect.



Item No.	Finish	Material	L	P	Load Capacity	Weight (g)	Box (pcs)	Carton (pcs)
ALH-50SL	Matte Silver Anodized	Aluminum Alloy	1-31/32" (50)	1-3/16" (30)	112 lbs (51 kg)	58	10	120
ALH-50BL	Matte Black Anodized							
ALH-50ST	Anodized Satin							
ALH-100SL	Matte Silver Anodized		3-15/16" (100)	2-23/64" (60)		118	10	80
ALH-100BL	Matte Black Anodized							
ALH-100ST	Anodized Satin							
ALH-150SL	Matte Silver Anodized		5-29/32" (150)	3-15/16" (100)		178	10	40
ALH-150BL	Matte Black Anodized							
ALH-150ST	Anodized Satin							
ALH-200SL	Matte Silver Anodized		7-7/8" (200)	2-61/64" (75)		237	6	36
ALH-200BL	Matte Black Anodized							
ALH-200ST	Anodized Satin							
ALH-1000SL	Matte Silver Anodized	39-3/8" (1000)	5-29/32" (150)	1191	6	12		
ALH-1000BL	Matte Black Anodized							
ALH-1000ST	Anodized Satin							

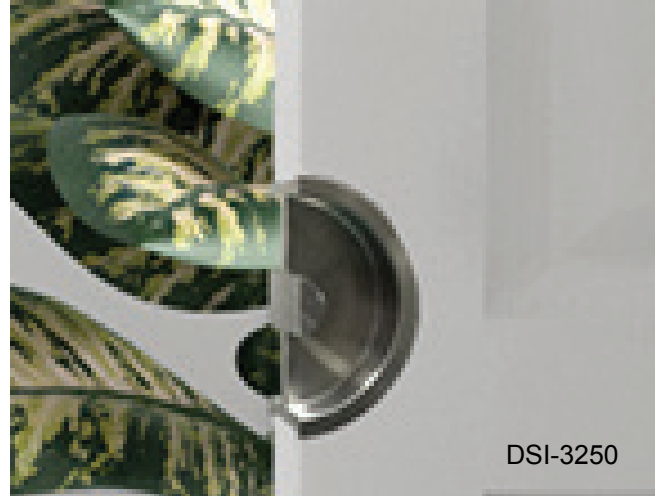


Sliding Door Handles

SLIDING DOOR HANDLE



DSI-4251



DSI-3250

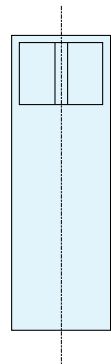
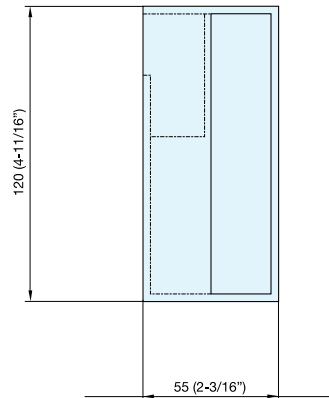
SLIDING DOOR HANDLE

STAINLESS
304
STEEL

DSI-4251



- Contemporary handle design that can be accessed from door front, back, or edge.
- Requires adhesive for installation (such as 2-part epoxy, not supplied.)



Item No.	A	Weight (g)	Box (pcs)	Carton (pcs)
DSI-4251-35	35.0 (1-3/8")	490 (1.08 lbs)	1	10
DSI-4251-38	38.0 (1-1/2")	515 (1.14 lbs)		
DSI-4251-40	40.0 (1-9/16")	530 (1.17 lbs)		
DSI-4251-43	43.0 (1-11/16")	550 (1.21 lbs)		
DSI-4251-45	44.5 (1-3/4")	570 (1.26 lbs)		
DSI-4251-50	50.0 (1-31/32")	590 (1.30 lbs)		

Material	Finish
304 Stainless Steel	Satin

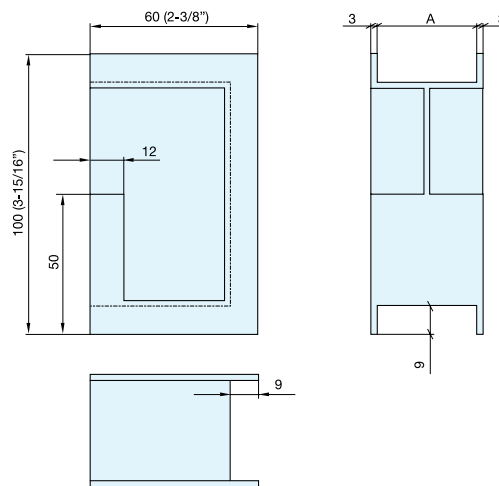
SLIDING DOOR HANDLE

STAINLESS
304
STEEL

DSI-4253



- Contemporary handle design that can be accessed from door front, back, or edge.
- Requires adhesive for installation (Such as 2-part epoxy, not supplied.)



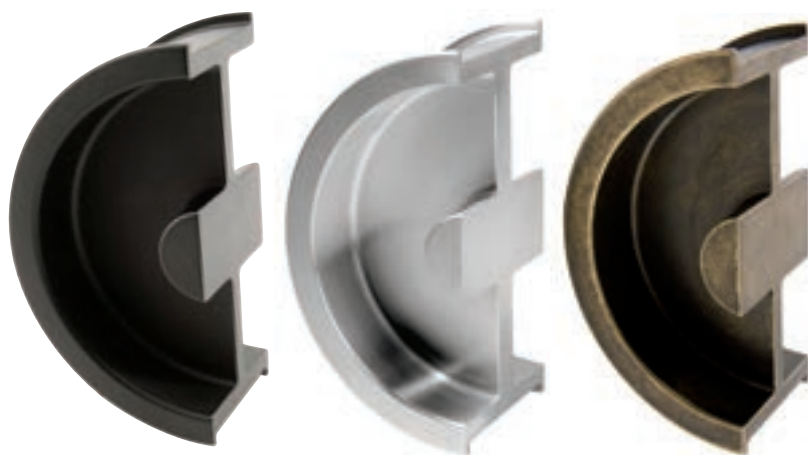
Item No.	A	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSI-4253-35	35.0 (1-3/8")	495 (1.09 lbs)	1	10	304 Stainless Steel	Satin
DSI-4253-38	38.0 (1-1/2")	505 (1.11 lbs)				
DSI-4253-40	40.0 (1-9/16")	515 (1.14 lbs)				
DSI-4253-43	43.0 (1-11/16")	530 (1.17 lbs)				
DSI-4253-45	44.5 (1-3/4")	545 (1.20 lbs)				

SLIDING DOOR HANDLE

STAINLESS
304
STEEL

BRASS

DSI-3250

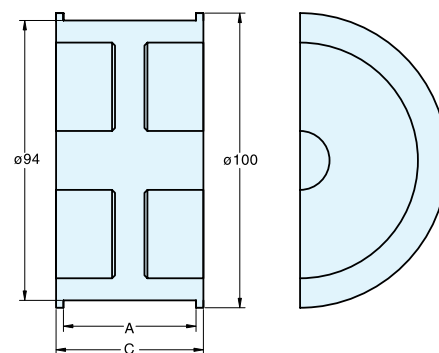


Matte Black

Satin

Antique Brass

- Contemporary handle design that can be accessed from door front, back, or edge.
- Requires adhesive for installation (Such as 2-part epoxy, not supplied.)

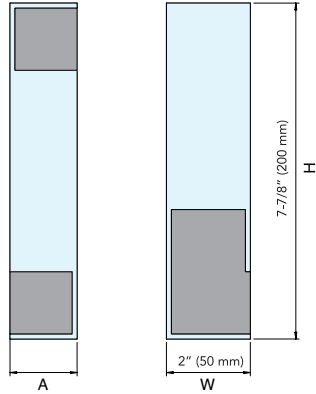


Item No.	C	A	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSI-3250-12-1	17 (11/16")	12.7 (1/2")	280 (0.6 lbs)	1	10	304 Stainless Steel	Satin, Black (BL)
DSI-3250-35	39 (1-17/32")	35.0 (1-3/8")	440 (0.9 lbs)				
DSI-3250-35-AB							
DSI-3250-35-BL							
DSI-3250-45	49 (1-15/16")	45.0 (1-49/64")	550 (1.2 lbs)				
DSI-3250-45-AB							
DSI-3250-45-BL							
DSI-3250-50	54 (2-1/8")	50.0 (1-31/32")	670 (1.5 lbs)	Brass (AB model only)	Antique Brass (AB)		

SLIDING DOOR HANDLE



DSI-4257



- Contemporary handle design that can be accessed from door front, back, or edge.
- Requires adhesive for installation (such as 2-part epoxy, not supplied.)



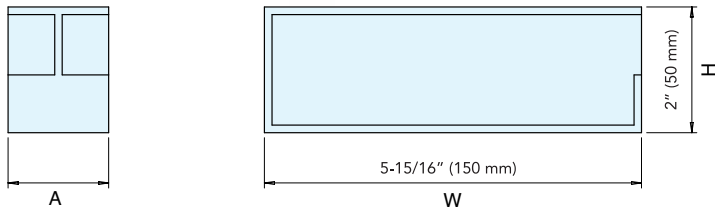
Item No.	W	H	A	Weight (g)	Box (pcs)	Carton (pcs)
DSI-4257-35	2" (50)	7-7/8" (200)	1-3/8" (35)	528	1	8
DSI-4257-45			1-3/4" (45)	625		

Material	Finish
304 Stainless Steel	Satin

SLIDING DOOR HANDLE



DSI-4258



- Contemporary handle design that can be accessed from door front, back, or edge.
- Requires adhesive for installation (such as 2-part epoxy, not supplied.)
- Unique, horizontal design for more natural movement.



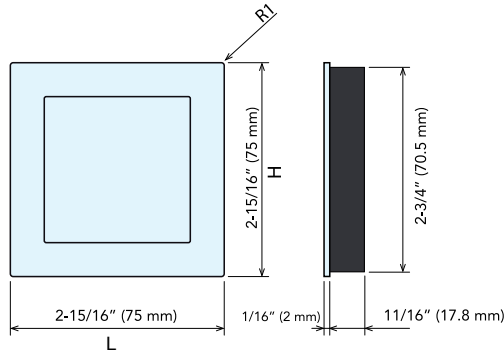
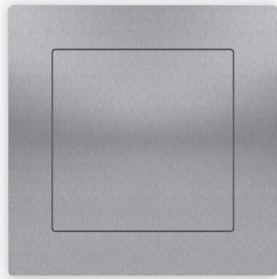
Item No.	W	H	A	Weight (g)	Box (pcs)	Carton (pcs)
DSI-4258-35	5-15/16" (150)	2" (50)	1-3/8" (35)	496	1	18
DSI-4258-35-BL			1-3/8" (35)	496		
DSI-4258-45			1-3/4" (45)	542		
DSI-4258-45-BL			1-3/4" (45)	542		

Material	Finish
304 Stainless Steel	Satin, Black (BL)

RECESSED PULL



DSI-4501



- Modern, unobtrusive design.
- 1/16" (2mm) projection, ideal for furniture or pocket doors.



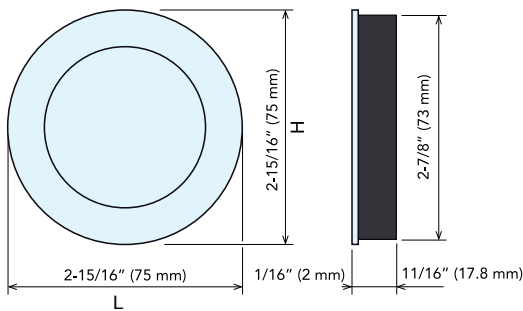
Item No.	L	H	D	Weight (g)	Box (pcs)	Carton (pcs)
DSI-4501-75	2-15/16" (75)	2-15/16" (75)	11/16" (17.8)	141	10	40

Part Name	Material	Finish
Faceplate, Ring	304 Stainless Steel	Satin
Cup	Plastic	Black
Spring	Steel	-

RECESSED PULL



DSI-4502



- Modern, unobtrusive design.
- 1/16" (2mm) projection, ideal for furniture or pocket doors.



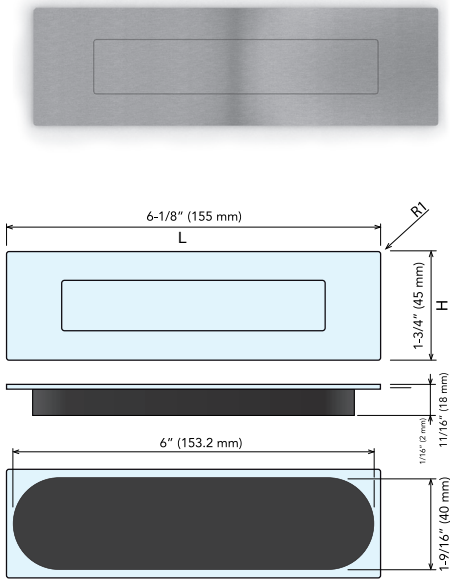
Item No.	L	H	D	Weight (g)	Box (pcs)	Carton (pcs)
DSI-4502-75	2-15/16" (75)	2-15/16" (75)	11/16" (17.8)	122	10	40

Part Name	Material	Finish
Faceplate, Ring	304 Stainless Steel	Satin
Cup	Plastic	Black
Spring	Steel	-

RECESSED PULL

STAINLESS
304
STEEL

DSI-4503



- Modern, unobtrusive design.
- 1/16" (2mm) projection, ideal for furniture or pocket doors.



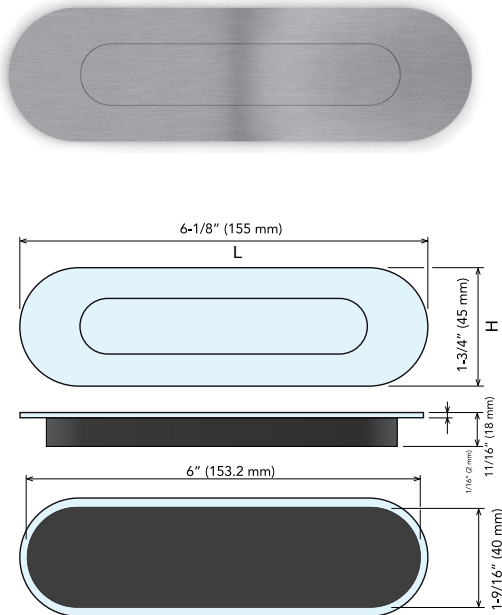
Item No.	L	H	D	Weight (g)	Box (pcs)	Carton (pcs)
DSI-4503-155	6-1/8" (155)	1-3/4" (45)	11/16" (18)	173	10	40

Part Name	Material	Finish
Faceplate, Ring	304 Stainless Steel	Satin
Cup	Plastic	Black
Spring	Steel	-

RECESSED PULL

STAINLESS
304
STEEL

DSI-4504



- Modern, unobtrusive design.
- 1/16" (2mm) projection, ideal for furniture or pocket doors.



Item No.	L	H	D	Weight (g)	Box (pcs)	Carton (pcs)
DSI-4504-155	6-1/8" (155)	1-3/4" (45)	11/16" (18)	170	10	40

Part Name	Material	Finish
Faceplate, Ring	304 Stainless Steel	Satin
Cup	Plastic	Black
Spring	Steel	-

SLIDING DOOR HANDLE

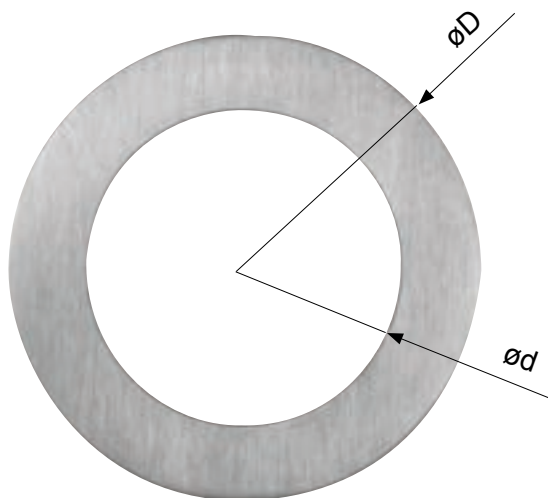


SLIDING DOOR HANDLE



DSI-3010

- Surface-mount handle.
- Sold as a set. Each set includes 2 metal handles and 1 edge-mounted recessed pull (for use with wood doors).

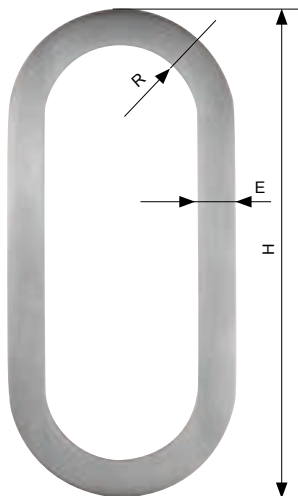


Item No.	D	d	Thickness (mm)	Weight (g)	Box (sets)	Carton (sets)
DSI-3010-40	40 (1-9/16")	24 (15/16")	6 (1/4")	80	1	10
DSI-3010-70	70 (2-3/4")	46 (1-13/16")		140		
DSI-3010-100	100 (3-15/16")	68 (2-11/16")		200		

Material	Finish
304 Stainless Steel	Satin

SLIDING DOOR HANDLE

DSI-3020



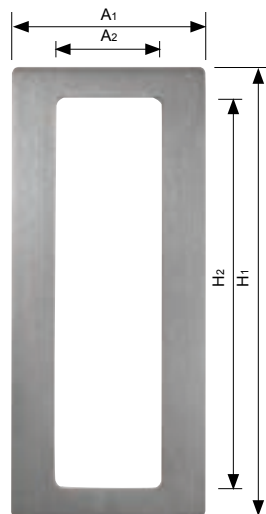
- Surface-mount handle.
- Sold as a set. Each set includes 2 metal handles and 1 edge-mounted recessed pull (for use with wood doors).

Material	Finish
304 Stainless Steel	Satin

Item No.	H	E	R	Thickness (mm)	Weight (g)	Box (sets)	Carton (sets)
DSI-3020-85	85 (3-3/8")	8	12	6 (1/4")	70	1	10
DSI-3020-150	150 (5-7/8")	12	23		125		
DSI-3020-300	300 (11-13/16")	16	24		250		

SLIDING DOOR HANDLE

DSI-4020



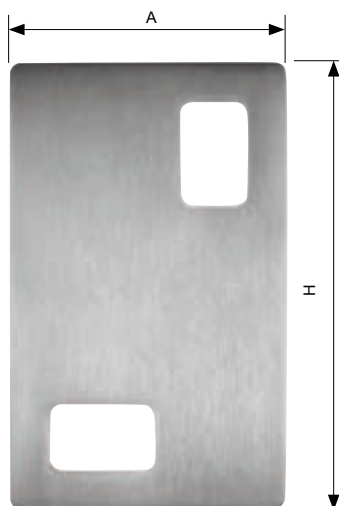
- Surface-mount handle.
- Sold as a set. Each set includes 2 metal handles and 1 edge-mounted recessed pull (for use with wood doors).

Material	Finish
304 Stainless Steel	Satin

Item No.	H ₁	H ₂	A ₁	A ₂	Thickness (mm)	Weight (g)	Box (sets)	Carton (sets)
DSI-4020-85	85 (3-3/8")	65 (2-9/16")	50 (2")	20 (13/16")	6 (1/4")	135	1	10
DSI-4020-150	150 (5-7/8")	130 (5-1/8")	65 (2-9/16")	35 (1-3/8")		240		
DSI-4020-300	300 (11-13/16")	280 (11")	80 (3-3/16")	50 (2")		480		

SLIDING DOOR HANDLE

DSI-4040



- Surface-mount handle.
- Sold as a set. Each set includes 2 metal handles and 1 edge-mounted recessed pull (for use with wood doors).

Material	Finish
304 Stainless Steel	Satin

Item No.	H	A	Thickness (mm)	Weight (g)	Box (sets)	Carton (sets)
DSI-4040-85	85 (3-3/8")	50 (2")	6 (1/4")	70	1	10
DSI-4040-150	150 (5-7/8")	92 (3-5/8")		125		
DSI-4040-300	300 (11-13/16")	185 (7-5/16")		250		



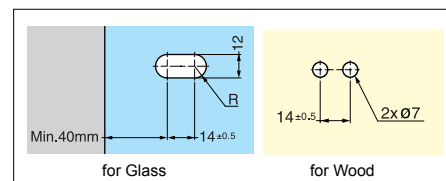
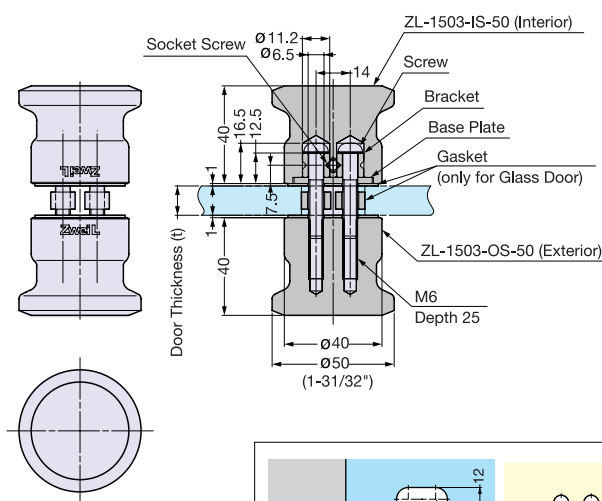
Zwei L Glass Door Knob



ZL-1503



- Door Thickness (t)
 - Wooden/Metal Frame Door: 36~48 mm (1-7/16"~1-7/8")
 - Glass Door: 6~12 mm (1/4"~1/2")



Item No.	Type	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1503-IS-50	Interior Knob	316 Stainless Steel	Zwei L	480	1
ZL-1503-OS-50	Exterior Knob			507	1
ZL-1503-WN-50*	Back-to-Back Knob			1000	1

*Back-to-Back type includes 2 knobs, screw set and allen key.

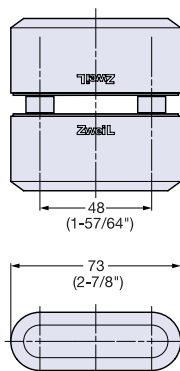
Zwei L Glass Door Pull



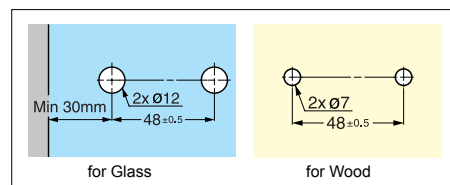
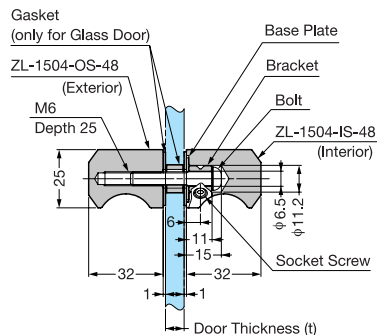
ZL-1504

HANDLES

Zwei L GLASS DOOR PULLS



- Door Thickness (t)
 - Wooden/Metal Frame Door: 36~48 mm (1-7/16"~1-7/8")
 - Glass Door: 6~12 mm (1/4"~1/2")
 - Hardware set for glass only included in back to back set.



Cut out dimensions

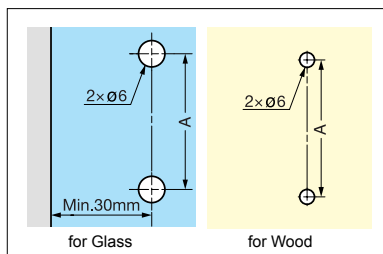
Item No.	Type	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1504-IS-48	Interior Pull	316 Stainless Steel	Zwei L	432	1
ZL-1504-OS-48	Exterior Pull			462	
ZL-1504-WN-48*	Back-to-Back Pull			989	

*Back-to-Back type includes 2 knobs, screw set and allen key.

Zwei L Glass Door Pull

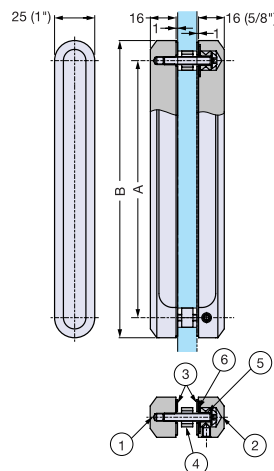


ZL-1505



Cut out dimensions

- Door Thickness (t)
 - Wooden/Metal Frame Door: 40~46 mm (1-9/16"~1-13/16")
 - Glass Door: 8~12 mm (5/16"~1/2")



Item No.	Type	A	B	Weight (g)	Box (pcs)
ZL-1505-IS-160	Interior Pull	160 (6-19/64")	185 (7-9/32")	563	1
ZL-1505-OS-160	Exterior Pull	160 (6-19/64")	185 (7-9/32")	580	
ZL-1505-WN-160*	Back-to-Back Pull	160 (6-19/64")	185 (7-9/32")	1177	

Item No.	Type	A	B	Weight (g)	Box (pcs)
ZL-1505-IS-320	Interior Pull	320 (12-19/32")	345 (13-37/64")	1023	1
ZL-1505-OS-320	Exterior Pull	320 (12-19/32")	345 (13-37/64")	1052	
ZL-1505-WN-320*	Back-to-Back Pull	320 (12-19/32")	345 (13-37/64")	2109	

*Back-to-Back type includes 2 knobs, screw set and allen key.

No.	Part Name	Material
①	Main Body	316 Stainless Steel
②		316 Stainless Steel
③	Gasket	Elastomer
④	Rubber Ring	Chloroprene Rubber
⑤	Bracket	316 Stainless Steel
⑥	Washer	316 Stainless Steel

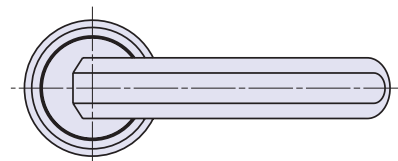
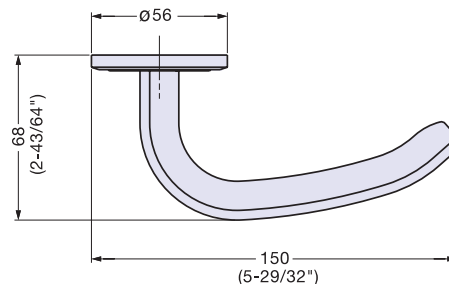
Zwei L Lever Handle

STAINLESS
316
STEEL

ZL-1101



- Non-handed.
- For use with mortise case locks, etc. (Not supplied).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1101	316 Stainless Steel	Zwei L	1205	1

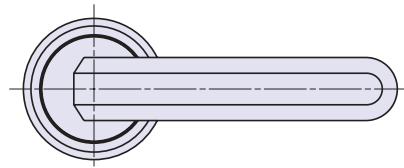
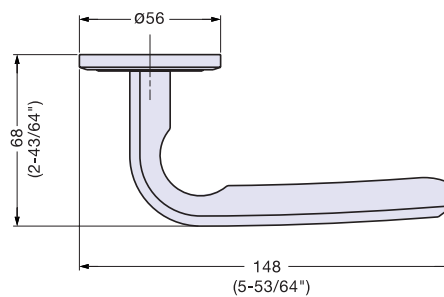
Zwei L Lever Handle

STAINLESS
316
STEEL

ZL-1102



- Non-handed.
- For use with mortise case locks, etc. (Not supplied).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1102	316 Stainless Steel	Zwei L	1133	1

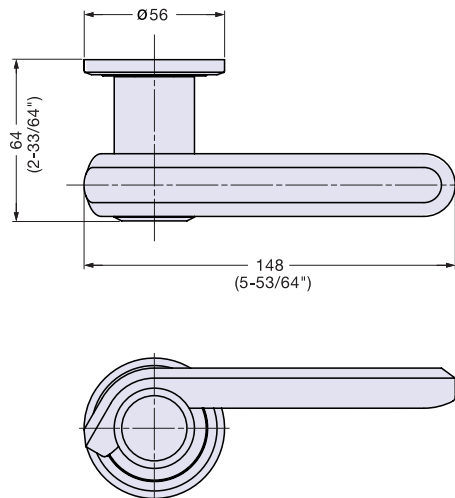
Zwei L Lever Handle

STAINLESS
316
STEEL

ZL-1103



- Non-handed.
- For use with mortise case locks, etc. (Not supplied).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1103	316 Stainless Steel	Zwei L	1751	1

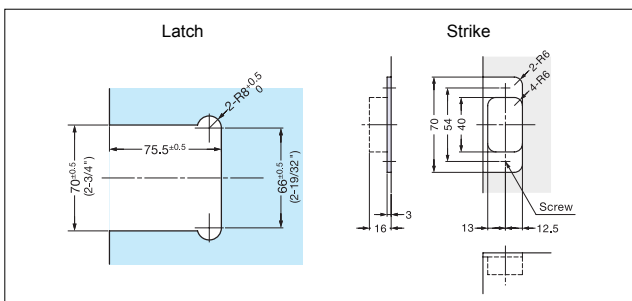
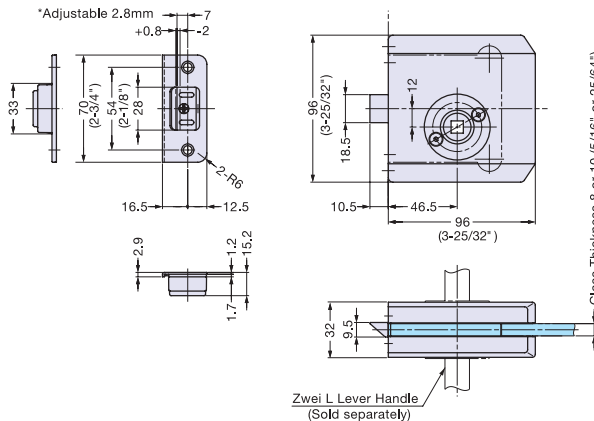
Zwei L Glass Door Latch

STAINLESS
316
STEEL

ZL-1601



- Lever handle not included.
- Can be used with ZL-1101, ZL-1102 and ZL-1103 lever handles.
- Includes strike.



ZL-1601-2 is shown.

Cut out Dimensions

Item No.	Material	Finish/Color	Handing	Weight (g)	Box (pcs)
ZL-1601-1	316 Stainless Steel	Zwei L	Right Hand Opening Away/Left Hand Opening Towards	970	1
ZL-1601-2			Left Hand Opening Away/Right Hand Opening Towards		

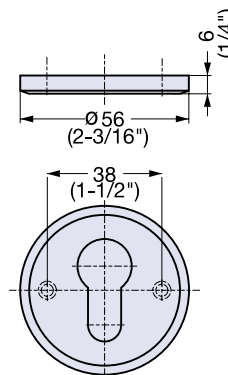
Zwei L Escutcheon

STAINLESS
316
STEEL

ZL-1202



- Ø56 (Material: 316 Stainless Steel).
- Please use ZL-1403 for thumbturn knob (P.27).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1202	316 Stainless Steel	Zwei L	150	1

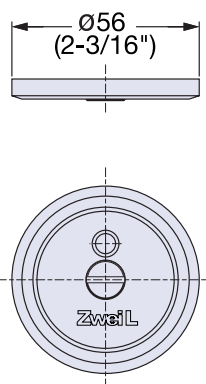
Zwei L Indicator

STAINLESS
316
STEEL

ZL-1301-INR



- Ø56 (Material: 316 Stainless Steel).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1301-INR	316 Stainless Steel	Zwei L	194	1

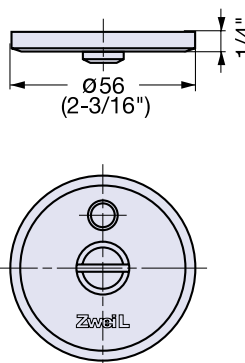
Zwei L Indicator

STAINLESS
316
STEEL

ZL-1302



- Ø56 (Materials: 316 Stainless Steel).
- For use with ZL-1402 (P.27).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1302	316 Stainless Steel	Zwei L	135	1

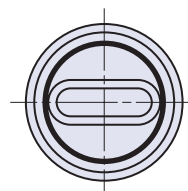
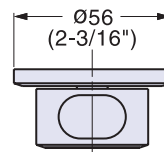
Zwei L Thumbturn

STAINLESS
316
STEEL

ZL-1401-SMR



- Ø56 (Material: 316 Stainless Steel).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1401-SMR	316 Stainless Steel	Zwei L	305	1

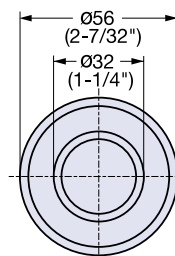
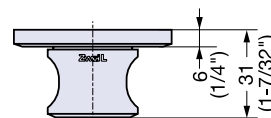
Zwei L Thumbturn

STAINLESS
316
STEEL

ZL-1402



- Ø56 (Material: 316 Stainless Steel).
- For use with ZL-1302 (P.26).
- Please use ZL-1403 for thumbturn knob.



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1402	316 Stainless Steel	Zwei L	251	1

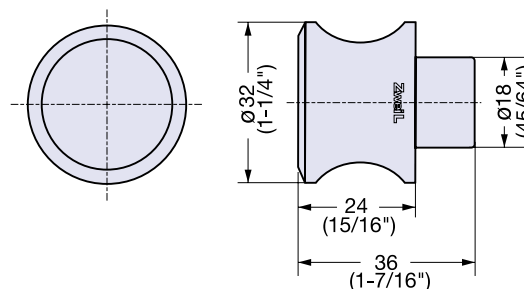
Zwei L Thumbturn Knob

STAINLESS
316
STEEL


ZL-1403



- Ø56 (Material: 316 Stainless Steel).
- For use with profile cylinder, etc. (Not supplied).
- Works with ZL-1202 (P.26).
- Does not work with indicators.



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1403	316 Stainless Steel	Zwei L	198	1



CABINET HANDLES, PULLS & KNOBS

HANDLES
RECESSED PULLS
TRUNK HANDLES
PULLS
FOLDING RING PULLS
EDGE PULLS
HATCH PULLS
KNOBS
PUSH KNOBS

HANDLES (Back Screw Mount)

Picture	Item No.	Center to Center	Page
	ZL-2001	1-1/4"~10-1/16"	34
	ZL-2002	3-25/32"~12-19/32"	35
	ZL-2301 (HANDLE BASE)	-	35
	16-S SERIES	3-25/32"~23-5/16"	36
	27-S SERIES	3-25/32"~23-5/16"	36
	DIH	3-25/32"~23-5/16"	36
	26-S SERIES	3-25/32"~54-13/16"	37
	28-S SERIES	3-25/32"~54-51/64"	37
	70-S SERIES	3-25/32"~12-19/32"	37
	30-S SERIES	3-25/32"~7-9/16"	38
	DSI-120	3-25/32"~20-5/32"	38
	82-S SERIES	6-19/64"~12-19/32"	39
	MG	5-29/32"~11-13/16"	39
	DL	2-33/64"~5-43/64"	40
	DS	63/64"~3-11/32"	40
	EC	3-5/8"~6-25/32"	40
	FB	3-7/32"~4-23/32"	41
	KB	63/64"~3-11/32"	41
	KS	3"~4"	41
	KC-S	3-1/2"~6"	42
	EK-S	3-1/2"~6"	42
	XL-JS	6-19/64"~13-55/64"	42
	KC-R	3-1/2"~6"	43

Picture	Item No.	Center to Center	Page
	EK-R	3-1/2"~6"	43
	XL-JSR	1-17/64"~5-1/32"	43
	ECH	2-61/64"~11-13/16"	44
	XL-CU	2-27/32"~11-1/2"	44
	XL-CUR	2-3/4"~5-33/64"	44
	40 SERIES	5-3/64"~7-9/16"	45
	KPH	6-19/64"~11-11/32"	45
	DSI-110	3-25/32"~20-5/32"	45
	SWP	3"~3-25/32"	46
	SWF	4"~12"	46
	H-75-BL-100	3-15/16"	46
	H-42-B	1-37/64"~11-11/32"	47
	H-42-C	2-23/64"~11-11/32"	47
	H-42-F14	3-5/32"	47
	H-75-C	2-23/64"~4-23/32"	48
	LF-12	3-25/32"~6-19/64"	48
	HK	3-5/32"~4-23/32"	50

HANDLES (Front Screw Mount)

Picture	Item No.	Center to Center	Page
	FT-R	4-1/4"~5-43/64"	49
	FT-T	3-25/32"~6-59/64"	49
	2LC	2-33/64"~6-19/64"	50

Picture	Item No.	Center to Center	Page
	3LC	4-9/64"~4-59/64"	51
	4LC	2-33/64"~6-19/64"	51
	MH-P	3-15/16"~5-29/32"	52
	US	2-1/8"~5-33/64"	52
	EC-H	4-17/32"~5-45/64"	52
	FT-110S	4-21/64"	53
	FT-65, 80, 100	2-1/4"~3-15/32"	53
	FT-120, 150	4-11/64"~5-3/16"	53
	EC-Y	4-23/32"~6-11/16"	54
	MJH	3-21/32"~5-29/32"	54
	FT-200, 280	6-57/64"~9-31/32"	55
	KMH	3-15/16"~5-29/32"	55

HANDLES (Back Screw Mount)

Picture	Item No.	Center to Center	Page
	TMH	3-25/32"~7-9/16"	56
	DLB	3-25/32"	56
	LX-110/SN	3-25/32"	56
	KK-H	2-3/4"~4-23/32"	57
	XLA-HA	3-25/32"~12-19/32"	58
	SGH-200	6-7/8"	58
	SAZ	4-1/64"	59
	936 SERIES	2-11/64"~3-61/64"	59
	KAKU-A	3-1/16"~4-7/16"	59

RECESSED PULLS

Picture	Item No.	Page
	UTA-105	60
	UT	60
	YK-70	61
	YK-W100	61
	HH-P135	61
	HH-KS	62
	HH-DS	62
	HH-K	62
	HH-D	63
	SP	63
	HH-FB, HH-FC	63
	HH-KL160	64
	HH-KP150	64
	HH-KPR150-SH	64
	HH-AS2	65
	HH-AS3	65
	ES-611	65
	UTZ-130	66
	SD-160	66
	AT-100	67
	AT-70	67
	ATS-100	67
	XLA-HHA	68
	HH-PS99	68
	UP-600	68
	HH-UD	69

RECESSED PULLS

Picture	Item No.		Page
	HH-M		70
	HH-P		70
	ZL-2501		71
	RP		71
	HN		72
	OP-150		72
	3511, 3512 SERIES		73
	3922 SERIES		73

TRUNK HANDLES

Picture	Item No.		Page
	HCT-150		74
	MUD-140		74
	TMU-115		75
	PT-148		75

PULLS

Picture	Item No.		Page
	SN		76
	SND		76
	DSI-350		76
	DSI-360		76.1
	DSI-370		76.1
	DSI-380		76.2
	AG		77

Picture	Item No.		Page
	CN		77
	DR		77
	RD-55/SM, 90/SM		78
	RD		78
	AOT35		79

FOLDING RING PULLS

Picture	Item No.		Page
	3261, 3262 SERIES		79
	26700		80
	26900		80
	26901		80
	980643		81
	980641, 980642		81
	980640		81
	ST-90, 115		82
	ST-80, 100		82
	HR		83
	HR-R		83
	FH-100AK, FH-100BK		84
	FH-100AM, FH-100BM		84

KNOBS

Picture	Item No.		Page
	ZL-1906		85
	ZL-1909		85

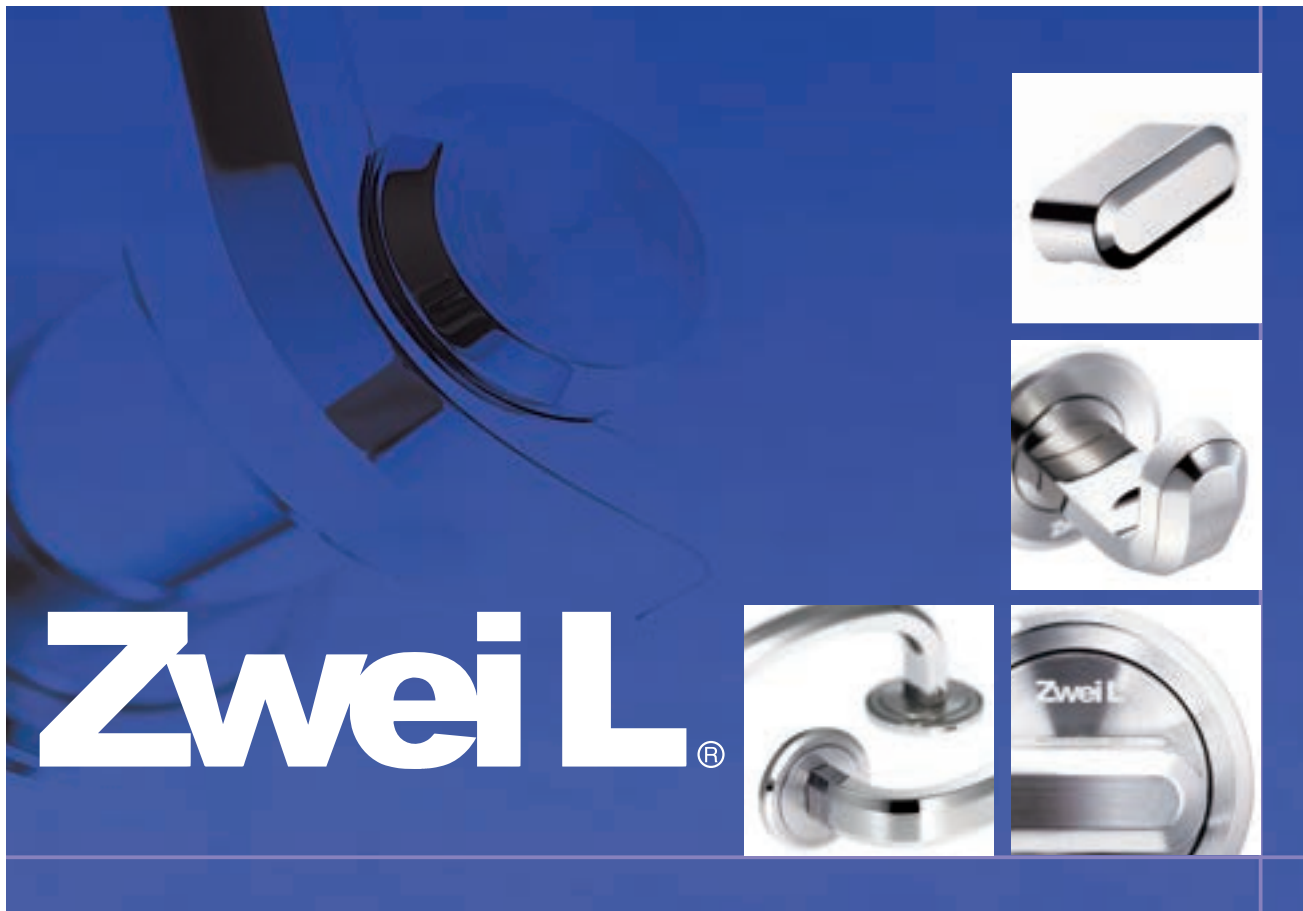
Picture	Item No.		Page
	ZL-1901		86
	ZL-1902		86
	ZL-1903		86
	ZL-1904		87
	ZL-1905		87
	ZL-2302		87
	ZL-1907		88
	ZL-2503		88
	DSI-126D		88
	GT-40CR		89
	DG-BT		89
	DG-BT2		89
	EY-127		90
	EY-207		90
	EY-301		90
	EY-320		91
	DSI-209		91
	EY-326		91
	EY-327		91
	EY-338		92
	EY-339		92

Picture	Item No.		Page
	TS		92
	RS-38		93
	RSS		93
	DJ-22		93
	GLA		94
	KK-T		94
	KK-B		94
	MRB		95
	SY		95
	MKZ		95
	TMT		96
	DW-50N		96
	A SERIES		96
	ZL-1908		97
	PK-03		97

ESOR COLLECTION

HANDLES, KNOBS AND PULLS
17 STYLES, 4 FINISHES 97.1 - 97.9





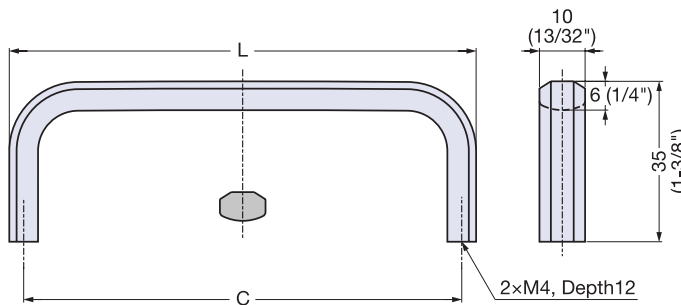
Zwei L Handle



ZL-2001



- Models ZL-2001-32, ZL-2001-64, ZL-2001-96, ZL-2001-128 are RoHs compliant.
- Includes 1-3/16" long stainless steel screws (M4 x 30).



Item No.	Material	Finish/Color	L	C	Weight (g)	Box (pcs)
ZL-2001-32	316 Stainless Steel	Zwei L	38	32 (1-1/4")	34	20
ZL-2001-64			70	64 (2-1/2")	46	12
ZL-2001-96			102	96 (3-25/32")	59	12
ZL-2001-128			134	128 (5-1/32")	72	10
ZL-2001-160			166	160 (6-5/16")	86	10
ZL-2001-192			198	192 (7-9/16")	100	6
ZL-2001-256			262	256 (10-1/16")	125	6

Zwei L Handle



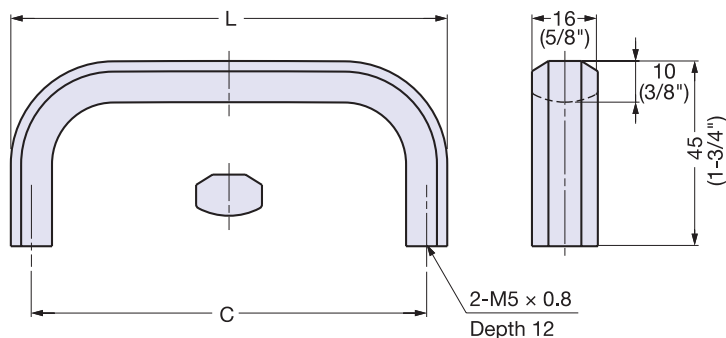
ZL-2002

HANDLES, PULLS & KNOBS

Zwei L HANDLES



• Includes 1-3/16" long stainless steel screws (M5 × 30).

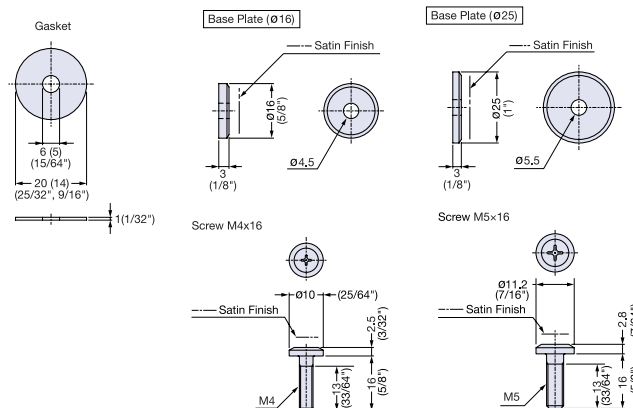


Item No.	Material	Finish/Color	L	C	Weight (g)	Box (pcs)
ZL-2002-96	316 Stainless Steel	Zwei L	106	96 (3-25/32")	165	12
ZL-2002-128			138	128 (5-1/32")	194	12
ZL-2002-160			170	160 (6-10/64")	233	12
ZL-2002-192			202	192 (7-9/16")	265	6
ZL-2002-256			266	256 (10-5/64")	332	6
ZL-2002-320			330	320 (12-19/32")	395	6

Zwei L Handle Base



ZL-2301



Plate/Screw Set for Handle (M4)

Item No.	Part Name	Material	Finish/Color
ZL-2301-2016	Screw (M4 × 16)	Stainless Steel	Zwei L
	Base Plate (ø16)	316 Stainless Steel	Zwei L
	Gasket (ø14)	Elastmoer	Plain

*2 each of screws, base plates, and 4 gaskets included.

Plate/Screw Set for Handle (M4)

Item No.	Part Name	Material	Finish/Color
ZL-2301-2025	Screw (M5 × 16)	Stainless Steel	Zwei L
	Base Plate (ø25)	316 Stainless Steel	Zwei L
	Gasket (ø14)	Elastomer	Plain
	Gasket (ø20)	Elastomer	Plain

*2 pieces each included.

Plate/Screw Set for Handle (ø16)

Item No.	Part Name	Material	Finish/Color
ZL-2302-1916	Screw (M4 × 16)	Stainless Steel	Zwei L
	Base Plate (ø16)	316 Stainless Steel	Zwei L
	Gasket (ø14)	Elastomer	Plain

*2 pieces each included

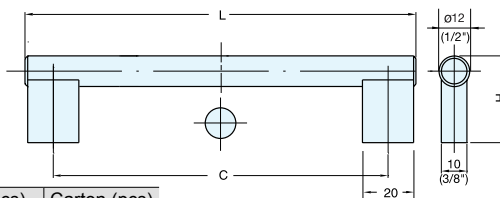
Plate/Screw Set for Handle (ø25)

Item No.	Part Name	Material	Finish/Color
ZL-2302-1925	Screw (M4 × 16)	Stainless Steel	Zwei L
	Base Plate (ø25)	316 Stainless Steel	Zwei L
	Gasket (ø14)	Elastomer	Plain
	Gasket (ø20)	Elastomer	Plain

HANDLE (1/2" BAR PULL)



16 SERIES



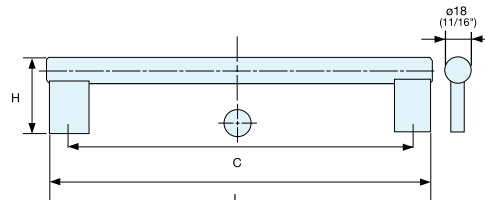
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
1646	118	96 (3-25/32")	34 (1-11/32")	62	25	250
1647	150	128 (5-1/32")		70		
1648	182	160 (6-5/16")		85		
1650	214	192 (7-9/16")		94		
1651	314	292 (11-7/16")		121		
1652	342	320 (12-9/16")		128		
1653	364	342 (13-7/16")		134		
1654	414	392 (15-7/16")		148		
1655	514	492 (19-3/8")		175		
1656	614	592 (23-5/16")		202		

Material	Finish
304 Stainless Steel	Satin

HANDLE (11/16" BAR PULL)



27 SERIES



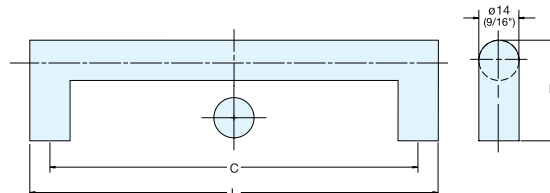
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
27096	128	96 (3-25/32")	44 (1-47/64")	140	15	150
27128	160	128 (5-1/32")		152		
27160	192	160 (6-5/16")		170		
27192	224	192 (7-9/16")		183		
27292	324	292 (11-7/16")		225		
27320	352	320 (12-9/16")		237		
27342	374	342 (13-15/32")		245		
27392	424	392 (15-7/16")		267		
27492	524	492 (19-3/8")		309		
27592	624	592 (23-5/16")		351		

Material	Finish
304 Stainless Steel	Satin

HANDLE (MITERED CORNER)



DIH



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
DIH-096	110	96 (3-25/32")	35 (1-3/8")	57	25	250
DIH-128	142	128 (5-1/32")		66		
DIH-192	206	192 (7-9/16")		83		
DIH-342	356	342 (13-15/32")		123		
DIH-492	506	492 (19-3/8")		163		
DIH-592	606	592 (23-5/16")		189		

Material	Finish
304 Stainless Steel	Satin

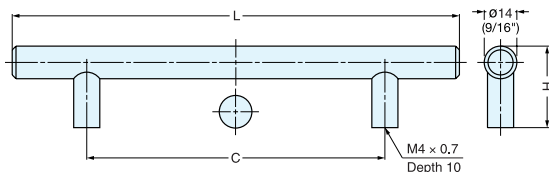
HANDLE (9/16" BAR PULL)



26 SERIES



• Models 2658 and 2659 have a center post.



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
2646	160	96 (3-25/32")	35 (1-3/8")	107	25	250
2647	192	128 (5-1/32")		113		
2650	256	192 (7-9/16")		136		
2653	406	342 (13-15/32")		187		
2655	556	492 (19-3/8")		216		
2656	656	592 (23-5/16")		324		
2658	1220	1156 (45-1/2")		547		
2659	1456	1392 (54-13/16")		570		

Material	Finish
304 Stainless Steel	Satin

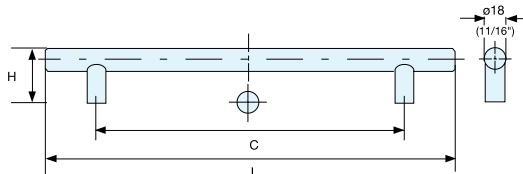
HANDLE (11/16" BAR PULL)



28 SERIES



• Models 281192 and 281392 have a center post.



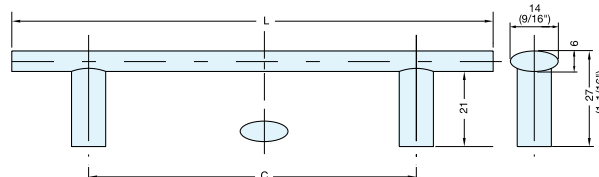
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
28096	160	96 (3-25/32")	47 (1-27/32")	155	15	150
28128	192	128 (5-1/32")		166		
28192	256	192 (7-9/16")		190		
28342	406	342 (13-15/32")		350		
28492	556	492 (19-3/8")		322		
28592	656	592 (23-5/16")		381		
281192	1256	1192 (46-59/64")		627		
281392	1456	1392 (54-51/64")		714		

Material	Finish
304 Stainless Steel	Satin

HANDLE (OVAL BAR PULL)



70 SERIES



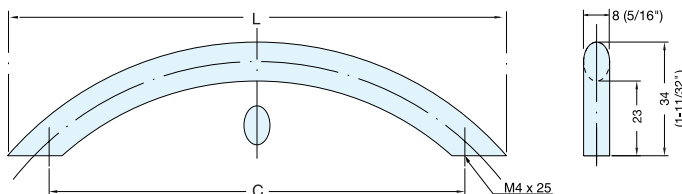
Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
7013	160	96 (3-25/32")	121	25	250
7014	192	128 (5-1/32")	139		
7015	224	160 (6-19/64")	157		
7016	256	192 (7-9/16")	174		
7017	288	224 (8-13/16")	192		
7018	320	256 (10-5/64")	210		
7020	384	320 (12-19/32")	246		

Material	Finish
304 Stainless Steel	Satin

HANDLE



30 SERIES



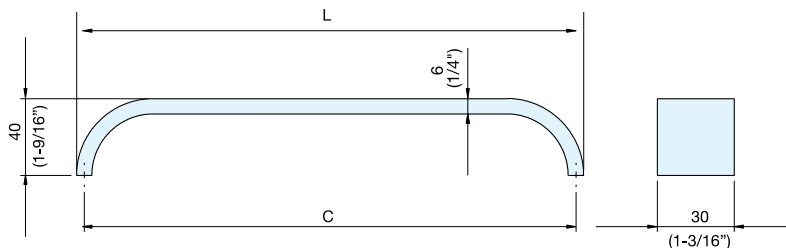
Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
3096	118	96 (3-25/32")	72	25	250
3097	151	128 (5-1/32")	90		
3099	224	192 (7-9/16")	128		

Material	Finish
304 Stainless Steel	Satin

HANDLE



DSI-120



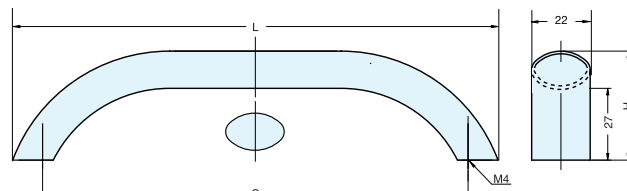
Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
DSI-120-96	102	96 (3-25/32")	186	25	250
DSI-120-128	134	128 (5-1/16")	248		
DSI-120-160	166	160 (6-5/16")	275		
DSI-120-192	196	192 (7-9/16")	375	10	100
DSI-120-320	326	320 (12-19/32")	620		
DSI-120-512	518	512 (20-5/32")	992		

Material	Finish
304 Stainless Steel	Satin

HANDLE



82 SERIES



HANDLES, PULLS & KNOBS

HANDLES

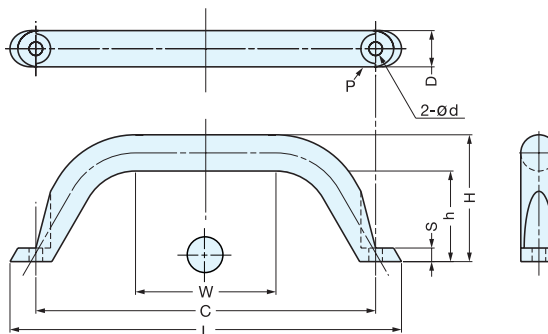
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
8261	182	160 (6-19/64")	41 (1-39/64")	166	25	250	304 Stainless Steel	Satin
8262	214	192 (7-9/16")		179				
8263	246	224 (8-13/16")		192				
8264	342	320 (12-19/32")		231				

HANDLE



MG

- Ideal for harsh and high corrosive environments.
- Compliant with SEMI S8-0701 guideline.

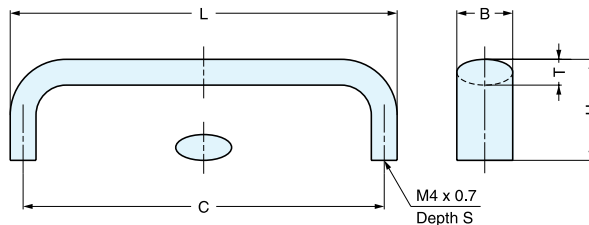


													Material	Finish
													316 Stainless Steel	Mirror
Item No.	D	C	L	P	W	H	h	S	ød	Weight (g)	Box (pcs)	Carton (pcs)	Recommended Screw	
MG-150	16	150 (5-29/32")	172.8	R6.5	62	56 (2-13/64")	40	6	6	295	10	40	M5	
MG-190	18	190 (7-31/64")	216.7	R7.5	92	63 (2-31/64")	45	8	7	460	5	25	M6	
MG-250		250 (9-27/32")	275.5		145	68 (2-43/64")				595		20		
MG-230T	20	230 (9-1/16")	260.0	R9.0	129	70 (2-3/4")	50	10	9	666	5	20	M8	
MG-300T		300 (11-13/16")	330.0		199					838				

HANDLE



DL



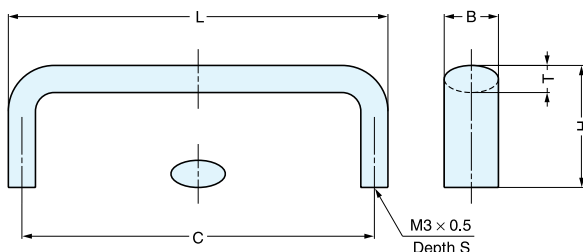
Material	Finish
303 Stainless Steel	Mirror (M) Satin (S)

Item No.	L	C	H	B	T	S	Weight (g)	Box (pcs)	Carton (pcs)
DL-70/M DL-70/S	70	64 (2-33/64")	23.0 (29/32")	13	6	10	44	20	200
DL-90/M DL-90/S	90	84 (3-5/16")	23.5 (59/64")				55		
DL-110/M DL-110/S	110	104 (4-3/32")	24.0 (61/64")				65		
DL-130/M DL-130/S	130	124 (4-7/8")	24.5 (31/32")				75		
DL-150/M DL-150/S	150	144 (5-43/64")	25.0 (63/64")				86		

HANDLE



DS



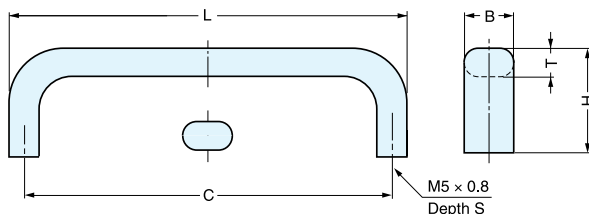
Material	Finish
303 Stainless Steel	Mirror (M) Satin (S)

Item No.	L	C	H	B	T	S	Weight (g)	Box (pcs)	Carton (pcs)
DS-30/M DS-30/S	30	25 (63/64")	23.0 (29/32")	10	5	8	15	40	400
DS-50/M DS-50/S	50	45 (1-25/32")	22.0 (7/8")			22			
DS-70/M DS-70/S	70	65 (2-9/16")	22.5 (57/64")			28			
DS-90/M DS-90/S	90	85 (3-11/32")	23.0 (29/32")			35			

HANDLE



EC



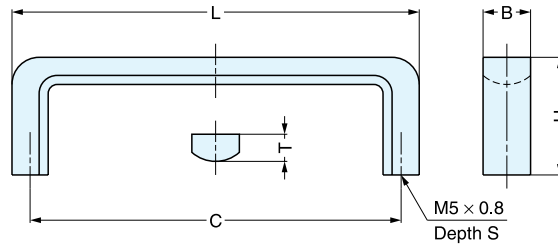
Material	Finish
303 Stainless Steel	Mirror (M) Satin (S)

Item No.	L	C	H	B	T	S	Weight (g)	Box (pcs)	Carton (pcs)
EC-100/M EC-100/S	100	92 (3-5/8")	32 (1-17/64")	14	8	10	102	15	150
EC-120/M EC-120/S	120	112 (4-13/32")	34 (1-11/32")			120			
EC-150/M EC-150/S	150	142 (5-19/32")	36 (1-27/64")			148			
EC-180/M EC-180/S	180	172 (6-25/32")	37 (1-29/64")			174			

HANDLE



FB



Material	Finish
304 Stainless Steel	Mirror

Item No.	L	C	H	B	T	S	Weight (g)	Box (pcs)	Carton (pcs)
FB-90	90	82 (3-7/32")	26 (1-1/32")	10.5	6	10	45	35	280
FB-110	110	102 (4-1/64")	28 (1-7/64")	12.5	7	12	60	25	200
FB-130	130	120 (4-23/32")	32 (1-17/64")	14.5	8	14	93	20	160

HANDLE

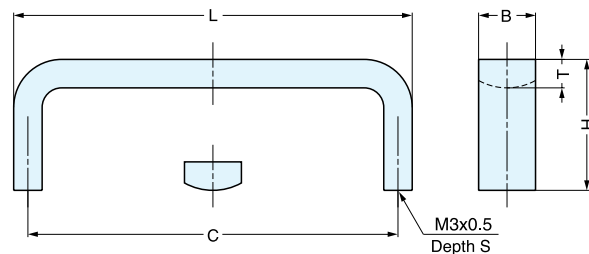


KB



KB-90/M

KB-30/S



Material	Finish
303 Stainless Steel	Mirror (M) Satin (S)

Item No.	L	C	H	B	T	S	Weight (g)	Box (pcs)	Carton (pcs)
KB-30/M	30	25 (63/64")	23 (29/32")	10	5	8	18	40	400
KB-50/M	50	45 (1-25/32")	22 (7/8")			10	26		
KB-70/M	70	65 (2-9/16")	22.5 (57/64")			10	33	30	300
KB-90/M	90	85 (3-11/32")	23 (29/32")			10	40	20	200

HANDLE

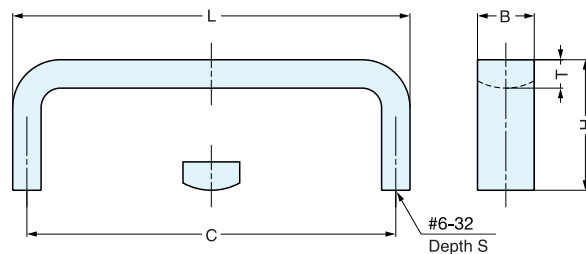


KS



Satin

Mirror



Material	Finish
304 Stainless Steel	Mirror (M) Satin (S)

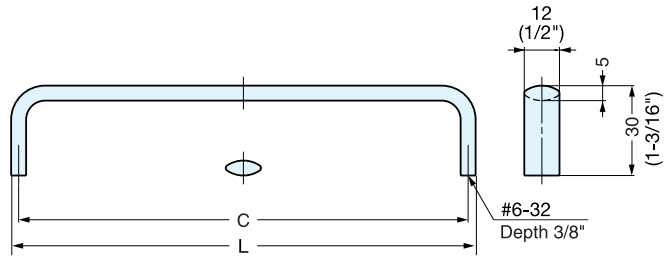
Item No.	L	C	H	B	T	S	Weight (g)	Box (pcs)	Carton (pcs)
KS-430/M	81	76 (3")	23 (29/32")	10	5	9	45	20	200
KS-435/M	94	89 (3-1/2")					48		
KS-440/M	106	102 (4")					54		

HANDLE



KC-S

• Ideal for harsh and high corrosive environments.



Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
KC-S635/M KC-S635/S	93.9 (3-11/16")	88.9 (3-1/2")	67	20	200
KC-S640/M KC-S640/S	106.6 (4-3/16")	101.6 (4")	71		
KC-S650/M KC-S650/S	132.0 (5-3/16")	127.0 (5")	85		
KC-S660/M KC-S660/S	157.4 (6-3/16")	152.4 (6")	95		

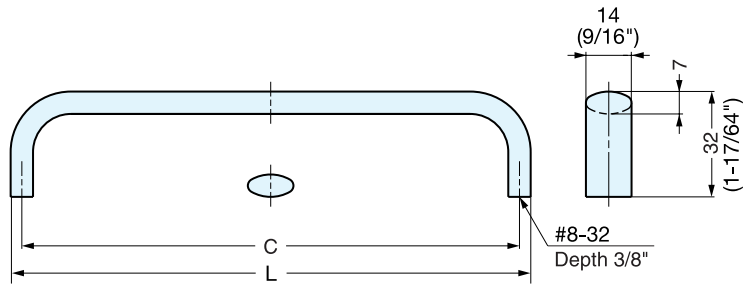
Material	Finish
316 Stainless Steel	Mirror (M) Satin (S)

HANDLE



EK-S

• Ideal for harsh and high corrosive environments.



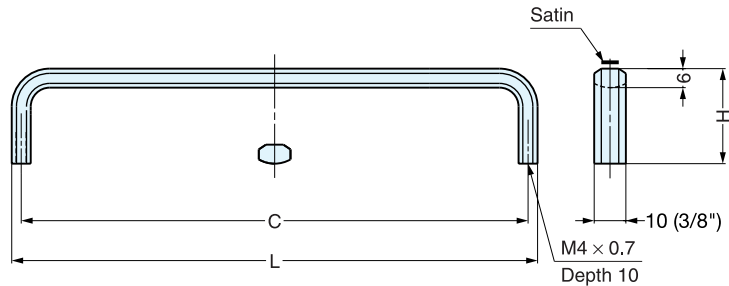
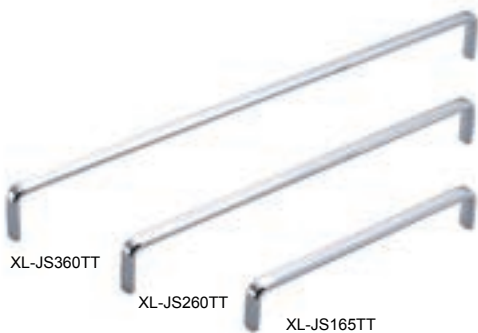
Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
EK-S635/M EK-S635/S	95.9 (3-25/32")	88.9 (3-1/2")	90	20	200
EK-S640/M EK-S640/S	108.6 (4-9/32")	101.6 (4")	91		
EK-S650/M EK-S650/S	134.0 (5-9/32")	127.0 (5")	113		
EK-S660/M EK-S660/S	159.4 (6-9/32")	152.4 (6")	122		

Material	Finish
316 Stainless Steel	Mirror (M) Satin (S)

HANDLE



XL-JS



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
XL-JS165TT	166	160 (6-19/64")	30 (1-3/16")	81	15	150
XL-JS260TT	260	254 (10")	33 (1-19/64")	122	10	100
XL-JS360TT	358	352 (13-55/64")	36 (1-27/64")	166		

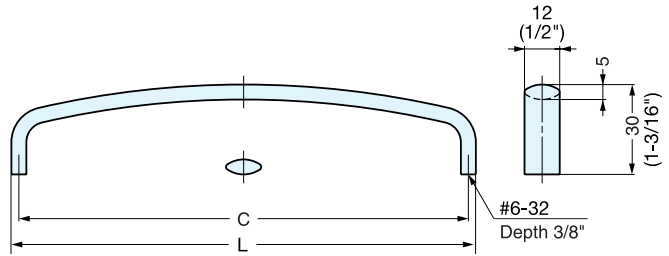
Material	Finish
316 Stainless Steel	Mirror and Satin Combination

HANDLE



KC-R

• Ideal for harsh and high corrosive environments.



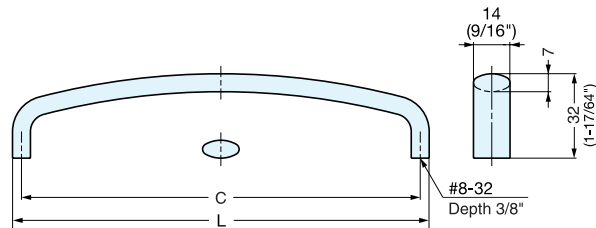
Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
KC-R635/M KC-R635/S	93.9 (3-11/16")	88.9 (3-1/2")	60	20	200
KC-R640/M KC-R640/S	106.6 (4-3/16")	101.6 (4")	67		
KC-R650/M KC-R650/S	132.0 (5-3/16")	127.0 (5")	78		
KC-R660/M KC-R660/S	157.4 (6-3/16")	152.4 (6")	88		

Material	Finish
316 Stainless Steel	Mirror (M) Satin (S)

HANDLE



EK-R



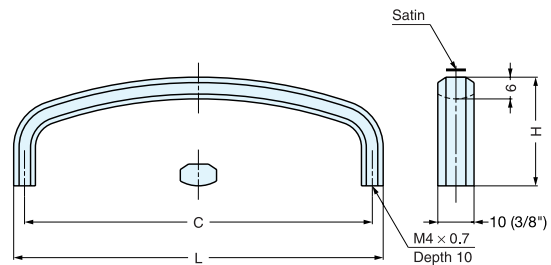
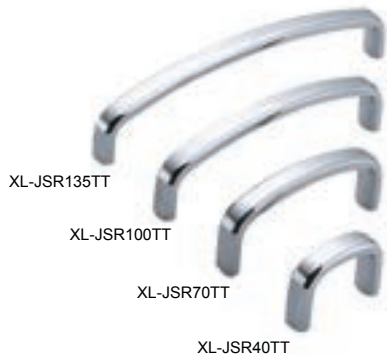
Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
EK-R635/M EK-R635/S	95.9 (3-25/32")	88.9 (3-1/2")	95	20	200
EK-R640/M EK-R640/S	108.6 (4-9/32")	101.6 (4")	109		
EK-R650/M EK-R650/S	134.0 (5-9/32")	127.0 (5")	123		
EK-R660/M EK-R660/S	159.4 (6-9/32")	152.4 (6")	141		

Material	Finish
316 Stainless Steel	Mirror (M) Satin (S)

HANDLE



XL-JSR



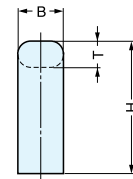
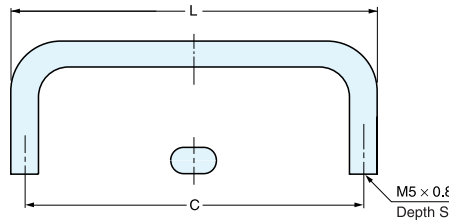
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
XL-JSR40TT	38	32 (1-17/64")	27 (1-1/16")	26	30	300
XL-JSR70TT	70	64 (2-33/64")	30 (1-3/16")	35	20	200
XL-JSR100TT	102	96 (3-25/32")		51		
XL-JSR135TT	134	128 (5-1/32")		63		

Material	Finish
316 Stainless Steel	Mirror and Satin Combination

HANDLE



ECH



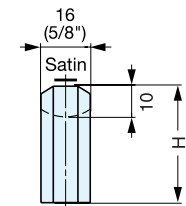
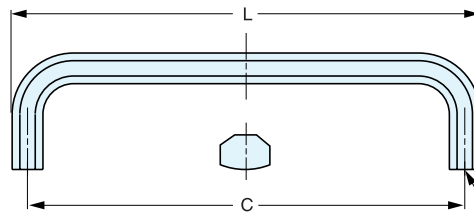
Material	Finish
303 Stainless Steel	Mirror (M) Satin (S)

Item No.	L	C	H	B	T	S	Weight (g)	Box (pcs)	Carton (pcs)	
ECH-75/M	ECH-75/S	83	75 (2-61/64")	40 (1-37/64")	14	8	11	115	10	100
ECH-100/M	ECH-100/S	108	100 (3-15/16")					135	15	150
ECH-125/M	ECH-125/S	133	125 (4-59/64")					153	10	100
ECH-150/M		158	150 (5-29/32")	50 (1-31/32")			190	7	70	
ECH-200/M		208	200 (7-7/8")				244	10	100	
ECH-250/M		258	250 (9-27/32")				280	5	50	
ECH-300/M		308	300 (11-13/16")				306			

HANDLE



XL-CU



M5 x 0.8
Depth 15

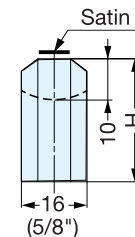
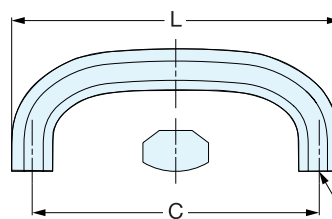
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
XL-CU80TT	82	72 (2-27/32")	32 (1-17/64")	112	10	100
XL-CU100TT	102	92 (3-5/8")	34 (1-11/32")	136		
XL-CU120TT	122	112 (4-13/32")	36 (1-27/64")	163		
XL-CU150TT	152	142 (5-19/32")	38 (1-1/2")	200	8	80
XL-CU180TT	182	172 (6-25/32")	40 (1-37/64")	234		
XL-CU220TT	222	212 (8-11/32")	42 (1-42/64")	282	6	30
XL-CU300TT	302	292 (11-1/2")	44 (1-47/64")	372		

Material	Finish
303 Stainless Steel	Mirror and Satin Combination

HANDLE



XL-CUR



2-M5 x 0.8
Depth 8

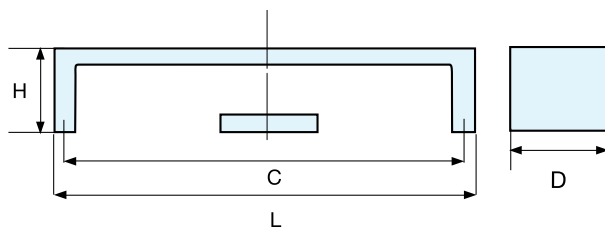
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
XL-CUR80TT	80	70 (2-3/4")	30 (1-3/16")	101	10	150
XL-CUR100TT	100	90 (3-35/64")	32 (1-17/32")	125		
XL-CUR120TT	120	110 (4-21/64")	34 (1-11/32")	150		
XL-CUR150TT	150	140 (5-33/64")	36 (1-27/64")	183	5	75

Material	Finish
303 Stainless Steel	Mirror and Satin Combination

HANDLE



40 SERIES

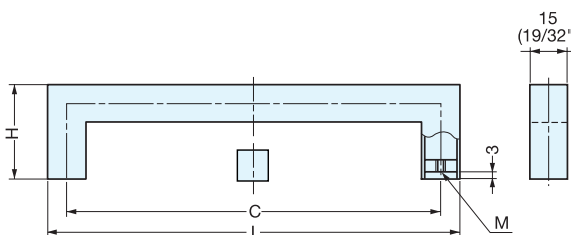


Item No.	L	C	H	D	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
40128	138 (5-7/16")	128 (5-3/64")	35	40 (1-37/64")	166	10	40	304 Stainless Steel	Satin
40160	170 (6-11/16")	160 (6-19/64")			198				
40192	202 (7-61/64")	192 (7-9/16")			219				

HANDLE



KPH

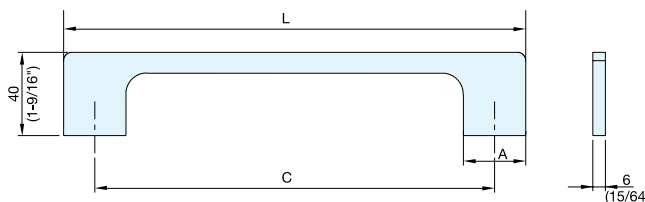


Item No.	L	C	H	M	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
KPH-160	176	160 (6-19/64")	40 (1-37/64")	M4 × 0.7	100	10	100	304 Stainless Steel	Satin
KPH-192	208	192 (7-9/16")			115				
KPH-224	240	224 (8-13/16")			130				
KPH-256	272	256 (10-5/64")	50 (1-31/32")	M5 × 0.8	143				
KPH-288	304	288 (11-11/32")			160				

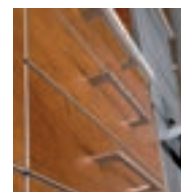
HANDLE



DSI-110



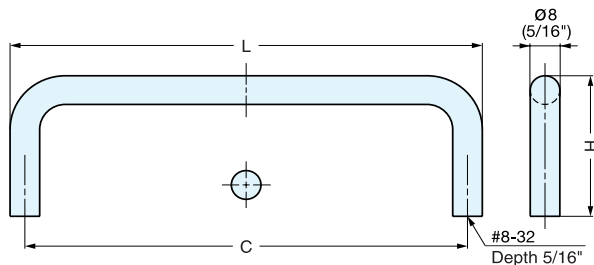
Item No.	C	L	A	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSI-110- 96	96 (3-25/32")	126 (4-15/16")	30 (1-3/16")	135	25	250	304 Stainless Steel	Satin
DSI-110-128	128 (5-1/16")	158 (6-3/16")		152				
DSI-110-160	160 (6-5/16")	190 (7-1/2")		190				
DSI-110-192	192 (7-9/16")	222 (8-3/4")		230				
DSI-110-320	320 (12-19/32")	350 (13-13/16")		380	10	100		
DSI-110-512	512 (20-5/32")	542 (21-5/16")	610					



WIRE PULL



• Ideal for harsh and high corrosive environments.



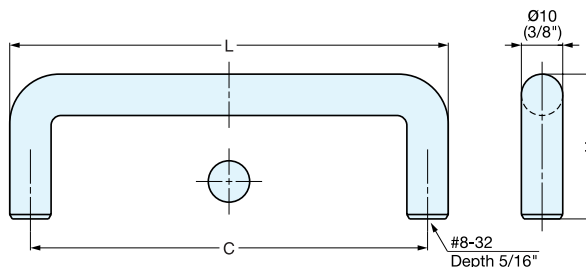
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
SWP-630/S	84.2	76.2 (3")	34 (1-11/32")	71	20	200
SWP-635/S	96.9	88.9 (3-1/2")		78		
SWP-640/S	109.6	101.6 (4")		85		
SWP-696/S	104.0	96.0 (3-25/32")		91		

Material	Finish
316 Stainless Steel	Satin

WIRE PULL



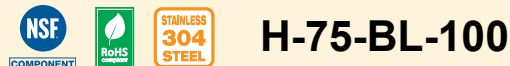
• Ideal for harsh and high corrosive environments.



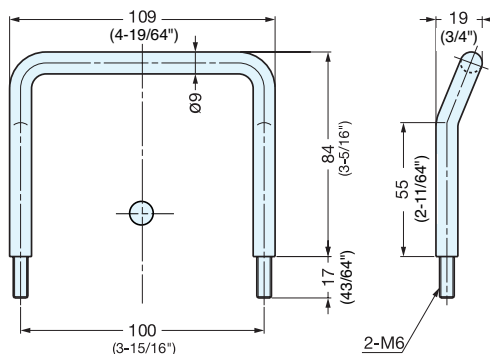
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
SWF-640	111.0	101.5 (4")	35 (1-3/8")	90	20	160
SWF-650	136.5	127.0 (5")		110		160
SWF-660	162.0	152.5 (6")		130		120
SWF-690	238.0	228.5 (9")		200		120
SWF-6120	314.5	305.0 (12")		270		80

Material	Finish
316 Stainless Steel	Satin

OFFSET WIRE PULL



• Fastening nut not included.



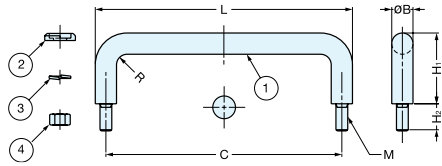
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
H-75-BL-100	130	80	400

Material	Finish
304 Stainless Steel	Mirror

WIRE PULL



H-42-B



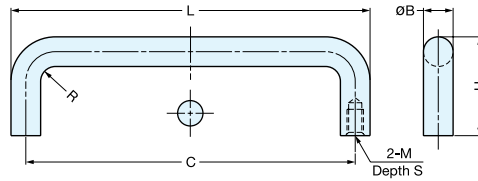
No.	Part Name	Material	Finish
①	Handle	304 Stainless Steel	Mirror
②	Washer		Polished
③	Spring Washer		Plain
④	Nut		

Item No.	L	H ₁	H ₂	B	C	R	M	Weight (g)	Box (pcs)	Carton (pcs)
H-42-B-9	46	22 (55/46")	8.5	6	40 (1-37/64")	-	M4 × 0.70	15	50	500
H-42-B-8	66		7.0		60 (2-23/64")	3.0				
H-42-B-14	86		10.0		80 (3-5/32")					
H-42-B-1	75	30 (1-3/16")	11.0	7	68 (2-43/64")	3.5	M5 × 0.80	40	50	250
H-42-B-2	109			9	100 (3-15/16")	4.5		80		
H-42-B-3	120	40 (1-37/64")	10	10	110 (4-21/64")	5.0	M6 × 1.00	120	30	60
H-42-B-4	130				120 (4-23/32")					
H-42-B-15	162				150 (5-29/32")					
H-42-B-5	200	50 (1-31/32")	20.0	12	188 (7-13/32")	6.0	M8 × 1.25	270	20	40
H-42-B-6	250				238 (9-3/8")					
H-42-B-7	300				288 (11-11/32")			320		
					365					

WIRE PULL



H-42-C



Material	Finish
304 Stainless Steel	Mirror

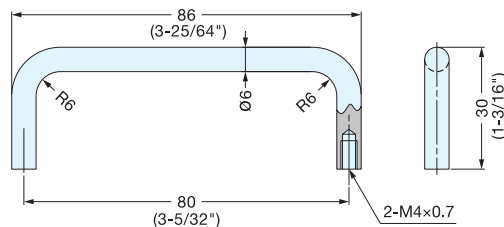
Item No.	L	H	B	C	S	M	R	Weight (g)	Box (pcs)	Carton (pcs)
H-42-C-8	66	22 (55/46")	6	60 (2-23/64")	7	M4 × 0.70	3.0	18	100	500
H-42-C-14	86			80 (3-5/32")				25		
H-42-C-1	75	30 (1-3/16")	7	68 (2-43/64")	8	M5 × 0.80	3.5	30	50	250
H-42-C-2	109		9	100 (3-15/16")			4.5	65		
H-42-C-3	120	40 (1-37/64")	10	110 (4-21/64")	10	M6 × 1.00	5.0	100	30	60
H-42-C-4	130			120 (4-23/32")				105		
H-42-C-15	162			150 (5-29/32")				185		
H-42-C-5	200	50 (1-31/32")	12	188 (7-13/32")	10	M8 × 1.25	6.0	220	20	40
H-42-C-6	250			238 (9-3/8")				265		
H-42-C-7	300			288 (11-11/32")				300		

WIRE PULL



H-42-F14

• Ideal for high corrosive environments.

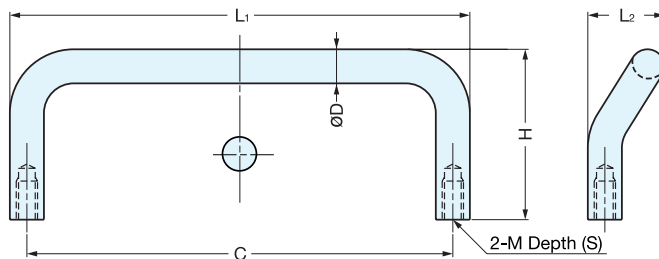


Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
H-42-F14	25	50	250	316 Stainless Steel	Mirror

OFFSET WIRE PULL



H-75-C



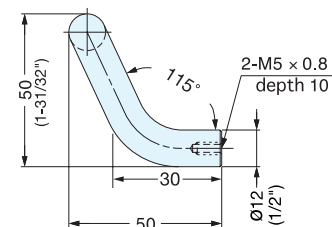
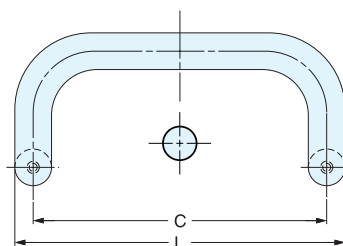
Material	Finish
304 Stainless Steel	Polished

Item No.	L ₁	L ₂	S	H	C	øD	M	Weight (g)	Box (pcs)	Carton (pcs)
H-75-C-66	66	16	7	30.0 (1-3/16")	60 (2-23/64")	6	M4	23	100	400
H-75-C-86	86			31.5 (1-15/64")	80 (3-5/32")			28		
H-75-C-108	108	18	10	32.0 (1-17/64")	100 (3-15/16")	8	M5	54	50	200
H-75-C-128	128			40.0 (1-37/64")	120 (4-23/32")			70		

OFFSET WIRE PULL



LF-12



Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
LF-12-96	108	96 (3-25/32")	182	10	80
LF-12-128	140	128 (5-3/64")	211		60
LF-12-160	172	160 (6-19/64")	236		

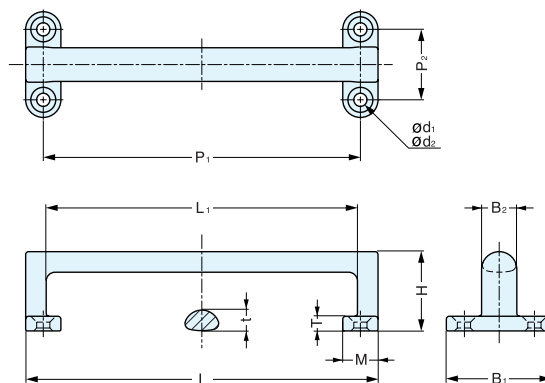
Material	Finish
304 Stainless Steel	Satin

HANDLE



FT-R

- A rounded handle for a comfortable grip.
- Wide grip.



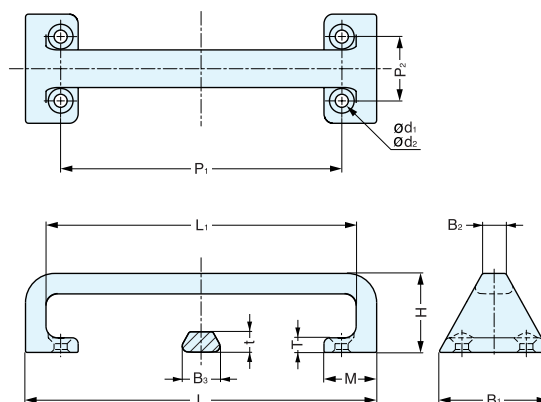
Item No.	L	L ₁	B ₁	B ₂	H	T	t	M	P ₁	P ₂	d ₁	d ₂	Weight (g)	Material	Finish
FT-R-120	120 (4-23/32")	106	36 (15/32")	12	27	5.5	7	12	108 (4-1/4")	24	4.5	8.5	140	304 Stainless Steel	Mirror
FT-R-160	160 (6-19/64")	142	48 (1-57/64")	16	36	7	9	16	144 (5-43/64")	32	5.5	10.5	285	304 Stainless Steel	Mirror

HANDLE



FT-T

- A shape with heavy feeling rounded inside allows for easy gripping.
- Wide grip.



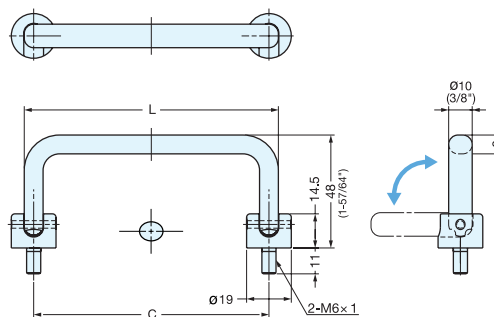
Item No.	L	L ₁	B ₁	B ₂	B ₃	H	T	t	M	P ₁	P ₂	d ₁	d ₂	Weight (g)	Material	Finish
FT-T-120	120 (4-23/32")	105	39.3	10	15	28.5	6	7.0	19.0	96 (3-25/32")	24	4.5	8.5	225	316 Stainless Steel	Mirror
FT-T-170	170 (6-11/16")	150	53.3	12	19	38.0	7.5	10.0	25.5	135 (5-5/16")	32	5.5	10.5	500	316 Stainless Steel	Mirror
FT-T-220	220 (8-21/32")	200	69.3	15	24.3	49.5	9.3	13.0	32.5	176 (6-59/64")	41	6.5	12.5	1000	316 Stainless Steel	Mirror

FOLDING HANDLE



HK

- 90-degree folding handle.
- Handle clicks into open and closed position.



Item No.	C	L	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
HK-80	80 (3-5/32")	88	50 (110 lbs)	125	10	100
HK-100	100 (3-15/16")	108		136		
HK-120	120 (4-23/32")	128		146		

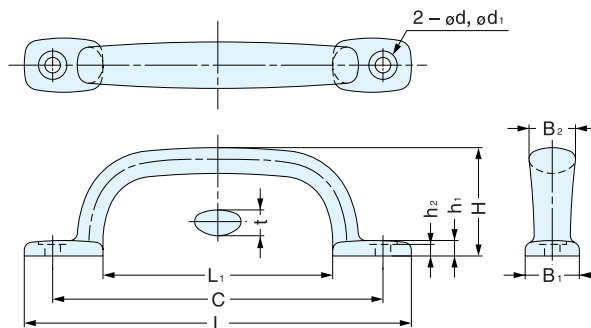
Material	Finish
304 Stainless Steel	Mirror

TRANSOM HANDLE



2LC

- Ideal for harsh and high corrosive environments.



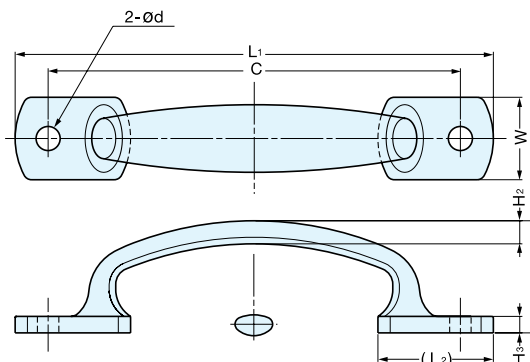
Material	Finish
316 Stainless Steel	Mirror

Item No.	L	L ₁	C	B ₁	B ₂	H	h ₁	h ₂	t	d	d ₁	Weight (g)	Box (pcs)	Carton (pcs)	Screw
2LC-80	80	32	64 (2-33/64")	16	14	35 (1-3/8")	5.5	4.0	8	5	9.5	70	12	144	4 × 20
2LC-120	120	64	96 (3-25/32")	18	16	36 (1-27/64")		4.5	9			106	8	96	
2LC-150	150	89	128 (5-1/32")	21	18	42 (1-42/64")	6.0	10	6	11.0	172	6	72	5 × 32	
2LC-180	180	118	160 (6-19/64")	23	20	45 (1-49/64")	6.5				5.0	225	3		36

TRANSOM HANDLE



3LC



Material	Finish
316 Stainless Steel	Mirror

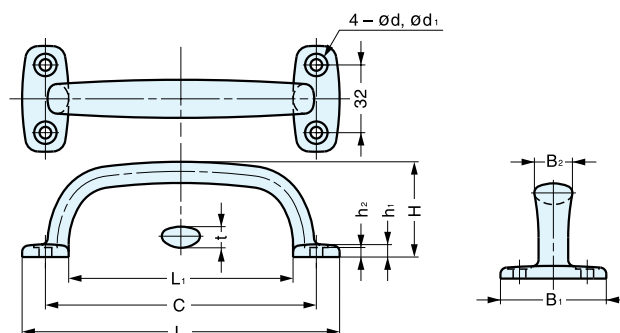
Item No.	L ₁	L ₂	W	H ₁	H ₂	H ₃	C	d	Weight (g)	Box (pcs)	Carton (pcs)
3LC-120	120	29	20	30 (1-3/16")	6	5	105 (4-9/64")	5.5	90	100	500
3LC-130	130	30	22	33 (1-19/64")	7	6	115 (4-17/32")		120		
3LC-145	145	35	25	34 (1-11/32")					125 (4-59/64")	6.5	155

TRANSOM HANDLE



4LC

• Ideal for harsh and high corrosive environments.



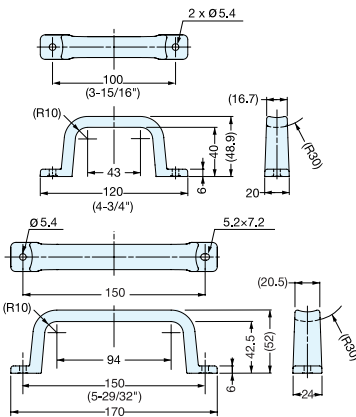
Material	Finish
316 Stainless Steel	Mirror

Item No.	L	L ₁	C	B ₁	B ₂	H	h ₁	h ₂	t	d	d ₁	Weight (g)	Box (pcs)	Carton (pcs)	Screw
4LC-82	82	46	64 (2-33/64")	48	16	36.5 (1-7/16")	5.5	4.0	8	5	9.5	110	8	96	4 × 20
4LC-114	114	78	96 (3-25/32")			40.0 (1-37/64")						148	6	72	
4LC-150	150	106	128 (5-1/32")	50	18	45.0 (1-49/64")	6.0	4.5	10	6	11.0	210	3	36	5 × 32
4LC-180	180	140	160 (6-19/64")			48.0 (1-57/64")						270	2	24	

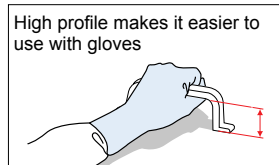
HANDLE



MH-P



- Made with PVC material:
 - Ideal for semiconductor, manufacturing machinery and transparent applications.
 - Weather proof, chemical proof
- High profile allows for handle to be easily grasped with gloved hands.
- Environmentally friendly PVC, lead-free.
- Compliant with SEMI S8-0308 guideline.
- Requires two 3/16" (5 mm) diameter screws for installation. Screws not included.



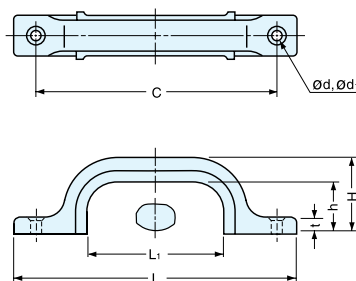
Item No.	Weight (g)	Box (pcs)	Carton
MH-P120	34	64	640
MH-P170	56	48	480

Material	Finish
Polyvinyl Chloride (PVC)	Clear

HANDLE



US



- Rubber grip allows for an easy and comfortable grip.
- Lightweight design.

Material	Finish
304 Stainless Steel	Mirror (M) Satin (S)

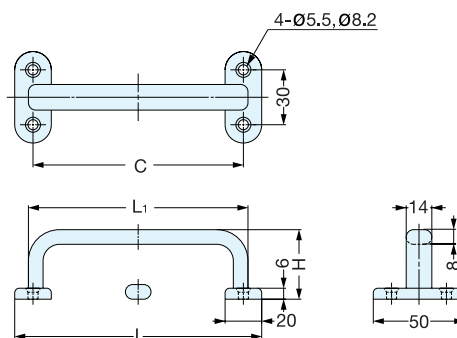
* Grip - Black/Synthetic Rubber

Item No.	L	L1	C	B	H	h	t	d	d1	Weight (g)	Box (pcs)	Carton (pcs)	Screw
US-70/M US-70/S	70	20	54 (2-1/8")	17	28.0 (1-7/64")	21	5.5	3.3	6.6	20	20	200	3.1 × 16
US-120/M US-120/S	120	57	102 (4-1/64")	19	32.0 (1-17/64")		6.5	3.8	7.6	45			3.5 × 20
US-160/M US-160/S	160	88	140 (5-33/64")	22	37.5 (1-15/32")	23	7.5	4.1	8.1	70	10	100	4.1 × 25

HANDLE



EC-H



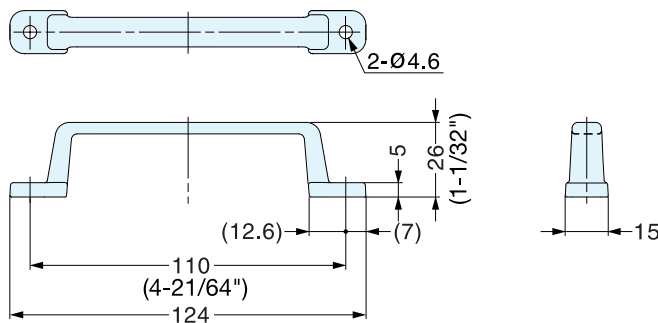
Material	Finish
303 Stainless Steel	Mirror

Item No.	L	L1	C	H	Weight (g)	Box (pcs)	Carton (pcs)	Screw
EC-H-135	135	120	115 (4-17/32")	40 (1-37/64")	191	5	50	3.1 × 16
EC-H-165	165	150	145 (5-45/64")	42 (1-21/32")	216	3	30	3.5 × 20

HANDLE



FT-110S

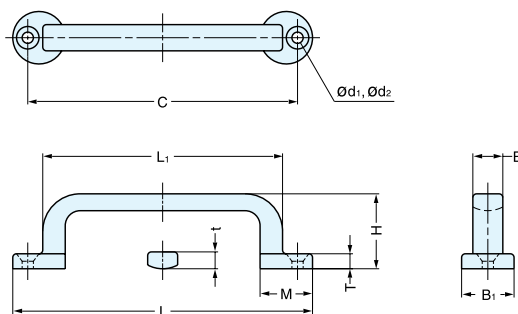


Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
FT-110S	60	50	200	304 Stainless Steel	Satin

HANDLE



FT-65, 80, 100



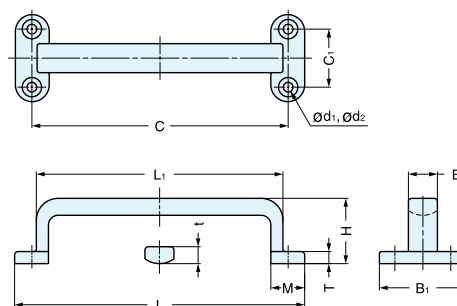
Material	Finish
304 Stainless Steel	Mirror

Item No.	L	L ₁	C	B ₁	B ₂	H	T	t	M	d ₁	d ₂	Weight (g)	Box (pcs)	Carton (pcs)	Screw
FT-65	65	47	57 (2-1/4")	13	7	16 (5/8")	3.5	4.0	13	3.3	6.4	19	40	480	3.1 × 16
FT-80	80	61	72 (2-27/32")	14	8	20 (25/32")	4.0	4.5	14		6.4	32	30	360	
FT-100	100	75	88 (3-15/32")	18	10	25 (63/64")	5.0	5.5	18	4.1	8.0	58	20	240	

HANDLE



FT-120, 150



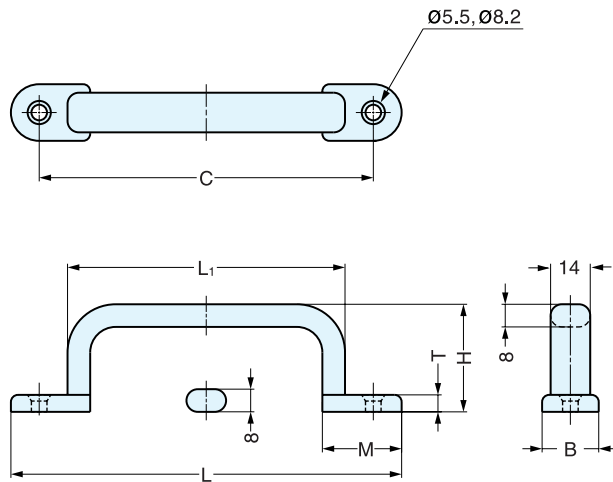
Material	Finish
304 Stainless Steel	Mirror

Item No.	L	L ₁	C	C ₁	B ₁	B ₂	H	T	t	M	d ₁	d ₂	Weight (g)	Box (pcs)	Carton (pcs)	Screw
FT-120	120	102	106 (4-11/64")	24	36	12	27 (1-1/16")	5	7	14	4.1	8.0	105	10	120	3.8 × 20
FT-150	150	126	132 (5-3/16")	30	45	15	33 (1-19/64")	6	8	18	5.3	10.4	191	5	40	5.1 × 25

HANDLE



EC-Y



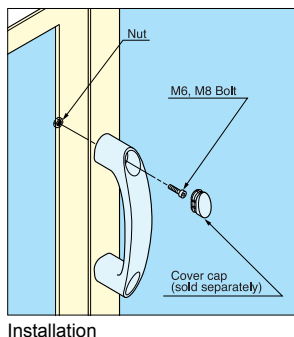
Material	Finish
303 Stainless Steel	Mirror

Item No.	L	L1	C	B	H	T	M	Weight (g)	Box (pcs)	Carton (pcs)
EC-Y-140	138	100 (3-15/16")	120 (4-23/32")	20	38 (1-1/2")	6	28	142	5	50
EC-Y-160	158	120 (4-23/32")	140 (5-33/64")		40 (1-37/64")			160	3	30
EC-Y-190	188	150 (5-29/32")	170 (6-11/16")		42 (1-42/64")			185	2	20

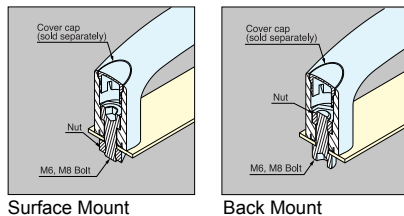
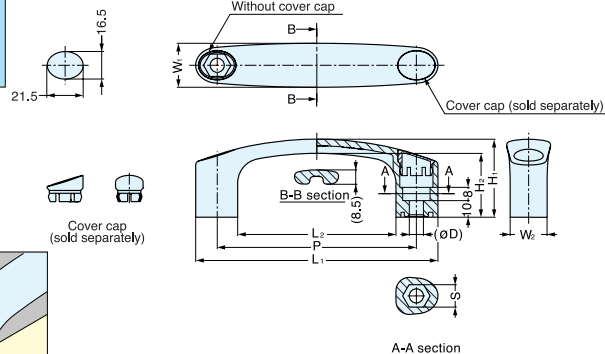
HANDLE



MJH



- Handle can be installed from both front and back.
- Cap hides screw heads for clean appearance (option).
- 3 colors available.
- Rounded inside allows for easy gripping.
- Caps are tightly fixed to prevent from falling off.
- Possible to customise cap color from 3,000 pcs.
- MJH-150 is compliant with SEMI standard (SEMI S8-0308).



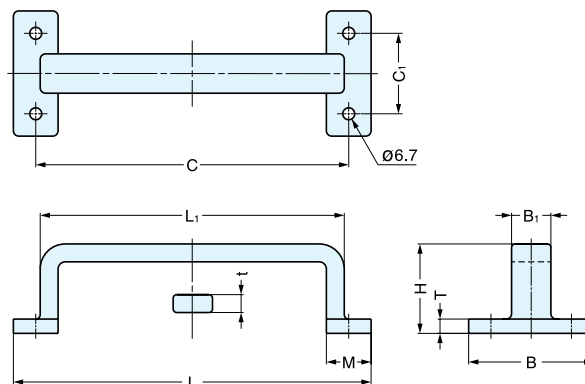
Item No.	Material	Color	Weight (g)
MJHC- BL	Polyamide	Black	1.4
MJHC- GR		Gray	
MJHC- YE		Yellow	

Item No.	Load Capacity (kgf)	Material	Finish	P	L1	L2	D	S	H1	H2	W1	W2	Weight (g)
MJH-93	46 (101lbs)	Polyamide	Black	93 (3-21/32")	119 (4-11/16")	67	6.5	10.2	42 (1-21/32")	33.5	25.0	21.3	162
MJH-120				120 (4-23/32")	146 (5-3/4")	94	8.5	13.2	47 (1-27/32")	38.5	26.5	22.4	180
MJH-150				150 (5-29/32")	176 (6-59/64")	124	8.5	13.2	52 (2-3/64")	43.5	28.0	22.5	206

LARGE TRANSOM HANDLE



FT-200, 280



Material	Finish
316 Stainless Steel	Mirror

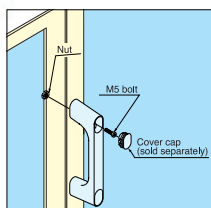
Item No.	L	L ₁	C	C ₁	B ₁	B	H	T	t	M	Weight (g)	Box (pcs)	Carton (pcs)
FT-200	200	170	175 (6-57/64")	45	22	70	50 (1-31/32")	8	10	25	586	1	20
FT-280	280	250	253 (9-31/32")	55	26	80	62 (2-7/16")	10	12	27	1088	1	10

HANDLE

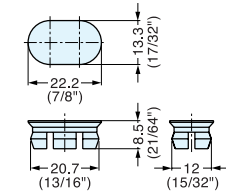


KMH

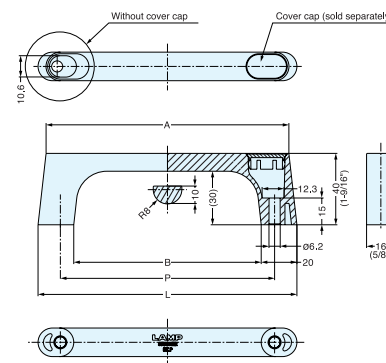
KMH-150



Installation



Cover Cap (Sold Separately)



■ COVER CAP

Item No.	Material	Finish	Weight (g)
KMHC-WT	PBT	White	0.7
KMHC-GR		Grey	
KMHC-BU		Light Blue	
KMHC-BL		Black	

■ HANDLE

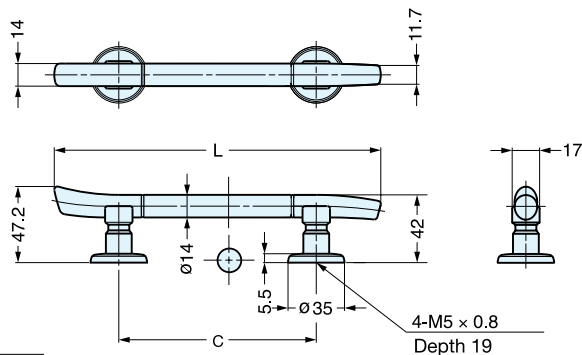
Item No.	Load Capacity (kgf)	Material	Finish	L	A	B	P	Weight (g)
KMH-100	51 (112 lbs)	Zinc Alloy	Satin Chrome	125 (4-59/64")	116	85	100 (3-15/16")	162
KMH-120				145 (5-45/64")	136	105	120 (4-23/32")	180
KMH-150				175 (6-57/64")	166	135	150 (5-29/32")	206

HANDLE (GOLD PLATED)



TMH

• Base plate TMH-M35 available (sold separately).



• BASE PLATE

Item No.	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
TMH-M35	Brass	24K Gold Plating	28	2	20

• HANDLE

Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
TMH-96	176 (6-59/64")	96 (3-25/32")	259	1	10
TMH-128	208 (8-3/16")	128 (5-1/32")	280		
TMH-160	240 (9-29/64")	160 (6-5/16")	301		
TMH-192	272 (10-45/64")	192 (7-9/16")	320		

Material	Finish
Brass	24K Gold Plating (Body), Black Nickel (Ring)

HANDLE

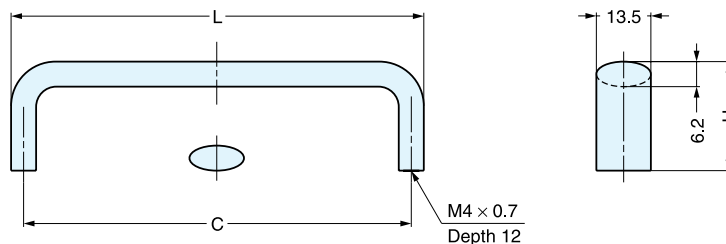


DLB



CR

PB



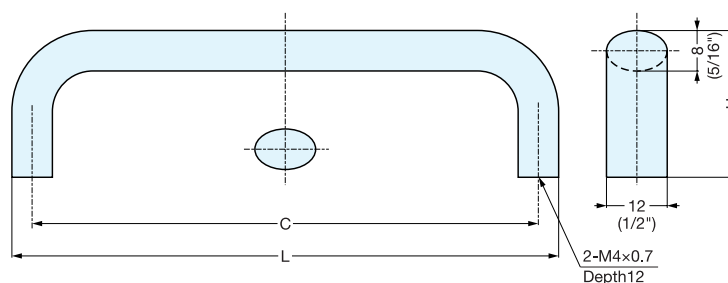
Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DLB-96/CR	102.2	96 (3-25/32")	27 (1-1/16")	78.5	20	200	Brass	Chrome (CR)
DLB-96/PB								Polished Brass (PB)

HANDLE



KK-H

• Silver ion coated on all finishes except black.

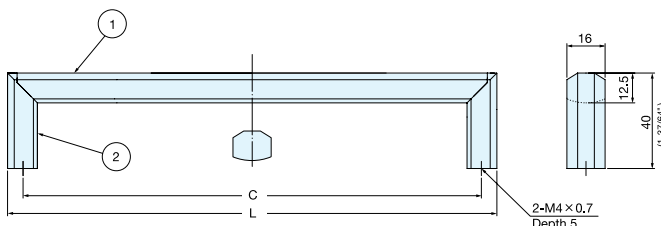


Item No.	Material	Finish/Color	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
KK-H80SNI	Aluminum Alloy	Nickel + Silver Ion Coating	78 (3-1/16")	70 (2-3/4")	28 (1-3/32")	20	25	200
KK-H80SSG		Satin Gold + Silver Ion Coating						
KK-H80SBR		Brown + Silver Ion Coating						
KK-H80BL		Black						
KK-H110SNI		Nickel + Silver Ion Coating	108 (4-1/4")	100 (3-15/16")	29 (1-9/64")	25		
KK-H110SSG		Satin Gold + Silver Ion Coating						
KK-H110SBR		Brown + v						
KK-H110BL		Black						
KK-H130SNI		Nickel + Silver Ion Coating	128 (5-1/32")	120 (4-23/32")	30 (1-3/16")	30		
KK-H130SSG		Satin Gold + Silver Ion Coating						
KK-H130SBR		Brown + Silver Ion Coating						
KK-H130BL		Black						

HANDLE



XLA-HA



Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
XLA-HA96	109	96 (3-25/32")	132	20	80
XLA-HA128	141	128 (5-1/32")	142		
XLA-HA192	205	192 (7-9/16")	144		
XLA-HA256	269	256 (10-5/64")	180	10	60
XLA-HA320	333	320 (12-19/32")	200		

No.	Part Name	Material	Finish
①	Bar	Aluminum Alloy	Anodized
②	Post	Zinc Alloy	Matte Silver

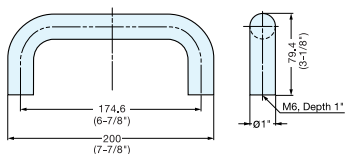
HANDLE



SGH-200

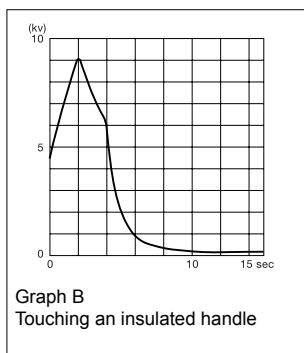
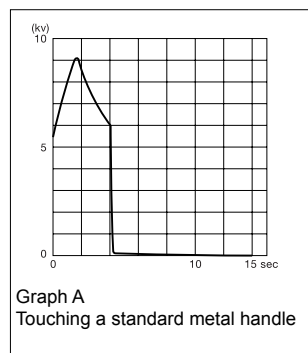


- SGH-200 is a specially insulated handle designed to reduce shock from static electricity build-up as well as inhibit bacterial transfer.
- Textured, soft handle improves grip in manufacturing environments where lubricants are used, improving conditions when slippage is a safety concern.
- Un-obtrusive light blue color.
- Suitable for use in environments -22°F to 176°F (-30°C to 80°C).
- For use in medical, pharmaceutical, and electronic equipment; for use in educational, institutional, and industrial facilities where limiting transfer of static electricity or bacteria is important to operations.



Note: Details provided for this hardware's properties/specifications are for general information only. Grounding is required to discharge electricity, and shock reduction is effective only when installed on electrically conductive surfaces. Safety of a final product or equipment is not guaranteed when used as a component. This hardware is designed to reduce-not completely eliminate-shock from static electricity. Sensitivity to shock may vary.

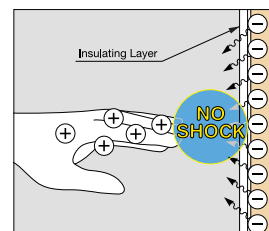
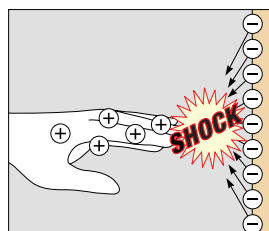
Properties of Special Elastomer Coating



The y-axis represents the natural voltage of the human body (in kiloVolts), and the x-axis represents elapsed time (in seconds). Contact with the hardware occurs at the 4 second mark.

There is an instantaneous discharge to 0kV in Graph A, compared to a delayed discharge to 1kV over 2 seconds in Graph B. This would result in a stronger electric discharge and shock for a metal handle (Graph A) compared to the SGH-200 (Graph B).

Pathway of Electrical Discharge

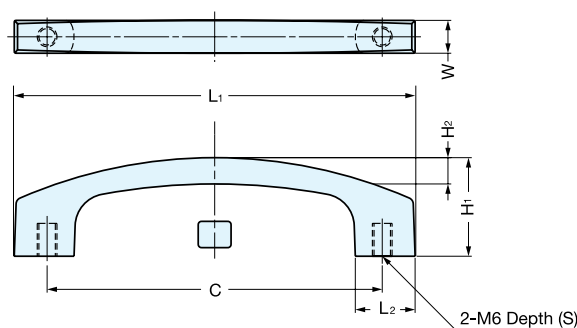


In the figures above, a human hand with a positive charge is approaching a conductive surface with a negative charge (e.g., metal). The figure on the right incorporates a layer to insulate the discharge.

Direct physical contact with a conductive surface (metal, etc.) may result in a discharge of static electricity, causing discomfort. The insulating coating of the SGH-200 acts as a buffer to reduce the rate of discharge and lessen the resulting shock (depicted above). The elastomer used for insulation incorporates a resin specially formulated for a specific conductivity.

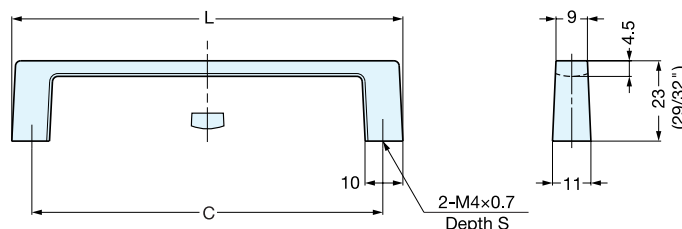
Item No.	Color	Material	Weight (g)	Box (pcs)	Carton (pcs)
SGH-200	Light Blue	Base Material: Polyamide; Coating: Special Elastomer	250	20	200

HANDLE

SAZ


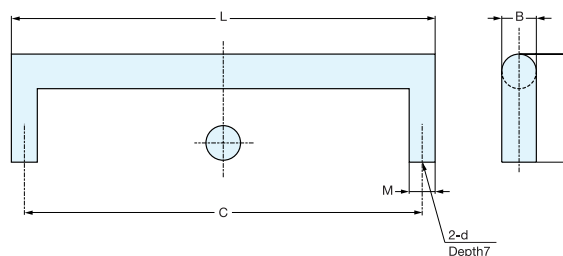
Item No.	L ₁	L ₂	C	S	W	H ₁	H ₂	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
SAZ-121	121	17	102 (4-1/64")	9	10	27.7 (1-3/32")	5.2	85	40	400	Zinc Alloy	Chrome

HANDLE

936 SERIES


Item No.	L	C	S	Weight (g)	Box (pcs)	Carton (pcs)	Screw	Material	Finish
936-55-SCR	66.5	55.0 (2-11/64")	8	40	50	200	M4 x 25	Zinc Alloy	Satin Chrome (SCR)
936-100-DC	112.0	100.5 (3-61/64")	10	52			M4 x 28		Dull Chrome (DC)

HANDLE

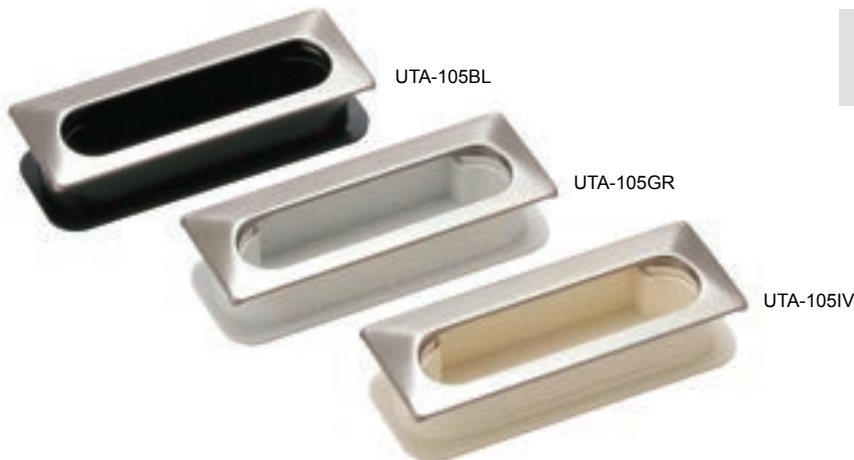
KAKU-A


Item No.	L	H	B	C	M	D	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
KAKU-A161	84 (3-5/16")	24	7	78 (3-1/16")	7	M3	46	35	420	Brass	Dull Chrome
KAKU-A160	99 (3-15/16")	25	8	92 (3-5/8")	8	M4	58	30	360		
KAKU-A159	124 (4-7/8")	29	9	113 (4-7/16")	11	M4	103	20	240		

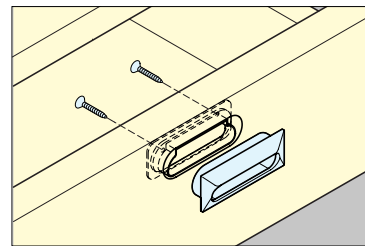
RECESSED PULL (W/VENTILATOR)



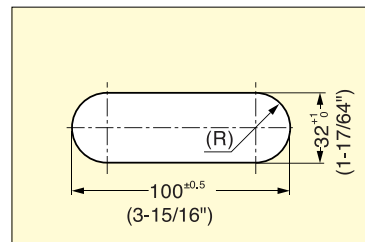
UTA-105



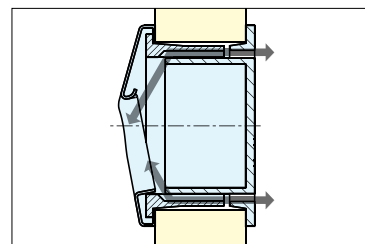
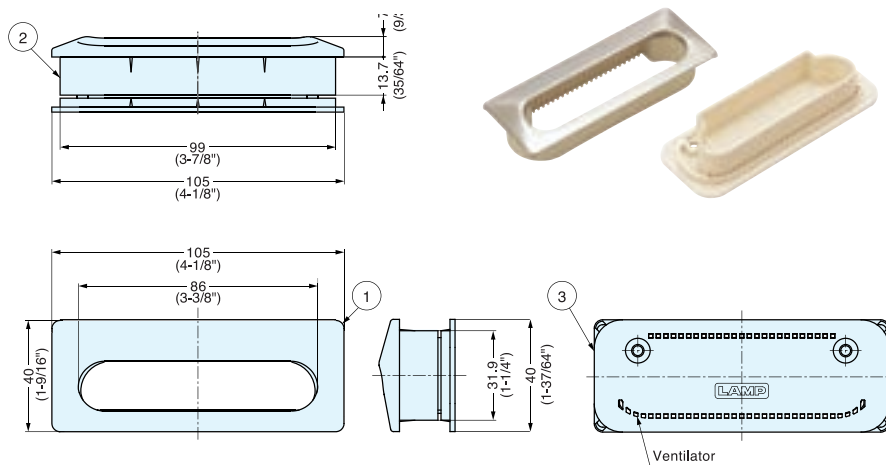
- Easy to grip.
- Ventilating area is invisible from the front.
- Excellent chemical resistance.



Installation



Panel Cut Out Dimensions



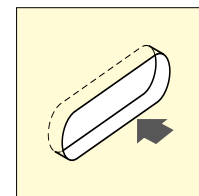
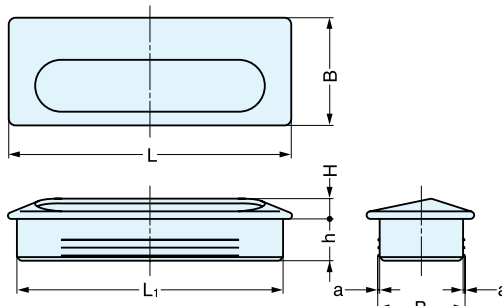
Air Circulation

Item No.	Panel Thickness	Weight (g)	Box (pcs)	Carton (pcs)	No.	Material	Finish
UTA-105BL	18~25mm (11/16"~1")	40	15	150	①	304 Stainless Steel	Satin
UTA-105GR					②	ABS	Black (BL)/Grey (GR)/Ivory (IV)
UTA-105IV					③		

RECESSED PULL



UT



Installation

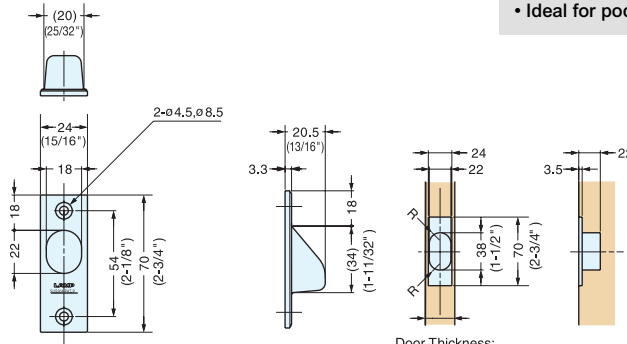
Item No.	L	L ₁	H	h	B	B ₁	a	Weight (g)	Box (pcs)	Carton (pcs)
UT- 75/S	75 (2-61/64")	71	7.0	15.5	36	30.8	0.4	15	40	400
UT-105/S	105 (4-1/8")	99	7.5	15.5	40	32.5	0.5	30	25	250
UT-140/S	140 (5-33/64")	134	7.5	15.5	47	40.5	0.5	45	15	150

Material	Finish/Color
304 Stainless Steel	Satin (S)
Plastic	Black

RECESSED PULL



YK-70



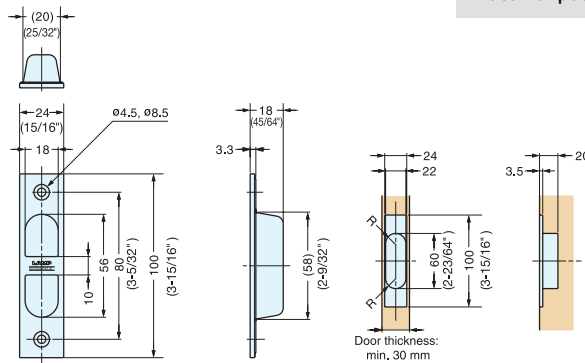
• Ideal for pocket door application.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
YK-70	37	20	200	304 Stainless Steel	Satin

RECESSED PULL



YK-W100



• Ideal for pocket door application.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
YK-W100	45	20	160	304 Stainless Steel	Satin

RECESSED PULL (W/DOOR STOPPER)



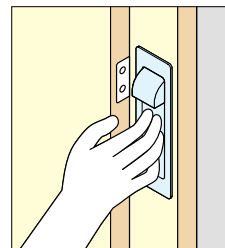
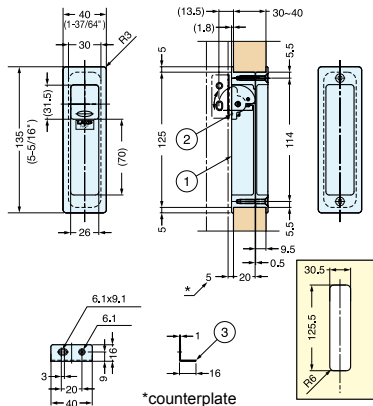
HH-P135



HH-P135/CR



HH-P135/DC



Bore Dimensions

- Door stopper can be flipped-out to prevent door from entering pocket and pinching fingers.
- Door stopper can be flipped-in to completely open the door.
- Applicable door thickness: 30~40 mm (1-3/16"~1-9/16")
- Can be used on door thickness up to 50 mm (1-31/32") by using longer M4 screws. (Not supplied.)
- Also available in Satin Nickel (SN) finish.

*In case of using counterplate, change the gap (marked *) to 7 mm (9/32") to prevent the stopper and plate from hitting or scratching.

Item No.	Door Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
HH-P135/CR	30~40	290	5	50
HH-P135/DC				

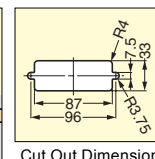
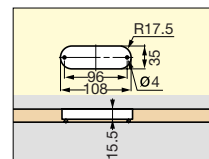
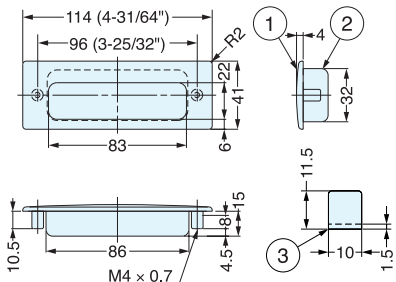
No.	Material	Finish/Color
①	Zinc Alloy	Chrome (CR), Dull Chrome (DC)
②	Polyurethane	-
③	Steel	Chrome (CR), Dull Chrome (DC)

RECESSED PULL



HH-KS

• All-stainless steel model ideal for harsh and high corrosive environments.



Bore Dimensions for wood panel

Cut Out Dimensions for sheet metal

Item No.	Finish	Weight (g)	Box (pcs)	Carton (pcs)
HH-KS114M	Mirror	110	10	60
HH-KS114S	Satin			

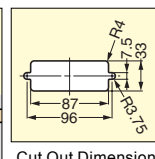
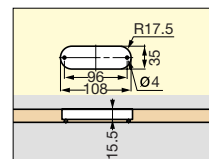
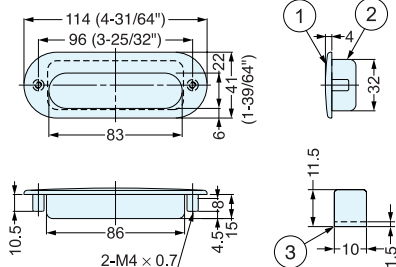
No.	Part Name	Material	Finish
①	Face Plate	316 Stainless Steel	Mirror/Satin
②	Case	304 Stainless Steel	Satin
③	Spacer		-

RECESSED PULL



HH-DS

• All-stainless steel model ideal for harsh and high corrosive environments.



Bore Dimensions for wood panel

Cut Out Dimensions for sheet metal

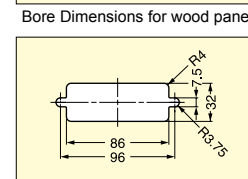
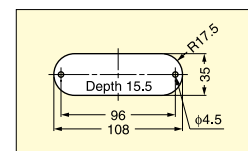
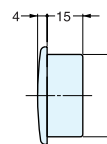
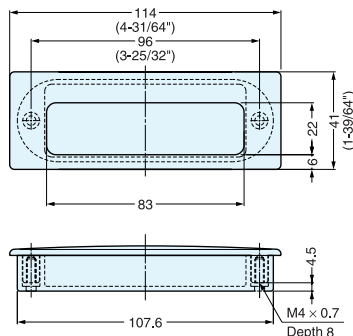
Item No.	Finish	Weight (g)	Box (pcs)	Carton (pcs)
HH-DS114M	Mirror	105	10	60
HH-DS114S	Satin			

No.	Part Name	Material	Finish
①	Face Plate	316 Stainless Steel	Mirror/Satin
②	Case	304 Stainless Steel	Satin
③	Spacer		-

RECESSED PULL



HH-K



Bore Dimensions for wood panel.

Cut Out Dimensions for sheet metal. Put sheet metal between front and back part for sheet metal applications. (Max. sheet metal thickness: 2 mm)

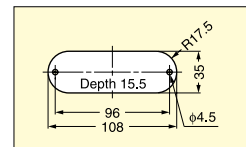
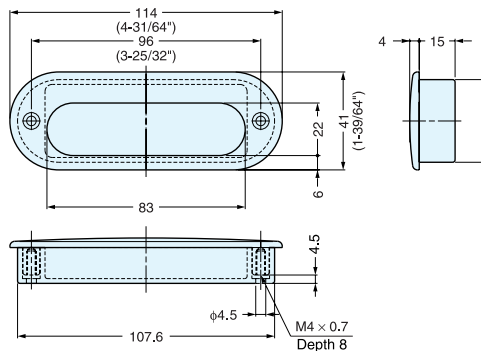
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HH-K	90	10	60

Material	Finish/Color
316 Stainless Steel	Mirror
ABS	Black

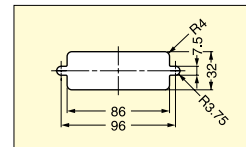
RECESSED PULL



HH-D



Bore Dimensions for wood panel.



Cut Out Dimensions for sheet metal. Put sheet metal between front and back part for sheet metal applications. (Max. sheet metal thickness: 2 mm)

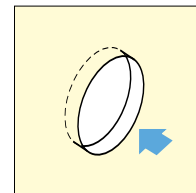
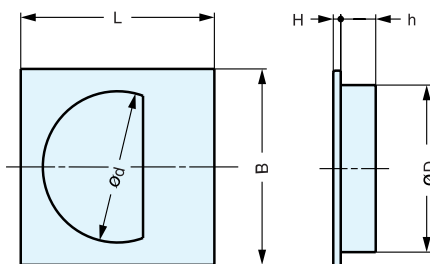
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HH-D	85	10	60

Material	Finish/Color
316 Stainless Steel	Mirror
ABS	Black

RECESSED PULL



SP



Installation

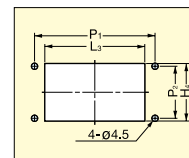
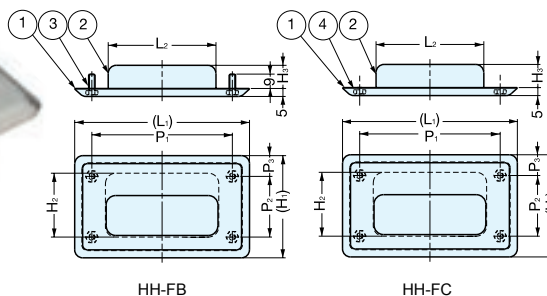
Material	Finish/Color
304 Stainless Steel	Satin (S)
Brass (SP-35/PB only)	Polished Brass (SP-35/PB)
Plastic	Black

Item No.	L	B	H	h	D	d	Weight (g)	Box (pcs)	Carton (pcs)
SP-35/S	44 (1-47/64")	44 (1-47/64")	2.2	9.8 (25/64")	35.1	31	10	100	1000
SP-38/S	47 (1-27/32")	47 (1-27/32")		10.3 (13/32")	37.6	34	11	60	1440
SP-48/S	57 (2-1/4")	57 (2-1/4")		48.6	44	16	50	1200	
SP-35/PB	44 (1-47/64")	44 (1-47/64")		9.8 (25/64")	35.1	31	10	100	1000

RECESSED PULL



HH-FB, HH-FC



Cut Out Dimensions

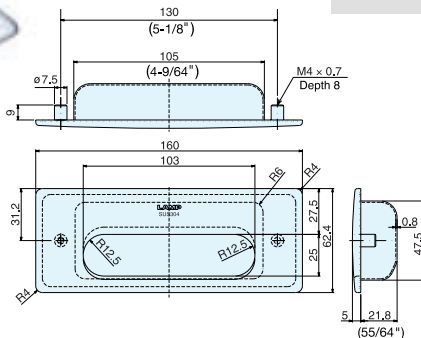
No.	Part Name	Material	Finish
①	Front Plate	304 Stainless Steel	Mirror (M) Satin (S)
②	Back Cover		
③	M4 Stud		
④	M4 Nut		

Item No.	Stud/Nut	(L ₁)	L ₂	L ₃	(H ₁)	H ₂	H ₃	H ₄	P ₁	P ₂	(P ₃)	Weight (g)	
HH-FB-1/M	HH-FB-1/S	M4 Stud	138.0	96.0	99	88	62	21.0	64	110	65	11.5	170
HH-FC-1/M	HH-FC-1/S	M4 Nut											
HH-FB-2/M	HH-FB-2/S	M4 Stud	109.5	67.5	73	64	40	14.5	42	88	38	13.0	100
HH-FC-2/M	HH-FC-2/S	M4 Nut											
HH-FB-3/M	HH-FB-3/S	M4 Stud	94.0	61.0	63	60	43	12.0	45	76	32	14.5	80
HH-FC-3/M	HH-FC-3/S	M4 Nut											

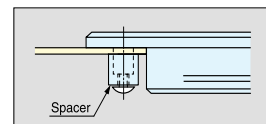
RECESSED PULL



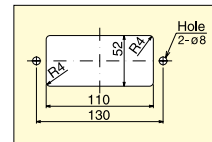
HH-KL160



- Ideal for harsh and high corrosive environments.
- Compliant with SEMI S8-0600 guideline.
- Spacer for sheet metal application sold separately.



(Optional : BSP-8)
Sheet metal mounting application



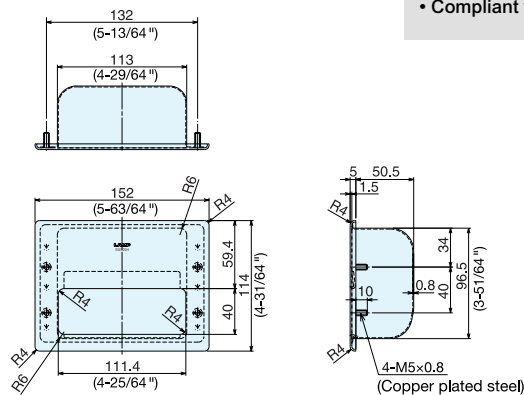
Cut Out Dimensions

Item No. HH-KL160	Weight (g) 260	Box (pcs) 8	Carton (pcs) 48	Material 304 Stainless Steel	Finish Satin
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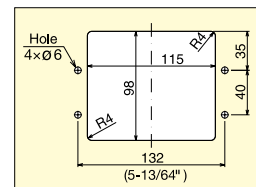
RECESSED PULL



HH-KP150



- Compliant with SEMI S8-0600 guideline.



Cut Out Dimensions

Item No. HH-KP150	Weight (g) 390	Box (pcs) 5	Carton (pcs) 50	Material 304 Stainless Steel	Finish Satin
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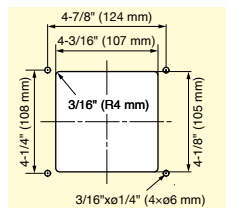
RECESSED PULL



HH-KPR150-SH

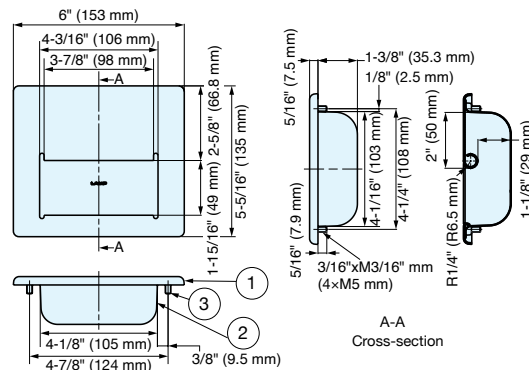
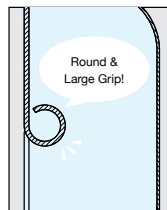


Cut Out Dimensions



- Compliant with SEMI standard. (SEMI S8-0218 section 6.8)
- Rounded large grip prevents injury to hand.
- Ideal for semiconductor and manufacturing equipment.
- The bolts are designed to swing for easy installation.

Easy to Hold



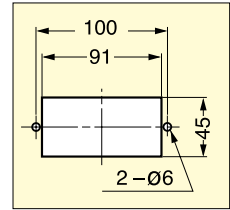
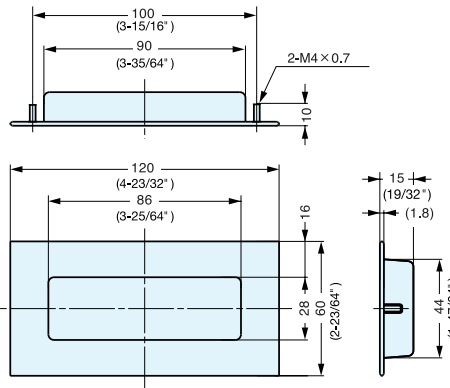
Item No. HH-KPR150-SH	Load Capacity 90.4 lbs (41 kg)	Weight (g) 390
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No.	Part Name	Material	Finish
①	Plate	304 Stainless Steel	Satin
②	Cup		
③	Hexagon Head Bolt M5×10	Stainless Steel	Plain

RECESSED PULL



HH-AS2

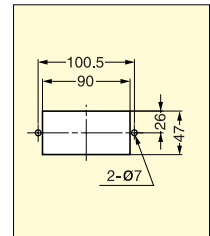
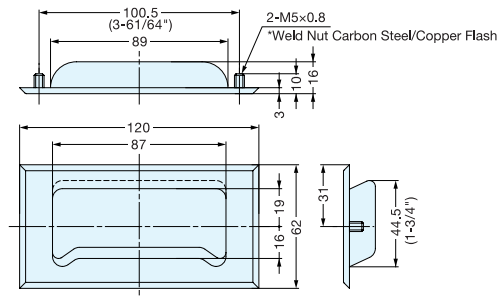


Item No. HH-AS2	Weight (g) 50	Box (pcs) 12	Carton (pcs) 240	Material 304 Stainless Steel	Finish Satin
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RECESSED PULL



HH-AS3



Item No. HH-AS3	Weight (g) 50	Box (pcs) 12	Carton (pcs) 240	Material 304 Stainless Steel	Finish Satin
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RECESSED PULL



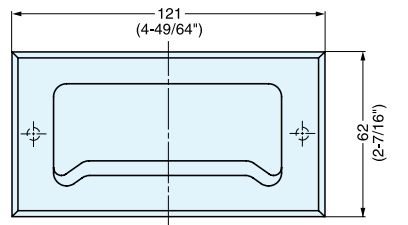
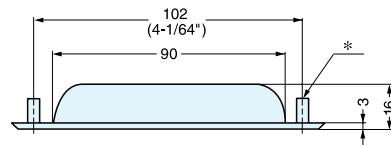
ES-611



ET
(Weld Studs Carbon Steel / Copper Flash)
* ES-611/ET:
Weld Studs Carbon Steel / Copper Flash
M5 x 0.8 Length 10

IT
(M4 Weld Nuts Carbon Steel / Copper Flash
with M4 x 25 Steel screws)
* ES-611/IT:
Weld Nuts Carbon Steel / Copper Flash
M4 x 0.7 Depth 6

WO
(Weld-on)



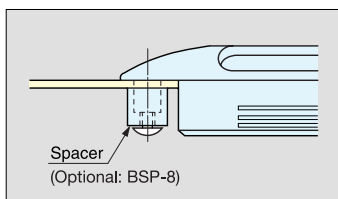
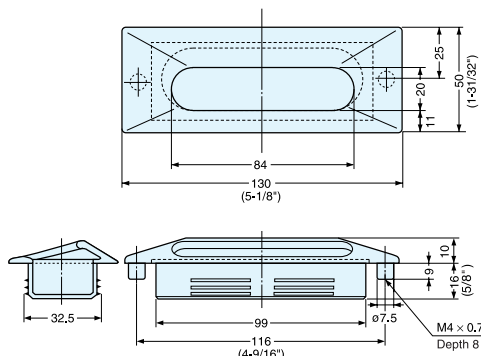
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
ES-611/ET	68	20	200
ES-611/IT	60		
ES-611/WO			

Material 304 Stainless Steel	Finish Satin
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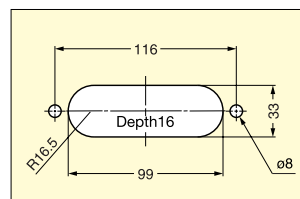
RECESSED PULL



UTZ-130



Sheet metal mounting application



Bore Dimensions

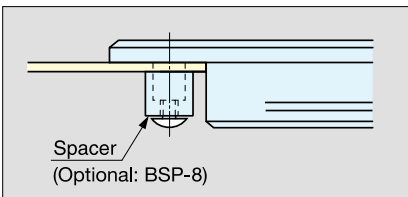
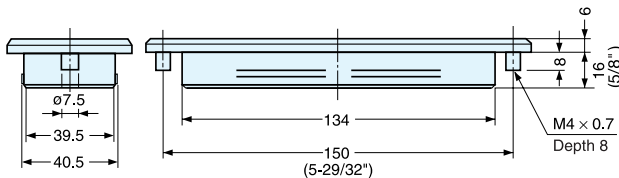
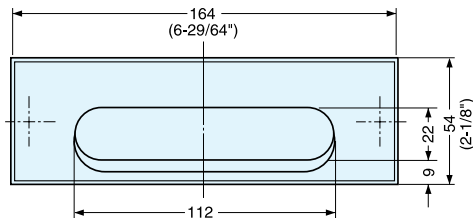
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
UTZ-130/CR	105	10	60
UTZ-130/SN			
UTZ-130/SB			

Material	Finish/Color
Zinc Alloy	Chrome (CR)/Satin Nickel (SN)/Satin Bronze (SB)
Plastic	Black

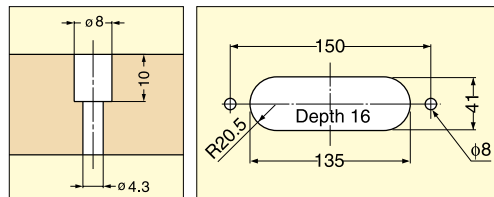
RECESSED PULL



SD-160



Sheet metal mounting application



Bore Dimensions

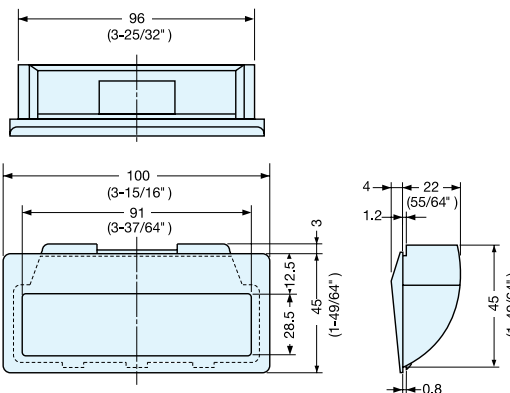
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SD-160/CR	165	10	60
SD-160/SN			

Material	Finish/Color
Zinc Alloy	Chrome (CR)/Satin Nickel (SN)
Plastic	Black

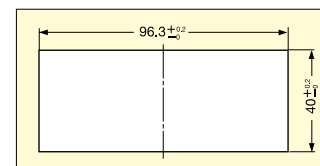
RECESSED PULL



AT-100



• Snap-in type recessed pull for sheet metal thickness 0.8 mm.



Cut Out Dimensions (Panel thickness: 0.8 mm)

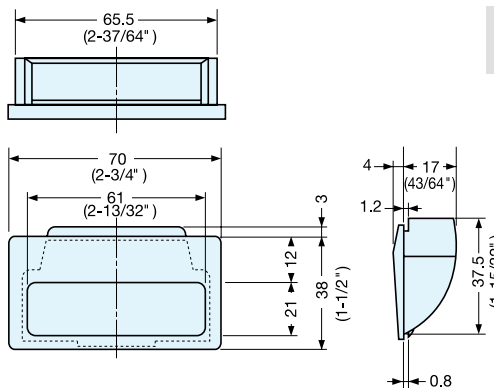
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
AT-100-I	23	50	250
AT-100-BR			
AT-100-B			

Material	Color
ABS	Ivory (I)
	Brown (BR)
	Black (B)

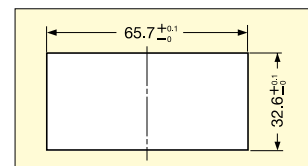
RECESSED PULL



AT-70



• Snap-in type recessed pull for sheet metal thickness 0.8 mm.



Cut Out Dimensions (Panel thickness: 0.8 mm)

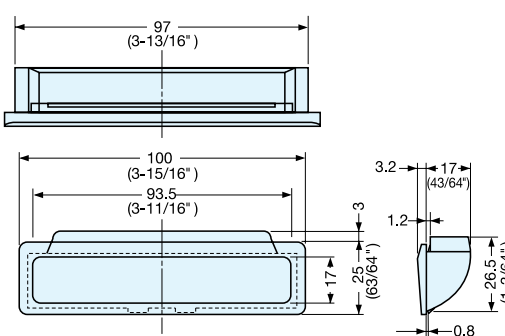
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
AT-70-I	12	100	550
AT-70-BR			
AT-70-B			

Material	Color
ABS	Ivory (I)
	Brown (BR)
	Black (B)

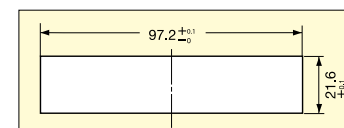
RECESSED PULL



ATS-100



• Snap-in type recessed pull for sheet metal thickness 0.8 mm.



Cut Out Dimensions (Panel thickness: 0.8 mm)

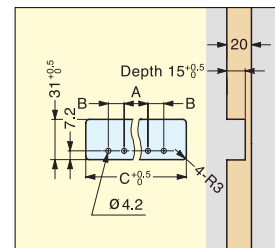
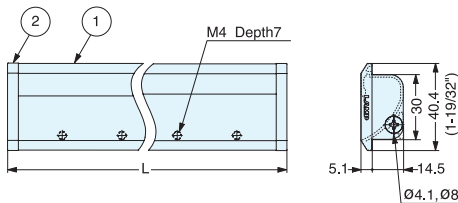
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
ATS-100-I	12.5	100	550
ATS-100-BR			
ATS-100-B			

Material	Color
ABS	Ivory (I)
	Brown (BR)
	Black (B)

RECESSED PULL



XLA-HHA



- Lightweight design.
- Bracket for sheet metal available.
Item No.: XLA-HHA40B (sold separately)

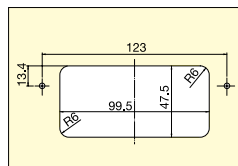
Item No.	L	A	B	C	Weight (g)	Box (pcs)	Carton (pcs)
XLA-HHA300	300 (11-13/16")	100	50	296	140	10	100
XLA-HHA600	600 (23-5/8")	200	150	596	247	5	50

No.	Material	Finish
①	Aluminum	Anodized
②	Zinc Alloy	Chrome

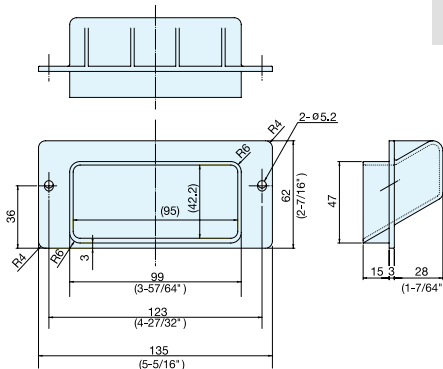
RECESSED PULL (BACK MOUNT)



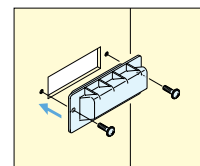
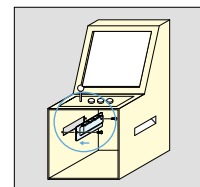
HH-PS99



Bore Dimensions



- Designed for back mount.
- Large grip space for heavy Cabinets etc.
- For panel thickness 15 mm. (19/32")



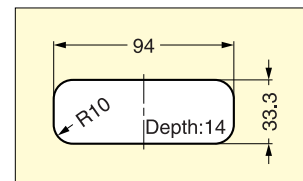
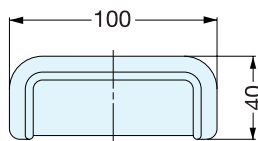
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HH-PS99	42	50	200

Material	Color
Polypropylene with Glass Fiber	Black

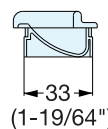
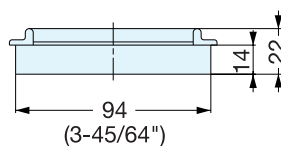
RECESSED PULL



UP-600



Cut out Dimensions



Item No.	Weight (g)	Box	Carton (pcs)
UP-600	25	50	300

Material	Color
ABS	Black, Chrome

RECESSED PULL



HH-UD

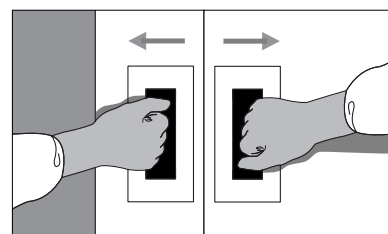


HH-UD120SH



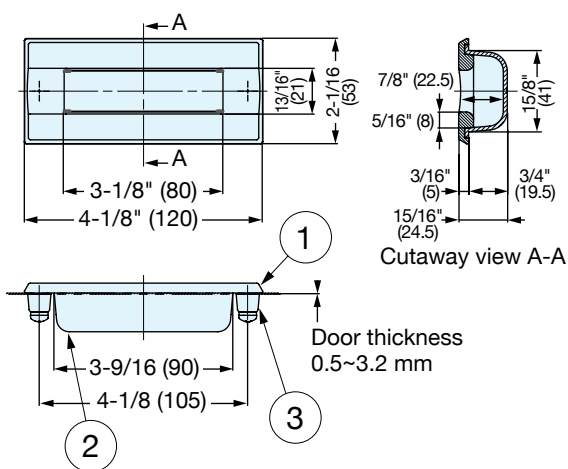
HH-UD156SH

- Comfortable grip designed for both open and close directions.
- The HH-UD156 is compliant with SEMI standard (SEMI S8-0915).

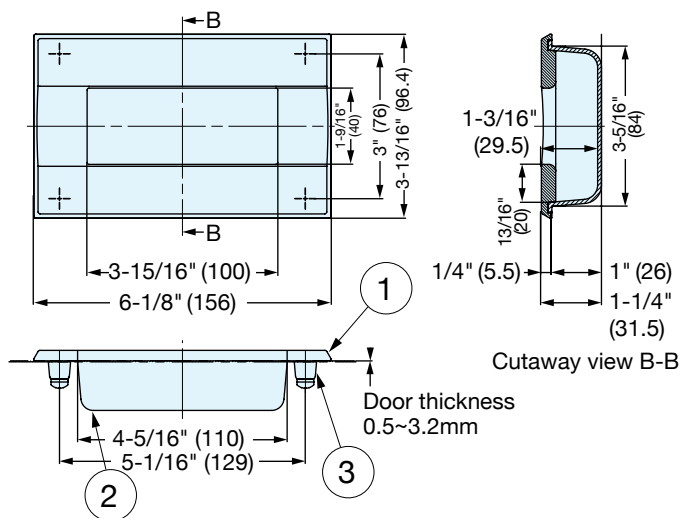


No.	Material	Color	Material
①	Body	Black	Stainless Steel
②	Cup	Gray	ABS and PC Plastic
③	Spacer	Yellow	Stainless Steel

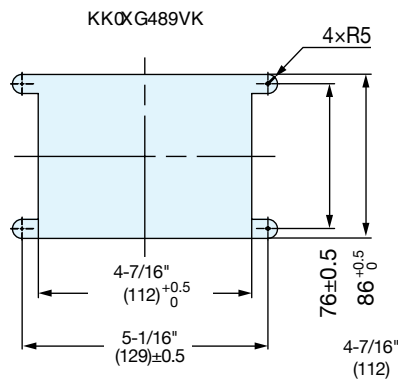
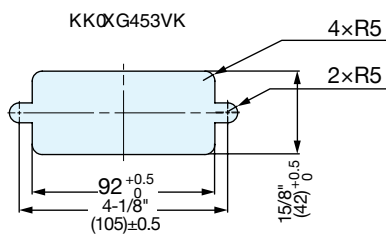
HH-UD120SH



HH-UD156SH



Cut-out Dimensions

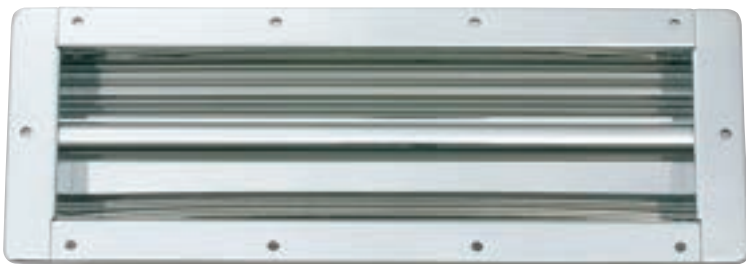


Item Name	Finish	Load Capacity kgf	Weight (g)	Box (pcs)	Carton (pcs)
HH-UD120SH	Satin	51	193	20	80
HH-UD120SM	Mirror			20	80
HH-UD156SH	Satin	502	502	20	80
HH-UD156SM	Mirror			20	80

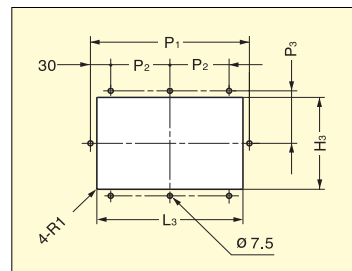
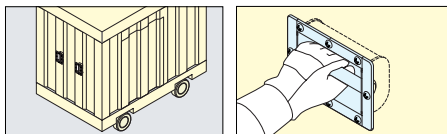
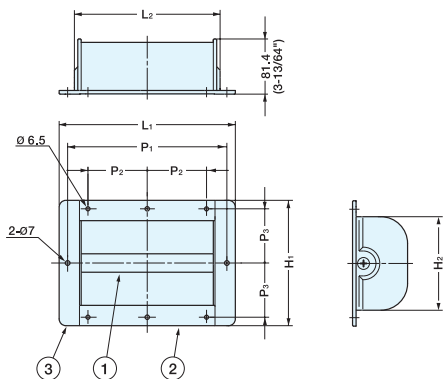
LARGE RECESSED PULL (WITH BAR HANDLE)



HH-M



- Durable 304 stainless steel construction.
- Designed for industrial applications where use of thick gloves are required.
- Handlebar does not protrude out from the face of the handle.
- 2 sizes available.



Item No.	Box (pcs)	Carton (pcs)
HH-M200	1	4
HH-M400	1	2

No.	Part Name	Material
①	Bar	304 Stainless Steel
②	Cup	
③	End Cover	

Item No.	L ₁	H ₁	H ₂	L ₂	P ₁	P ₂	P ₃	L ₃	H ₃
HH-M200	260 (10-15/64")	(186.3) (7-21/64")	(138.3) (5-29/64")	218 (8-37/64")	235	87.5	80	216 (8-1/2")	140 (5-33/64")
HH-M400	460 (18-7/64")	(186.3) (7-21/64")	(138.3) (5-29/64")	418 (16-29/64")	435	125.0	80	416 (16-3/8")	

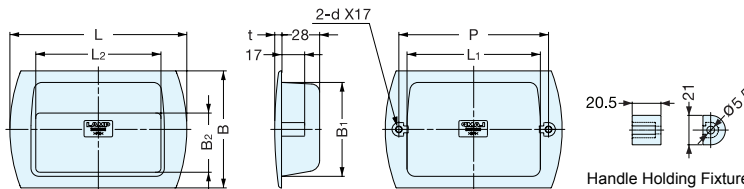
RECESSED PULL



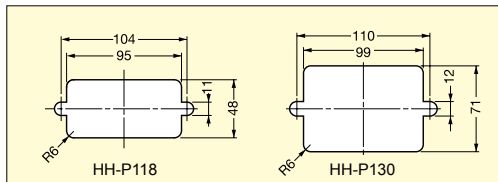
HH-P



- Made with PVC material:
 - Ideal for semiconductor, manufacturing machinery and transparent applications.
 - Weather proof, chemical resistant.
- Large opening allows for easy accessibility with gloved hands.
- Environmentally friendly-Lead free.
- Compliant with SEMI S8-0308 guideline.



Large opening makes it easier to use with gloves



Item No.	L	L ₁	L ₂	B	B ₁	B ₂	H	P	d	t	Door Thickness (mm)
HH-P118	118	93	90	58	47	25.5	21.5	104	M4	4	1~11
HH-P130	130	98	92	86	69	43.5	28.0	110	M5	5	1~11

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HH-P118	43	45	450
HH-P130	100	30	300

Material	Color
Polyvinyl Chloride (PVC)	Clear

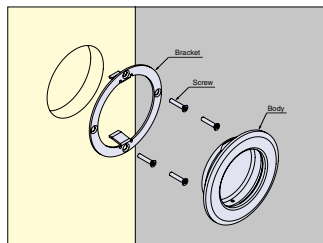
Zwei L Recessed Pull



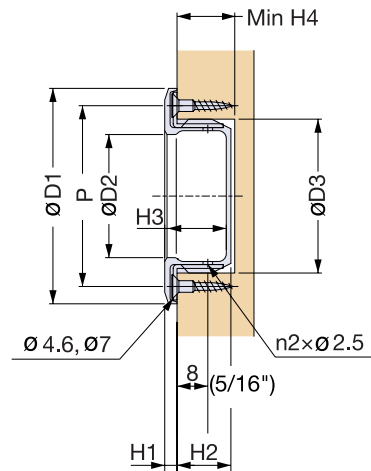
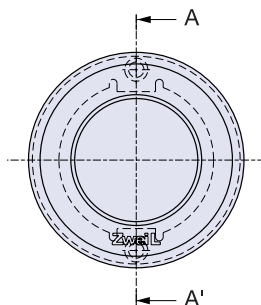
ZL-2501



- Ideal for sliding doors.
- Supplied with stainless steel wood screws (3.1 × 16).



Installation



Cross-section (A-A') View

Item No.	D2	P	D1	H2	H1	H3	D3	H4	n1	n2	Weight (g)	Box (pcs)
ZL-2501-56	32	47	56	14	3.2	16.0	40	15	2	4	93	1
ZL-2501-80	50	70	80	14	4.0	16.5	62	15	4	2	196	1
ZL-2501-125	80	112	125	16	5.0	20.0	100	17	4	4	610	1

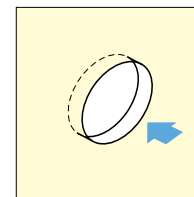
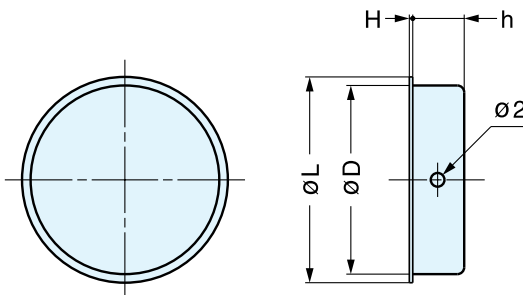
No.	Part Name	Material	Finish/Color
①	Pull	316 Stainless Steel	Zwei L
②	Mounting Bracket	316 Stainless Steel	Plain

RECESSED PULL



RP

- Ideal for sliding doors.
- Affix with glue or tack.



Installation

Item No.	L	H	h	D	Weight (g)	Box (pcs)	Carton (pcs)
RP-30	30 (1-3/16")	0.5	7.5 (19/64")	27.5	4.0	100	3600
RP-37	36 (1-27/64")		8.5 (21/64")	31.5	6.0		
RP-45	46 (1-13/16")		41.0	9.5			
RP-60	60 (2-23/64")		53.5	15.0	50	1200	
RP-80	80 (3-5/32")		71.0	25.5	25	500	

Material	Finish
304 Stainless Steel	Satin

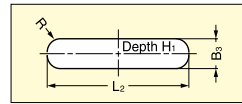
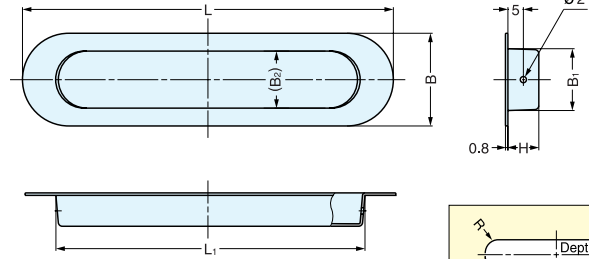
RECESSED PULL



HN



- Ideal for sliding doors.
- Affix with glue or tack.



Bore Dimensions

Material	Finish
304 Stainless Steel	Satin

Item No.	L	L ₁	H	B	B ₁	B ₂	L ₂	B ₃	H ₁	Weight (g)	Box (pcs)	Carton (pcs)
HN-120SH	120 (4-23/32")	100	10.0 (25/64")	30 (1-3/16")	20 (25/32")	18.5	100.5 (3-61/64")	20.5 (13/16")	10.5	19	50	500
HN-150SH	150 (5-29/32")	130	12.0 (15/32")	35 (1-3/8")	26 (1-1/32")	24.5	130.5 (5-9/64")	26.5 (1-3/64")	12.5	27	20	200
HN-200SH	200 (7-7/8")	170	13.2 (33/64")	50 (1-31/32")	36 (1-27/64")	34.5	170.5 (6-23/32")	36.5 (1-7/16")	13.7	50	10	100
HN-250SH	250 (9-27/32")	220								92		

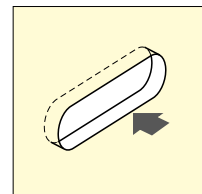
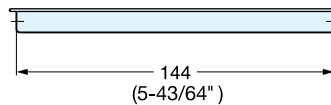
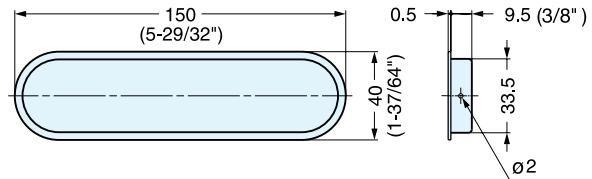
RECESSED PULL



OP-150



- Ideal for sliding doors.
- Affix with glue or tack.



Installation

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
OP-150	30	30	720	304 Stainless Steel	Satin

RECESSED FINGER PULL



3511, 3512 SERIES

- Ideal for sliding doors.
- Affix with glue or tack.



3511038/SN



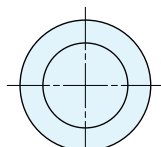
3511400/CR



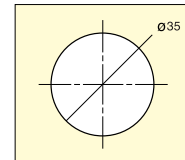
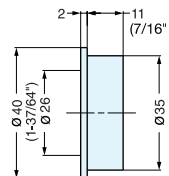
3512038/SN



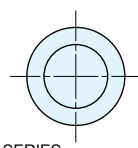
3512400/CR



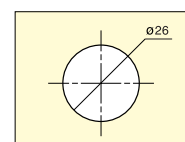
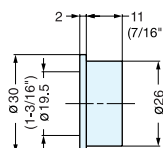
3511 SERIES



Bore Dimensions



3512 SERIES



Bore Dimensions

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
3511038/SN	27.1	25	250
3511400/CR			
3512038/SN	17.2	25	250
3512400/CR			

Material	Finish
Zinc Alloy	Satin Nickel (SN)/Chrome (CR)

RECESSED PULL



3922 SERIES

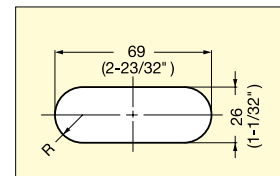
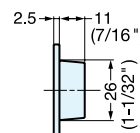
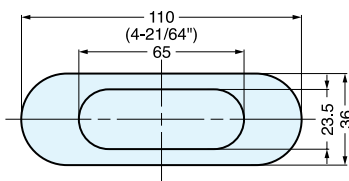
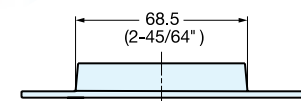
- Ideal for sliding doors.
- Affix with glue or tack.



3922038/SN



3922400/CR



Bore Dimensions

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
3922038/SN	70.9	25	250
3922400/CR			

Material	Finish
Zinc Alloy	Satin Nickel (SN)/Chrome (CR)

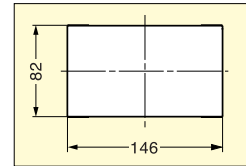
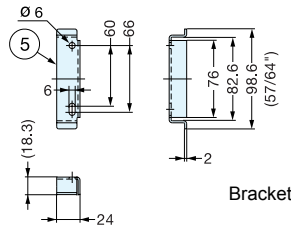
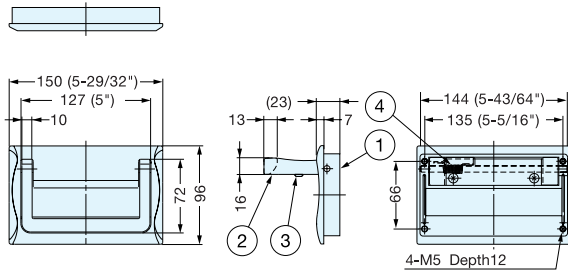
TRUNK HANDLE



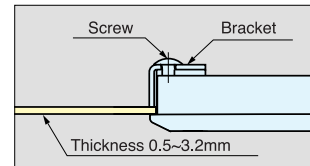
HCT-150



- 316 Stainless steel handle is ideal for harsh and highly corrosive environments.
- The handle is recessed into the mounting plate keeping it flush with the mounting surface.
- Spring loaded: Folds and returns to flat position to stay out of the way when not in use.
- 90 degree stop feature.
- Back mounted. Includes bracket for sheet metal applications.



Cut Out Dimensions



No.	Part Name	Material	Finish
①	Body	316 Stainless Steel	Mirror
②	Handle		
③	Bumper	Ethylene Propylene	Black
④	Spring	316 Stainless Steel	-
⑤	Bracket		Plain

Item No.	Material	Finish	Load Capacity (kg)	Load Capacity (lbs)	Weight (g)	Box (pcs)	Carton (pcs)
HCT-150	316 Stainless Steel	Mirror	100	220	990	5	20

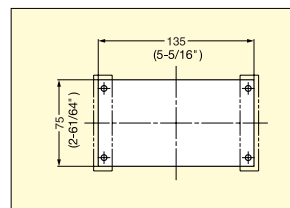
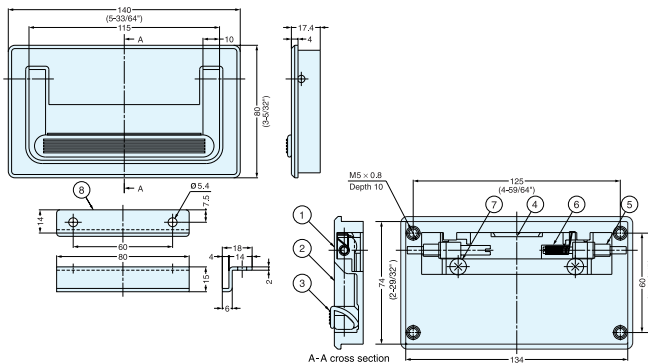
TRUNK HANDLE



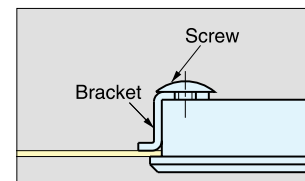
MUD-140



- The handle is recessed into the mounting plate keeping it flush with the mounting surface.
- Spring loaded:
Folds and returns to flat position to stay out of the way when not in use.
- 90 degree stop feature.
- Rubber pad on handle provides an easy and comfortable grip.
- Back mounted. Includes bracket for sheet metal applications.



Cut Out Dimensions



Installation

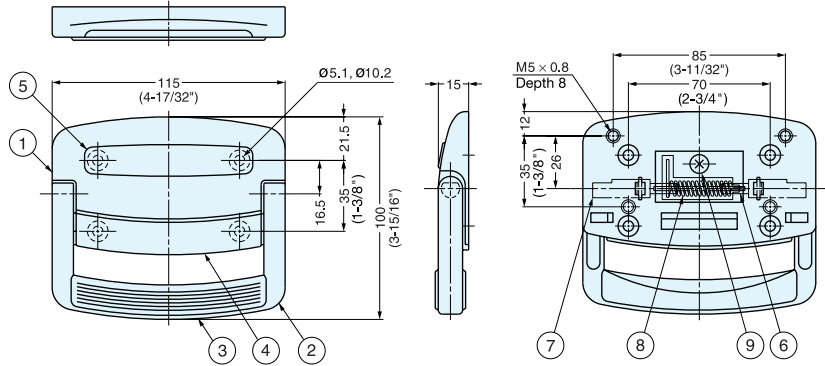
No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Chrome
②	Handle		
③	Grip	Synthetic Rubber	Black
④	Back Case	Steel	Yellow Zinc Chromate
⑤	Shaft	Zinc Alloy	
⑥	Spring	Steel	
⑦	Screw		
⑧	Bracket		

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MUD-140	30 (66 lbs)	620	5	20

TRUNK HANDLE

TEST 1
P.696


TMU-115



- Spring loaded trunk handle.
- Designed for both surface and back mount.
- Durable construction.
- Rubber pad on handle for good grip.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TMU-115	40 (80 lbs)	460	10	40

No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Chrome
②	Handle		
③	Grip	Synthetic Rubber	Black
④	Case Cover 1		
⑤	Case Cover 2	Steel	Yellow Zinc Chromate
⑥	Back Case		
⑦	Shaft	Steel	Yellow Zinc Chromate
⑧	Spring		
⑨	Screw		

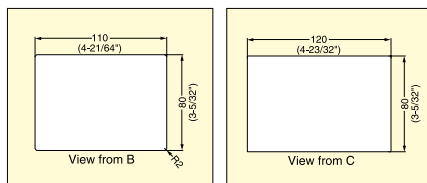
TRUNK HANDLE

TEST 1
P.696


PT-148

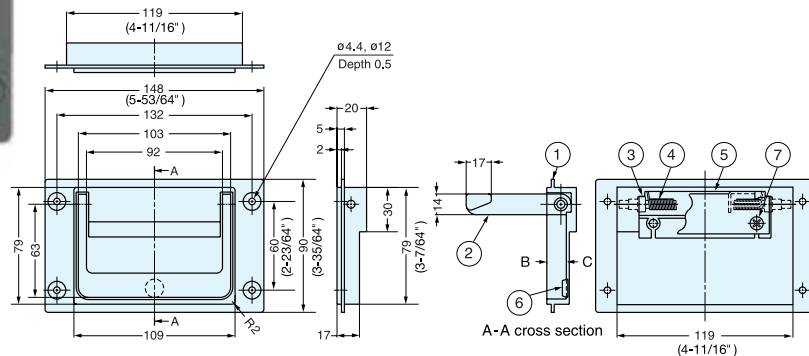


- Spring loaded trunk handle.
- Designed to be back mounted on sheet metal.



Cut Out Dimensions for back mount

Cut Out Dimensions for surface mount



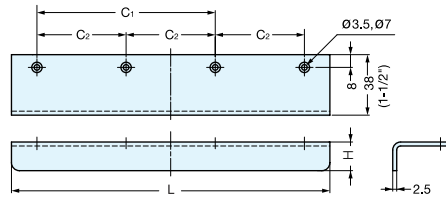
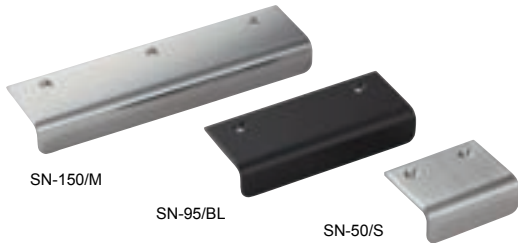
No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Grey
②	Handle		
③	Shaft	Steel	Yellow Zinc Chromate
④	Spring		
⑤	Back Case	Synthetic Rubber	Clear
⑥	Bumper		
⑦	Screw	Steel	Chromate

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PT-148	50 (110 lbs)	645	10	100

EDGE PULL



SN



Available in 3 finishes. Please specify finish when ordering.

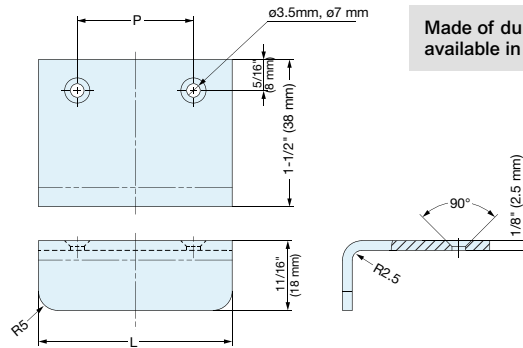
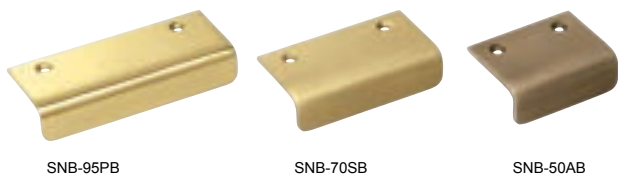
Material	Finish
304 Stainless Steel	Mirror (M)
	Satin (S)
	Black (BL)

Item No.			L	C1	C2	H	Holes	Weight (g)	Box (pcs)	Carton (pcs)
SN-50/M*	SN-50/S*	SN-50/BL	50 (1-31/32")	30 (1-3/16")	-	18 (11/16")	2	47	40	400
SN-70/M*	SN-70/S*	SN-70/BL	70 (2-3/4")	46 (1-13/16")	-			65	30	300
SN-95/M*	SN-95/S*	SN-95/BL	95 (3-47/64")	65 (2-9/16")	-			90	20	200
SN-120/M*	SN-120/S*	-	120 (4-23/32")	90 (3-35/64")	45		3	112	15	150
SN-150/M*	SN-150/S*	-	150 (5-29/32")	114 (4-31/64")	57			147		60
SN-200/M	SN-200/S	-	200 (7-7/8")	112 (4-13/32")	56			200		10
SN-300/M	SN-300/S	-	300 (11-13/16")	180 (7-3/32")	90		4	300		

* NSF Component

EDGE PULL

SNB



Made of durable brass available in 3 finishes

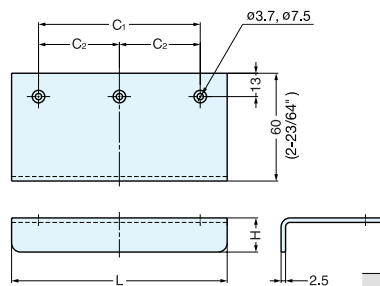
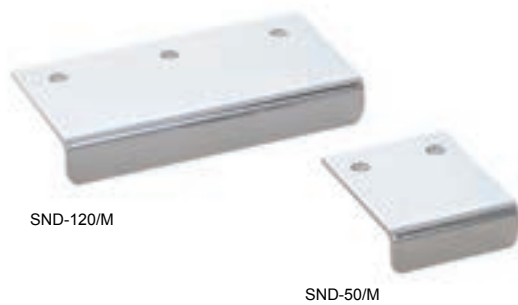
Item No.			L	P	Weight (g)	Box (pcs)	Carton (pcs)
SNB-50/PB	SNB-50/SB	SNB-50/AB	50 (1-31/32")	30 (1-3/16")	47	-	-
SNB-70/PB	SNB-70/SB	SNB-70/AB	70 (2-3/4")	46 (1-13/16")	65	-	-
SNB-95/PB	SNB-95/SB	SNB-95/AB	95 (3-47/64")	65 (2-9/16")	90	-	-

Material	Finish
Brass	Mirror (PB)
	Satin (SB)
	Antique Brass (AB)

EDGE PULL



SND



Material	Finish
304 Stainless Steel	Mirror

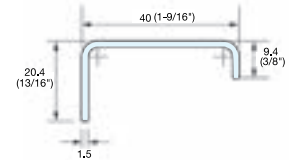
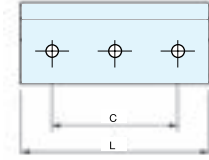
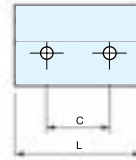
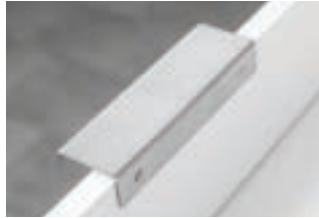
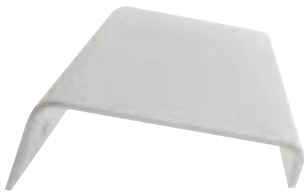
Item No.	L	C1	C2	H	Weight (g)	Box (pcs)	Carton (pcs)
SND-50/M*	50 (1-31/32")	30 (1-3/16")	-	17 (43/64")	67	10	200
SND-70/M*	70 (2-3/4")	46 (1-13/16")	-		95		
SND-95/M*	95 (3-47/64")	65 (2-9/16")	-		130		
SND-120/M	120 (4-23/32")	90 (3-35/64")	45	19 (3/4")	166	5	50
SND-150/M	150 (5-29/32")	114 (4-31/64")	57	208			

* NSF Component

EDGE PULL



DSI-350



Item No.	C	L	Weight (g)	Box (pcs)	Carton (pcs)
DSI-350-16	16 (5/8")	32 (1-1/4")	22	25	250
DSI-350-64	64 (2-1/2")	96 (3-25/32")	66		
DSI-350-96	96 (3-25/32")	128 (5-1/16")	88		
DSI-350-128	128 (5-1/16")	160 (6-5/16")	110		
DSI-350-160	160 (6-5/16")	192 (7-9/16")	132	10	100
DSI-350-192	192 (7-9/16")	224 (8-13/16")	154		
DSI-350-224	224 (8-13/16")	256 (10-1/16")	176		
DSI-350-256	256 (10-1/16")	352 (13-7/8")	240		
DSI-350-352	352 (13-7/8")	544 (21-7/16")	374		

Material	Finish
304 Stainless Steel	Satin

EDGE PULL



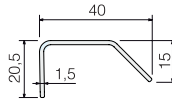
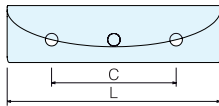
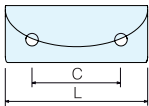
DSI-360



- Back mounted cabinet pull.
- Rounded front pull, available in various lengths.

For Models:
16,64,96,128

For Models:
160, 192



Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
DSI-360-16	1-1/4" (32)	5/8" (16)	24	25	200
DSI-360-64	3-3/4" (96)	2-1/2" (64)	68		150
DSI-360-96	5-1/16" (128)	3-3/4" (96)	90		100
DSI-360-128	6-5/16" (160)	5-1/16" (128)	120	10	60
DSI-360-160	7-9/16" (192)	6-5/16" (160)	144	10	40
DSI-360-192	8-13/16" (224)	7-9/16" (192)	156		



Material	Finish
304 Stainless Steel	Satin

EDGE PULL



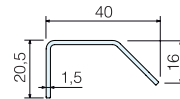
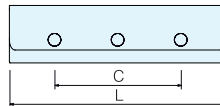
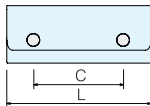
DSI-370



- Back mounted cabinet pull.
- Rectangle front pull, available in various lengths.

For Models:
16,64,96,128

For Models:
160, 192



Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
DSI-370-16	1-1/4" (32)	5/8" (16)	24	25	200
DSI-370-64	3-3/4" (96)	2-1/2" (64)	68		150
DSI-370-96	5-1/16" (128)	3-3/4" (96)	90		100
DSI-370-128	6-5/16" (160)	5-1/16" (128)	120	10	60
DSI-370-160	7-9/16" (192)	6-5/16" (160)	144	10	40
DSI-370-192	8-13/16" (224)	7-9/16" (192)	156		



Material	Finish
304 Stainless Steel	Satin

EDGE PULL

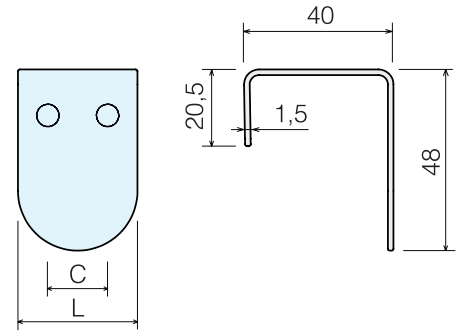
STAINLESS
304
STEEL

STAINLESS

DSI-380



- Small pull for cabinet doors.
- Rounded front pull, can be used side by side.



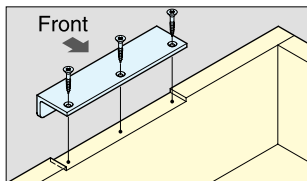
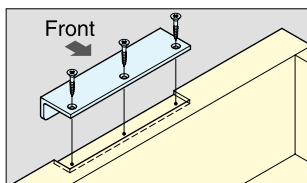
Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSI-380-16	1-1/4" (32)	5/8" (16)	39	25	200	304 Stainless Steel	Satin



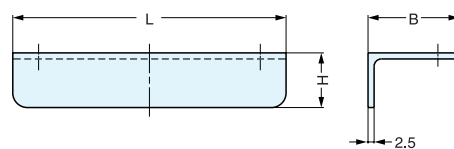
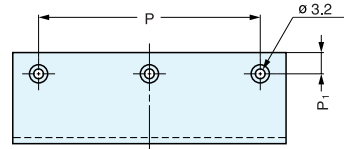
EDGE PULL



AG



Installation



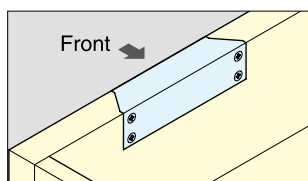
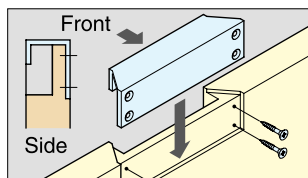
Item No	L	H	P	P ₁	B	Holes	Box (pcs)	Carton (pcs)
AG-A405	46	18	29	7	30	2	120	480
AG-A402	90		73			3	70	280

Material	Finish
Brass	Satin Nickel

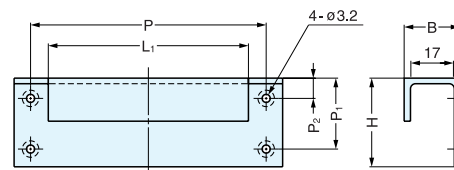
EDGE PULL



CN



Installation



Item No	L	L ₁	H	P	P ₁	P ₂	B	Box (pcs)	Carton (pcs)
CN-A362	106	76	36	93	28	8	22	28	280
CN-A360	137	107	36	123	28	8	22	16	64

Material	Finish
Brass	Satin Nickel

FINGER PULL

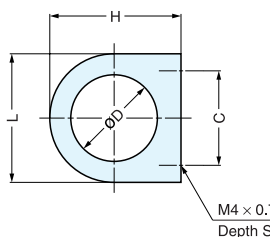
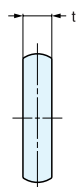


DR



Mirror

Satin



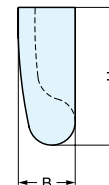
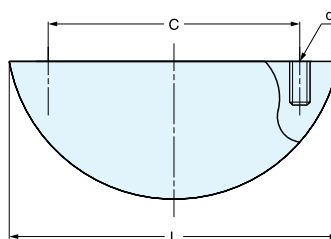
Material	Finish
304 Stainless Steel	Mirror (M) Satin (S)

Item No.	L	C	H	t	D	S	Weight (g)	Box (pcs)	Carton (pcs)	
DR-S/M	DR-S/S	24.5 (31/32")	18(45/64")	25.0 (63/64")	5.5	16.5	5	10	80	800
DR-L/M	DR-L/S	30.5 (1-13/64")	21(53/64")	31.5 (1-15/64")	6.5	20.5	6	22	50	500

ROUND EDGE PULL



RD



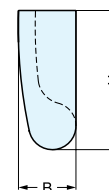
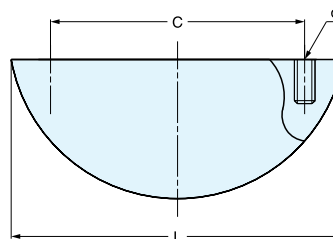
Item No.	L	C	H	B	d	Weight (g)	Box (pcs)	Carton (pcs)
RD-55/SM	55 (2-11/64")	42 (1-21/32")	23.0 (29/32")	9.5	M4 × 0.7	50	30	360
RD-90/SM	90 (3-35/64")	74 (2-29/32")	25.5 (1-1/64")	10.5	M4 × 0.7	80	20	240

Material	Finish
316 Stainless Steel	Mirror

ROUND EDGE PULL



RD



Please specify the finish when ordering.

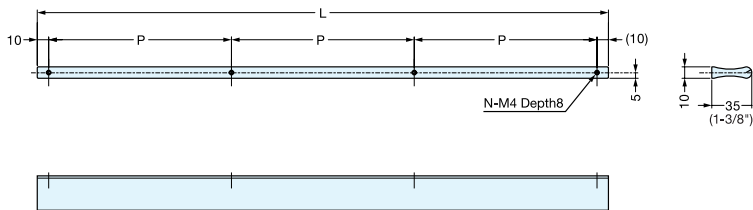
Material	Finish
Zinc Alloy	Smoke (SMK), Satin Nickel (SN) Polished Chrome (CR) Satin Brass (SB)

Item No.	L	C	H	B	d	Weight (g)	Box (pcs)	Carton (pcs)	Screw
RD-45	45 (1-25/35")	32 (1-17/64")	19.0 (3/4")	8.0	M3 × 0.5	22	40	480	M3 × 25
RD-55	55 (2-5/35")	42 (1-21/32)	23.0 (29/32")	9.5	M4 × 0.7	35	30	360	M4 × 28
RD-90	90 (3-35/64")	74 (2-29/32")	25.5 (1-1/64")	10.5		63	20	240	

PULL



AOT35



Item No.	L	P	Weight (g)	Box (pcs)	Carton (pcs)
AOT35-180	180 (7-3/32")	160 (6-5/16")	129	100	1000
AOT35-340	340 (13-3/8")		243	50	500
AOT35-500	500 (19-11/16")		358	30	300

Material	Finish
Aluminum	Alumite

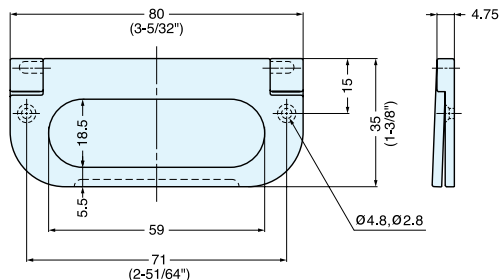
FOLDING RING PULL



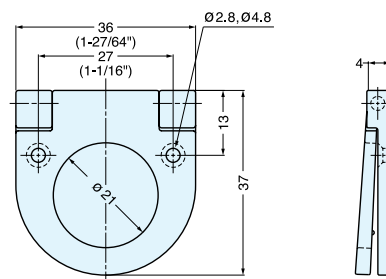
3261, 3262 SERIES



3262200/SN



3261500/SN



3262200/SN

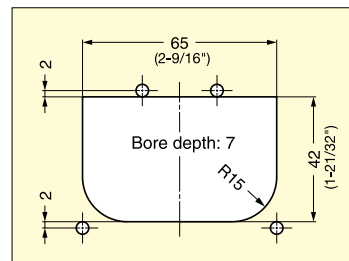
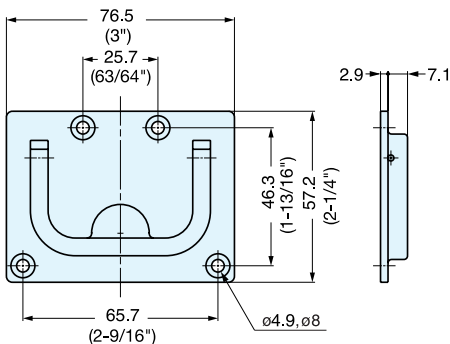
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
3261500/SN	49.3	25	250
3262200/SN	26.0		600

Material	Finish
Zinc Alloy	Satin Nickel

FOLDING RING PULL



26700



Cut Out Dimensions

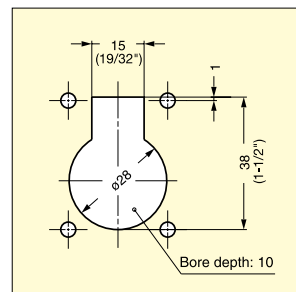
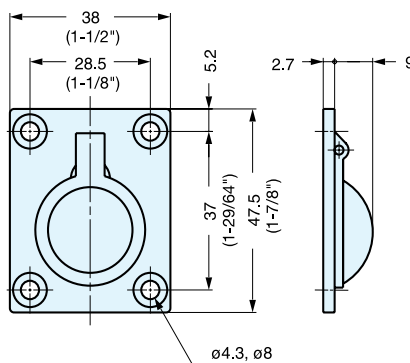
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
26700	120	20	100

Material	Finish
316 Stainless Steel	Polished

FOLDING RING PULL



26900



Cut Out Dimensions

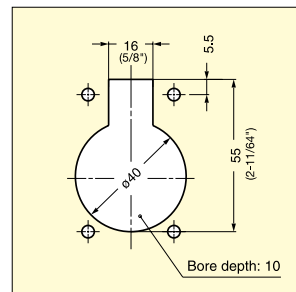
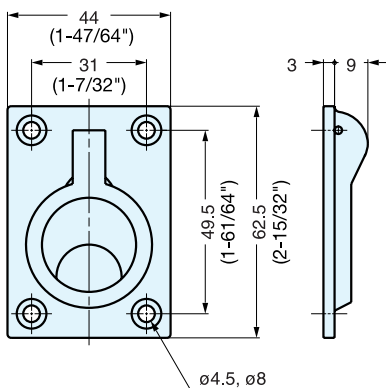
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
26900	45	20	100

Material	Finish
316 Stainless Steel	Polished

FOLDING RING PULL



26901



Cut Out Dimensions

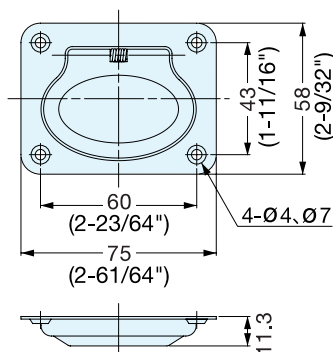
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
26901	85	20	100

Material	Finish
316 Stainless Steel	Polished

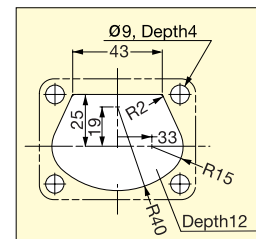
FOLDING RING PULL (SPRING LOADED)



980643



- The pull is recessed into the mounting plate keeping it flush with the mounting surface.
- Low profile design.
- Spring loaded-snaps flat to stay out of the way when not in use.
- Ideal for vibration or shock applications.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
980643	51	10	200

Material	Finish
304 Stainless Steel	Polished

FOLDING RING PULL (SPRING LOADED)



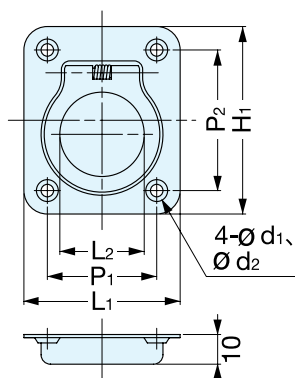
980641, 980642



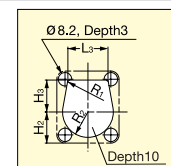
980642



980641



- The pull is recessed into the mounting plate keeping it flush with the mounting surface.
- Low profile design.
- Spring loaded-snaps flat to stay out of the way when not in use.
- Ideal for vibration or shock applications.



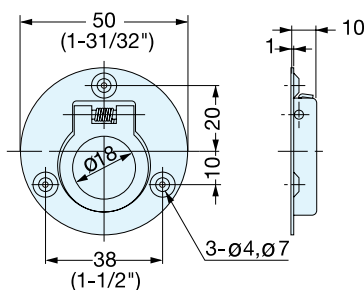
Material	Finish
304 Stainless Steel	Polished

Item No.	L ₁	L ₂	L ₃	H ₁	H ₂	H ₃	R ₁	ØR ₂	P ₁	P ₂	d ₁	d ₂	Weight(g)	Box (pcs)	Carton (pcs)
980641	38	18	24.5	44	19	19.5	14.2	31	28 (1-7/64")	34 (1-11/32")	3.6	6.2	21	10	500
980642	50	27	25.0	60	25	25.0	19.5	41	35 (1-3/8")	45 (1-25/32")	4.0	7.0	36	10	200

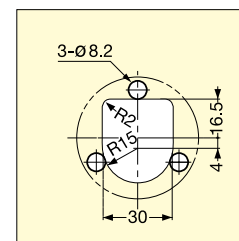
FOLDING RING PULL (SPRING LOADED)



980640



- The pull is recessed into the mounting plate keeping it flush with the mounting surface.
- Low profile design.
- Spring loaded-snaps flat to stay out of the way when not in use.
- Ideal for vibration or shock applications.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
980640	23	10	300

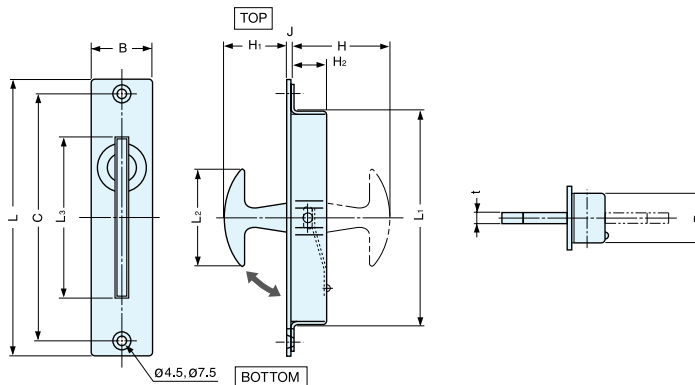
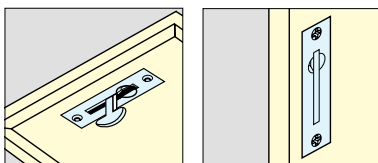
Material	Finish
304 Stainless Steel	Polished

HATCH PULL



ST-90, 115

• Hold-in detent for undermount applications.



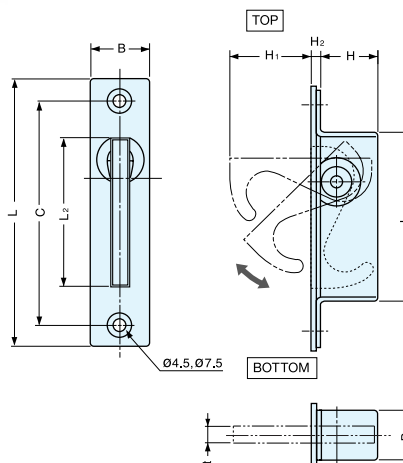
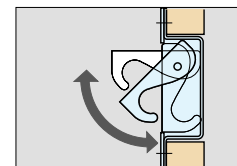
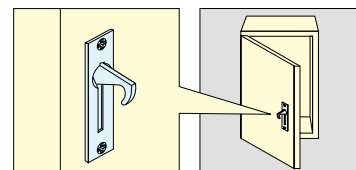
Item No.	L	L ₁	L ₂	L ₃	H	H ₁	H ₂	J	B	B ₁	t	C	Material	Finish
ST-90	90 (3-35/64")	66.2	30.2	57	35.5	23.2	10.5	2.2	22 (55/64")	18.5	3.8	80 (3-5/32")	304 Stainless Steel	Satin
ST-115	115 (4-17/32")	86.2	40.0	67	42.0	26.0	13.0	2.5	25 (63/64")	20.0	4.0	102 (4-1/64")		

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Screw
ST-90	68	30	300	3.5 × 22
ST-115	102	20	200	3.5 × 25

HATCH PULL



ST-80, 100



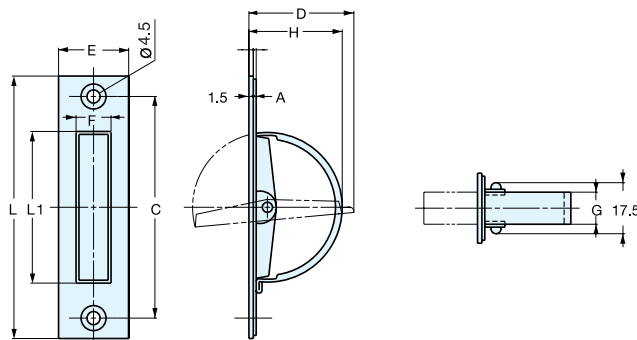
Item No.	L	L ₁	L ₂	H	H ₁	H ₂	B	B ₁	t	C	Material	Finish
ST-80	80 (3-9/64")	50	44	18	25	2	18 (45/64")	15	5	68 (2-43/64")	304 Stainless Steel	Satin
ST-100	100 (3-15/16")	63	54	21	32		20 (25/32")			85 (3-11/32")		

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Screw
ST-80	48	30	300	3.5 × 16
ST-100	66	20	200	3.5 × 20

HATCH PULL



HR



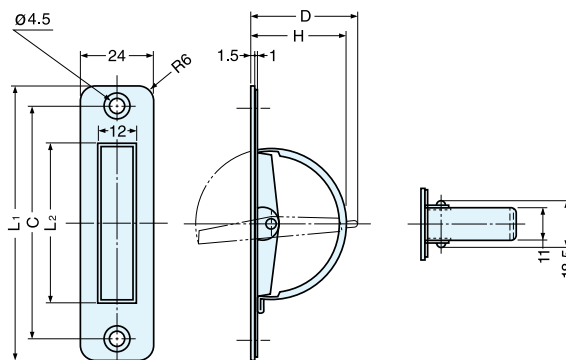
Item No.	L	L ₁	C	H	D	A	E	F	G	Material	Finish
HR-90	90 (3-35/64")	52 (2-3/64")	76	32	36	1.0	24 (15/16")	12.0	11	304 Stainless Steel	Satin
HR-110	110 (4-21/64")	64 (2-33/64")	94	38	42						
HR-135	135 (5-5/16")	90 (3-35/64")	115	50	55	1.2	25 (63/64")	12.2	12		

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
HR-90	13 (28 lbs)	49	30	300	3.5 × 22
HR-110	10 (22 lbs)	59	20	200	3.5 × 25
HR-135	-	88	15	150	

HATCH PULL



HR-R



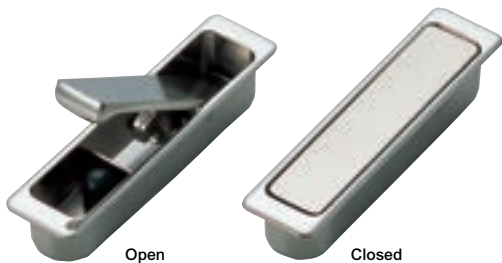
Material	Finish
304 Stainless Steel	Satin

Item No.	L ₁	L ₂	C	H	D	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
HR-90R	90 (3-35/64")	52	76 (2-63/64")	32	36	13 (28 lbs)	46	30	300
HR-110R	110 (4-21/64")	64	94 (3-45/64")	38	42	10 (22 lbs)	55	20	200

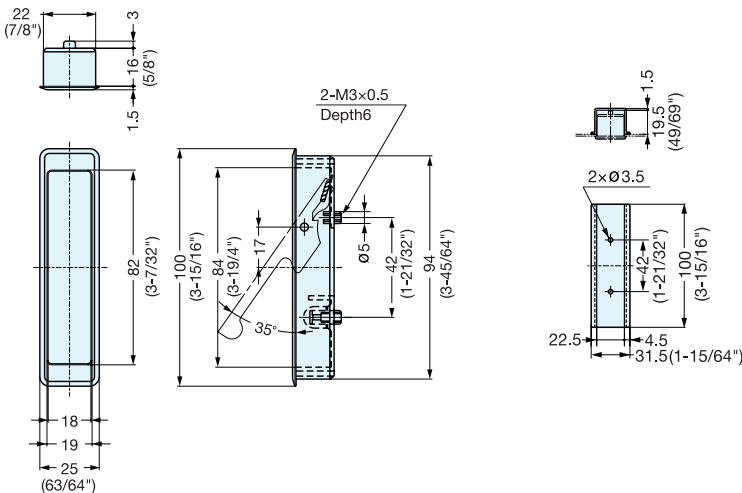
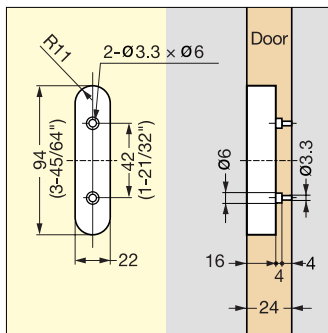
LEVER PULL



FH-100AK, FH-100BK



- FH-100AK-00 has detent to hold lever open or closed.
- FH-100BK-00 has spring to return lever to the closed position.
- Both models have rubber bumper inside to reduce noise when closing.
- Includes 1/2" long screws (M3 × 12).



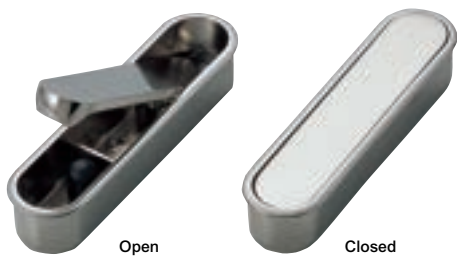
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
FH-100AK-00	100	12	72
FH-100BK-00			

Part	Material	Finish
Case	Zinc Alloy	Polished Nickel
Handle		Satin Nickel

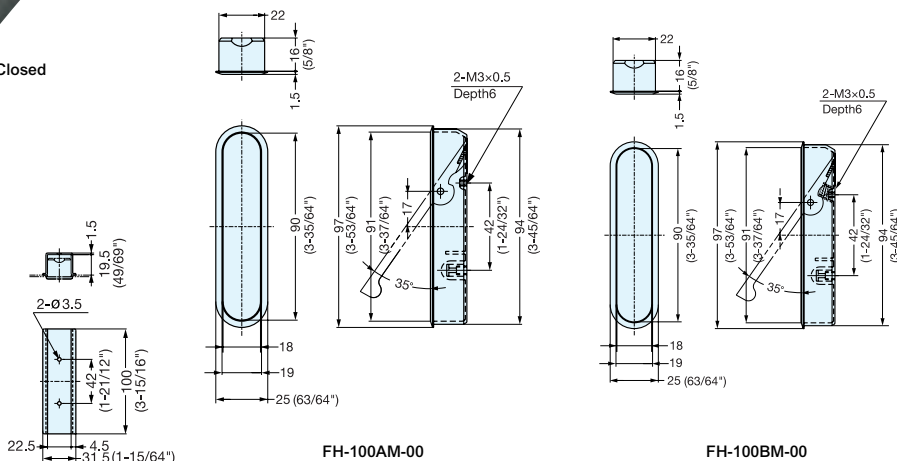
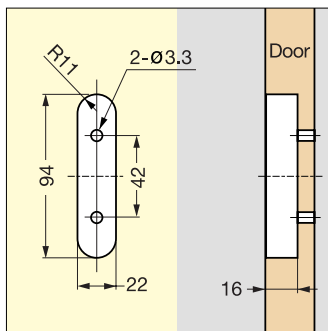
LEVER PULL



FH-100AM, FH-100BM



- FH-100AM-00 has detent to hold lever open or closed.
- FH-100BM-00 has spring to return lever to the closed position.
- Both models have rubber bumper inside to reduce noise when closing.
- Includes 1/2" long screws (M3 × 12).



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
FH-100AM-00	103.5	12	72
FH-100BM-00			

Part	Material	Finish
Case	Zinc Alloy	Polished Nickel
Handle		Satin Nickel

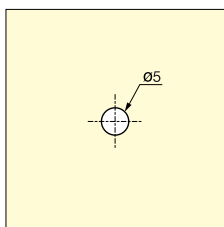
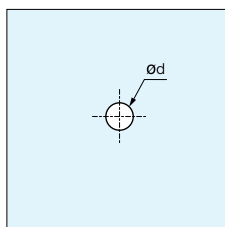
Zwei L Knob



ZL-1906

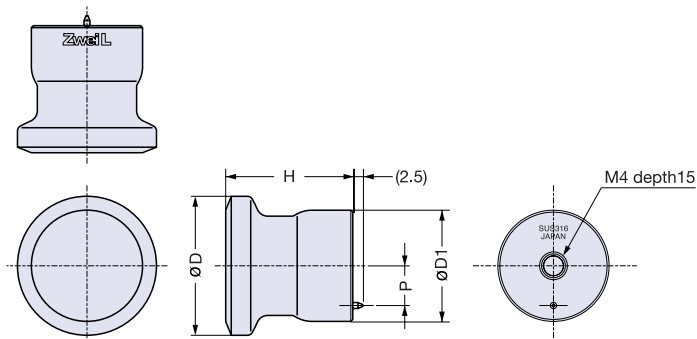


- For use with wood or tempered glass.
- Non-handed.
- Anti-rotation pin is removable.
- Includes stainless steel screws.



Glass Thickness:
4 or 5 mm, d = 5
6 mm, d = 6

Wood Panel



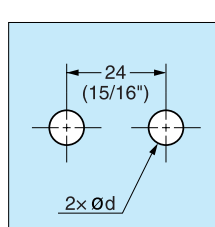
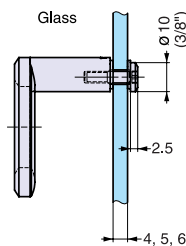
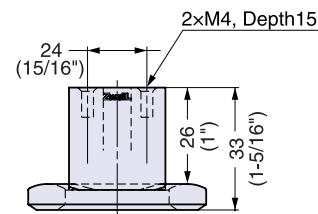
Item No.	Material	Finish/Color	H	D	D ₁	P	Weight (g)	Box (pcs)
ZL-1906-20	316 Stainless Steel	Zwei L	20 (25/32")	20 (25/32")	16.0	5	32	1
ZL-1906-28			26 (1-1/32")	28 (1-3/32")	22.5	8	83	
ZL-1906-36			32 (1-1/4")	36 (1-13/32")	28.0	10	165	

Zwei L Knob

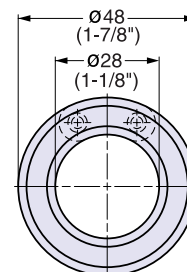
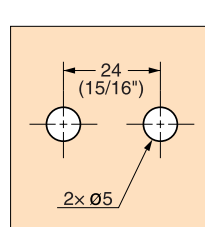
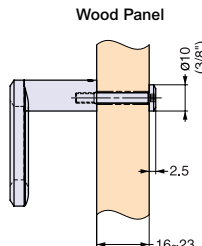


ZL-1909

- For use with wood or tempered glass.
- Non-handed.
- Anti-rotation pin is removable.
- Includes stainless steel screws.



Glass Thickness:
4 or 5 mm, d = 5
6 mm, d = 6



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1909	316 Stainless Steel	Zwei L	97	1

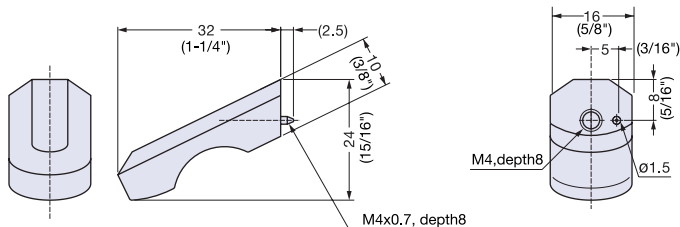
Zwei L Knob



ZL-1901



- Anti-rotation pin is removable.
- Includes 1" long stainless steel screw (M4 × 25).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1901	316 Stainless Steel	Zwei L	34	8

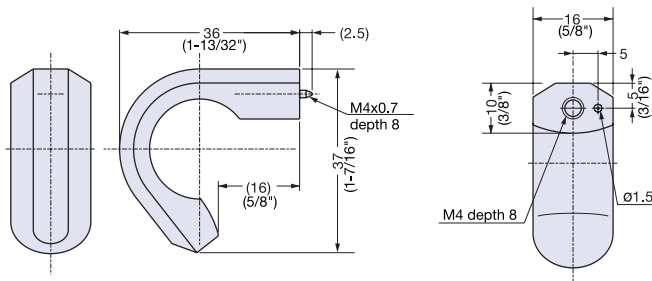
Zwei L Knob



ZL-1902



- Anti-rotation pin is removable.
- Includes 1" long stainless steel screw (M4 × 25).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1902	316 Stainless Steel	Zwei L	52	8

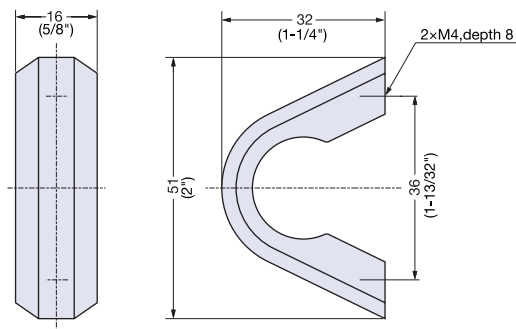
Zwei L Knob



ZL-1903



- Includes 1" long stainless steel screw (M4 × 25).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1903	316 Stainless Steel	Zwei L	58	8

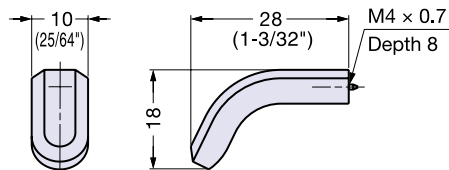
Zwei L Knob



ZL-1904



- Anti-rotation pin is removable.
- Includes 1" long stainless steel screw (M4 × 25).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1904	316 Stainless Steel	Zwei L	12	8

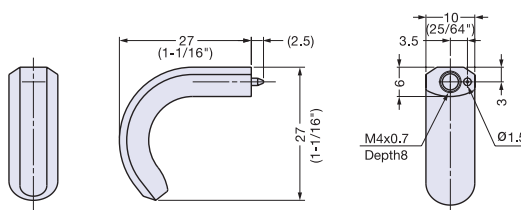
Zwei L Knob



ZL-1905



- Anti-rotation pin is removable.
- Includes 1" long stainless steel screw (M4 × 25).



Item No.	Material	Finish/Color	Weight (g)	Box (pcs)
ZL-1905	316 Stainless Steel	Zwei L	15	8

Zwei L Knob Base



ZL-2302

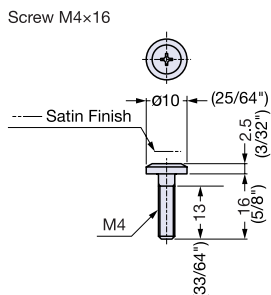
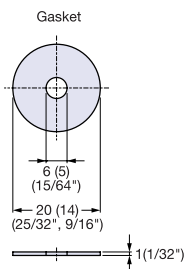
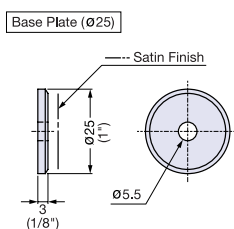
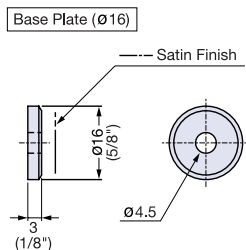


Plate/Screw Set for Knob (ø16)

Item No.	Part Name	Material	Finish/Color	Box (Set)
ZL-2302-1916	Screw (M4 × 16)	Stainless Steel	Zwei L	1
	Base Plate (16)	316 Stainless Steel	Zwei L	
	Gasket (14)	Elastomer	Plain	

Plate/Screw Set for Knob (ø25) *2 gaskets included.

Item No.	Part Name	Material	Finish/Color	Box (Set)
ZL-2302-1925	Screw (M4 × 16)	Stainless Steel	Zwei L	1
	Base Plate (ø16)	316 Stainless Steel	Zwei L	
	Gasket (ø14)	Elastomer	Plain	
	Gasket (ø20)	Elastomer	Plain	

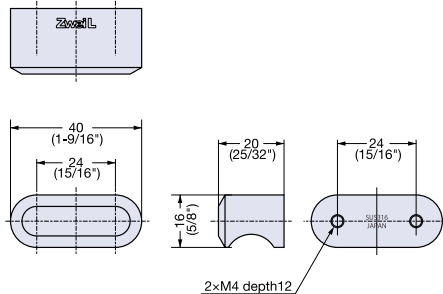


Zwei L Knob

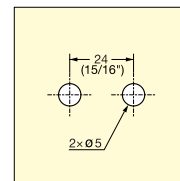
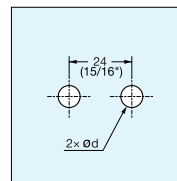


ZL-1907

HANDLES, PULLS & KNOBS



- For use with wood or tempered glass.
- Similar style to ZL-1504 door pulls.
- Includes stainless steel screws.



Glass Thickness:
4 or 5 mm, d = 5
6 mm, d = 6

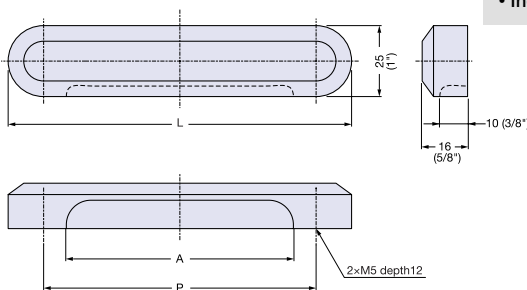
Item No.	Material	Finish/Color	Weight (g)	Box (pcs)	Carton (pcs)
ZL-1907	316 Stainless Steel	Zwei L	78	2	20

Zwei L Knob



ZL-2503

Zwei L KNOBS / BACK TO BACK GLASS DOOR KNOBS



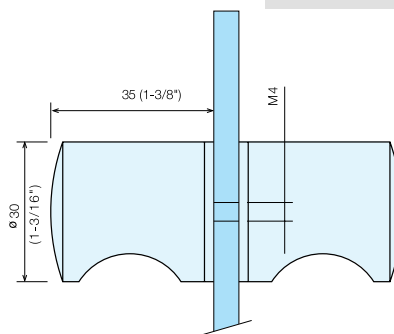
- Similar style to ZL-1505 door pulls.
- Includes stainless steel screws.

Item No.	Material	Finish/Color	L	P	A	Weight (g)	Box (pcs)	Carton (pcs)
ZL-2503-96	316 Stainless Steel	Zwei L	121 (4-3/4")	96 (3-25/32")	84 (3-5/16")	320	4	40
ZL-2503-160			185 (7-9/32")	160 (6-5/16")	148 (5-53/64")	496	2	20

BACK TO BACK GLASS DOOR KNOB



DSI-126D



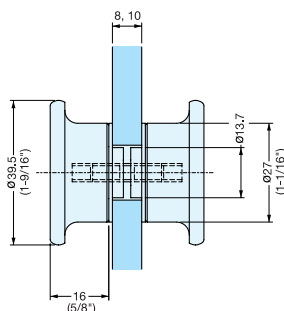
- For glass thickness 8-12 mm (5/16"-1/2").
- For use with tempered glass.

Item No.	Material	Glass Thickness (mm)	Finish	Box (set)
DSI-126D	304 Stainless Steel	8~12	Stain	1

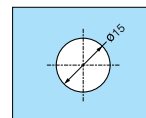
BACK TO BACK GLASS DOOR KNOB



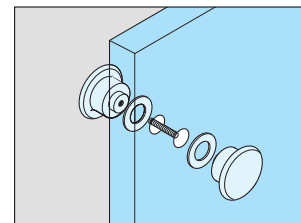
GT-40CR



- Sold as a set. Each set includes: 2 knobs, 2 washers and screw.



Cut out dimension



Item No.	Material	Finish	Glass Thickness (mm)	Weight (g)	Box (sets)	Carton (sets)
GT-40CR	Brass	Chrome	8~10	215	6	48

GLASS DOOR KNOB

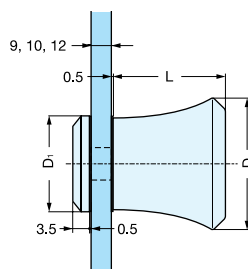


DG-BT

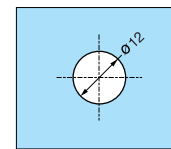


Chrome (CR)

Satin Chrome (SC)



- Sold as a set. Each set includes: knob, backplate, washers and tube.



Cut out dimension

Item No.	D	D1	L	Material Brass	Finish	Glass Thickness (mm)	Weight (g)	Box (set)
DG-BT30-CR	32 (1-1/4")	23.5	26.5	Brass	Chrome	8~12	134	1
DG-BT30-SC					Satin Chrome			
DG-BT40-CR	40 (1-9/16")	26.0	34.5		Chrome		235	
DG-BT40-SC					Satin Chrome			

BACK TO BACK GLASS DOOR KNOB

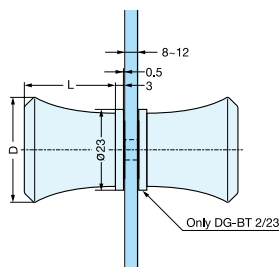


DG-BT2

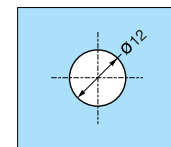


Chrome (CR)

Satin Chrome (SC)



- Sold as a set. Each set includes: 2 knobs, 2 washers and tube.
- Base plate included with model DG-BT2/23 only.



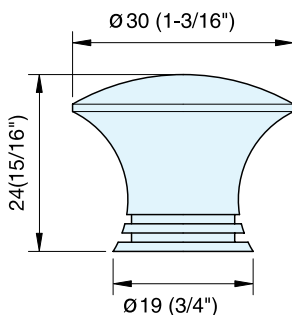
Cut out dimension

Item No.	D	L	Material Brass	Finish	Glass Thickness (mm)	Weight (g)	Box (set)
DG-BT2/23-CR	23.5 (59/64")	23.5	Brass	Chrome	8~12	111	1
DG-BT2/23-SC				Satin Chrome			
DG-BT2/30-CR	32.0 (1-1/4")	34.5		Chrome		230	
DG-BT2/30-SC				Satin Chrome			
DG-BT2/40-CR	40.0 (1-9/16")	34.5	Chrome	447			
DG-BT2/40-SC			Satin Chrome				

KNOB



EY-127

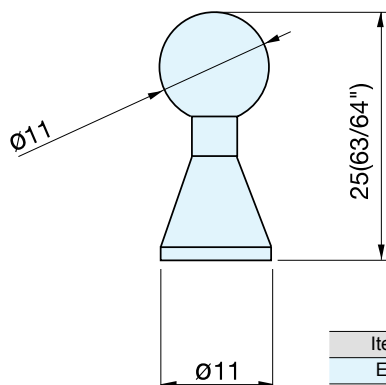


Item No.	Weight (g)	Box (pcs)	Carton (pcs)
EY-127/30	53	25	250
Material		Finish	
304 Stainless Steel		Satin	

KNOB



EY-207

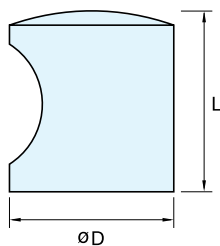


Item No.	Weight (g)	Box (pcs)	Carton (pcs)
EY-207	11	25	250
Material		Finish	
304 Stainless Steel		Satin	

KNOB



EY-301

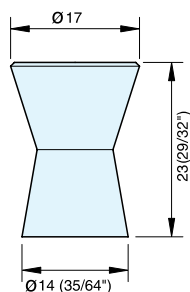


Item No.	D	L	Box (pcs)	Carton (pcs)
EY-301/10	10 (3/8")	24 (15/16")	25	250
EY-301/15	15 (9/16")	26 (1-1/32")		
EY-301/20	20 (3/4")	28 (1-1/8")		
EY-301/25	25 (1")	30 (1-3/16")		
EY-301/30	30 (1-3/16")	28 (1-5/16")		
Material			Finish	
304 Stainless Steel			Satin	

KNOB



EY-320

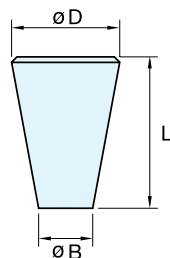


Item No.	Weight (g)	Box (pcs)	Carton (pcs)
EY-320	22	25	250
Material		Finish	
304 Stainless Steel		Satin	

KNOB



DSI-209

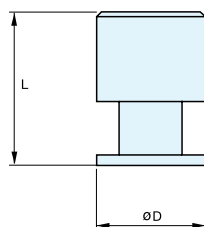


Item No.	D	B	L	Box (pcs)
DSI-209-12	12 (15/32")	7	20 (13/16")	25
DSI-209-16	16 (5/8")	8	26 (1")	
DSI-209-20	20 (25/32")	10	28 (1-1/8")	
DSI-209-24	24 (15/16")	14	29 (1-3/16")	
DSI-209-29	29 (1-1/8")	18	35 (1-3/8")	
Material		Finish		
304 Stainless Steel		Satin		

KNOB



EY-326

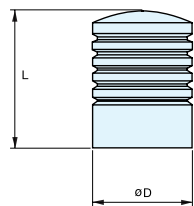


Item No.	D	L	Weight (g)	Box (pcs)	Carton (pcs)
EY-326/20	20 (3/4")	33.0 (1-19/64")	62	25	250
EY-326/25	25 (1")	35.5 (1-25/64")	102		
Material		Finish			
304 Stainless Steel		Satin			

KNOB



EY-327

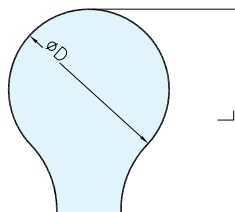
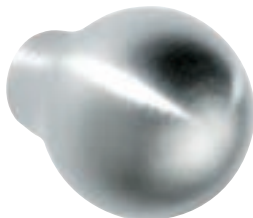


Item No.	D	L	Weight (g)	Box (pcs)	Carton (pcs)
EY-327/20	20 (3/4")	33.0 (1-19/64")	105	25	250
EY-327/25	25 (1")	35.5 (1-25/64")	125		
Material		Finish			
304 Stainless Steel		Satin			

KNOB



EY-338



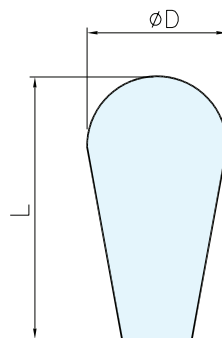
Item No.	D	L	Weight (g)	Box (pcs)	Carton (pcs)
EY-338/20	20 (3/4")	26	40	25	250
EY-338/25	25 (1")	32	75		

Material	Finish
304 Stainless Steel	Satin

KNOB



EY-339

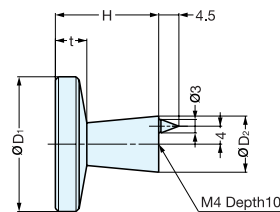
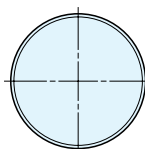


Item No.	D	L	Weight (g)	Box (pcs)	Carton (pcs)
EY-339/20	20 (3/4")	37.5	125	25	250
EY-339/25	25 (1")	41.5	226		

Material	Finish
304 Stainless Steel	Satin

KNOB

TS



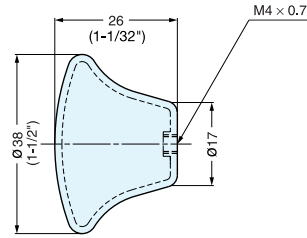
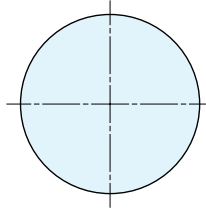
Item No.	D ₁	D ₂	H	t	Weight (g)	Box (pcs)	Carton (pcs)
TS-25	25	14.5	23	6.7	36	50	200
TS-30	30				47		
TS-36	36	15.0	24	7.5	70	30	120

Material	Finish
Brass	Satin Nickel

KNOB



RS-38



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
RS-38/S	20	20	200	304 Stainless Steel	Satin

KNOB



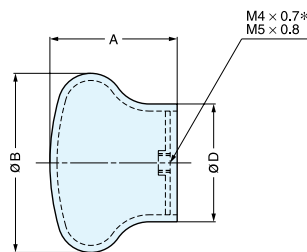
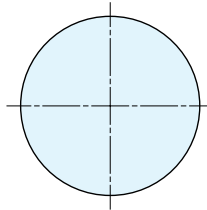
RSS



Satin



Mirror



Material	Finish
304 Stainless Steel	Mirror (M) Satin (S)

Item No.	A	B	D	Weight (g)	Box (pcs)	Carton (pcs)	Screw	
RSS-25/M*	RSS-25/S*	22 (55/64")	25 (63/64")	18	8.5	20	200	M4 × 30
RSS-30/M*	RSS-30/S*	23 (29/32")	30 (1-3/16")	20	11.0			M5 × 30
RSS-38/M	RSS-38/S	27 (1-1/16")	38 (1-1/2")	25	16.0			
RSS-50/M	RSS-50/S	34 (1-11/32")	50 (1-31/32")	35	30.0			

KNOB



DJ-22



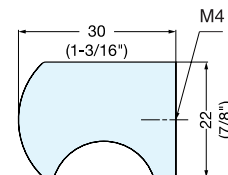
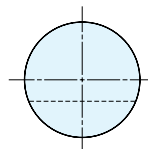
PB



CR



SN



Please specify the finish when ordering.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DJ-22	80	20	200

Material	Finish
Brass	Satin Nickel (SN) Chrome (CR) Polished Brass (PB)

KNOB



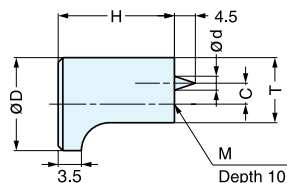
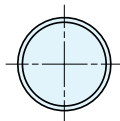
GLA



SN



CR



Please specify the finish when ordering.

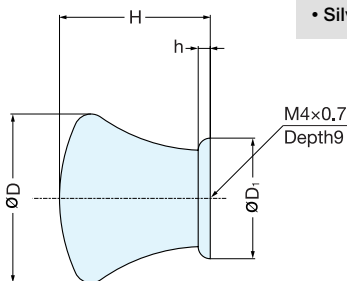
Material	Finish
Brass	Satin Nickel (SN) Chrome (CR)

Item No.	D	H	T	C	d	M	Weight (g)	Box (pcs)	Carton (pcs)	Screw
GLA-12	12 (15/32")	18 (45/64")	8.5 (21/64")	3.5	3	M3 × 0.5	14	50	500	M3 × 25
GLA-16	16 (5/8")	22 (55/64")	11.0 (7/16")	4.0		M4 × 0.7	29	40	400	M4 × 25
GLA-20	20 (25/32")	25 (63/64")	14.0 (11/64")	4.5		M4 × 0.7	52			

KNOB



KK-T



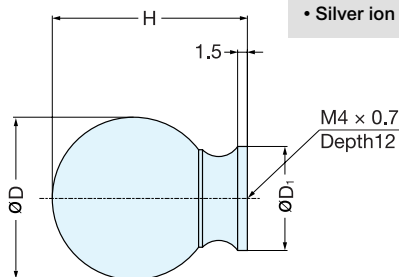
• Silver ion coated handle.

Item No.	Material	Finish	D	D ₁	H	h	Weight (g)	Box (pcs)	Carton (pcs)
KK-T24SNI	Aluminum Alloy	Nickel + Silver Ion Coating	24 (15/16")	16	23 (29/32")	1.5	10	25	200
KK-T24SSG		Satin Gold + Silver Ion Coating							
KK-T24SBR		Brown + Silver Ion Coating							
KK-T28SNI		Nickel + Silver Ion Coating	28 (1-3/32")	20	26 (1-1/32")	2.0	20		
KK-T28SSG		Satin Gold + Silver Ion Coating							
KK-T28SBR		Brown + Silver Ion Coating							

KNOB



KK-B



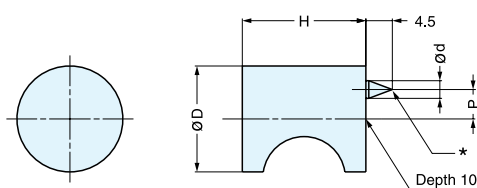
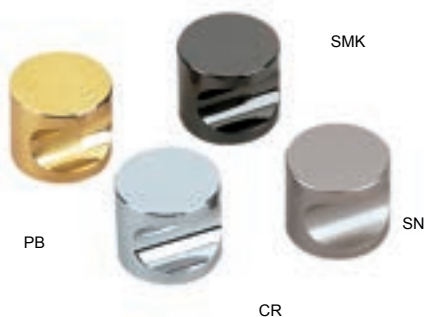
• Silver ion coated handle.

Item No.	Material	Finish	D	D ₁	H	Weight (g)	Box (pcs)	Carton (pcs)
KK-B20SNI	Aluminum Alloy	Nickel + Silver Ion Coating	20 (25/32")	13	26 (1-1/32")	10	25	200
KK-B20SSG		Satin Gold + Silver Ion Coating						
KK-B20SBR		Brown + Silver Ion Coating						
KK-B25SNI		Nickel + Silver Ion Coating	25 (63/64")	16	30 (1-3/16")	25		
KK-B25SSG		Satin Gold + Silver Ion Coating						
KK-B25 SBR		Brown + Silver Ion Coating						

KNOB



MRB



*MRB-L No anti-rotation pin.

Please specify the finish when ordering.

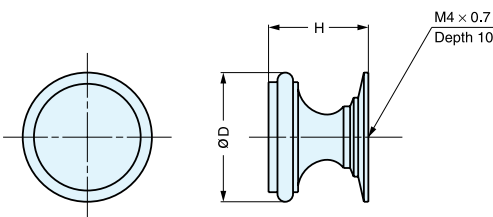
Material	Finish
Brass	Chrome (CR)
	Polished Brass (PB)/(MRB-L only)
	Smoke (SMK)/(MRB-L only)
	Satin Nickel (SN)

Item No.	D	H	P	d	Weight (g)	Box (pcs)	Carton (pcs)	Screw
MRB-S	18 (45/64")	21 (53/64")	5	3	38	30	300	M4 × 25
MRB-L	24 (15/16")		-	-	70			#8-32 × 1

KNOB



SY



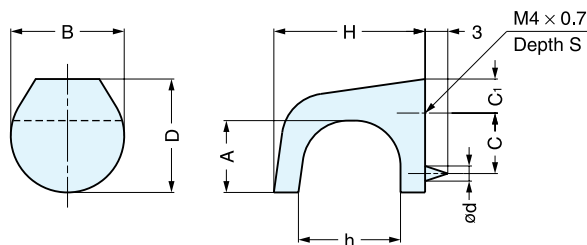
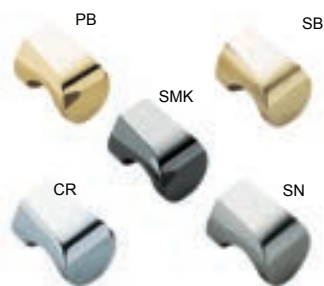
Please specify the finish when ordering.

Item No.	D	H	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
SY-16	16 (5/8")	15 (19/32")	10	40	400	Brass	Polished Brass (PB)
SY-22	22 (7/8")	17 (43/64")	21	30	300		Satin Nickel (SN)

KNOB



MKZ



Please specify the finish when ordering.

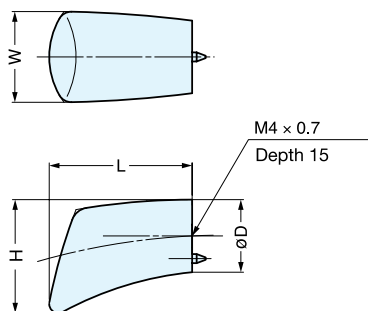
Material	Finish
Zinc Alloy	Chrome (CR), Polished Brass (PB), Smoke (SMK), Satin Brass (SB), Satin Nickel (SN)

Item No.	D	A	B	H	h	C	C ₁	d	S	Weight (g)	Box (pcs)	Carton (pcs)
MKZ-S	15	9.5	15 (19/32")	20	13.5	8	4.5	2	6	11	50	500
MKZ-L	21	12.5	20 (25/32")	26	17.0	11			7	29		

PULL (GOLD PLATED)



TMT



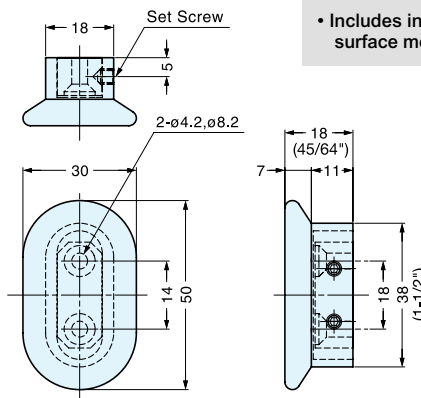
Item No.	W	L	D	H	Weight (g)	Box (pcs)	Carton (pcs)
TMT-16	16	25.0 (63/64")	12.5	20	31	1	10
TMT-20	20	31.5 (15/64")	16.0	25	64		

Material	Finish
Brass	24K Gold Plating

KNOB



DW-50N



• Includes insert block and set screw for surface mounting.

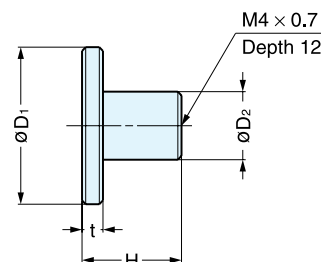
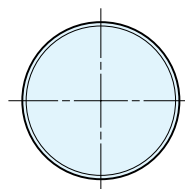
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DW-50N	130	20	100

Material	Finish
Brass	Matte Chrome

KNOB



A SERIES



Material	Finish
Aluminum	Anodized

Item No.	D ₁	H	D ₂	t	Weight (g)	Box (pcs)	Carton (pcs)
A-861	20 (25/32")	18.0 (45/64")	10	4.0	5.0	48	1152
A-862	25 (63/64")	18.5 (47/64")	11	4.5	8.5		
A-863	30 (1-3/16")	19.0 (3/4")	12	5.0	15.0		
A-864	35 (1-3/8")		13		16.5	24	576



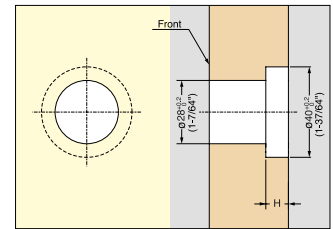
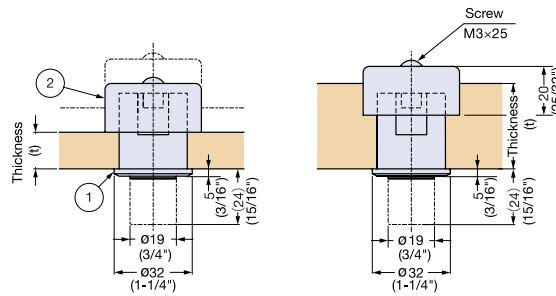
Zwei L Push Knob



ZL-1908



• Includes stainless steel screw.



Cut Out Dimensions

Item No.	No.	Part Name	Material	Finish/Color
ZL-1908	①	Push Knob (Base Included)	316 Stainless Steel	Zwei L
	②	Body	ABS	Black
	③	Case	Zinc Alloy, ABS	Black

Door Thickness (t)	Counterbore Depth (H)
13~23 mm (33/64"~29/32")	0
24~33 mm (61/64"~1-19/64")	Door Thickness-23

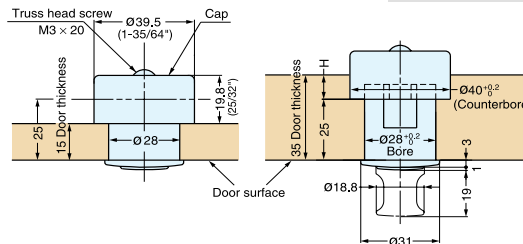
PUSH KNOB



PK-03



- Knob can be pushed in when not in use.
- For door thickness 15~25 mm. (19/32"~1")
- Can be used on thickness up to 35 mm (1-3/8") by counterboring.
- Similar style to push knob latches PKL-08 (P.136).



Material	Finish/Color
Zinc Alloy	Black Nickel (BN)
	Chrome (CR)
ABS	Gold (GA)
	Black

Item No.	Finish	Weight (g)	Box (pcs)	Carton (pcs)
PK-03/GA	Gold	67	20	200
PK-03/CR	Chrome			
PK-03/BN	Black Nickel			

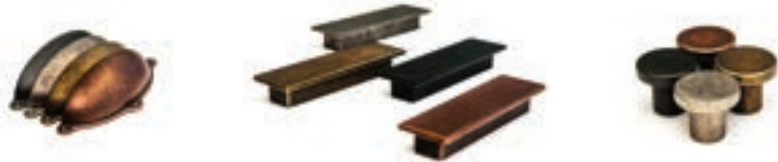
Door Thickness	H (Counterbore)
15~25 mm	None
26~35 mm	H = Door Thickness-25

ESOR



ESOR is a small foundry that specializes in making decorative handles born out of deep Basque tradition of metal working.

ESOR's contemporary designed products are hand crafted with a manual production process by which each piece is manipulated until the entire surface is smooth and visually attractive.



HANDLE



ES-Z006-192

- Sleek brushed finish with contemporary style.
- Smooth to the touch.



Dark Bronze



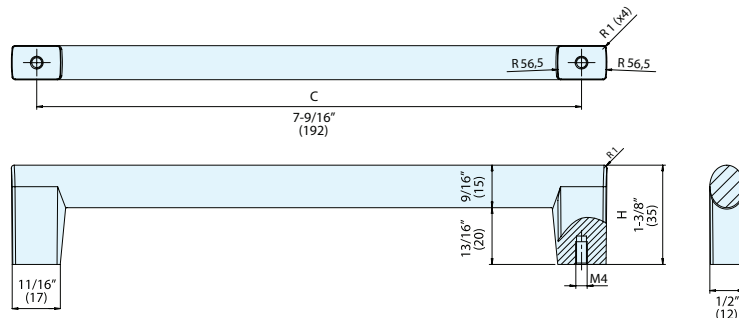
White Bronze



Matte Antique Brass



Matte Antique Copper



Item No.	C	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z006-192/WB	7-9/16" (192)	1-3/8" (35)	260	10	200
ES-Z006-192/DB					
ES-Z006-192/AB					
ES-Z006-192/AC					

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE



ES-Z401-128

- Organic shaped handle with rustic finish.
- Handcrafted, smooth to the touch.



Matte Antique Brass



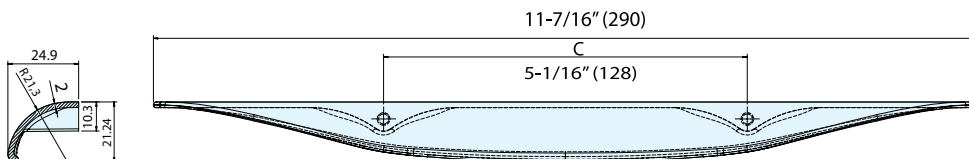
Dark Bronze



White Bronze



Matte Antique Copper



Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z401-128/WB	11-7/16" (290)	5-1/16" (128)	131	10	200
ES-Z401-128/DB					
ES-Z401-128/AB					
ES-Z401-128/AC					

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

KNOB

ES-Z201-33



Matte Antique Copper



- Rustic finishes to a modern knob.
- Smooth finishes.



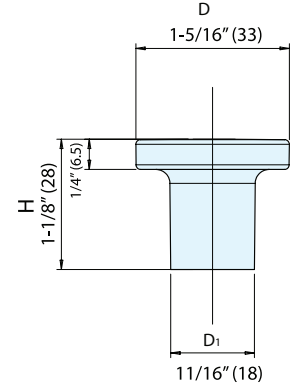
Dark Bronze



Matte Antique Brass



White Bronze



Item No.	H	D	D1	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z201-33/WB	1-1/8" (28)	1-5/16" (33)	11/16" (18)	62	25	200
ES-Z201-33/DB						
ES-Z201-33/AB						
ES-Z201-33/AC						

Material	Finish
Zinc Alloy	White Bronze (WB),
	Dark Bronze (DB),
	Matte Antique Brass (AB),
	Matte Antique Copper (AC)

HANDLE

ES-Z402-128



Matte Antique Brass



- Bold, block design.
- Detailed, rustic finish.



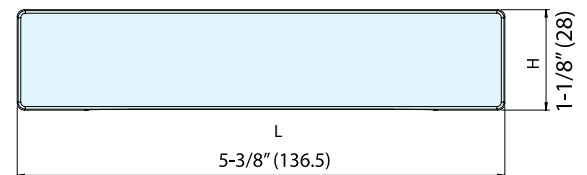
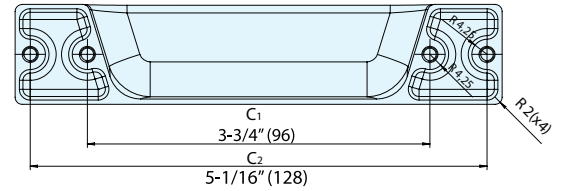
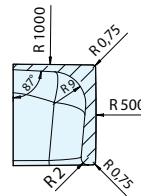
Dark Bronze



White Bronze



Matte Antique Copper



Item No.	L	C1	C2	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z402-128/WB	5-3/8" (136.5)	3-3/4" (96)	5-1/16" (128)	1-1/8" (28)	184	15	200
ES-Z402-128/DB							
ES-Z402-128/AB							
ES-Z402-128/AC							

Material	Finish
Zinc Alloy	White Bronze (WB),
	Dark Bronze (DB),
	Matte Antique Brass (AB),
	Matte Antique Copper (AC)

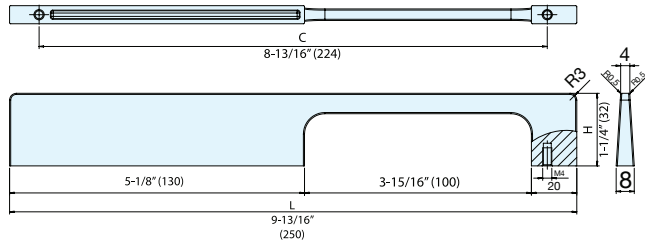
HANDLE



ES-Z002-224



- Unique design with sleek edges.
- Rustic finish.



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z002-224/WB	9-13/16" (250)	8-13/16" (224)	1-1/4" (32)	143	10	200
ES-Z002-224/DB						
ES-Z002-224/AB						
ES-Z002-224/AC						

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

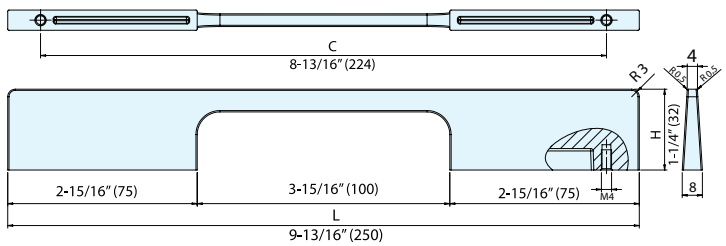
HANDLE



ES-Z001-224



- Modern feel.
- Smooth to the touch.



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z001-224/WB	9-13/16" (250)	8-13/16" (224)	1-1/4" (32)	143	10	200
ES-Z001-224/DB						
ES-Z001-224/AB						
ES-Z001-224/AC						

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

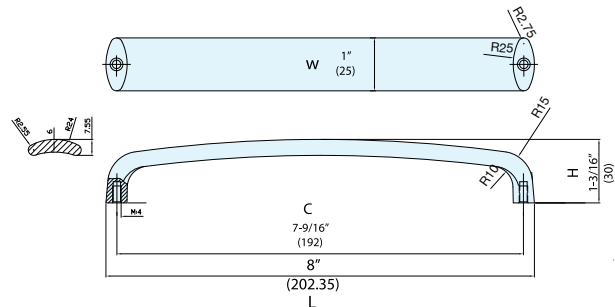
HANDLE



ES-Z005-192



- Contemporary, rustic finish.
- Smooth to the touch.



Item No.	L	C	H	W	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z005-192/WB	8" (202.35)	7-9/16" (192)	1-3/16" (30)	1" (25)	207	15	200
ES-Z005-192/DB							
ES-Z005-192/AB							
ES-Z005-192/AC							

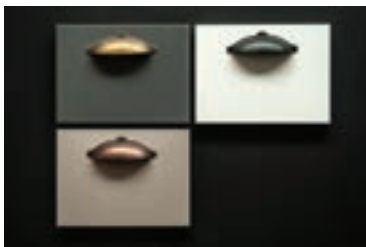
Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE

ES-Z405-64



White Bronze



Dark Bronze

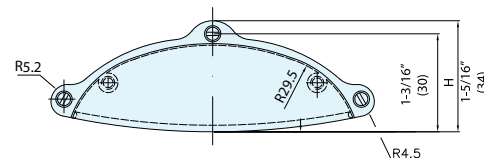
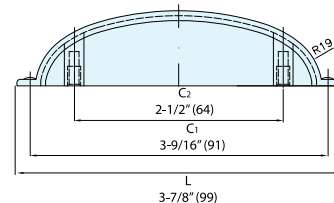


Matte Antique Brass



Matte Antique Copper

- Handle pull with a vintage style.
- Bold designs with rustic finish.



Item No.	L	C1	C2	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z405-64/WB	3-7/8" (99)	3-9/16" (91)	2-1/2" (64)	1-5/16" (34)	37	25	200
ES-Z405-64/DB							
ES-Z405-64/AB							
ES-Z405-64/AC							

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE

ES-A401-41



Matte Antique Brass



Dark Bronze

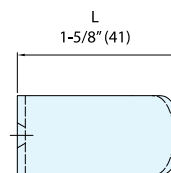
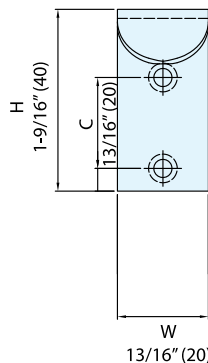


White Bronze



Matte Antique Copper

- Contemporary style with a vintage finish.



Item No.	L	C	H	W	Weight (g)	Box (pcs)	Carton (pcs)
ES-A401-41/WB	1-5/8" (41)	13/16" (20)	1-9/16" (40)	13/16" (20)	22	25	200
ES-A401-41/DB							
ES-A401-41/AB							
ES-A401-41/AC							

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE



ES-Z404-192



Matte Antique Copper



- Contemporary, bold style.
- Smooth to the touch.



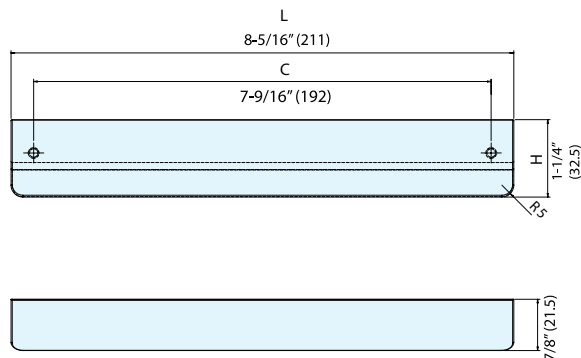
Dark Bronze



Matte Antique Brass



White Bronze



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z404-192/WB	8-5/16" (211)	7-9/16" (192)	1-1/4" (32.5)	250	15	200
ES-Z404-192/DB						
ES-Z404-192/AB						
ES-Z404-192/AC						

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE



ES-Z403-128



Dark Bronze



- Bold, rectangular shape with an antique finish.



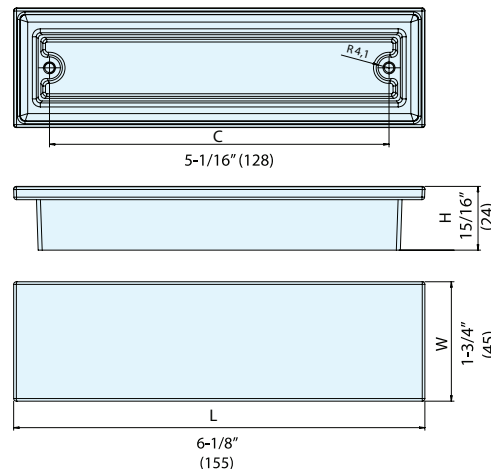
White Bronze



Matte Antique Brass



Matte Antique Copper



Item No.	L	C	H	W	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z403-128/WB	6-1/8" (155)	5-1/16" (128)	15/16" (24)	1-3/4" (45)	207	10	200
ES-Z403-128/DB							
ES-Z403-128/AB							
ES-Z403-128/AC							

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE

ES-Z004-160

• Contemporary, rustic finish.



Matte Antique Brass



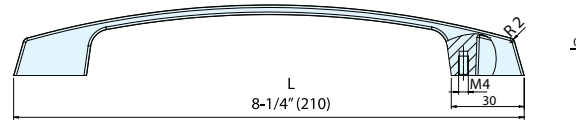
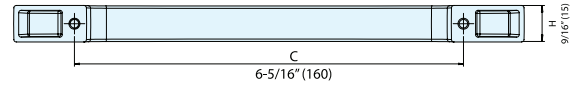
Dark Bronze



White Bronze



Matte Antique Copper



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z004-160/WB	8-1/4" (210)	6-5/16" (160)	9/16" (15)	125	15	200
ES-Z004-160/DB						
ES-Z004-160/AB						
ES-Z004-160/AC						

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

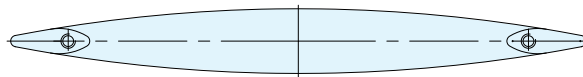
HANDLE

ES-Z008-128

• Rounded handle pull with smooth finish.



Dark Bronze



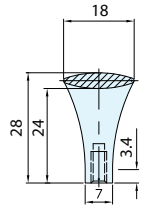
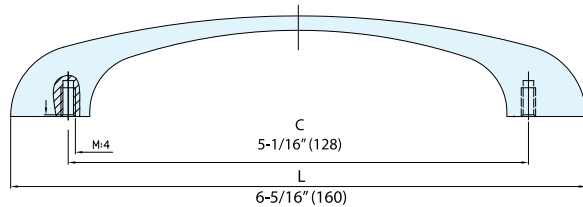
White Bronze



Matte Antique Brass



Matte Antique Copper



Item No.	L	C	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z008-128/WB	6-5/16" (160)	5-1/16" (128)	88	25	200
ES-Z008-128/DB					
ES-Z008-128/AB					
ES-Z008-128/AC					

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE



ES-Z009-96

- Unique, handcrafted handles.
- Antique finishes.



Matte Antique Copper



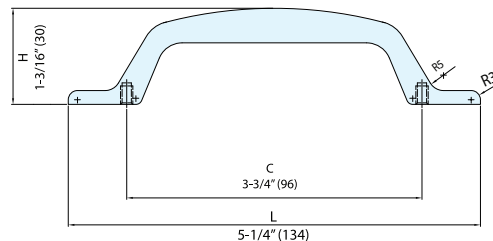
Dark Bronze



Matte Antique Brass



White Bronze



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z009-96/WB	5-1/4" (134)	3-3/4" (96)	1-3/16" (30)	90	20	200
ES-Z009-96/DB						
ES-Z009-96/AB						
ES-Z009-96/AC						

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE



ES-Z003-224

- Detailed, sharp-lined design.
- Smooth to the touch.



White Bronze



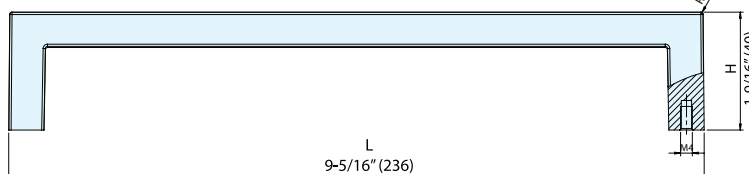
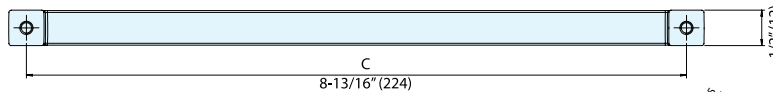
Dark Bronze



Matte Antique Brass



Matte Antique Copper



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z003-224/WB	9-5/16" (236)	8-13/16" (224)	1-9/16" (40)	260	10	200
ES-Z003-224/DB						
ES-Z003-224/AB						
ES-Z003-224/AC						

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE

ES-Z007-160



- Classic shaped handle.
- Smooth, handcrafted finish.

Matte Antique Brass



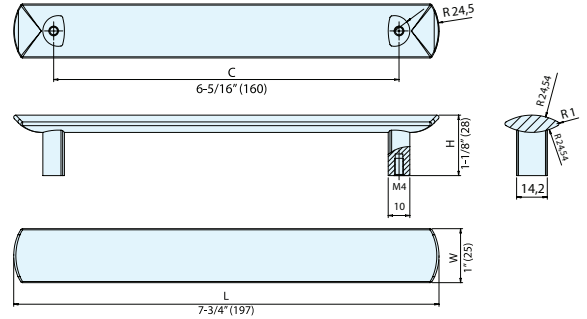
Dark Bronze



White Bronze



Matte Antique Copper



Item No.	L	C	H	W	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z007-160/WB	7-3/4" (197)	6-5/16" (160)	1-1/8" (28)	1" (25)	210	15	200
ES-Z007-160/DB							
ES-Z007-160/AB							
ES-Z007-160/AC							

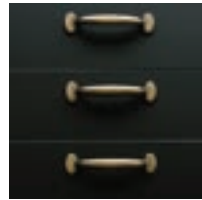
Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)

HANDLE

ES-Z010-96



Matte Antique Copper



- Bold design for the modern style.
- Rustic, smooth finish.



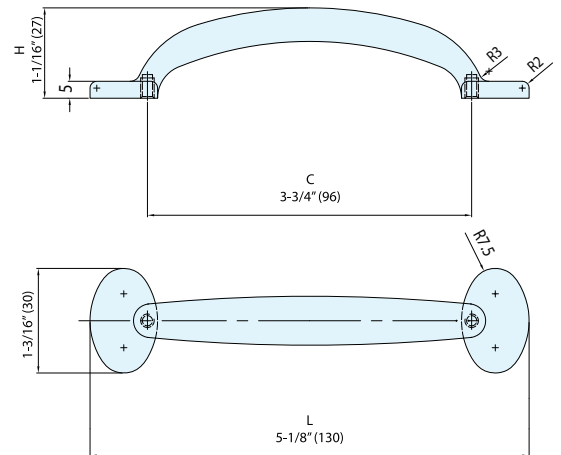
Dark Bronze



Matte Antique Brass



White Bronze



Item No.	L	C	H	Weight (g)	Box (pcs)	Carton (pcs)
ES-Z010-096/WB	5-1/8" (130)	3-3/4" (96)	1-1/16" (27)	97	20	200
ES-Z010-096/DB						
ES-Z010-096/AB						
ES-Z010-096/AC						

Material	Finish
Zinc Alloy	White Bronze (WB), Dark Bronze (DB), Matte Antique Brass (AB), Matte Antique Copper (AC)



CATCHES & LATCHES

MAGNETIC CATCHES
MAGNETIC TOUCH LATCHES
NON MAGNETIC CATCHES
PLASTIC CATCHES
BALL CATCHES
LATCHES
PUSH KNOB LATCHES
SLIDE/BARREL BOLTS
HASPS
SLIDING DOOR LATCHES

MAGNETIC CATCHES

Picture	Item No.	Magnetic Force (lbs)	Page
	MC-JM45 (SEALED)	6.6	104
	MC-JM50 (SEALED)	6.6	104
	MC-JM63G (SEALED)	3.3-11	104
	MC-158	3.3	105
	MC-159	8.8	105
	MC-YN001P	5.9	105
	MC-YN015SP	5	105
	MC-YN005 MC-YN005-N	6.6	106
	MC-YN003	3.7	106
	MC-0083D, 0083	15.4-22	106
	MC-YN005HP	4.4-11	107
	MC0083HP	15-31	107
	MC-FS34	2.9-4.8	109
	MS-FS	4.8-9.9	109
	MC-FP	9.9	109
	FS-17	13.1	110
	MC-FS	3.3-15.4	110
	MC-SS30	6.6	110
	CM-2B	0.9	111
	MC-111, 112, 113	2.2-11	111
	XL-GC09-CR	3.3	111
	MC-SP	10.5-12.3	112
	MC-K	5.2-6.1	112

Picture	Item No.	Magnetic Force (lbs)	Page
	MCH	6.6-33	112
	MC0099	2.4~11.4	113
	MC-110NF	17.6	113
	MC-0051	12	113
	MC-159-ST	4.4~8.8	113.1
	MC-159U-ST	-	113.1
	MC-421	2.5~6.8	113.2
	MC-421 SUS	2~5.3	113.2
	MC-MS45/50	4.4~8.8	114
	MC-159-8	17.6	114
	MC-159-SUS	11	114
	MC-YS	2.6~6.6	114
	MC0097	3.3-7.7	115
	MC-84	6.6	115
	SUPER-78	1.7	115
	SUPER-88	3.3	115
	MC-MSH	4.4~8.8	116
	IS-4	5.5	116
	NB01	2.4	116
	ML-30S	2.6	118
	ML-30W	2.6	118
	ML-80	3.5	119
	ML-120	5.2	119

MAGNETIC CATCHES

Picture	Item No.	Magnetic Force (lbs)	Page
	MC-S60	2.6	120
	MC-U60	2.6	120
	PM-4N HB	2.9	120
	ML-ZN80	6.6	120.1
	MC-25	1.1	121

MAGNETIC STRIPS

Picture	Item No.	Magnetic Force (lbs/in ²)	Page
	NMS	5.5~7.8	121
	KMS	0.85~1.28	121

COUNTERPLATES

Picture	Item No.	Page
	MC-JMP45 	108
	MC-JM49 	108
	AS-68 	108
	W SERIES	108
	Z4	108

LEVER LATCHES

Picture	Item No.	Holding Force (lbs)	Page
	LL-66	44.0	122
	LL-66S 	44.0	122

NON-MAGNETIC CATCHES

Picture	Item No.	Retaining Force (lbs)	Page
	MC-28	6.6	124
	PR-21P/BLK	22	124
	PR-3PK	4.8	124
	NS-2	2.2	125
	PR-4PK	2.6	125
	ESN-195-3.1	7.7	125
	MLC-100	26.4	117
	MLC-100-DP5-WT	20.2	117
	MLC-100DS	26.4	117.1
	MLC-HT130BL	26.4	117.1
	MC-20	8.8	123
	MC-37	17.6	123

KNUCKLE CATCHES

Picture	Item No.	Push in / Pulling Force (lbs)	Page
	1-555, 3-555	29-57 / 18-44	126
	6900, 6901	2.4-4.8 / 3.5-7	126
	JCT-T50	6.6 / 8.3	126
	D-CATCH	6.8 / 5.9	127
	K-CATCH	12.5 / 15.6	127
	JCU-F	4.4 / 4.4	127

TENSION CATCHES

Picture	Item No.	Push in / Pulling Force (lbs)	Page
	BCTS-85J	1.8~17.3/ 1.8~18.4	127.1
	BCTS	4.4-12.5/2.9-8.5	128
	BCT	9.7-10.1/6.6-7.7	128
	BCU	7.9-9 / 5.3-8.6	129

PUSH KNOB LATCHES

Picture	Item No.	Holding Force (lbs)	Page
	ZL-2901	22	130
	TLP	44	131
	TLP 3POINT LOCK	-	132
	TLP-S	44	134
	DPL-RO	22	134
	DPL-OV	22	135
	DPL-SQ	22	135
	PKL-08	22	136
	SL-B	35	137
	PKL-07	22	137

PUSH LOCK FASTENERS

Picture	Item No.	Retaining Force (lbs)	Page
	251F, 151F	55	138
	252F, 125F	33	139
	255F, 155F	33	140

LATCHES

Picture	Item No.	Load Capacity (lbs)	Page
	ATL-64	-	142
	LJ-61	33	142
	LC-48	-	143
	LC-65A	-	143
	LC-PK32	-	144
	SX-48	-	145
	DC	-	146
	PS/P	11-17.6	147
	PS35	4.4	147
	SCC25	-	147
	SCC-30/SS	-	148
	SCC-40/SS	-	148
	SCC-60/SS	-	148
	SCCA-40	-	149
	SCCA-60	-	149
	PS	22-33	149
	STF-40	-	150
	STF-80	176	150
	STF-82L	176	151
	STF-100	176	151
	STF-CV150	727	152
	TF-40C	-	152
	STF-CP140	134	153
	STF-C64A	-	154

LATCHES

Picture	Item No.	Load Capacity (lbs)	Page
	SCC-TF30	112	154
	STF-A56AH, AC	-	154
	P-1040/SS	-	155
	P-102H/SS	-	155
	PN-51	176	155

SLIDE / BARREL BOLTS

Picture	Item No.	Page
	KR-50	156
	KR-65	156
	KR-75	156
	SBL	157
	BL-40, 60	157
	BL-SS	157
	BLS	158
	BS	158
	BSS	158
	BSS-2	159
	BSS-3	159
	PRS-40	160
	FL2	160
	FL4	160
	BL	161
	BLL	161
	BLT	161
	SSG	162
	SSL	162

SLIDE / BARREL BOLTS

Picture	Item No.	Page
	CS	163
	HP-AK	163
	HP-635, 645, 660	164
	HP-635S, 645S, 660S	164
	HP	164

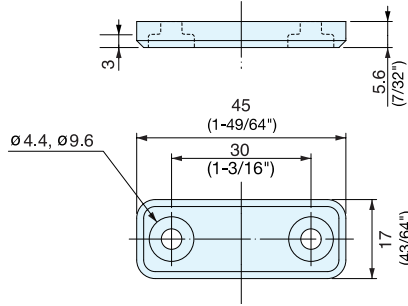
SLIDING DOOR LATCHES

Picture	Item No.	Page
	ZL-2401	165
	ZL-2402	166
	HR-35	168
	HC-30R	168
	HC-30	169
	HC-30H	169
	HC-30L	170
	HC-30HL	170
	HC-70	171
	HC-70H	171
	HC-65	172
	HHC-85	172
	HC-85	173
	HC-3051	174

SEALED MAGNETIC CATCH



MC-JM45



- Hermetically sealed, ideal for high corrosion environments.
- No metal-to-metal contact, ideal for cleanroom applications.
- Strong magnetic force.
- Optional counterplate sold separately:
 - Stainless Steel - MC-JM49, AS-68
 - Plastic Sealed - MC-JMP45WT, MC-JMP45BL
- Note: Only MC-JM45WT is NSF certified.

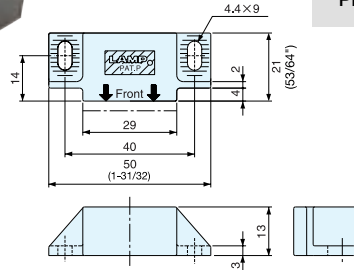
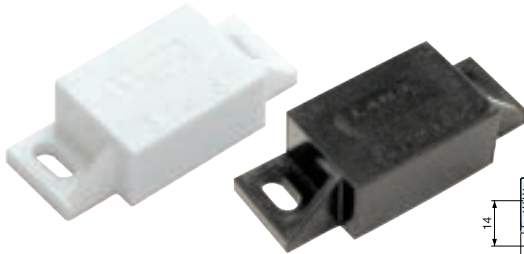
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-JM45WT	3 (6.6 lbs)	8.5	100	1000
MC-JM45BL				

Part Name	Material	Finish/Color
Body	Polypropylene	White (WT)/Black (BL)
Magnet	Neodymium	-

SEALED MAGNETIC CATCH



MC-JM50



- Hermetically sealed, ideal for high corrosion resistance.
- No metal-to-metal contact, ideal for cleanroom application.
- Strong magnetic force.
- Optional counterplate:
 - Stainless Steel - MC-JM49, AS-68
 - Plastic Sealed - MC-JMP45

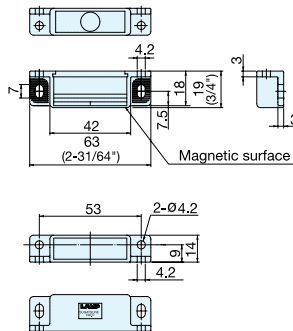
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-JM50/WT	3 (6.6 lbs)	21	24	480
MC-JM50/BL				

Part Name	Material	Finish/Color
Body	Polyacetal	White/Black
Magnet	Neodymium	-

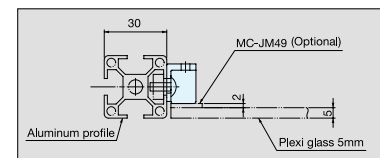
SEALED MAGNETIC CATCH



MC-JM63G



- Hermetically sealed, ideal for high corrosion resistance.
- No metal-to-metal contact, ideal for cleanroom application.
- Strong magnetic force.
- Optional counterplate:
 - Stainless Steel - MC-JM49, AS-68
 - Plastic Sealed - MC-JMP45



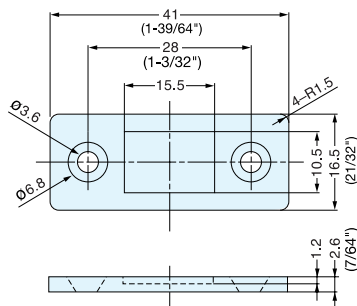
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-JM63G-15	1.5 (3.3 lbs)	20	50	500
MC-JM63G-30	3.0 (6.6 lbs)			
MC-JM63G-50	5.0 (11.0 lbs)			

Part Name	Material	Finish/Color
Body	Polyacetal	Light Grey
Magnet	Neodymium	-

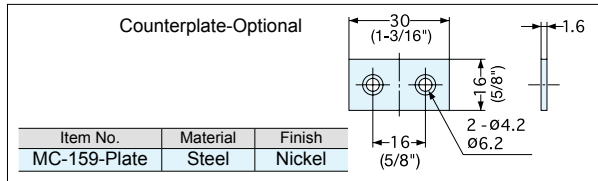
ULTRA THIN & STRONG MAGNETIC CATCH



MC-158, MC-159



- Unique ultra thin magnetic catch design with extra strong magnetic force.
- Note: 1) Max. temperature: 80°C (176°F)
- 2) To avoid breakage, counterplate should not hit magnet.
- 3) Screw heads should not protrude above the base plate.
- 4) Screws not included, use M3 flat head or equivalent.
- 5) Counterplate MC-159-Plate sold separately.



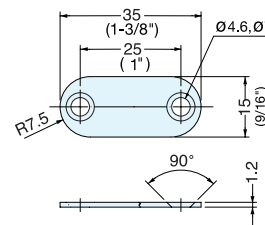
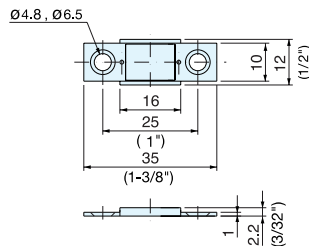
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-158	1.5 (3.3 lbs)	12	200	1000
MC-159, MC-159/BL	4.0 (8.8 lbs)	12	200	1000

Part Name	Material	Finish
Magnet	Neodymium	Nickel/Black (MC-159 only)
Base/Yoke	Steel	

ULTRA THIN MAGNETIC CATCH



MC-YN001P



- Unique ultra thin magnetic catch design ideal for tight spaces.
- Counterplate included.
- Strong magnetic force.
- Note: 1) Max. temperature: 80°C (176°F)
- 2) To avoid breakage, counterplate should not hit magnet.
- 3) Screw heads should not protrude above the base plate.

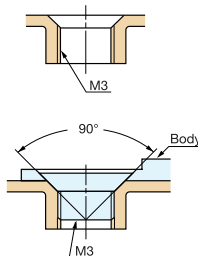
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-YN001P	2.7 (5.9 lbs)	7.5	100	1000

Part Name	Material	Finish
Magnet	Neodymium	Nickel
Base/Yoke/Counterplate	Steel	

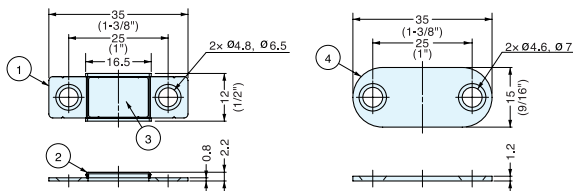
ULTRA THIN STAINLESS STEEL MAGNETIC CATCH



MC-YN015SP



- Ultra-thin magnetic catch with strong rare-earth (neodymium) magnet.
- 304 stainless steel yoke for high corrosion resistance.
- Magnetic catch includes self-tapping screws.
- Note: 1) Magnetic force may be affected when used in/around water or high humidity.
- 2) Max. recommended temperature: 80°C (176°F).
- 3) Counterplate should not come into direct contact with magnet when closing.
- 4) Screw heads should not protrude above the base plate.



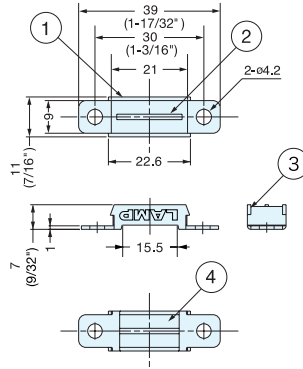
No.	Part Name	Material	Finish
①	Main Body	Stainless Steel	Plain
②	Yoke	304 Stainless Steel	
③	Magnet	Neodymium	Epoxy Coating
④	Counterplate	Stainless Steel	Plain

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-YN015SP	2.3 kg (5.0 lbs)	7.3	100	2000

STAINLESS STEEL MAGNETIC CATCH



MC-YN005-N/YN005



- Thin magnetic catch ideal for tight spaces.
- MC-YN005-N: stronger magnetic force by using Neodymium magnet.

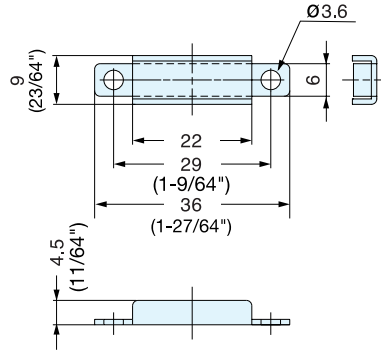
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-YN005	3 (6.6 lbs)	9	200	1000
MC-YN005-N	7.5 (16.5 lbs)	10	200	1000

No.	Part Name	Material		Finish	
		MC-YN005	MC-YN005-N	MC-YN005	MC-YN005-N
①	Yoke	430 Stainless Steel	430 Stainless Steel	Plain	Polished
②	Center Yoke				Plain
③	Back Plate	304 Stainless Steel	304 Stainless Steel		Nickel
④	Magnet	Ferrite	Neodymium		

THIN MAGNETIC CATCH



MC-YN003



- Thin magnetic catch ideal for tight spaces.

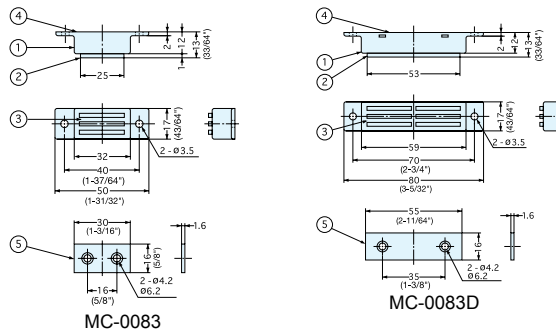
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-YN003	1.7 (3.7 lbs)	5	500	2500

Part Name	Material	Finish
Magnet	Ferrite	-
Base/Yoke	Steel	Nickel

HEAVY DUTY MAGNETIC CATCH



MC-0083D, 0083



- Strong magnetic force.

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-0083D	10 (22.0 lbs)	63	20	200
MC-0083	7 (15.4 lbs)	32	40	400

No.	Part Name	Material	Finish
①	Housing	Brass	Nickel
②	Yoke	Steel	
③	Magnet	Ferrite	-
④	Back plate	Aluminum	Anodized
⑤	Counterplate	Steel	Nickel

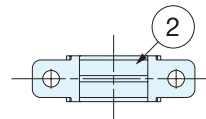
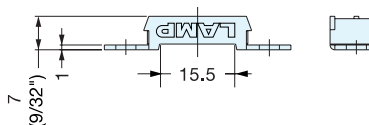
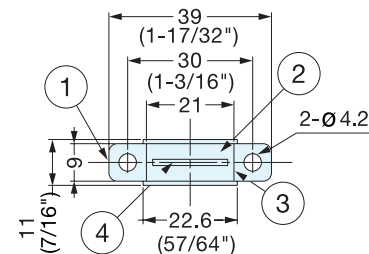
HIGH TEMPERATURE MAGNETIC CATCH



MC-YN005HP



- Suitable for high temperature environments up to 250°C (482°F).
- Optional counterplates:
 - MC-JM49
 - AS-68



No.	Part Name	Material	Finish/Color
①	Yoke	430 Stainless Steel	Plain
②	Magnet	Samarium Cobalt	-
③	Housing	304 Stainless Steel	Plain
④	Center Yoke	430 Stainless Steel	

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-YN005HP-20	2.0 (4.4 lbs)	11	200	1000
MC-YN005HP-50	5.1 (11.0 lbs)			

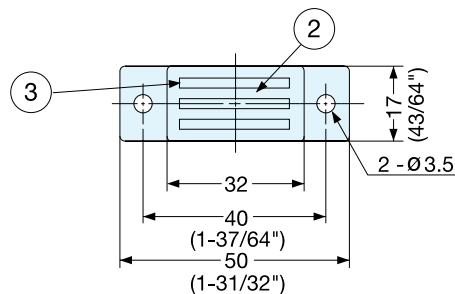
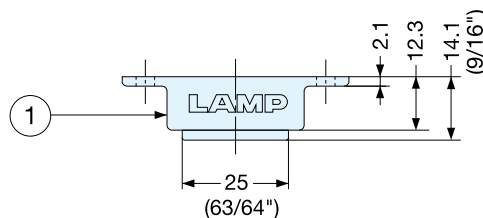
HIGH TEMPERATURE MAGNETIC CATCH



MC0083HP



- Suitable for high temperature environments up to 250°C (482°F).
- Strong magnetic force.
- Optional counterplates:
 - MC-JM49
 - AS-68



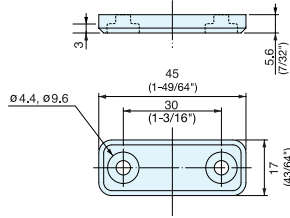
No.	Part Name	Material	Finish/Color
①	Housing	304 Stainless Steel	Plain
②	Magnet	Samarium Cobalt	-
③	Yoke	430 Stainless Steel	Plain

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC0083HP-70	7 (15 lbs)	40	40	400
MC0083HP-140	14 (31 lbs)			

SEALED COUNTERPLATE



MC-JMP45



- Hermetically sealed strike eliminates metal particles when applied with MC-JM sealed magnetic catches.
- Same design as MC-JM45WT, MC-JM45BL - Blue marking on the back side to distinguish strike plate from magnet.
- Note: Only MC-JMPWT is NSF certified

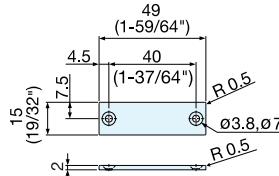
Item No.		Weight (g)	Box (pcs)	Carton (pcs)
MC-JMP45WT	MC-JMP45BL	8.5	100	1000

Part Name	Material	Finish/Color
Body	Polypropylene	White (WT)/Black (BL)
Plate	Steel	Plain

STAINLESS STEEL COUNTERPLATE



MC-JM49



- Special plate for MC-JM magnetic catches.
- Equivalent to 304 stainless steel, ideal for applications where rust is an issue.
- High corrosion resistant.

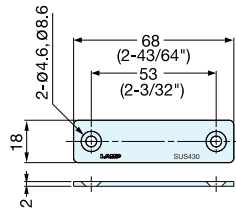
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
MC-JM49	10	100	1000

Material	Finish
Stainless Steel	Plain

STAINLESS STEEL COUNTERPLATE



AS-68



- Special plate for MC-JM magnetic catches.
- 430 stainless steel provides corrosion resistance.

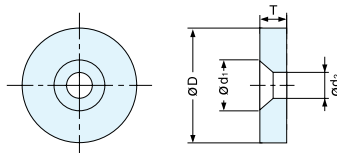
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
AS-68	17	100	1000

Material	Finish
430 Stainless Steel	Plain

COUNTERPLATE



W SERIES

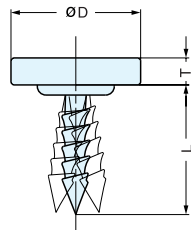


Item No.	T	D	d ₁	d ₂	Weight (g)	Box (pcs)	Carton (pcs)
W4	2.5 (3/32")	12 (15/32")	6	3.4	1.7	1000	10000
W12	3.0 (1/8")	15 (19/32")	8	4.0	3.3	600	3000

Material	Finish
Steel	Chromate (W4)
	Nickel (W12)

STRIKE

Z4



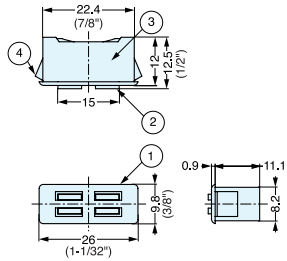
Item No.	T	D	L	Weight (g)	Box (pcs)	Carton (pcs)
Z4	2.5 (3/32")	12 (15/32")	12 (15/32")	2	1000	4000

Material	Finish
Steel	Nickel

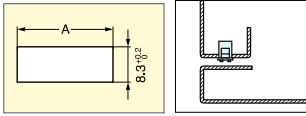
MAGNETIC CATCH (SNAP-IN TYPE)



MC-FS34



- Snap-in magnetic catch for sheet metal applications.
- Compact size



Cut Out Dimensions

Item No.	Panel Thickness	A
MC-FS34WW/GW	0.5	22.6 +0.2, 0
	0.8	23.7 +0.2, 0
MC-FS34WB/BB/GB	1.0	22.7 ±0.1
	1.2	23.5 ±0.1
	1.4	24.0 ±0.1
MC-FS34WG/GG	1.6	22.7 ±0.1
	2.0	23.8 ±0.1

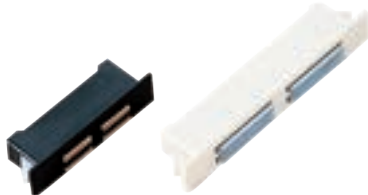
Item No.	Body Color	Spring Color	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-FS34WW	White	White	1.3 (2.9 lbs)	5.3	200	2000
MC-FS34GW	Grey		2.2 (4.8 lbs)			
MC-FS34WB	White	Blue	1.3 (2.9 lbs)			
MC-FS34BB	Black		2.2 (4.8 lbs)			
MC-FS34GB	Grey	Green	1.3 (2.9 lbs)			
MC-FS34WG	White		2.2 (4.8 lbs)			
MC-FS34GG	Grey		2.2 (4.8 lbs)			

No.	Part Name	Material	Finish/Color
①	Body	Polyamide	Gray/Black/White
②	Yoke	Steel	Yellow Zinc Chromate
③	Magnet	Ferrite	-
④	Spring	Polyacetal	Blue/Green/White

MAGNETIC CATCH (SNAP-IN TYPE)

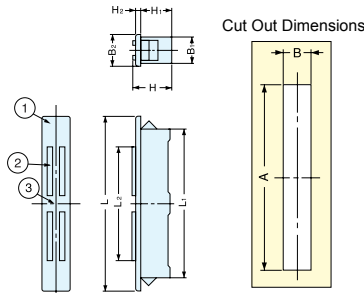


MC-FS

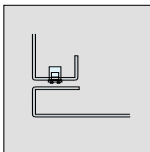


MC-FS5B

MC-FS10B



- Snap-in magnetic catch for sheet metal applications.



Installation

No.	Part Name	Material	Finish/Color
①	Housing	ABS	White (W), Black (B)
②	Yoke	Steel	Yellow Zinc Chromate
③	Magnet	Ferrite	-

Door Thickness	Cut Out Dimensions			
	MC-FS5		MC-FS10	
	A	B	A	B
0.8	34.1 (1-11/32")	8.2 (21/64")	55.0 (2-5/32")	
1.0			55.5 (2-3/16")	
1.2	34.5 (1-23/64")		56.0 (2-13/64")	
1.6	35.0 (1-3/8")		56.5 (2-7/32")	
2.0	36.5 (1-7/16")	8.2 (21/64")		

Item No.	L	L ₁	L ₂	B ₁	B ₂	H	H ₁	H ₂	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	
MC-FS5W	MC-FS5B	40	33.9 (1-11/32")	21.6	8	10	13.5 (17/32")	11.2	1.2	2.2 (4.8 lbs)	9	200	2000
MC-FS10W	MC-FS10B	64	54.5 (2-9/64")	43.0			14.0 (35/64")	11.5	1.5	4.5 (9.9 lbs)	20	50	1000

MAGNETIC CATCH (SNAP-IN TYPE)

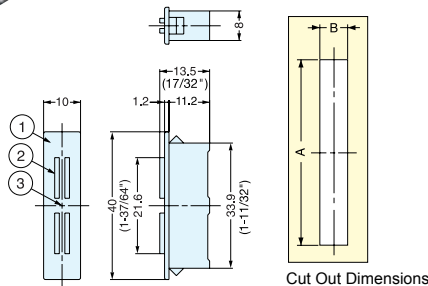


MC-FP

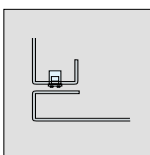


White

Black



- Snap-in magnetic catch for sheet metal applications.
- Small design with a strong magnetic force.



Installation

No.	Part Name	Material	Finish/Color
①	Housing	ABS	White (WT), Black (BL)
②	Yoke	Steel	Yellow Zinc Chromate
③	Magnet	Neodymium	-

Door Thickness	Cut Out Dimensions	
	A	B
0.8	34.1 (1-11/32")	8.2 (21/64")
1.0		
1.2		
1.6		
2.0	36.5 (1- 7/16")	

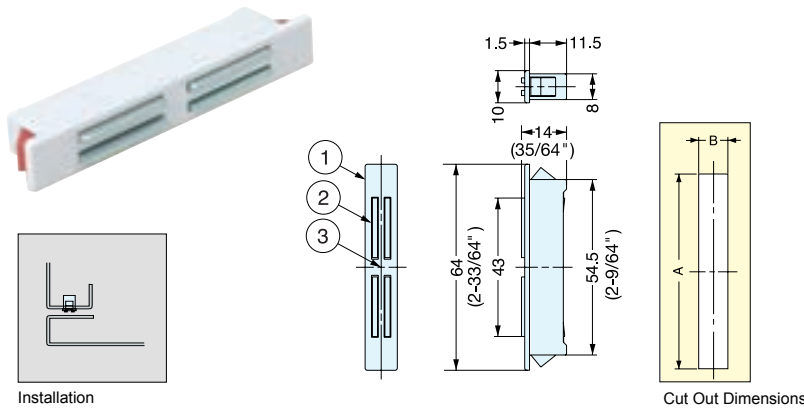
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-FP5SWT	4.5 (9.9 lbs)	9	200	2000
MC-FP5SBL				

MAGNETIC CATCH (SNAP-IN TYPE)



FS-17

- Snap-in magnetic catch for sheet metal applications.



Installation

Cut Out Dimensions

No.	Part Name	Material	Finish/Color
①	Housing	ABS	White
②	Yoke	Steel	Yellow Zinc Chromate
③	Magnet	Ferrite	-

Panel Thickness	Cut Out Dimensions	
	A	B
0.8	55.0 (2-5/32")	8.2 (21/64")
1.0		
1.2		
1.6	55.5 (2-3/16")	
2.0	56.0 (2-13/64")	
	56.5 (2-7/32")	

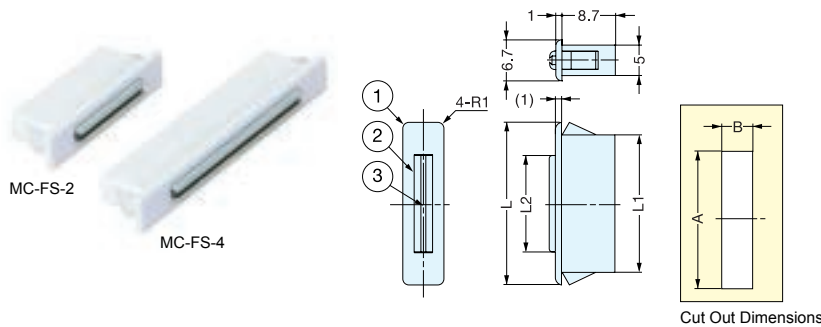
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
FS-17	6 (13.1 lbs)	18	50	100

THIN MAGNETIC CATCH (SNAP-IN TYPE)



MC-FS

- Snap-in magnetic catch for sheet metal applications.
- Small size for tight spaces.



MC-FS-2

MC-FS-4

Cut Out Dimensions

No.	Part Name	Material	Finish/Color
①	Housing	ABS	White
②	Yoke	Steel	Yellow Zinc Chromate
③	Magnet	W: Ferrite SW: Neodymium	-

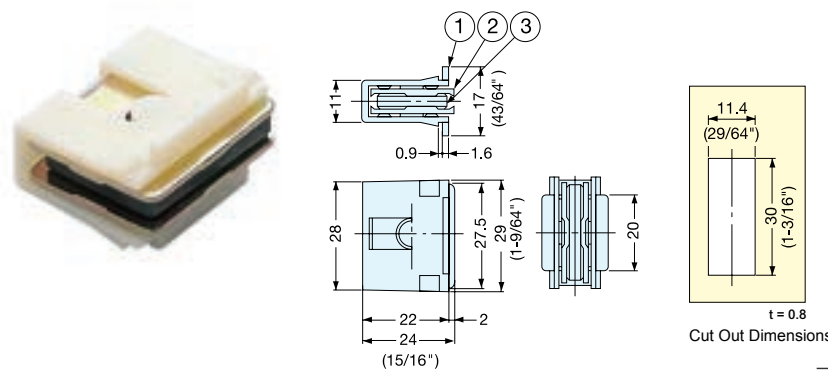
Panel Thickness	Cut Out Dimensions	
	A	B
0.8	39.9 (1-37/64")	5 (13/64")
1.0	40.5 (1-19/32")	
1.2	41.8 (1-41/64")	

Item No.	L	L ₁	L ₂	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-FS-2W	26.5 (1-3/64")	22.4 (57/64")	16.0 (5/8")	1.5 (3.3 lbs)	3.5	400	4000
MC-FS-2SW				3.5 (7.7 lbs)			
MC-FS-4W	45.0 (1-25/32")	39.6 (1-9/16")	30.3 (1-3/16")	2.5 (5.5 lbs)	5.8	200	2000
MC-FS-4SW				7.0 (15.4 lbs)			

MAGNETIC CATCH (SNAP-IN TYPE)

MC-SS30

- Snap-in magnetic catch for sheet metal applications.
- Panel Thickness: 0.8 mm



Cut Out Dimensions

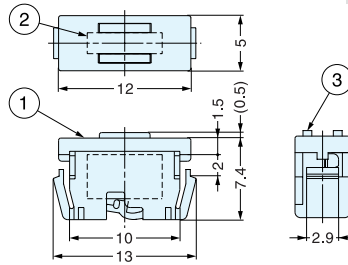
No.	Part Name	Material	Finish/Color
①	Housing	ABS	Ivory
②	Yoke	Steel	Yellow Zinc Chromate
③	Magnet	Ferrite	-

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton
MC-SS30	3 (6.6 lbs)	22	60	600

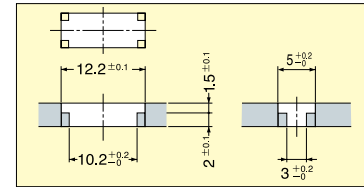
MINI MAGNETIC CATCH (SNAP-IN TYPE)



CM-2B



- Snap-in installation.
- Small size for light weight applications.



Cut Out Dimensions

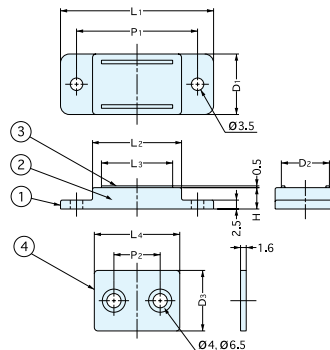
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)
CM-2B	0.4 (0.9 lbs)	1	200

No.	Part Name	Material	Finish/Color
①	Housing	Polyamide	Black
②	Magnet	Ferrite	-
③	Yoke	Steel	Black Zinc

MAGNETIC CATCH



MC-111, 112, 113



- Low profile design is ideal for tight spaces.

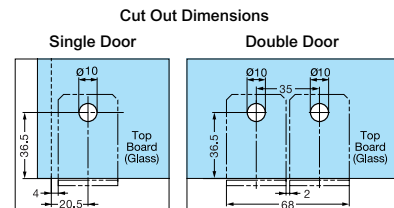
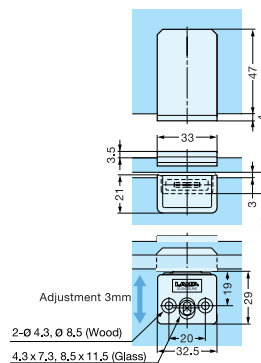
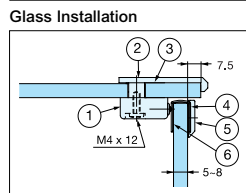
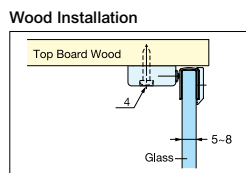
Item No.		Magnetic Force (kg)	L ₁	L ₂	L ₃	L ₄	D ₁	D ₂	D ₃	P ₁	P ₂	H	Weight (g)	Box (pcs)	Carton (pcs)
Black	Ivory														
MC-111/BLK	MC-111/IVY	5 (11.0 lbs)	64 (2-33/64")	46	42	45 (1-49/64")	24.5 (31/32")	21.0	24 (15/16")	55	30	7.0	48	50	500
MC-112/BLK	MC-112/IVY	3 (6.6 lbs)	53 (2-5/64")	35	31	34 (1-11/32")	23.5 (59/64")	20.0	23 (29/32")	44	20	6.2	32	100	1000
MC-113/BLK	-	1 (2.2 lbs)	43 (1-11/16")	25	20	24 (15/16")	17.0 (43/64")	13.5	17 (43/64")	34	13	6.0	14	100	1000

No.	Part Name	Material	Finish/Color
①	Housing	ABS	Black (BLK), Ivory (IVY)
②	Magnet	Ferrite	-
③	Yoke	Steel	Yellow Zinc Chromate
④	Counterplate		Nickel

GLASS MAGNETIC CATCH



XL-GC09-CR



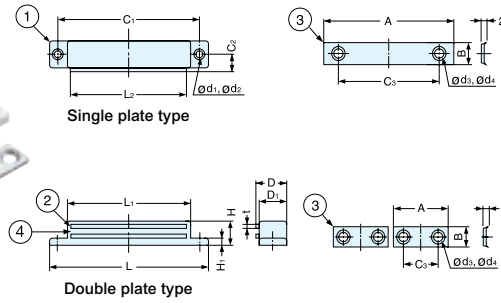
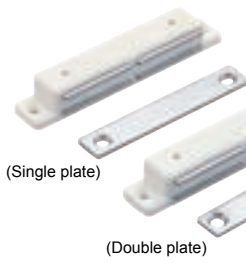
No.	Part Name	Material	Finish/Color
①	Housing	Zinc Alloy	Chrome
②	Plate		Chrome
③	Spacer	Rubber	Black
④	Counterplate	Steel	Chrome
⑤	Face Plate	Zinc Alloy	
⑥	Pad	Rubber	Black

Item No.	Magnetic Force (kg)	Glass Thickness	Weight (g)	Box (pcs)	Carton (pcs)
XL-GC09-CR	1.5 (3.3lbs)	5-8 mm	110	1	24

MAGNETIC CATCH



MC-SP



• Double plate option available for double doors meeting in the center.

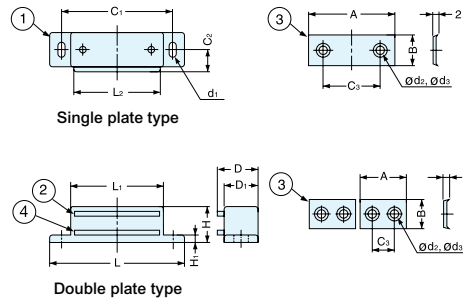
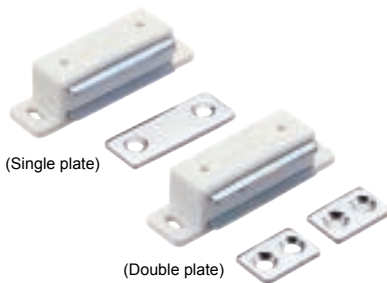
No.	Part Name	Material	Finish/Color
①	Housing	PBT	White
②	Yoke	430 Stainless Steel	Plain
③	Counterplate		
④	Magnet	Ferrite	-

Item No.	L	L ₁	L ₂	D	D ₁	H	H ₁	C ₁	C ₂	C ₃	d ₁	d ₂	d ₃	t	d ₄	A	B	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-SPM-S	86 (3-25/64")	68.4	63	17.0	15	13 (33/64")	4	77	9.2	57	20	3	6	4.5	1.5	70 (2-3/4")	12 (15/32")	4.8 (10.5 lbs)	57.0	12	360
MC-SPM-W																					
MC-SPL-S	106 (4-11/64")	85.6	80	20.5	18	16 (5/8")	94	11.4	25	65	6	4.5	2.0	6.8	79 (3-7/64")	14 (35/64")	5.6 (12.3 lbs)	100.0	6	180	
MC-SPL-W																					38 (1-1/2")

MAGNETIC CATCH



MC-K



• Double plate option available for double doors meeting in the center.

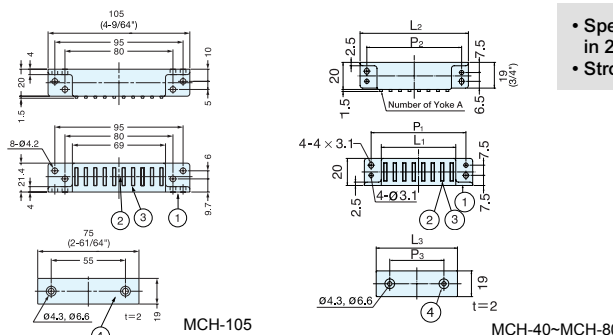
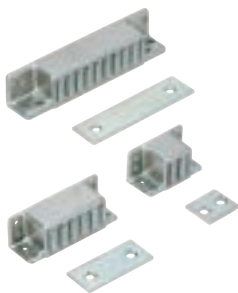
No.	Part Name	Material	Finish/Color
①	Housing	PBT	White
②	Yoke	Steel	Chromate
③	Counterplate		Chrome
④	Magnet	Ferrite	-

Item No.	L	L ₁	L ₂	D	D ₁	H	H ₁	C ₁	C ₂	C ₃	d ₁	d ₂	d ₃	A	B	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-KM-S	50.5 (1-63/64")	33	30	17	15	12 (15/32")	3.0	42	10.0	20	3.2x6.2	4.2	6.7	30 (1-3/16")	11.5 (29/64")	2.4 (5.2 lbs)	26	12	720
MC-KL-S																			
MC-KL-W	60.0 (2-23/64")	42	38	18	15	16 (5/8")	3.2	50	10.5	10	3.2x6.0	4.3	6.4	20 (25/32")	13.0 (33/64")	2.8 (6.1 lbs)	45	360	

HEAVY DUTY MAGNETIC CATCH



MCH



• Special design provides screw mounting options in 2 different planes.
• Strong and heavy duty magnetic catch.

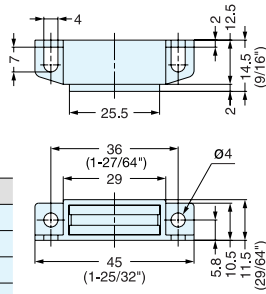
No.	Part Name	Material	Finish
①	Housing	Zinc Alloy	Nickel
②	Magnet	Ferrite	-
③	Yoke	Steel	Yellow Zinc Chromate
④	Counterplate		

Item No.	L ₁	L ₂	L ₃	P ₁	P ₂	P ₃	A	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MCH-40	20	40 (1-37/64")	22 (55/64")	30	30	12	3	3 (6.6 lbs)	56	60	300
MCH-50	27	50 (1-31/32")	29 (1-9/64")	40	40	18	4	7 (15.4 lbs)	74	50	250
MCH-61	41	61 (2-13/32")	43 (1-11/16")	50	50	27	6	11 (24.2 lbs)	110	40	200
MCH-80	55	80 (3-5/32")	60 (2-23/64")	70	70	40	8	14 (30.8 lbs)	140	30	150
MCH-105	69	105 (4-9/64")	75 (2-61/64")	80	80	55	10	15 (33.0 lbs)	206	24	120

MAGNETIC CATCH



MC0099



- Special design provides screw mounting options in 2 different planes.
- Three different magnetic forces available.
- Strike available (sold separately).

Material	Finish/Color
ABS	Black (BLK), White (WHT)
Polycarbonate	Grey (GR)
Steel	Yellow Zinc Chromate
Ferrite	-

Strike Plate (Sold separately)

Item No.	Material	Finish
SP0207	Steel	Chromate

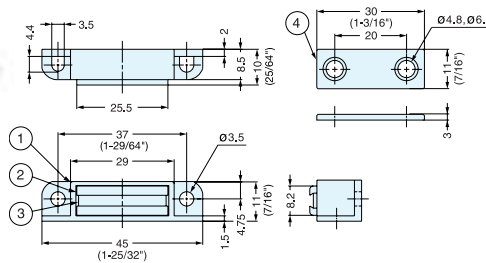
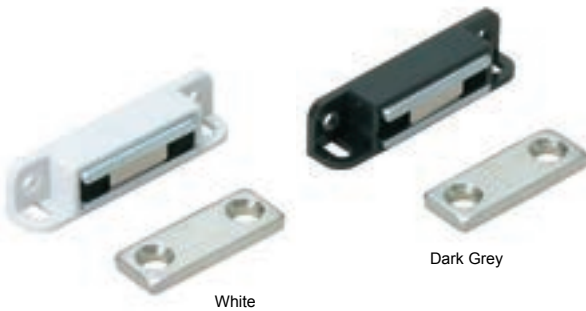
Technical drawing of strike plate with dimensions: 26mm length, 12mm width, 1.4mm thickness, 0.5mm hole offset, 12mm hole diameter, 15/32" hole diameter, 4.5mm hole diameter, 6.5mm hole diameter.

Item No.		Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
Black	White				
MC0099/BLK	MC0099/WHT	1.1 (2.4 lbs)	16.3	100	1000
MC0099S/BLK	MC0099S/WHT	3.8 (8.3 lbs)			
MC0099/GR(Grey)		5.2 (11.4 lbs)			

STRONG MAGNETIC CATCH



MC-110NF



- Special design provides screw mounting options in 2 different planes.
- Strong magnetic force in a small casing.

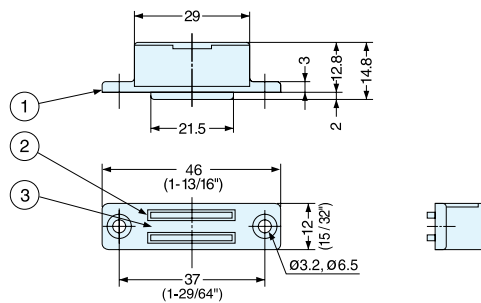
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-110NF/WHT	8 (17.6 lbs)	10	100	800
MC-110NF/GR				

No.	Part Name	Material	Finish/Color
①	Housing	Polycarbonate	White (WHT), Grey (GR)
②	Yoke	Steel	Yellow Zinc Chromate
③	Magnet	Neodymium	Nickel
④	Counterplate	Steel	Yellow Zinc Chromate

MAGNETIC CATCH



MC-0051



Strike Plate (Sold separately)

Item No.	Material	Finish
SP0207	Steel	Chromate

Technical drawing of strike plate with dimensions: 26mm length, 12mm width, 1.4mm thickness, 0.5mm hole offset, 12mm hole diameter, 15/32" hole diameter, 4.5mm hole diameter, 6.5mm hole diameter.

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-0051	5.5 (12 lbs)	17	50	500

No.	Part Name	Material	Finish/Color
①	Housing	ABS	Black
②	Yoke	Steel	Chromate
③	Magnet	Ferrite	-

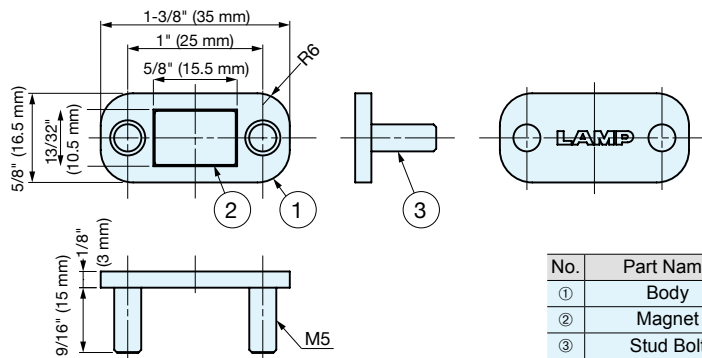
STAINLESS STEEL MAGNETIC CATCH (ULTRA-THIN/BACK MOUNT) MC-159-ST



Front

Back

- The bolts are designed to be fixed with nuts from the back side.
- As there are no screw heads, it is easy to install and keep the flat surface clean
- Neodymium magnet for strong magnetic force.
- Ultra-thin design with 3 mm thickness.
- Counter plate of back-mount type is also available.



No.	Part Name	Material	Finish
①	Body	430 Stainless Steel	Barrel Polished
②	Magnet	Zinc Alloy	Neodymium
③	Stud Bolt	303 Stainless Steel	-

Item No.	Magnetic Force (kgf)	Weight (g)	Box (pcs)	Carton (pcs)
MC-159-2-ST	2 (4.41 lbs)	14	400	1200
MC-159-4-ST	4 (8.82 lbs)			

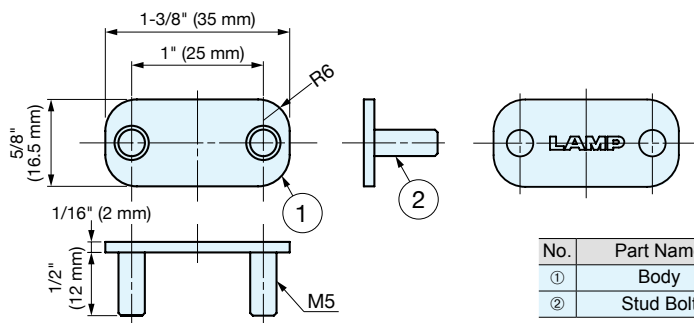
STAINLESS STEEL COUNTER PLATE (BACK MOUNT) MC-159U-ST



Front

Back

- The bolts are designed to be fixed with nuts from the back side.
- As there are no screw heads, it is easy to install and keep the flat surface clean



No.	Part Name	Material	Finish
①	Body	430 Stainless Steel	Barrel Polished
②	Stud Bolt	303 Stainless Steel	-

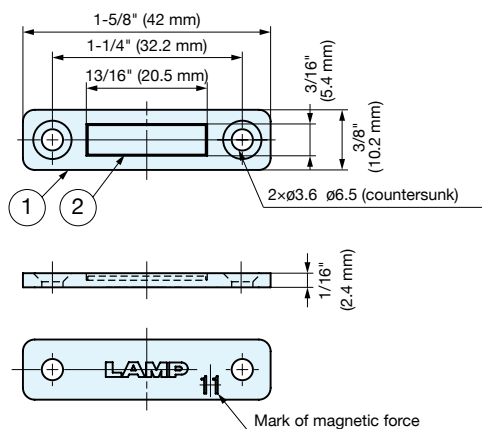
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
MC-159U-ST	13.2	50	1000

ULTRA THIN MAGNETIC CATCH


MC-421


• Unique ultra thin magnetic catch design with extra strong magnetic force

- Note: 1) To avoid breakage, counterplate should not hit magnet.
 2) Screw heads should not protrude above the base plate.
 3) Max temperature; 80°C (176°F)
 4) Screws not included, use M3 flat head or equivalent.
 5) Counterplate MC-159-Plate sold separately.



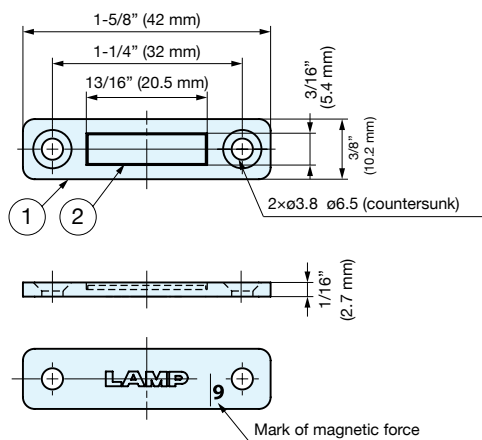
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish
MC-421-11	1.14 (2.5 lbs)	6.4	250	1500	①	Body	Steel	Nickel
MC-421-30	3.1 (6.8 lbs)	6.6			②	Magnet	Neodymium	

ULTRA THIN STAINLESS STEEL MAGNETIC CATCH


MC-421SUS


• Unique ultra thin magnetic catch design with extra strong magnetic force

- Note: 1) To avoid breakage, counterplate should not hit magnet.
 2) Screw heads should not protrude above the base plate.
 3) Max temperature; 80°C (176°F)
 4) Screws not included, use M3 flat head or equivalent.
 5) Counterplate MC-159-Plate sold separately.

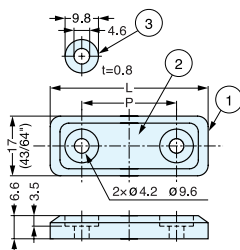


Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish
MC-421SUS-9	0.9 (2 lbs)	6.9	250	1500	①	Body	430 Stainless Steel	Polished
MC-421SUS-24	2.4 (5.3 lbs)	7.1			②	Magnet	Neodymium	Nickel

SEALED MAGNETIC CATCH



MC-MS45/50



- Sealed with silicon rubber to reduce noise when door closes.
- Strong magnetic force.
- Optional counterplate sold separately
 - Stainless Steel - MCJM49, AS-68
 - Plastic Sealed - MC-JMP45
- Screws not included: M4 truss screw recommended.

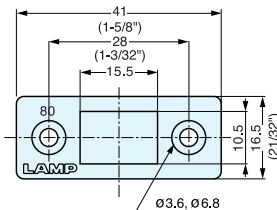
No.	Part Name	Material	Finish/Color
①	Body	Silicone Rubber	Light Gray/Dark Gray
②	Magnet	Neodymium	Nickel
③	Washer	304 Stainless Steel	Plain

Item No.	Body Color	L	P	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-MS45LGR	Light Gray	45 (1-49/64")	27 (1-1/16")	2.0 (4.4 lbs)	12	100	1000
MC-MS45DGR	Dark Gray			2.0 (4.4 lbs)			
MC-MS50LGR	Light Gray	50 (2")	32 (1-17/64")	4.0 (8.8 lbs)	15	100	1000
MC-MS50DGR	Dark Gray						

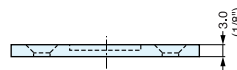
ULTRA THIN & STRONG MAGNETIC CATCH



MC-159-8



- Ultra thin magnetic catch with extra strong magnetic force.
- Note: 1) Max. temperature: 80°C (176°F).
- 2) To avoid damage, counterplate should not hit magnet.
- 3) Counterplate MC-YN001U or MC-JM49 sold separately.
- 4) Screws not included; use M3 flat head or equivalent.

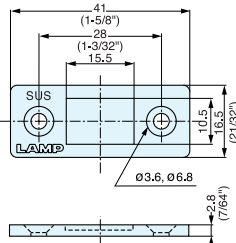


Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material	Finish
MC-159-8	8 (17.6 lbs)	14	200	1000	Body	Steel	Nickel
					Magnet	Neodymium	

ULTRA THIN STAINLESS STEEL MAGNETIC CATCH



MC-159-SUS



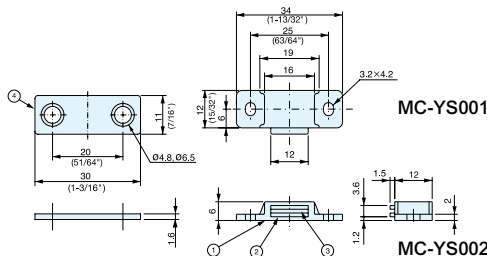
- Stainless Steel ultra thin magnetic catch with extra strong magnetic force.
- Note: 1) Max. temperature: 80°C (176°F).
- 2) To avoid damage, counterplate should not hit magnet.
- 3) Counterplate MC-YN001U or MC-JM49 sold separately.
- 4) Screws not included; use M3 flat head or equivalent.

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material	Finish
MC-159-SUS	5 (11.0 lbs)	13	200	1000	Body	430 Stainless Steel	Nickel
					Magnet	Neodymium	

MINI MAGNETIC CATCH



MC-YS



- Mini magnetic catch is ideal for tight spaces.
- Strong or light magnetic force available.

No.	Part Name	Material	Finish/Color
①	Housing	PBT	White
②	Yoke	Steel	Clear Zinc Chromate
③	Magnet	Neodymium	Nickel
④	Counterplate	Steel	Clear Zinc Chromate

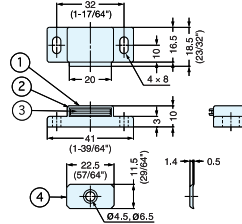
No.	Part Name	Material	Finish/Color
①	Housing	PBT	White
②	Yoke	Steel	Clear Zinc Chromate
③	Magnet	Ferrite	-
④	Counterplate	Steel	Clear Zinc Chromate

Item No.	Magnet	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-YS001	Neodymium	3.0 (6.6 lbs)	6	100	1000
MC-YS002	Ferrite	1.2 (2.6 lbs)	5		

MAGNETIC CATCH



MC0097



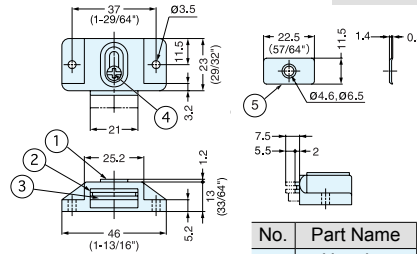
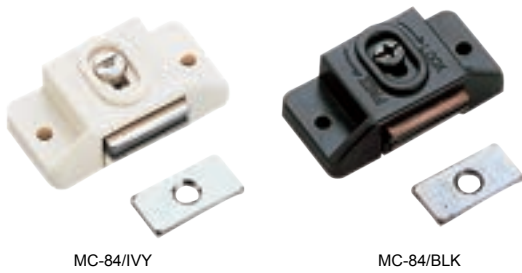
No.	Part Name	Material	Finish/Color
①	Housing	Polyethylene	Black/White
②	Yoke	Steel	Chromate
③	Magnet	Ferrite	-
④	Counterplate	Steel	Chromate

Item No.		Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
White	Black				
MC0097/WHT	MC0097/BLK	1.5 (3.3 lbs)	12	100	1000
MC0097/WHT-1	MC0097/BLK-1	3.5 (7.7 lbs)			

MAGNETIC CATCH



MC-84



• Adjustable magnet position (5.5 mm)

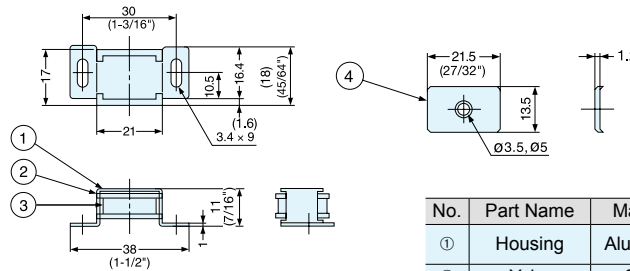
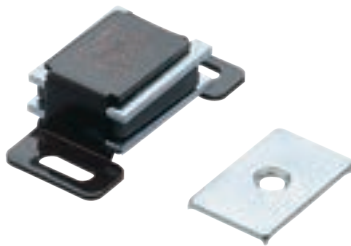
No.	Part Name	Material	Finish/Color
①	Housing	ABS	Black (BLK), Ivory (IVY)
②	Yoke	Steel	Bronze/Nickel
③	Magnet	Ferrite	-
④	Screw	Steel	Bronze/Nickel
⑤	Counterplate		

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-84/IVY	3 (6.6 lbs)	18	50	1000
MC-84/BLK				

MAGNETIC CATCH



SUPER-78



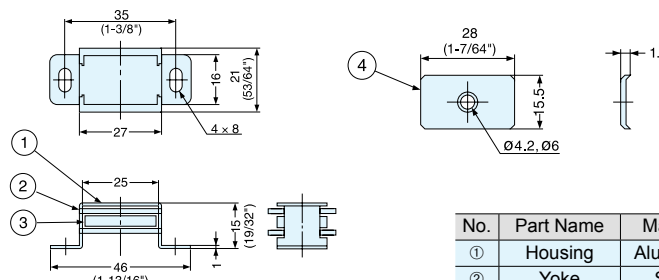
No.	Part Name	Material	Finish/Color
①	Housing	Aluminum	Brown Baked Lacquered
②	Yoke	Steel	Chromate
③	Magnet	Ferrite	-
④	Counterplate	Steel	Chromate

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SUPER-78	0.8 (1.7 lbs)	17	36	720

MAGNETIC CATCH



SUPER-88



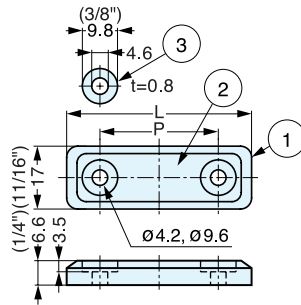
No.	Part Name	Material	Finish/Color
①	Housing	Aluminum	Anodized
②	Yoke	Steel	Chromate
③	Magnet	Ferrite	-
④	Counterplate	Steel	Chromate

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SUPER-88	1.5 (3.3 lbs)	28.5	24	720

SEALED MAGNETIC CATCH



MC-MSH



- Sealed with silicon rubber to reduce noise when door closes.
- Strong magnetic force.
- Optional counterplate sold separately
 - Stainless Steel - MCJM49, AS-68
 - Plastic Sealed - MC-JMP45
- Screws not included: M4 truss screw recommended.

No.	Part Name	Material	Finish/Color
①	Body	Silicone Rubber	Blue
②	Magnet	Neodymium	Nickel
③	Washer	304 Stainless Steel	Plain

Item No.	L	P	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-MSH45BU	45 (1-49/64")	27 (1-1/16")	2.0 (4.4 lbs)	12	100	1000
MC-MSH50BU	50 (1-31/32")	32 (1-17/64")	4.0 (8.8 lbs)	15		

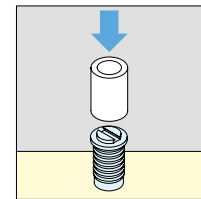
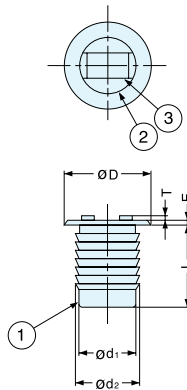
MAGNETIC CATCH

IS-4



IS-4/WHT

IS-4/BLK



Installation

No.	Part Name	Material	Finish/Color
①	Housing	Polypropylene	White (WHT), Black (BLK)
②	Yoke	Steel	Yellow Zinc Chromate
③	Magnet	Ferrite	-

Item No.	D	L	E	T	d ₁	d ₂	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
IS-4/WHT	14 (35/64")	14 (35/64")	0.7	1.2	11	12	2.5 (5.5 lbs)	7.7	200	3000
IS-4/BLK										

MAGNETIC CATCH (AND OPTIONAL SNAP-IN HOLDER)

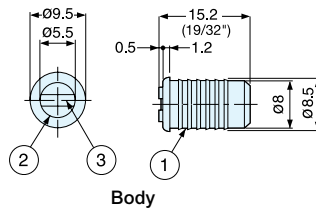


NB01

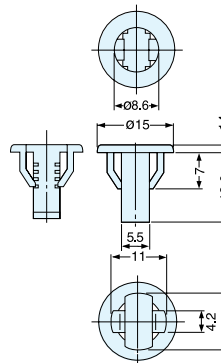


NB01H

NB01H/WHT

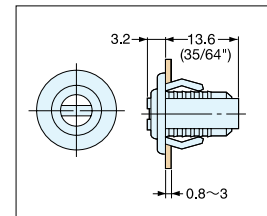


Body



Snap-In Holder

- Snap-in holder for sheet metal 1/32" to 1/8" (0.8-3 mm).



■ Snap-In Holder (Optional)

Item No.	Weight (g)
NB01H	0.5

■ Main Body

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
NB01/WHT	1.1 (2.4 lbs)	2	500	5000

No.	Part Name	Material	Finish/Color
①	Housing	Polyamide	White (WHT)
②	Yoke	Steel	Chromate
③	Magnet	Ferrite	-

Door Thickness	Cut Out Dimensions
0.8-1.4	Ø11.5
1.5-3.0	Ø12.0

MLC SERIES TOUCH LATCH DIGEST

Create a clean, minimalistic space and eliminate the need for handles with a touch latch! The MLC-100 Series is a new generation of non-magnetic touch latches, characterized by a long latch stroke and other special features:

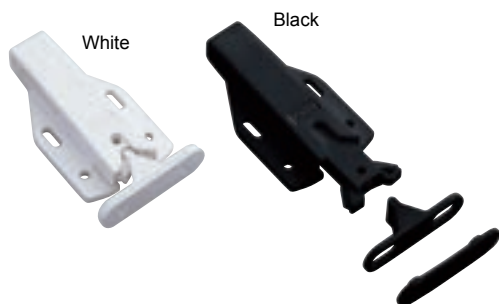
Item No.	MLC-100	MLC-100DS	MLC-HT130
Latch Open/Close Stroke	15/16" (23mm)	15/16" (23mm)	1-9/16" (40mm)
Retaining Force	20.2 lbf (9.2 kgf)	20.2 lbf (9.2 kgf)	26.4 lbf (12 kgf)
Push Force	3.1 lbf (1.4 kgf)	3.1 lbf (1.4 kgf)	3.7 lbf (1.7 kgf)
Comparison Notes	Available in both Black or White	Vertical Adjustable $\pm 3/16"$ ($\pm 4\text{mm}$) Horizontal Adjustable $\pm 1/8"$ ($\pm 3.5\text{mm}$)	Heat resistant to 248°F (120°C)

Non-magnetic push latches can be used make cabinets resistant to earthquakes or other movement, such as in boat or RV/motorcoach cabins.

TOUCH LATCH

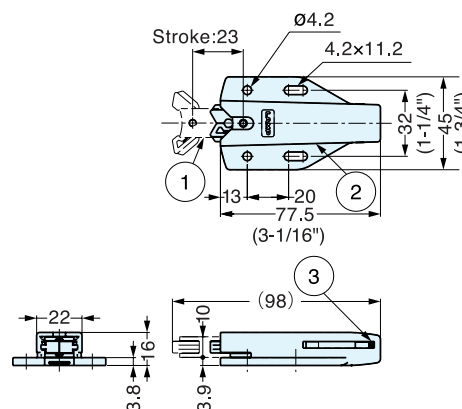
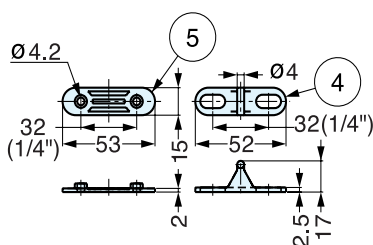
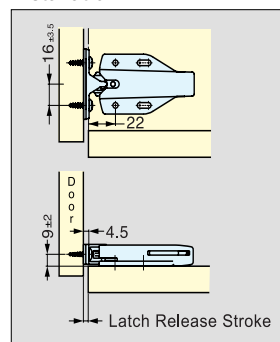


MLC-100



- Self-adjusting strike plate: Vertical ± 2 /Horizontal ± 3.5 mm.
- Long stroke 23 mm (15/16"), for thick doors.
- Push to latch/unlatch.
- Non-magnetic.
- Open/Close cycle test: 100,000 cycles.

Installation



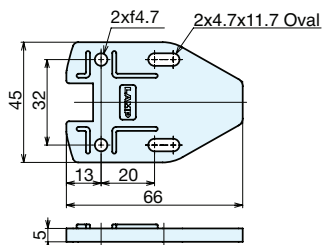
No.	Part Name	Material	Color
①	Body 1	Reinforced Plastic (PA)	White (WT) Black (BL)
②	Body 2	Plastic (PBT)	White (WT) Black (BL)
③	Spring	Steel	Trivalent Chromate
④	Strike	Plastic (POM)	White (WT) Black (BL)
⑤	Counterplate	Plastic (PBT)	White (WT) Black (BL)

Item No.	Retaining Force (kg)	Push out force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MLC-100WT	9.2 (20.2 lbs)	1.4 (3.1 lbs)	32	20	240
MLC-100BL					

MLC SERIES SPACER



MLC-100-DP5-WT



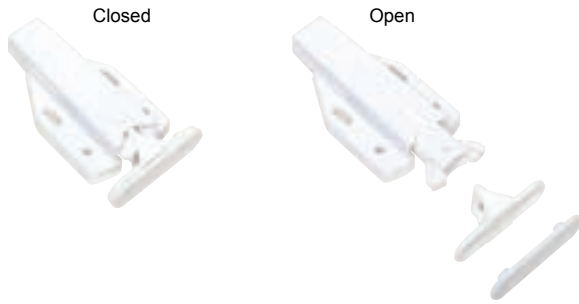
- 3/16" (5mm) spacer for MLC-100 and MLC-100DS.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Color
MLC-100-DP5-WT	16	100	500	Plastic (POM)	White

TOUCH LATCH

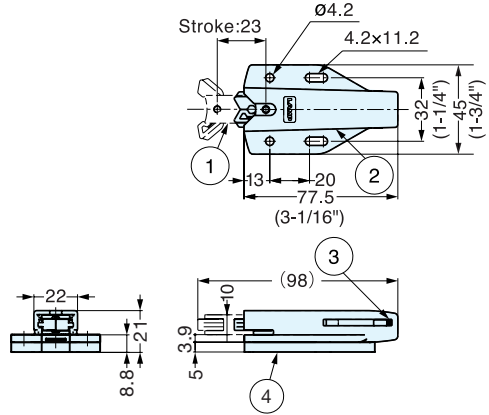
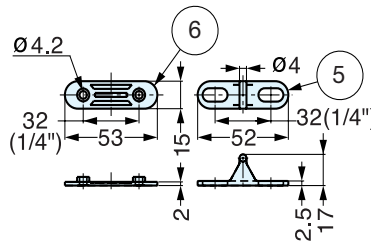
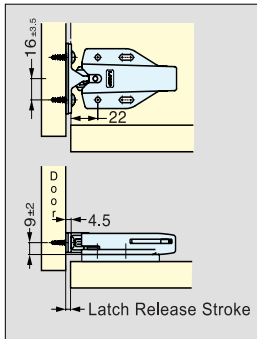


MLC-100DS



- Self-adjusting strike plate:
Vertical $\pm 3/16"$ (4mm)/Horizontal $\pm 1/8"$ (3.5 mm).
- Long stroke 23 mm (15/16"), for thick doors.
- Push to latch/unlatch.
- Non-magnetic.
- Includes spacer MLC-100-DP5-WT.

Installation



No.	Part Name	Material	Color
①	Body 1	Reinforced Plastic (PA)	White (WT)
②	Body 2	Plastic (PBT)	
③	Spring	Steel	Trivalent Chromate
④	Spacer	Plastic (POM)	
⑤	Strike	Plastic (PBT)	White (WT)
⑥	Counterplate	Plastic (POM)	

Item No.	Retaining Force (kg)	Push out force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MLC-100DS	9.2 (20.2 lbs)	1.4 (3.1 lbs)	32	20	240

TOUCH LATCH FOR HIGH TEMPERATURE

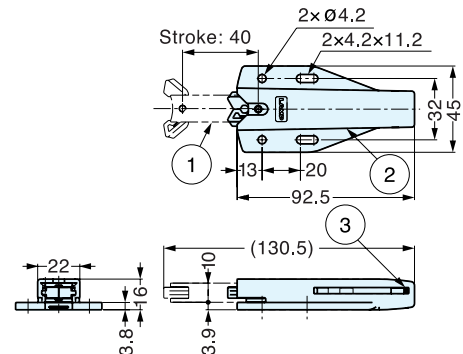
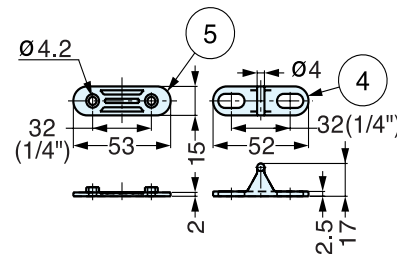
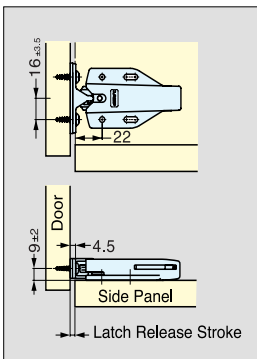


MLC-HT130BL



- Self-adjusting strike plate:
Vertical $\pm 2\text{mm}$ /Horizontal $\pm 3.5\text{ mm}$.
- Long Stroke 40 mm (1-9/16").
- Suitable for high temperature environment up to 120°C (248°F).
- Push to latch/unlatch.
- Non-magnetic.
- Open/Close cycle test: 100,000 cycles.

Installation



No.	Part Name	Material	Color
①	Body 1	Reinforced Plastic (PA)	Black (BL)
②	Body 2	Reinforced Plastic (PBT)	
③	Spring	304 Stainless Steel	Plain
④	Strike	Reinforced Plastic (PA)	Black (BL)
⑤	Counterplate	Reinforced Plastic (PBT)	

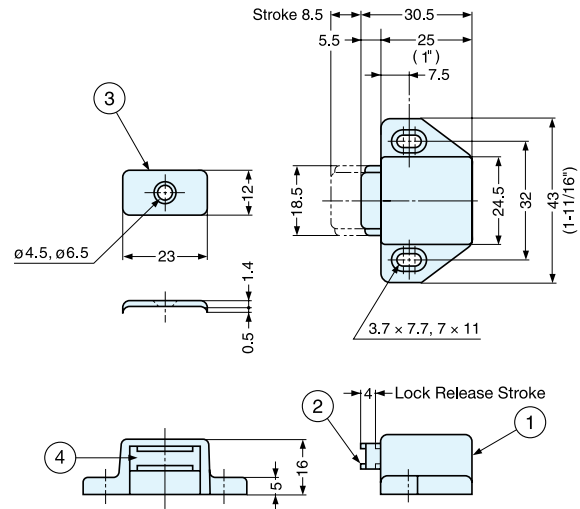
Item No.	Retaining Force (kg)	Push out force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MLC-HT130BL	12 (26.4 lbs)	1.7 (3.7 lbs)	40	20	240

MAGNETIC TOUCH LATCH



ML-30S

- Push to open/close.
- Note: For overlay door, allow a 4 mm (5/32") gap between door and cabinet frame for pushing room.



No.	Part Name	Material	Finish/Color
①	Body	ABS	White, Brown
②	Latch	Steel	Nickel
③	Counterplate		
④	Magnet	Ferrite	-

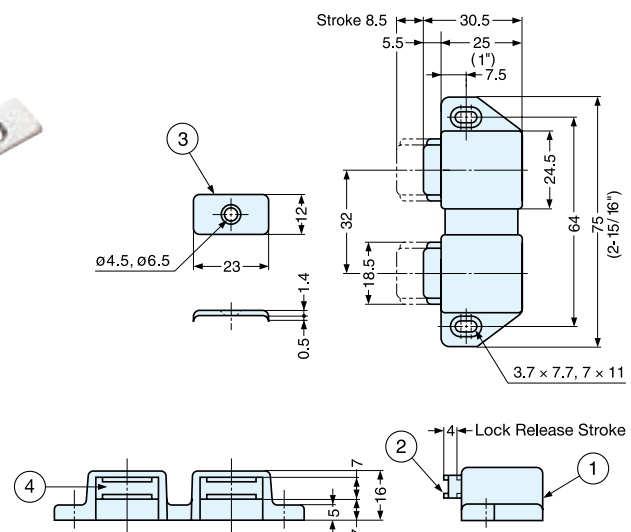
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
ML-30S/WHT	1.2 (2.6 lbs)	22.5	50	750
ML-30S/BRN				

MAGNETIC TOUCH LATCH



ML-30W

- Push to open/close.
- Note: For overlay door, allow a 4 mm (5/32") gap between door and cabinet frame for pushing room.



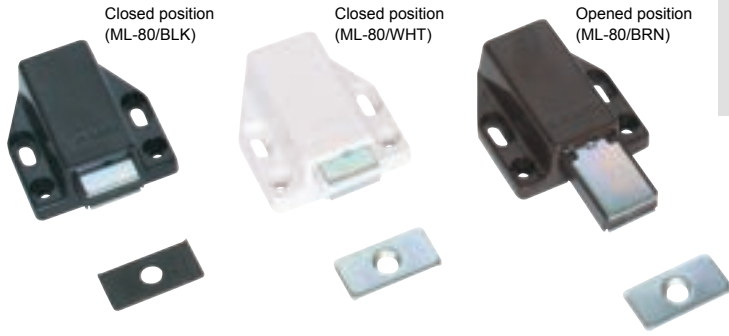
No.	Part Name	Material	Finish/Color
①	Body	ABS	White, Brown
②	Latch	Steel	Nickel
③	Counterplate		
④	Magnet	Ferrite	-

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
ML-30W/WHT	1.2 (2.6 lbs)	42	30	450
ML-30W/BRN				

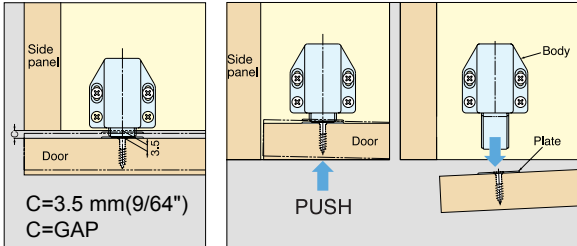
MAGNETIC TOUCH LATCH



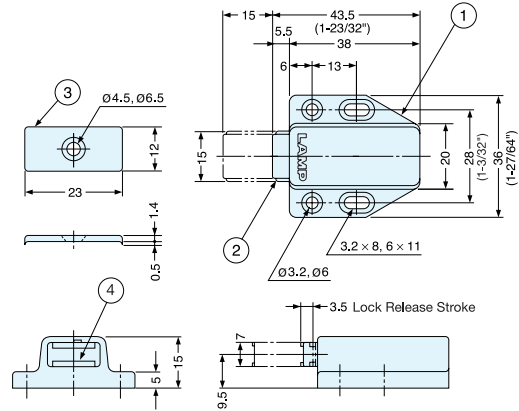
ML-80



- Push to latch/unlatch.
- Eliminates need for handles or knobs.
- Note: For overlay and inset doors, allow a 3.5mm (9/64") gap between door and cabinet frame for pushing room.
- Only ML-80/WHT and ML-80/BRN are ROHS compliant.



Installation



Item No.	RoHS	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
ML-80/WHT	Yes	1.6 (3.5 lbs)	22	20	400
ML-80/BRN					
ML-80/BLK	No				

No.	Part Name	Material	Finish/Color
①	Body	ABS	White (WHT), Brown (BRN), Black (BLK)
②	Latch	Steel	Yellow Zinc Chromate
③	Counterplate		
④	Magnet	Ferrite	-

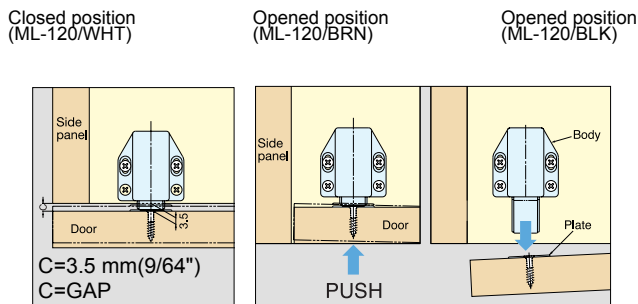
MAGNETIC TOUCH LATCH (LONG STROKE)



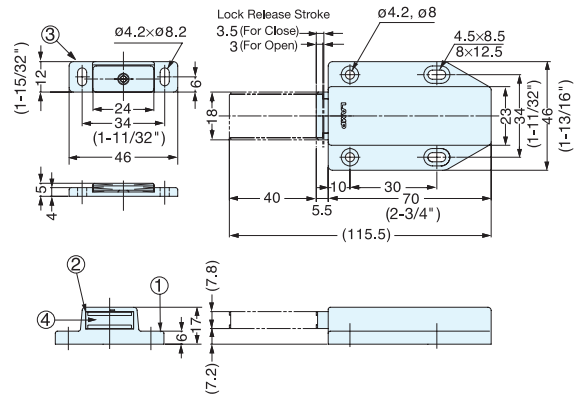
ML-120



- Long stroke for medium size doors.
- Push to latch/unlatch.
- Eliminates need for handles or knobs.
- Note: Allow a 3.5 mm (1/8") gap between door and cabinet frame for pushing room.
- CPSIA Compliant for furniture.



Installation



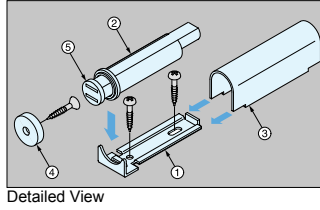
Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
ML-120/WHT	2.4 (5.3 lbs)	53	20	240
ML-120/BRN				
ML-120/BLK				

No.	Part Name	Material	Finish/Color
①	Body	ABS	White (WHT)/Brown (BRN)/Black (BLK)
②	Latch	Steel	Yellow Zinc Chromate
③	Counterplate		
④	Magnet	Ferrite	-

SLIDE MAGNETIC LATCH



MC-S60

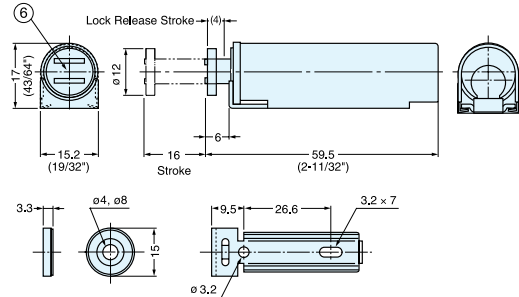


Detailed View

- Push to open/close.
- Note: For overlay door, give 4 mm (5/32") gap between door and cabinet frame for pushing space.

No.	Part Name	Material	Finish
①	Mounting Plate	Steel	Nickel
②	Body	Polyacetal/ABS	Brown
③	Body Cover	Stainless Steel	-
④	Counterplate	Steel	Nickel
⑤	Yoke		
⑥	Magnet	Ferrite	-

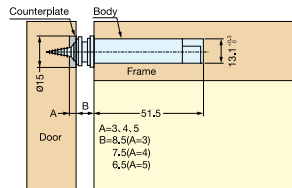
Item No.	Magnetic Force(kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-S60	1.2 (2.6 lbs)	28.5	30	600



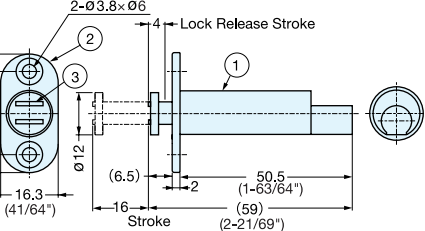
SLIDE MAGNETIC LATCH



MC-U60



Detailed View



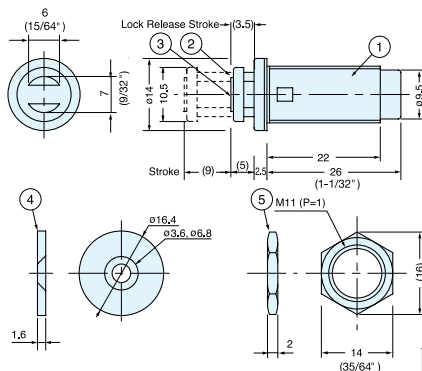
No.	Part Name	Material	Finish/Color
①	Body	Polyacetal/ABS	Brown
②	Mounting Plate	Stainless Steel	-
③	Yoke	Steel	Nickel
④	Counterplate		

Item No.	Magnetic Force(kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-U60	1.2 (2.6 lbs)	19	30	600

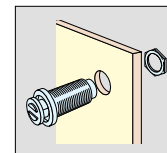
MAGNETIC TOUCH LATCH



PM-4N HB



- Push to open/close.
- Note: For overlay door, give 3.5 mm (9/64") gap between door and cabinet frame for pushing space.



Installation

No.	Part Name	Material	Finish/Color
①	Body	ABS	Black
②	Yoke	Steel	Black Nickel
③	Magnet	Ferrite	-
④	Counterplate	Steel	GB
⑤	Nut		Yellow Zinc Chromate

Item No.	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PM-4N HB	1.3 (2.9 lbs)	9	350	2800

PUSH-TO-OPEN DOOR LATCH



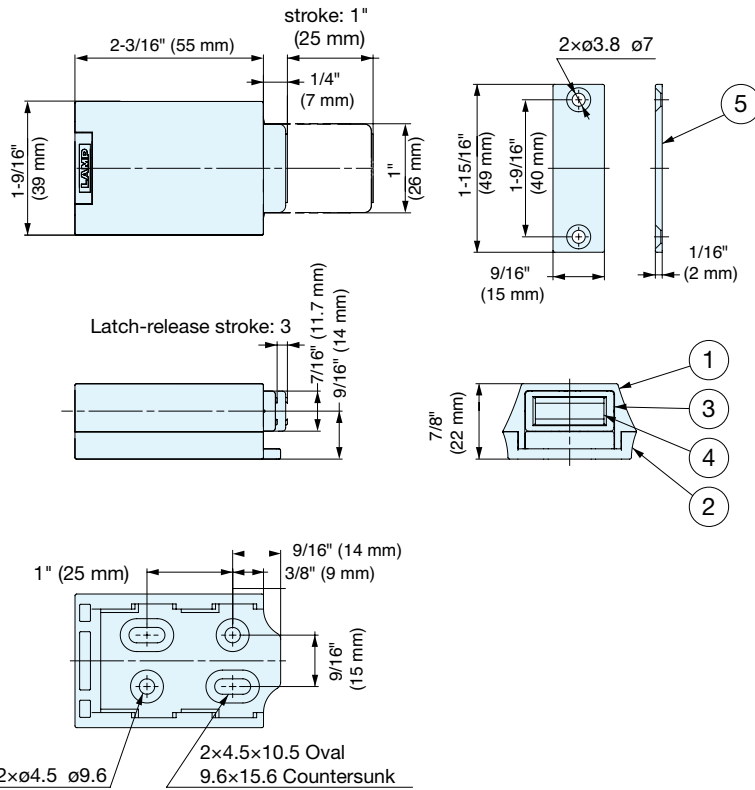
ML-ZN80

CATCHES & LATCHES

PUSH-TO-OPEN DOOR LATCH

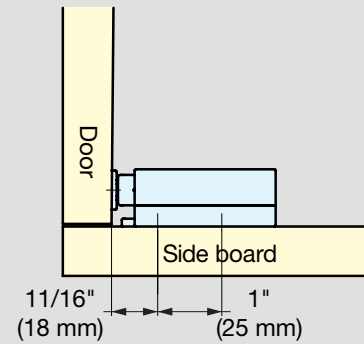


- Strong 11 lbs push force ideal for large door, see HES3D-E190 Concealed Door Hinge Series (pg 184).
- Magnet allows tolerance with 1.5° swivel.
- Hidden Mounting Screw Design for clean appearance and easy installation.
- Passed 100,000 open/close private cycle test.

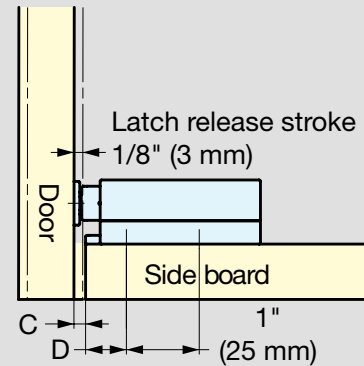


[Installation]

• Inset Doors



• Overlay Doors



Please make sure there is a "C Clearance" on the side board. It makes the installation easier to align the edge of the body to the edge of the side board.



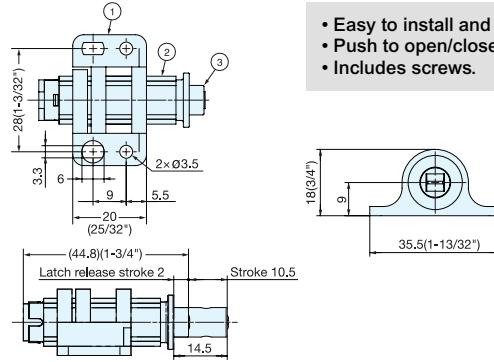
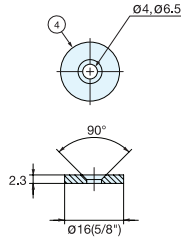
No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	White (WT), Black (BL)
②	Mounting Plate		Yellow Zinc Chromate
③	Latch	Plastic (PA)	
④	Magnet	Ferrite	Plain
⑤	Strike Plate	Stainless Steel	

v	Magnetic Force	Push Force	Weight (g)	Box (pcs)	Carton (pcs)
ML-ZN80WT	6.6 lbs (3 kg)	11 lbs (5 kg)	160	10	40
ML-ZN80BL					

MAGNETIC MINI TOUCH LATCH



MC-25



- Easy to install and adjust.
- Push to open/close.
- Includes screws.

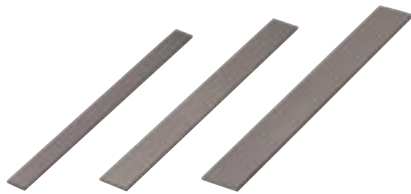
Item No.	Color	Magnetic Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-25BL	Black	0.5 kg (1.1 lbs)	10	30	600
MC-25BL					

No.	Part Name	Material	Finish/Color
①	Body	Polypropylene	Black/White
②	Latch	Polypropylene	Black/White
③	Magnet	Ferrite	-
④	Counterplate	Steel	Yellow Zinc Chromate

MAGNETIC STRIP

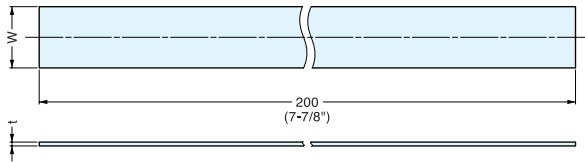


NMS



- Easy to trim, strong magnetic strips.
- Each strip 7-7/8" long-cut to desired length.
- Adhesive backing for easy installation.

Note: 1) Not for use in applications with high temperature (80°C) or humidity.
2) Do not use to secure/support heavy objects.



Item No.	W	t	Magnetic Force (kg/cm ²)	Weight (g)	Box (pcs)	
NMS-1-200	10	0.8	0.39 kg/cm ² (5.5 psi)	10	500	
NMS-2-200	16			16		
NMS-3-200	21			21		
NMS-4-200	19	1.5	0.55 kg/cm ² (7.8 psi)	19		250
NMS-5-200	30			30		
NMS-6-200	39			39		

MAGNETIC STRIP (RUBBER ROLL TYPE)

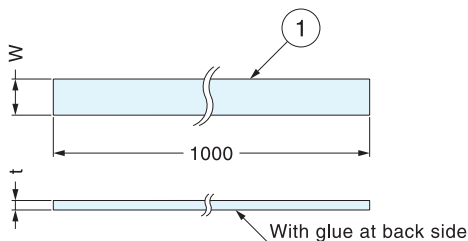


KMS



- Easy to trim, strong magnetic strips.
- Each strip available as a roll, 39-3/8" long-cut to desired length.
- Adhesive backing for easy installation.

Note: 1) Not for use in applications with high temperature (80°C) or humidity.
2) Do not use to secure/support heavy objects.



Item No.	W	t	Magnetic Force (kg)	Weight (g)	Box (pcs)	
KMS-1-1000	13.0	0.8	0.06 kg/cm ² (0.85psi)	37	1	
KMS-2-1000	19.1			54		
KMS-3-1000	25.4			77		
KMS-4-1000	12.7	1.5	0.09 kg/cm ² (1.28psi)	66		140
KMS-5-1000	19.1			100		
KMS-6-1000	25.4			140		

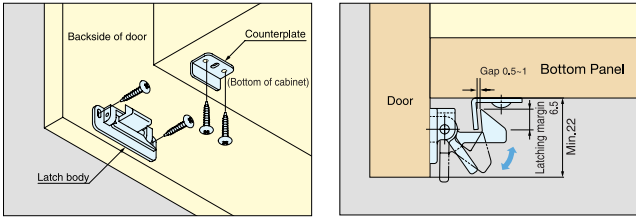
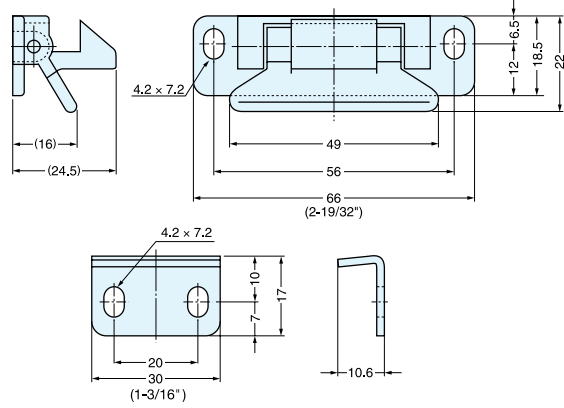
LEVER LATCH



LL-66



• Latch designed to be used on a door without knobs or handles.



Item No.	Holding Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
LL-66/BRN	20 (44 lbs)	25	30	300
LL-66/WHT				
LL-66/CR				
LL-66/GR*				
LL-66/BLK				

Part Name	Material	Color
Latch Body	Plastic (PA)	White (WHT) Brown (BRN) Grey (GR) Black (BLK)
	Plastic (PC)	Chrome (CR)
Lever	Plastic (PA)	White (WHT) Brown (BRN) Grey (GR) Black (BLK)
	Plastic (ABS)	Chrome (CR)
Counterplate	Steel	Nickel

*LL-66/GR: UL-94 V0 rated flame retardant material.

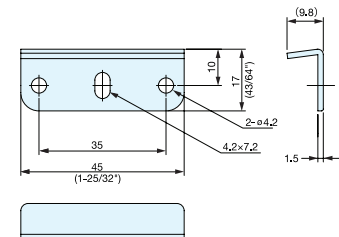
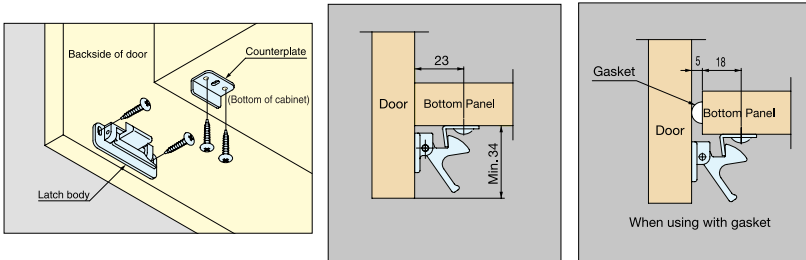
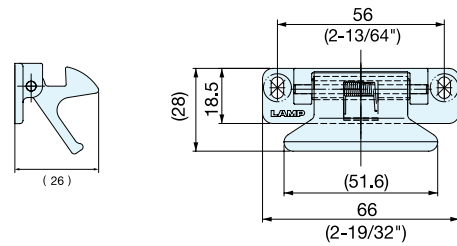
STAINLESS STEEL LEVER LATCH



LL-66S



• Latch designed to be used on a door without knobs or handles.
• 316 Stainless steel construction makes it ideal for harsh and high corrosive environments.



Item No.	Holding Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
LL-66S	20 (44 lbs)	85	20	100

Part Name	Material	Color
Latch Body	SCS14 Stainless Steel (Similar to SUS316)	Mirror
Lever		
Counterplate	316 Stainless Steel	Plain
Spring		

NON-MAGNETIC TOUCH LATCH



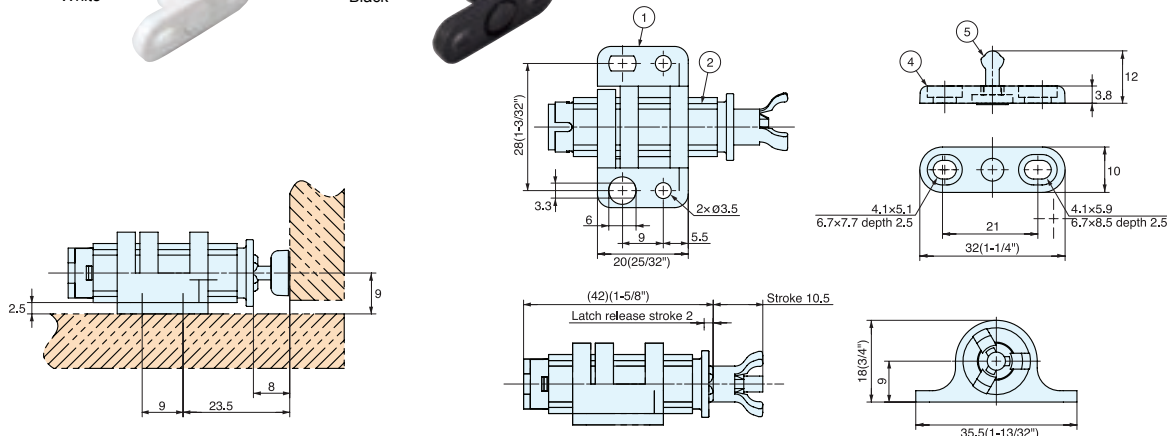
MC-20



White

Black

- Easy to install and adjust.
- Push to latch/unlatch.
- Includes screws.

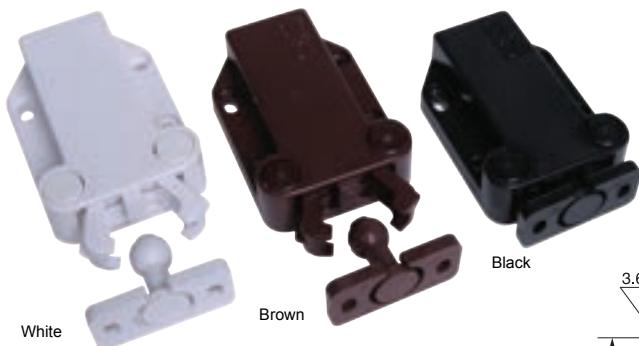


Item No.	Color	Retaining Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish/Color
MC-20BL	Black	4 (8.8 lbs)	6	30	600	①	Body	Polypropylene	Black (BL)
MC-20WT	White					②	Arm		White (WT)
						③	Strike		

NON-MAGNETIC TOUCH LATCH



MC-37

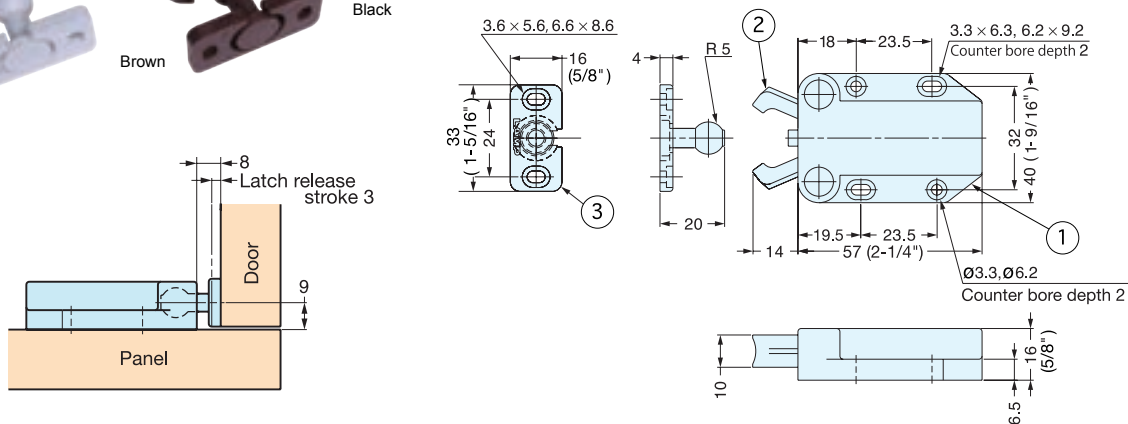


White

Brown

Black

- Push to latch/unlatch.
 - Strong retaining force.
 - Floating strike allows for easy alignment.
- Note:
- For overlay door, allow 3 mm (1/8") gap between door and cabinet frame for push space.
 - Pulling the door with excessive force without unlatching the unit may damage the mechanism.
 - Constant loading of over 4 kgf or excessive pushing or pulling is not recommended.

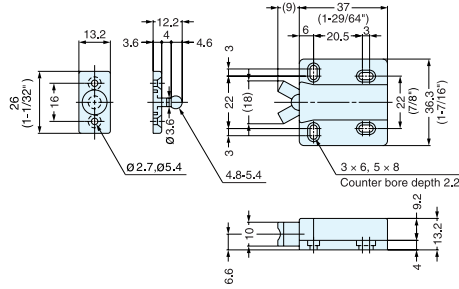


Item No.	Retaining Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish/Color
MC-37/BLK-1	8 (17.6 lbs)	24	30	300	①	Body	ABS	Black (BLK)
MC-37/BRN-1					②	Arm	Polyacetal	Brown (BRN)
MC-37/WHT-1					③	Strike	Polyamide	White (WHT)

NON-MAGNETIC TOUCH LATCH



MC-28



- Push to latch/unlatch.
- Touch latch with floating strike allows for easy alignment.

Note:

- For overlay door, allow 3 mm (1/8") gap between door and cabinet frame for push space.
- Pulling door with excessive force without unlatching the unit may damage the mechanism.
- Constant loading of over 3 kgf or excessive pushing or pulling is not recommended.

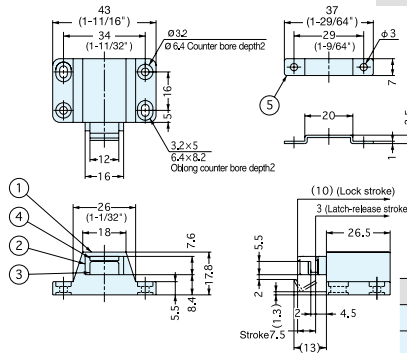
Item No.	Retaining Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MC-28/BLK	3 (6.6 lbs)	15	50	500

Part Name	Material	Color
Body	ABS	Black
Arm	Polyacetal	
Strike	Polyamide	

NON-MAGNETIC TOUCH LATCH



PR-21P/BLK



- Push to latch/unlatch.
- Strong retaining force.

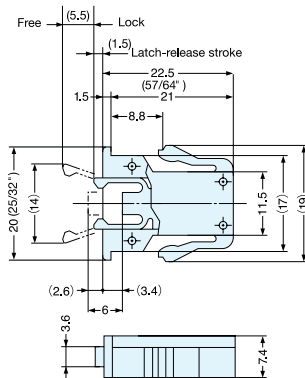
Item No.	Retaining Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PR-21P/BLK	10 (22 lbs)	16.3	100	800

No.	Part Name	Material	Finish/Color
①	Housing	ABS	Black
②	Slide	Polyacetal	
③	Arm	Steel	Brown
④	Yoke		GB
⑤	Strike		Chromate

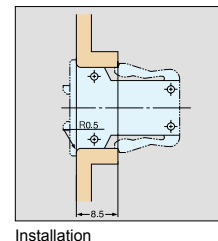
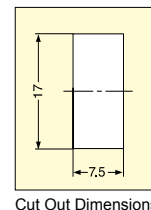
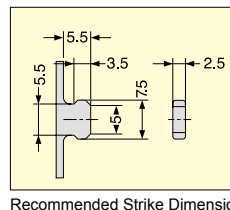
NON-MAGNETIC TOUCH LATCH



PR-3PK



- Push to latch/unlatch.
- Thin design is ideal for tight spaces.
- Snap-in style catch.
- Strike/Counterplate not available.



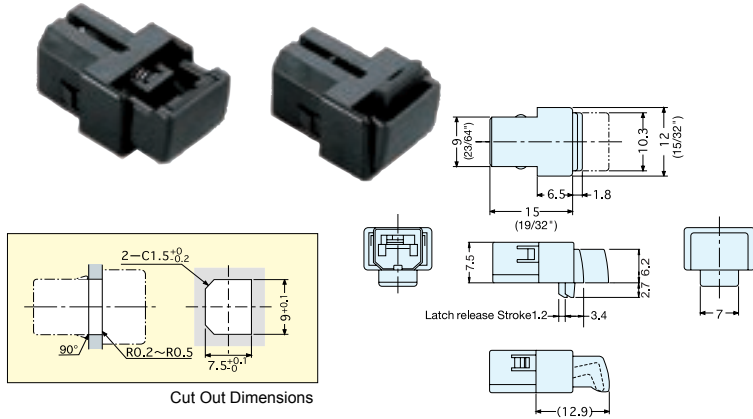
Item No.	Retaining Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PR-3PK	2.2 (4.8 lbs)	2.5	400	4000

Material	Color
ABS	Black

NON-MAGNETIC MINI TOUCH LATCH



NS-2



- Push to latch/unlatch.
- Miniature design is ideal for small applications.
- Snap-in style catch.
- Strike/Counterplate not available.

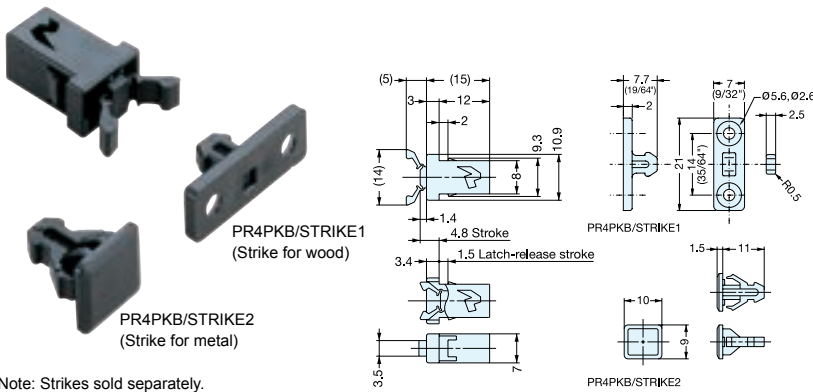
Item No.	Retaining Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
NS-2	1 (2.2 lbs)	1.1	500	5000

Material	Color
Polycarbonate	Black

NON-MAGNETIC MINI TOUCH LATCH



PR-4PK



- Push to latch/unlatch.
- Miniature design is ideal for small applications.
- Snap-in style catch.
- Strike sold separately.

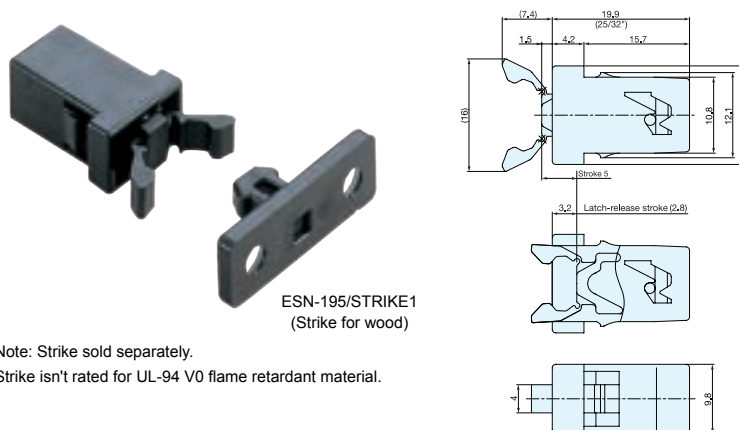
Item No.	Holding Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PR-4PK	1.2 (2.6 lbs)	0.7	1000	8000

Part Name	Material	Color
Body	Polyacetal	Black
Strike	Polyamide	

NON-MAGNETIC MINI TOUCH LATCH



ESN-195-3.1



- Push to latch/unlatch.
- Strong retaining force.
- Miniature design is ideal for small applications.
- Snap-in style catch.
- Strike sold separately.
- UL-94 V0 rated flame retardant material.

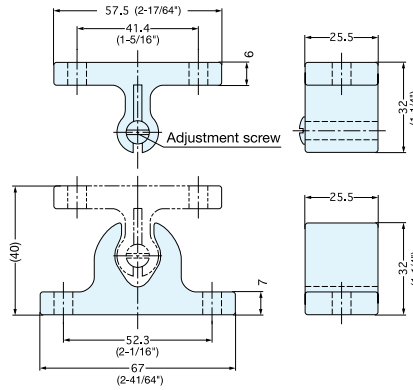
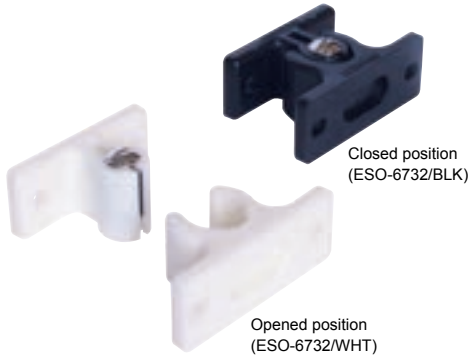
Item No.	Retaining Force (kg)	Weight (g)	Box (pcs)
ESN-195-3.1	3.5 (7.7 lbs)	2.3	5000

Part Name	Material	Finish/Color
Body	Polybutylene Terephthalate	Black
Catch	Liquid Crystal Polymer	
Spring	Steel	Chromate
Slide Catch	Polyamide	Black

ADJUSTABLE KNUCKLE CATCH



ESO-6732



- Grabs and holds doors tightly.
- Strong catch force.
- Catch force is adjustable by turning adjustment screw.

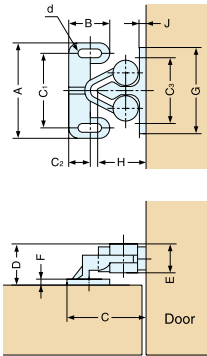
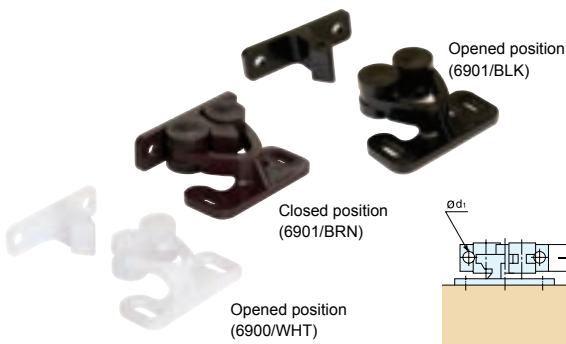
Item No.	Push in Force (kg)	Pulling Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
ESO-6732/WHT	13~26 (29~57 lbs)	8~20 (18~44 lbs)	42	20	200
ESO-6732/BLK					

Material	Color
Polyamide	White (WHT), Black (BLK)

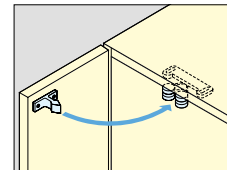
ROTARY CATCH



6900, 6901



- Grabs and holds doors tightly.



Installation

* Please specify color when ordering.

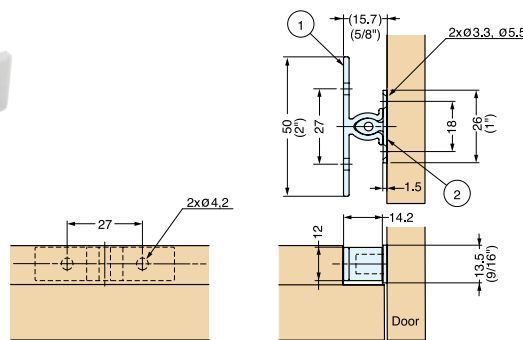
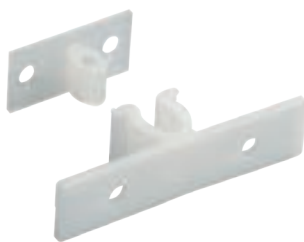
Part Name	Material	Color
Catch	Polyacetal	White (WHT)
Strike		Brown (BRN)**
Roller	Polyethylene	Black (BLK)**
		**6901 only

Item No.	Push in Force (kg)	Pulling Force (kg)	A	B	C	D	E	F	C ₁	C ₂	C ₃	G	H	I	J	d	d ₁	Weight (g)	Box (pcs)	Carton (pcs)
6900/WHT	1.1 (2.4 lbs)	1.6 (3.5 lbs)	29.0 (1-9/64")	12	21.2	11.3	8	2.0	21.5	6.0	20.0	26	13.5	7.5	1.7	3.1×7	3.0	3	100	2000
6901/WHT	2.2 (4.8 lbs)	3.2 (7.0 lbs)	31.3 (1-15/64")	14	27.2	12.6	9	2.3	24.4	7.5	23.6	32	16.5	9.0	2.0		3.1	4		
6901/BRN																				
6901/BLK																				

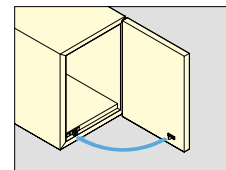
KNUCKLE CATCH



JC-T50



- Grabs and holds doors tightly.



Installation

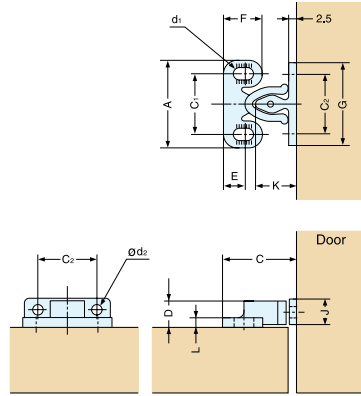
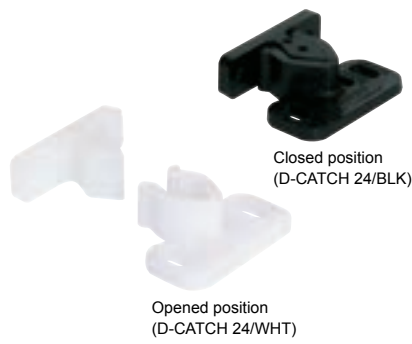
Item No.	Push in Force (kg)	Pulling Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
JC-T50	3.3 (6.6 lbs)	3.8 (8.3 lbs)	3	50	500

Part Name	Material	Color
Catch	Polyacetal	White (WHT)
Strike	Polyamide	Natural White

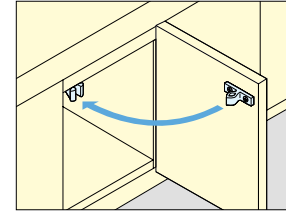
KNUCKLE CATCH



D-CATCH



- Grabs and holds doors tightly.



Installation

* Please specify color when ordering.

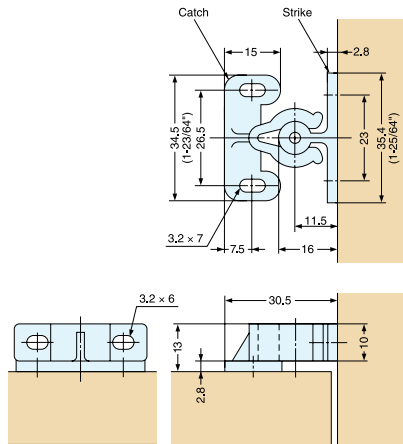
Part Name	Material	Color
Catch	Polyacetal	Natural White(WHT) Black (BLK)
Strike	Polyamide	

Item No.	Push in Force (kg)	Pulling Force (kg)	A	C ₁	C	D	E	F	G	C ₂	J	K	L	d ₁	d ₂	Weight (g)	Box (pcs)	Carton (pcs)
D-CATCH 24/WHT	3.1 (6.8 lbs)	2.7 (5.9 lbs)	24 (15/16")	17	21.5	7.5	7	12	22 (7/8")	15.5	7.5	12.5	2	2.5×5.5	2.5	1.5	100	2000
D-CATCH 24/BLK																		

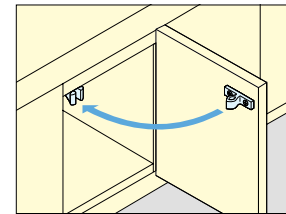
KNUCKLE CATCH



K-CATCH



- Grabs and holds doors tightly.



Installation

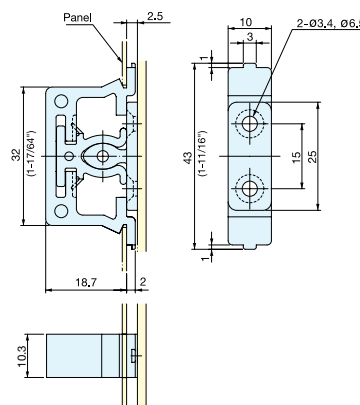
Part Name	Material	Color
Catch	Polyacetal	White
Strike	Polyamide	

Item No.	Push in Force (kg)	Pulling Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
K-CATCH/WHT-T	5.7 (12.5 lbs)	7.1 (15.6 lbs)	4.5	100	1000

SNAP-IN KNUCKLE CATCH



JCU-F



- Grabs and holds doors tightly.
- Snap-in type body for easy installation.
- Designed for sheet metal or plastic panel applications.
- Internal catch body slides 1.5 mm for better alignment.

Part Name	Material	Color
Catch	Polyacetal	White
Strike	Polyamide	

Panel Thickness	Cut Out Dimensions
0.8 mm	32.3 × 10.1
1.0 mm	32.9 × 10.1
1.2 mm	33.8 × 10.1

Item No.	Push in Force (kg)	Pulling Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
JCU-F	2 (4.4 lbs)	2 (4.4 lbs)	5.2	40	800



When details matter!



STAINLESS STEEL ADJUSTABLE TENSION CATCH



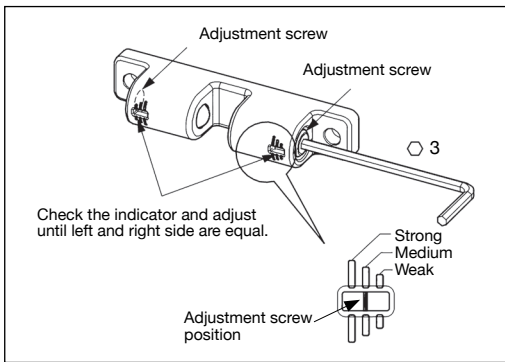
BCTS-85J

CATCHES & LATCHES

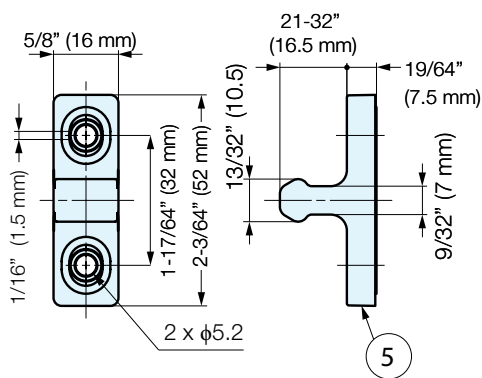
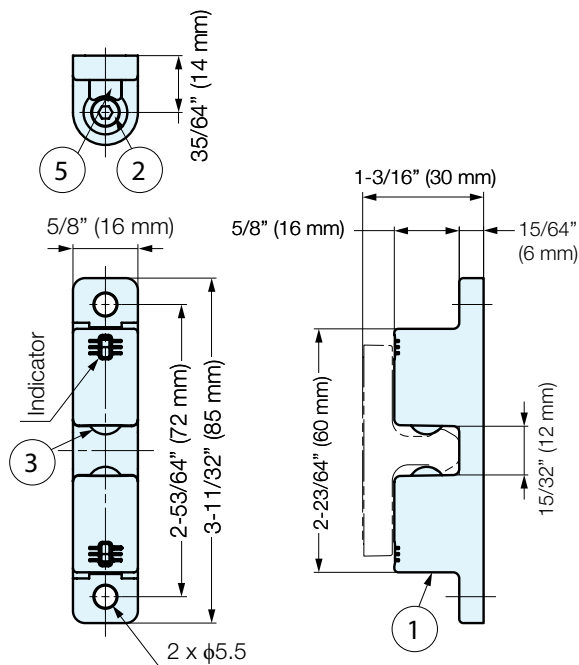
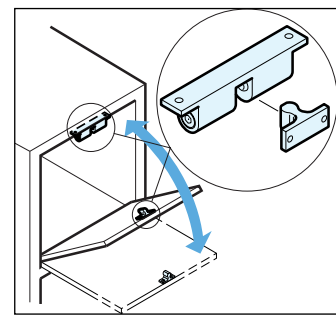
STAINLESS STEEL ADJUSTABLE TENSION CATCH



- Stainless steel catch for high corrosion resistance.
- Allows for self adjustment in case of door sags or cabinet movement.
- Features sliding two-piece strike to overcome misalignment, strike locks in place when installed.
- Adjustable tension force.
- Multi-directional catch from side or front.
- 1.5 mm alignment tolerance.
- Recommended screw 5mm or #10 screw.
- Use 3mm hex key for tension adjustment screw.



Adjustment System



Part Name	Material	Finish/Color
① Body	Stainless Steel	Electropolished
② Adjustment Screw	316 Stainless Steel	Plain
③ Ball		
④ Counterplate	Stainless Steel	Electropolished
⑤ Compression Coil Springs	Stainless Steel	Plain

Item No.	Pull Force	Push Force	Weight (g)	Box	Carton (pcs)
BCTS-85J	1.8~18.4 lbf (0.8~8.4 kgf)	1.8~17.3 lbf (0.8~7.9 kgf)	168	10	60

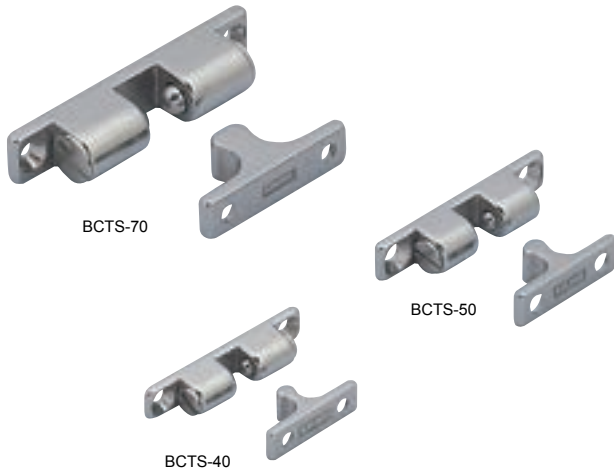
STAINLESS STEEL TENSION CATCH



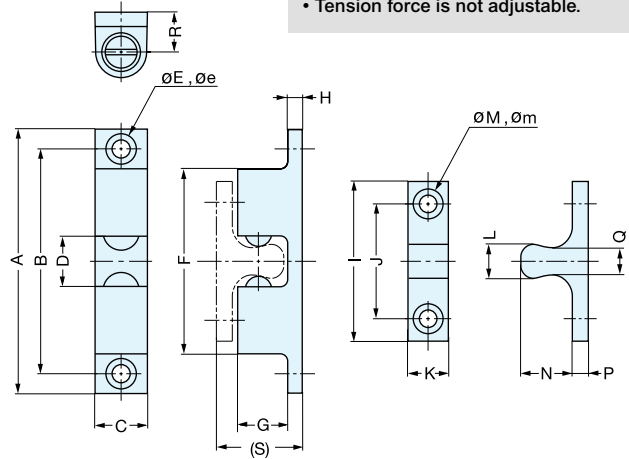
BCTS

CATCHES & LATCHES

STAINLESS STEEL TENSION CATCHES / ZINC TENSION CATCHES



- 316 stainless steel catch for high corrosion resistance.
- Tension force is not adjustable.



Item No.	A	B	C	D	E	e	F	G	H	I	J	K	L	M	m	N	P	Q	R	(S)
BCTS-40	43 (1-11/16")	35	8	5.9	3.2	6.2	28.4	7.5	2.5	25 (63/64")	16	7.5	4.5	3.2	6.2	8.5	2.5	2.7	6.0	13.5
BCTS-50	50 (1-31/32")	40	10	7.5	4.2	8.2	31.5	9.3	2.9	30 (1-3/16")	20	9.0	6.0	4.2	8.2	10.3	2.9	3.8	7.2	16.1
BCTS-70	70 (2-3/4")	60	13	13.0			51.0	13.0	4.0	42 (1-42/64")	30	10.5	10.0			15.0	4.0	8.0	10.5	23.0

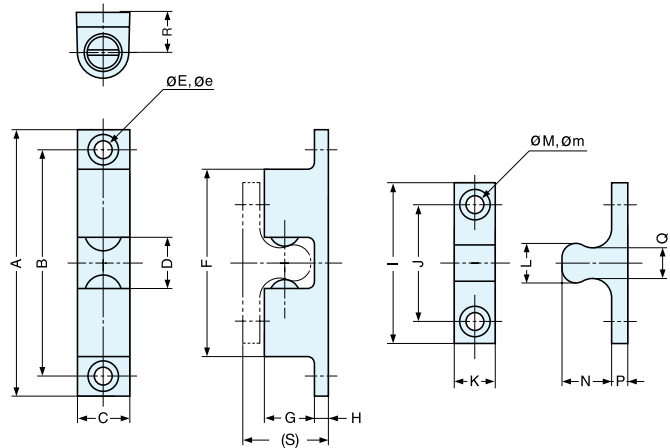
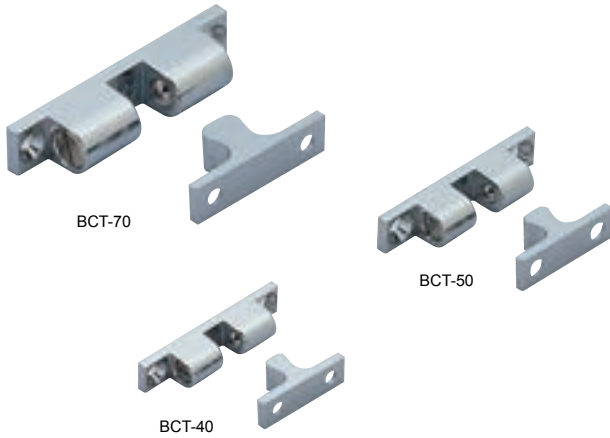
Item No.	Push in Force (kg)	Pulling Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Part name	Material	Finish
BCTS-40	2.0 (4.4 lbs)	1.3 (2.9 lbs)	18	50	500	Body	316 Stainless Steel	Polished
BCTS-50	2.3 (5.0 lbs)	1.8 (3.9 lbs)	30			Strike		
BCTS-70	5.7 (12.5 lbs)	3.9 (8.5 lbs)	83	25	250	Spring	304 Stainless steel	

TENSION CATCH



BCT

- Tension force is not adjustable.



Item No.	A	B	C	D	E	e	F	G	H	I	J	K	L	M	m	N	P	Q	R	(S)
BCT-40	42.5 (1-43/64")	35	8.0	6.3	3.2	6.2	26.7	7.5	2.5	25 (63/64")	16	7.5	5.5	3.2	6.2	8.8	2.5	3.7	6.25	13.8 (35/64")
BCT-50	50.0 (1-31/32")	40	10.0	8.4	4.2	8.2	29.8	9.5	3.0	30 (1-3/16")	20	9.0	7.3	4.2	8.2	9.8	3.0	4.7	7.75	15.3 (19/32")
BCT-70	70.0 (2-3/4")	60	13.5	13.0			49.0	13.0	4.0	42 (1-42/64")	30	10.5	11.0			14.2	3.0	8.2	10.50	21.2 (27/32")

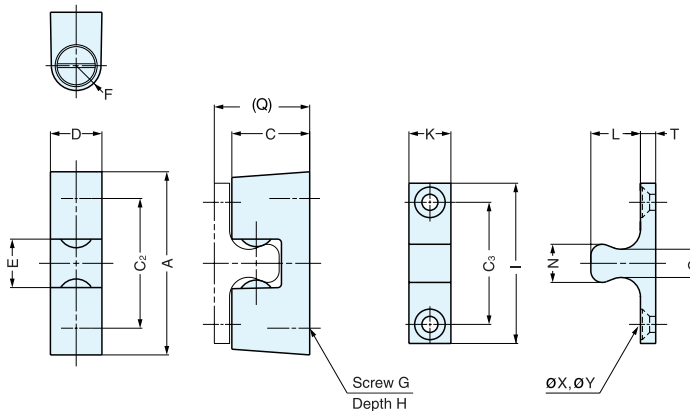
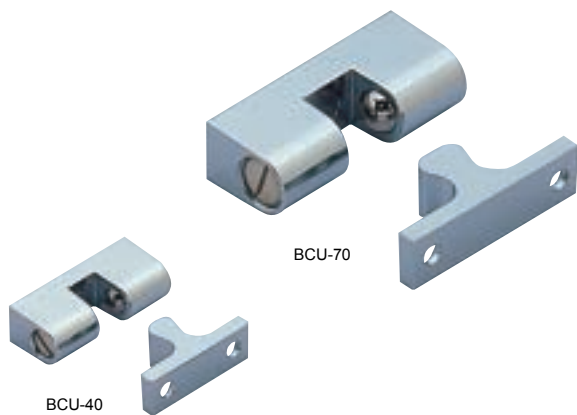
Item No.	Push in Force (kg)	Pulling Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Part name	Material	Finish
BCT-40	4.4 (9.7 lbs)	3.0 (6.6 lbs)	16	100	400	Body & Strike	Zinc Alloy	Chrome
BCT-50	4.1 (9.0 lbs)	3.3 (7.3 lbs)	26			Spring		
BCT-70	4.6 (10.1 lbs)	3.5 (7.7 lbs)	70	50	200	Cover	Brass	
						Ball	Steel	Polished

TENSION CATCH



BCU

• Tension force is not adjustable.



Item No.	A	C	C ₁	C ₂	C ₃	D	E	F	G	H	I	K	L	N	(Q)	T	X	Y
BCU-40	28.5 (1-1/8")	12.5	3.0	20	16	8.3 (21/64")	6.5	R4.0	M3	5	24 (15/16")	8	9	5	15.7	3	3.2	6.2
BCU-70	48.0 (1-57/64")	20.5	7.3	34	32	13.5 (17/32")	12.7	R6.5	M5	6	42 (1-42/64")	11	13	10	24.9	4	4.2	8.2

Item No.	Push in Force (kg)	Pulling Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
BCU-40	3.6 (7.9 lbs)	2.4 (5.3 lbs)	18	100	400	Zinc Alloy	Chrome
BCU-70	4.1 (9.0 lbs)	3.9 (8.6 lbs)	75	50	200		



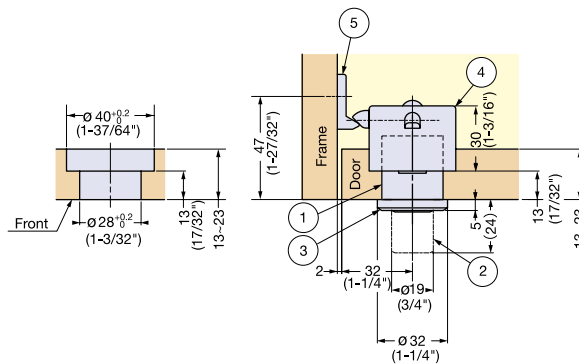


Zwei L Push Knob Latch



ZL-2901

• Supplied with steel screws.



Door Thickness (t)		Bore Depth (H)		
13~23 mm (33/64"~29/32")		Door Thickness-13		
Item No.	No.	Part Name	Material	Finish/Color
ZL-2901	①	Push Knob (Base Included)	316 Stainless Steel	Zwei L
	②	Latch Body	ABS	Black
	③	Latch	Polyacetal	Black
	④	Counterplate	ABS	Black
	⑤	Case	Zinc Alloy, ABS	Black

Item No.	Holding Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
ZL-2901	10 (22 lbs)	100	1	10

PUSH KNOB LATCH

TEST 11
P.697

3x16
3x20
STEEL

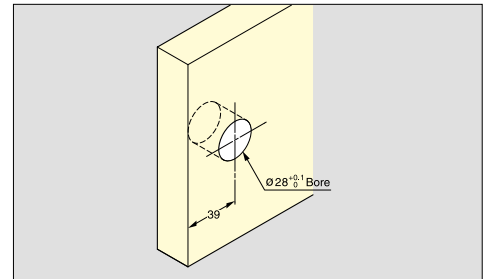
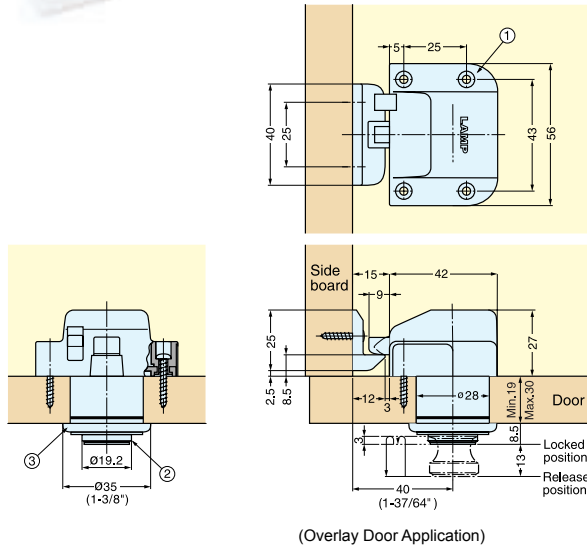
TLP

CATCHES & LATCHES

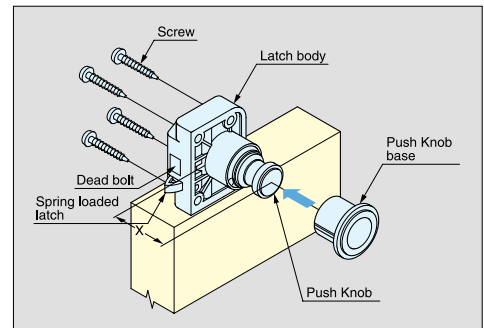
PUSH KNOB LATCHES



- Door Thickness: 19 mm~30 mm (3/4"~ 1-3/16")
- Door will be locked when knob is pushed in.
- Dead bolt to securely lock the door.
- Holding Force : 20 kg (44 lbs)
- Non-handed.
- Order Latch Body (TLP-LBM/WHT) and Push Knob (TLP-BB/XX) for complete set.
- Ideal for cabinets in boats, buses, and RVs.



Bore Dimensions (Inset Door Application)



Installation



No.	Part Name	Material	Finish	
			Knob	Latch
①	Latch Body	Polyamide	Satin Brass (SB) Satin Nickel (SN) Polished Brass (PB) Chrome (CR)	White
②	Push Button	Brass		
③	Push Button Base	Zinc Alloy		

Item No.	Part Name	Holding Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TLP-BB/SB	Push Knob and Base	20 (44 lbs)	77	25	200
TLP-BB/SN					
TLP-BB/PB					
TLP-BB/CR					
TLP-LBM/WHT	Latch Body		33	10	100

■ Supplied with 2 threaded screws (L=24 mm and 30 mm).

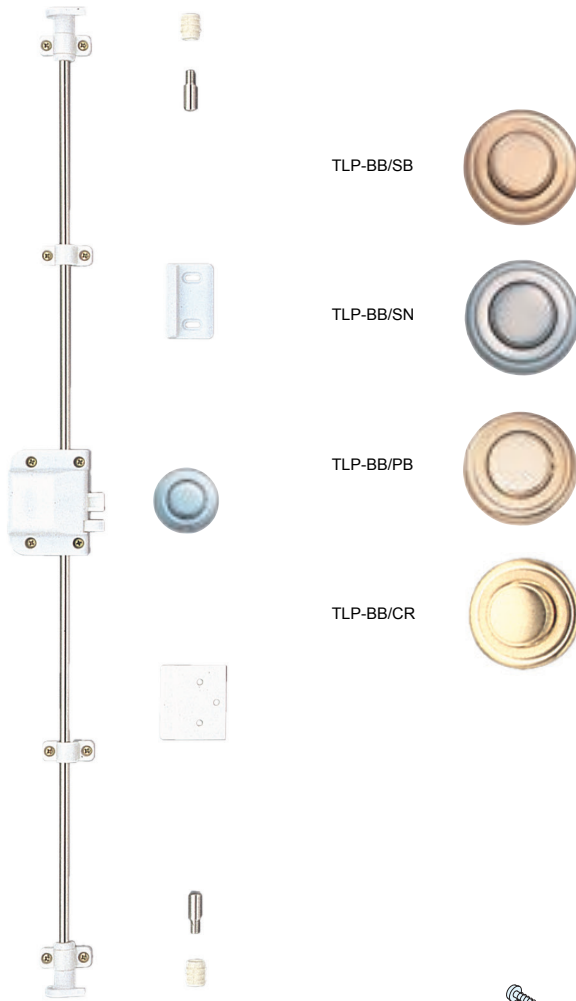
Threaded screw	Door Thickness	Dimension X
L = 24	19 (3/4")	40.5 (1-19/32")
	20 (25/32")	41.5 (1-5/8")
	21 (53/64")	42.5 (1-43/64")
	22 (7/8")	43.5 (1-23/32")
	23 (29/32")	44.5 (1-3/4")
	24 (15/16")	45.5 (1-51/64")
L = 30	25 (63/64")	46.5 (1-53/64")
	26 (1-1/32")	47.5 (1-7/8")
	27 (1-1/16")	48.5 (1-29/32")
	28 (1-3/32")	49.5 (1-61/64")
	29 (1-9/64")	50.5 (1-63/64")
	30 (1-3/16")	51.5 (2-1/32")

PUSH KNOB BAR LATCH



TLP 3POINT LOCK

- Suitable for tall cabinet doors.
- Center latch with dead bolt, top and bottom cams.
- Door will be locked when knob is pushed in.
- Applicable from 19 mm (3/4") to 30 mm (1-3/16") door thickness.
- Non-handed.

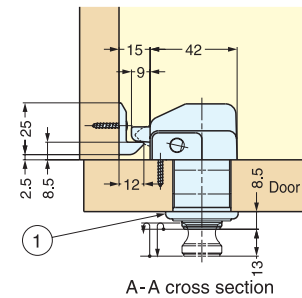
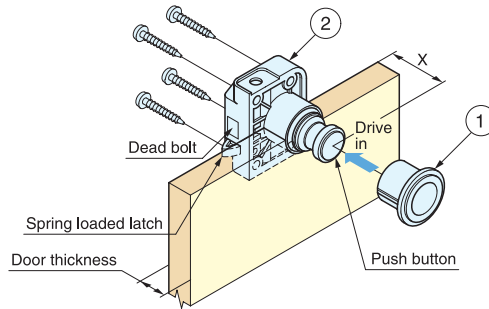
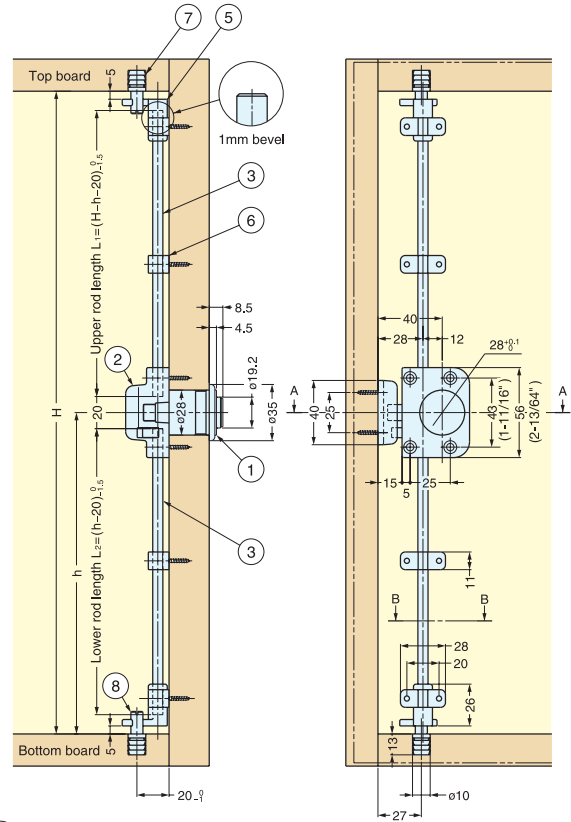


TLP-BB/SB

TLP-BB/SN

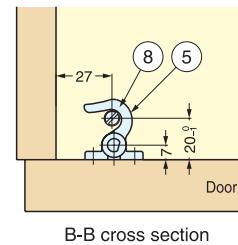
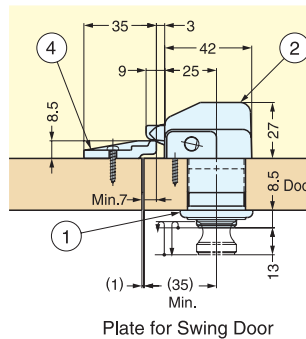
TLP-BB/PB

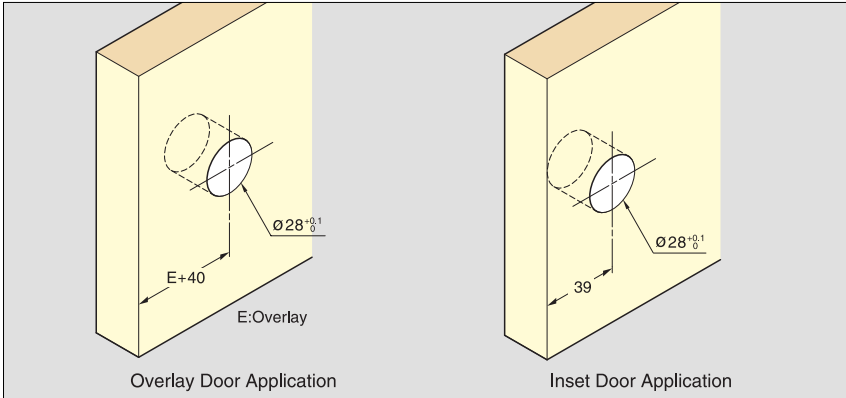
TLP-BB/CR



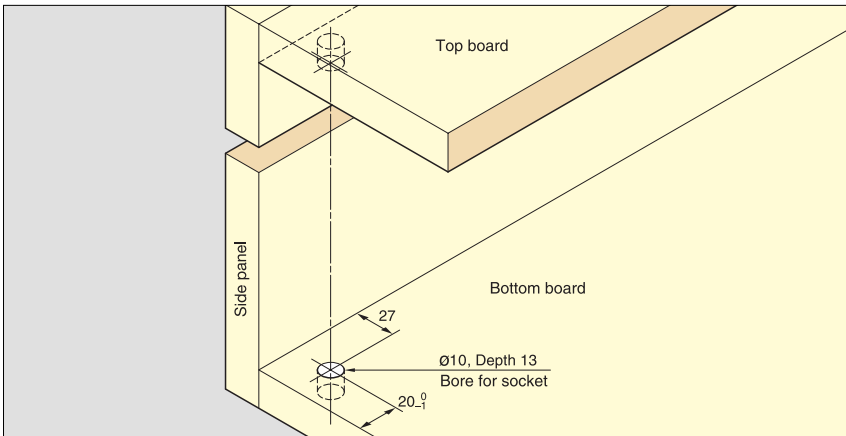
"X" lengths are determined by door thickness.

Screw Size (mm)	Door Thickness	Dimension X
24	19 (3/4")	40.5 (1-19/32")
	20 (25/32")	41.5 (1-5/8")
	21 (53/64")	42.5 (1-43/64")
	22 (7/8")	43.5 (1-23/32")
	23 (29/32")	44.5 (1-3/4")
	24 (15/16")	45.5 (1-51/64")
30	25 (63/64")	46.5 (1-53/64")
	26 (1-1/32")	47.5 (1-7/8")
	27 (1-1/16")	48.5 (1-29/32")
	28 (1-3/32")	49.5 (1-61/64")
	29 (1-9/64")	50.5 (1-63/64")
	30 (1-3/16")	51.5 (2-1/32")

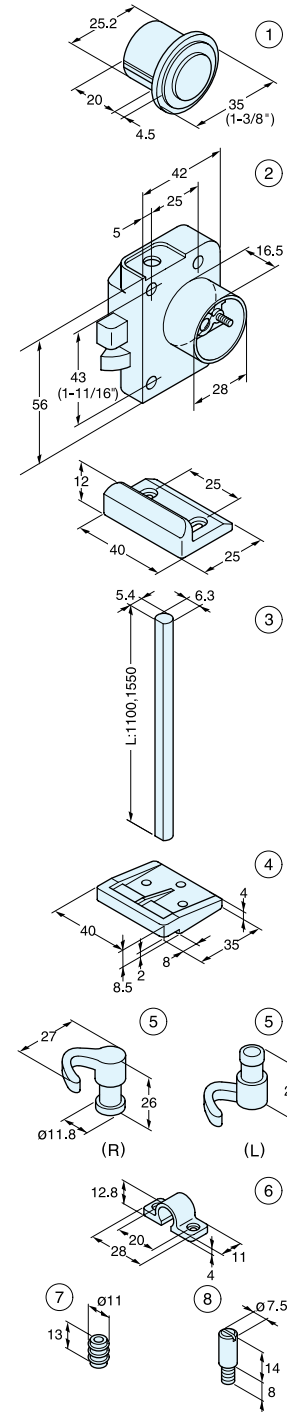




Bore Dimensions (Door)



Bore Dimensions (Cabinet)



ORDERING INFO:

For complete set, order the push knob base, latch body, 2 bars, and the parts kit.
Example

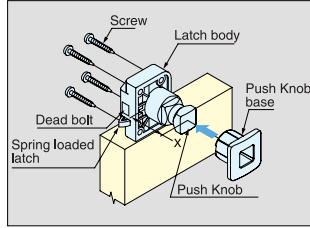
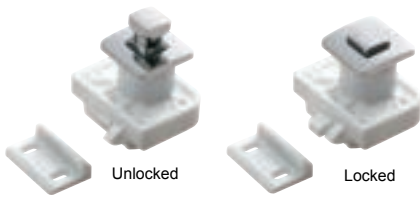
Qty	Item No.
1	TLP-BB/SN
1	TLP-LB/WHT
2	TLP-1550/NI
1	TLP-A/WHT

No.	Part Name	Item No.	Material	Finish	Qty/Set	Weight (g)	Box (pcs)	Carton (pcs)
①	Push Knob and Base	TLP-BB/SB	Zinc Alloy/Brass	Satin Brass	1 (select one type)	77	25	250
		TLP-BB/SN		Satin Nickel				
		TLP-BB/PB		Polished Brass				
		TLP-BB/CR		Chrome				
②	Latch Body	TLP-LB/WHT	Polyamide	White	1	33	10	100
③	Bar L = 1100 mm (43-5/16")	TLP-1100/NI	Steel	Nickel	2	235	-	50
	Bar L = 1550 mm (61-1/32")	TLP-1550/NI				335		
④	Counterplate for double swing doors	TLP-ST03W	Polyamide	White	optional part (1)	14	25	250
⑤	Hook (R)	TLP-A/WHT (Parts Kit)	Polyacetal		1	32		
	Hook (L)							
⑥	Saddle		Polyamide		4			
⑦	Dowel		Steel		2			
⑧	Strike							
⑨	Screw (3 × 20)		Included in ②	Steel	Yellow Zinc Chromate	4	-	-
⑩	Screw (3 × 16)	2						

PUSH KNOB LATCH



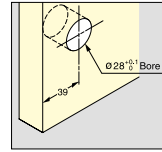
TLP-S



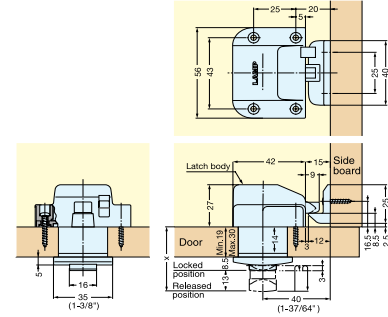
- Knob is stored flush when pushed in and not in use.
- Knob pops out when pressed to open the door.
- Latch securely locks the door with deadbolt.
- Door Thickness: 19 mm~30 mm (3/4"~ 1-3/16").
- Holding Force: 20 kg (44 lbs)
- Non-Handed: Can be installed on left or right side.
- Order Latch Body (TLP-LBM/WHT) and Push Knob (TLP-S-BB/XX) for complete set.



TLP-S-BB-CR TLP-S-BB-G TLP-S-BB-SN TLP-LBM/WHT



Bore Dimensions



Threaded Screw	Door Thickness	Dimensions X
L = 24	19 (3/4")	40.5 (1-19/32")
	20 (25/32")	41.5 (1-5/8")
	21 (53/64")	42.5 (1-43/64")
	22 (55/64")	43.5 (1-23/32")
	23 (29/32")	44.5 (1-51/64")
24 (15/16")	45.5 (1-51/64")	
Threaded Screw	Door Thickness	Dimensions X
L = 30	25 (63/64")	46.5 (1-53/64")
	26 (1-1/64")	47.5 (1-55/64")
	27 (1-1/16")	48.5 (1-29/32")
	28 (1-3/32")	49.5 (1-61/64")
	29 (1-9/64")	50.5 (1-63/64")
30 (1-11/64")	51.5 (2-1/32")	

Part Name	Material	Finish	
		Knob	Latch
Latch Body	Polyamide	Chrome (CR)	
Push Button	Brass	Satin Nickel (SN)	White
Push Button Base	Zinc Alloy	Gold (G)	

Item No.	Part Name	Holding Force (kg)
TLP-S-BB/CR	Push Knob and Base	20 (44 lbs)
TLP-S-BB/SN		
TLP-S-BB/G		
TLP-LBM/WHT		

PUSH KNOB LATCH



DPL-RO



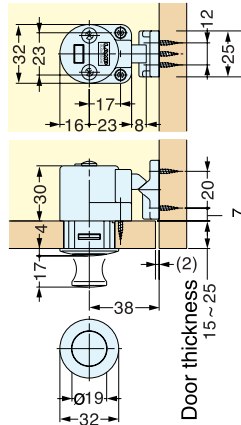
- Knob and latch combined:
 - Knob is flush when pushed in and not in use.
 - Knob pops out when pressed to open the door.
 - Door will be locked when knob is pushed in.
- Door Thickness: 15 mm~25 mm (19/32"~ 63/64").
- Holding Force: 10 kg (22 lbs)
- Non-Handed: Can be installed on left or right side.
- Other ring shape available.
 - Oval: DPL-OV
 - Square: DPL-SQ



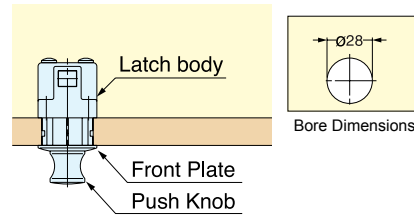
Latch Body

DPL-RO-G

DPL-RO-CR



Door thickness 15~25



Bore Dimensions

Item No.	Finish	Holding Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
DPL-RO-G	Gold	10 (22 lbs)	72	10	80
DPL-RO-CR	Chrome				

Part Name	Material
Push Knob	Zinc Alloy
Front Plate	
Latch Body	ABS
Counterplate	

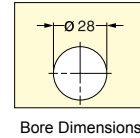
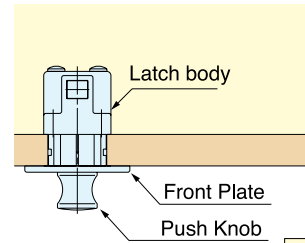
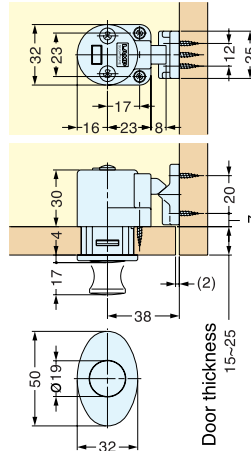
PUSH KNOB LATCH



DPL-OV



- Knob and latch combined:
 - Knob is flush when pushed in and not in use.
 - Knob pops out when pressed to open the door.
 - Door will be locked when knob is pushed in.
- Door Thickness: 15 mm~25 mm (19/32"~ 63/64").
- Holding Force: 10 kg (22 lbs)
- Non-Handed: Can be installed on left or right side.
- Other ring shape available.
 - Round: DPL-RO
 - Square: DPL-SQ



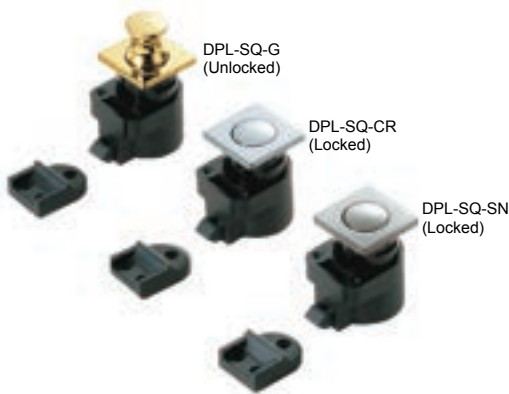
Item No.	Finish	Holding Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
DPL-OV-G	Gold	10 (22 lbs)	83	10	80
DPL-OV-CR	Chrome				

Part Name	Material
Push Knob	Zinc Alloy
Front Plate	ABS
Latch Body	
Counterplate	

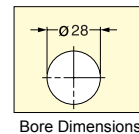
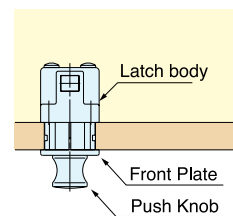
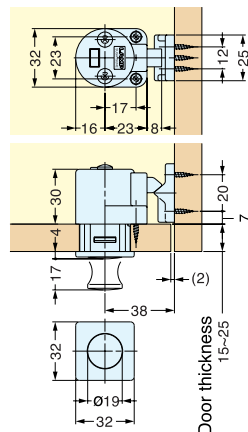
PUSH KNOB LATCH



DPL-SQ



- Knob and latch combined:
 - Knob is flush when pushed in and not in use.
 - Knob pops out when pressed to open the door.
 - Door will be locked when knob is pushed in.
- Door Thickness: 15 mm~25 mm (19/32"~ 63/64").
- Holding Force: 10 kg (22 lbs)
- Non-Handed: Can be installed on left or right side.
- Other ring shape available.
 - Round: DPL-RO
 - Oval: DPL-OV



Item No.	Finish	Holding Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
DPL-SQ-G	Gold	10 (22 lbs)	78	10	80
DPL-SQ-CR	Chrome				
DPL-SQ-SN	Satin Nickel				

Part Name	Material
Push Knob	Zinc Alloy
Front Plate	ABS
Latch Body	
Counterplate	

PUSH KNOB LATCH



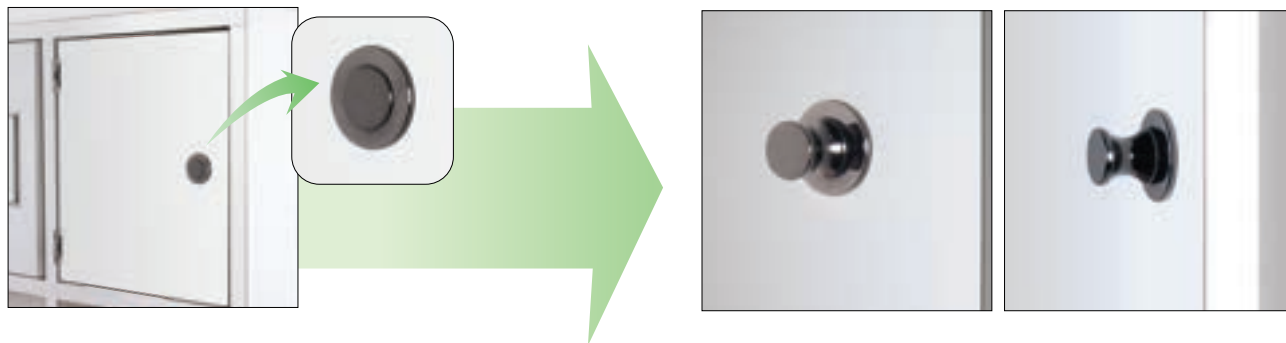
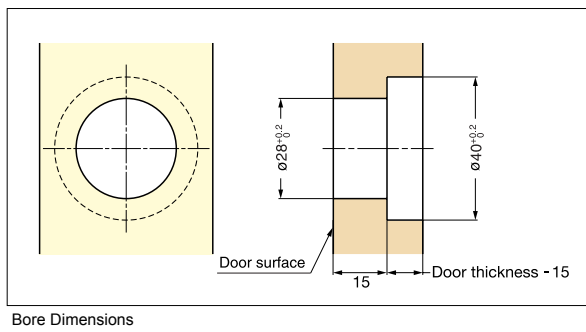
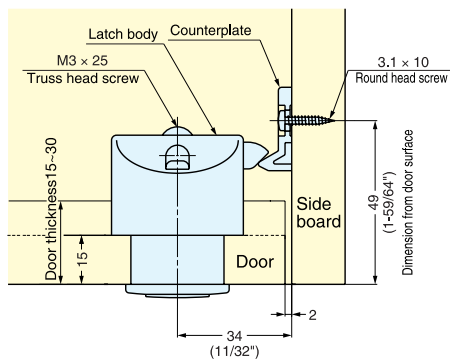
PKL-08



- Door Thickness: 15 mm~30 mm (19/32"~3/16"), for doors 13 mm thick, use a 2 mm plastic spacer (sold separately).
- Order latch body (PKL-S/xxx) and push knob (PKL-08/xxx) for a complete set.
- Door will be locked when knob is pushed in.
- Holding Force : 10 kg (22 lbs)
- Non-handed.
- Note: To avoid damage to the unit, do not activate the latch before closing the door.



*Please specify latch body color when ordering.
 *Available in white (WHT) or black (BLK).
 *Latch body and push knob sold separately.



- For both inset and overlay door.
- Step 1: When the door is closed, the latch is engaged.
 - Step 2: Push the knob to flush position to lock the latch.
 - Step 3: Push the knob again to out position to unlock the latch.

Item No.	Part Name	Finish	Weight (g)	Box (pcs)	Carton (pcs)
PKL-08/GA	Push Knob	Gold	63	20	200
PKL-08/CR		Chrome			
PKL-08/BN		Black Nickel			
PKL-S/WHT	Latch Body	White	2	500	5000
PKL-S/BLK		Black			
PKL-Spacer/WHT	Spacer	White	1	500	5000
PKL-Spacer/BLK		Black			

Part Name	Material	Finish Knob
Latch Body	ABS	Gold, Chrome, Black Nickel
Push Knob	Zinc Alloy	
Counterplate	ABS	

PUSH LATCH



SL-B

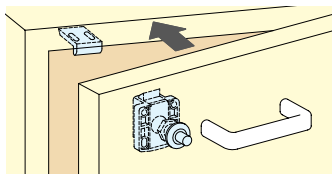
CATCHES & LATCHES

PUSH LATCHES / PUSH KNOB LATCHES



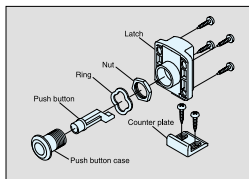
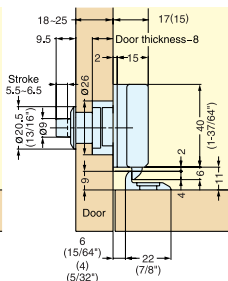
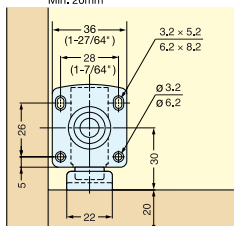
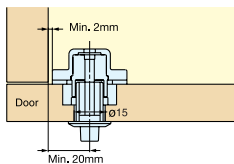
SL-B-211/BRN

SL-B-211/IVY

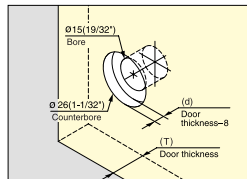


- Unique push latch
- Pull the handle while pushing the button to open door.
- Handle sold separately.

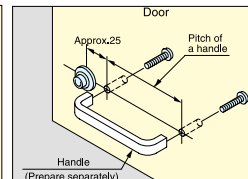
Handles are required to open the door. (Not included)



Detailed View



Bore Dimensions



Handle position

Item No.	Spacer Required	(T) Door Thickness	(d) Depth of Recess Hole
SL-B-211	o	18 (45/64")	10 (25/64")
	x	19 (3/4")	11 (7/16")
	x	20 (25/32")	12 (15/32")
SL-B-251	o	21 (53/64")	13 (33/64")
	x	22 (7/8")	14 (35/64")
	x	23 (29/32")	15 (19/32")
x	24 (15/16")	16 (5/8")	
x	25 (63/64")	17 (43/64")	

Please specify the finish when ordering.

Item No.	Holding Force(kg)	Weight (g)	Box (pcs)	Carton (pcs)
SL-B-211	16 (35 lbs)	32.5	20	200
SL-B-251				

Part Name	Material	Finish	Application
Body, Latch	Polyamide	Brown(BRN) Ivory(IVY)	RV and marine
Push Button	Polyacetal		
Counterplate	Steel	-	
Nut, Washer	Steel	-	

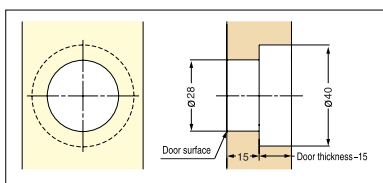
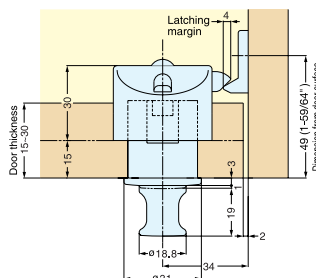
PUSH KNOB LATCH



PKL-07



PKL-07/WHT
PKL-S/WHT



Bore Dimensions

- Knob is stored flush when pushed in and not in use.
- Knob pops out when pressed to open the door.
- Latch securely locks the door with deadbolt.
- Door Thickness: 15 mm~30 mm (19/32"~ 3/16"), for doors 13 mm thick, use a 2 mm plastic spacer (sold separately).
- Holding Force: 10 kg (22 lbs)
- Non-Handed: Can be installed on left or right side.
- Note: to avoid damage to the unit, do not activate the latch before closing the door.
- Order latch body (PKL-S/xxx) and push knob (PKL-07/xxx) for a complete set.



PKL-S/BLK

PKL-S/WHT

Please specify latch body color when ordering. Available in white (WHT) or black (BLK). Latch body and push knob sold separately.

Item No.	Part Name	Holding Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PKL-07/WHT	Push Knob	10 (22 lbs)	30	20	200
PKL-S/WHT	Latch Body		2		
PKL-S/BLK	Latch Body				

Material	Color
ABS	White (WHT), Black (BLK)

PUSH LOCK FASTENER (LARGE/FLUSH TYPE)

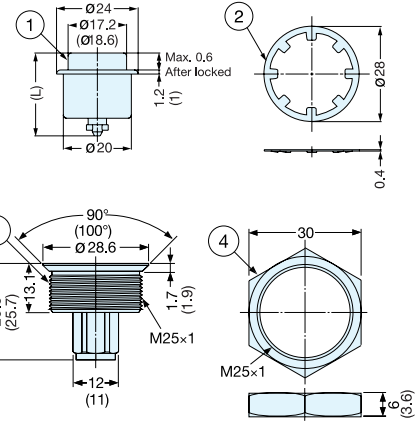
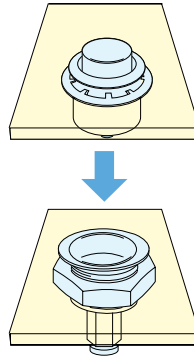
251F, 151F

CATCHES & LATCHES

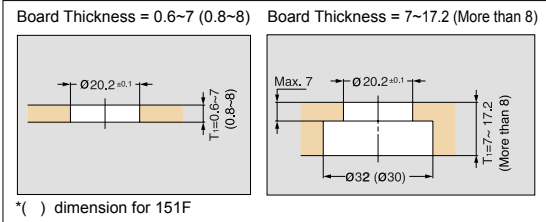
PUSH LOCK FASTENERS



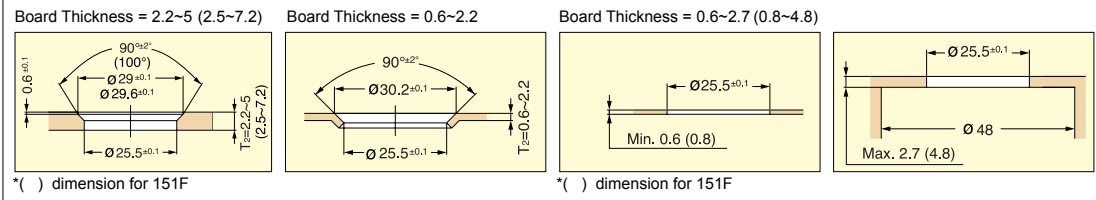
- 2 piece fastener allows for fast and easy access with complete removal of panel.
- Attach socket into outer panel/plug into removable panel.
- Insert plug into socket and push to lock/unlock.
- Flush locked design prevents snagging.
- Fastens plastic or sheet metal panels.



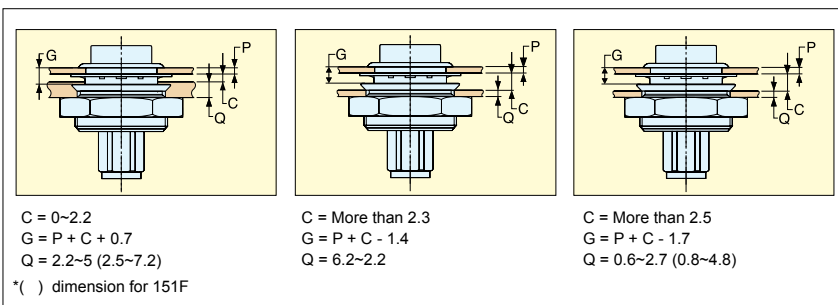
■ Preparation (Plug)



■ Preparation (Socket)



■ Grip Dimensions



■ 251F

No.	Part Name	Material	Finish
①	Plug	Polyacetal	Black
②	Ring	Steel	
③	Socket	Polyacetal	
④	Nut		

■ 151F

No.	Part Name	Material	Finish
①	Plug	Brass	Chrome
②	Ring	Steel	Plain
③	Socket	Brass	Chromate
④	Nut	Zinc Alloy	

Item No.	Grip Dimension G	Plug Dimension L	Retaining Force (kg)	Weight (g)	Item No.	Grip Dimension G	Plug Dimension L	Retaining Force (kg)	Weight (g)
251F-01-3	1.2~2.0	20.5	25 (55 lbs)	15	151F-01-2	1.2~2.0	20.5	25 (55 lbs)	15
251F-02-3	2.0~2.8	21.0			151F-02-2	2.0~2.8	21.0		
251F-03-3	2.8~3.6	22.0			151F-03-2	2.8~3.6	22.0		
251F-04-3	3.6~4.4	23.0			151F-04-2	3.6~4.4	23.0		
251F-05-3	4.4~5.2	23.5			151F-05-2	4.4~5.2	23.5		
251F-06-3	5.2~6.0	24.5			151F-06-2	5.2~6.0	24.5		

PUSH LOCK FASTENER (MINI/FLUSH TYPE)

252F, 152F



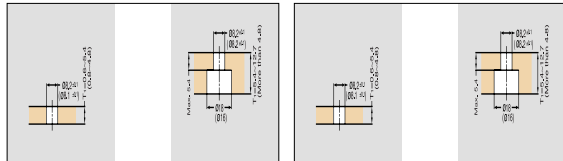
- 2 piece fastener allows for fast and easy access with complete removal of panel.
- Attach socket into outer panel/plug into removable panel.
- Insert plug into socket and push to lock/unlock.
- Flush locked design prevents snagging.
- Fastens plastic or sheet metal panels.

CATCHES & LATCHES

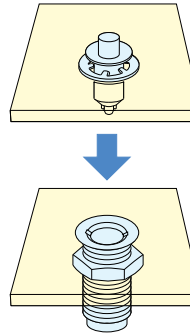
PUSH LOCK FASTENERS

■ Preparation (Plug)

Board Thickness = 0.6~5.4 (0.8~4.8) Board Thickness = 5.4~12.7 (More than 4.8)

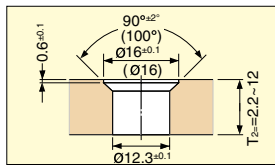


* () dimension for 152F



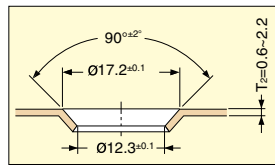
■ Preparation (Socket)

Board Thickness = 2.2~12

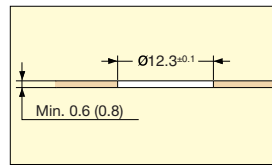


* () dimension for 152F

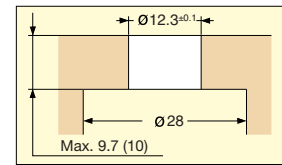
Board Thickness = 0.6~2.2



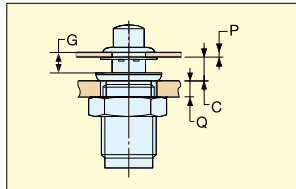
Board Thickness = 0.6~9.7 (0.8~1.0)



* () dimension for 152F

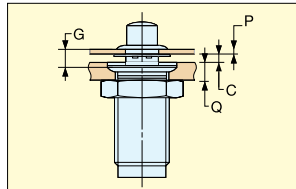


■ Grip Dimensions

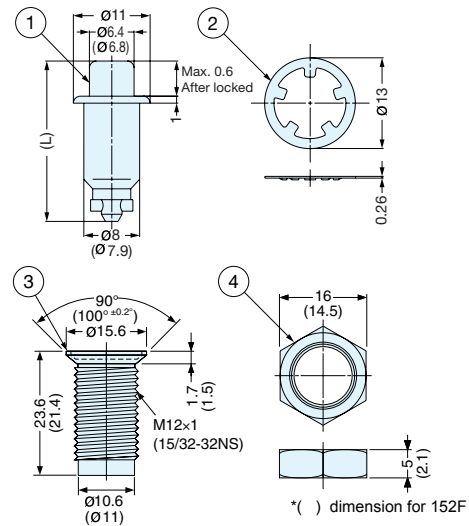


C = 0~2.2 (0~2.5)
G = P + C + 0.7
Q = 2.2~12

* () dimension for 152F



C = More than 2.3 (2.2)
G = P + C - 1.4
Q = 0.6~9.7 (0.8~1.0)



* () dimension for 152F

■ 252F

No.	Part Name	Material	Finish
①	Plug	Polycetal	Black
②	Ring	Steel	
③	Socket	Polycetal	
④	Nut		

■ 152F

No.	Part Name	Material	Finish
①	Plug	Brass	Chrome
②	Ring	304 Stainless steel	Plain
③	Socket	Zinc Alloy	Chromate
④	Nut	Steel	

Item No.	Grip Dimension G	Plug Dimension L	Retaining Force (kg)	Weight (g)
252F-01-3	1.2~2.0	18.5	15 (33 lbs)	6
252F-02-3	2.0~2.8	19.0		
252F-03-3	2.8~3.6	20.0		
252F-04-3	3.6~4.4	20.5		
252F-05-3	4.4~5.2	21.5		
252F-06-3	5.2~6.0	22.5		

Item No.	Grip Dimension G	Plug Dimension L	Retaining Force (kg)	Weight (g)
152F-01-1	1.2~2.0	16.5	15 (33 lbs)	6
152F-02-1	2.0~2.8	17.0		
152F-03-1	2.8~3.6	18.0		
152F-04-1	3.6~4.4	18.5		
152F-05-1	4.4~5.2	19.5		
152F-06-1	5.2~6.0	20.5		

PUSH LOCK FASTENER (MINI/BUTTON TYPE)

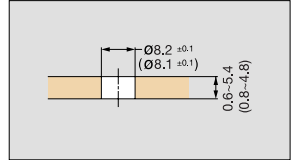
255F, 155F



- 2 piece fastener allows for fast and easy access with complete removal of panel.
- Attach socket into outer panel / plug into removable panel.
- Insert plug into socket and push to lock / unlock.
- Flush locked design prevents snagging.
- Fastens plastic or sheet metal panels.

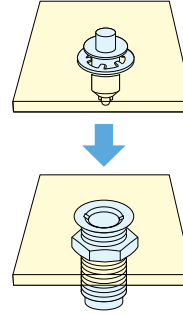
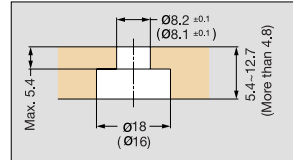
Preparation (Plug)

Board Thickness (P) = 0.6~5.4 (0.8~4.8)



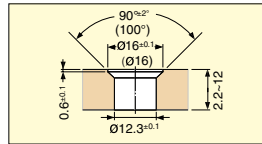
* () dimension for 155F

Board Thickness (P) = 5.4~12.7 (More than 4.8)

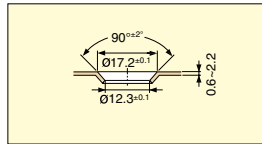


Preparation (Socket)

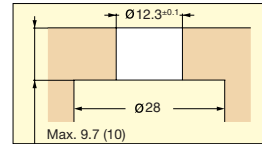
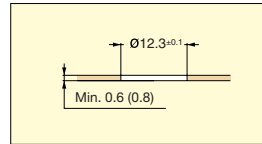
Board Thickness = 2.2~12



Board Thickness = 0.6~2.2

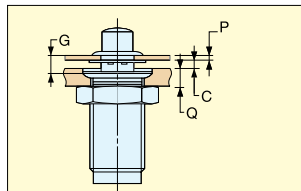


Board Thickness = 0.6~9.7 (0.8~10)



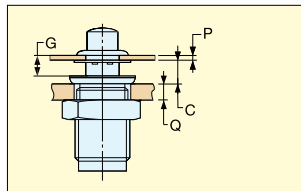
* () dimension for 155F

Grip Dimensions

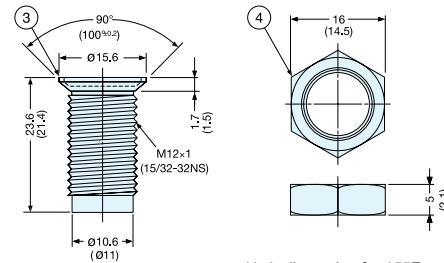
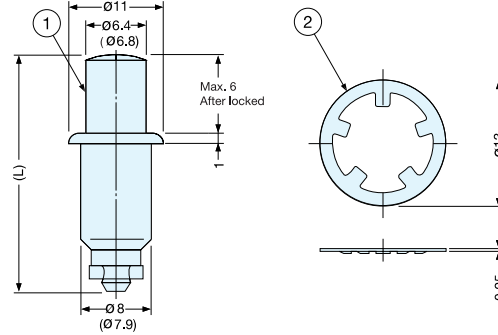


C = 0~2.2 (0~2.5)
G = P + C + 0.7
Q = 2.2~12

* () dimension for 155F



C = More than 2.3 (2.2)
G = P + C - 1.4
Q = 0.6~9.7



* () dimension for 155F

255F

No.	Part Name	Material	Finish
①	Plug	Polycetal	Black
②	Ring	Steel	
③	Socket	Polycetal	
④	Nut		

155F

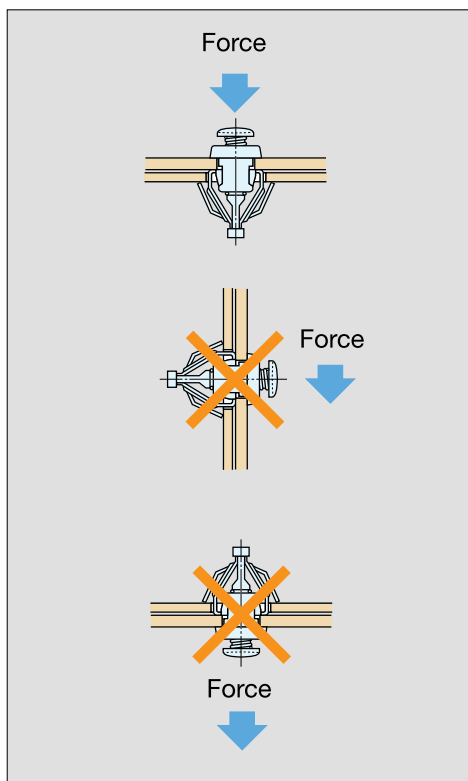
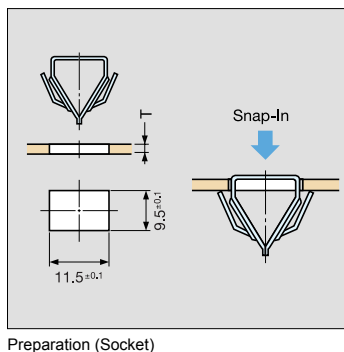
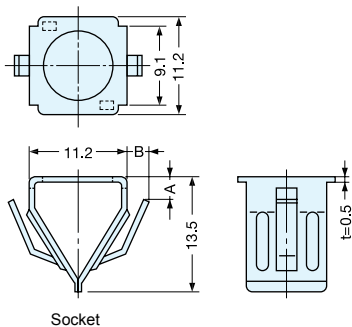
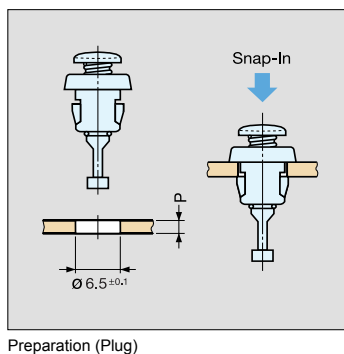
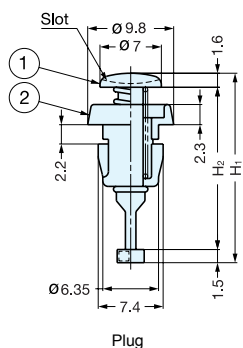
No.	Part Name	Material	Finish
①	Plug	Brass	Chrome
②	Ring	304 Stainless steel	Plain
③	Socket	Zinc Alloy	Chromate
④	Nut	Steel	

Item No.	Grip Dimension G	Plug Dimension L	Retaining Force (kg)	Weight (g)	Item No.	Grip Dimension G	Plug Dimension L	Retaining Force (kg)	Weight (g)
255F-01-3	1.2~2.8	23.5	15 (33 lbs)	6	155F-01-1	1.2~2.8	21.5	15 (33 lbs)	6
255F-03-3	2.8~4.4	25.0			155F-03-1	2.8~4.4	23.0		
255F-05-3	4.4~6.0	26.5			155F-05-1	4.4~6.0	24.5		

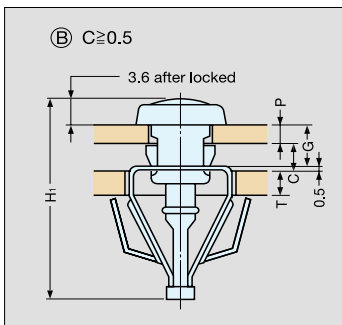
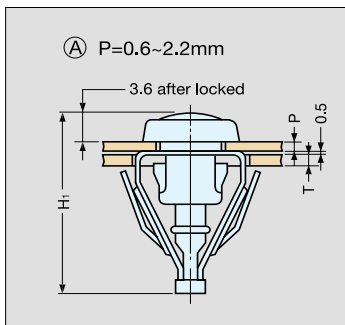
PUSH LOCK FASTENER (PUSH-TURN TYPE)

149 SERIES

- Fastener for plastic or sheet metal panels.
- Push-in the head to lock panels.
- Turn the head to release.



Application Example



(Table 1) (A)

Item No.	P	H ₁
149S06-1-1AA	0.6~1.4	19.2
149S06-2-1AA	1.4~2.2	20

(Table 2) (B)

Item No.	$G=P+C-0.5(C \geq 0.5)$	P	C
149S06-1-1AA	0.6~1.4	0.6~1.4	1.3~0.5
149S06-2-1AA	1.4~2.2	0.6~2.2	2.1~0.5

NOTE: $P + C - 0.5 \leq \text{Max. } G$
 (1) $P (0.8) + C (1.0) - (0.5) = G (1.3) \rightarrow 149S06-1-1AA$
 (2) $P (0.8) + C (1.3) - (0.5) = G (1.6) \rightarrow 149S06-2-1AA$

[Plug]

Item No.	H ₁	H ₂	Weight (g)	Box (pcs)	Carton (pcs)
149S06-1-AA	19.2 (3/4")	16.1	2	500	2000
149S06-2-AA	20.0 (25/32")	16.9			

[Socket]

Item No.	A	B	Board Thickness T	Weight (g)	Box (pcs)	Carton (pcs)
149R02-2-1AA	2.6	1.7	1.2~1.8	1	500	2000
149R02-3-1AA	3.6	1.9	1.8~2.6			

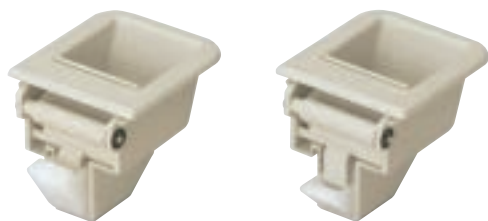
Part Name	Material	Finish
Plug	430 Stainless steel (ⓈPin)	Plain
	Plastic (ⓈCap)	Grey
Socket	304 Stainless steel	-

DISCONTINUED

FLUSH SLAM LATCH

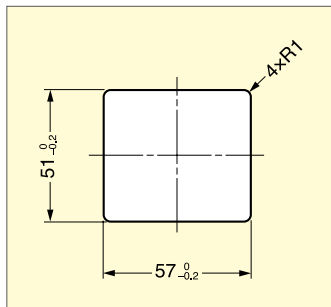


ATL-64

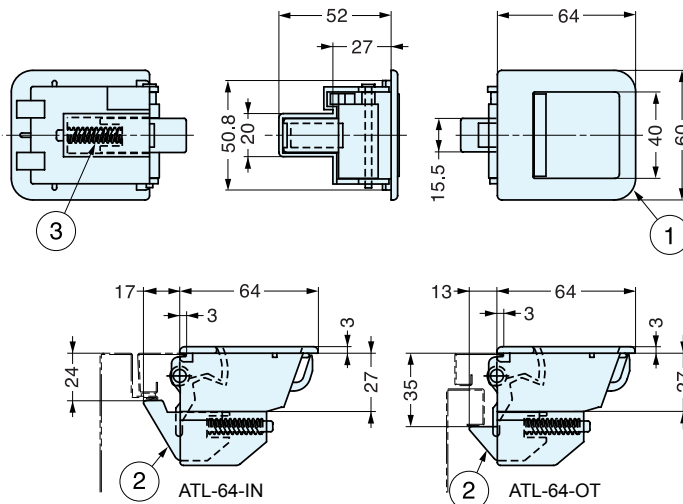


ATL-64-IN

ATL-64-OT



Cut Out Dimensions



- Door latches when closed.
- Pull lever to release latch when opening door.
- Auto lock feature.
- For use with 0.7-1 mm thick material.

Item No.	Application	For use with panels	weight
ATL-64-IN	Inset	0.7-1mm	44.5g
ATL-64-OT	Overlay		

No.	Part Name	Material	Finish/Color
①	Main Body	ABS Plastic	Off white
②	Latch	Polyamide	
③	Spring	304 Stainless Steel	Plain

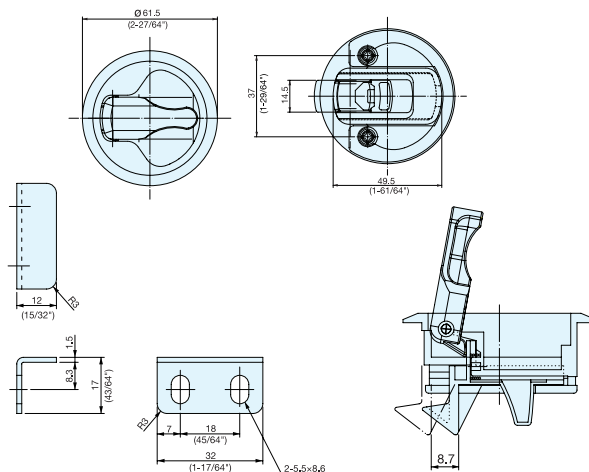
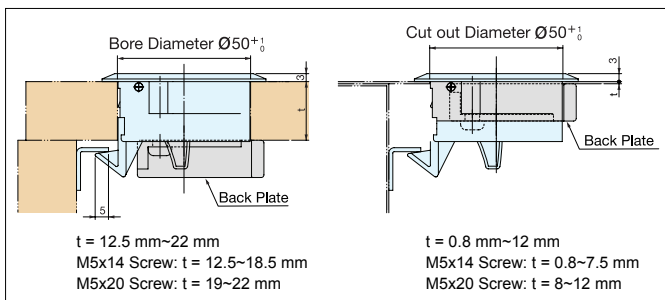
FLUSH SLAM LATCH



LJ-61



- Door will be latched when closed.
- Pull lever to open.
- Non-Handed:
Can be installed on left or right side.
- Easy installation.
Insert the latch body through single round cutout or bore section and screw-on the back plate.
Back plate is designed to accommodate door thickness 0.8 mm~12 mm, and also 12.5 mm~22 mm by flipping over the back plate.



Installation

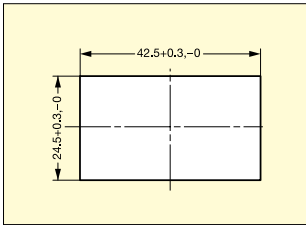
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
LJ-61/BLK	15 (33 lbs)	45	10	120
LJ-61/WHT				

Part Name	Material	Finish/Color
Body/Spring	Polyacetal, Polycarbonate, 304 Stainless Steel	Black, White
Counterplate	316 Stainless Steel	Satin

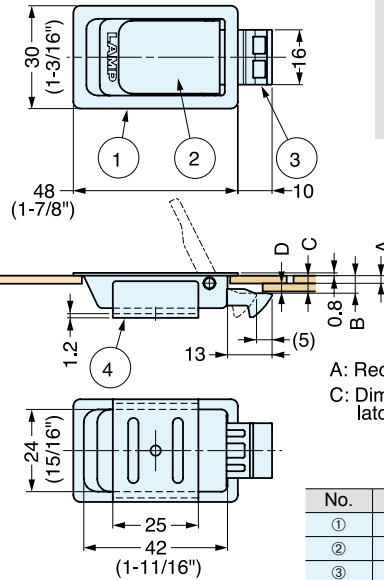
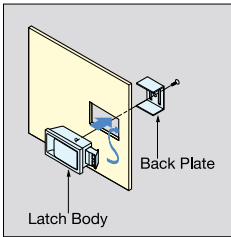
FLUSH SLAM LATCH



LC-48



Cut Out Dimensions



- Door will be latched when closed.
- Pull paddle handle to open.
- Non-Handed:
Can be installed on left or right side.
- Designed for panel thickness Max. 1.6 mm.
- Easy installation.
Insert the latch body through cutout section and simply screw-on the back plate.
- UL-94 VO rated flame retardant material.

A: Recommended panel thickness
C: Dimensions between top of latch and inside panel

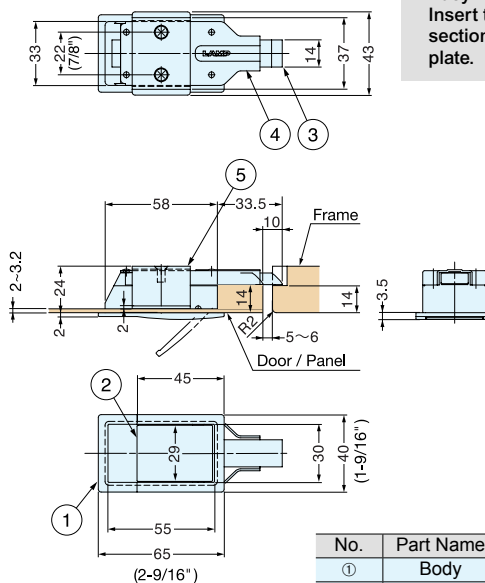
No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Plain
②	Lever	304 Stainless Steel	Plain
③	Latch Bolt	PBT Plastic	White
④	Back Cover	304 Stainless Steel	Plain
⑤	Back Plate	304 Stainless Steel	Plain

Item No.	Panel Thickness	B	C	D	Weight (g)	Box (pcs)	Carton (pcs)
LC-48-3	1.0~1.6	3.5	3.2	1.6	35	40	400
LC-48-5	1.0~2.3	5.1	4.6	2.3			

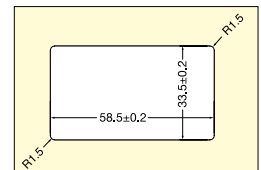
FLUSH SLAM LATCH



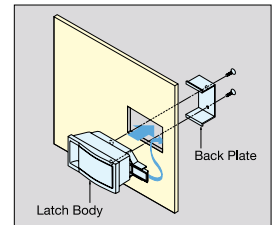
LC-65A



- Door will be latched when closed.
- Pull paddle handle to open.
- Non-Handed:
Can be installed on left or right side.
- Designed for panel thickness 2.0~3.2 mm.
- Easy installation.
Insert the latch body through cutout section and simply screw-on the back plate.



Cut Out Dimensions

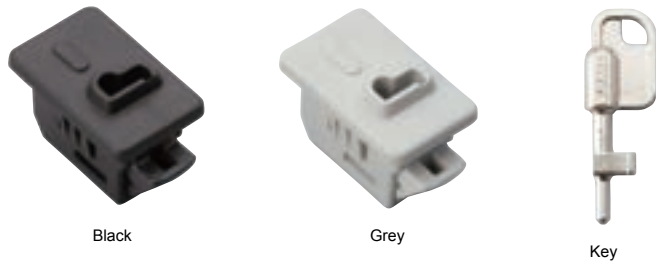


No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Anodized
②	Lever	Aluminum Alloy	Anodized
③	Latch Bolt	Polyacetal	White
④	Back Cover	304 Stainless Steel	Plain
⑤	Back Plate	304 Stainless Steel	Plain

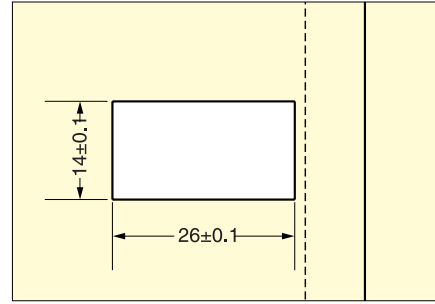
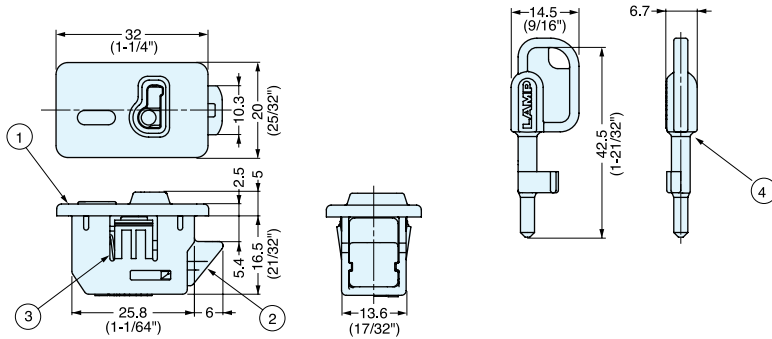
Item No.	Door Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
LC-65A	2.0~3.2	108	10	100

QUICK RELEASE PANEL LATCH (W/LOCK)

LC-PK32

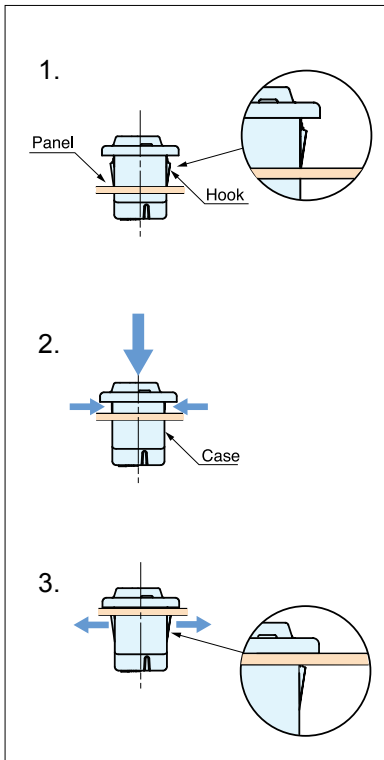


- Keylocking style restricts access.
- Single-hole, snap-in installation.
- UL94-VO rated flame retardant material.
- Non-corrosive materials.
- Key is removable in locked position only.
- No key changes are available.

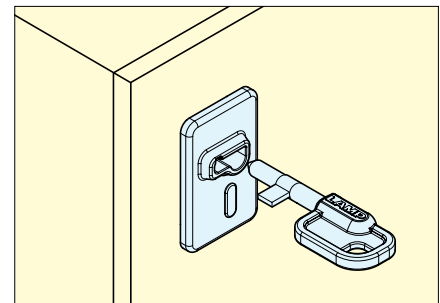
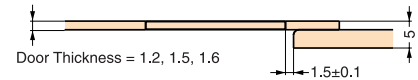
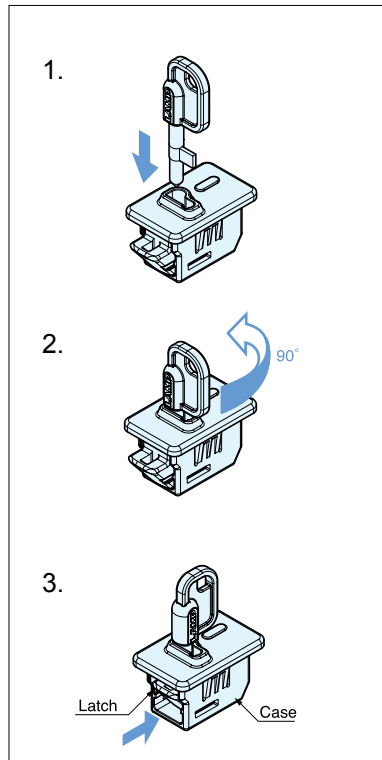


Cut Out Dimensions

One Touch Installation



Easy Latching



Cut Out Dimensions

Latch Body

Item No.	Color	Door Thickness (mm)	Description	Weight (g)	Box (pcs)	Carton (pcs)
LC-PK32-L-BL	Black	1.2, 1.5, 1.6	Without Lever	6	72	720
LC-PK32-L-GR	Grey	1.2, 1.5, 1.6				

Key (Sold Separately)

Item No.	Color	Finish	Weight (g)	Box (pcs)	Carton (pcs)
LC-PK32-K	Black	Nickel	7	200	2000

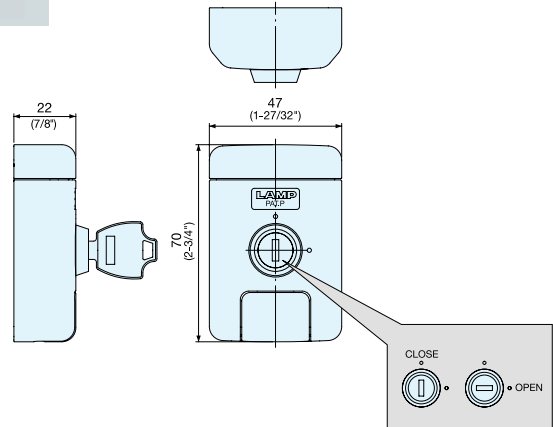
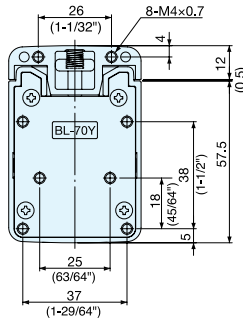
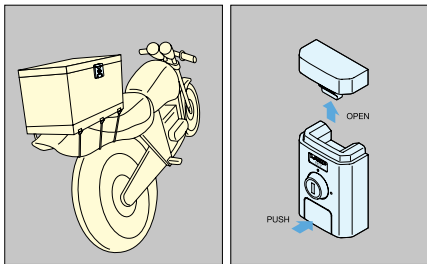
BOX LATCH (W/LOCK)



BL-70Y



- Latch ideal for box and case.
- Automatically latches lid when closed.
- Push button to release.
- Includes 2 keys.
- 5 key changes available upon request.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
BL-70Y	220	5	50

DISCONTINUED

Part Name	Material	Finish/Color
Body, Strike	Zinc Alloy	Silver
Push Button	ABS	Grey

QUICK RELEASE PANEL FASTENER

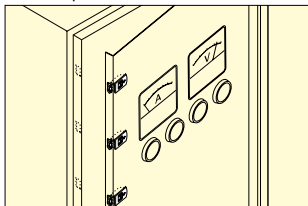


SX-48

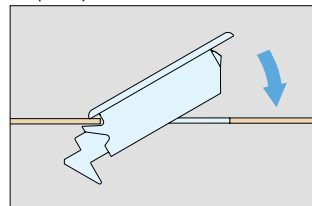


- Snap-in installation.
- Automatically latches when the panel is closed.
- Release multiple latches simultaneously with temporary hold-open feature. (No need to hold finger on latch when releasing).
- Components are plastic and 304 stainless steel to provide high corrosion resistance.
- Nonflammable.

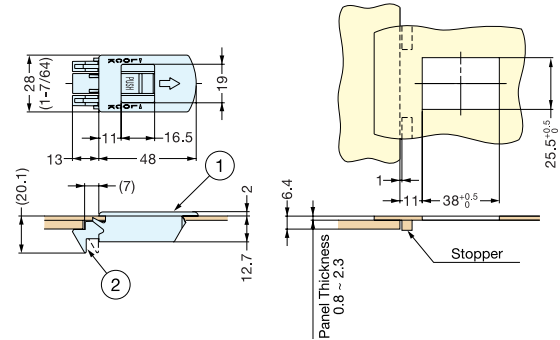
Use multiple latches.



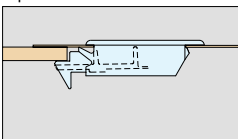
Snap into panel.



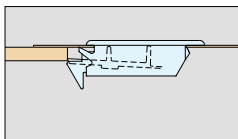
Cut Out Dimensions



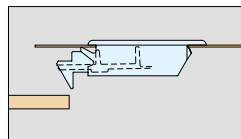
Operation



Locks when panel is closed.



Hold-Open Feature
Each latch will hold in an opened position allowing user to release multiple latches at the same time.



Lever & latch is reset when the panel opens.

Item No.	Panel Thickness (mm)	Retainig Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SX-48	0.8~2.3	5 (12 lbs)	11	40	400

No.	Part Name	Material	Finish
①	Case	Polyamide (UL94V-0)	Black
②	Latch	Polyacetal (UL94HB)	-
-	Spring	304 Stainless Steel	-



DC

CATCHES & LATCHES

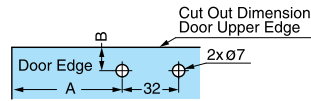
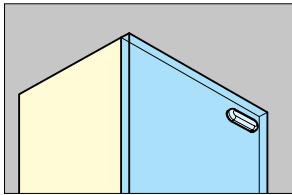
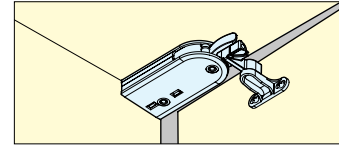
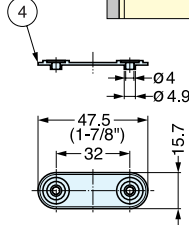
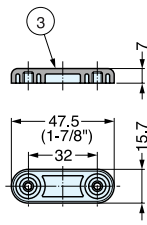
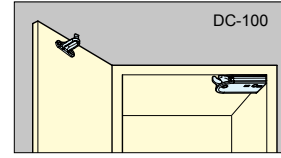
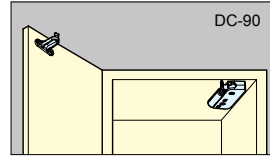
DAMPER CATCHES

DAMPER CATCH

- Left- and right-handed catches with built-in damper, closes doors smoothly.
- Slim design suitable for various inset and overlay door installations.
- Available for both wood and glass cabinet doors. Glass face plate SDS-50G sold separately.
- Includes screws.



Installation

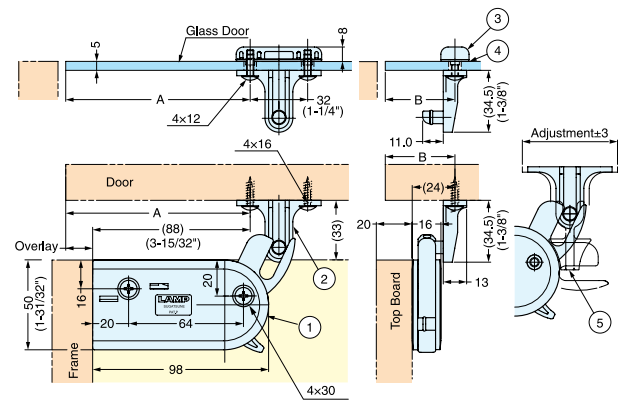
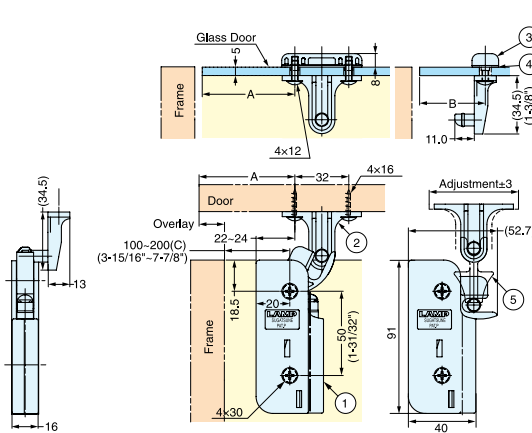


■ DC-90

Installation Position	A	B
Inset Door	Gap between door side board	Gap between door side board
Overlay Door	C + Overlay + 3	Overlay + 24

■ DC-100

Installation Position	A	B
Inset Door	Gap between door side board	Gap between door side board
Overlay Door	88 + Overlay	Overlay + 24



■ Face Plate (Sold Separately)

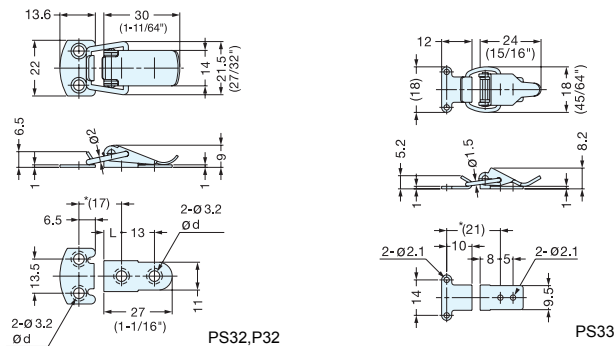
Item No.	Weight (g)	Box (pcs)
SDS-50G-CR	25	50

No.	Part Name	Material	Finish/Color
①	Body	Polyacetal (POW) / PBT	Dark Grey/Light Grey
②	Trigger	Polyacetal (POW)	Dark Grey
③	Face Plate	Zinc Alloy (ZDC)	Chrome
④	Spacer	ABS	Black
⑤	Trigger Installation Jig	PBT	Light Grey

Item No.	Spec.	Door With (mm)	Door Height (mm)	Door Thickness (mm)	Door Weight (kg)	Weight (g)	Box (pcs)	Carton (pcs)
DC-90	For Wooden Door	450 (17-23/32")	600 (23-5/8")	-	4 (8.8 lbs)	46	25	200
DC-90G	For Glass Door			5		71		
DC-100	For Wooden Door	600 (23-5/8")	800 (31-1/2")	-	7 (15.4 lbs)	66		
DC-100G	For Glass Door			5		91		

DRAW LATCH

PS/P



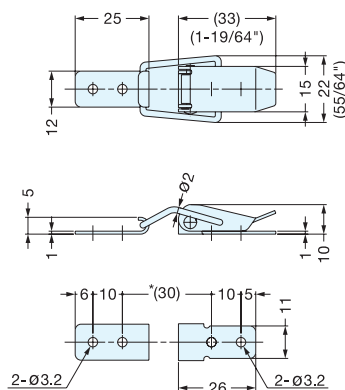
*Dimensions shown are for clamping force of "0".

Item No.	L	ød	Load Capacity (kg)	Weight (g)	Material	Finish
PS32	7.5	5.2	8 (17.6 lbs)	11	PS: 304 Stainless Steel	Polished
P32		4.2		12		
PS33	-	-	5 (11.0 lbs)	6	P: Steel	Clear Zinc

DRAW LATCH



PS35



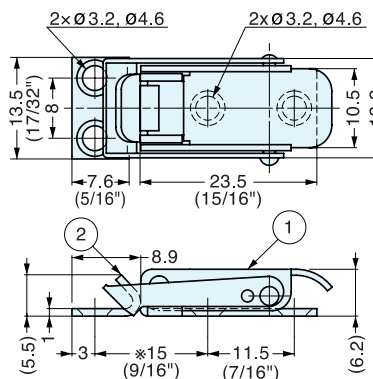
*Dimensions shown are for clamping force of "0.5".

Item No.	Load Capacity (kg)	Weight (g)	Material	Finish
PS35	2 (4.4 lbs)	15	304 Stainless Steel	Polished

DRAW LATCH



SCC25



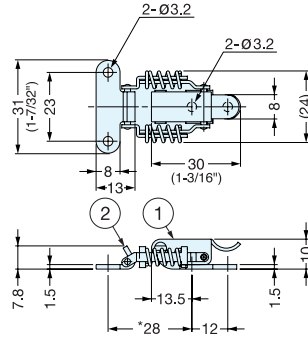
*Dimensions shown are for clamping force of "0".

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish
SCC25	6	100	1000	①	Body	304 Stainless Steel	Polished
				②	Counterplate		

COMPRESSION DRAW LATCH



SCC-30/SS



- Spring loaded design compensates for tolerance and vibrations.
- Provides constant hold tension for secure latching.

*Dimensions shown are for clamping force of "0".

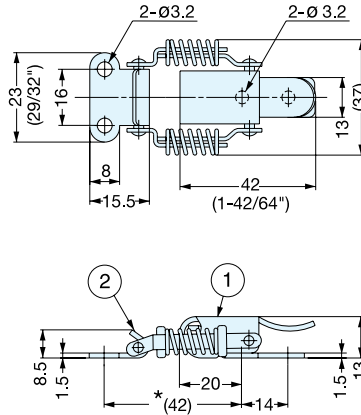
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SCC-30/SS	32	100	400

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Counterplate	304 Stainless Steel	Polished

COMPRESSION DRAW LATCH



SCC-40/SS



- Spring loaded design compensates for tolerance and vibrations.
- Provides constant hold tension for secure latching.

*Dimensions shown are for clamping force of "0".

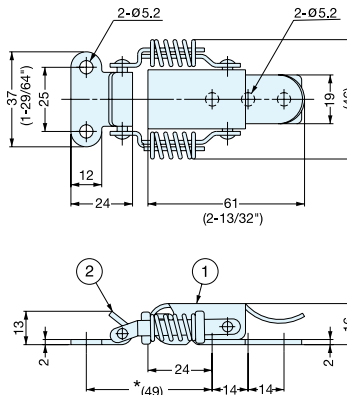
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SCC-40/SS	42	100	400

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Counterplate	304 Stainless Steel	Polished

COMPRESSION DRAW LATCH



SCC-60/SS



- Spring loaded design compensates for tolerance and vibrations.
- Provides constant hold tension for secure latching.

*Dimensions shown are for clamping force of "0".

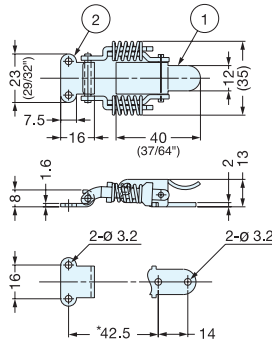
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SCC-60/SS	85	40	160

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Counterplate	304 Stainless Steel	Polished

COMPRESSION DRAW LATCH



SCCA-40



- Spring loaded design compensates for tolerance and vibrations.
- Provides constant hold tension for secure latching.

*Dimensions shown are for clamping force of "0".

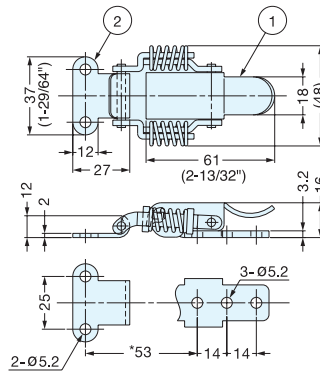
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SCCA-40	38	100	400

No.	Part Name	Material	Finish
①	Body	Steel	Yellow Zinc Chromate
②	Counterplate		

COMPRESSION DRAW LATCH



SCCA-60



- Spring loaded design compensates for tolerance and vibrations.
- Provides constant hold tension for secure latching.

*Dimensions shown are for clamping force of "0".

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SCCA-60	102	100	400

No.	Part Name	Material	Finish
①	Body	Steel	Yellow Zinc Chromate
②	Counterplate		

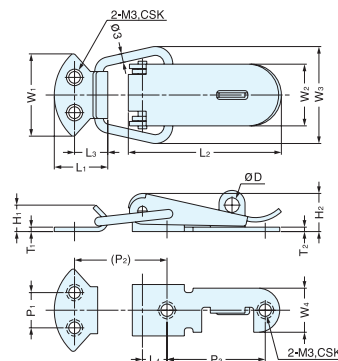
DRAW LATCH



PS



PS30A



- PS31A and PS30A designed for use with a padlock (not included).

Material	Finish
304 Stainless Steel	Polished

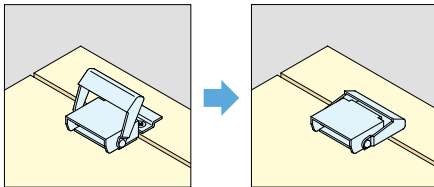
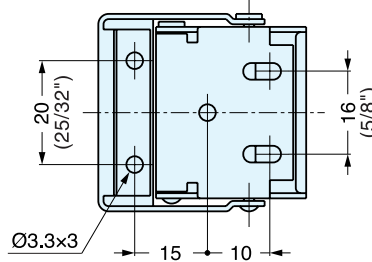
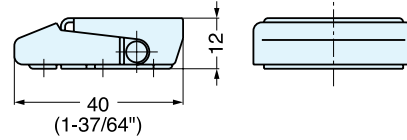
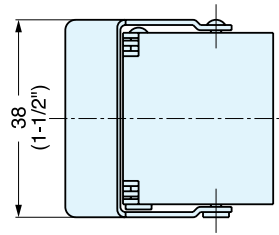
Item No.	øD	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PS31A	5.0	10 (22 lbs)	19	100	500
PS30A	5.5	15 (33 lbs)	35		400
PS31	-	10 (22 lbs)	19		500
PS30	-	15 (33 lbs)	38		400

Item No.	Pad Lock Hole	L ₁	L ₂	L ₃	L ₄	W ₁	W ₂	W ₃	W ₄	H ₁	H ₂	T ₁	T ₂	P ₁	(P ₂)	P ₃
PS31A	With Hole	16	40 (1-37/64")	10.0	8.0	23 (29/32")	16	26	13	9	9.5	1.2	1.0	10	30	23
PS30A		18	53 (2-3/32")	11.5	8.5	28 (1-7/64")	21	32	15	10	13.0	1.5	1.5	12	33	34
PS31	Without Hole	19	38 (1-1/2")	11.0	7.0	24 (61/64")	16	26	13	8	9.5	1.2	1.0	10	30	23
PS30		18	53 (2-3/32")	11.5	8.5	28 (1-7/64")	21	32	15	10	13.0	1.5	1.5	12	33	34

DRAW LATCH



STF-40



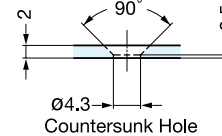
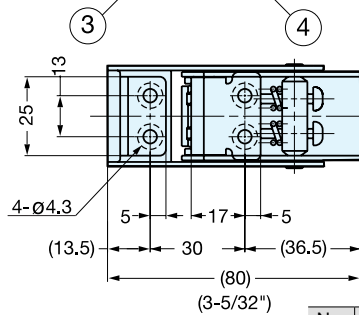
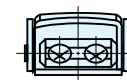
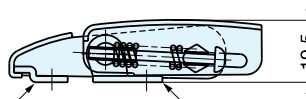
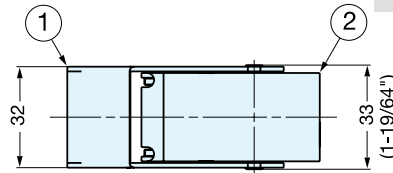
Recommended Screw : M3

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
STF-40	30	30	300	304 Stainless Steel	Polished

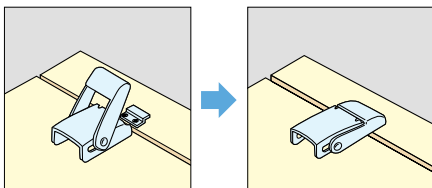
DRAW LATCH (SPRING LOADED)



STF-80



- Spring Loaded Latch.
- Durable against vibration.
- Screws not included. Recommended screw size M4.



Installation

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
STF-80	80 (176 lbs)	110	12	180

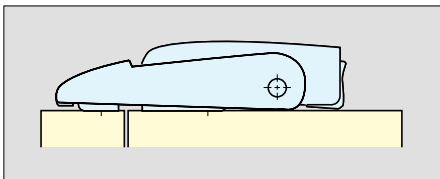
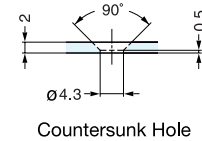
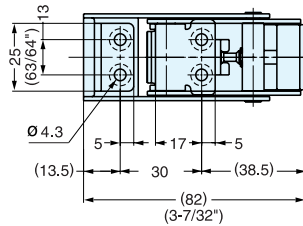
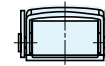
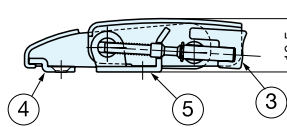
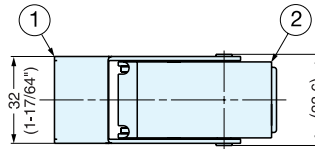
No.	Part Name	Material	Finish
①	Body A	304 Stainless Steel	Satin
②	Body B		
③	Counterplate		Polished
④	Mounting Plate		

DRAW LATCH (W/SAFETY LOCK)



STF-82L

- With safety lock to prevent accidental release.
- Push safety button and lift to release.
- Screws not included. Recommended screw size M4.



Installation

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
STF-82L	80 (176 lbs)	111	12	180

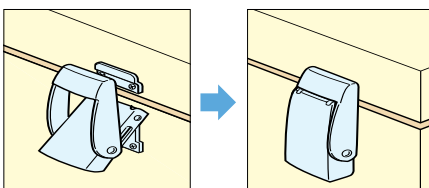
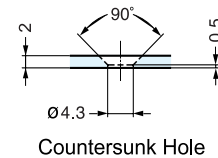
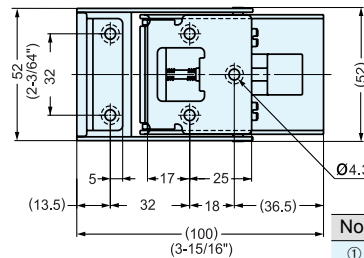
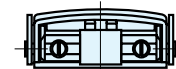
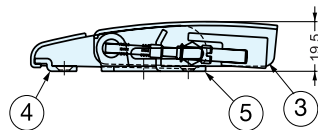
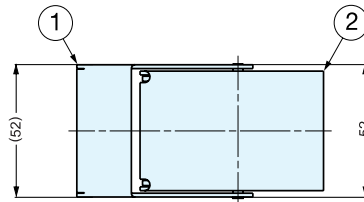
No.	Part Name	Material	Finish
①	Body A	304 Stainless Steel	Satin
②	Body B		
③	Button	Synthetic Rubber	Black
④	Counterplate	304 Stainless Steel	Satin
⑤	Mounting Plate		Polished

DRAW LATCH (W/SAFETY LOCK)



STF-100

- With safety lock to prevent accidental release.
- Push safety button and lift to release.
- Screws not included. Recommended screw size M4.



Installation

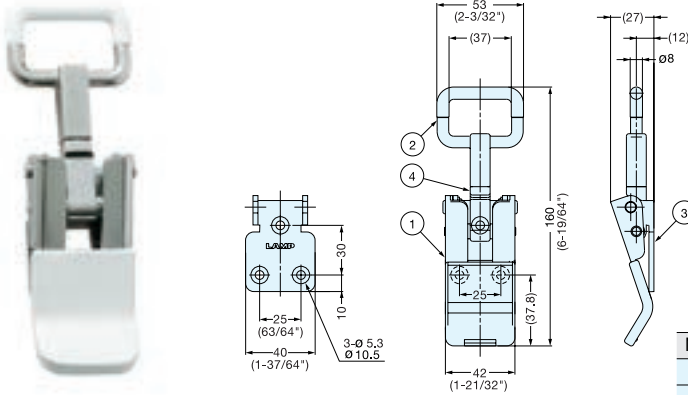
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
STF-100	80 (176 lbs)	190	6	120

No.	Part Name	Material	Finish
①	Body A	304 Stainless Steel	Satin
②	Body B		
③	Button	Synthetic Rubber	Black
④	Counterplate	304 Stainless Steel	Satin
⑤	Mounting Plate		Polished

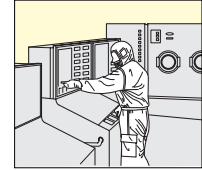
CLEAN ROOM DRAW LATCH



STF-CV150



- No metal-to-metal contact.
- Ideal for clean room, semiconductor, and food industry applications.
- When used in combination with the TF40C counter plate (below), will have 330 kg load capacity.



Item No.	Load Capacity (kg)	Weight (g)	Finish
STF-CV150	330 (727 lbs)	248	Satin
STF-CV150M			Mirror

No.	Part Name	Material
①	Handle	316 Stainless Steel
②	Hook	SCS14 Stainless Steel (Similar to SUS316)
③	Base	316 Stainless Steel
④	Hook Screw	SCS14 Stainless Steel (Similar to SUS316)
⑤	Handle Cover	Polypropylene

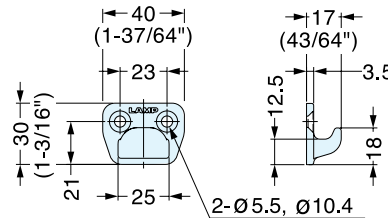
HEAVY DUTY COUNTERPLATE



TF-40C



TF40C-ST



- Heavy duty center plate for STF-CV150 clean room draw latch.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
TF-40C-ST	48	5	20	SCS14 Stainless Steel (Similar to SUS316)	Satin
TF-40C-STM					Mirror

CLEAN ROOM MAGNETIC CATCHES



MC-JM45
(See P.104 for details)

MC-JMP45
(See P.108 for details)



MC-JM63G
(See P.104 for details)

CLEAN ROOM HINGES & STAY



HG-CV
(See P.228 for details)

HG-CV-65N
(See P.231 for details)



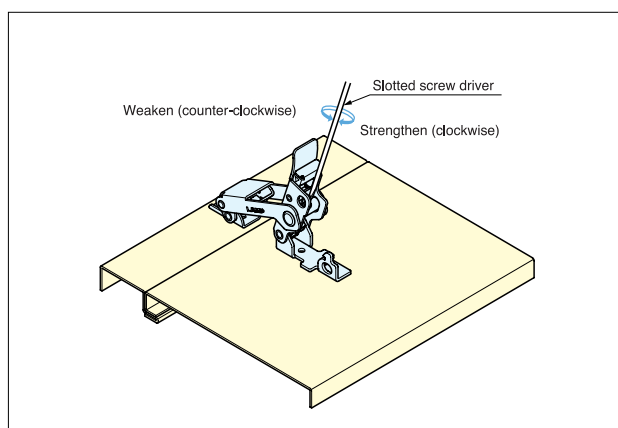
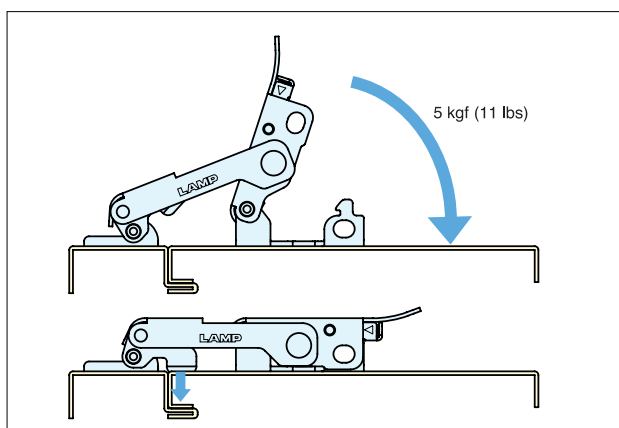
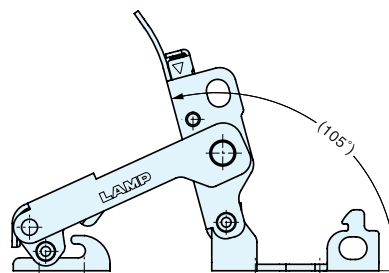
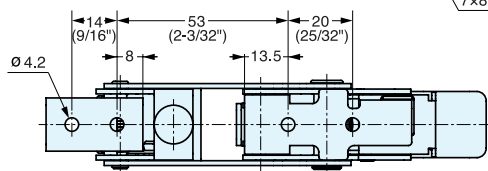
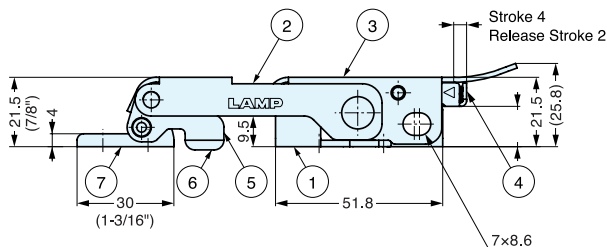
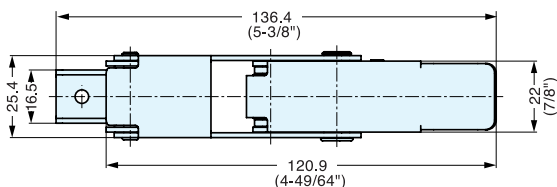
LB-CV215A
(See P.371 for details)

COMPRESSION DRAW LATCH



STF-CP140

- Compression latching.
- Adjustable arm latch.
- Safety lock feature prevents accidental release.
- Provides consistent hold tension for secure latching.



Item No.	Load Capacity (kg)	Compression force (kg)
STF-CP140	61 (134 lbs)	25 (55 lbs)

No.	Part Name	Material	Finish/Color
①	Base	304 Stainless Steel	Polished
②	Arm		
③	Lever		
④	Safety Lock		
⑤	Compression Plate	EPDM	Black
⑥	Cushion	304 Stainless Steel	Polished
⑦	Counterplate		

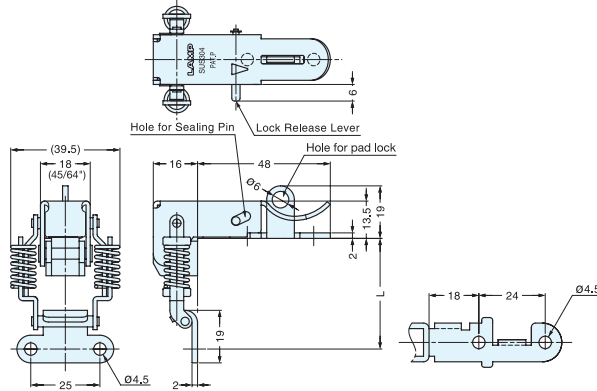
CORNER FASTENER (W/LOCK)



STF-C64A



STF-C64A



- Designed to allow front operation.
- Locks when fastened to prevent accidental release.
- Pull lever and lift latch to open.
- Door thickness : 14~28 mm (9/16"~1-1/8")

•STF-C64A

L (mm)	Clamping Force kgf±1.5 (lbs±3.3)
40	0
41	6.0 (13.2 lbs)
42	7.3 (16.0 lbs)
43	8.6 (19.0 lbs)
44	9.9 (21.8 lbs)

*Maximum"L"dimension is 44 mm.

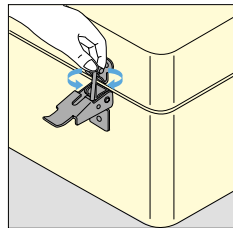
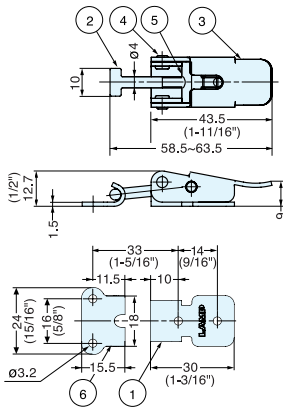
Item No.	Spring	Weight (g)	Box (pcs)	Carton (pcs)
STF-C64A	With	66.5	15	210

Material	Finish
304 Stainless Steel	Polished

COMPACT DRAW LATCH



SCC-TF30



Adjust latch distance by turning arm.

- Compact size.
- Adjustable arm latch.
- Screw not included. Recommended screw size M3.
- Provides consistent hold tension for secure latching.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SCC-TF30	51 (112 lbs)	32	100	400

No.	Part Name	Material
①	Base	304 Stainless Steel
②	Latch Plate	Stainless Steel
③	Lever	304 Stainless Steel
④	Rotating Pin	303 Stainless Steel
⑤	Adjustment Shaft	
⑥	Counterplate	304 Stainless Steel

CORNER FASTENER



STF-A56AH, AC

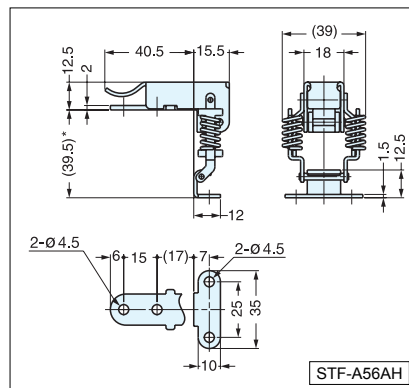


STF-A56AH

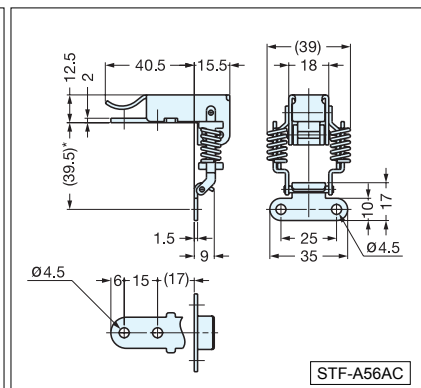


STF-A56AC

- Designed to allow front operation.
- Available in two different counterplate styles.



*Dimensions shown are for clamping force of "0".



*Dimensions shown are for clamping force of "0".

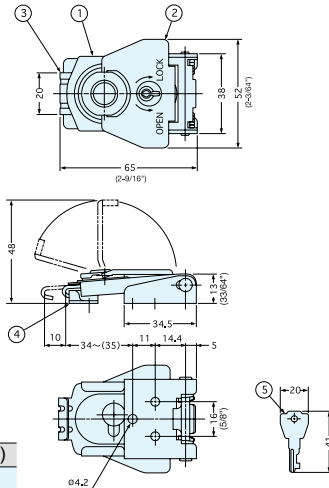
Material	Finish
304 Stainless Steel	Polished

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
STF-A56AH	56	100	1000
STF-A56AC			

DRAW LATCH



P-1040/SS



- Lift handle and turn 180° to open and close latch.
- Stainless steel draw latch with key.
- No key changes are available.

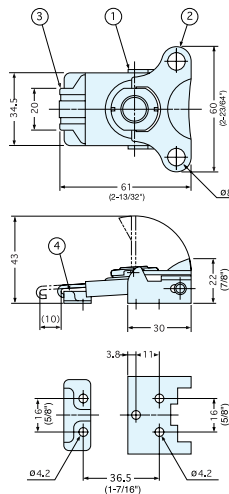
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
P-1040/SS	105	60	240

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Lever		
③	Hook	430 Stainless Steel	
④	Counterplate	304 Stainless Steel	
⑤	Key	Steel	Nickel

DRAW LATCH



P-102H/SS



- Lift handle and turn 180° to open and close latch.

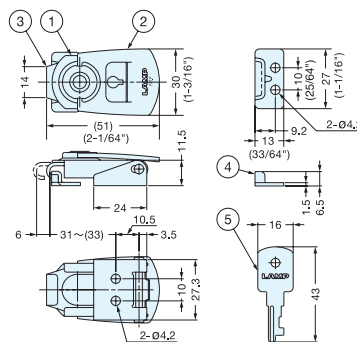
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
P-102H/SS	85	60	600

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Lever		
③	Hook	430 Stainless Steel	
④	Counterplate	304 Stainless Steel	

MINI DRAW LATCH



PN-51



- Lift handle and turn 180° to open and close latch.
- Small stainless steel draw latch with key.
- No key changes are available.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PN-51	80 (176 lbs)	50	40	400

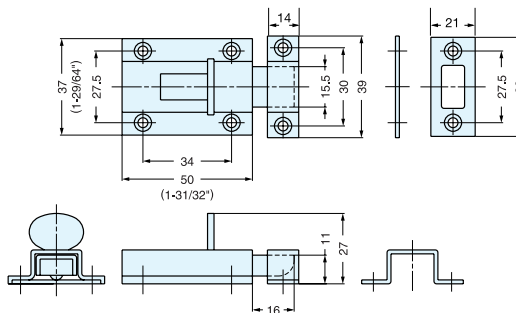
No.	Part Name	Material	Finish
①, ②	Body, Lever	304 Stainless Steel	Plain
③	Hook		
④	Counterplate		
⑤	Key	Steel	Nickel

SLIDE BOLT



KR-50

• Supplied with mortise and surface strike.



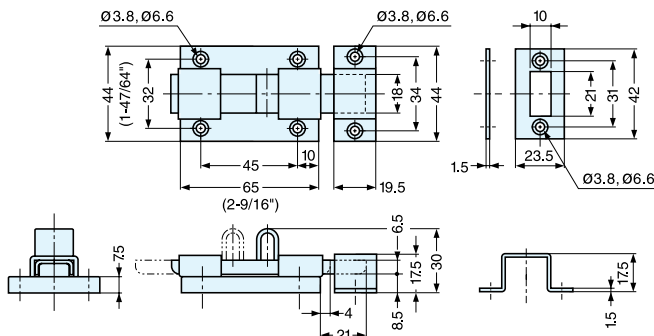
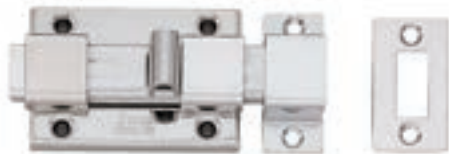
Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
KR-50	80	20	200	304 Stainless Steel	Satin

SLIDE BOLT



KR-65

• Supplied with mortise and surface strike.



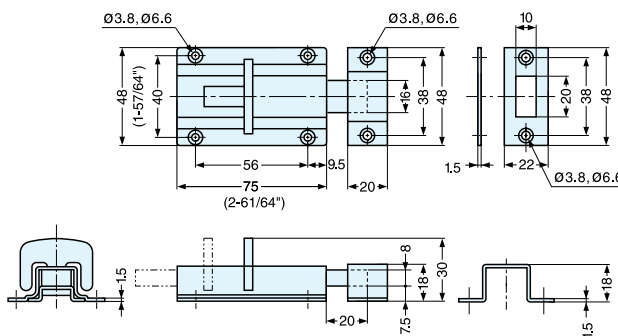
Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
KR-65	125	10	100	304 Stainless Steel	Polished

SLIDE BOLT



KR-75

• Supplied with mortise and surface strike.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
KR-75	225	10	100	304 Stainless Steel	Satin

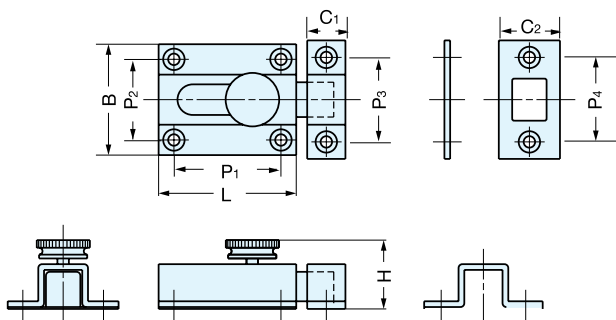
SLIDE BOLT



SBL



• Supplied with mortise and surface strike.



Item No.	L	B	H	C ₁	C ₂	P ₁	P ₂	P ₃	P ₄	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
SBL-35	36 (1-27/64")	29 (1-9/64")	18.0 (45/64")	11.0	16	26.5	19	20.0	21.0	60	20	200	Brass	Satin Nickel
SBL-45	45 (1-25/32")	30 (1-3/16")	18.5 (23/32")	12.5	17	33.0	20	22.5	21.5	80	10		Brass	Satin Nickel

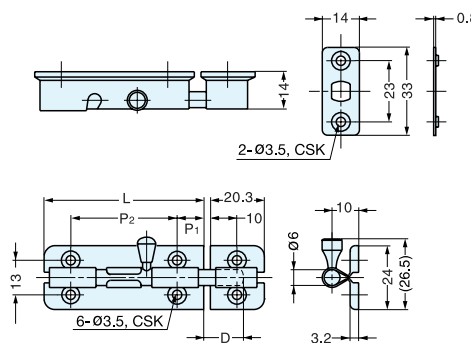
BARREL BOLT



BL-40, 60



• Supplied with mortise and surface strike.



Item No.	L	P ₁	P ₂	D	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material	Finish
BL-40	40 (1-37/64")	7.5	25	11	36	30	450	Body and Plates	304 Stainless Steel	Satin
BL-60	60 (2-23/64")	10.0	40	15	50			Bolt and Knob	Brass	Nickel

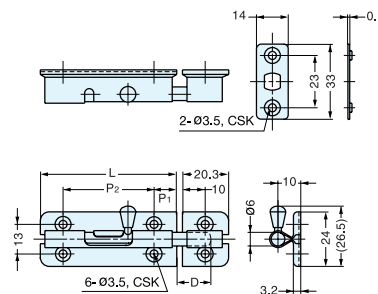
SPRING LOADED BARREL BOLT



BL-SS



• Supplied with mortise and surface strike.
• Knob springs back into sleeve to keep bolt in locked or unlocked position.



Item No.	L	P ₁	P ₂	D	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
BL-40SS	40 (1-37/64")	7.5	25	11	36	30	450	304 Stainless Steel	Satin
BL-60SS	60 (2-23/64")	10.0	40	15	50			304 Stainless Steel	Satin

SPRING LOADED BARREL BOLT



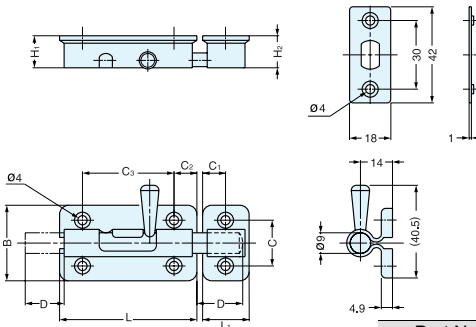
BLS



BLS-90



BLS-60



- Knob springs back into sleeve to keep bolt in locked or unlocked position.
- Supplied with mortise and surface strike.

Part Name	Material	Finish
Body and Plates	304 Stainless Steel	Satin
Bolt and Knob	303 Stainless Steel	Satin

Item No.	L	L ₁	H ₁	H ₂	B	C	C ₁	C ₂	C ₃	D	Weight (g)	Box (pcs)	Carton (pcs)
BLS-60	60 (2-23/64")	25.4 (1")	20	20.4	33 (1-19/64")	20	12.7	10.0	40	17	109	20	200
BLS-90	90 (3-35/64")							12.5	65	24	147	15	150

BARREL BOLT



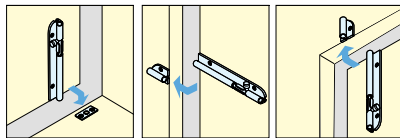
BS



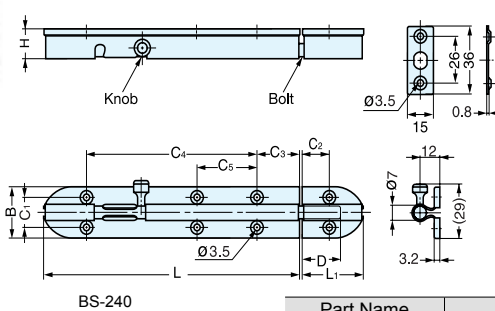
BS-240



BS-90



Installation



- Supplied with mortise and surface strike.

Part Name	Material	Finish
Body and Plates	304 Stainless Steel	Satin
Bolt and Knob	Brass	Nickel

Item No.	L	L ₁	H	B	C ₁	C ₂	C ₃	C ₄	C ₅	D	Weight (g)	Box (pcs)	Carton (pcs)
BS-90	90 (3-35/64")	36 (1-27/64")	16.5	27 (1-1/16")	16	15	14.5	58	-	24	85	30	300
BS-150	150 (5-29/32")						25.0	100	-		125	20	200
BS-240	240 (9-29/64")						18.5	192	71		30	190	10

SPRING LOADED BARREL BOLT



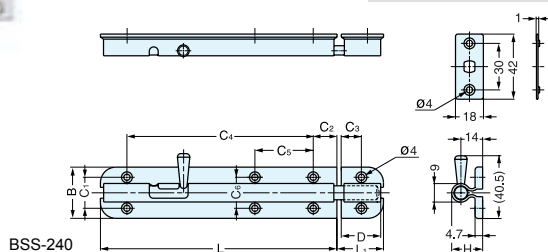
BSS



BSS-240



BSS-90



- Knob springs back into sleeve to keep bolt in locked or unlocked position.
- Supplied with mortise and surface strike.

Item No.	L	L ₁	H	B	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	D	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material	Finish
BSS-90	90 (3-35/64")	30 (1-3/16")	20	33 (1-19/64")	20.5	13	13	60	-	24	142	15	150	Body and Plates	304 Stainless Steel	Satin	
BSS-150	150 (5-29/32")						15	115	-	20	32	215	10	100	Bolt and Knob	303 Stainless Steel	Plain
BSS-240	240 (9-29/64")						15	205	60	32	330	6	60				

SPRING LOADED BARREL BOLT



BSS-2

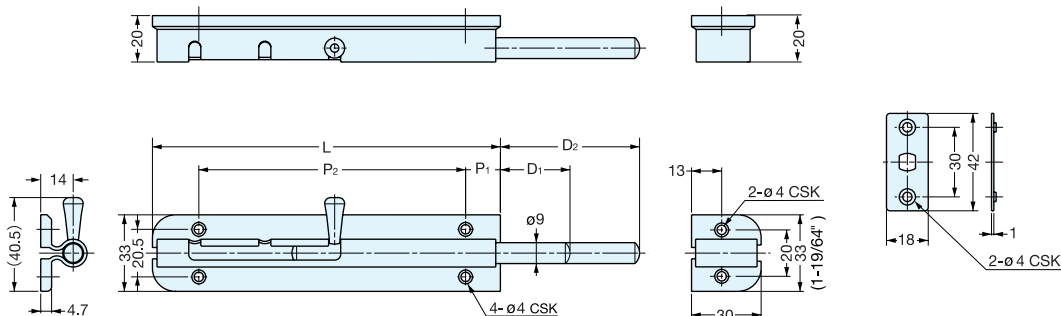


BSS2-150



BSS2-90

- Knob springs back into sleeve to keep bolt in locked or unlocked position.
- Extra sleeve for locking offers flexibility in application.
- Designed for application where longer throw is needed.
- Supplied with mortise and surface strike.



Item No.	L	P ₁	P ₂	D ₁	D ₂	Weight (g)	Box (pcs)	Carton (pcs)
BSS2-90	90 (3-35/64")	13	60	21	42	140	15	150
BSS2-150	150 (5-29/32")	15	115	30	60	212	10	100

Material	Finish
304 Stainless Steel	Satin

SPRING LOADED BARREL BOLT

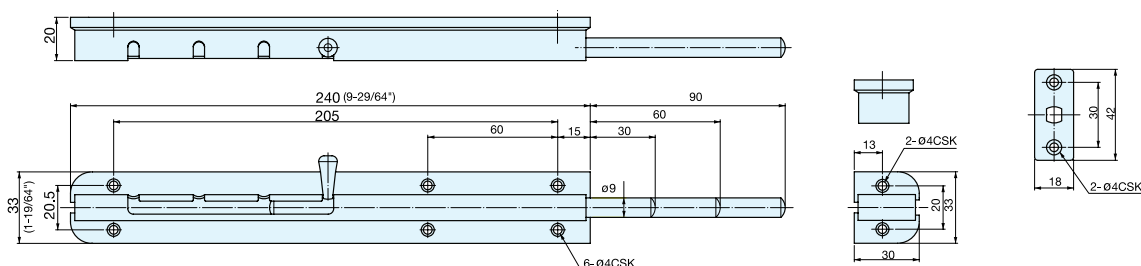


BSS-3



BSS3-240

- Knob springs back into sleeve to keep bolt in locked or unlocked position.
- Extra sleeves for locking offers flexibility in application.
- Designed for application where longer throw is needed.
- Supplied with mortise and surface strike.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
BSS3-240	320	6	60

Material	Finish
304 Stainless Steel	Satin

PUSH BARREL BOLT

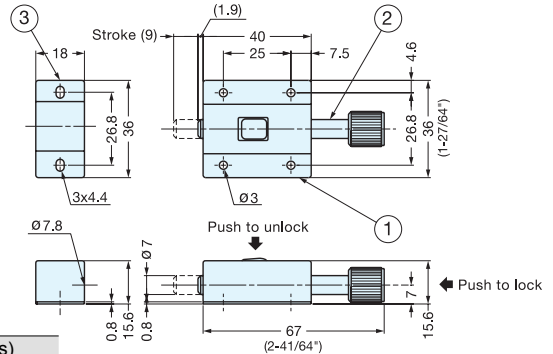
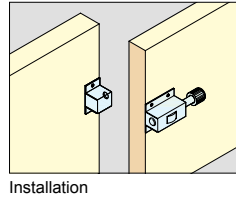


PRS-40



• Simply push black knob to latch, and push front button to release.

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Satin
②	Bolt	303 Stainless Steel	
③	Counterplate	304 Stainless Steel	



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
PRS-40	55	20	240

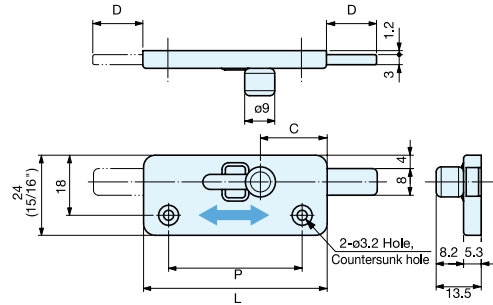
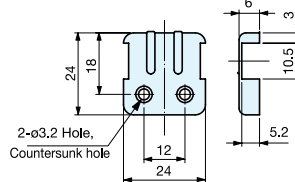
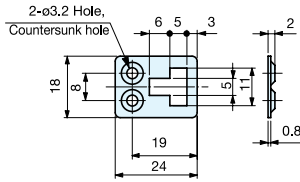
SLIDE BOLT



FL2



• Flat and compact design.
• Detent to keep bolt in open and closed position.
• Supplied with mortise and surface strike.



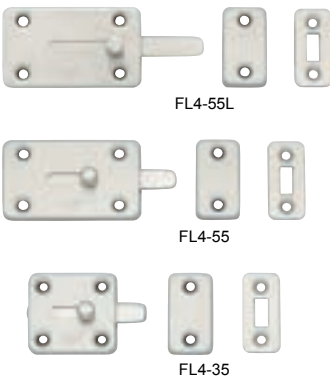
Item No.	L	P	C	D	Weight (g)	Box (pcs)	Carton (pcs)
FL2-35	35 (1-3/8")	21	11.5	12	28	30	300
FL2-55	55 (2-11/64")	40	20.0	15	39		

Material	Finish
304 Stainless Steel	Satin

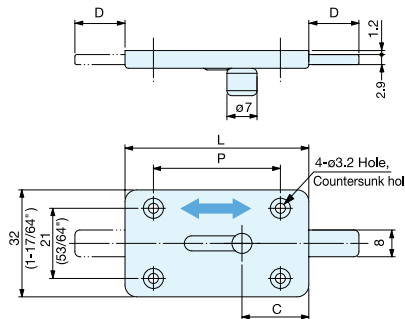
SLIDE BOLT



FL4



• Flat and compact design.
• Detent to keep bolt in open and closed position.
• Supplied with mortise and surface strike.



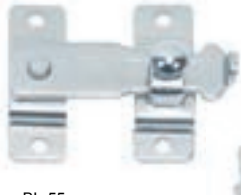
Item No.	L	P	C	D	Weight (g)	Box (pcs)	Carton (pcs)
FL4-35	35 (1-3/8")	23 (29/32")	11.5	12	32	30	300
FL4-55	55 (2-11/64")	38 (1-1/2")	20.0	15	47		
FL4-55L	55 (2-11/64")	38 (1-1/2")	20.0	25	47		

Material	Finish
304 Stainless Steel	Satin

BAR LATCH



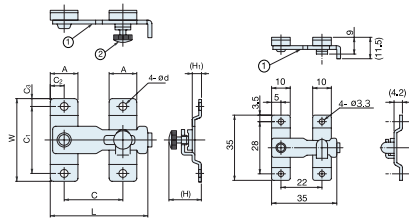
BL



BL-55



BL-35



BL-45 ~ 120

BL-35

- Latch with knurled thumb screw on female strike. Tighten screw to keep latch closed.
- No thumb screw on BL-35.

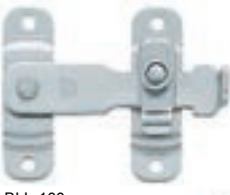
No.	Part Name	Material	Finish
①	Body, Strike	304 Stainless Steel	Polished
②	Thumb Screw	Brass	Chrome

Item No.	L	W	A	C	C ₁	C ₂	C ₃	H	H ₁	d	Weight(g)	Box (pcs)	Carton (pcs)
BL-35	35 (1-3/8")	35 (1-3/8")	10	22	28	5.0	3.5	-	4.2	3.3	19	30	1200
BL-45	45 (1-49/64")	40 (1-37/64")	13	28	32	6.5	4.0	15 (19/32")	4.5	3.3	28	20	900
BL-55	55 (2-11/64")	46 (1-13/16")	16	35	37	8.0	4.5	19 (3/4")	6.0	4.0	50	10	720
BL-80	81 (3-3/16")	65 (2-9/16")	20	52	53	10.0	6.0	23 (29/32")	7.0	4.8	100	10	360
BL-100	100 (3-15/16")	80 (3-5/32")	25	60	66	12.5	7.0	29 (1-6/64")	8.0	5.5	200	5	150
BL-120	120 (4-23/32")	100 (3-15/16")	30	75	80	15.0	10.0	30 (1-3/16")	8.0	6.5	295	5	100

SPRING LOADED BAR LATCH



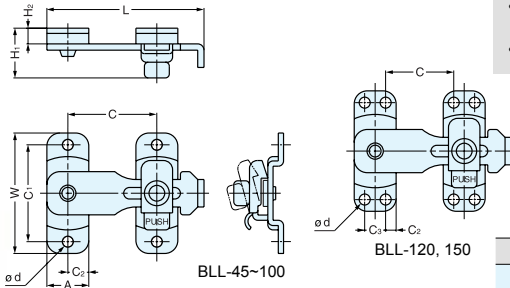
BLL



BLL-100



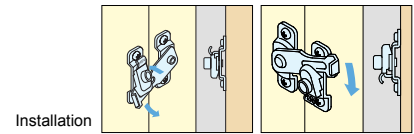
BLL-45



BLL-45~100

BLL-120, 150

- Latch bolt snaps into the strike to prevent accidental release.
- Push tab on strike to release.



Installation

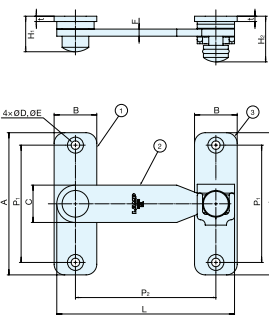
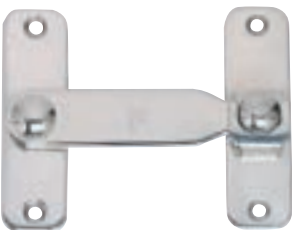
Material	Finish
304 Stainless Steel	Polished

Item No.	L	W	A	C ₁	C ₂	C ₃	H ₁	H ₂	C	d	Weight (g)	Box (pcs)	Carton (pcs)	Screw
BLL-45	48 (1-57/64")	40 (1-37/64")	13.0	32	6.50	-	17.0	4.5	23± 3 (29/32" ± 1/8")	3.2	28	20	400	3.0 × 10
BLL-60	63 (2-31/64")	46 (1-13/16")	16.0	37	8.00	-	20.0	6.0	34± 4 (1-11/32" ± 5/32")	4.2	50	10	200	3.5 × 16
BLL-80	85 (3-11/32")	65 (2-9/16")	20.0	53	10.00	-	22.5	7.0	47± 7 (1-27/32" ± 9/32")	5.0	100	10	100	4.5 × 16
BLL-100	105 (4-1/8")	80 (3-5/32")	25.0	66	12.50	-	26.5	8.0	59± 7 (2-21/64" ± 9/32")	5.5	182	8	80	5.0 × 20
BLL-120	127 (5")	100 (3-15/16")	28.5	80	6.75	15	28.0	8.0	56±10 (2-13/64" ± 25/64")	5.2	270	6	60	5.0 × 20
BLL-150	155 (6-3/32")	120 (4-23/32")	30.5	95	7.25	16	28.0	8.0	74±14 (2-29/32" ± 35/64")	5.2	350	6	60	5.0 × 20

BAR LATCH



BLT



- 304 stainless steel bar latch.
- Thick material used for durability.
- Latch with thumb screw on bar. Rubber ring on thumb screw to improve grip.
- Tighten screw to keep latch closed.

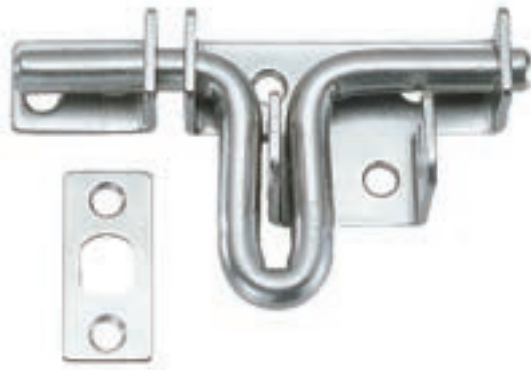
Material	Finish/Color
304 Stainless Steel	Polished
Nitrile rubber	Black

Item No.	L	P ₁	P ₂	A	B	C	D	E	F	H ₁	H ₂	t	Weight (g)	Box (pcs)	Carton (pcs)	Screw
BLT-45	45 (1-49/64")	30	33	40 (1-37/64")	14	12	3.5	6.0	2.0	12.0	16.0	2	31	20	400	3.1 × 20
BLT-60	60 (2-23/64")	37	45	48 (1-57/64")	17	15	3.8	7.5	2.5	14.5	17.5	2	54	10	200	3.5 × 20
BLT-80	80 (3-5/32")	53	62	65 (2-9/16")	21	18	4.3	8.0	3.0	17.0	22.0	3	95	10	100	3.8 × 20
BLT-100	100 (3-15/16")	66	79	80 (3-5/32")	24	21	4.8	9.0	4.0	19.8	25.5	3	177	8	80	4.5 × 20
BLT-120	120 (4-23/32")	73	98	90 (3-35/64")	28	24	5.1	10.0	4.0	22.0	27.5	4	243	8	80	4.5 × 20

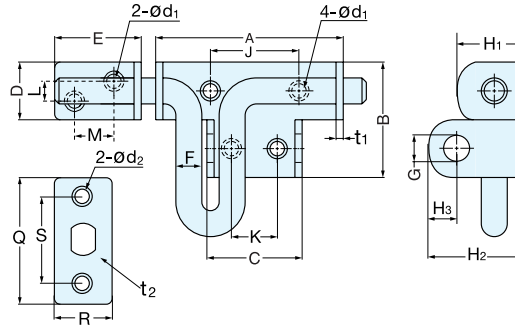
GATE LATCH



SSG



• Gate latch with holes for pad lock. (Pad lock not supplied.)



Item No.	A	B	C	D	E	F	G	H ₁	H ₂	H ₃	Material	Finish
SSG-45	45 (1-25/32")	28 (1-3/32")	26	14	21 (53/64")	6	7	16.0	20.5	7.5	304 Stainless Steel	Satin
SSG-65	65 (2-9/16")	40 (1-37/64")	33	20	29 (1-9/64")	9	10	21.5	29.0	10.0		
SSG-85	85 (3-11/32")	46 (1-13/16")	42	26	34 (1-11/32")	12		28.0	35.5	11.0		

Item No.	J	K	L	M	Q	R	S	d ₁	d ₂	t ₁	t ₂	Weight (g)	Box (pcs)	Carton (pcs)
SSG-45	22	11	2	8	32	15	22	4.8	4.8	2.0	1.2	65	20	240
SSG-65	30	14	4	14	40	18	28	5.9	5.9	2.5	1.5	175	10	100
SSG-85	38	21	8	17	48	22	35	6.0	5.2	3.0	1.5	400	5	60

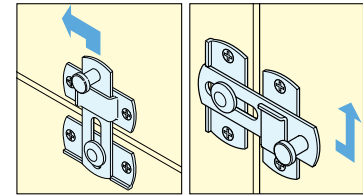
BAR LATCH



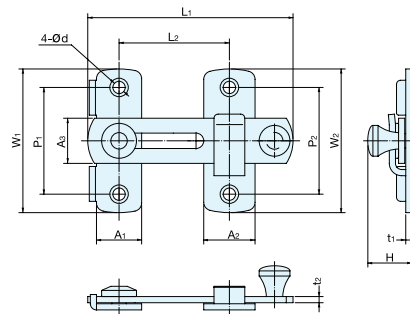
SSL



• Latch can be locked by sliding-in the bar.
• Slide out and lift the bar to release.



Installation



Material	Finish
304 Stainless Steel	Polished

Item No.	L ₁	L ₂	W ₁	W ₂	A ₁	A ₂	A ₃	P ₁	P ₂	H	t ₁	t ₂	d	Screw	Weight (g)	Box (pcs)	Carton (pcs)
SSL-50	50 (1-31/32")	20±4	35 (1-3/8")	35	13	15	13	26	26	14.5	2	2.0	Ø4.2, Ø6.2	3.0 × 16	32	20	600
SSL-70	70 (2-49/64")	28±6	50 (1-31/32")	50	18	20	18	37	37	19.0	2	2.5	Ø5.2, Ø8.0	3.5 × 16	68		360
SSL-100	100 (3-15/16")	45±15	70 (2-49/64")	70	22	25	22	52	52	21.5	3	3.0	Ø5.8, Ø9.0	4.0 × 25	142	10	160

DOOR CHAIN



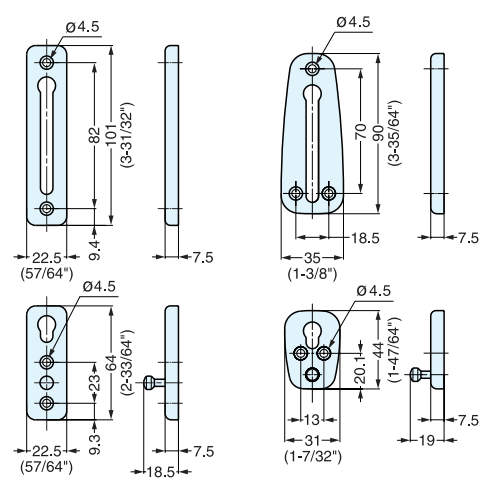
CS



CS-1000



CS-2000



CS-1000

CS-2000

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
CS-1000	115	15	150	304 Stainless Steel	Satin
CS-2000	120				

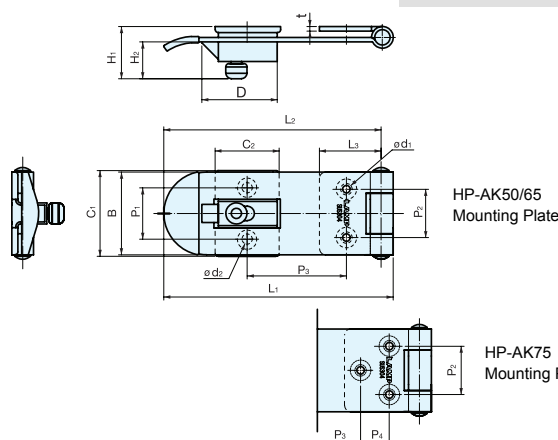
LATCH HASP



HP-AK



- Hasp with built-in latch.
- Snap on the flap to keep latch closed.
- Slide the knob to release.
- Flap is spring loaded in open direction.
- Plastic cap on end to soften the opening sound.



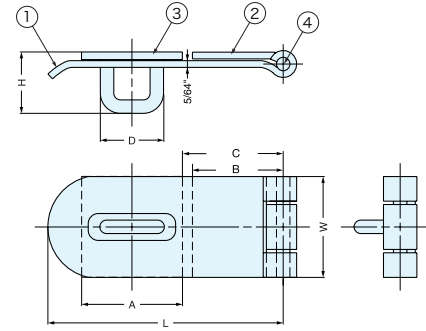
Item No.	L ₁	L ₂	L ₃	B	P ₁	P ₂	P ₃	P ₄	H ₁	H ₂	Material	Finish
HP-AK50	51 (2-1/64")	48	13.0	22.2 (7/8")	13.5	12	19	-	16.6	11.2	304 Stainless Steel	Polished
HP-AK65	66 (2-19/32")	63	19.0	24.2 (61/64")		14	28	-	17.5	12.2		
HP-AK75	76 (2-63/64")	72	24.8	27.4 (1-3/64")	17.0	16	35	9.5	17.5	12.2	PVC (Cover)	Black

Item No.	C ₁	C ₂	D	t	d ₁	d ₂	Weight (g)	Box (pcs)	Carton (pcs)
HP-AK50	23.0 (29/32")	18.0	20.5	1.2	3.0	2.3	22	25	250
HP-AK65					3.2	3.3	35	20	200
HP-AK75	27.6 (1-3/32")	21.2	25.0	1.5	3.8	3.4	48	15	150

WELD-ON STAINLESS STEEL HASP



HP-635, 645, 660



(Dimensions shown in inches.)

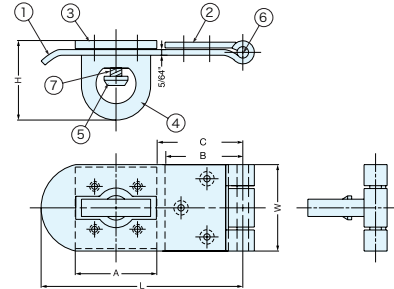
Item No.	L	W	A	B	C	D	H	Wt (g)	Box (pcs)	Carton (pcs)	No	Part Name	Material	Finish
HP-635	3-1/2"	1-1/2"	1-1/2"	1-5/16"	1-5/8"	15/16"	13/16"	110	20	200	1	Hinge Leaf Top	316 Stainless Steel	Electro Polished
HP-645	4-1/2"			2-1/4"	2-17/32"			173			160	2		
HP-660	6"	2"	2-3/4"	3-61/64"	290	10	100	3	Base/Loop	304 Stainless Steel				
								4	Hinge Pin					

(Dimensions shown in inches.)

STAINLESS STEEL HASP



HP-635S, 645S, 660S



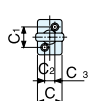
(Dimensions shown in inches.)

Item No.	L	W	A	B	C	H	Wt (g)	Box (pcs)	Carton (pcs)	No	Part Name	Material	Finish
HP-635S	3-1/2"	1-1/2"	1-1/2"	1-5/16"	1-19/32"	1-3/8"	130	20	200	1	Hinge Leaf Top	316 Stainless Steel	Electro Polished
HP-645S	4-1/2"			2-1/4"	2-7/16"		184			160	2		
HP-660S	6"	2"	2-3/4"	3-7/8"	302	10	100	3	Base	304 Stainless Steel			
								4	Knob				
										5	Rivet/Shaft		
										6	Hinge Pin		
										7	Spring		

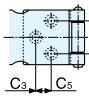
STAINLESS STEEL HASP



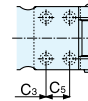
HP



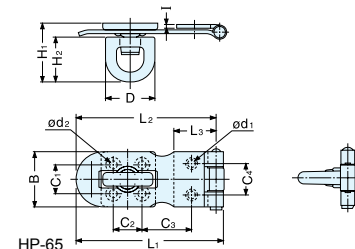
HP-40/50
Rotating eye



HP-75/100
Mounting Plate



HP-120
Mounting Plate



Material	Finish
304 Stainless Steel	Polished

Item No.	L ₁	L ₂	L ₃	B	C ₁	C ₂	C ₃	C ₄	C ₅	H ₁	H ₂	C	D	I	d ₁	d ₂	Weight (g)	Box (pcs)	Carton (pcs)
HP-40	40 (1-37/64")	37	13.0	22.0(7/8")	13	6.4	10.8	12	-	22.0 (55/64")	17.9	15.3	17.7	1.2	3.0	3.0	21.5	30	300
HP-50	50 (1-31/32")	47		22.3(7/8")		9.0	16.0	-	-	-	-	-	18.3	24.0	25	250			
HP-65	65 (2-9/16")	62	19.0	24.0(15/16")	13.0	21.5	14	-	24.5 (31/32")	20.4	24.5	22.5	22.5	1.5	3.2	3.2	41.5	20	200
HP-75	75 (2-61/64")	72	24.8	27.0(1-1/16")	15	15.0	15.7	16	9.5	27.4 (1-5/64")	22.0	27.8	23.2	3.8	3.8	3.8	51.5	15	150
HP-100	100 (3-15/16")	95	30.0	35.5(1-25/64")	19	19.0	29.0	21	10.0	32.2 (1-9/32")	27.9	35.5	2.0	4.0	4.5	4.5	118.5	10	100
HP-120	120 (4-23/32")	115	35.5	40.0(1-37/64")	21	22.0	38.0	26	15.0	34.8 (1-3/8")	27.9	40.5	31.0	2.5	5.2	5.2	172.0	8	80

Zwei L Turn Knob Latch

STAINLESS
316
STEEL

ZL-2401

CATCHES & LATCHES

Zwei L TURN KNOB LATCHES

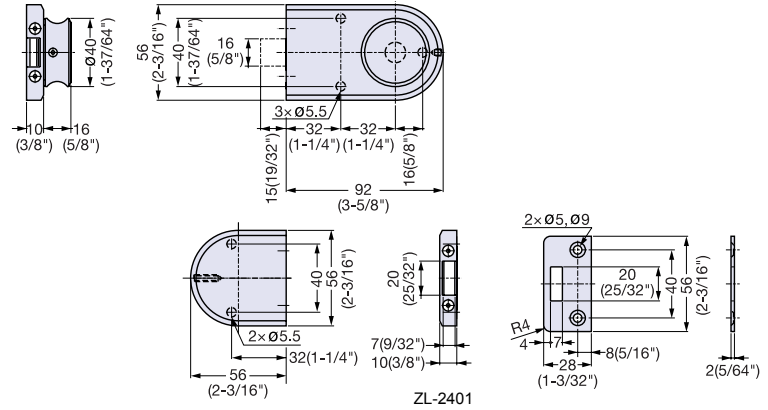


ZL-2401

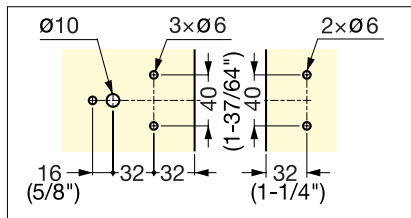
- ZL-2401 includes latch body, 2 strikes, and installation screws.
- ZL-2401-INR (for wood) and ZL-2401-INR-GB (for glass) sold separately.
- ZL-2401-INR-GB: Supplied with stainless steel screw (M5 × 14) and 4 mm allen key.
- ZL-2401-INR: Supplied with stainless steel screw (M5 × 30) and 4 mm allen key.



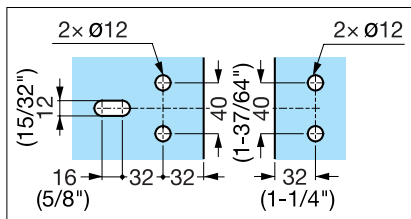
ZL-2401-INR



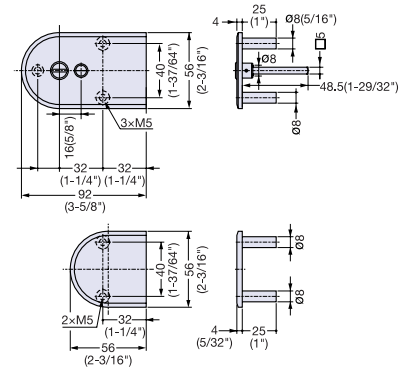
ZL-2401



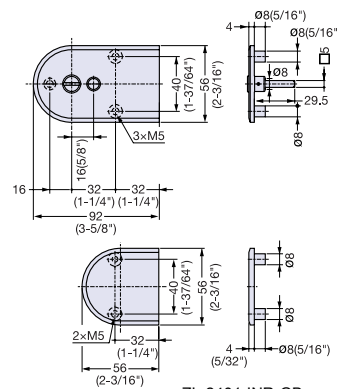
• Wood Door Cut Out Dimensions



• Glass Door Cut Out Dimensions



ZL-2401-INR



ZL-2401-INR-GB

■ Accessories (Sold Separately)

Item No.	Door Material	Weight (g)	Box (pcs)
ZL-2401-INR-GB	Glass	-	1
ZL-2401-INR	Wood	-	1

■ Latch Body

Item No.	Door Material	Door Thickness(mm)	Weight (g)	Box (pcs)
ZL-2401	Glass	8-12	-	1
	Wood	28-40	-	1

No.	Part Name	Material	Finish
①	Body	316 Stainless Steel	Zwei L
②	Indicator	ABS	Red/Blue
③	Bracket	316 Stainless Steel	Zwei L

Zwei L Turn Knob Latch



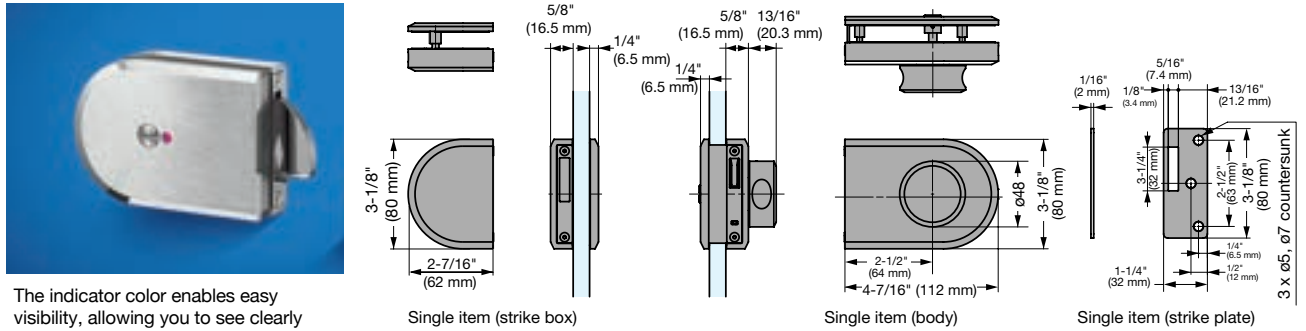
ZL-2402

CATCHES & LATCHES

Zwei L TURN KNOB LATCHES

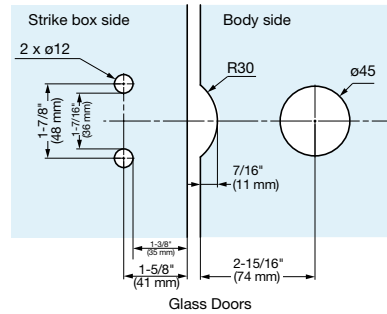
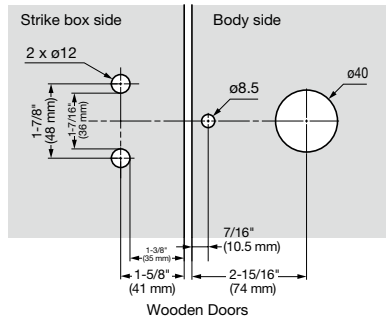
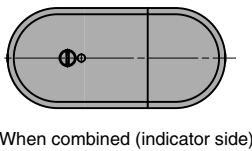


- A thumbturn lever bolt with an indicator for use on glass and wooden doors.
- Made from stainless steel (SUS 316) for superior corrosion resistance.
- Uses Zwei L finish which is created by using advanced polishing technology. It combines a high quality satin finish with a lustrous rich mirrored polish.
- Internal mechanism uses a lever to draw the door to the frame when locking.
- Comes with a trigger (safety feature) so that the lock cannot engage until the door is closed.
- Strike Plate and Strike Box are used with Latch Box for wooden door frames. Just the Strike Box is used with Latch Box for glass doors.
- ZL-2402 is recommended for sliding door applications. For swinging door applications, refer to p. 165 for ZL-2401.

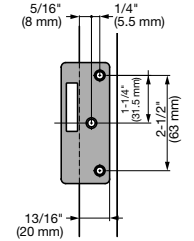


The indicator color enables easy visibility, allowing you to see clearly whether the door is locked or unlocked.

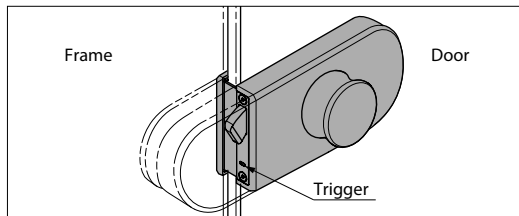
Cut Out Dimensions: When using strike box



Application Example with Wooden Door and Strike Plate

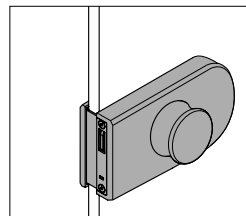


With Safety Feature



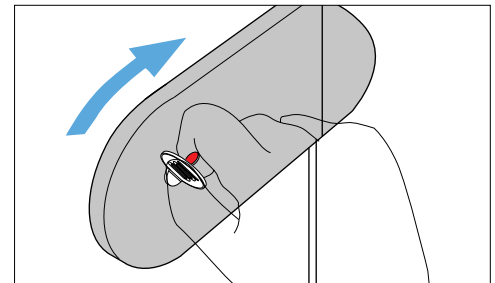
The trigger senses whether the door is open or closed, and only enables the thumbturn to be turned all the way when the door is closed.

Flat when Door is Open



When the door is open, the lever and trigger lie flat and do not protrude.

Emergency Unlocking Method



The indicator has a feature which enables unlocking the door from outside in an emergency. To unlock, rotate the centre 90° with a coin, etc. as shown in the figure above.

Latch Box

Item Name	Specifications	Board Thickness	Material	Finish	Box (sets)
ZL-2402-G	For Glass Door	3/8" ~ 1/2" (10 ~ 12 mm)	316 Stainless Steel	Zwei L Finish	1
ZL-2402-W	For Wooden Door	1-5/16" ~ 1-3/4" (33 ~ 45 mm)	316 Stainless Steel	Zwei L Finish	1

Strike Box (sold separately)

Item Name	Specifications	Material	Finish	Box (sets)
ZL-2402-B	Glass or Wood	316 Stainless Steel	Zwei L Finish	1

Strike Plate (sold separately)

Item Name	Specifications	Material	Finish	Box (sets)
ZL-2402-FB	Wood	316 Stainless Steel	Zwei L Finish	1

GLASS SLIDING DOOR LATCH

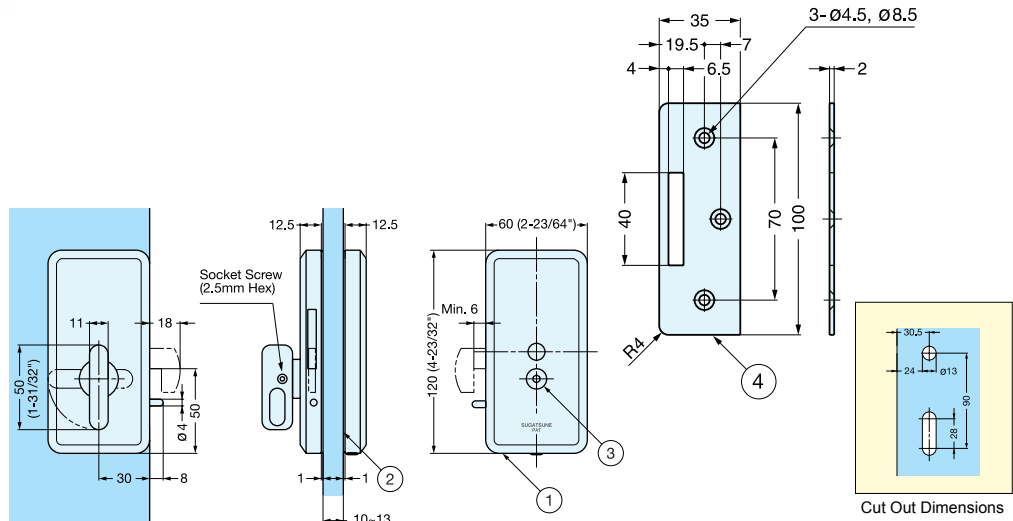


XL-MT120-H



XL-MT120-H01

- Lock with indicator for glass sliding door.
- Strike unit (XL-MT120-U) available for double sliding doors (sold separately).
- Can be unlocked by turning emergency release pin with supplied allen key. (Hex size 4 mm)



Item No.	Type	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
XL-MT120-H01	Right	8	567	1	12
XL-MT120-H02	Left				

DISCONTINUED

No.	Parts Name	Material	Finish
①	Body	304 Stainless Steel	Satin
②	Spacer	Polypropylene	Plain
③	Emergency Release Pin	Brass	Chrome
④	Strike	304 Stainless Steel	Satin

GLASS SLIDING DOOR STRIKE

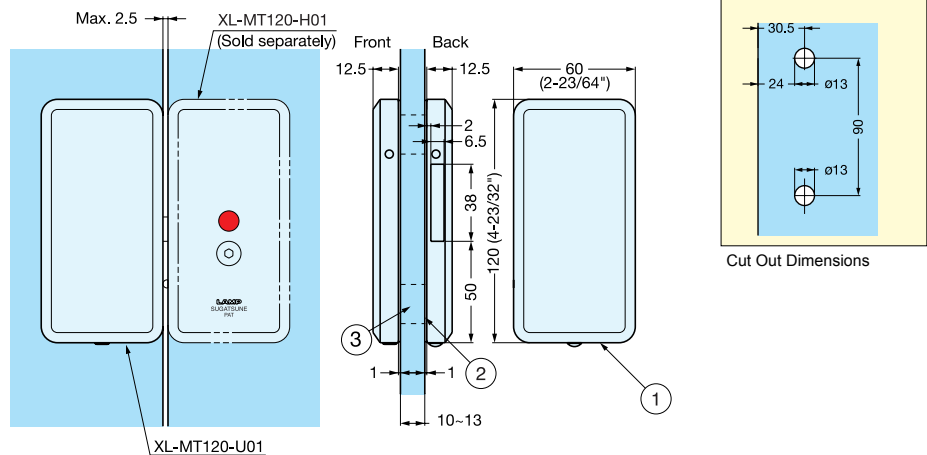
XL-MT120-U



- Strike unit for XL-MT120-H (sold separately).
- Designed for double sliding door application.



Combination Example
(XL-MT120-U01 and XL-MT120-H01)



Item No.	Type	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
XL-MT120-U01	Right	8	415	1	24
XL-MT120-U02	Left				

DISCONTINUED

No.	Parts Name	Material	Finish
①	Body	304 Stainless Steel	Satin
②	Spacer	Polypropylene	Plain
③	Stand Off	Brass	Plain

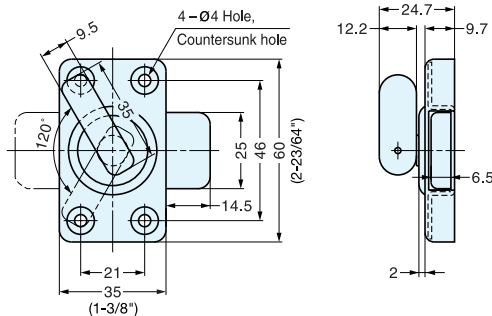
LEVER BOLT



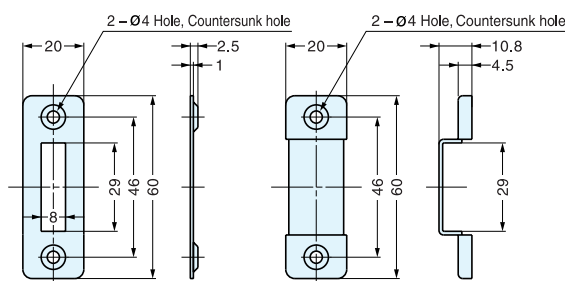
HR-35



- Large lever allows easy operation.
- Supplied with mortise and surface strike.



HR35SP-B
(2 mm Spacer: Sold separately)



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HR-35	108	10	100

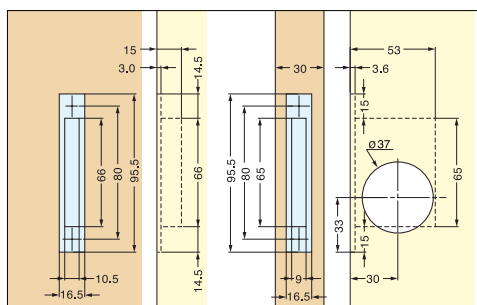
SLIDING DOOR LATCH



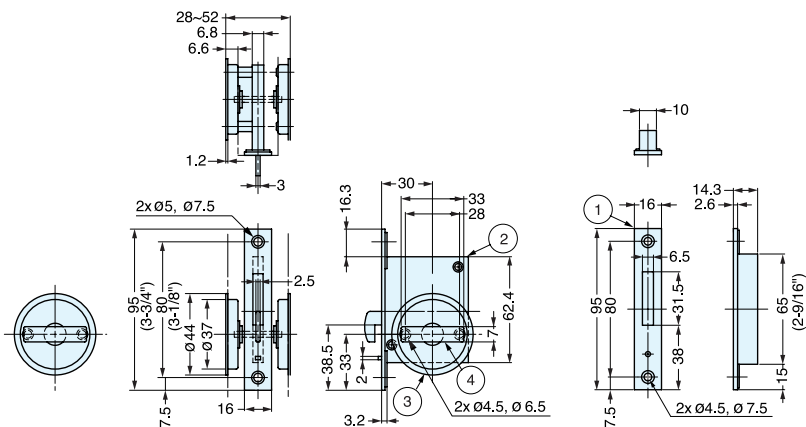
HC-30R



- Sliding door latch for thick doors 28-52 mm (1-1/8"-2").
- Thumbturn on both sides for easy access.
- Slim design suitable for various applications.
- Non-Handed.
- For sliding doors only.
- Includes screws.



Bore Dimensions



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HC-30R	283	5	50

No.	Parts Name	Material	Finish
①	Front Plate	304 Stainless Steel	Satin
②	Body	Steel	-
③	Thumbturn	304 Stainless Steel	Satin
④	Knob	Zinc Alloy	Chrome

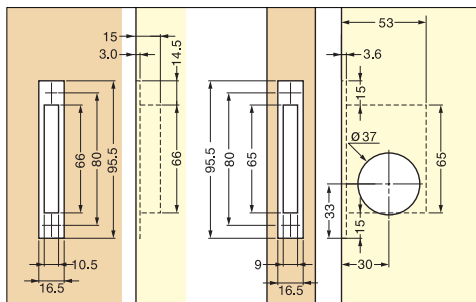
SLIDING DOOR LATCH



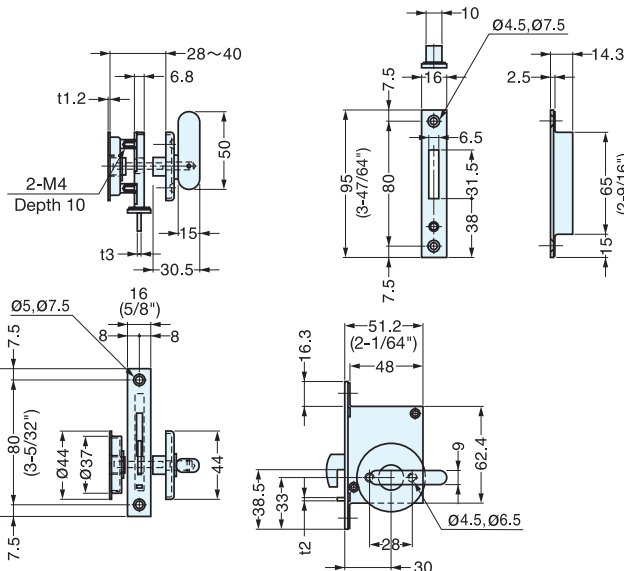
HC-30L



- Sliding door latch with large lever for easy operation.
- Slim design suitable for various applications.
- Non-handed.
- For door thickness 28~48 mm (1-1/8"~1-9/16").
- For sliding doors only.



Bore Dimensions



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
HC-30L	309	5	50	304 Stainless Steel, Brass, Zinc Alloy	Satin

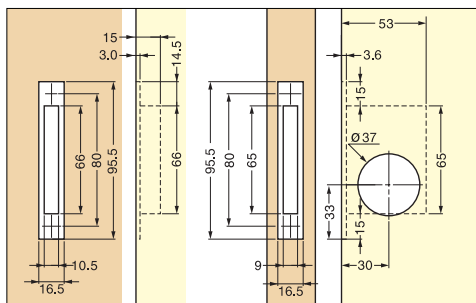
SLIDING DOOR LATCH (W/INDICATOR)



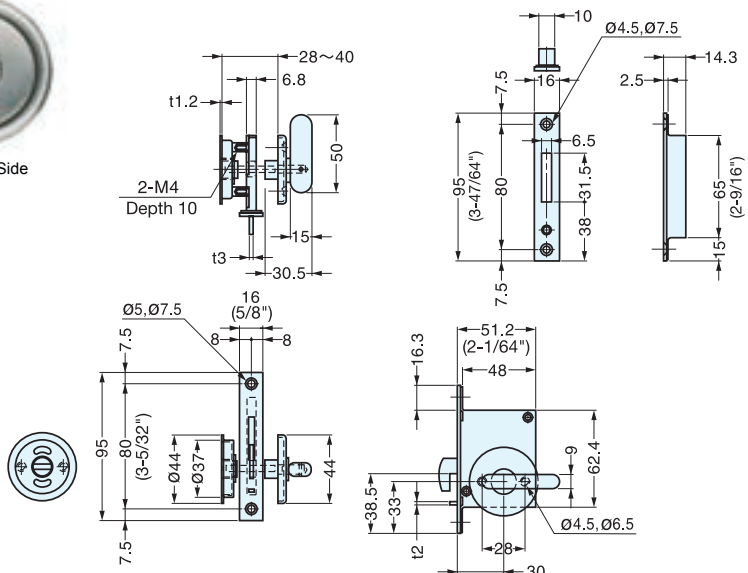
HC-30HL



- Sliding door latch with indicator.
- Large lever for easy operation.
- Slim design suitable for various applications.
- Non-handed.
- For door thickness 28~48 mm (1-1/8"~1-9/16").
- For sliding doors only.



Bore Dimensions



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
HC-30HL	309	5	50	304 Stainless Steel, Brass, Zinc Alloy	Satin

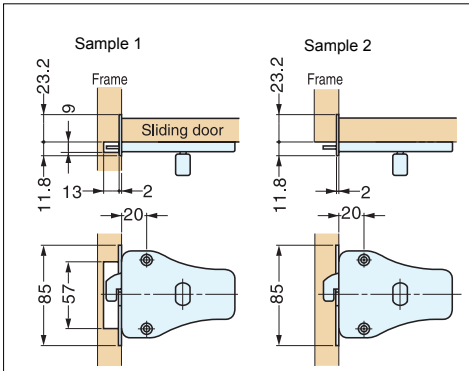
SLIDING DOOR LATCH



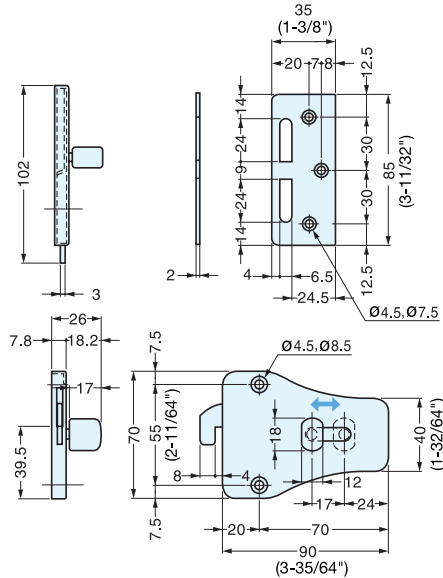
HC-70



- Surface mount type door latch.
- Slide knob to lock and unlock.
- Large knob for easy operation.
- Non-handed.
- Slim design suitable for various applications.



Installation



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HC-70	197	5	50

Material	Finish
304 Stainless Steel, Brass	Satin

SLIDING DOOR LATCH (W/INDICATOR)

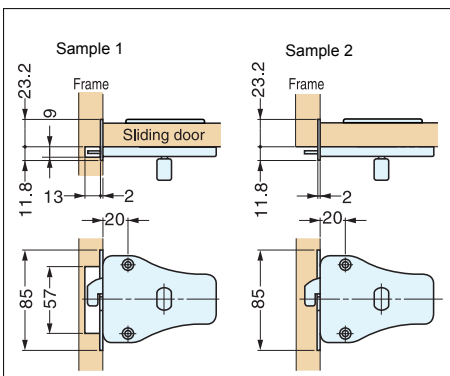


HC-70H



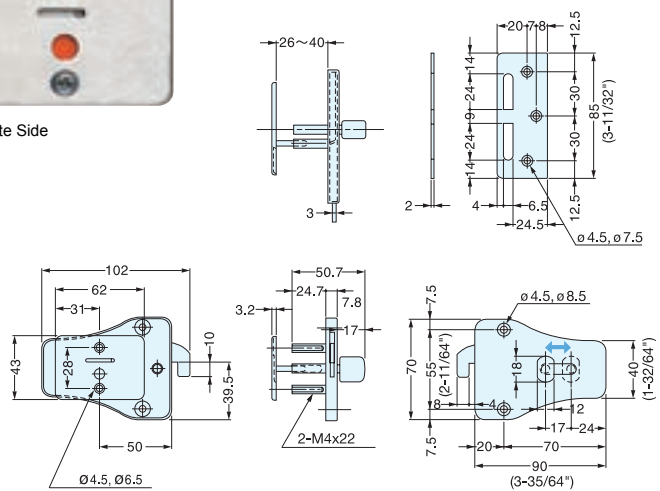
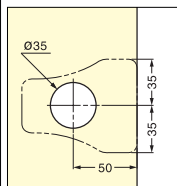
Opposite Side

- Sliding latch with indicator.
- Slide knob to lock and unlock.
- Large knob for easy operation.
- Non-handed.
- Slim design suitable for various applications.
- For door thickness 26~40 mm.



Installation

Bore Dimensions



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HC-70H	297	5	50

Material	Finish
304 Stainless Steel, Brass	Satin

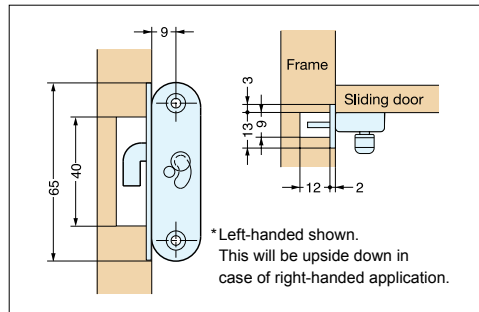
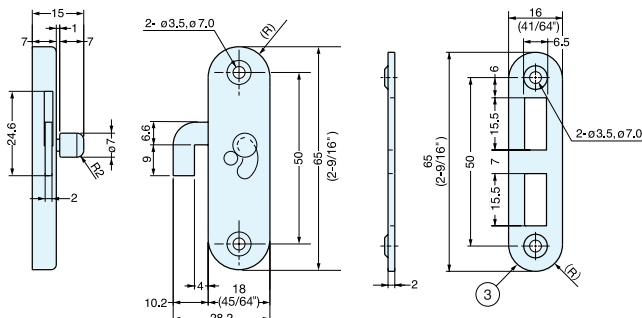
SLIDING DOOR LATCH



HC-65



- Surface mount type door latch with noticeable indicator.
- Extra slim and compact design.
- Simply slide up and down the knob to lock/unlock.
- Non-handed.



Installation

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HC-65	41	20	200

Material	Finish
304 Stainless Steel, Brass	Satin

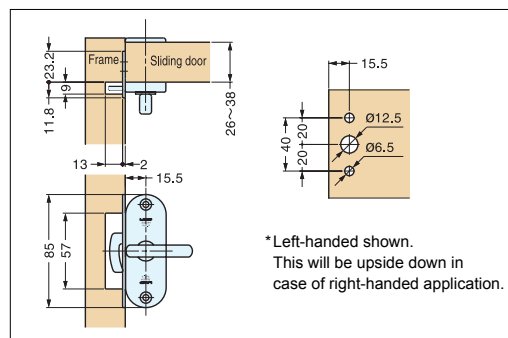
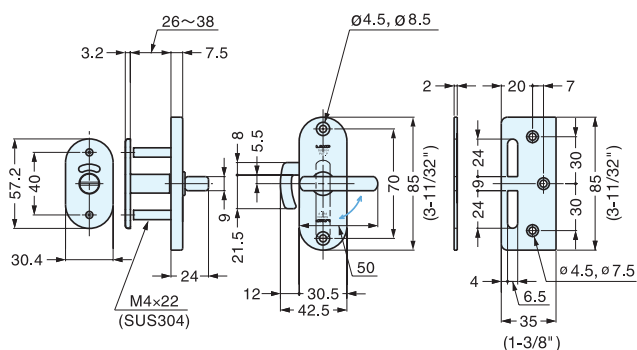
SLIDING DOOR LATCH



HHC-85



- Door latch with indicator.
- Slim design suitable for various applications.
- Large lever for easy operation.
- Non-handed.
- For door thickness 26~38 mm. (1-1/32"~1-1/2")



Installation

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HHC-85	120	6	30

Material	Finish
304 Stainless Steel, Brass	Satin

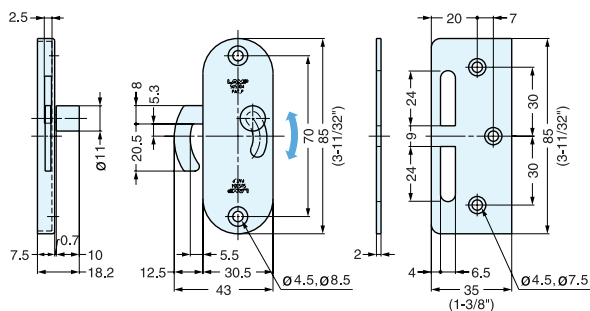
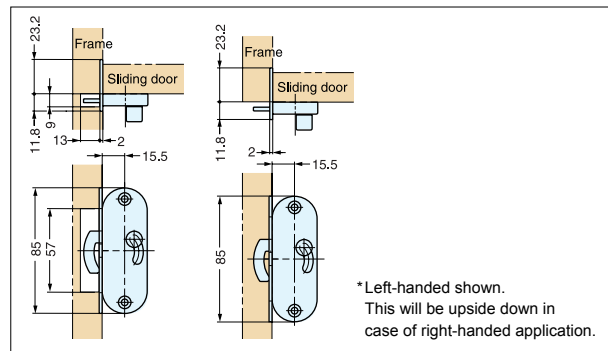
SLIDING DOOR LATCH



HC-85



- Surface mount type door latch with noticeable indicator.
- Simply slide up and down the knob to lock/unlock.
- Slim design suitable for various application.
- Non-handed.



Installation

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
HC-85/S	120	20	100	304 Stainless Steel, Brass	Satin

CATCHES & LATCHES

SLIDING DOOR LATCHES



Sliding Door Latches

For interior sliding door applications.

HC-3051

(See P.174 for details)

SLIDING DOOR LATCH

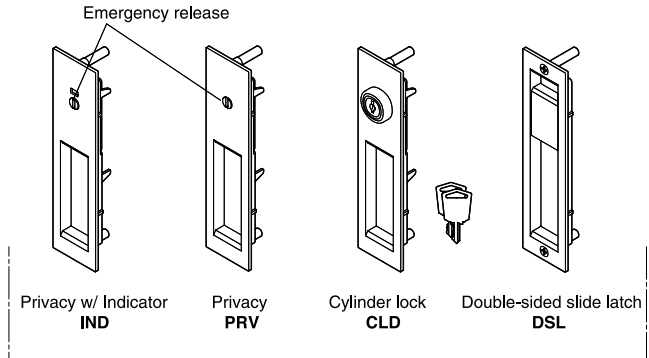
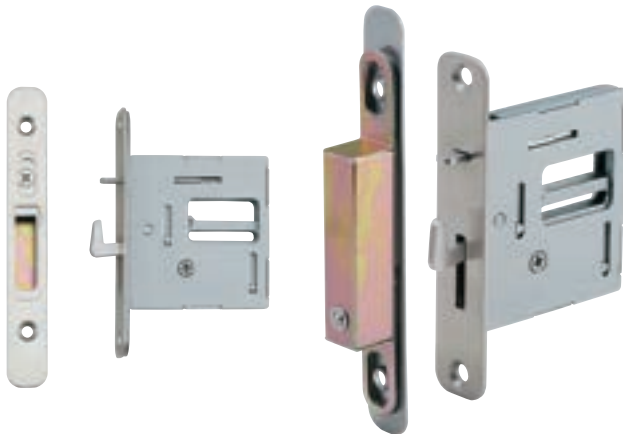


HC-3051 SERIES



- Recessed latch handle for wooden sliding doors.
- 4 model types available.
- The backset can be installed at any position between 30 mm and 51 mm from the door edge.
- Applicable door thickness: 35-45 mm (1-3/8"~1-3/4"). 3 different lengths of spindles and 2 different lengths of screw are included.
- Initial setting is for 38 mm door.
- For residential interior sliding doors, including pocket doors.

■ Latch Body & Strikeplate



■ Latch Faceplates



Privacy (PRV) Privacy w/ Indicator (IND) Cylinder lock (CLD) Double sided slide latch (DSL)

The opposite face of every model has a slide handle, as shown for the DSL model.

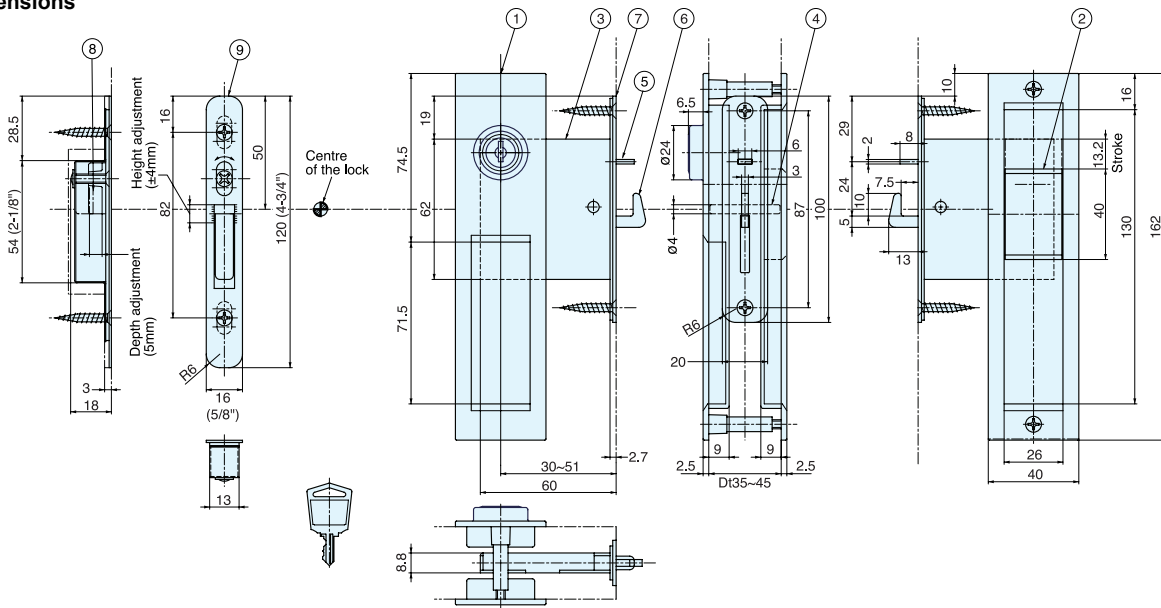
■ Parts Included

- Spindles $\varnothing 4 \times 35$, $\varnothing 4 \times 39$, $\varnothing 4 \times 43$
- Countersunk head tapping screw 3.5×25 (SUS) for strike & latch body
- Countersunk head screw M4×20, M4×25 (SUS) for latch face plates.

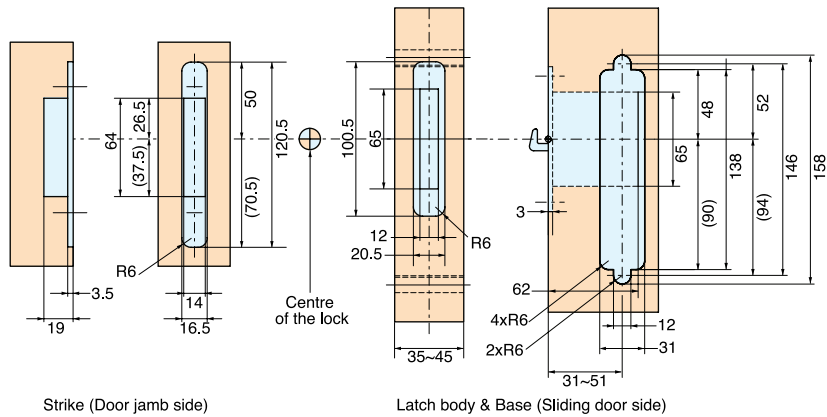
Item Name	Type	Weight (g)	Box (pcs)	Carton (pcs)
HC-3051-PRV-NI	Privacy	531	1	20
HC-3051-IND-NI	Privacy w/ Indicator	535		
HC-3051-CLD-NI	Cylinder lock	557		
HC-3051-DSL-NI	Double Sided Slide	511		

HC-3051-CLD-NI is shown

■ Dimensions



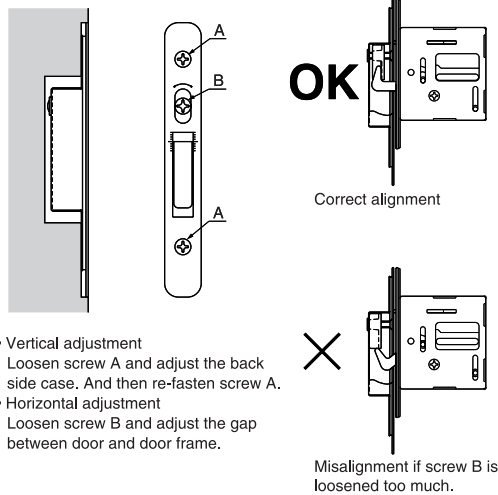
■ Cut Out Dimensions



Strike (Door jamb side)

Latch body & Base (Sliding door side)

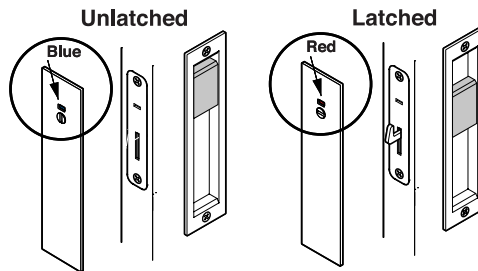
■ Adjustment to the strikeplate



- Vertical adjustment
Loosen screw A and adjust the back side case. And then re-fasten screw A.
- Horizontal adjustment
Loosen screw B and adjust the gap between door and door frame.

Misalignment if screw B is loosened too much.

■ Checking the operation of latch



Emergency opening
(only for IND and PRV models)

No.	Part Name	Material	Finish
①	Base	Zinc Alloy	Nickel
②	Knob		
③	Latch Body	Steel	Plain
④	Spindle		
⑤	Trigger	304 Stainless Steel	Polished
⑥	Bolt		Polished
⑦	Front Plate (Latch)		Satin
⑧	Strike	Steel	Plain
⑨	Front Plate (Strike)	304 Stainless Steel	Stain



HINGES & DOOR ACCESSORIES

3 WAY ADJUSTABLE CONCEALED HINGES

2 WAY ADJUSTABLE PIVOT HINGES

LIFT-OFF HINGES

BUTT HINGES



SPRING HINGES

GLASS HINGES


DOOR ACCESSORIES

DOOR STOPPERS















3-WAY ADJUSTABLE CONCEALED HINGES

Item No.	Max. Door Height	Min. Door Thickness	Max. Door Weight	3-way Adjustment	Leaf Separable	Page
 HES3D-120	2400 (94-1/2")	29 (1-1/8")	30 kg / 2 pcs (66 lbs)	YES	YES	182
			40 kg / 3 pcs (88 lbs)			
 HES3D-V135LGR-2	2400 (94-1/2")	30 (1-3/16")	40 kg / 2 pcs (88 lbs)	YES	YES	185
			55 kg / 3 pcs (122 lbs)			
 HES3D-E160	2400 (94-1/2")	36 (1-3/8")	55 kg / 2 pcs (121 lbs)	YES	YES	183
			70 kg / 3 pcs (154 lbs)			
 HES3D-E190	2400 (94-1/2")	38 (1-1/2")	100 kg / 2 pcs (220 lbs)	YES	YES	184
			125 kg / 3 pcs (275 lbs)			
 HES3D-W190 For Door Molding	2440 (96-1/16")	Min. 42 (1-5/8")	100 kg / 2 pcs (220 lbs)	YES	YES	186
			125 kg / 3 pcs (275 lbs)			
 HES-3030BR	2000 (78-3/4")	Min. 36 (1-7/16")	55 kg / 3 pcs (110 lbs)	NO	NO	186
 HES-3038BK	2000 (78-3/4")	Min. 36 (1-7/16")	45 kg / 3 pcs (99 lbs)	NO	NO	187

2-WAY ADJUSTABLE PIVOT HINGES

Picture	Item No.	Max. Door Weight (lbs)	Page
	PH-01	77 / pair	188

LIFT-OFF HINGES

Picture	Item No.	Max. Door Weight (lbs)	Page
	ZL-1701	  88~110 lbs / pair	189
	HG-CV127	  220 lbs / pair	189
	S-6166-2	 88 lbs / pair	190
	S-6166-6	 198 lbs / pair	190
	S-6173-2	 88 lbs / pair	191
	S-6173-5	 110 lbs / pair	191

BUTT HINGES

Picture	Item No.	Max. Door Weight (lbs)	Page
	3535/SS	55 lbs / pair	192
	4040/SS	88 lbs / pair	192
	4545B/SS	99 lbs / pair	192
	HG-FH-128	90 lbs / pair	193

SPRING HINGES

Picture	Item No.	Door Weight (lbs)	Page
	JSA	44~88 / 2 pcs 66~132 / 3 pcs	194
	JST-150S	88 / 2 pcs 132 / 3 pcs	194
	JDA	-	195
	JDAW	-	196

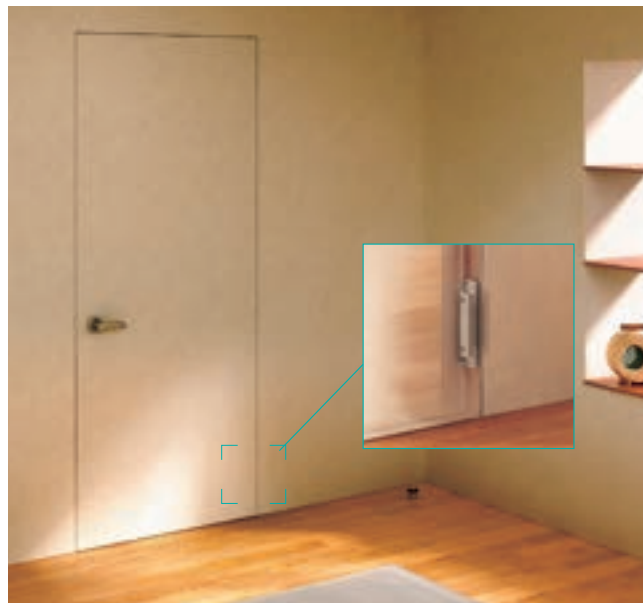
GLASS HINGES

Picture	Item No.	Max. Door Weight (lbs)	Page
	ZL-1702	110 lbs / pair	197
	ZL-1703	143 lbs / pair	197
	GH-G02	99.2 lbs / pair	198
	GH-G07	99.2 lbs / pair	199

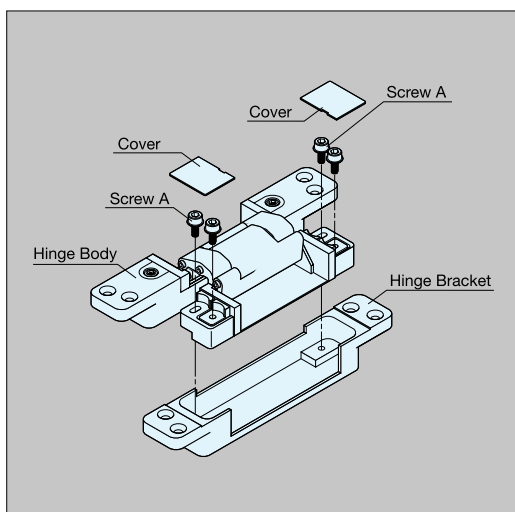
DOOR ACCESSORIES

Picture	Item No.	Max. Door Weight (lbs)	Page
	LDD-S	33~88 lbs	200
	LDD-S-P	-	201
	LDD-V	33~88 lbs	202
	LDD-V100 (HEAVY DUTY TYPE)	88~220 lbs	204
	ZL-1801	-	206
	ZL-1802	-	206
	ZL-1803	-	206
	HT-32P	-	207
	DSD	-	207
	SMDH	30.8 lbs Magnetic Force	208
	KMDH	26.4 lbs Magnetic Force	208
	SODH	-	208
	JFR	176 lbs	209

HES3D HINGE SERIES



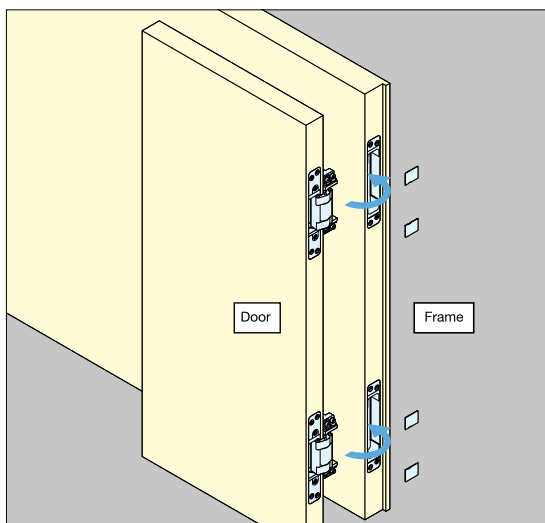
a. Detailed View



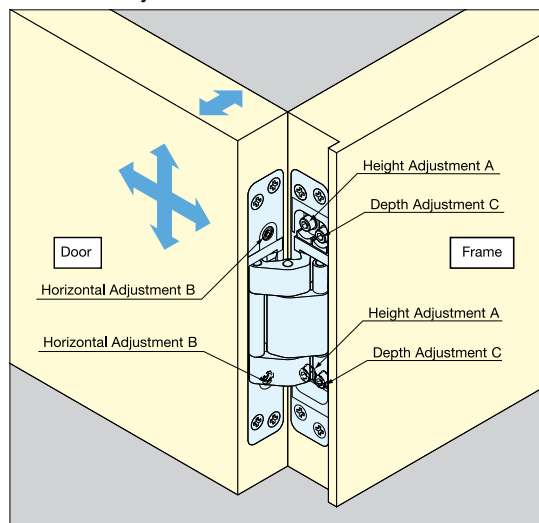
For Easy Installation

1. Separate parts as shown in picture "a".
2. Screw on the Hinge Body to door, and Hinge Bracket to door frame.
3. As shown in picture "b", insert Hinge Body straight into Hinge Bracket. Bracket will temporarily hold the Body for easy installation.
4. Use "Screw A" to fix Body on Bracket.
5. Adjust horizontally by turning "Screw B".
6. Loosen "Screw A" for vertical adjustment. Tighten "Screw A" after vertical adjustment completed.
7. For depth adjustment, loosen "Screw C" (one turn). Tighten "Screw C" after completed.
8. Snap on plastic covers after all above completed.

b. Installation



c. 3-WAY Adjustment



3-WAY Adjustable Concealed Hinge



HES3D-E190

- **Easy Installation with Lift-Off Feature**
- **3-WAY Adjustability**
(Depth, Vertical and Horizontal)
- **Quality**

3-WAY ADJUSTABLE CONCEALED HINGE



HES3D-120

HINGES

3-WAY ADJUSTABLE CONCEALED HINGES



HES3D-120DC

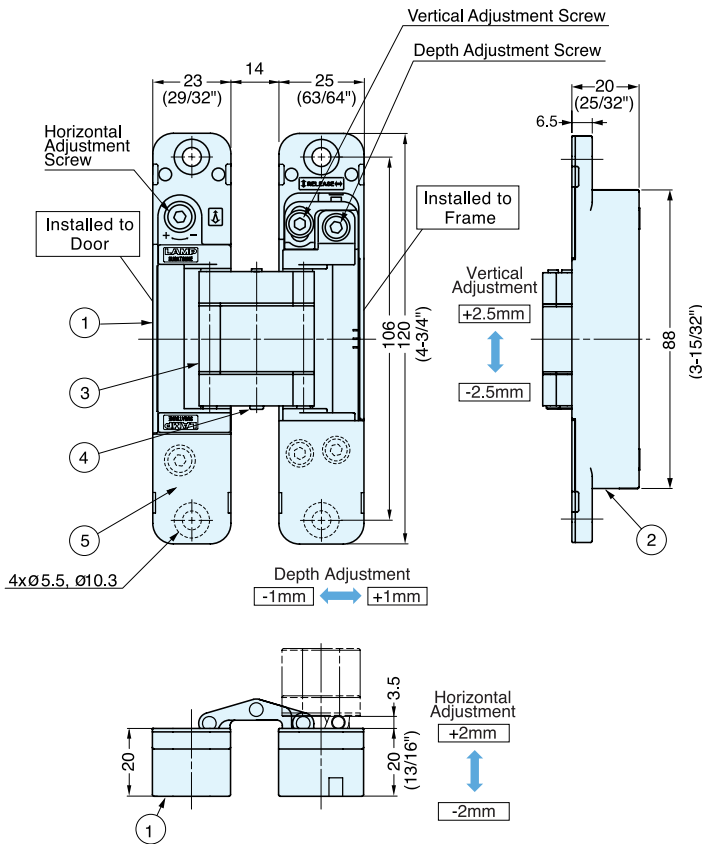
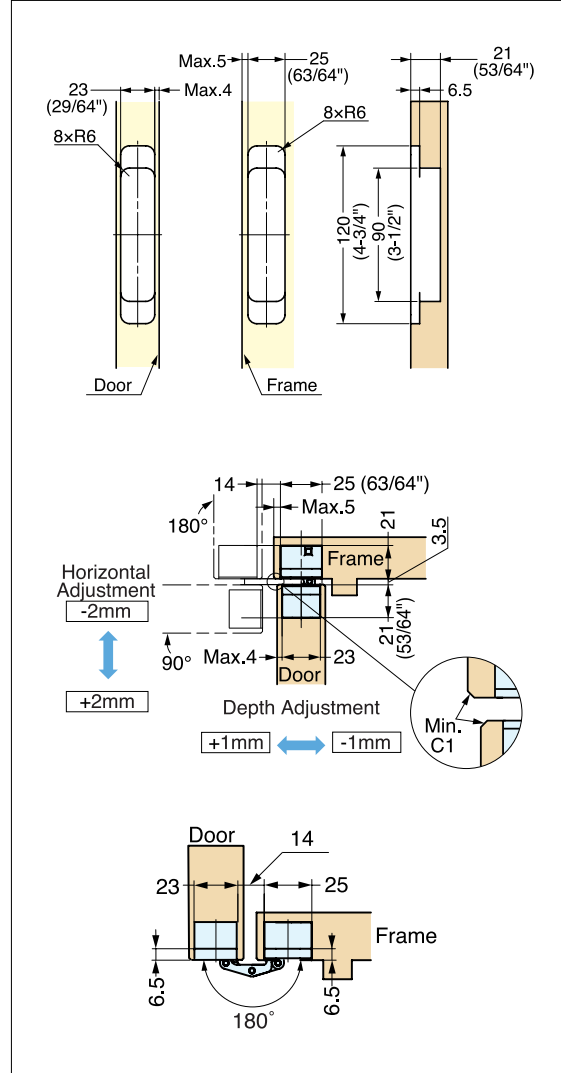


HES3D-120DN



HES3D-120BL

- 3-WAY adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Easy installation and adjustment.
- Successfully passed 300,000 open/close private cycle tests.
- Supplied with steel flat head screw.
- Covers hide all screw heads for clean appearance.
- Door weight: Max. 30 kg (66 lbs)/2 pcs, 40 kg (88 lbs)/3 pcs
- Door Thickness: Min. 29 mm (1-1/8")
- Max. Door Size: H 2400 mm x W 900 mm (H 94-1/2" x W 35-7/16")
- Bracket for sheet metal available.



Item No.	Finish/Color	Weight (g)	Box (pcs)	Carton (pcs)
HES3D-120DC	Dull Chrome	380	2	24
HES3D-120DN	Dull Nickel			
HES3D-120BL	Black			

No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Dull Chrome (DC) Dull Nickel (DN) Black (BL)
②	Base Frame		
③	Arm		
④	Pin	304 Stainless Steel	-
⑤	Cover	ABS	Dull Chrome (DC) Dull Nickel (DN) Black (BL)

3-WAY ADJUSTABLE CONCEALED HINGE



HES3D-E160



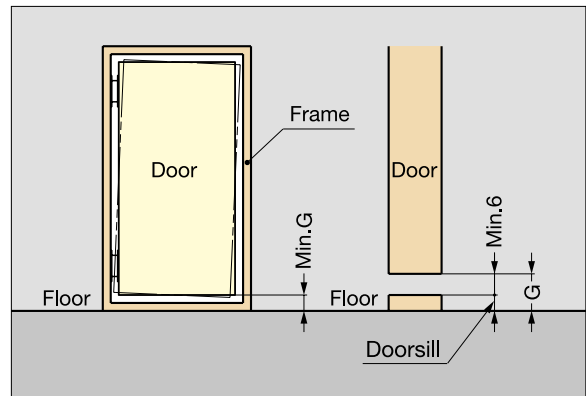
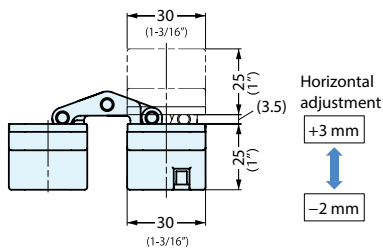
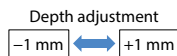
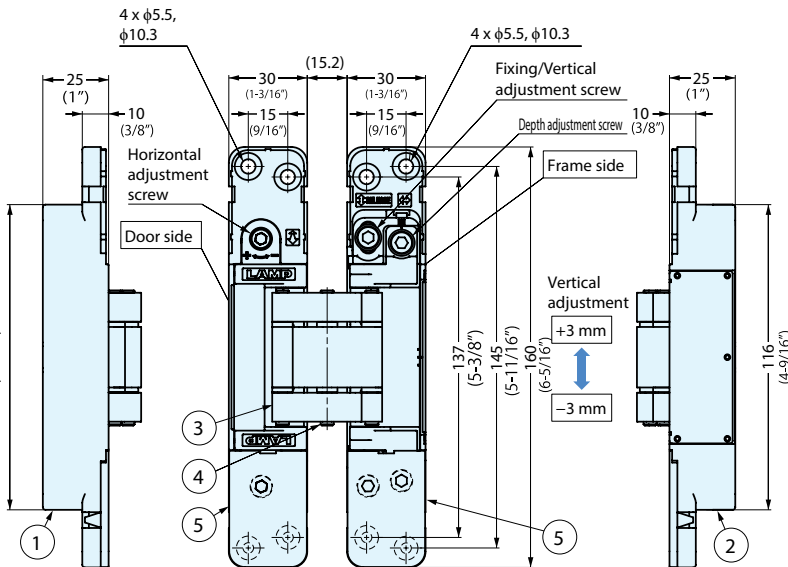
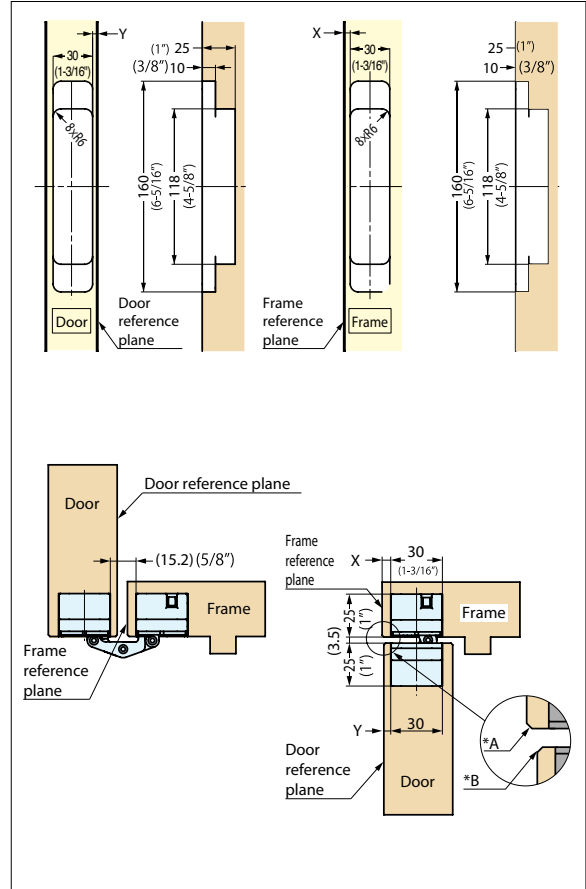
HES3D-E160DC

HES3D-E160DN

HES3D-E160BL

- Easy installation with symmetrical leaves and lift-off feature.
- 3-WAY adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Door Weight Capacity: Max. 55 kg (121 lbs)/2 pcs, 70 kg (154 lbs)/3 pcs
- Door Thickness: Min. 35 mm (1-3/8")
- Max. Door Dimensions: H 2400 mm x W 900 mm (H 94-1/2" x W 35-7/16")
- Successfully passed 300,000 open/ close private cycle tests.

Bore Dimensions



To determine the door and frame dimension, (G) must be taken into account.
G = Min. 6 mm + doorsill

No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Dull Chrome (DC), Dull Nickel (DN), Black (BL)
②	Base Frame		
③	Arm	Aluminum	
④	Pin	304 Stainless Steel	-
⑤	Cover	ABS	Dull Chrome (DC), Dull Nickel (DN), Black (BL)

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Finish/Color
HES3D-E160DC	760	2	12	Dull Chrome
HES3D-E160DN				Dull Nickel
HES3D-E160BL				Black

3-WAY ADJUSTABLE CONCEALED HINGE



HES3D-E190

HINGES



HES3D-E190PN-UL

HES3D-E190DC-UL

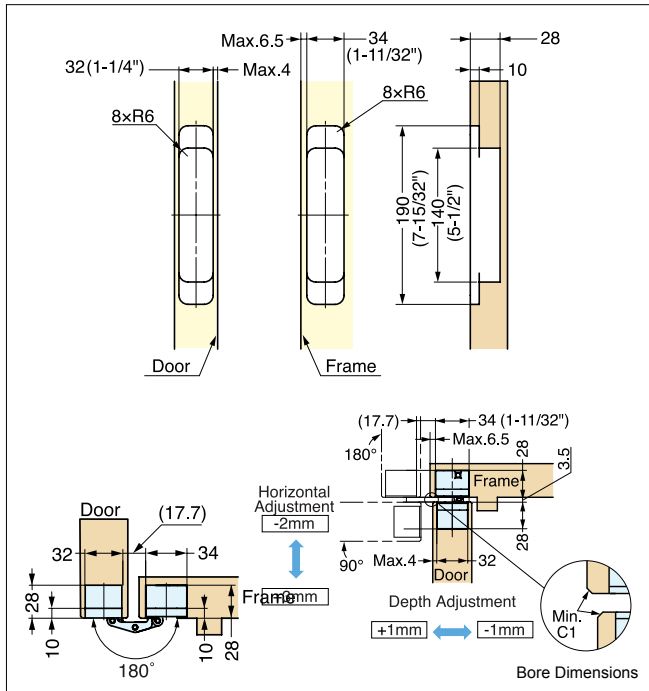
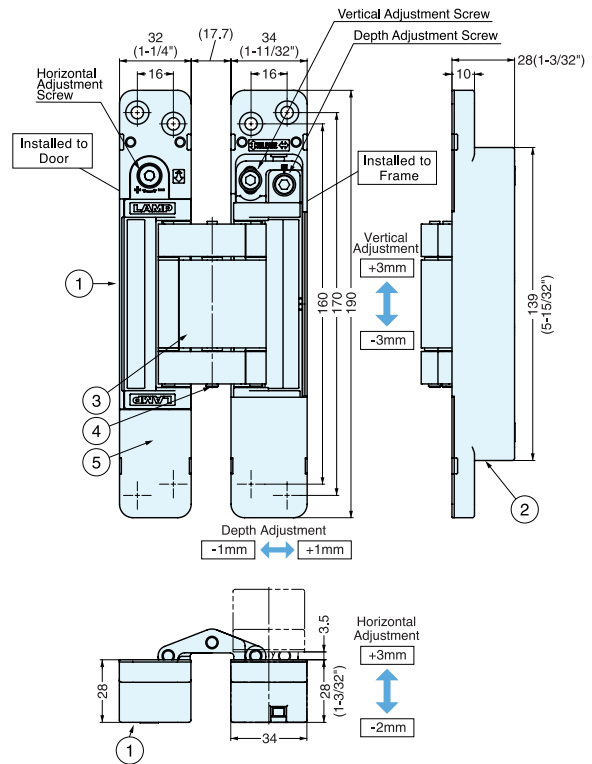
HES3D-E190DN-UL

HES3D-E190BL-UL

HES3D-E190WT-UL

3-WAY ADJUSTABLE CONCEALED HINGES

- 3-WAY adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Easy installation with LIFT-OFF FEATURE: can be split into two parts (one for the frame and one for the flap), can temporarily be hung and hold position without being affixed with screws.
- Successfully passed 300,000 open/close private cycle tests.
- UL Rated, up to 3 Hours
- Supplied with steel flat head screw.
- Covers hide all screw heads for clean appearance.
- Door weight : Max. 100 kg (220 lbs)/2 pcs, 125 kg (275 lbs)/3 pcs.
- Door Thickness : Min. 38 mm (1-1/2").
- Max. Door Size : H 2400 mm (94-1/2") x W 900 mm (35-7/16").
- Bracket for sheet metal doors and frames available (sold separately).
- Metal cover plates available for Polished Nickel (PN) finish HES3D-E190PN-CM (sold separately).



No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Polished Nickel (PN) Dull Chrome (DC) Dull Nickel (DN) Matte Black (BL) White (WT)
②	Base Frame	Zinc Alloy	Polished Nickel (PN) Dull Chrome (DC) Dull Nickel (DN) Matte Black (BL) White (WT)
③	Arm	Aluminum Alloy	Polished Nickel (PN) Dull Chrome (DC) Dull Nickel (DN) Matte Black (BL) White (WT)
④	Pin	304 Stainless Steel	-
⑤	Cover	ABS	Polished Nickel (PN) Dull Chrome (DC) Dull Nickel (DN) Matte Black (BL) White (WT)

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HES3D-E190PN-UL	1050	2	12
HES3D-E190DC-UL			
HES3D-E190DN-UL			
HES3D-E190BL-UL			
HES3D-E190WT-UL			

3-WAY ADJUSTABLE CONCEALED HINGE



HES3D-V135LGR-2



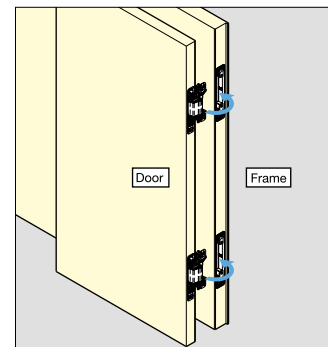
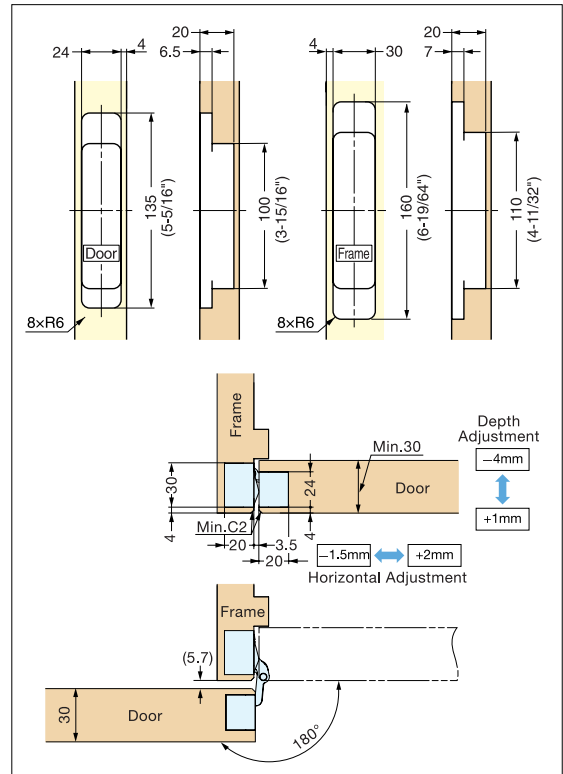
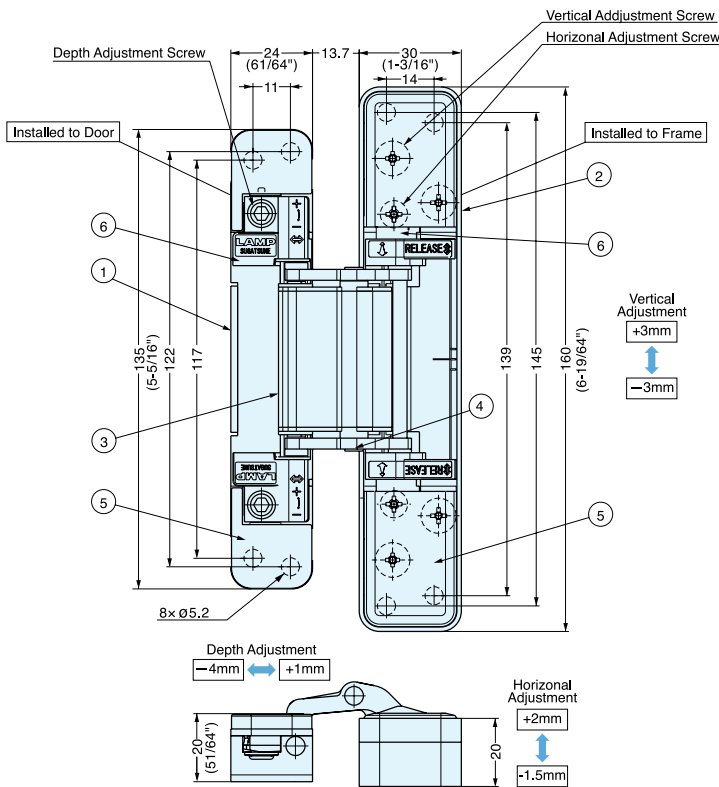
HES3D-V135LGR-2

- 3-WAY adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Easy installation and adjustment.
- Successfully passed 300,000 open/close private cycle tests.
- Supplied with steel button head screw.
- Door weight: Max. 40 kg (88 lbs)/2 pcs, 55 kg (122 lbs)/3 pcs
- Door Thickness: Min. 30 mm (1-3/16")
- Max. Door Size: H 2400 mm × W 900 mm (H 94-1/2" × W 35-7/16")

Item No.	Finish/Color
HES3D-V135LGR-2	Light Gray

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HES3D-V135LGR-2	400	2	24

No.	Part Name	Material	Finish/Color
①	Body	Steel	Nickel
②	Base Frame	Polyacetal	Light Grey
③	Arm	Aluminum	Anodized
④	Pin	Steel	Nickel
⑤	Cover	Polyacetal	Light Grey
⑥	Block	Zinc Alloy	Nickel



Installation

3-WAY ADJUSTABLE CONCEALED HINGE For Door Moldings



HES3D-W190

HINGES

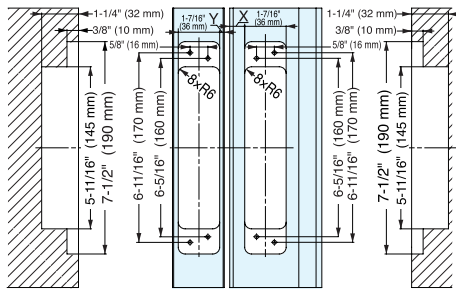


HES3D-W190DC-UL HES3D-W190DN-UL HES3D-W190WT HES3D-W190BL-UL HES3D-W190PN

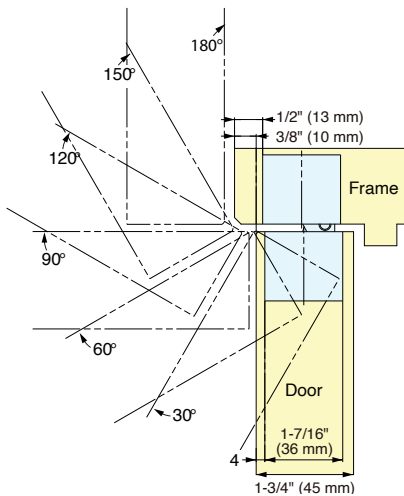
- Has a long arm for a wider throw, allowing 3/8" (10 mm) clearance for flush installation or 1/2" (13 mm) clearance for installation with a molding. Opens to 180°.
- Features 3-way adjustability (vertical, horizontal and depth).
- UL Rated, up to 3 Hours (DC, DN, and BL models only)
- Flanges come apart for the door to be provisionally hung for making adjustments. This provides a quick and easy installation when ready for fixing screws.
- Replacement screw covers available for all finishes.
- Only the HES3D-W190PN model includes metal cover plates*, all other models include plastic cover plates.

3-WAY ADJUSTABLE CONCEALED HINGES

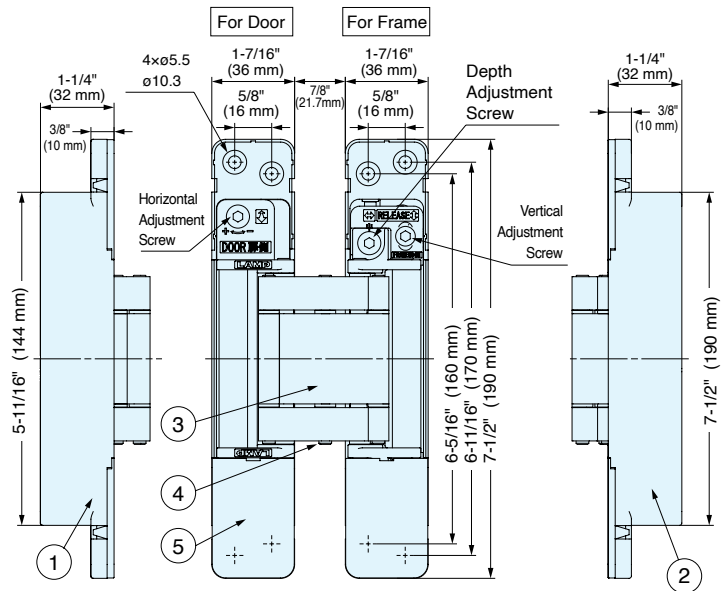
Cut Out Dimension



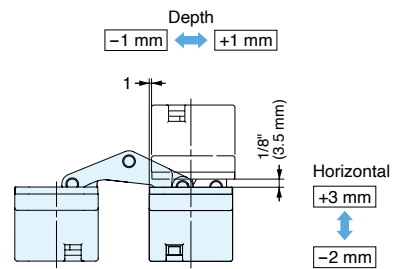
Please drill prepared holes for the tapping screws if the optional jig (HES3D-W190-TMP) is not used.



The example drawing shows the case that there is a step of 10 mm between the door and the frame.



Select models only



No.	Part Name	Material	Finish/Color					
			DC	DN	BL	PN	WT	PB
1	Body	Zinc Alloy (ZDC)	Satin	Nickel	Enamel Black	Nickel	Enamel White	Brass
2	Base Frame							
3	Arm	Aluminium Alloy						
4	Shaft	Stainless Steel	Plain	Plain	Plain	Plain	Plain	Plain
5	Screw Cover	ABS/Stainless Steel*	Silver	Dull Nickel	Black	Nickel	White	Brass

Item Name	Finish	Door Size			Door Weight		Opening Angle	Weight (g)	Box (pcs)	Carton (pcs)
		Width	Height	Thickness	2 pcs	3 pcs				
HES3D-W190DC-UL	Dull Chrome	Max. 36" (915 mm)	Max. 96-1/16" (2440 mm)	Min. 1-5/8" (42 mm)	Max. 220 lbs (100 kg)	Max. 275 lbs (125 kg)	180°	-	2	12
HES3D-W190DN-UL	Dull Nickel								2	12
HES3D-W190BL-UL	Black								2	12
HES3D-W190PN	Polished Nickel								2	12
HES3D-W190WT	White								2	12
HES3D-W190PB	Polished Brass								2	12

3-WAY ADJUSTABLE CONCEALED HINGE For Cladded Doors

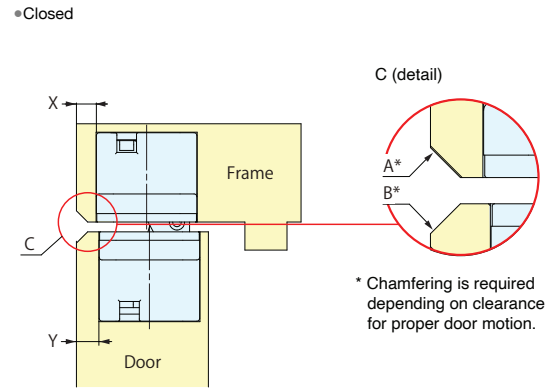
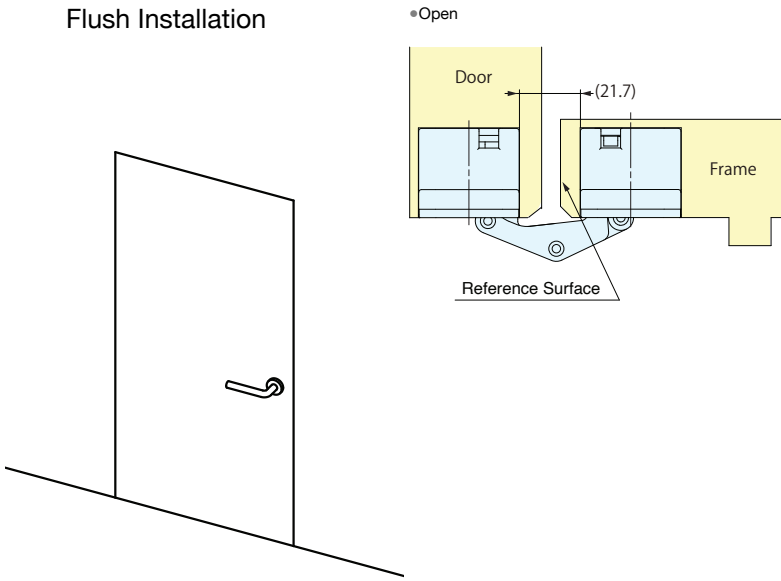


HES3D-W190

HINGES

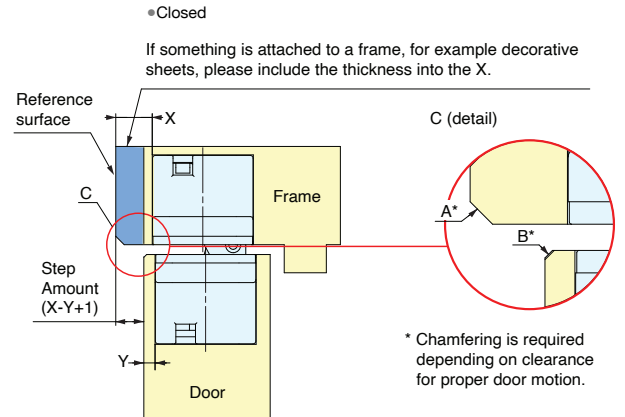
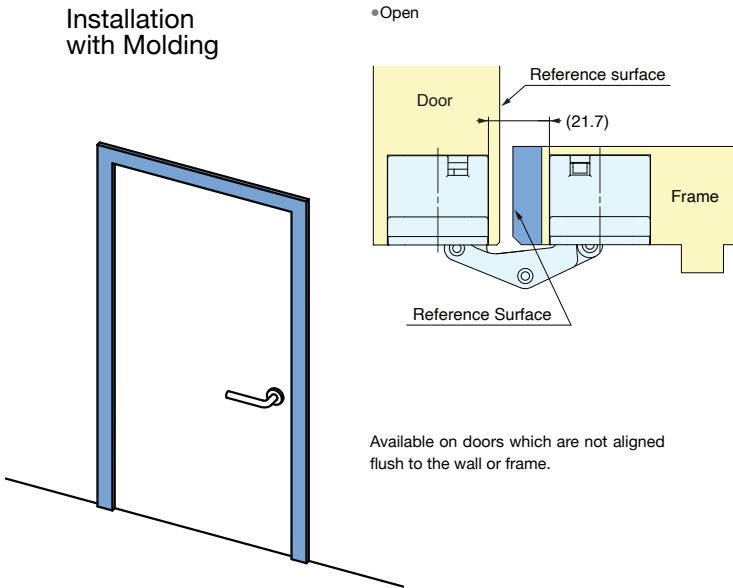
3-WAY ADJUSTABLE CONCEALED HINGES

Flush Installation



Y	B	X	A
Door Clearance	Door Chamfering	Frame Clearance	Frame Chamfering
4 and under	0	3 and under	0
5	1	4	1
6	2	5	2
7	3	6	3
8	4	7	4
9	6	8	6

Installation with Molding



Available on doors which are not aligned flush to the wall or frame.

Y	B	X	A	X-Y+1
Door Clearance	Door Chamfering	Frame Clearance	Frame Chamfering	Step Amount
3	0	3 to 12	0	1 to 10
		13	1	11
		14	2	12
		15	4	13
4	1	3 to 10	0	0 to 7
		11	1	8
		12	2	9
		13	3	10
5	2	14	4	11
		3 to 6	0	-1 to 2
		7	1	3
		8	2	4
		9	3	5
		10	4	6
		11	4	7
5	3	12	5	8
		13	6	9

Y	B	X	A	X-Y+1
Door Clearance	Door Chamfering	Frame Clearance	Frame Chamfering	Step Amount
6	3	3 to 6	0	-2 to 1
		7	1	2
		8	2	3
		9	3	4
6	4	10	4	5
		11	5	6
		12	6	7
		3 to 6	0	-3 to 0
7	5	7	1	1
		8	2	2
		9	3	3
		10	5	4
7	5	11	7	5
		3 to 6	0	-4 to -1
		7	1	0
		8	3	1
8	6	9	5	2
		10	7	3

CONCEALED HINGE

Meets  © SPECS.



HES-3030BR

HINGES

CONCEALED HINGES

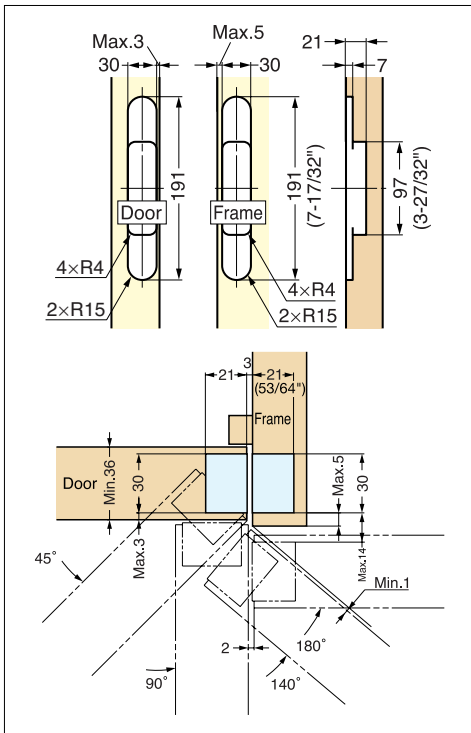
- Door weight: Max. 50 kg (110 lbs)/3 pcs
- Door thickness: Min. 36 mm (1-7/16")
- Suitable door size: H2000 mm x W900 mm (H78-3/4" x W35-7/16")
- Successfully passed 200,000 open/close private cycle tests.



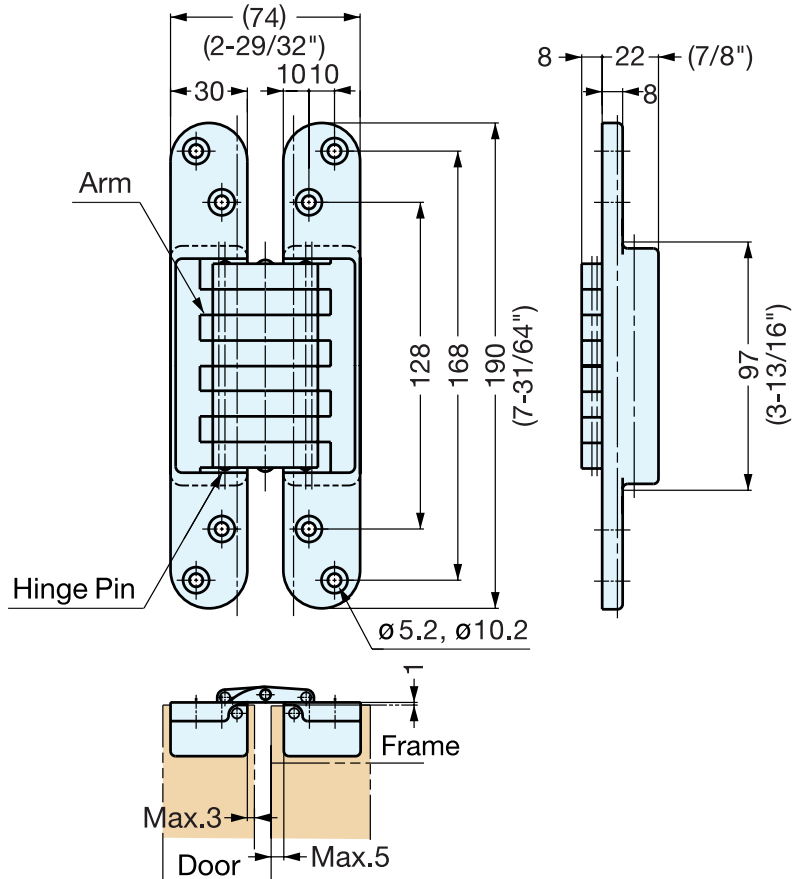
HES-3030BR/PB



HES-3030BR/SC



Bore Dimensions



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HES-3030BR/PB	1030	2	20
HES-3030BR/SC			

Material	Finish/Color
Brass	Polished Brass (PB)
	Satin Chrome (SC)

CONCEALED HINGE



HES-3038BK

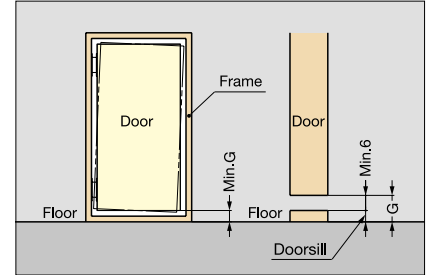
- Door weight: Max. 45 kg (99 lbs)/3 pcs
- Door thickness: Min. 36 mm (1-7/16")
- Suitable door size: H2000 mm × W900 mm (H78-3/4" × W35-7/16")
- Successfully passed 200,000 open/close private cycle tests.



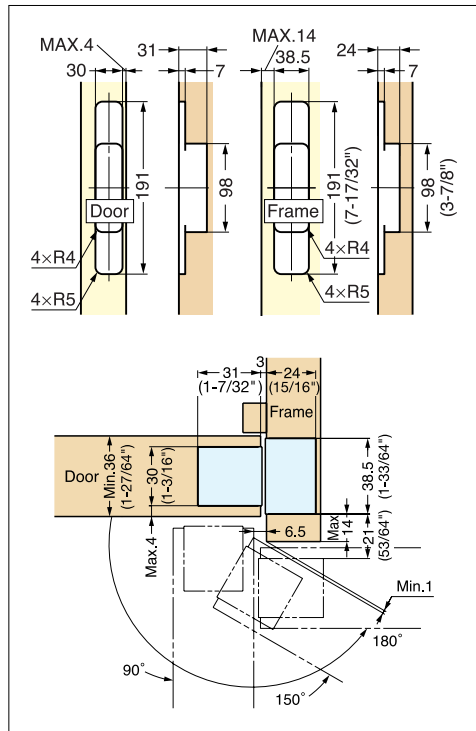
HES-3038BK/PB



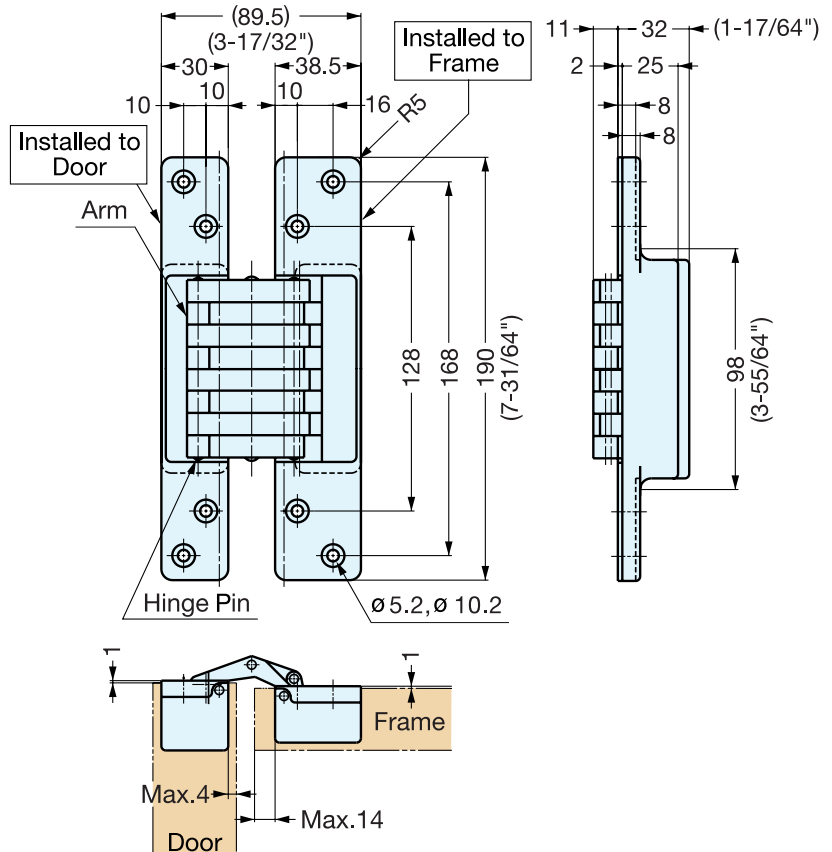
HES-3038BK/SC



To determine the door and frame dimension, (G) must be taken into account.
G = Min. 6 mm + doorsill



Bore Dimensions



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HES-3038BK/PB	1360	2	20

Material	Finish/Color
Brass	Polished Brass (PB) Satin Chrome (SC)

2-WAY ADJUSTABLE PIVOT HINGE



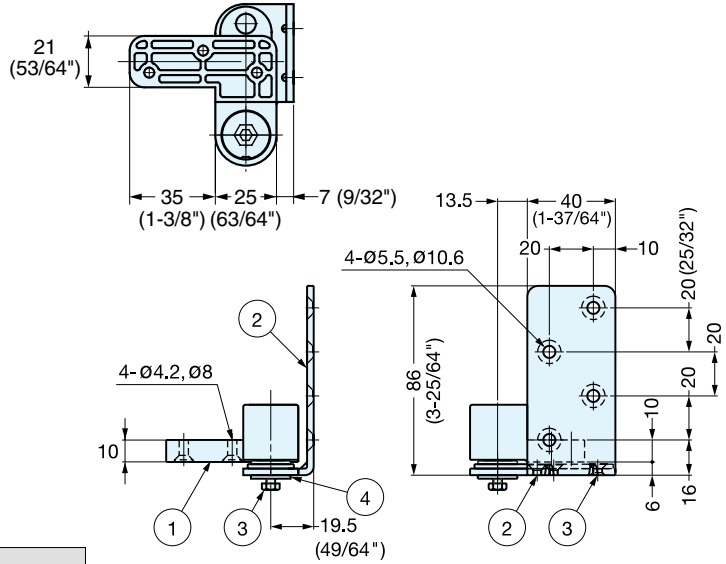
PH-01

HINGES

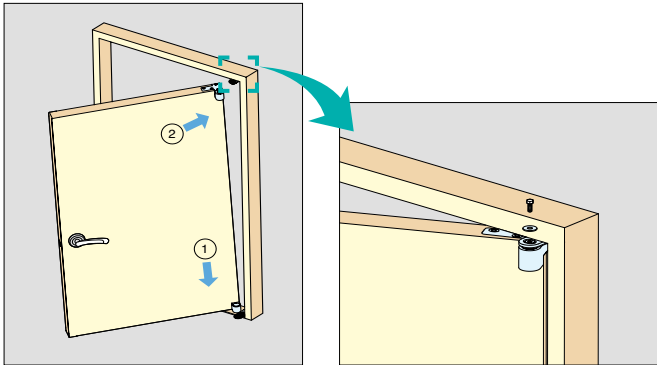
2-WAY ADJUSTABLE PIVOT HINGES



- Vertically and laterally adjustable after installed.
- Sold in pairs (top and bottom), non-handed.
- Supplied with wood screw 4 x 30.
- Separate body and bracket for easy installation.
- Door Height: Max. 2300 mm (90-34/64")
- Door Width: Max. 850 mm (33-15/32")
- Door Weight: Max. 35 kg (77 lbs)/pair
- Door Thickness: 33~42 mm (1-19/64"~1-21/32")



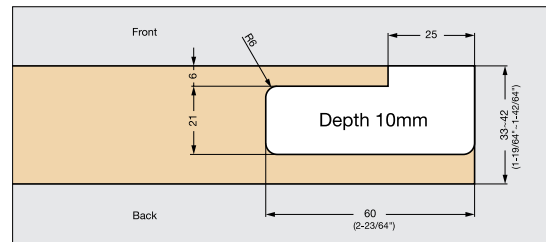
Door Installation



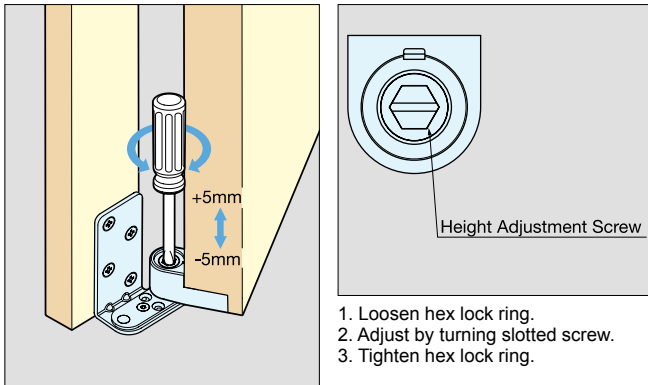
* Gap between door jamb and handle side of door: 4 mm (Door Thickness 33~42 mm)

- Install hinge bracket to door frame
- Bolt the door on with supplied screw

Bore Dimensions (Door)

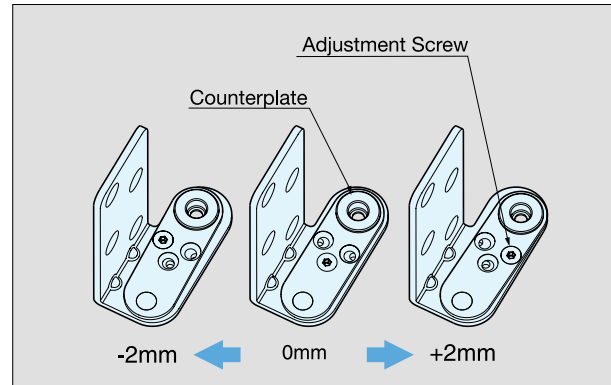


Vertical Adjustment



1. Loosen hex lock ring.
2. Adjust by turning slotted screw.
3. Tighten hex lock ring.

Lateral Adjustment



Item No.	Weight (g)	Box (set)	Carton (set)
PH-01	500	1	20

No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Matte Silver
②	Bracket	304 Stainless Steel	Plain
③	Hex Bolt		-
④	Washer		-
⑤	Cap	ABS	White

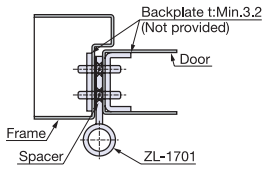
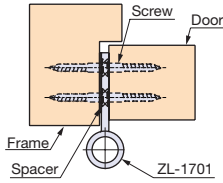
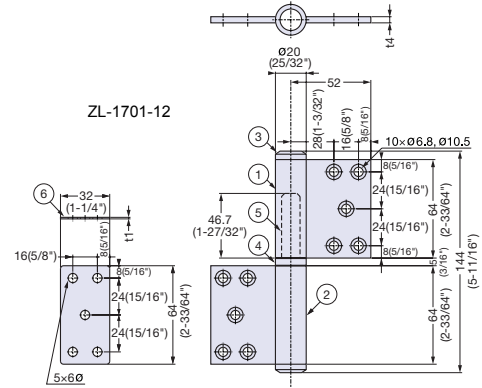
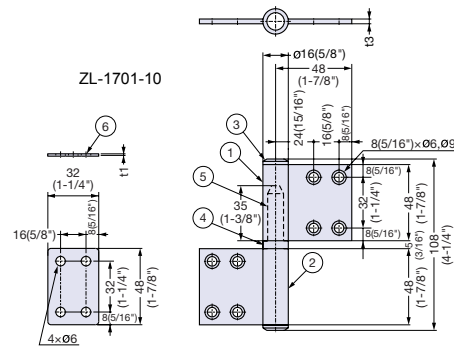
Zwei L Lift-Off Hinge



ZL-1701

HINGES

Zwei L LIFT-OFF HINGES



No.	Part Name	Material	Finish/Color
①	Door Side Hinge Plate	316 Stainless Steel	Zwei L
②	Frame Side Hinge Plate		
③	Head Cap		
④	Washer		Satin
⑤	Pin		Plain
⑥	Spacer		

ZL-1701-10: Supplied with stainless steel wood screws (4.1 × 38) and stainless steel screws (M5 × 16, ø8 Head)
 ZL-1701-12: Supplied with stainless steel wood screws (4.8 × 38) and stainless steel screws (M5 × 16, ø9 Head)

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)
ZL-1701-10	40(88 lbs)/2pcs	380	8
ZL-1701-12	50(110 lbs)/2pcs	430	

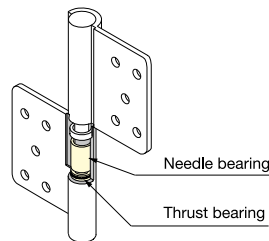
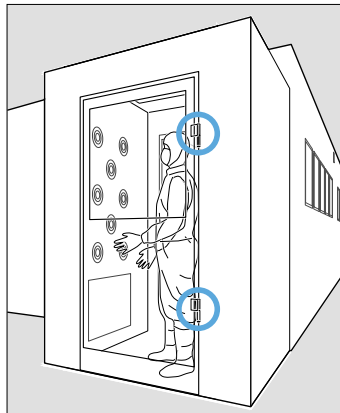
HEAVY DUTY CLEAN ROOM LIFT-OFF HINGE



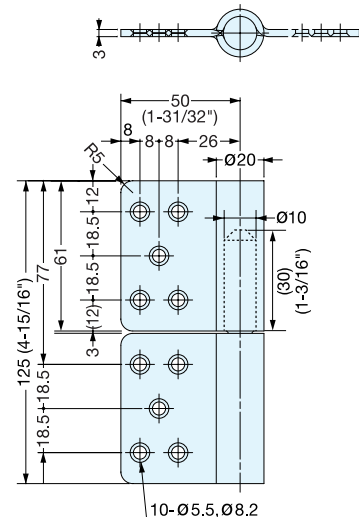
HG-CV127



HG-CV127/R



- No metal-to-metal contact.
- Special bearings minimize particles.
- Successfully passed 200,000 open cycle test at the following door size.
 - Door Weight: MAX. 100 kg/pair (220 lbs/pair)
 - Door Height: MAX. 2,000 mm (78-3/4")
 - Door Width: MAX. 900 mm (35-7/16")



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HG-CV127/L	388	5	50
HG-CV127/R			

Material	Finish
304 Stainless Steel	Satin/Polished

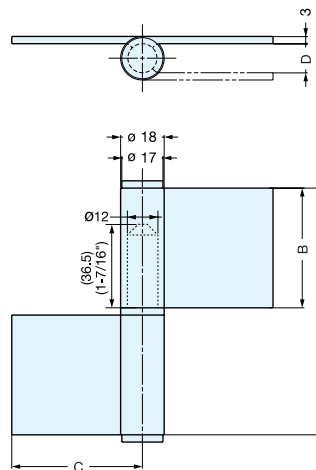
LIFT-OFF HINGE (WELD-ON)



S-6166-2



- Weld-on type stainless steel lift-off hinge.
- Left and Right handed available.
- Door weight: Max. 40 kg/pair (88 lbs/pair)



Material	Finish
304 Stainless Steel	Satin

Item No.		A	B	C	D	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right							
S-6166-2-L	S-6166-2-R	102 (4-1/64")	49.5 (1-61/64")	55 (2-5/32")	12 (15/32")	300	12	60

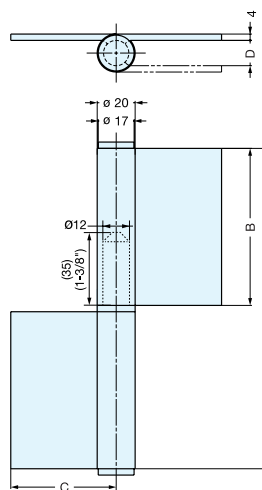
LIFT-OFF HINGE (WELD-ON)



S-6166-6



- Weld-on type stainless steel lift-off hinge.
- Left and Right handed available.
- Door weight: Max. 90 kg/pair (198 lbs/pair)



Material	Finish
304 Stainless Steel	Satin

Item No.		A	B	C	D	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right							
S-6166-6-L	S-6166-6-R	152 (5-63/64")	74.5 (2-15/16")	55 (2-5/32")	12 (15/32")	570	8	40

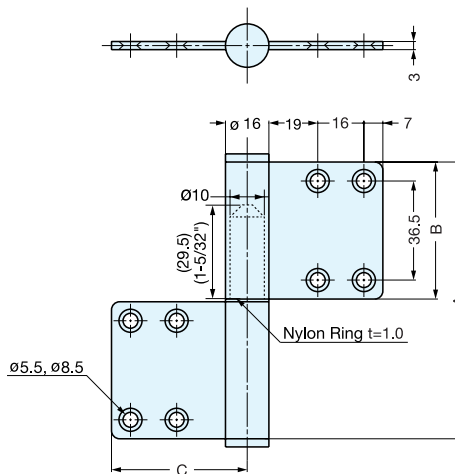
LIFT-OFF HINGE



S-6173-2



- Screw hole is countersunk from both sides.
- Non-handed.
- Door weight: Max. 40 kg/pair (88 lbs/pair)



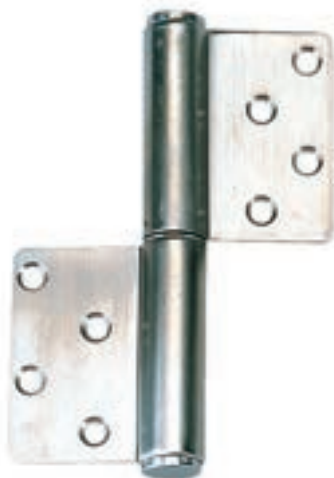
Material	Finish
304 Stainless Steel	Satin

Item No.	A	B	C	Weight (g)	Box (pcs)	Carton (pcs)
S-6173-2	102 (4-1/64")	50.5 (1-63/64")	50 (1-31/32")	240	12	60

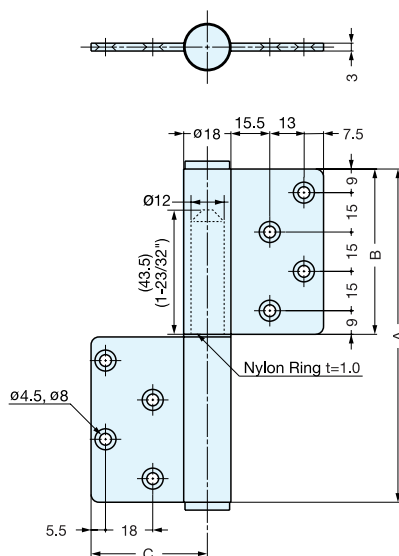
LIFT-OFF HINGE



S-6173-5



- Screw hole is countersunk from both sides.
- Non-handed.
- Door weight: Max. 50 kg/pair (110 lbs/pair)



Material	Finish
304 Stainless Steel	Satin

Item No.	A	B	C	Weight (g)	Box (pcs)	Carton (pcs)
S-6173-5	127 (5")	63 (2-31/64")	45 (1-25/32")	330	8	40

BUTT HINGE



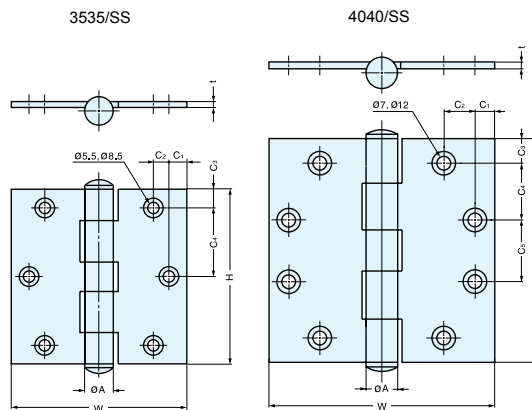
3535/SS, 4040/SS



3535/SS

4040/SS

- Door weight:
3535/SS Max. 25 kg/pair (55 lbs/pair)
4040/SS Max. 40 kg/pair (88 lbs/pair)



Material	Finish
304 Stainless Steel	Satin

Item No.	H	W	C ₁	C ₂	C ₃	C ₄	C ₅	A	t	Weight (g)	Box (pcs)	Carton (pcs)
3535/SS	89.0 (3-1/2")	89.0 (3-1/2")	9.1	8.0	9.1	35.4	-	14.0	3.0	145	2	100
4040/SS	101.6 (4")	101.6 (4")	9.5	9.5	13.0	25.5	24.6	14.8	3.4	195		50

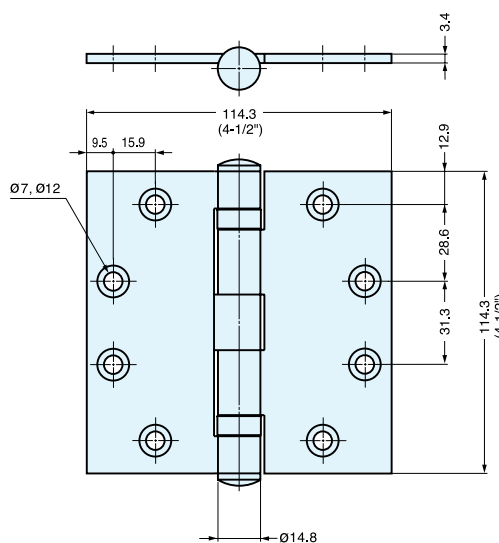
BUTT HINGE (W/BALL BEARING)



4545B/SS



- Ball bearing provides smooth movement.
- Door weight: Max. 45 kg/pair (99 lbs/pair)



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
4545B/SS	420	2	50	304 Stainless Steel	Satin

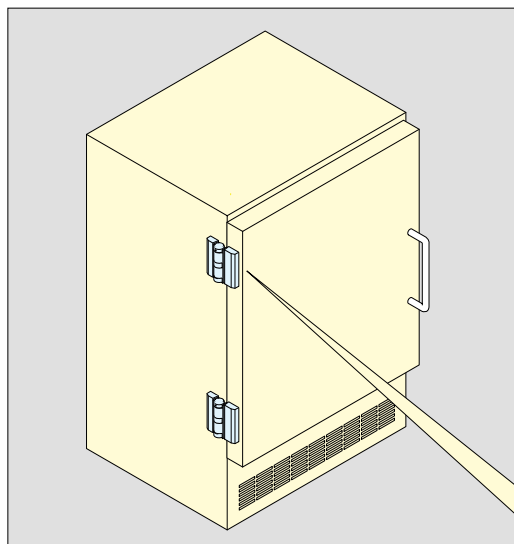
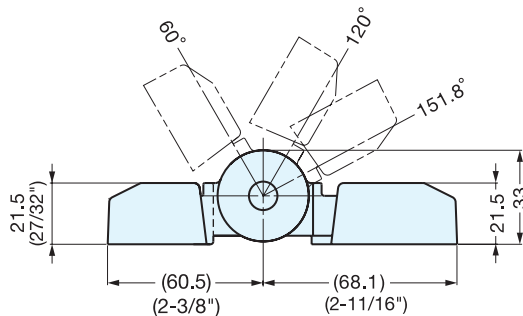
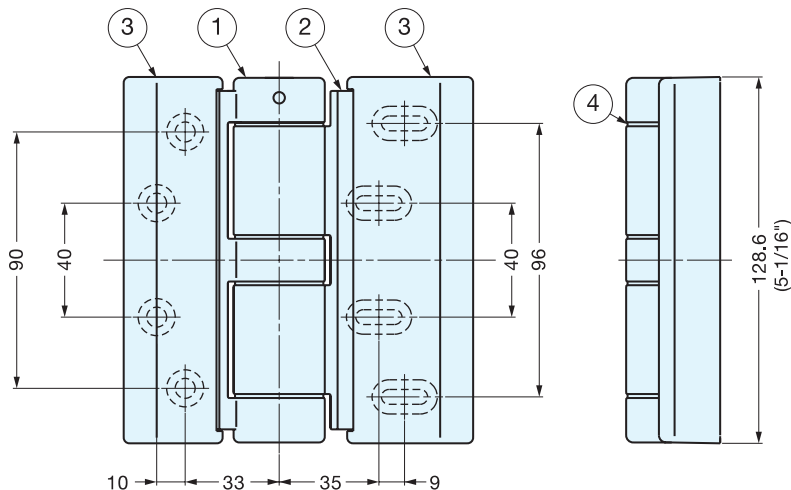
DETENT HINGE



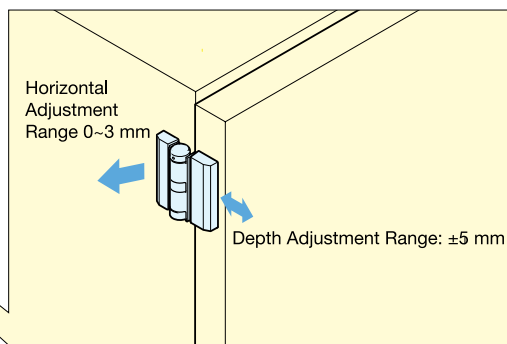
HG-FH-128



- Ideal for doors which need to be compressed.
- Horizontally adjustable for better compression.
- Holds doors at 60° and 120°
Max. Open: 152°
- Plastic washer provides smooth movement.
- Recommended door specification:
Width: 600~900 mm (24~36")
Height: 900~1200 mm (36~48")
Weight: maximum 40 kg (88 lbs) for 2 hinges
- Retaining Force: 102 kgf·cm (88.5 lbs·in)



Installation



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HG-FH-128	1500	2	10

No.	Part Name	Material	Finish
①	Body A	Zinc Alloy	Nickel
②	Body B		
③	Cover A, B	AES	Silver
④	Washer	Fluoroplastic	-

SPRING HINGE



JSA



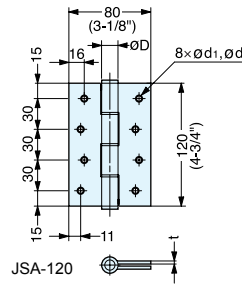
JSA-120A



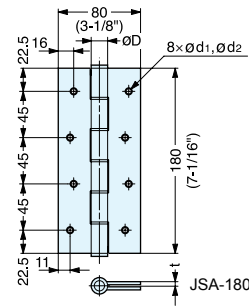
JSA-180S



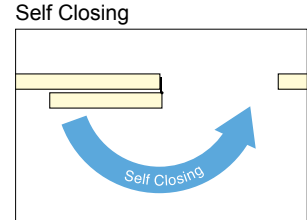
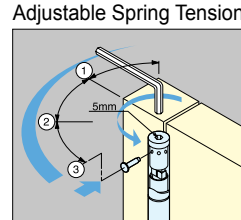
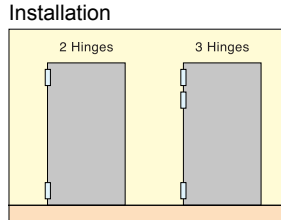
- Spring loaded for self closing.
- Adjustable spring tension.
- Successfully passed 500,000 open/close private cycle tests.



JSA-120



JSA-180



Item No.	D	t	d ₁	d ₂	Load Capacity (kg)		Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
					2 Hinges	3 Hinges					
JSA-120A	16	4.0	5.0	8	20 (44 lbs)	30 (66 lbs)	175	2	20	Aluminum	Anodized
JSA-180A					40 (88 lbs)	60 (132 lbs)					
JSA-120S	17	2.5	5.5	9	20 (44 lbs)	30 (66 lbs)	303			304 Stainless Steel	Satin
JSA-180S					40 (88 lbs)	60 (132 lbs)					

SPRING HINGE



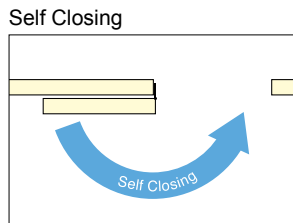
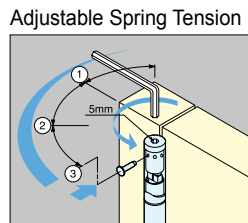
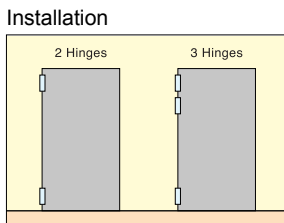
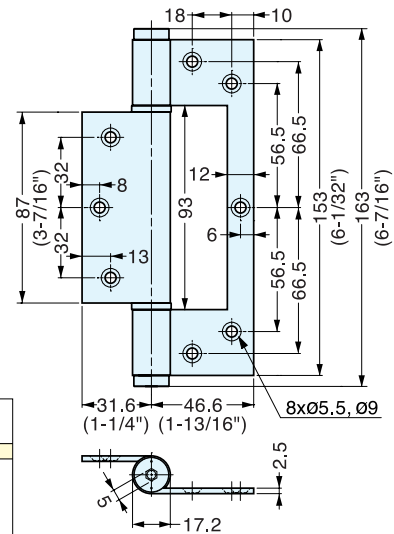
JST-150S



JST-150S



- Spring loaded for self closing.
- Adjustable spring tension.
- Successfully passed 500,000 open/close private cycle tests.



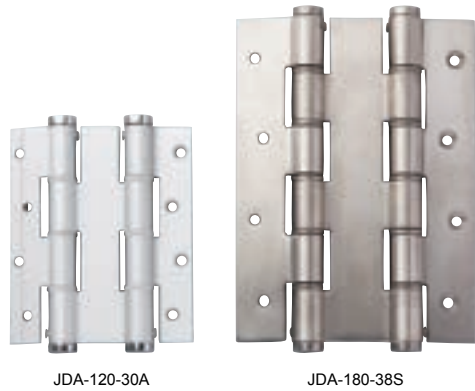
Item No.	Load capacity (kg)		Weight (g)	Box (pcs)	Carton (pcs)
	2 Hinges	3 Hinges			
JST-150S	40 (88 lbs)	60 (132 lbs)	336	2	20

Material	Finish
304 Stainless Steel	Satin

DOUBLE ACTION SPRING HINGE

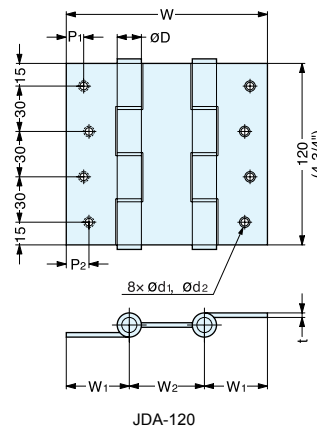
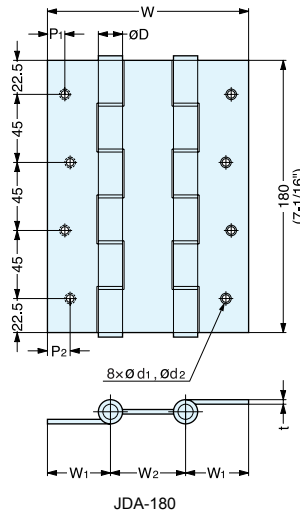


JDA

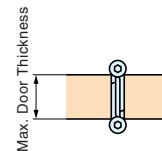
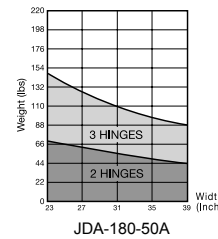
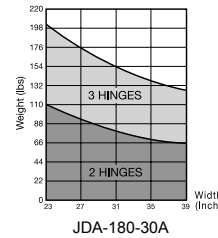
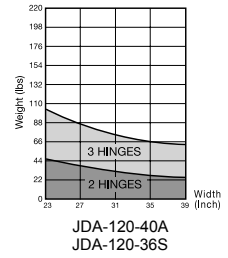
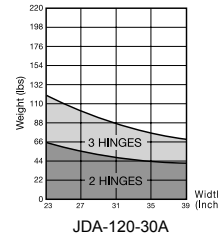


JDA-120-30A

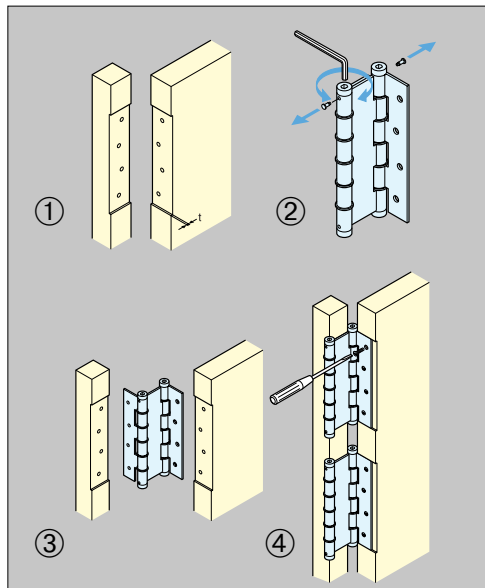
JDA-180-38S



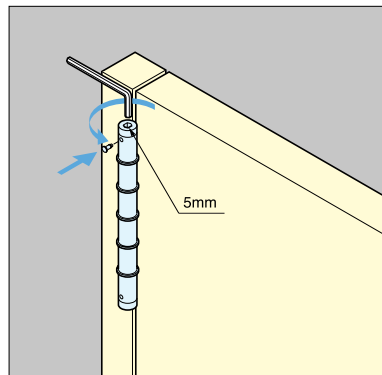
- Spring loaded for self closing.
- Adjustable spring tension.
- Successfully passed 500,000 open/close private cycle tests.



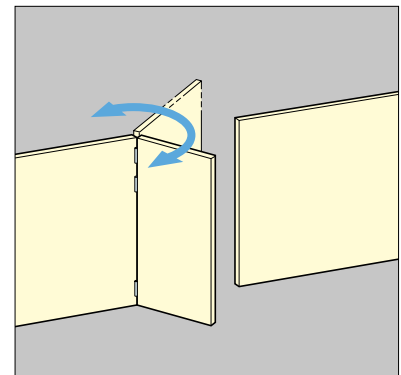
Installation



Adjustable Spring Tension



Double Action Spring Hinges



Item No.	W	W ₁	W ₂	P ₁	P ₂	D	t	d ₁	d ₂	Max. Door Thickness (mm)	Weight (g)	Material	Finish	Box (pcs)	Carton (pcs)
JDA-120-30A	101 (4")	29.5	42	6.5	11.5	16	4.0	5.0	8	30 (1-3/16")	275	Aluminum	Anodized	2	20
JDA-120-40A	133 (5-1/4")	40.0	53	11.0	16.0					40 (1-9/16")	320				
JDA-180-30A	101 (4")	29.5	42	6.5	11.5					30 (1-3/16")	407				
JDA-180-40A	133 (5-1/4")	40.0	53	11.0	16.0					40 (1-9/16")	466				
JDA-180-50A	157 (6-3/16")	48.5	60	19.5	24.5					50 (1-31/32")	510				
JDA-120-36S	133 (5-1/4")	40.0	53	11.0	16.0	17	2.5	5.5	9	36 (1-13/32")	555	304 Stainless Steel	Satin		
JDA-180-38S	133 (5-1/4")	40.0	53	11.0	16.0	18	3.0			38 (1-1/2")	947				

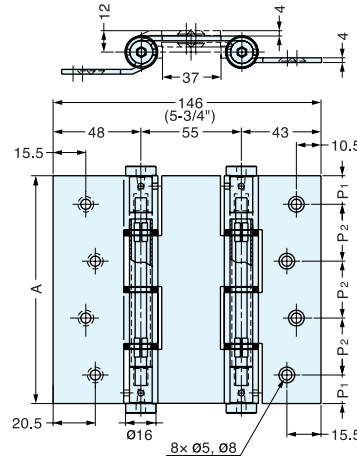
DOUBLE ACTION SPRING HINGE



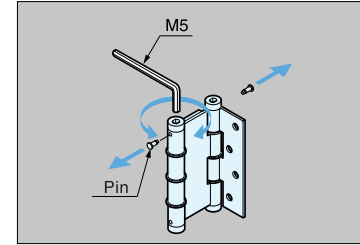
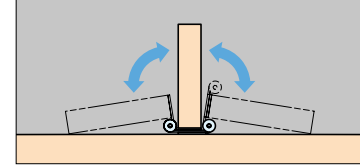
JDAW



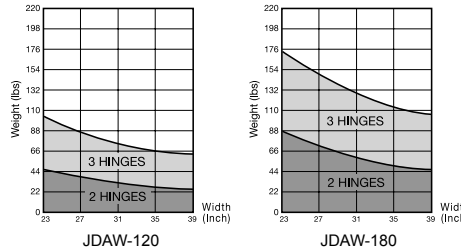
JDAW-120-35A



- Spring loaded for self closing.
- Adjustable spring tension.
- Requires 8 #8 flathead countersunk screws, 3/4" or longer. (not included)



Spring Adjustment



Item No.	A	P ₁	P ₂	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
JDAW-120-35A	120 (4-3/4")	15.0	30	35 mm (1-3/8")	350	2	20	Aluminum	Anodized
JDAW-180-35A	180 (7-1/16")	22.5	45						

OTHER SPRING HINGES FOR SMALL DOORS AND CABINETRY



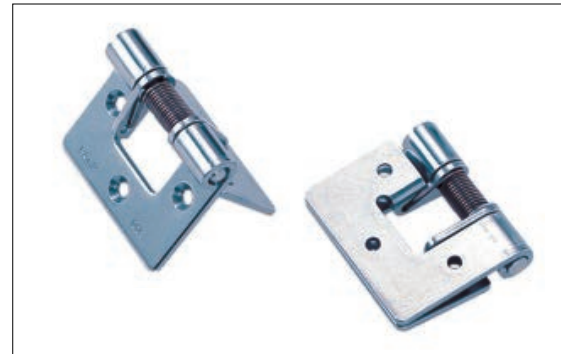
HG-SH P. 225



HG-SHL P. 225



HG-PV60AC P. 227



HG-BF3 P. 227

Zwei L Glass Door Hinge



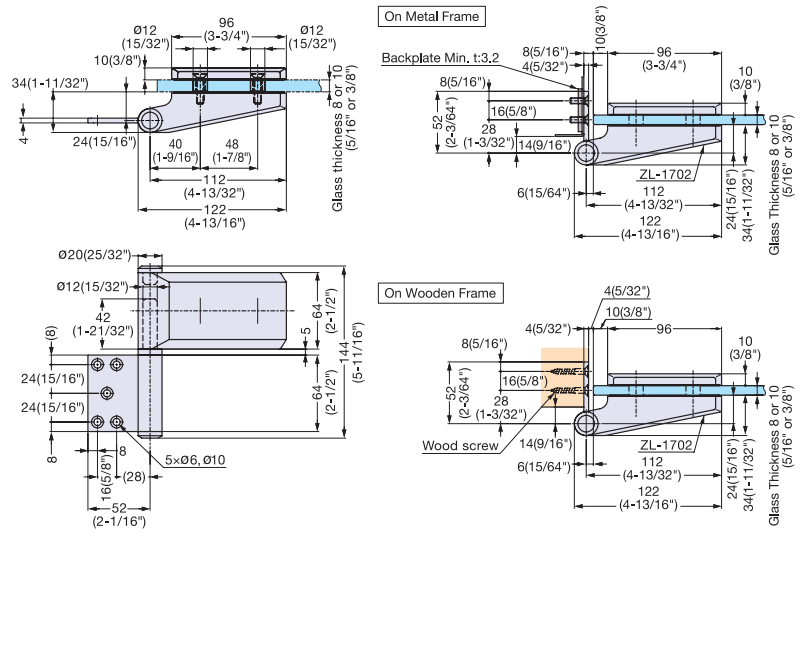
ZL-1702

HINGES

Zwei L GLASS DOOR HINGES



• Supplied with stainless steel wood screw (4.8 × 32) and stainless steel screw (M5 × 16).



Item No.	Material	Finish/Color	Glass Thickness (mm)	Load Capacity (kg)/pair	Max Door Size (mm)	Weight (g)	Box (pcs)
ZL-1702	316 Stainless Steel	Zwei L	8~10 (5/16"~3/8")	50 (110 lbs)	H2500 × W900 (H98-7/16" × W35-7/16")	806	2

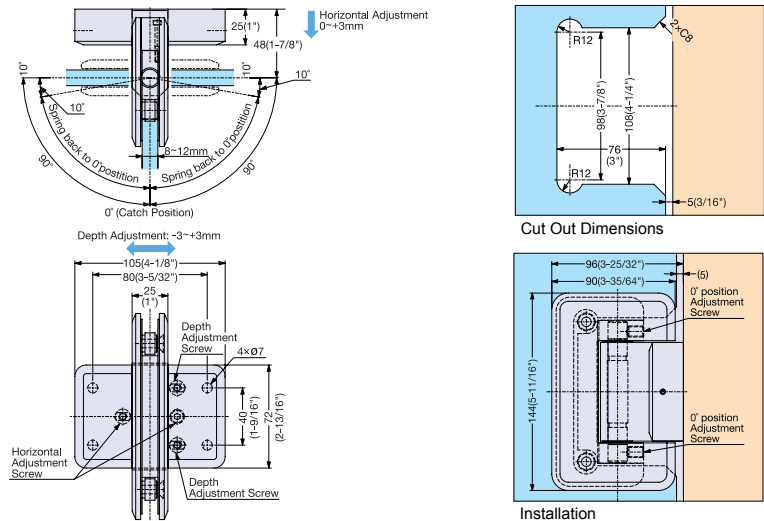
Zwei L Glass Door Hinge



ZL-1703



• Supplied with stainless steel screws (6.2 × 56), anchor plug and two allen keys (2.5 and 4 mm).



Item No.	Glass Thickness (mm)	Load Capacity (kg)/pair	Max Door Size (mm)	Weight (g)	Box (pcs)
ZL-1703	8~12 (5/16"~15/32")	65 (143 lbs)	H2500 × W1000 (H98-7/16" × W39-3/8")	-	1

Part Name	Material	Finish/Color
Bracket	316 Stainless Steel	Zwei L
Face Plate		
Bracket Cover		
Gasket	Synthetic Rubber	Black

STAINLESS STEEL GRAVITY HINGE FOR GLASS DOOR

GH-G02

HINGES

GLASS DOOR GRAVITY HINGE FOR GLASS DOOR

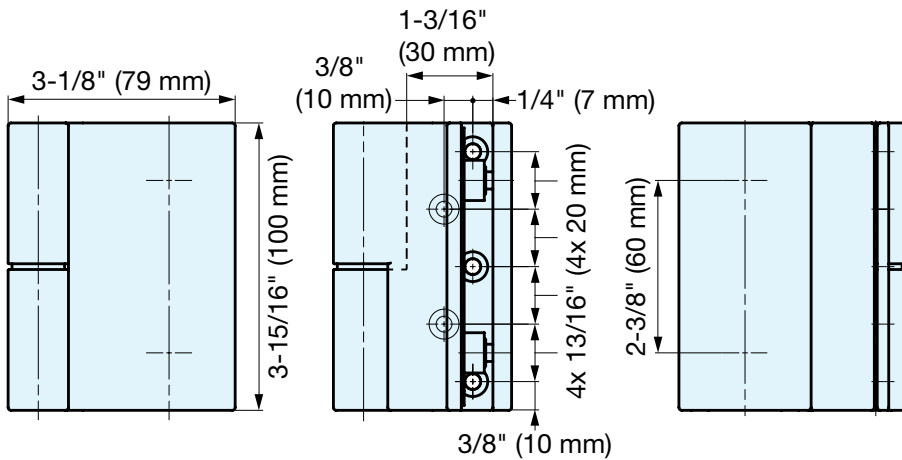
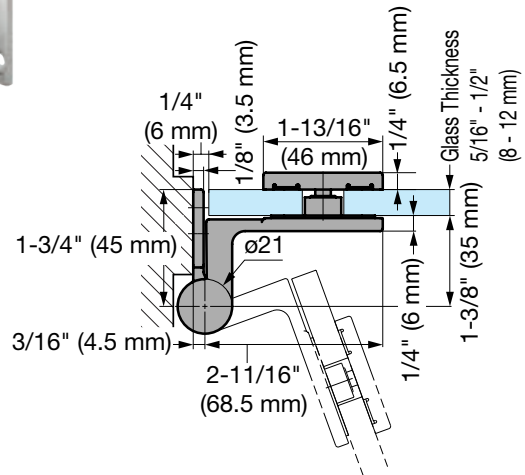
- Can be used in areas where water is used.
- Hinge self-closes between 0° and 70°.
- Hinge self-opens between 70° and 160°. Use door stopper to achieve desired max opening angle.
- A rise of 1/8" (3 mm) occurs when open 70°.



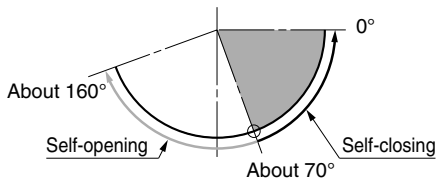
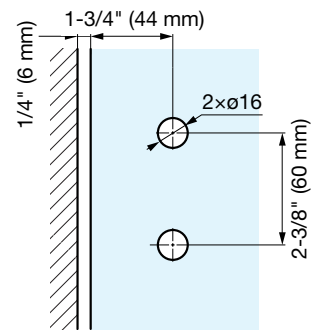
GH-G02-L



Reverse side



Glass Dimensions



Glass Thickness	Load Capacity		Opening Angle
	99.2 lbs/2 pcs (45 kg/2 pcs)	110.2 lbs/3 pcs (50 kg/3 pcs)	
5/16" - 1/2" (8 - 12 mm)	99.2 lbs/2 pcs (45 kg/2 pcs)	110.2 lbs/3 pcs (50 kg/3 pcs)	160°

Item No.	Type	Material	Finish	Door Specs			
				Width/2 pcs	Height/2 pcs	Width/3 pcs	Height/3 pcs
GH-G02-R	Right Side	Stainless Steel	Mirror	31-1/2"	82-11/16"	33-7/16"	94-1/2"
GH-G02-L	Left Side			(Max. 800 mm)	(Max. 2100 mm)	(Max. 850 mm)	(Max. 2400 mm)

STAINLESS STEEL GRAVITY HINGE FOR GLASS DOOR

GH-G07

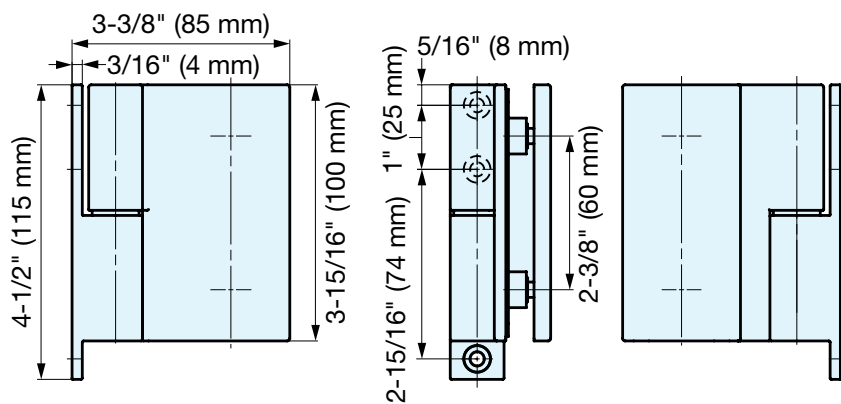
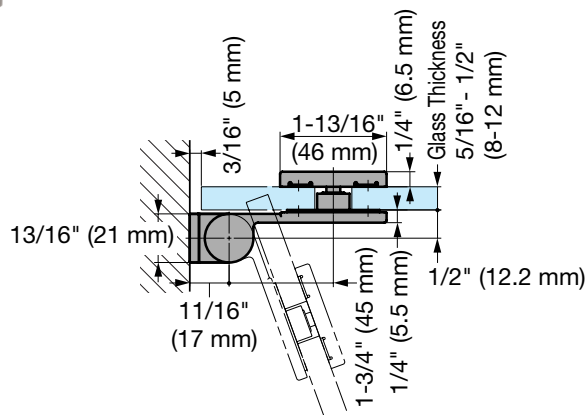


GH-G07-L

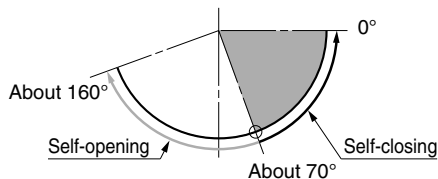
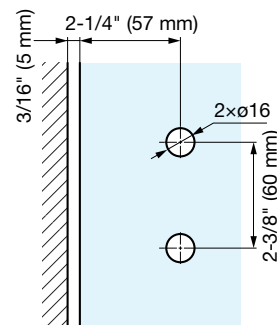


Reverse side

- Can be used in areas where water is used.
- Hinge self-closes between 0° and 70°.
- Hinge self-opens between 70° and 160°. Use door stopper to achieve desired max opening angle.
- A rise of 1/8" (3 mm) occurs when open 70°.



Glass Dimensions



Glass Thickness	Load Capacity		Opening Angle
5/16" - 1/2" (8 - 12 mm)	99.2 lbs/2 pcs (45 kg/2 pcs)	110.2 lbs/3 pcs (50 kg/3 pcs)	160°

Item No.	Type	Material	Finish	Door Specs			
				Width/2 pcs	Height/2 pcs	Width/3 pcs	Height/3 pcs
GH-G07-R	Right Side	Stainless Steel	Mirror	31-1/2" (Max. 800 mm)	82-11/16" (Max. 2100 mm)	33-7/16" (Max. 850 mm)	94-1/2" (Max. 2400 mm)
GH-G07-L	Left Side						

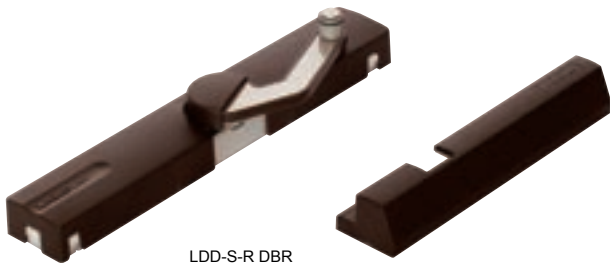
LAPCON DOOR DAMPER (SURFACE MOUNT TYPE)



LDD-S

DOOR ACCESSORIES

LAPCON DOOR DAMPERS (SURFACE MOUNT TYPE)

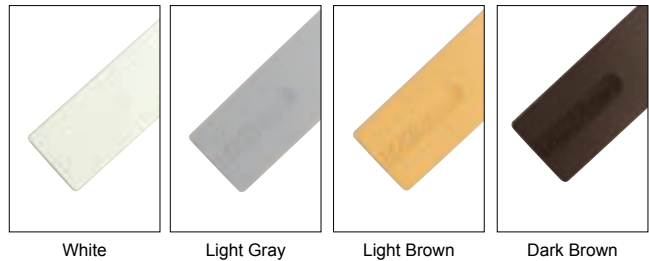


LDD-S-R DBR
(Right - handed)

- Door damper unit for interior, swinging doors.
- Grips door at final 15° and softly, self-closes doors more gently compared to other door closers, putting less stress on the hinges.
- Surface mounting allows hardware to be added to existing doors.
- Recommended Door Specifications:
Width: Max. 914 mm (3' 0")
Weight: 15~40 kg (33~88 lbs)
- Can be adjusted for door weight after installation. Damper function can also be switched off.
- Slim, unobtrusive design: damper unit is just 3/4" high, easily fitting most door frames.
- Available in 4 colors to match your door, specify White (WT), Light Grey (LGR), Light Brown (LBR), or Dark Brown (DBR).
- Can be used with HES hinges (P.180~189), sold separately.
- Includes screws for installation.



■ Available in the following colors:

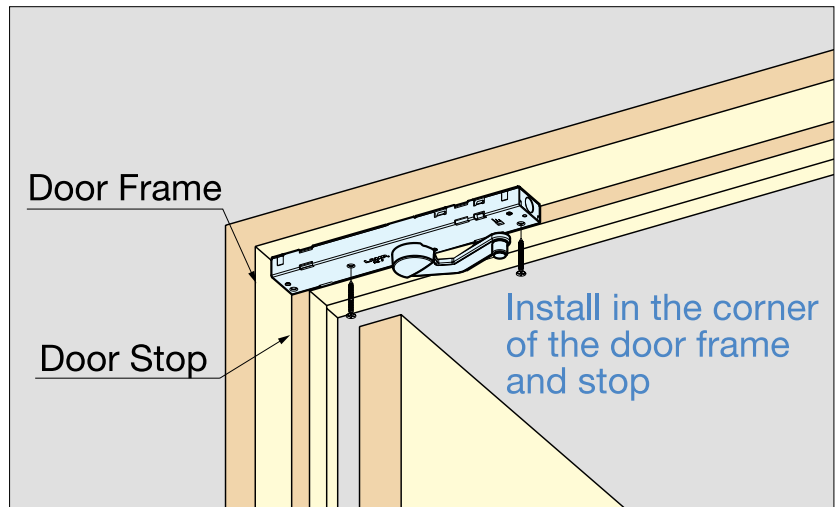
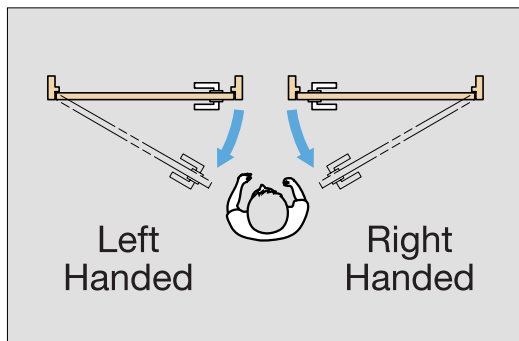
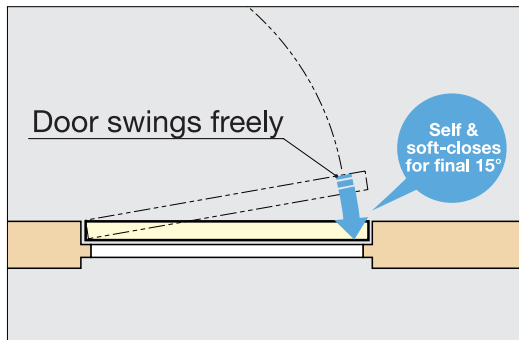


White

Light Gray

Light Brown

Dark Brown

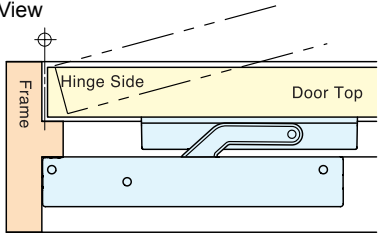


■ Installation & Adjustment

Item No.	Handing	Weight (kg)	Box (pc)	Carton (pcs)
LDD-S-L	Left	0.55	1	50
LDD-S-R	Right	(1.2 lbs)		

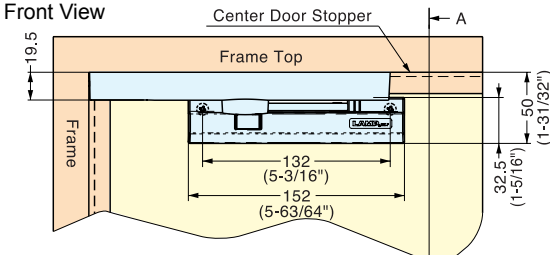
Component	Material	Finish/Color
Main Body	Steel, Zinc Alloy	Plain
Counter Plate		
Covers	ABS	White (WT), Light Grey (LGR), Light Brown (LBR), Dark Brown (DBR)

■ Top View

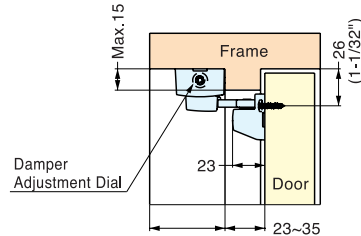


*Top view shows mounting position of hardware in case of depth of installation space is min. 25 mm (1"). If the dimension is between 20 mm and 25 mm, please move damper 25 mm away from hinge side. Then please use screw hole C and Extra hole to install damper instead of screw hole B.

■ Front View

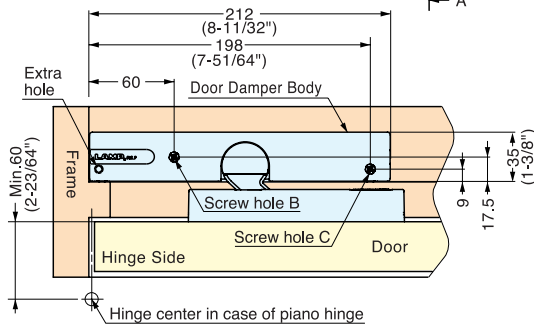


■ Side View



*Min.20 (Depth of installation space)

■ View from Below

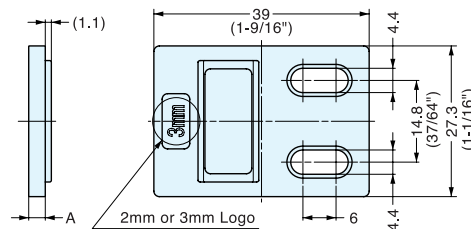


Please take the following precautions when considering this hardware for your application:

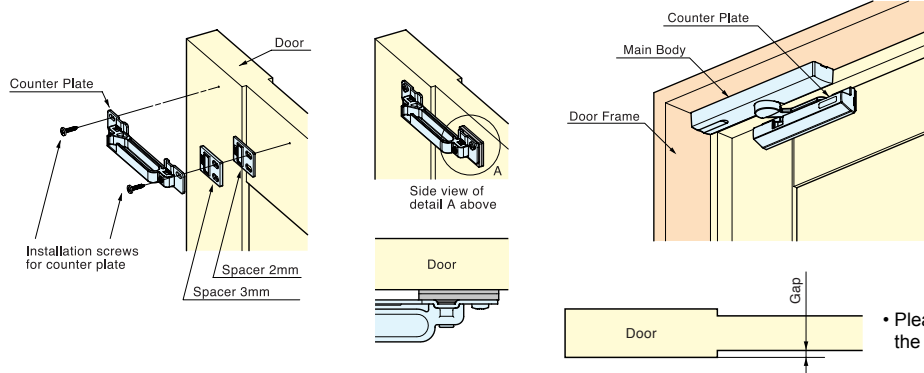
- For interior use at room temperature (32~104°F, 0~40°C) only-not intended for use under high winds, high temperature or humidity, or where the hardware may get wet.
- Effectiveness may decrease over time if door is slammed closed continuously.
- Closing performance may vary depending on door latch bolt.
- If being used at the entrance of a room where air cannot move freely (vault, cellar, etc.), the ambient air pressure may affect the closing speed and power of the hardware.
- Do not hang on/hang anything on the arm as it may damage the hardware.
- Please read the installation instructions included with the hardware fully before installation.
- After installation and during normal use, please check the fasteners and hardware on a regular basis.

SPACER FOR LDD-S

LDD-S-P



- Spacer to install LDD-S counter plate (P. 200, sold separately) on uneven door surfaces, such as those on panel doors.
- Available in 2 mm (1/16") and 3 mm (1/8") thicknesses. Mix and match spacers for varying thicknesses.
- Spacers still allow micro adjustments to be made for the main unit.



• Please confirm difference between the face of the door panel, etc.

Item No.	A	Weight (g)	Box (pcs)	Carton (pcs)	Material	Color
LDD-S-P2 BL	2 mm (1/16")	1.8	100	1000	ABS	Black
LDD-S-P3 BL	3 mm (1/8")	2.8				

LAPCON DOOR DAMPER (RECESSED TYPE)



LDD-V

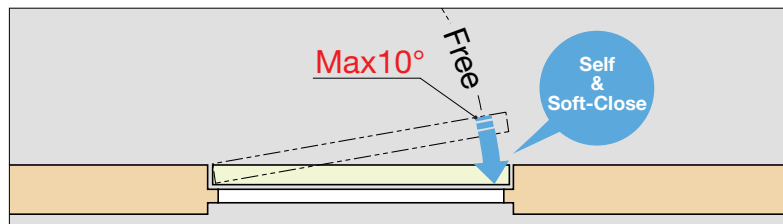
DOOR ACCESSORIES

LAPCON DOOR DAMPERS (RECESSED TYPE)

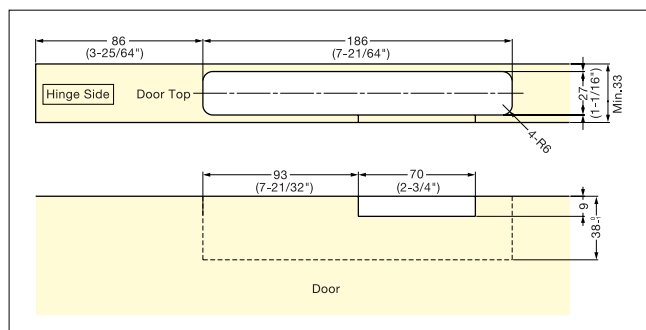
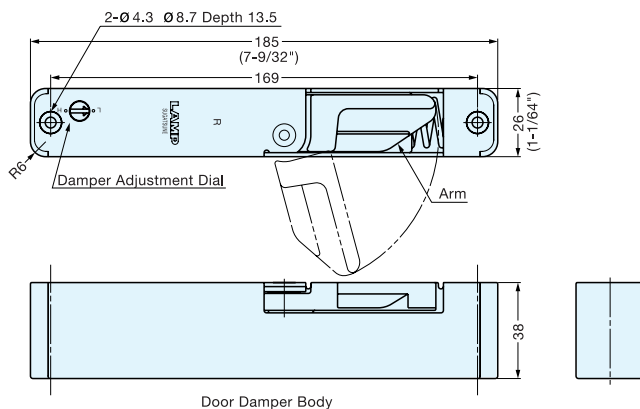


- Door damper unit for interior, swinging doors.
- Grips door at final 10° and softly, self-closes doors more gently compared to other door closers, putting less stress on the hinges.
- "Invisible" design minimizes visibility of the hardware.
- Recommended Door Specifications:
 Thickness: minimum 33 mm (1-5/16")
 Width: maximum 914 mm (3' 0")
 Weight: 15~40 kg (33~88 lbs)
- Can be adjusted for door weight after installation. Counterplate position can be easily adjusted by removing cover and turning micro-adjustment screws.
- Can be used with HES hinges (P.180~189), sold separately.
- Includes screws and paper template for installation.

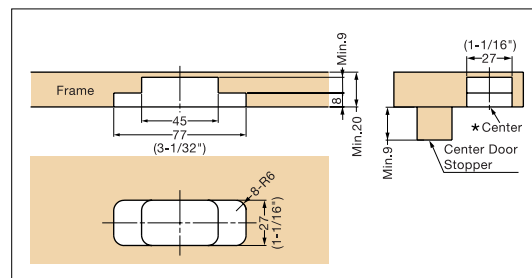
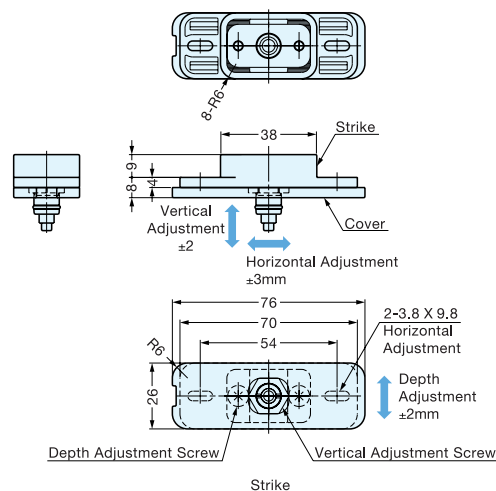
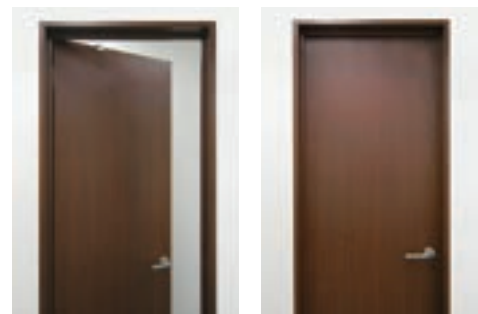
LDD-V-R is shown



LDD-V-R is shown



Bore Dimensions (Door)

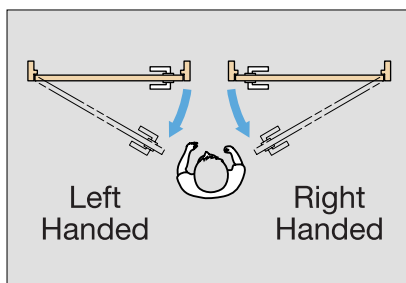
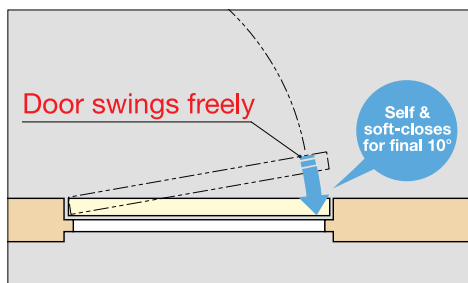
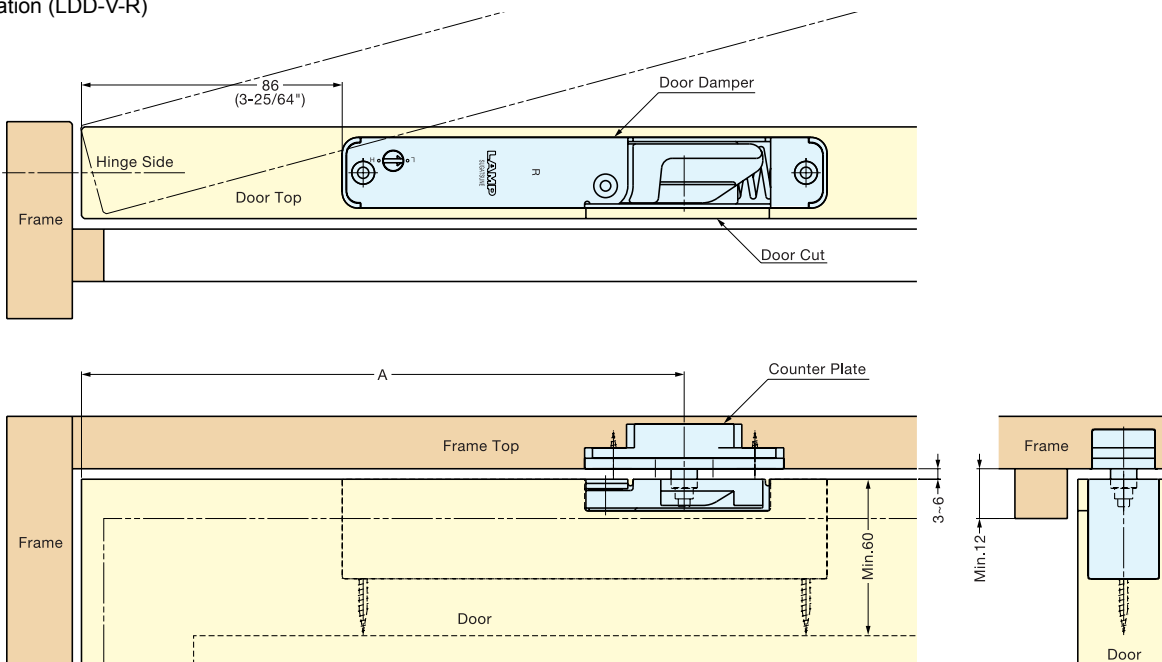


Bore Dimensions (Frame)

Part Name	Material	Finish/Color
Main Body	Steel/Polyacetal/PBT	Chromate/Grey
Counter Plate	Steel/Polyacetal	Nickel/Grey

Item No.	Type	Door Weight	Door Width (mm)	Door Thickness (mm)	Box (pc)	Carton (pcs)
LDD-V-R	Right	15~40 kg (33~88 lbs)	Max. 914 (3' 0")	Min. 33 (1-19/64")	1	24
LDD-V-L	Left					

Installation (LDD-V-R)



Hinge	A
HES3D-120	219
HES3D-V135LGR	217
HES3D-160	220
HES3D-E190	220
3535/SS	223

*Dimension A depends on type of hinge used

Please take the following precautions when considering this hardware for your application:

- For interior use at room temperature (32~104°F, 0~40°C) only-not intended for use under high winds, high temperature or humidity, or where the hardware may get wet.
- Effectiveness may decrease over time if door is slammed closed continuously.
- Closing performance may vary depending on door latch bolt.
- If being used at the entrance of a room where air cannot move freely (vault, cellar, etc.), the ambient air pressure may affect the closing speed and power of the hardware.
- Do not hang on/hang anything on the arm as it may damage the hardware.
- Please read the installation instructions included with the hardware fully before installation.
- After installation and during normal use, please check the fasteners and hardware on a regular basis.



LAPCON DOOR DAMPER (RECESSED TYPE)



LDD-V100

DOOR ACCESSORIES

LAPCON DOOR DAMPERS (RECESSED TYPE)

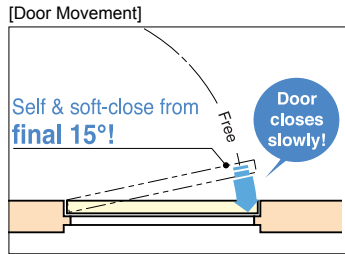


LDD-V100-NI-L shown.

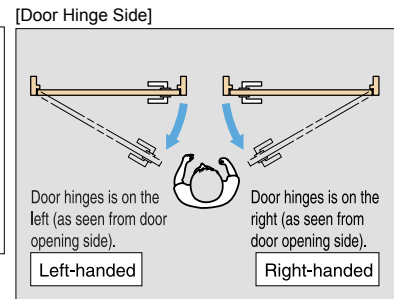
- Door damper unit for interior, swinging doors.
- Grips door at final 15° and softly, self-closes doors more gently compared to other door closers, putting less stress on the hinges.
- Heavy Duty: Holds up to 220 lbs doors (100 kg).
- "Invisible" design minimizes visibility of the hardware.
- Recommended Door Specifications:
 Thickness: minimum 40 mm~60 mm (1-9/16"~2-3/8")
 Width: maximum 900 mm (35-7/16")
 Weight: 40~100 kg (88~220 lbs)
- Can be adjusted for door weight after installation. Counterplate position can be easily adjusted by removing cover and turning micro-adjustment screws.
- Can be used with HES3D-E190 and HES3D-160.
- Includes screws and paper template for installation.



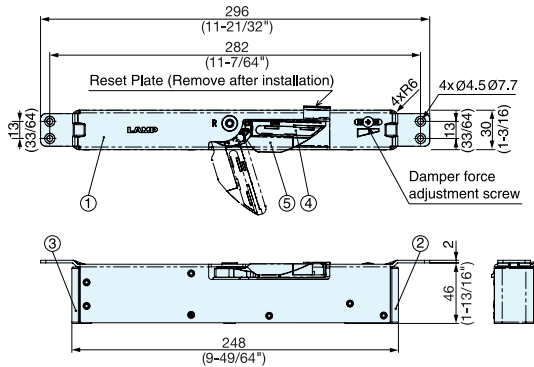
Counter plate cover (Nickel/Dark brown)



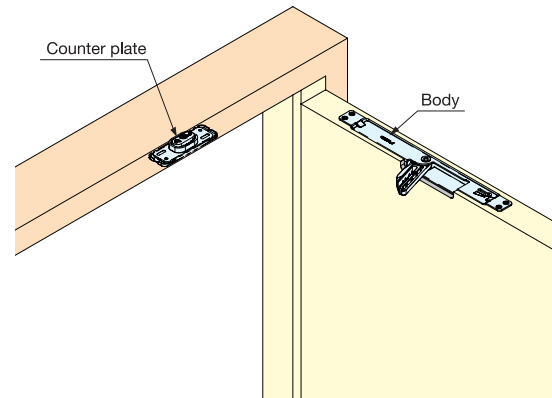
Right-handed type shown.
Left-handed type is symmetrical.



[Body]

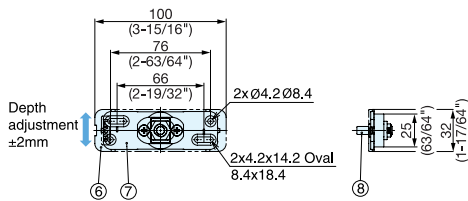
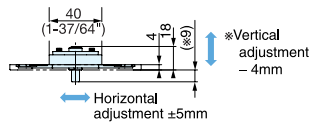


Below drawing shows right-handed type. Left-handed type is symmetrical.



Installation

[Counter Plate]

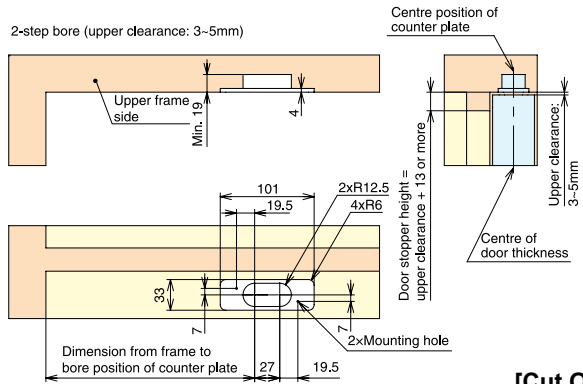
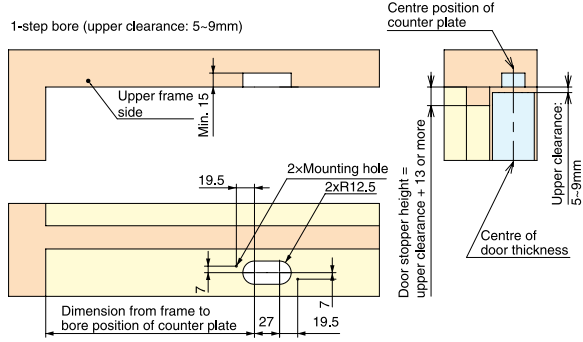


No.	Part Name	Material	Finish/Color
①	Case	Steel (SPCC)	Nickel
②	Damper Base	POM	Grey
③	Spring Base	POM	Grey
④	Arm Cover	POM	Grey
⑤	Arm	Zinc Alloy (ZDC)	Nickel
⑥	Counter Plate Cover	ABS	Dark Brown/Nickel
⑦	Counter Plate Base	Zinc Alloy (ZDC)	-
⑧	Counter Plate Shaft	Steel (SUM)	Nickel

Item No.	Finish/Color	Type	Door Weight (kg)	Door Width (mm)	Door Thickness (mm)	Box (pc)	Carton (pcs)
LDD-V100-DBR-R	Dark Brown	Right	88 lbs~220 lbs (40~100 kg)	Max. 35-7/16" (900)	1-9/16"~2-3/8" (40~60 mm)	1	10
LDD-V100-DBR-L		Left					
LDD-V100-NI-R	Nickel	Right					
LDD-V100-NI-L		Left					

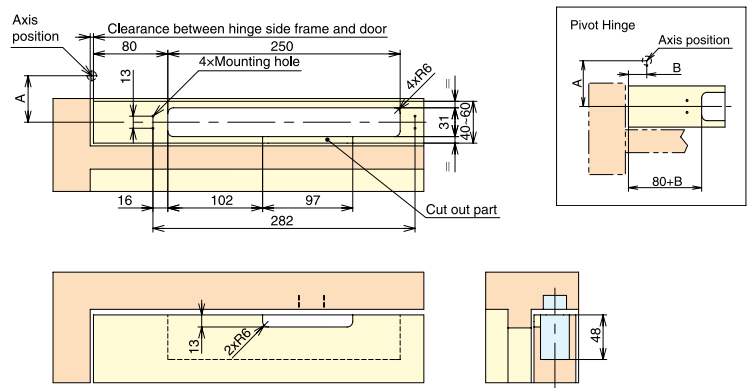
[Cut Out Dimensions for Frame]

LDD-V100-R (right-handed) shown. LDD-V100-L (left-handed) is symmetrical.



[Cut Out Dimensions for Door]

LDD-V100-R (right-handed) shown. LDD-V100-L (left-handed) is symmetrical.



Dimension from frame to bore position of counter plate (mm)

Door Hinge	Clearance Between Hinge Side Frame and Door (mm)					
	1	2	3	4	5	
HES3D-160, E190	217	218	219	220	221	
Butt Hinge	A=20~35	220	221	222	223	224
	A=35~50	223	224	225	226	227
Pivot Hinge	A=20~35	220+B	221+B	222+B	223+B	224+B
	A=35~50	223+B	224+B	225+B	226+B	227+B

If clearance between hinge side frame and door is beyond the range in the table above, calculate as per the table below.

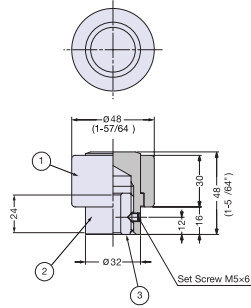
Door Hinge	Dimension from Frame to Bore Position of Counter Plate (mm)	
HES3D-160, E190	216 + Clearance Between Hinge Side Frame and Door	
Butt Hinge	A=20~35	219 + Clearance Between Hinge Side Frame and Door
	A=35~50	222 + Clearance Between Hinge Side Frame and Door
Pivot Hinge	A=20~35	219 + B + Clearance Between Hinge Side Frame and Door
	A=35~50	222 + B + Clearance Between Hinge Side Frame and Door

Zwei L Door Stopper



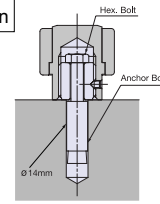
ZL-1801

DOOR ACCESSORIES

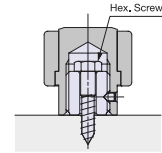


• Supplied with stainless steel hex. bolt (M8 × 75), concrete anchor (for M8, ø14 mm hole), stainless steel carriage bolt (M8 × 50) and allen key.

Concrete, Tile, Brick Floor Installation



Wood Floor Installation



Item No.	Weight (g)	Box (pc)
ZL-1801	381	1

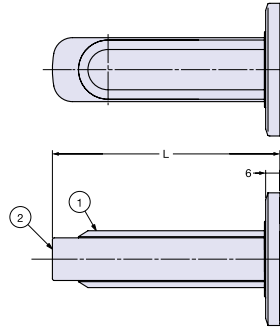
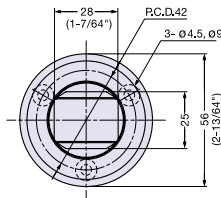
No.	Part Name	Material	Finish
①	Body	316 Stainless Steel	Zwei L
②	Bumper	Synthetic Rubber	Black
③	Base	316 Stainless Steel	Plain

Zwei L DOOR STOPPERS

Zwei L Door Stopper



ZL-1802



• Supplied with stainless steel wood screws (4.1 × 32) and concrete anchor (for wood screw 4.1, ø6 mm hole).

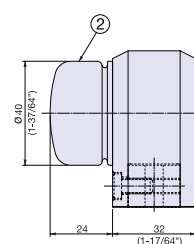
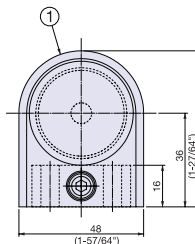
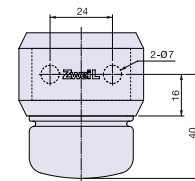
Item No.	L	Weight (g)	Box (pc)
ZL-1802-72	72 (2-53/64")	360	1
ZL-1802-96	96 (3-25/32")	474	

No.	Part Name	Material	Finish/Color
①	Body	316 Stainless Steel	Zwei L
②	Bumper	Synthetic Rubber	Black

Zwei L Door Stopper



ZL-1803



• Supplied with stainless steel wood screw (6.2 × 56), anchor plug and 4 mm allen key.

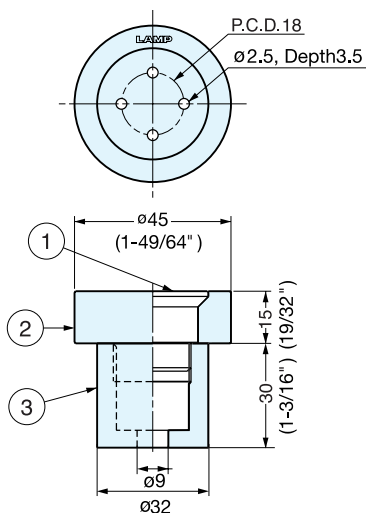
Item No.	Weight (g)	Box (pcs)
ZL-1803	-	1

No.	Part Name	Material	Finish
①	Body	316 Stainless Steel	Zwei L
②	Bumper	EPDM	Grey

DOOR STOPPER



HT-32P



- Door stopper with a clear acrylic bumper.
- Supplied with stainless steel screw 8 × 50, anchor plug and special wrench.

DOOR ACCESSORIES

DOOR STOPPERS

Item No.	Weight (g)	Box (pc)	Carton (pcs)
HT-32P	320	1	30

No.	Part Name	Material	Finish
①	Face Plate	304 Stainless Steel	Satin
②	Bumper	Soft Acrylic	Clear
③	Post	304 Stainless Steel	Satin

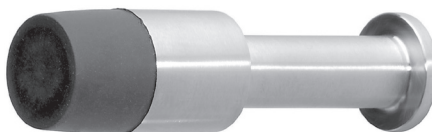
DOOR STOPPER



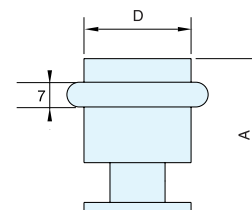
DSD



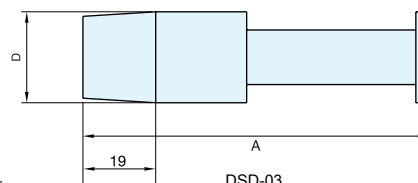
DSD-02 (Floor-Mount Type)



DSD-03 (Wall-Mount Type)



DSD-02



DSD-03

- Supplied with screw and expansion anchor.

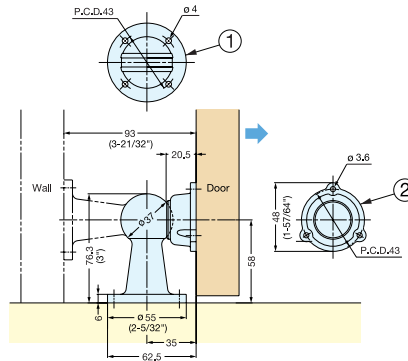
Item No.	D	A	Weight (g)	Box (pcs)	Carton (pcs)
DSD-02/S	20 (25/32")	35 (1-3/8")	68	25	250
DSD-02/L	35 (1-3/8")	50 (1-31/32")	281	10	100
DSD-03/S	25 (63/64")	65 (2-9/16")	147		
DSD-03/M		95 (3-47/64")	187		
DSD-03/L		125 (4-39/64")	229		

Material	Finish
303/304 Stainless Steel	Satin

DOOR STOP & HOLDER



SMDH



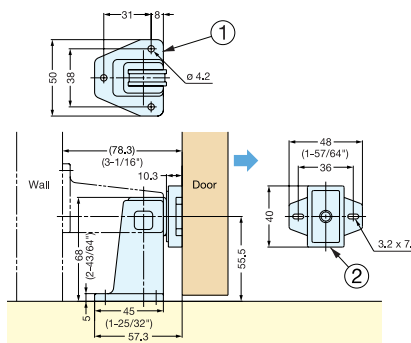
- Holds door in opened position with strong magnet.
- Can be mounted on either floor or wall.

Item No.	Magnetic Force	Weight (g)	Box (pcs)	Carton (pcs)	No.	Material	Color
SMDH/IVY	14 (30.8 lbs)	140	10	100	①	Polycarbonate	Brown (BRN), Ivory (IVY)
SMDH/BRN					②	ABS	

DOOR STOP & HOLDER



KMDH



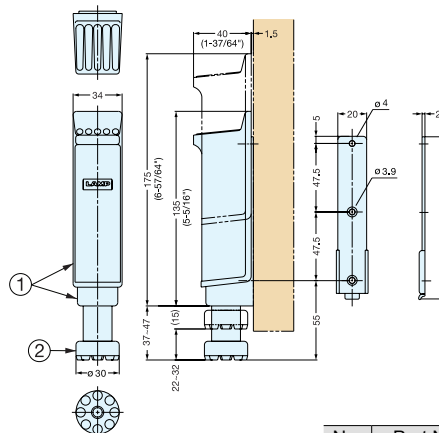
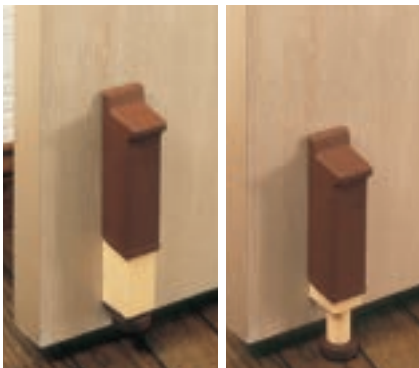
- Holds door in opened position with strong magnet.
- Can be mounted on either floor or wall.

Item No.	Magnetic Force	Weight (g)	Box (pcs)	Carton (pcs)	No.	Material	Color
KMDH/IVY	12 (26.4 lbs)	100	10	100	①	Polyamide	Brown (BRN), Ivory (IVY)
KMDH/BRN					②		

STEP-ON DOOR HOLDER



SODH



- Holds door in any position.
- Easy to operate. Simply step on the top to hold or release the door.
- Easy installation, mount the bracket and slide-in the body.

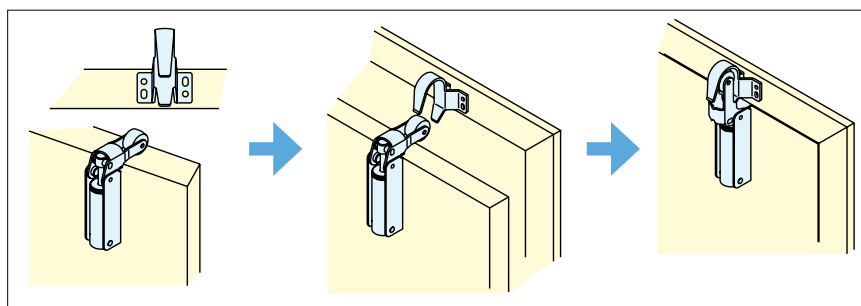
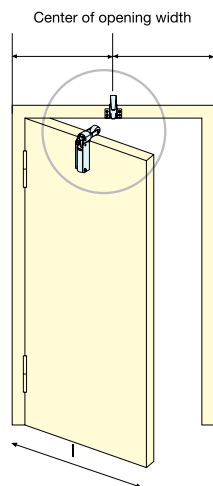
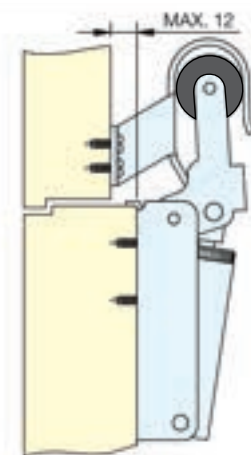
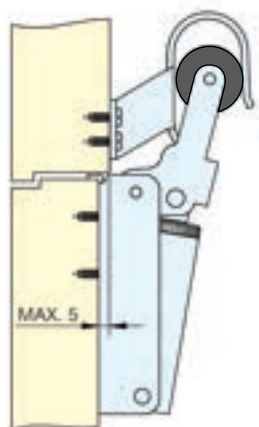
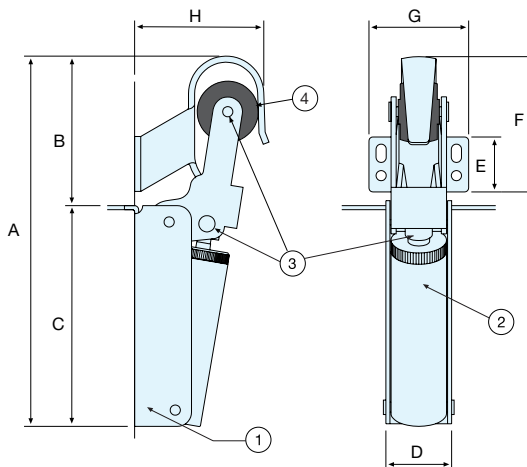
Item No.	Weight (g)	Box (pc)	Carton (pcs)	No.	Part Name	Material	Color
SODH	215	10	50	①	Body	Plastic	Brown, Ivory
				②	Bottom	Rubber	Brown

DOOR CLOSER



JFR

- Stainless steel hydraulic door closer.
- Bracket arm will catch the roller for self closing at about 10°.
- Silent operation.
- Hydraulic cylinder absorbs shock, preventing the door from slamming shut.
- Easy surface-mount installation, ideal for retro-fit.



No.	Part Name	Material	Finish/Color
①	Body	304 Stainless Steel	Polished
②	Cylinder	Aluminum	Silver
③	Pin/Shaft	Steel	Plain
④	Roller	Nitrile Butadiene Rubber	Black

Item No.	A	B	C	D	E	F	G	H	I	Door Weight (kg)	Weight (g)	Box (pcs)	Carton (pcs)
JFR-021205	200 (7-7/8")	75	125 (4-59/64")	36	27	66.5	49 (1-15/16")	64	1100 (43-5/16")	Max.80 (176 lbs)	598	1	24



CABINET HINGES

BUTT / PIANO HINGES
SPRING / QUICK RELEASE HINGES
LIFT-OFF HINGES
OVERLAY DOOR ANGLE HINGES
PIVOT HINGES
DROP/TABLETOP HINGES
DETENT HINGES
TORQUE HINGES
GLASS SHOWCASE HARDWARE
CONCEALED HINGES

BUTT HINGES

Picture	Item No.	Door Weight (lbs)	Page
	LSA, LSB 	13~66	218
	LSK	-	218
	KHA 	-	219
	D-S	-	219
	LSF 	-	220
	28300, 28400 	8.8 / pair	220
	50704, 50706 	5.7 / pair	220
	28000, 28500 	8.8 / pair	221
	28100 	8.8 / pair	221
	27800, 27900 	8.8 / pair	221
	HG-BF1 	-	222
	HG-P100	-	222
	100 SERIES	-	223

PIANO HINGES

Picture	Item No.	Page
	HG-MH	223
	LSD-30 	224
	LSN 	224

SPRING / QUICK RELEASE HINGES

Picture	Item No.	Page
	HG-SHL (HIGH DURABILITY TYPE) 	225
	HG-SH 	225
	SH	225
	HG-OT45 	226
	HG-OT75, 100 	226
	HG-PV60AC (WELD-ON)	227
	HG-BF3 (W/SPRING) 	227

ALUMINUM HINGES

Picture	Item No.	Page
	HG-CV (CLEAN ROOM HINGE) 	228
	AS-HG-AL-N (LIFT-OFF HINGE)	228

LIFT-OFF HINGES

Picture	Item No.		Page
	LSX-100		229
	HNH		229
	NH-40		230
	KN		230
	HG-CV65N		231
	200 SERIES		231

OVERLAY DOOR ANGLE HINGES

Picture	Item No.	Max. Door Size (in)/ Max. Door Weight (lbs)	Page
	AHA-24	W 17-3/4" x H 27-9/16" 5.7 / pair	232
	AHB-18	W 17-3/4" x H 27-9/16" 5.7 / pair	232
	AHS	W 17-3/4" x H 27-9/16" 5.7 / pair	233
	AHW	W 17-3/4" x H 27-9/16" 5.7 / pair	233

PIVOT HINGES

Picture	Item No.		Max. Door Size (in)/ Max. Door Weight (lbs)	Page
	GP-40 (GLASS DOOR)		W 17-3/4" x H 27-9/16" x t 5/16" 8.8 / pair	234
	PL-60 (OVERLAY DOOR)		W 17-3/4" x H 27-9/16" x t 7/8" 5.7 / pair	234
	PL-65 (OVERLAY DOOR)		W 17-3/4" x H 27-9/16" x t 7/8" 8.8 / pair	235
	PL-100 (OVERLAY DOOR)		W 23-5/8" x H 29-1/2" 13.2 / pair	235
	WP (OVERLAY DOOR)		"W 11-13/16"" x H 27-9/16" 3.9 / pair"	236
	PAS (OVERLAY DOOR)		W 17-3/4" x H 27-9/16" 5.7 ~ 8.8 / pair	236
	PP (INSET DOOR)		W 17-3/4" x H 27-9/16" 5.7 / pair	237
	PH (INSET DOOR)		W 17-3/4" x H 27-9/16" 5.7 ~ 8.8 / pair	237
	PAW (INSET DOOR)		W 17-3/4" x H 27-9/16" 5.7 ~ 8.8 / pair	237

MISCELLANEOUS HINGES

Picture	Item No.		Max. Door Size (in)/ Max. Door Weight (lbs)	Page
	SDH-001		Max. W 35-1/2" x H20" x t 3/4" / 2 pcs Max. W 47-1/4" x H20" x t 3/4" / 3 pcs	238
	SDH-P		Max. W 35-7/16" x H19-11/16" x t 3/4" / 2 pcs Max. W 47-1/4" x H19-11/16" x t 3/4" / 3 pcs	238
	SMH-30, 40		W 17-3/4" x H 27-9/16" x t 53/64" 8.8 / pair	239
	SMH-83		W 17-3/4" X H 27-9/16" X t 53/64" 8.8 / pair	239
	MA-5		W 17-3/4" x H 27-9/16" x t 53/64" 8.8 / pair	239
	CH-75		-	240
	HG-BH		W 17-3/4" x H 27-9/16" 5.7 / pair	240

DETENT HINGES

Picture	Item No.	Max. Door Specification	Page
	HG-CSH63	Max holding 8.8 in-lbs force	241
	HG-YJ50	Max holding 4.3 in-lbs force	242
	HG-YC105	Max holding 10.4 in-lbs force	242
	HG-MPS2	2.2 lbs / pair	243

TORQUE HINGES / DAMPERS

Picture	Item No.	Torque (lbs-in)	Page
	HG-TQA (1-WAY TORQUE HINGES)	79.7 / pair	245
	HG-TQJ100 (1-WAY TORQUE HINGES)	0~88.7 / pc	246
	HG-ITJ4080 (ADJUSTABLE TORQUE HINGE)	35.6~71.2 / pc	247
	HG-TP	17.6-40 / pc	247.1
	HG-IT	21.7~60.8 / pc	248
	HG-KNT (LIFT-OFF TORQUE HINGE)	2.5~13.0 / pc	248
	HG-TS	3.1 ~ 13.3 / pc	249
	HG-DTA (DETENT TORQUE HINGES)	3.55 ~ 7.10 / pc	249
	SFTH	4.3~50.3 / pc	250
	HG-VH8 (COMBINATION HINGES)	0~3.10 / pc	250
	HG-TLS30-50-300		250.1
	HG-T30S15	Tilt: 26.5 in-lbs Swivel: 13 in-lbs	251
	HG-T70S30	Tilt: 62 in-lbs Swivel: 26.6 in-lbs	251
	HG-TA	17.7~39.8 / pc	252
	HG-TB	17.7~39.8 / pc	252

Picture	Item No.	Torque (lbs-in)	Page
	HG-TMH		252.1
	HG-S (SWIVEL TORQUE HINGE)	6.2~62.1 / pc	253
	HG-TU (HIDDEN TORQUE HINGES)	3.1~6.2 / pc	253
	HG-TUWA (CONCEALED TORQUE HINGE)	6.2-13.2 / pc	253.1
	UDH-14 (TORQUE DAMPER)	4.4~22 / pc	254
	UDH, UDH-16, UDH-16N (TORQUE DAMPER)	8.8~34 / pc	255
	HG-JHM9	0.48~0.77 / pair	257
	HG-JHW16S	17-44 / pc	257
	HG-JHS9	0.24~0.38 / pc	258
	HG-JHM14	4.3~17 / pc	259
	UKZ14	-	259
	URD8-3	0.19~0.26 / pc	260
	MPH	-	260
	HG-JH14-50	26~44 / pair	261
	HG-JH	27~61 / pair	261
	HG-JHM16	17.4~43.4 / pair	262
	HG-JHM20	53~70.8 / pair	263
	HG-JHW / HG-JHWG	53~124 / pair	264
	HG-JH210 (LIFT ASSIST HINGE)	182 / pc	265
	HG-JHM20T (DAMPER HINGE)	53.1~70.8	265.1
	HG-JV65 (HOR. SOFT-CLOSE HINGE)		265.2

GLASS SHOWCASE HARDWARE

HINGES

CABINET HINGES

Picture	Item No.	Max. Door Size (in)/Max. Door Weight (lbs)	Page
	GS-GH5 (Hinge)	W 17-3/4" x H 23-5/8" x t 1/4" 11 lbs / pair	267
	GS-GB5 (Bracket)	-	267
	GS-GL5 (Million Lock)	-	268
	GS-GH20, GS-GH50 (Hinges)	-	269
	GS-GB20 (Bracket)	-	269.1
	GS-GL20, GS-GL50 (Lock)	-	269.2 270
	XL-GC04-C (Hinge)	W 19-11/16" x H 47-1/4" x t 5/16" 26.5 / Door	272
	XL-GC05-C (Bracket)	-	272
	XL-GC07-C (Hinge)	W 19-11/16" x H 47-1/4" x t 5/16" 26.5 / Door	272
	XL-GH03-48-0	W 25-19/32" x H 35-7/16" x t 5/16" 26.4 / pair	273
	XL-GH03-48-8	W 25-19/32" x H 35-7/16" x t 5/16" 26.4 / pair	273
	XL-GH01-600	W 17-23/32" x H 51-3/16" x t 1/4" 22 / pair	274
	XL-GH01-250	W 15-3/4" x H 23-5/8" x t 1/4" 10.5 / pair	274
	GH-450	W 23-5/8" x H 47" x t 5/16" 33 / pair	275
	GH-450G	W 23-5/8" x H 47" x t 5/16" 33 / pair	275
	GH-456C	W 23-5/8" x H 47" x t 5/16" 33 / pair	276
	GH-456N	W 23-5/8" x H 47" x t 5/16" 33 / pair	276
	GH-34/0/S	W 17-3/4" x H 27-9/16" x t 1/4" 8.8 / pair	277
	GH-34/8/S	W 17-3/4" x H 27-9/16" x t 1/4" 8.8 / pair	277
	GH-34/0	W 17-3/4" x H 27-9/16" x t 1/4" 8.8 / pair	278
	GH-34/8	W 17-3/4" x H 27-9/16" x t 1/4" 8.8 / pair	278
	GH-34-0CR-K	W 17-3/4" x H 27-9/16" x t 1/4" 8.8 / pair	279
	GH-34-8CR-K	W 17-3/4" x H 27-9/16" x t 1/4" 8.8 / pair	279
	GHC-34/8	W 17-3/4" x H 27-9/16" x t 1/4" 8.8 / pair	280
	GHC-34-8CR-K	W 17-3/4" x H 27-9/16" x t 1/4" 8.8 / pair	280
	GH-36/NCR	W 17-3/4" x H 27-9/16" x t 1/4" 8.8 / pair	281

CONCEALED HINGES

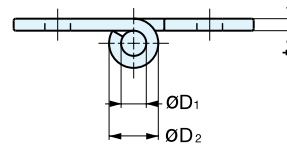
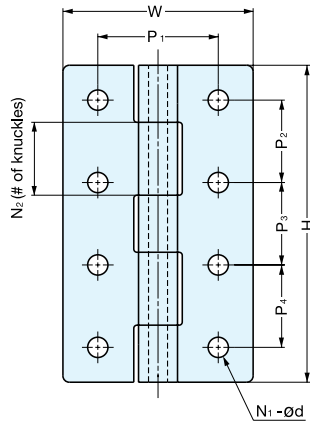
Picture	Item No.	Max. Door Size (in)/ Max. Door Weight (lbs)	Page
	T-90-200	-	281
	J95 (HEAVY DUTY TYPE)	W 31-1/2" x t 1-3/16", 55lbs / 2 pcs W 35-7/16" x t 1-3/16", 88 lbs / 3 pcs	282~ 287
	J95-P6T	-	288
	J95ZC-GR/NI/BC	-	288
	J95SC-GR/NI/BC	-	288
	GH-J95FP (GLASS FACEPLATE FOR J95)	-	288.1
	GH-J95FP-Q1 (GLASS FACEPLATE FOR J95)	-	288.1
	DSR213-2330 (DOOR STRAIGHTENER)	-	289
	DSR423-2300 (DOOR STRAIGHTENER)	-	289.1
	DSR403-2300 (DOOR STRAIGHTENER)	-	289.1
	H95TS	-	290
	H95TM	-	291
	HT-160T	-	292
	OLYMPIA Concealed Cup Hinge with Adjustable Soft Close		293
	G230-32/19T, C32/19T	-	294
	G230-32/9T, C32/9T	-	294
	G230-32/0T, C32/0T	-	295
	G230-FP	-	295
	304B-46/19, C46/19	W 17-3/4" x H 94-1/2" x t 3/4", 28.5 lbs / 5 pcs	296
	304B-46/14, C46/14	W 17-3/4" x H 94-1/2" x t 3/4", 28.5 lbs / 5 pcs	296
	304B-46/9, C46/9	W 17-3/4" x H 94-1/2" x t 3/4", 28.5 lbs / 5 pcs	297
	304B-P3A	-	297
	304B-P4A/32	-	297
	304B-P4A/32-3W	-	297
	230-26/19T, C26/19T	W 24" x H 94-1/2" x t 3/4", 28.5 lbs / 5 pcs	298
	230-26/9T, C26/9T	W 24" x H 94-1/2" x t 3/4", 28.5 lbs / 5 pcs	298

Picture	Item No.	Max. Door Size (in)/ Max. Door Weight (lbs)	Page
	230-26/0T, C26/0T	W 24" x H 94-1/2" x t 3/4", 28.5 lbs / 5 pcs	299
	230-P4W-32T	-	299
	230-P4W-32T+2	-	299
	230-P4W-32T+5	-	299
	230-U26/19T	-	300
	230-U26/9T	-	300
	230-U26/0T	-	301
	H230-26/26T, C26/26T	W 24" x H 94-1/2" x t 1-3/16", 40 lbs / 5 pcs	302
	H230-26/16T, C26/16T	W 24" x H 94-1/2" x t 1-3/16", 40 lbs / 5 pcs	302
	H230-26/0T, C26/0T	W 24" x H 94-1/2" x t 1-3/16", 40 lbs / 5 pcs	303
	230-SCA/19		304
	230-SCA/9		305
	H160-34/28, H160-C34/28	W 19-11/16" x H 94-1/2" x t 1-11/32", 44 lbs / 5 pcs	306
	H160-34/23, H160-C34/23	W 19-11/16" x H 94-1/2" x t 1-11/32", 44 lbs / 5 pcs	306
	H160-34/18, H160-C34/18	W 19-11/16" x H 94-1/2" x t 1-11/32", 44 lbs / 5 pcs	307
	H160-34/0, H160-C34/0	W 19-11/16" x H 94-1/2" x t 1-11/32", 44 lbs / 5 pcs	307
	100-04A-W-32		307
	RK-50	W 17-23/32" x H 27-9/16", 5.7 lbs / 2 pcs	308
	HES3D-70	W 23-5/8" x H 47-1/4", 19.8 lbs / 2 pcs W 23-5/8" x H 47-1/4", 26.4 lbs / 3 pcs	309
	HES3D-90	W 23-5/8" x H 59", 26 lbs / 2 pcs W 23-5/8" x H 59", 35 lbs / 3 pcs	310
	HES3D-G90BKT	W 23-5/8" x H 39-3/8", 26 lbs / 2 pcs W 23-5/8" x H 59", 35 lbs / 3 pcs	311
	R SERIES		312
DAMPERS			
Picture	Item No.		Page
	230-SCA/19		304
	230-SCA/9		305

BUTT HINGE



LSA, LSB



• Available as a weld-on type without holes (LSA) or screw-on type with holes (LSB).
Note: Screw holes for LSB Series are not countersunk.

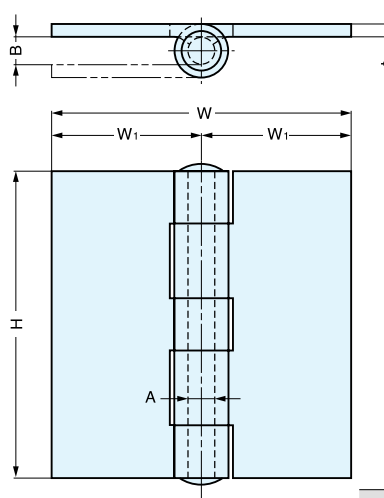
Material	Finish
304 Stainless Steel	Mirror

Item No.	Holes	H	W	P ₁	P ₂	P ₃	P ₄	t	d	D ₁	(D ₂)	N ₁	N ₂	Door Weight (kg/pair)	Weight (g)	Box (pcs)	Carton (pcs)							
LSA-40	Without Holes	40 (1-37/64")	35 (1-3/8")	-	-	-	-	1.5	-	3.0	6.3	-	3	6 (13 lbs/pair)	25	20	500							
LSA-50		50 (1-31/32")		-	-	-	-		-					8 (17 lbs/pair)	30									
LSA-65		65 (2-9/16")		-	-	-	-		2.0					-	13 (28 lbs/pair)			66						
LSA-75		75 (2-61/64")		-	-	-	-							15 (33 lbs/pair)	76									
LSA-90		90 (3-35/64")		-	-	-	-							25 (55 lbs/pair)	190									
LSA-100	100 (3-15/16")	-	-	-	-	3.0	-	6.0	12.3	-	5	30 (66 lbs/pair)	200	10	100									
LSB-40	With Holes	40 (1-37/64")	35 (1-3/8")	22	26	-	-	1.5	3.2	3.0	6.3	4	3	6 (13 lbs/pair)	25	20	500							
LSB-50		50 (1-31/32")		34	-	-	4.3		8 (17 lbs/pair)					30										
LSB-65		65 (2-9/16")		30	23	23	-		2.0					-	4.5			8.8	6	5	13 (28 lbs/pair)	64		
LSB-75		75 (2-61/64")		27	27	-	5.3							15 (33 lbs/pair)	74									
LSB-90		90 (3-35/64")		35	35	-	-							25 (55 lbs/pair)	180									
LSB-100		100 (3-15/16")		60 (2-23/64")	38	26	26		26					3.0	6.4			6.0	12.3	8	30 (66 lbs/pair)	195	10	100

STAINLESS STEEL WELD-ON HINGE



LSK



• Available as weld-on type without holes only. For screw-on type butt hinges, please see 3535 and 4040 Series hinges (P.192).

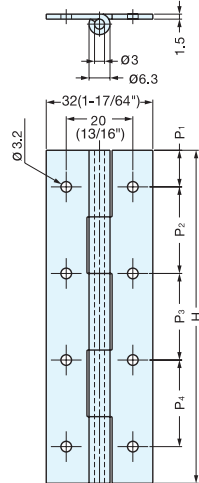
Material	Finish
304 Stainless Steel	Satin

Item No.	H	W ₁	W	A	B	t	Weight (g)	Box (pcs)	Carton (pcs)	
LSK-1157-1	51 (2")	25.0	50 (2")	6	6	2.5	76	10	250	
LSK-1157-2	64 (2-1/2")	32.0	64 (2-1/2")	7	7		141		150	
LSK-1157-3	76 (3")	37.0	74 (2-15/16")			8	8		188	100
LSK-1157-4	89 (3-1/2")	43.5	87 (3-3/8")	257	80					
LSK-1157-5	101.6 (4")	49.5	99 (3-7/8")	417	50					
LSK-1157-6	127 (5")	59.5	119 (4-43/64")	11	11	4.0	681		6	30
LSK-1157-7	152 (6")	71.5	143 (5-5/8")	12	12		928		4	20

BUTT HINGE



KHA



KHA-100C shown

• Screw holes are not countersunk.

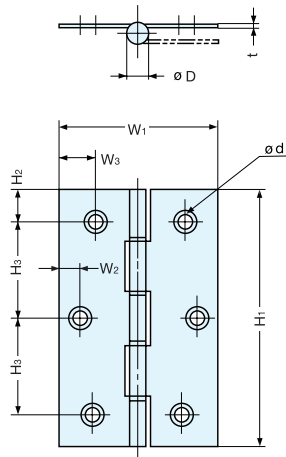
Material	Finish
304 Stainless Steel	Polished

Item No.	H	P ₁	P ₂	P ₃	P ₄	Knuckles	Weight (g)	Box (pcs)	Carton (pcs)
KHA-25C	25 (63/64")	6.0	13	-	-	3	13	200	800
KHA-30C	30 (1-3/16")	7.0	16	-	-		16		
KHA-40C	40 (1-37/64")	8.0	24	-	-		21	150	600
KHA-50C	50 (1-31/32")	10.0	30	-	-		26		
KHA-60C	60 (2-23/64")	8.0	22	22	-	5	31	100	400
KHA-65C	65 (2-9/16")	8.5	24	24	-		34		
KHA-75C	75 (2-61/64")	9.5	28	28	-		39	50	200
KHA-80C	80 (3-5/32")	10.0	30	30	-		42		
KHA-90C	90 (3-35/64")		35	35	-		47		
KHA-100C	100 (3-15/16")	26	26	26	-		52		

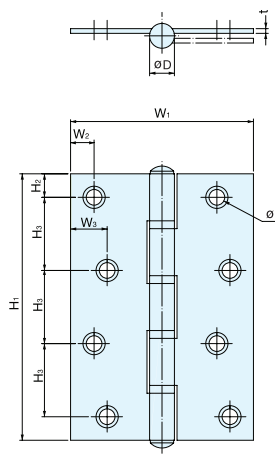
BUTT HINGE (W/BUSHING)



D-S

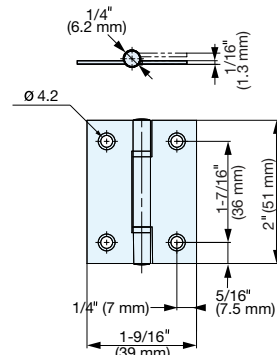


D-S-51-89A



D-S-102A/127A

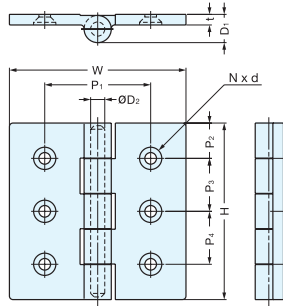
• Stainless steel hinge with polyacetal bushing.



Part Name	Material	Finish
Body	304 Stainless Steel	Satin
Bushing	Polyacetal	Natural

Item No.	H ₁	H ₂	H ₃	W ₁	W ₂	W ₃	D	t	d	Knuckles	Holes	Weight (g)	Box (pcs)	Carton (pcs)	
D-S- 51A	51 (2-1/64")	7.5	36	39.0 (1-17/32")	-	7.0	6.2	1.3	4.2	3	4	27.4	20	1000	
D-S- 64A	64 (2-33/64")	7.0	25	42.5 (1-43/64")	6.0	8.0						36.5			800
D-S- 76A	76 (2-63/64")	9.0	29	50.0 (1-31/32")	7.0	9.0	7.4	1.5	5.2		5	6	59.5	10	480
D-S- 89A	89 (3-1/2")	10.5	34	56.5 (2-7/32")	7.5	10.5	9.0	1.8	5.4				91.6		280
D-S-102A	102 (4-1/64")	9.0	28	70.0 (2-3/4")	9.0	14.0	9.5	1.8	6.0	5	8	132.5	6	200	
D-S-127A	127 (5")	11.0	35	82.0 (3-15/64")	10.5	16.0	11.5					231.5		120	

BUTT HINGE



LSF-100 shown

• 316 Stainless Steel construction ideal for harsh and highly corrosive environments.

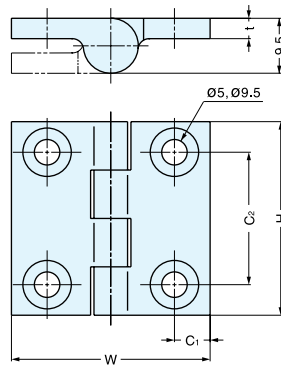
Material	Finish
316 Stainless Steel	Mirror

Item No.	H	W	P ₁	P ₂	P ₃	P ₄	t	D ₁	D ₂	Knuckles	N	d	Weight (g)	Box (pcs)	Carton (pcs)
LSF-50	50 (1-31/32")	50	35	15.0	20	-	5	14	6	3	4	M4	110	20	100
LSF-65	65 (2-9/16")	65	40	-	35	-	-	-	-	-	-	M5	190	-	80
LSF-75	75 (2-61/64")	75	50	17.5	40	-	6	16	8	-	-	M6	305	10	50
LSF-100	100 (3-15/16")	100	60	20.0	30	30	-	-	-	5	6	-	500	-	30

BUTT HINGE



28300, 28400



• 316 Stainless Steel construction ideal for harsh and highly corrosive environments.
 • Door weight: Max. 4 kg/pair (8.8 lbs/pair)
 • Door size: Max. W450 × H700 × t21 mm (W17-3/4" × H27-9/16" × t13/16")

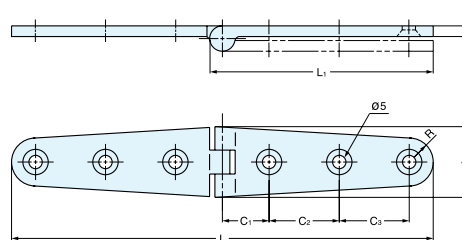
Material	Finish
316 Stainless Steel	Mirror

Item No.	H	W	t	C ₁	C ₂	Weight (g)	Box (pcs)	Carton (pcs)
28300	38 (1-1/2")	39 (1-17/32")	4	7.0	26	55	20	100
28400	50 (1-31/32")	50 (1-31/32")		7.5	34	90		

LEAF HINGE



50704, 50706



• 316 Stainless Steel construction ideal for harsh and highly corrosive environments.
 • Door weight: Max. 2.6 kg/pair (5.7 lbs/pair)

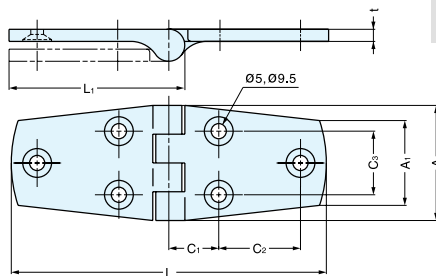
Material	Finish
316 Stainless Steel	Mirror

Item No.	L	L ₁	C ₁	C ₂	C ₃	A	R	t	Holes	Weight (g)	Box (pcs)	Carton (pcs)
50704	105 (4-9/64")	57	17.5	25	-	26.5 (1-3/64")	9	4	4	75	20	100
50706	158 (6-7/32")	84	19.5		25	9	4	6	115			

BUTT HINGE



28000, 28500



- 316 Stainless Steel construction ideal for harsh and highly corrosive environments.
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)
- Door size: Max. W450 × H700 × t21 mm (W17-3/4" × H27-9/16" × t13/16")

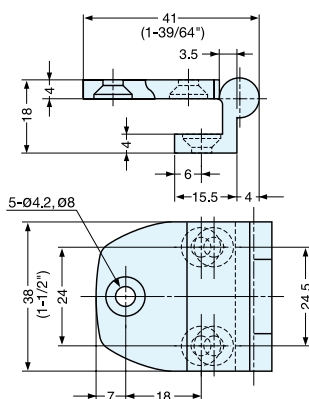
Material	Finish
316 Stainless Steel	Mirror

Item No.	L	L ₁	C ₁	C ₂	C ₃	A	A ₁	t	Weight (g)	Box (pcs)	Carton (pcs)
28500	74 (2-29/32")	42	13.0	17	20	38 (1-1/2")	28	4	85	20	100
28000	104 (4-3/32")	57	16.5	27	21				115		

BUTT HINGE



28100



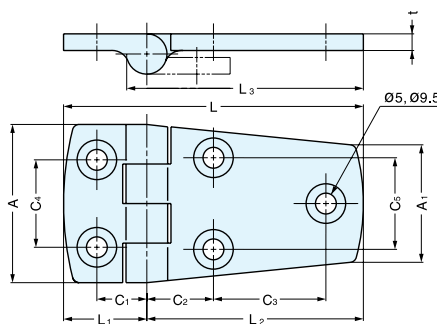
- 316 Stainless Steel construction ideal for harsh and highly corrosive environments.
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)
- Door size: Max. W450 × H700 × t21 mm (W17-3/4" × H27-9/16" × t13/16")

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
28100	78.5	20	100	316 Stainless Steel	Mirror

BUTT HINGE



27800, 27900



- 316 Stainless Steel construction ideal for harsh and highly corrosive environments.
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)
- Door size: Max. W450 × H700 × t21 mm (W17-3/4" × H27-9/16" × t13/16")

Material	Finish
316 Stainless Steel	Mirror

Item No.	L	L ₁	L ₂	L ₃	C ₁	C ₂	C ₃	C ₄	C ₅	A	A ₁	t	Weight (g)	Box (pcs)	Carton (pcs)
27900	58 (2-9/32")	20	38	42	12	13.5	16.5	21	20	38 (1-1/2")	28	4	70	20	100
27800	72 (2-53/64")		52	57		16.0	27.0	22	21				85		

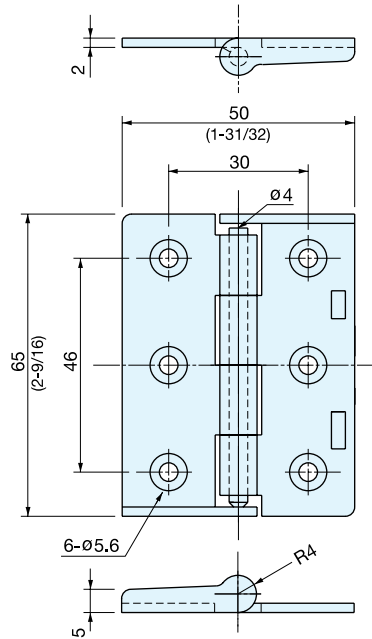
BUTT HINGE



HG-BF1



• Rim on edges prevents pin removal.

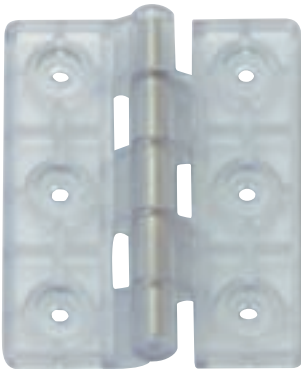


Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
HG-BF1	63	20	120	304 Stainless Steel	Plain

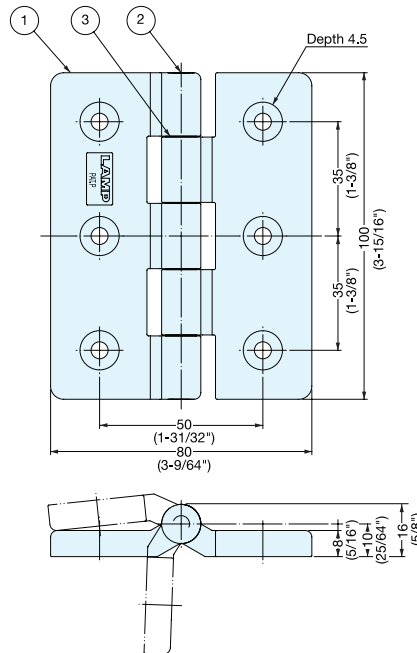
CLEAN ROOM HINGE



HG-P100



- Made with PVC material:
- Ideal for semiconductor manufacturing machinery and transparent applications.
- Weather proof, chemical proof
- Environmentally friendly-Lead free.
- Titanium pin is used.
- Recommended screw size: M5



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HG-P100	74	30	240

No.	Material	Finish
①	PVC	Clear
②	Titanium	Plain
③	Polyetheretherketone	-

BUTT HINGE



100 SERIES



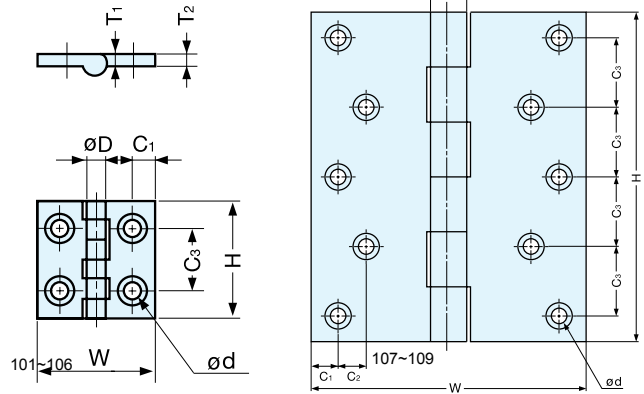
Satin Nickel (SN)
104, 105 only



Chrome (CR)
all models



Polished Brass (PB)
104, 105 only



Please specify the finish when ordering.

Material	Finish
Brass	Satin Nickel (SN), Chrome (CR), Polished Brass (PB)

Item No.	H	W	T ₁	T ₂	D	C ₁	C ₂	C ₃	d	Holes	Weight (g)	Box (pcs)	Carton (pcs)
104	50 (1-31/32")	32 (1-17/64")	2.2	2.1	5.2	6	-	18.0	3.5	6	30	100	1000
105	65 (2-9/16")	38 (1-1/2")	2.4	2.3	6.1	7	-	25.0	3.6		54	50	500
106*	75 (2-61/64")	42 (1-21/32")	2.6	2.5	7.1	8	-	27.0	3.8		77		

* Available only in Chrome (CR)

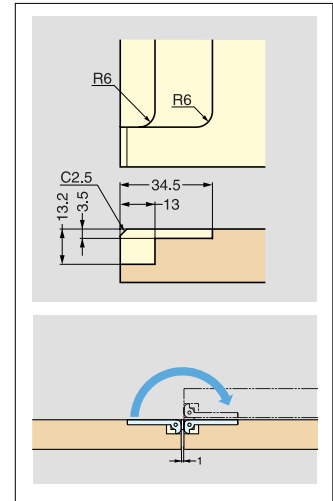
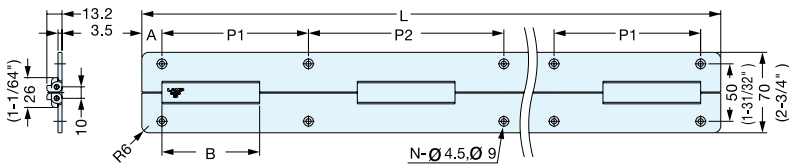
TABLETOP PIANO HINGE



HG-MH



• Not a load bearing hinge, requires secondary support.



Installation

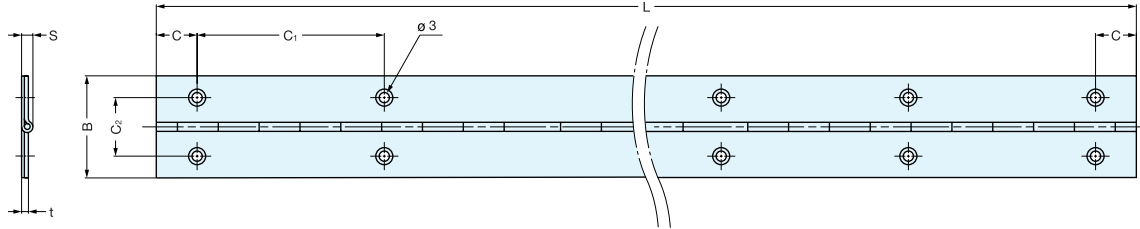
Item No.	Material	Finish/Color	L	A	P ₁	P ₂	B	# of Holes	Box (pcs)
HG-MH400S	Aluminum/ 304 Stainless Steel (Pin)	Silver	400 (15-3/4")	15.0	111.0	148	74	8	15
HG-MH400BR		Brown							
HG-MH400BL		Black							
HG-MH800S		Silver	800 (31-1/2")	17.5	127.5	170	85	12	10
HG-MH800BR		Brown							
HG-MH800BL		Black							
HG-MH1100S		Silver	1100 (43-5/16")	16.5	145.5	194	97	14	6
HG-MH1100BR		Brown							
HG-MH1100BL		Black							

PIANO HINGE



LSD-30

- Double folded construction provides extra rigidity.
- The knuckles on both ends are crimped to prevent the pin from being removed. The hinge pin does not occupy the crimped knuckles on both ends.



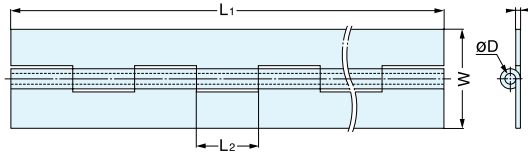
Material	Finish
304 Stainless Steel	Satin

Item No.	L	B	C	C ₁	C ₂	t	S	Holes	Weight (g)	Box (pcs)	Carton (pcs)
LSD-30-240	240 (9-29/64")	30 (1-3/16")	10.5	43.5	17	1.2	3.5	12	65	20	200
LSD-30-300	300 (11-13/16")			46.3				14	80		
LSD-30-360	360 (14-11/64")			15.0				47.0	16		
LSD-30-450	450 (17-23/32")		14.5	60.0				16	120		
LSD-30-600	600 (23-5/8")		14.0	63.3				20	190		
LSD-30-900	900 (35-7/16")			62.3				30	280		

PIANO HINGE (WELD-ON)



LSN



Item No.	L ₁	L ₂	W	t	D	Weight (g)	Box (pcs)	Carton (pcs)
LSN 8-25- 300	300 (11-13/16")	12.5	25 (63/64")	0.8	2.6	66	20	200
LSN 8-25- 600	600 (23-5/8")					135		
LSN 8-25-1000	1000 (39-3/8")					222		
LSN 8-25-1800	1800 (70-55/64")					400		
LSN 8-32- 300	300 (11-13/16")	20.0	32 (1-17/64")	1.5	3.5	80	10	100
LSN 8-32- 600	600 (23-5/8")					159		
LSN 8-32-1000	1000 (39-3/8")					272		
LSN 8-32-1800	1800 (70-55/64")					492		
LSN 8-38-1000	1000 (39-3/8")					289		
LSN 8-38-1800	1800 (70-55/64")					542		
LSN15-32- 300	300 (11-13/16")	20.0	32 (1-17/64")	1.5	3.5	78	10	100
LSN15-32- 350	350 (13-25/32")					192		
LSN15-32- 450	450 (17-23/32")					248		
LSN15-32- 600	600 (23-5/8")					330		
LSN15-32- 750	750 (29-17/32")					410		
LSN15-32- 850	850 (33-15/32")					464		
LSN15-32- 900	900 (35-7/16")					498		
LSN15-32-1000	1000 (39-3/8")					574		
LSN15-38-1000	1000 (39-3/8")					615		
LSN15-38-1800	1800 (70-55/64")					1121		
LSN15-50-1000	1000 (39-3/8")	50.0	38 (1-1/2")	2.0	5.0	759	5	50
LSN15-50-1800	1800 (70-55/64")					1367		
LSN20-50-1000	1000 (39-3/8")					774		

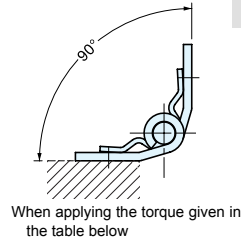
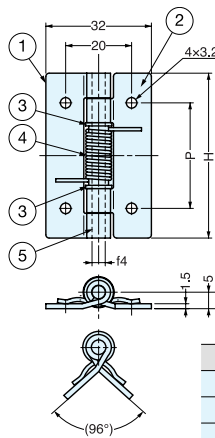


Material	Finish
304 Stainless Steel	Satin

HIGH DURABILITY SPRING HINGE



HG-SHL



- Spring loaded to keep doors shut.
- Stainless steel suitable for corrosive environments.
- High durability; Passed 1,000,000 open/close private cycle tests.

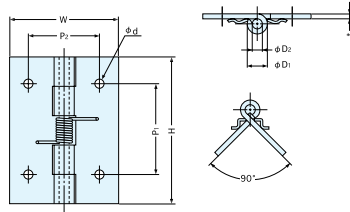
No.	Part Name	Material	Finish/Color
①	Body	304 Stainless Steel	Polished
②	Body 2		
③	Collar	303 Stainless Steel	-
④	Spring	304 Stainless Steel	
⑤	Shaft	303 Stainless Steel	

Item No.	H	P	Load Capacity (kg)	Torque (kgf/cm)	Weight	Box (pcs)	Carton (pcs)
HG-SHL32	32 (1-1/4")	18 (11/16")	4 (8.8 lbs)	0.48 (0.42 lbs/in)	20	50	500
HG-SHL50	50 (2")	32 (1-1/4")	6 (13 lbs)	0.91 (0.79 lbs/in)	30		
HG-SHL60	60 (2-3/8")	40 (1-9/16")		1.43 (1.24 lbs/in)	38		

BUTT HINGE (W/SPRING)



HG-SH



- Designed to close with spring tension when hinge is surface mounted.
- HG-SH20C has no screw holes.

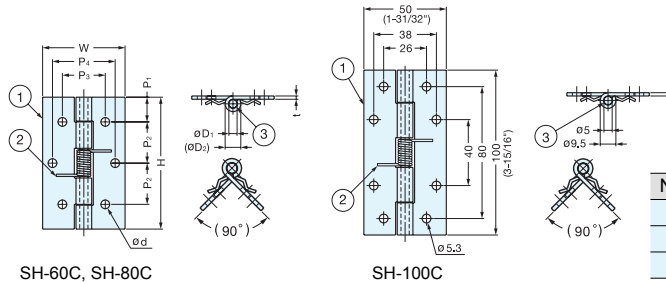
Material	Finish
304 Stainless Steel	Plain

Item No.	H	W	P ₁	P ₂	D ₁	D ₂	d	t	Torsion Spring Force (kg·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-SH20C	20 (25/32")	14 (35/64")	-	-	2.2	1	-	0.5	0.99 (0.86 lbs·in)	11.5	800	3200
HG-SH25C	25 (63/64")	32 (1-17/64")	14	20	5.8	3	3.2	1.2	0.66 (0.57 lbs·in)	10.0	300	1200
HG-SH38C	38 (1-1/2")		26		6.5				1.50 (1.3 lbs·in)	20.0	200	800
HG-SH51C	51 (2-1/64")	38 (1-1/2")	32	25	6.5	-	-	1.5	1.38 (1.19 lbs·in)	35.0	130	520

BUTT HINGE (W/SPRING)



SH



- Designed to close with spring tension when hinge is surface mounted.

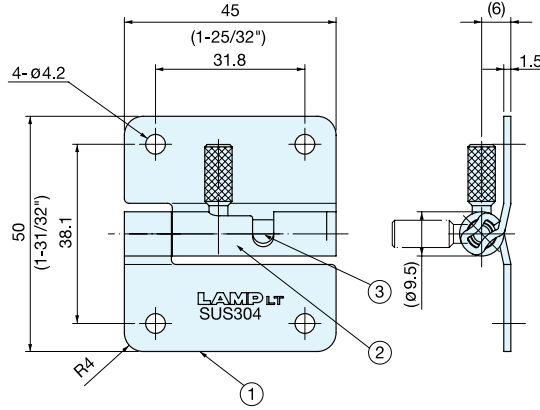
No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Spring		-
③	Hinge Pin		-

Item No.	H	W	t	P ₁	P ₂	P ₃	P ₄	D ₁	(D ₂)	d	Weight (g)	Box (pcs)	Carton (pcs)
SH-60C	60 (2-23/64")	40 (1-37/64")	1.5	10	20	26	26	5	8.5	4.3	44	120	1200
SH-80C	80 (3-5/32")	50 (1-31/32")	2.0	15	25		38		9.5	5.3	86	80	800
SH-100C	100 (3-15/16")	50 (1-31/32")	2.0	-	-	-	-	-	-	-	110	100	1000

QUICK RELEASE HINGE



HG-OT



HG-OTA45L

- Easy and quick to install/remove doors.
- With or without holes available.
- Left handed and Right handed models available.
- Available as weld-on type without holes (HG-OTB) and screw-on type with holes (HG-OTA).

Item No.		Holes	Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish
Left	Right								
HG-OTA45L	HG-OTA45R	With screw holes	40	30	300	①	Plate	304 Stainless Steel	Satin
HG-OTB45L	HG-OTB45R	Without screw holes				②	Spring		
						③	Hinge Pin	303 Stainless Steel	

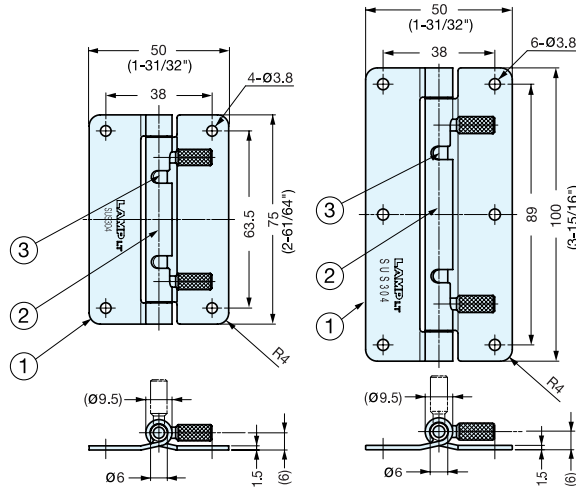
QUICK RELEASE HINGE



HG-OT



HG-OTB shown



HG-OTA75

HG-OTA100

- Easy and quick to install/remove doors.
- With or without holes available.
- Available as weld-on type without holes (HG-OTB) and screw-on type with holes (HG-OTA).
- Non-handed.

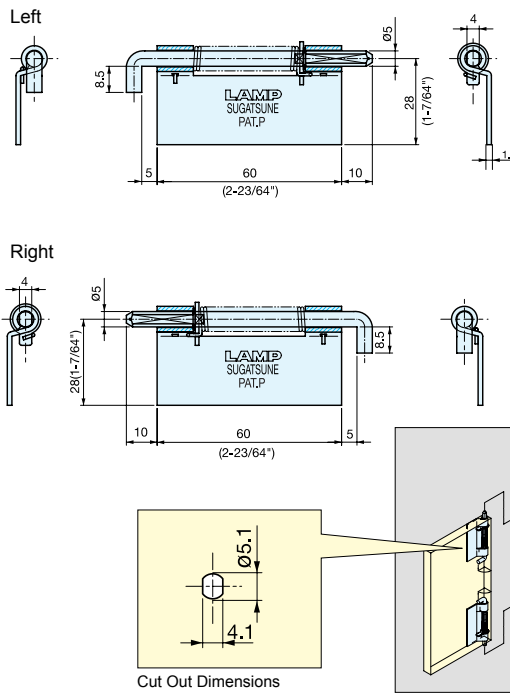


Item No.	Holes	Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish
HG-OTA75	With screw holes	70	40	160	①	Plate	304 Stainless Steel	Satin
HG-OTB75	Without screw holes				②	Spring		
HG-OTA100	With screw holes	90	30	120	③	Hinge Pin	303 Stainless Steel	
HG-OTB100	Without screw holes							

SPRING LOADED PIVOT HINGE (WELD-ON)

STAINLESS
304
STEEL

HG-PV60AC



- Designed to close with spring tension when hinge is back-surface mounted.
- Lift pin for easy door installation and removal.
- Torsion moment (Hinge closed): 0.76 kgf-cm (0.66 lb-in) per piece
- Door Weight: Max. 2 kg/pair (4.4 lbs)

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HG-PV60AC-L	38	50	200
HG-PV60AC-R			

Material	Finish
304 Stainless Steel	Plain

BUTT HINGE (W/SPRING)



STAINLESS
304
STEEL



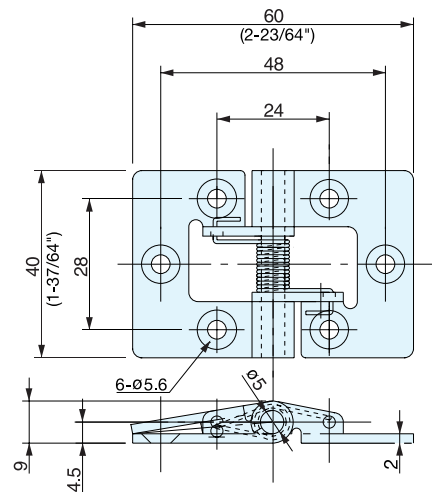
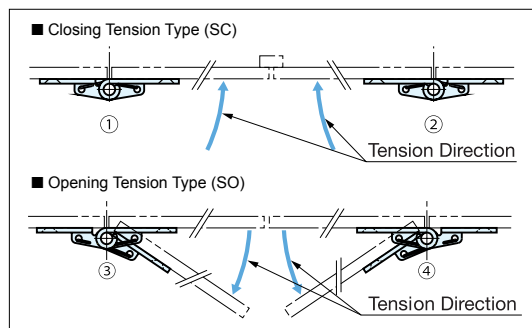
HG-BF3



SC type (Closing Tension)



SO type (Opening Tension)



- Spring loaded hinges to keep doors open or closed (2 versions available).
- 304 stainless steel.

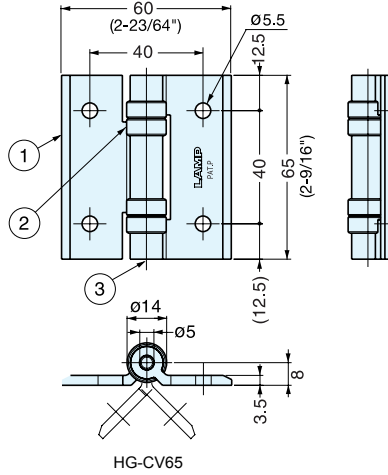
Item No.		Tension Direction	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right				
③HG-BF3-2L-SO	④HG-BF3-2R-SO	Opening Tension	41	20	120
①HG-BF3-2L-SC	②HG-BF3-2R-SC	Closing Tension			

Material	Finish
304 Stainless Steel	Plain

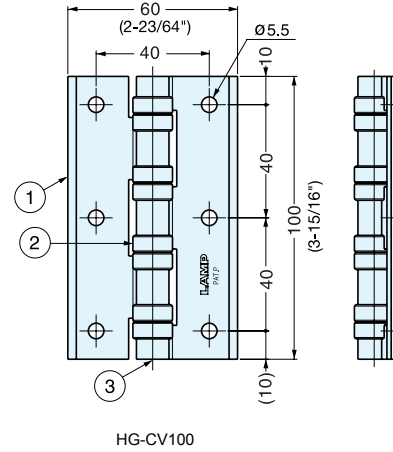
CLEAN ROOM HINGE (W/BUSHING)



HG-CV



- No metal-to-metal contact.
- Polyacetal bushings minimize particles.
- Ideal for clean room application.
- Door weight:
HG-CV 65 Max. 8 kg/pair (17.6 lbs/pair)
HG-CV100 Max. 13 kg/pair (28.6 lbs/pair)



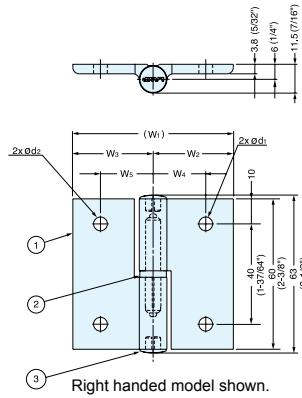
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HG-CV65	50	20	240
HG-CV100	78		160

No.	Part Name	Material	Finish
①	Body	Aluminum	Anodized
②	Bushing	Polyacetal	White
③	Hinge Pin	304 Stainless Steel	-

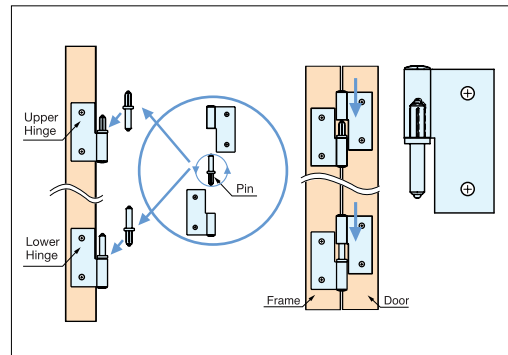
ALUMINUM LIFT-OFF HINGES



AS-HG-AL-N



- Designed for aluminum profiles.
- Plastic bushings provide smooth movement.



No.	Part Name	Material	Finish
①	Body	Aluminum	Matte Silver
②	Pin	Stainless Steel (SUS303), Polyacetal (POM)	White
③	Cover	Polyacetal (POM)	White

Item No.	Spec.	W ₁	W ₂	W ₃	W ₄	W ₅	d ₁	d ₂	Box (pcs)	Carton (pcs)
AS-HG-AL-NL3020	Left	43	18	25	11	16	4.5	5.5	20	240
AS-HG-AL-NR3020	Right									
AS-HG-AL-NL3030	Left	50	25		16	5.5				
AS-HG-AL-NR3030	Right									
AS-HG-AL-NL3040	Left	57	25	32	11	21	4.5			
AS-HG-AL-NR3040	Right									
AS-HG-AL-NL4020	Left	50	18		11	21	4.5			
AS-HG-AL-NR4020	Right									
AS-HG-AL-NL4040	Left	64	32	21	21	5.5				
AS-HG-AL-NR4040	Right									

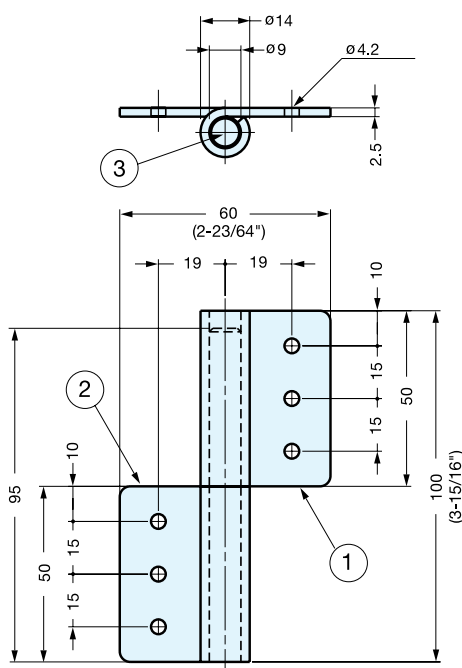
LIFT-OFF HINGE



LSX-100



Right-Hand Opening



• Left and Right handed available.

Item No.		Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish
Left	Right							
LSX-100L	LSX-100R	170	10	50	①	Body A	304 Stainless Steel	Mirror
					②	Body B		-
					③	Pin		

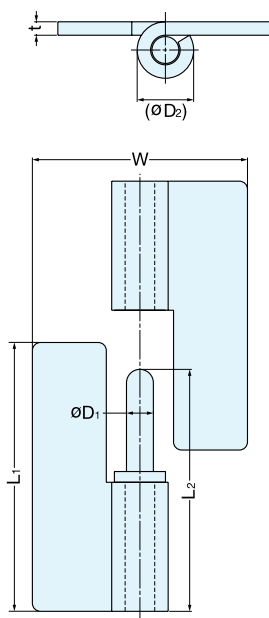
LIFT-OFF HINGE (WELD-ON)



HNH



Right-Hand Opening



• Weld-on type lift-off hinge.
• Left and Right handed available.

Material	Finish
304 Stainless Steel	Mirror

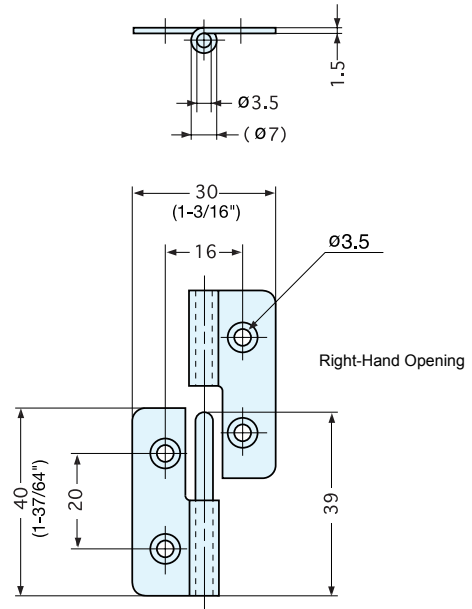
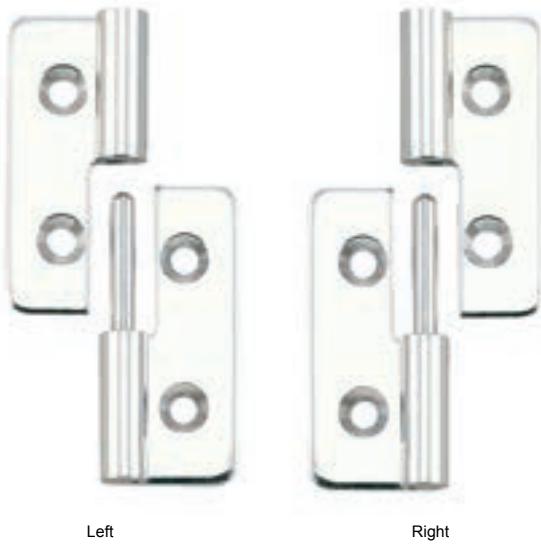
Item No.		L ₁	L ₂	W	D ₁	(D ₂)	t	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right									
HNH-50CL	HNH-50CR	50 (1-31/32")	45	40 (1-37/64")	5	10.5	2.5	60	30	240
HNH-65CL	HNH-65CR	65 (2-9/16")	60	50 (1-31/32")	5	12.0	3.0	89	20	160
HNH-75CL	HNH-75CR	75 (2-61/64")	70	70 (2-3/4")	6	16.0	4.0	165	10	80
HNH-100CL	HNH-100CR	100 (3-15/16")	90	82 (3-15/64")	8			347	5	40

LIFT-OFF HINGE



NH-40

• Left and Right handed available.



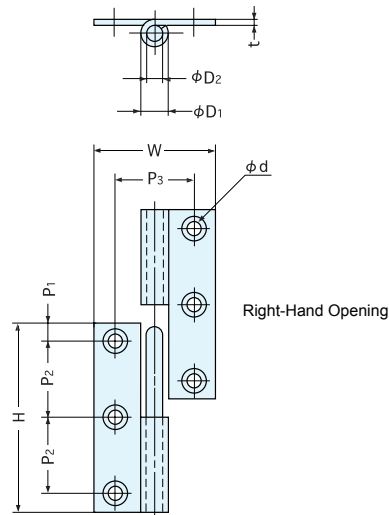
Item No.		Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
Left	Right					
NH-40L/SS	NH-40R/SS	21	150	600	304 Stainless Steel	Polished

LIFT-OFF HINGE



KN

• Left and Right handed available.



Material	Finish
304 Stainless Steel	Polished

Item No.		H	W	P ₁	P ₂	P ₃	D ₁	D ₂	d	t	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right												
KN-50L/SS	KN-50R/SS	50 (1-31/32")	32 (1-17/64")	5.0	20	21	7.5	4	3.2	1.5	32	100	400
KN-64L/SS	KN-64R/SS	64 (2-33/64")	36 (1-27/64")	8.0	24	24							
KN-75L/SS	KN-75R/SS	75 (2-61/64")	38 (1-1/2")	7.5	30		8.5			2.0	64	50	200

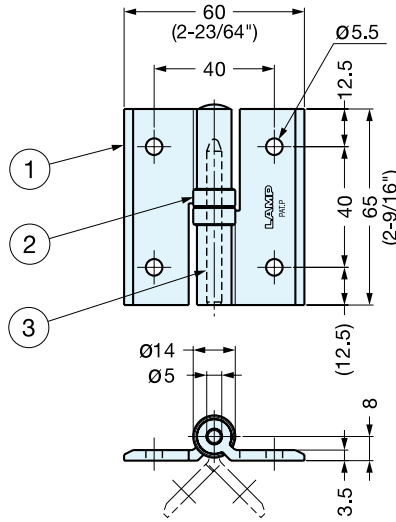
CLEAN ROOM HINGE (W/BUSHING)



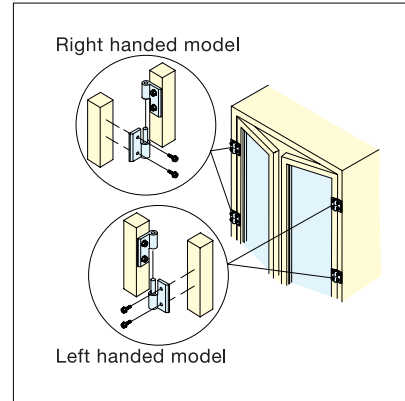
HG-CV65N



Left-Hand Opening



- No metal-to-metal contact.
- Polyacetal bushings minimize particles.
- Ideal for clean room application.



Installation Example

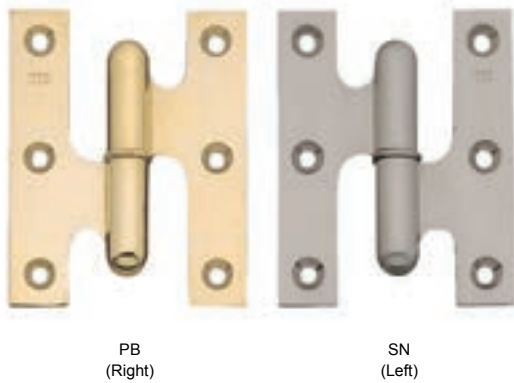
Item No.	Type	Weight (g)	Box (pcs)	Carton (pcs)
HG-CV65NR	Right Hand	49	20	200
HG-CV65NL	Left Hand			

No.	Part Name	Material	Finish
①	Body	Aluminum	Anodized
②	Bushing	Polyacetal	White
③	Hinge Pin	303 Stainless Steel	-

LIFT-OFF HINGE

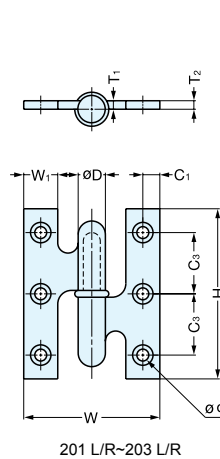


200 SERIES

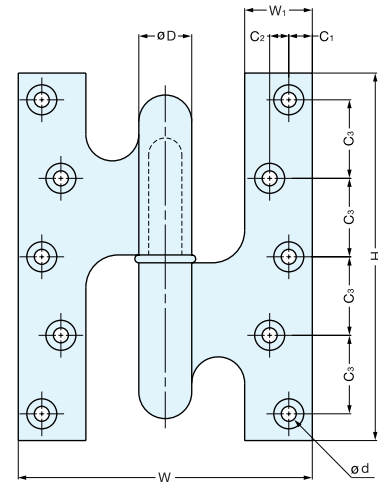


PB (Right)

SN (Left)



201 L/R~203 L/R



204 L/R~205 L/R

Please specify the finish when ordering.

Left hand hinge: If door is pulled open towards your left side.
Right hand hinge: If door is pulled open towards your right side.

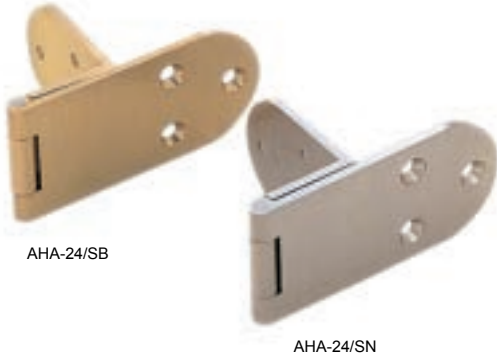
Material	Finish
Brass	Polished Brass (PB), Satin Nickel (SN), Chrome (CR)

Item No.		H	W	W ₁	T ₁	T ₂	D	C ₁	C ₂	C ₃	d	Holes	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right														
201L	201R	50 (1-31/32")	40 (1-37/64")	10.0	2.5	2.5	8	5.0	-	18.0	3.5	6	37	20	200
202L	202R	65 (2-9/16")	50 (1-31/32")	13.0	2.8	2.8	10	6.5	-	25.0	3.8		72		
203L	203R	75 (2-61/64")	60 (2-23/64")	15.0	3.0	3.0	11	7.5	-	29.5	4.1		104		
204L	204R	100 (3-15/16")	75 (2-61/64")	19.0	4.5	4.0	15	7.0	4	28.3	4.5	8	241	6	60
205L	205R	125 (4-59/64")	100 (3-15/16")	23.5	5.0	4.5	18	8.0	7	26.7	5.1	10	500		

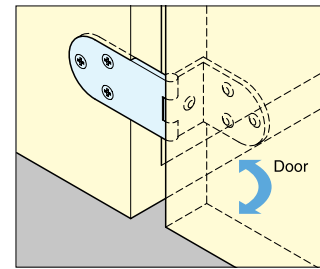
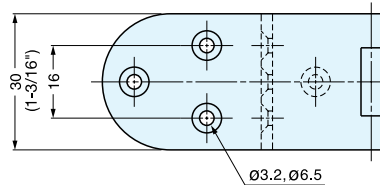
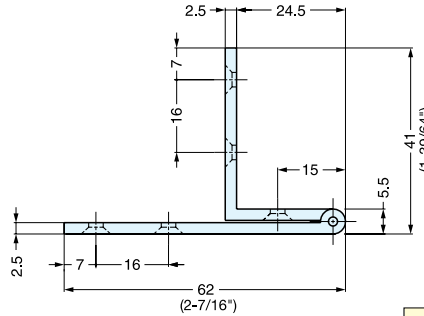
OVERLAY DOOR ANGLE HINGE



AHA-24



- Recommended Door Specifications:
 Thickness: Recess Mount-27 mm (1-1/16"); Surface Mount-24.5 mm (1")
 Width: Max. 450 mm (17-3/4")
 Height: Max. 700 mm (27-9/16")
 Weight: Max. 2.6 kg (5.7 lbs) per pair



Item No.		Weight (g)	Box (pcs)	Carton (pcs)
AHA-24/SB	AHA-24/SN	70	50	200

Material	Finish
Brass	Satin Brass (SB) Satin Nickel (SN)

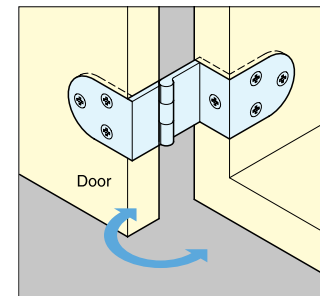
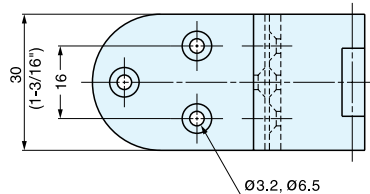
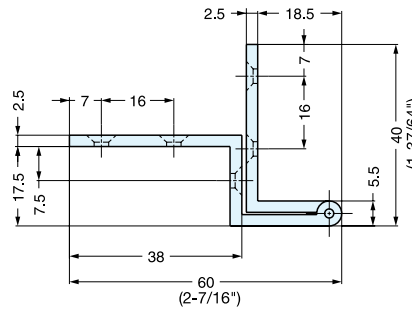
OVERLAY DOOR ANGLE HINGE



AHB-18



- Recommended Door Specifications:
 Thickness: Recess Mount-21 mm (13/16"); Surface Mount-18 mm (11/16")
 Width: Max. 450 mm (17-3/4")
 Height: Max. 700 mm (27-9/16")
 Weight: Max. 2.6 kg (5.7 lbs) per pair



Item No.		Weight (g)	Box (pcs)	Carton (pcs)
AHB-18/SB	AHB-18/SN	76	50	200

Material	Finish
Brass	Satin Brass (SB) Satin Nickel (SN)

OVERLAY DOOR ANGLE HINGE

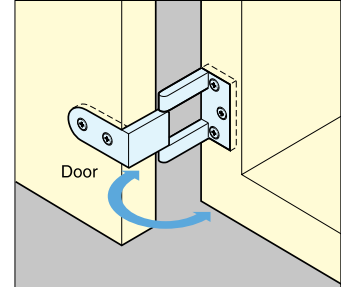
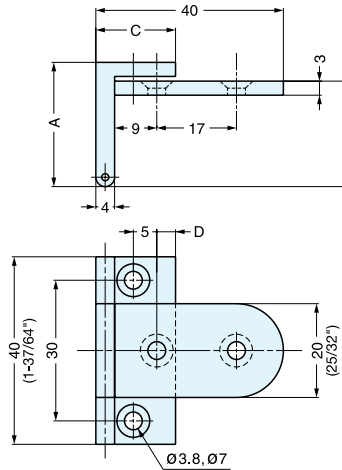


AHS

- Recommended Door Specifications:
 Thickness: Recess Mount-for AHS-20, 22.5 mm (7/8"); for AHS-24, 27 mm (1-1/16")
 Surface Mount-for AHS-20, 19.5 mm (3/4"); for AHS-24, 24 mm (1")
 Width: Max. 450 mm (17-3/4")
 Height: Max. 700 mm (27-9/16")
 Weight: Max. 2.6 kg (5.7 lbs) per pair



AHS-24/SN



Material	Finish
Brass	Satin Nickel (SN)

Item No.	A	B	C	D	Weight (g)	Box (pcs)	Carton (pcs)
AHS-20/SN	26.5 (1-3/64")	22.5	17 (43/64")	4.0	61	20	360
AHS-24/SN	30.5 (1-13/64")	27.0	20 (25/32")	5.5	69		

OVERLAY DOOR ANGLE HINGE

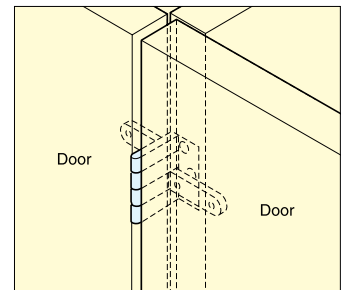
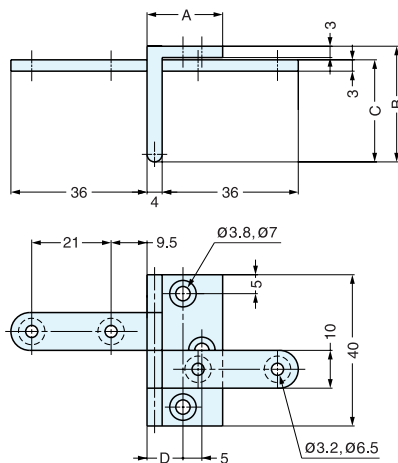


AHW

- Recommended Door Specifications:
 Thickness: Recess Mount-for AHW-20, 22.5 mm (7/8"); for AHW-24, 27 mm (1-1/16")
 Surface Mount-for AHW-20, 19.5 mm (3/4"); for AHW-24, 24 mm (1")
 Width: Max. 450 mm (17-3/4")
 Height: Max. 700 mm (27-9/16")
 Weight: Max. 2.6 kg (5.7 lbs) per pair



AHW-24/SN



Material	Finish
Brass	Satin Nickel (SN)

Item No.	A	B	C	D	Weight (g)	Box (pcs)	Carton (pcs)
AHW-20/SN	17 (43/64")	26.5 (1-3/64")	22.5	8.0	61	25	200
AHW-24/SN	20 (25/32")	30.5 (1-13/64")	27.0	9.5	69	20	80

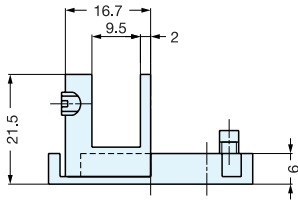
PIVOT TYPE INSET GLASS DOOR HINGE



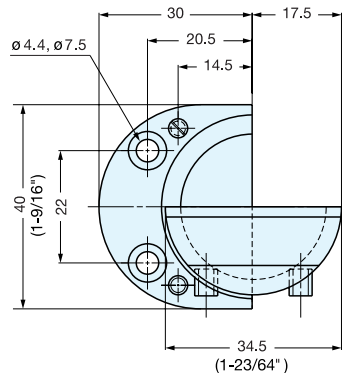
GP-40

HINGES

PIVOT TYPE INSET GLASS DOOR HINGES / OVERLAY DOOR PIVOT HINGES

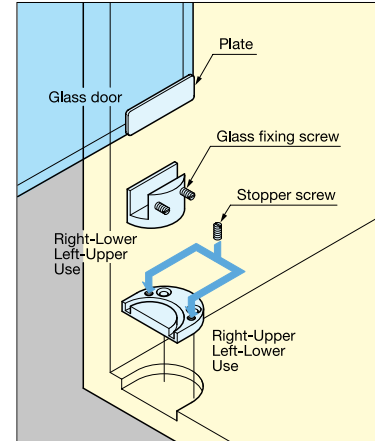


(side view)



(top view)

- Pressure-fit hinge.
- Glass door hinge for inset use.
- Door Size: Max. W450 × H700 × t8 mm (W17-3/4" × H27-9/16" × t5/16")
- Door Weight: Max. 4 kg/pair (8.8 lbs/pair)
- Glass Door Thickness: Max. 8 mm (5/16")
- Pre-drilling on glass not required.
- Non-handed.



Change the stopper screw position accordingly to install on left/right/top/bottom.

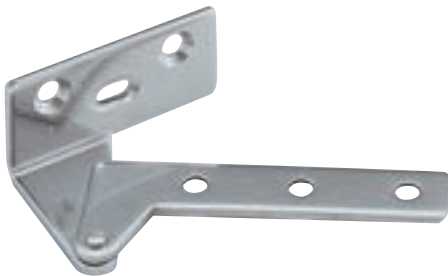
Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
GP-40	76	35	350	Brass	Satin Nickel

OVERLAY DOOR PIVOT HINGE

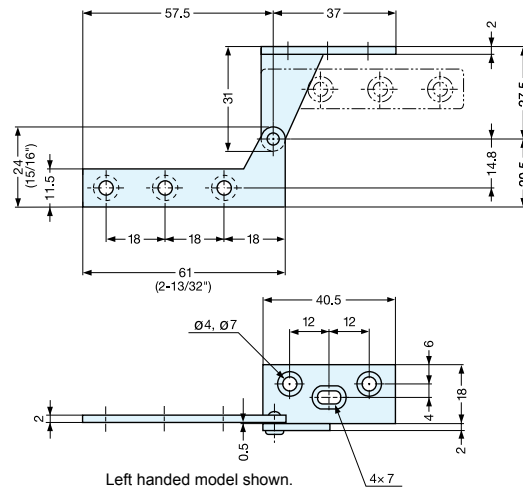


PL-60

- Door Size: Max. W450 × H700 × t22 mm (W17-3/4" × H27-9/16" × t7/8")
- Door Weight: Max. 2.6 kg/pair (5.7 lbs/ pair)



Left handed model shown.



Left handed model shown.

Item No.		Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
Left	Right					
PL-60L	PL-60R	27	100	1000	430 Stainless Steel	Plain

OVERLAY DOOR PIVOT HINGE

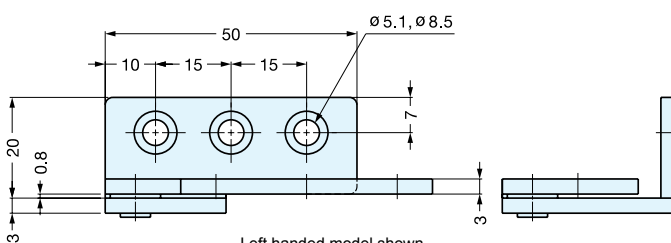
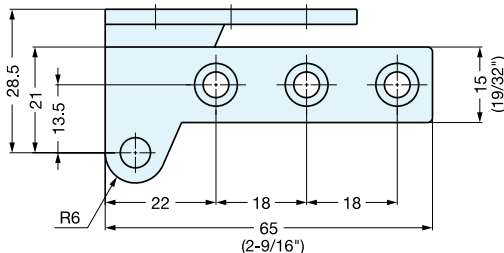


PL-65

- Door Size: Max. W450 × H700 × t22 mm (W17-3/4" × H27-9/16" × t7/8")
- Door Weight: Max. 4 kg/pair (8.8 lbs/ pair)



Left handed model shown.



Item No.		Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
Left	Right					
PL-65L	PL-65R	55	40	400	430 Stainless Steel	Plain

OVERLAY DOOR PIVOT HINGE

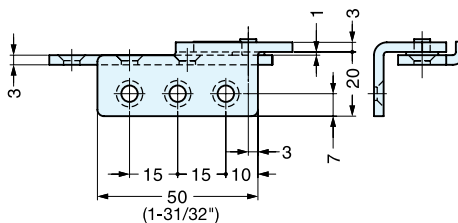
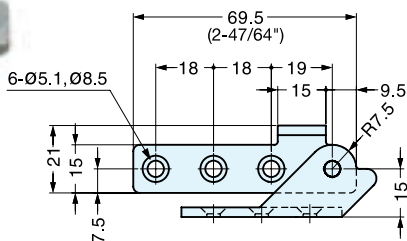


PL-100

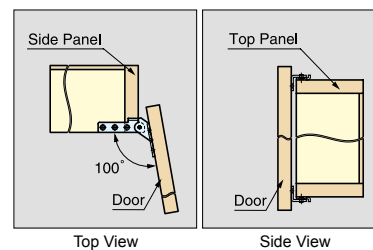
- Door Size: Max. W600 x H750 mm (W23-5/8" x H29-1/2")
- Door Weight: Max.6 kg/pair (13.2 lbs/pair)



Right handed model shown.



Left handed model shown.



Item No.		Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
Left	Right					
PL-100L	PL-100R	55	100	1000	304 Stainless Steel	Plain

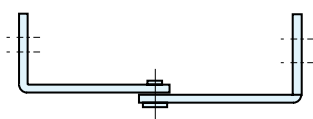
OVERLAY DOOR PIVOT HINGE



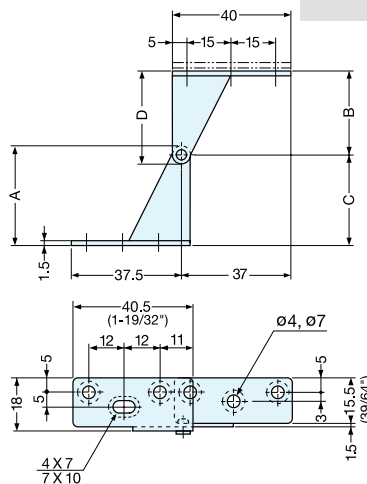
WP



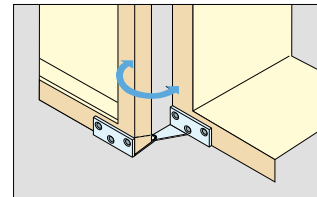
Left handed model shown.



Left-Hand Opening



- Door Size: Max. W300 × H700 mm (W11-13/16" × H27-9/16")
- Door Thickness:
WP-1L/R-Max.24 (15/16")
WP-3L/R-Max.18 (11/16")
- Door Weight: Max. 1.8 kg/pair (3.9 lbs/pair)



Installation

Item No.		A	B	C	D	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right							
WP-1L	WP-1R	34	28	30.5	31	23	100	1000
WP-3L	WP-3R	28	22	24.5	25	21		

Material	Finish
430 Stainless Steel	Plain

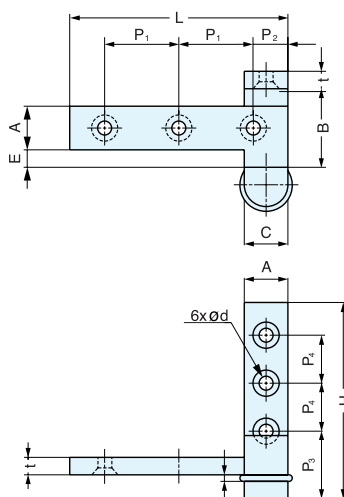
OVERLAY DOOR PIVOT HINGE



PAS

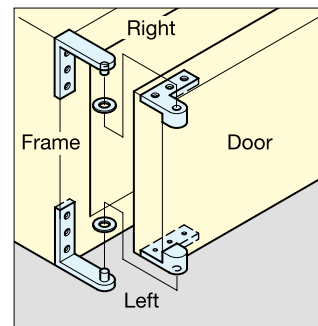


Left handed model shown.



Right handed model shown.

- Door Size: Max. W450 × H700 mm (W17-3/4" × H27-9/16")
- Recommended Door Thickness:
PAS-50, 60 : 21 mm (13/16")
PAS-80 : 25 mm (1")
PAS-95 : 30 mm (1-3/16")
- Door Weight:
PAS-50, 60: Max. 2.6 kg/pair (5.7 lbs/pair)
PAS-80, 95: Max. 4 kg/pair (8.8 lbs/pair)



Installation

Material	Finish
Brass	Satin Nickel

Item No.	L	t	H	A	B	C	E	P ₁	P ₂	P ₃	P ₄	d	Weight (g)	Box (set)	Carton (set)
PAS-50	50	4.0	45	10	22.0	10	4	17	8.0	15.5	11.0	3.2	43	10	200
PAS-60	60	4.5	50	12				21	9.0	16.0	13.5				
PAS-80	80	6.0	70	16	26.5	15		30	10.0	24.0	19.0	4.2	161	8	32
PAS-95	95	6.5	80	19	31.5	16		9	35	12.5	26.0		22	233	6

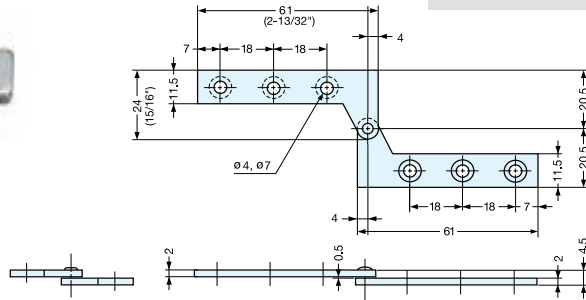
INSET DOOR PIVOT HINGE



PP



Left handed model shown.



Right handed model shown.

- Door Size: Max. W450 × H700 mm (W17-3/4" × H27-9/16")
- Door Weight: Max. 2.6 kg/pair (5.7 lbs/pair)

Item No.		Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
Left	Right					
PP-L	PP-R	22	100	1000	430 Stainless Steel	Plain

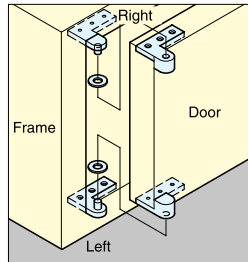
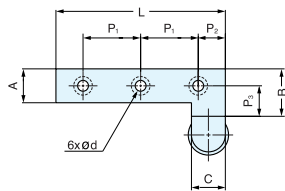
INSET DOOR PIVOT HINGE



PH

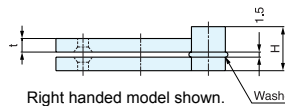


Left handed model shown.



Installation

- Door Size: Max. W450 × H700 mm (W17-3/4" × H27-9/16")
- Recommended Door Thickness:
 - PH-50 : Min. 14 mm (9/16")
 - PH-60 : Min. 16 mm (10/16")
 - PH-80 : Min. 20 mm (3/4")
 - PH-95 : Min. 28 mm (1-1/8")
- Door Weight:
 - PH-50, 60: Max. 2.6 kg/pair (5.7 lbs/pair)
 - PH-80, 95: Max. 4 kg/pair (8.8 lbs/pair)



Right handed model shown.

Material	Finish
Brass	Satin Nickel

Item No.	L	t	H	A	B	C	P ₁	P ₂	P ₃	d	Door Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Screws
PH-50	50	4.0	13	10	14	10	17	8.0	9.0	3.2	14 (35/64")	40	10	20	3.1 × 20
PH-60	60	4.5		12	16	12	21	9.0	9.0		16 (5/8")	60			
PH-80	80	6.0	22	16	20	15	30	10.0	12.0	4.2	20 (25/32")	170	8	32	3.8 × 25
PH-95	95	6.5		19	28	16	35	12.5	18.5		28 (1-3/32")	250			

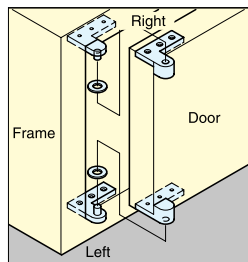
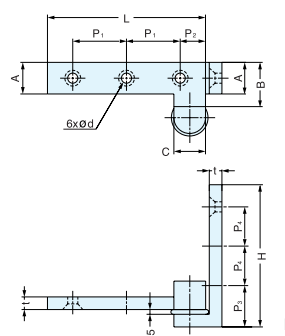
INSET DOOR PIVOT HINGE



PAW



Left handed model shown.



Installation

- Door Size: Max. W450 × H700 mm (W17-3/4" × H27-9/16")
- Recommended Door Thickness:
 - PAW-50 : 14 mm (9/16")
 - PAW-60 : 16 mm (10/16")
 - PAW-80 : 20 mm (3/4")
 - PAW-95 : 28 mm (1-1/8")
- Door Weight:
 - PAW-50, 60: Max. 2.6 kg/pair (5.7 lbs/pair)
 - PAW-80, 95: Max. 4 kg/pair (8.8 lbs/pair)

Material	Finish
Brass	Satin Nickel

Item No.	L	t	H	A	B	C	P ₁	P ₂	P ₃	P ₄	d	Door Thickness (mm)	Weight (g)	Box (set)	Carton (set)	Screws
PAW-50	50	4.0	45	10	14	10	17	8.0	13.0	12.5	3.2	14 (35/64")	43	10	200	3.1 × 20
PAW-60	60	4.5	50	12	16	12	21	9.0	12.5	15.5		16 (5/8")	62			
PAW-80	80	6.0	70	16	20	15	30	10.0	15.0	23.0	4.2	20 (25/32")	172	8	32	3.8 × 25
PAW-95	95	6.5	80	19	28	16	35	12.5	18.0	25.5		28 (1-3/32")	248			

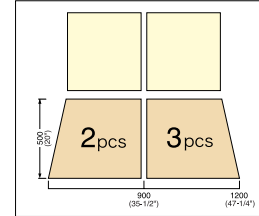
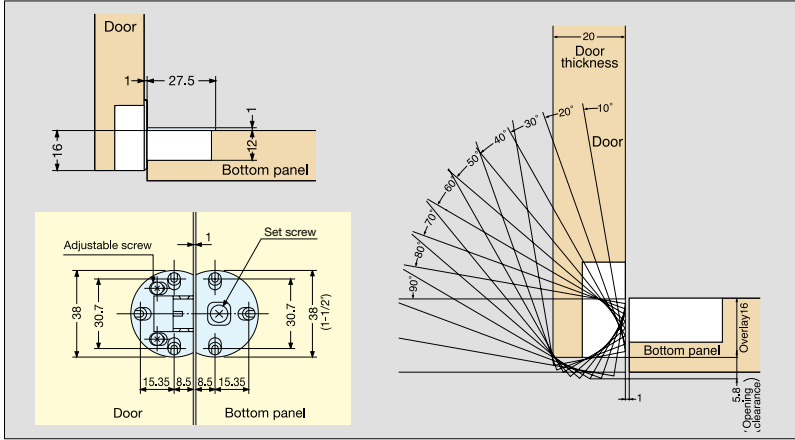
DROP LID HINGE (ADJUSTABLE TYPE)



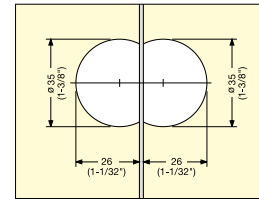
SDH-001



- Opening angle 90°.
- 2-way adjustment. (Overlay and door gap)
- Flush when opened, ideal for writing desk application.
- Can be used with soft down stay SDS-100, NSDX-10 or HDS-10.
- Door Thickness: 16~20 mm (5/8"~3/4")
- Overlay Coverage: 14~16 mm (9/16"~5/8")
- Painted round head screws available for SDH-001/BLK (3 x 13) at a surcharge (Item No. SDH-001-S-BL).



Recommended use



Bore Dimensions

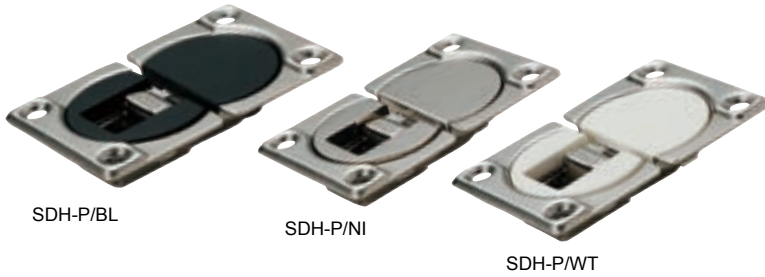
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SDH-001/Ni	79	50	200
SDH-001/Blk			

Material	Finish
Zinc Alloy	Nickel
	Black

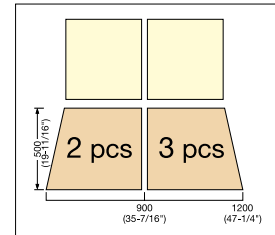
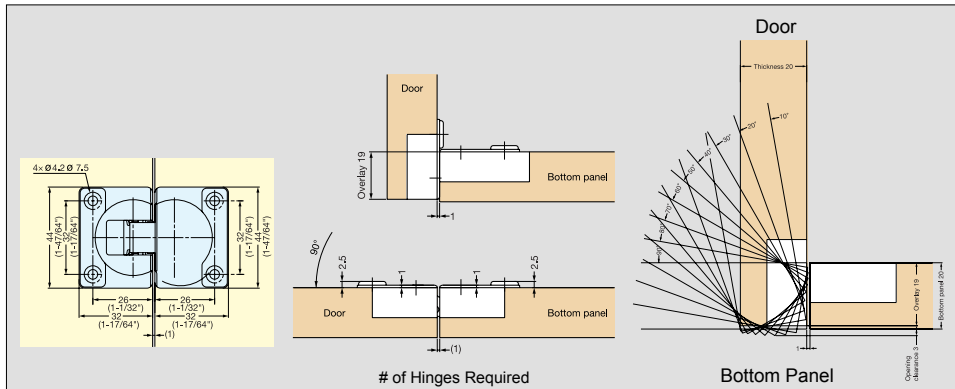
DROP LID HINGE (3-WAY ADJUSTMENT)



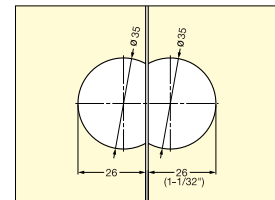
SDH-P



- 3-way adjustment (overlay, horizontal, door gap).
- Flush when opened.
- Can be used with soft down stay CSD-10-TV, SDS-100 or NSDX-10.
- Door Thickness: 16~20 mm (5/8"~25/32").
- Overlay Coverage: 16~19 mm (5/8"~3/4").



Recommended use



Bore Dimensions

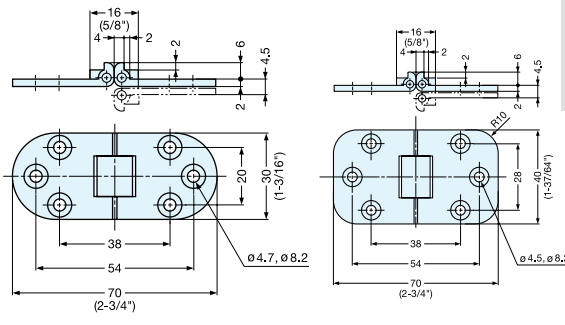
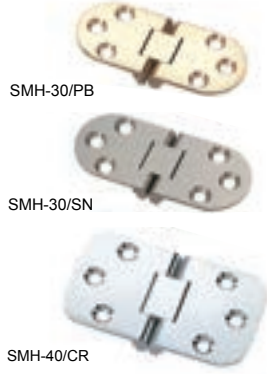
Item No.	Finish/Color	Box (sets)	Carton (sets)
SDH-P/Bl	Nickel/Black Covers	50	100
SDH-P/Ni	Nickel/Nickel Covers		
SDH-P/Wt	Nickel/White Covers		

No.	Part Name	Material	Finish
①	Hinge Body	Steel	Nickel
②	Cover	ABS	Black/Nickel/White

TABLETOP HINGE



SMH-30, 40



- Double pivot hinge with 180° opening.
- Door Size: Max. W450 × H700 × t21 mm (W17-3/4" × H27-9/16" × t53/64")
- Door Weight: Max. 4 kg/pair (8.8 lbs/pair)
- Creates a flush surface when hinge is recessed into a tabletop, tray, etc.

Please specify the finish when ordering.

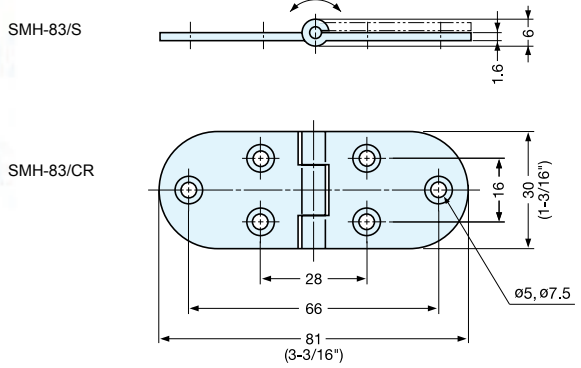
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SMH-30	45	24	360
SMH-40	64	16	240

Material	Finish
Brass	Polished Brass (PB) Satin Nickel (SN) Chrome (CR)

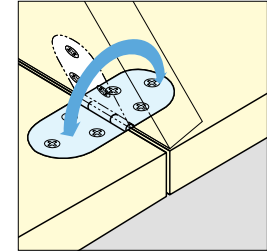
TABLETOP HINGE



SMH-83



- Door Size: Max. W450 × H700 × t21 mm (W17-3/4" × H27-9/16" × t53/64")
- Door Weight: Max. 4 kg/pair (8.8 lbs/pair)



Installation

* NSF Component

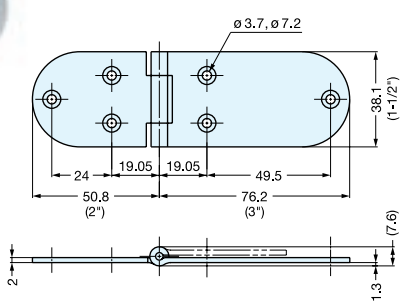
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SMH-83/S*	28	100	1000
SMH-83/CR	31		

Material	Finish
304 Stainless Steel	Satin (S)
Steel	Chrome (CR)

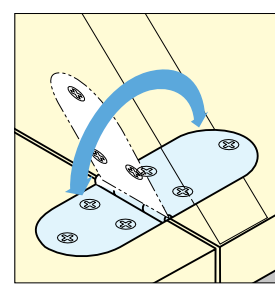
TABLETOP HINGE



MA-5



- Door Size: Max. W450 × H700 × t21 mm (W17-3/4" × H27-9/16" × t53/64")
- Door Weight: Max. 4 kg/pair (8.8 lbs/pair)



Installation

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
MA-5	74	20	200

Material	Finish
304 Stainless Steel	Mirror

CENTER HINGE FOR FOLDING DOORS



CH-75

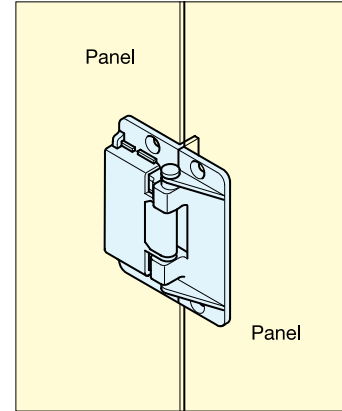
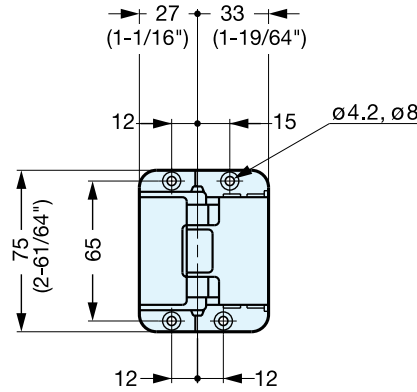
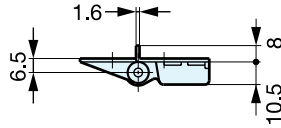
- 180° opening.
- Snaps in at open and closed position, ideal for folding doors.



CH-75/GB



CH-75/NI



Installation

Item No.		Weight (g)	Box (pcs)	Carton (pcs)
CH-75/GB	CH-75/NI	100	42	168

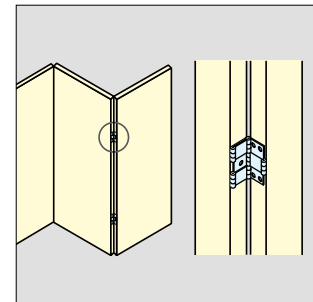
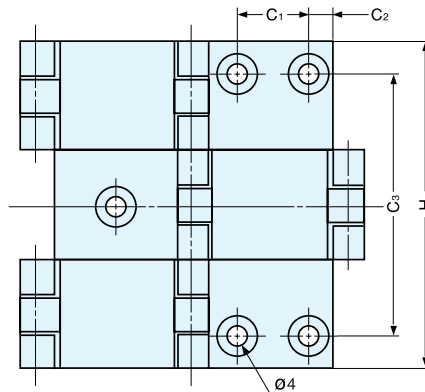
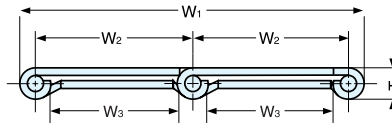
Material	Finish
Zinc Alloy	Bronze (GB)
Polyacetal	Nickel (NI)
Polyamide	

DOUBLE ACTION HINGE



HG-BH

- Opens 180° in both left and right direction.
- Door Size: Max. W450 × H700 mm (W17-3/4" × H27-9/16")
- Door Weight: Max. 2.6 kg/pair (5.7 lbs/pair).



Installation

Material	Finish
304 Stainless Steel	Satin

Item No.	W ₁	W ₂	W ₃	T	H	C ₁	C ₂	C ₃	Weight (g)	Box (pcs)	Carton (pcs)
HG-BH60	64 (2-1/2")	29.0 (1-1/8")	7/8	5.5	60 (2-23/64")	13.5 (17/32")	4.8	47	65	20	260
HG-BH70	78 (3-1/16")	35.0 (1-3/8")	1-1/16	7.5	70 (2-3/4")	13.5 (17/32")	6.8	57	130	10	180
HG-BH80	94 (3-11/16")	43.2 (1-11/16")	1-3/8		80 (3-5/32")	22.0 (55/64")	6.5	66	175		120

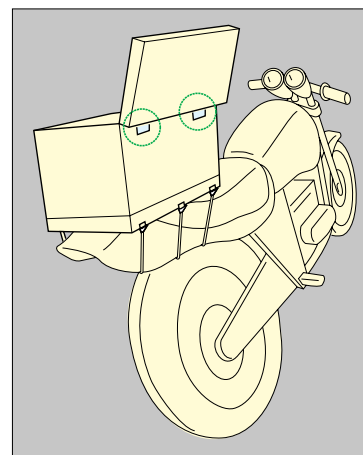
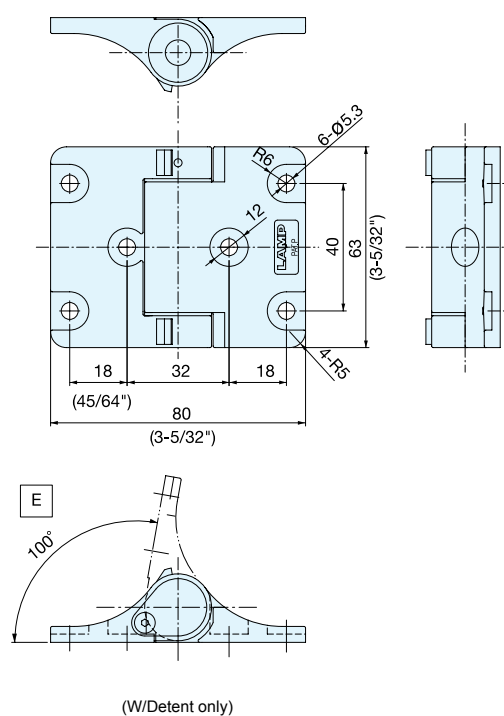
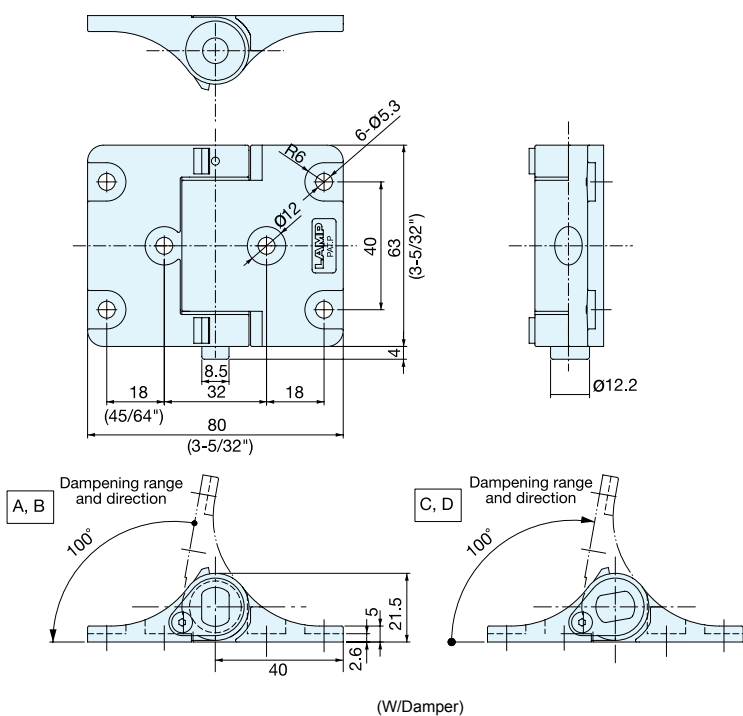
DETENT HINGE (WITH, WITHOUT DAMPER)



HG-CSH63



- Detent hinge with built-in damper as an option.
- Detent will hold lid in open/closed position without secondary support, and optional damper will provide soft closing.
- Operating angle: 100° (Detent at both 0° and 100°)
- Detent holding force: 10.0 kgf·cm (8.8 lbs·in)
- Damper torque range: 10.2~25.5 kgf·cm (9~22 lbs·in)/pc



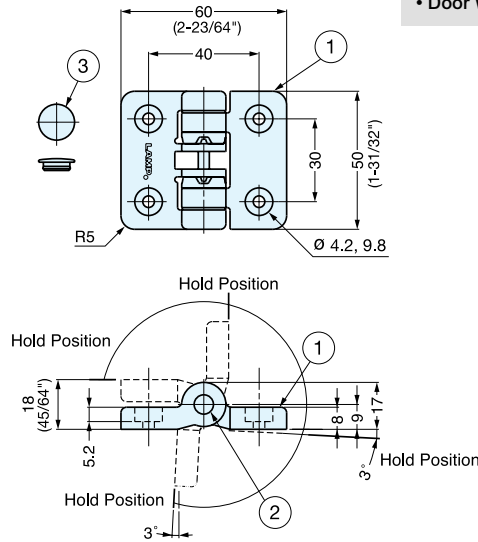
Item No.	Torque (kgf·cm)/pc	Dampening Direction	Type	Weight (g)	Box (pcs)	Carton (pcs)
HG-CSH63AH	17.3~25.5 (15~22 lbs·in)	Counter Clockwise	A	114.3	10	120
HG-CSH63AM	10.2~17.3 (9~15 lbs·in)		B			
HG-CSH63BH	17.3~25.5 (15~22 lbs·in)	Clockwise	C			
HG-CSH63BM	10.2~17.3 (9~15 lbs·in)		D			
HG-CSH63	-	-	E	98.7		

Material	Finish
Zinc Alloy	Silver

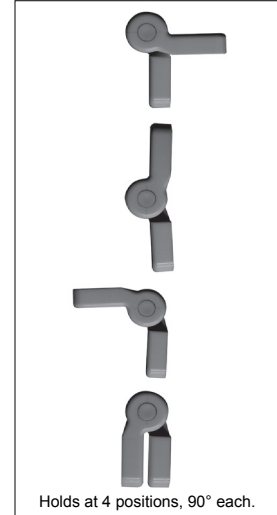
DETENT HINGE



HG-YJ50



- Plastic hinge holds doors at 4 different positions (90° each) without secondary support.
- Ivory or Black available.
- Door Sizes Max. W400 × H500 mm/pair (W15-3/4" × 19-11/16" /pair)
- Door Weight: Max.1.2 kg/pair (2.6 lbs/pair)



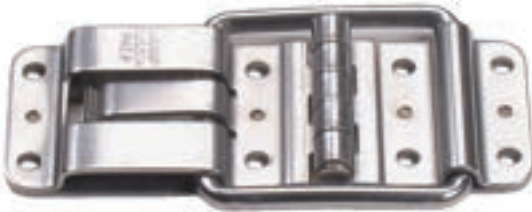
Item No.	Catch Release Torque (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-YJ50/IV	5 (4.3 lbs·in)	30	20	200
HG-YJ50/BL				

No.	Part Name	Material	Color
①	Body	Polyacetal	Ivory/Black
②	Hinge Pin	303 Stainless Steel	Plain
③	Cap	Polypropylene	Ivory/Black

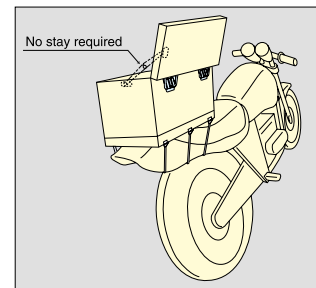
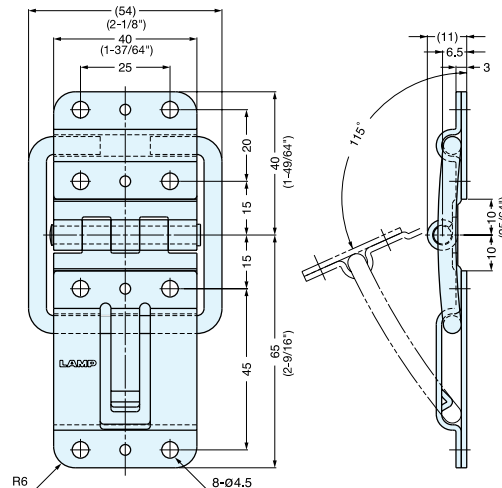
DETENT HINGE



HG-YC105



- Snaps in at 115° open position.
- Holds doors open without secondary support.



Installation

Item No.	Catch Release Torque (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-YC105	12 (10.4 lbs·in)	122	10	100

Material	Finish
304 Stainless Steel	Polished

DETENT HINGE



HG-MPS2

HINGES

DETENT HINGES

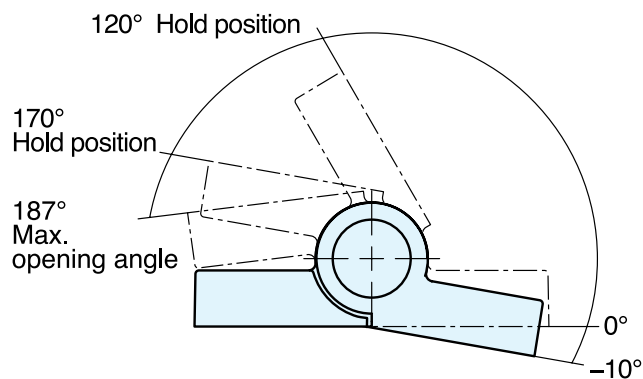
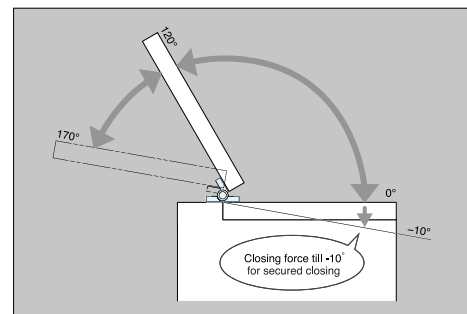
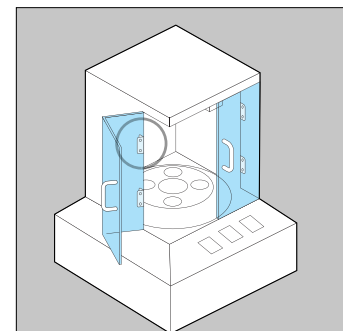
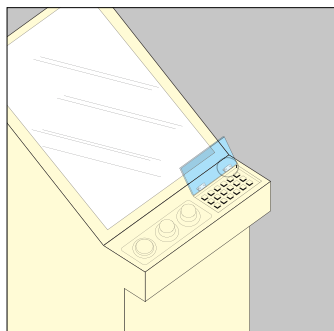
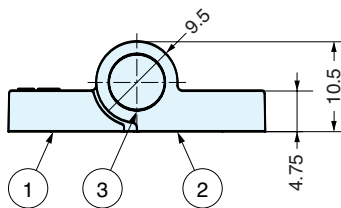
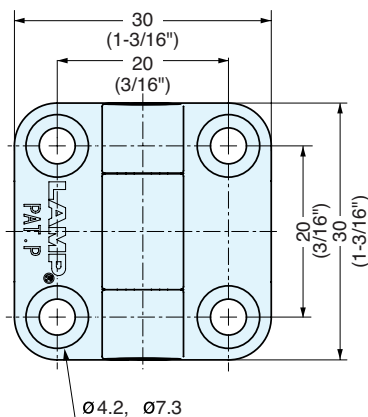


White



Black

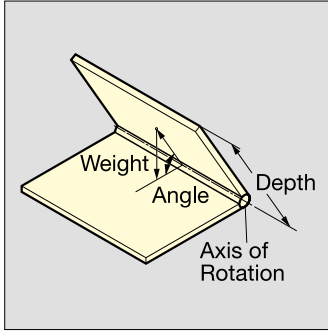
- Plastic hinge holds doors at 3 different positions (-10°, 120°, 170°).
- Door weight: Max 1.0kg/pair (2.2lbs/pair).
- Ideal for small equipment with light weight doors such as measuring devices, medical equipment, etc.
- Additional stopper recommended at 0° and 170°.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
HG-MPS2-BL	6.9	20	200
HG-MPS2-WT			

No.	Part Name	Material	Finish
①	Body A	PBT	White/Black
②	Body B		
③	Cap	ABS	

TORQUE HINGE INTRODUCTION



Torque (or constant friction) hinges are useful for a variety of applications which require a set position to be held for an indefinite amount of time. They do not have a strict load capacity, but instead a torque rating, which must be overcome to re-position the hinge.

Sugatsune also manufactures a variety of soft close dampening hardware. See page 256~265 for more information on that line of hardware.

The torque rating of an application can be determined by using the following equation:

$$\text{panel weight (in pounds)} \times \text{panel depth (in inches)} \times \frac{1}{2} = \text{torque (in lbs-in)}$$

- Avoid using torque hinges where the hinge would be exposed to constant use, sudden or unexpected shock, or extreme temperature and/or humidity. Please consider the following points while selecting a hinge:
- What angle will the panel be held at, and for how long?
- What will the hinge be attached to and how?
- Is torque required when the hinge is moved in both directions?
- What variance in torque is acceptable for your application?

Item No.	Torque (kgf-cm)	Torque (lbs-in)	Page	Torque (kgf-cm)	
				10	20
HG-TQA90-A (B)	91.8-20~+40%	79.7-20~+40%	241		90
HG-ITS25	25±20%	21.7±20%	242	20	25
HG-ITS35	35±20%	30.4±20%		30	35
HG-ITM50	50±20%	43.4±20%		40	50
HG-ITM70	70±20%	60.8±20%		50	70
HG-TS03	3.60-20~+40%	3.1-20~+40%	243	3	3.6
HG-TS07	7.10-20~+40%	6.2-20~+40%		7	7.1
HG-TS15	15.30-20~+40%	13.3-20~+40%		13	15.3
SFTH	5~58±2 kgf-cm	4.3~50.3±1.7 lbs-in	244	4	58
SK-T-ZA-1SCR (CR)	30.00±15%	26±15%		26	30
SK-T-ZA-2SCR (CR)	20.00±15%	17±15%		17	20
SK-T-ZA-3SCR (CR)	15.00±15%	13±15%		13	15
HG-T30S15	30.6±20% 15.3±20%	26.5±20% 13±20%	245	15	30
HG-T70S30	71.4±20% 30.6±20%	62±20% 26.6±20%		30	71
HG-TA20R (L)	20.4±20%	17.7±20%	246	17	20
HG-TA30R (L)	30.6±20%	26.5±20%		26	30
HG-TA45R (L)	45.9±20%	39.8±20%		39	45
HG-TB20R (L)	20.4±20%	17.7±20%		17	20
HG-TB30R (L)	30.6±20%	26.5±20%		26	30
HG-TB45R (L)	45.9±20%	39.8±20%		39	45
HG-S30	30.6±20%	26.6±20%	247	26	30
HG-S50	51.0±20%	44.3±20%		43	51
HG-TU03	3.6-20~+40%	3.1-20~+40%		3	3.6
HG-TU07	7.1-20~+40%	6.1-20~+40%		6	7.1

1-WAY TORQUE HINGE



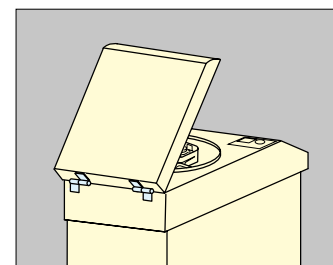
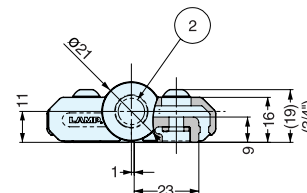
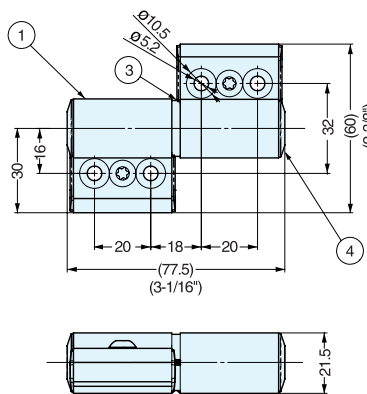
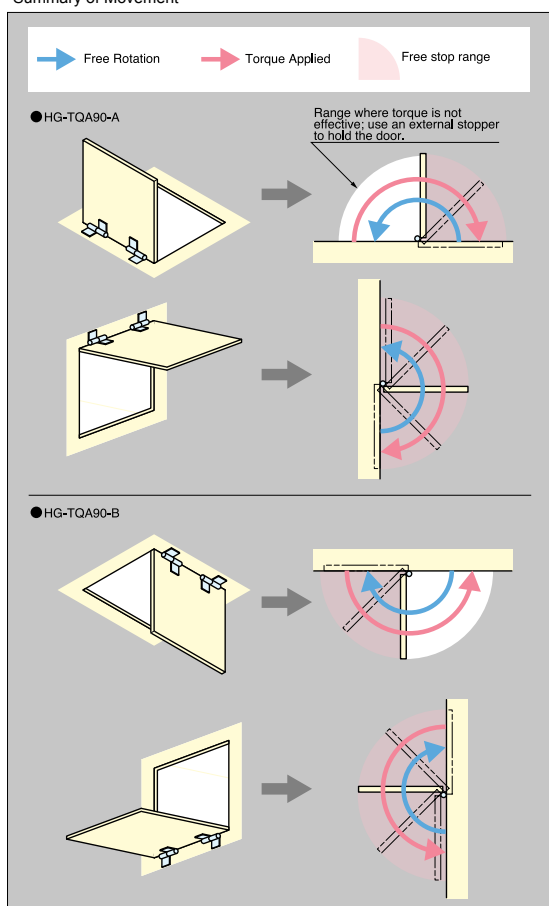
HG-TQA



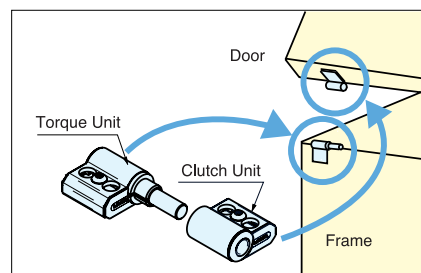
- Friction in one direction only:
HG-TQA90-A: free rotation when turned counterclockwise, constant torque is applied when turned clockwise.
HG-TQA90-B: free rotation when turned clockwise, constant is applied when turned counterclockwise.

- Note:
- Initial torque may vary - 20%~ + 40%.
 - Not suited to vibration environment.
 - Torque will be affected by temperature.
 - Not suitable for high frequency use.
 - Do not lubricate.
 - For indoor use only.

Summary of Movement



Installation



Item No.	Torque (kgf-cm)/pair	Weight (g)/pair	Box (set)	Carton (set)
HG-TQA90-A	91.8 (79.7 lbs-in)	270	10	100
HG-TQA90-B				

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Anodized
②	Arm Shaft	Stainless Steel	Plain
③	Sleeve	Polyacetal (POM)	Black
④	Cover	Polyacetal (POM)	Black



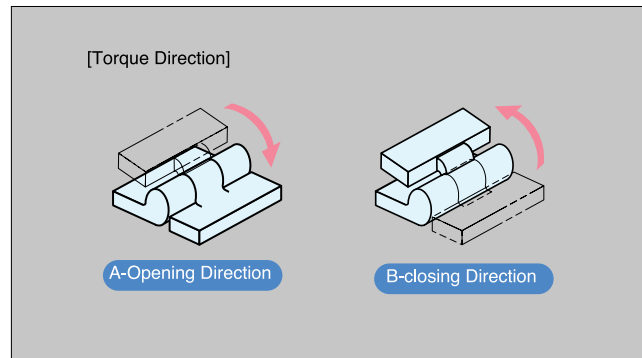
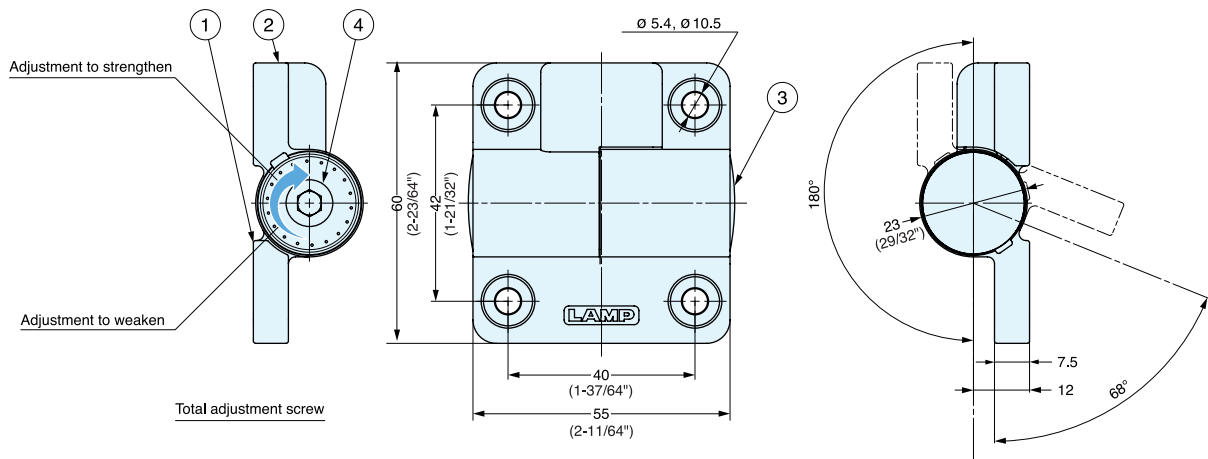
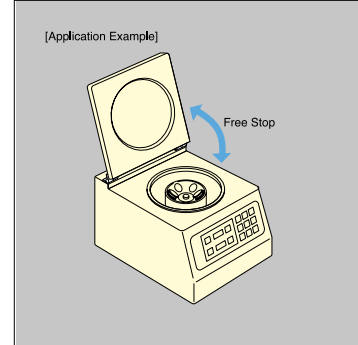
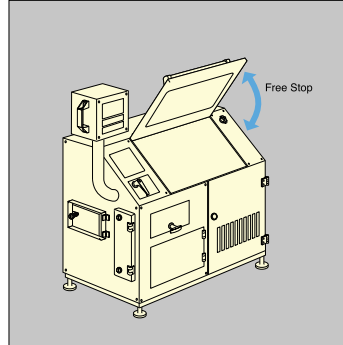
HG-TQJ100

1-WAY TORQUE HINGE (ADJUSTABLE)

HINGES

1-WAY TORQUE HINGE (ADJUSTABLE)

- Friction in one direction only.
- Torque strength adjustable.
- 2 versions available for friction torque at "opening" direction (type – A) and at closing direction (type – B).



Item No.	Torque Direction	Torque per piece (kgf·cm)
HG-TQJ100-A	Opening	0~102 (0~88.7 lbs·in)
HG-TQJ100-B	Closing	

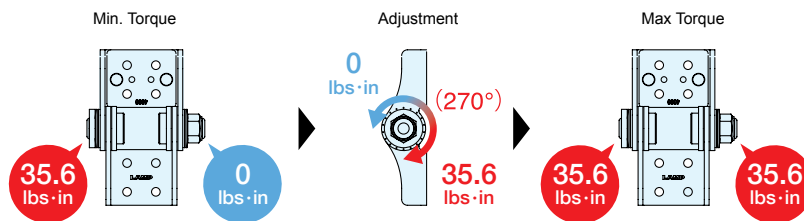
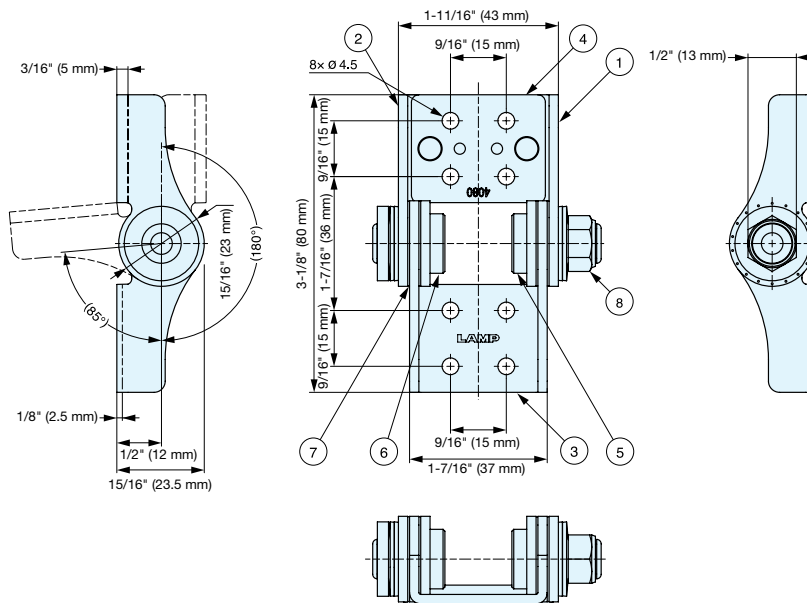
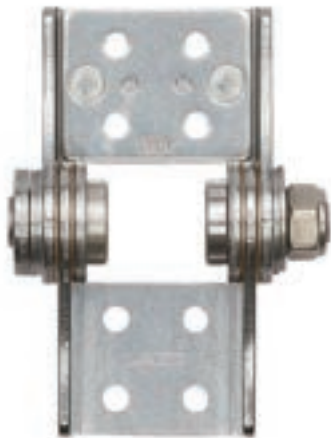
No.	Part Name	Material	Finish
①	Bracket A	Zinc Alloy	Silver
②	Bracket B		
③	Cover Cap	Polypropylene	Dark Grey
④	Torque adjustment screw	Steel	-

TORQUE HINGE (ADJUSTABLE)



HG-ITJ4080

- Torque strength is adjustable.
- Hinge with friction torque holds lid/door in desired position.
- High torque in a small profile.
- 35.6 lbs · in ±20% minimum torque



Item No.	Torque per piece	Weight (g)	Box (pcs)	Carton (pcs)
HG-ITJ4080	35.6~71.2 lbs·in (41~82 kgf·cm)	163	10	80

No.	Part Name	Material	Finish
①	Bracket A	430 Stainless Steel	Mirror
②	Bracket B		
③	Bracket C		
④	Plate		
⑤	Shaft A	Stainless Steel	Plain
⑥	Shaft B		
⑦	Washer	Phosphor Bronze	Polished
⑧	Nut (Torque Adjustment)	Stainless Steel	-

STAINLESS STEEL TORQUE HINGE



HG-TP

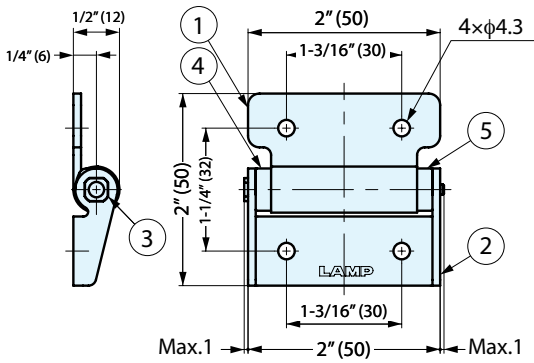
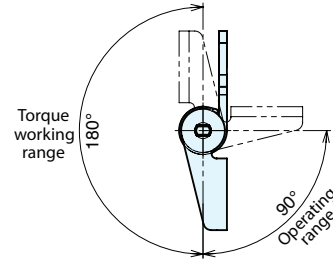
HINGES

STAINLESS STEEL TORQUE HINGES

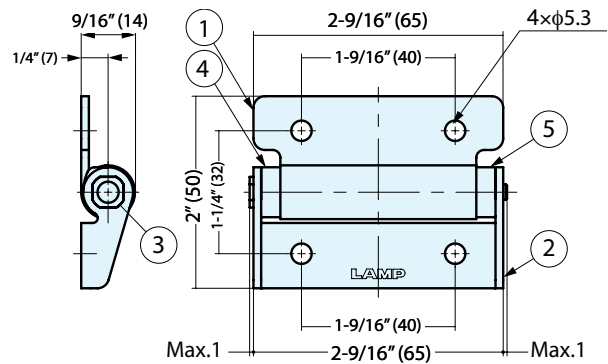
- Hinge with friction torque holds lid/door in desired position.
- Stainless steel material ideal for harsh environments.
- Free stop between 0-180 degrees.

Note:

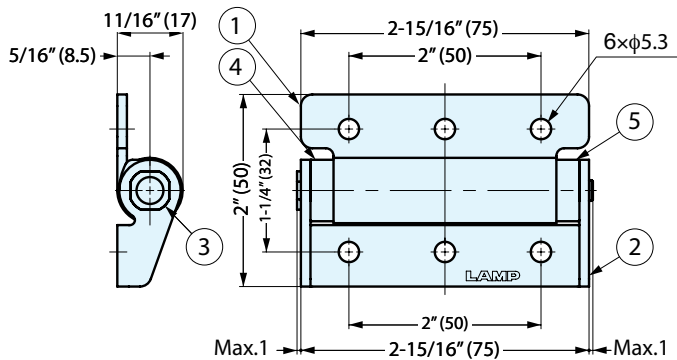
- At least 2 hinges necessary for 1 door.



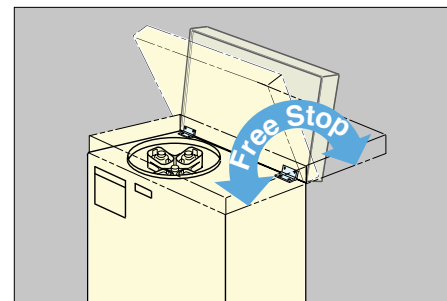
HG-TP20



HG-TP30



HG-TP45



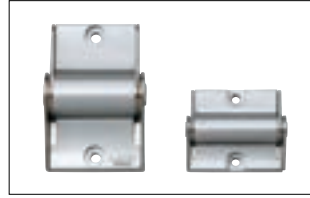
Item No.	Torque per piece (kgf-cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-TP20	20.3 (17.6 lbs-in)	60	50	200
HG-TP30	30.5 (26.5 lbs-in)	90	25	100
HG-TP45	45.8 (40 lbs-in)	150		

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Base	304 Stainless Steel	Polished
③	Fixing Tube	Polyacetal	Black
④	Fixing Tube		
⑤	Shaft	303 Stainless Steel	-

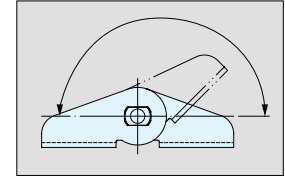
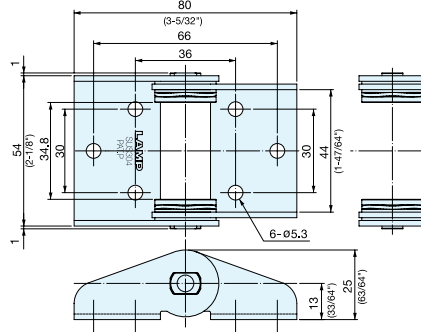
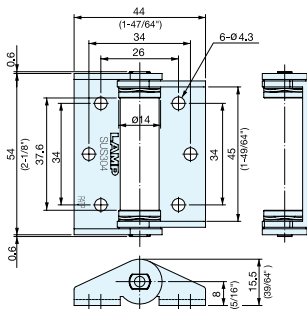
TORQUE HINGE



HG-IT



- Hinge with friction torque for holding monitors, displays etc. in position.
- Without friction torque available. (HG-ITSF, HG-ITMF)
- Optional cover available for clean appearance.
- Operating Temperature: - 10°C~50°C (14F°~122F°)



Applicable torque range

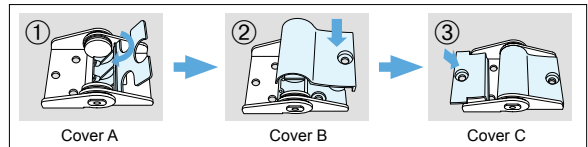
HG-ITM, HG-ITMF

* NSF Components

Item No.	Cover For	Weight (g)	Box (pcs)	Carton (pcs)
HG-ITSC*	HG-ITS, HG-ITSF	10	40	960
HG-ITMC*	HG-ITM, HG-ITMF	18	20	480

Item No.	Torque per piece (kgf-cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-ITSF	Free Movement	50	10	80
HG-ITMF	Free Movement	130		

Item No.	Torque per piece (kgf-cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-ITS25	25 (21.7 lbs-in) ±20%	50	20	160
HG-ITS35	35 (30.4 lbs-in) ±20%			
HG-ITM50	50 (43.4 lbs-in) ±20%	130	10	80
HG-ITM70	70 (60.8 lbs-in) ±20%			



HG-ITSC, HG-ITMC

Part Name	Material	Finish
Body	304 Stainless Steel	Polished
Shaft	303 Stainless Steel	Plain
Washer	Phosphor Bronze	Polished
Spring Washer	Steel	Nickel
Cover	ABS	Silver

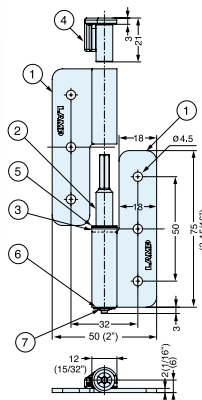
LIFT-OFF TORQUE HINGE



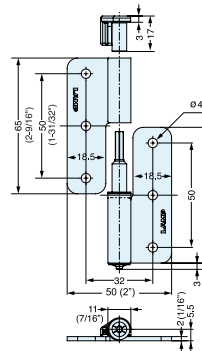
HG-KNT



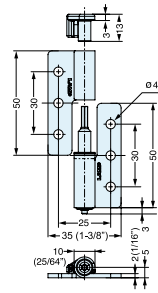
HG-KNT3L



HG-KNT 16

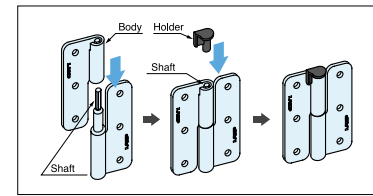


HG-KNT 7



HG-KNT 3

- Hinge with friction torque lift off feature for easy removal.
- Can be used horizontally.
- Passed 20,000 open/close cycle tests.



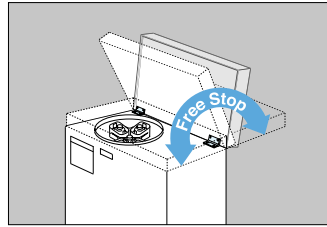
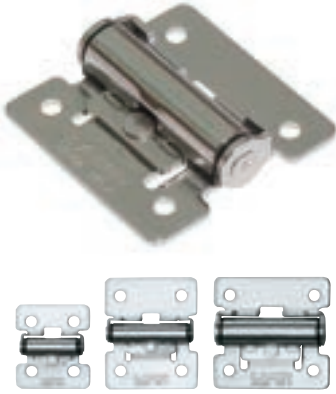
Item No.	Type	Torque per piece (kgf-cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-KNT3L	Left	3.1 (2.5 lbs-in) ± 20%	42	50	200
HG-KNT3R	Right				
HG-KNT7L	Left	7.1 (5.7 lbs-in) ± 20%	76	30	120
HG-KNT7R	Right				
HG-KNT16L	Left	16.3 (13.0 lbs-in) ± 20%	96	30	120
HG-KNT16R	Right				

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Shaft		
③	Plug	Polyacetal	Black
④	Holder	Polyamide	
⑤	Washer A	PTFE	Natural
⑥	Washer B	Polyacetal	
⑦	Nut	Stainless Steel	

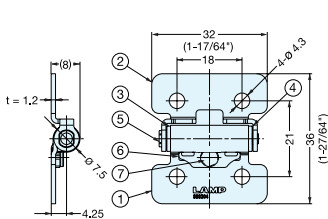
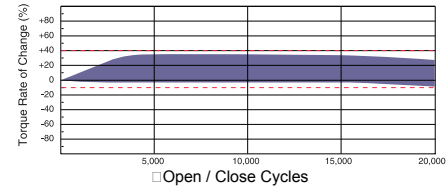
STAINLESS STEEL TORQUE HINGE



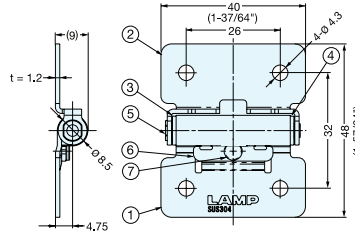
HG-TS



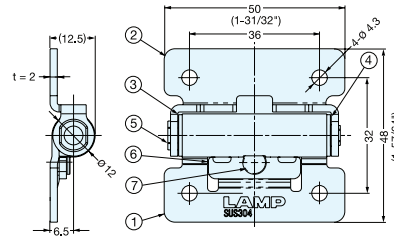
- Hinge with friction torque holds lid/door in desired position.
 - Stainless steel material ideal for harsh environments.
 - Free stop between 0~180 degrees.
 - Successfully passed 20,000 open/close private cycle tests.
- Note:
- Initial torque may vary - 20%~ + 40%.
 - At least 2 hinges necessary for 1 door.



HG-TS03



HG-TS07



HG-TS15

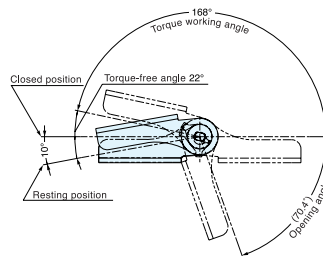
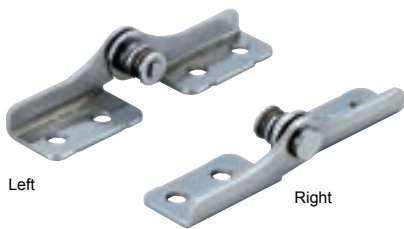
Item No.	Torque per piece (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-TS03	3.6 (3.1 lbs-in)	15.0	50	500
HG-TS07	7.1 (6.2 lbs-in)	27.5		
HG-TS15	15.3 (13.3 lbs-in)	64.1	20	200

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Base		
③	Fixing Tube	Polyacetal	Black
④	Fixing Tube		
⑤	Shaft	303 Stainless Steel	-
⑥	Press Washer	304 Stainless Steel	Polished
⑦	Pin		-

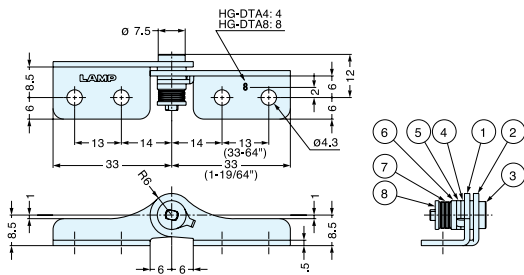
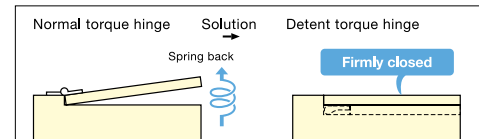
DETENT TORQUE HINGE



HG-DTA



- Hinge with built-in detent feature firmly keeps lid closed.
- No additional catch required.



No.	Part Name	Material	Finish
①	Base	304 Stainless Steel	Mirror
②	Bracket		
③	Shaft	303 Stainless Steel	-
④	Washer	Stainless Steel	
⑤	Cam A		
⑥	Cam B		
⑦	Spring Washer		
⑧	Plate		

Item No.	ID Stamp	Torque per piece (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-DTA4-R	Right	4.08 (3.55 lbs-in) ± 20%	19	50	400
HG-DTA4-L	Left				
HG-DTA8-R	Right	8.16 (7.10 lbs-in) ± 20%			500
HG-DTA8-L	Left				

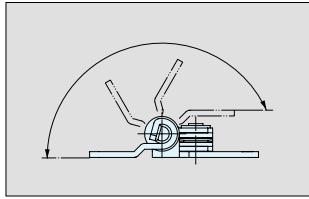
STAINLESS STEEL TORQUE HINGE



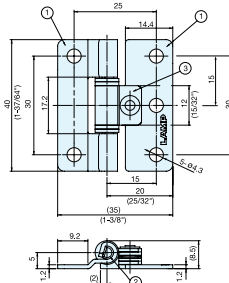
SFTH



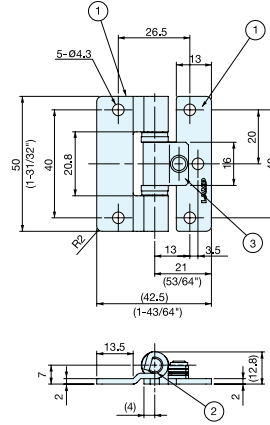
- Hinge with friction torque holds lid/door in desired position.
- Stainless steel construction for corrosive environments.
- Operating temperature: -20°C~60°C (-4°F~140°F)



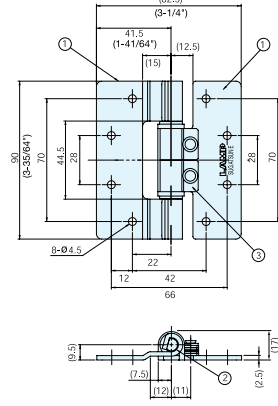
Applicable torque range



SFTH-02



SFTH-03



SFTH-05

Item No.	Torque per piece (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
SFTH-02-5	5 (4.3 lbs·in) ±1 kgf·cm	21	50	500
SFTH-03-9	9 (7.8 lbs·in) ±2 kgf·cm	51	30	300
SFTH-03-19	19 (16.5 lbs·in) ±2 kgf·cm			
SFTH-05-35	35 (30.4 lbs·in) ±5 kgf·cm	195	10	100
SFTH-05-58	58 (50.3 lbs·in) ±5 kgf·cm			

No.	Part Name	Material	Finish
①	Body A	304 Stainless Steel	Polished
②	Shaft	303 Stainless Steel	
③	Body B	301 Stainless Steel	

COMBINATION HINGE



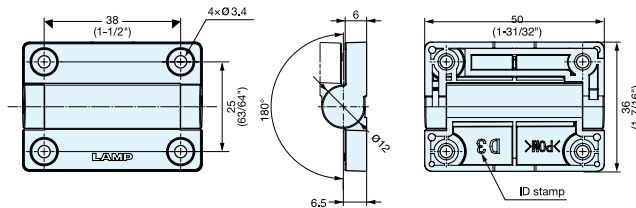
HG-VH8



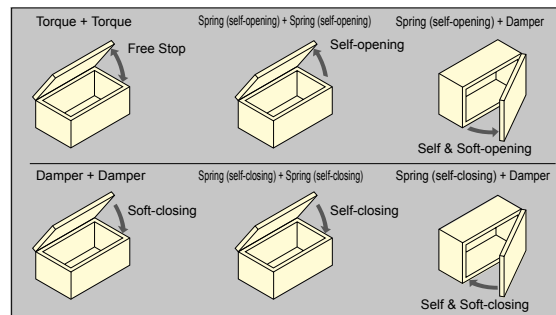
Black



White



- Hinges for light weight lids & doors.
- Various motions in same hinge case.
- Flexible combination.
- Lateral-opening door weight: Max. 810g (1.78 lbs)
- Reference door size: W300×H450×t 5 mm
Acrylic plate, Density 1.2 g/cm3



*Increase of 0.16 kgf.cm for every 30° of rotation. Maximum rotation of 120°

Item No.	ID Stamp	Feature	Torque per piece (kgf·cm)	Opening angle	Material
HG-VH8-N-BL	N	Standard Movement	-	270°	Polyacetal
HG-VH8-N-WT					
HG-VH8-D3-BL	D3	Soft-Closing Damper	0.22~0.39 (0.19~0.34 lbs·in)		
HG-VH8-D3-WT					
HG-VH8-OP-BL	OP	Self-Opening Spring	0.16 kgf·cm~0.64 kgf·cm* (0.14~0.56 lbs·in)		
HG-VH8-OP-WT					
HG-VH8-CL-BL	CL	Self-Closing Spring	0.16 kgf·cm~0.64 kgf·cm* (0.14~0.56 lbs·in)		
HG-VH8-CL-WT					
HG-VH8-T15-BL	T1	Free Stop	1.53±0.51 (1.33±0.44 lbs·in)		
HG-VH8-T15-WT					
HG-VH8-T35-BL	T3		3.57±1.02 (3.10±0.89 lbs·in)		
HG-VH8-T35-WT					



HG-TLS30-50-300

TORQUE PIANO HINGE

HINGES

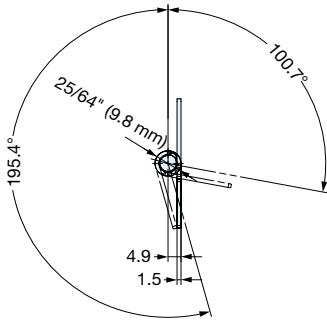
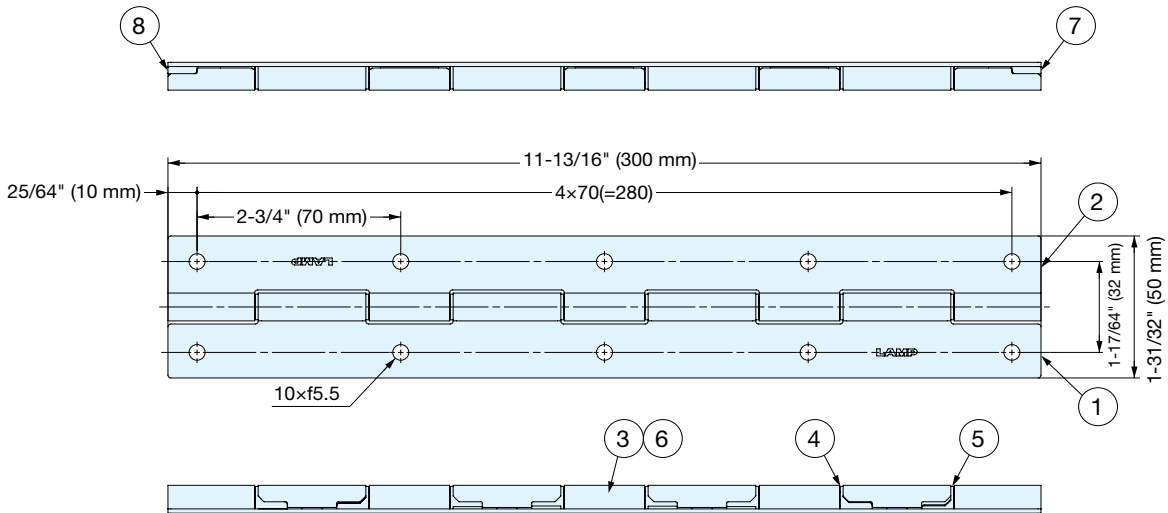
TORQUE PIANO HINGES



- Unique long type torque piano hinge.
- Free stop function maintains a safe working environment
- Reduces gaps between housing and doors for industrial equipment and shopfittings to improve security and reduce danger
- Greaseless hinge allows for water-drop level exposure
- Can be used in multiples for doors larger than 12"
- Successfully passed 30,000 private cycle tests for vertical and horizontal applications



For opening/closing of maintenance machine doors.



No.	Part Name	Material
①	Hinge A	304 Stainless Steel
②	Hinge B	
③	Shaft	
④	Plug L	POM
⑤	Plug R	
⑥	Collar	PA (Plastic)
⑦	Holder L	
⑧	Holder R	

Item No.	Torque	Weight (g)	Box (pcs)	Carton (pcs)
HG-TLS30-50-300	25 lbs·in (29 kgf·cm)	396	5	20

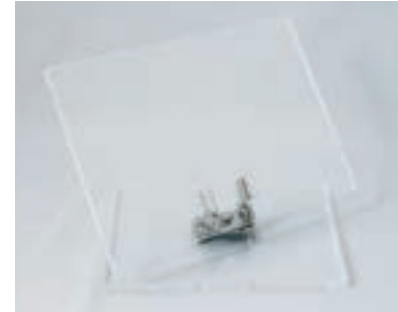
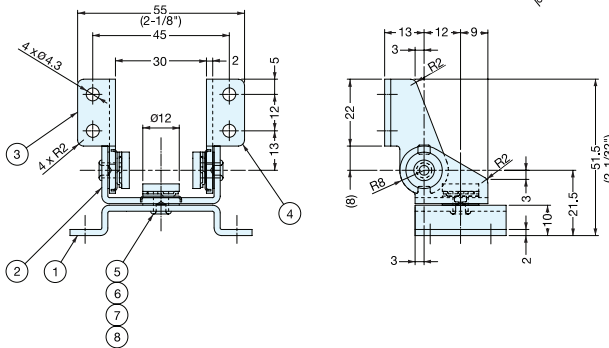
TORQUE HINGE (DUAL AXIS)



HG-T30S15



- Dual Axis: Free stop between 0°~200° (Tilting) and 360° (swiveling).
- Provides torque stability in both directions.
- Suitable for monitor screens.
- Successfully passed 20,000 open/close private cycle tests.



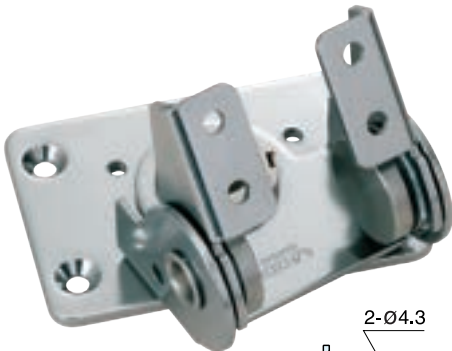
No.	Part Name	Material	Finish
①	Body	430 Stainless Steel	Polished
②	Base		
③	Bracket		
④	Bracket		
⑤	Shaft	303 Stainless Steel	Plain
⑥	Press Washer	Phosphor Bronze	Polished
⑦	Pin		-
⑧	Washer	Steel	Plain

Item No.	Torque per piece (tilting)	Torque per piece (swiveling)
HG-T30S15	26.5 lbs·in ± 20%	13.0 lbs·in ± 20%

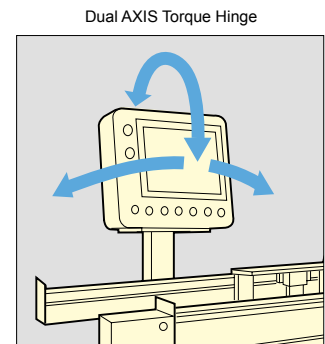
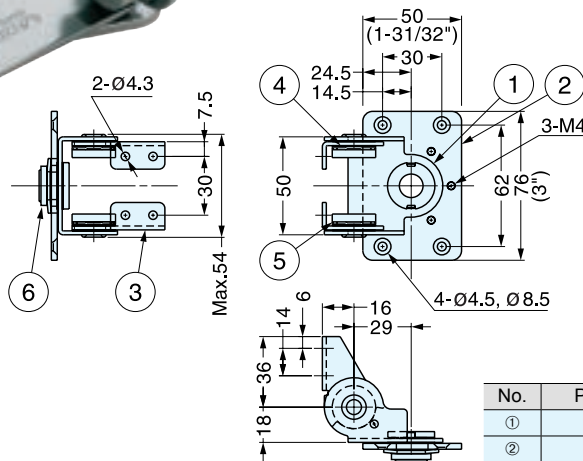
TORQUE HINGE (DUAL AXIS)



HG-T70S30



- Dual Axis: free stop at any angle in tilt & swivel.
- Provides torque stability in both directions.
- Suitable for monitor screens.



No.	Part Name	Material	Finish
①	Body	430 Stainless Steel	Polished
②	Base		
③	Bracket		
④	Spring Washer	Steel/ Phosphor Bronze	Plain
⑤	Shaft	303 Stainless Steel	
⑥	Washer	430 Stainless Steel	Polished

Item No.	Torque per piece (tilting)	Torque per piece (swiveling)
HG-T70S30	62 lbs·in ±20%	26.6 lbs·in ±20%

TORQUE HINGE



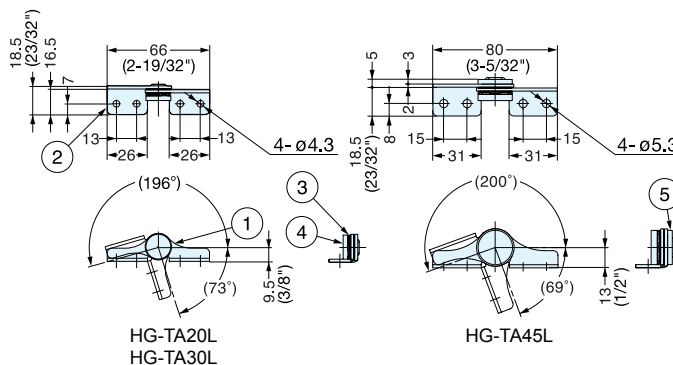
HG-TA



- Free stop hinge with friction torque.
- Consistent torque through out working range.
- Opening angle 0°~180°.

Applications:

- Ideal for indoor applications.
- LCD monitors, stationary cameras, displays, etc.



Item No.	Type	Torque per piece (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-TA20R	Right hand	20.4 ±20% (17.7 lbs·in ±20%)	30	40	320
HG-TA20L	Left hand				
HG-TA30R	Right hand	30.6 ±20% (26.5 lbs·in ±20%)	30	40	320
HG-TA30L	Left hand				
HG-TA45R	Right hand	45.9 ±20% (39.8 lbs·in ±20%)	65	20	160
HG-TA45L	Left hand				

No	Part Name	Material	Finish
①	Hinge A	430 Stainless Steel	Plain
②	Hinge B		
③	Spring Washer	Steel	-
④	Shaft	303 Stainless Steel	-
⑤	Washer	430 Stainless Steel	-

TORQUE HINGE



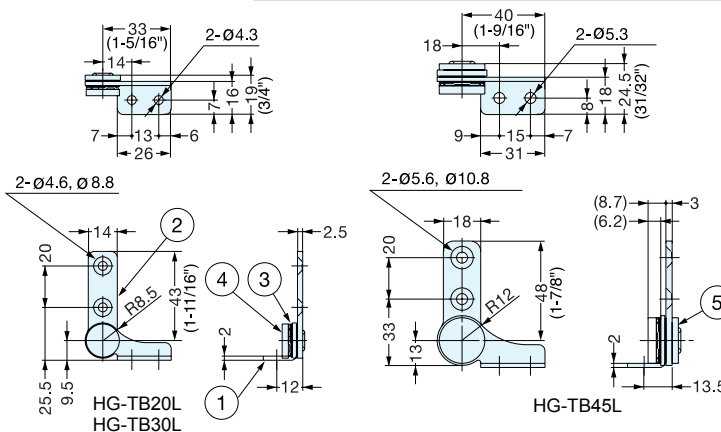
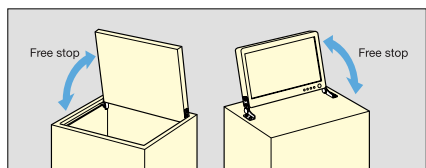
HG-TB



- Free stop hinge with friction torque.
- Consistent torque through out working range.
- Opening angle 360°.

Applications:

- Ideal for indoor applications.
- LCD monitors, stationary cameras, displays, etc.



Item No.	Type	Torque per piece (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-TB20R	Right hand	20.4±20% (17.7 lbs·in ±20%)	30	40	320
HG-TB20L	Left hand				
HG-TB30R	Right hand	30.6±20% (26.5 lbs·in ±20%)	30	40	320
HG-TB30L	Left hand				
HG-TB45R	Right hand	45.9±20% (39.8 lbs·in ±20%)	65	20	160
HG-TB45L	Left hand				

No	Part Name	Material	Finish
①	Hinge A	430 Stainless Steel	Plain
②	Hinge B		
③	Spring Washer	Steel	-
④	Shaft	303 Stainless Steel	-
⑤	Washer	430 Stainless Steel	-

DUAL AXIS TORQUE HINGE



HG-TMH



Chrome



Satin Nickel

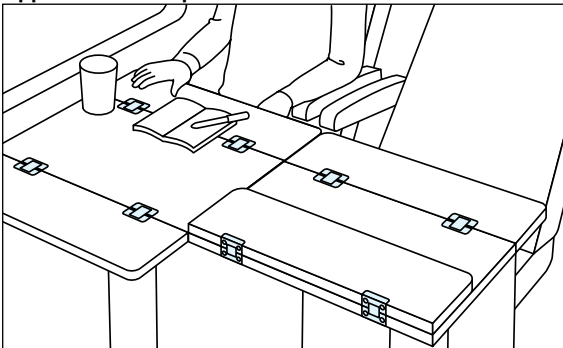


Black

- A torque hinge that can be opened 180°.
- Shafts do not protrude when the hinge is fully opened or closed.
- Easy to operate as the two shafts have different torque and move one at a time.
- Ideal for folding tables in shops, trains, caravans, etc.



Application Example



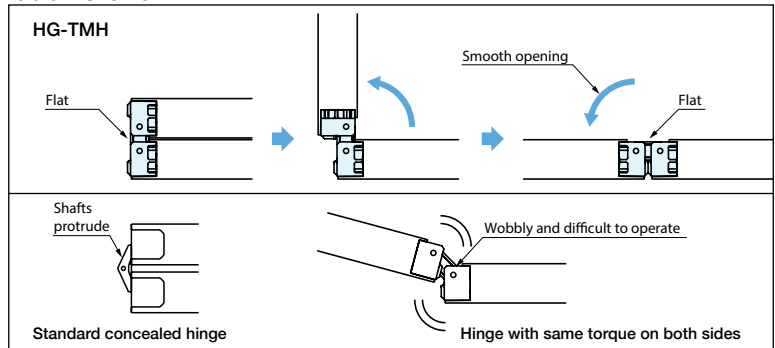
When fully opened.



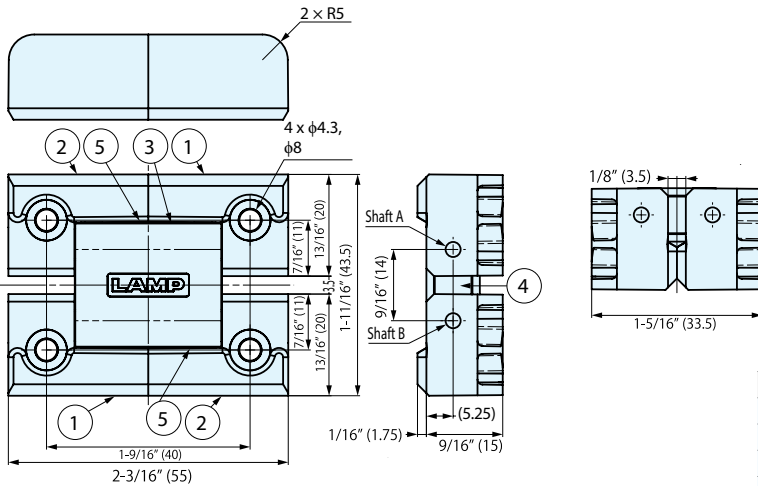
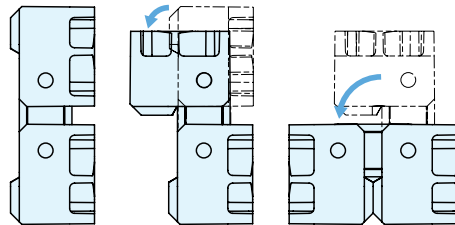
Lays flat so shafts do not protrude.

No visible screw holes when closed.

Table Movement



Hinge Movement



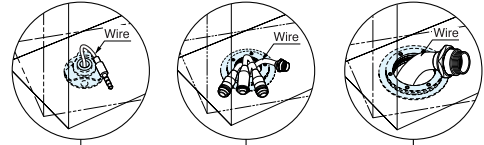
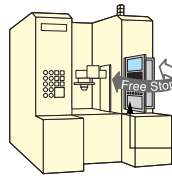
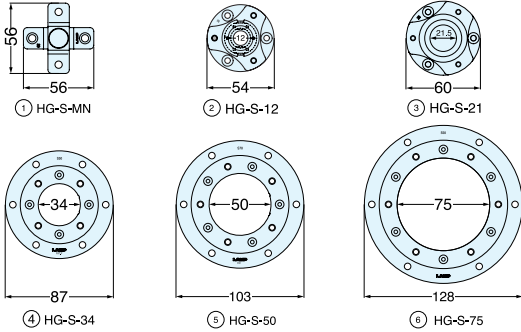
No.	Part Name	Material	Finish/Color
①	Main BodyA	Zinc Alloy	Chrome, Satin Nickel, Black
②	Main BodyB		
③	Intermediate Body		
④	Sleeve	Plastic (PBT)	Black
⑤	Bumper		

Item No.	Finish	Shaft A Torque (kgf·cm)	Shaft B Torque (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-TMH2030-CR	Chrome	20.4±20%	30.6±20%	165	10	50
HG-TMH1530-CR		15.3±20%				
HG-TMH2030-SN	Satin Nickel	20.4±20%				
HG-TMH1530-SN		15.3±20%				
HG-TMH2030-BL	Black	20.4±20%				
HG-TMH1530-BL		15.3±20%				

SWIVEL TORQUE HINGE



HG-S



Select appropriate model for wire size.

- Rotation angle: 360°
- Free stop function.

Use for:

- Industrial control panels and monitors.

Note:

- Initial torque may vary ±20%.
- Do not lubricate.
- For indoor use only.

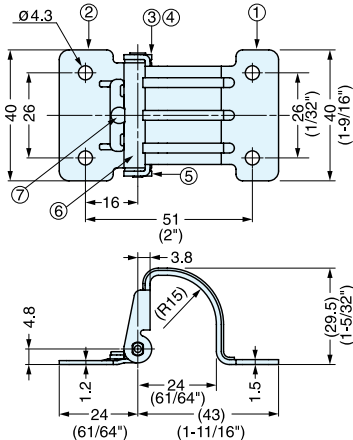
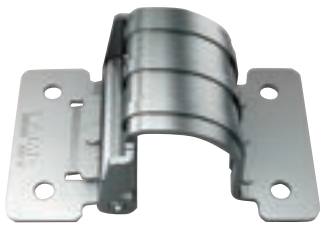
Item No.	No.	Outer Dimension (mm)	Center Hole Diameter (mm)	Torque per piece (kgf·cm)
HG-S7-MN	①	56 (2-3/16")	-	7.1 ± 20% (6.2 lbs-in)
HG-S20-MN				20.4 ± 20% (17.7 lbs-in)
HG-S30-12	②	54 (2-1/8")	12.0 (1/2")	30.6 ± 20% (26.6 lbs-in)
HG-S50-12				51.0 ± 20% (44.3 lbs-in)
HG-S30-21	③	60 (2-3/8")	21.5 (7/8")	30.6 ± 20% (26.6 lbs-in)
HG-S50-21				51.0 ± 20% (44.3 lbs-in)
HG-S50-34	④	87 (3-7/16")	34.0 (1-5/16")	51.0 ± 20% (44.3 lbs-in)
HG-S70-34				71.4 ± 20% (62.1 lbs-in)
HG-S70-50	⑤	103 (4-1/16")	50.0 (2")	71.4 ± 20% (62.1 lbs-in)
HG-S100-50				102.0 ± 20% (88.7 lbs-in)
HG-S50-75	⑥	128 (5-1/16")	75.0 (2-15/16")	51.0 ± 20% (44.3 lbs-in)
HG-S70-75				71.4 ± 20% (62.1 lbs-in)

Part Name	Material	Finish
Plate	430 Stainless Steel	Barrel Polished
Washer		
F Plate	Bronze	
Spring Washer	Stainless Steel/ Steel (HG-S-12)	
Shaft	303 Stainless Steel (HG-S7,S20)	-
Bush	POM(HG-S-34)	
Sleeve	303 Stainless Steel (HG-S30,S50)	

HIDDEN TORQUE HINGE



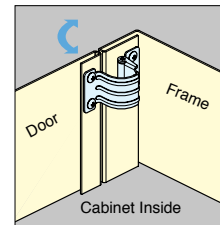
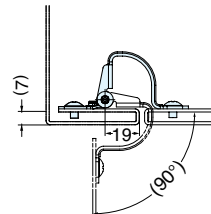
HG-TU



- Installation on the back side of the door.
- Can be used both for horizontal and vertical applications.

Note:

- Initial torque may vary -20%~+40%.
- Not suitable for high frequency use.
- Do not lubricate.
- For indoor use only.



Item No.	Torque per piece (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-TU03	3.6 (3.1 lbs-in)	50	20	200
HG-TU07	7.1 (6.2 lbs-in)			

No	Part Name	Material	Finish
①	Body	430 Stainless Steel	Polished
②	Base		
③	Fixing Tube	Polyacetal	Black
④	Fixing Tube		
⑤	Shaft	303 Stainless Steel	-
⑥	Press Washer	430 Stainless Steel	Polished
⑦	Pin		-

CONCEALED TORQUE HINGE



HG-TUWA

HINGES

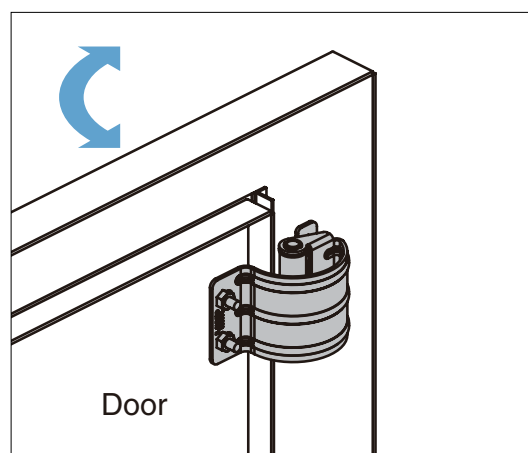
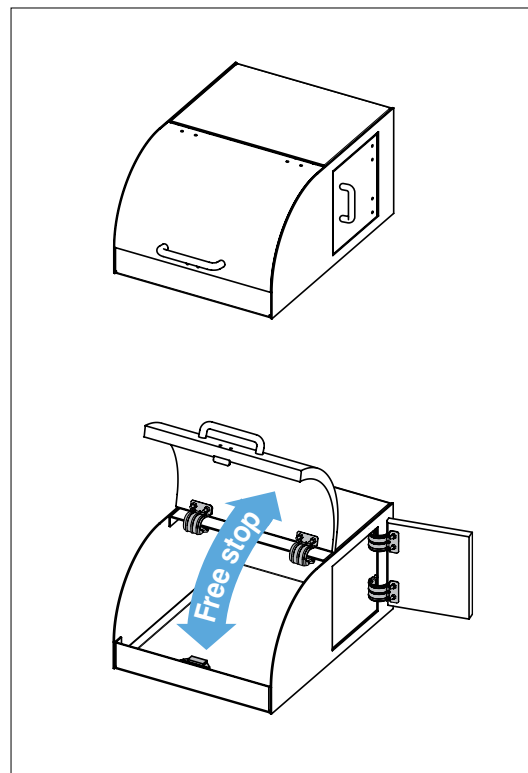
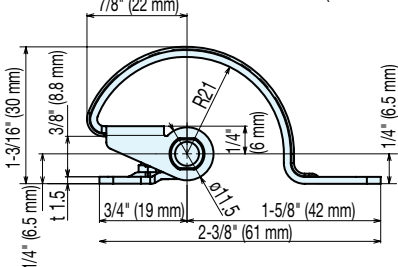
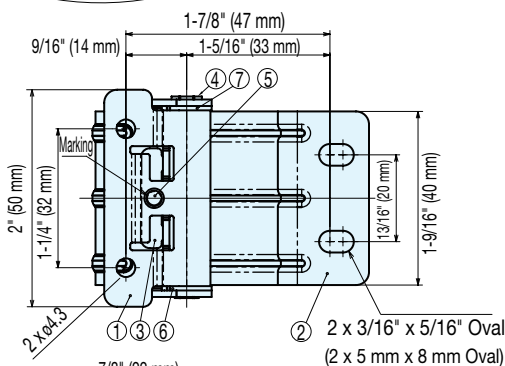
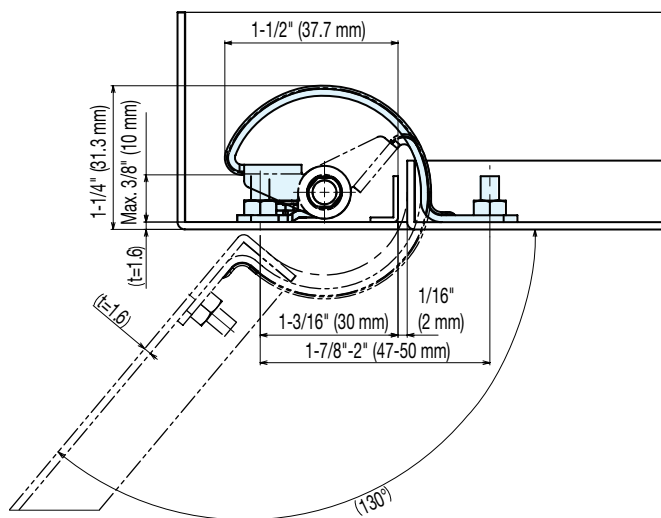
HIDDEN TORQUE HINGES



- High torque and wide opening angle (130°).
- Installation on the back side or inner side of the door for a clean aesthetics and appearance.
- Can be used horizontally or vertically.
- When installing, ensure that both hinge shafts are aligned.
- Successfully passed 20,000 open/close private cycle tests.

Note:

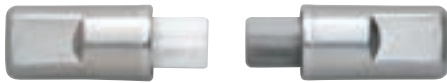
- Initial torque may vary -20%~+40%.
- Not suitable for high frequency use.
- Do not lubricate.



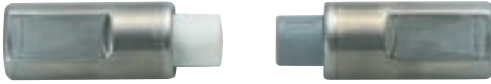
No	Part Name	Material	Finish
①	Body	304 Stainless Steel	Polished
②	Base		
③	Press Washer	303 Stainless Steel	-
④	Shaft		
⑤	Pin	Stainless Steel	
⑥	Fixing Tube L	Plastic	Black
⑦	Fixing Tube R		

Item No.	Torque per piece (kgf-cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-TUWA07	7.1 (6.2 lbs-in)	88	20	100
HG-TUWA15	15.3 (13.2 lbs-in)			

TORQUE DAMPER INTRODUCTION



UDH-14



UDH-16



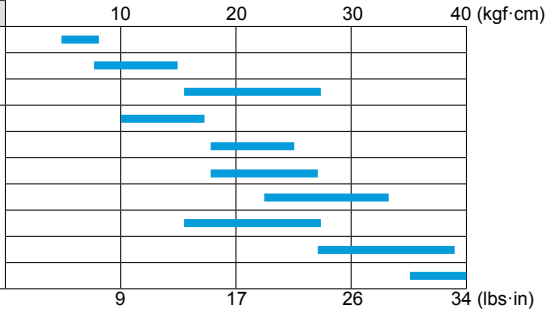
UDH



UDH-16N

- Keeps lid from slamming shut.
- Hinge torque within compact cartridge.
- Operating temperature: 0°C~40°C (32°F~104°F)

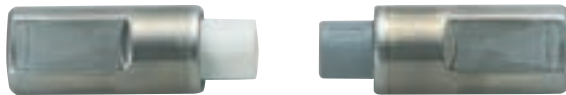
Item No.	Torque per piece (kgf·cm)	Torque per piece (lbs·in)	Page
UDH-14A (B) LS	5.1~8.2	4.4~7.1	254
UDH-14A (B) MS	8.2~15.3	7.1~13.3	
UDH-14A (B) HS	15.3~25.5	13.3~22.1	
UDH-16A (B) MS	10.2~17.3	8.8~15.0	255
UDH-16A (B) HS	17.3~25.5	15.0~22.0	
UDH-16NA (B) MS	17.3~24.5	15.0~21.2	
UDH-16NA (B) HS	22.4~30.6	19.4~26.6	
UDH-A (B) MS	15.3~25.5	13.0~21.0	
UDH-A (B) HS	25.5~35.7	21.0~30.0	
UDH-AGS	35.0~40.0	30.0~34.0	



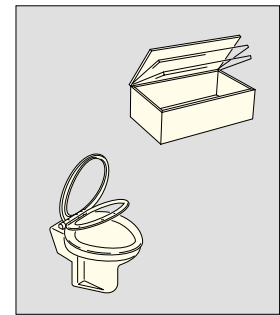
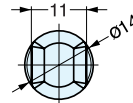
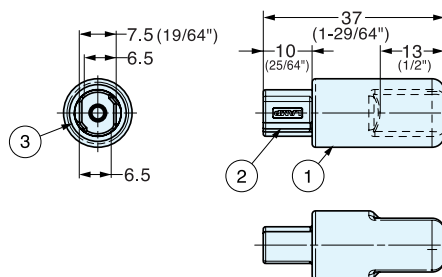
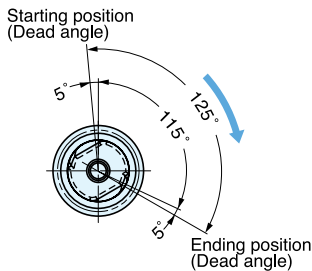
TORQUE DAMPER



UDH-14



- Keeps lid from slamming shut.
- High torque within compact cartridge.
- Operating temperature: 0°C~40°C (32°F~104°F)



Application

No	Part Name	Material	Finish
①	Body	304 Stainless Steel	Plain
②	Shaft	PBT Plastic	A-White, B-Grey
③	Cover Ring		-

* NSF Component

Item No.	Torque per piece (kgf·cm)	Dampening Direction	Weight (g)	Box (pcs)	Carton (pcs)
UDH-14ALS	5.1~8.2 (4.4~7.1 lbs·in)	Counter Clockwise	10	40	400
UDH-14BLS		Clockwise			
UDH-14AMS*	8.2~15.3 (7.1~13.3 lbs·in)	Counter Clockwise			
UDH-14BMS		Clockwise			
UDH-14AHS*	15.3~25.5 (13.3~22 lbs·in)	Counter Clockwise			
UDH-14BHS*		Clockwise			

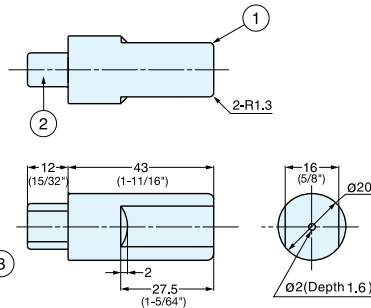
TORQUE DAMPER



UDH

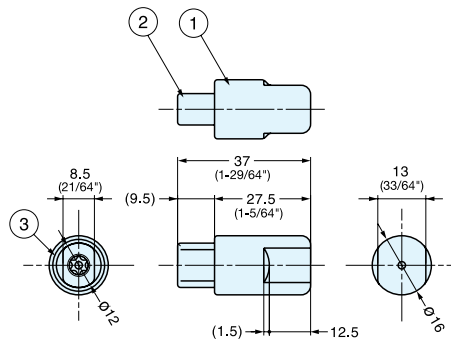
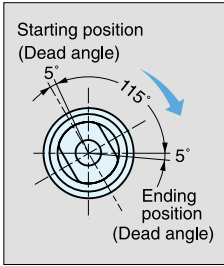
HINGES

TORQUE DAMPERS

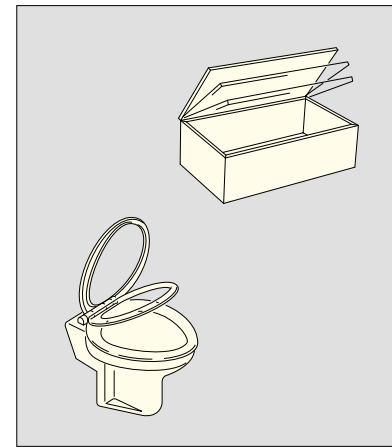


UDH Type

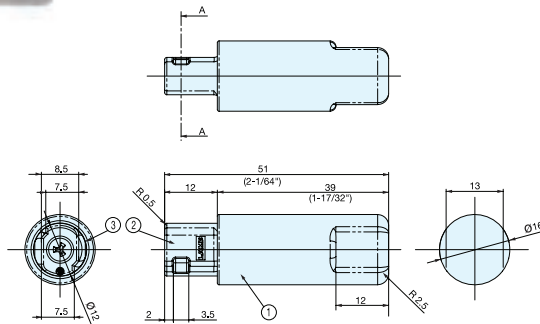
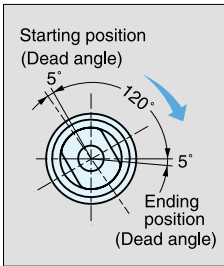
- Keeps lid from slamming shut.
- High torque within compact cartridge.
- Operating temperature: 0°C~40°C (32°F~104°F)



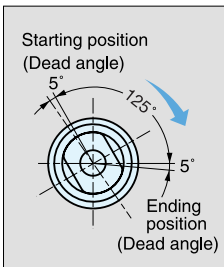
UDH-16 Type



Application



UDH-16N Type



UDH Type

No.	Part Name	Material	Finish/Color
①	Body	304 Stainless Steel	Plain
②	Shaft	PBT Plastic	A-White, B-Grey
③	Cover Ring	304 Stainless Steel	-

UDH-16 Type

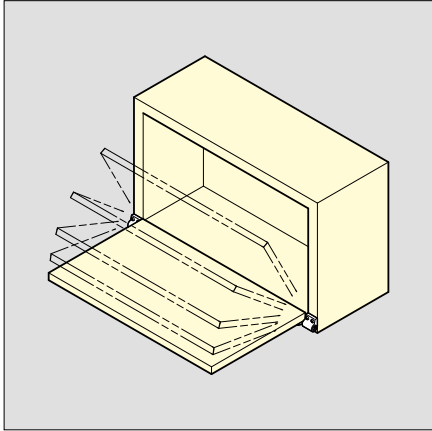
No.	Part Name	Material	Finish/Color
①	Body	304 Stainless Steel	Plain
②	Shaft	PBT Plastic	A-White B-Grey
③	Cover Ring		-

UDH-16N Type

No.	Part Name	Material	Finish/Color
①	Body	304 Stainless Steel	Plain
②	Shaft	PBT Plastic	A-White B-Grey
③	Cover Ring	PPS Plastic	-

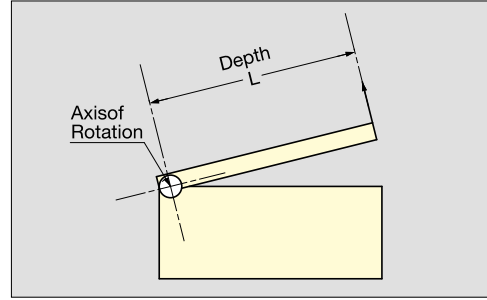
Item No.	Torque per piece (kgf·cm)	Dampening Direction	Weight (g)	Carton (pcs)		
UDH-AMS	15.0~25.0 (13~21 lbs-in)	Counter Clockwise	38	200		
UDH-BMS		Clockwise				
UDH-AHS	25.0~35.0 (21~30 lbs-in)	Counter Clockwise				
UDH-BHS		Clockwise				
UDH-AGS	35.0~40.0 (30~34 lbs-in)	Counter Clockwise				
UDH-16AMS	10.2~17.3 (8.8~15 lbs-in)	Counter Clockwise			16	200
UDH-16BMS		Clockwise				
UDH-16AHS	17.3~25.5 (15~22 lbs-in)	Counter Clockwise				
UDH-16BHS		Clockwise				
UDH-16N AMS	17.3~24.5 (15~21.2 lbs-in)	Counter Clockwise	20	200		
UDH-16N BMS		Clockwise				
UDH-16N AHS	22.4~30.6 (19.4~26.6 lbs-in)	Counter Clockwise				
UDH-16N BHS		Clockwise				

SOFT-CLOSE HINGE INTRODUCTION



Damper hinges incorporate 2 functions into one piece of hardware: unidirectional dampening and hinge connectivity. These hinges do not have a strict load capacity, but instead a torque rating, which indicates the suitable range of torque for each model hinge.

If your box is already fabricated with hinges installed, please consider using a soft down stay. See page 316~341 for more information on that line of hardware.



The torque rating of an application can be determined by using the following equation:

$$\text{panel weight (in pounds)} \times \text{panel depth (in inches)} \times \frac{1}{2} = \text{torque (in lbs-in)}$$

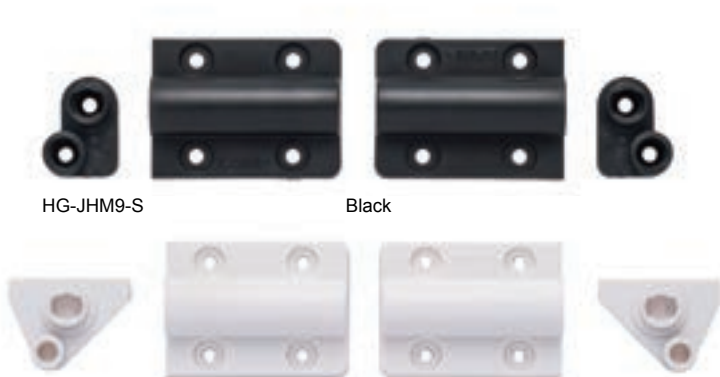
Picture	Item No.	Torque (kgf-cm)	Torque (lbs-in)	Page
	HG-JH14-50	30~51	26.0~44.0	261
	HG-JH25	31~51	27.0~44.0	261
	HG-JH35	51~71	44.0~61.0	
	HG-JHM16-34BL (WT)	20~34	17.4~29.5	262
	HG-JHM16-50BL (WT)	34~50	29.5~43.4	
	HG-JHM20-80BL (WT)	61~82	53.0~70.8	263
	HG-JHW50 (G)	61~102	53.0~88.0	264
	HG-JHW70 (G)	102~143	88.0~124.0	
	HG-JH210	210	182.0	265

Torque (kgf-cm) 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140~210
 (lbs-in) 0 9 17 26 35 43 52 61 70 78 87 95 104 112 121~182

SOFT-CLOSE DAMPENING HINGE



HG-JHM9



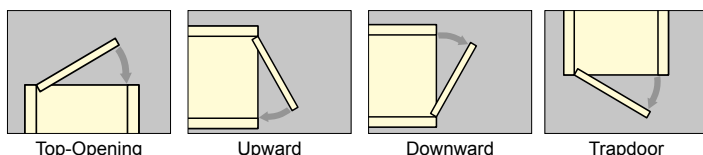
HG-JHM9-S

Black

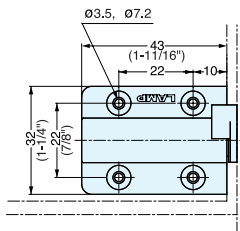
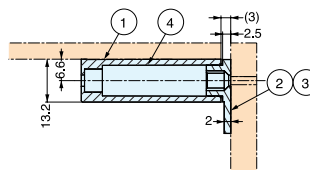
HG-JHM9-U

White

Damping direction



- Hinge with damper built-in to keep lid from slamming shut.
- Surface mounts into the lid.
- Side panel or under panel mounted.
- Sold as a set.



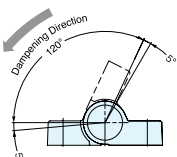
Item No.	Shaft Color	Type	Torque per pair (kgf·cm)
HG-JHM9-S-BL	Black	Side Panel Mount	0.55~0.88 (0.48~0.77 lbs-in)
HG-JHM9-S-WT	White		
HG-JHM9-U-BL	Black	Under Panel Mount	
HG-JHM9-U-WT	White		

No.	Part Name	Material	Finish
①	Bracket	Polyacetal	Black/White
②	Mounting Plate R	PBT plastic	
③	Mounting Plate L		
④	Damper	Polyacetal	-

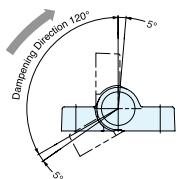
SOFT-CLOSE HINGE



HG-JHW16S

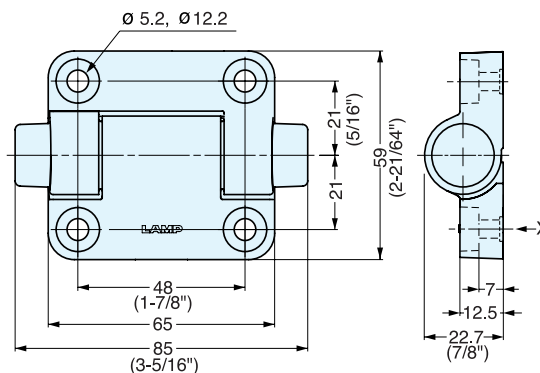


HG-JHW16S



HG-JHW16SG

- Hinge with built-in damper to keep lid from slamming.
- Torque calculation:
- Torque = Door Height x 1/2 Door Weight.
- Passed 70,000 open/close cycle tests.



Item No.	Damper Direction	Torque (kgf·cm)	Weight (g)	Box (pcs)
HG-JHW16S-34	Closing	20~35 (17~30 lbs-in)	83	30
HG-JHW16S-50		35~51 (30~44 lbs-in)		
HG-JHW16S-34G	Opening	20~35 (17~30 lbs-in)		
HG-JHW16S-50G		35~51 (30~44 lbs-in)		
HG-JHW16S-00	No Damper	-	52	

Part Name	Material	Finish/Color
Bracket	PBT plastic	Dark Grey
Cap	Polypropylene	-
Damper	304 Stainless Steel	Plain

SOFT-OPEN DAMPENING HINGE



HG-JHS9

HINGES

SOFT-OPEN DAMPENING HINGES

- Soft opening hinge, push latch sold separately.
- Built in damper for soft opening.
- Sold as a set.
- For inset applications.
- 105 degrees opening angle.



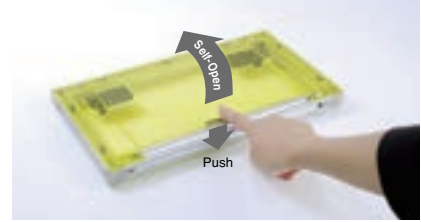
HG-JHS9-S

Black

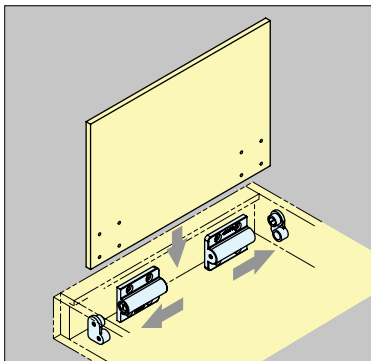
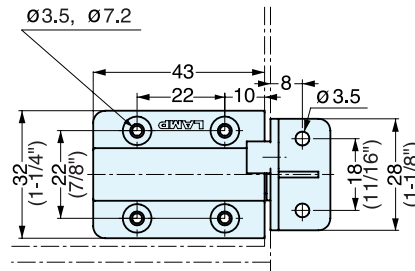
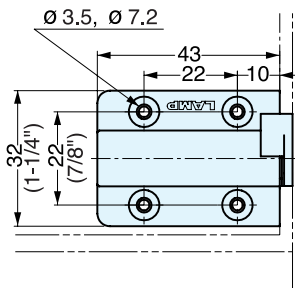
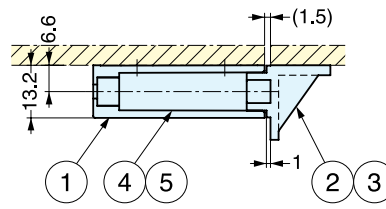
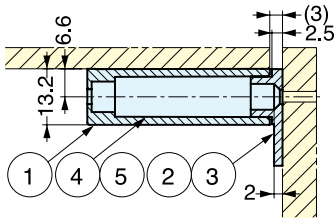


HG-JHS9-U

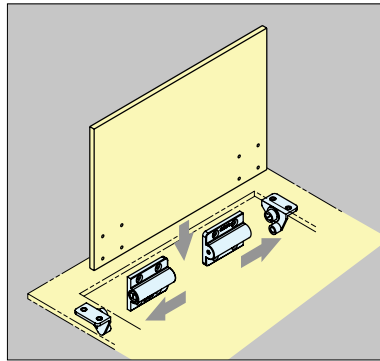
White



Push latch sold separately



Side Mount



Under Mount

Item No.	Color	Type	Torque per piece (kgf·cm)
HG-JHS9-S-BL	Black	Side Panel Mount	0.28~0.44 (0.24~0.38 lbs·in)
HG-JHS9-S-WT	White		
HG-JHS9-U-BL	Black	Under Panel Mount	
HG-JHS9-U-WT	White		

No.	Part Name	Material	Finish
①	Bracket	Polyacetal	Black/White
②	Mounting Plate R	PBT plastic	
③	Mounting Plate L		
④	Damper	Polyacetal	-
⑤	Spring	Zinc Alloy	Spring

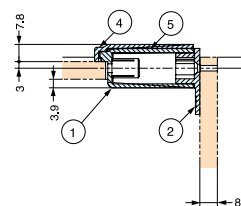
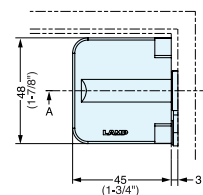
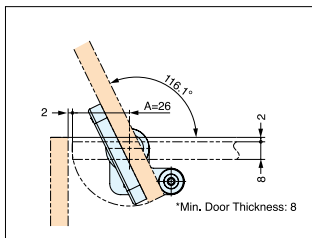
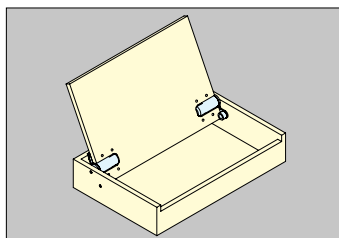
SOFT-CLOSE DAMPENING HINGE



HG-JHM14



- Hinge with built-in damper to keep lid from slamming shut.
- Mortise mount type.



Item No.	Color	Torque per piece (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-JHM14-S-8BL	Black	5~8 (4.3~7 lbs-in)	51	20	220
HG-JHM14-S-8WT	White				
HG-JHM14-S-15BL	Black	8~15 (7.0~13 lbs-in)	51	20	220
HG-JHM14-S-15WT	White				
HG-JHM14-S-20BL	Black	15~20 (13.0~17 lbs-in)	51	20	220
HG-JHM14-S-20WT	White				

No.	Part Name	Material	Finish
①	Bracket	Polyacetal	Black /White
②	Mounting Plate R	PBT plastic	
③	Mounting Plate L		ABS plastic
④	Face Plate	ABS plastic	
⑤	Damper	304 Stainless Steel	-

UNDER PANEL MOUNTING BRACKET



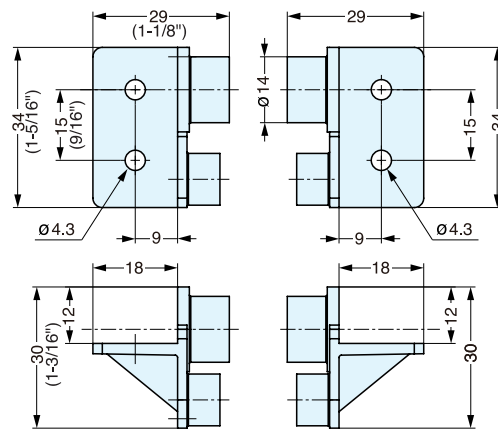
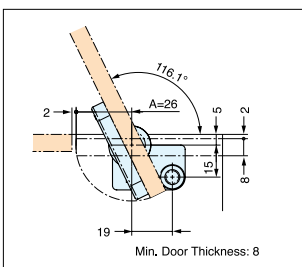
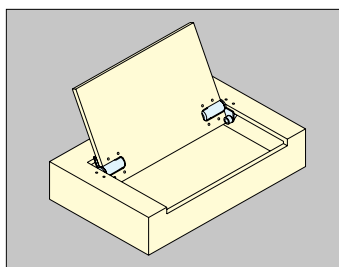
UKZ14



Black

White

- Under panel installation bracket for HG-JHM14 Soft-Close hinge.



Item No.	Material	Color
UKZ14-BL	PBT Plastic	Black
UKZ14-WT		White

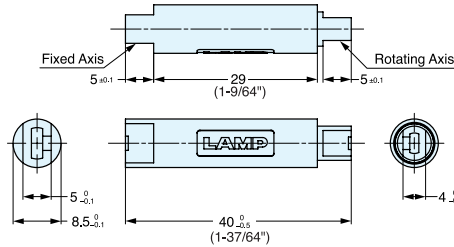
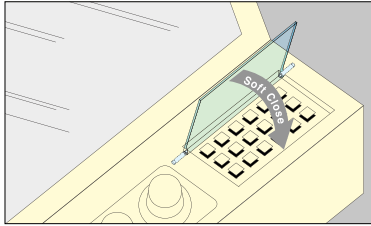
ROTARY DAMPER



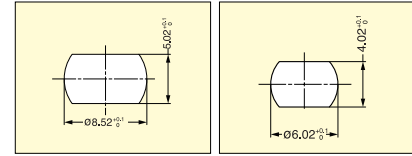
URD8-3



- 360 degree rotary damper.
- Cylindrical shape for concealed application.
- For inset applications.



Cut-Out Dimension

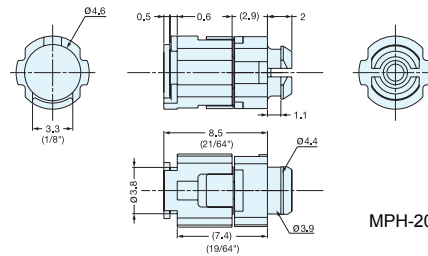
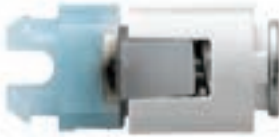


Item No.	Material	Finish	Torque per piece (kgf·cm)	Weight (g)
URD8-3	Polyacetal	Plain	0.22~0.39 (0.19~0.26 lbs·in)	2.5

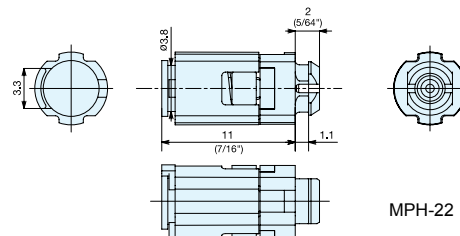
MICRO DETENT HINGE



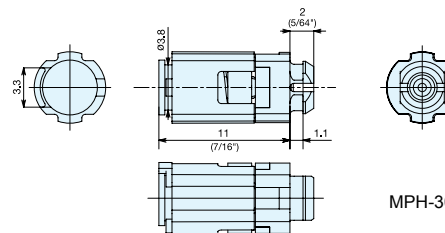
MPH



MPH-20-5



MPH-22



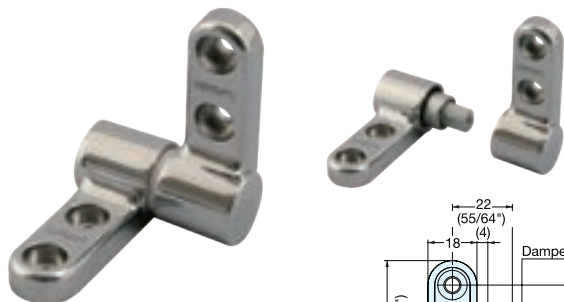
MPH-30

Item No.	Weight (g)	Carton (pcs)	Part Name	Material	Finish
MPH-20-5	0.46 (0.02 oz)	4000	Body	Polyacetal	Grey
MPH-22	0.62 (0.02 oz)		Spindle	Steel	Yellow Zinc Chromate
MPH-30	1.01 (0.04 oz)				

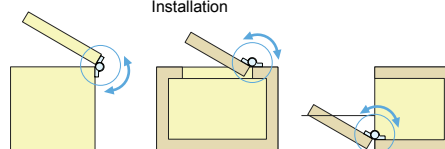
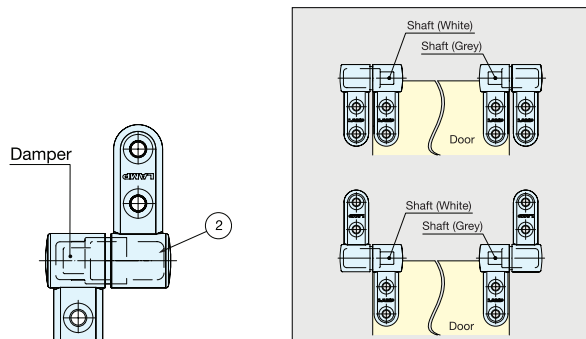
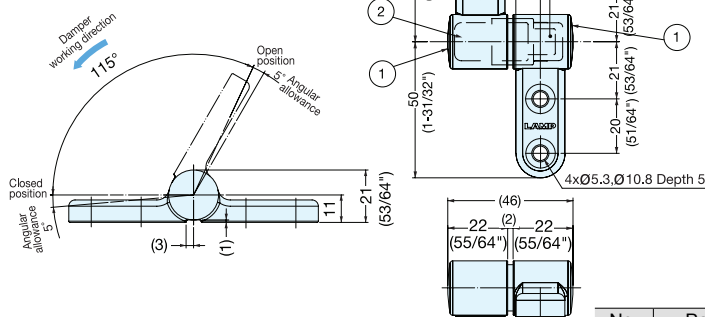
STAINLESS STEEL SOFT-CLOSE HINGE



HG-JH14-50



- Soft-Close damper keeps lid from slamming shut.
- Surface mount type.
- Operating temperature: 0~40°C (32~104°F)
- Operating angle: 115°/Dead angle 5°
- Sold in pairs.



No.	Part Name	Material	Finish
①	Bracket	SCS13 Stainless Steel (Similar to SUS304)	Mirror
②	Damper	304 Stainless Steel/PBT Plastic	Plain

Item No.	Torque per pair (kgf-cm)	Weight (g)	Box (set)	Carton (set)
HG-JH14-50	30~51 (26~44 lbs-in)	254/pair	1	48

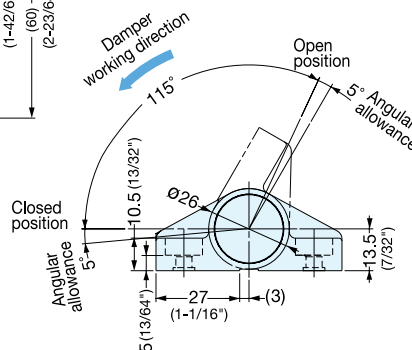
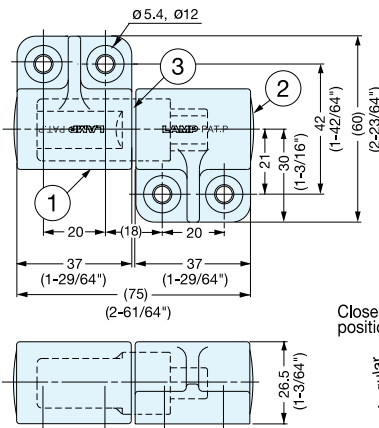
SOFT-CLOSE HINGE



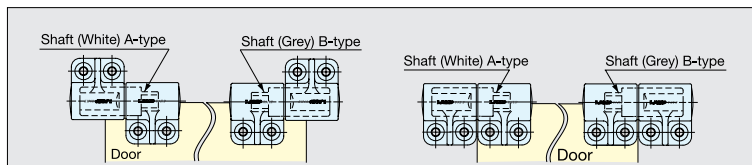
HG-JH



- Soft-Close damper keeps lid from slamming shut.
- Surface mount type.
- Operating temperature: 0~40°C (32~104°F)
- Operating angle: 115°/Dead angle 5°
- Sold in pairs.



*A-type damper: Damper works counterclockwise.
 *B-type damper: Damper works clockwise.
 *Sold in pairs. (Each of A/B type)



Left-Hand Damper is shown

No.	Part Name	Material	Color
①	Bracket	PBT Plastic/Zinc Alloy	Dark Grey
②	Cap	Polypropylene	
③	Damper	304 Stainless Steel	Plain

Item No.	Shaft Color		Torque per pair (kgf-cm)	Weight (g)	Box (pairs)	Carton (pairs)
HG-JH25	White	Grey	31~51 (27~44 lbs-in)	180/pair	4	64
HG-JH35	(A-type)	(B-type)	51~71 (44~61 lbs-in)			

SOFT-CLOSE HINGE



HG-JHM16

HINGES



- Hinge with damper built-in to keep lid from slamming shut.
- Mortise mount type.
- Ideal for small size lid.
- Sold in pairs.
- Torque Calculation:
 $\text{Torque} = \text{Door Height} \times 1/2 \times \text{Door Weight}$
 *Please see diagram below for applicable torque moment.
 *Please specify color of face plate (sold separately) when ordering.
 *Please install Left and Right brackets on correct side.



Bracket/Mounting Plate

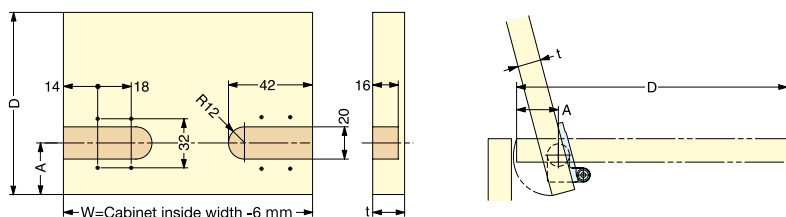
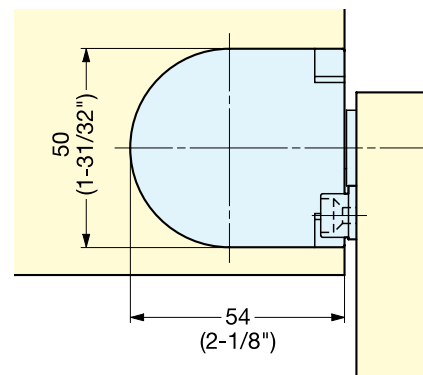
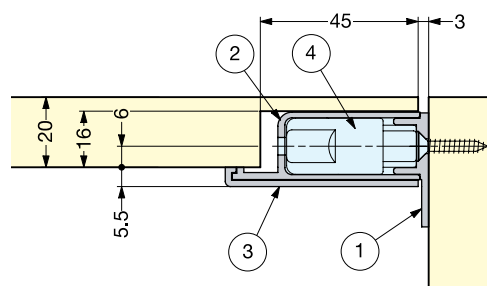
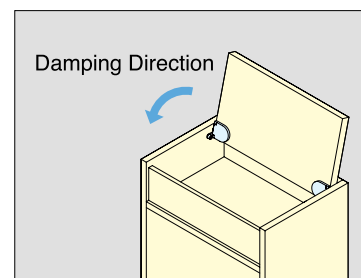
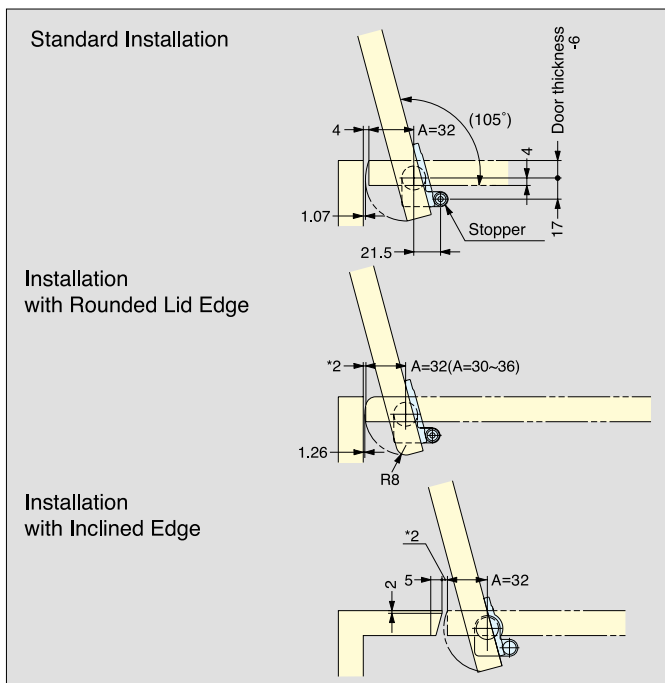


Black cover



White cover

SOFT-CLOSE HINGES



Item No.	Part Name	Color	Torque per pair (kgf·cm)	Weight (g)	Box	Carton
HG-JHM16-34	Body	Black	20~34 (17.4~29.5 lbs-in)	91/pair	10 pairs	120 pairs
HG-JHM16-50			34~50 (29.5~43.4 lbs-in)			
HG-JHM16-BL	Cover	Black	-	12/pair		
HG-JHM16-WT		White				

No.	Part Name	Material	Color
①	Mounting Plate	Aluminum	Black
②	Damper Bracket	Polyacetal	
③	Face Plate	ABS	White, Black
④	Damper	304 Stainless Steel	Plain

SOFT-CLOSE HINGE



HG-JHM20

HINGES

SOFT-CLOSE HINGES



- Hinge with damper built-in to keep lid from slamming shut.
- Mortise mount type.
- Ideal for small size lid.
- Sold in pairs.
- Torque Calculation:
 $Torque = Door\ Height \times 1/2 \times Door\ Weight$
 * Please see diagram below for applicable torque moment.
 * Please specify face plate color when ordering.
 * Please install Left and Right Brackets on correct side.
- Smaller type HG-JHM16 available.
- Suitable for use in vanity cases, electronics panels in tables, computer terminals for reception desks, etc.



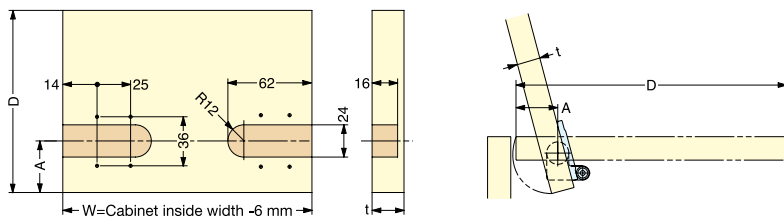
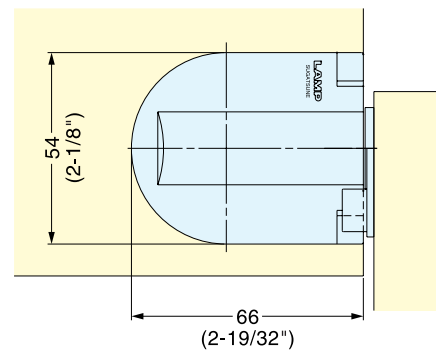
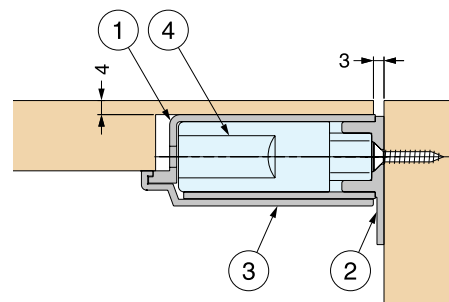
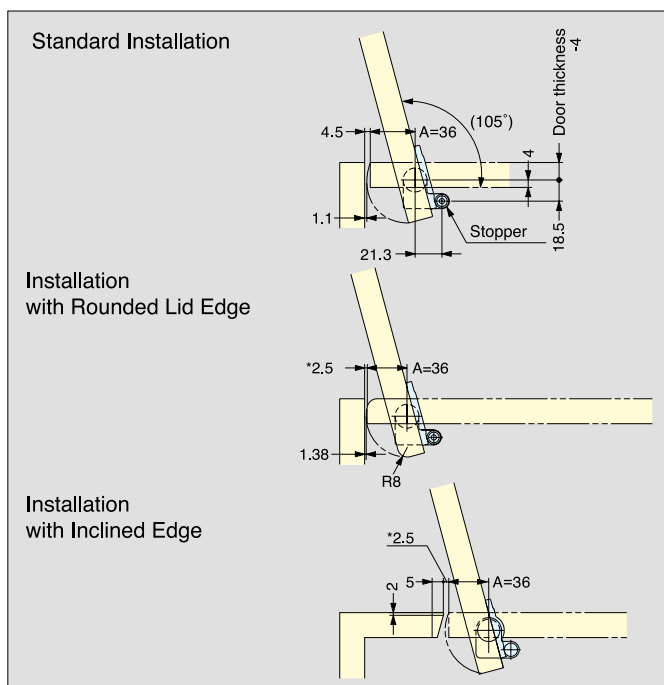
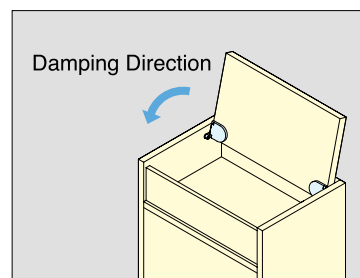
Bracket/Mounting Plate



Black cover



White cover



Item No.	Part Name	Color	Torque per pair (kgf·cm)	Box	Carton
HG-JHM20-80	Body	Black	61.2~81.6 (53~70.8 lbs-in)	10 pairs	90 pairs
HG-JHM20-BL	Cover	Black	-		120 pairs
HG-JHM20-WT		White	-		

No.	Part Name	Material	Finish/Color
①	Bracket	Polyacetal	Black
②	Mounting Plate	Aluminum	
③	Face Plate	ABS	Black/White
④	Damper	304 Stainless Steel	Plain



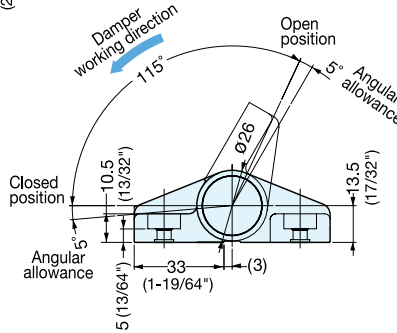
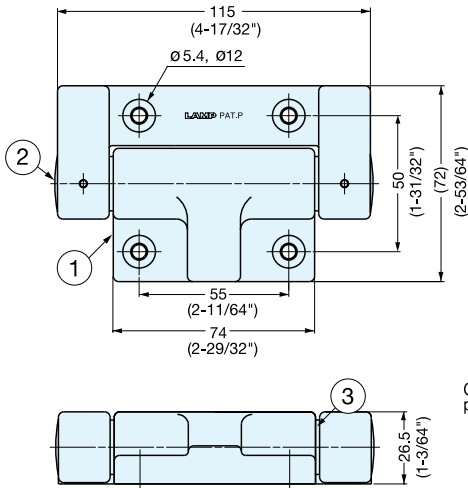
SOFT-CLOSE HINGE

HG-JHW / HG-JHWG

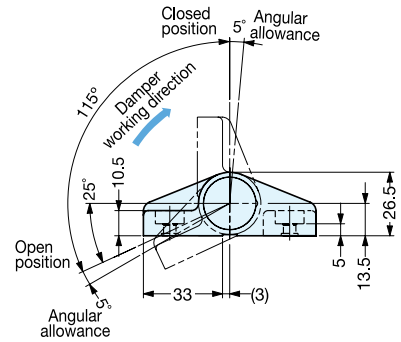
HINGES

SOFT-CLOSE HINGES

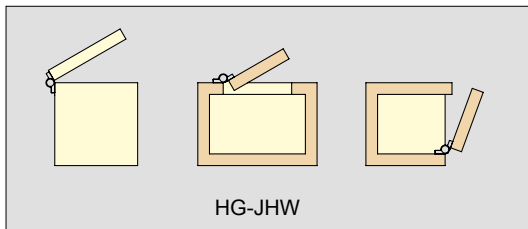
- Soft-Close damper keeps lid from slamming shut.
- Surface mount type.
- Two different damper direction available for various application.
- Operating temperature: 0~40°C (32~104°F)
- Operating angle: 115°/Dead angle 5°



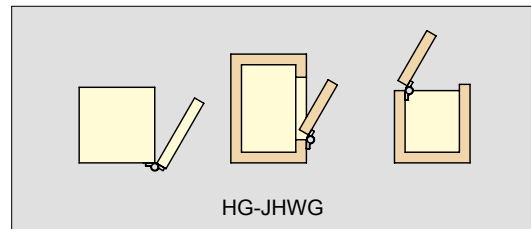
HG-JHW



HG-JHWG



Installation



Item No.	Torque per pair (kgf·cm)	Weight (g)	Box (pcs)	Carton (pcs)
HG-JHW50	61~102 (53~88 lbs·in)	200	4	64
HG-JHW70	102~143 (88~124 lbs·in)			
HG-JHWG50	61~102 (53~88 lbs·in)			
HG-JHWG70	102~143 (88~124 lbs·in)			

No.	Part Name	Material	Color
①	Bracket	PBT Plastic/Zinc Alloy	Dark Grey
②	Cap	Polypropylene	
③	Damper	304 Stainless Steel	Plain

* Sold per piece.

LIFT ASSIST HINGE



HG-JH210

HINGES

LIFT ASSIST HINGES

- Designed for industrial access panels.
- Built-in damper keeps lid from slamming shut.
- Passed private 30,000 open/close cycle tests.
- Maximum torque: 210 kgf-cm (182 lbs-in) per piece.



■ Moment Formula and Graph

Door Moment $M_t = W \times \frac{L}{2} \times \cos \theta$

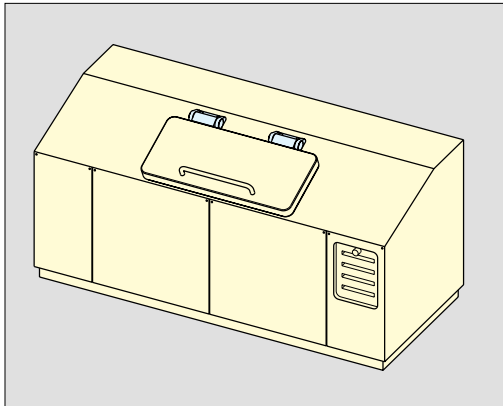
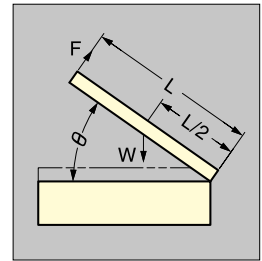
Hinge Moment $M_h = M_m \times (1 - \frac{\theta}{115})$

Torque to lift door $M_z = M_h - M_t$

Force to lift door $F = \frac{M_t - M_h}{L}$

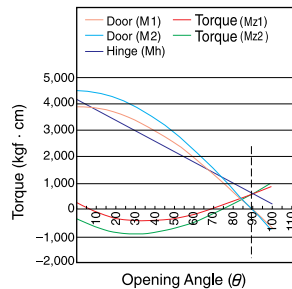
W : Door Weight θ : Opening Angle
 L : Door Length M_m : Torque of Assist Hinge

When M_z is:
 "-" shows closing force. "+" shows opening force.

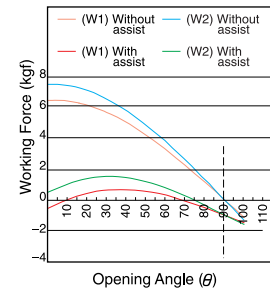


Installation

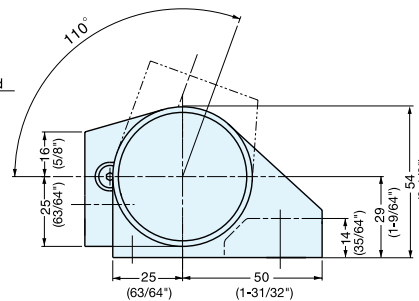
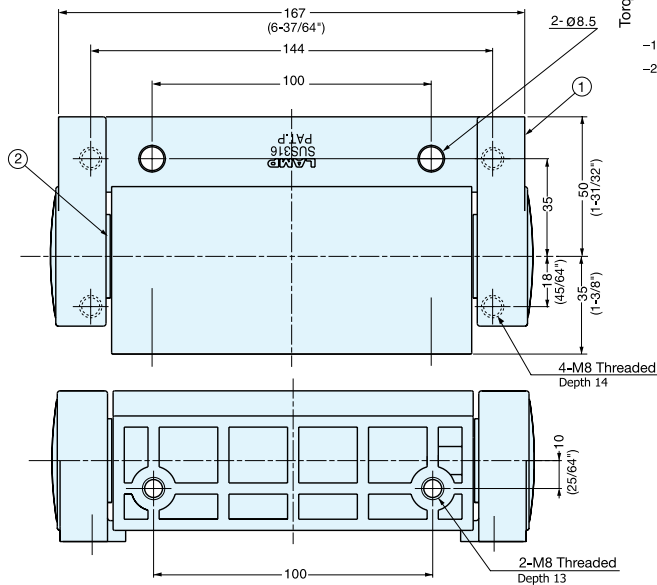
Assist Hinge Moment



Working Force at opening Angle (Compared with No Assist)



*When used as a pair. (L: 60 cm, W1: 13 kg, W2: 15 kg)



Item No.	Torque per piece (kgf-cm)	Weight (kg)	Box (pcs)	Carton (pcs)
HG-JH210	210 (182 lbs-in)	2.4	1	10

No.	Part Name	Material	Finish
①	Body	316 Stainless Steel	Mirror
②	Built-In Damper	304 Stainless Steel + PBT Plastic	-

DAMPER HINGE



HG-JHM20T



- Surface mount type: Easy to install without the need of recessing.
- Hinge with built-in UDH damper.
- Soft-close and smooth-open features.
- For Inset Lid.
- Cover hides mounting screws.
- Sold in pairs.
- Below torque range is the value when using a pair of hinges (left and right) per lid.
- When installing, ensure that both hinge shafts are levelled and aligned.
- Damper mechanism engages after being opened at 60° or more.

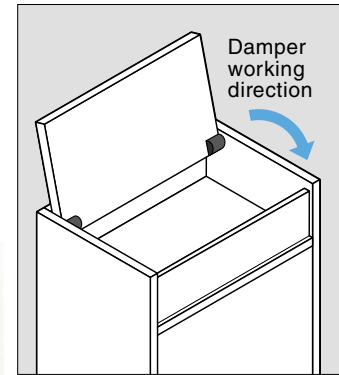
Sold in pairs.



W/ black cover



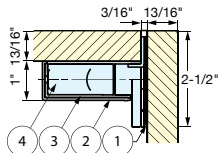
W/ white cover



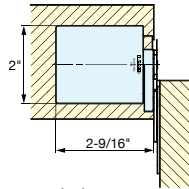
Chrome finished cover

Front View

Top-opening lid closed



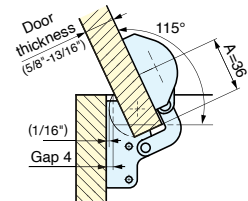
Top-opening lid opened by 90°



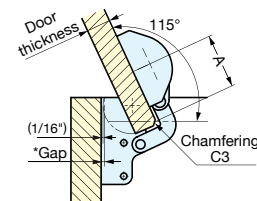
* Right-handed type shown. Left-handed type is symmetrical.

Installation

Standard



Chamfered lid edge



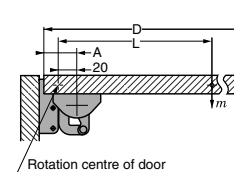
* Gap is decreased compared with standard when chamfered.

Door thickness	Standard		Chamfered Lid Edge	
	Size A	Gap	Size A	Gap
16	36	4	38	2
18			37	3
20			-	-

Door Weight Selection

Door Length (D)	Door Weight (m)
250	5.61 - 7.48 kg
300	4.57 - 6.09 kg
350	3.85 - 5.13 kg
400	3.33 - 4.43 kg
450	2.93 - 3.90 kg

Calculation of maximum door moment (for homogeneous material)



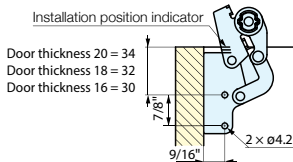
$$T = m \times 9.80665 \times L \times \frac{1}{1000}$$

- T : Max. door torque (N·m)
- m : Door weight (kg)
- L : Distance from rotation centre to door centre of gravity (mm)
- $L = \frac{D}{2} - A + 20$ *

* For heterogeneous door (e.g., attached with a mirror), please contact our technical support (support@sugatsune.com) for assistance.

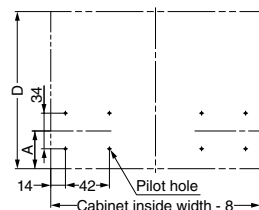
- D : Door length (mm)
- A : Bracket installation dimension (mm) (The range of A is about 36mm - 38mm)
- * (Formula for assuming that the centre of gravity is in the centre of door)

Hinge Plate Installation Position



Door thickness 20 = 34
Door thickness 18 = 32
Door thickness 16 = 30

Cut Out Dimensions



Item No.	Color	Torque per piece (kgf·cm)
HG-JHM20T-80BL	Black	61.2~81.6 (53.1~70.8 lbs·in)
HG-JHM20T-80WT	White	
HG-JHM20T-80CR	Chrome	

No.	Part Name	Material	Finish
①	Hinge Plate	Sttel/Zinc Alloy	Nickel
②	Bracket	POM	Black
③	Cover	ABS	Black/White/Chrome
④	Damper	-	-

SOFT-CLOSE HINGE Horizontal Opening



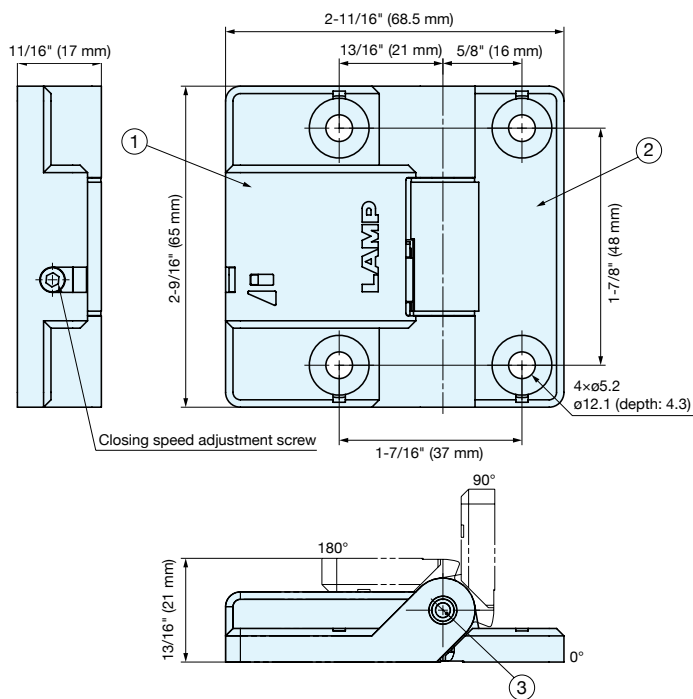
HG-JV65



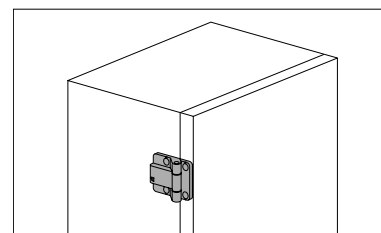
- Soft and self-closing hinge ensures quiet, safe door closure.
- Adjustable closing speed (with hex key). Allows precise, machine-friendly door movement.
- Features self-latching function to firmly hold doors closed and prevent gaps, so that machines continue to operate without interruption.
- Surface-mounted hinge saves internal machine space and helps maintain cleanliness (ideal for food equipment and medical industry).
- Can be installed on aluminum frames for machine equipment.
- Passed 50,000 cycle test (private).

Note:

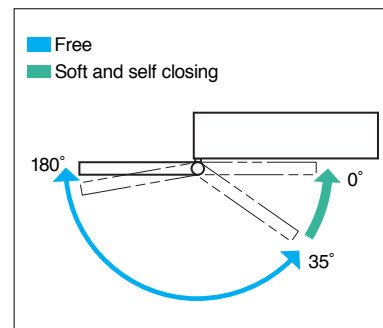
- Stoppers recommended to prevent door from over-extending past 180° opening.
- Not suitable for vibrational applications/ environments.
- Operating temperature: 32 - 104°F (0 - 40 °C).
- Do not lubricate.
- For indoor use only.



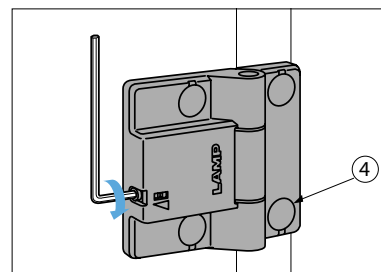
Installation



Operating Range



Closing Speed Adjustment



Closing speed of doors is adjustable with a hex key (size: 2.5).

No.	Part Name	Material	Finish
①	Body A	Polyamide (PA)	Black, Light Grey
②	Body B	Steel	
③	Shaft	Brass	Nickel
④	Screw Cover	Polycetal (POM)	Black, Light Grey

Item Number	Finish	Available Door Specs				Weight (g)	Box (pcs)	Carton (pcs)
		Width (mm)	Height (mm)	Weight /2pc (kg)	Weight /3pc (kg)			
HG-JV65-S-BL	Black	Max. 700 (27-9/16")	Max. 2400 (94-1/2")	1.0 - 7.0 (2.2~15.4 lb)	7.0 - 12.0 (15.4~26.4 lb)	85	10	60
HG-JV65-S-LGR	Light Grey							

GLASS SHOWCASE SERIES

GS-G

HINGES

GLASS SHOWCASE HARDWARE



Glass Hinge (P.267)
GS-GH5

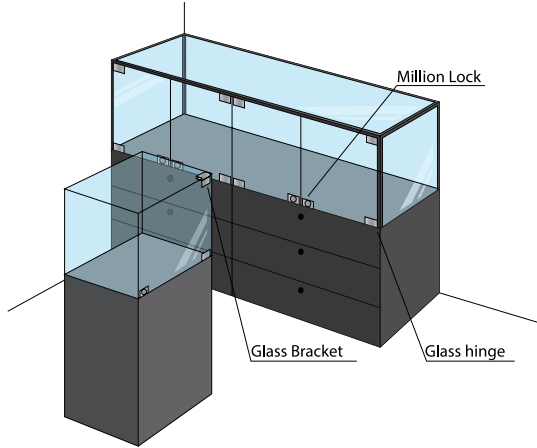


Glass Bracket (P.267)
GS-GB5

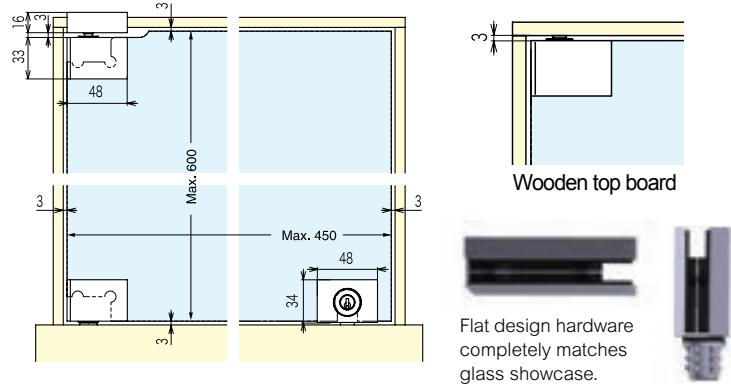


Glass Lock (P.268)
GS-GL5

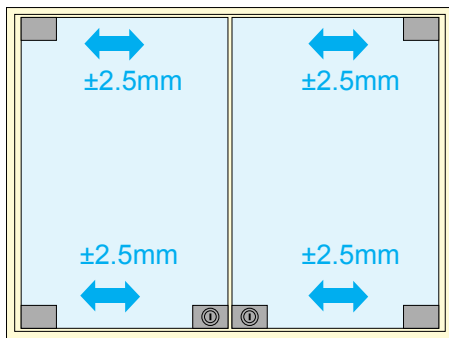
Total Design Coordination



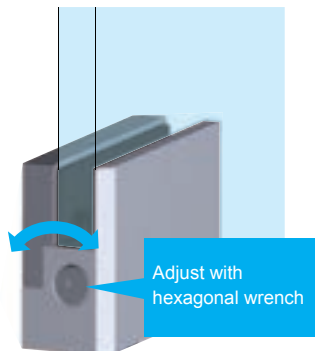
Clearance between door, top board, bottom board, and side board.



Easy adjustment after installation.

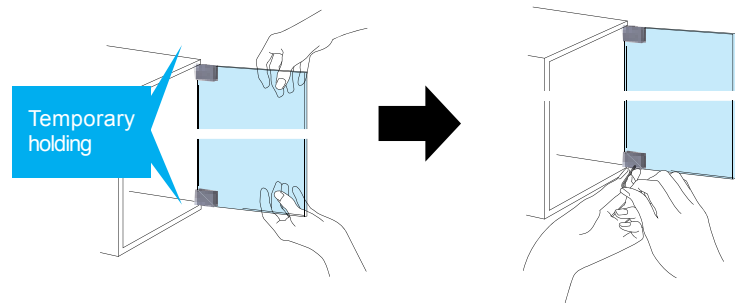


2.5mm adjustable by fixing adjustable screw on hinge side.



Temporary Hold for Easy Installation

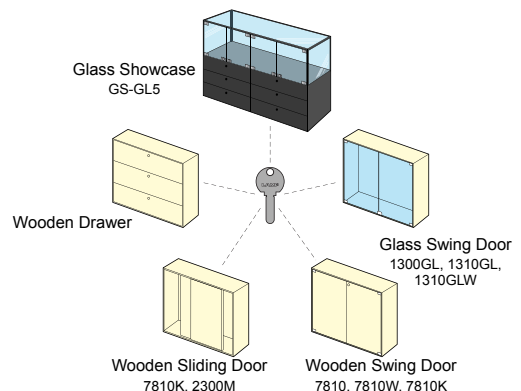
The door can be installed easily by clip-on and temporary holding features.



Lock drawers and doors with the same key.

Keys can be keyed to match other Million Lock Series products,

1 million key changes available (Million Lock Series).



GLASS HINGE (INSET)

GS-GH5



Chrome (CR)

24K Gold Plated (GP)

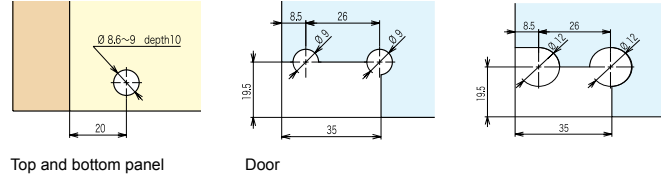


Black (BL)

Parts Included

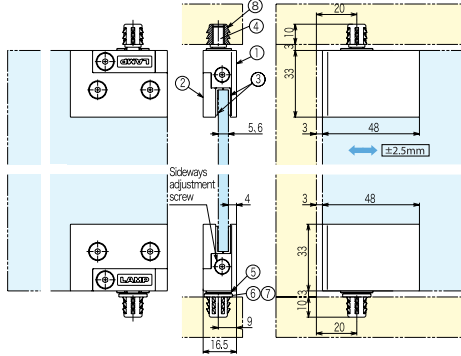
- Hinge for inset glass door for glass showcase.
- Can be used together with glass bracket GS-GB5 (below) and lock GS-GL5.
- Temporary holding feature allows for easy installation of the door by one person.
- Sideways adjustment (± 2.5 mm) possible after installation of the door.
- Gap below door is adjustable from 3 mm to 5 mm with washers.
- Sold in pairs.

Installation drawings



Top and bottom panel

Door



No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Chrome, Black, 24K Gold Plated
②	Back Plate		
③	Gasket	Chloroprene Rubber	Black
④	Axis	Stainless Steel	Plain
⑤	Plastic Washer	Polyamide	Black
⑥	Washer (t: 1.5)	304 Stainless Steel	Plain
⑦	Washer (t: 3.5)	Brass	Nickel
⑧	Insert	Zinc Alloy	-

Item Name	Door Width	Door Height	Door Weight	Glass Thickness	Finish
GS-GH5-CR	Max. 17-3/4" (450 mm)	Max. 23-5/8" (600 mm)	11 lbs/2 pcs (5 kg/2 pcs)	Min. 3/16, 1/4" (5, 6 mm)	Chrome
GS-GH5-GP					Gold Plated
GS-GH5-BL					Black

GLASS BRACKET

GS-GB5



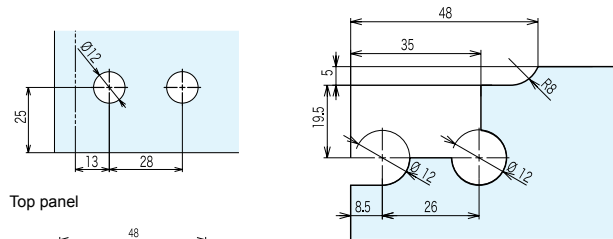
Chrome (CR)

24K Gold Plated (GP)

Black (BL)

- Can be used together with glass hinge GS-GH5 (above) and lock GS-GL5.

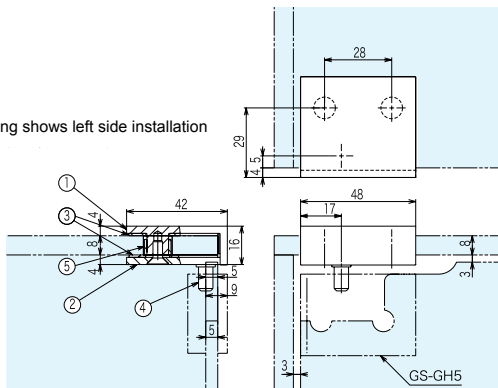
Installation drawings



Top panel

Door Tempered glass

Drawing shows left side installation



Door

Item Name	Type	Glass Thickness(mm)	Finish	No.	Part Name	Material	Finish
GS-GB5-R-CR	Right	15/16" (8)	Chrome	①	Body	Zinc Alloy	Chrome, Black, 24K Gold Plated
GS-GB5-L-CR	Left			②	Back Plate	304 Stainless Steel	
GS-GB5-R-GP	Right		24K Gold Plated	③	Washer	Chloroprene Rubber	Black
GS-GB5-L-GP	Left			④	Axis	Stainless Steel	Plain
GS-GB5-R-BL	Right		Black	⑤	Tube	Polyvinyl Chloride	Clear
GS-GB5-L-BL	Left						

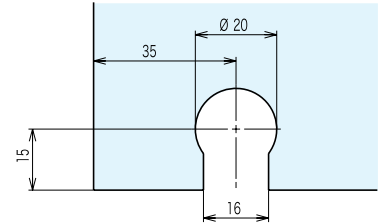
GLASS DOOR CAM LOCK (MILLION LOCK SERIES)

GS-GL5

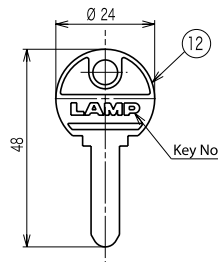
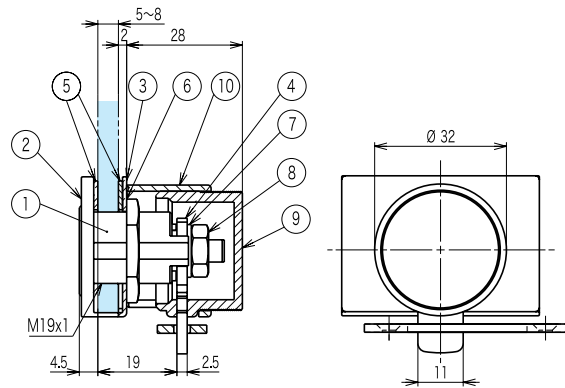
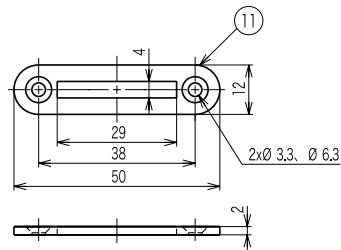
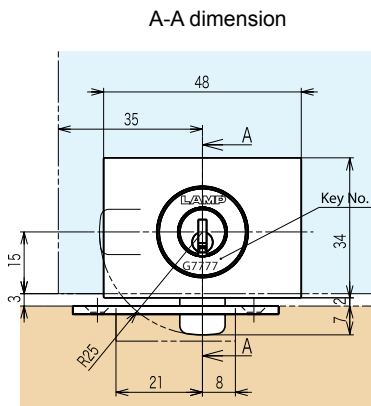
HINGES

GLASS SHOWCASE HARDWARE

- Cylinder lock for Glass swing door.
- Designed to match aesthetically with the GS-GH5 glass hinge and GS-GB5 bracket.
- Reversible key. Turn the key 90° to lock and unlock. Key can only be removed when locked.
- Dimple key with up to 1 Million key changes. Master key system available at surcharge (Max. 2,520 key changes/master key).
- Keys can be shared with other Million Lock Series.



Cut Out Dimension



Item Name	Glass Thickness(mm)	Finish
GS-GL5-CR	3/16~5/16" (5~8)	Chrome
GS-GL5-GP		Gold Plated
GS-GL5-BL		Black

No.	Part Name	Material	Finish
①	Body	Brass	24K Gold Plated, Chrome,Black
②	Front Plate	Zinc Alloy	
③	Back Plate		
④	Lock Plate	304 Stainless Steel	Mirror
⑤	Rubber Washer	Chloroprene Rubber	Black
⑥	Hex Nut	Steel	Silver
⑦	Washer		
⑧	Hex Nut		
⑨	Cover Ring	Polypropylene	Black
⑩	Ring		
⑪	Strike	Steel	24K Gold Plated, Chrome,Black
⑫	Key	Brass	Nickel

GLASS HINGE (INSET)

GS-GH20

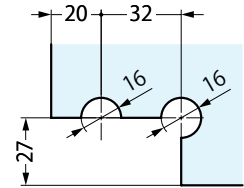


Chrome (CR)

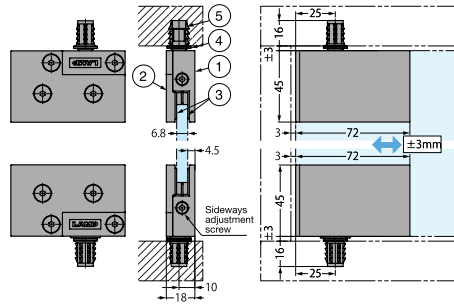
Gold Plated (GP)

Black (BL)

- Glass showcase hinge for inset door application.
- Can be used with the Million Lock Cylinder GS-GL20 to ensure unified design (lock, catch and hinge).
- Temporary hold function that enables a single person to install the door.
- Use provided gasket for 1/4" (6 mm) thick glass.
- Adjustments for up to ± 3 mm by simply turning the adjustment screw.



Cut Out Dimension



No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Chrome, 24K Gold Plated, Black
②	Back Plate		
③	Gasket	Chloroprene Rubber	Black
④	Axis	Stainless Steel	Stainless Steel
⑤	Insert	Zinc Alloy	-

Item Name	Door Width	Door Height	Door Weight	Glass Thickness	Finish
GS-GH20-CR	Max. 27-9/16" (700 mm)	Max. 63" (1600 mm)	44 lbs/2 pcs (20 kg/2 pcs)	1/4", 5/16" (6, 8 mm)	Chrome
GS-GH20-GP					Gold Plated
GS-GH20-BL					Black

GLASS BRACKET

GS-GB20

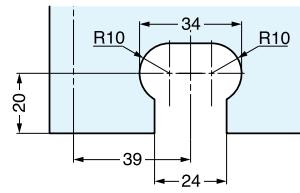
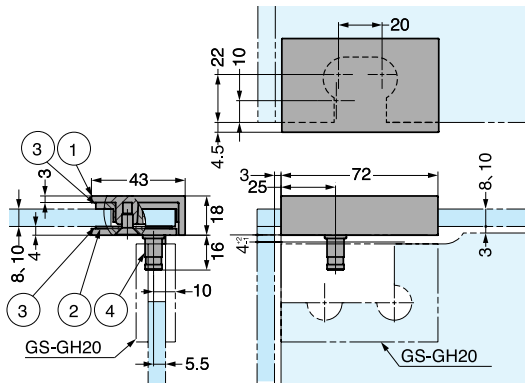


Chrome (CR)

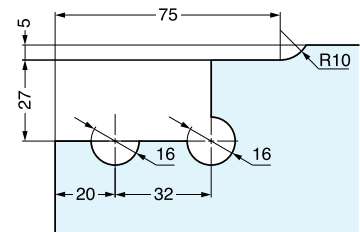
Gold Plated (GP)

Black (BL)

- Can be used together with glass hinge GS-GH20 (above) and lock GS-GL20.



Cut Out Dimension



Item Name	Type	Glass Thickness	Finish
GS-GB20-R-CR	Right	5/16~3/8" (8~10 mm)	Chrome Plated
GS-GB20-L-CR	Left		
GS-GB20-R-GP	Right		24K Gold Plated
GS-GB20-L-GP	Left		
GS-GB20-R-BL	Right		Black Painted
GS-GB20-L-BL	Left		

No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Chrome, 24K Gold Plated, Black Painted
②	Back Plate	304 Stainless Steel	
③	Washer	Chloroprene Rubber	Black
④	Rotating Axis	Stainless Steel	Stainless Steel



GLASS HINGE

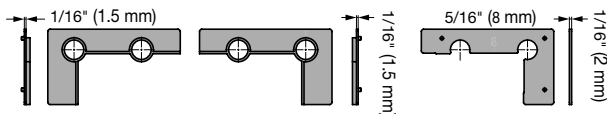
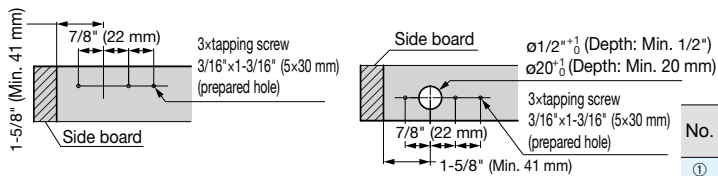
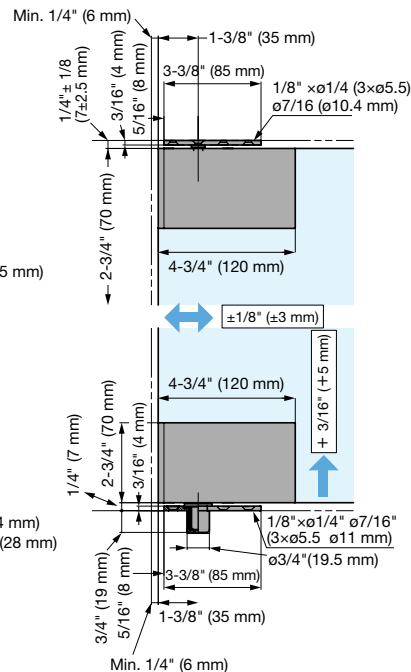
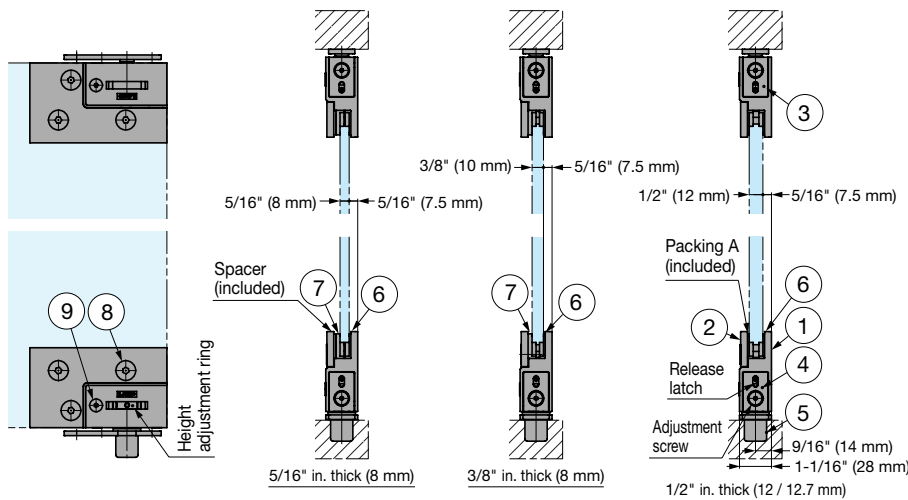
Chrome (CR)

Black (BL)



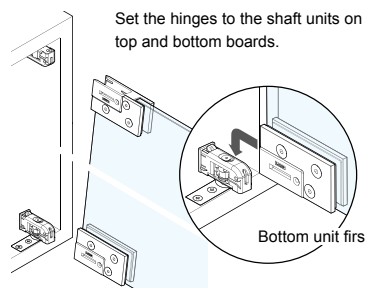
Gold Plated (GP)

- Designed for large inset glass showcases, sold in sets of 2.
- Recommended for use with the GS-GL50 lock for design coordination.
- Doors can be temporarily held in frames before fixing screws for easy installation.
- The door position can be adjusted by ± 3 mm right and left post installation. (Horizontal adjustment screw).
- The gap below the door can be adjusted from 7 up to 12 mm post installation. (Height adjustment ring)
- Prioritize the door weight when determining the glass size.
- Shatter proof films are recommended to be used on glass doors for safety.

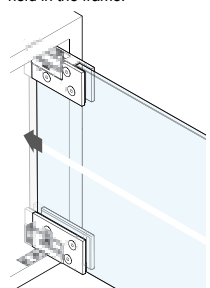


No.	Part Name	Material	Finish		
			CR	GP	BL
①	Body (front)	Zinc Alloy	Chrome Plated	Gold Plated (24K)	Matte Black
②	Body (back)				
③	Upper Shaft				
④	Bottom Shaft Unit				
⑤	Bottom Mounting Plate				
⑥	Packing A (t: 1.5)	Chloroprene Rubber (CR)	Black		
⑦	Packing B (t: 3.5)				
⑧	Hex socket bolt M8×16	Steel	Chrome	Gold Plated (24K)	Matte Black
⑨	Hex socket bolt M5×10				

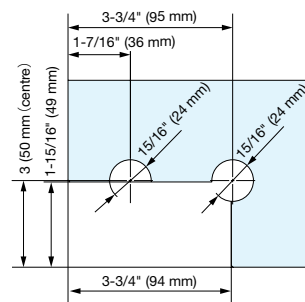
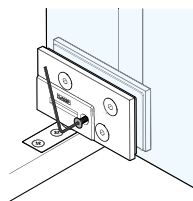
Easy Installation



The door can be temporarily held in the frame.



Fix the screws. Door position can be adjusted post installation.



Item Name	Finish	Available Glass Size			Load Capacity	Finish
		Width	Width	Glass Thickness		
GS-GH50-CR	Chrome	35-7/16" (Max. 900 mm)	98-7/16" (Max. 2500 mm)	5/16", 3/8", 15/32", 1/2" (8, 10, 12, 12.7 mm)	110.23 lbs/2 pcs (50 kgf/2 pcs)	Chrome
GS-GH50-GP	Gold Plated (24K)					Gold Plated (24K)
GS-GH50-BL	Matte Black					Matte Black

GLASS DOOR CAM LOCK

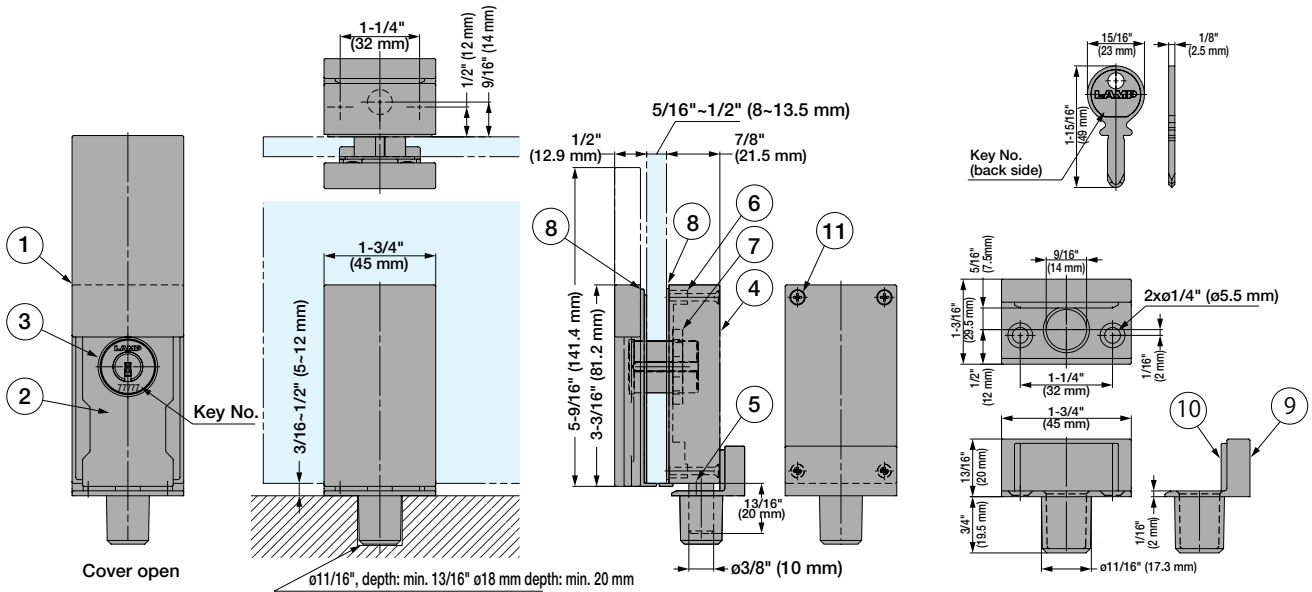
GS-GL50

HINGES

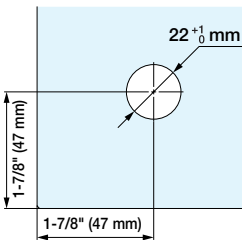
GLASS SHOWCASE HARDWARE



- A cylinder lock for high-end glass showcases.
- Designed for use with the GS-GH50 hinge, complements retail fixtures.
- Thick stainless steel deadbolt for added security.
- The keys are dimple type and reversible.
- Key number can be changed without replacing the cylinder (Easy key change).
- The key number can be changed up to 2 times. Previous keys cannot be used again after changing the key number.
- A cover hides the key hole.
- The face plate can be used as a handle to open the door.
- The only drilling required for the cabinet is a round hole. This makes the installation very quick.
- Special type which does not have the construction key system is also available (Key changes: 3,000 per master key).



Cut Out Dimensions



No.	Part Name	Material	Finish		
			CR	GP	BL
1	Slide Cover	Zinc Alloy (ZDC)	Chrome	Gold Plated (24K)	Enamel Black
2	Face Plate				
3	Cylinder				
4	Case Lock	Zinc Alloy (ZDC)	Plain		
5	Dead Bolt	Stainless Steel			
6	Back Plate	Zinc Alloy (ZDC)	Nickel		
7	Nut	Brass			
8	Packing	Chloroprene Rubber (CR)	Black		
9	Strike Plate	Zinc Alloy (ZDC)	Chrome	Gold Plated	Enamel Blk
10	Strike Plate Rubber	EPDM	Black		
11	Countersunk Screw M3 x 18	-	Chrome	Gold Plated	Enamel Blk

Item Name	Glass Thickness	Finish
GS-GL50-CR	1/4~3/8" (6~10 mm)	Chrome
GS-GL50-GP		Gold Plated
GS-GL50-BL		Black

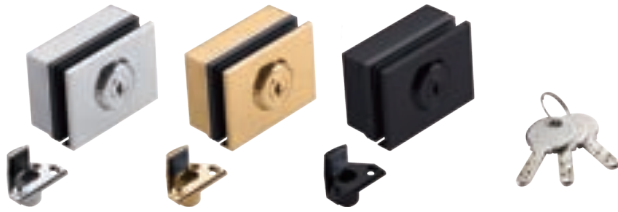
GLASS DOOR CAM LOCK (Million Lock Series)



GS-GL20

HINGES

GLASS SHOWCASE HARDWARE



Chrome (CR)

Gold Plated (GP)

Black (BL)

- Cylinder lock designed for glass showcases.
- Designed for use with the GS-GH20 and GS-GB20.
- The keys are dimple type and reversible.
- The strike plate also works as a door stopper, providing stable locking operation.
- The only drilling required for the cabinet is a round hole.
- Specify keyed alike or different when ordering.

[Round Dead Bolt]

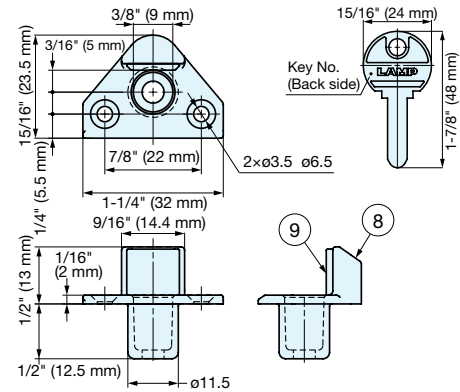
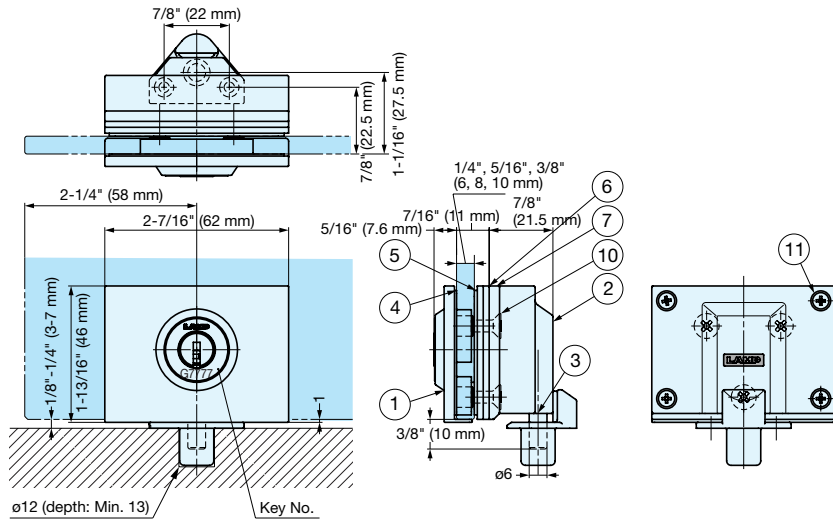
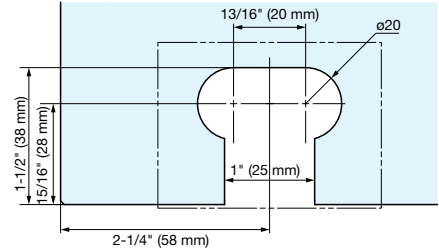


[Required Number of Spacers]

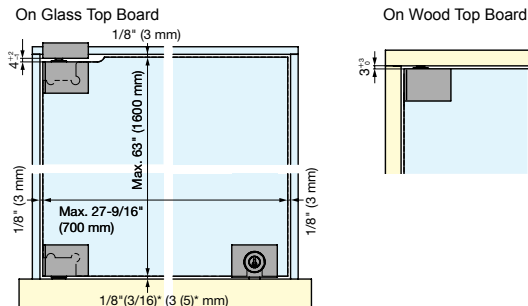
Glass Thickness	Spacer
1/4" (6 mm)	2 pcs
5/16" (8 mm)	1 pc
3/8" (10 mm)	-

Only processing required for boards is a $\phi 12$ mm drilling.

[Cut Out Dimensions]



[Installation Example] Using with GS-GH20 and GS-GB20



* The () indicates the dimensions when the washer of GS-GH20 is attached.

No.	Part Name	Material	Finish		
			CR	GP	BL
①	Face Plate	Zinc Alloy	Chrome	24K Gold Plated	Black
②	Case Lock				
③	Dead Bolt	Brass	Chrome		
④	Holding Packing	Polypropylene	Black		
⑤	Packing	Chloroprene Rubber			
⑥	Spacer	ABS			
⑦	Back Plate	Zinc Alloy	Chrome	24K Gold Plated	Black
⑧	Strike Plate				
⑨	Strike Plate Rubber	EPDM	Black		
⑩	Screws	Stainless Steel	-		

Item Name	Finish	Glass Thickness	Key Removal	Key Rotation Angle
GS-GL20-CR	Chrome	1/4", 5/16", 3/8" (6, 8, 10 mm)	Two Areas	360°
GS-GL20-GP	Gold Plated			
GS-GL20-BL	Black			

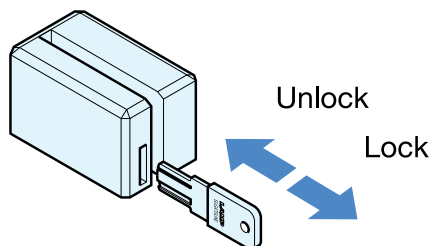
GLASS SHOWCASE HARDWARE

XL-GC SERIES



- Hinges, Locks and Sliding Door hardware with same design concept.
- Swing and Sliding Doors can be operated with a single key.
- Key hole is located on the side for clean appearance.

Unique locking system



- Insert key to unlock, remove to lock.
- High security dimple key.



Locks

Item No.	
XL-GC01	
P.614	Swinging Double Door Lock
XL-GC02	
P.614	Swinging Door Lock
XL-GC03	
P.605, 606	Sliding Door Lock

Hinges and Accessories

Item No.	
XL-GC04	
P.272	Inset Pivot Hinges
XL-GC05	
P.272	Bracket for XL-GC04
XL-GC07	
P.272	Overlay Hinges
XL-GC09CR	
P.111	Magnetic Catch

Sliding Door Hardware

Item No.	
XL-GC06	
P.607	Upper Bracket
XL-GC08	
P.607	Lower Bracket

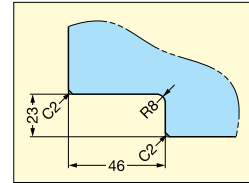
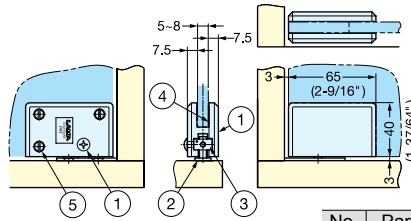
• Use with accessories. P.606

GLASS PIVOT HINGE (INSET)

XL-GC04



- Inset-type hinge for glass cabinet.
- Sold as a pair (top/bottom).
- Compatible with glass door lock XL-GC02 and bracket XL-GC05 (both sold separately).
- Door Size: Max. W500 × H1200 × t8 mm (W19-11/16" × H47-1/4" × t5/16")



Cut Out Dimension

No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Chrome
②	Bottom Plate	Steel	Chrome
③	Plate	304 Stainless Steel	Plain
④	Spacer	PVC	Black
⑤	Screws	304 Stainless Steel	Plain

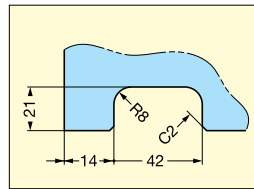
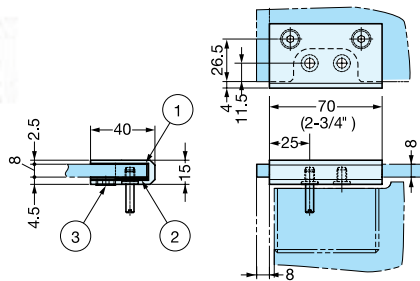
Item No.	Glass Thickness (mm)	Load Capacity (kg)	Weight (g)	Box (pairs)	Carton (pairs)
XL-GC04-C	5~8	12 (26.5 lbs)/Door	560	1	24

GLASS BRACKET

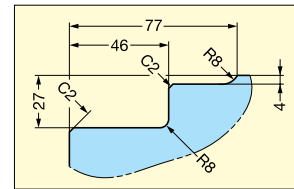
XL-GC05



- Bracket for hinge XL-GC04 (sold separately).
- For use when top panel is glass.



Cut Out Dimension (Top Panel)



Cut Out Dimension (Glass Door)

No.	Part Name	Material	Finish/Color
①	Bracket	Zinc Alloy	Chrome
②	Spacer	Synthetic Rubber	Clear
③	Screws	304 Stainless Steel	Plain

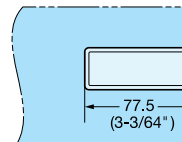
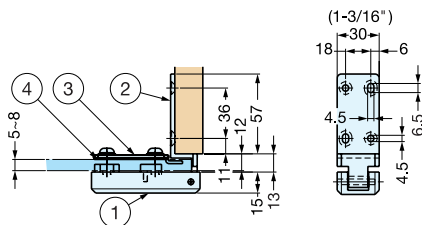
Item No.	Type	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
XL-GC05-R-C	Right	8	174	1	24
XL-GC05-L-C	Left				

GLASS HINGE (OVERLAY, W/CATCH)

XL-GC07



- 10 mm (3/8") Overlay hinge with catch for glass cabinetry.
- Door Size: Max. W500 × H1200 × t8 mm (W19-11/16" × H47-1/4" × t5/16")
- Not for use with lock XL-GC02.



Cut Out Dimension

No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Chrome
②	Hinge Plate		
③	Backplate	Steel	Chrome
④	Spacer	Synthetic Rubber	Black

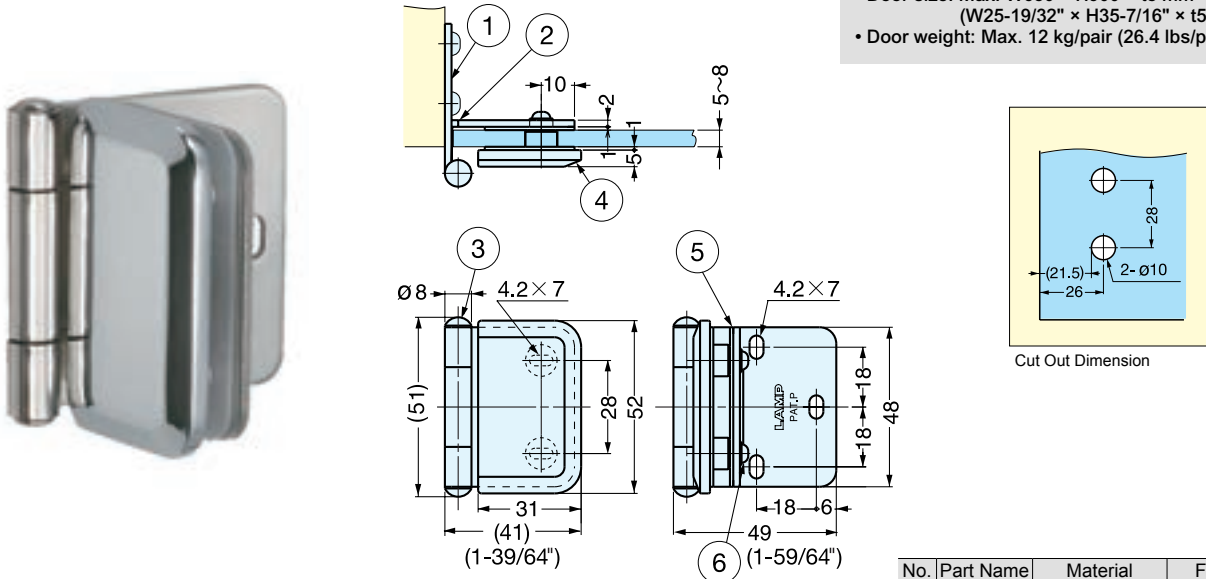
Item No.	Glass Thickness (mm)	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
XL-GC07-C	5~8	12 (26.5 lbs)/Door	301	1	24

INSET GLASS DOOR HINGE



XL-GH03-48-0

- Medium size hinge for glass/acrylic doors.
- Door thickness: 5~8 mm
- Door size: Max. W650 × H900 × t8 mm (W25-19/32" × H35-7/16" × t5/16")
- Door weight: Max. 12 kg/pair (26.4 lbs/pair)



No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Mirror
②	Arm		Plain
③	Hinge Pin	Zinc Alloy	Chrome
④	Plate		Natural
⑤	Pad	Polyethylene	Natural
⑥	Screw	304 Stainless Steel	-

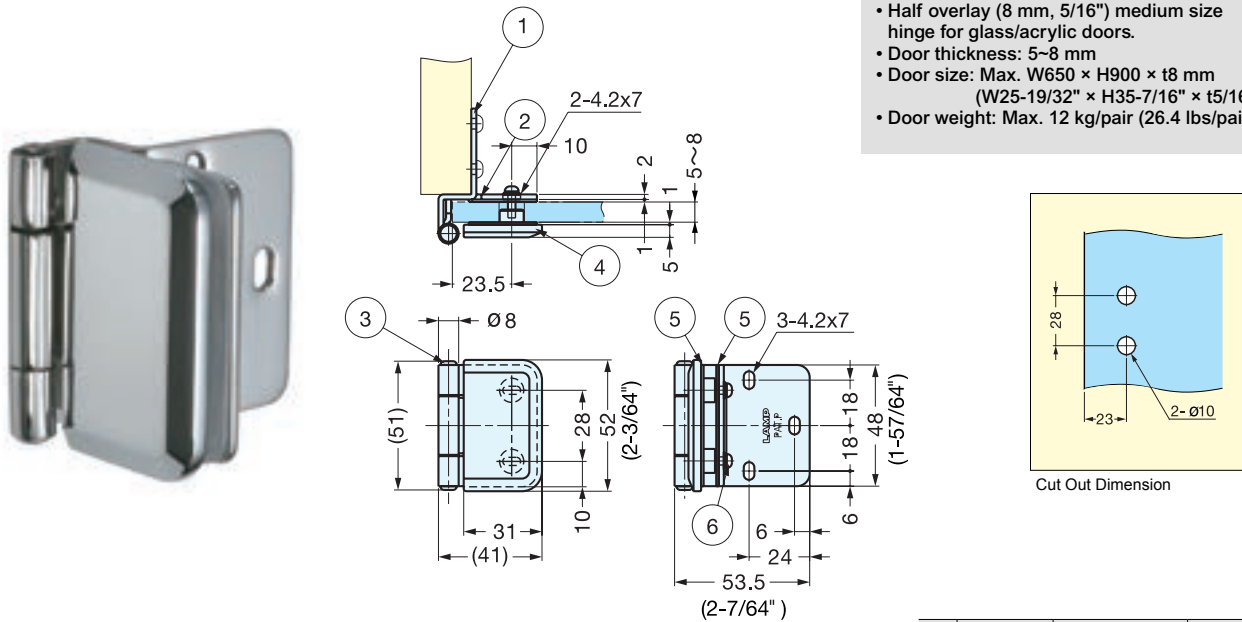
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
XL-GH03-48-0CR	129	10	100

HALF OVERLAY GLASS DOOR HINGE



XL-GH03-48-8

- Half overlay (8 mm, 5/16") medium size hinge for glass/acrylic doors.
- Door thickness: 5~8 mm
- Door size: Max. W650 × H900 × t8 mm (W25-19/32" × H35-7/16" × t5/16")
- Door weight: Max. 12 kg/pair (26.4 lbs/pair)



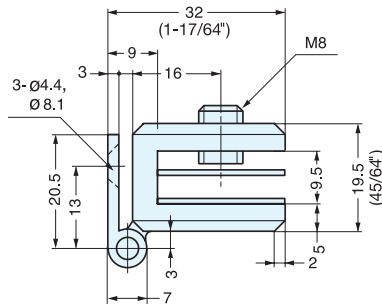
No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Mirror
②	Arm		Plain
③	Hinge Pin	Zinc Alloy	Chrome
④	Plate		Natural
⑤	Pad	Polyethylene	Natural
⑥	Screw	304 Stainless Steel	-

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
XL-GH03-48-8CR	129	10	100

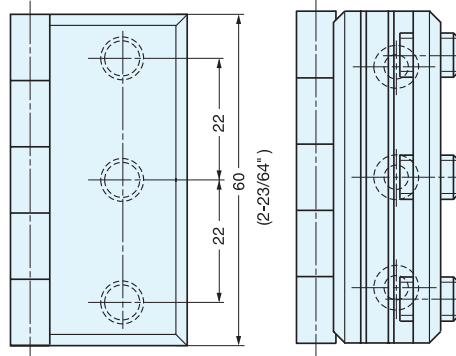
INSET GLASS DOOR HINGE (PRESSURE FIT)

STAINLESS
304
STEEL3.5x20
STAINLESS

XL-GH01-600



- Pre-drilling on glass/acrylic not required.
- Door thickness: 4~6 mm
- Door size: Max. W450 × H1300 mm (W17-3/4" × H51-3/16")
- Door Weight: Max. 11 kg/pair (22 lbs/pair)
- Please use 2 spacers for 4 mm door thickness.

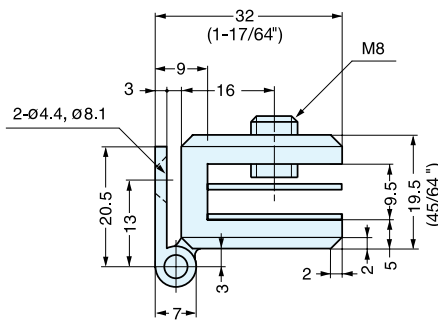


Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
XL-GH01-600	180	10	50	304 Stainless Steel	Polished

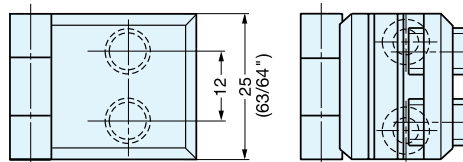
INSET GLASS DOOR HINGE (PRESSURE FIT)

STAINLESS
304
STEEL3.5x20
STAINLESS

XL-GH01-250



- Pre-drilling on glass/acrylic not required.
- Door thickness: 4~6 mm
- Door size: Max. W400 × H600 mm (W15-3/4" × H23-5/8")
- Door Weight: Max. 4.8 kg/pair (10.5 lbs/pair)
- Please use 2 spacers for 4 mm door thickness.

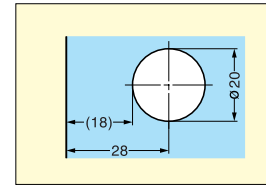
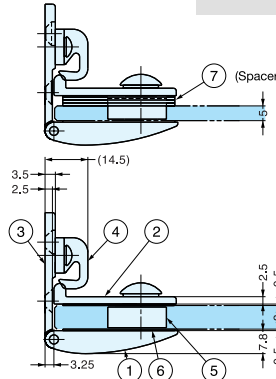
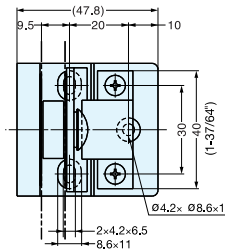
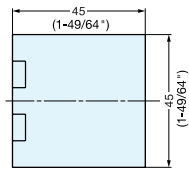


Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
XL-GH01-250	76	10	100	304 Stainless Steel	Polished

INSET GLASS DOOR HINGE (W/CATCH)



GH-450



Cut Out Dimensions

- Glass hinge with catch.
- For Inset use
- Suitable for showcases
- Mounting position adjustable: Vertically ± 1 mm
Horizontally ± 1.2 mm
- Spacer included to accommodate different glass thickness.

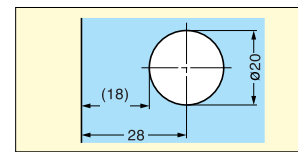
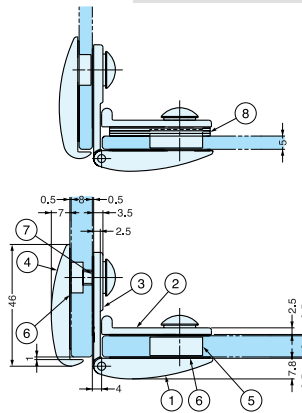
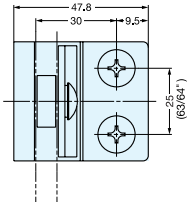
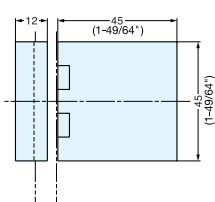
Item No.	Applicable Door Thickness	Applicable Glass Door Size /Pair	
GH-450/SN	5-8 mm	W:600 mm (23-5/8") H:1200 mm (47") Maximum 15 kg (33 lbs)	
GH-450/CR	5 mm : Use with 3 spacers 6 mm : Use with 2 spacers		
GH-450/GA	8 mm : Spacer not required		
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-450/SN	212	10	40
GH-450/CR			
GH-450/GA			

No.	Part Name	Material	Finish		
			SN	CR	GA
①	Face Plate	Brass	Satin Nickel	Chrome	Gold
②	Fixing Plate				
③	Mounting Plate				
④	Catch	Polyamide	Black		
⑤	Glass Adjustment Block				
⑥	Pad	Rubber			
⑦	Spacer	Polypropylene			

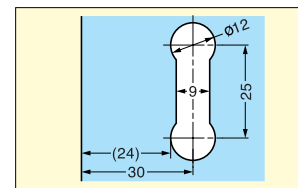
GLASS DOOR HINGE (GLASS FRAME TYPE, W/O CATCH)



GH-450G



Cut Out Dimensions



Cut Out Dimension for Side Panel

- For glass frame use.
- Suitable for showcases.
- Mounting position adjustable: Horizontally ± 1.2 mm
- Spacers included to accommodate different glass thickness.

Item No.	Applicable Door Thickness	Applicable Glass Door Size /Pair	
GH-450G/SN	5-8 mm	W:600 mm (23-5/8") H:1200 mm (47") Maximum 15 kg (33 lbs)	
GH-450G/CR	5 mm : Use with 3 spacers 6 mm : Use with 2 spacers		
GH-450G/GA	8 mm : Spacer not required		
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-450G/SN	320	10	40
GH-450G/CR			
GH-450G/GA			

No.	Part Name	Material	Finish		
			SN	CR	GA
①	Face Plate	Brass	Satin Nickel	Chrome	Gold
②	Fixing Plate				
③	Mounting Plate				
④	Side Plate	Polyamide	Black		
⑤	Glass Adjustment Block				
⑥	Pad A	Rubber			
⑦	Pad B				
⑧	Spacer	Polypropylene			

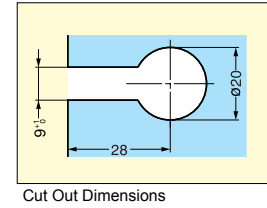
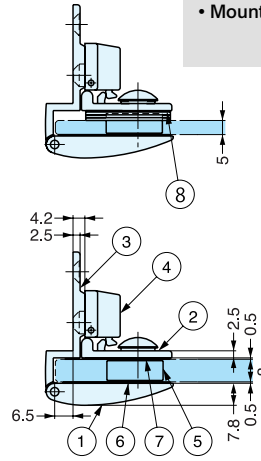
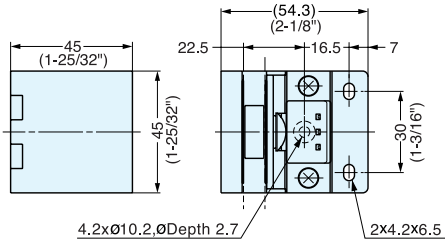
OVERLAY GLASS DOOR HINGE (W/ CATCH)



GH-456C



- Glass hinge with catch.
- For overlay use.
- Suitable for showcases
- Mounting position adjustable: Vertically±1 mm
Horizontally±1.2 mm



Item No.	Applicable Door Thickness	Applicable Glass Door Size /Pair	
GH-456C/SN	5-8 mm	W:600 mm (23-5/8") H:1200 mm (47") Maximum 15 kg (33 lbs)	
GH-456C/CR	5 mm : Use with 3 spacers 6 mm : Use with 2 spacers		
GH-456C/GA	8 mm : Spacer not required		
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-456C/SN	216	10	40
GH-456C/CR			
GH-456C/GA			

No.	Part Name	Material	Finish		
			SN	CR	GA
①	Face Plate	Brass	Satin Nickel	Chrome	Gold
②	Fixing Plate				
③	Mounting Plate				
④	Catch	PBT, POM	Black		
⑤	Glass Adjustment Block	Polyamide			
⑥	Pad A	PVC			
⑦	Pad B				
⑧	Spacer	Polypropylene			

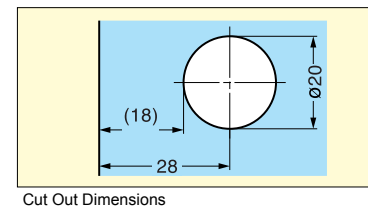
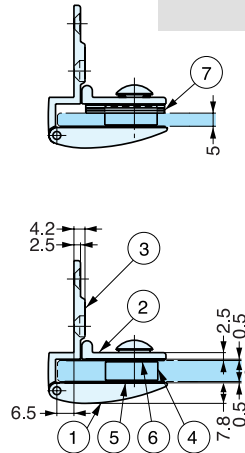
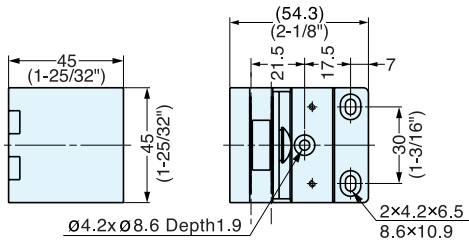
OVERLAY GLASS DOOR HINGE (W/O CATCH)



GH-456N



- For overlay use.
- Suitable for showcases
- Mounting position adjustable: Vertically±1 mm
Horizontally±1.2 mm



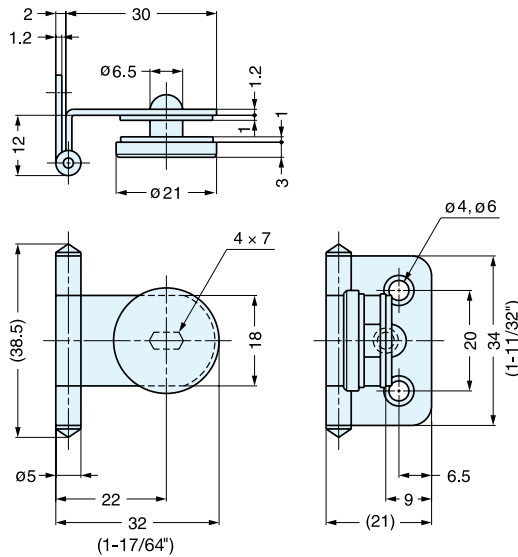
Item No.	Applicable Door Thickness	Applicable Glass Door Size /Pair	
GH-456N/SN	5-8 mm	W:600 mm (23-5/8") H:1200 mm (47") Maximum 15 kg (33 lbs)	
GH-456N/CR	5 mm : Use with 3 spacers 6 mm : Use with 2 spacers		
GH-456N/GA	8 mm : Spacer not required		
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-456N/SN	210	10	40
GH-456N/CR			
GH-456N/GA			

No.	Part Name	Material	Finish		
			SN	CR	GA
①	Face Plate	Brass	Satin Nickel	Chrome	Gold
②	Fixing Plate				
③	Mounting Plate				
④	Glass Adjustment Block	Polyamide	Black		
⑤	Pad	Rubber			
⑥	Spacer	Polypropylene			

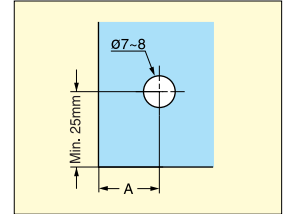
INSET GLASS DOOR HINGE



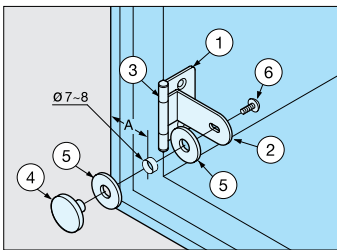
GH-34/0/S



- Hinge for glass/acrylic doors.
- Door thickness: 4-6 mm
- Door size: Max. W450 × H700 (W17-3/4" × H27-9/16")
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)



Cut Out Dimension



Installation

Glass Thickness (mm)	A (mm)
4	19
5	18
6	17

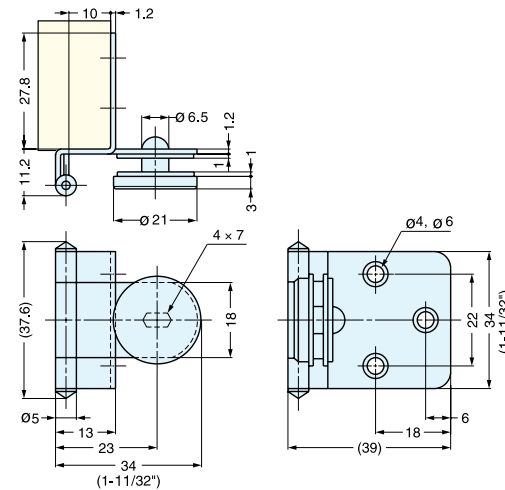
No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Plain
②	Arm		
③	Hinge Pin		
④	Plate	Aluminum	Anodized
⑤	Washer	PVC	Clear
⑥	Screw	304 Stainless Steel	Plain

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-34/0/S	15	150	900

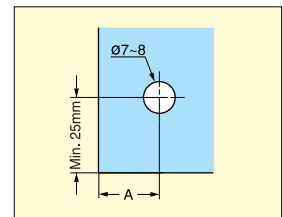
HALF OVERLAY GLASS DOOR HINGE



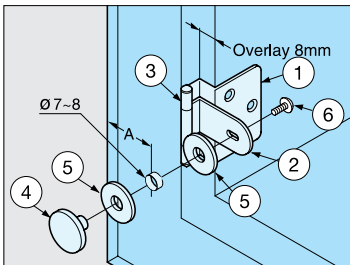
GH-34/8/S



- Half overlay.
- Hinge for glass/acrylic doors.
- Door thickness: 4-6 mm
- Door size: Max. W450 × H700 (W17-3/4" × H27-9/16")
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)



Cut Out Dimension



Installation

Glass Thickness (mm)	A (mm)	Overlay (mm)
4	19	8
5	18	7
6	17	6

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Plain
②	Arm		
③	Hinge Pin		
④	Plate	Aluminum	Anodized
⑤	Washer	PVC	Clear
⑥	Screw	304 Stainless Steel	Plain

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-34/8/S	21	100	600

INSET GLASS DOOR HINGE



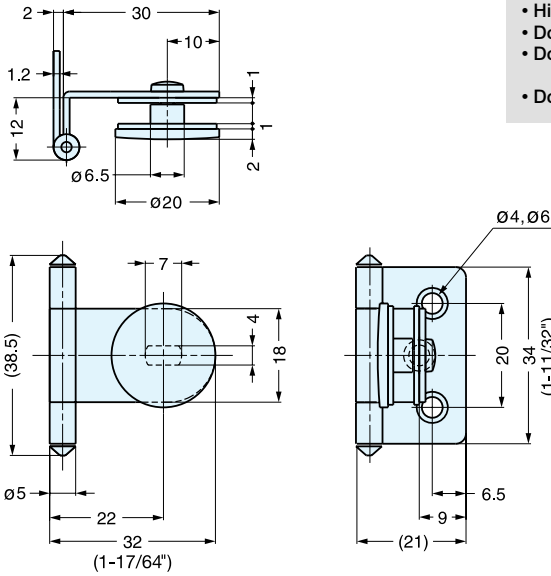
GH-34/0



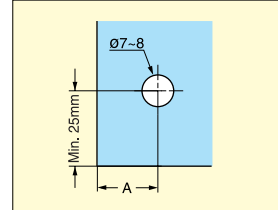
GH-34/0/CR



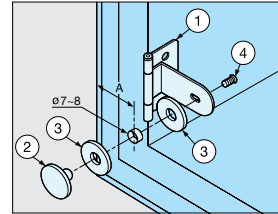
GH-34/0/BL



- Hinge for glass/acrylic doors.
- Door thickness: 4~6 mm
- Door size: Max. W450 × H700 (W17-3/4" × H27-9/16")
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)



Cut Out Dimension



Installation

Glass Thickness (mm)	A (mm)
4	19
5	18
6	17

No.	Part Name	Material	Finish
①	Body	Steel	Chrome/Black
②	Plate	Zinc Alloy	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel/Black

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-34/0/CR-P	23.5	100	600
GH-34/0/BL-P		150	900

HALF OVERLAY GLASS DOOR HINGE



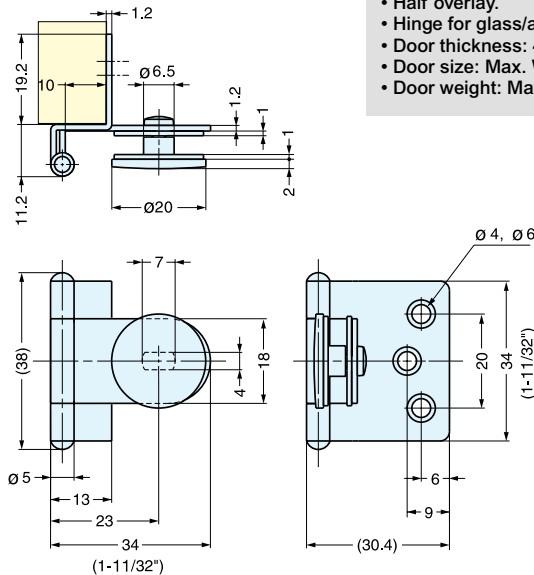
GH-34/8



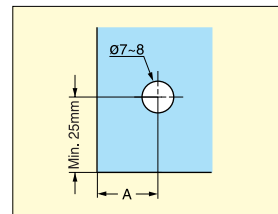
GH-34/8/CR



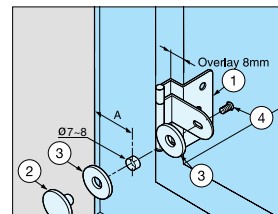
GH-34/8/BL



- Half overlay.
- Hinge for glass/acrylic doors.
- Door thickness: 4~6 mm
- Door size: Max. W450 × H700 (W17-3/4" × H27-9/16")
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)



Cut Out Dimension



Installation

Glass Thickness (mm)	A (mm)	Overlay (mm)
4	19	8
5	18	7
6	17	6

No.	Part Name	Material	Finish
①	Body	Steel	Chrome/Black
②	Plate	Zinc Alloy	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel/Black

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-34/8/CR	25	50	500
GH-34/8/BL			

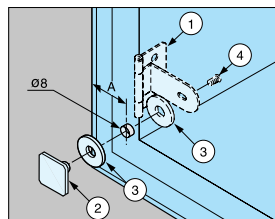
INSET GLASS DOOR HINGE



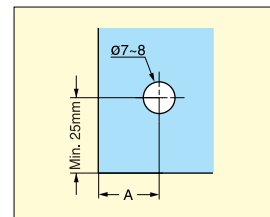
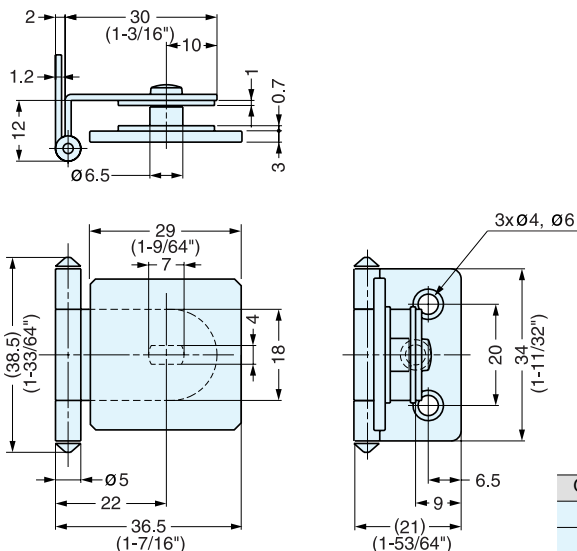
GH-34-0CR-K



- Hinge for glass/acrylic doors.
- Door thickness: 4~6 mm.
- Door size: Max. W450 × H700 (W17-3/4" × H27-9/16")
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)
- Rounded plate GH-34/0/CR is available.



Installation



Cut Out Dimension

Glass Thickness (mm)	A (mm)
4	19
5	18
6	17

No.	Part Name	Material	Finish/Color
①	Body	Steel	Chrome
②	Plate	Zinc Alloy	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-34-0CR-K	34	150	900

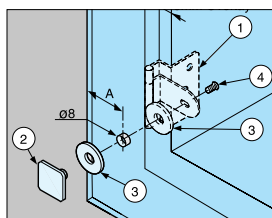
HALF OVERLAY GLASS DOOR HINGE



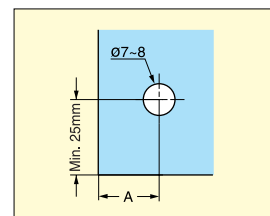
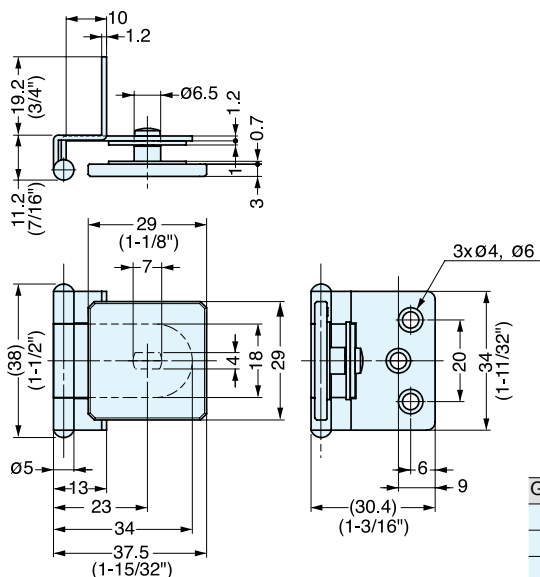
GH-34-8CR-K



- Half overlay.
- Hinge for glass/acrylic doors.
- Door thickness: 4~6 mm.
- Door size: Max. W450 × H700 (W17-3/4" × H27-9/16")
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)
- Rounded plate GH-34/8/CR is available.



Installation



Cut Out Dimension

Glass Thickness (mm)	A (mm)	Overlay (mm)
4	19	8
5	18	7
6	17	6

No.	Part Name	Material	Finish/Color
①	Body	Steel	Chrome
②	Plate	Zinc Alloy	
③	Washer	PVC	Clear
④	Screw	Steel	Nickel

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-34-8CR-K	37	50	500

HALF OVERLAY GLASS DOOR HINGE (W/CATCH)



GHC-34/8



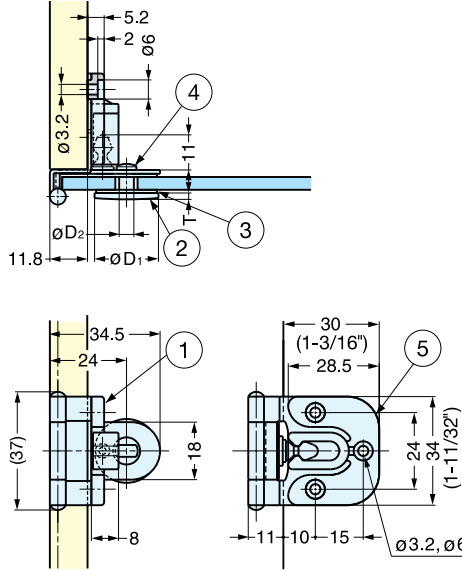
GHC-34/8/CR



GHC-34/8/BLK



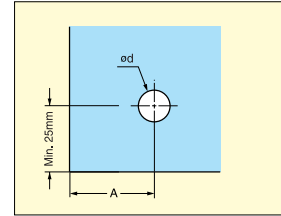
GHC-34/8/PB



Glass Thickness (mm)	A (mm)	Overlay (mm)
4	19	7
5	18	6
6	17	5

Item No.	D ₁	D ₂	d	T	Weight (g)	Box (pcs)	Carton (pcs)
GHC-34/8/CR	20	6.5	8	2	36	40	600
GHC-34/8/PB	20	6.5	8	2	36		
GHC-34/8/BLK	21	8.0	10	3	32		

- Half overlay.
- Hinge will hold door in closed position without secondary support.
- Door thickness: 4-6 mm
- Door size: Max. W450 × H700 (W17-3/4" × H27-9/16")
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)



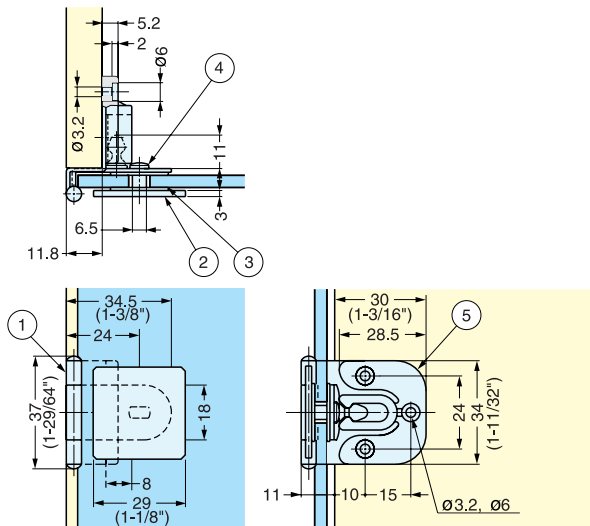
Cut Out Dimension

No.	Part Name	Material	Finish
①	Body	GHC-34/8/BLK	304 Stainless Steel
		GHC-34/8/CR	Steel
		GHC-34/8/PB	Steel
②	Plate	GHC-34/8/BLK	Aluminum
		GHC-34/8/CR	Brass
③	Washer	PVC	Clear
④	Screw	Steel	Nickel
⑤	Catch	Polyacetal	Black

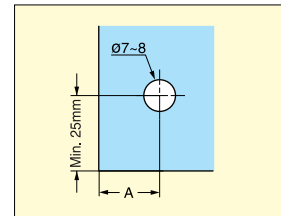
HALF OVERLAY GLASS DOOR HINGE (W/CATCH)



GHC-34-8CR-K



- Half overlay.
- Hinge for glass/acrylic doors.
- Door thickness: 4-6 mm.
- Door size: Max. W450 × H700 (W17-3/4" × H27-9/16")
- Door weight: Max. 4 kg/pair (8.8 lbs/pain)
- Rounded plate GHC-34/8/CR is available.



Cut Out Dimension

Glass Thickness (mm)	A (mm)	Overlay (mm)
4	19	7
5	18	6
6	17	5

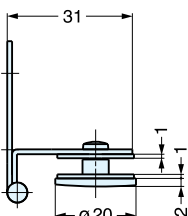
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GHC-34-8CR-K	43	40	600

No.	Part Name	Material	Finish/Color
①	Body	Steel	Chrome
②	Plate	Zinc Alloy	Chrome
③	Washer	PVC	Clear
④	Screw	Steel	Nickel
⑤	Stopper	Polyacetal (POM)	Black

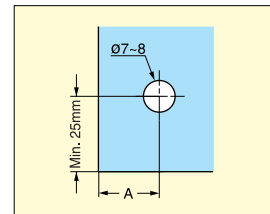
INSET GLASS DOOR LIFT-OFF HINGE



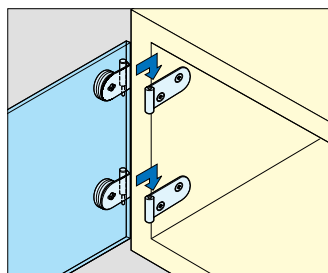
GH-36/NCR



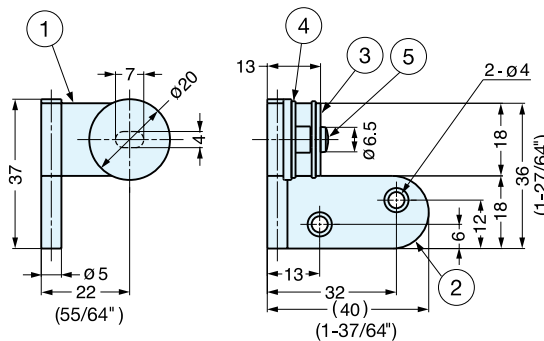
- Lift-off Hinge for glass/acrylic doors.
- Door thickness: 4-6 mm
- Door size: Max. W450 × H700 (W17-3/4" × H27-9/16")
- Door weight: Max. 4 kg/pair (8.8 lbs/pair)



Cut Out Dimension



Installation



Glass Thickness (mm)	A (mm)
4	19
5	18
6	17

No.	Part Name	Material	Finish
①	Body	Steel	Chrome
②			
③	Plate	Brass	
④	Washer	PVC	Clear
⑤	Screw	Steel	Nickel

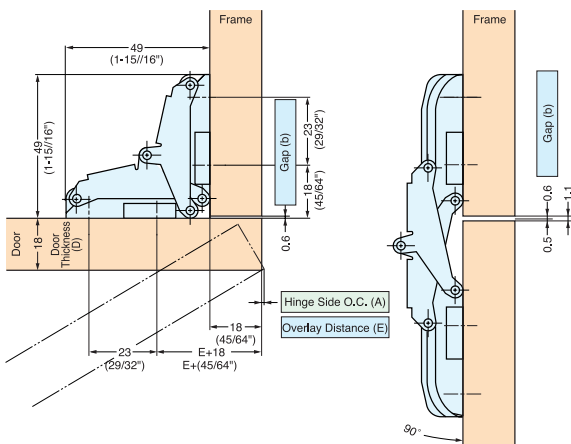
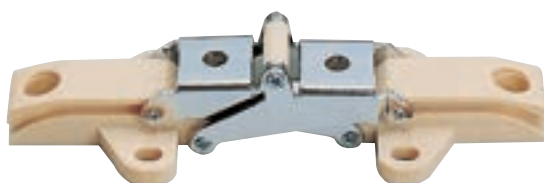
Item No.	Weight (g)	Box (pcs)	Carton (pcs)	
GH-36/NCRL	GH-36/NCRR	24.5	100	400

CONCEALED HINGE



T-90-200

- Concealed hinge for either inset or overlay installation.



■ Door Thickness (D) and Gap (b) Table 1.

Door thickness (D)	15	16	17	18
Gap (b)	0.2	0.3	0.5	0.6

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Overlay distance (E)			
	15	16	17	18
15	1.1	0.5	0	0
16	2.0	1.4	0.8	0.2
17	2.9	2.3	1.7	1.1
18	3.8	3.2	2.6	2.0
Hinge side O.C. (A)				

Item No.	Weight (g)	Box (pcs)
T-90-200	45	200

Part Name	Material	Finish
Arm	Polyamide	Ivory
Body	Steel	Chrome

HEAVY DUTY CONCEALED HINGE (25mm OVERLAY)



J95-24/25T, J95-C24/25T

HINGES



Nickel (NI)



Black Nickel (BN)

- Load capacity: 25 kg (55 lbs)/2 pcs, 40 kg (88 lbs)/3 pcs.
- Maximum door width: 800 mm (31-1/2")/2 pcs, 900 mm (35-7/16")/3 pcs.
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Requires 6 M5 or equivalent (US#10) screws: 2 pcs for each hinge, and 4 pcs for each mounting plate.
- Optional hinge cover (J95SC-25) and mounting plate cover (J95ZC) available (sold separately p.288).
- For glass door applications, see page 283.



Grey (GR)

Nickel (NI)

Black Chrome (BC)

J95ZC-GR/NI/BC
Mounting Plate Cover
Sold Separately
(See p.288)



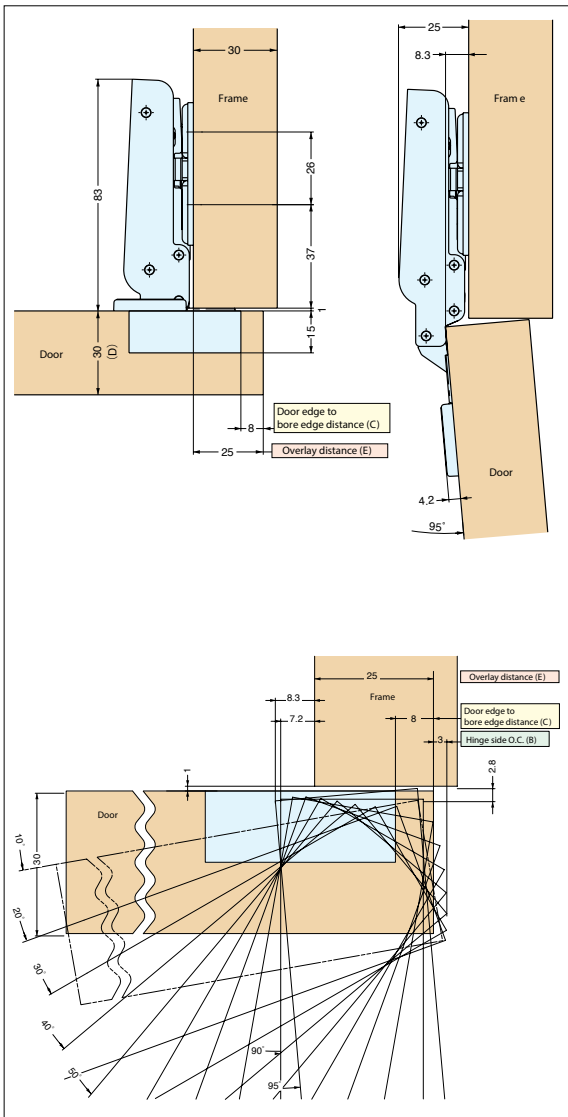
Grey (GR)

Nickel (NI)

Black Chrome (BC)

J95SC-25GR/NI/BC
Safety Cover
Sold Separately
(See p.288)

Wood Door Application



■ Door edge to bore edge distance (C) and Overlay distance (E)

Table 1.

Door edge to bore edge distance (C)	3	4	5	6	7	8
Overlay distance (E)	20	21	22	23	24	25

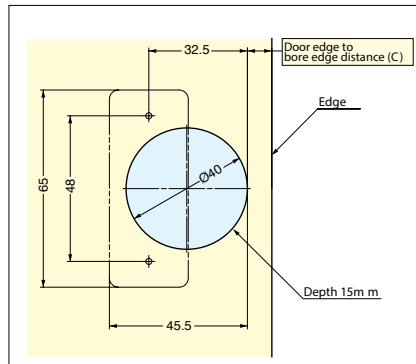
■ Hinge side opening clearance chart

Table 2.

Door thickness (D)*	Door edge to bore edge distance (C)					
	3	4	5	6	7	8
18	0.3	0.3	0.3	0.3	0.3	0.3
20	0.5	0.5	0.5	0.5	0.5	0.5
22	0.8	0.8	0.8	0.7	0.7	0.7
24	1.1	1.1	1.1	1.1	1.1	1.1
26	1.7	1.6	1.6	1.5	1.5	1.5
28	3.2	2.8	2.5	2.2	2.1	2.0
30	5.0	4.5	4.0	3.6	3.3	3.0
32	6.8	6.2	5.7	5.2	4.8	4.4
34	8.6	8.0	7.5	6.9	6.5	6.0

Hinge side O.C. (B)

*If the door thickness is over 30 mm (1-3/16") the door will need to be chamfered.



Bore Dimensions

Item No.	Type	Weight (g)	Box (pcs)	Carton (pcs)	Finish
J95-24/25T-NI	Free Swing	131	10	100	Nickel (NI)
J95-C24/25T-NI	Self-Closing	143			Black Nickel (BN)
J95-24/25T-BN	Free Swing	131			
J95-C24/25T-BN	Self-Closing	143			

Part Name	Material
Cup	Zinc Alloy
Body	Steel

*Requires J95-P6T Mounting Plate (sold separately p.288).

HEAVY DUTY CONCEALED HINGE (25MM OVERLAY)

HEAVY DUTY CONCEALED HINGE (25mm OVERLAY)



J95-24/25T, J95-C24/25T



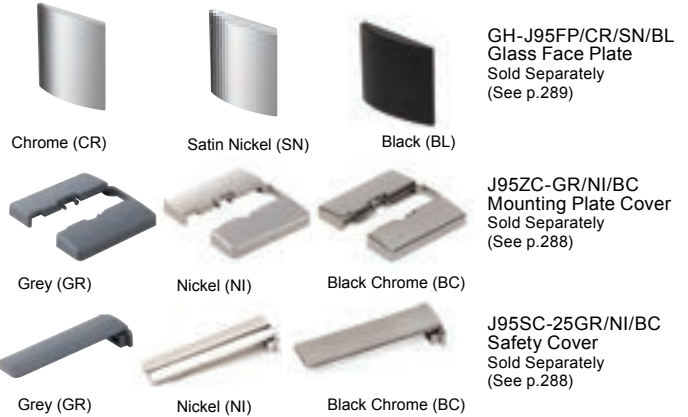
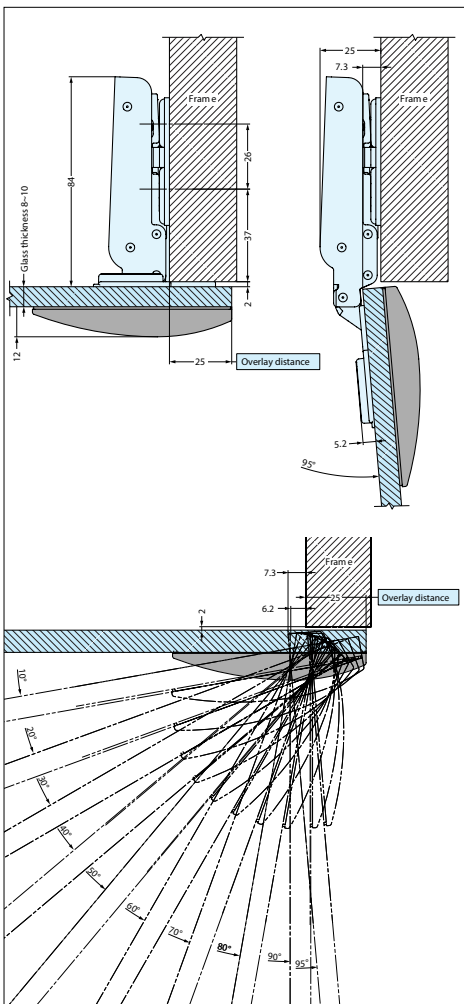
Nickel (NI)



Black Nickel (BN)

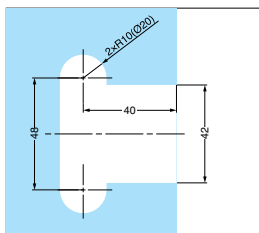
- Load capacity: 25 kg (55 lbs)/2 pcs, 35 kg (77 lbs)/3 pcs.
- Maximum door width: 800 mm (31-1/2")/2 pcs.
- Recommended door thickness: 8-10mm (5/16-3/8) for tempered glass only.
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Requires 6 M5 or equivalent (US#10) screws: 2 pcs for each hinge, and 4 pcs for each mounting plate.
- Optional hinge cover (J95SC-25) and mounting plate cover (J95ZC) available (sold separately p.288).
- Glass face plate (GH-J95FP) also available (sold separately p.289).
- For wood door applications, see page 282.

Glass Door Application

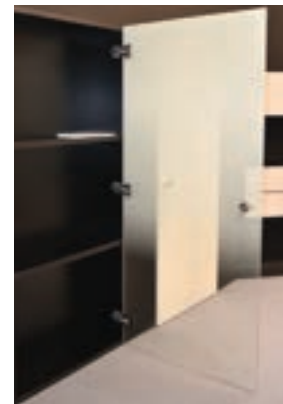


Hinge side opening clearance chart

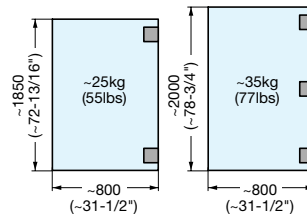
Glass thickness (D)	Hinge side O.C.
8	0
9.5 (3/8")	0
10	0



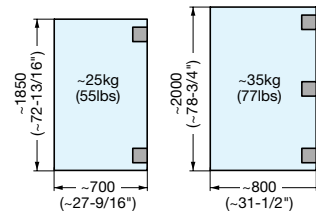
Bore Dimensions



■ Glass thickness 8 mm



■ Glass thickness 10 mm



Item No.	Type	Weight (g)	Box (pcs)	Carton (pcs)	Finish
J95-24/25T-NI	Free Swing	131	10	100	Nickel (NI)
J95-C24/25T-NI	Self-Closing	143			Nickel (NI)
J95-24/25T-BN	Free Swing	131			Black Nickel (BN)
J95-C24/25T-BN	Self-Closing	143			Black Nickel (BN)

Part Name	Material
Cup	Zinc Alloy
Body	Steel

*Requires J95-P6T Mounting Plate and GH-J95FP faceplate for glass door application (sold separately p.288-289).

HEAVY DUTY CONCEALED HINGE (16mm OVERLAY)



J95-24/16T, J95-C24/16T

HINGES

HEAVY DUTY CONCEALED HINGE (16MM OVERLAY)



Nickel (NI)



Black Nickel (BN)

- Load capacity: 25 kg (55 lbs)/2 pcs, 40 kg (88 lbs)/3 pcs.
- Maximum door width: 800 mm (31-1/2")/2 pcs, 900 mm (35-7/16")/3 pcs.
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Requires 6 M5 or equivalent (US#10) screws: 2 pcs for each hinge, and 4 pcs for each mounting plate.
- Optional hinge cover (J95SC-16) and mounting plate cover (J95ZC) available (sold separately p.288).
- For glass door applications, see page 285.

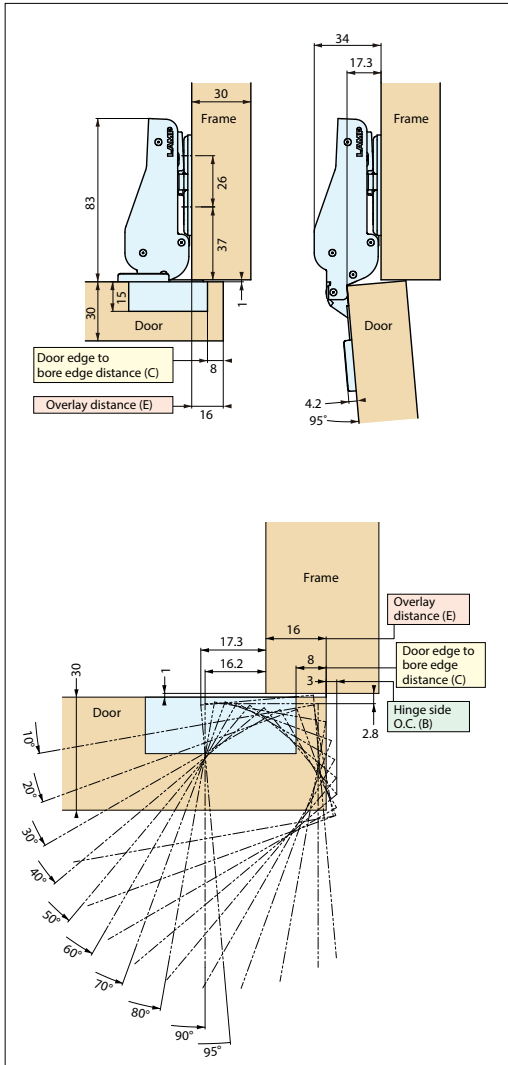


J95ZC-GR/NI/BC Mounting Plate Cover Sold Separately (See p.288)



J95SC-16GR/NI/BC Safety Cover Sold Separately (See p.288)

Wood Door Application



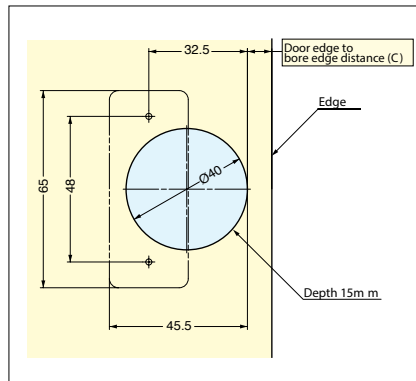
■ Door edge to bore edge distance (C) and Overlay distance (E) Table 1.

Door edge to bore edge distance (C)	3	4	5	6	7	8
Overlay distance (E)	11	12	13	14	15	16

■ Hinge side opening clearance chart Table 2.

Door thickness (D)*	Door edge to bore edge distance (C)					
	3	4	5	6	7	8
18	0.3	0.3	0.3	0.3	0.3	0.3
20	0.5	0.5	0.5	0.5	0.5	0.5
22	0.8	0.8	0.8	0.7	0.7	0.7
24	1.1	1.1	1.1	1.1	1.1	1.1
26	1.7	1.6	1.6	1.5	1.5	1.5
28	3.2	2.8	2.5	2.2	2.1	2.0
30	5.0	4.5	4.0	3.6	3.3	3.0
32	6.8	6.2	5.7	5.2	4.8	4.4
34	8.6	8.0	7.5	6.9	6.5	6.0
Hinge side O.C. (B)						

*If the door thickness is over 30 mm (1-3/16") the door will need to be chamfered.



Bore Dimensions

Item No.	Type	Weight (g)	Box (pcs)	Carton (pcs)	Finish
J95-24/16T-NI	Free Swing	131	10	50	Nickel (NI)
J95-C24/16T-NI	Self-Closing	143			
J95-24/16T-BN	Free Swing	131			Black Nickel (BN)
J95-C24/16T-BN	Self-Closing	143			

Part Name	Material
Cup	Zinc Alloy
Body	Steel

*Requires J95-P6T Mounting Plate (sold separately p.288).

HEAVY DUTY CONCEALED HINGE (16mm OVERLAY)



J95-24/16T, J95-C24/16T

Nickel (NI)

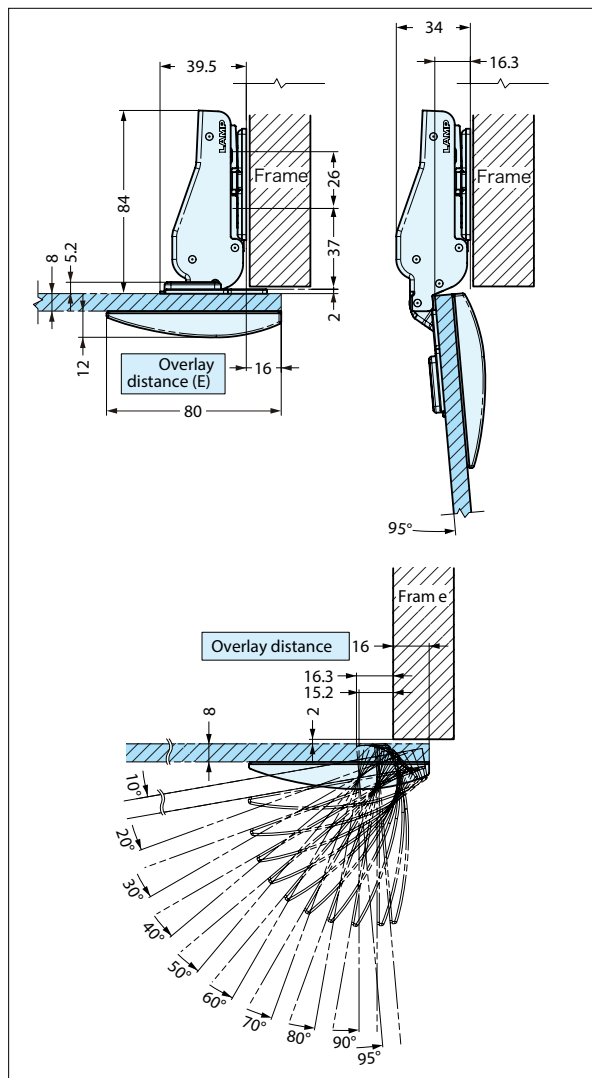


Black Nickel (BN)



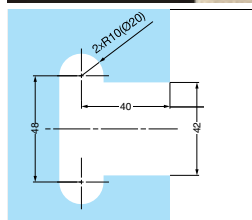
- Load capacity: 25 kg (55 lbs)/2 pcs, 35 kg (77 lbs)/3 pcs.
- Maximum door width: 800 mm (31-1/2")/2 pcs.
- Recommended door thickness: 8-10mm (5/16-3/8) for tempered glass only.
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Requires 6 M5 or equivalent (US#10) screws: 2 pcs for each hinge, and 4 pcs for each mounting plate.
- Optional hinge cover (J95SC-16) and mounting plate cover (J95ZC) available (sold separately p.288).
- Glass face plate (GH-J95FP) also available (sold separately p.289).
- For wood door applications, see page 284.

Glass Door Application



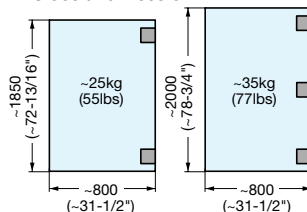
■ Hinge side opening clearance chart

Glass thickness (D)	Hinge side O.C.
8	0
9.5 (3/8")	0
10	0

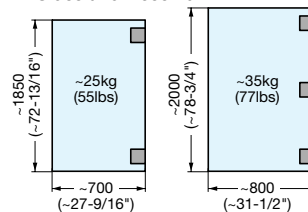


Bore Dimensions

■ Glass thickness 8 mm



■ Glass thickness 10 mm



Item No.	Type	Weight (g)	Box (pcs)	Carton (pcs)	Finish
J95-24/16T-NI	Free Swing	131	10	50	Nickel (NI)
J95-C24/16T-NI	Self-Closing	143			
J95-24/16T-BN	Free Swing	131			
J95-C24/16T-BN	Self-Closing	143			

Part Name	Material
Cup	Zinc Alloy
Body	Steel

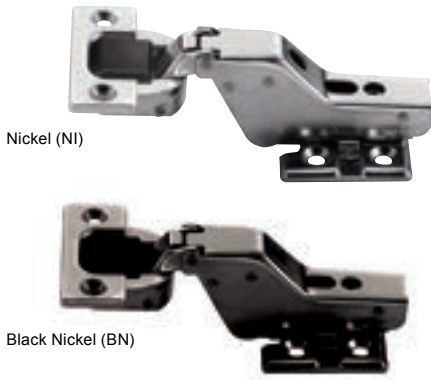
*Requires J95-P6T Mounting Plate and GH-J95FP faceplate for glass door application (sold separately p.288-289).

HEAVY DUTY CONCEALED HINGE (INSET)



J95-24/0T, J95-C24/0T

HINGES



- Load capacity: 25 kg (55 lbs)/2 pcs, 40 kg (88 lbs)/3 pcs.
- Maximum door width: 800 mm (31-1/2")/2 pcs, 900 mm (35-7/16")/3 pcs.
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Requires 6 M5 or equivalent (US#10) screws: 2 pcs for each hinge, and 4 pcs for each mounting plate.
- Optional hinge cover (J95SC-0) and mounting plate cover (J95ZC) available (sold separately p.288).
- For glass door applications, see page 287.

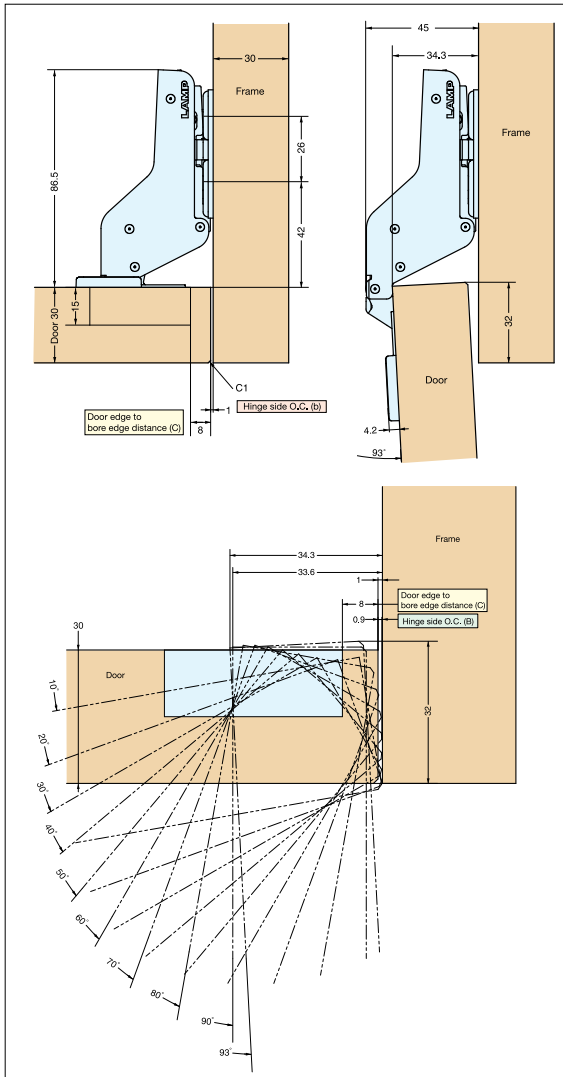


J95ZC-GR/NI/BC
Mounting Plate Cover
Sold Separately
(See p.288)



J95SC-0GR/NI/BC
Safety Cover
Sold Separately
(See p.288)

Wood Door Application



■ Door edge to bore edge distance (C) and Hinge side O.C. (b)

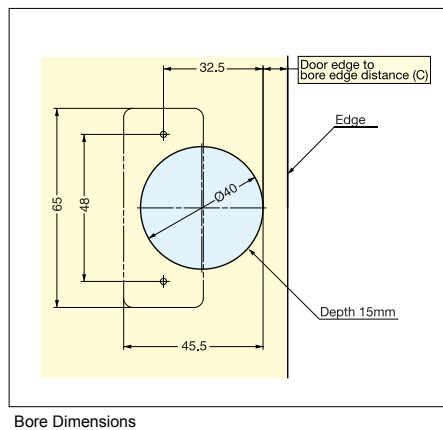
Door edge to bore edge distance (C)	3	4	5	6	7	8
Hinge side O.C. (b)	6	5	4	3	2	1

■ Hinge side opening clearance chart

Door thickness (D)*	Door edge to bore edge distance (C)					
	3	4	5	6	7	8
18	0	0	0	0	0	0
20	0	0	0	0	0	0
22	0.1	0.1	0.1	0.1	0.1	0.1
24	0.1	0.1	0.1	0.1	0.1	0.1
26	0.3	0.3	0.3	0.3	0.3	0.3
28	1.7	1.1	0.6	0.5	0.5	0.5
30	3.5	2.9	2.3	1.8	1.0	0.9
32	5.4	4.7	4.1	3.6	3.0	2.5
34	7.3	6.0	6.0	5.4	4.8	4.3

Hinge side O.C. (B)

*If the door thickness is over 30 mm (1-3/16") the door will need to be chamfered.



Item No.	Type	Weight (g)	Box (pcs)	Carton (pcs)	Finish
J95-24/0T-NI	Free Swing	148	10	50	Nickel (NI)
J95-C24/0T-NI	Self-Closing	160			Black Nickel (BN)
J95-24/0T-BN	Free Swing	148			
J95-C24/0T-BN	Self-Closing	160			

Part Name	Material
Cup	Zinc Alloy
Body	Steel

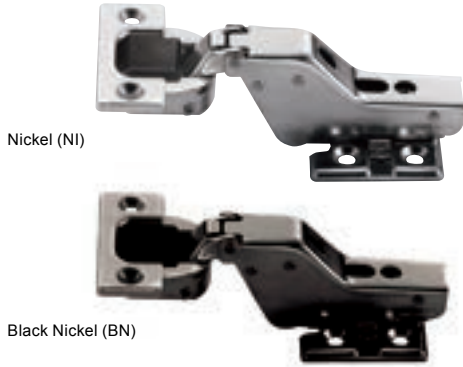
*Requires J95-P6T Mounting Plate (sold separately p.288).

HEAVY DUTY CONCEALED HINGE (INSET)

HEAVY DUTY CONCEALED HINGE (INSET)



J95-24/0T, J95-C24/0T

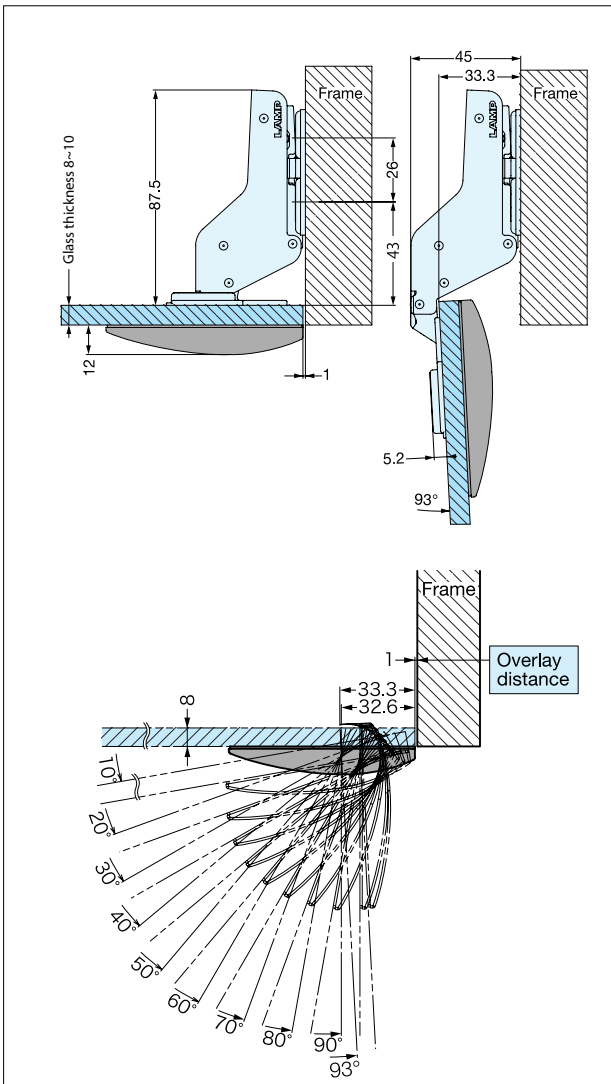


- Load capacity: 25 kg (55 lbs)/2 pcs, 35 kg (77 lbs)/3 pcs.
- Maximum door width: 800 mm (31-1/2")/2 pcs.
- Recommended door thickness: 8-10mm (5/16-3/8) for tempered glass only.
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Requires 6 M5 or equivalent (US#10) screws: 2 pcs for each hinge, and 4 pcs for each mounting plate.
- Optional hinge cover (J95SC-0) and mounting plate cover (J95ZC) available (sold separately p.288).
- Glass face plate (GH-J95FP) also available (sold separately p.289).
- For wood door applications, see page 286.

HINGES

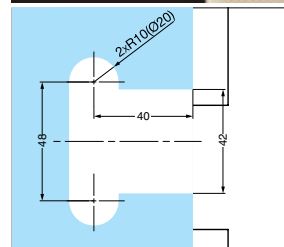
HEAVY DUTY CONCEALED HINGE (INSET)

Glass Door Application



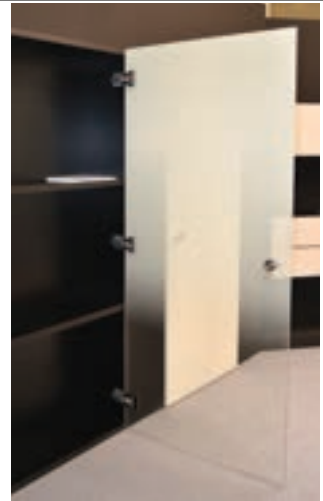
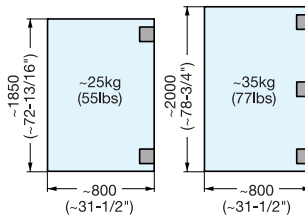
Hinge side opening clearance chart

Glass thickness (D)	Hinge side O.C.
8	0
9.5 (3/8")	0
10	0

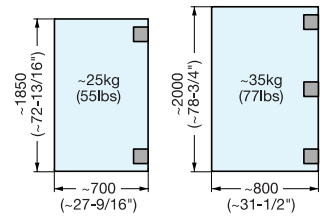


Bore Dimensions

■ Glass thickness 8 mm



■ Glass thickness 10 mm



Item No.	Type	Weight (g)	Box (pcs)	Carton (pcs)	Finish
J95-24/0T-NI	Free Swing	148	10	50	Nickel (NI)
J95-C24/0T-NI	Self-Closing	160			
J95-24/0T-BN	Free Swing	148			
J95-C24/0T-BN	Self-Closing	160			Black Nickel (BN)

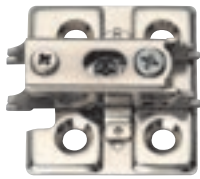
Part Name	Material
Cup	Zinc Alloy
Body	Steel

*Requires J95-P6T Mounting Plate and GH-J95FP faceplate for glass door application (sold separately p.288-289).

MOUNTING PLATE J95-P6T



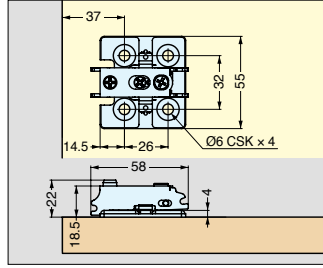
J95-P6T



Nickel (NI)



Black Nickel (BN)



- Vertical adjustment: ± 3 mm ($\pm 1/8$ ").
- Overlay adjustment: $+0/-4$ mm ($\pm 5/32$ ").
- Depth adjustment: $+1.5/-2.5$ mm ($\pm 5/32$ ").
- Specify finish when ordering.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
J95-P6T-NI	94	10	100
J95-P6T-BN			

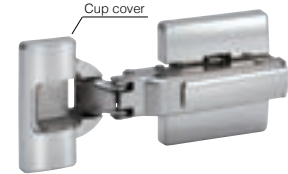
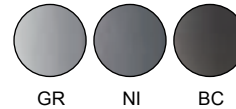
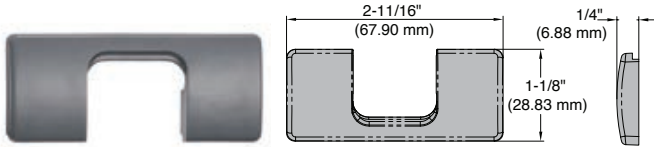
Material	Finish
Steel/Zinc Alloy	Nickel (NI), Black Nickel (BN)

CUP COVER FOR J95 SERIES



J95CC

- Special cover for J95 hinges to hide the screws.
- Comes with a double-sided tape to bond the cover and hinge.
- Please make sure that the surface is clean before taping.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
J95CC-GR	3.2	50	1000
J95CC-NI			
J95CC-BC			

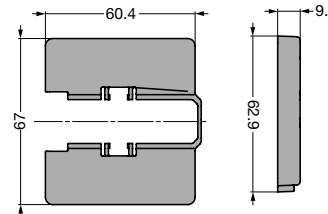
Material	Finish/Color
Plastic (ABS)	Grey (GR), Nickel (NI), Black Chrome (BC)

MOUNTING PLATE COVER



J95ZC

- Mounting plate cover for J95 series.
- Specify finish when ordering.



Nickel cover cap shown

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
J95ZC-GR	9	100	1000
J95ZC-NI			
J95ZC-BC			

Material	Finish/Color
Plastic (ABS)	Grey (GR), Nickel (NI), Black Chrome (BC)

SAFETY COVER



J95SC

Grey (GR)

Nickel (NI)

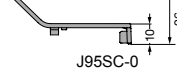
Black Chrome (BC)



J95SC-25



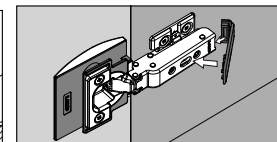
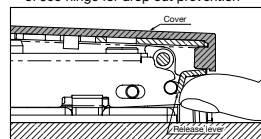
J95SC-16



J95SC-0

- Hinge safety cover for J95 series.
- Specify finish when ordering.

■ The cover locks the release lever of J95 hinge for drop out prevention



Item No.			Weight (g)	Box (pcs)	Carton (pcs)
J95SC-25GR	J95SC-25NI	J95SC-25BC	3	100	1000
J95SC-16GR	J95SC-16NI	J95SC-16BC			
J95SC-0GR	J95SC-0NI	J95SC-0BC			

Material	Finish/Color
Plastic (ABS)	Grey (GR), Nickel (NI), Black Chrome (BC)

GLASS FACEPLATE FOR J95 SERIES



GH-J95FP

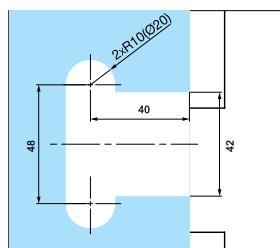
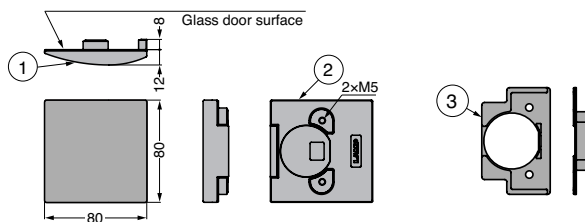


Chrome (CR)

Satin Nickel (SN)

Black (BL)

- Glass faceplates for J95 series.
- Specify finish when ordering.



Bore Dimensions



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-J95FP/CR	320	1	20
GH-J95FP/SN			
GH-J95FP/BL			

No.	Part Name	Material	Finish
①	Face Plate	ZDC	Chrome (CR), Satin Nickel (SN), Black (BL)
②	Face Plate Spacer	Plastic (POM)	
③	Socket Spacer		

GLASS FACEPLATE FOR J95 SERIES

GH-J95FP-Q1



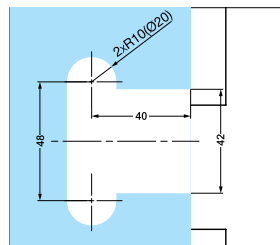
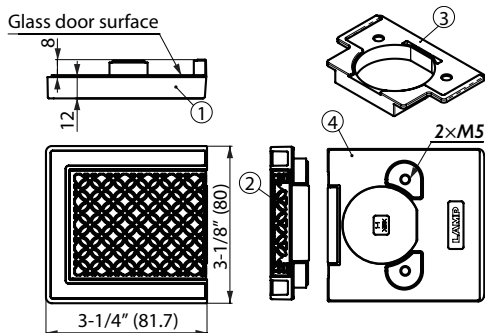
Silver (SL)

Gold (GL)

Brass (BR)

Black (BL)

- Glass faceplates for J95 series.
- Customizable design.
- Specify finish when ordering.



Bore Dimensions



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
GH-J95FP-Q1/SL	347	1	20
GH-J95FP-Q1/GL			
GH-J95FP-Q1/BR			
GH-J95FP-Q1/BL			

No.	Part Name	Material	Finish
①	Face Plate	Zinc Alloy	Silver (SL), Gold (GL), Brass (BR), Black (BL)
②	Decorative Plate	Brass	
③	Socket Spacer	Plastic (POM)	Black
④	Face Plate Spacer		

DAMPER CATCH



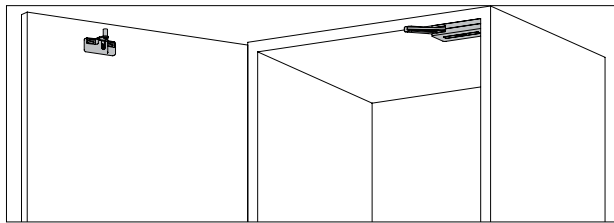
DC-200



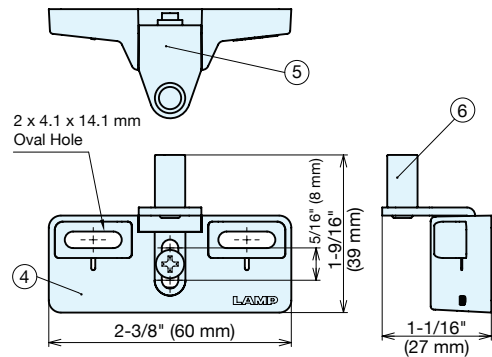
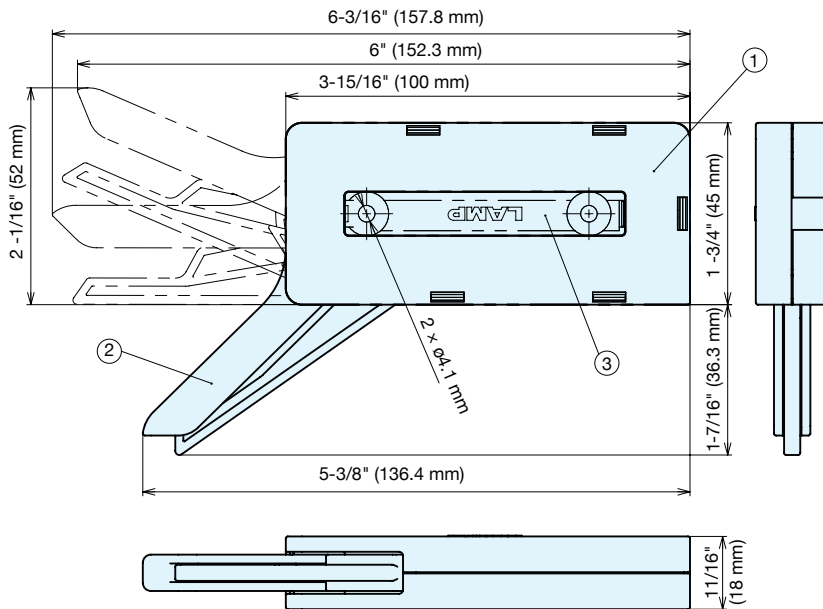
- Damper and catch combination for large cabinetry and closet doors.
- Allows door to soft close and prevent slamming.
- Holds doors in closed position.
- Easy to install by simply aligning body with the interior wall.
- Non-handed.
- Can handle doors up to 88 lbs (40 kg). (When using DC-200 - 40).
- Strike can be adjusted post-installation: horizontally ±5 mm, vertically ±4 mm.
- Passed 50,000 open/close cycles in a private test.

RECOMMENDED HINGES

- Heavy Duty Concealed Hinge J95.
- 3way Adjustable Concealed Hinge HES3D-90
- Single axis furniture hinges.



Attach to the interior of the cabinet.



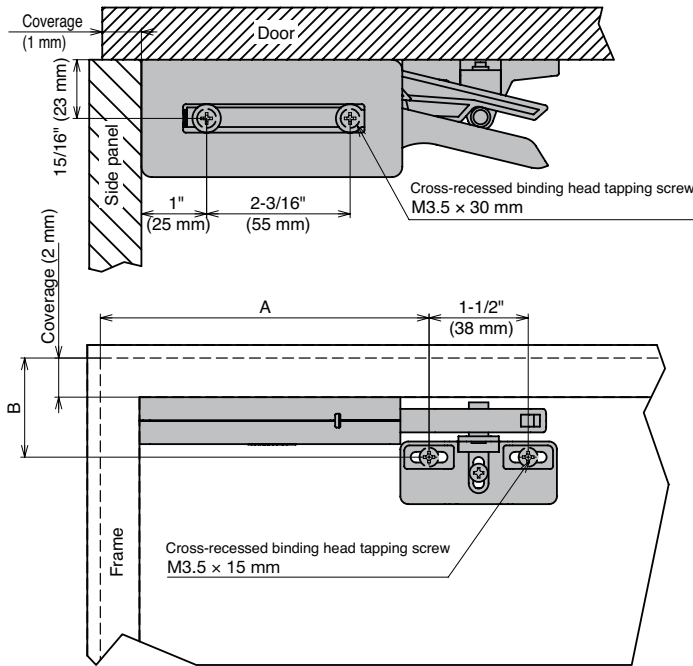
No.	Item Name	Materials	Finish/Colour
①	Body	PC/ABS	White / Black
②	Arm	PA	White / Black
③	Body Cover	ABS	White / Black
④	Counter	PC/ABS	White / Black
⑤	Counter Plate	Steel (SPCC)	Nickel Plating
⑥	Bumper	Elastomer	Gray

Item Name	Colour	Door Width	Door Height Max.	Load Capacity lbs	Weight (g)	Box (pcs)	Carton (pcs)
DC-200-25WT	White	17-3/4" ~ 35-7/16" (450 - 900 mm)	94-1/2" (2400 mm)	15 ~ 55 (7 ~ 25 kg)	105	10	100
DC-200-25BL	Black						
DC-200-40WT	White			55 ~ 88 (25 ~ 40 kg)			
DC-200-40BL	Black						

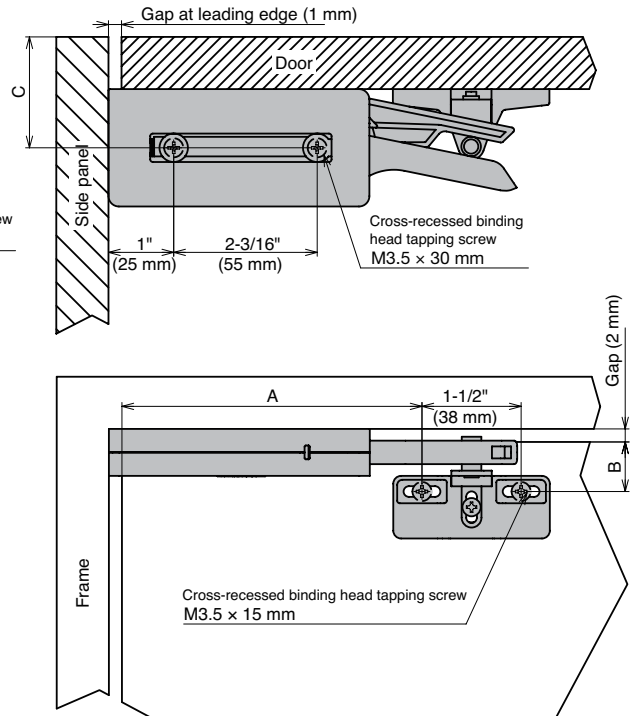
DAMPER CATCH

DC-200

For overlay doors

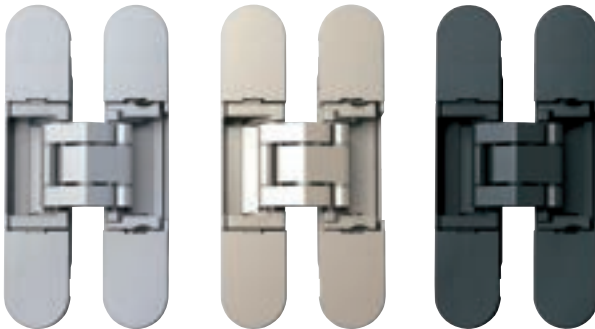


For inset doors Install a door stopper in addition to this product.



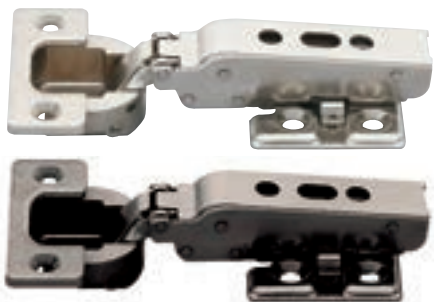
	A	B	C
Outlet Doors	114 + Coverage (1)	24 + Coverage (2)	
Inset Doors	114 - gap at leading edge (1)	24 - gap (2)	23+Door Thickness

RELATED PRODUCTS



3-WAY ADJUSTABLE CONCEALED HINGE HES3D-90

- 3-WAY adjustment function allows vertical, horizontal, and depth adjustment.
- Covers hide all screw heads for clean appearance.
- Hinge leaves separate for easy installation and adjustment.
- Door weight: Max. 26 lbs (12 kg)/2 pcs, 35 lbs (16 kg)/3 pcs
- Door thickness: Min. 15/16" (23 mm)
- Max door size: H 59-1/16" x W 23-5/8" (1500 mm x 600 mm)
- Includes steel countersunk wood screws.



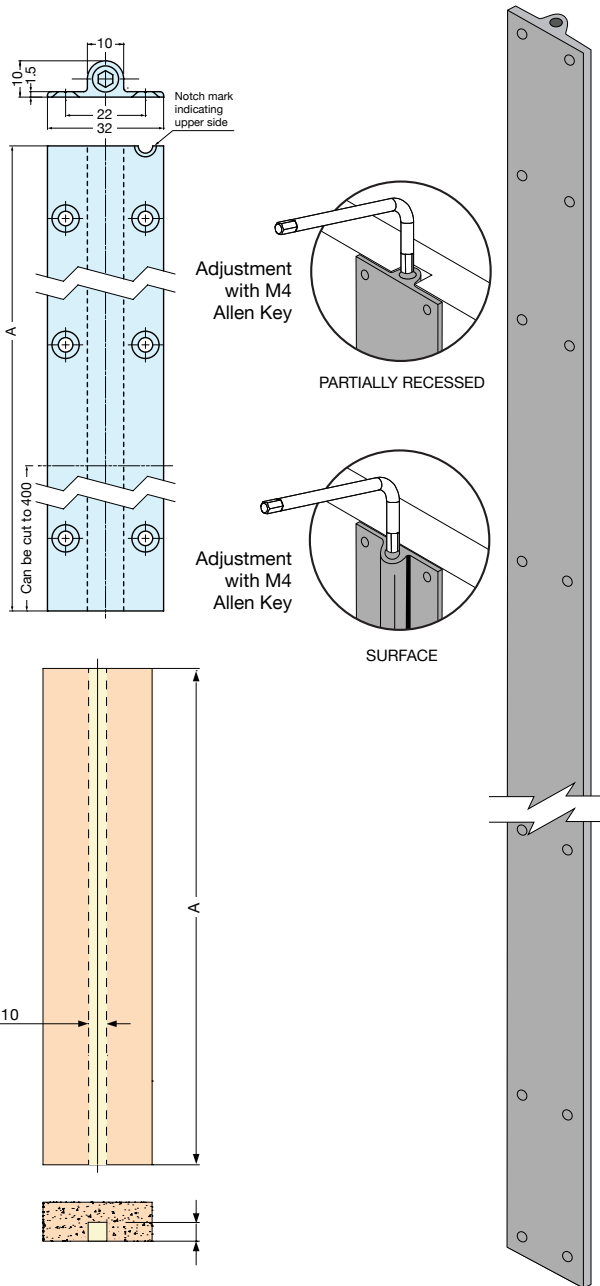
HEAVY DUTY CONCEALED HINGE

J95

- Available in inset and overlay
- Load capacity: 55 lbs (25 kg)/2 pcs, 88 lbs (40 kg)/3 pcs.
- Maximum door width: 31-1/2" (800 mm)/2 pcs, 35-7/16" (900 mm)/3 pcs.
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Optional hinge cover (J95SC-25) and mounting plate cover (J95ZC) available (sold separately p.288).

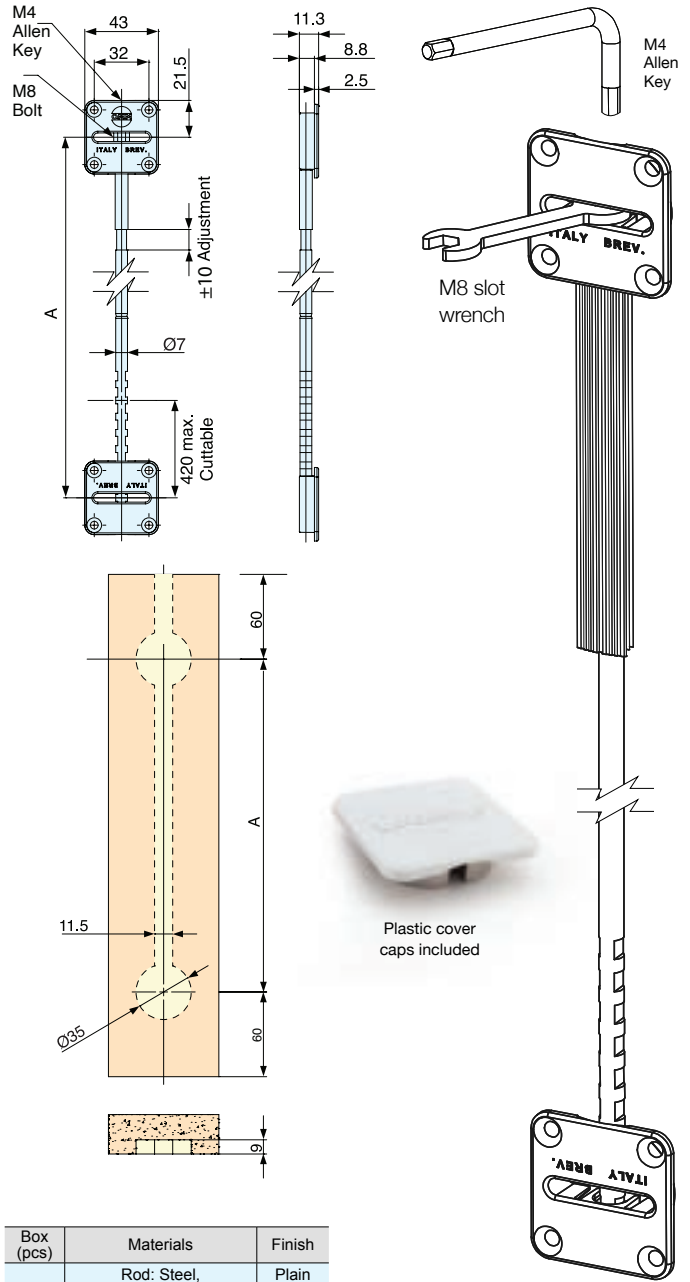
DSR701-RECESSED/SURFACE

- Installed post-production to fix warped doors.
- Must run complete height of door.
- Can be partially recessed or surface mounted to the back of the door.
- ± 10 mm adjustment can be made from the top of the door with a M4 Allen Key (included).
- Min. door thickness 16 mm (9/16").
- Requires M4 (U.S. #8) flathead wood countersunk screws for partially recessed installation or wood panhead screws for surface installation.
- Can be cut from the bottom up to 400mm.
- Note: Sold in Boxes of 10 pieces.



DSR213-RECESSED

- Installed at time of production to prevent door from warping.
- Adjustors installed 60 mm from the top and bottom of the door.
- Partially Recessed Door Straightener with Cover Caps.
- ± 10 mm adjustment can be made from the top of the door with a M4 Allen Key (included) or from the back of the door with a M8 slot wrench (included).
- Min. door thickness 16 mm (5/8")
- Requires 8 M4 (U.S. #8) flathead contersunk wood screws for installation.
- Note: Sold in Boxes of 25 pieces.



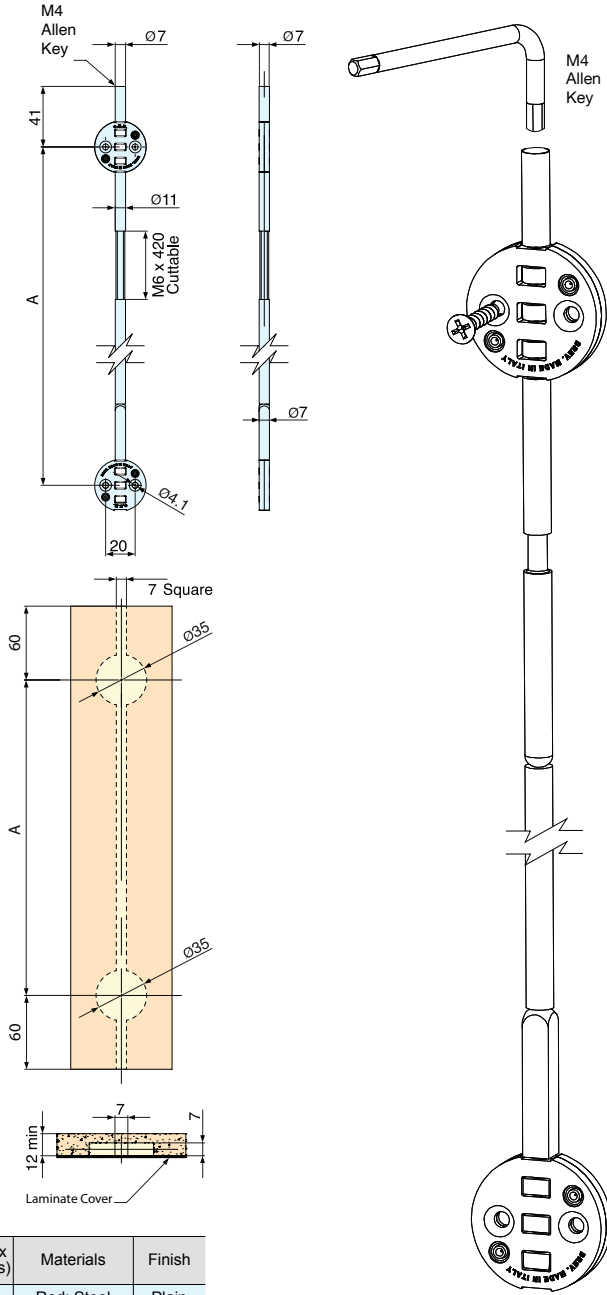
Box (pcs)	Materials	Finish
25	Rod: Steel,	Plain
	Adjuster: Zinc	Nickel
	Covers: PVC Plastic, PPT Plastic	White

Item No.	Min. Door Thickness	Adjust (mm)	Length Min-Max (A)	Box (pcs)	Materials	Finish
DSR701-1830/B-10	5/8"	$\pm 3/8"$	56-5/16" ~ 72-1/16"	10	Rod: Steel Casing: Aluminum	Black
DSR701-1830/S-10						Silver
DSR701-2200/B-10			70-7/8" ~ 86-5/8"			Black
DSR701-2200/S-10						Silver

Item No.	Min. Door Thickness	Adjust	Center Distance (A)	Door Length
DSR213-1524-25	5/8"	$\pm 3/8"$	43-7/16" ~ 60"	48-3/16" ~ 64-3/4"
DSR213-1930-25			59-7/16" ~ 76"	64-3/16" ~ 80-11/16"
DSR213-2330-25			75-3/16" ~ 91-3/4"	79-15/16" ~ 96-7/16"
DSR213-2700-25			89-3/4" ~ 106-5/16"	94-1/2" ~ 111"

DSR423-CONCEALED

- Installed at time of production to prevent door from warping.
- Adjustors installed 60 mm from the top and bottom of the door.
- Fully concealed/hidden door straightener. Recessed mounted under laminate.
- ± 10 mm adjustment can be made from the top of the door with a M4 Allen Key (included).
- Min. door thickness 12mm (1/2").
- Optional mounting holes to secure door straightner to door using 4 M4 (U.S. #8) flathead countersunk wood screws.
- Note: Sold in Boxes of 25 pieces.

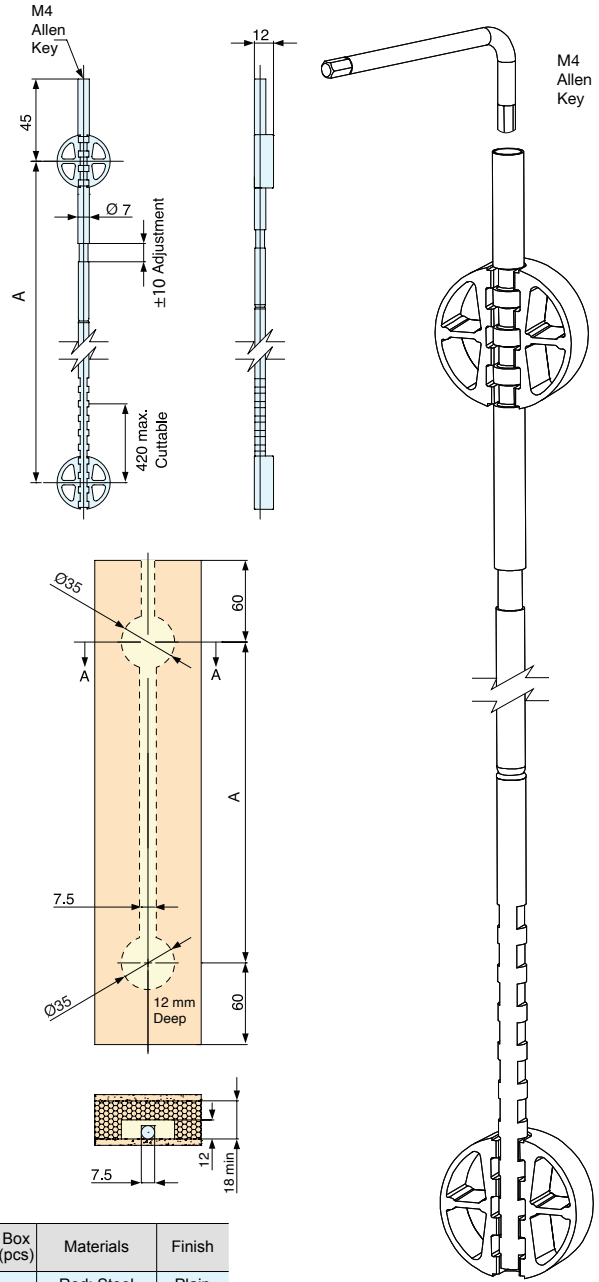


Box (pcs)	Materials	Finish
25	Rod: Steel	Plain
	Adjuster: Zinc	Nickel

Item No.	Min. Door Thickness	Adjust	Center Distance (A)	Door Length
DSR423-1524-25	1/2"	$\pm 3/8$ "	43-7/16" ~ 60"	48-3/16" ~ 64-3/4"
DSR423-1930-25			59-7/16" ~ 176"	64-3/16" ~ 80-11/16"
DSR423-2300-25			74" ~ 90-9/16"	78-3/4" ~ 95-1/4"
DSR423-2700-25			89-3/4" ~ 106-5/16"	94-1/2" ~ 111"

DSR403-CONCEALED

- Installed at time of production to prevent door from warping.
- Adjustors installed 60 mm from the top and bottom of the door.
- Fully Concealed/Hidden Door Straightener. Recess mounted under laminate.
- ± 10 mm adjustment can be made from the top of the door with a M4 Allen Key (included).
- Min. door thickness 18mm (11/16").
- Pressure-fit into place, screws not needed for installation.
- Note: Sold in Boxes of 25 pieces.



Box (pcs)	Materials	Finish
25	Rod: Steel	Plain
	Adjuster: Zinc	Nickel

Item No.	Min. Door Thickness	Adjust	Center Distance (A)	Door Length
DSR403-1524-25	11/16"	$\pm 3/8$ "	43-7/16" ~ 60"	48-3/16" ~ 64-3/4"
DSR403-1930-25			59-7/16" ~ 176"	64-3/16" ~ 80-11/16"
DSR403-2300-25			74" ~ 90-9/16"	78-3/4" ~ 95-1/4"
DSR403-2700-25			89-3/4" ~ 106-5/16"	94-1/2" ~ 111"

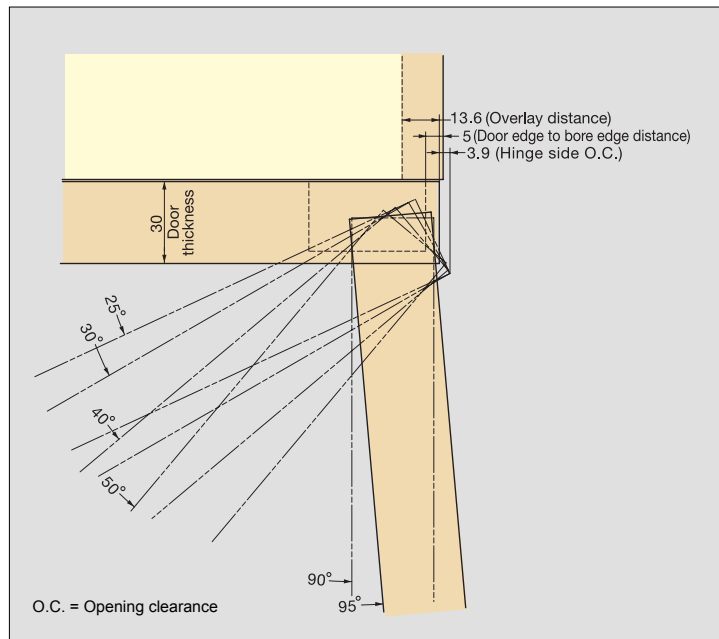
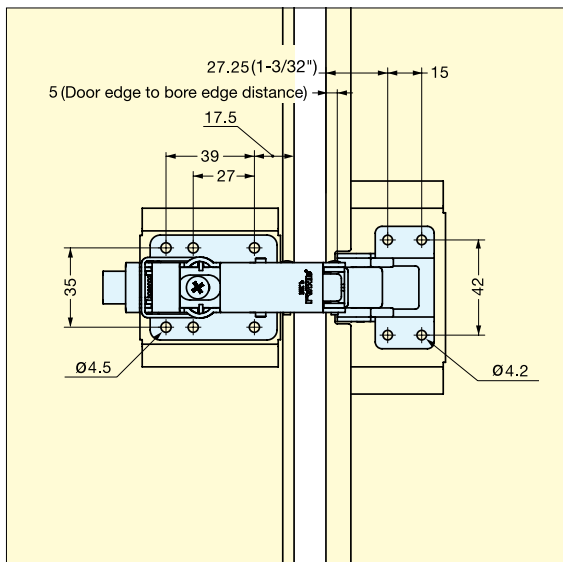
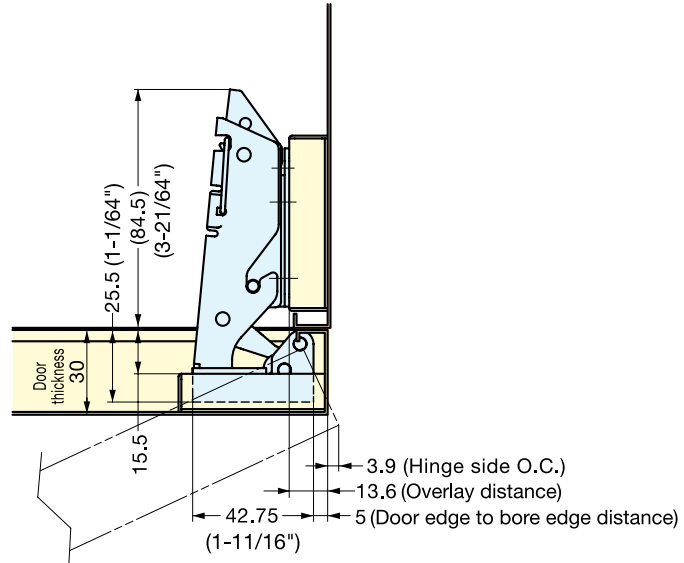
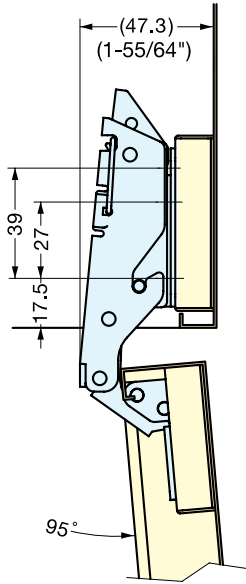
CONCEALED HINGE (CLIP-ON)



H95TS



- 95° opening concealed hinge.
- Clip-on feature allows easy door installation/removal.
- Safety lock feature.
- Door opens without hitting adjacent cabinets.
- Ideal when 2 doors are close together.
- Hinge body and mounting plate sold separately.



Installation

Item No.	Weight (g)	Box (pcs)
H95TSH	149	100
H95TSZ	94	100

Item No.	Part Name	Material	Finish
H95TSH	Body	Steel	Nickel
H95TSZ	Mounting Plate		

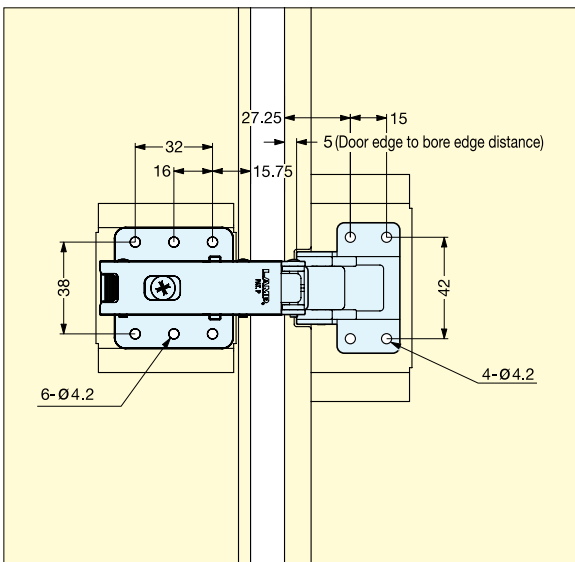
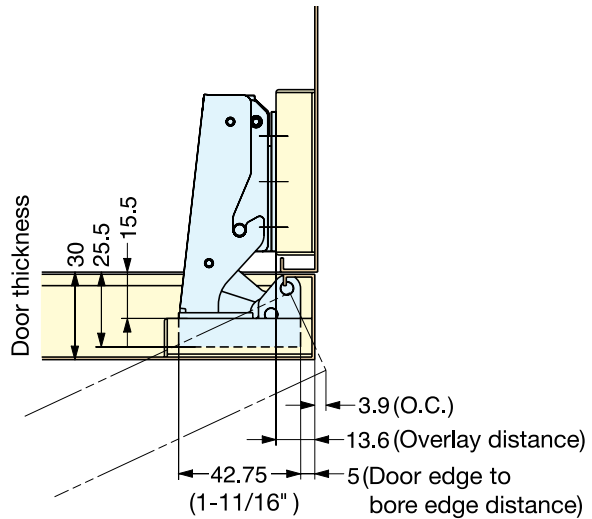
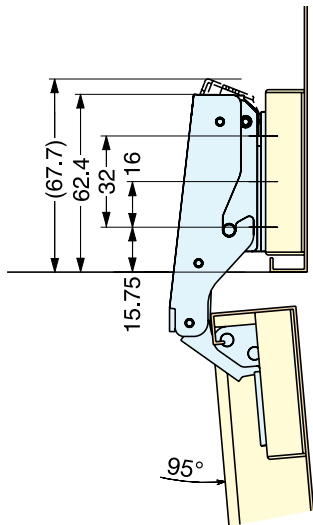
CONCEALED HINGE (CLIP-ON)



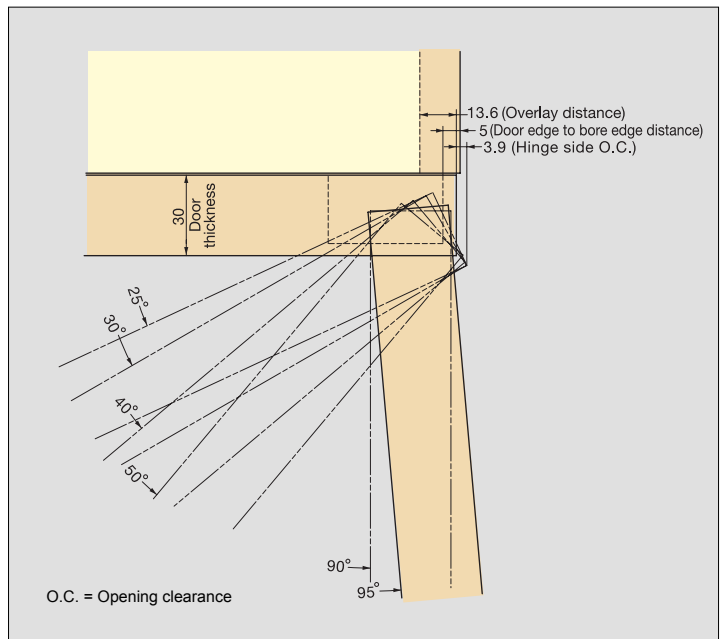
H95TM



- 95° opening concealed hinge.
- Clip-on feature allows easy door installation/removal.
- Door opens without hitting adjacent cabinets.
- Ideal when 2 doors are close together.
- Hinge body and mounting plate sold separately.



Installation



HINGES
CONCEALED HINGES (CLIP-ON)

Item No.	Weight (g)	Box (pcs)
H95TMH	138	100
H95TMZ	81	100

Item No.	Part Name	Material	Finish
H95TMH	Body	Steel	Nickel
H95TMZ	Mounting Plate		

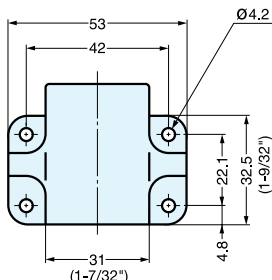
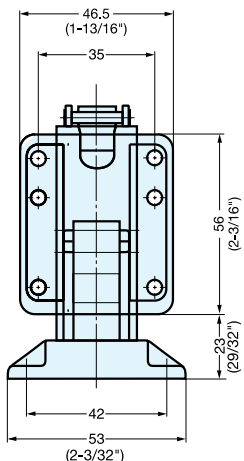
CONCEALED HINGE (CLIP-ON)



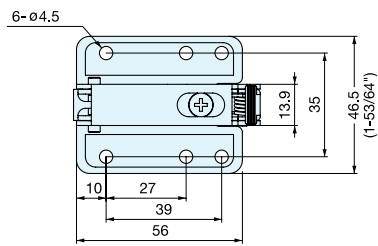
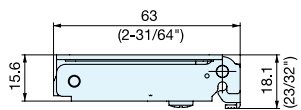
HT-160T



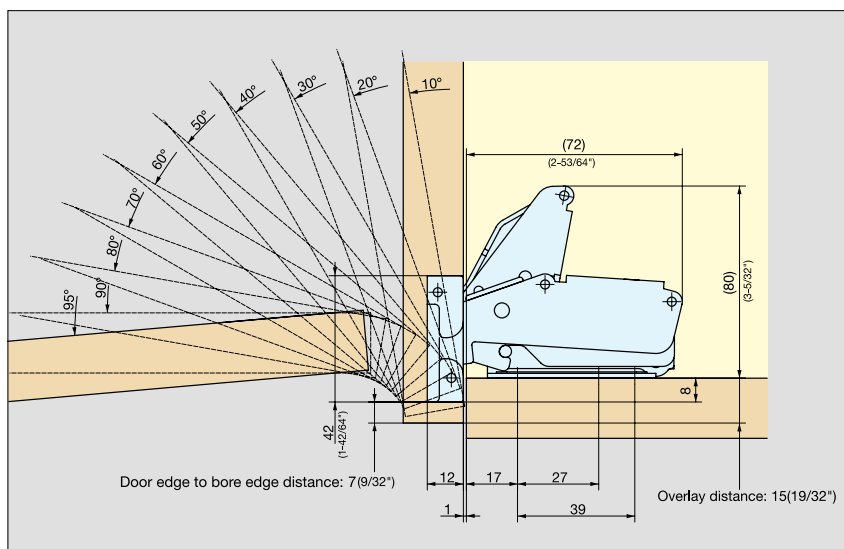
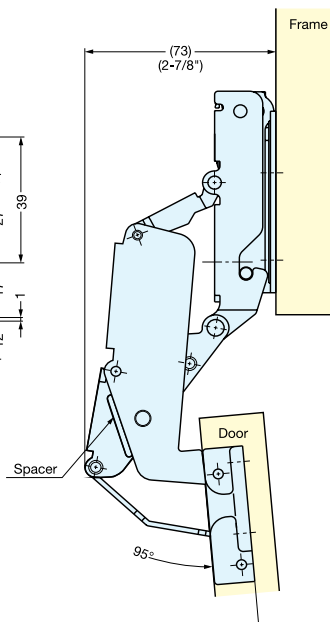
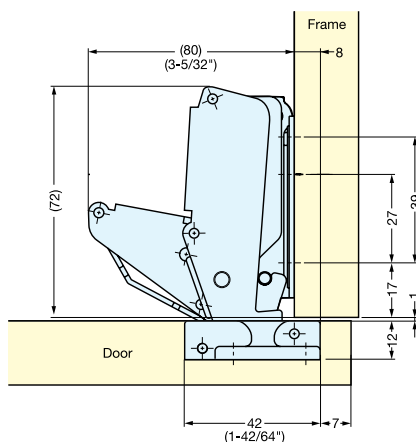
- 95° opening concealed hinge.
- Door opens without hitting adjacent cabinets.
- Ideal when 2 doors are close together.
- Clip-on feature allows easy door installation/removal.
- Hinge body and mounting plate sold separately.



HT-160THV2



HT-160TZ (Mounting Plate)



Item No.	Weight (g)	Box (pcs)
HT-160THV2	205	100
HT-160TZ	68	200

Item No.	Part Name	Material	Finish/Color
HT-160THV2	Plate	Zinc Alloy	Nickel
	Body	Steel	
HT-160TZ	Spacer	Polycetal	Black
	Mounting Plate	Steel	Nickel



Concealed
Hinge
with Adjustable
Soft-Close

A NEW STEP FOR HINGE TECHNOLOGY

OLYMPIA

360 POWERED BY  Lapcon.

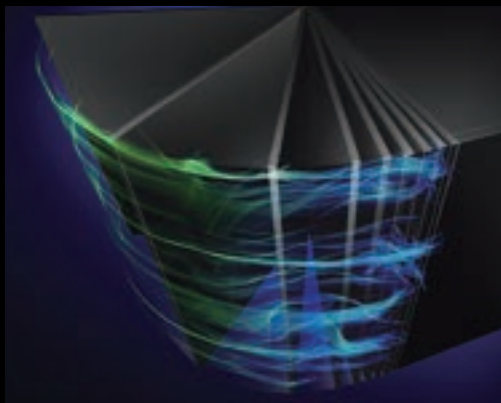
concept
01





 **Lapcon**®

5-speed adjustable soft close.
The first Sugatsune concealed hinge ever
built with Lapcon technology.



The first time Sugatsune's unique Lapcon technology has ever been used inside a concealed hinge. The innovative rotary damper is not only extremely compact, for sleek overall design, its force can also be adjusted in 5 steps for a perfect match regardless of the door size or weight.

■ ■
concept
02
■ ■

Successfully passed 200,000 cycles test.

For a piece of furniture to last a lifetime,
the hinge must perform flawlessly the
whole time.

Despite official requirements by JIS
(Japanese Standards) asking for only
40,000 cycles, the Olympia hinge has
cleared 5 times as many to ensure that
you will always be able to open and
close your doors without worry.
(The H360 successfully passed
100,000 private cycle test)



concept
03

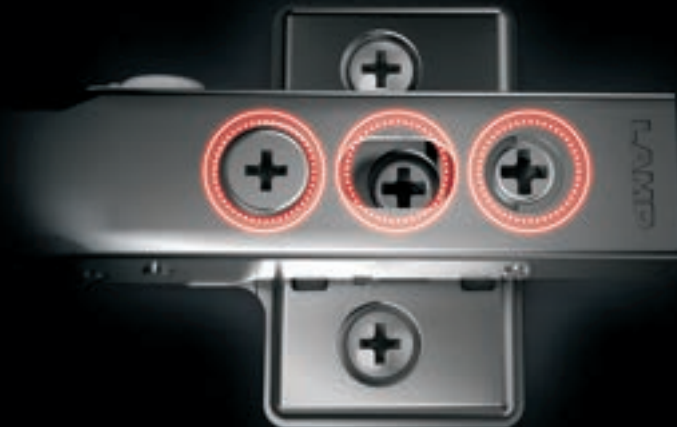


Smooth assembly for a
time-saving installation.

Using an original design of the Turn-Lock system, Olympia can be installed by simply pushing it from the top. This simplifies the installation compared to a traditional Front-First installation, especially in cases where multiple hinges are used.

One screwdriver for a one-handed
3D adjustment.

concept
04



Depth, vertical, horizontal adjustment screws are all located on top. This was made possible because of our original damper.

For standard doors (360)

Depth adjustment: +1.5mm, -2.5mm
Vertical adjustment: ± 2.5 mm
Overlay (Horizontal) adjustment: +0, -4mm

For thick doors (H360)

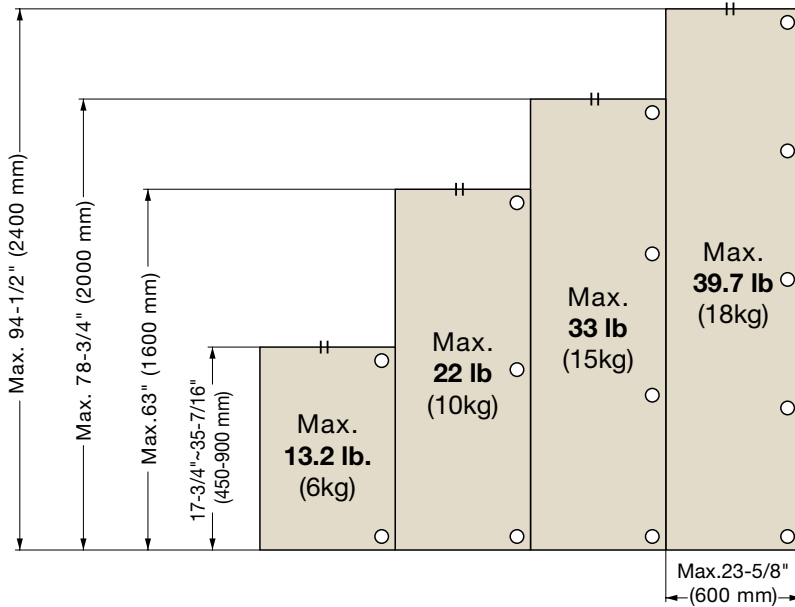
Depth adjustment: +1.7mm, -2.8mm
Vertical adjustment: ± 2.5 mm
Overlay (Horizontal) adjustment: +0, -4mm

HINGE QUANTITY (Recommended)

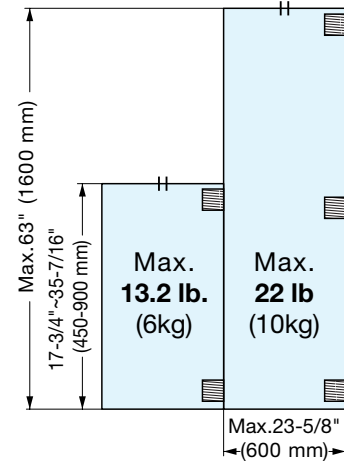
360 Olympia Hinge



Standard wood doors 360



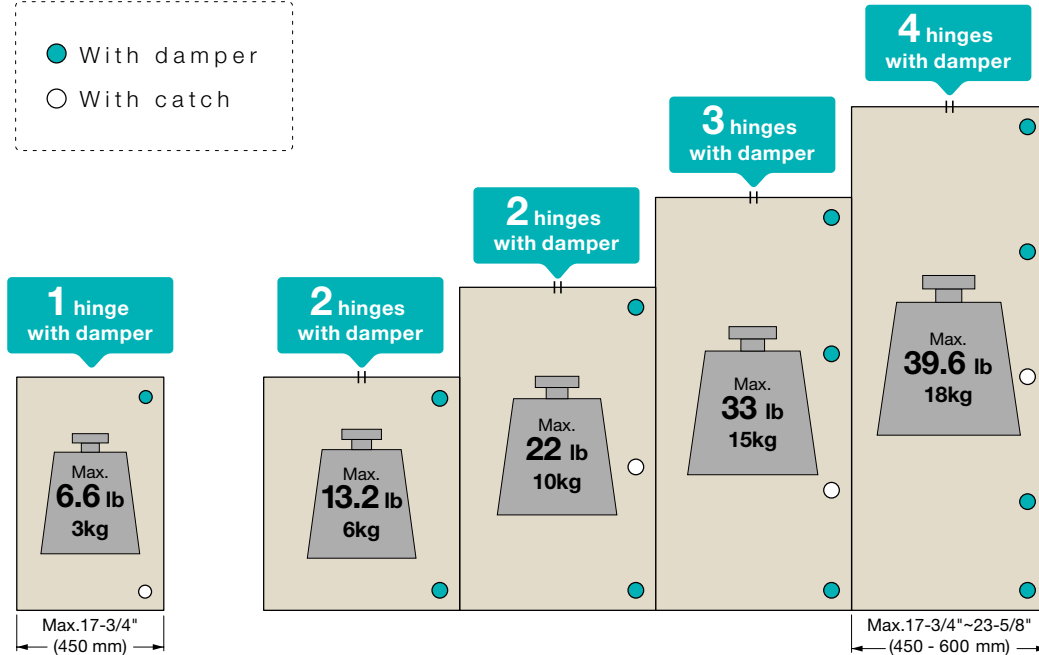
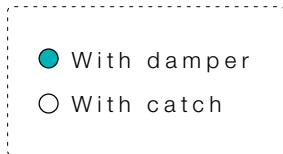
Glass doors 360 and GH-360FP



Door width	Door thickness	Material density	Installation pitch
Max. 23-5/8" (600 mm)	Max. 13/16" (20 mm)	Max. 0.6 mm	Min. 11 13/16" 300 mm

Glass thickness	Installation pitch
3/16~1/4" (4-6 mm)	Min. 11 13/16" (300 mm)

RECOMMENDED TYPE OF DAMPER PER INSTALLATION

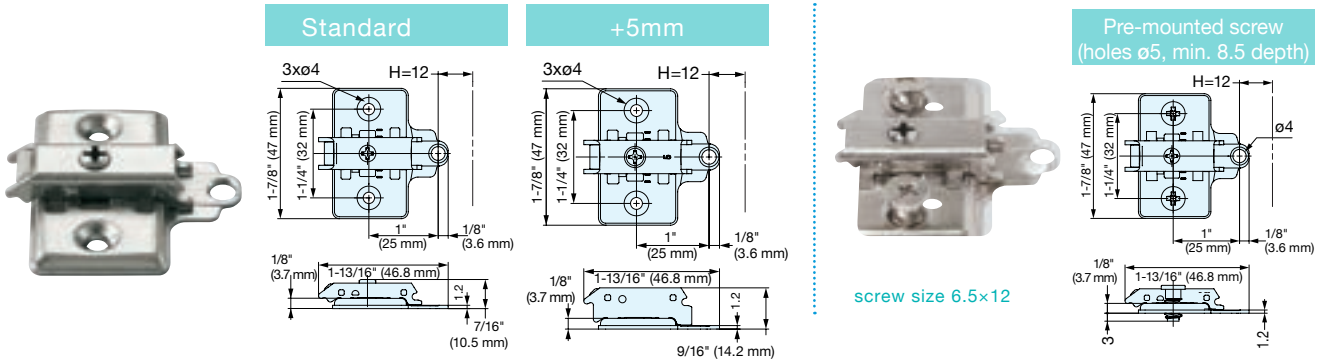


• Please set the door center of gravity as the door center. • If you want to increase the door width, please increase the number of hinges accordingly. • Attach the upper and lower hinges within 100 mm from the edge of the door. When using three or more, install at regular intervals. • Figures shown in the tables above are only indicative. Please always test before finalizing your design. • Please contact us for any other configuration. • The dimensions of the door and the number of hinges mounted are the results of tests made according to the JIS standard. • All screw holes should be used.

MOUNTING PLATES



360-P4W-32T

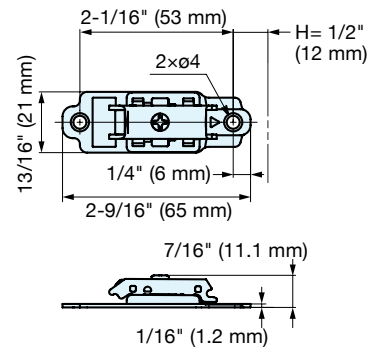


- Value of H for inset installation is "door thickness + 17 mm".
- When using with the GH-360FP, value of H is "door thickness + 19 mm"

Item name	Type	Height Adjust	Material	Finish	Carton
360-P4W-32T	Standard	±2.5mm	Steel	Nickel	400pcs
360-P4W-32T+5	+5mm				
360-P4W-32T-DS	Pre-mounted screw				

MOUNTING PLATE (STRAIGHT TYPE)

360-P3W-53T



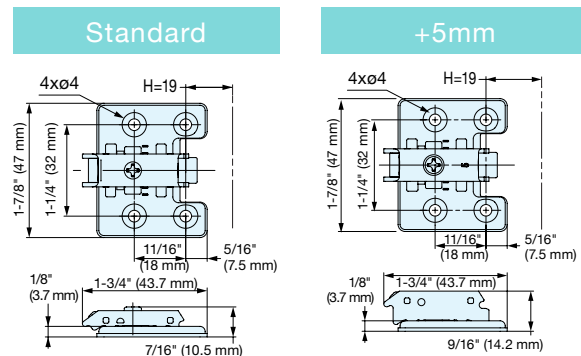
- The slim design gives a sleek look.
- When used with two H360 hinges, door specs should be:
 Door width Max 17-3/4" 450 mm
 Door weight Max 15.4 lb (7 kg)

Item No.	Material	Finish	Weight (g)
360-P3W-53T	Steel	Nickel Plating	20

MOUNTING PLATES 4 HOLES



360-P6WT



- For the standard and +5mm types:
- Value of H for inset installation is "door thickness + 24 mm".
 - When using with the GH-360FP, value of H is "door thickness + 26 mm"
- For the +7.5mm type:
- Value of H for inset installation is "door thickness + 16.5 mm".
 - When using with the GH-360FP, value of H is "door thickness + 18.5 mm".

Item name	Type	Height Adjust	Material	Finish	Carton
360-P6WT	Standard	±2.5mm	Steel	Nickel	400pcs
360-P6WT+5	+5mm				



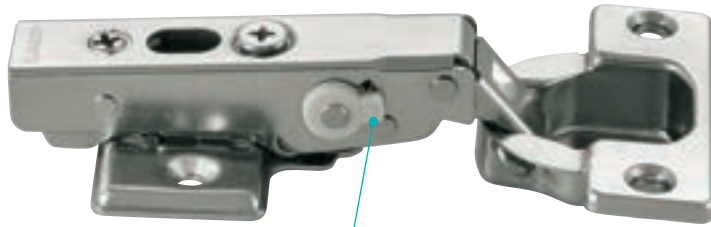
CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE

360-26/C26/D26-19T/19T85

HINGES

CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE (19 MM OVERLAY)

(19 mm overlay)



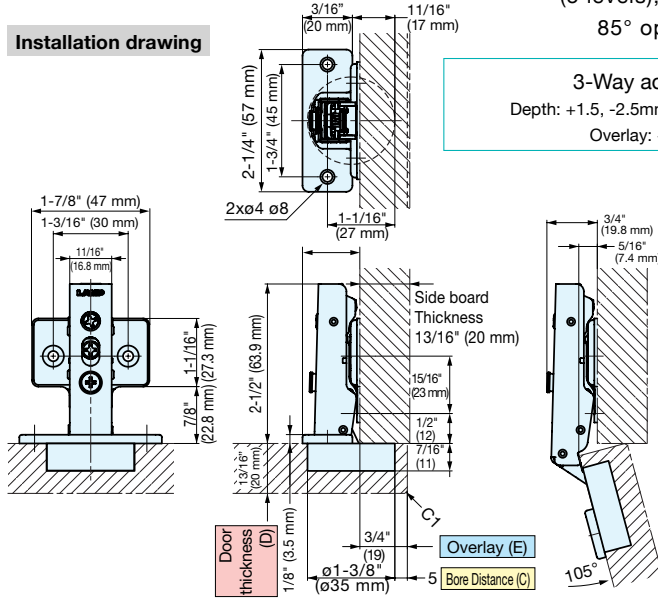
5-speed damper power adjustment lever

With damper function (5 levels), 105° and 85° opening

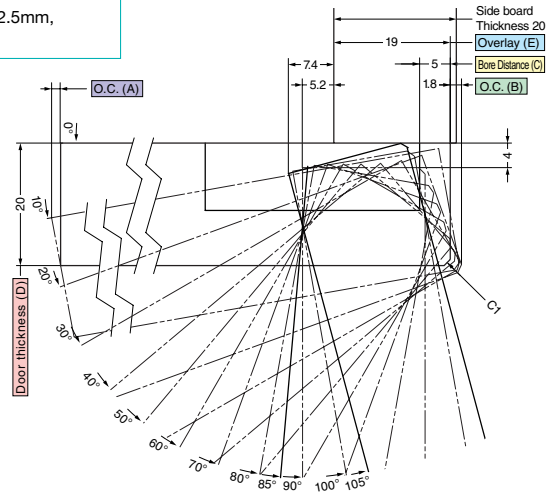
- Featuring 5-speed adjustable damper.
- Load capacity: 6 kg (13.2 lbs)/2 pcs, 10 kg (22 lbs)/3 pcs.
- Maximum door width: 600 mm (23-5/8").
- Maximum door thickness: 20mm (13/16")
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Mounting plate sold separately.
- Successfully passed 200,000 cycles test.



Installation drawing



Locus chart S=1/1



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

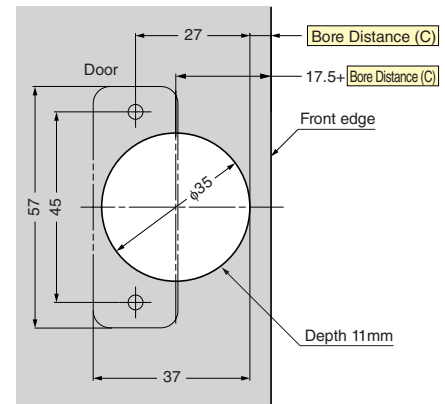
Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)		
	3	4	5
15	0.6	0.6	0.5
16	0.8	0.8	0.7
17	1.0	1.0	1.0
18	1.3	1.3	1.2
19	1.6	1.6	1.5
20	2	1.9	1.8
21*	2.4	2.3	2.2
22*	2.8	2.7	2.6
O.C. (B)			

* The table above shows O.C. (B) for C1 chamfering (chamfer plane).

* Please refer to the locus chart if door thickness is over 20mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (wooden doors)



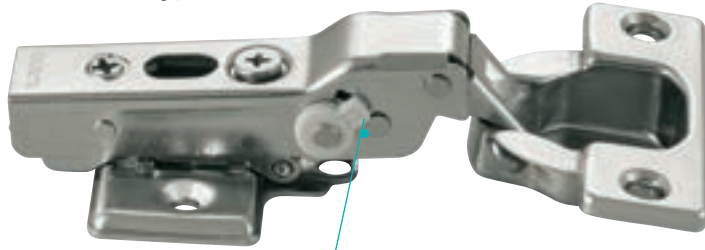
Item name	Opening angle	Type	Material	Finish	Carton
360-D26-19T	105°	Soft close (5 levels)	Steel	Nickel	100pcs
360-26-19T		Free swinging			
360-C26-19T		Self-closing			200pcs
360-U26-19T		Self-opening			
360-D26-19T85	85°	Soft close (5 levels)			100pcs
360-26-19T85		Free swinging			200pcs
360-C26-19T85		Self-closing			

CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE



360-26/C26/D26/U26-14T/14T85

(14 mm overlay)



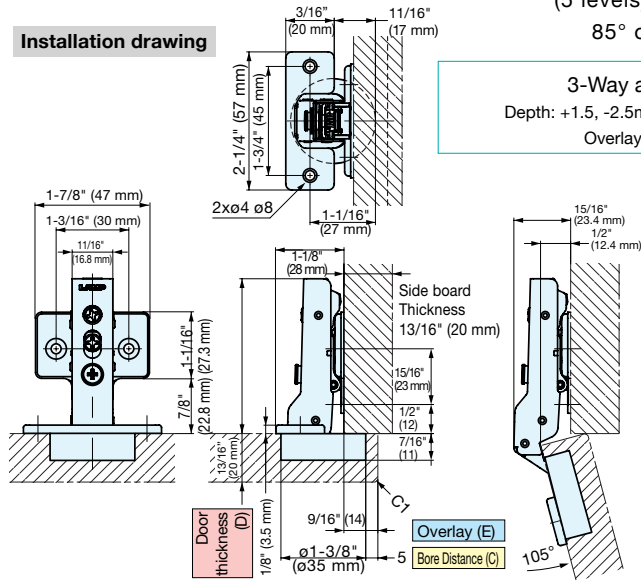
5-speed damper power adjustment lever

- Featuring 5-speed adjustable damper.
- Load capacity: 6 kg (13.2 lbs)/2 pcs, 10 kg (22 lbs)/3 pcs.
- Maximum door width: 600 mm (23-5/8").
- Maximum door thickness: 20mm (13/16")
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Mounting plate sold separately.
- Successfully passed 200,000 cycles test.

With damper function (5 levels), 105° and 85° opening

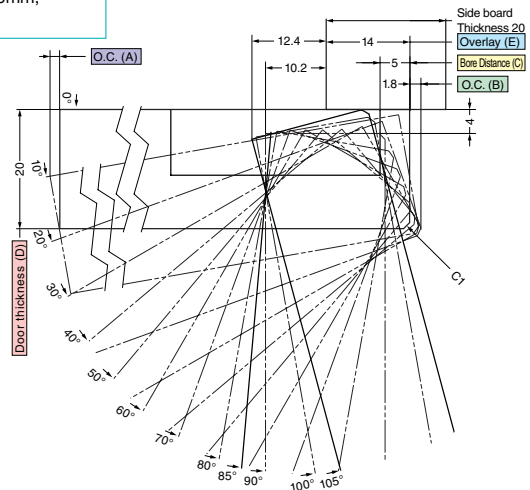


Installation drawing



3-Way adjustment
Depth: +1.5, -2.5mm, Vertical: ±2.5mm, Overlay: +0, -4mm

Locus chart S=1/1



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

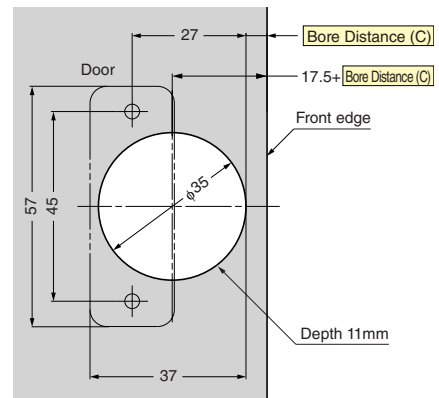
Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)		
	3	4	5
15	0.6	0.6	0.5
16	0.8	0.8	0.7
17	1.0	1.0	1.0
18	1.3	1.3	1.2
19	1.6	1.6	1.5
20	2	1.9	1.8
21*	2.4	2.3	2.2
22*	2.8	2.7	2.6
O.C. (B)			

* The table above shows O.C. (B) for C1 chamfering (chamfer plane).

* Please refer to the locus chart if door thickness is over 20mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (wooden doors)



Item name	Opening angle	Type	Material	Finish	Carton
360-D26-14T	105°	Soft close (5 levels)	Steel	Nickel	100pcs
360-26-14T		Free swinging			
360-C26-14T		Self-closing			
360-U26-14T	85°	Self-opening			
360-D26-14T85		Soft close (5 levels)			100pcs
360-26-14T85		Free swinging			200pcs
360-C26-14T85	Self-closing				

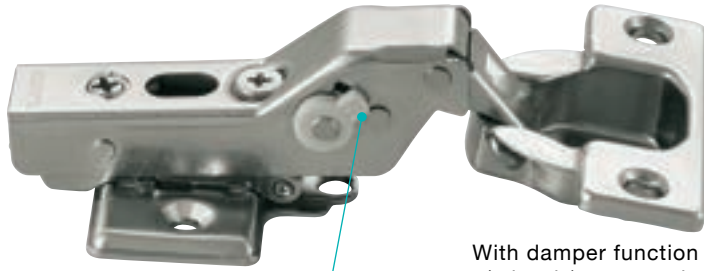


CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE

360-26/C26/D26/U26-9T/9T85

HINGES

(9 mm overlay)



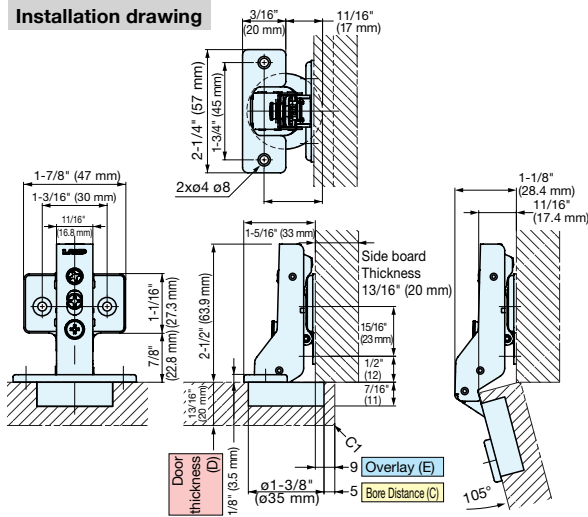
5-speed damper power adjustment lever

With damper function (5 levels), 105° and 85° opening

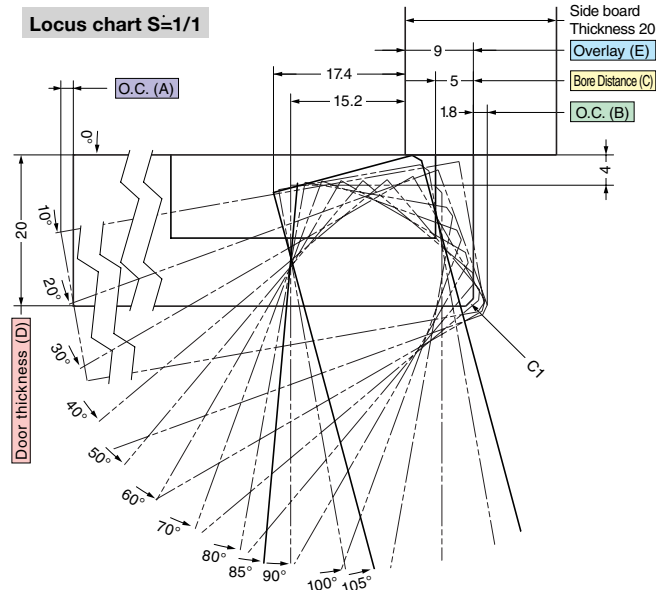
- Featuring 5-speed adjustable damper.
- Load capacity: 6 kg (13.2 lbs)/2 pcs, 10 kg (22 lbs)/3 pcs.
- Maximum door width: 600 mm (23-5/8").
- Maximum door thickness: 20mm (13/16")
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Mounting plate sold separately.
- Successfully passed 200,000 cycles test.



Installation drawing



Locus chart S=1/1



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

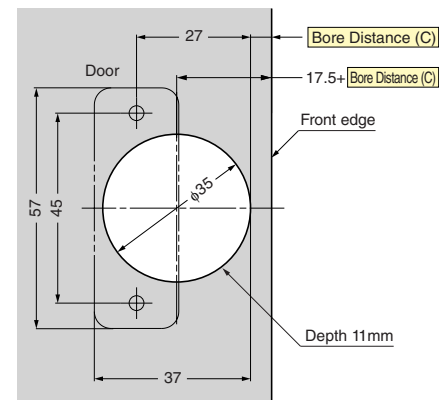
Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)		
	3	4	5
15	0.6	0.6	0.5
16	0.8	0.8	0.7
17	1.0	1.0	1.0
18	1.3	1.3	1.2
19	1.6	1.6	1.5
20	2	1.9	1.8
21*	2.4	2.3	2.2
22*	2.8	2.7	2.6
O.C. (B)			

* The table above shows O.C. (B) for C1 chamfering (chamfer plane).

* Please refer to the locus chart if door thickness is over 20mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (wooden doors)



Item name	Opening angle	Type	Material	Finish	Carton
360-D26-9T	105°	Soft close (5 levels)	Steel	Nickel	100pcs
360-26-9T		Free swinging			
360-C26-9T		Self-closing			200pcs
360-U26-9T		Self-opening			
360-D26-9T85	85°	Soft close (5 levels)			100pcs
360-26-9T85		Free swinging			200pcs
360-C26-9T85		Self-closing			

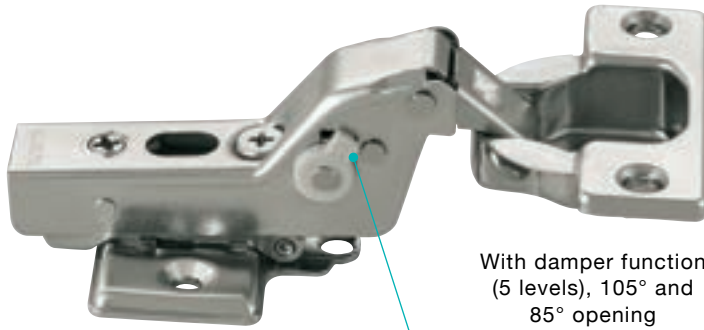
CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE (9 MM OVERLAY)

CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE



360-26/C26/D26/U26-OT

(Inset)



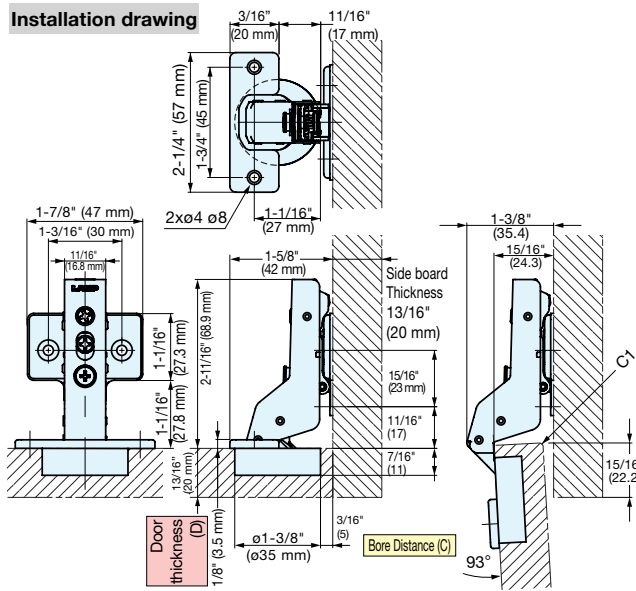
5-speed damper power adjustment lever

With damper function (5 levels), 105° and 85° opening

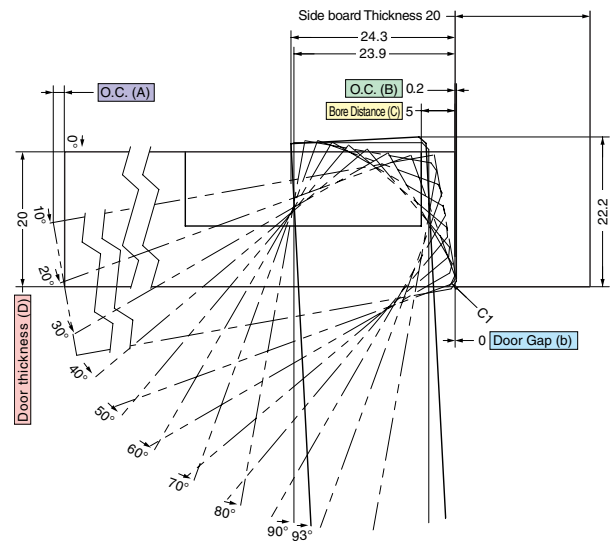
- Featuring 5-speed adjustable damper.
- Load capacity: 6 kg (13.2 lbs)/2 pcs, 10 kg (22 lbs)/3 pcs.
- Maximum door width: 600 mm (23-5/8").
- Maximum door thickness: 20mm (13/16")
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Mounting plate sold separately.
- Successfully passed 200,000 cycles test.



Installation drawing



Locus chart S=1/1



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Opening Clearance (O.C.)

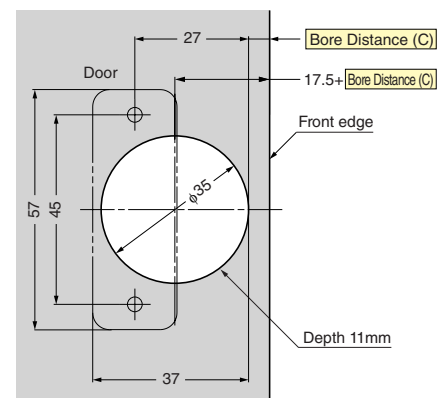
Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)		
	3	4	5
15	0	0	0
16	0	0	0
17	0	0	0
18	0	0	0
19	0.1	0.1	0.1
20	0.3	0.3	0.2
21*	0.5	0.4	0.4
22*	1.0	0.7	0.7
O.C. (B)			

* The table above shows O.C. (B) for C1 chamfering (chamfer plane).
 * Please refer to the locus chart if door thickness is over 20mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

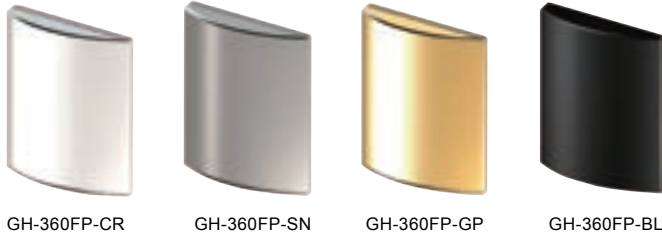
Cut out dimensions (wooden doors)



Item name	Opening angle	Type	Material	Finish	Carton
360-D26-OT	93°	Soft close (5 levels)	Steel	Nickel	100pcs
360-26-OT		Free swinging			
360-C26-OT		Self-closing			200pcs
360-U26-OT		Self-opening			

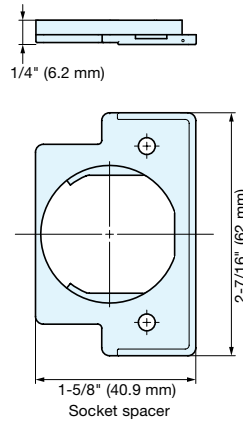
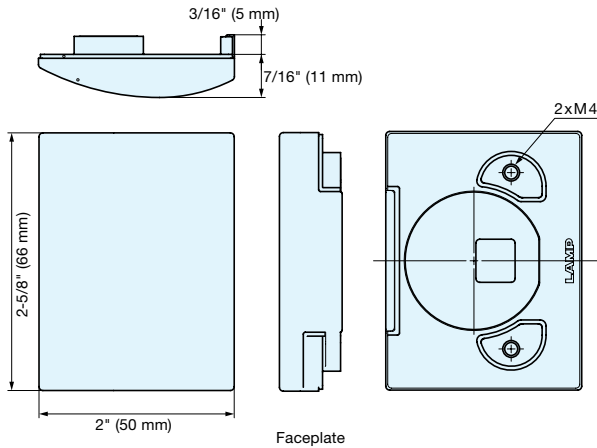
GLASS DOOR FACE PLATE for Olympia Hinge

GH-360FP



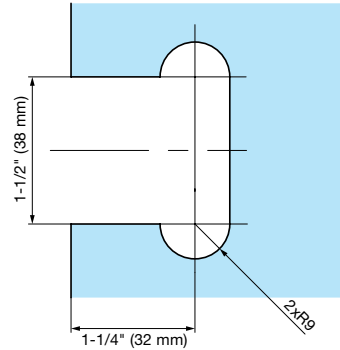
- Glass door face plate designed specifically for the Olympia hinge. (Not suitable for the H360 hinge).
- For tempered glass doors.

Item No.	Finish / Color	Material
GH-360FP-CR	Chrome Plating	Zinc Alloy (ZDC) Polyacetal (POM)
GH-360FP-SN	Satin Nickel	
GH-360FP-GP	24K Gold Plating	
GH-360FP-BL	Black	



Cut Out Dimensions

- Please use 3/16"-1/4" (4-6mm) tempered glass.
- Use of shatterproof film is recommended.

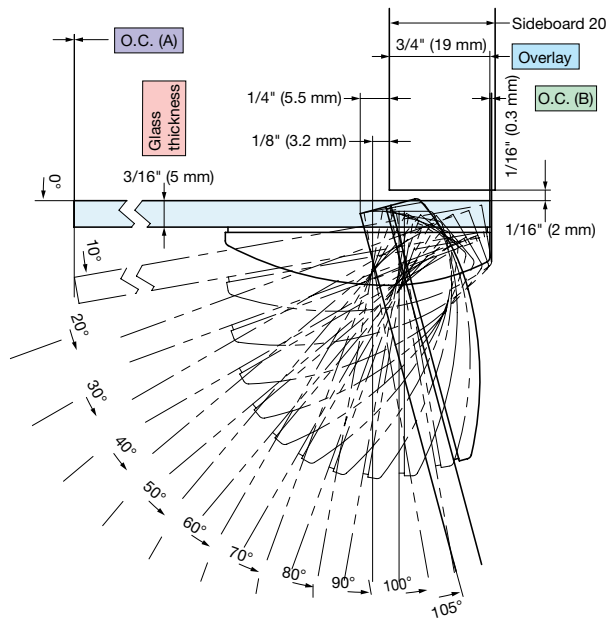


Side board and face plate relationship

► For a 3/16" (5 mm) door, 13/16" (20 mm) sideboard and 3/4" (19 mm) overlay.

► For a 3/16" (5 mm) door, 13/16" (20 mm) sideboard and inset installation.

Locus chart S=7/10 Overlay (3/4" (19 mm))



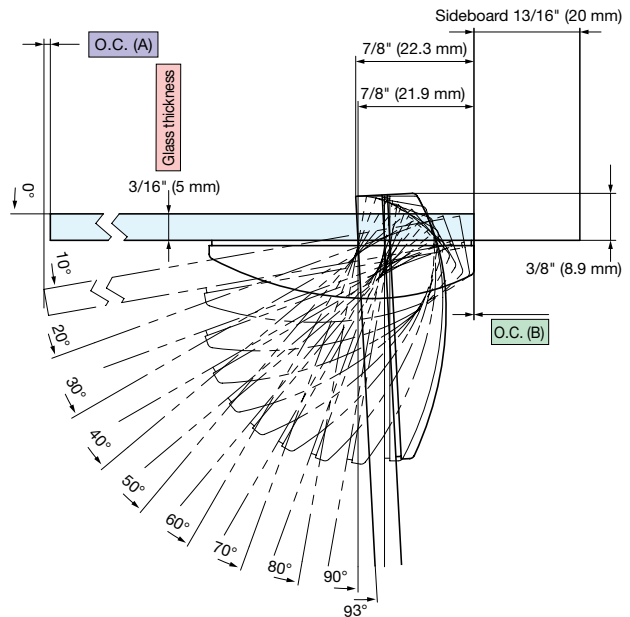
Opening clearance (O.C.)

Glass thickness	3/16" (4 mm)	3/16" (5 mm)	1/4" (6 mm)
O.C. (B)	0.2	0.3	0.5

Opening clearance (A) and door width relationship (for 3/16" (5mm) door)

Glass width	11-13/16" (300 mm)	15-3/4" (400 mm)	19-11/16" (500 mm)	23-5/8" (600 mm)
O.C. (A)	0.07	0.05	0.04	0.03

Locus chart S=7/10 Inset



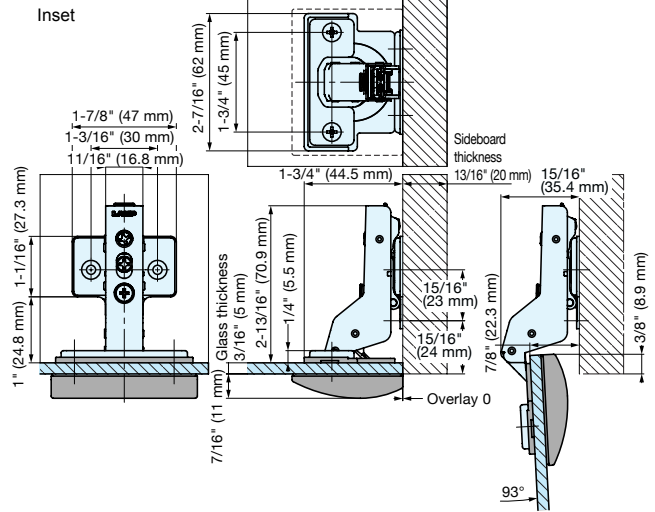
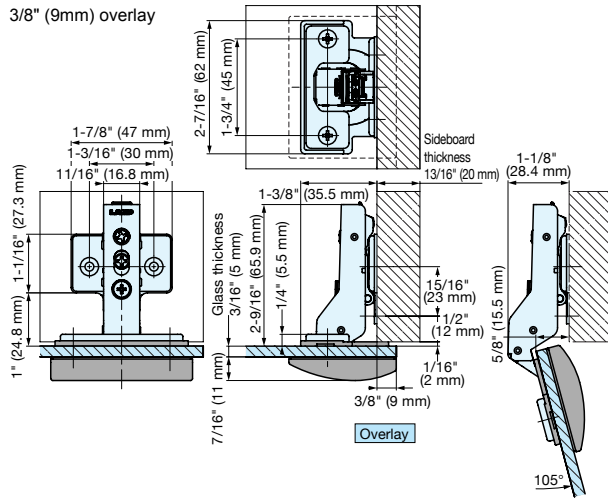
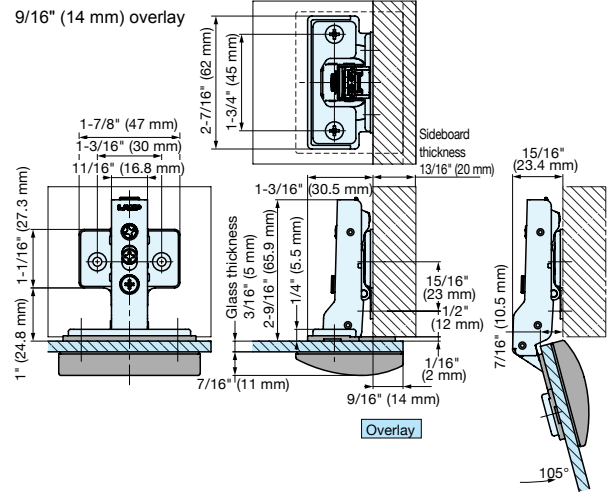
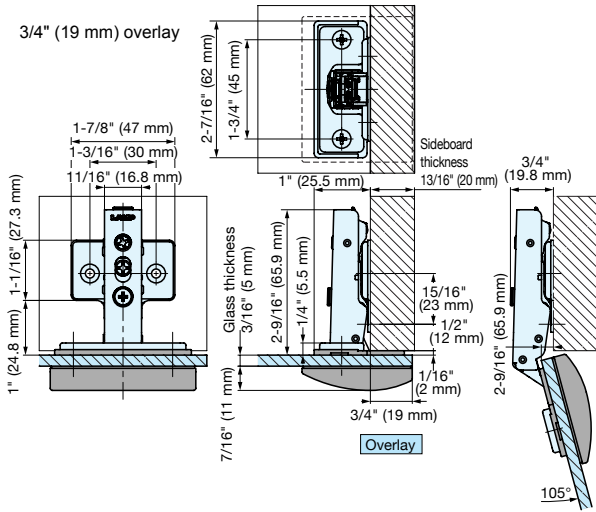
Opening clearance (O.C.)

Glass thickness	3/16" (4 mm)	3/16" (5 mm)	1/4" (6 mm)
O.C. (B)	0	0	0

Opening clearance (A) and door width relationship (for 3/16" (5mm) door)

Glass width	11-13/16" (300 mm)	15-3/4" (400 mm)	19-11/16" (500 mm)	23-5/8" (600 mm)
O.C. (A)	0.34	0.25	0.19	0.16

Installation drawing



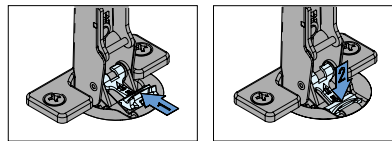
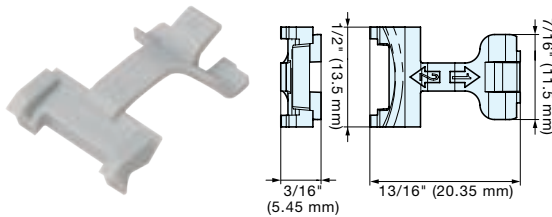
Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

HINGES

GLASS DOOR FACE PLATE

85° ANGLE LIMITER

360-85



- Can be retrofitted to a 105° opening Olympia hinge (standard door) to limit the opening angle to 85°.

INSTALLATION JIG

360-JIG

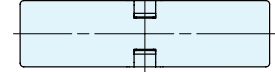
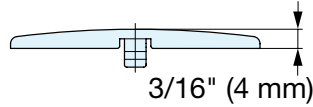
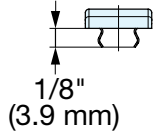
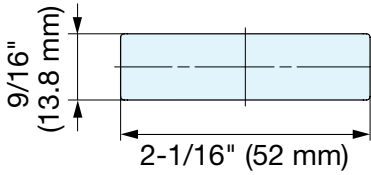


- For easy installation and alignment of the Olympia hinge mounting plate.
- Cannot be used in combination with 360-P6W32-32T and pre-mounted screw mounting plates.



BODY COVER (19 and 26 mm OVERLAY)
360HC-19H26-NI

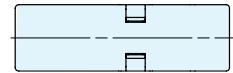
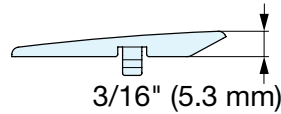
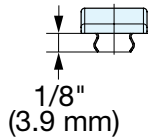
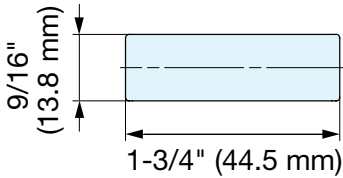

- Hides screws for a sleek look.
- Available Hinge
 - 360 (19 mm overlay type)
 - H360 (26 mm overlay type)



Item No.	Material	Finish	Weight (g)
360HC-19H26-NI	Steel	Nickel Plating	2.6

BODY COVER (9 and 16 mm OVERLAY)
360HC-9H16-NI

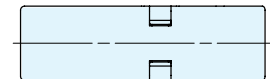
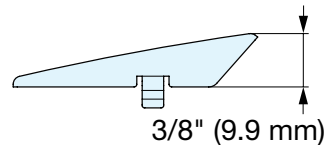
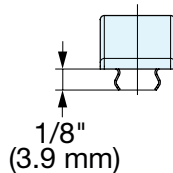
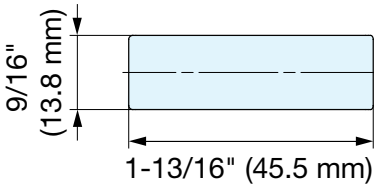

- Hides screws for a sleek look.
- Available Hinge
 - 360 (9 mm overlay type)
 - H360 (16 mm overlay type)



Item No.	Material	Finish	Weight (g)
360HC-9H16-NI	Steel	Nickel Plating	2.2

BODY COVER (INSET)
360HC-0H0-NI


- Hides screws for a sleek look.



Item No.	Material	Finish	Weight (g)
360HC-0H0-NI	Steel	Nickel Plating	2.7

HINGE QUANTITY (Recommended)

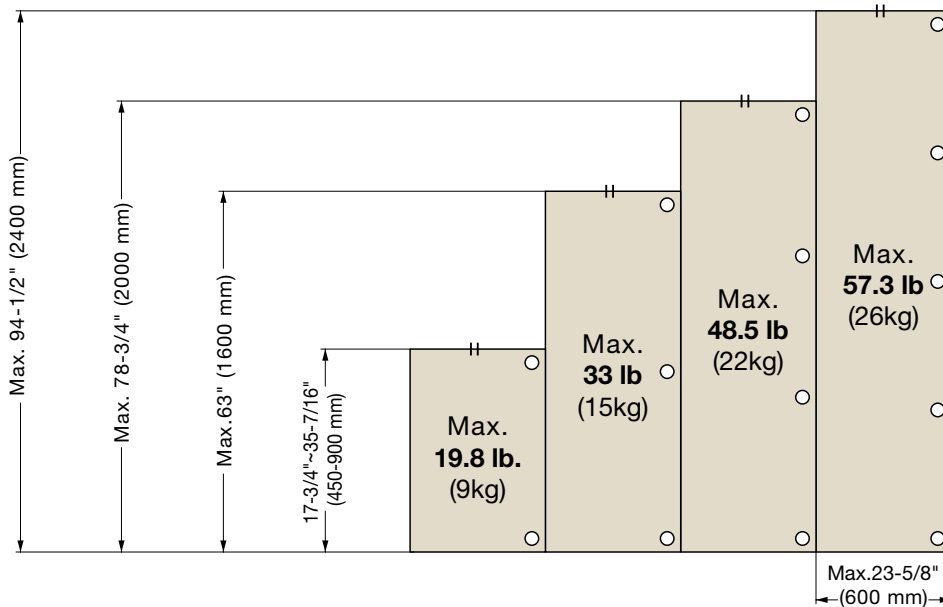
H360 THICK DOOR HINGES



HINGES

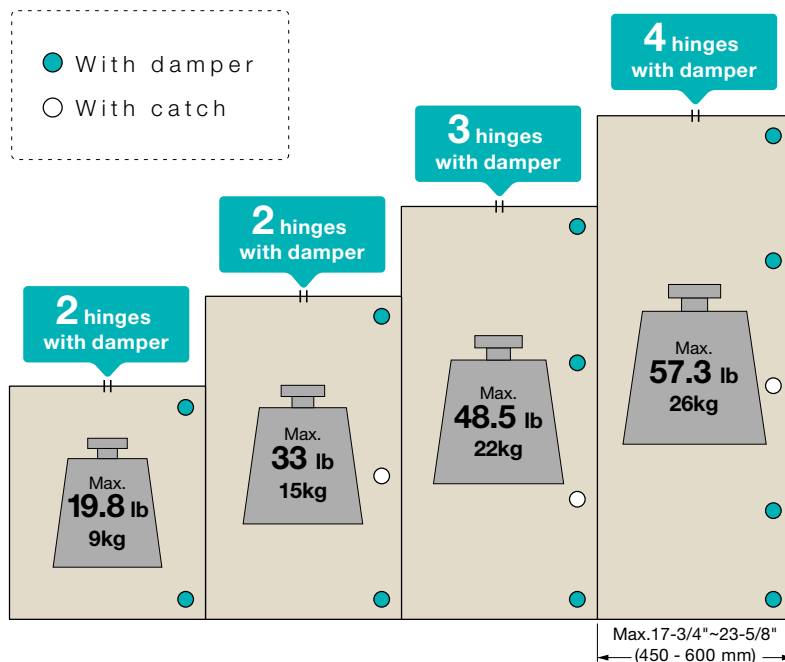
THICK DOOR CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE

■ Thick wood doors H360



Door width	Door thickness	Material density	Installation pitch
Max. 23-5/8" (600 mm)	Max. 1-3/16" (30 mm)	Max. 0.6 mm	Min. 11-13/16" (300 mm)

RECOMMENDED TYPE OF DAMPER PER INSTALLATION



• Please set the door center of gravity as the door center. • If you want to increase the door width, please increase the number of hinges accordingly. • Attach the upper and lower hinges within 100 mm from the edge of the door. When using three or more, install at regular intervals. • Figures shown in the tables above are only indicative. Please always test before finalizing your design. • Please contact us for any other configuration. • The dimensions of the door and the number of hinges mounted are the results of tests made according to the JIS standard. • All screw holes should be used.

THICK DOOR CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE



H360-26/C26/D26-26T

HINGES

(26 mm overlay)



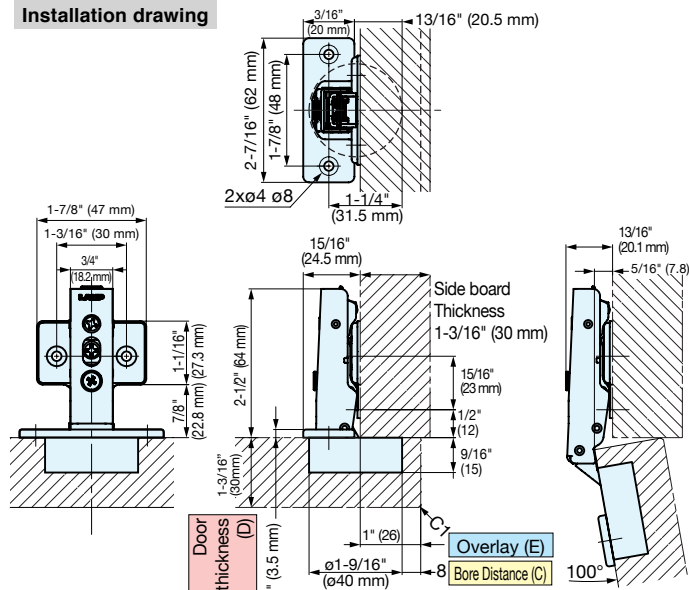
5-speed damper power adjustment lever

FOR THICK DOORS,
With damper function
(5 levels), 100° opening

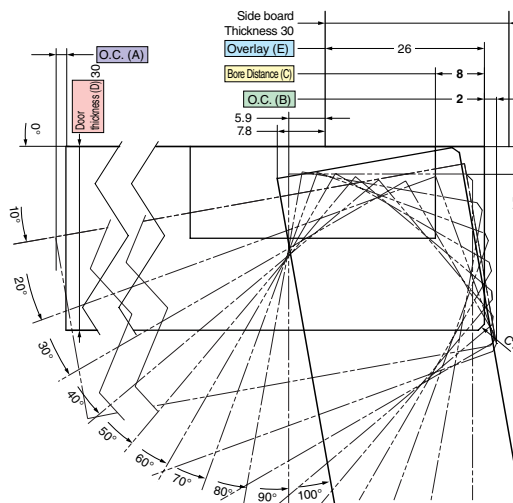
- Featuring 5-speed adjustable damper.
- Load capacity: 9 kg (19.8 lbs)/2 pcs, 15 kg (33 lbs)/3 pcs.
- Maximum door width: 600 mm (23-5/8").
- Maximum door thickness: 30 mm (1-3/16")
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Mounting plate sold separately.
- Successfully passed 200,000 cycles test.



Installation drawing



Locus chart S=1/1



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

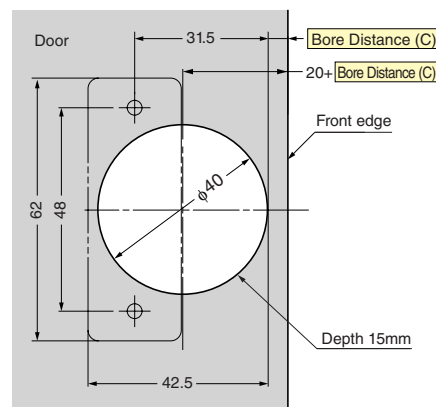
Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)						
	3	4	5	6	7	8	
18	0.1	0.1	0.1	0.1	0.1	0.1	
20	0.3	0.3	0.3	0.3	0.3	0.3	
22	0.5	0.5	0.5	0.5	0.5	0.5	
24	0.8	0.8	0.8	0.8	0.8	0.8	
26	1.3	1.2	1.2	1.1	1.1	1.1	
28	3.6	2.6	1.6	1.6	1.5	1.5	
30	6.0	5.0	4.0	3.0	2.1	2.0	
32*	8.4	7.4	6.4	5.4	4.4	3.4	
34*	10.8	9.8	8.8	7.8	6.8	5.8	
O.C. (B)							

* The table above shows O.C. (B) for C1 chamfering (chamfer plane).

* Please refer to the locus chart if door thickness is over 30mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (wooden doors)



THICK DOOR CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE (26 MM OVERLAY)

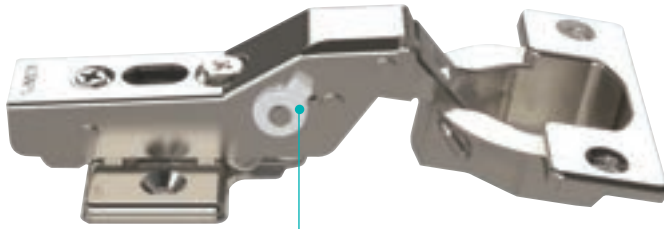
Item name	Opening angle	Type	Material	Finish	Carton
H360-D26-26T	100°	Soft close (5 levels)	Steel	Nickel	100pcs
H360-26-26T		Free swinging			
H360-C26-26T		Self-closing			

THICK DOOR CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE



H360-26/C26/D26

(16 mm overlay)



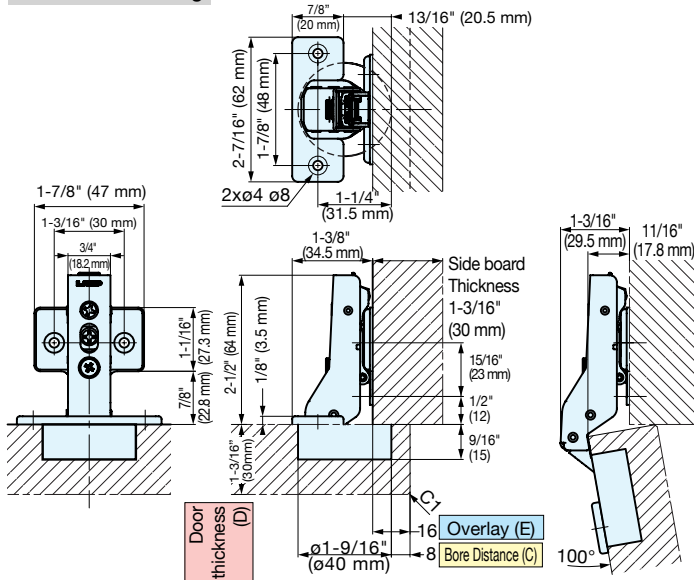
5-speed damper power adjustment lever

FOR THICK DOORS,
With damper function
(5 levels), 100° opening

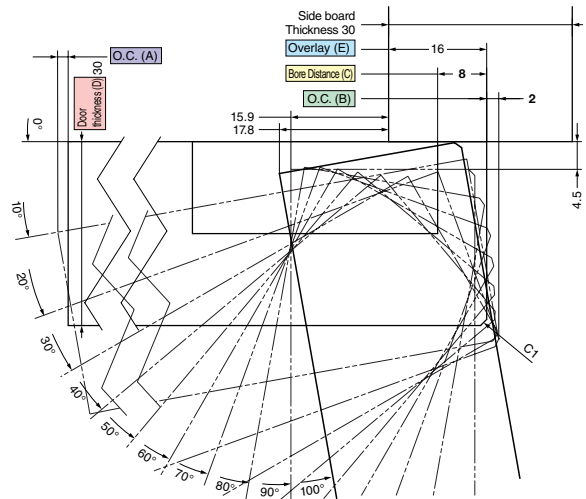
- Featuring 5-speed adjustable damper.
- Load capacity: 9 kg (19.8 lbs)/2 pcs, 15 kg (33 lbs)/3 pcs.
- Maximum door width: 600 mm (23-5/8").
- Maximum door thickness: 30 mm (1-3/16").
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Mounting plate sold separately.
- Successfully passed 200,000 cycles test.



Installation drawing



Locus chart S=1/1



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

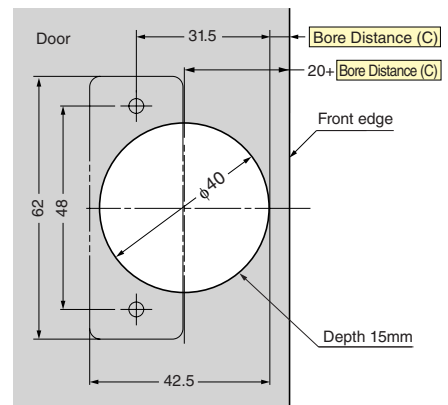
Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)						
	3	4	5	6	7	8	
18	0.1	0.1	0.1	0.1	0.1	0.1	
20	0.3	0.3	0.3	0.3	0.3	0.3	
22	0.5	0.5	0.5	0.5	0.5	0.5	
24	0.8	0.8	0.8	0.8	0.8	0.8	
26	1.3	1.2	1.2	1.1	1.1	1.1	
28	3.6	2.6	1.6	1.6	1.5	1.5	
30	6.0	5.0	4.0	3.0	2.1	2.0	
32*	8.4	7.4	6.4	5.4	4.4	3.4	
34*	10.8	9.8	8.8	7.8	6.8	5.8	
O.C. (B)							

* The table above shows O.C. (B) for C1 chamfering (chamfer plane).

* Please refer to the locus chart if door thickness is over 30mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (wooden doors)



Item name	Opening angle	Type	Material	Finish	Carton
H360-D26-16T	100°	Soft close (5 levels)	Steel	Nickel	100pcs
H360-26-16T		Free swinging			
H360-C26-16T		Self-closing			

THICK DOOR CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE



H360-26/C26/D26

HINGES

(Inset)



5-speed damper power adjustment lever

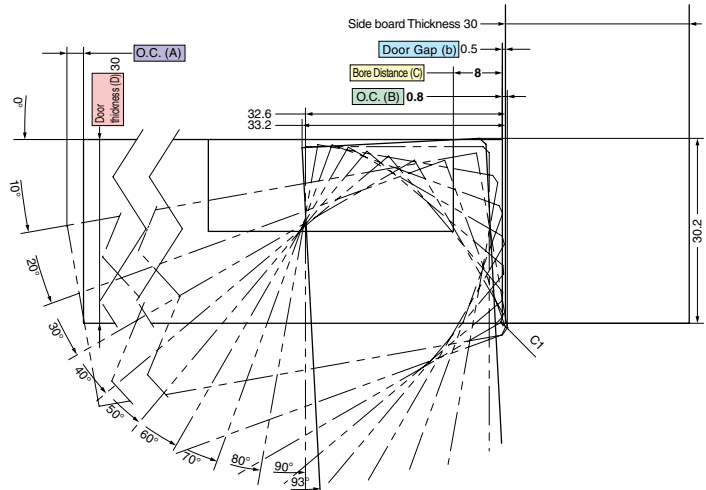
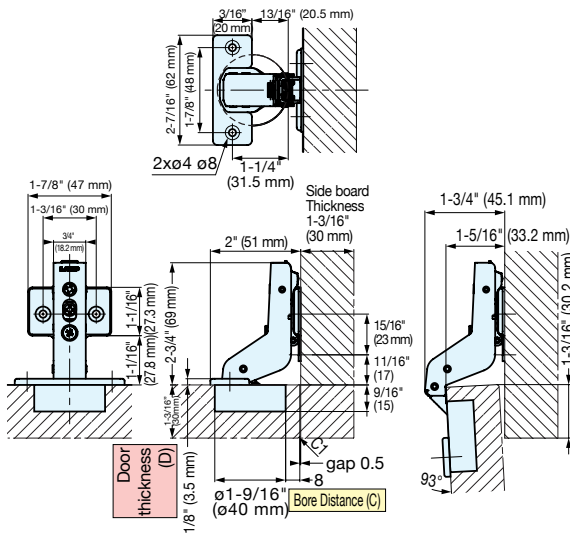
FOR THICK DOORS,
With damper function
(5 levels), 100° opening

- Featuring 5-speed adjustable damper.
- Load capacity: 9 kg (19.8 lbs)/2 pcs, 15 kg (33 lbs)/3 pcs.
- Maximum door width: 600 mm (23-5/8").
- Maximum door thickness: 30 mm (1-3/16")
- Clip on type for easy installation.
- 3-way adjustment with door installed.
- Mounting plate sold separately.
- Successfully passed 200,000 cycles test.



Installation drawing

Locus chart S=1/1



Drawings show a hinge, face plate and 360-P4W-30T mounting plate (sold separately).

Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

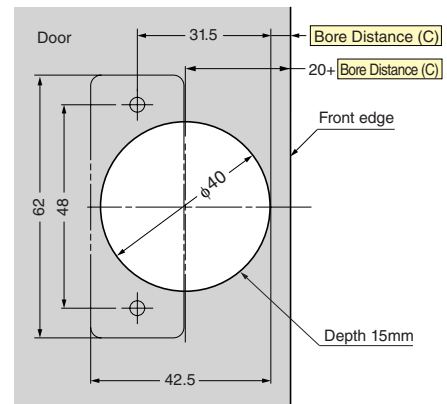
Opening clearance (B), door thickness (D) and bore distance (C) relationship

Door Thickness (D)	Bore Distance (C)						
	3	4	5	6	7	8	
18	0	0	0	0	0	0	
20	0	0	0	0	0	0	
22	0	0	0	0	0	0	
24	0.1	0.1	0.1	0.1	0.1	0.1	
26	0.3	0.3	0.3	0.3	0.3	0.3	
28	1.7	0.7	0.5	0.5	0.5	0.5	
30	3.9	2.9	2.0	1.4	0.8	0.8	
32*	5.9	4.9	3.9	3.3	2.6	2.1	
34*	8.1	7.1	6.1	5.1	4.5	3.9	

O.C. (B)

* The table above shows O.C. (B) for C1 chamfering (chamfer plane).
* Please refer to the locus chart if door thickness is over 30mm. O.C. (B) can be made smaller by R chamfering (round chamfer) and C chamfering (chamfer plane) on the door.

Cut out dimensions (wooden doors)



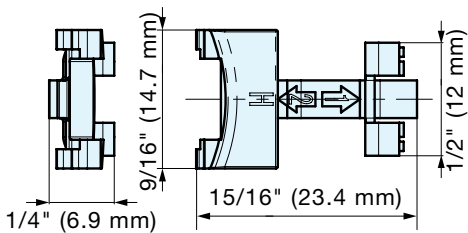
THICK DOOR CONCEALED HINGE WITH ADJUSTABLE SOFT-CLOSE (INSET)

Item name	Opening angle	Type	Material	Finish	Carton
H360-D26-0T	93°	Soft close (5 levels)	Steel	Nickel	100pcs
H360-26-0T		Free swinging			
H360-C26-0T		Self-closing			

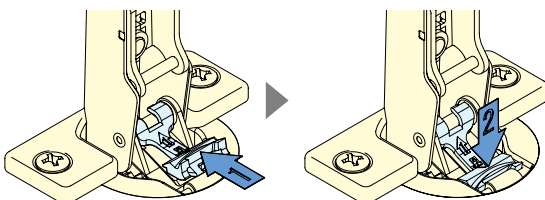


85° ANGLE LIMITER (THICK DOOR)

H360-85



[How to Use]



- Limits the opening angle from 100° to 85° of the H360 hinge. (The H360 is a thick door model of OLYMPIA hinge series.)



Item No.	Material	Color
H360-85	PBT	Grey

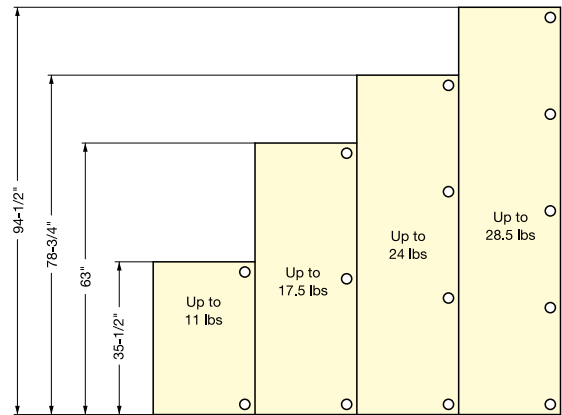


CONCEALED HINGE REFERENCE GUIDE

304B Series Stainless Steel Hinges

- Please be sure to confirm door weight in advance, and be sure that the door weight is centered.
- Hinges should be installed within 4" of the top and bottom edges of the door. If using 3 or more hinges, please refer to the installation guide (below).
- Please lubricate after installation and on a regular basis from then on.
- Please install at least 300 mm (12") apart.

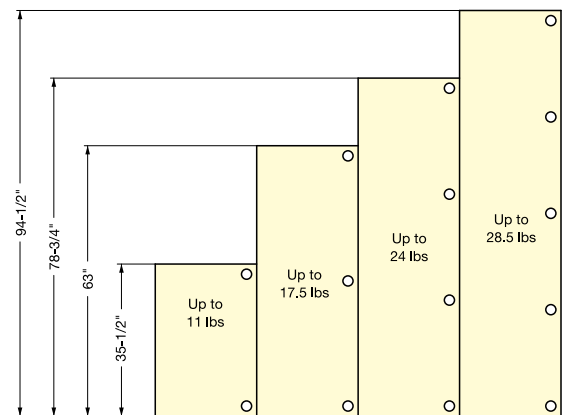
Maximum Door Specifications	
Width	Thickness
17-3/4" (450 mm)	3/4" (20 mm)



230 Series Steel Hinges

- Please be sure to confirm door weight in advance, and be sure that the door weight is centered.
- Hinges should be installed within 4" of the top and bottom edges of the door. If using 3 or more hinges, please refer to the installation guide (below).
- Please lubricate after installation and on a regular basis from then on.
- Please install at least 300 mm (12") apart.

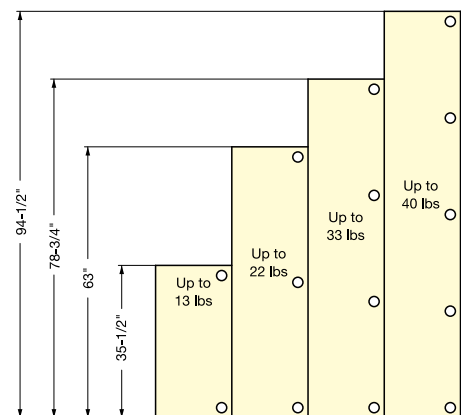
Maximum Door Specifications	
Width	Thickness
24" (600 mm)	7/8" (22 mm)



H230 Series Steel Hinges

- Please be sure to confirm door weight in advance, and be sure that the door weight is centered.
- Hinges should be installed within 4" of the top and bottom edges of the door. If using 3 or more hinges, please refer to the installation guide (below).
- Please lubricate after installation and on a regular basis from then on.
- Please install at least 300 mm (12") apart.

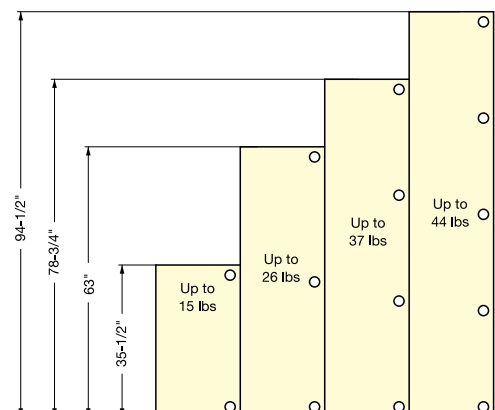
Maximum Door Specifications	
Width	Thickness
24" (600 mm)	1-11/32" (34 mm)



H160 Series Steel Hinges

- Please be sure to confirm door weight in advance, and be sure that the door weight is centered.
- Hinges should be installed within 4" of the top and bottom edges of the door. If using 3 or more hinges, please refer to the installation guide (below).
- Please lubricate after installation and on a regular basis from then on.
- Please install at least 300 mm (12") apart.

Maximum Door Specifications	
Width	Thickness
19-11/16" (500 mm)	1-9/16" (40 mm)



GLASS DOOR CONCEALED HINGE (19mm OVERLAY)



G230-32/19T, C32/19T



■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	5
Overlay distance (B)	19

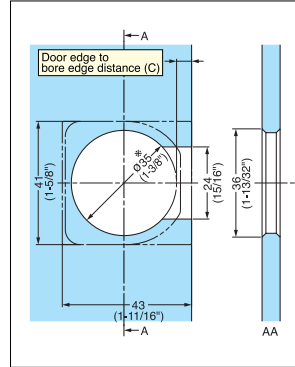
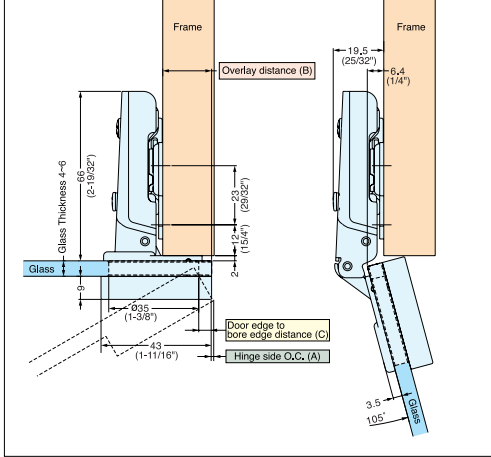
■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Hinge side O.C. (A)
4	0.8
5	1.1
6	1.3

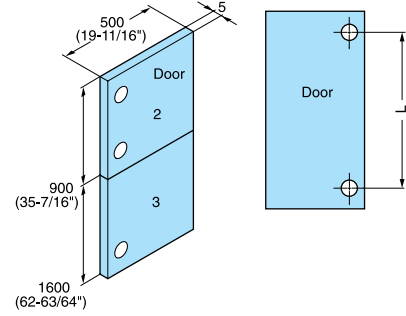
*Mounting Plate sold separately. See P.299

*Mounting Screw sold separately. See TAP3515NI on P.299

*Face Cover sold separately. See P.295



Bore Dimensions



Item No.	Type	Weight (g)	Carton (pcs)
G230-32/19T	Free Swinging	60	200
G230-C32/19T	Self-Closing		

Part Name	Material
Body	Steel
Cup	Polyamide

GLASS DOOR CONCEALED HINGE (9mm OVERLAY)



G230-32/9T, C32/9T



■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

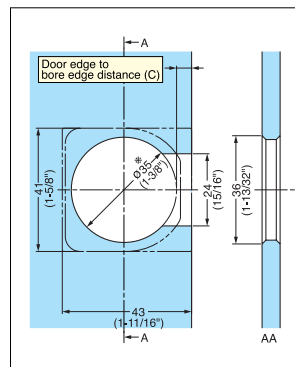
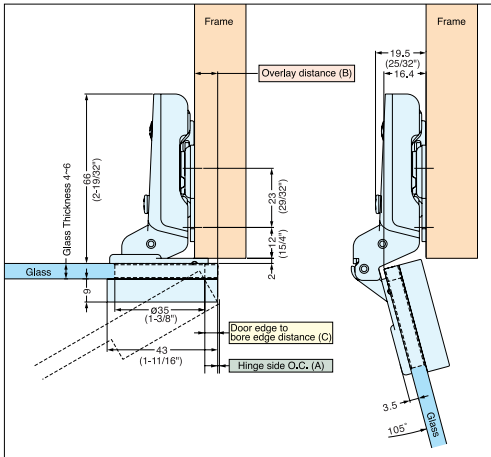
Door edge to bore edge distance (C)	5
Overlay distance (B)	9

■ Hinge side opening clearance chart Table 2.

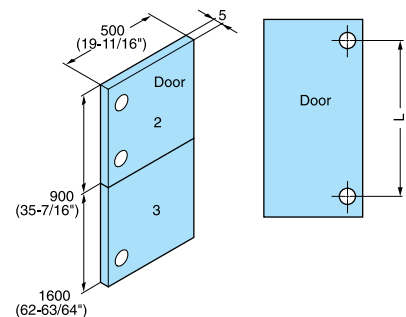
Door thickness (D)	Hinge side O.C. (A)
4	0.8
5	1.1
6	1.3

*Mounting Plate sold separately. See P.299

*Face Cover sold separately. See P.295



Bore Dimensions



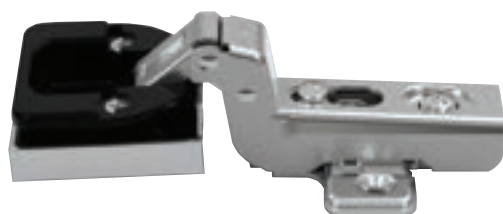
Item No.	Type	Weight (g)	Carton (pcs)
G230-32/9T	Free Swinging	60	200
G230-C32/9T	Self-Closing		

Part Name	Material
Body	Steel
Cup	Polyamide

GLASS DOOR CONCEALED HINGE (INSET)



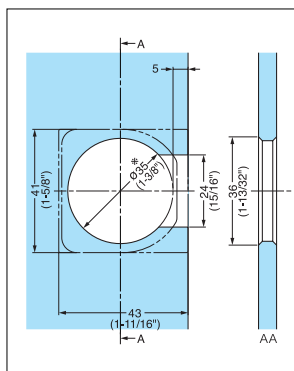
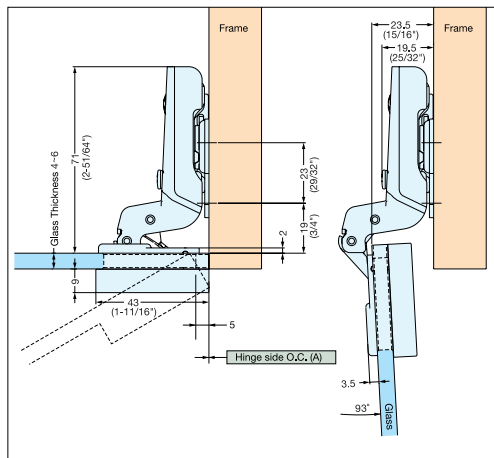
G230-32/OT, C32/OT



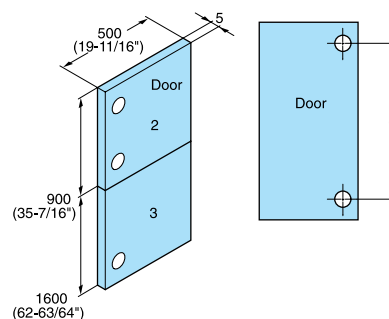
■ Hinge side opening clearance chart

Door thickness (D)	Hinge side O.C. (A)
4	0.00
5	0.03
6	0.09

*Mounting Plate sold separately. See P.303
 *Mounting Screw sold separately. See TAP3515NI on P.303
 *Face Cover sold separately. See P.295



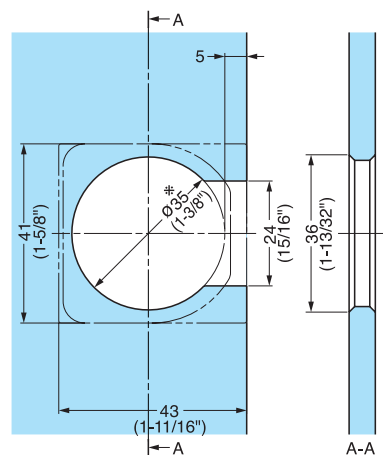
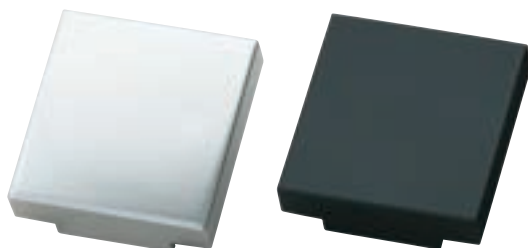
Bore Dimensions



Item No.	Type	Weight (g)	Carton (pcs)	Part Name	Material
G230-32/OT	Free Swinging	60	200	Body	Steel
G230-C32/OT	Self-Closing			Cup	Polyamide

FACE COVER

G230-FP



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
G230-FP/CR	5	20	200	ABS	Chorme (CR) or Black (BL)
G230-FP/BL					

CONCEALED HINGE (19mm OVERLAY)



304B-46/19, C46/19



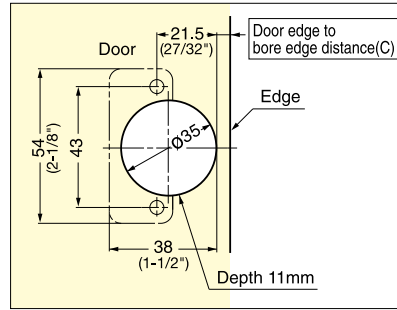
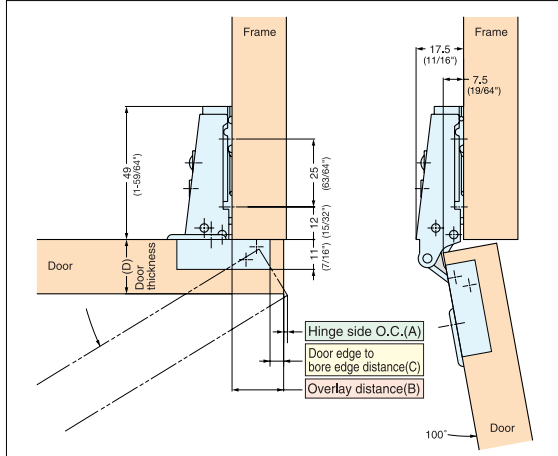
■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	3	4	5
Overlay distance (B)	17	18	19

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)		
	3	4	5
15	0.5	0.5	0.5
16	0.7	0.7	0.7
17	0.8	0.8	0.8
18	1.0	1.0	1.0
19	1.2	1.2	1.2
20	1.4	1.4	1.4
Hinge side O.C. (A)			

*Mounting Plate sold separately. See P.297



Bore Dimensions

Item No.	Type	Weight (g)	Carton (pcs)
304B-46/19	Free Swinging	60	200
304B-C46/19	Self-Closing		

Material	Finish
304 Stainless Steel	Polished

CONCEALED HINGE (14mm OVERLAY)



304B-46/14, C46/14



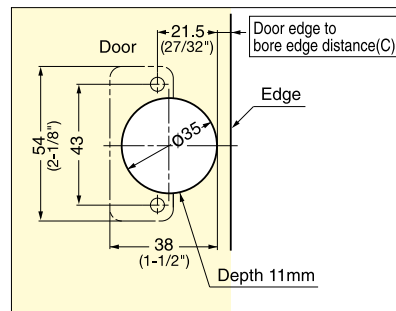
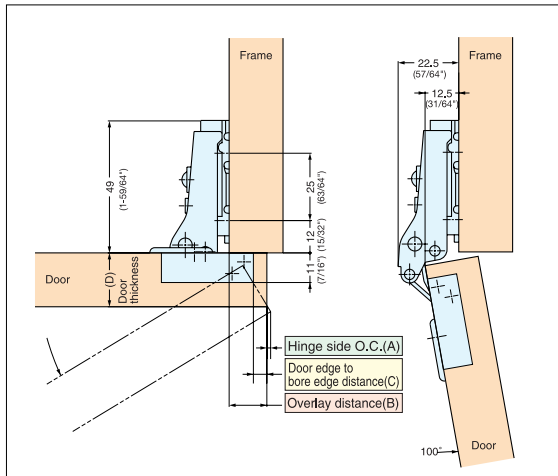
■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	3	4	5
Overlay distance (B)	12	13	14

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)		
	3	4	5
15	0.5	0.5	0.5
16	0.7	0.7	0.7
17	0.8	0.8	0.8
18	1.0	1.0	1.0
19	1.2	1.2	1.2
20	1.4	1.4	1.4
Hinge side O.C. (A)			

*Mounting Plate sold separately. See P.297



Bore Dimensions

Item No.	Type	Weight (g)	Carton (pcs)
304B-46/14	Free Swinging	60	200
304B-C46/14	Self-Closing		

Material	Finish
304 Stainless Steel	Polished

CONCEALED HINGE (9mm OVERLAY)



304B-46/9, C46/9



■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

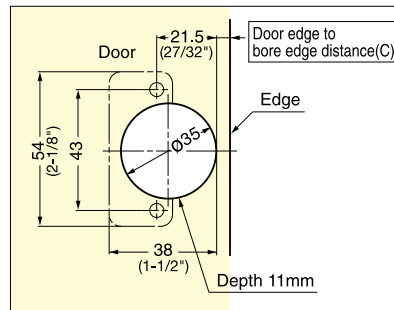
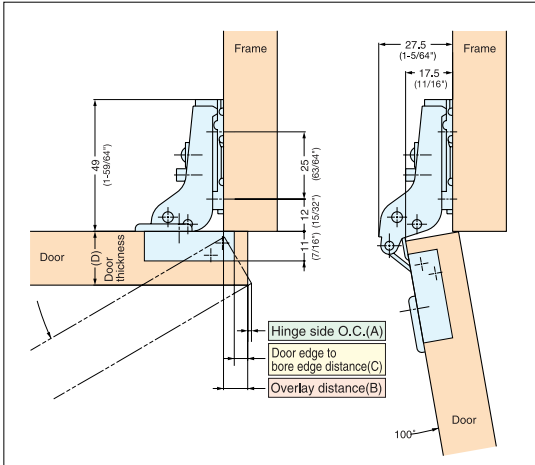
Door edge to bore edge distance (C)	3	4	5
Overlay distance (B)	7	8	9

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)		
	3	4	5
15	0.5	0.5	0.5
16	0.7	0.7	0.7
17	0.8	0.8	0.8
18	1.0	1.0	1.0
19	1.2	1.2	1.2
20	1.4	1.4	1.4

Hinge side O.C. (A)

*Mounting Plate sold separately. See P.297



Bore Dimensions

Item No.	Type	Weight (g)	Carton (pcs)	Material	Finish
304B-46/9	Free Swinging	60	200	304 Stainless Steel	Polished
304B-C46/9	Self-Closing				

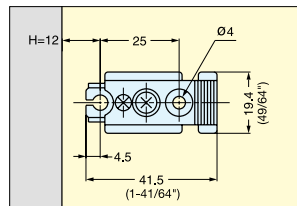
MOUNTING PLATE FOR 304B SERIES HINGES



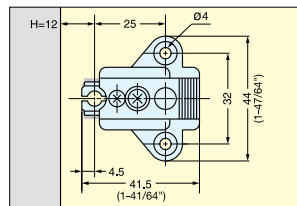
• Mounting plate for 304B hinges.



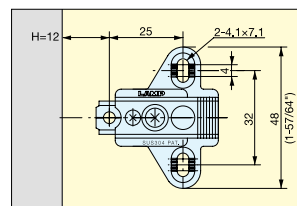
304B-P3A



304B-P4A/32



304B-P4A/32-3W



Installation



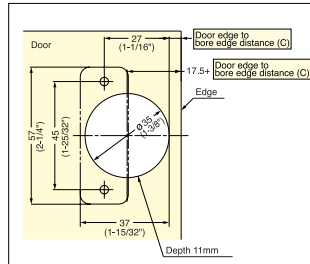
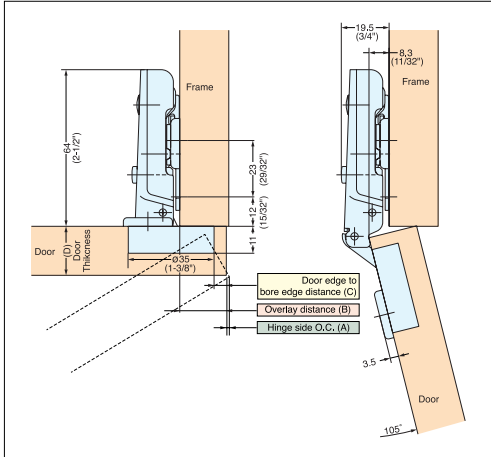
Face Frame Bracket for 304B-P4A/32 and 304B-P4A/32-3W. See P.344 (Sold separately)

Item No.	Weight (g)	Carton (pcs)	Material	Finish
304B-P3A	40	400	304 Stainless Steel	Polished
304B-P4A/32				
304B-P4A/32-3W				

CONCEALED HINGE (19mm OVERLAY)



230-26/19T, C26/19T



Bore Dimensions

■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	3	4	5
Overlay distance (B)	17	18	19

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)		
	3	4	5
15	1.0	0.9	0.9
16	1.2	1.2	1.1
17	1.5	1.5	1.4
18	1.8	1.8	1.7
19	2.2	2.1	2.0
20	2.6	2.5	2.4
21	3.0	2.9	2.8
22	3.4	3.3	3.2

Hinge side O.C. (A)

*Mounting Plate sold separately. See P.299

*Mounting Screw sold separately. See TAP3515NI on P.299

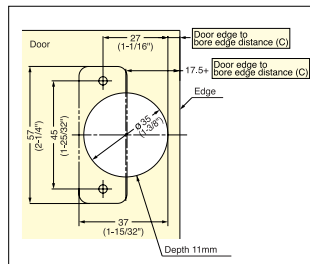
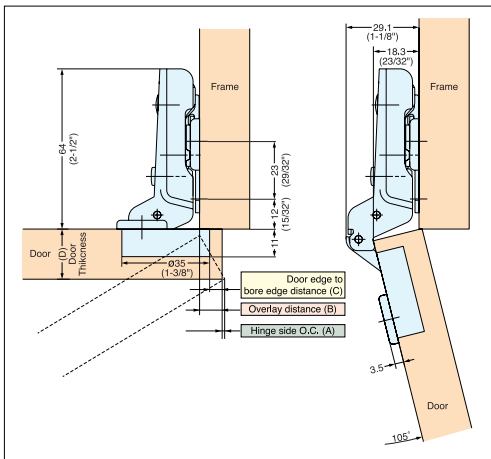
Item No.	Type	Weight (g)	Carton (pcs)
230-26/19T	Free Swinging	60	200
230-C26/19T	Self-Closing		

Material	Finish
Steel	Nickel

CONCEALED HINGE (9mm OVERLAY)



230-26/9T, C26/9T



Bore Dimensions

■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	3	4	5
Overlay distance (B)	7	8	9

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)		
	3	4	5
15	1.0	0.9	0.9
16	1.2	1.2	1.1
17	1.5	1.5	1.4
18	1.8	1.8	1.7
19	2.2	2.1	2.0
20	2.6	2.5	2.4
21	3.0	2.9	2.8
22	3.4	3.3	3.2

Hinge side O.C. (A)

*Mounting Plate sold separately. See P.299

*Mounting Screw sold separately. See TAP3515NI on P.299

Item No.	Type	Weight (g)	Carton (pcs)
230-26/9T	Free Swinging	60	200
230-C26/9T	Self-Closing		

Material	Finish
Steel	Nickel

CONCEALED HINGE (INSET)



230-26/0T, C26/0T

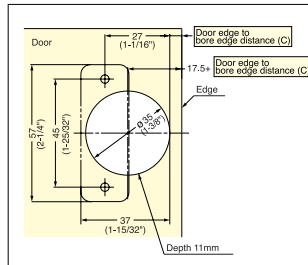
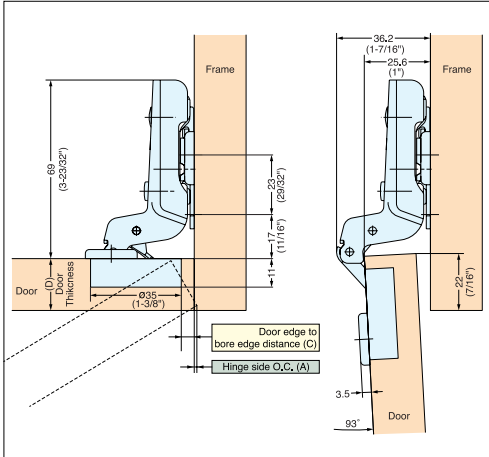


■ Hinge side opening clearance chart

Door thickness (D)	Door edge to bore edge distance (C)		
	3	4	5
15	0.0	0.0	0.0
16	0.1	0.1	0.1
17	0.1	0.1	0.1
18	0.3	0.3	0.2
19	0.4	0.4	0.4
20	0.6	0.6	0.6
21	0.9	0.8	0.8
22	1.2	1.2	1.1

Hinge side O.C. (A)

*Mounting Plate sold separately. See P.299
 *Mounting Screw sold separately. See TAP3515NI on P.299



Bore Dimensions

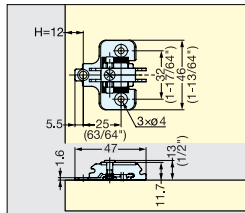
Item No.	Type	Weight (g)	Carton (pcs)
230-26/0T	Free Swinging	60	200
230-C26/0T	Self-Closing		

Material	Finish
Steel	Nickel

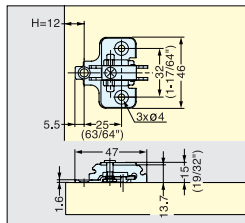
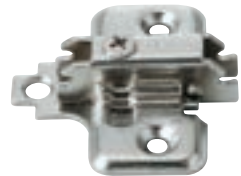
MOUNTING PLATE FOR 230 SERIES HINGES



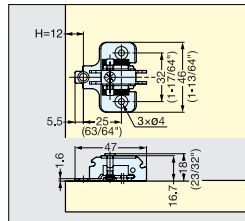
230-P4W-32T



230-P4W-32T + 2



230-P4W-32T + 5



Installation



Face Frame Bracket for 230 Mounting Plate.
 See P.344 (Sold separately)



TAP3515 NI
 (Sold separately)

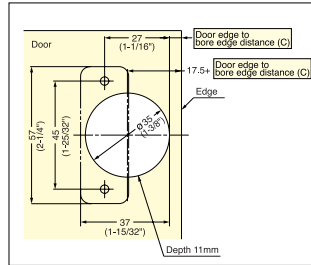
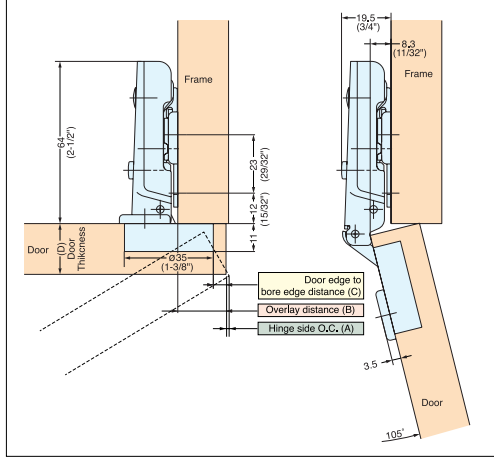
Item No.	Weight (g)	Carton (pcs)
230-P4W-32T	40	400
230-P4W-32T + 2		400
230-P4W-32T + 5		400

Material	Finish
Steel	Nickel

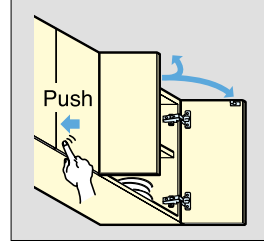
CONCEALED HINGE (19mm OVERLAY)



230-U26/19T



Bore Dimensions



*Mounting Plate sold separately. See P.301
 *Mounting Screw sold separately. See TAP3515NI on P.301

- Spring loaded concealed hinge pushes doors open.
- Use with a push latch (MC-37, MC-28, etc) to create a "Push to Open" handleless self opening door. See P.123-124

■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	3	4	5
Overlay distance (B)	17	18	19

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)		
	3	4	5
15	1.0	0.9	0.9
16	1.2	1.2	1.1
17	1.5	1.5	1.4
18	1.8	1.8	1.7
19	2.2	2.1	2.0
20	2.6	2.5	2.4
21	3.0	2.9	2.8
22	3.4	3.3	3.2

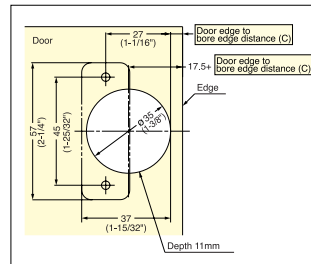
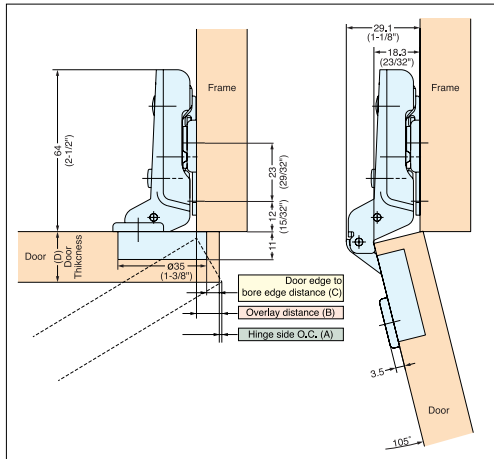
Hinge side O.C. (A)

Item No.	Type	Weight (g)	Carton (pcs)	Material	Finish
230-U26/19T	Self-Opening	60	200	Steel	Nickel

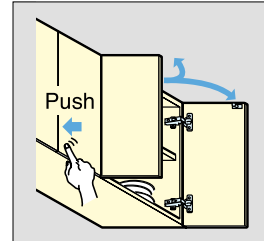
CONCEALED HINGE (9mm OVERLAY)



230-U26/9T



Bore Dimensions



*Mounting Plate sold separately. See P.301
 *Mounting Screw sold separately. See TAP3515NI on P.301

- Spring loaded concealed hinge pushes doors open.
- Use with a push latch (MC-37, MC-28, etc) to create a "Push to Open" handleless self opening door. See P.123-124

■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	3	4	5
Overlay distance (B)	7	8	9

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)		
	3	4	5
15	1.0	0.9	0.9
16	1.2	1.2	1.1
17	1.5	1.5	1.4
18	1.8	1.8	1.7
19	2.2	2.1	2.0
20	2.6	2.5	2.4
21	3.0	2.9	2.8
22	3.4	3.3	3.2

Hinge side O.C. (A)

Item No.	Type	Weight (g)	Carton (pcs)	Material	Finish
230-U26/9T	Self-Opening	60	200	Steel	Nickel

CONCEALED HINGE (INSET)



230-U26/0T



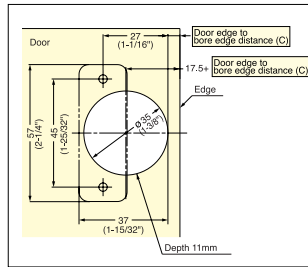
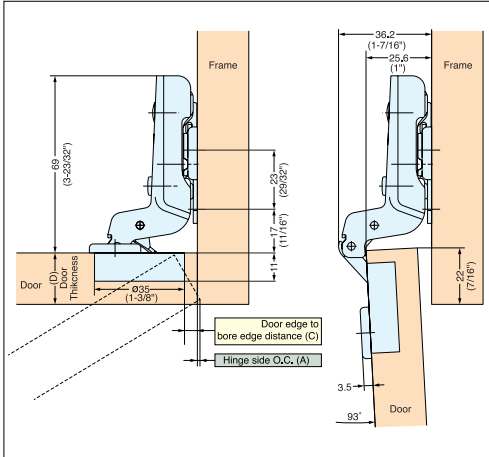
■ Hinge side opening clearance chart

Door thickness (D)	Door edge to bore edge distance (C)		
	3	4	5
15	0.0	0.0	0.0
16	0.1	0.1	0.1
17	0.1	0.1	0.1
18	0.3	0.3	0.2
19	0.4	0.4	0.4
20	0.6	0.6	0.6
21	0.9	0.8	0.8
22	1.2	1.2	1.1

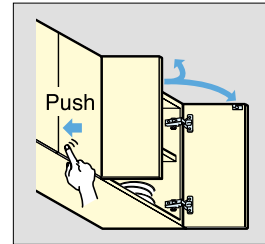
Hinge side O.C. (A)

*Mounting Plate sold separately. See P.301

*Mounting Screw sold separately. See TAP3515NI on P.301



Bore Dimensions



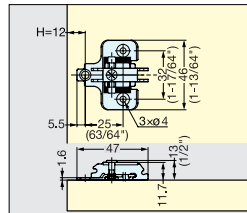
- Spring loaded concealed hinge pushes doors open.
- Use with a push latch (MC-37, MC-28, etc) to create a "Push to Open" handsell self opening door. See P.123-124

Item No.	Type	Weight (g)	Carton (pcs)	Material	Finish
230-U26/0T	Self-Opening	60	200	Steel	Nickel

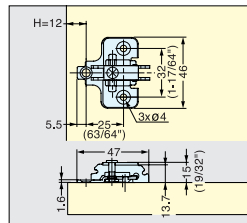
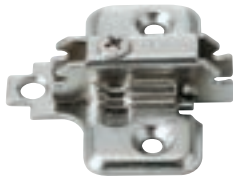
MOUNTING PLATE FOR 230 SERIES HINGES



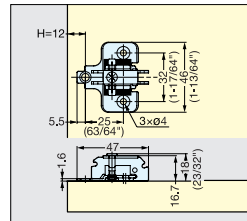
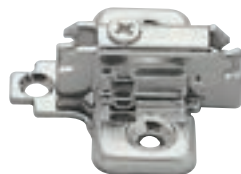
230-P4W-32T



230-P4W-32T + 2



230-P4W-32T + 5



Installation



Face Frame Bracket for 230 Mounting Plate. See P.344 (Sold separately)



TAP3515 NI (Sold separately)

Item No.	Weight (g)	Carton (pcs)
230-P4W-32T	40	400
230-P4W-32T + 2		
230-P4W-32T + 5		

Material	Finish
Steel	Nickel

THICK DOOR CONCEALED HINGE (26mm OVERLAY)



H230-26/26T, C26/26T



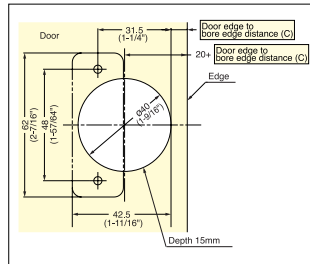
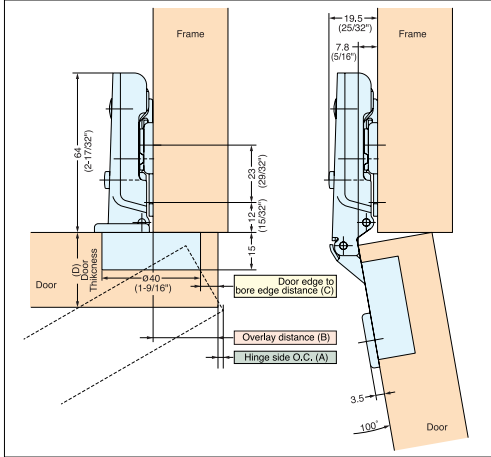
■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	3	4	5	6	7
Overlay distance (B)	22	23	24	25	26

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)				
	3	4	5	6	7
18	0.2	0.2	0.2	0.2	0.2
20	0.4	0.4	0.4	0.4	0.4
22	0.7	0.7	0.6	0.6	0.6
24	1.0	1.0	1.0	1.0	0.9
26	1.4	1.4	1.3	1.3	1.3
28	2.7	1.9	1.8	1.8	1.8
30	5.1	4.1	3.1	2.4	2.3
32	7.5	6.5	5.5	4.5	3.5
34	9.9	8.9	7.9	6.9	5.9

Hinge side O.C. (A)



Bore Dimensions

*Mounting Plate sold separately. See P.303
 *Mounting Screw sold separately. See TAP3515NI on P.303

Item No.	Type	Weight (g)	Carton (pcs)
H230-26/26T	Free Swinging	60	200
H230-C26/26T	Self-Closing		

Material	Finish
Steel	Nickel

THICK DOOR CONCEALED HINGE (16mm OVERLAY)



H230-26/16T, C26/16T



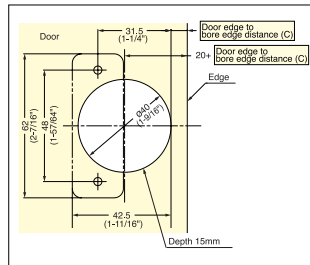
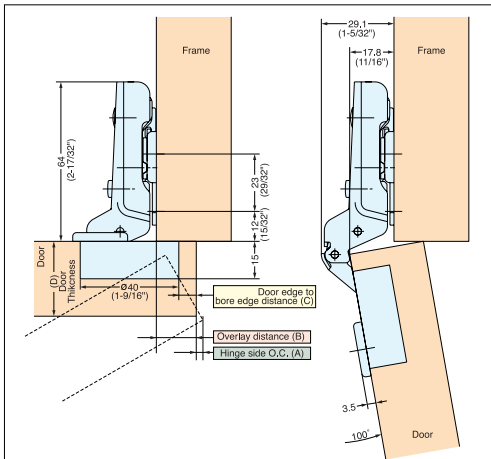
■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	3	4	5	6	7
Overlay distance (B)	12	13	14	15	16

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)				
	3	4	5	6	7
18	0.2	0.2	0.2	0.2	0.2
20	0.4	0.4	0.4	0.4	0.4
22	0.7	0.7	0.6	0.6	0.6
24	1.0	1.0	1.0	1.0	0.9
26	1.4	1.4	1.3	1.3	1.3
28	2.7	1.9	1.8	1.8	1.8
30	5.1	4.1	3.1	2.4	2.3
32	7.5	6.5	5.5	4.5	3.5
34	9.9	8.9	7.9	6.9	5.9

Hinge side O.C. (A)



Bore Dimensions

*Mounting Plate sold separately. See P.303
 *Mounting Screw sold separately. See TAP3515NI on P.303

Item No.	Type	Weight (g)	Carton (pcs)
H230-26/16T	Free Swinging	60	200
H230-C26/16T	Self-Closing		

Material	Finish
Steel	Nickel

THICK DOOR CONCEALED HINGE (INSET)



H230-26/0T, C26/0T



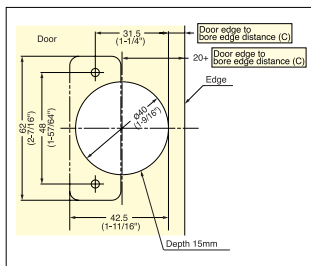
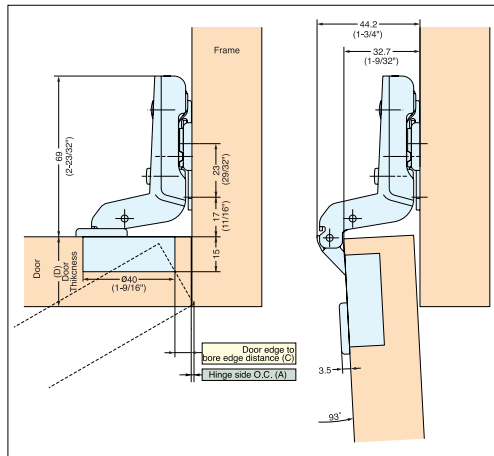
■ Hinge side opening clearance chart

Door thickness (D)	Door edge to bore edge distance (C)				
	3	4	5	6	7
18	0	0	0	0	0
20	0	0	0	0	0
22	0	0	0	0	0
24	0.1	0.1	0.1	0.1	0.1
26	0.2	0.2	0.2	0.2	0.2
28	1.0	1.0	0.5	0.5	0.4
30	3.4	2.8	2.2	1.7	1.2
32	5.3	4.6	4.0	3.4	2.9

Hinge side O.C. (A)

*Mounting Plate sold separately. See P.303

*Mounting Screw sold separately. See TAP3515NI on P.303



Bore Dimensions

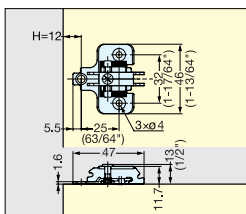
Item No.	Type	Weight (g)	Carton (pcs)
H230-26/0T	Free Swinging	60	200
H230-C26/0T	Self-Closing		

Material	Finish
Steel	Nickel

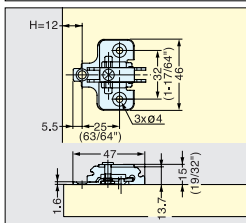
MOUNTING PLATE FOR 230 SERIES HINGES



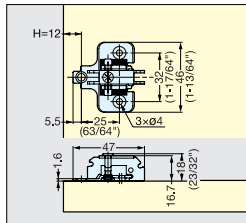
230-P4W-32T



230-P4W-32T + 2



230-P4W-32T + 5



Installation



Face Frame Bracket for 230 Mounting Plate. See P.344 (Sold separately)



TAP3515NI
Screw 3.5 × 15NI
(Sold separately)

Item No.	Weight (g)	Carton (pcs)
230-P4W-32T	40	400
230-P4W-32T + 2		
230-P4W-32T + 5		

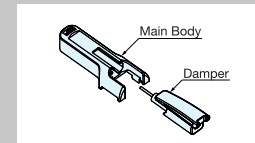
Material	Finish
Steel	Nickel

CONCEALED HINGE DAMPER

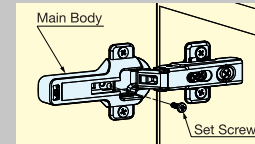
230-SCA SERIES



- Damper unit for 230 Series concealed hinges. (Sold separately)
- Allows door to close softly and smoothly without slamming shut.
- Easy installation-attach with one screw.

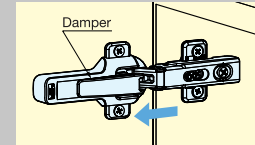


1) Remove the damper unit from the main body.

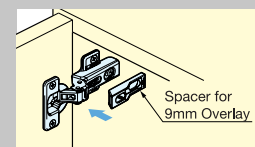


2) Lay the damper body over the hinge and install with the screw provided.

*Note: do NOT use an impact driver to install.



3) Snap in the damper assembly.

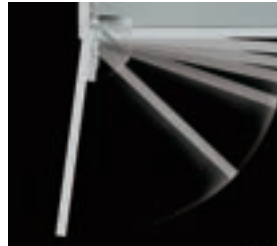


4) If using a 9 mm overlay hinge, install spacer on the cabinet side of the hinge.

Overhead view of cabinet door while soft closing.



230-SCA



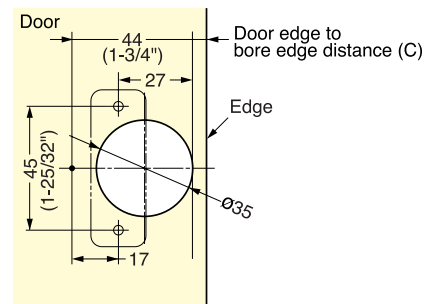
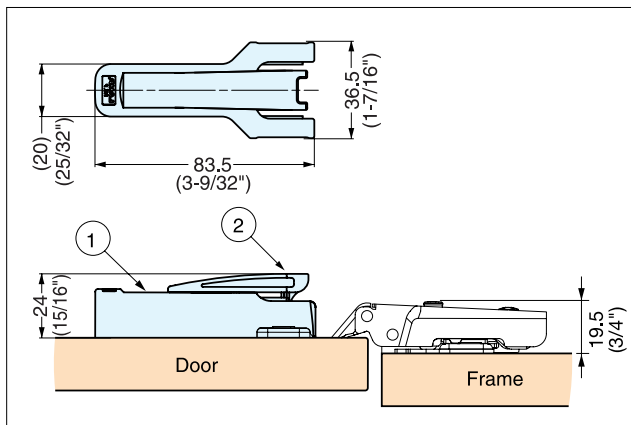
CONCEALED HINGE DAMPER (19mm OVERLAY)



230-SCA/19



- Eliminates noise by allowing door to close softly and smoothly.
 - Simple installation-set in place with only one screw.
 - Compatible with model 230-C26/19T.
 - Includes installation screw.
- Note : 1) For use with 230-C26/19T only.
 2) Please refer to the table below for the recommended number of dampers to use per door.
 3) Do NOT use an impact driver to install.



Total No. of Hinges	No. of Dampers
2	1
3	2
4	2
5	3

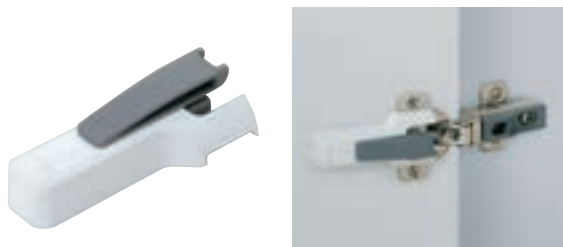
No.	Part Name	Material	Finish
①	Body	Plastic (PBT)	White
②	Damper	Polyacetal	Grey

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
230-SCA/19	26	20	200

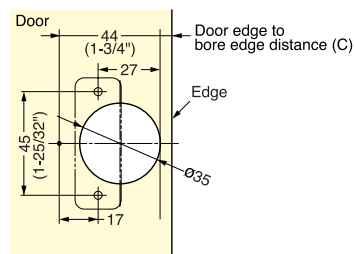
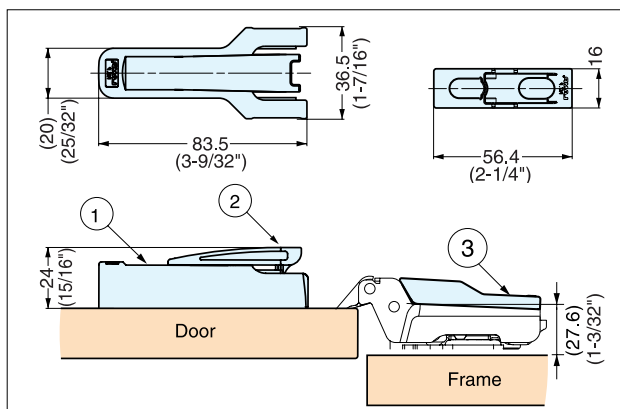
CONCEALED HINGE DAMPER (9mm OVERLAY)



230-SCA/9



- Eliminates noise by allowing door to close softly and smoothly.
 - Simple installation-set in place with only one screw.
 - Compatible with model 230-C26/9T.
 - Includes installation screw and spacer.
- Note : 1) For use with 230-C26/9T only.
 2) Please refer to the table below for the recommended number of dampers to use per door.
 3) Do NOT use an impact driver to install.



Total No. of Hinges	No. of Dampers
2	1
3	2
4	2
5	3

No.	Part Name	Material	Finish
①	Body	Plastic (PBT)	White
②	Damper	Polyacetal	Grey
③	Spacer	Plastic (PBT)	Grey

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
230-SCA/9	28.8	20	200

HINGES

CONCEALED HINGE DAMPERS



For smooth movement
Soft motion

Hold in any position
Free-stop motion

Helps you open
Power assist motion

Snap and stop
Click motion

New openings
Unique motion

What is Sugatsune's "Motion Design Tech"?

Motion Design Tech is Sugatsune's unique product concept to provide specialized movement solutions for your flaps and doors.

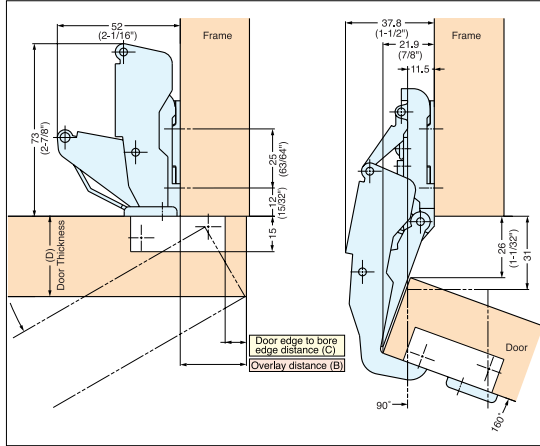


The operability of doors or lids can be improved by incorporating the 5 types of motions in the work environment. It can also improve the efficiency of work involving opening and closing movements, increasing the added value of the device and equipment.

CONCEALED HINGE (28mm OVERLAY)



H160-34/28, H160-C34/28



■ Door edge to bore edge distance (C) and Overlay distance (B)

Table 1.

Door edge to bore edge distance (C)	3	4	5	6	7	8	9
Overlay distance (B)	22	23	24	25	26	27	28

■ Hinge side opening clearance chart

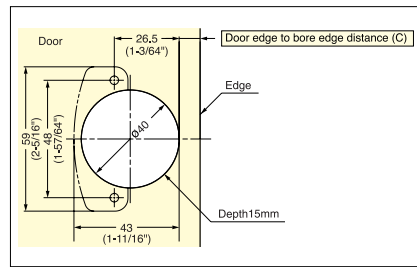
Table 2.

Door thickness (D)	Door edge to bore edge distance (C)						
	3	4	5	6	7	8	9
33	0.1						
34	0.2	0.2	0.2	0.2	0.2	0.2	0.2
35	0.3	0.3	0.3	0.3	0.3	0.3	0.3
36	2.0	1.6	1.5	1.4	1.0	0.7	0.5
37	3.7	3.1	2.7	2.4	2.0	1.4	0.9
38	5.0	4.4	3.8	3.3	2.8	2.2	1.7
39	6.2	5.4	4.9	4.3	3.7	3.0	2.6
40	7.2	6.4	5.7	5.3	4.6	3.9	3.4

Hinge side O.C. (B)

*Mounting Plate sold separately. See P.307

Bore Dimensions

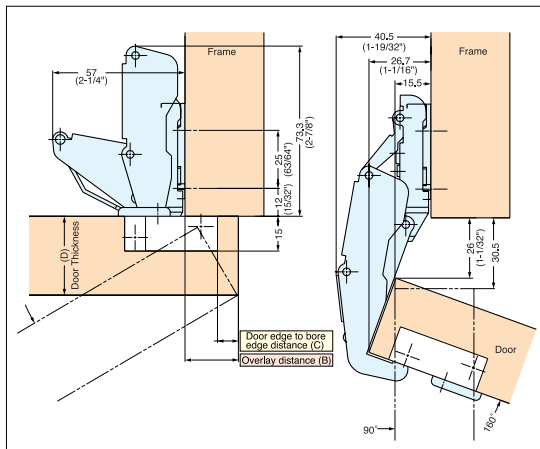
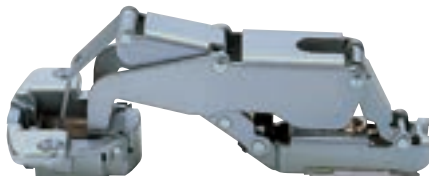


Item No.	Type	Weight (g)	Carton (pcs)	Material	Finish	Finish
H160-34/28	Free Swinging	182	100	Body	Steel	Satin Chrome
H160-C34/28	Self-Closing			Cup	Zinc Alloy	

CONCEALED HINGE (23mm OVERLAY)



H160-34/23, H160-C34/23



■ Door edge to bore edge distance (C) and Overlay distance (B)

Table 1.

Door edge to bore edge distance (C)	3	4	5	6	7	8	9
Overlay distance (B)	17	18	19	20	21	22	23

■ Hinge side opening clearance chart

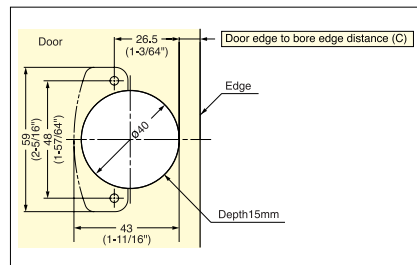
Table 2.

Door thickness (D)	Door edge to bore edge distance (C)						
	3	4	5	6	7	8	9
33	0.2						
34	0.3	0.3	0.3	0.3	0.3	0.3	0.3
35	0.7	0.7	0.7	0.7	0.7	0.6	0.5
36	3.2	3.0	2.7	2.3	1.6	1.3	0.9
37	5.0	4.4	3.8	3.2	2.6	2.1	1.6
38	6.2	5.5	4.8	4.2	3.5	2.9	2.4
39	7.2	6.4	5.7	5.1	4.4	3.9	3.3
40	8.3	7.3	6.6	6.0	5.4	4.7	4.2

Hinge side O.C. (B)

*Mounting Plate sold separately. See P.307

Bore Dimensions

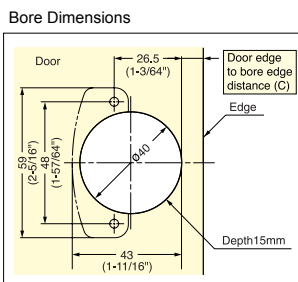
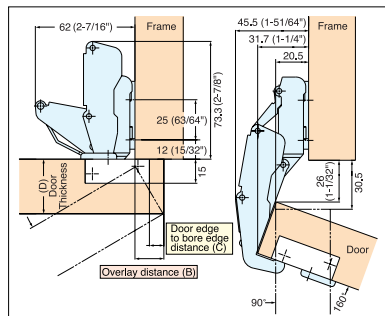
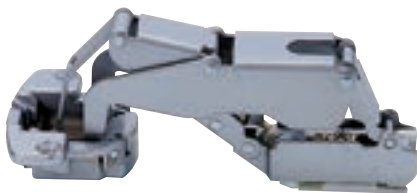


Item No.	Type	Weight (g)	Carton (pcs)	Material	Finish	Finish
H160-34/23	Free Swinging	205	100	Body	Steel	Satin Chrome
H160-C34/23	Self-Closing			Cup	Zinc Alloy	

CONCEALED HINGE (18mm OVERLAY)



H160-34/18, H160-C34/18



■ Door edge to bore edge distance (C) and Overlay distance (B) Table 1.

Door edge to bore edge distance (C)	5	6	7	8	9
Overlay distance (B)	14	15	16	17	18

■ Hinge side opening clearance chart Table 2.

Door thickness (D)	Door edge to bore edge distance (C)				
	5	6	7	8	9
33	0.2				
34	0.3	0.3	0.3	0.3	0.3
35	0.7	0.7	0.7	0.6	0.5
36	2.7	2.3	1.6	1.3	0.9
37	3.8	3.2	2.6	2.1	1.6
38	4.8	4.2	3.5	2.9	2.4
39	5.7	5.1	4.4	3.9	3.3
40	6.6	6.0	5.4	4.7	4.2

Hinge side O.C. (B)
*Mounting Plate sold separately. See P.307

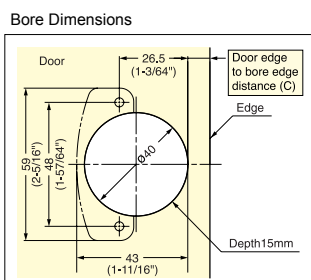
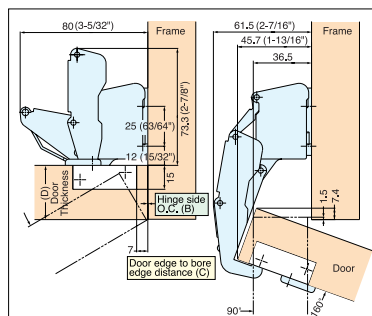
Item No.	Type	Weight (g)	Carton (pcs)
H160-34/18	Free Swinging	205	100
H160-C34/18	Self-Closing		

Material	Finish	Finish
Body	Steel	Satin Chrome
Cup	Zinc Alloy	

CONCEALED HINGE (INSET)



H160-34/0, H160-C34/0



■ Hinge side opening clearance chart

Door thickness (D)	Door edge to bore edge distance (C)				
	3	4	5	6	7
30	0.1				
31	0.1	0.1	0.1	0.1	0.1
32	0.2	0.2	0.2	0.2	0.2
33	0.2	0.2	0.2	0.2	0.2
34	0.3	0.3	0.3	0.3	0.3
35	0.9	0.9	0.9	0.8	0.8
36	3.4	3.1	2.8	2.2	1.6

Hinge side O.C. (B)
*Mounting Plate sold separately. See P.307

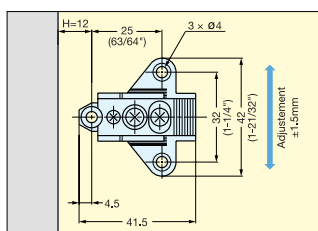
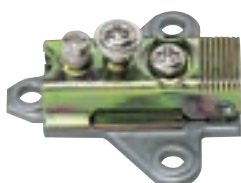
Item No.	Type	Weight (g)	Carton (pcs)
H160-34/0	Free Swinging	250	100
H160-C34/0	Self-Closing		

Material	Finish	Finish
Body	Steel	Satin Chrome
Cup	Zinc Alloy	

MOUNTING PLATE FOR H160 SERIES HINGES



100-04A-W-32



*Can be used with Face Frame Bracket FCCB-HG-1 (See P.344).

Item No.	Weight (g)	Carton (pcs)
100-04A-W-32	23	400
Part Name	Material	Finish
Body	Steel	Satin Chrome

SPECIALTY OVERLAY HINGE W/ SOFT-CLOSE (25mm Overlay)



J160-D22

HINGES

CONCEALED HINGES

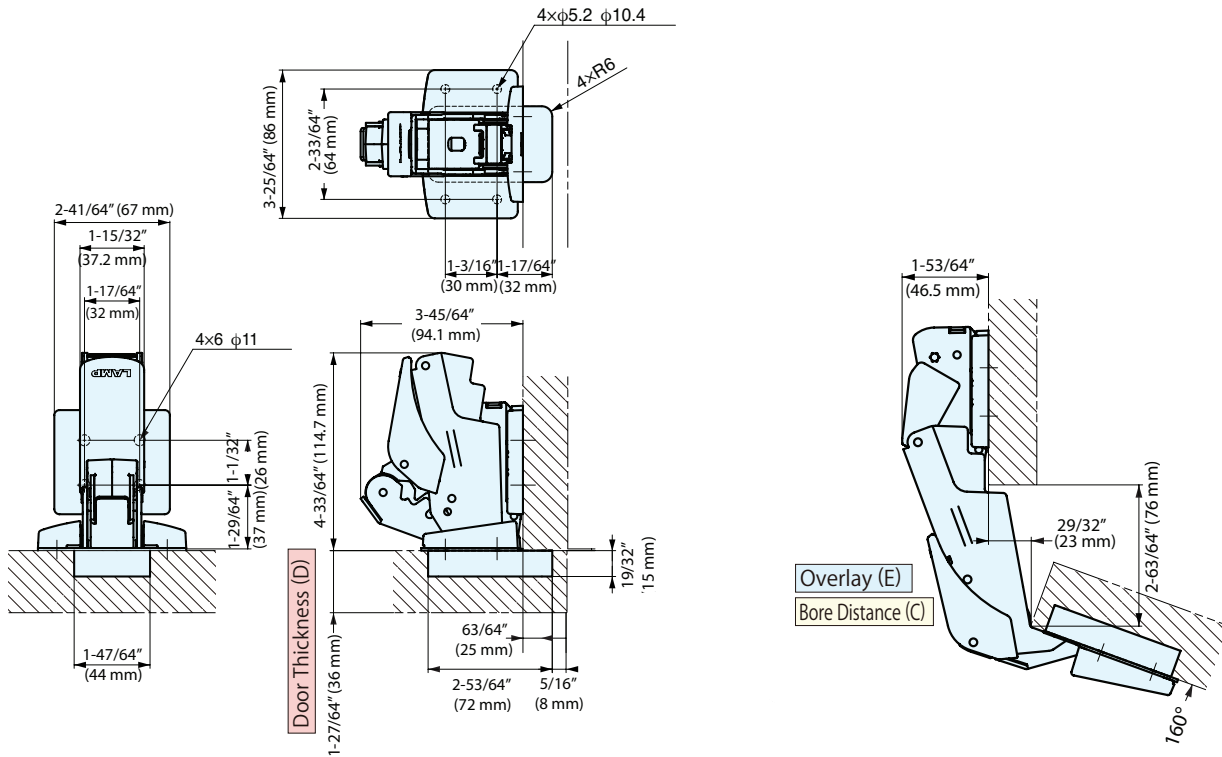


Nickel (NI)

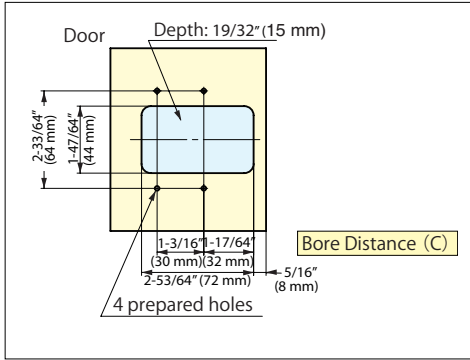


Black Nickel (BN)

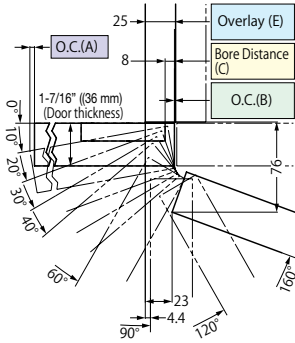
- 3-way adjustability with built-in damper.
- Load capacity:
55 lbs (25 kg)/2 pcs, 88 lbs (40 kg)/3 pcs.
- Maximum door width:
31-1/2" (800 mm)/2 pcs,
35-7/16" (900 mm)/3 pcs.
- Wide-opening hinge allowing 160° opening.
- Successfully passed 50,000 open/close private cycle test.
- Recommended door thickness:
11/16-1-7/16" (18-36 mm).
- Includes mounting plates and screw covers.
- Built in damper allows doors to soft-close.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
J160-D22-25T-NI	710	1	12	Steel, Zinc Alloy (ZDC), Glass Filled Polyamide (PA)	Nickel (NI)
J160-D22-25T-BN					Black Nickel (BN)



Bore Dimensions



■ Door edge to bore edge distance (C) and Overlay distance (E) Table-1

Door edge to bore edge distance (C)	1/8"(3)	5/32"(4)	13/64"(5)	15/64"(6)	9/32"(7)	15/16"(8)
Overlay distance (E)	25/32"(20)	53/64"(21)	55/64"(22)	29/32"(23)	15/16"(24)	63/64"(25)

Overlay adjustment (Max. -4mm) by turning the overlay adjustment screw.

Opening Clearance (O.C.)

Clearances for door edge O.C. (A) and hinge side O.C. (B) are necessary. O.C. (A) and (B) change depending on door thickness and bore distance (C). Refer to locus chart and tables below when designing cabinets.

■ Hinge side opening clearance chart Table-2

Door Thickness (D)*	Door edge to bore edge distance (C)					
	1/8"(3)	5/32"(4)	13/64"(5)	15/64"(6)	9/32"(7)	15/16"(8)
1-11/32"(34) and under	0.1 and under					
1-27/64"(36)	1/64"(0.2)	1/64"(0.2)	1/64"(0.2)	1/64"(0.2)	1/64"(0.2)	1/64"(0.2)
1-1/2"(38)*	1/64"(0.5)	1/64"(0.5)	1/64"(0.5)	1/64"(0.5)	1/32"(0.6)	1/32"(0.6)
1-37/64"(40)*	3/64"(1.0)	3/64"(1.0)	3/64"(1.1)	3/64"(1.2)	3/64"(1.3)	1/16"(1.4)
Hinge side O.C (B)						

*Please refer to the locus chart if door thickness is over 36 mm. (O.C. (B) can be made smaller by R chamfering (round chamfer) or C chamfering (chamfer plane) on the door)

Table-3

Door Thickness (D)*	Door Width						
	11-13/16" (300 mm)	15-3/4" (400 mm)	19-11/16" (500 mm)	23-5/8" (600 mm)	27-9/16" (700 mm)	31-1/2" (800 mm)	35-7/16" (900 mm)
25/32"(20)	1/16"(1.6)	3/64"(1.2)	3/64"(1.0)	1/32"(0.8)	1/32"(0.7)	1/32"(0.6)	1/64"(0.5)
1-3/16"(30)	5/64"(1.9)	1/16"(1.4)	3/64"(1.2)	3/64"(1.0)	1/32"(0.8)	1/32"(0.7)	1/32"(0.7)
1-27/64"(36)	5/64"(1.9)	1/16"(1.5)	3/64"(1.2)	3/64"(1.0)	1/32"(0.8)	1/32"(0.7)	1/32"(0.7)
O.C. (A)							



CONCEALED HINGE



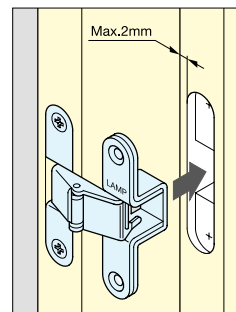
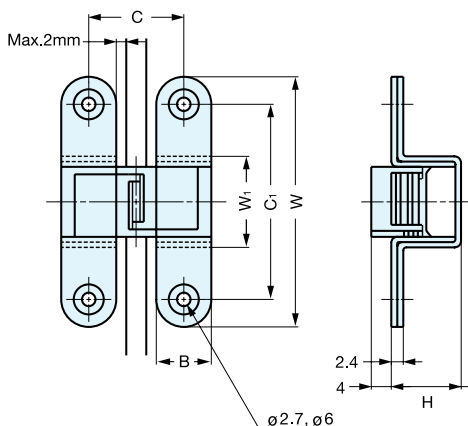
RK-50

HINGES

CONCEALED HINGES



- Door size :
Max. W450 × H700 (W 17-23/32" × H 27-9/16")
- Door thickness : Min. 15 (19/32")
- Door weight : Max. 2.6 kg/pair (5.7 lbs/pair)

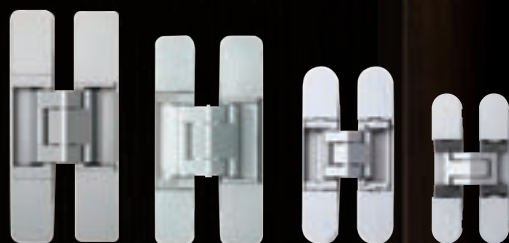


Installation

Material	Finish
304 Stainless Steel	Satin

Item No.	W	B	C	C ₁	H	W ₁	Weight (g)	Box (pcs)	Carton (pcs)
RK-50	50 (1-31/32")	11 (7/16")	19 (3/4")	38 (1-1/2")	14 (35/64")	18.2 (23/32")	28	24	240

3-WAY Adjustable Concealed Hinge HES3D Series



Sizes vary for use with 1-1/2" thick doors to a minimum of 3/4" thick doors. Find more sizes, finishes and information about the HES3D Series Hinges on page 180~184, 309~311.



3-WAY ADJUSTABLE CONCEALED HINGE



HES3D-70

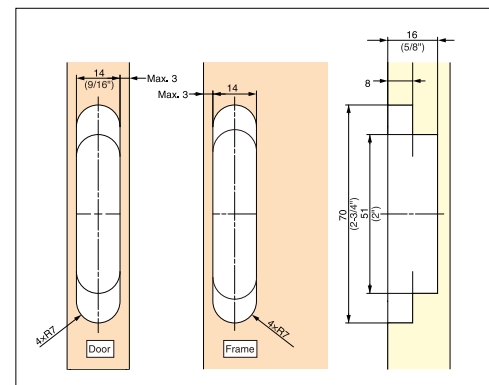
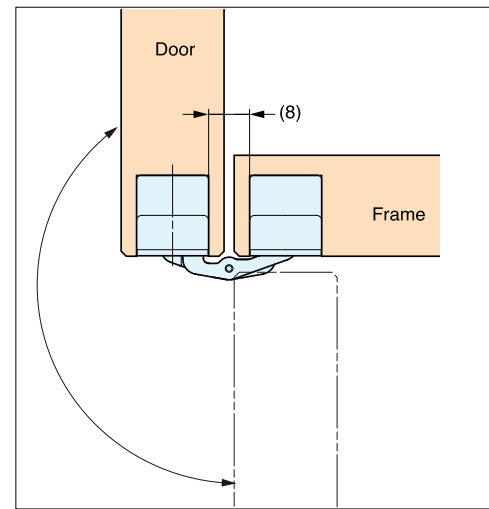
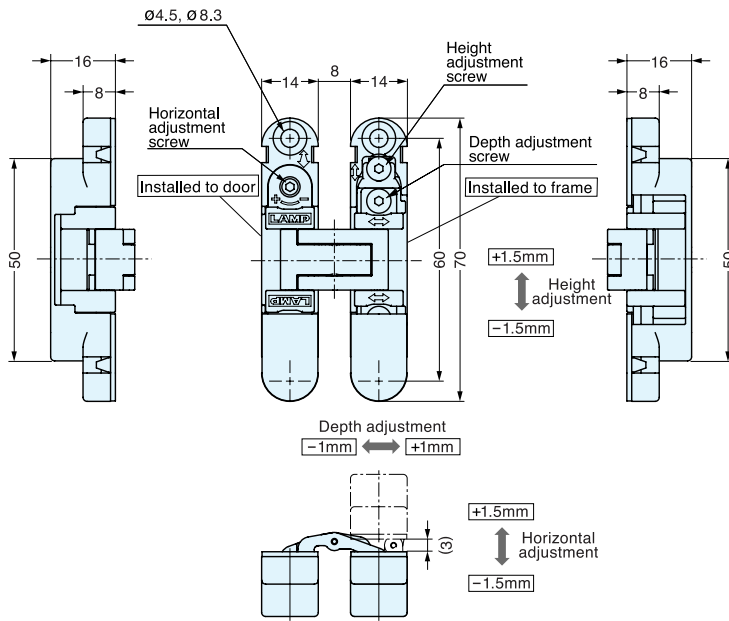


HES3D-70DC

HES3D-70DN

HES3D-70BL

- 3-WAY adjustment function allows vertical, horizontal and depth adjustment after installation.
- Hinge leaves separate for easy installation.
- Covers hide screw heads for clean appearance.
- Includes steel countersunk wood screws.
- Small size for min. 3/4" panel thickness.
- Door weight: Max. 9 kg (19.8 lbs)/2 pcs, 12 kg (26.4 lbs)/3 pcs
- Door thickness: Min. 19 mm (3/4")
- Max. door size:
H 1200 mm × W 600 mm (47-1/4" × 23-5/8")



Bore Dimensions

Item No.	Finish	Min. Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
HES3D-70DC	Dull Chrome	19 (3/4")	95	2	48
HES3D-70DN	Dull Nickel				
HES3D-70BL	Black				

Part Name	Material
Body	Zinc Alloy
Base Frame	
Arm	Stainless Steel
Shaft (Pin)	
Cover	ABS

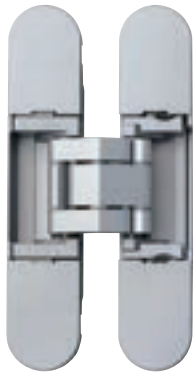
3-WAY ADJUSTABLE CONCEALED HINGE



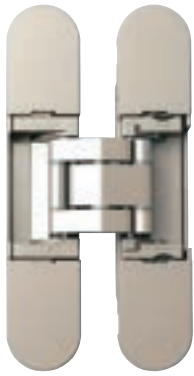
HES3D-90

HINGES

3-WAY ADJUSTABLE CONCEALED HINGES



HES3D-90DC

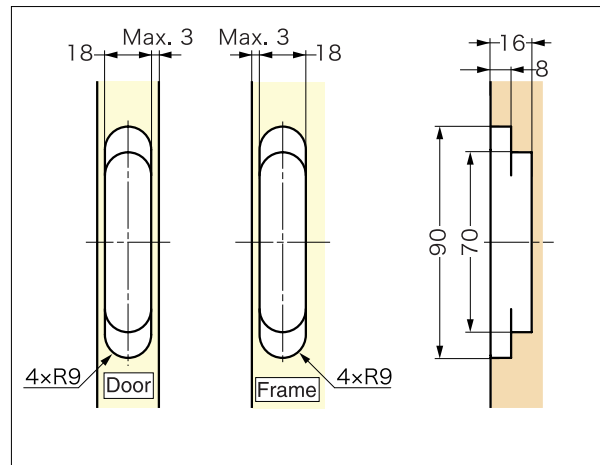
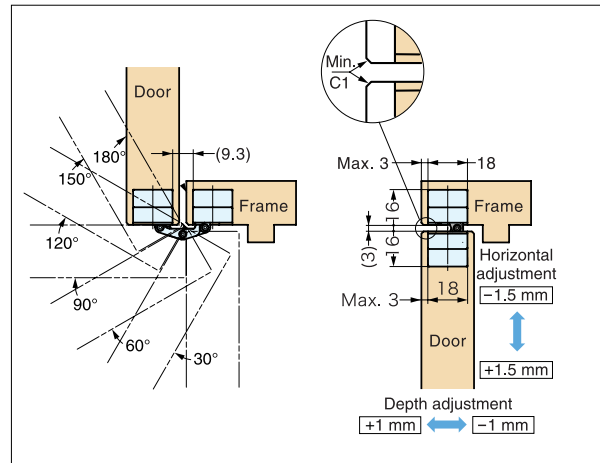
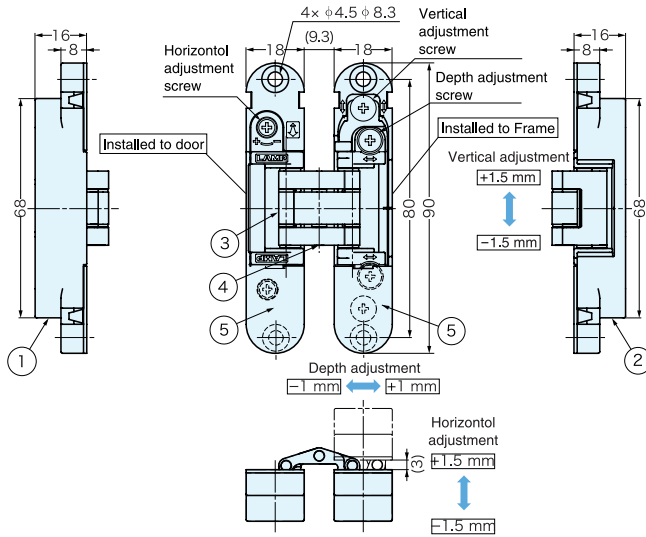


HES3D-90DN



HES3D-90BL

- 3-WAY adjustment function allows vertical, horizontal, and depth adjustment.
- Covers hide all screw heads for clean appearance.
- Hinge leaves separate for easy installation and adjustment.
- Door weight: Max. 12 kg (26 lbs)/2 pcs, 16 kg (35 lbs)/3 pcs
- Door thickness: Min. 23 mm (15/16")
- Max door size: H 1500 mm × W 600 mm (59-1/16" × 23-5/8")
- Includes steel countersunk wood screws.



Cut Out Dimensions

No.	Part Name	Material	Finish/Color		
			DC	DN	BL
①	Body	Zinc Alloy	Dull Chrome	Dull Nickel	Black
②	Base Frame				
③	Arm				
④	Shaft	Stainless Steel	-	-	-
⑤	Cover	ABS	Dull Chrome	Dull Nickel	Black

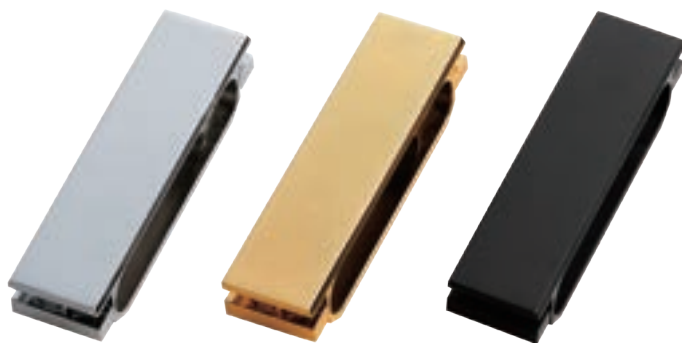
Item No.	Finish	Min. Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
HES3D-90DC	Dull Chrome	23 (15/16")	198	2	48
HES3D-90DN	Dull Nickel				
HES3D-90BL	Black				

GLASS DOOR BRACKET



HES3D-G90BKT

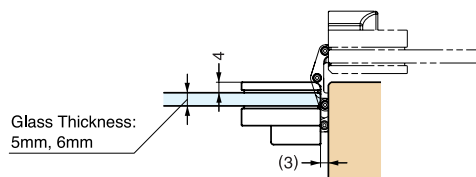
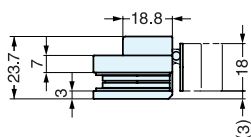
- Glass door bracket for HES3D-90 series.
- Hinge is completely hidden when looking through the glass.
- Screw covers match the bracket with the hinge finish.
- Glass thickness: 1/4" (5~6 mm)



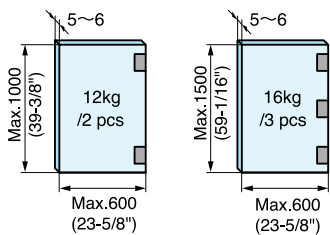
Chrome (CR)

Gold (GP)

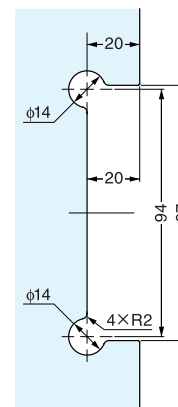
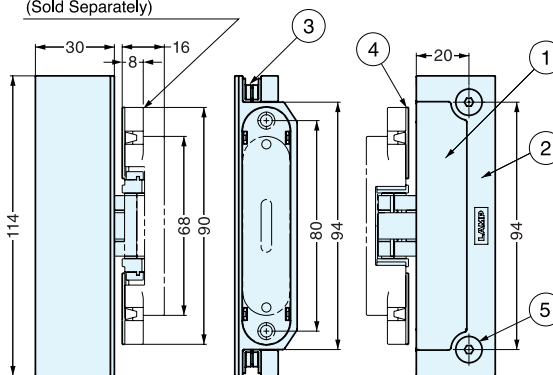
Black (BL)



Concealed Hinge HES3D-90 (Sold Separately)



Door Dimensions and Number of Hinges



Cut Out Dimensions

No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Chrome, Gold Plating, Black
②	Back Plate		
③	Gasket	Chloroprene Rubber	
④	Screw Cover	ABS	
⑤	Hexagon Socket Countersunk Head	Steel	

Item No.	Finish
HES3D-G90BKT-CR	Chrome
HES3D-G90BKT-GP	Gold
HES3D-G90BKT-BL	Black

3-WAY ADJUSTABLE CONCEALED HINGE



HES3D-120

HINGES

3-WAY ADJUSTABLE CONCEALED HINGES

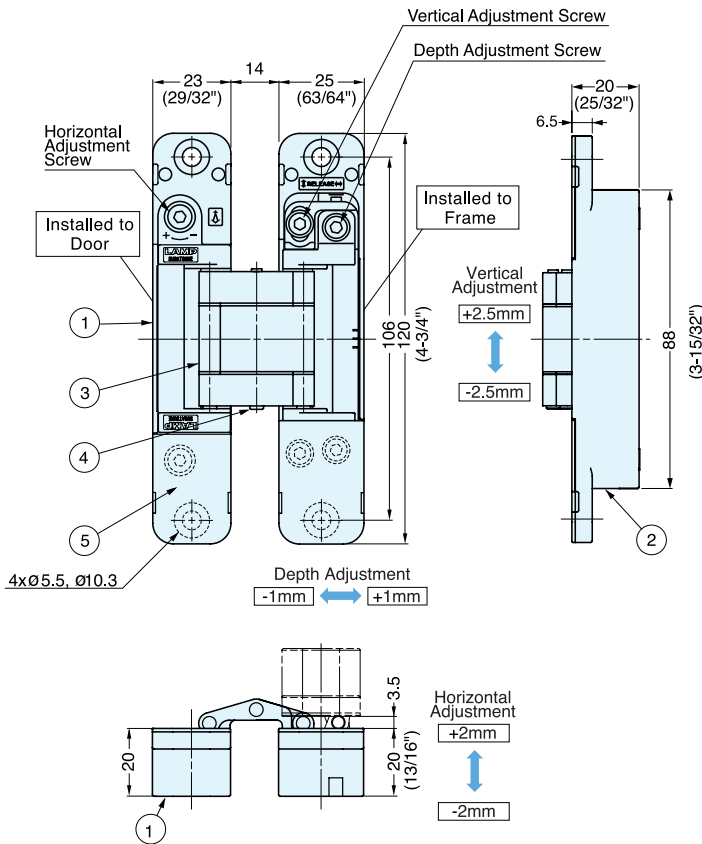
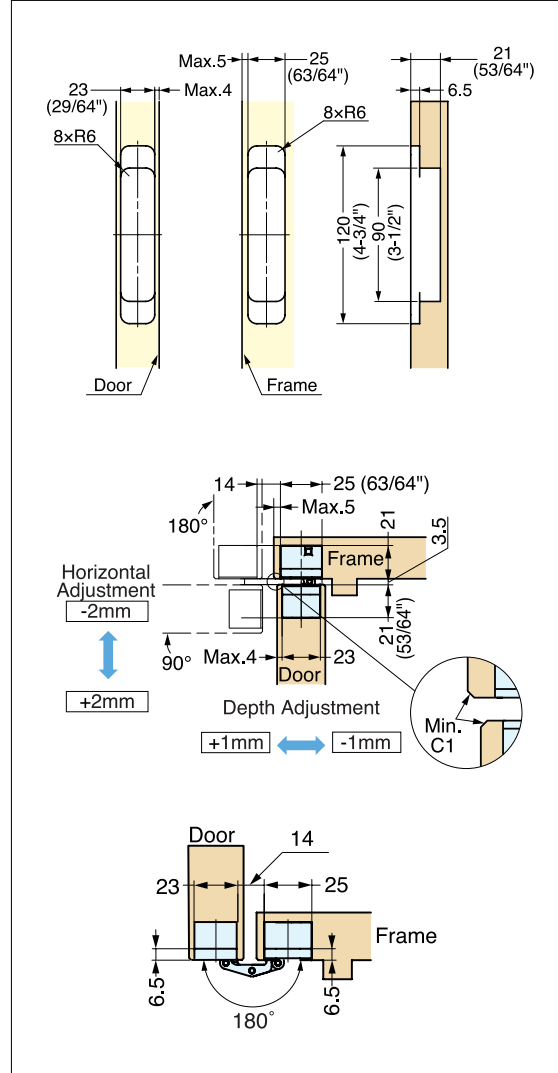


HES3D-120DC

HES3D-120DN

HES3D-120BL

- 3-WAY adjustment function allows vertical, horizontal, and depth adjustment after hinge installed.
- Easy installation and adjustment.
- Successfully passed 300,000 open/close private cycle tests.
- Supplied with steel flat head screw.
- Covers hide all screw heads for clean appearance.
- Door weight: Max. 30 kg (66 lbs)/2 pcs, 40 kg (88 lbs)/3 pcs
- Door Thickness: Min. 29 mm (1-1/8")
- Max. Door Size: H 2400 mm × W 900 mm (H 94-1/2" × W 35-7/16")
- Bracket for sheet metal available.



Bore Dimensions

No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Dull Chrome (DC)
②	Base Frame		Dull Nickel (DN)
③	Arm		Black (BL)
④	Pin	304 Stainless Steel	-
⑤	Cover	ABS	Dull Chrome (DC) Dull Nickel (DN) Black (BL)

Item No.	Finish/Color	Weight (g)	Box (pcs)	Carton (pcs)
HES3D-120DC	Dull Chrome	380	2	24
HES3D-120DN	Dull Nickel			
HES3D-120BL	Black			

GLASS DOOR BRACKET for HES3D-120



HES3D-G120BKT

HINGES

- Glass door bracket for HES3D-120 series.
- Hinge is completely hidden when looking through the glass.
- Screw covers match the bracket with the hinge finish.
- Glass thickness: 3/16"-5/16" (5-8 mm)



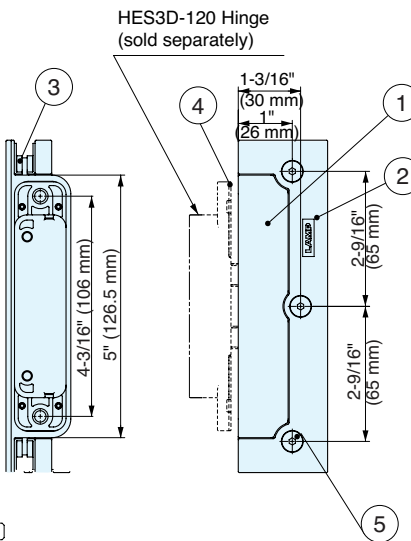
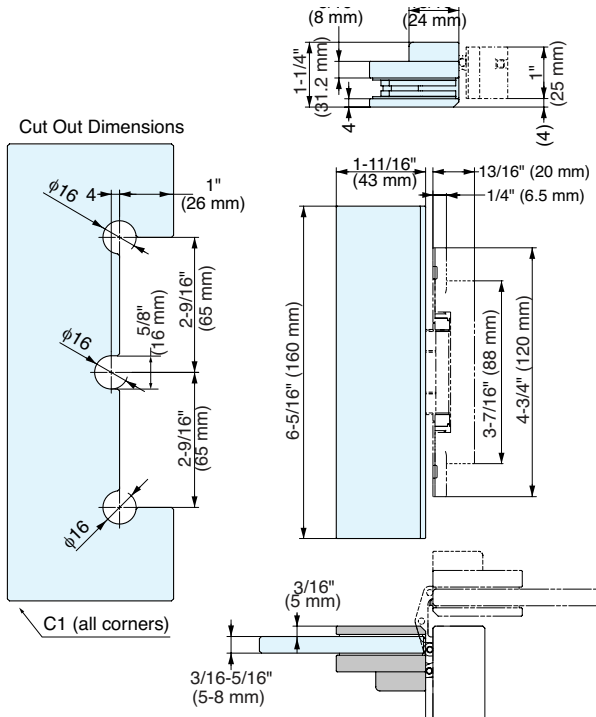
Chrome (CR)

Gold (GP)

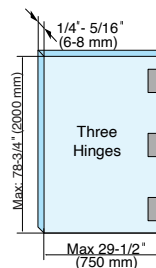
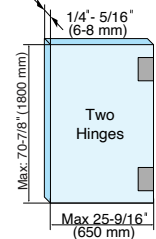
Black (BL)



GLASS DOOR BRACKET FOR HES3D-120 SERIES



Door Dimensions and Number of Hinges



Item No.	Finish
HES3D-G120BKT-CR	Chrome
HES3D-G120BKT-GP	Gold
HES3D-G120BKT-BL	Black

No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Chrome, Gold Plating, Black
②	Back Plate		
③	Gasket	Chloroprene Rubber	
④	Screw Cover	ABS	
⑤	Hexagon Socket Countersunk Head	Steel	

CONCEALED HINGE

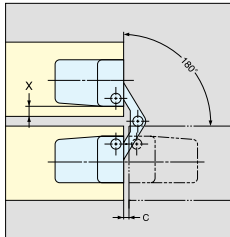
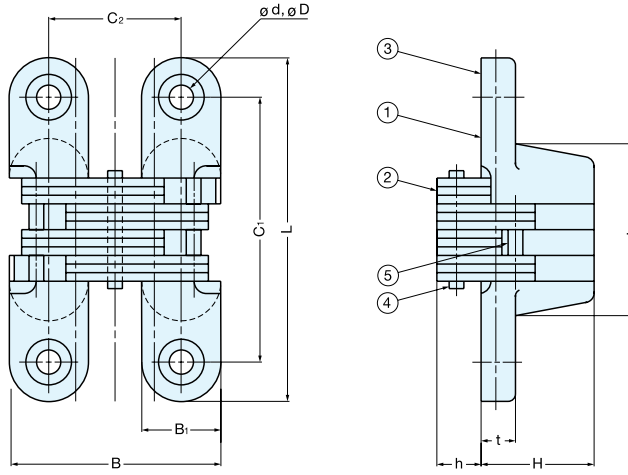
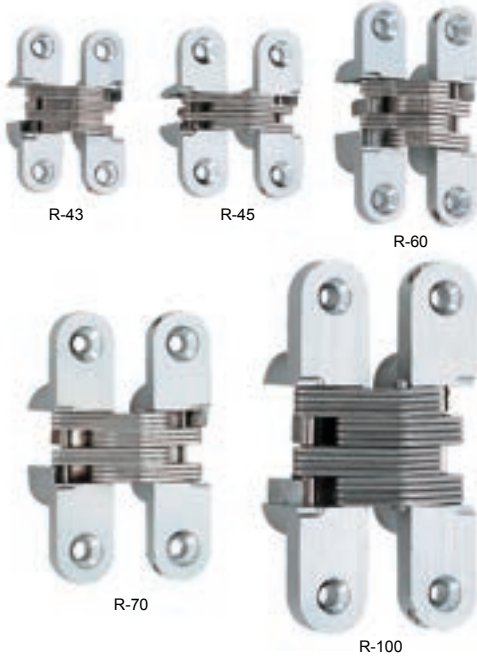


R SERIES

HINGES

CONCEALED HINGES

• Door size : Max. W450 × H700 × t21 mm
(W17-23/32" × H27-9/16" × t53/64")

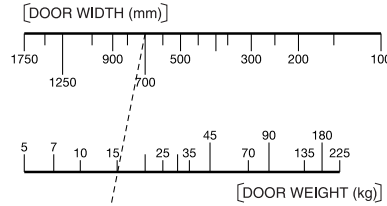


Distance between door edge and hinge must be less than the figures shown in column "X" of the dimension table below.

To determine the number of hinges required for each door:

• Using the chart to the right, locate the correct door width (upper scale) and door weight (lower scale). Draw a line connecting these 2 points to the chart below (point "a"). Then draw a vertical line through the lower chart to find the number and type of hinges required.

• Check door thickness requirements.



Item No.	No. of Hinges (pcs)
R- 43	3
R- 45	3
R- 60	3
R- 70	2
R-100	2

[In case of door width, 700 mm and door weight, 15 kg]

Item No.	Required Number Of Hinges (pcs)				"a"	Min. Door Thickness
R-43	2	3	4			13 mm
R-45	2	3	4			19 mm
R-60	2	3	4			19 mm
R-70	2	3	4			25 mm
R-100	2	3	4			29 mm

No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Satin Chrome
②	Link Arm	304 Stainless Steel	Plain
③	Pin A	R-43~70: 304 Stainless Steel	
		R-100: Steel	
④	Pin B	R-70: 303 Stainless Steel	
		R-43-60, 100: Stainless Steel	
⑤	Pin C	R-43~60: 304 Stainless Steel	
		R-70: 303 Stainless Steel	
		R-100: Steel	
*	Roller	R-100: Steel	Nickel

Item No.	L	L ₁	B	B ₁	C ₁	C ₂	H	h	t	D	d	C	X	Arm (qty)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
R-43	43 (1-11/16")	22	29.0 (1-9/64")	11.0	32	18.0	13.0	(5.0)	5.0	6.2	3.5	0.8	2.3	12	37	30	300	3.1 × 16
R-45	45 (1-25/32")	19	35.7 (1-13/32")	13.0	32	22.7	18.5	(6.0)	5.0	7.0	3.5	0.8	3.0	8	56	20	200	3.1 × 20
R-60	60 (2-23/64")	33	35.2 (1-25/64")	13.0	47	22.2	18.5	(6.5)	6.5	8.3	4.3	1.0	3.0	12	94	10	100	3.5 × 20
R-70	70 (2-3/4")	35	42.6 (1-43/64")	16.1	53	26.6	23.0	(9.0)	7.0	9.1	4.6	1.2	3.5	12	157	10	100	4.0 × 25
R-100	100 (3-15/16")	52	53.2 (2-3/32")	20.0	80	33.2	27.5	(9.5)	9.5	10.0	5.3	1.8	4.8	16	342	10	60	4.5 × 32



LID SUPPORTS

SOFT-DOWN STAYS

VERTICAL SWING LIFT-UP MECHANISM

HORIZONTAL BI-FOLD DOOR MECHANISM

SOFT CLOSING SYSTEM

LID STAYS

SPRING LOADED LID STAYS

MULTI ANGLE LID STAYS

DOOR HOLDERS

LAPCON/SOFT CLOSING STAYS

Picture	Item No.	Torque (in-lbs) or Door weight (lbs)	Page
	ARN-2 Top Opening	35.4~70.8	117.1
	ARN-3 Upward Opening	35.4~70.8	117.2
	SDS-C100	30~43 (in-lbs) / pc	319
	SDS-C301N	35~60 (in-lbs) / pc	320~321
	SDS-50G	-	321
	SDS-100-TV/TVZ	4.3~32.6 (in-lbs) / pc	322
	UDD	4.4~26.6 (in-lbs) / pair	323
	UDD-BKT	-	323
	CSD-10-TV	8.8~35.4 (in-lbs) / pc	324
	NSDX-10	19~60 (in-lbs) / pc	327
	NSDX-20	19~60 (in-lbs) / pc	328
	NSDX-35	19~60 (in-lbs) / pc	329
	NSDX-10(R/L)K/TV	8.7~17.4 (in-lbs) / pc	330
	HDS-10	121~260 (in-lbs) / pair	332
	HDS-10S	52~156 (in-lbs) / pair	333
	HDS-20	121~260 (in-lbs) / pair	334
	HDS-20S	61~130 (in-lbs) / pair	335
	HDS-30	121~260 (in-lbs) / pair	336
	HDSN-30	122~260 (in-lbs) / pair	337

Picture	Item No.	Torque (in-lbs) or Door weight (lbs)	Page
	SLS-ELAN	48~87 (in-lbs) / pc	339
	EZS-ELAN	Door Weight 11~27.5 lbs	340~341
	SLU-ELAN	Door Weight 11~24.2 lbs	342~343
	FFCB-HG-1	-	344
	FFCB-SLS	-	344
	FFCB-SLU	-	345
	FFCB-SD-1	-	345
	SLUN	Door Weight 6.2~12.8 lbs	346~347
	SLD	Door Weight 6.6~13.2 lbs	348~349
	HBFN-SZ	-	350
	HBFN	Door Weight 5.5~12.1 lbs	351
	OV-EZ	Door Weight 5.5~25.2 lbs	352~353
	OVN	Door Weight 6.6~15.4 lbs	354~355
	OV	Door Weight 6.6~11 lbs	356~357
	IF	Door Weight 3.3~14.3 lbs	358~359

LID STAYS

Picture	Item No.	Torque (in-lbs) or Door weight (lbs)	Page
	F-100, 150, 200, 250	-	360
	F-300	-	360
	S-6, S-16	-	361
	S-20	-	361
	S-21	-	362

LID STAYS

Picture	Item No.	Torque (in-lbs) or Door weight (lbs)	Page
	S-23		362
	S-24, S-25, S-27		362
	S-100T30	26.5 (in-lbs) / pc	363
	S-52T15	13.3 (in-lbs) / pc	363
	S-91, 92, 93	66~88 lbs	364
	HS	22~28.5 lbs	364
	L-100S	13.2 lbs	365
	L-140S	13.2 lbs	365
	L-S-BT	365	365
	L-SL140	33 lbs	366
	L-SL140-BT		366
	L-FS140	13.2 lbs	367
	L-FS140-BT		367
	L-200P	33 lbs	368
	L-200P-BT		368
	LK	5.5~9.4 lbs	369
	LB-215, 290	33 lbs / pc	369
	L	33 lbs / pc	370
	LB	44~66 lbs / pc	370
	LB-CV215A	33 lbs / pc	371
	LB-S	214~293 lbs / pc	372
	LBTS	154 lbs / pc	372
	L-FS350A	55 lbs / pc	373

Picture	Item No.	Torque (in-lbs) or Door weight (lbs)	Page
	U-3005	44 lbs / pc	373
	U-3031	15 lbs / pc	374
	LSP	66 lbs / pc	374

SPRING LOADED LID STAYS

Picture	Item No.	Torque (in-lbs)	Page
	S-YT	26~34 (in-lbs) / pc	375
	S-ATJ	78~104 (in-lbs) / pc	376
	S-ATJD	78~104 (in-lbs) / pc	376
	SATD		376.1
	S-ATJS	78~104 (in-lbs) / pc	376.1
	S-AT01, S-AT02	78~104 (in-lbs) / pc	376.2
	S-AT01S, S-AT02S	78~104 (in-lbs) / pc	376.2

DOOR CLOSERS / DOOR HOLDERS

Picture	Item No.	Torque (in-lbs), Load (lbs), or Door Weight (lbs)	Page
	YMC	0.66~1.54 lbs	377
	LAD-ST	70.1~141.9 (in-lbs) / pc	378
	LAD-DP		379
	LAD-BKT		379
	LADH	Torque: 221~442 lbs	379.1
	YFN	Tensile: Max. 198~330 lbs Compression: Max 110~132 lbs	380
	YFNS, YFNS-300W	Tensile: Max. 198~330 lbs Compression: Max 110~132 lbs	380.1
	YA-0812, 1216		381
	YA-2020, 2020W	Tensile: Max. 330 lbs Compression: Max 132 lbs	382



= Soft & Smooth Movement

Lapcon series products provide the smoothest opening and closing system imaginable, equipped with Sugatsune's built-in patented dampening device. As a Lapcon opens and closes, it moves with quiet assurance. Lapcon products also provide safety to your application with its revolutionary damper. Doors and lids will come down slowly and softly which eliminates slamming doors or smashed fingers.

LID SUPPORTS



Downward-Opening Lids

Secretary Desks * Keyboard Trays * Media Cabinets

With catch in closed position:

- SDS-C100, SDS-C100TV
- NSDX-10, NSDX-10TV
- HDS-10

Without catch in closed position:

- SDS-100, SDS-100TV

Use with:

- SDH Drop Hinges (P.238, sold separately)
- ML Touch Latches (P.118~119, sold separately)



Upward-Opening Lids

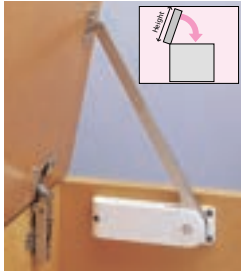
Upper Kitchen & Bath Cabinets * Display Boxes

With catch in open position:

- SDS-C301
- NSDX-35
- HDS-30
- HDSN-30
- SLS-ELAN

Use with:

- 230 Concealed Hinges (P.298~303, sold separately)



Top-Opening Lids

Toy Boxes & Chests * Display Cases * Access Panels

With catch in open position:

- SDS-210, SDS-C301
- NSDX-20
- HDS-20

Use with:

- 230 Concealed Hinges (P.298~303, sold separately)
- LSD Piano Hinges (P.224, sold separately)

Torque Rating

$$\text{Door Weight} \times \text{Door Height} \div 2 = \text{Applied Torque}$$

Approximate lid weight can be calculated as follows

1. Calculate area of lid:
e.g) 28" × 12" = 336 sq. in.
2. Convert to square ft. if needed:
e.g) 336 sq. in. divide by 144 = 2.33 sq. ft
3. Select density factor from table on the left:
e.g) 3.5 lbs./sq. ft for 3/4" thick door (MDF)
4. Determine door weight:
e.g) 2.33 sq. ft × 3.5 lbs./sq. ft = **8.16 lbs.**

Material, 3/4" (19 mm) thick	Density (lbs./sq.ft)
Particle board	3.0
MDF (Medium Density Fiberboard)	3.5
Plywood (Lumbercore)	2.5
Solid Wood (Oak, Beech, Ash, Birch, Elm, Maple)	2.7
Solid Wood (Red Pine, Red Cedar)	1.9

Above values are approximate. Please weigh lid for exact weight.

Door Weight Range Table (Per pair, in lbs.)

Door Height (inches)	SDS-C100TV		SDS-C100TVZ		SDS-C100		SDS-C301N		NSDX-TV		NSDX	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
6	2.9	6.9	9.5	21.7	-	-	-	-	5.8	11.6	-	-
7	2.5	5.9	8.2	18.6	-	-	-	-	5.0	9.9	-	-
8	2.2	5.2	7.2	16.3	15.0	21.5	17.5	30.0	4.4	8.7	9.5	30.0
9	1.9	4.6	6.4	14.5	13.3	19.1	15.6	26.7	3.9	7.7	8.4	26.7
10	1.7	4.2	5.7	13.0	12.0	17.2	14.0	24.0	3.5	6.9	7.6	24.0
11	1.6	3.8	5.2	11.9	10.9	15.6	12.7	21.8	3.2	6.3	6.9	21.8
12	1.5	3.5	4.8	10.9	10.0	14.3	11.7	20.0	2.9	5.8	6.3	20.0
13	-	-	-	-	9.2	13.2	10.8	18.5	-	-	5.8	18.5
14	-	-	-	-	8.6	12.3	10.0	17.1	-	-	5.4	17.1
15	-	-	-	-	8.0	11.5	9.3	16.0	-	-	5.1	16.0
16	-	-	-	-	7.5	10.8	8.8	15.0	-	-	4.8	15.0
17	-	-	-	-	7.1	10.1	8.2	14.1	-	-	4.5	14.1
18	-	-	-	-	6.7	9.6	7.8	13.3	-	-	4.2	13.3
19	-	-	-	-	6.3	9.1	7.4	12.6	-	-	4.0	12.6
20	-	-	-	-	6.0	8.6	7.0	12.0	-	-	3.8	12.0
21	-	-	-	-	5.7	8.2	6.7	11.4	-	-	3.6	11.4
22	-	-	-	-	5.5	7.8	6.4	10.9	-	-	3.5	10.9
23	-	-	-	-	5.2	7.5	6.1	10.4	-	-	3.3	10.4
24	-	-	-	-	5.0	7.2	5.8	10.0	-	-	3.2	10.0
25	-	-	-	-	4.8	6.9	5.6	9.6	-	-	3.0	9.6
26	-	-	-	-	4.6	6.6	5.4	9.2	-	-	2.9	9.2

LAPCON

Door Weight Range Table (Per pair, in lbs.)

Door Height (inches)	HDS-K		HDS-M		HDS-H		HDSN-K		HDSN-M		HDSN-H		HDSN-S	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
8	30.3	43.3	43.3	54.0	54.0	65.0	30.5	38.8	39.0	47.5	47.8	56.3	56.5	65.0
9	26.9	38.4	38.4	48.0	48.0	57.8	27.1	34.4	34.7	42.2	42.4	50.0	50.2	57.8
10	24.2	34.6	34.6	43.2	43.2	52.0	24.4	31.0	31.2	38.0	38.2	45.0	45.2	52.0
11	22.0	31.5	31.5	39.3	39.3	47.3	22.2	28.2	28.4	34.5	34.7	40.9	41.1	47.3
12	20.2	28.8	28.8	36.0	36.0	43.3	20.3	25.8	26.0	31.7	31.8	37.5	37.7	43.3
13	18.6	26.6	26.6	33.2	33.2	40.0	18.8	23.8	24.0	29.2	29.4	34.6	34.8	40.0
14	17.3	24.7	24.7	30.9	30.9	37.1	17.4	22.1	22.3	27.1	27.3	32.1	32.3	37.1
15	16.1	23.1	23.1	28.8	28.8	34.7	16.3	20.7	20.8	25.3	25.5	30.0	30.1	34.7
16	15.1	21.6	21.6	27.0	27.0	32.5	15.3	19.4	19.5	23.8	23.9	28.1	28.3	32.5
17	14.2	20.4	20.4	25.4	25.4	30.6	14.4	18.2	18.4	22.4	22.5	26.5	26.6	30.6
18	13.4	19.2	19.2	24.0	24.0	28.9	13.6	17.2	17.3	21.1	21.2	25.0	25.1	28.9
19	12.7	18.2	18.2	22.7	22.7	27.4	12.8	16.3	16.4	20.0	20.1	23.7	23.8	27.4
20	12.1	17.3	17.3	21.6	21.6	26.0	12.2	15.5	15.6	19.0	19.1	22.5	22.6	26.0
21	11.5	16.5	16.5	20.6	20.6	24.8	11.6	14.8	14.9	18.1	18.2	21.4	21.5	24.8
22	11.0	15.7	15.7	19.6	19.6	23.6	11.1	14.1	14.2	17.3	17.4	20.5	20.5	23.6
23	10.5	15.0	15.0	18.8	18.8	22.6	10.6	13.5	13.6	16.5	16.6	19.6	19.7	22.6
24	10.1	14.4	14.4	18.0	18.0	21.7	10.2	12.9	13.0	15.8	15.9	18.8	18.8	21.7
25	9.7	13.8	13.8	17.3	17.3	20.8	9.8	12.4	12.5	15.2	15.3	18.0	18.1	20.8
26	9.3	13.3	13.3	16.6	16.6	20.0	9.4	11.9	12.0	14.6	14.7	17.3	17.4	20.0
27	9.0	12.8	12.8	16.0	16.0	19.3	9.0	11.5	11.6	14.1	14.1	16.7	16.7	19.3
28	8.6	12.4	12.4	15.4	15.4	18.6	8.7	11.1	11.1	13.6	13.6	16.1	16.1	18.6

Door Height (inches)	SLS-ELAN M		SLS-ELAN H		EZS-ELAN LL		EZS-ELAN LM		EZS-ELAN MM		EZS-ELAN MH		EZS-ELAN HH	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
12	16.0	21.7	21.7	29.0	-	-	-	-	-	-	-	-	-	-
13	14.8	20.0	20.0	26.8	-	-	-	-	-	-	-	-	-	-
14	13.7	18.6	18.6	24.9	-	-	-	-	-	-	-	-	-	-
15	12.8	17.3	17.3	23.2	-	-	-	-	-	-	-	-	-	-
16	12.0	16.3	16.3	21.8	-	-	-	-	-	-	-	-	-	-
17	11.3	15.3	15.3	20.5	-	-	-	-	-	-	-	-	-	-
18	10.7	14.4	14.4	19.3	-	-	-	-	-	-	-	-	-	-
19	10.1	13.7	13.7	18.3	-	-	-	-	-	-	-	-	-	-
20	9.6	13.0	13.0	17.4	-	-	-	-	-	-	-	-	-	-
21	9.1	12.4	12.4	16.6	10.0	14.0	13.8	18.3	18.1	22.6	21.6	25.3	25.1	30.8
22	8.7	11.8	11.8	15.8	9.7	13.5	13.3	17.6	17.4	21.7	20.7	24.2	24.1	29.5
23	8.3	11.3	11.3	15.1	9.4	13.0	12.8	16.9	16.7	20.8	19.9	23.3	23.1	28.3
24	8.0	10.8	10.8	14.5	9.1	12.5	12.4	16.3	16.1	20.1	19.2	22.4	22.2	27.2
25	7.7	10.4	10.4	13.9	8.8	12.1	12.0	15.7	15.5	19.3	18.5	21.6	21.4	26.2
26	7.4	10.0	10.0	13.4	8.5	11.7	11.6	15.2	15.0	18.7	17.9	20.9	20.7	25.3
27	7.1	9.6	9.6	12.9	8.3	11.4	11.2	14.7	14.6	18.1	17.3	20.2	20.0	24.4
28	6.9	9.3	9.3	12.4	8.1	11.0	10.9	14.3	14.1	17.5	16.7	19.5	19.4	23.6
29	6.6	9.0	9.0	12.0	7.9	10.7	10.6	13.8	13.7	17.0	16.2	18.9	18.8	22.9
30	6.4	8.7	8.7	11.6	7.7	10.5	10.3	13.5	13.3	16.5	15.8	18.4	18.2	22.2
31	6.2	8.4	8.4	11.2	-	-	-	-	-	-	-	-	-	-
32	6.0	8.1	8.1	10.9	-	-	-	-	-	-	-	-	-	-

*Note: -Door weight range is calculated based on center of gravity point at the middle of door.
 -Door weight range for HDSN is for opening angle 90°.

LIFT-ASSIST LID STAY with soft close (top opening)

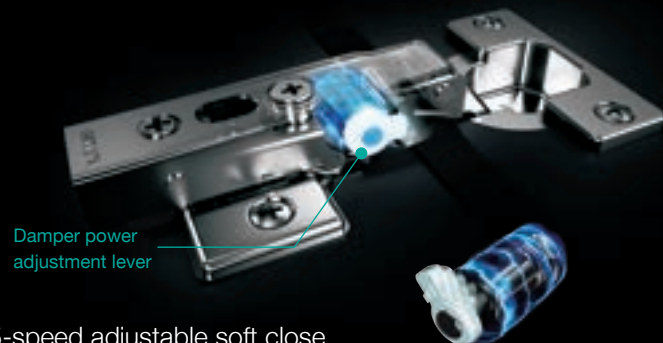
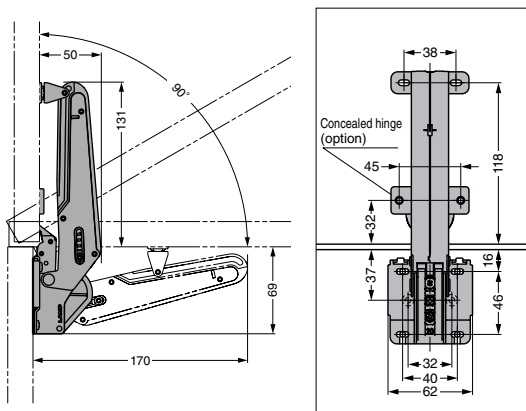
- Smooth door movement. It is specially designed for use with the OLYMPIA concealed hinge (360-D26-19).
- The lift-assist function allows for light opening of doors.
- The free-stop function enables doors to hold in position (30°-Max.).
- The soft-close function makes doors close gently (0°-30° degrees).
- Integrated design combines a concealed hinge and lid stay.
- Closing speed of doors is adjustable.



Components for a single door			
	Aileron	1	
	Mounting plate for Aileron	1	
	Olympia Concealed Hinge	2	
	Mounting plate for Olympia	1	
	Olympia 8		Screws 16
	Aileron 6		
	Aileron 2		

<p>Lift-assist Allows for light opening of doors</p> <p>Light opening</p>	<p>Free stop Enables doors to hold in position (30°-Max.).</p> <p>Holds in position</p>	<p>Soft close Built-in damper makes doors close slowly.</p> <p>Gently closing</p>
--	--	--

THE OLYMPIA HINGE
With 5-level damper function, part of the Aileron soft-opening system.



5-speed adjustable soft close.
The first Sugatsune concealed hinge ever built with Lapcon technology.



Item No.	Torque (kg-cm)	Weight (g)	Box (pcs)	Carton (pcs)
ARN-2-M-S	40.8~61.2 (35.4~53.1 lbs-in)	703	1	10
ARN-2-H-S	61.2~81.6 (53.1~70.8 lbs-in)			

Material	Finish/Color
Steel, Zinc Alloy	Nickel
Plastic	Grey

LIFT-ASSIST LID STAY with soft close (upward opening)



ARN-3

LID SUPPORTS

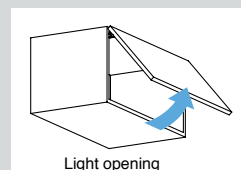
LID STAYS



- Smooth door movement. It is specially designed for use with the OLYMPIA concealed hinge (360-D26-19).
- The lift-assist function allows for light opening of doors.
- The free-stop function enables doors to hold in position (30°-Max.).
- The soft-close function makes doors close gently (0°-30° degrees).
- Integrated design combines a concealed hinge and lid stay.
- Closing speed of doors is adjustable.

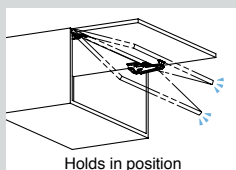
Lift-assist

Allows for light opening of doors



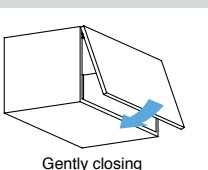
Free stop

Enables doors to hold in position (30°-Max.).



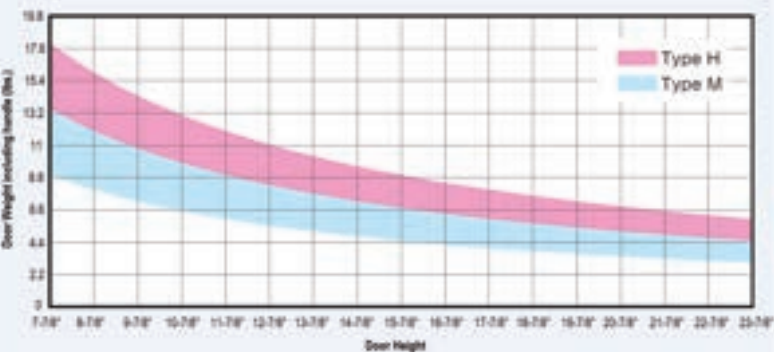
Soft close

Built-in damper makes doors close slowly.



Components for a single door

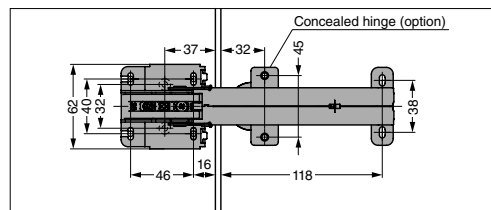
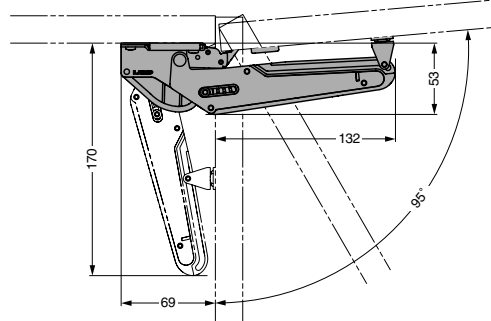
	Aileron	1
	Mounting plate for Aileron	1
	Olympia Concealed Hinge	2
	Mounting plate for Olympia	1
	Screws	16
	Olympia 8	
	Aileron 6	
	Aileron 2	



Refer to the graph above as a guide for model selection. For use with doors outside of the scope of this graph, use the calculation below. Door weight must include all attached accessories.

Torque (lbs • inch) = Door height (inches) × 0.5 × weight (lbs).

Torque Range (lbs-in)	Type	Number of AILERON
35.4~53.1	M	1 pc
53.1~70.8	H	



Item No.	Torque (kg-cm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish/Color
ARN-3-M-S	40.8~61.2 (35.4~53.1 lbs-in)	703	1	10	Steel, Zinc Alloy	Nickel
ARN-3-H-S	61.2~81.6 (53.1~70.8 lbs-in)				Plastic	Grey

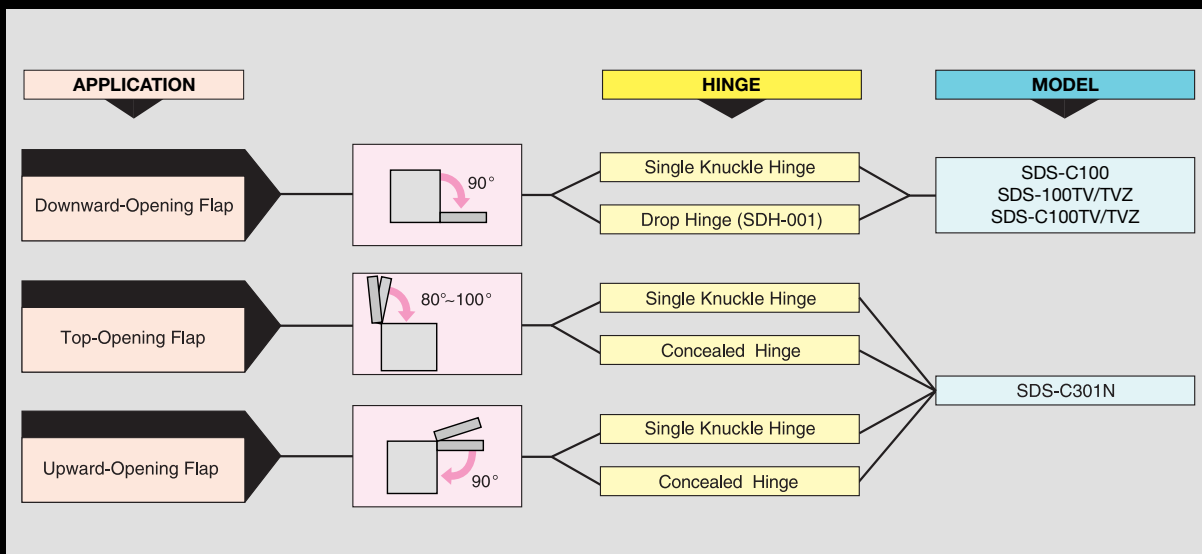
SDS

SOFT-DOWN STAY



- One-way rotary damper offers smooth and soft downward movement.
- Installation is quick and easy.
- Recognized by LGA for 30,000 cycles.
- Compact design.
- Non-handed.

Designed to operate at room temperature 0°~40°C (32°~104°F).



SOFT-DOWN STAY



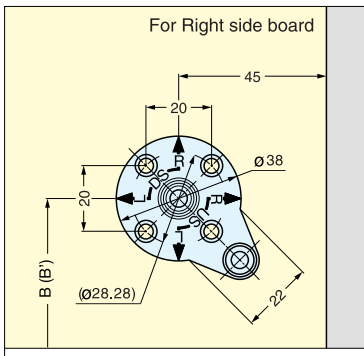
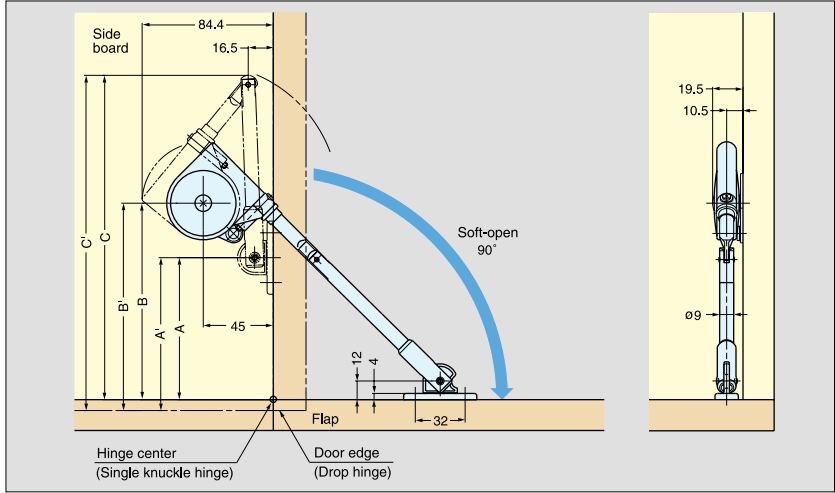
SDS-C100

LID SUPPORTS

SOFT-DOWN STAYS



- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- SDS-C100 (with catch) is designed to hold door in closed position.
- SDS-100 does not have a catch feature. Designed to be used with a magnetic catch or touch latch.
- Non-handed.
- Torque Calculation:
 Torque = Door Height × 1/2 × Door Weight
 Per Piece: 35~50 kg·cm (30~43 lbs·inch)
 Per Pair: 70~100 kg·cm (60~86 lbs·inch)
- Recommended Door Thickness: 20 mm (25/32")
- Short-arm version SDS-100TV (or C100TV) for smaller door height available.



Hinge Type	A	A'	B	B'	C	C'
Single Knuckle Hinge	100 (3-15/16")	-	135 (5-5/16")	-	218 (8-37/64")	-
Drop Hinge*	-	107 (4-7/32")	-	142 (5-19/32")	-	225 (8-55/64")

*Overlay: 16 mm (5/8")

Item No.	Color	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish/Color
SDS-C100/WHT	White	167	20	100	Steel, Zinc Alloy	Nickel
SDS-C100/BLK	Black				Plastic	Black, White

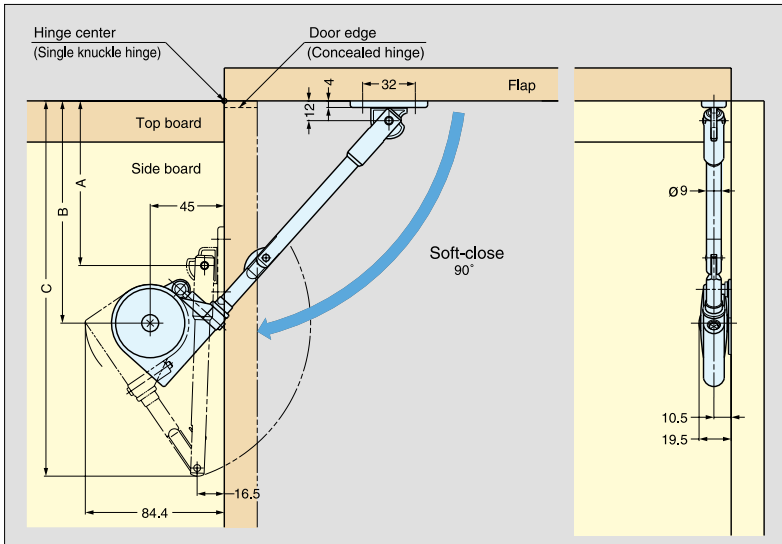
SOFT-DOWN STAY



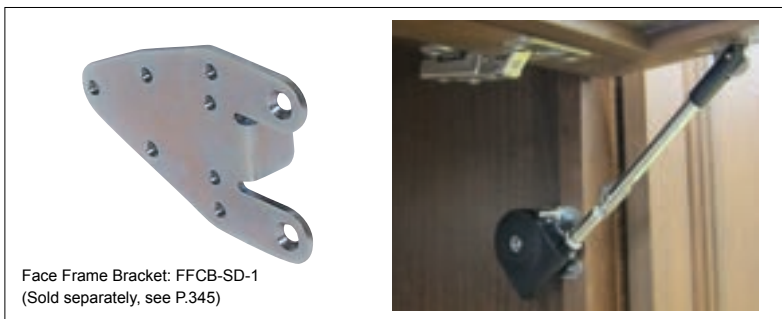
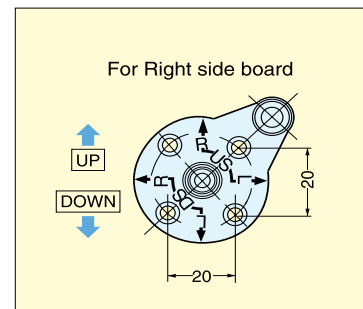
SDS-C301N



- For UPWARD-OPENING FLAP DOOR used with concealed, piano or butt hinges.
- SDS-C301N is designed to hold door in closed and opened position.
- Non-handed.
- Torque Calculation:
Torque = Door Height × 1/2 × Door Weight
Per Piece: 40~70 kg·cm (35~60 lbs·inch)
Per Pair: 80~140 kg·cm (70~120 lbs·inch)
- Recommended Door Thickness : 20 mm (25/32")



Mounting Plate SDS-A (Included)



Hinge Type	Coverage	A	B	C
Concealed Hinge	Full overlay (3/4")	108 (4-1/4")	143 (5-5/8")	232 (9-9/64")
Single Knuckle Hinge	Overlay	100 (3-15/16")	135 (5-5/16")	223 (8-25/32")
	Inset	97 (3-13/16")	132 (5-13/64")	220 (8-21/32")

Item No.	Color	Weight (g)	Box (pcs)	Carton (pcs)
SDS-C301N/WHT	White	165	20	100
SDS-C301N/BLK	Black			

Material	Finish/Color
Steel, Zinc Alloy	Nickel
Plastic	Black, White

SOFT-DOWN STAY

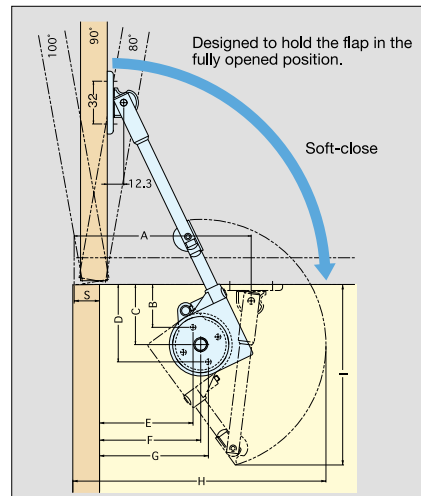


SDS-C301N

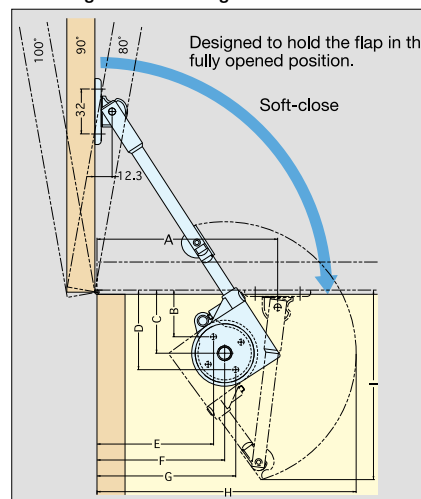


- For TOP-OPENING FLAP DOOR used with concealed, piano or butt hinges.
- Designed to hold door in fully opened position.
- Non-handed.
- Available in black or white.

With Concealed Hinge



With Single Knuckle Hinge



Concealed Hinge

Opening angle	A	B	C	D	E	F	G	H	S=Overlay Coverage	
									I	
80°	141.0	31.9	45	58.1	98.2-S	103.5-S	108.8-S	197.5	134.8	
90°	132.5	32.3		57.7	88.7-S	95.0-S	101.3-S	189.0		
100°	126.5	32.9		57.1	81.2-S	88.5-S	95.8-S	182.5		

Single Knuckle Hinge/Overlay Type

Opening angle	A	B	C	D	E	F	G	H	I	
80°	138.5	32.6	45	57.4	94.1	101	107.9	195	134.8	
90°	128.5	33.2		56.8	83.1	91	98.9	185		
100°	121.5	33.9		56.1	75.2	84	92.8	178		

Single Knuckle Hinge/Inset Type

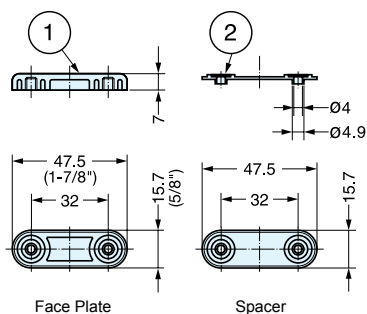
Opening angle	A	B	C	D	E	F	G	H	I	
80°	129.0	31.7	45	58.3	86.7	91.5	96.3	185.5	134.8	
90°	118.5	32.0		58.0	75.3	81.0	86.7	175.0		
100°	111.0	32.5		57.5	67.0	73.5	80.0	167.5		

Material	Finish/Color
Steel, Zinc Alloy	Nickel
Plastic	Black, White

SDS FACE PLATE



SDS-50G



- Cover plate for glass door applications.
- To be used with SDS HDS, or NSDX soft-down stays.
- Screws and spacer included.

No.	Part Name	Material	Finish/Color
①	Face Plate	Zinc Alloy	Chrome (CR)
			Black (BLK)
②	Spacer	ABS	Black

Item No.	Weight (g)	Box	Carton
SDS-50G/BLK	25	100	400
SDS-50G/CR			



SOFT-DOWN STAY (SHORT-ARM)

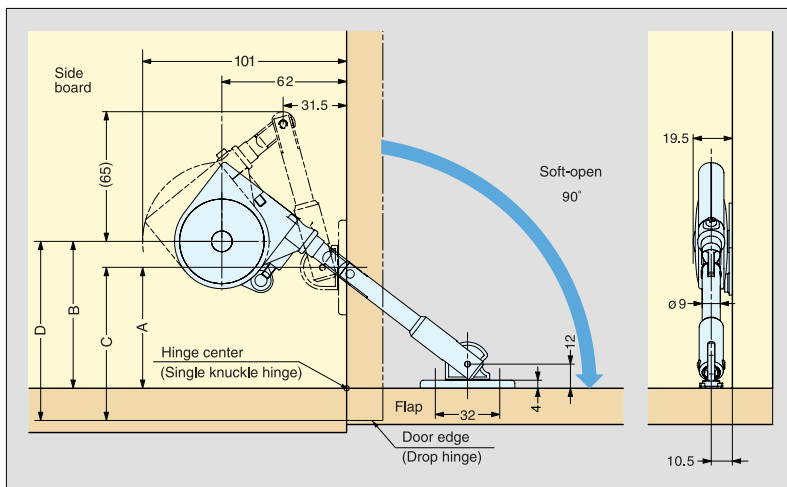
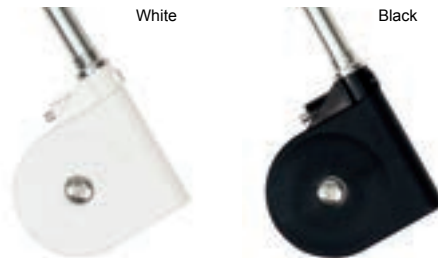
SDS-100-TV/TVZ

LID SUPPORTS

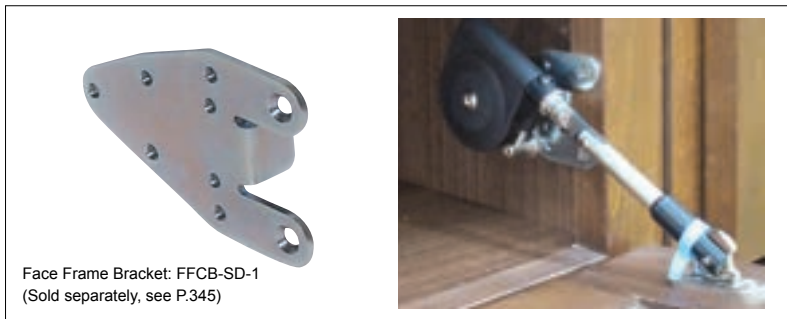
SOFT-DOWN STAYS



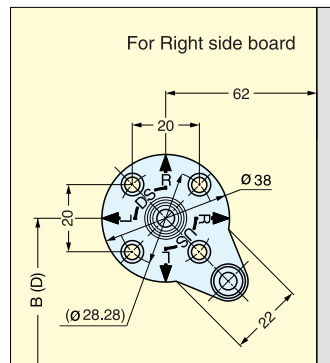
- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- Short arm type designed for short door applications.
- SDS-C100TV has a catch to hold the lid in closed position.
- SDS-100TV does not have catch feature. Designed to be used with magnetic catch or touch latch.
- Non-handed.
- Torque Calculation :
Torque = Door Height × 1/2 × Door Weight



Mounting Plate SDS-A (Included)



Face Frame Bracket: FFCB-SD-1 (Sold separately, see P.345)



Hinge Type	A	B	C	D
Single Knuckle Hinge	60	73	-	-
Drop Hinge	-	-	49+S	62+S

Material	Finish/Color
Steel, Zinc Alloy	Nickel
Plastic	Black, White

S=Overlay Coverage in case of drop hinge

Item No.	Type	Color	Torque per piece	Torque per pair	Box (pcs)	Carton (pcs)
SDS-100W-TV	W/O Catch	White	5 ~12 kgf·cm (4.3~10.4 lbs-in)	10~24 kgf·cm (8.6~20.8 lbs-in)	20	100
SDS-100B-TV		Black				
SDS-C100W-TV	With Catch	White	16.5~37.6 kgf·cm (14.3~32.6 lbs-in)	33~75.2 kgf·cm (28.6~65.2 lbs-in)		
SDS-C100B-TV		Black				
SDS-100W-TVZ	W/O Catch	White	16.5~37.6 kgf·cm (14.3~32.6 lbs-in)	33~75.2 kgf·cm (28.6~65.2 lbs-in)		
SDS-100B-TVZ		Black				
SDS-C100W-TVZ	With Catch	White	16.5~37.6 kgf·cm (14.3~32.6 lbs-in)	33~75.2 kgf·cm (28.6~65.2 lbs-in)		
SDS-C100B-TVZ		Black				

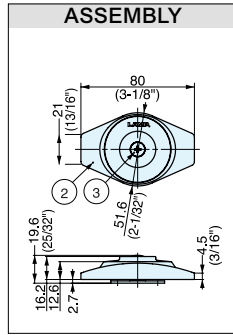
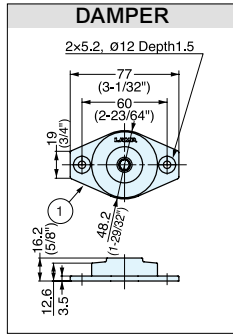
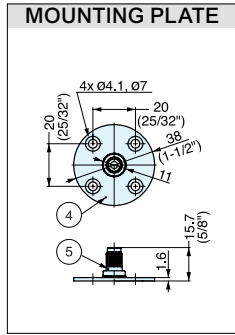
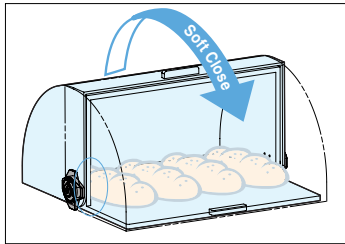
DISK DAMPER



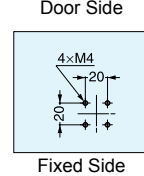
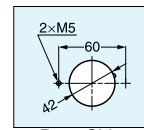
UDD



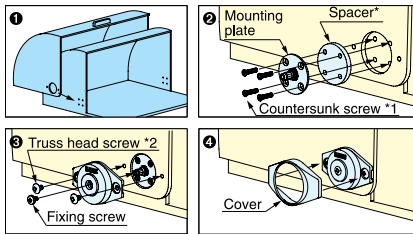
- Disc-shaped damper gently closes lid without slamming shut.
- Narrow profile for unobtrusive installation.
- Suitable for food service environments.
- Successfully passed 30,000 open/close private cycle test.
- Operating temperature: 5-35 °C (41-95°F)
- Spacer and installation screws are not included, and vary with application. Please contact customer service for more information.



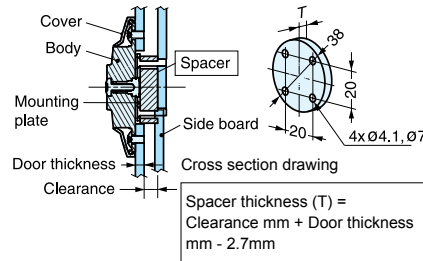
Cut-Out Dimension



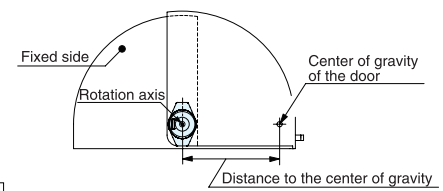
How to Install



Spacer



Damper Selection



*Torque = Distance to the center of gravity x 1/2 x Door weight

*1, *2 screws and Spacer are not included.

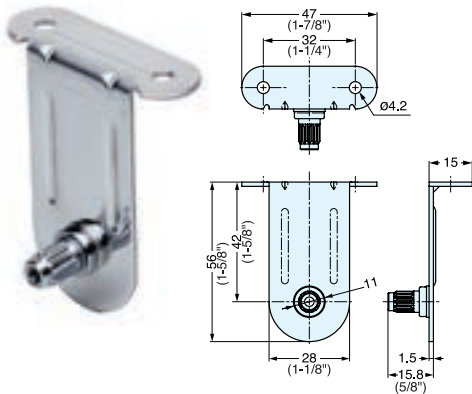
Item No.	Handing	Torque (kgf·cm) (4.4~8.9 lbs·in)	Weight (g)	Box Qty (pcs)
UDD-S-L	Left	5.1~10.2 (4.4~8.9 lbs·in)	90	20
UDD-S-R	Right			
UDD-M-L	Left	10.2~20.4 (8.9~17.7 lbs·in)		
UDD-M-R	Right			
UDD-H-L	Left	20.4~30.6 (17.7~26.6 lbs·in)		
UDD-H-R	Right			

No.	Part Name	Material	Finish
①	Main Body	ABS Plastic	Light Grey
②	Cover		
③	Screws	Steel	Nickel
④	Mounting Plate		Zinc
⑤	Axis		

UDD DISK DAMPER BRACKET

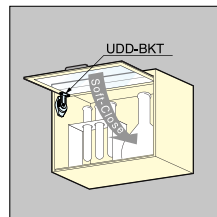


UDD-BKT

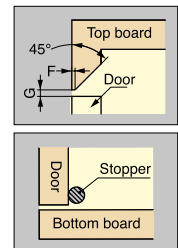
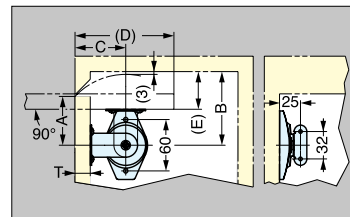


- Bracket for disk damper UDD for upward-opening door.
- Catch is needed for holding door in opened position (not included).
- Use SDS-50G face plate for glass/acrylic door.
- Stop required to prevent over rotation (not included).

Application Example



Cut-Out Dimension



Item No.	Material	Finish	T: Door Thickness	A	B	C	D	E	F	G
UDD-BKT	304 Stainless Steel	Plain	5	46	70	49	95	26	1	3
			15	54	82	57	111	40	2	4
			18	57	86	60	117	44	3	5

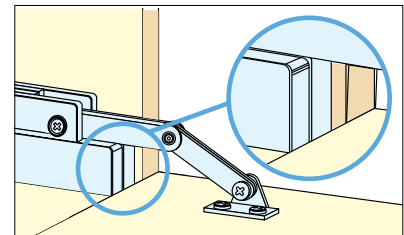
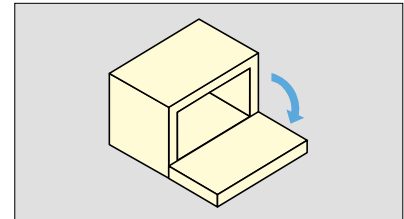
COMPACT SOFT-DOWN STAY

LID SUPPORTS

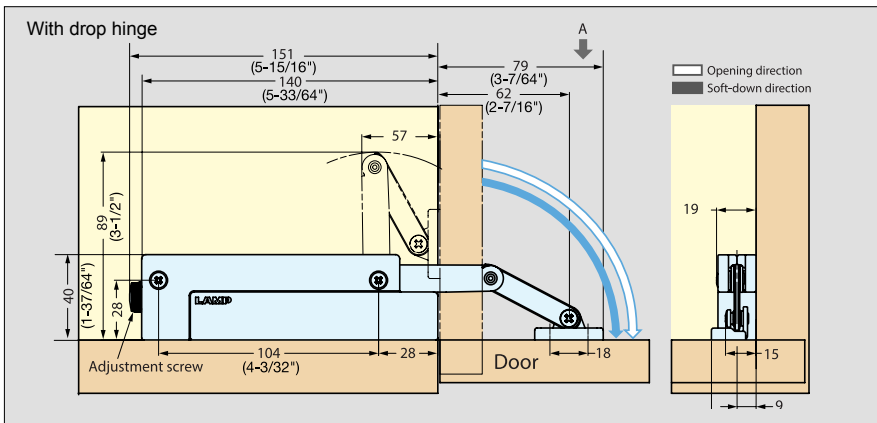
COMPACT SOFT-DOWN STAYS



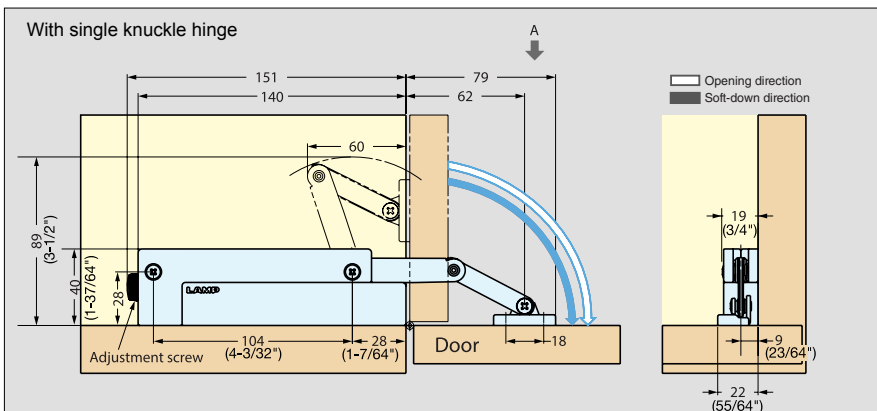
- Soft-down stay for (DOWNWARD-OPENING FLAP DOORS) used with piano, butt, or drop hinge (SDH-001, SDH-P, P.238).
- Easy to install by aligning the body to the edge of a cabinet.
- Designed for smaller cabinet doors in media centers or TV consoles.
- Opening speed adjustable. The adjustment screw located on back for clean appearance.
- Easy to close.
- Holds lid in closed position.
- Torque Calculation:
 $Torque = Door\ Height \times 1/2 \times Door\ Weight$
 L-Type (Light Duty): 10.2~20.4 kg·cm (8.8~17.7 lbs·in)
 M-Type (Medium Duty): 20.4~30.6 kg·cm (17.7~26.6 lbs·in)
 H-Type (Heavy Duty): 30.6~40.8 kg·cm (26.6~35.4 lbs·in)



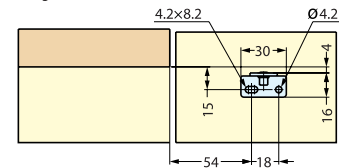
Installation



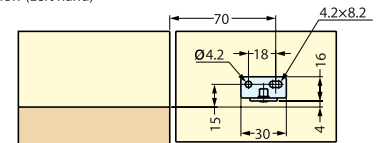
Installation of Mounting Plate



A-view (Right hand)



A-view (Left hand)



Item No.	Type	Torque (kg·cm)	Weight (g)	Box (pcs)	Carton (pcs)
CSD-10-TV-L-WT	Light Duty	10.2~20.4 (8.8~17.7 lbs·in)	125	10	100
CSD-10-TV-L-BL					
CSD-10-TV-M-WT	Medium Duty	20.4~30.6 (17.7~26.6 lbs·in)	130		
CSD-10-TV-M-BL					
CSD-10-TV-H-WT	Heavy Duty	30.6~40.8 (26.6~35.4 lbs·in)	130		
CSD-10-TV-H-BL					

Material	Finish/Color
Steel	Nickel
Plastic	White/Black

Soft-Down Lid Stay

CSD-10TV

Smooth, soft-closing movement for downward opening flap doors. Available for light, medium or heavyweight cabinet doors.

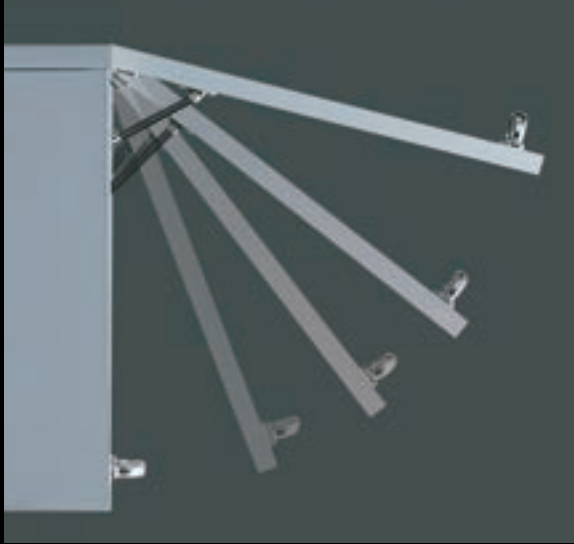


*Used with piano, butt, or drop hinge (P.238).



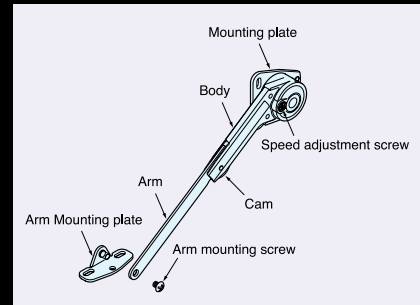
NSDX

ADJUSTABLE SOFT-DOWN STAY



- Keeps flap/lid from slamming down.
- Recognized by LGA for 30,000 cycles.
- Soft-down speed is adjustable.
- Opening angle is adjustable by changing mounting position.
- Handed

Designed to operate at room temperature
0°~40°C (32°~104°F).



APPLICATION	MOUNTING SIDE	MODEL
Downward-Opening Flap 	Right	NSDX-10RK NSDX-10RK/TV
	Left	NSDX-10LK NSDX-10LK/TV
Top-Opening Flap 	Right	NSDX-20RK
	Left	NSDX-20LK
Upward-Opening Flap 	Right	NSDX-35RK
	Left	NSDX-35LK

Arm Mounting Plates

All NSDX series lid stays include the standard model for wooden doors (NSDX-SZ).

Optional models available for aluminum frame doors (NSDX-AZ) and glass doors (NSDX-GZ).

<p>NSDX-SZ (Included)</p> <p>Mounting Plate for wooden door, screw-on type.</p>	<p>NSDX-AZ (Sold separately)</p> <p>Mounting Plate for aluminum frame door, clip-on type.</p>	<p>NSDX-GZ (Sold separately)</p> <p>Mounting Plate for glass door, clip-on type. Face Plate SDS-50G available as option.</p>
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*Clip-on type dose not screw on, simply insert the pin on mounting plate to the Arm when installing.

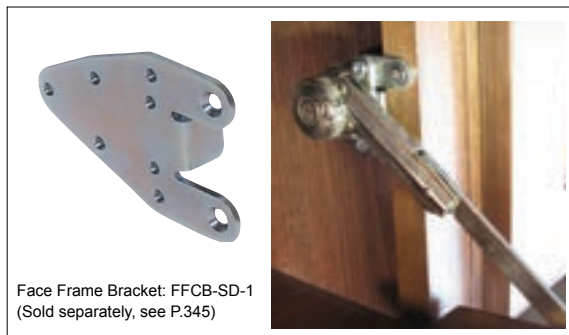
ADJUSTABLE SOFT-DOWN STAY



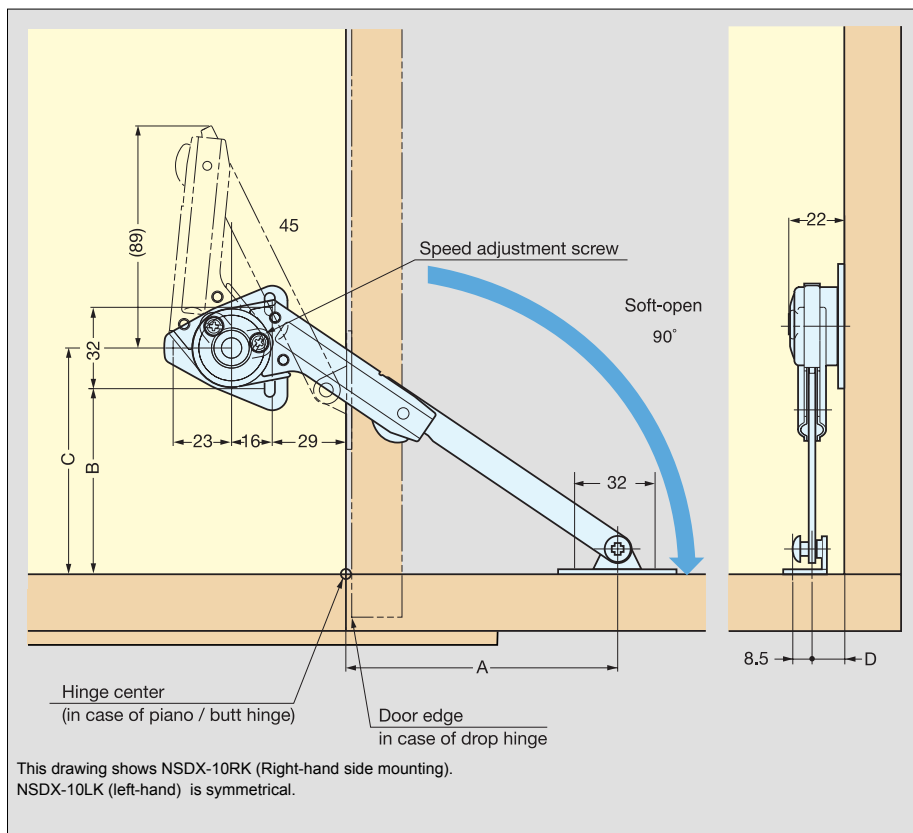
NSDX-10



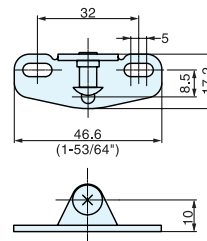
- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop Hinges (SDH-001, SDH-P, P.238).
- NSDX-10 is designed to hold door in closed position.
- Speed adjustment screw located on front for easy adjustment.
- Torque Calculation:
 $\text{Torque} = \text{Door Height} \times 1/2 \times \text{Door Weight}$
 Per Piece: 20~70 kg-cm (19~60 lbs-inch)
 Per Pair: 40~140 kg-cm (38~120 lbs-inch)



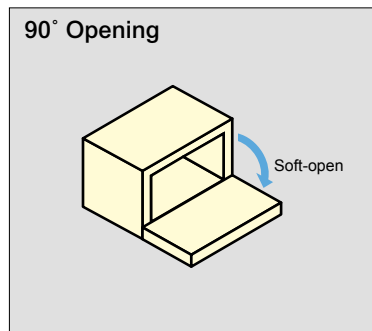
Face Frame Bracket: FFCB-SD-1
(Sold separately, see P.345)



NSDX-SZ
(Included)
Mounting Plate for wooden door, screw-on type.



Arm Mounting Plate



Hinge Type	A	B	C	D
☆ Drop Hinge (SDH-001)	97	91	107	11
Piano/Butt Hinge	90	99	115	

☆ In case overlay 16 mm

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
NSDX-10RK Right	181	20	80
NSDX-10LK Left			

Material	Finish
Zinc Alloy	Nickel
Steel	

ADJUSTABLE SOFT-DOWN STAY



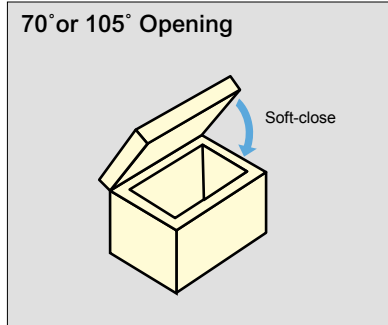
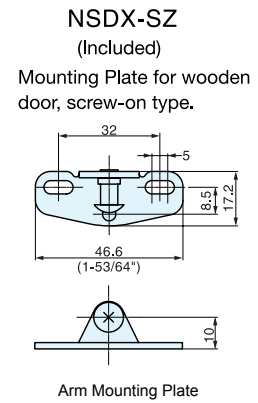
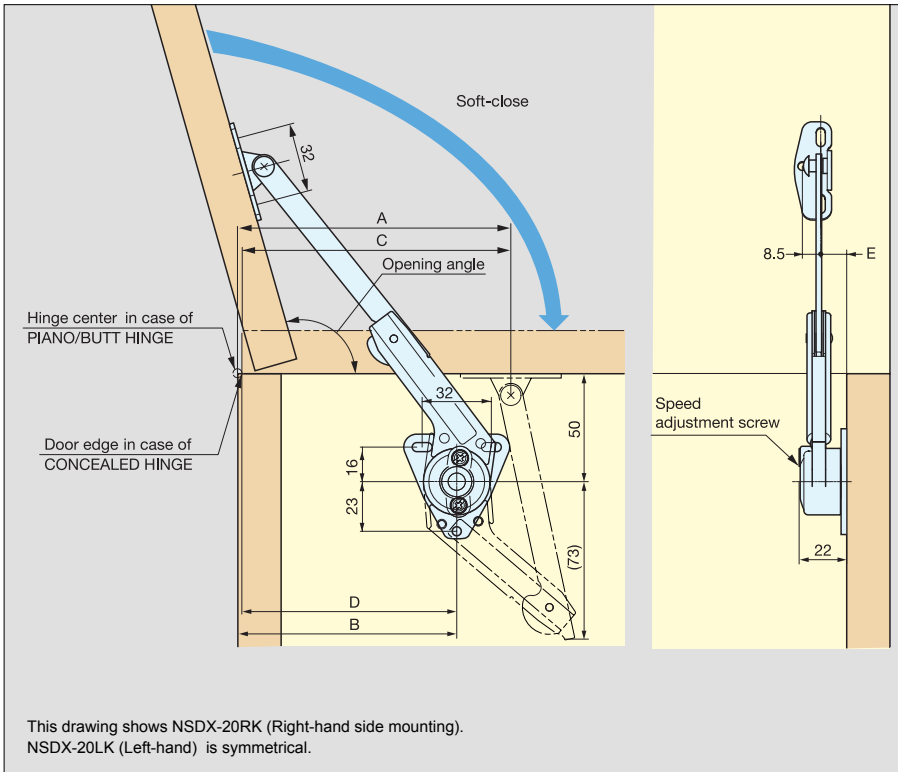
NSDX-20

LID SUPPORTS

ADJUSTABLE SOFT-DOWN STAYS



- For TOP-OPENING FLAP DOOR used with piano, butt or concealed hinges.
- Opening angle 70° or 105°.
- NSDX-20 is designed to hold door in fully opened position.
- Speed adjustment screw located on front for easy adjustment.
- Torque Calculation :
Torque = Door Height × 1/2 × Door Weight
Per Piece : 20~70 kg·cm (19~60 lbs·inch)
Per Pair : 40~140 kg·cm (38~120 lbs·inch)



Material		Finish		
Zinc Alloy		Nickel		
Steel		Nickel		
Item No.	Weight (g)	Box (pcs)	Carton (pcs)	
NSDX-20RK	181	20	80	
NSDX-20LK				

Opening Angle	Hinge Type	A	B	C	D	E
70°	Concealed Hinge	-	-	126	101	11
	Piano/Butt Hinge	125	100	-	-	
105°	Concealed Hinge	-	-	103	78	
	Piano/Butt Hinge	97	72	-	-	

ADJUSTABLE SOFT-DOWN STAY



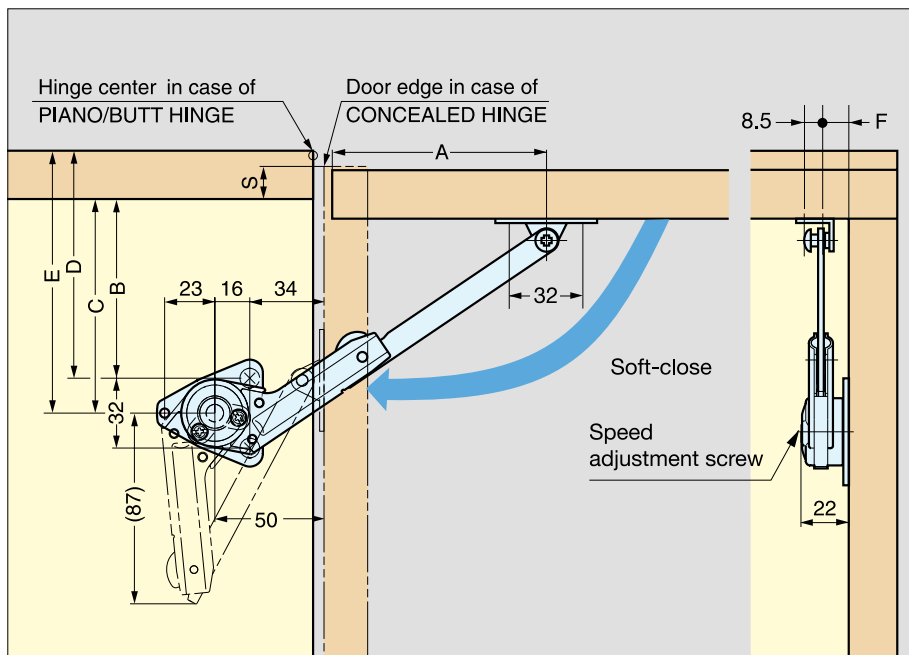
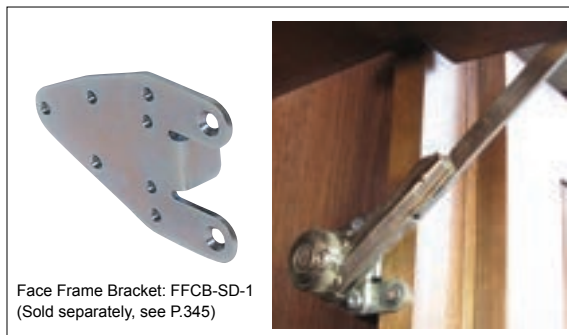
NSDX-35

LID SUPPORTS

ADJUSTABLE SOFT-DOWN STAYS

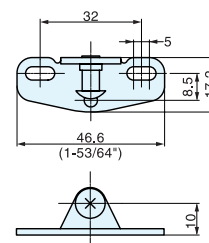


- For UPWARD-OPENING FLAP DOOR used with piano, butt or concealed hinges.
- Opening angle 80°, 90° or 100°.
- NSDX-35 is designed to hold door in fully opened position.
- Speed adjustment screw located on front for easy adjustment.
- Two stop version (holds door at 65° and 90°) is also available.
- Torque Calculation :
Torque = Door Height × 1/2 × Door Weight
Per Piece: 20~70 kg·cm (19~60 lbs·inch)
Per Pair: 40~140 kg·cm (38~120 lbs·inch)



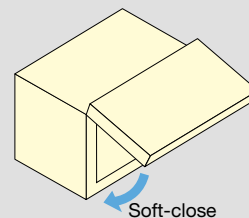
This drawing shows NSDX-35RK (right-hand side mounting).
NSDX-35LK (left-hand) is symmetrical.

NSDX-SZ
(Included)
Mounting Plate for wooden door, screw-on type.



Arm Mounting Plate

80°~100° Opening



Material		Finish		
Zinc Alloy		Nickel		
Steel				
Item No.	Weight (g)	Box (pcs)	Carton (pcs)	
NSDX-35RK	Right	181	20	80
NSDX-35LK	Left			

Note: "S" dimension is the overlay coverage for concealed hinge(s).

Opening Angle	Hinge Type	A	B	C	D	E	F
80°	Concealed Hinge	106.0	105.0-S	121.0-S	-	-	11
	Piano/Butt Hinge	100.0	-	-	99.0	115.0	
90°	Concealed Hinge	98.0	97.0-S	113.0-S	-	-	
	Piano/Butt Hinge	91.5	-	-	90.5	106.5	
100°	Concealed Hinge	92.5	91.5-S	107.5-S	-	-	
	Piano/Butt Hinge	85.0	-	-	84.0	100.0	



ADJUSTABLE SOFT-DOWN STAY (SHORT-ARM)

NSDX-10(R/L)K/TV

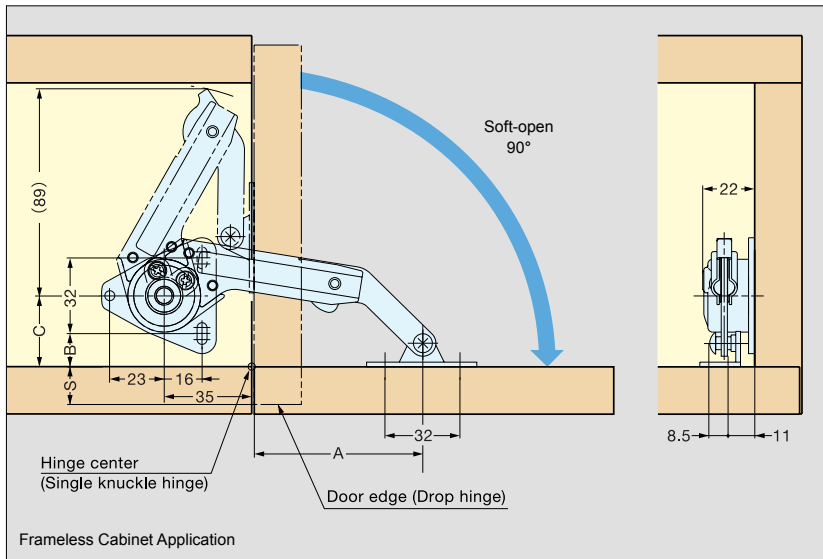
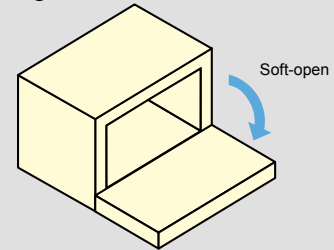
LID SUPPORTS

ADJUSTABLE SOFT-DOWN STAYS



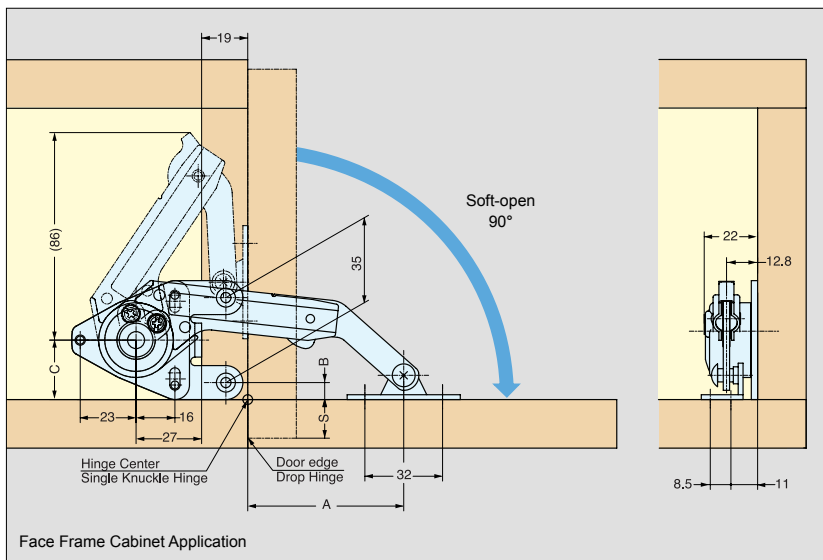
- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- Short arm type designed for small door application.
- Torque Calculation :
Torque = Door Height × 1/2 × Door Weight
Per Piece : 10~20 kgf·cm (8.7~17.4 lbs·in)
Per Pair : 20~40 kgf·cm (17.4~34.7 lbs·in)

90° Opening



Hinge Type	A	B	C
Drop Hinge	58+S (2-9/32"+S)	14 (9/16")	30 (1-3/16")
Single Knuckle Hinge	71 (2-13/16")	27 (1-1/16")	43 (1-11/16")

"S" dimension is the overlay coverage for drop hinge(s).



Face Frame Bracket: FFCB-SD-1
(Sold separately, see P.345)



Hinge Type	A	B	C
Drop Hinge (SDH-001)	48+S (1-7/8"+S)	74 (9/32")	24.5 (31/32")
Single Knuckle Hinge	32 (2-7/16")	20.5 (13/16")	38 (1-1/2")

"S" dimension is the overlay coverage for drop hinge(s).

Item No.	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
NSDX-10RK/TV	Zinc Alloy/Steel	Nickel	143	20	80
NSDX-10LK/TV					

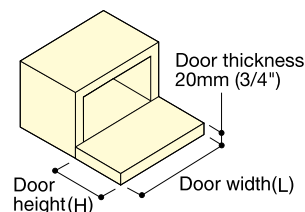
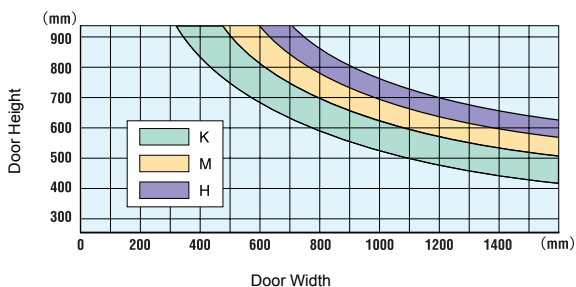
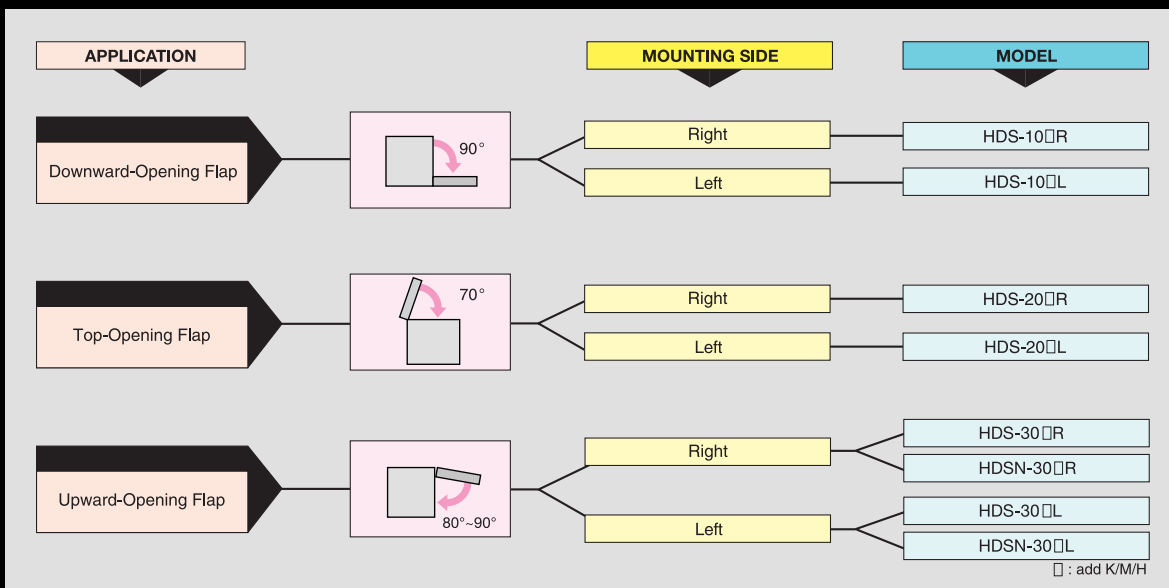
HDS/HDSN



HEAVY DUTY SOFT-DOWN STAY

- Keeps flap/lid from slamming down.
- Recognized by LGA for 90,000 cycles.
- Used in pairs.

Designed to operate at room temperature 5°~35°C (41°~95°F).



For the right type selection, refer to the graph and the illustration.

HEAVY DUTY SOFT-DOWN STAY



HDS-10

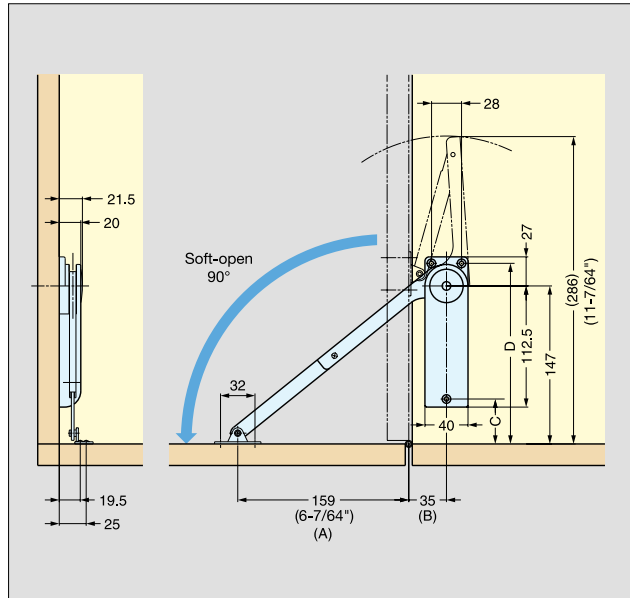
LID SUPPORTS

HEAVY DUTY SOFT-DOWN STAYS

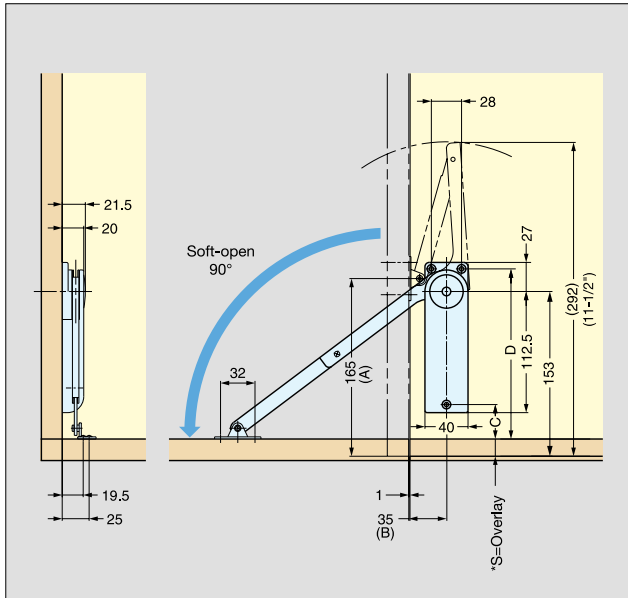


- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- HDS-10 is designed to hold door in closed and opened position.
- Used in pairs
- Torque Calculation:
 $Torque = Door\ Height \times 1/2 \times Door\ Weight$
 K-Type (Light Duty):
 140~200 kg·cm (121~173 lbs·inch)/pair
 M-Type (Medium Duty):
 200~250 kg·cm (173~216 lbs·inch)/pair
 H-Type (Heavy Duty):
 250~300 kg·cm (216~260 lbs·inch)/pair

With Piano/Butt Hinge



With Drop Hinge (SDH-001)



*S=Overlay coverage in case of drop hinge

Item No.		Type	Torque (kg·cm/pair)	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right					
HDS-10KL	HDS-10KR	Light Duty	140~200	290	40	200
HDS-10ML	HDS-10MR	Medium Duty	200~250			
HDS-10HL	HDS-10HR	Heavy Duty	250~300			

Hinge Type	A	B	C	D
Drop Hinge	165	35	48-S	174-S
Piano/Butt Hinge	159		42	168
Material		Finish/Color		
Steel		Nickel		
Plastic		Black, White		

SELF CLOSE STAY

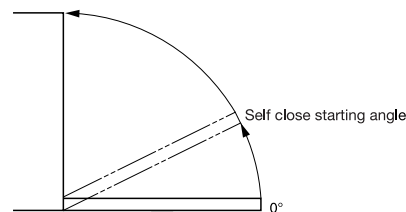


HDS-10S



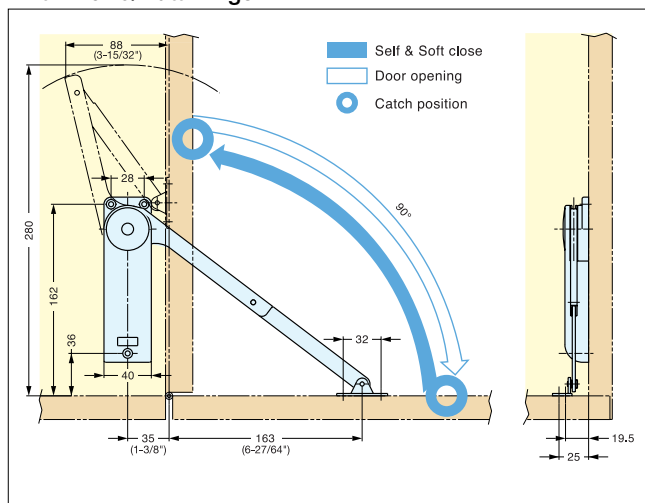
- For DOWNWARD-OPENING FLAP DOOR used with piano, butt or drop hinges (SDH-001, SDH-P, P.238).
- When pushed to close, HDS-10S is designed to self close and soft close
- Used in pairs
- Torque Calculation:
 $\text{Torque} = \text{Door Height} \times 1/2 \times \text{Door Weight}$
 K-Type: 60~95 kgf.cm (52~82 lbs. Inch)/ pair
 M-Type: 95~130 kgf.cm (82~112 lbs. Inch)/ pair
 H-Type: 110~160 kgf.cm (95~138 lbs. Inch)/ pair
 S-Type: 140~180 kgf.cm (121~ 156 lbs. Inch)/ pair

Self close starting angle

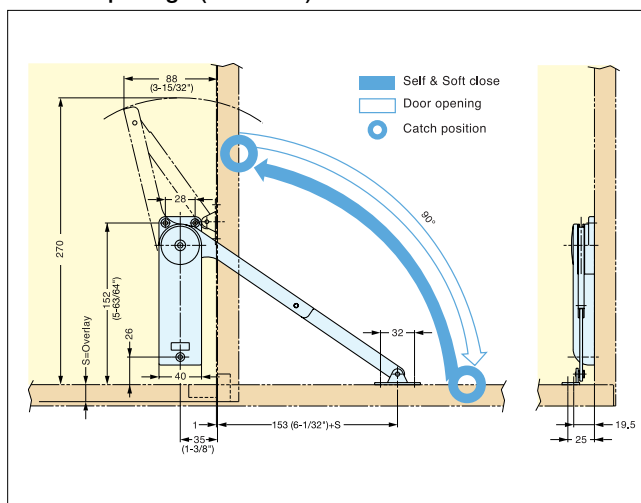


Type	Self close starting angle
K	5°~35°
M	5°~20°
H	
S	5°~15°

With Piano/Butt Hinge



With Drop Hinge (SDH-001)



Item No.		Type	Torque per 2 pieces (kgf·cm)
Left	Right		
HDS-10S-KL	HDS-10S-KR	Light Duty	60~95 (52.2~82.6 lbs·in)
HDS-10S-ML	HDS-10S-MR	Medium Duty	95~130 (82.6~113.0 lbs·in)
HDS-10S-HL	HDS-10S-HR	Heavy Duty	110~160 (95.7~139.0 lbs·in)
HDS-10S-SL	HDS-10S-SR	Super Heavy Duty	140~180 (121.7~156.5 lbs·in)

No.	Part Name	Material	Finish
①	Body	ABS plastic	Black/White
②	Arm	Steel	Nickel
③	Mounting Plate		

HEAVY DUTY SOFT-DOWN STAY



HDS-20

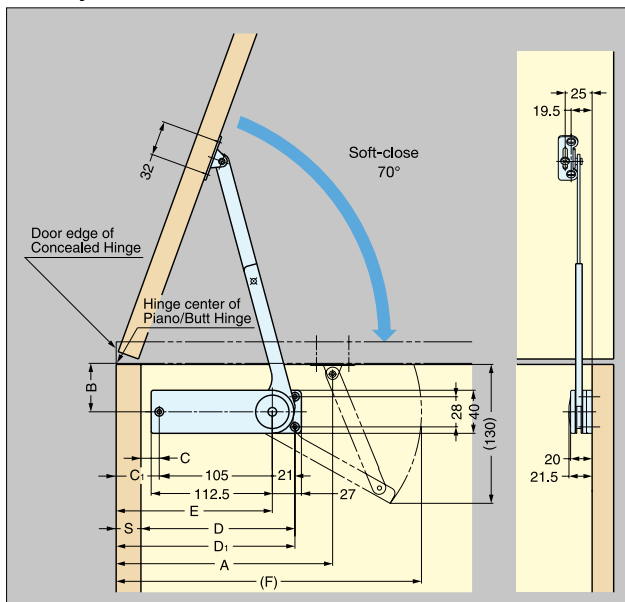
LID SUPPORTS

HEAVY DUTY SOFT-DOWN STAYS

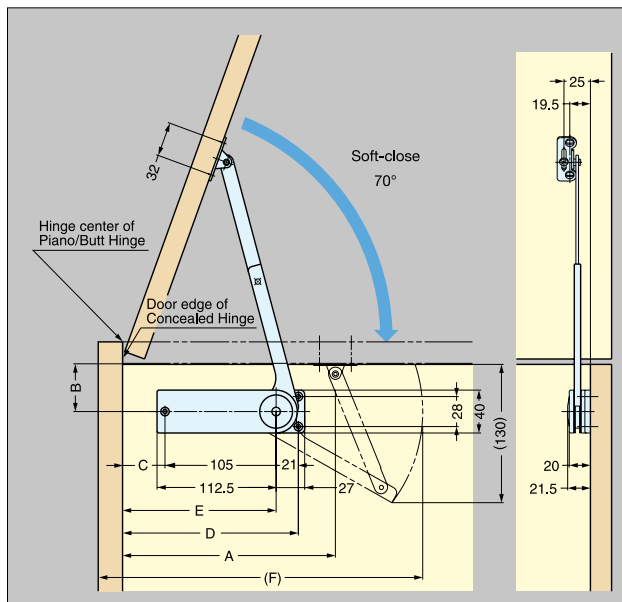


- For TOP-OPENING FLAP DOOR used with piano, butt or concealed hinges.
- Used in pairs.
- HDS-20 is designed to hold door in fully opened position.
- Torque Calculation:
Torque = Door Height × 1/2 × Door Weight
- K-Type (Light Duty):
140~200 kg·cm (121~173 lbs·inch)/pair
- M-Type (Medium Duty):
200~250 kg·cm (173~216 lbs·inch)/pair
- H-Type (Heavy Duty):
250~300 kg·cm (216~260 lbs·inch)/pair

Overlay Use



Inset Use



Overlay Use

Hinge Type	A	B	C	D	C _i	D _i	E	F
Concealed Hinge	198.5	45	42-S	168-S	-	-	145.0	283.5
Piano/Butt Hinge			-	-	41	167	142.5	281.0

S=Overlay coverage in case of concealed hinge (mm)

Inset Use

Hinge Type	A	B	C	D	E	F
Concealed Hinge	203	45	46	172	151	286
Piano/Butt Hinge	190		33	159	138	273

Item No.		Type	Torque (kg·cm/pair)	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right					
HDS-20KL	HDS-20KR	Light Duty	140~200	280	40	200
HDS-20ML	HDS-20MR	Medium Duty	200~250	290		
HDS-20HL	HDS-20HR	Heavy Duty	250~300	300		

Material	Finish/Color
Steel	Nickel
Plastic	Black, White

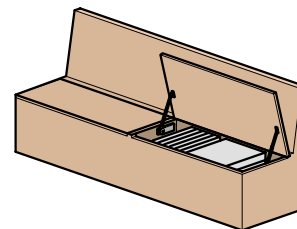
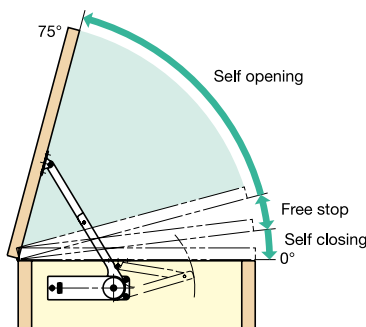
SELF OPENING STAY



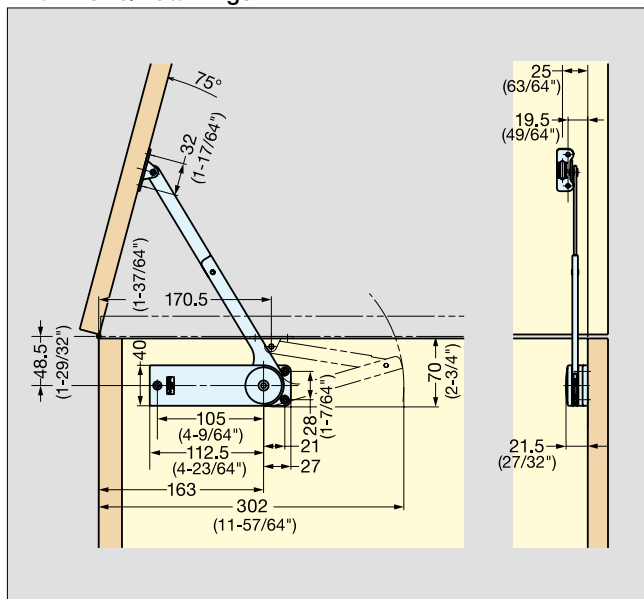
HDS-20S



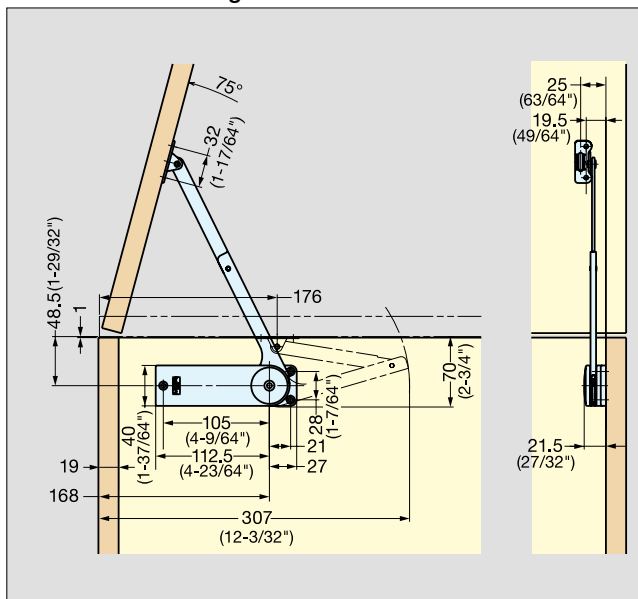
- Lid will self open past the free stop angle.
- For TOP-OPENING FLAP DOOR used with piano, butt or concealed hinges.
- HDS-20S is designed to hold door in fully opened position.
- Used in pairs.
- Torque Calculation:
 Torque = Door Height × 1/2 × Door Weight
 H-Type : 70~110 kg·cm (61~95 lbs-in)/pair
 S-Type : 111~150 kg·cm (96~130 lbs-in)/pair



With Piano/Butt Hinge



With Concealed Hinge



Item No.		Type	Torque (kg·cm/pair)	Weight (g)	Box (pcs)	Carton (pcs)		
Left	Right						Material	Finish/Color
HDS-20S/HL-BL	HDS-20S/HR-BL	H	70~110 kg·cm (61~95.45 lbs-in)	300	40	200	Steel	Nickel
HDS-20S/HL-WT	HDS-20S/HR-WT						Plastic	Black/White
HDS-20S/SL-BL	HDS-20S/SR-BL	S	111~150 kg·cm (96~130 lbs-in)	300	40	200	Steel	Nickel
HDS-20S/SL-WT	HDS-20S/SR-WT						Plastic	Black/White

HEAVY DUTY SOFT-DOWN STAY



HDS-30

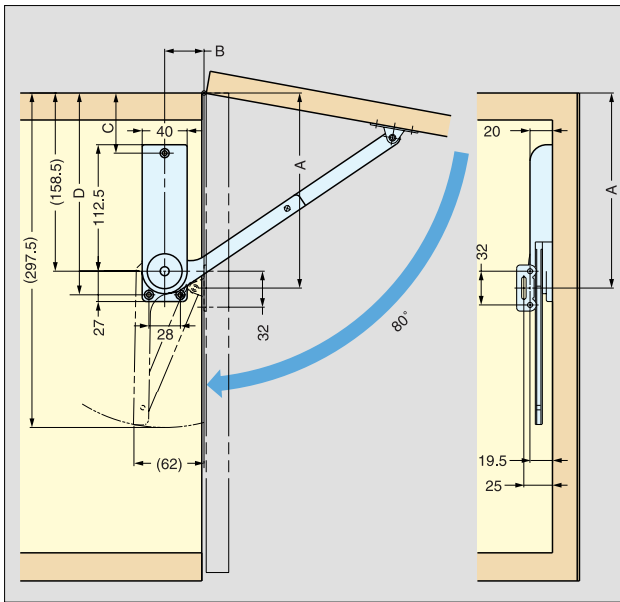
LID SUPPORTS

HEAVY DUTY SOFT-DOWN STAYS

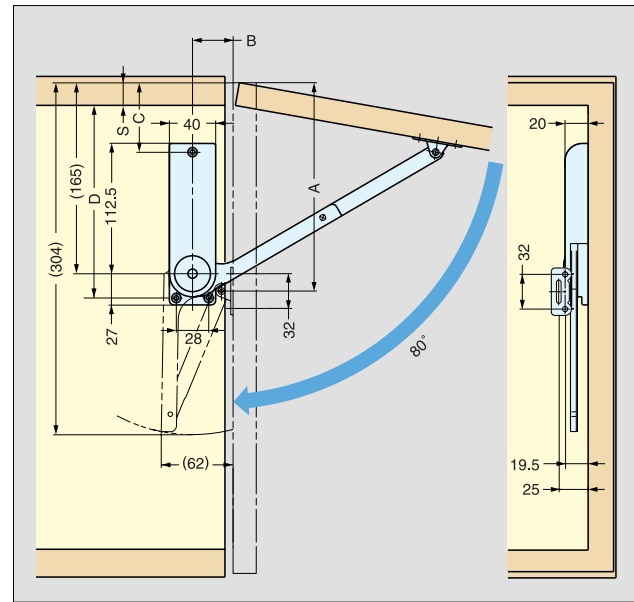


- For UPWARD-OPENING FLAP DOOR used with piano, butt or concealed Hinges.
- Used in pairs.
- HDS-30 is designed to securely latch a flap closed and hold it in the fully opened position.
- Torque Calculation:
Torque = Door Height × 1/2 × Door Weight
- K-Type (Light Duty):
140~200 kg·cm (121~173 lbs·inch)/pair
- M-Type (Medium Duty):
200~250 kg·cm (173~216 lbs·inch)/pair
- H-Type (Heavy Duty):
250~300 kg·cm (216~260 lbs·inch)/pair

With Single Knuckle Hinge



With Concealed Hinge



Overlay Use

Hinge Type	A	B	C	D
Concealed Hinge	180	35	60.0-S	186.0-S
Piano/Butt Hinge	173.5	35	53.5	179.5

S=Overlay coverage by concealed hinge

Item No.		Type	Torque (kg·cm/pair)	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right					
HDS-30KL	HDS-30KR	Light Duty	140~200	270	40	200
HDS-30ML	HDS-30MR	Medium Duty	200~250	290		
HDS-30HL	HDS-30HR	Heavy Duty	250~300	300		

Material	Finish/Color
Steel	Nickel
Plastic	Black, White

HEAVY DUTY SOFT-DOWN STAY



HDSN-30

LID SUPPORTS

HEAVY DUTY SOFT-DOWN STAYS



230-26/19T
230-P4W-32T
(Sold separately)

HDSN-30KR/WHT

- For UPWARD-OPENING FLAP DOOR used with concealed hinges.
- Used in pairs.
- HDSN-30 is designed to hold door in closed and opened position.
- Arm bracket for wood and aluminum frame available. Specify when ordering.
- Torque Calculation:
Torque = Door Height × 1/2 × Door Weight
In case of opening angle 90°
K-Type (Light Duty):
140~179 kg·cm (122~155 lbs·inch)/pair
M-Type (Medium Duty):
180~219 kg·cm (156~190 lbs·inch)/pair
H-Type (Heavy Duty):
220~259 kg·cm (191~225 lbs·inch)/pair
S-Type (Super Heavy Duty):
260~300 kg·cm (226~260 lbs·inch)/pair

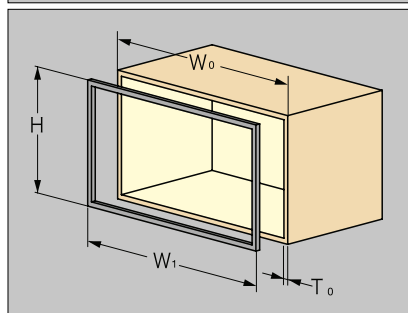
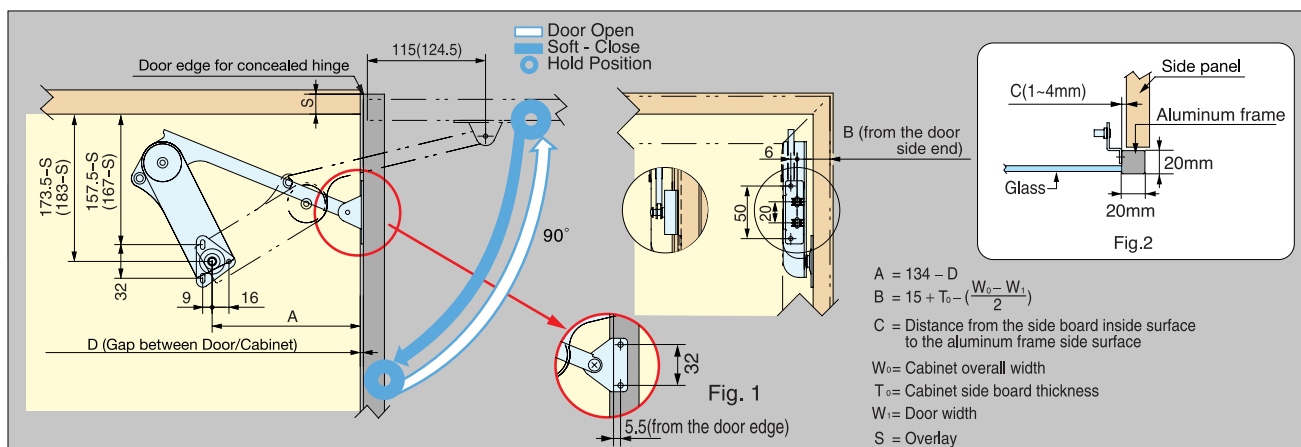
Material	Finish/Color
Steel	Nickel
Plastic	Light Grey

Dimensions are for 90° opening, solid wood or 45 mm width aluminum frame door.

For 80° opening, please use the figures in ().

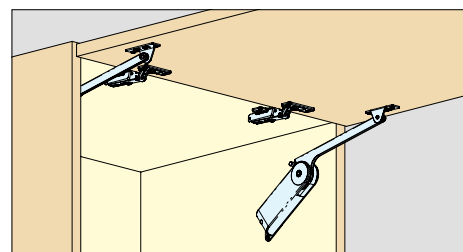
Fig.1 and Fig. 2 show the dimensions for 20 mm width aluminum frame door using mounting plate HDSN-AZ.

Recommended concealed hinge is overlay/105° opening/free swing type.



Calculate the door torque according to the following formula considering the weight and the height of the applicable door.

Door height (cm) × 1/2 × Door weight (kg) = Door torque (kg·cm)



Arm Mounting Plate (Sold separately, please specify when ordering.)

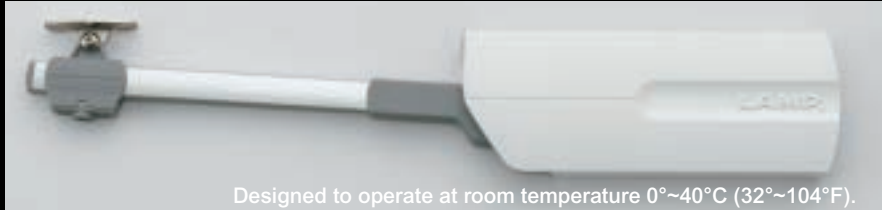
Item No.	Applicable Door
HDSN-SZ	45mm width aluminum frame door or wood door
HDSN-AZ	20mm width aluminum frame door

Item No.		Type	Door torque		Box (pcs)	Carton (pcs)
Left	Right		Opening angle 90°	Opening angle 80°		
HDSN-30KL	HDSN-30KR	K	140~179 kg·cm (122~155 lbs·in)	140~199 kg·cm (122~173 lbs·in)	40	200
HDSN-30ML	HDSN-30MR	M	180~219 kg·cm (156~190 lbs·in)	200~249 kg·cm (174~216 lbs·in)		
HDSN-30HL	HDSN-30HR	H	220~259 kg·cm (191~225 lbs·in)	250~299 kg·cm (217~260 lbs·in)		
HDSN-30SL	HDSN-30SR	S	260~300 kg·cm (226~260 lbs·in)	300~350 kg·cm (261~303 lbs·in)		

SLS-ELAN

EASY LIFT-UP STAY

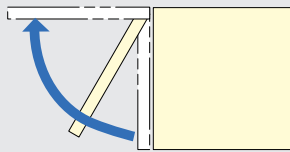
- Lift-assist mechanism for extra light-opening with free stop feature.
- Offers smooth and soft downward movement preventing lids or doors from slamming shut.
- Easy to install by aligning the body to the edge of cabinet.
- Recognized by LGA for 40,000 cycles.



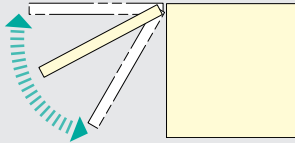
Designed to operate at room temperature 0°~40°C (32°~104°F).

■ 3 functions on 1 stay

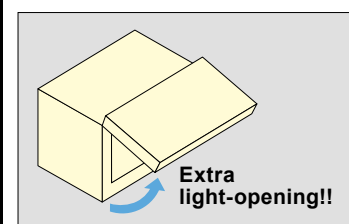
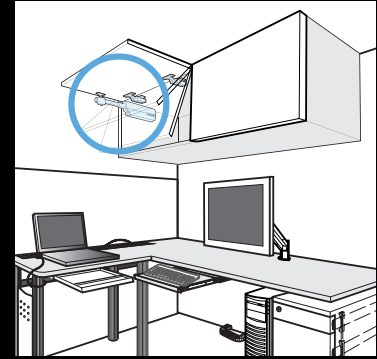
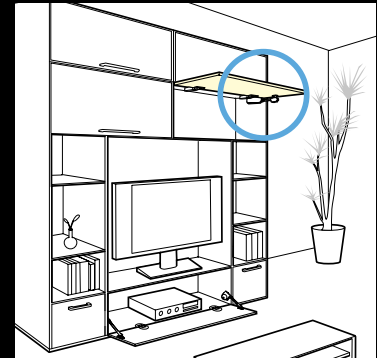
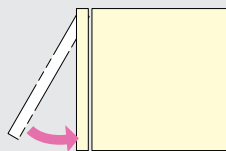
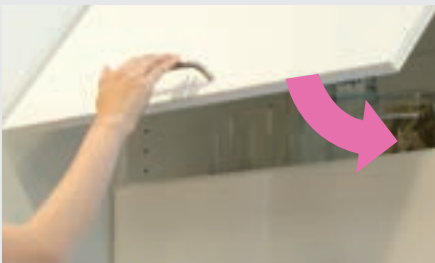
1. Lift-assist



2. Free stop



3. Soft-close



Slim design & installed location maximizes space inside of cabinet

EASY LIFT-UP STAY



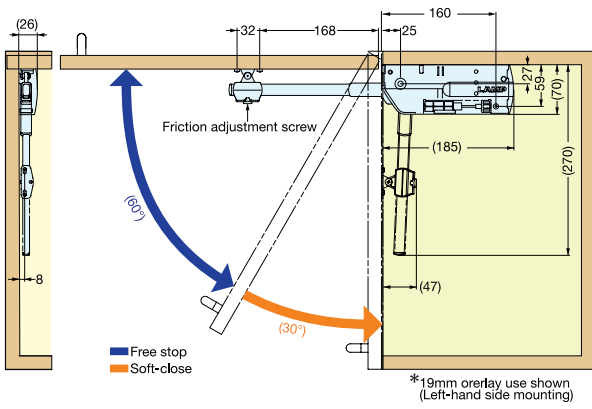
SLS-ELAN

LID SUPPORTS

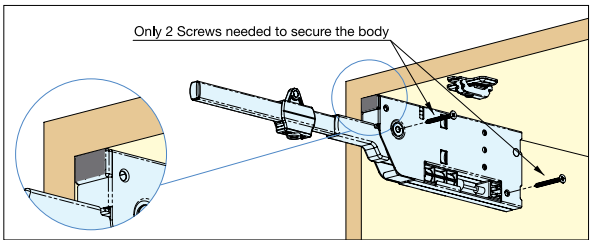
EASY LIFT-UP STAYS



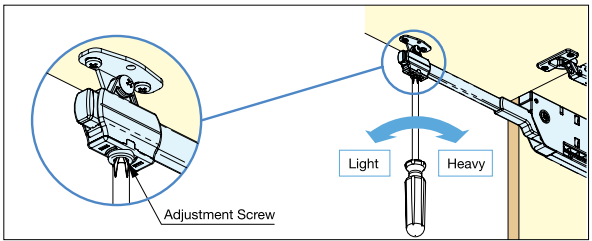
- For UPWARD-OPENING FLAP DOOR used with concealed, piano, butt, or drop hinges.
- Designed to provide effortless opening and hold door in closed and opened position.
- Damper equipped for soft & silent closing.
- Optional bracket for aluminum frame door available.
- Single or pair use allows wide range of door sizes/weights.
- Handed left or right.



Easy Installation



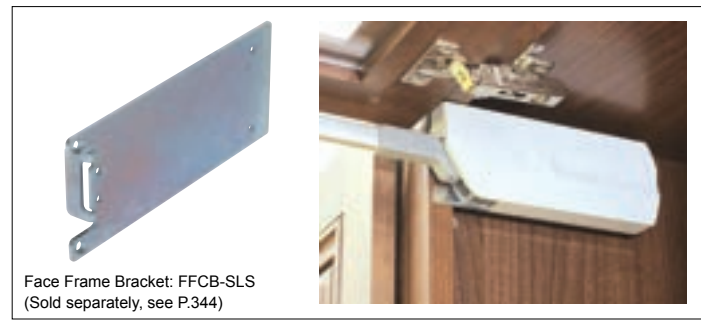
Adjustment



Door Weight Range Table (lbs.)

Door Height (inch)	Single use				Pair use			
	M-type		H-type		M-type		H-type	
	Min	Max	Min	Max	Min	Max	Min	Max
12"	8.0	10.8	10.8	14.5	16.0	21.7	21.7	29.0
13"	7.4	10.0	10.0	13.4	14.8	20.0	20.0	26.8
14"	6.9	9.3	9.3	12.4	13.7	18.6	18.6	24.9
15"	6.4	8.7	8.7	11.6	12.8	17.3	17.3	23.2
16"	6.0	8.1	8.1	10.9	12.0	16.3	16.3	21.8
17"	5.6	7.6	7.6	10.2	11.3	15.3	15.3	20.5
18"	5.3	7.2	7.2	9.7	10.7	14.4	14.4	19.3
19"	5.1	6.8	6.8	9.2	10.1	13.7	13.7	18.3
20"	4.8	6.5	6.5	8.7	9.6	13.0	13.0	17.4
21"	4.6	6.2	6.2	8.3	9.1	12.4	12.4	16.6
22"	4.4	5.9	5.9	7.9	8.7	11.8	11.8	15.8
23"	4.2	5.7	5.7	7.6	8.3	11.3	11.3	15.1
24"	4.0	5.4	5.4	7.3	8.0	10.8	10.8	14.5
25"	3.8	5.2	5.2	7.0	7.7	10.4	10.4	13.9
26"	3.7	5.0	5.0	6.7	7.4	10.0	10.0	13.4
27"	3.6	4.8	4.8	6.4	7.1	9.6	9.6	12.9
28"	3.4	4.6	4.6	6.2	6.9	9.3	9.3	12.4

* Single or pair use depending on door size and weight.



Item No.	Type	Torque per piece	Material	Finish/Color	Weight (g)	Box (pcs)	Carton (pcs)	
SLS-ELAN-MR	Right	55~75 kg·cm (48~65 lbs·in)	• Aluminum • Steel • ABS	• Anodized • Galvanized • Light Grey	600	20	100	
SLS-ELAN-ML	Left							M-type (Medium Duty)
SLS-ELAN-HR	Right	75~100 kg·cm (65~87 lbs·in)						H-type (Heavy Duty)
SLS-ELAN-HL	Left							

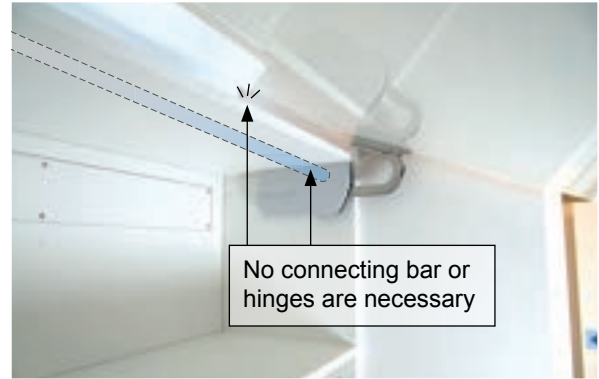
LIFT ASSIST MECHANISM

LID SUPPORTS

LIFT ASSIST MECHANISM



- Lapcon stay for UPWARD-OPENING FLAP DOORS.
- Door opens over the cabinet.
(Space of 4-5/16" is required over cabinet)
- Lift-assist mechanism for extra light-opening.
- Door stays in any desired position.
- Damper equipped for soft & silent closing at the end.
- Slim design and installed location maximizes space inside of cabinet.
- Simple installation by aligning body to edge of cabinet.
- No hinges/connecting bar needed.
- Door height adjustable. (Horizontal $\pm 1/16"$, Vertical $\pm 1/16"$)
- Successfully passed 30,000 open/close private cycle tests.
- Recommended Door Size and Weight:
 - Width, Max. 1200 mm (47-1/4")
 - Height, 500~750 mm (19-11/16"~29-1/2")/Door
 - Weight, 5~12.5 kg (11~27.5 lbs)/Door
- Sold per pair.



3 functions on 1 stay

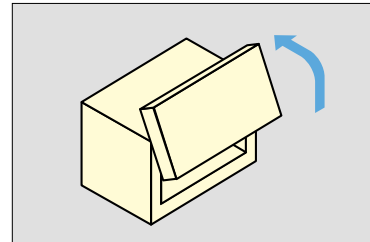
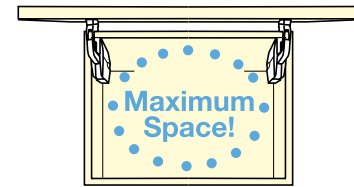
1. Lift-assist



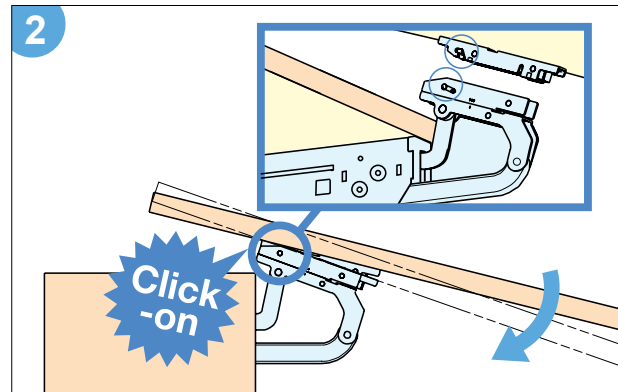
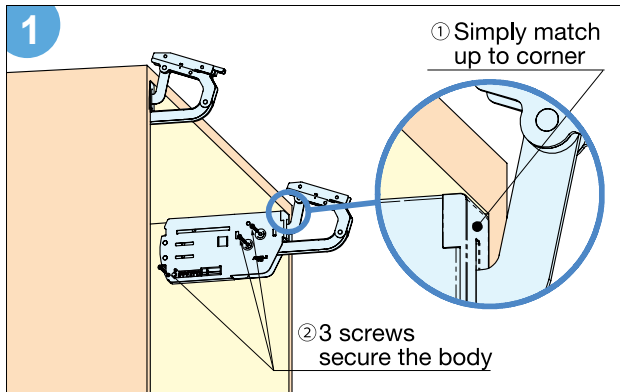
2. Free stop

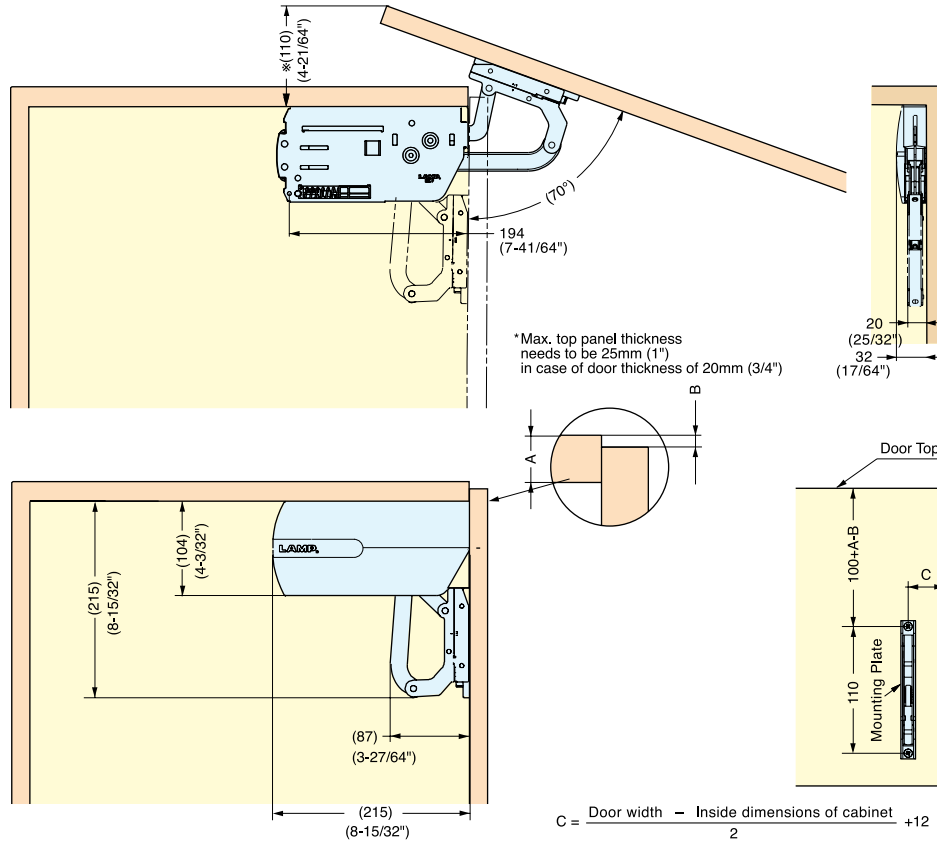


3. Soft-close



Easy Installation





■ Door Weight Range Table (lbs.) Per Pair

Door Height (Inches)	EZS-ELAN-LL		EZS-ELAN-ML		EZS-ELAN-MM		EZS-ELAN-HM		EZS-ELAN-HH	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
19	10.7	15.7	15.7	21.0	21.0	26.5	26.5	29.9	29.9	36.8
20	10.3	15.0	15.0	20.0	20.0	25.3	25.3	28.5	28.5	35.0
21	9.8	14.3	14.3	19.1	19.1	24.1	24.1	27.2	27.2	33.4
22	9.4	13.7	13.7	18.3	18.3	23.0	23.0	26.0	26.0	31.9
23	9.0	13.2	13.2	17.5	17.5	22.1	22.1	24.9	24.9	30.6
24	8.7	12.7	12.7	16.8	16.8	21.2	21.2	23.9	23.9	29.3
25	8.4	12.2	12.2	16.2	16.2	20.4	20.4	23.0	23.0	28.2
26	8.1	11.8	11.8	15.6	15.6	19.7	19.7	22.2	22.2	27.2
27	7.9	11.4	11.4	15.1	15.1	19.0	19.0	21.4	21.4	26.2
28	7.6	11.0	11.0	14.6	14.6	18.3	18.3	20.6	20.6	25.3
29	7.4	10.7	10.7	14.1	14.1	17.7	17.7	20.0	20.0	24.4
30	7.2	10.3	10.3	13.7	13.7	17.2	17.2	19.3	19.3	23.7
31	7.0	10.0	10.0	13.3	13.3	16.6	16.6	18.7	18.7	22.9
32	6.8	9.8	9.8	12.9	12.9	16.2	16.2	18.2	18.2	22.3

■ Lifting power

Door height (inch) x (Door weight (lbs) - 1)

Item No.	Lifting Power (lbs-in)
EZS-ELAN-LL	185~280
EZS-ELAN-ML	280~380
EZS-ELAN-MM	380~485
EZS-ELAN-HM	485~550
EZS-ELAN-HH	550~680

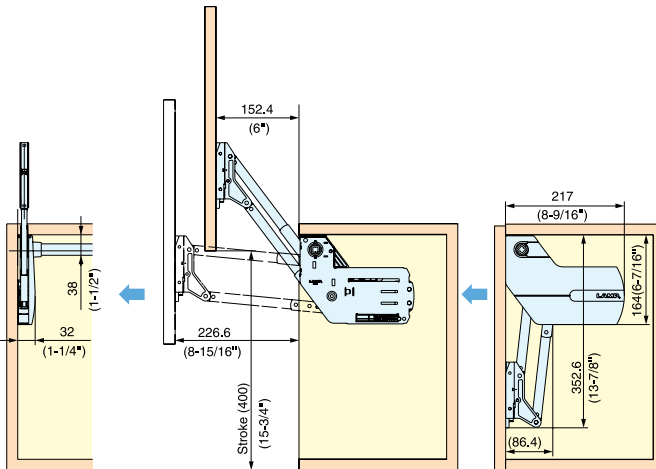
Item No.	Weight (g)	Box (pcs)
EZS-ELAN-LL	2245 (4.9 lbs)	5
EZS-ELAN-ML	2316 (5.0 lbs)	
EZS-ELAN-MM	2387 (5.25 lbs)	
EZS-ELAN-HM	2431 (5.35 lbs)	
EZS-ELAN-HH	2475 (5.45 lbs)	

Material	Finish/Color
Steel, ABS	Light Grey, Nickel

SWING LIFT-UP STAY



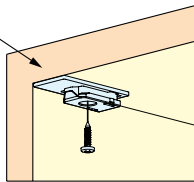
- Lapcon stay for SWING LIFT-UP DOORS.
- Lift-assist mechanism for extra light-opening.
- Door stays in any desired position.
- Damper equipped for soft & silent closing at the end.
- Simple installation by mounting guide plate and slide in main body.
- No hinges are required.
- Connecting bar stays on top for maximum access inside the cabinet.
- Recommended Door Size and Weight :
 - Width, Max. 1800mm (70-7/8")
 - Height, 390~500 mm (15-3/8"~19-11/16")/Door
 - Weight, 5~11 kg (11~24.2 lbs)/Door
- Connecting bar sold separately.



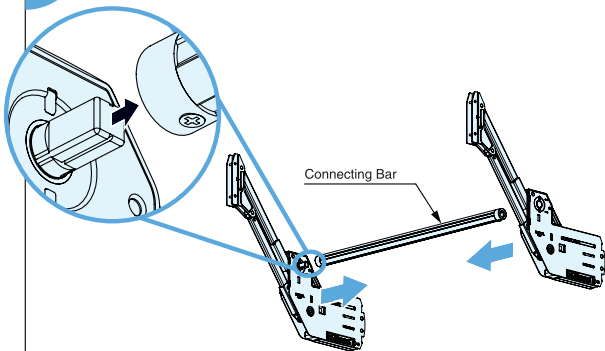
Simple Installation

1 Guide plate installation

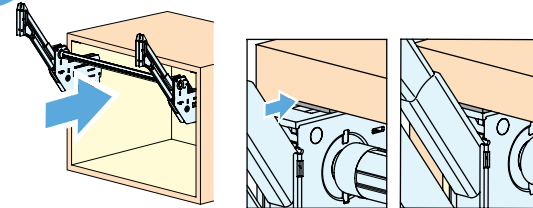
Simply match up to corner



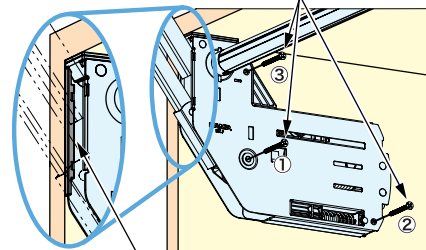
2 Connection bar installation



3 Body installation



3 screws secure the body



Simply match up to corner.

SWING LIFT-UP STAY



SLU-ELAN

Item No.	Door Weight (kg)	Door Height (mm)	Door Width (mm)	Box	Carton
SLU-ELAN-S4	5.0~6.5 (11.0~14.3 lbs)	390~500* (15-3/8"~19-11/16")	Max. 1800 (70-7/8)	1 set	5 set
SLU-ELAN-L4	6.5~8.0 (14.3~17.6 lbs)				
SLU-ELAN-M4	8.0~9.5 (17.6~20.9 lbs)				
SLU-ELAN-H4	9.5~11.0 (20.9~24.2 lbs)				

*Min. inside cabinet height is 360 mm (14-3/16")
 *Door weight includes handle.

■ Connecting Bar (Sold separately)

Item No.	Max. Cabinet Width (mm)	Max. Interior Cabinet Width (mm)
ELB-480	600 (23-5/8")	566 (22-1/4")
ELB-780	900 (35-1/2")	866 (34-1/8")
ELB-1080	1200 (47-1/4")	1166 (45-7/8")
ELB-1380	1500 (59")	1466 (57-3/4")
ELB-1680	1800 (70 7/8")	1766 (69-1/2")

*Please specify the cabinet width when ordering. Connecting bar can be trimmed as necessary by customer.

FACE FRAME BRACKETS

- Bracket(s) are available to be used with below items on face frame cabinet.
- Screw set included in each set.
- *Detailed information is shown on the following two pages.



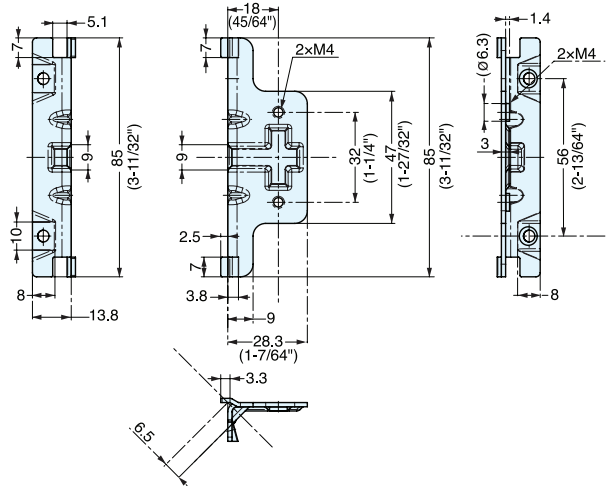
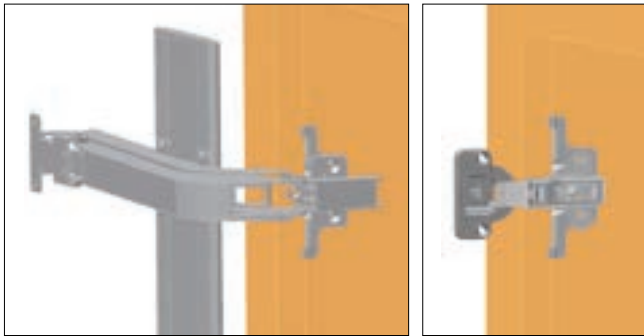
FACE FRAME BRACKET



FFCB-HG-1



- Works with items below on face frame cabinets:
 - LIN-X
 - 304B Hinges (with 304B-P4A-32)
 - 230 Hinges (with 230-P4W-32T)
- Sold per piece.
- Please specify the quantity of brackets necessary when ordering: 1 bracket is needed for each arm (LIN-X) or hinge (304B, 230).



Material	Finish
304 Stainless Steel	Polished

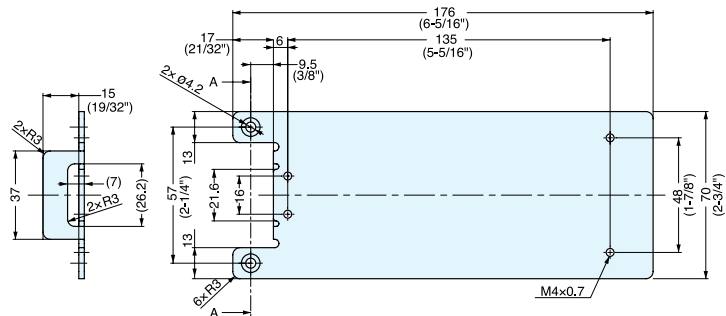
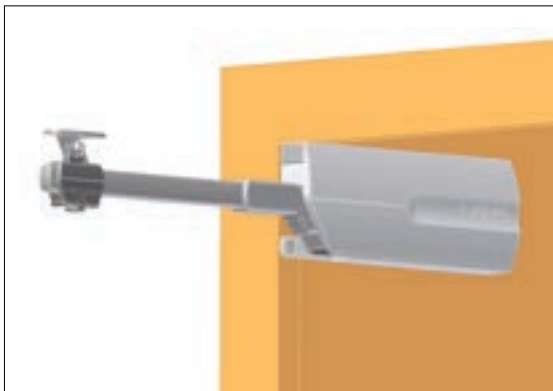
FACE FRAME BRACKET



FFCB-SLS



- Works with SLS-ELAN Series on face frame cabinets.
- Sold per piece.
- Please specify the quantity of brackets necessary when ordering: 1 bracket is needed for each stay.



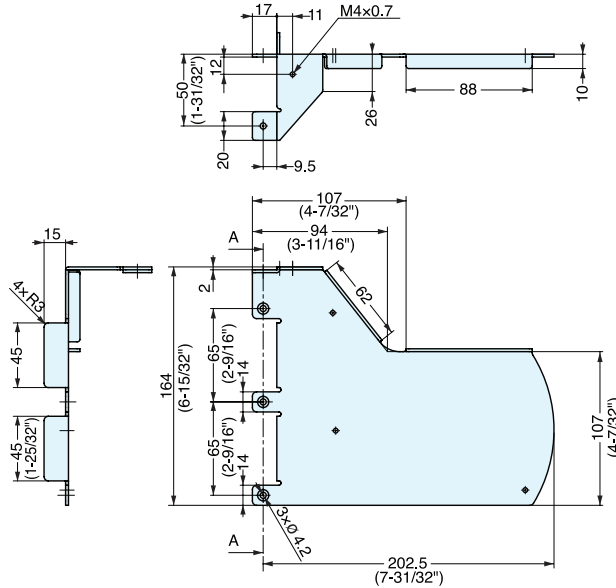
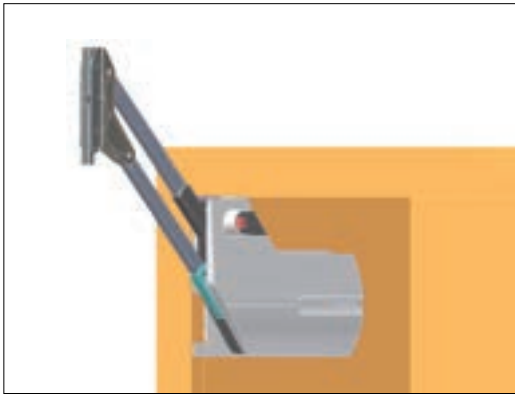
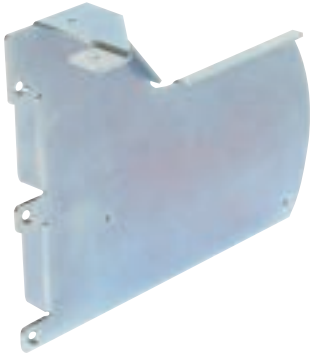
Material	Finish
Steel	Chrome

FACE FRAME BRACKET



FFCB-SLU

- Works with SLU-ELAN Series on face frame cabinets.
- Sold per pair.



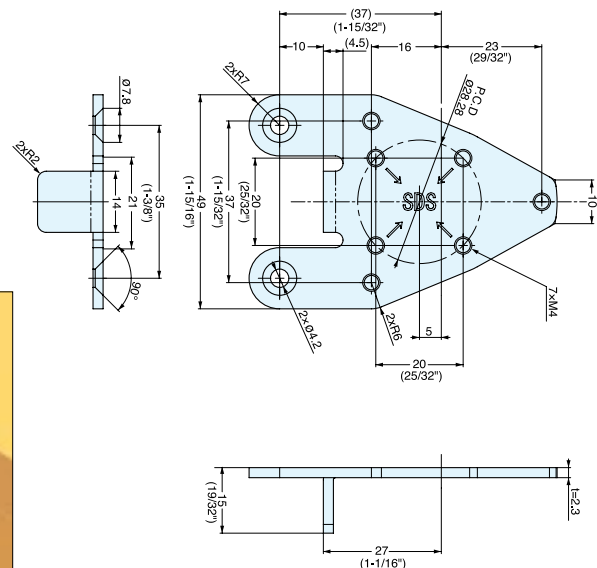
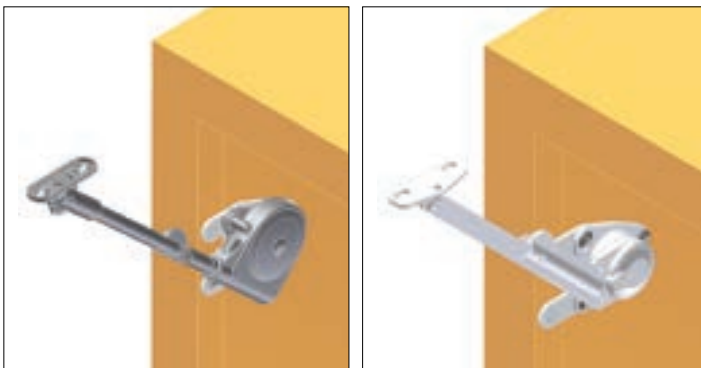
Material	Finish
Steel	Chromate

FACE FRAME BRACKET



FFCB-SD-1

- Works with NSDX/SDS Series on face frame cabinets.
- Sold per piece.
- Please specify the quantity of brackets necessary when ordering: 1 bracket is needed for each stay.

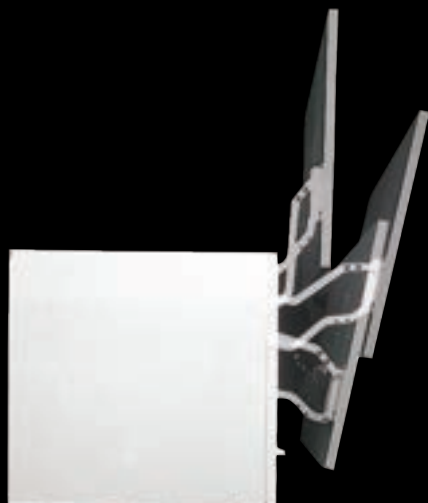


Material	Finish
Steel	Chromate

SLUN

VERTICAL SWING LIFT-UP MECHANISM

- Unique swing mechanism provides a lift-assist feature to help lift doors and hold at the open position.
- Sleek, compact design provides maximum access.
- Easy installation.
- Adjustable arm mounting plate.
- Successfully passed for 30,000 open/close private cycle tests.



Designed to operate at room temperature
0°~40°C (32°~104°F).



VERTICAL SWING LIFT-UP MECHANISM



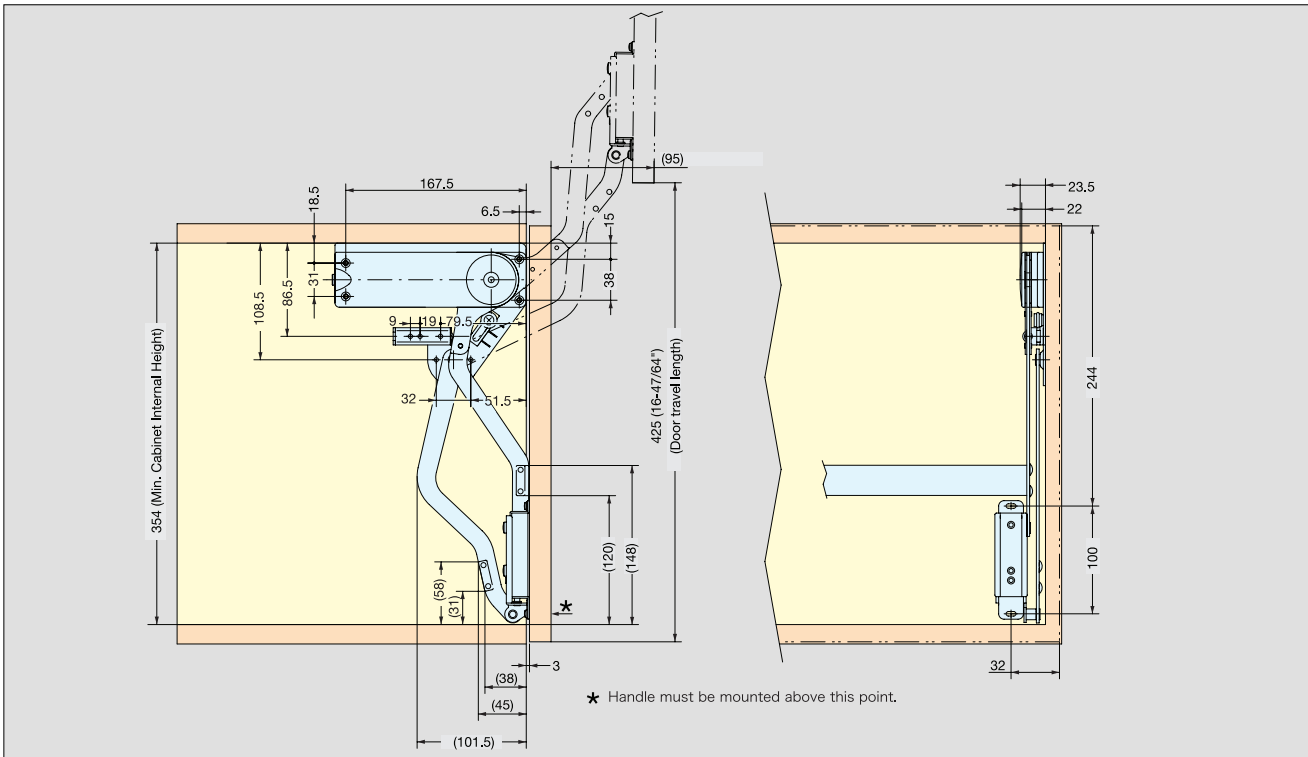
SLUN

LID SUPPORTS

VERTICAL SWING LIFT-UP MECHANISM



- Unique mechanism will help lift doors and hold at the open position.
- Sleek & compact design.
- Easy installation.
- Adjustable arm mounting plate.
- Patented LAPCON technology provides a smooth and quiet motion.
- Successfully passed 30,000 open/close private cycle tests.
- Recommended Door Size and Weight:
 - Width, 600~900 mm (23-5/8"~35-7/16")
 - Height, 390~450 mm (15-23/64"~17-23/32")
 - Weight, 2.8~5.8 kg (6.2~12.8 lbs)



Material	Finish/Color
Steel	Nickel
Plastic	Grey

Item No	Door Weight (kg)	Box (set)	Carton (set)
SLUN-3N	2.8~3.8 (6.2~8.4 lbs)	5	50
SLUN-4N	3.8~4.8 (8.4~10.6 lbs)		
SLUN-5N	4.8~5.8 (10.6~12.8 lbs)		

Guide Bar Length

Door Type	Cabinet Width (mm)	
	600 (23-5/8")	900 (35-7/16")
Solid Wood Door	535 (21-1/16")	835 (32-7/8")
Frame Door	551 (21-3/4")	851 (33-1/2")

*SLUB-835 (835 mm (32-7/8")) included unless specified.

SLD

VERTICAL SWING DOWN MECHANISM



- Unique swing down mechanism provides a lift-assist feature to help open/close the doors easily & softly.
- Holds the door at the open position.
- Sleek, compact design provides maximum access.
- Easy installation.
- Adjustable arm mounting plate.
- Successfully passed for 30,000 open/close private cycle tests.

Designed to operate at room temperature
0°~40°C (32°~104°F).



VERTICAL SWING DOWN MECHANISM



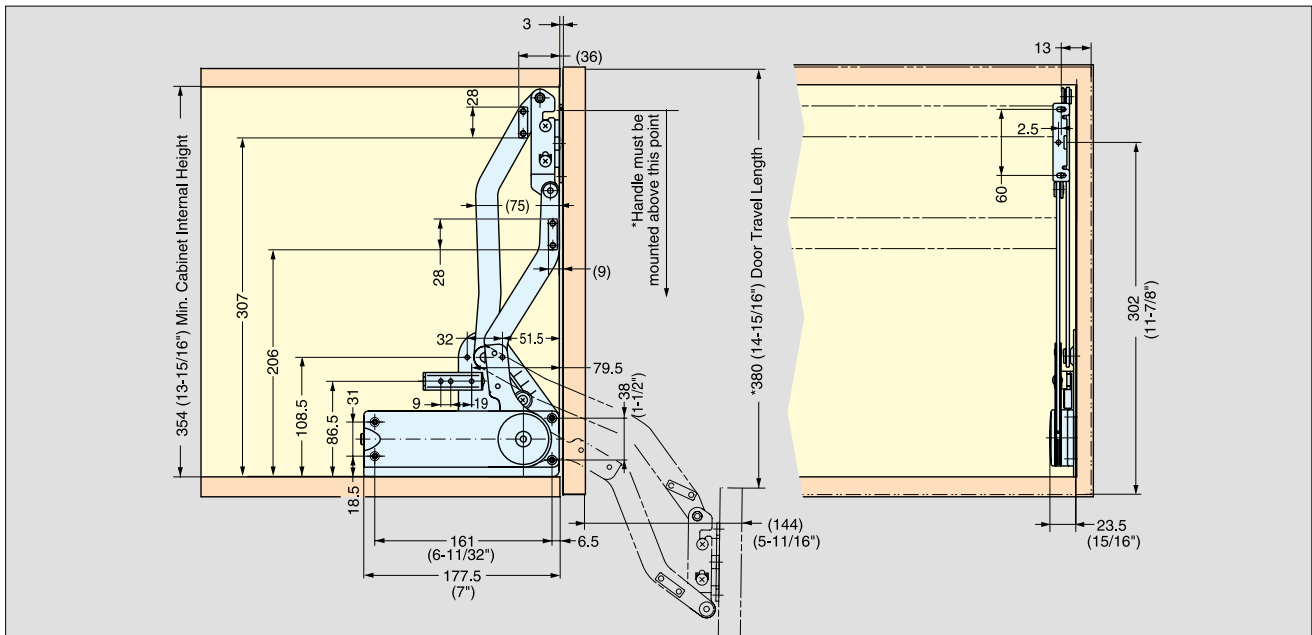
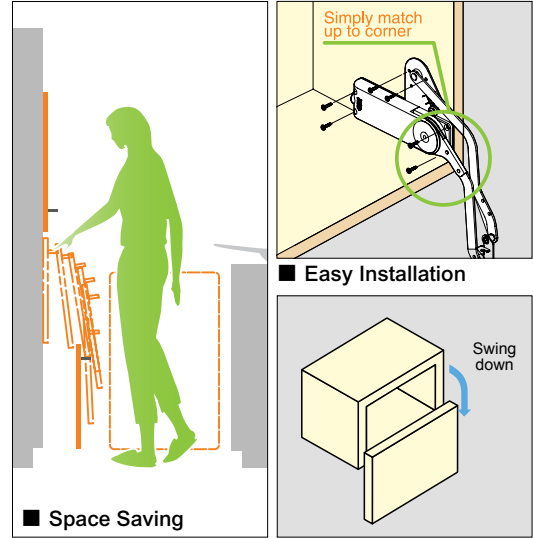
SLD

LID SUPPORTS

VERTICAL SWING DOWN MECHANISM



- Unique swing down mechanism will hold doors at the open position.
- Sleek & compact design.
- Easy installation.
- Adjustable arm mounting plate.
- Patented LAPCON technology provides a smooth and quiet motion.
- Successfully passed 30,000 open/close private cycle tests.
- Recommended Door Size and Weight:
 - Width, 600~900 mm (23-5/8"~35-7/16")
 - Height, 360~400 mm (14-1/8"~15-3/4")
 - Weight, 3~6 kg (6.6~13.2 lbs)



Material	Finish/Color
Steel	Nickel
Plastic	Grey

Item No	Door Weight (kg)	Box (set)	Carton (set)
SLD-3	3~4 (6.6~8.8 lbs)	5	50
SLD-4	4~5 (8.8~11.0 lbs)		
SLD-5	5~6 (11.0~13.2 lbs)		

Guide Bar Length

Door Type	Cabinet Width (mm)	
	600 (23-5/8")	900 (35-7/16")
Solid Wood Door	535 (21-1/16")	835 (32-7/8")
Frame Door	551 (21-3/4")	851 (33-1/2")

*SLUB-835 (835 mm (32-7/8")) included unless specified.

HBFN

HORIZONTAL BI-FOLDING DOOR MECHANISM



- HBFN's unique bi-fold door mechanism will assist in opening and closing doors in a smooth motion.
- The mechanism is compact, with no tracks or guides.
- Easy installation.
- Patented Lapcon technology offers smooth and quiet motion.
- Successfully passed 30,000 open/close private cycle tests.

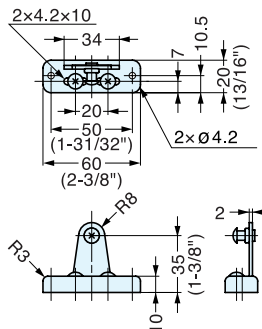
Designed to operate at room temperature
0°~40°C (32°~104°F).



MOUNTING PLATES FOR HBFN

HBFN-SZ

• Included with HBFN Series hardware.



Item No	Application	Weight (g)	Box (set)
HBFN-SZ	Wood Doors, Aluminum Frame Doors, Width 45 mm (1-3/4")	44	100

Part Name	Material	Finish/Color
Plates, Screws	Steel	Nickel
Bumper	-	Grey

HORIZONTAL BI-FOLDING DOOR MECHANISM



HBFN

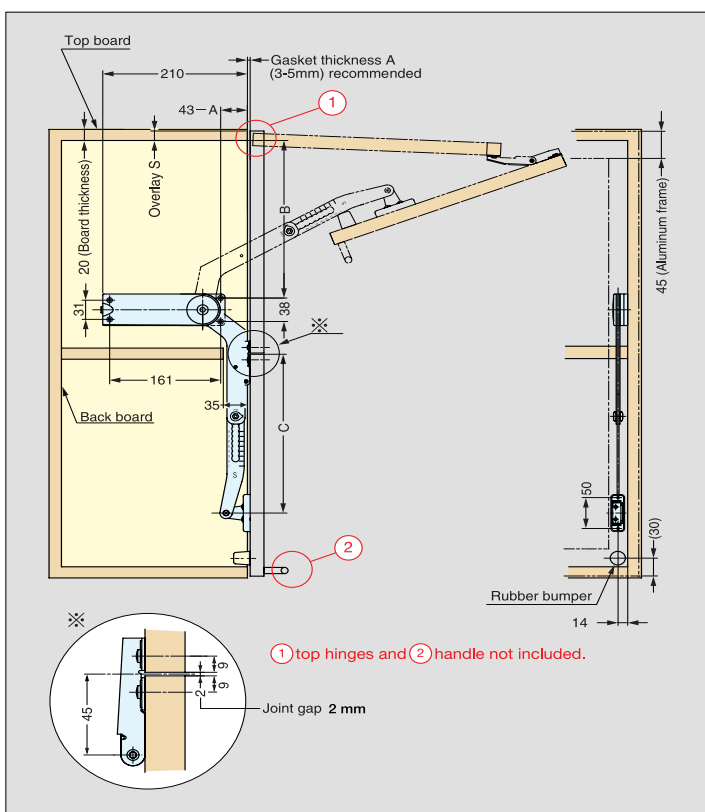
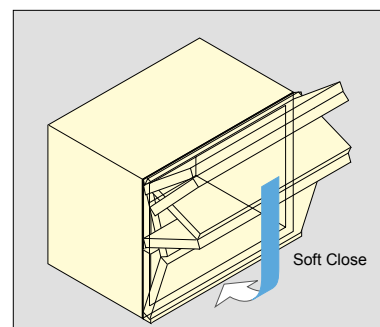
LID SUPPORTS

HORIZONTAL BI-FOLDING DOOR MECHANISM



- Unique new bi-fold door mechanism will assist in opening and closing doors in a smooth motion.
- No tracks or guides required.
- Handle position can be at the bottom of the door.
- Arm length adjustable for various door sizes.
- Patented LAPCON technology provides smooth and quiet motion.
- Recommended Door Size and Weight):
Width, 450~900 mm (17-23/32"~35-7/16")
Height, 320~370 mm (12-19/32"~14-9/16")/each door
Weight, 2.5~5.5 kg (5.5~12.1 lbs)/each door

Material	Finish
Steel	Nickel
Plastic	Light Grey

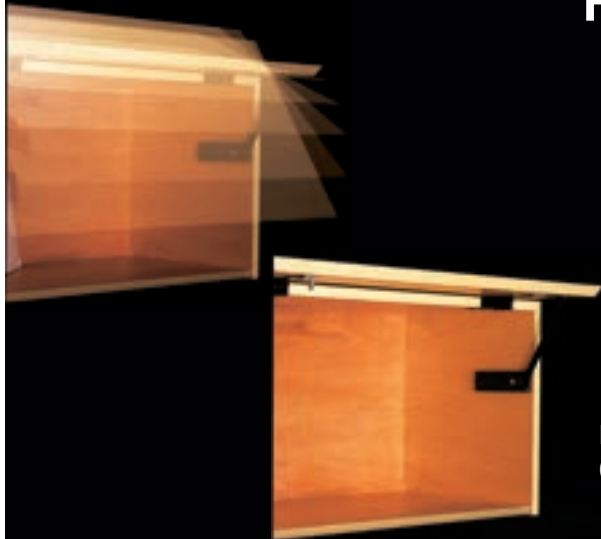


S = Overlay (Top Board)

Type	Door Height (mm)	Opening Angle 90°			Opening Angle 105°		
		Arm Position	B	C	Arm Position	B	C
M	320	1	247-S	241	4	226-S	244
	330	2	252-S	244	5	234-S	250
	340	3	258-S	248	6	243-S	257
	350	4	263-S	251	7	251-S	263
	360	5	269-S	255	8	259-S	269
	370	6	274-S	258	9	267-S	275

Item No	Door Height / door (mm)	Door Weight (kg/door)	Box (set)	Carton (set)	Material	Finish
HBFN-2M	320~370 (12-19/32"~14-9/16")	2.5~3.5 (5.5~7.7 lbs)	10	100	Steel	Nickel
HBFN-3M		3.6~4.5 (7.9~9.9 lbs)			Plastic	Light Grey
HBFN-4M		4.6~5.5 (9.9~12.1 lbs)				

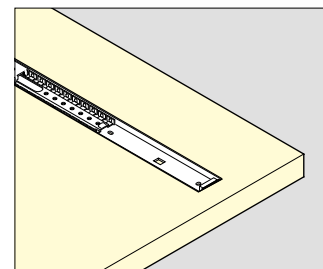
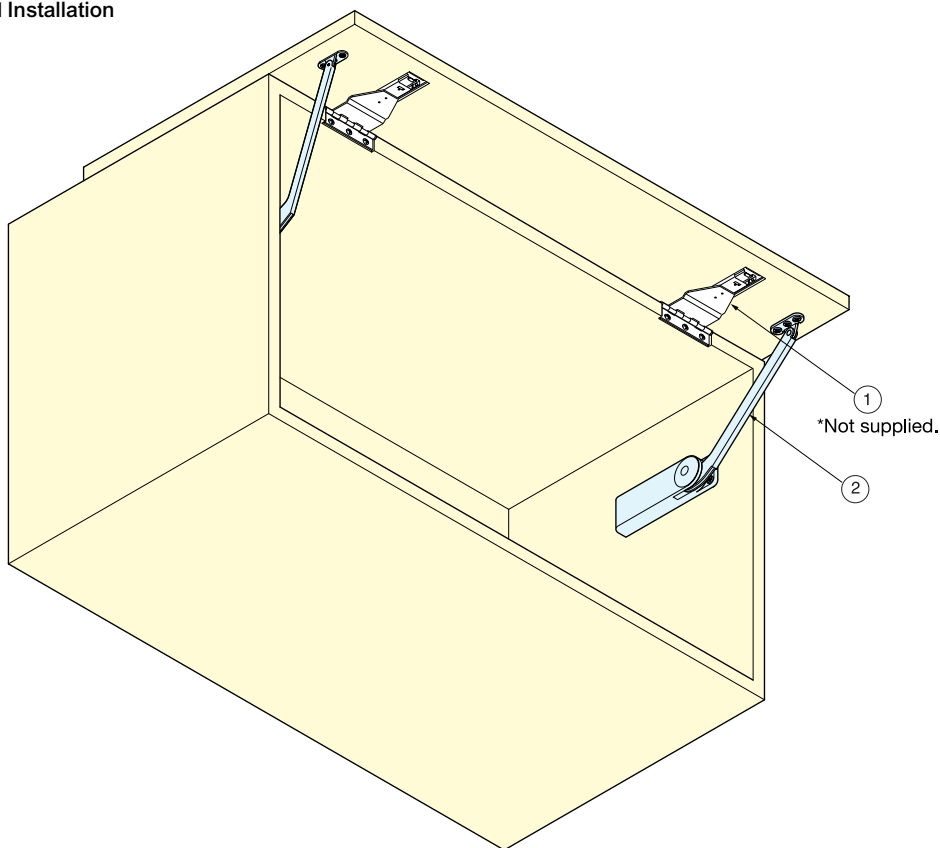
OV-EZ LIFT-ASSIST MECHANISM FOR OVER-THE-TOP FLIPPER DOORS



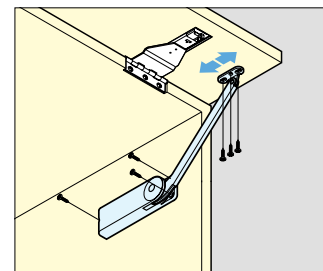
- Assists in opening of flipper doors with minimal resistance.
- Doors will not slam shut.
- Ideal for overhead binder bins, laboratory and kitchen cabinets, etc.
- Successfully passed 30,000 open/close private cycle tests.

Designed to operate at room temperature
0°~40°C (32°~104°F).

■ Installation



① Install ball bearing flipper slide rails.
(Not supplied.)



② Mount the OV-EZ mechanism to the side wall of the cabinet as illustrated in installation instructions provided with the product.

Recommended Door Size and Weight

Item No.	Door Weight For Easy-Up (kg)	Door Weight For Free-Stop (kg)	Door Height (mm)	Weight (g)	Box (pcs)	Carton (pcs)
OV-EZ-3/BL	2.5~4.0 (5.5~8.8 lbs)	4~6.5 (8.8~14.3 lbs)	Approx. 400 (15-3/4")	260	50	500
OV-EZ-5/BL	3.5~5.5 (7.7~11.0 lbs)	5~8.0 (11.0~17.5 lbs)		270		
OV-EZ-7/BL	4.5~6.0 (9.9~13.2 lbs)	6~10.0 (13.2~22.0 lbs)		280		
OV-EZ-9/BL	5.5~7.0 (12.0~15.3 lbs)	7~11.5 (15.4~25.2 lbs)		290		

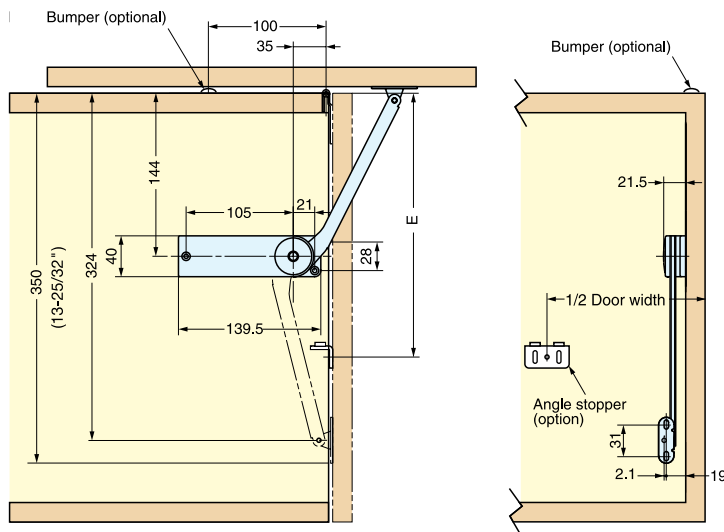
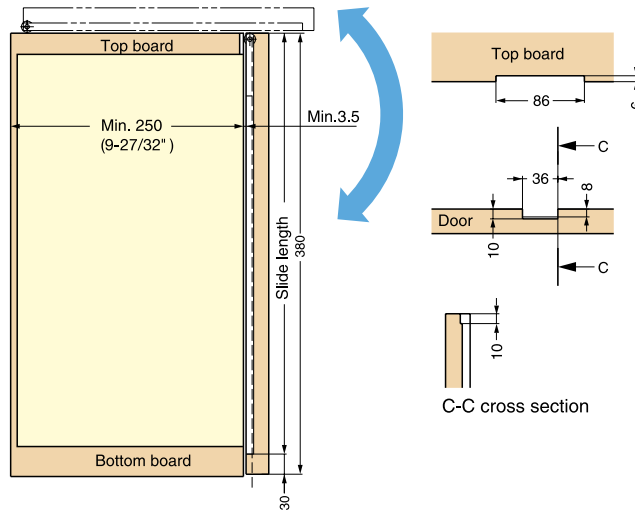
LIFT-ASSIST MECHANISM



OV-EZ



* Used in pairs



Part Name	Material	Finish/Color
Housing	ABS	Black
Arm and Mounting Plate	Steel	Nickel

OVN

SOFT CLOSING MECHANISM FOR OVER-THE-TOP FLIPPER DOORS

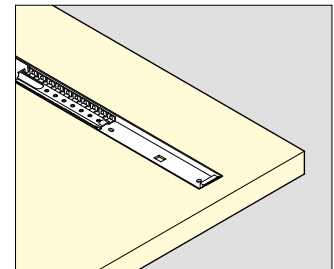
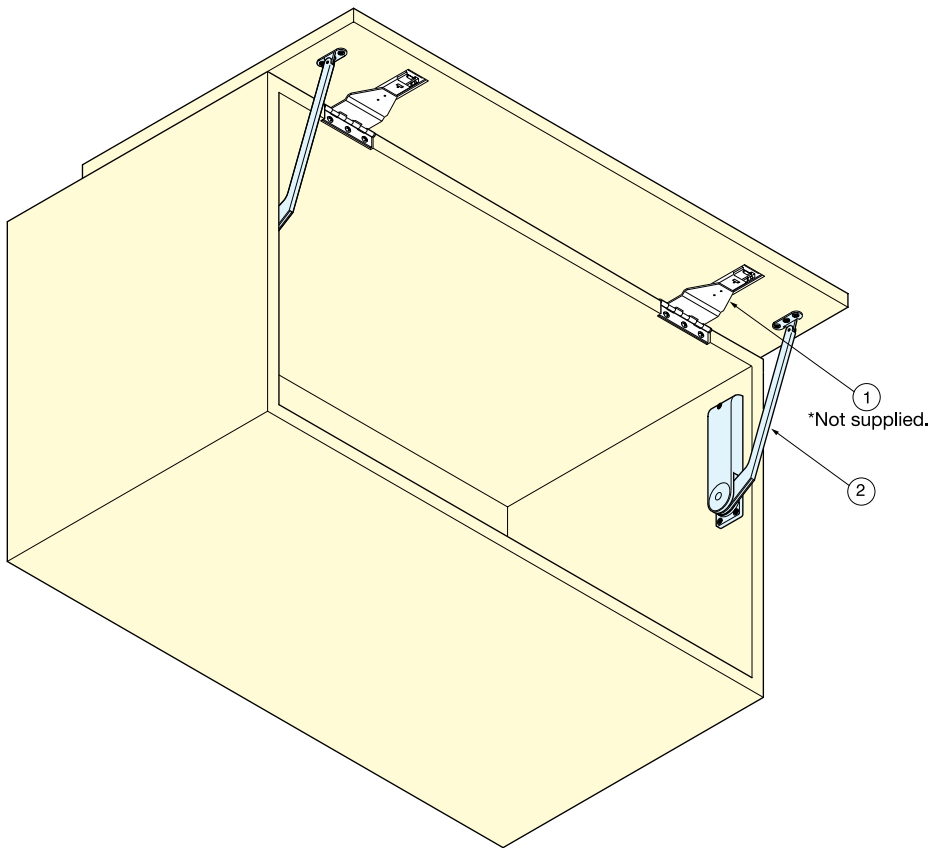


- Patented Lapcon technology offers smooth and quiet motion.
- Doors will not slam shut.
- Successfully passed 30,000 open/close private cycle tests.

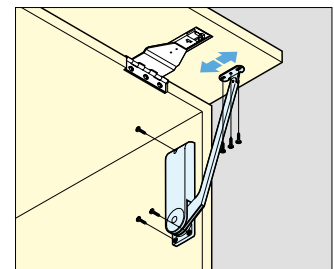
Designed to operate at room temperature 0°~40°C (32°~104°F).



■ Installation



① Install ball bearing flipper slide rails. (Not supplied.)



② Mount the OVN unit to the side wall of the cabinet as illustrated in installation instructions provided with the product.

Recommended Door Size and Weight

Item No.	Body Color	Door Weight (kg)	Door Height (mm)	Depth of Cabinet (mm)	Weight (g)	Box (pcs)	Carton (pcs)
OVN-3/BLK	Black (BLK)	3~5 (6.6~11.0 lbs)	Approx.400 (15~3/4")	350~400 (13-25/32"~15-3/4")	220	40	400
OVN-5/BLK		5~7 (11.0~15.4 lbs)			240		

SOFT CLOSING MECHANISM



OVN

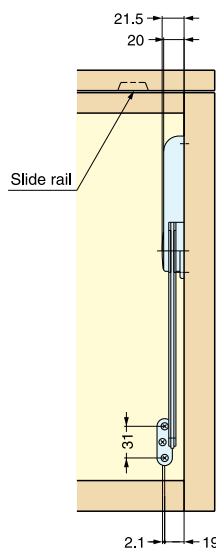
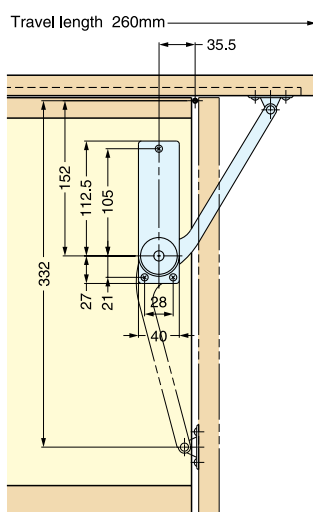
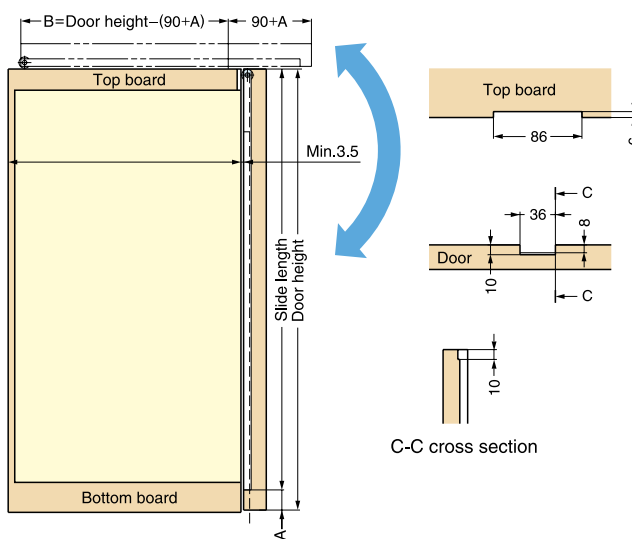
LID SUPPORTS

SOFT CLOSING MECHANISM FOR OVER-THE-TOP FLIPPER DOORS



* Used in pairs

■ Cabinet Preparation



Part Name	Material	Finish/Color
Housing	ABS	Black
Arm and Mounting Plate	Steel	Nickel



OV

SOFT CLOSING MECHANISM FOR OVER-THE-TOP FLIPPER DOORS

- Patented Lapcon technology offers smooth and quiet motions.
 - Doors will not slam shut.
 - Adjustable closing speed.
 - Successfully passed 30,000 open/close private cycle tests.
- Designed to operate at room temperature 0°~40°C (32°~104F°).



Used in pairs

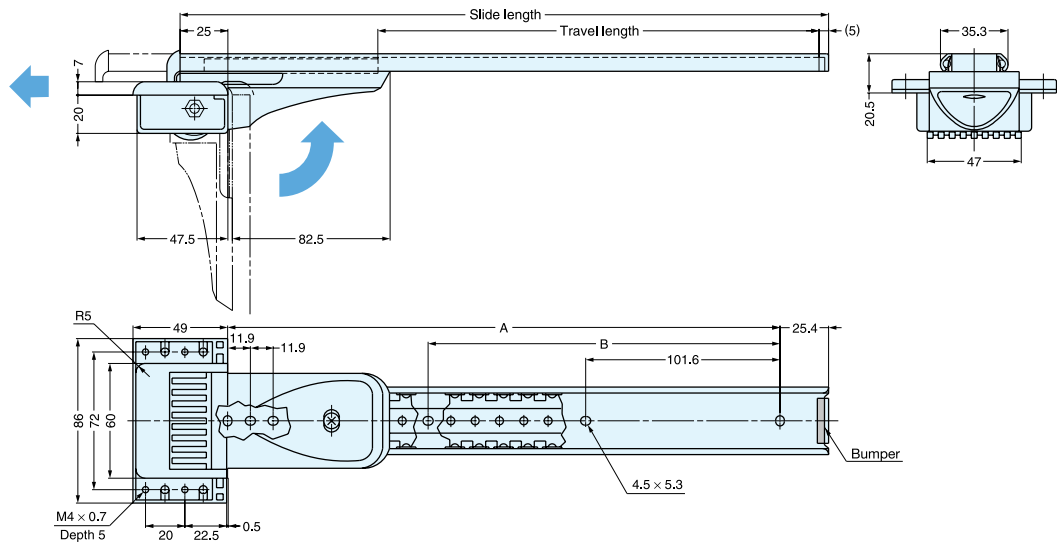


Screws :

- Flat Head Machine Screw (M4 × 26) *for wooden top board of 19~20 mm T - 8 pcs.
- Binding Head Machine Screw (M4 × 8) *for metal top board of 1.2~1.5 mm T - 8 pcs.
- Binding Head Tapping Screws (M4 × 10) for slides.

Note : For sheet metal cabinets, if the top board is thicker than 20 mm (25/32"), longer screws are required (top board thickness plus 6 mm). When the top board is wooden, additional screws are not needed.

*Bulk pack available.



Flipper Door Weight and Size

Item No	Door Weight (kg)	Torque Moment (kg·cm)	Door Thickness: T (mm)	Door Width: W (mm)	Door Height: H (mm)
OV-1	3~5 (6.6~11 lbs)	60~100 (55~85 lbs-inch)	19 (3/4") or 20 (25/32")	700~1400 (27-9/16"~55-1/8")	350~450 (13-25/32"~17-23/32")

Item No.	Slide Length	Travel Length	A	B	Weight (g)	Box (pcs)	Carton (pcs)
OV-1-13	330.2	223.8	279.4	177.8	590	10	100
OV-1-14	355.6	249.2	304.8	203.2	610		
OV-1-15	381.0	274.6	330.2	228.6	630		
OV-1-16	406.4	300.0	355.6	254.0	650		

Material	Finish/Color
Steel, Zinc Alloy, Plastic	Chromate, Black

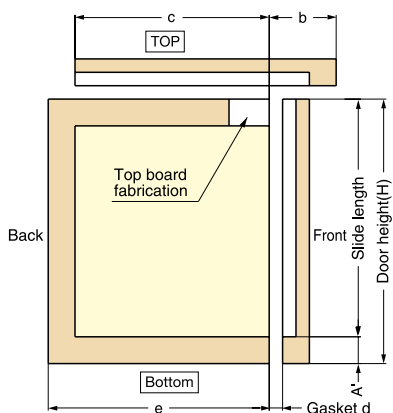
SOFT CLOSING MECHANISM



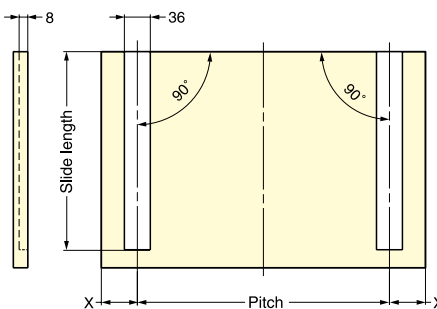
OV

■ Cabinet Preparation

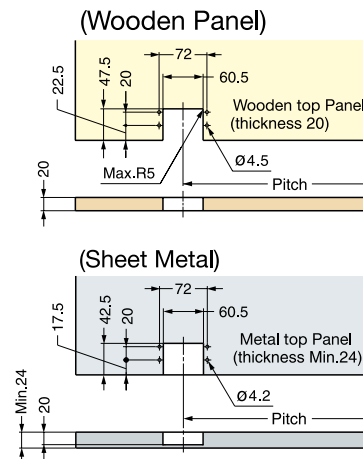
Cabinet Dimensions



Door Fabrication

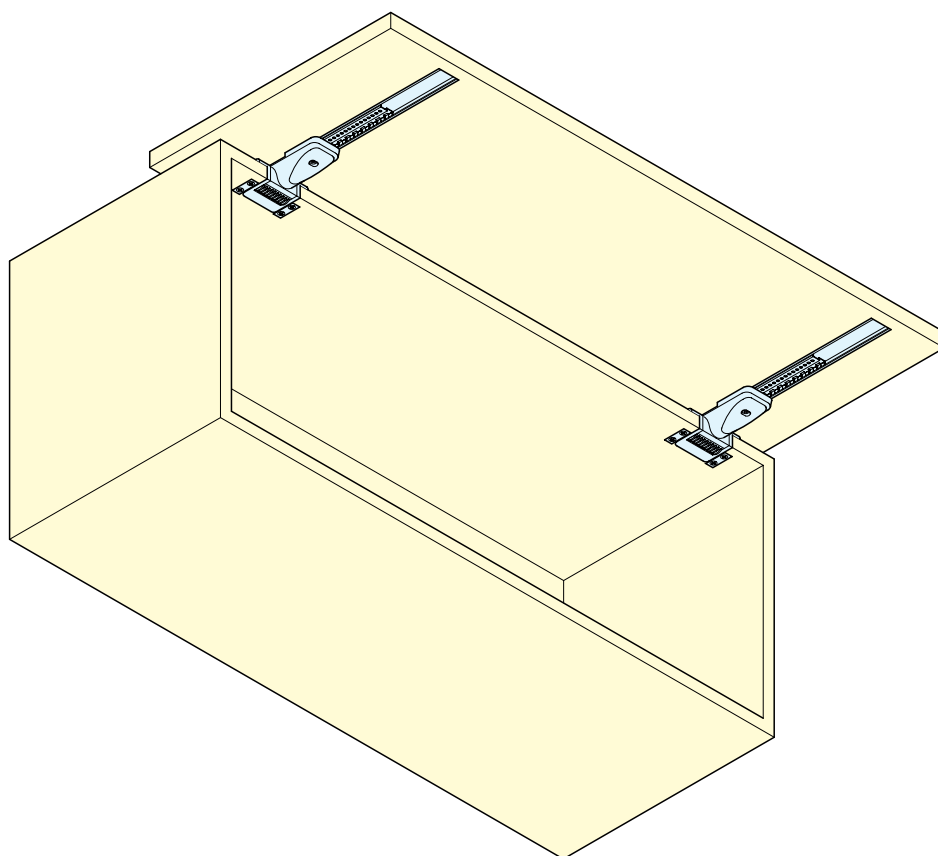
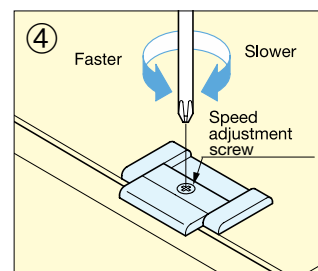
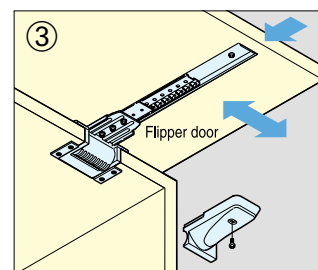
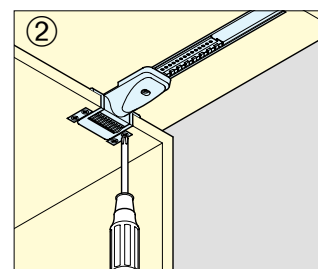
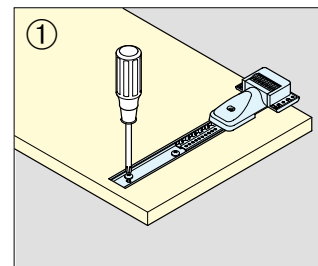


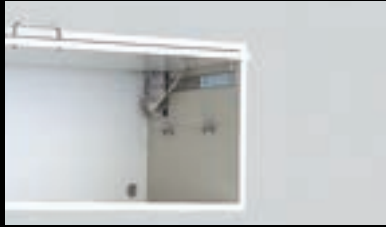
Top Panel Fabrication



	b	c	d	e		X
Wooden Top Panel	A'+81.4	H-b	2.5	Min. c+7	Inset Application	80
Metal Top Panel	A'+86.4	H-b	7.5	Min. c+7	Overlay Application	Side Board Thickness+80

■ Installation

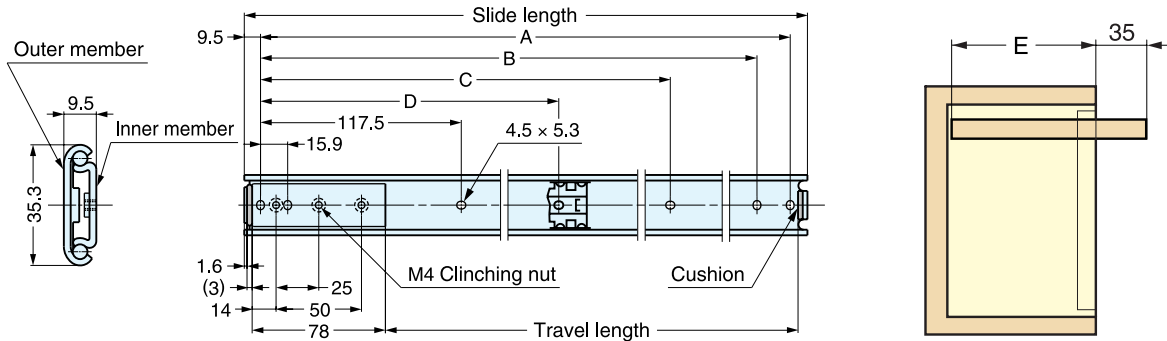




IF-102S (SINGLE TYPE) IF-102W (DOUBLE TYPE) SOFT CLOSING MECHANISM FOR INSET RECEDING DOORS

- Incorporates patented Lapcon technology for soft, smooth closing.
- For inset doors only.
- Adjustable closing speed.
- Successfully passed 30,000 open/close private cycle tests.

Designed to operate at room temperature 0°~40°C (32°~104°F).



*Supplied with screws.

	Soft-Down Stay	Slide	Concealed Hinge	Mounting Plate
Item No	NSDX-35 (L/R)	AL-78	230-C26/19T	230-P4W-32T
pcs/set	1 or 2/door	2 pcs/door	2 pcs/door	2 pcs/door

Part Name	Material	Finish/Color
Slide	Steel	Clear Zinc Chromate
Hinge	Steel	Nickel
Soft-Down Stay	Zinc Alloy	Nickel

Item No	Torque Moment (kg-cm)	Door Weight (kg)	Max. Door Width (mm)	Recommended Door Height (mm)	E (mm)	Door Thickness (mm)
IF-102S-14	25~ 70 (22~60 lbs-in)	1.5~4.0 (3.3~8.8 lbs)	1200 (47-1/4")	300+T (11-13/16"+T)	265+T (10-7/16"+T)	15~20 (19/32"~51/64")
IF-102S-16				350+T (13-3/4"+T)	315+T (12-3/8"+T)	
IF-102S-19				427+T (16-13/16"+T)	392+T (15-7/16"+T)	
IF-102S-24				554+T (21-13/16"+T)	519+T (20-7/16"+T)	
IF-102W-14	50~140 (45~120 lbs-in)	4.5~6.5 (9.9~14.3 lbs)		300+T (11-13/16"+T)	265+T (10-7/16"+T)	
IF-102W-16				350+T (13-3/4"+T)	315+T (12-3/8"+T)	
IF-102W-19				427+T (16-13/16"+T)	392+T (15-7/16"+T)	
IF-102W-24				554+T (21-13/16"+T)	519+T (20-7/16"+T)	

Item No	Slide Length	Travel Length	A	B	C	D	E	Weight (kg)	Box (pcs)	Carton (pcs)
IF-102S-14	355.6	268.4	336.6	320.7	219.1	-	264.5+T	1.92	10	100
IF-102S-16	406.4	319.2	387.4	371.5	269.9	-	315.3+T	2.00		
IF-102S-19	482.6	395.4	463.6	447.7	346.1	231.8	391.5+T	2.08		
IF-102S-24	609.6	522.4	590.6	574.7	473.1	295.3	518.5+T	2.40		
IF-102W-14	355.6	268.4	336.6	320.7	219.1	-	264.5+T	2.14		
IF-102W-16	406.4	319.2	387.4	371.5	269.9	-	315.3+T	2.22		
IF-102W-19	482.6	395.4	463.6	447.7	346.1	231.8	391.5+T	2.30		
IF-102W-24	609.6	522.4	590.6	574.7	473.1	295.3	518.5+T	2.62		

T = Door Thickness (mm)

SOFT CLOSING MECHANISM

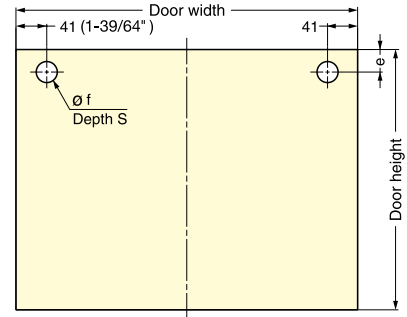
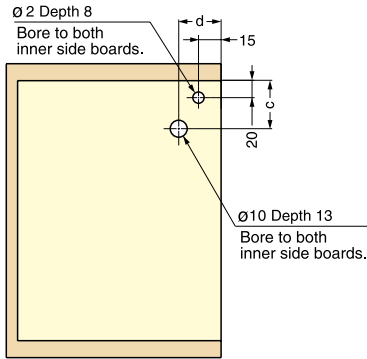
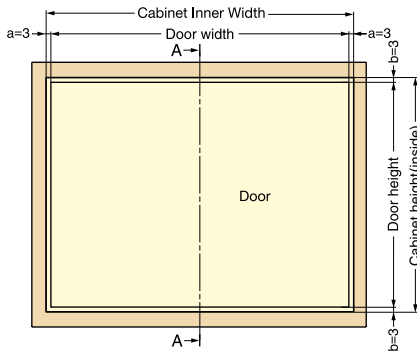


IF

LID SUPPORTS

SOFT CLOSING MECHANISM FOR INSET RECEDING DOORS

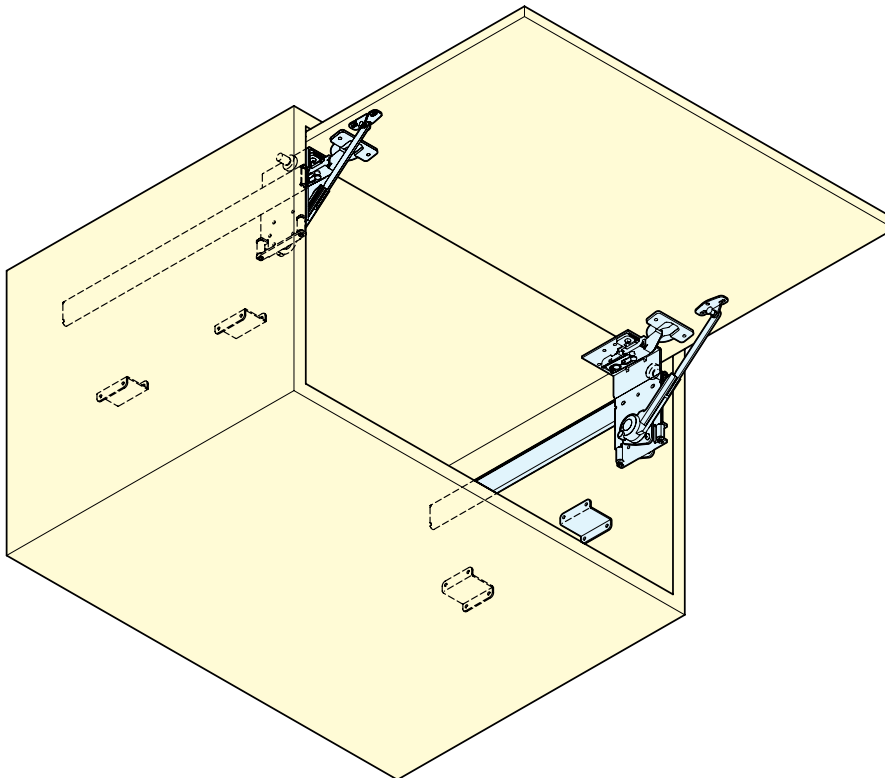
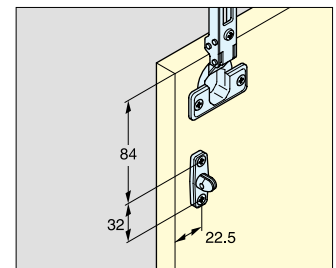
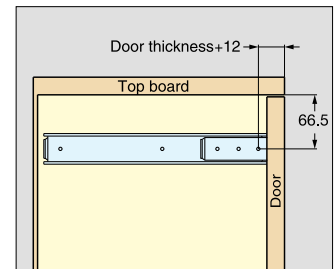
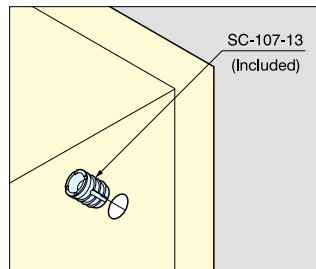
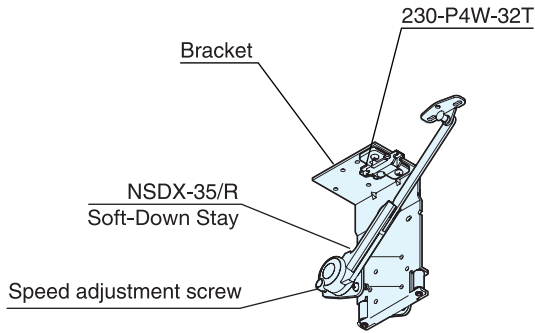
■ Cabinet Preparation



Type	c	d	e	f	s
IF-102	37.5	9.5+t	22.5	35	11

*t = Door Thickness

■ Installation



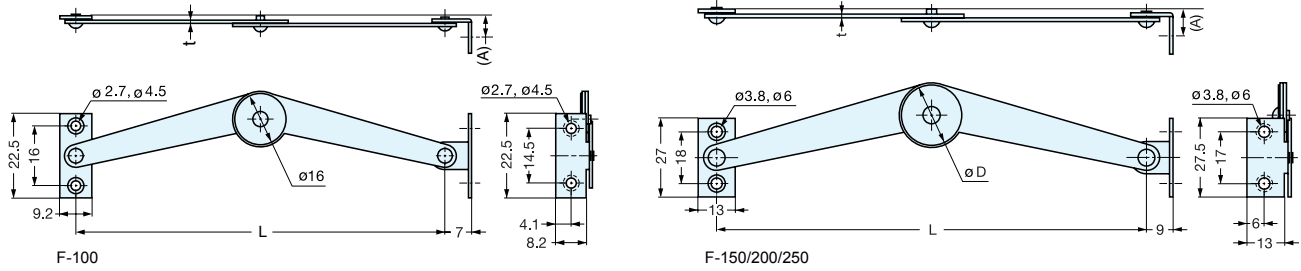
LID STAY (W/O CATCH)



F-100, 150, 200, 250



- Not load bearing keeps lids from over extending.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



Item No.		L	D	(A)	t	Weight (g)	Box (pcs)	Carton (pcs)
Right	Left							
F-100R	F-100L	100 (3-15/16")	16.0	6.5	1.0	13	50	500
F-150R	F-150L	150 (5-29/32")	22.0	9.0	1.2	30	40	400
F-200R	F-200L	198 (7-51/64")	22.5		1.5	37	30	300
F-250R	F-250L	250 (9-27/32")			65			

Material	Finish
304 Stainless Steel	Satin

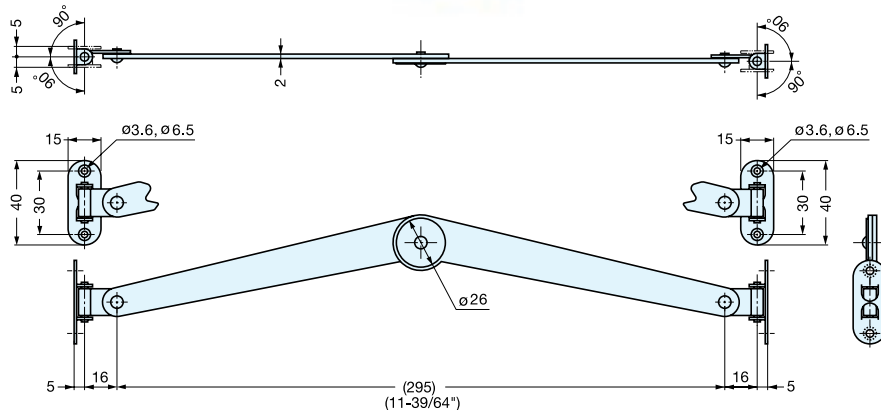
LID STAY (W/O CATCH)



F-300



- Not load bearing keeps lids from over extending.
- Can be installed individually or in pairs.
- Non-Handed: Can be installed on left or right side.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
F-300	113	10	100

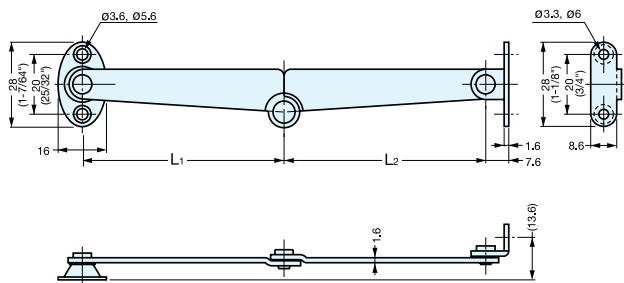
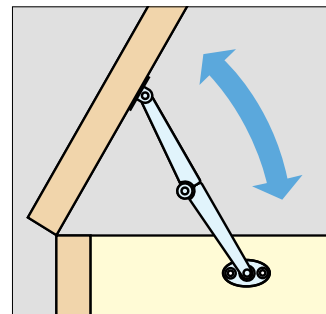
Material	Finish
304 Stainless Steel	Satin

LID STAY



S-6, S-16

- Not load bearing keeps lids from over extending.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



Item No.		L ₁	L ₂	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right					
S-6L	S-6R	53 (2-3/32")	53 (2-3/32")	20	100	1000
S-16R	S-16L	67 (2-41/64")	67 (2-41/64")	31		

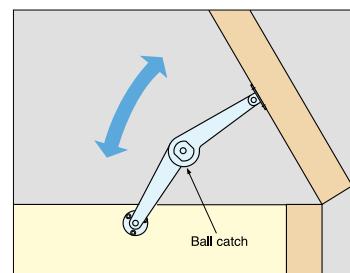
Material	Finish
Steel/Brass/Nylon (washer)	Chrome

LID STAY (W/CATCH)

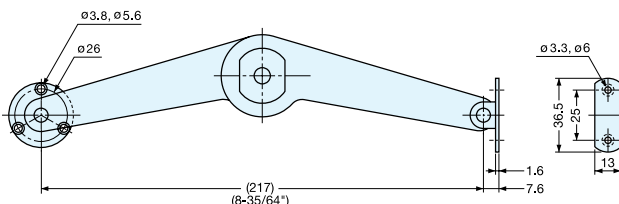
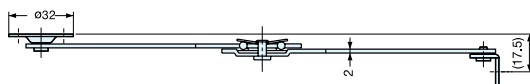


S-20

- Lid stay with ball catch for lightweight doors.
- Catch automatically holds lid in opened position.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



(Left)



Item No.		Weight (g)	Box (pcs)	Carton (pcs)
Left	Right			
S-20L	S-20R	125	40	160

Material	Finish
Steel, Brass, Nylon (washer)	Chrome

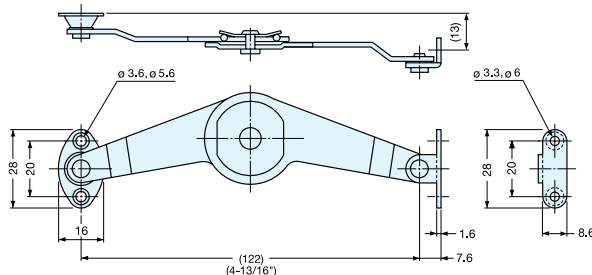
LID STAY (W/CATCH)



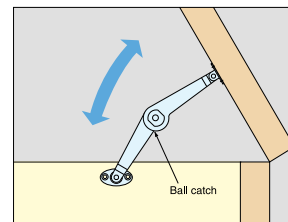
S-21



(Left)



- Lid stay with ball catch for lightweight doors.
- Catch automatically holds lid in opened position.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



Item No.		Weight (g)	Box (pcs)	Carton (pcs)
Left	Right			
S-21L	S-21R	49	50	500

Material	Finish
Steel, Brass, Nylon (washer)	Chrome

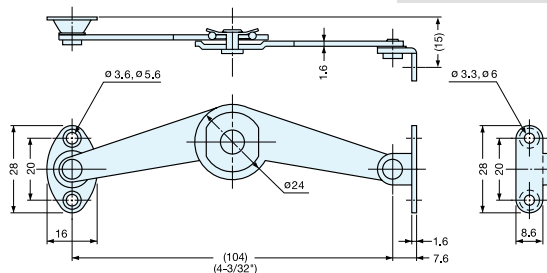
LID STAY (W/CATCH)



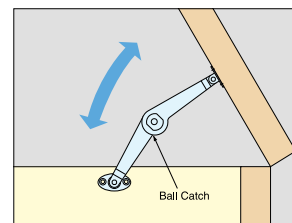
S-23



(Left)



- Lid stay with ball catch for lightweight doors.
- Catch automatically holds lid in opened position.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



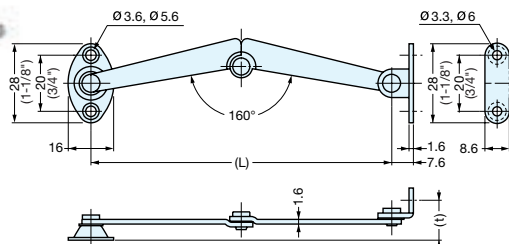
Item No.		Weight (g)	Box (pcs)	Carton (pcs)
Left	Right			
S-23L	S-23R	33	50	500

Material	Finish
Steel, Brass, Nylon (washer)	Chrome

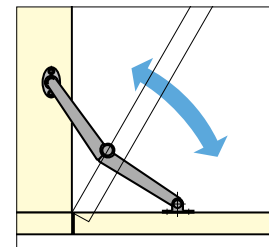
LID STAY



S-24, S-25, S-27



- Keeps lids from over extending.
- Can be installed individually or in pairs.
- Handed: Specific left and right hand mounting.



Item No.		L	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right				
S-24L	S-24R	105.5 (4-5/32")	21	100	1000
S-25L	S-25R	163.0 (6-27/64")	35	60	600
S-27L	S-27R	133.0 (5-15/64")	31	60	600

Material	Finish
Steel, Brass, Nylon (washer)	Chrome

TORQUE LID STAY (FREE STOP)



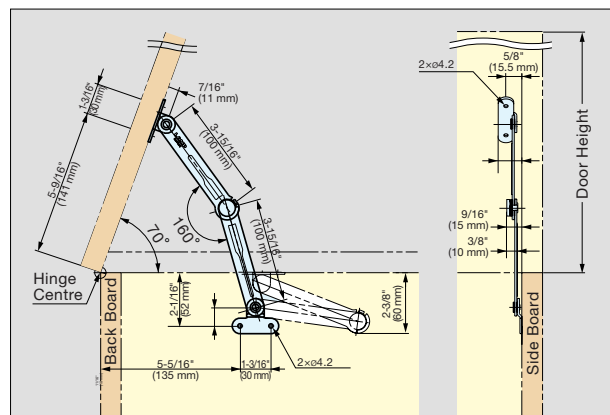
S-100T30

LID SUPPORTS

TORQUE LID STAYS (FREE STOP)



- Friction torque lid stay holds lid open at any position.
 - Narrow profile for unobtrusive installation.
 - Torque Calculation :
Torque = Door Height × 1/2 × Door Weight
 - Left- and Right-handed models available.
 - Can be used individually or in pairs.
- Note : 1) Not recommended for lids that will be continuously opened and closed.
2) Do not lubricate.



Item No.	Handing	Torque per piece	Weight (g)	Box (pcs)	Carton (pcs)
S-100T30R	Right	30.6 kg·cm ±20% (26.5 lbs·in ±20%)	100	30	120
S-100T30L	Left				

Part	Material	Finish
Body, Base & Bracket	430 Stainless Steel	Plain
Press washer & Pin	Phosphor Bronze	
Washer	Steel	

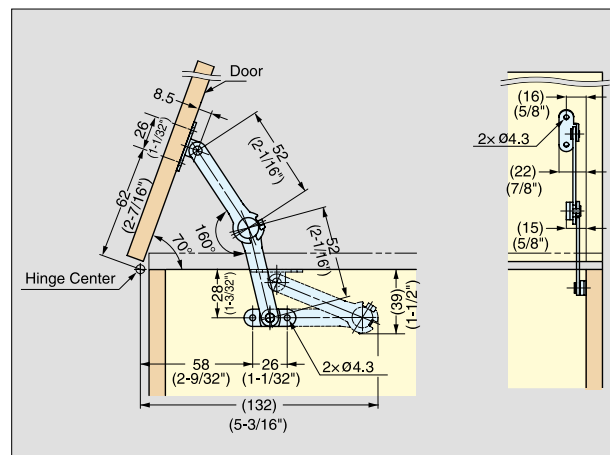
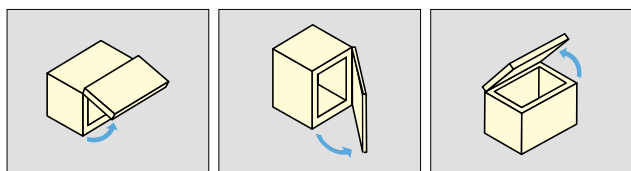
TORQUE LID STAY (FREE STOP)



S-52T15



- Friction torque lid stay holds lid open at any position.
 - Narrow profile for unobtrusive installation.
 - Left- and Right-handed models available.
 - Can be used individually or in pairs.
- Note : 1) Not recommended for lids that will be continuously opened and closed.
2) Do not lubricate.



Item No.	Handing	Torque per piece	Weight (g)	Box (pcs)	Carton (pcs)
S-52T15R	Right	15.3 kg·cm ±20% (13.3 lbs·in ±20%)	40	25	250
S-52T15L	Left				

Part	Material	Finish
Body, Base & Bracket	430 Stainless Steel	Plain
Press washer & Pin	Phosphor Bronze	
Washer	Steel	

LID STAY

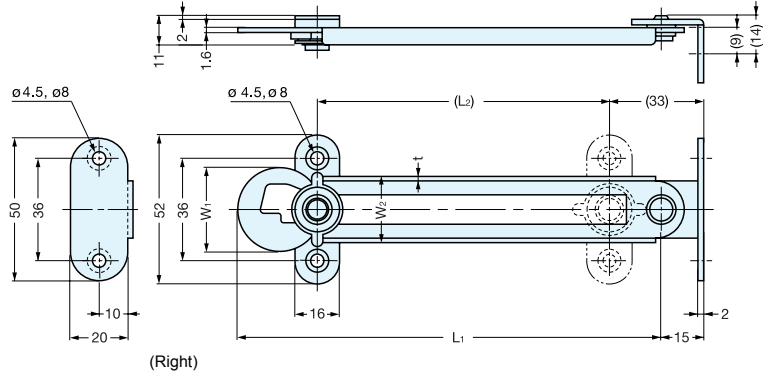
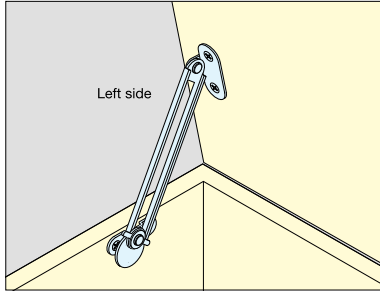


S-91, 92, 93



(Right)

- Automatically holds lid in opened position.
- Lift up lid to release.
- Can be installed individually or in pairs.
- Handed : Specific left and right hand mounting.



Material	Finish
304 Stainless Steel	Polished

Item No.		L ₁	(L ₂)	W ₁	W ₂	t	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right									
S-91L	S-91R	277 (10-29/32")	230	30	24	2.0	40 (88 lbs)	120	100	1000
S-92L	S-92R	198 (7-51/64")	152	28	23	1.5		85	30	180
S-93L	S-93R	150 (5-29/32")	105				30	66 lbs)	75	60

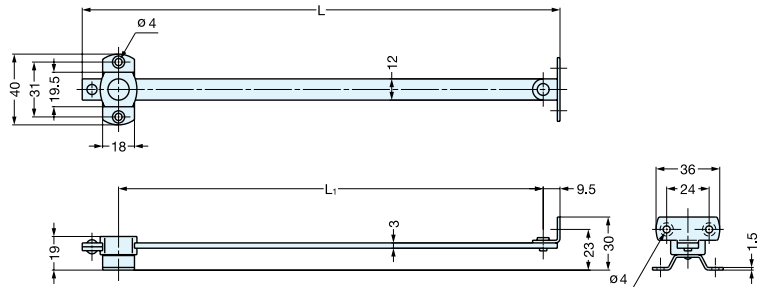
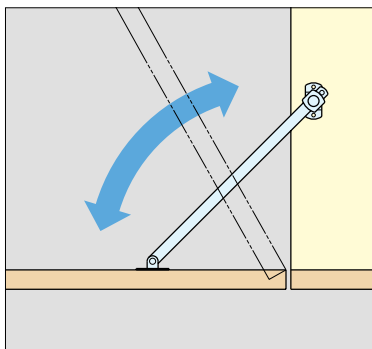
LID STAY



HS



- For downward-opening flap doors.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.



Material	Finish/Color
304 Stainless Steel	Satin
Polyamide	White

Item No.	L	L ₁	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
HS-180	210 (8-17/64")	180 (7-3/32")	10 (22.0 lbs)	80	20	220
HS-210	240 (9-29/64")	210 (8-17/64")	12 (26.5 lbs)	90		
HS-240	270 (10-5/8")	240 (9-29/64")	13 (28.5 lbs)	100		

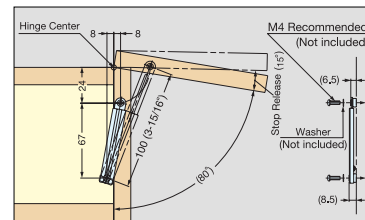
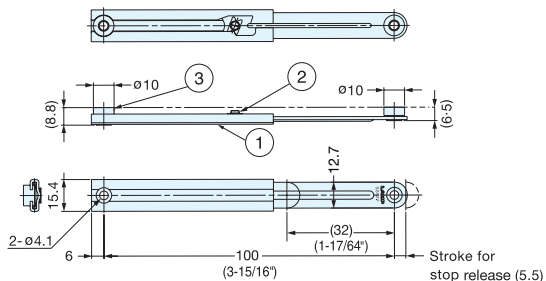
ULTRA MINI LID STAY



L-100S



- Holds lid or panel in opened position.
- Lift up lid to release.
- Non-Handed : Can be installed on left or right side.
- Compact design.
- Can be installed individually or in pairs.
- Designed for use with L-S-BT mounting brackets, sold separately.



*Lid stay must be installed parallel to the sidewall.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
L-100S	6 (13.2 lbs)	31	30	300

No.	Part Name	Material	Finish
①	Housing	304 Stainless Steel	Polished
②	Washer	Polyamide	-
③	Bracket	304 Stainless Steel	-

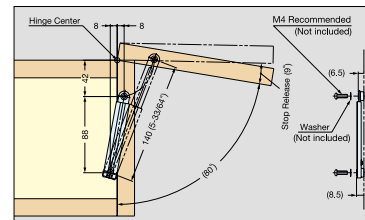
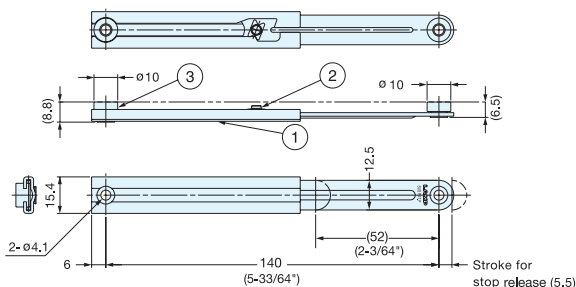
ULTRA MINI LID STAY



L-140S



- Holds lid or panel in open position.
- Lift up lid to release.
- Non-Handed : Can be installed on left or right side.
- Compact design.
- Can be installed individually or in pairs.
- Designed for use with L-S-BT mounting brackets, sold separately.



*Lid stay must be installed parallel to the sidewall.

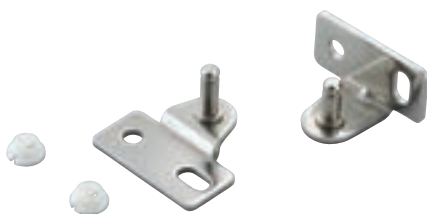
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
L-140S	6 (13.2 lbs)	38	30	300

No.	Part Name	Material	Finish
①	Housing	304 Stainless Steel	Polished
②	Washer	Polyamide	-
③	Bracket	304 Stainless Steel	-

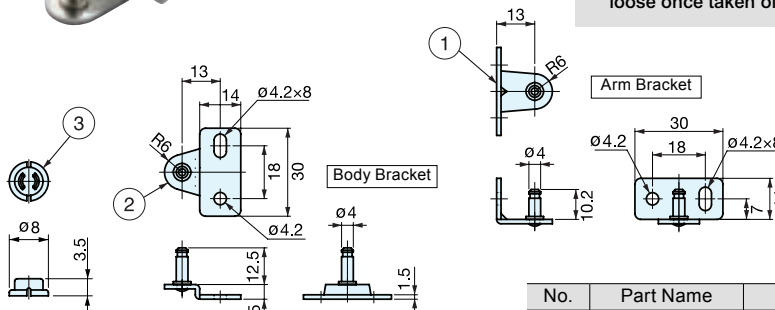
MOUNTING BRACKET



L-S-BT



- Optional brackets for L-100S and L-140S stays.
- Brackets for arm and body sold as set.
- Insert the retainer and bracket firmly into the stay.
- *Do not re-use the bracket. Retainer may become loose once taken off from stay.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
L-S-BT	20	30	300

No.	Part Name	Material	Finish
①	Arm Bracket	304 Stainless Steel	Polished
②	Body Bracket		
③	Retainer	Polyacetal	White

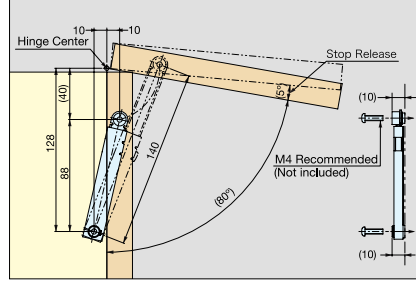
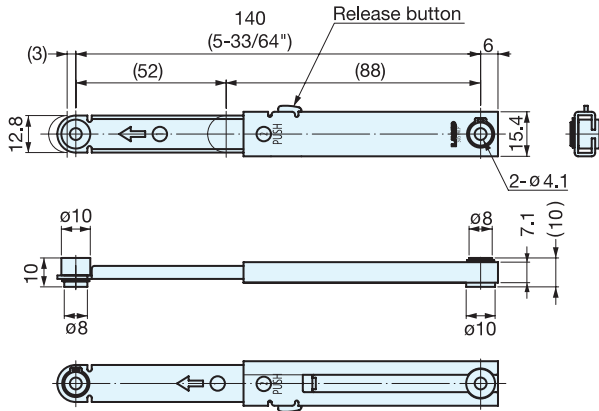
MINI LID STAY (W/LOCK)



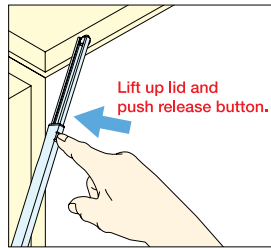
L-SL140



- Automatically locks lid/panel when fully opened.
- Push button to release.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Mounting brackets (L-SL140-BT) available separately.



*Lid stay must be installed parallel to the sidewall.



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
L-SL140	15 (33 lbs)	40	30	300	304 Stainless Steel	Polished

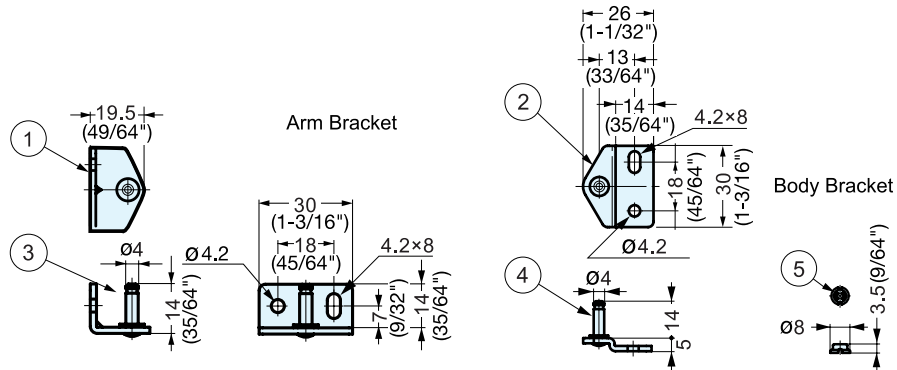
MOUNTING BRACKET



L-SL140-BT



- Optional brackets for L-SL140 stay.
- Insert the retainer and bracket firmly into the stay.
- * Do not re-use the bracket. Retainer may become loose once taken off from stay



No.	Part Name	Material	Finish
①	Arm Bracket	304 Stainless Steel	Polished
②	Body Bracket		
③	Arm Bracket Pin	303 Stainless Steel	Plain
④	Body Bracket Pin		
⑤	Retainer	Polyacetal	Black

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
L-SL140-BT	28	30	300

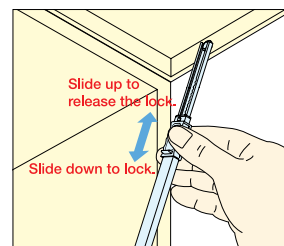
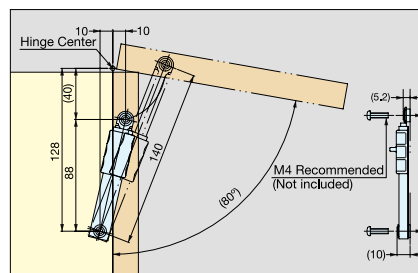
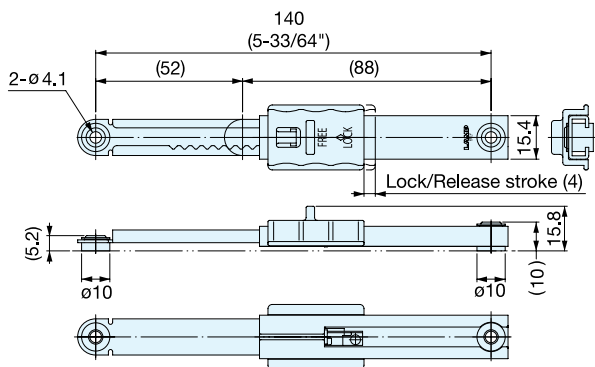
MINI LID STAY (W/LOCK)



L-FS140



- Locks lid/panel in multiple positions by manually sliding lock lever.
- Slide lever to lock/unlock.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Mounting brackets (L-FS140-BT) available separately.



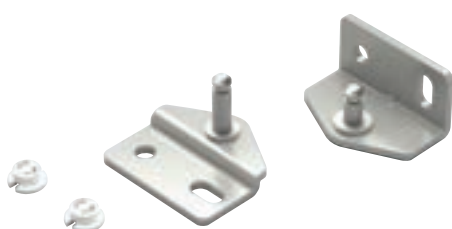
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
L-FS140	6 (13.2 lbs)	50	20	200

Material	Finish
304 Stainless Steel	Polished
Polyacetal	Dark Grey

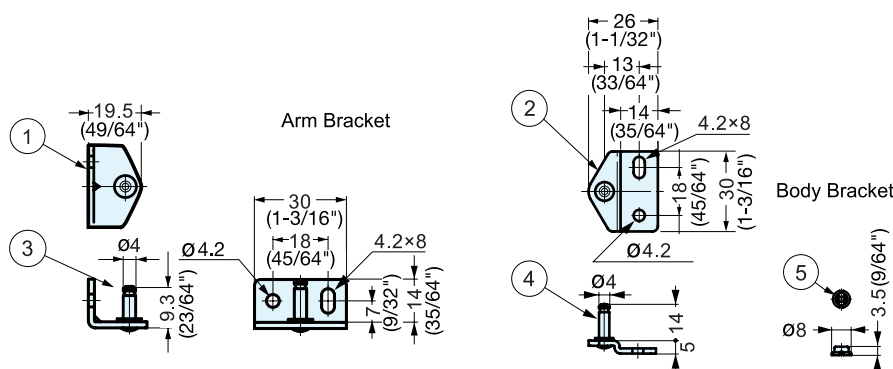
MOUNTING BRACKET



L-FS140-BT



- Optional brackets for L-FS140 stay.
- Insert the retainer and bracket firmly into the stay.
- * Do not re-use the bracket. Retainer may become loose once taken off from stay



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
L-FS140-BT	27	40	400

No.	Part Name	Material	Finish
①	Arm Bracket	304 Stainless Steel	Polished
②	Body Bracket		
③	Arm Bracket Pin	303 Stainless Steel	Plain
④	Body Bracket Pin		
⑤	Retainer	Polyacetal	Black

LOW PROFILE LID STAY



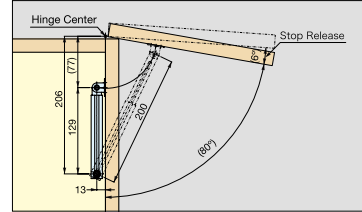
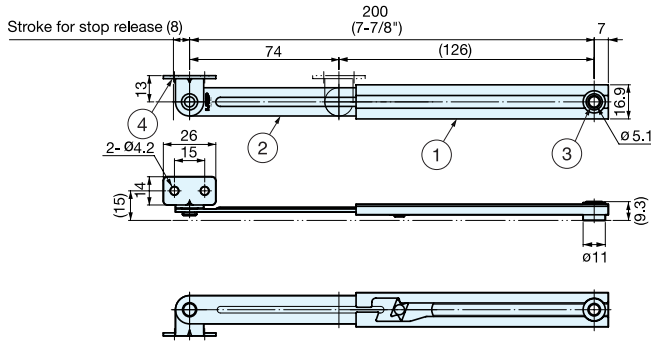
L-200P

LID SUPPORTS

LOW PROFILE LID STAYS / MOUNTING BRACKETS



- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Mounting brackets (L-200-BT) available separately.



*Lid stay must be installed parallel to the sidewall.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
L-200P	15 (33 lbs)	65	30	300

No.	Part Name	Material	Finish
①	Housing	304 Stainless Steel	Plain
②	Arm	304 Stainless Steel	Plain
③	Hosing Bracket	303 Stainless Steel	Plain
④	Arm Bracket	304 Stainless Steel	Polished

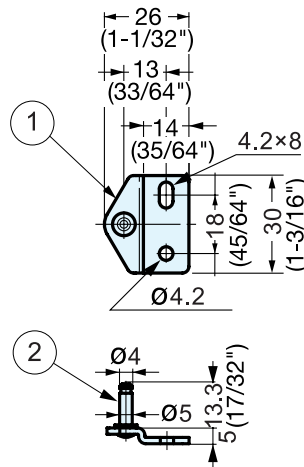
MOUNTING BRACKET



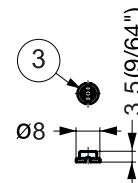
L-200P-BT



- Optional brackets for L-200P stay.
- Insert the retainer and bracket firmly into the stay.
- * Do not re-use the bracket. Retainer may become loose once taken off from stay



Body Bracket



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
L-200P-BT	14	30	300

No.	Part Name	Material	Finish
①	Arm Bracket	304 Stainless Steel	Polished
②	Body Bracket Pin		
③	Arm Bracket Pin	303 Stainless Steel	Plain

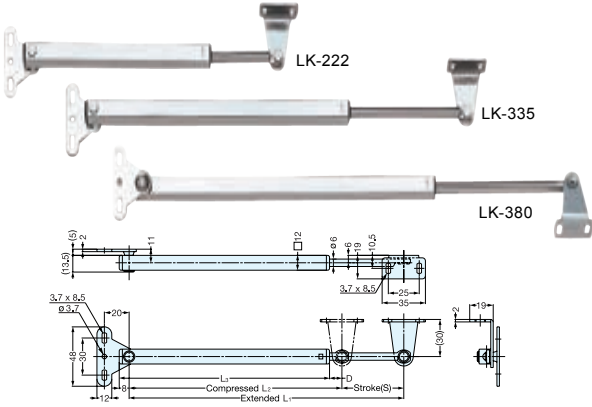
LID STAY



LK

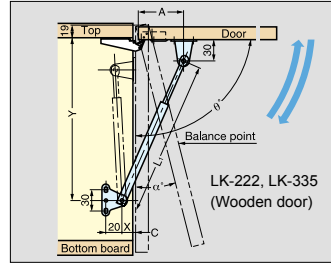
LID SUPPORTS

LID STAYS

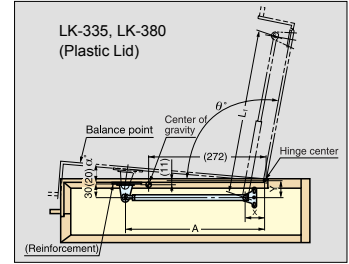


- Spring mechanism assists lifting door and holds in open position.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.

Mounting Example (1)



Mounting Example (2)



Drawing shown is based on C = 4 mm. If C = 0, please deduct 4 mm from "X" in the table below.

Material	Finish
303, 304 Stainless Steel	Satin

Door weight is based on door height : LK-222 = 350 mm, LK-335 = 500 mm

Item No.	Max. Door Weight (kg)	Door Opening (θ°)	α°	L ₁	A	X	Y
LK-222 (2 pcs)	2.5 (5.5 lbs)	90	17	222 (8-47/64")	70 (2-3/4")	20 (25/32")	235 (9-1/4")
	2.7 (5.9 lbs)	85	15	222 (8-47/64")	75 (2-61/64")	20 (25/32")	240 (9-29/64")
	3.0 (6.6 lbs)	75	14	222 (8-47/64")	85 (3-11/32")	20 (25/32")	251 (9-7/8")
LK-335 (2 pcs)	3.1 (6.8 lbs)	90	14	335 (13-3/16")	104 (4-3/32")	20 (25/32")	344 (13-35/64")
	3.3 (7.2 lbs)	85	12	335 (13-3/16")	112 (4-13/32")	20 (25/32")	351 (13-13/16")
	3.8 (8.3 lbs)	75	11	335 (13-3/16")	127 (5-1/8")	20 (25/32")	368 (14-31/64")

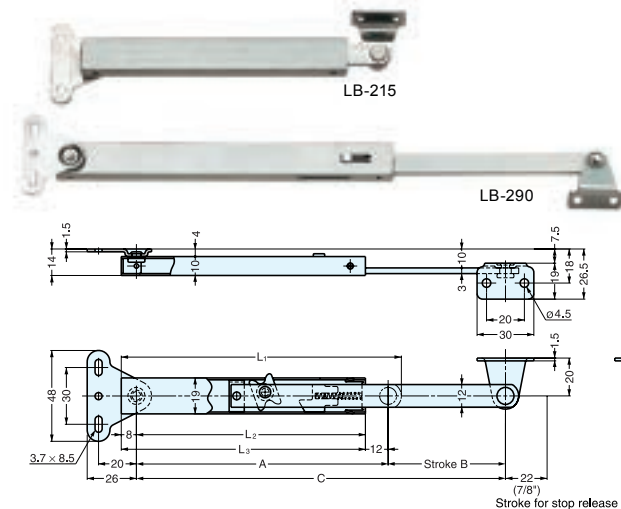
Item No.	Max. Door Weight (kg)	Door Opening (θ°)	α°	L ₁	A	X	Y
LK-335 (2 pcs)	2.5 (5.5 lbs)	90	0.5	335 (13-3/16")	295 (11-39/64")	45 (1-25/32")	38 (1-1/2")
	3.0 (6.6 lbs)	90	14.0	335 (13-3/16")	295 (11-39/64")	45 (1-25/32")	38 (1-1/2")
	3.3 (7.2 lbs)	85	12.0	335 (13-3/16")	295 (11-39/64")	45 (1-25/32")	44 (1-47/64")
LK-380 (2 pcs)	2.5 (5.5 lbs)	110	8.0	380 (14-31/32")	330 (13")	40 (1-37/64")	36 (1-27/64")
	3.0 (6.6 lbs)	90	3.5	380 (14-31/32")	335 (13-3/16")	55 (2-5/32")	44 (1-47/64")
	4.0 (8.8 lbs)	90	4.0	380 (14-31/32")	320 (12-19/32")	41 (1-39/64")	59 (2-21/64")
	4.3 (9.4 lbs)	80	7.5	380 (14-31/32")	335 (13-3/16")	56 (2-13/64")	60 (2-23/64")

Item No.	L ₁	L ₂	L ₃	S	D	Extended Force (kg)	Compressed Force (kg)	Weight (g)	Box (pcs)	Carton (pcs)
LK-222	222 (8-47/64")	172 (6-25/32")	170 (6-11/16")	50 (1-11/32")	10 (25/64")	3.2	7.0	145	25	150
LK-335	335 (13-3/16")	250 (9-27/32")	238 (9-3/8")	85 (3-11/32")	20 (25/32")	3.8	8.5	185		
LK-380	380 (14-31/32")	280 (11-1/32")	269 (10-19/32")	100 (3-15/16")	19 (3/4")	3.6	8.5	205		

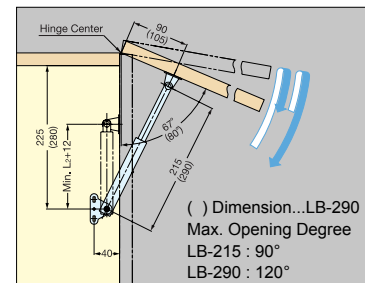
LID STAY



LB-215, 290



- Holds lid or panel in fully opened position.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Load Capacity : 15 kg (33 lbs)/each.



*Lid stay must be installed parallel to the sidewall.

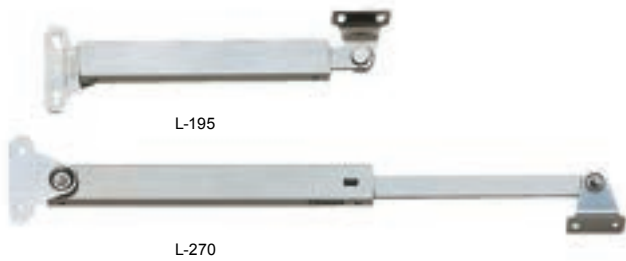
Material	Finish
Zinc Alloy/304 Stainless Steel	Chrome/Satin

Item No.	L ₁	L ₂	L ₃	A	B	C	Door Height (mm)	Weight (g)	Box (pcs)	Carton (pcs)
LB-215	168 (6-39/64")	141	149	153 (6-1/32")	62	215 (8-15/32")	260~350 (10-15/64"~13-25/32")	140	10	100
LB-290	205 (8-1/16")	178	186	190 (7-31/64")	100	290 (11-27/64")	340~500 (13-25/64"~19-11/16")	160		

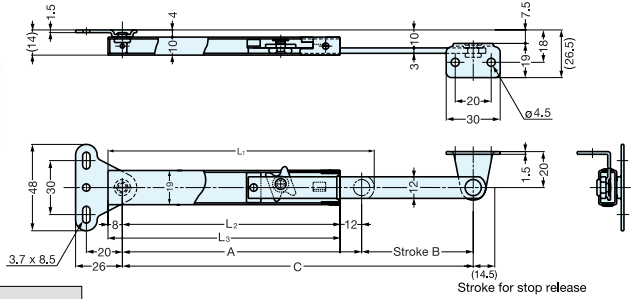
LID STAY



L

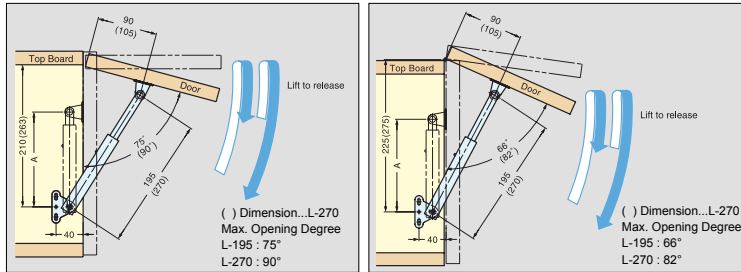


- Holds lid or panel in fully opened position.
- Lift up lid to release.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Load Capacity : 15 kg (33 lbs)/each.



With Concealed Hinge

With Piano/Butt Hinge



*Lid stay must be installed parallel to the sidewall.

Material	Finish
304 Stainless Steel	Satin

Item No.	L ₁	L ₂	L ₃	(A)	(B)	C	Door Height (mm)	Weight (g)	Box (pcs)	Carton (pcs)
L-195	148 (5-53/64")	121	129	133 (5-15/64")	62	195 (7-43/64")	250~350 (9-27/32"~13-25/32")	125	10	100
L-270	185 (7-9/32")	158	166	170 (6-11/16")	100	270 (10-5/8")	320~500 (12-19/32"~19-11/16")	150		

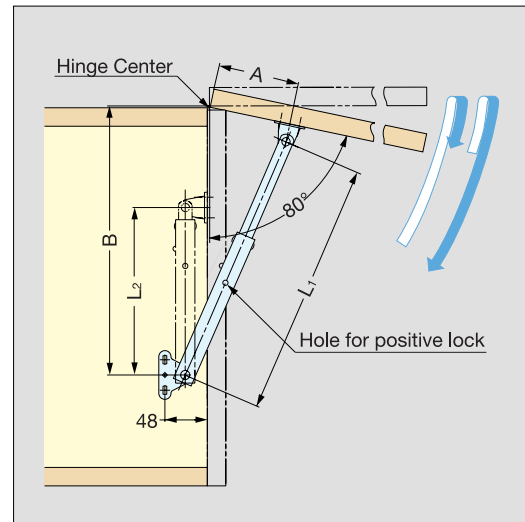
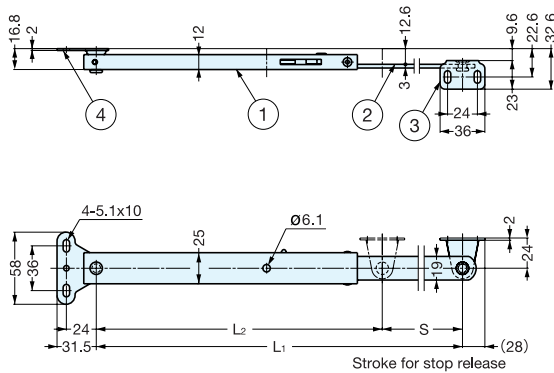
LID STAY



LB



- Holds lid or panel in fully opened position.
- Lift up lid to release.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.



No	Part Name	Material	Finish
①	Housing	304 Stainless Steel	Satin
②	Arm		
③	Housing Bracket		
④	Arm Bracket		

Item No.	L ₁	L ₂	S	A	B	Load Capacity (kg)	Box (pcs)	Carton (pcs)
LB-200	200 (7- 7/8")	(155) (6-3/32")	45	56	219	30 (66 lbs)	10	40
LB-350	350 (13-25/32")	(230) (9-3/64")	120	128	364	25 (55 lbs)		20
LB-500	500 (19-11/16")	(305) (12-1/64")	195	195	510	20 (44 lbs)		

LID STAY (CLEAN ROOM)

STAINLESS
304
STEEL

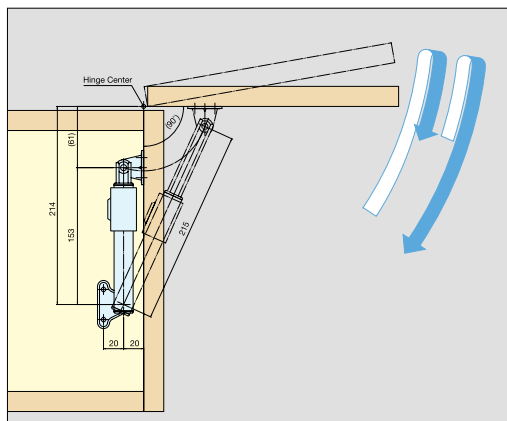
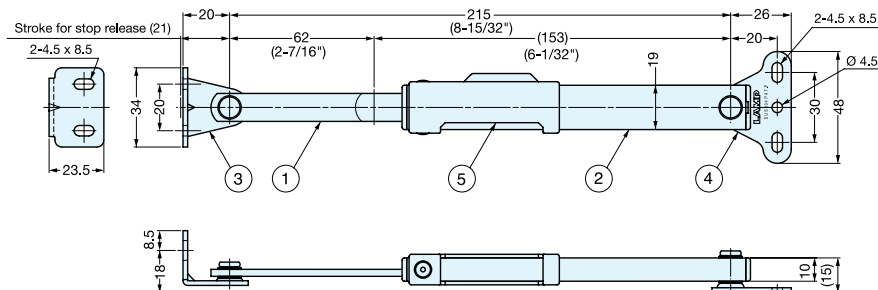
LOAD CAPACITY
15 kg
33 lbs

NO SCREW

LB-CV215A



- Holds lid or panel in fully opened position.
- Plastic bushing and end cap minimizes particles.
- No metal-to-metal contact.
- Ideal for clean room, semiconductor and food industry applications.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.



*Lid stay must be installed parallel to the sidewall.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish/Color
					LB-CV215A	15 (33 lbs)
					ABS	White

CLEAN ROOM HARDWARE



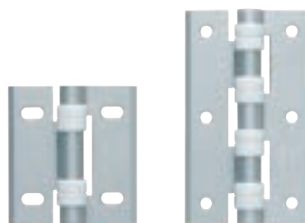
MC-JM45

Please see page 104 for details



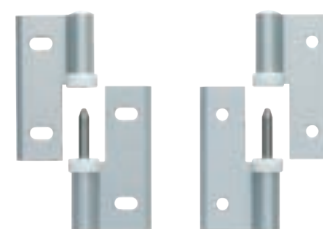
MC-JM63G

Please see page 104 for details



HG-CV

Please see page 228 for details



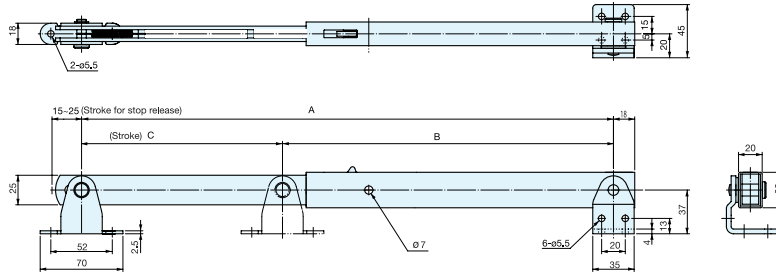
HG-CV-65N

Please see page 228 for details

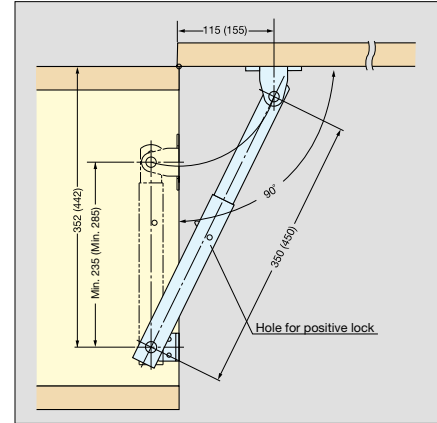
HEAVY DUTY LID STAY



LB-S



- Heavy duty lid stay holds lid or panel in fully opened position.
- Lift up the lid to release.
- Can be installed individually or in pairs.
- Non-Handed: Can be installed on left or right side.



Measurements above in () are for LB-S450.
*Lid stay must be installed parallel to the sidewall.

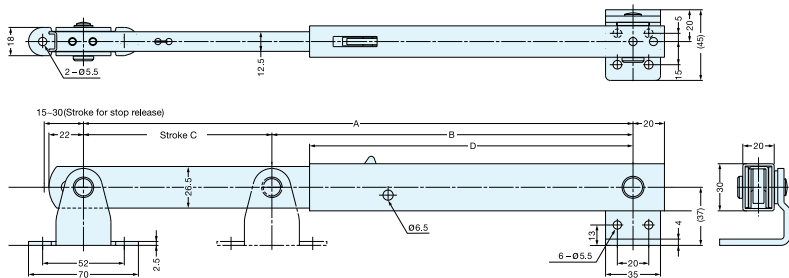
Material	Finish
304 Stainless Steel	Satin

Item No.	(A)	B	C	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
LB-S350	350 (13-25/32")	230 (9-1/16")	120 (4-23/32")	133 (293 lbs)	745	5	20
LB-S450	450 (17-25/32")	280 (11-1/32")	170 (6-11/16")	97 (214 lbs)	865		

HEAVY DUTY MULTI-ANGLE LID STAY

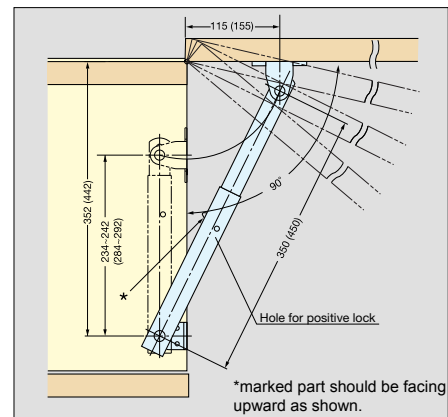


LBTS



Above drawing shows LBTS left-hand mounting.

- Ratchet stay holds lid at multiple angles.
- Fully lift up lid to release.
- Can be installed individually or in pairs.
- Handed left or right.



Measurements above in () are for LBTS-450R.
*Lid stay must be installed parallel to the sidewall.

Material	Finish
304 Stainless Steel	Satin

Item No.	Left	Right	(A)	B	C	D	Stop Positions	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
LBTS-450L	LBTS-450R	450 (17-25/32")	280 (11-1/32")	170 (6-11/16")	256 (10-5/64")	6	820				

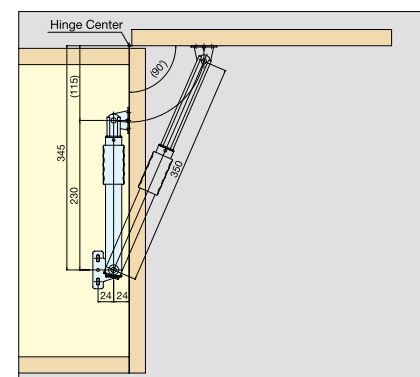
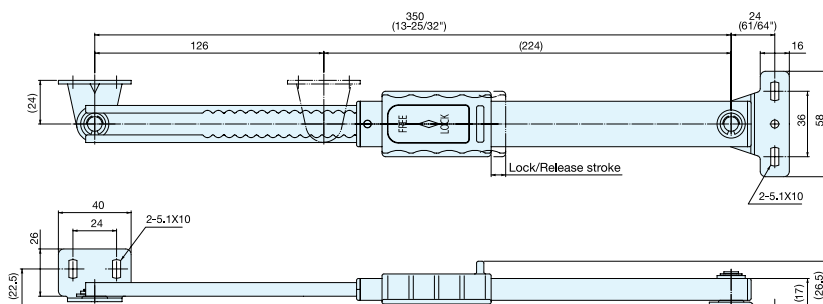
MULTI-ANGLE LID STAY (W/LOCK)



L-FS350A



- Locks lid in multiple positions by manually sliding lock lever.
- Slide back lever to lock/unlock.
- Ideal for vibration or shock applications.
- Can be installed individually or in pairs.
- Non-Handed: Can be installed on left or right side.



*Lid stay must be installed parallel to the sidewall.

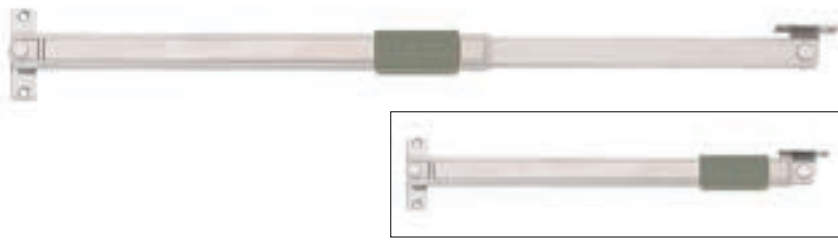
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
L-FS350A	25 (55 lbs)	325	5	50

Material	Finish/Color
304 Stainless Steel	Satin
Polyacetal	Dark Grey

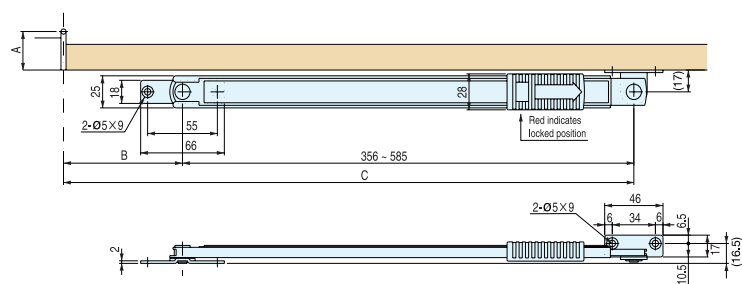
MULTI-ANGLE LID STAY



U-3005



- Locks lid in multiple positions by manually sliding lock lever.
- Slide back lever to lock/unlock.
- Ideal for vibration or shock applications.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.
- Door opening angle: 100° maximum
- Recommended door size
Height - Max. 2,000 mm (78-3/4")
Width - 600~910 mm (23-5/8"~35-53/64")
Thickness - 25~45 mm (1"~1-3/4")
- Weight - Max. 20 kg (44 lbs)



A, B and C dimensions are for 90° door opening angle.

	A	B	C		
	30 (1-11/64")	160 (6-19/64")	525 (20-49/64")	35 (1-3/8")	50 (1-31/32")
		160 (6-19/64")	520 (20-15/32")	160 (6-19/64")	155 (6-3/32")
			515 (20-9/32")	160 (6-19/64")	505 (19-7/8")

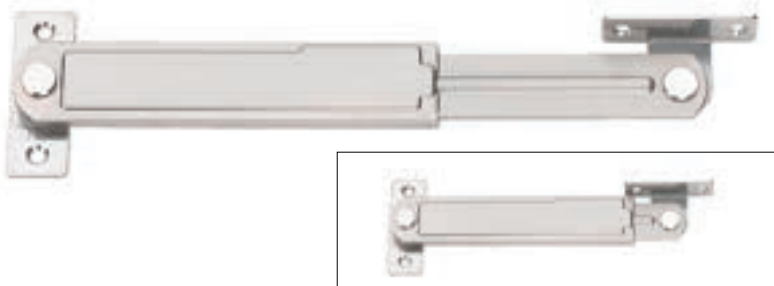
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
U-3005	338	6	60

Material	Finish/Color
304 Stainless Steel	Satin
Polyacetal	-

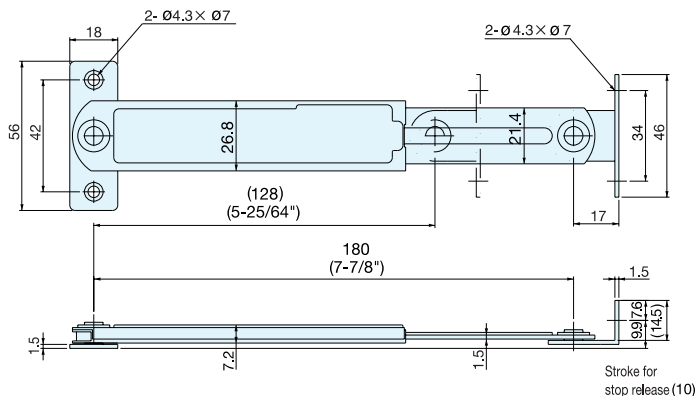
MULTI-ANGLE LID STAY



U-3031



- Ratcheting stay holds flap lid at multiple angles.
- Non-handed.
- Thin and compact design.
- Completely open the door to release lock.
- Completely close the door to re-engage the lock.



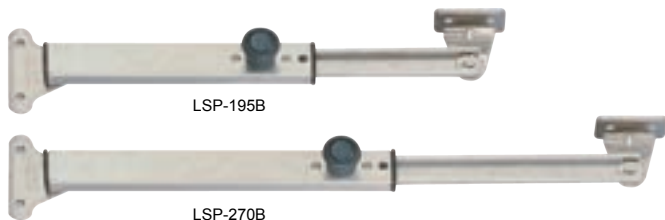
Material	Finish
304 Stainless Steel	Satin

Item No.	Stop Positions	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
U-3031	15	7 (15 lbs)	127	10	100

LID STAY (W/LOCK)



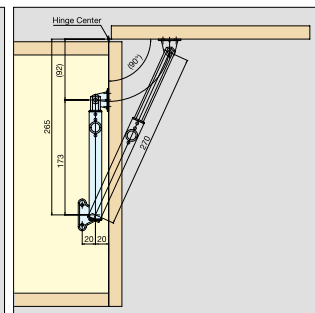
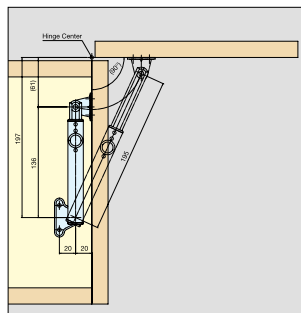
LSP



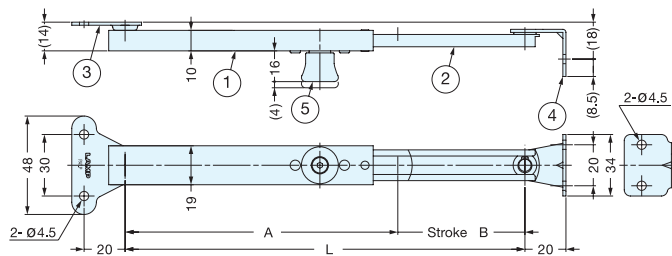
- Automatically locks lid when fully opened.
- Pull the locking knob to release lock.
- Ideal for vibration or shock applications.
- Can be installed individually or in pairs.
- Non-Handed : Can be installed on left or right side.

LSP-195B

LSP-270B



*Lid stay must be installed parallel to the sidewall.



No.	Part Name	Material	Finish/Color
①	Case	304 Stainless Steel	Satin
②	Arm		
③	Case Bracket		
④	Arm Bracket		
⑤	Locking knob	ABS	Dark Grey

Item No.	L	A	B	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
LSP-195B	195 (7-43/64")	133 (5-15/64")	62 (2-7/16")	30 (66 lbs)	126	6	60
LSP-270B	270 (10-5/8")	170 (6-11/16")	100 (3-15/16")		147		

SPRING LOADED LID STAY



S-YT

LID SUPPORTS

SPRING LOADED LID STAYS

- Spring mechanism assists in lifting door and holds in open position.
- Handed: Specific left and right hand mounting.

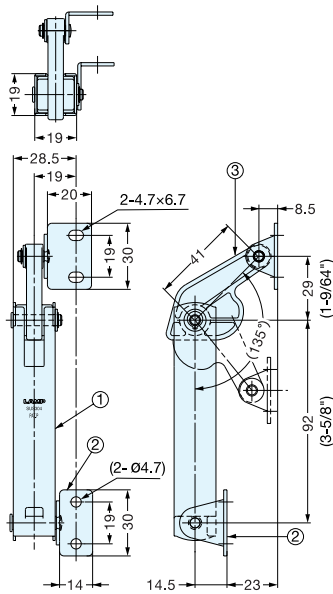


Back panel mount type

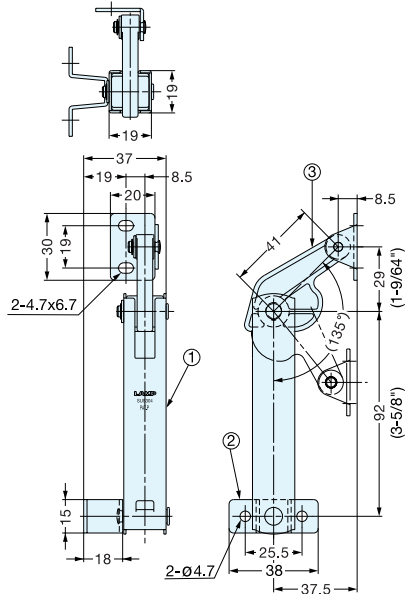
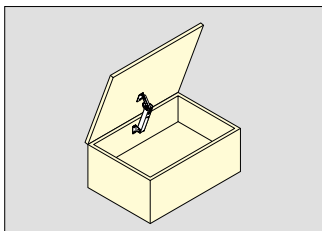
Side mount type
(Left handed shown)



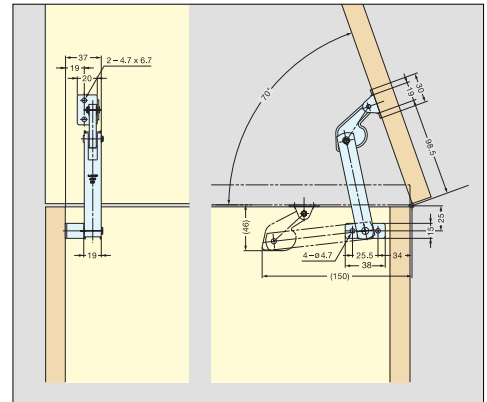
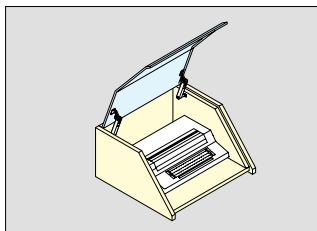
Side mount type



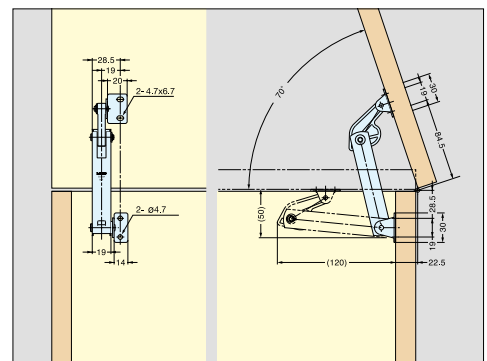
Back panel mount type



Side mount type



For side mount type



For back panel mount type

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Plain
②	Bracket	304 Stainless Steel	Plain
③	Arm	Polyacetal	-

Item No.		Spring Tension	Mounting Type	Max. Torque (kgf-cm)	Weight (g)	Box (pcs)	Carton (pcs)
Left	Right						
S-YT01L	S-YT01R	Soft	Side	30 (26 lbs-in)	118	10	100
S-YT02L	S-YT02R	Hard		40 (34 lbs-in)			
S-YT01S		Soft	Back Panel	30 (26 lbs-in)			
S-YT02S		Hard		40 (34 lbs-in)			

BALANCE ADJUSTABLE SPRING LOADED LID STAY



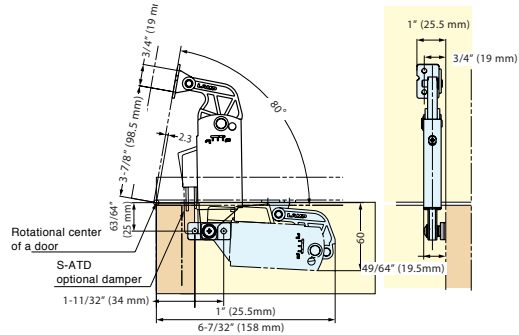
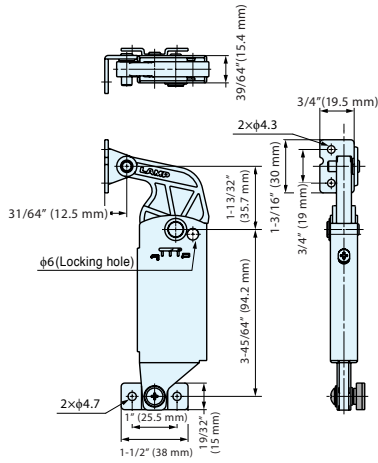
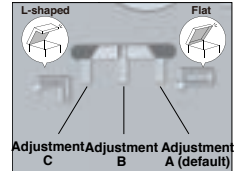
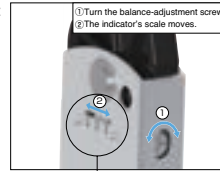
S-ATJ



(Shown with S-ATD damper)

- Side wall mounted.
- Spring mechanism assists in lifting door and holds in open position (10°~80°).
- The balance adjustment allows for use in wider range of lids.
- Can be installed individually or in pairs.
- Non-Handed: Can be installed on left or right side.
- Does not work with concealed hinges.
- Optional add on damper S-ATD.

Balance Adjustment



Item No.	Material	Finish	Max. Torque per piece (kgf·cm)	Box (pcs)	Carton (pcs)
S-ATJ01	430 Stainless Steel/	Plain	90 (78 lbs·in)	10	50
S-ATJ02	Steel/Polyacetal		120 (104 lbs·in)		

BALANCE ADJUSTABLE SPRING LOADED LID STAY



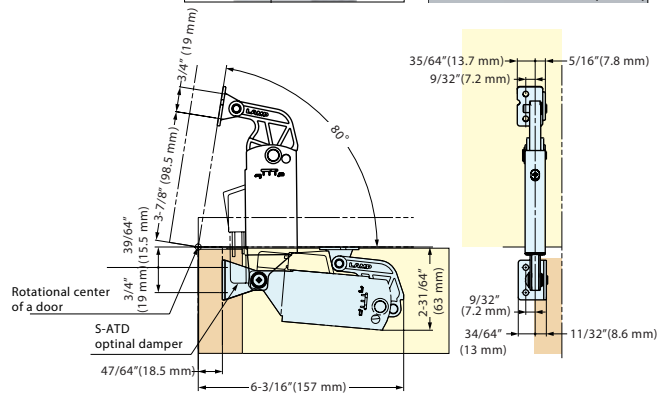
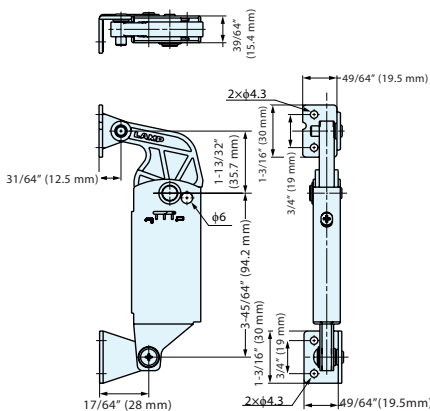
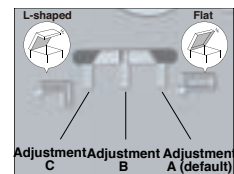
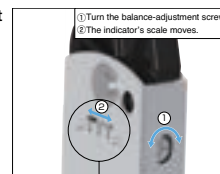
S-ATJD



(Shown with S-ATD damper)

- Back panel mounted.
- Spring mechanism assists in lifting door and holds in open position (10°~80°).
- The balance adjustment allows for use in wider range of lids.
- Can be used individually or in multiples.
- Does not work with concealed hinges.
- Optional add on damper S-ATD.

Balance Adjustment



Item No.	Material	Finish	Max. Torque per piece (kgf·cm)	Box (pcs)	Carton (pcs)
S-ATJ01D	430 Stainless Steel/	Plain	90 (78 lbs·in)	10	50
S-ATJ02D	Steel/Polyacetal		120 (104 lbs·in)		

DAMPER FOR S-ATJ & S-ATJD

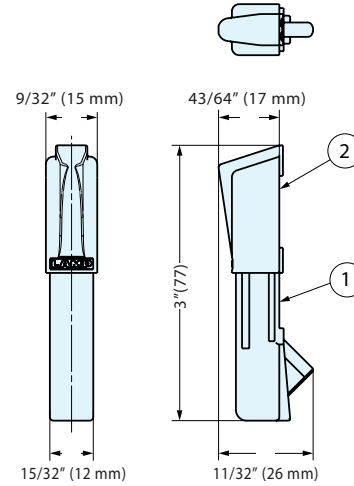
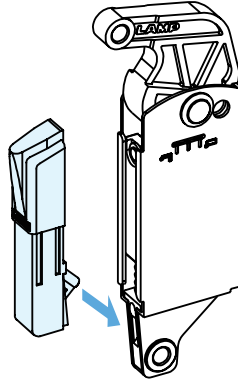


S-ATD

- Soft-close damper designed for use with the S-ATJ & S-ATJD.
- Easy to install.



(When attached to S-ATJD)



No.	Part Name	Material	Finish
①	Damper Case	Polyacetal	Black
②	Slider	Plastic (PBT)	

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
S-ATD-30	15	50	-

BALANCE ADJUSTABLE SPRING LOADED LID STAY

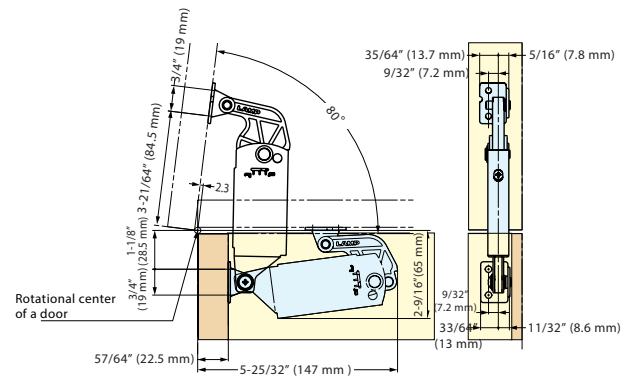
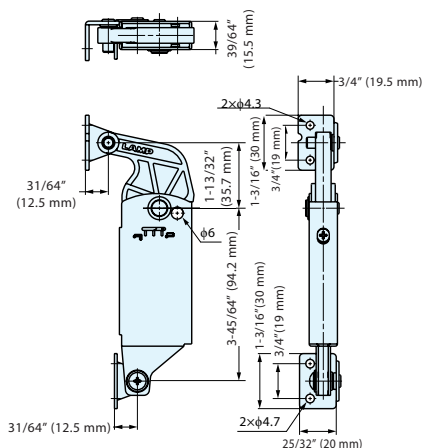
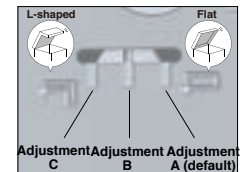
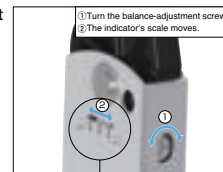


S-ATJS

- Back panel mounted.
- Spring mechanism assists in lifting door and holds in open position (10°~80°).
- The balance adjustment allows for use in wider range of lids.
- Can be used individually or in multiples.
- Does not work with concealed hinges.
- Damper option not available.



Balance Adjustment



Item No.	Material	Finish	Max. Torque per piece (kgf·cm)	Box (pcs)	Carton (pcs)
S-ATJ01S	430 Stainless Steel/ Steel/Polyacetal	Plain	90 (78 lbs-in)	10	50
S-ATJ02S			120 (104 lbs-in)		

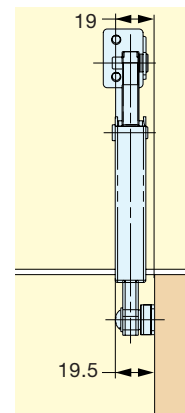
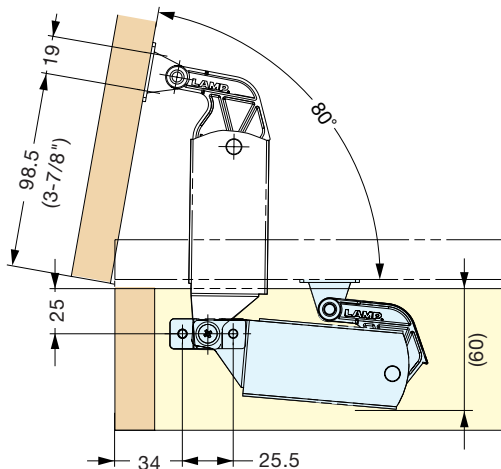
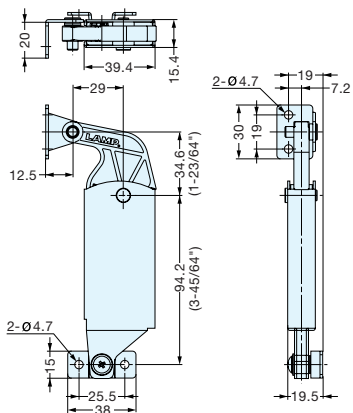
SPRING LOADED LID STAY



S-AT01, S-AT02



- Side wall mounted.
- Spring mechanism assists in lifting door and holds in open position (10°~80°).
- Can be installed individually or in pairs.
- Non-Handed: Can be installed on left or right side.
- Does not work with concealed hinges.



Item No.	Max. Torque per piece (kgf-cm)	Box (pcs)	Carton (pcs)	Material	Finish
S-AT01	90 (78 lbs-in)	10	50	430 Stainless Steel/ Steel/Polyacetal	Plain
S-AT02	120 (104 lbs-in)				

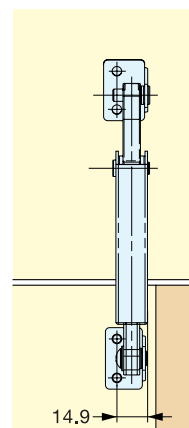
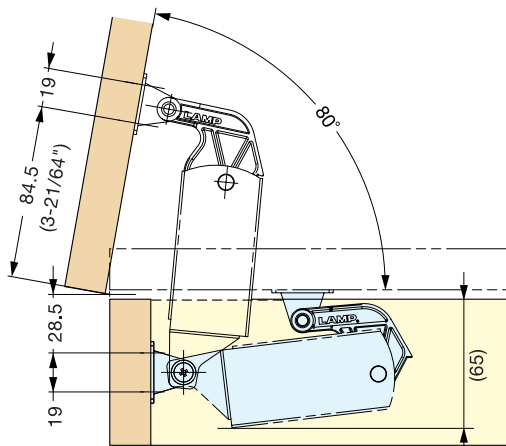
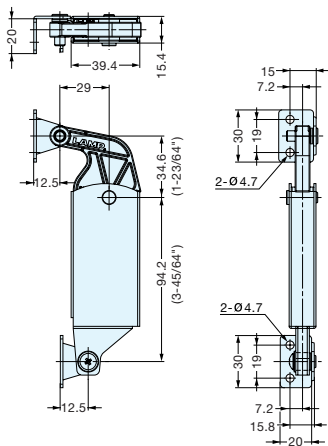
SPRING LOADED LID STAY



S-AT01S, S-AT02S



- Back panel mounted.
- Spring mechanism assists in lifting door and holds in open position (10°~80°).
- Can be used individually or in multiples.
- Does not work with concealed hinges.



Item No.	Max. Torque per piece (kgf-cm)	Box (pcs)	Carton (pcs)	Material	Finish
S-AT01S	90 (78 lbs-in)	10	50	430 Stainless Steel/ Steel/Polyacetal	Plain
S-AT02S	120 (104 lbs-in)				

MINI-DOOR CLOSER (W/DAMPER)



YMC

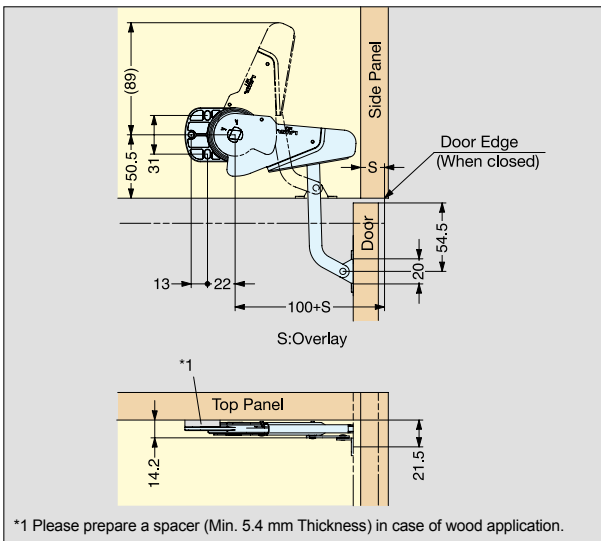
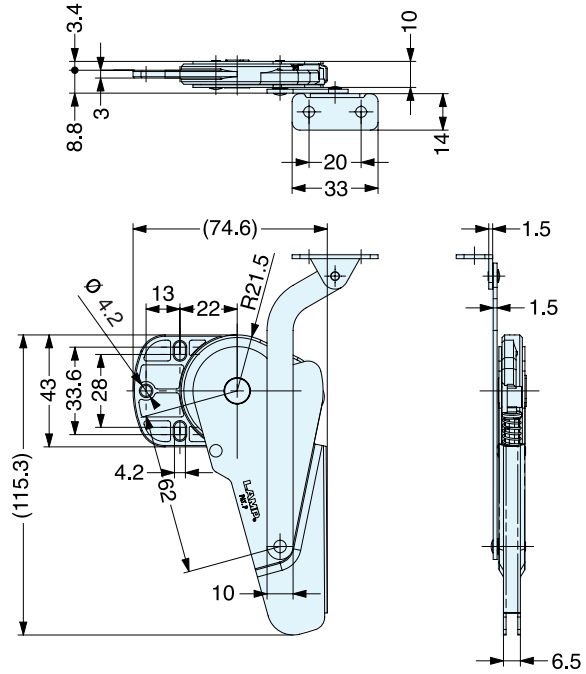


YMC-R

- Low profile door closer for small, horizontally swinging doors.
- Equipped with dampening mechanism for soft close.
- Stay will hold the door in 90° open position.
- Push the door to close. Once pushed, stay will gently pull the door and close.
- Thin body designed to be installed on top panel.
- Durable stainless steel construction.
- Handed: Specific left and right hand mounting.
- *Recommended screws : M4

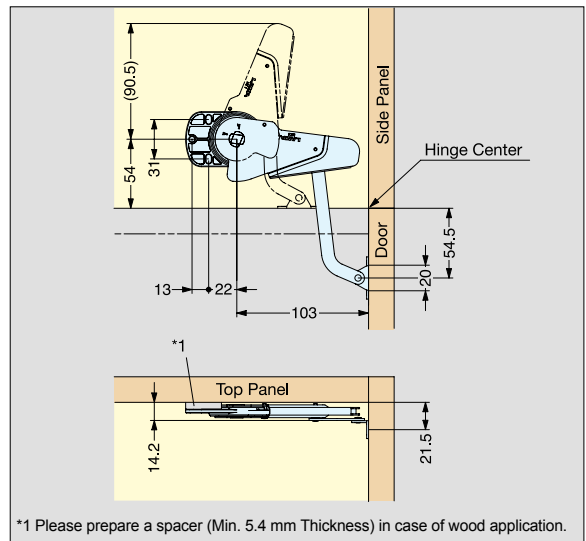


YMC-R model



*1 Please prepare a spacer (Min. 5.4 mm Thickness) in case of wood application.

Installation (With Concealed Hinge)



*1 Please prepare a spacer (Min. 5.4 mm Thickness) in case of wood application.

Installation (With Piano/Butt Hinge)

Item No.		Opening Angle	Door Weight (kg) (0.66~1.54 lbs)	Door Width (mm) (11-13/16")	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish/Color
Left	Right								
YMC-L	YMC-R	0°~90°		Max. 300 (11-13/16")	103	50	500	PBT, 304 Stainless Steel	Grey, Plain

LIFT ASSIST DAMPER (W/ANGLE STOPPER)

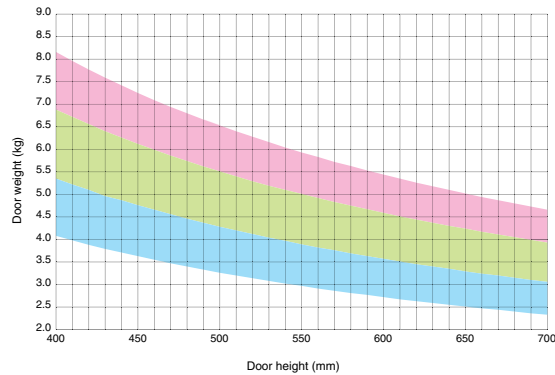
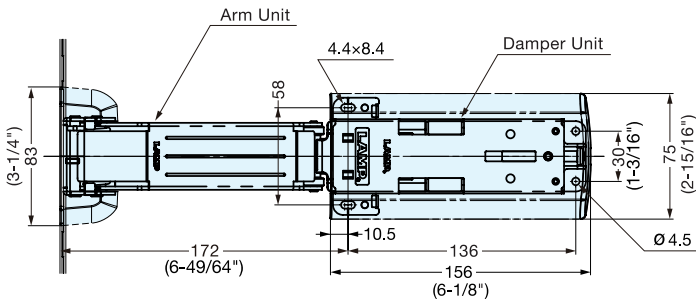
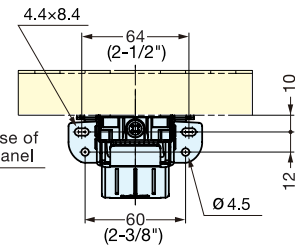
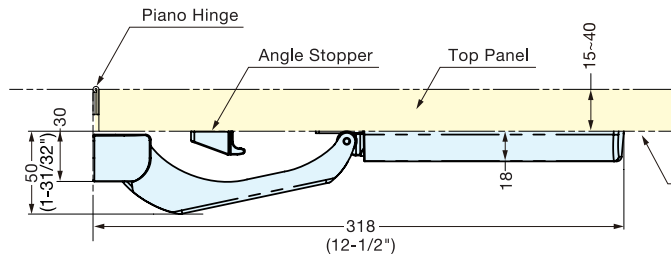
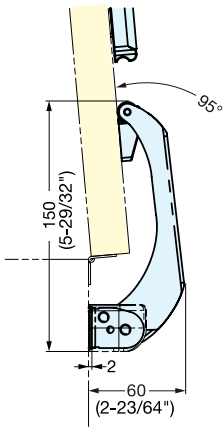
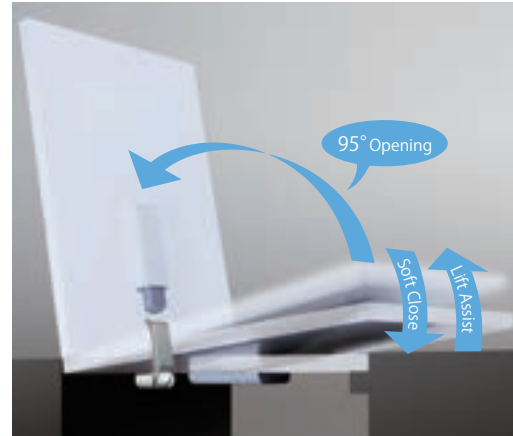


LAD-ST

LID SUPPORTS

LIFT ASSIST DAMPERS (W/ANGLE STOPPER)

- Ideal for bar and countertop applications.
- Angle stopper designed to hold open at 95°.
- Damper equipped for soft closing.
- Simple surface mount installation.
- Brackets, spacers and mounting plate accessories available (sold separately)



Item No.	Max. Torque per piece (kgf·cm)	Panel Thickness	Weight (g)	Carton (pcs)	Material	Finish
LAD-ST-L	81.6~107.1 (70.1 ~ 93.1 lbs-in)	15~40 mm (9/16"~1-9/16")	750	1	ABS/Polyacetal/ Steel/Zinc Alloy	Off White/ Chrome/ Nickel
LAD-ST-M	107.1~137.7 (93.1~119.7 lbs-in)					
LAD-ST-H	137.7~163.2 (119.7~141.9 lbs-in)					

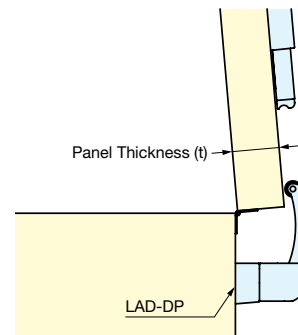
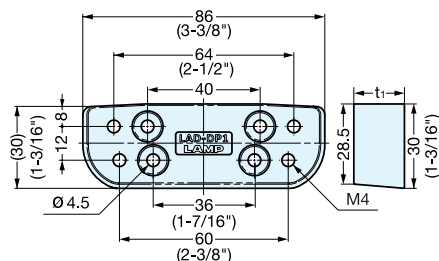
SPACER FOR THICKER PANEL



LAD-DP



• Optional spacer for LAD-ST.



Item No.	t ₁	Panel Thickness (t)	Box	Carton (pcs)	Material	Color
LAD-DP1	18 (3/4")	25~35 mm	50	200	Polyacetal	Grey
LAD-DP2	25 (1")	30~40 mm				

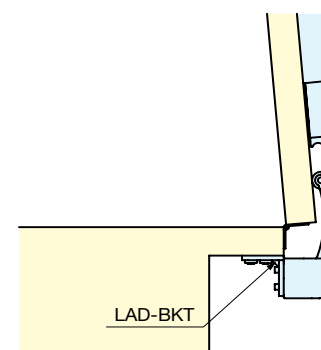
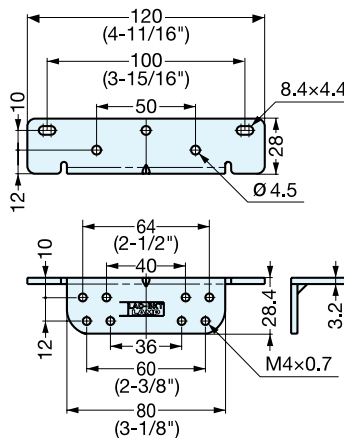
UNDER MOUNTING BRACKET



LAD-BKT



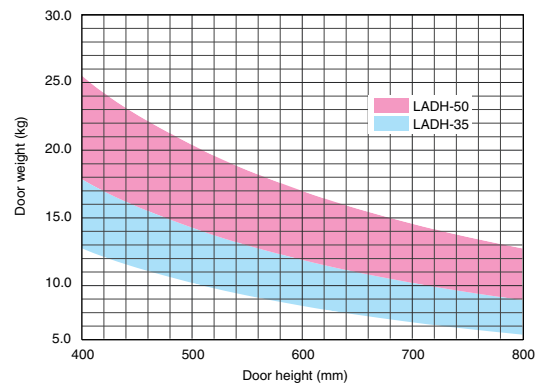
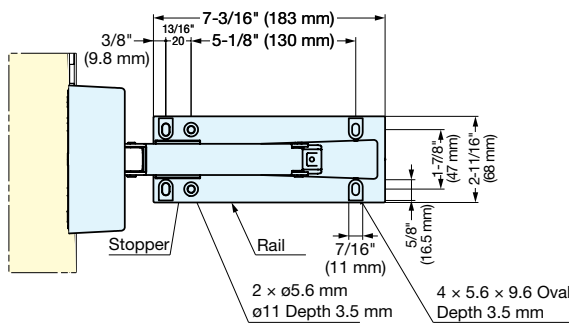
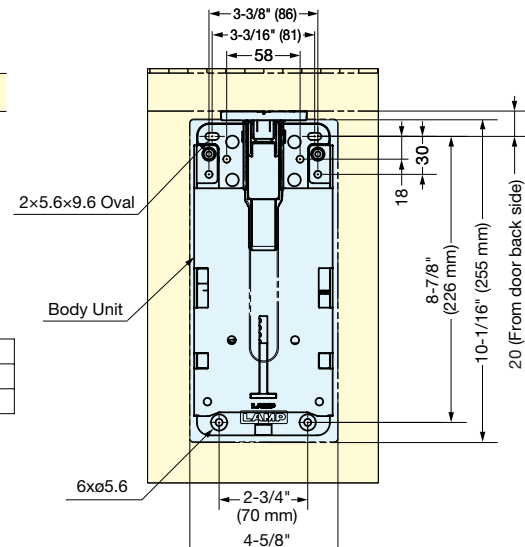
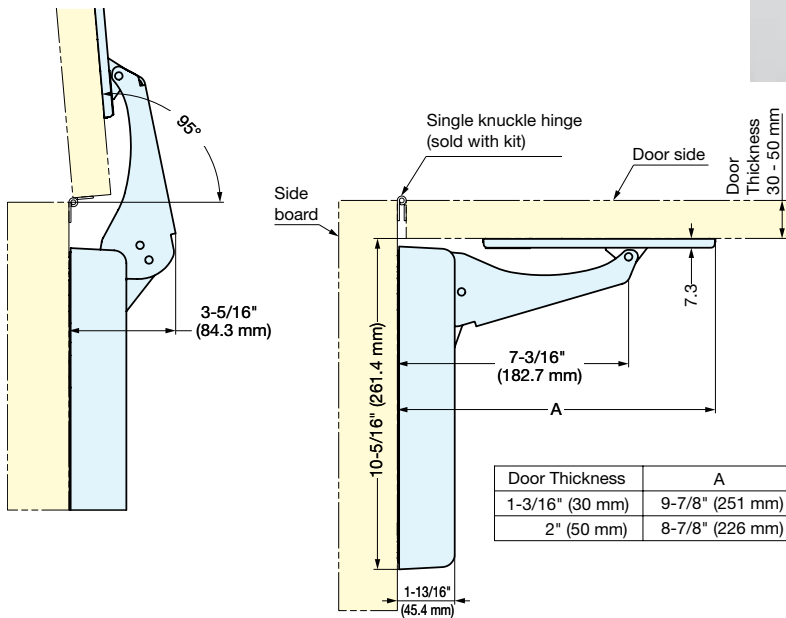
• Optional under mounting bracket for LAD-ST.



Item No.	Material	Box	Carton (pcs)	Color
LAD-BKT	Steel	20	100	Nickel

LIFT-ASSIST DAMPER (Heavy Duty)

- Add a smooth soft-close to counter tops in restaurants, bars and reception desks to prevent slamming.
- Lift-Assist feature helps users lift countertop
- Holds door open at 95 degrees.
- Easy installation - surface mounted and can be retrofitted
- Stainless steel piano hinge included (see next page for details)



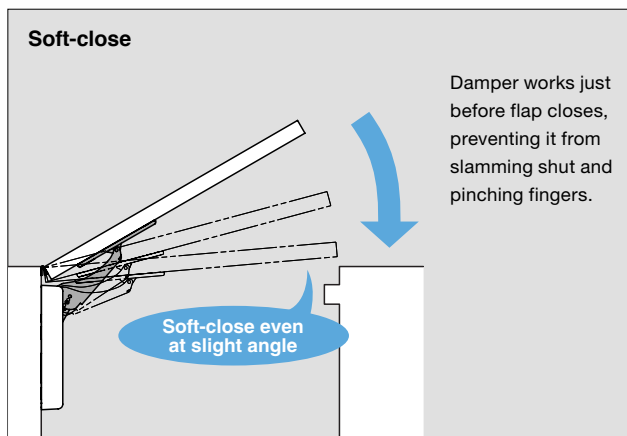
Item No.	Max. Torque per piece (lbs-in)	Panel Thickness	Wt (g)	Box (pcs)	Material	Finish
LADH-35	221 ~ 309	30~50 mm (1-3/16"~2")	2,000	1	Steel (SPCC)/ Polyacetal (POM)/ABS	Arm: Nickel Chrome Body: Dark Brown Other Parts: Nickel Plating
LADH-50	309 ~442					

LIFT-ASSIST DAMPER (Heavy Duty)

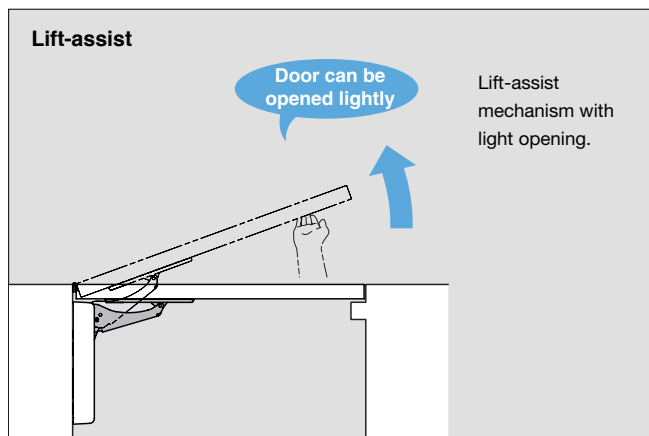


LADH

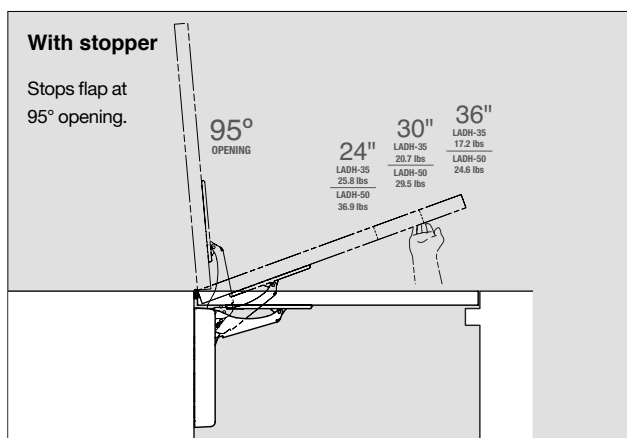
LID SUPPORTS



Damper works just before flap closes, preventing it from slamming shut and pinching fingers.

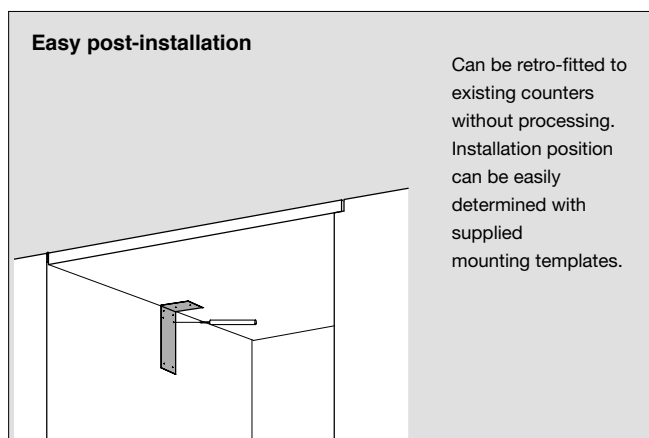


Lift-assist mechanism with light opening.



With stopper

Stops flap at 95° opening.



Easy post-installation

Can be retro-fitted to existing counters without processing. Installation position can be easily determined with supplied mounting templates.

STAINLESS STEEL PIANO HINGE for LADH



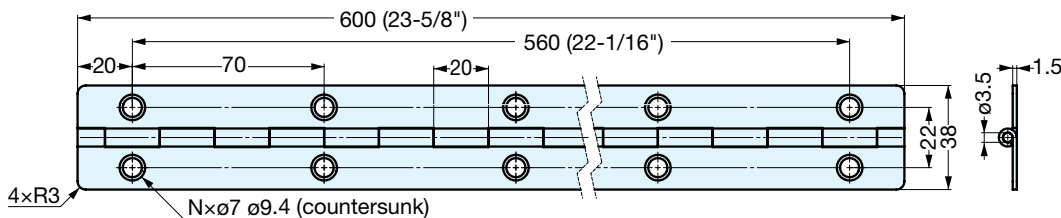
LSN-C



- Recommended use with LADH Lift Assist Damper
- Please note this product is designed for use on wood. Hole positioning on wood should be done by aligning the actual hinge. This product is not suitable for sheet metal or installations with hole pitch limitations.
- Included as part of the LADH Heavy Duty Lift Assist Damper set.
- Hinge can be cut down to shorter desired length.

Item No.	Weight (g)	Material	Finish
LSN15-38-600C	300	Stainless Steel	Polished

Other sizes available



ENCLOSURE DOOR STOPS



YFN



YFN-200



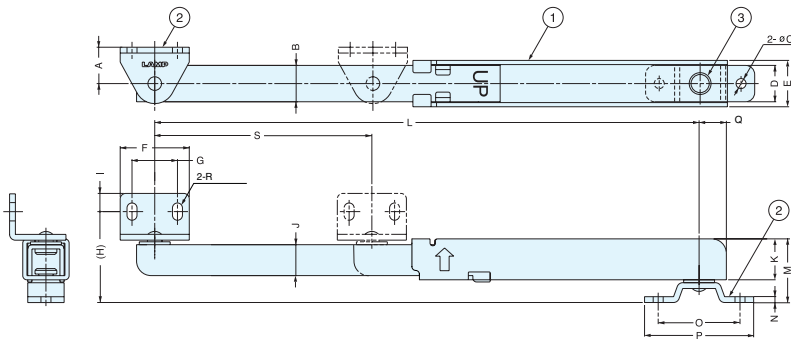
YFN-300



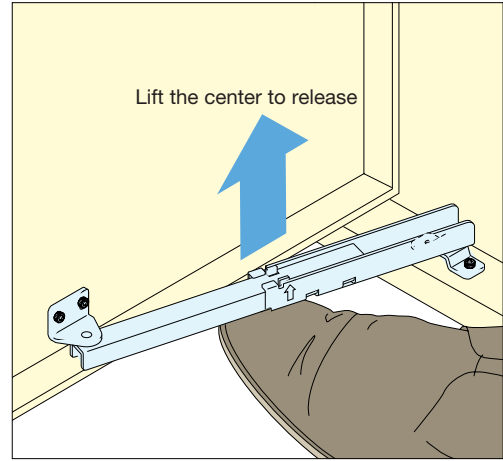
YFN-300-T50



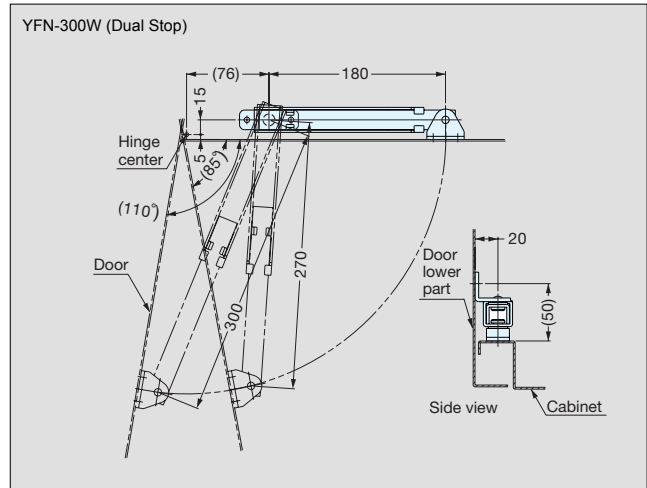
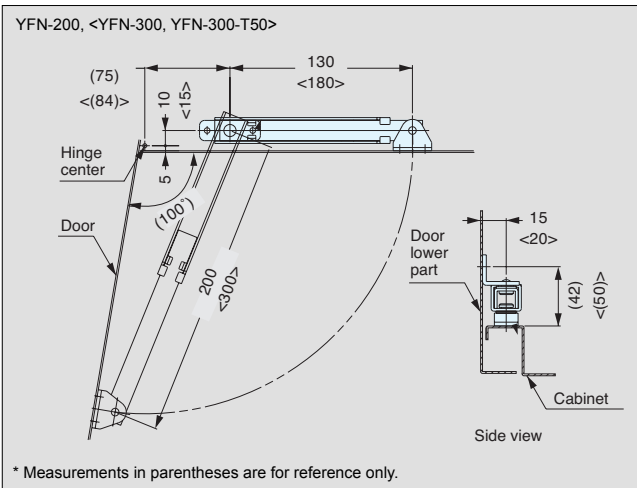
YFN-300W



- Door stops for enclosures that mechanically lock doors open.
- Release the stay by lifting with foot.
- For horizontally swinging doors only.
- Non-Handed: Install on left or right side.
- Designed for installation at the base of the enclosure.
- **YFN-300W only:** Mechanically locks door at 85° and 110° (fully opened).



No.	Part Name	Material	Finish
①	Body	Steel	Colored Zinc Chromate
②	Bracket		
③	Pin	304 Stainless Steel	Plain



Item No.	L	S	A	B	C	D	E	F	G	(H)	I	J	K	M	N	O	P	Q	R
YFN-200	200 (7-7/8")	70 (2-3/4")	15	15.9	5.5	17	20.0	33	20	42	8	15.7	20.0	30	2.3	35	50	10	5.5×8.0
YFN-300	300 (11-13/16")	120 (4-23/32")	20	20.0	5.5	20	25.5	38	25	50	10	17.0	22.5	35	3.2	45	60	15	5.5×9.5
YFN-300-T50					9.0											72			
YFN-300W					5.5											45	60		

Item No.	Old Item No.	Tensile Force (kg)	Compression Load (kg)	Weight (kg)	Box (pcs)	Carton (pcs)
YFN-200	YF-200	Max. 90 (198 lbs)	Max. 50 (110 lbs)	198	10	100
YFN-300	YF-300	Max.150(330 lbs)	Max. 60 (132 lbs)	438	5	30
YFN-300-T50	YF-300-T50			476		
YFN-300W	YF-300W			435		

STAINLESS STEEL FOOT STAY (TWO-ANGLE LOCK)



YFNS

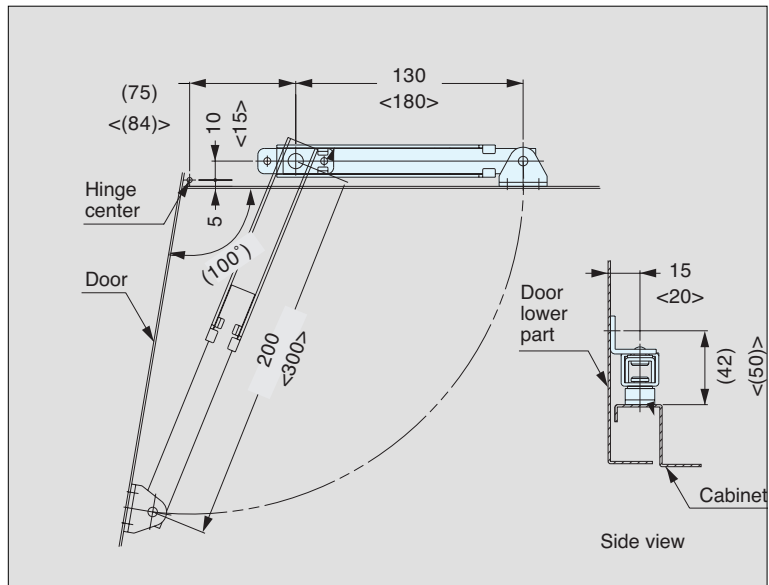
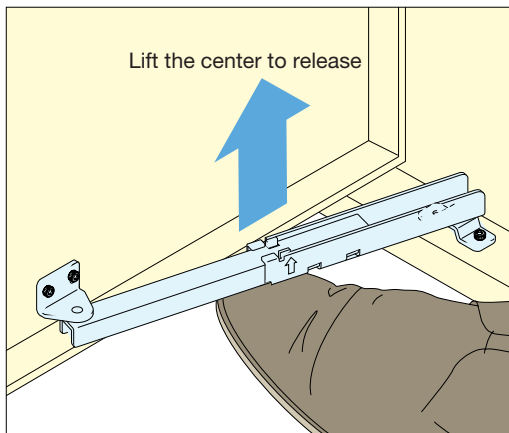
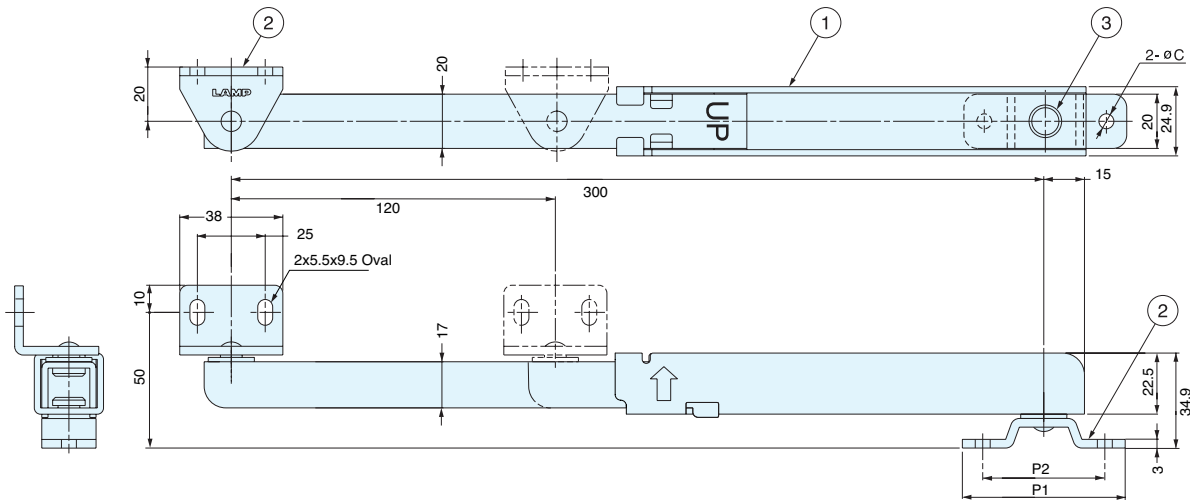
- For horizontally swinging doors.
- Mechanically locks door when fully opened.
- Simply lift the stay with foot toe to release the lock.
- Designed for bottom mount (Not recommended for vertical use).
- Non-Handed: Can be installed on left or right side.



YFNS-300



YFNS-300-T50



No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Barrel Polished
②	Bracket	304 Stainless Steel	Barrel Polished
③	Pin	Stainless Steel	-

Item No.	P1	P2	C	Tensile Force (kg)	Compression Load (kg)	Weight (g)	Box (pcs)	Carton (pcs)
YFNS-300	60	45	5.5	Max. 90 (198 lbs)	Max. 50 (110 lbs)	389	5	30
YFNS-300-T50	72	60	9	Max. 150 (330 lbs)	Max. 60 (132 lbs)	396		

STAINLESS STEEL FOOT STAYS

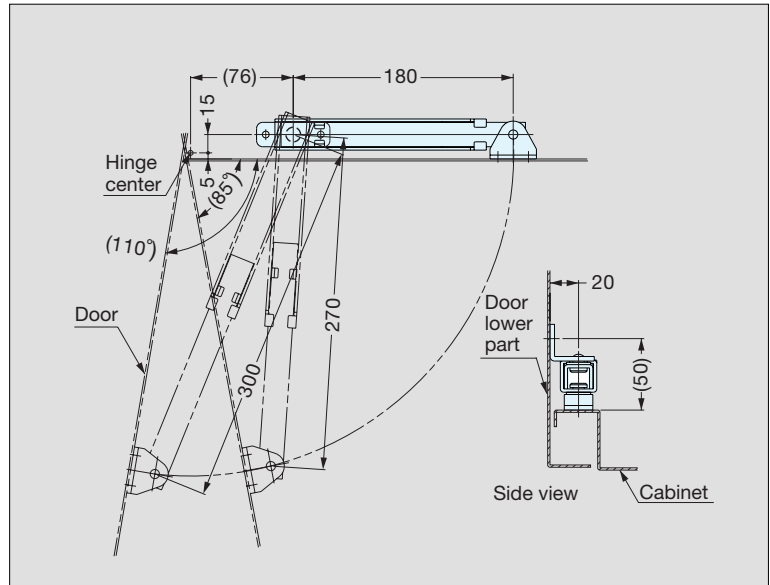
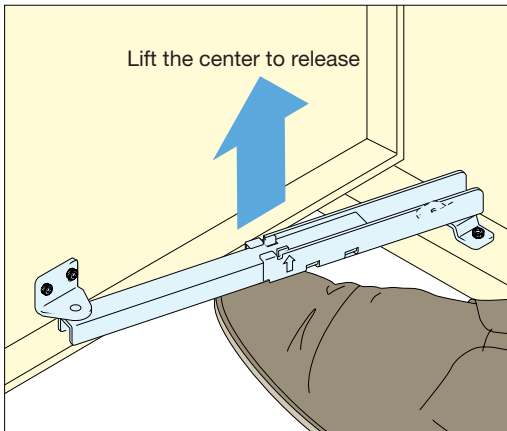
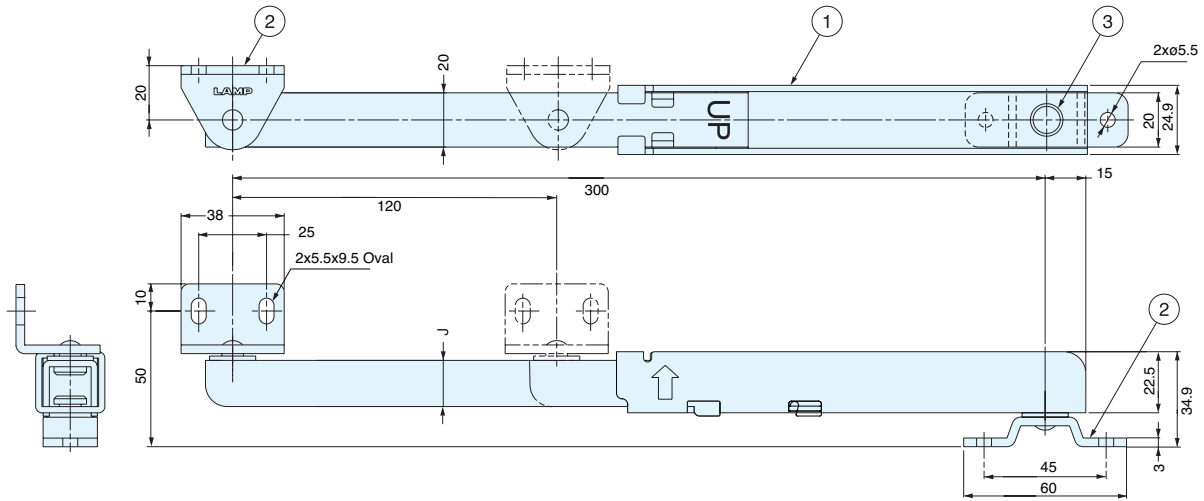


YFNS-300W

LID SUPPORTS

FOOT STAYS

- For horizontally swinging doors.
- Mechanically locks door at 85° and 110° (fully opened).
- Simply lift the stay with foot toe to release the lock.
- Designed for bottom mount (Not recommended for vertical use).
- Non-Handed: Can be installed on left or right side.



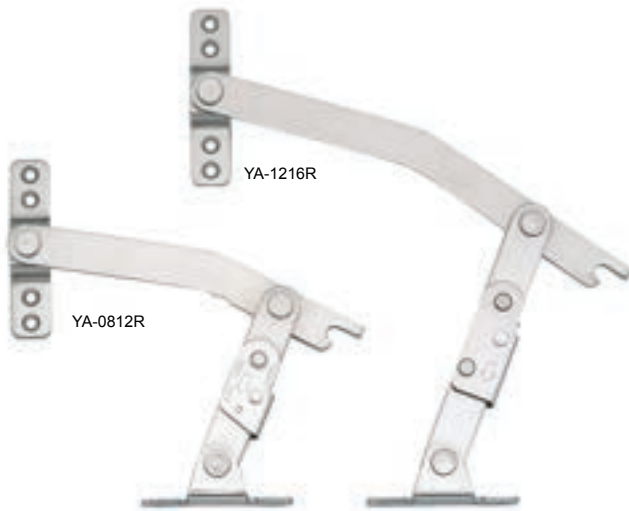
No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Barrel Polished
②	Bracket	304 Stainless Steel	Barrel Polished
③	Pin	Stainless Steel	-

Item No.	Tensile Force (kg)	Compression Load (kg)	Weight (kg)	Box (pcs)	Carton (pcs)
YFNS-300W	Max. 150 (198 lbs)	Max. 60 (110 lbs)			

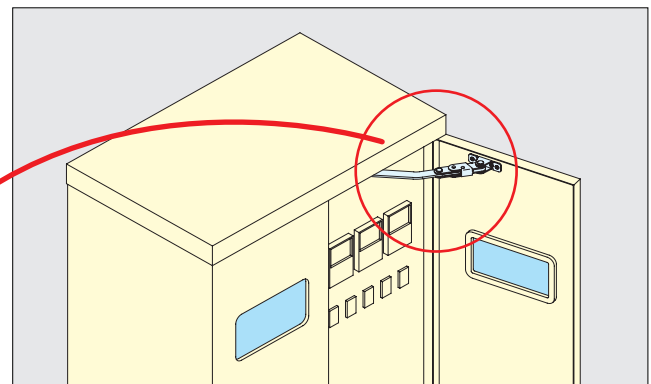
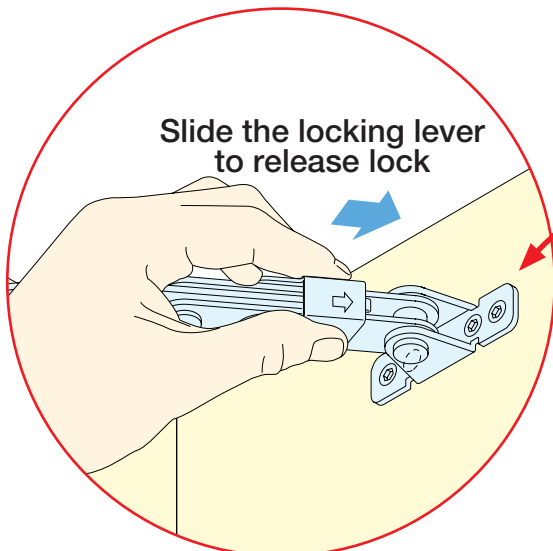
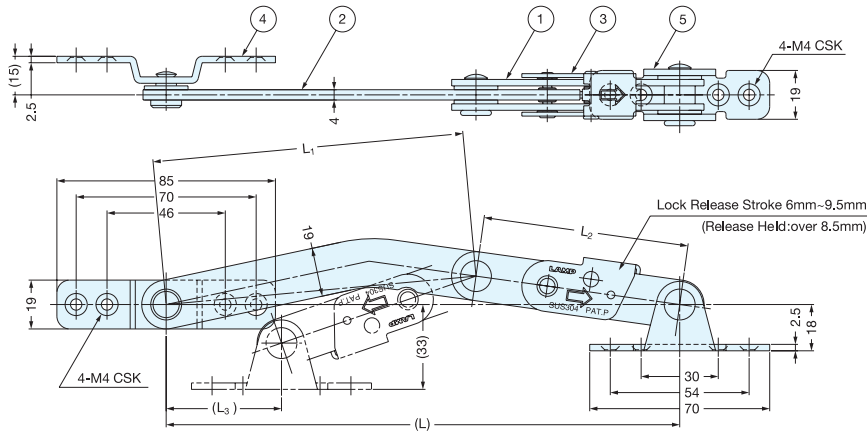
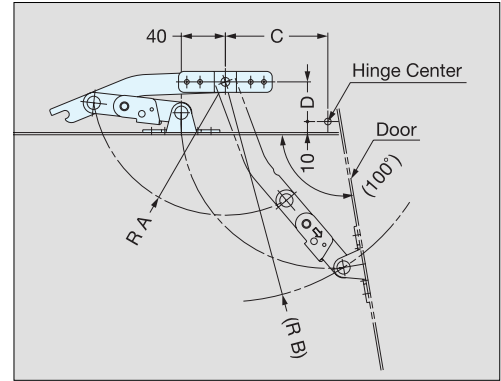
DOOR HOLDER



YA-0812, 1216



- Automatically locks door when fully opened.
- Slide the locking lever to release lock.
Lever will keep the unlocked position until the door is moved, for easy handling.
- Left-handed and Right-handed models available.



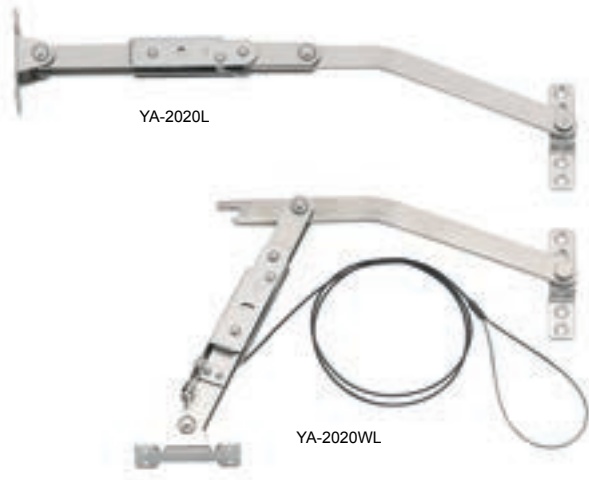
No.	Part Name	Material	Finish
①	Outer Plate	304 Stainless Steel	Polished
②	Arm		
③	Slide Grip		
④	Arm Bracket		
⑤	Base Bracket		

Item No.	Type	L	L ₁	L ₂	L ₃	A	B	C	D	Weight (g)	Box (pcs)	Carton (pcs)
YA-0812L	Left	200	121	80	45	121	200	93	36	291	5	30
YA-0812R	Right	(7-7/8")	(4-49/64")	(3-5/32")								
YA-1216L	Left	280	161	120	44	161	280	145	40	340		
YA-1216R	Right	(11-1/32")	(6-11/32")	(4-23/32")								

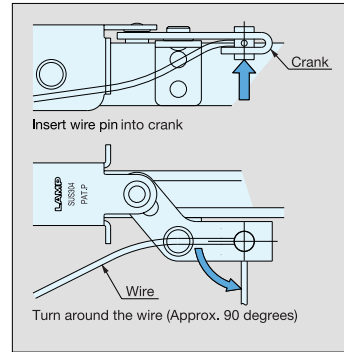
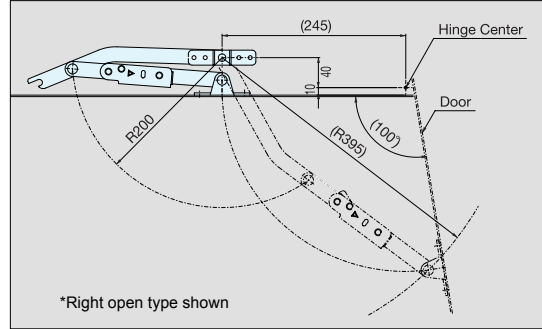
DOOR HOLDER



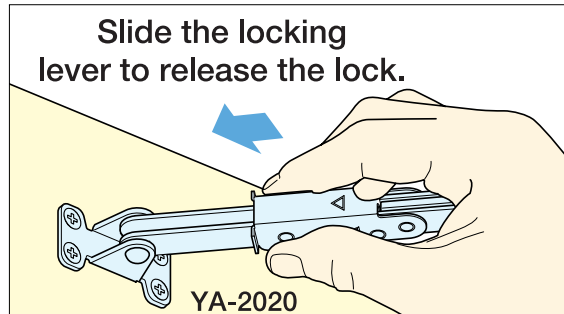
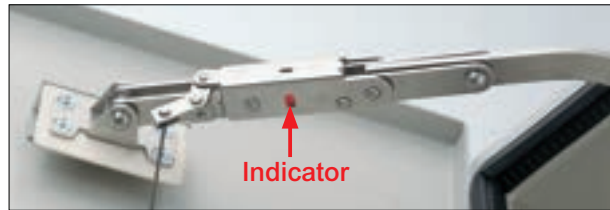
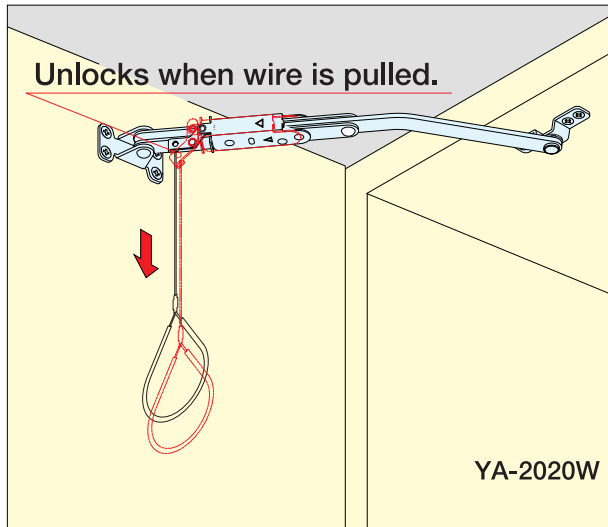
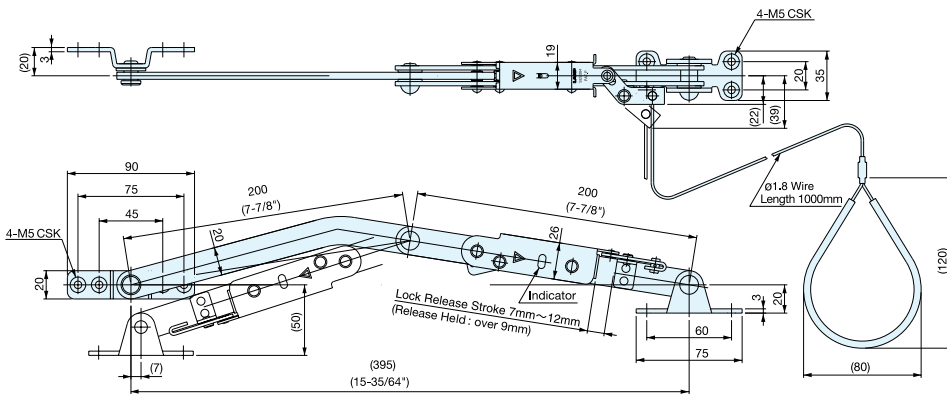
YA-2020, 2020W



- Automatically locks door when fully opened.
- Slide the locking lever to release lock. Locking grip will stay unlocked until the door is moved for easy handling.
- YA-2020WR/WL (with lock release wire) available for tall applications.
- Left-handed and Right-handed models available.
- Tensile Force: Max. 150 kg (330 lbs)
- Compression Load: Max. 60 kg (132 lbs)



Installation of lock-release wire (WR and WL type only)



Material	Finish
304 Stainless Steel	Polished

Item No.	Type	Type	Weight (g)	Box (pcs)	Carton (pcs)
YA-2020WR	With Wire	Right Open	650	4	16
YA-2020WL		Left Open			
YA-2020R	Without Wire	Right Open	630		
YA-2020L		Left Open			



DRAWER SLIDES

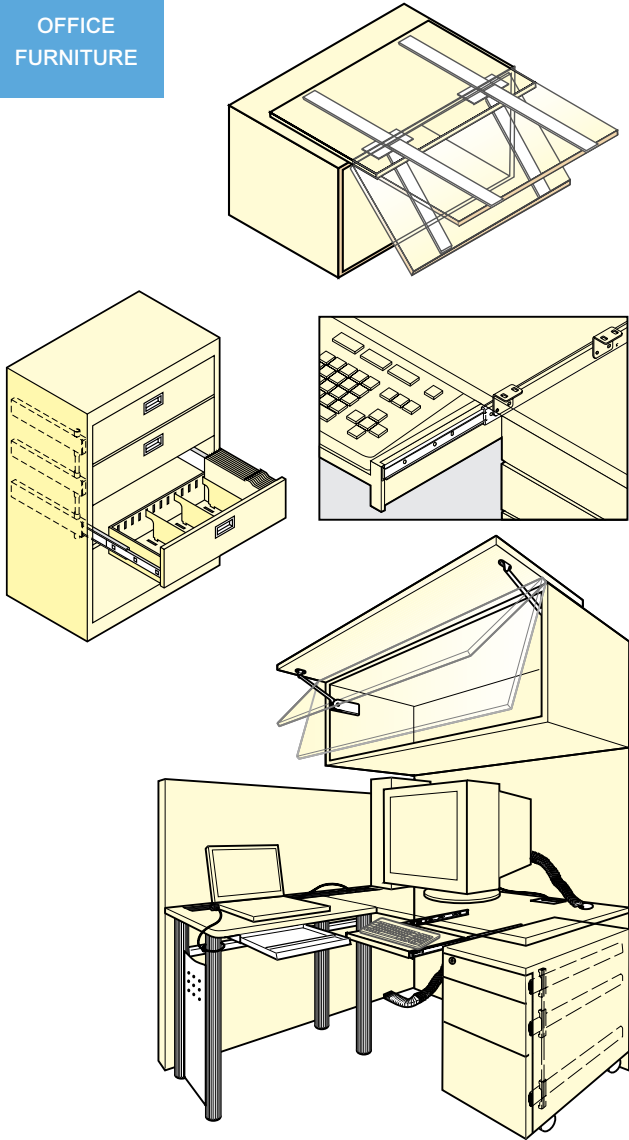
STAINLESS STEEL DRAWER SLIDES
ALUMINUM DRAWER SLIDES
LINEAR SLIDES
MINI GUIDES

APPLICATION EXAMPLE

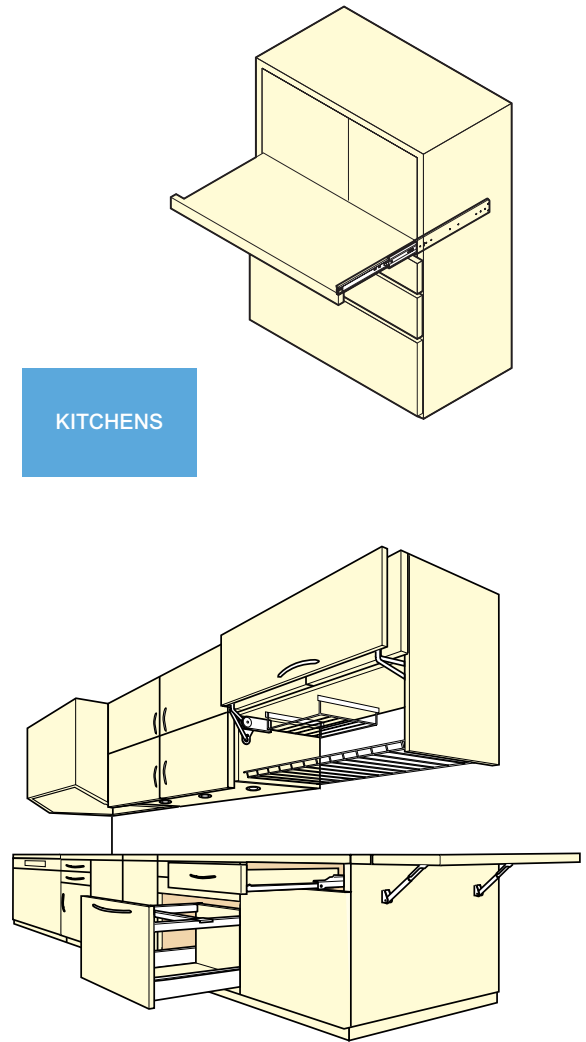
DRAWER SLIDES

APPLICATION EXAMPLES

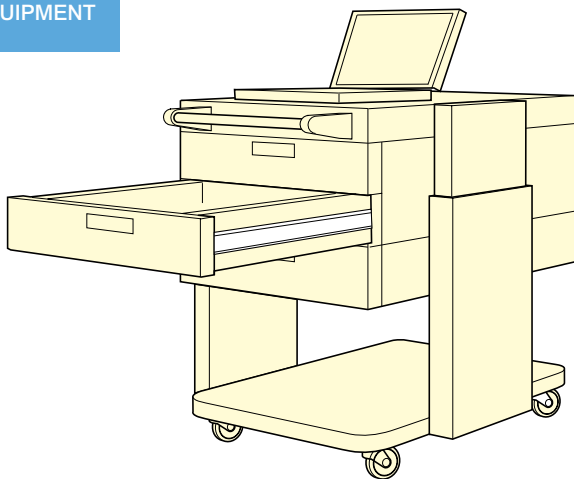
OFFICE FURNITURE



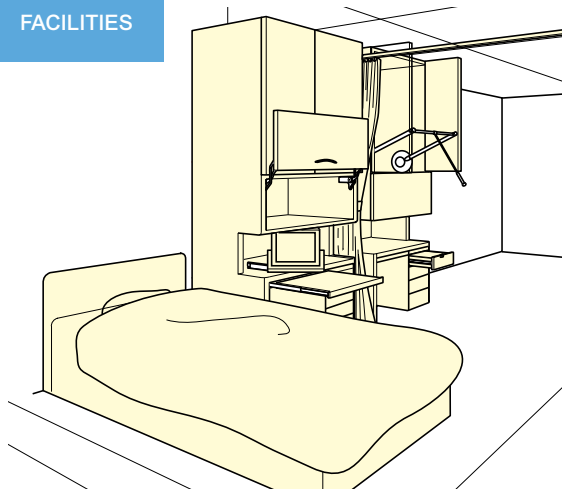
KITCHENS



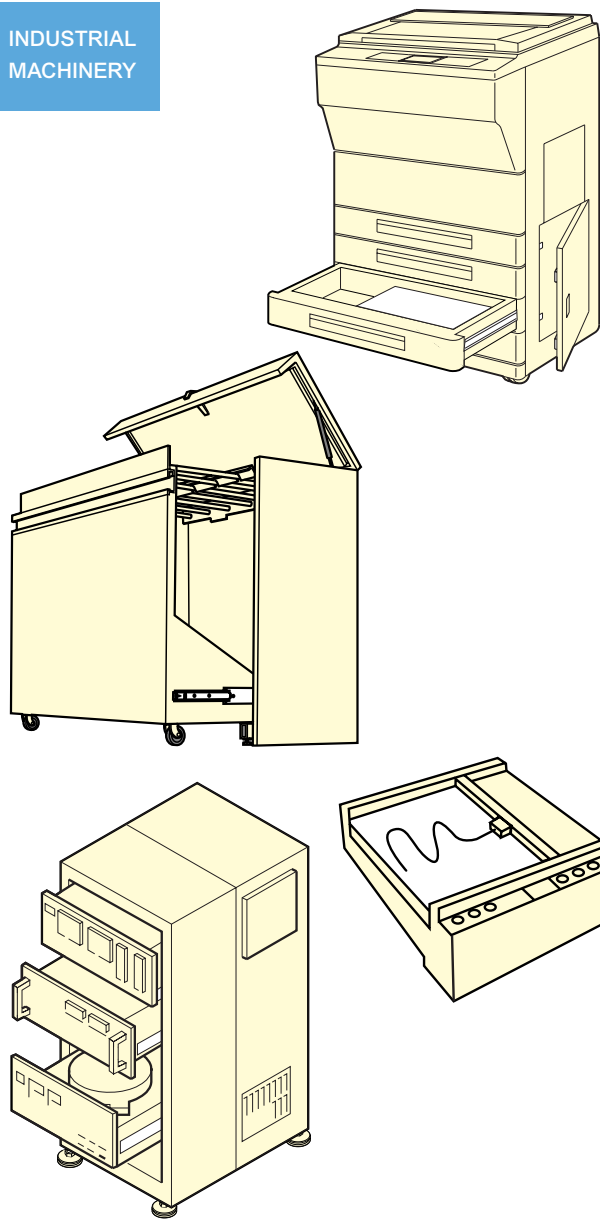
MEDICAL EQUIPMENT



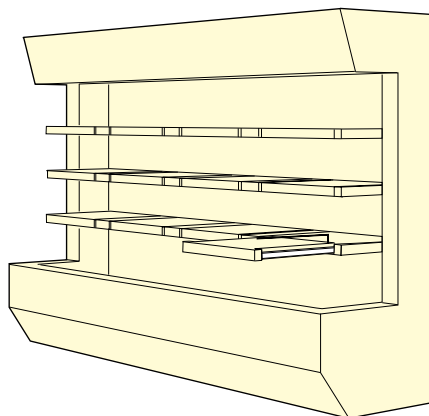
MEDICAL FACILITIES



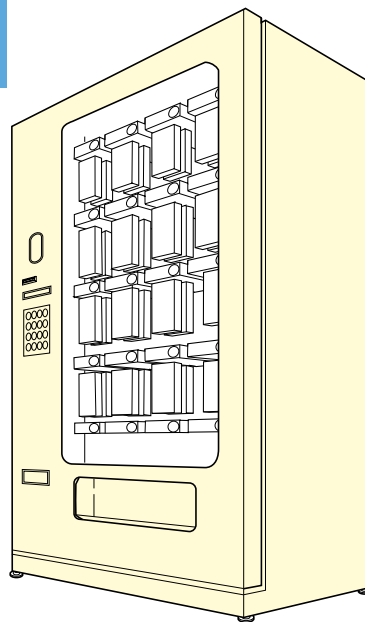
INDUSTRIAL
MACHINERY



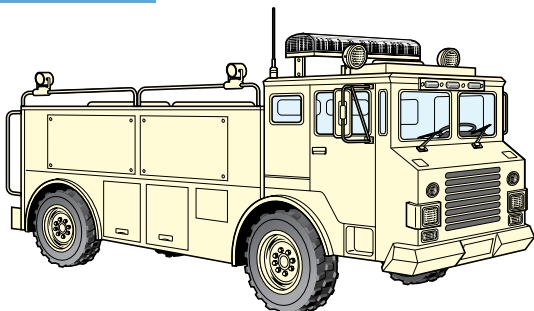
STORE
FIXTURES



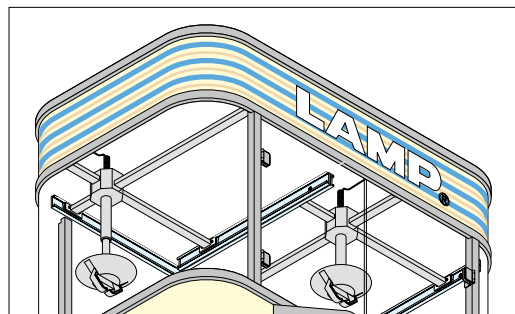
VENDING
MACHINES




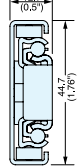

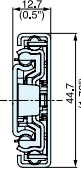

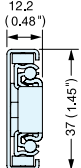

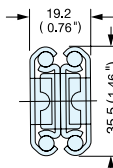

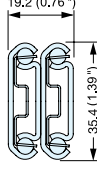

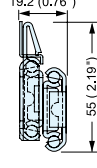
VEHICLES


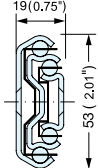

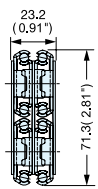

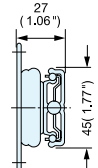

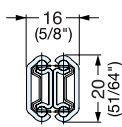

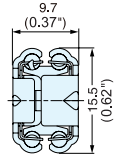


GAMING
MACHINES


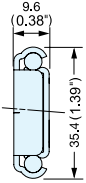

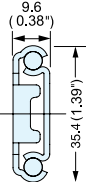

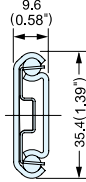

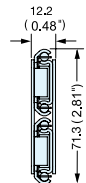

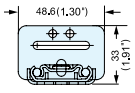

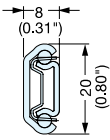

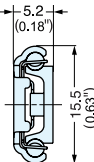


STAINLESS STEEL FULL EXTENSION SLIDES


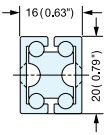

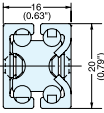

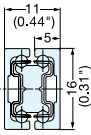
Item No.	Load Rating (pair)	Page	Side View	Hold-In Detent	Hold-Out Detent	Positive Stop	Positive Lock	Positive Catch	Front Disconnect	Friction Brake Stop	Quick Disconnect	Other Features	Non-Handed
				Features									
ESR-DC4513  	40~54 kg (87~119 lbs)	392		•	•			•					•
ESR-SC4513  	31~37 kg (68~82 lbs)	393				•			•			Soft Close	
ESR-3813  	29~45 kg (64~98 lbs)	394		•		•			•				•
ESR-6  	45~60 kg (99~132 lbs)	395					•						•
ESR-7  	36~64 kg (79~139 lbs)	396					•		•				•
ESR-3  	43~65 kg (94~143 lbs)	397				•					•		

Item No.	Load Rating (pair)	Page	Side View	Hold-In Detent	Hold-Out Detent	Positive Stop	Positive Lock	Positive Catch	Front Disconnect	Friction Brake Stop	Quick Disconnect	Other Features	Non-Handed
				Features									
5302	 STAINLESS 304 STEEL 64~116 kg (140~255 lbs)	398		•		•							•
ESR-10	 STAINLESS 304 STEEL 182~272 kg (400~599 lbs)	399				•							•
TSS3	 RoHS STAINLESS 304 STEEL 50~95 kg (110~209 lbs)	400				•							•
ESR-2031	 RoHS STAINLESS 304 STEEL 13~17 kg (28~37 lbs)	410				•						Full Extension	•
SCR3	 RoHS STAINLESS 304 STEEL 10~12 kg (22~26 lbs)	414											


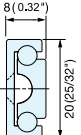

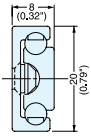
STAINLESS STEEL 3/4 EXTENSION SLIDES

Item No.	Load Rating (pair)	Page	Side View	Features													
				Hold-In Detent	Hold-Out Detent	Positive Stop	Positive Lock	Positive Catch	Front Disconnect	Friction Brake Stop	Quick Disconnect	Other Features	Non-Handed				
ESR-1 	25~49 kg (55~107 lbs)	404								•						Friction Brake Stop	•
ESR-13 	25~49 kg (55~107 lbs)	405				•		•								Positive Catch	•
ESR-8 	25~49 kg (55~107 lbs)	406						•		•							•
ESR-5 	80~114 kg (176~251 lbs)	407				•											•
ESR-2 	5~8 kg (11~18 lbs)	408								•	•					Undermount	
ESR-2021 	11~13 kg (24~35 lbs)	410				•											•
SCRW2 	10~12 kg (22~26.4 lbs)	414															

ALUMINUM FULL EXTENSION SLIDES

Item No.	Load Rating (pair)	Page	Side View	Hold-In Detent	Hold-Out Detent	Positive Stop	Positive Lock	Positive Catch	Front Disconnect	Friction Brake Stop	Quick Disconnect	Other Features	Non-Handed
				Features									
AR3	 3.1~11.2 kg (7~25 lbs)	412				•							•
AR3-K	 8.7~10.7 kg (19~23 lbs)	413			•	•							•
AR3-16	 2~4 kg (4.4~8.8 lbs)	411				•							•

ALUMINUM 3/4 EXTENSION SLIDES

Item No.	Load Rating (pair)	Page	Side View	Hold-In Detent	Hold-Out Detent	Positive Stop	Positive Lock	Positive Catch	Front Disconnect	Friction Brake Stop	Quick Disconnect	Other Features	Non-Handed
				Features									
AR2	 8.2~15.3 kg (18~34 lbs)	412				•							•
AR2-K	 8.7~12.7 kg (19~28 lbs)	413			•	•							•


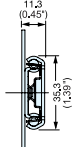

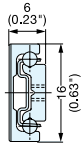

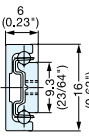

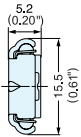
LINEAR SLIDES

Item No.	Page	Load Rating	Length	
LGB-30CM  	402	30 kg (66 lbs)		
LGB30  	402		400~2000 mm (15-3/4"~78-47/64")	
LGB30-ST  	403		-	
LGB30-P65-100  	403		-	


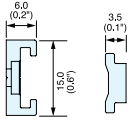

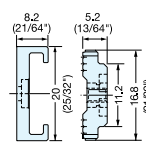

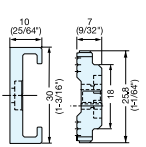

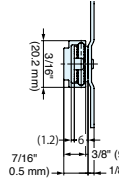
Drawer Slide Terms

- **Soft Close** The slide soft closes on its own for the last 2~3" of movement.
- **Slide Length** The longest dimension of a fully closed slide. This dimension cannot exceed the depth of the cabinet into which it is installed.
- **Travel** The distance that a slide moves from the closed to a fully open position.
- **¾ Extension** The slide extends approximately ¾ of its length from the front edge of the cabinet front.
This is the normal travel of 2 member slides.
- **Full Extension** The full withdrawal of a drawer from the case. This is the normal travel of 3 member slides.
- **Positive Stop** Drawer stops at extended/open position, but does not lock or detent.
- **Positive Lock** Drawer is firmly held in the extended/out position. Drawer is released by depressing a lever and pushing the drawer inward.
The drawer can also be disconnected by depressing the lever and pulling the drawer outward.
- **Friction Brake Stop** Drawer stops at extended/open position by the resistance of the ball retainer.
Usually achieved by deforming the slide races to achieve an interference fit.
- **Hold-in Detent**..... Drawer is firmly held in the fully closed position. Drawer is released by pulling the drawer outward.
This feature is also known as a Positive Catch.
- **Front Disconnect** Drawer member can be disconnected by actuating the disconnect lever.
- **Quick Disconnect** A drawer bracket attaches to the drawer and engages the drawer member of the slide.
The drawer can be disconnected by actuating the drawer rail lock, and pulling it outward.

LINEAR SLIDES

Item No.	Load Rating (pair)	Page	Side View	Hold-In Detent	Hold-Out Detent	Light-Weight	2-way Travel	Thin Profile	Full Extension	High Precision	Mounting Plate	Other Features	Non-Handed
ESR-9 	5 kg (11 lbs)	409											
ARL2-16 	0.8~5 kg (1.7~11 lbs)	411				●		●					●
ARW2-16 	1.1~7 kg (2.4~15.4 lbs)	411				●	●	●					●
SCRL2 	18~24 kg (40~53 lbs)	414							●				

GUIDE SYSTEMS

Item No.	Page	Side View	Load Rating	Length
MRS-15, MR-15CS 	415		Horizontal Static Load: 10.2 kgf (22.48 lbs) Vertical Static Load: 3.0 kgf (6.61 lbs)	3-15/16"~31-1/2" (100-800 mm)
MRS20, MR-20CS 	416		Horizontal Static Load: 30.6 kgf (67.5 lbs) Vertical Static Load: 17.8 kgf (39.2 lbs)	3-15/16"~78-47/64" (100-2000 mm)
MRS30, MR-30CS 	417		Horizontal Static Load: 26 kgf (57.2 lbs) Vertical Static Load: 15 kgf (33 lbs)	3-15/16"~78-47/64" (100-2000 mm)
MLG 	417.1			7-7/8" 11-13/16" 15-3/4" (200, 300, 400 mm)

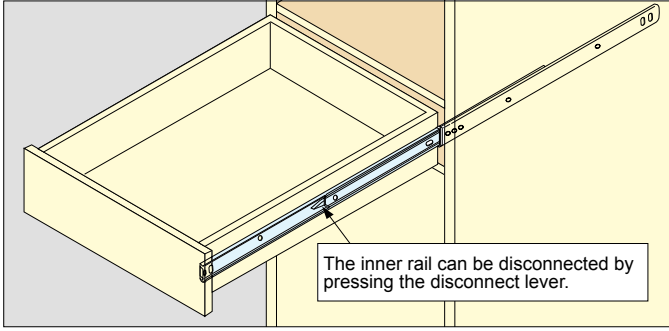
FULL EXTENSION SLIDE



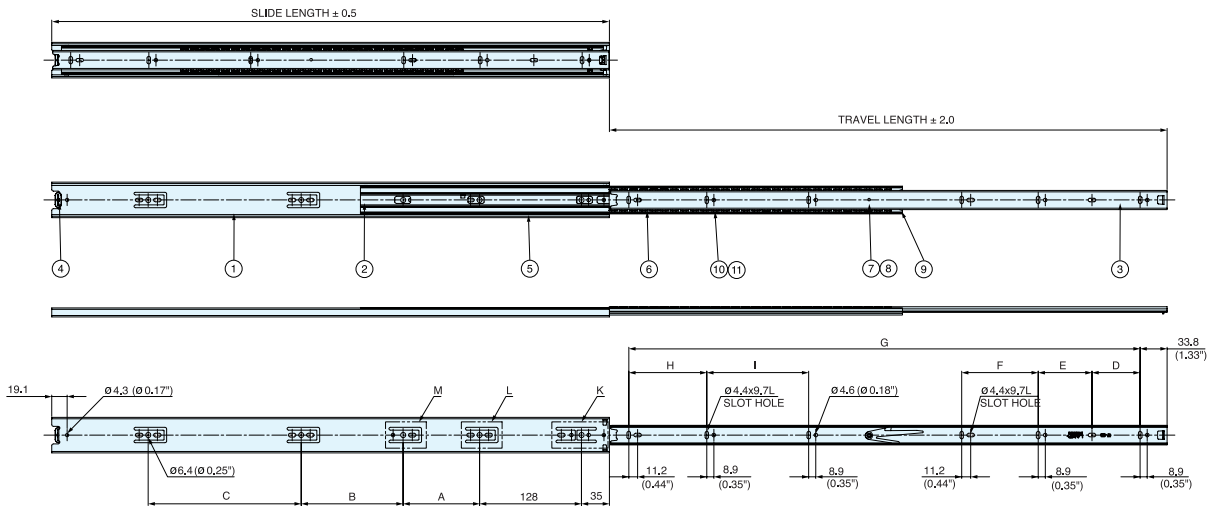
ESR-DC4513

DRAWER SLIDES

STAINLESS STEEL SLIDES

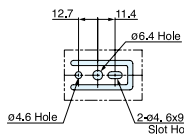


- Full extension.
- Front disconnect.
- Positive stop.
- Hold-in detent.
- Non-handed.
- Sold in pairs.
- Mount with M4 or #8, Binding or Pan head screws.

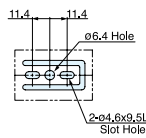


25.4mm=1"

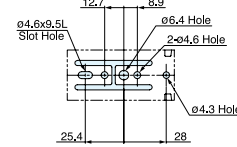
Part Name	Material
Outer Member	304 Stainless Steel
Middle Member	
Inner Member	
Retainer	Polypropylene
Ball Case	304 Stainless Steel
Stopper (Guide)	Nylon 6
Disconnecter	Nylon 66
Rivet	304 Stainless Steel
Stopper	Urethane
Balls	304 Stainless Steel
Lubricant	H1 Grade



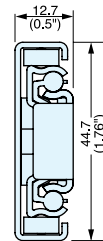
DETAIL M



DETAIL L



DETAIL K



Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	H	I	Load Rating (kg/pair)	Weight (g)	Box(Pair)
ESR-DC4513-8	200 (7-7/8")	200 (7-7/8")	-	-	-	-	-	-	142	-	-	54 (119 lbs)	447	10
ESR-DC4513-10	250 (9-27/32")	250 (9-27/32")	-	-	-	-	-	-	192	-	-	52 (115 lbs)	603	
ESR-DC4513-12	300 (11-13/16")	300 (11-13/16")	-	-	-	-	-	-	242	-	-	50 (111 lbs)	754	
ESR-DC4513-14	350 (13-25/32")	350 (13-25/32")	-	-	-	-	-	-	292	-	-	49 (108 lbs)	919	
ESR-DC4513-16	400 (15-3/4")	400 (15-3/4")	96	-	-	60.5	67.5	96	-	-	-	47 (104 lbs)	1064	
ESR-DC4513-18	450 (17-23/32")	450 (17-23 32")	128	-	-				-	392	72	-	-	
ESR-DC4513-20	500 (19-11/16")	500 (19-11/16")	96	192	-	-	-	442	122	-	-	44 (97 lbs)	1373	
ESR-DC4513-22	550 (21-21/32")	550 (21-21/32")	-	-	96	-	-	492	76	96	-	43 (94 lbs)	1528	
ESR-DC4513-24	600 (23-5/8")	600 (23-5/8")	-	128	128	-	-	542	126	-	-	42 (92 lbs)	1687	
ESR-DC4513-26	650 (25-19/32")	650 (25-19/32")	-	-	192	-	96	592	48	-	128	41 (90 lbs)	1854	
ESR-DC4513-28	700 (27-9/16")	700 (27-9/16")	-	-	-	-	-	642	98	-	-	40 (87 lbs)	2020	

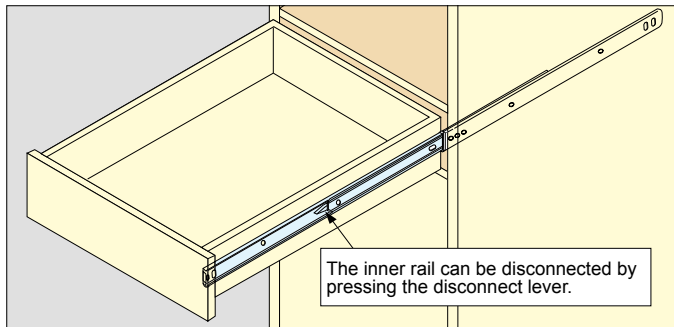
FULL EXTENSION SOFT CLOSE SLIDE



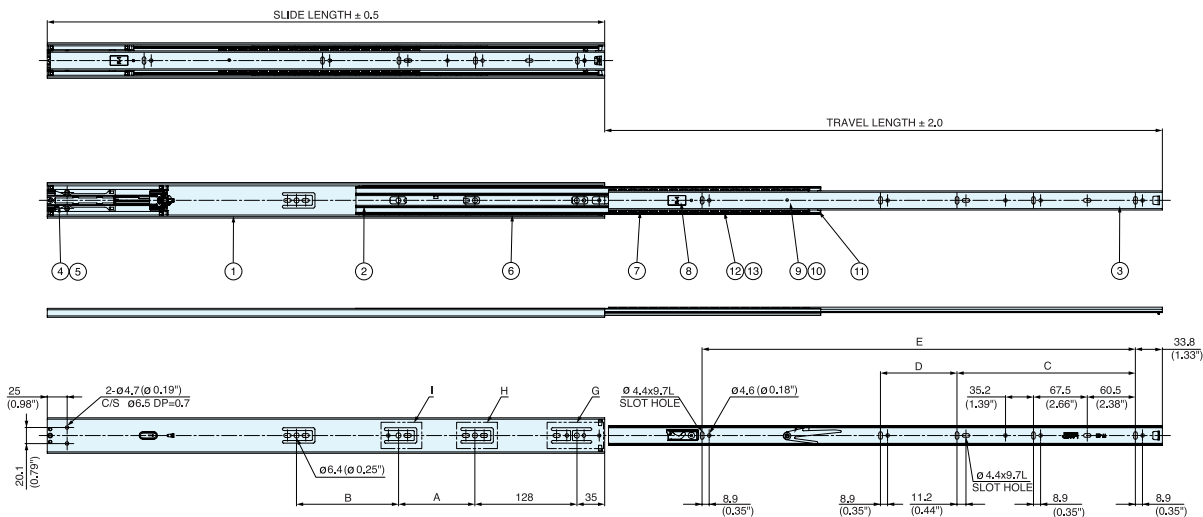
ESR-SC4513

DRAWER SLIDES

FULL EXTENSION SOFT CLOSE SLIDES

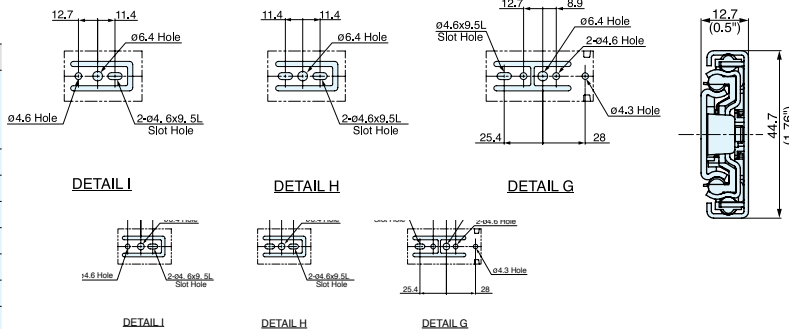


- Soft close feature for smooth, silent movement.
- Full extension.
- Front disconnect.
- Positive stop.
- Hold-in detent 700 g-f (1.5 lb) max.
- Handed: specific left and right hand mounting.
- Sold in pairs.
- Inner member clearance provided for screws 8 mm × 2 mm HT.
- Outer member clearance provided for screws 8 mm × 2 mm HT.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.



25.4 mm=1"

Part Name	Material
Outer Member	304 Stainless Steel
Middle Member	
Inner Member	
Damper S/C Assy	304 Stainless Steel/POM / Nylon 66
Rivet #1	304 Stainless Steel
Retainer	Polypropylene
Ball Case	304 Stainless Steel
Hook Block	Nylon 66
Rivet #2	304 Stainless Steel
Disconnecter	Nylon 66
Stopper (Guide)	Nylon 6
Balls	304 Stainless Steel
Lubricant	H1 Grade



* Only on ESR-SC4513-18

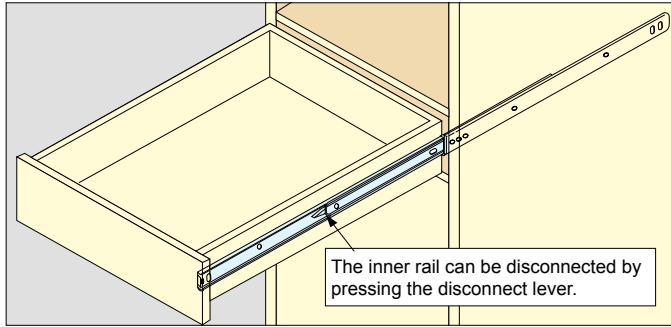
Item No.	Slide Length	Travel Length	A	B	C	D	E	Load Rating (kg/pair)	Weight (g)	Box (Pair)	
ESR-SC4513-16	400 (15-3/4")	400 (15-3/4")	-	-	-	-	-	37 (82 lbs)	996	10	
ESR-SC4513-18	450 (17-23/32")	450 (17-23/32")	96	-	212.8	-	-	36 (79 lbs)	1153		
ESR-SC4513-20	500 (19-11/16")	500 (19-11/16")		-	-	-	339	35 (77 lbs)	1303		
ESR-SC4513-22	550 (21-21/32")	550 (21-21/32")		-	-	-	384	34 (75 lbs)	1472		
ESR-SC4513-24	600 (23-5/8")	600 (23-5/8")		64	128	224.0	96	416	33 (73 lbs)		1623
ESR-SC4513-26	650 (25-19/32")	650 (25-19/32")		496			32 (70 lbs)	1779			
ESR-SC4513-28	700 (27-9/16")	700 (27-9/16")		544			31 (68 lbs)	1940			

FULL EXTENSION SLIDE



ESR-3813

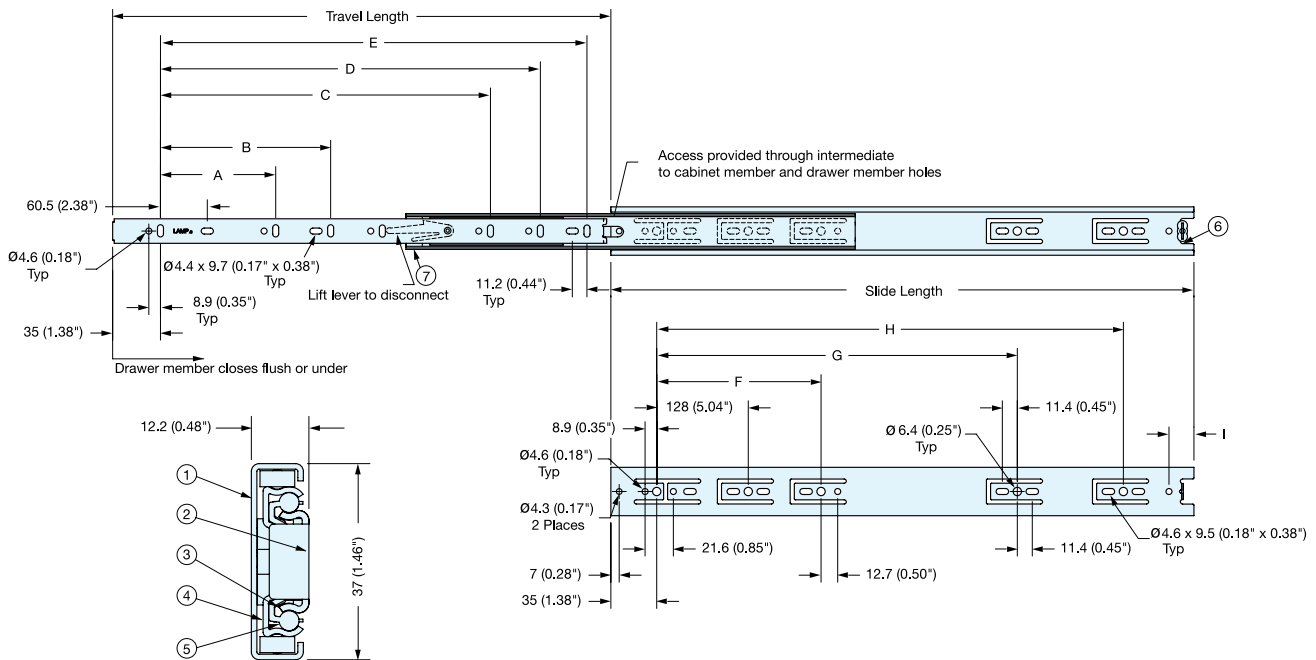
DRAWER SLIDES



- Full extension.
- Front disconnect.
- Positive stop.
- Hold-in detent.
- Non-handed.
- Sold in pairs.
- Mount with M4 or #8, Binding or Pan head screws.



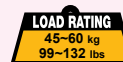
STAINLESS STEEL SLIDES



No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	
④	Intermediate Member	
⑤	Balls	
⑥	Detent	Rubber
⑦	Lift Lever	Plastic

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	H	I	Load Rating (kg/pair)	Weight (g)	Box (Pair)
ESR-3813-8 ☆	200 (7-7/8")	200 (7-7/8")	-	-	-	-	142	-	-	-	-	45 (98 lbs)	400 (0.88 lbs)	10
ESR-3813-10	250 (9-27/32")	243 (9-9/16")	-	-	-	192	-	-	-	-	-	42 (92 lbs)	530 (1.19 lbs)	
ESR-3813-12	300 (11-13/16")	305 (12")	-	-	-	242	-	-	-	-	-	40 (88 lbs)	637 (1.40 lbs)	
ESR-3813-14	350 (13-25/32")	355 (14")	-	-	-	292	-	-	-	-	-	38 (84 lbs)	726 (1.60 lbs)	
ESR-3813-16	400 (15-3/4")	406 (16")	-	-	-	342	-	320	-	-	-	36 (79 lbs)	816 (1.80 lbs)	
ESR-3813-18	450 (17-23/32")	457 (18")	128	-	-	392	224	352	-	-	19.1	34 (75 lbs)	910 (2.00 lbs)	
ESR-3813-20	500 (19-11/16")	508 (20")	-	-	320	442	-	416	-	-	-	33 (73 lbs)	1000 (2.20 lbs)	
ESR-3813-22	550 (21-21/32")	559 (22")	-	-	-	416	492	-	448	-	-	31 (68 lbs)	1090 (2.40 lbs)	
ESR-3813-24	600 (23-5/8")	610 (24")	-	224	416	-	542	-	352	480	-	29 (64 lbs)	1180 (2.60 lbs)	

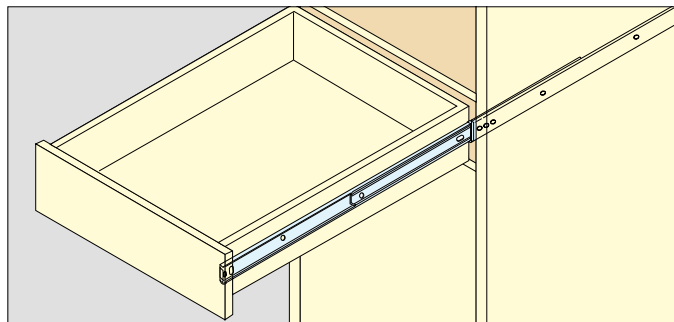
FULL EXTENSION SLIDE



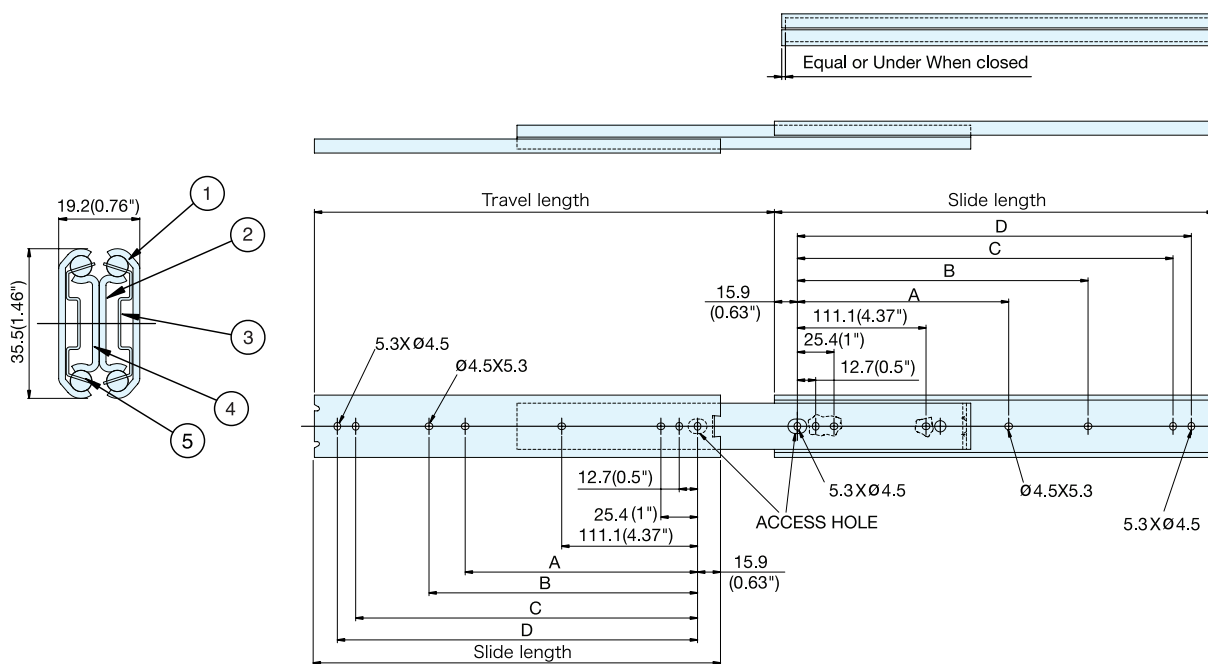
ESR-6

DRAWER SLIDES

STAINLESS STEEL SLIDES



- Full extension.
- Positive stop.
- Non-handed.
- Sold by each.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.

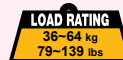


25.4 mm=1"

No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	
④	Intermediate Member	
⑤	Balls	

Item No.	Slide Length	Travel Length	A	B	C	D	# of Holes Outer Rail	Load Rating (kg/pair)	Weight (g)	Box (pcs)
ESR-6-12	304.8 (12")	326 (12-27/32")	-	149.2	260.3	273.0	7	60 (132 lbs)	610	16
ESR-6-14	355.6 (14")	377 (14-27/32")	-	200	311.1	323.8		59 (130 lbs)	710	
ESR-6-16	406.4 (16")	428 (16-27/32")	-	250.8	361.9	374.6		57 (126 lbs)	810	
ESR-6-18	457.2 (18")	479 (18-55/64")	212.7	301.6	412.7	425.4	8	56 (123 lbs)	920	
ESR-6-20	508.0 (20")	529 (20-53/64")	238.1	352.4	463.5	476.2		53 (117 lbs)	980	
ESR-6-22	558.8 (22")	580 (22-27/32")	263.5	403.2	514.3	527.0		51 (112 lbs)	1120	
ESR-6-24	609.6 (24")	631 (24-27/32")	288.9	454.0	565.1	577.8		49 (108 lbs)	1230	
ESR-6-26	660.4 (26")	682 (26-26/32")	314.3	504.8	615.9	628.6		47 (104 lbs)	1330	
ESR-6-28	711.2 (28")	732 (28-13/16")	339.7	555.6	666.7	679.4		45 (99 lbs)	1440	

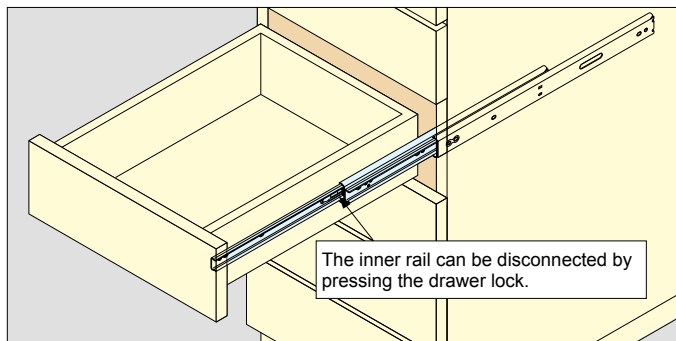
FULL EXTENSION SLIDE



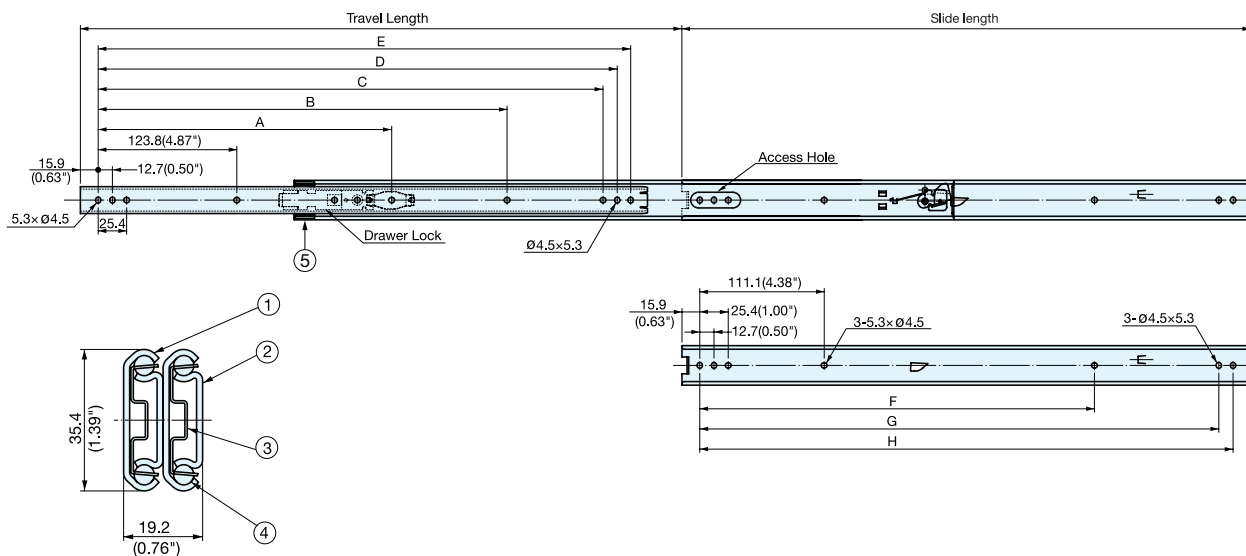
ESR-7

DRAWER SLIDES

STAINLESS STEEL SLIDES



- Full extension.
- Front disconnect.
- Positive lock.
- Non-handed.
- Sold by each.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.

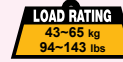


25.4 mm=1"

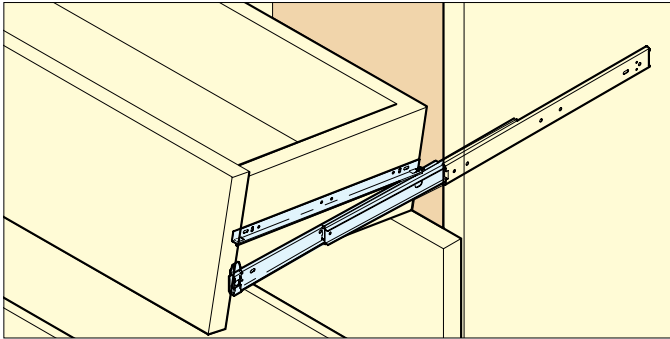
No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	
④	Balls	
⑤	Guide Block	Polyacetal

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	H	# of Holes		Load Rating (kg/pair)	Weight (g)	Box (pcs)
											Inner Rail	Outer Rail			
ESR-7-12	304.8 (12")	336.0 (13-7/32")	-	-	-	260.3	273.0	-	260.3	273.0	5	6	64 (139 lbs)	640	16
ESR-7-14	355.6 (14")	386.8 (15-7/32")	-	-	-	311.1	323.8	-	311.1	323.8	5	6	60 (131 lbs)	740	
ESR-7-16	406.4 (16")	437.6 (17-7/32")	-	-	349.2	361.9	374.6	250.8	361.9	374.6	6	6	57 (124 lbs)	840	
ESR-7-18	457.2 (18")	488.4 (19-7/32")	212.7	-	400.0	412.7	425.4	301.6	412.7	425.4	7	6	53 (115 lbs)	950	
ESR-7-20	508.0 (20")	539.2 (21-7/32")	238.1	-	450.8	463.5	476.2	352.4	463.5	476.2	7	6	49 (106 lbs)	1030	
ESR-7-22	558.8 (22")	590.0 (23-7/32")	263.5	415.9	501.6	514.3	527.0	403.2	514.3	527.0	8	7	45 (99 lbs)	1150	
ESR-7-24	609.6 (24")	640.8 (25-7/32")	288.9	466.7	552.4	565.1	577.8	454.0	565.1	577.8	8	7	42 (92 lbs)	1280	
ESR-7-26	660.4 (26")	691.6 (27-7/32")	314.3	517.5	603.2	615.9	628.6	504.8	615.9	628.6	8	7	39 (85 lbs)	1400	
ESR-7-28	711.2 (28")	742.4 (29-7/32")	339.7	568.3	654.0	666.7	679.4	555.6	666.7	679.4	8	7	36 (79 lbs)	1500	

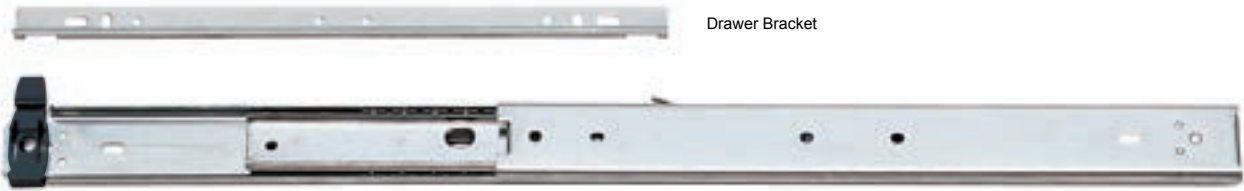
FULL EXTENSION SLIDE



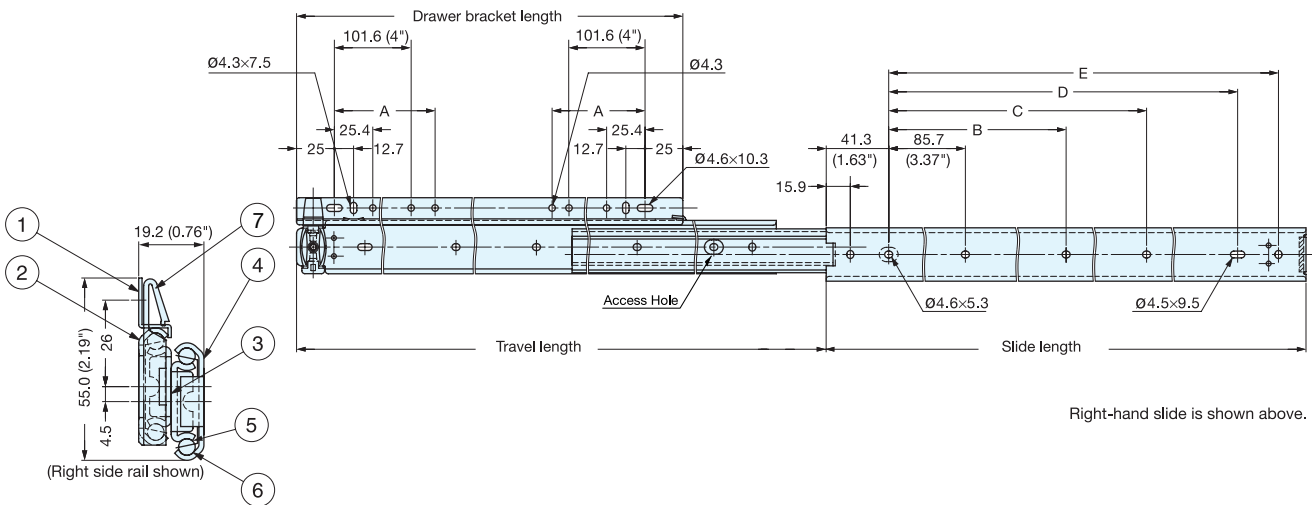
ESR-3



- Handed.
- Full extension.
- Quick disconnect.
- Positive stop.
- Sold in pairs.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.



Drawer Bracket



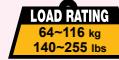
Right-hand slide is shown above.

25.4 mm=1"

No.	Part	Material
①	Drawer Bracket	304 Stainless Steel
②	Inner Rail	
③	Intermediate Member	
④	Outer Rail	
⑤	Retainer	
⑥	Balls	
⑦	Disconnect Lever	Plastic

Item No.	Slide Length	Travel Length	Drawer Bracket Length	A	B	C	D	E	# of Holes Outer Rail	Load Rating (kg/pair)	Weight (g)	Box (Pair)	
ESR-3-12	304.8 (12")	348.4 (13-23/32")	273.0 (10-3/4")	177.8	-	123.1	218.3	245.3	6	65 (143 lbs)	1400	6	
ESR-3-14	355.6 (14")	399.2 (15-23/32")	273.0 (10-3/4")			173.9	269.1	296.1		61 (134 lbs)	1600		
ESR-3-16	406.4 (16")	450.0 (17-23/32")	375.0 (14-49/64")			224.7	319.9	346.9		61 (134 lbs)	1900		
ESR-3-18	457.2 (18")	500.8 (19-23/32")	375.0 (14-49/64")			187.3	275.5	370.7		397.7	56 (123 lbs)		2100
ESR-3-20	508.0 (20")	551.6 (21-23/32")	375.0 (14-49/64")			212.7	326.3	421.5		448.5	52 (114 lbs)		2300
ESR-3-22	558.8 (22")	602.4 (23-23/32")	527.0 (20-3/4")			238.1	377.1	472.3		499.3	52 (114 lbs)		2700
ESR-3-24	609.6 (24")	653.2 (25-23/32")	527.0 (20-3/4")		263.5	427.9	523.1	550.1	48 (105 lbs)	3000			
ESR-3-26	660.4 (26")	704.0 (27-23/32")	575.3 (22-21/32")		288.9	478.7	573.9	600.9	43 (94 lbs)	3100			
ESR-3-28	711.2 (28")	754.8 (29-23/32")	575.3 (22-21/32")		314.3	529.5	624.7	651.7	43 (94 lbs)	3500			

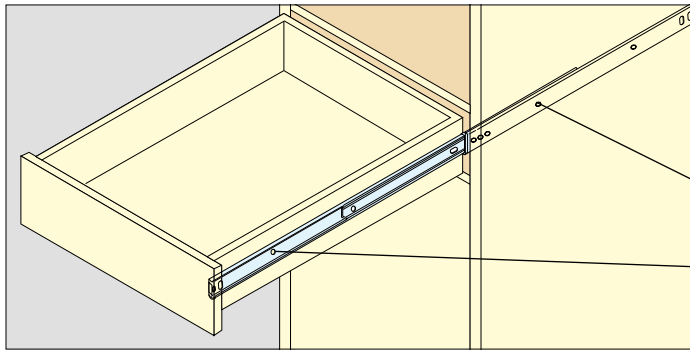
FULL EXTENSION SLIDE



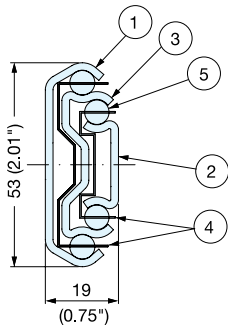
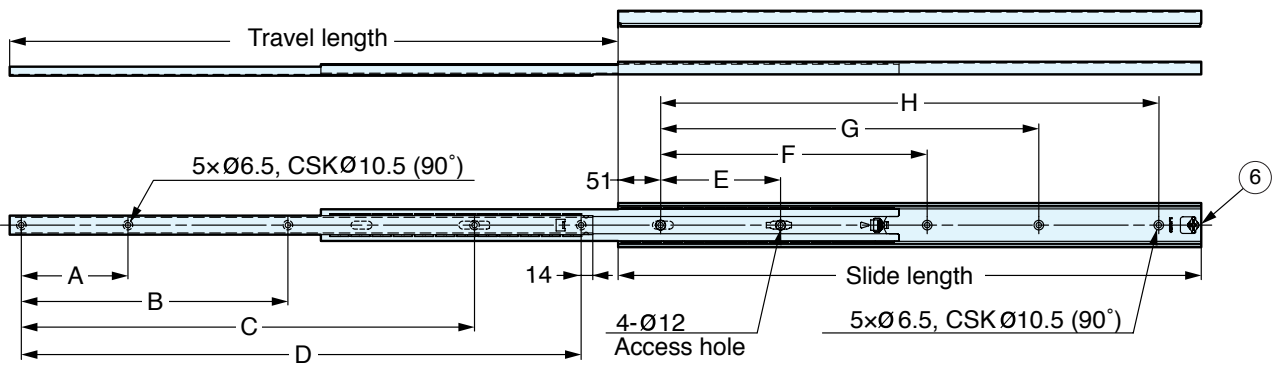
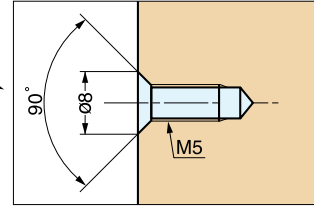
5302

DRAWER SLIDES

STAINLESS STEEL SLIDES



- Full extension.
- Positive stop.
- Non-handed.
- Hold-in detent.
- Sold by each.
- Mount with M5 Flat head screws.



25.4 mm=1"

No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Intermediate Member	
④	Retainer	
⑤	Balls	
⑥	Detent	Rubber

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	H	Load Rating (kg/pair)	Weight (g)	Box (pcs)
5302-300	300 (11-13/16")	334 (13-1/8")	128	256	-	-	112	192	-	-	116 (255 lbs)	860	20
5302-350	350 (13-3/4")	384 (15-1/8")	160	320	-	-	144	240	-	-	111 (244 lbs)	1000	
5302-400	400 (15-3/4")	433 (17-1/16")	128	256	352	-	80	224	304	-	99 (218 lbs)	1140	16
5302-450	450 (17-11/16")	482 (19")	128	288	416	-	80	272	352	-	96 (211 lbs)	1280	
5302-500	500 (19-11/16")	532 (21")	128	288	448	-	112	272	384	-	92 (201 lbs)	1430	10
5302-550	550 (21-11/16")	580 (22-13/16")	192	320	512	-	112	288	448	-	86 (188 lbs)	1570	
5302-600	600 (23-5/8")	630 (24-13/16")	208	336	544	-	112	336	496	-	81 (177 lbs)	1710	
5302-650	650 (25-5/8")	677 (26-5/8")	128	288	480	608	112	272	416	544	76 (166 lbs)	1850	8
5302-700	700 (27-9/16")	728 (28-5/8")	128	336	544	672	144	304	448	592	71 (155 lbs)	2000	
5302-750	750 (29-1/2")	777 (30-5/8")	192	370	530	722	176	336	496	648	68 (149 lbs)	2140	
5302-800	800 (31-1/2")	826 (32-1/2")	224	388	548	772	192	384	576	688	64 (140 lbs)	2280	

FULL EXTENSION SLIDE

STAINLESS
304
STEEL

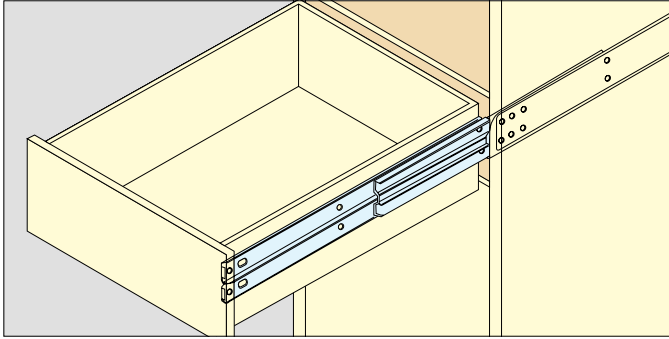
LOAD RATING
182-272 kg
400-599 lbs

NO SCREW

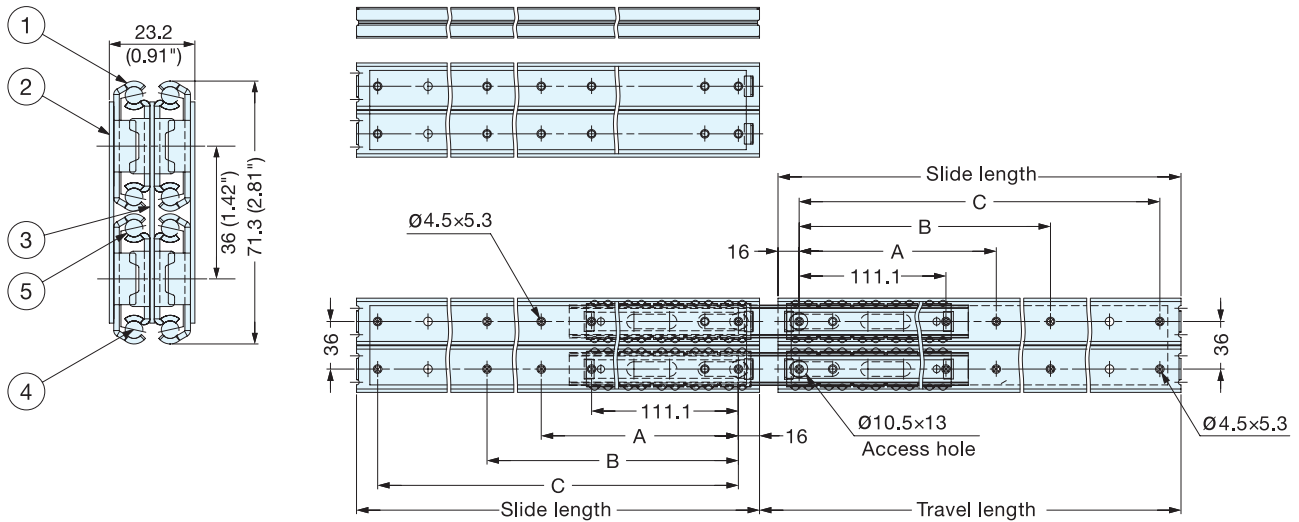
ESR-10

DRAWER SLIDES

STAINLESS STEEL SLIDES



- Full extension.
- Positive stop.
- Non-handed.
- Heavy duty.
- Sold by each.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.

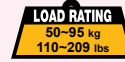


25.4 mm=1"

No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Tie Plate	
③	Intermediate Member	
④	Retainer	
⑤	Balls	

Item No.	Slide Length	Travel Length	A	B	C	# of Holes	Load Rating (kg/pair)	Weight (g)	Box (pcs)
ESR-10-12	305.0 (12")	319.0 (12-9/16")	-	149.2	273.0	16	272 (599 lbs)	1670	8
ESR-10-14	355.8 (14")	369.8 (14-9/16")		200.0	323.8		268 (590 lbs)	2000	
ESR-10-16	406.6 (16")	420.6 (16-9/16")		250.8	374.6		259 (570 lbs)	2340	
ESR-10-18	457.4 (18")	471.4 (18-9/16")	212.7	301.6	425.4	20	250 (550 lbs)	2500	6
ESR-10-20	508.2 (20")	522.2 (20-9/16")	238.1	352.4	476.2		241 (530 lbs)	2840	
ESR-10-22	559.0 (22")	573.0 (22-9/16")	263.5	403.2	527.0		229 (504 lbs)	3250	
ESR-10-24	609.8 (24")	623.8 (24-9/16")	288.9	454.0	577.8	20	216 (475 lbs)	3500	4
ESR-10-26	660.6 (26")	674.6 (26-9/16")	314.3	504.8	628.6		200 (440 lbs)	3840	
ESR-10-28	711.4 (28")	725.4 (28-9/16")	339.7	555.6	679.4		182 (400 lbs)	4170	

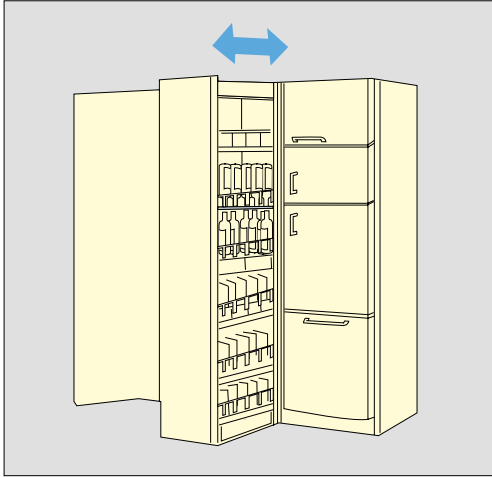
FULL EXTENSION SLIDE



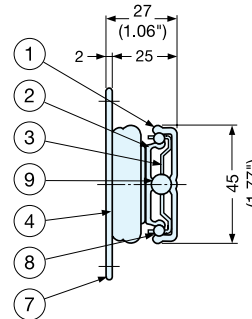
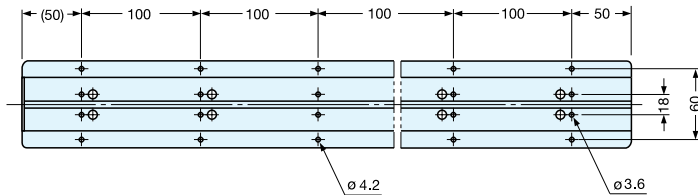
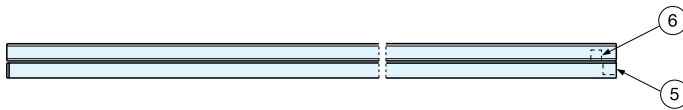
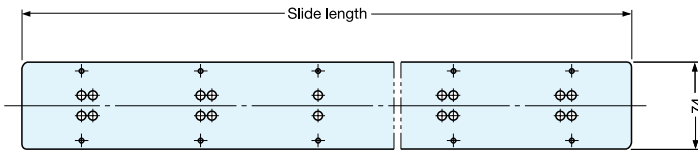
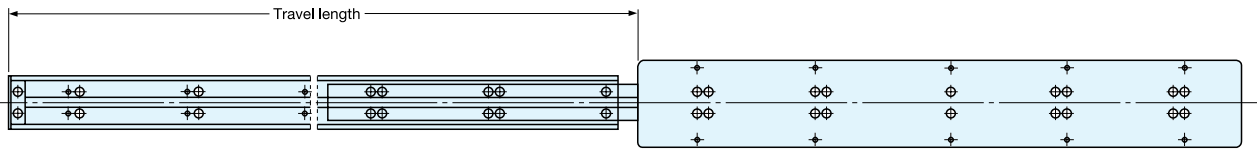
TSS-3

DRAWER SLIDES

FULL EXTENSION SLIDES



- Full extension.
- Positive stop.
- Non-handed.
- Heavy duty.
- Sold by each.



25.4 mm=1"

No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	
④	End Stopper	Polyamide
⑤	Outer Guide	Polyacetal
⑥	Inner Guide	
⑦	Plate	304 Stainless Steel
⑧	Large Balls	Steel
⑨	Small Balls	

Item No.	Slide Length	Travel Length	# of Holes	Load Rating (kg/pair)	Weight (g)	Box (pcs)
TSS-3-300	300 (11-13/16")	336 (13-7/32")	6	95 (209 lbs)	1380	4
TSS-3-400	400 (15-3/4")	436 (17-5/32")	8	90 (198 lbs)	1860	
TSS-3-500	500 (19-11/16")	536 (21-3/32")	10	85 (187 lbs)	2390	
TSS-3-600	600 (23-5/8")	636 (25-1/32")	12	80 (176 lbs)	2880	
TSS-3-800	800 (31-1/2")	836 (32-29/32")	16	65 (143 lbs)	3790	
TSS-3-1000	1000 (39-3/8")	1036 (40-25/32")	20	50 (110 lbs)	4710	

LINEAR ROLLER GUIDE SYSTEM (OVERVIEW) LGB30 SYSTEM



GUIDE TRACK (LGB30)



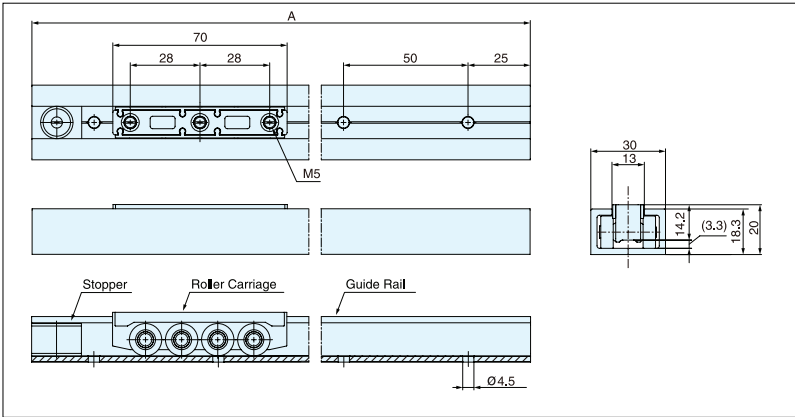
ROLLER CARRIAGE (LGB-30CM)



STOPPER (LGB30-ST)

- Bearing roller used in guide block allows for smooth movement.
- LGB-30CM guide block features a noise-reducing design bearing roller using with plastic outer ring.
- Clearance between guide rail and guide block provides versatility.

■ INSTALLATION : Guide Rail, Roller Carriage, Stopper



GUIDE TRACK (LGB30)



ROLLER CARRIAGE (LGB-30CM)

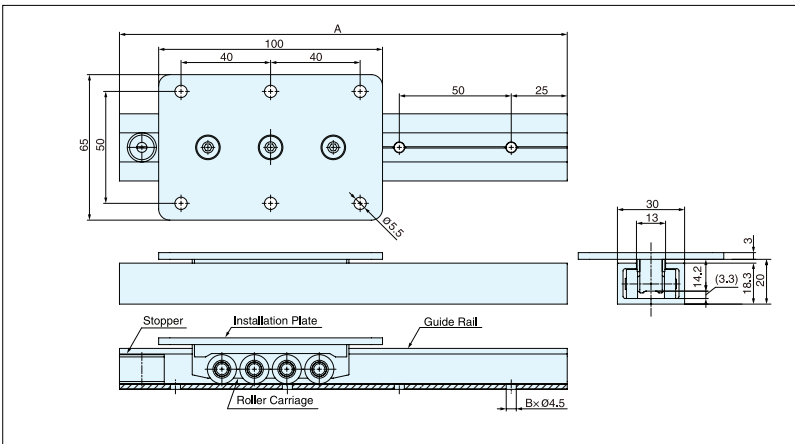


STOPPER (LGB30-ST)



INSTALLATION PLATE (LGB30-P65-100)

■ INSTALLATION : Guide Rail, Roller Carriage, Stopper, Installation Plate



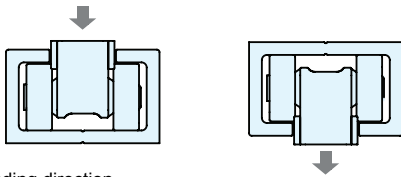
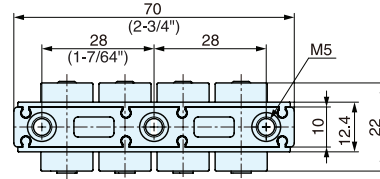
ROLLER CARRIAGE



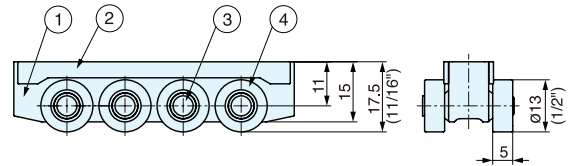
LGB-30CM



- Slide roller carriage with bearing for smooth slide operation.
- To be used in the combination of LGB30 guide rail.



Loading direction
Horizontal direction use only



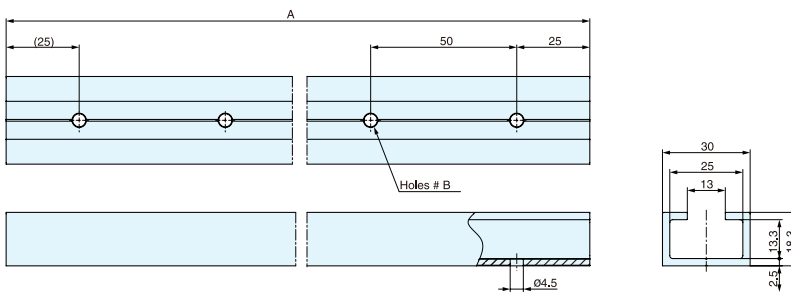
No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Chrome
②	Plate	Polyethylene	Black
③	Shaft	304 Stainless Steel	Plain
④	Roller	Steel/Polyacetal	Black

Item No.	Load Capacity (kgf)	Weight (g)
LGB-30CM	30 (66 lbs)	76

GUIDE RAIL



LGB30



Item No.	A	B	Weight (g)
LGB30-400	400 (15-3/4")	8	195
LGB30-800	800 (31-1/2")	16	390
LGB30-2000	2000 (78-47/64")	40	875

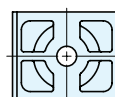
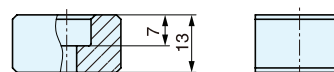
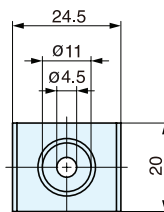
Material	Finish
Aluminum	Anodized

STOPPER



LGB30-ST

• Stopper for LGB-30CM Roller Carriage.



Item No.	Weight (g)	Material	Finish
LGB30-ST	5.6	Polyacetal	Black

INSTALLATION PLATE

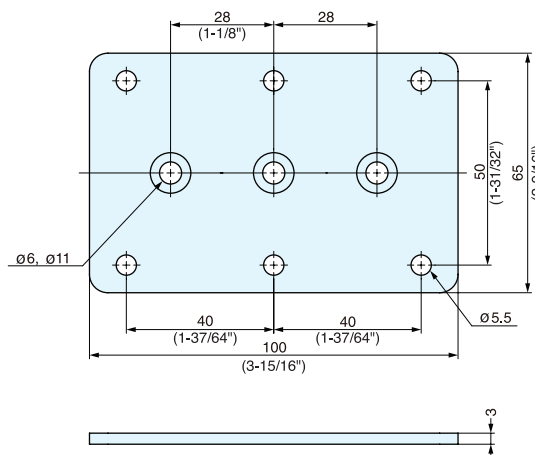


LGB30-P65-100

• Installation to LGB-30CM roller carriage for any applications.



Installation with roller carriage and guide rail.



Item No.	Weight (g)	Material	Finish
LGB30-P65-100	137	304 Stainless Steel	Polished

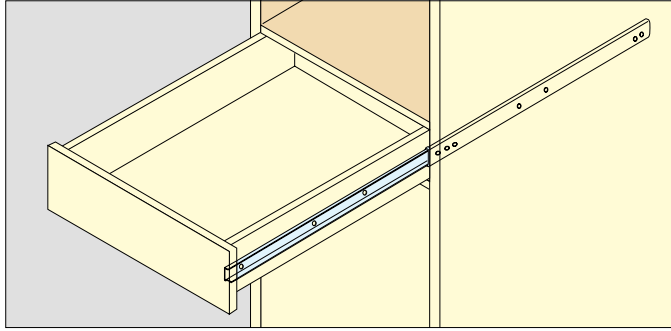
3/4 EXTENSION SLIDE



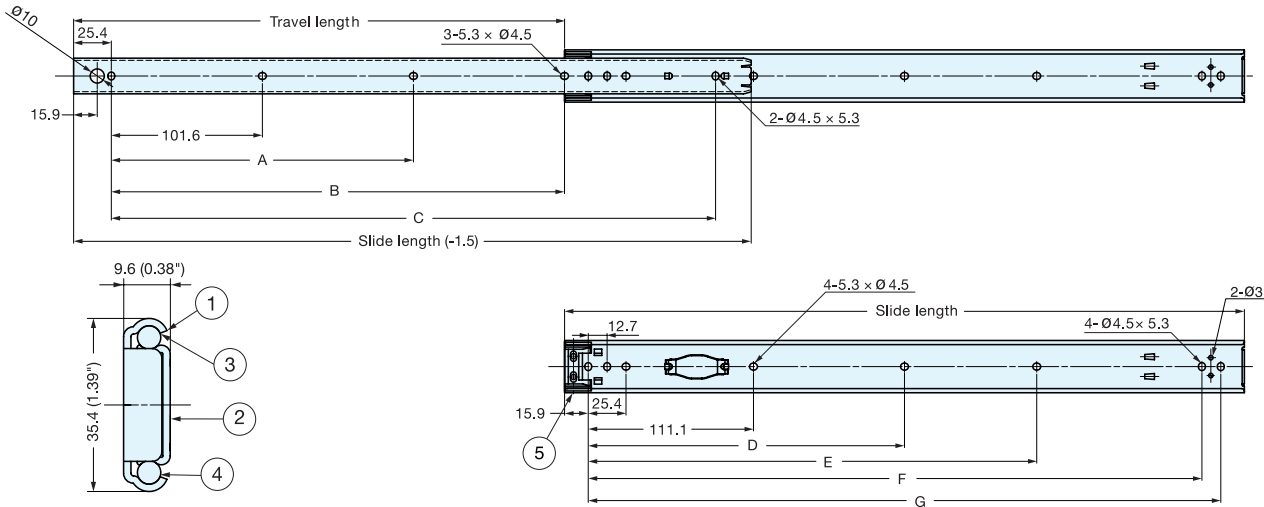
ESR-1

DRAWER SLIDES

STAINLESS STEEL SLIDES



- 3/4 extension.
- Front disconnect.
- Friction brake stop.
- Non-handed.
- Sold by each.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.

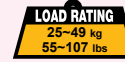


25.4 mm=1"

No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	
④	Balls	
⑤	Guide Block	Polyacetal

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	# of Holes		Load Rating (kg/pair)	Weight (g)	Box (pcs)
										Inner Rail	Outer Rail			
ESR-1-12	304.8 (12")	228.6 (9")	-	152.4	254.0	-	149.2	260.3	273.0	4	7	49 (107 lbs)	300	30
ESR-1-14	355.6 (14")	279.4 (11")	-	203.2	304.8	-	200.0	311.1	323.8	4	7	47 (103 lbs)	360	
ESR-1-16	406.4 (16")	304.8 (12")	-	254.0	355.6	-	250.8	361.9	374.6	4	7	43 (94 lbs)	420	
ESR-1-18	457.2 (18")	330.2 (13")	203.2	304.8	406.4	212.7	301.6	412.7	425.4	5	8	41 (90 lbs)	460	
ESR-1-20	508.0 (20")	381.0 (15")	228.6	355.6	457.2	238.1	352.4	463.5	476.2			37 (81 lbs)	490	
ESR-1-22	558.8 (22")	406.4 (16")	254.0	406.4	508.0	263.5	403.2	514.3	527.0			34 (74 lbs)	560	
ESR-1-24	609.6 (24")	432.8 (17")	279.4	457.2	558.8	288.9	454.0	565.1	577.8			30 (66 lbs)	590	
ESR-1-26	660.4 (26")	482.6 (19")	304.8	508.0	609.6	314.3	504.8	615.9	628.6			27 (59 lbs)	660	
ESR-1-28	711.2 (28")	508.0 (20")	330.2	558.8	660.4	339.7	555.6	666.7	679.4			25 (55 lbs)	690	

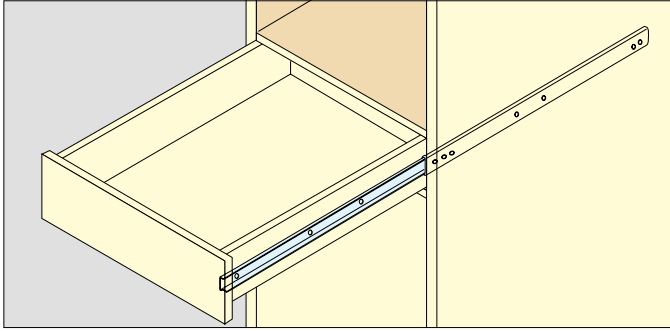
3/4 EXTENSION SLIDE



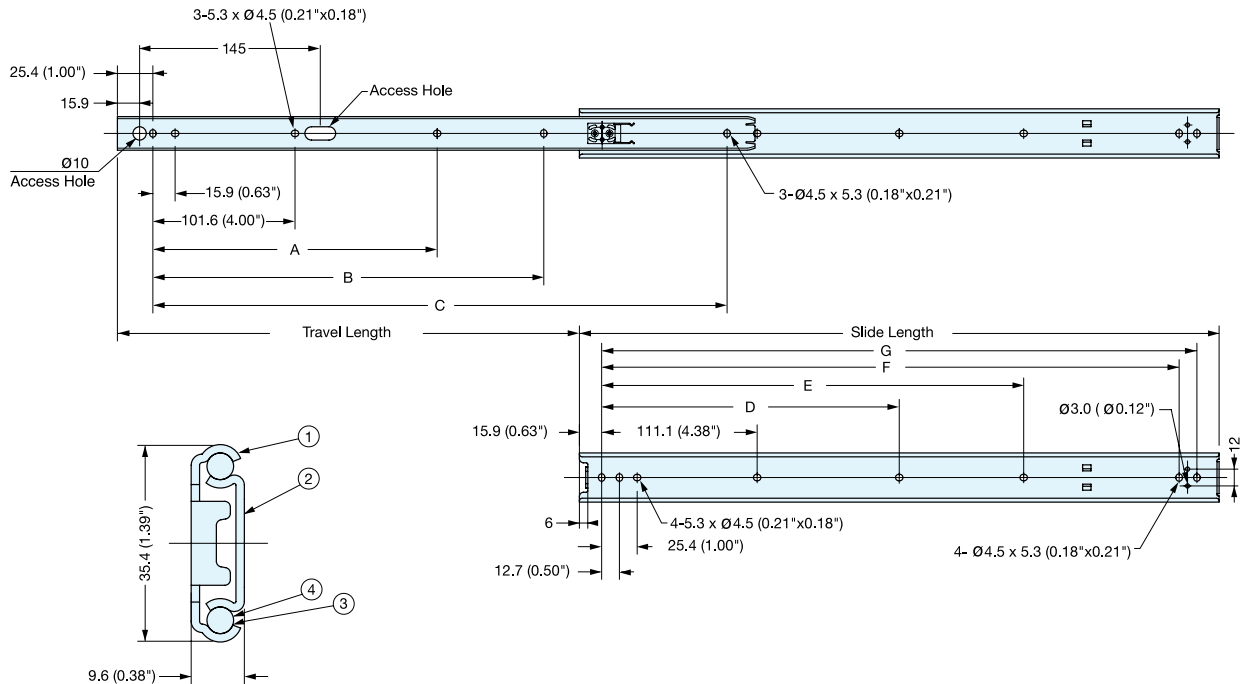
ESR-13

DRAWER SLIDES

STAINLESS STEEL SLIDES



- 3/4 extension.
- Positive stop.
- Positive catch.
- Non-handed.
- Sold by each.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.



No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	
④	Balls	

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	# of Holes		Load Rating (kg/pair)	Weight (g)	Box (pcs)
										Inner Rail	Outer Rail			
ESR-13-12	304.8 (12")	228.6 (9")	-	177.8	258.0	-	149.2	260.3	273.0	4	7	49 (107 lbs)	330	30
ESR-13-14	355.6 (14")	279.4 (11")	-	228.6	308.8	-	200.0	311.1	323.8	4	7	47 (103 lbs)	380	
ESR-13-16	406.4 (16")	304.8 (12")	-	254.0	359.6	-	250.8	361.9	374.6	4	7	43 (94 lbs)	420	
ESR-13-18	457.2 (18")	330.2 (13")	203.2	279.4	410.4	212.7	301.6	412.7	425.4	5	8	41 (90 lbs)	490	
ESR-13-20	508.0 (20")	381.0 (15")	228.6	330.2	461.2	238.1	352.4	463.5	476.2			37 (81 lbs)	540	
ESR-13-22	558.8 (22")	406.4 (16")	254.0	355.6	512.0	263.5	403.2	514.3	527.0			34 (74 lbs)	590	
ESR-13-24	609.6 (24")	431.8 (17")	254.0	381.0	562.8	288.9	454.0	565.1	577.8			30 (66 lbs)	630	
ESR-13-26	660.4 (26")	482.6 (19")	254.0	431.8	613.6	314.3	504.8	615.9	628.6	27 (59 lbs)	680			
ESR-13-28	711.2 (28")	508.0 (20")	279.4	457.2	664.4	339.7	555.6	666.7	679.4	25 (55 lbs)	750			

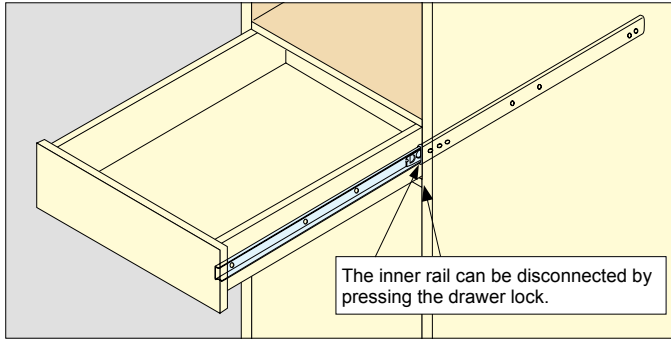
3/4 EXTENSION SLIDE



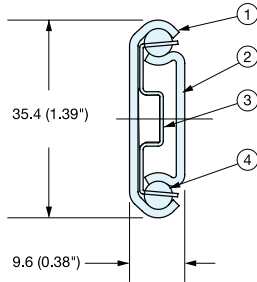
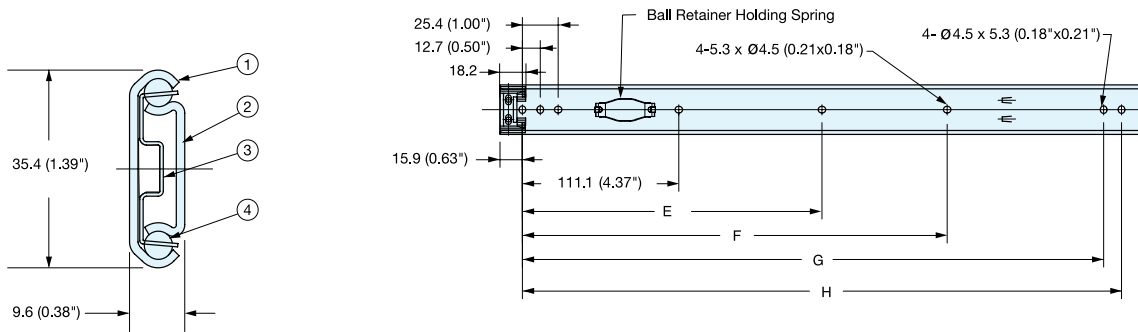
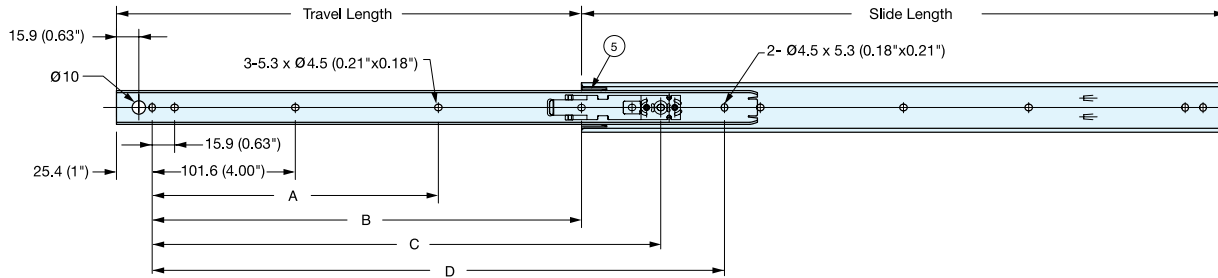
ESR-8

DRAWER SLIDES

STAINLESS STEEL SLIDES



- 3/4 extension.
- Positive lock.
- Front disconnect.
- Non-handed.
- Sold by each.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.

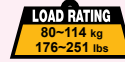


25.4 mm=1"

No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	
④	Balls	
⑤	Guide Block	Polyacetal

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	H	# of Holes		Load Rating (kg/pair)	Weight (g)	Box (pcs)
											Inner Rail	Outer Rail			
ESR-8-12	304.8 (12")	228.6 (9")	-	152.4	259.5	-	-	149.2	260.3	273.0	4	7	49 (107 lbs)	310	20
ESR-8-14	355.6 (14")	279.4 (11")	-	203.2	310.3	-	-	200.0	311.1	323.8	4	7	47 (103 lbs)	370	
ESR-8-16	406.4 (16")	304.8 (12")	-	203.2	335.7	355.6	-	250.8	361.9	374.6	4	7	43 (94 lbs)	420	
ESR-8-18	457.2 (18")	330.2 (13")	203.2	-	366.1	406.4	212.7	301.6	412.7	425.4	5	8	41 (90 lbs)	470	
ESR-8-20	508.0 (20")	381.0 (15")	228.6	-	411.9	457.2	238.1	352.4	463.5	476.2	5	8	37 (81 lbs)	500	
ESR-8-22	558.8 (22")	406.4 (16")	254.0	-	437.3	508.0	263.5	403.2	514.3	527.0	5	8	34 (74 lbs)	550	
ESR-8-24	609.6 (24")	432.8 (17-1/32")	279.4	-	463.7	558.8	288.9	454.0	565.1	577.8	5	8	30 (66 lbs)	600	
ESR-8-26	660.4 (26")	482.6 (19")	304.8	-	513.5	609.6	314.3	504.8	615.9	628.6	5	8	27 (59 lbs)	670	
ESR-8-28	711.2 (28")	508.0 (20")	330.2	-	558.8	660.4	339.7	555.6	666.7	679.4	5	8	25 (55 lbs)	680	

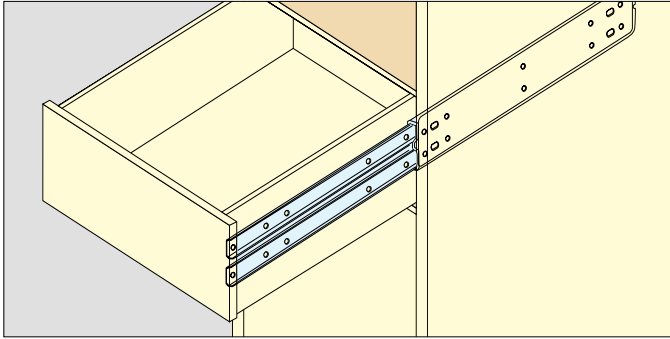
3/4 EXTENSION SLIDE



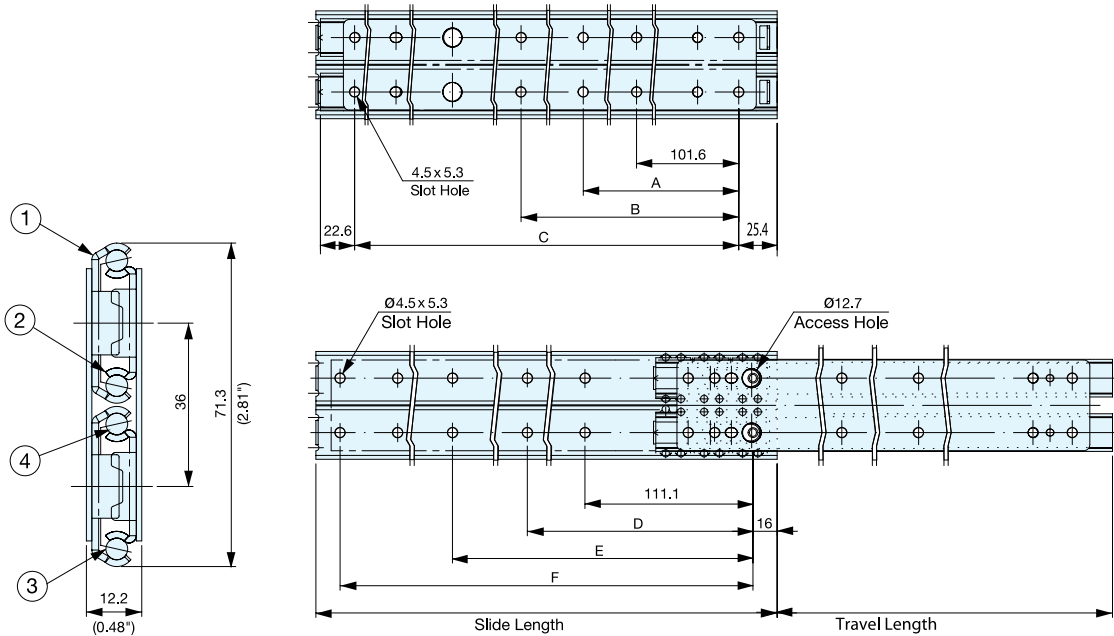
ESR-5

DRAWER SLIDES

STAINLESS STEEL SLIDES



- 3/4 extension.
- Positive stop.
- Non-handed.
- Heavy duty.
- Sold by each.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.

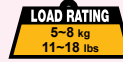


25.4 mm=1"

No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	
④	Balls	

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	# of Holes		Load Rating (kg/pair)	Weight (g)	Box (pcs)
									Inner Rail	Outer Rail			
ESR-5-12	305.0 (12")	221.8 (8-47/64")	-	152.4	254.0	-	149.2	273.0	6	8	114 (251 lbs)	920	12
ESR-5-14	355.8 (14")	259.9 (10-15/64")	-	203.2	304.8	-	200.0	323.8			109 (240 lbs)	1090	
ESR-5-16	406.6 (16")	298.0 (11-47/64")	-	254.0	355.6	-	250.8	374.6			104 (229 lbs)	1250	
ESR-5-18	457.4 (18")	348.8 (13-47/64")	203.2	304.8	406.4	212.7	301.6	425.4	6	10	102 (224 lbs)	1500	
ESR-5-20	508.2 (20")	361.5 (14-15/64")	228.6	355.6	457.2	238.1	352.4	476.2			99 (218 lbs)	1670	
ESR-5-22	559.0 (22")	425.0 (16-47/64")	254.0	406.4	508.0	263.5	403.2	527.0			94 (207 lbs)	1750	
ESR-5-24	609.8 (24")	450.4 (17-47/64")	279.4	457.2	558.8	288.9	454.0	577.8			89 (196 lbs)	1920	
ESR-5-26	660.6 (26")	463.1 (18-15/64")	304.8	508.0	609.6	314.3	504.8	628.6			86 (189 lbs)	2090	
ESR-5-28	711.4 (28")	501.2 (19-47/64")	330.2	558.8	660.4	339.7	555.6	679.4			80 (176 lbs)	2250	

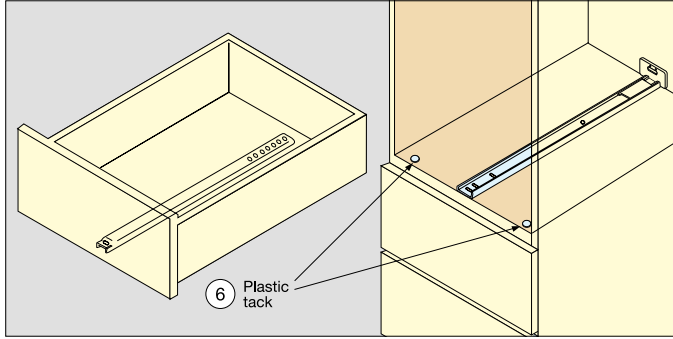
3/4 EXTENSION UNDERMOUNT SLIDE



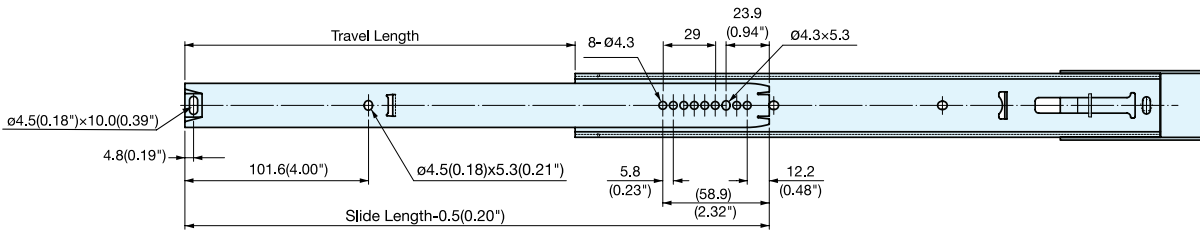
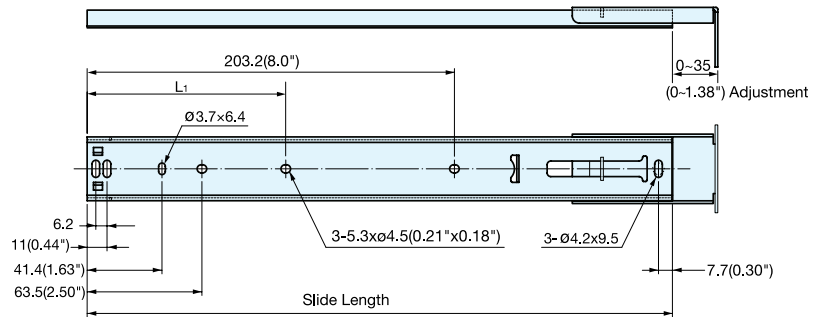
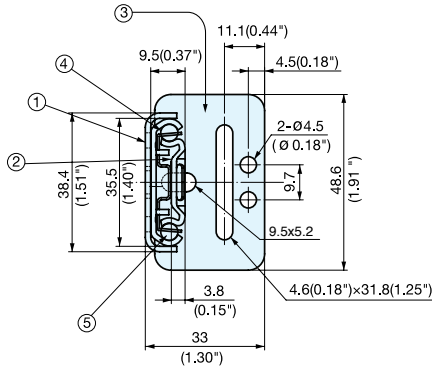
ESR-2

DRAWER SLIDES

STAINLESS STEEL SLIDES



- Under carriage mounting with bracket.
- 3/4 extension.
- Front disconnect.
- Friction brake stop.
- Sold by each.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.
- Two plastic tacks supplied per slide.



25.4 mm=1"

No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Bracket	
④	Retainer	
⑤	Balls	Polyamide
⑥	Plastic Tack	

Item No.	Slide Length	Travel Length	L ₁	# of Holes		Load Rating (kg/pc)	Weight (g)	Box (pcs)	
				Inner Rail	Outer Rail				
ESR-2-12	323.8 (12-3/4")	215.9 (8-1/2")	109.9	11	7	8.0 (18 lbs)	340	20	
ESR-2-14	374.6 (14-3/4")	266.7 (10-1/2")	160.7			7.5 (17 lbs)	400		
ESR-2-16	425.4 (16-3/4")	304.8 (12")	-			6	7.0 (15 lbs)		450
ESR-2-18	476.2 (18-3/4")	317.5 (12-1/2")	262.3			7	6.5 (14 lbs)		530
ESR-2-20	527.0 (20-3/4")	368.3 (14-1/2")	313.1				6.0 (13 lbs)		630
ESR-2-22	577.8 (22-3/4")	419.1 (16-1/2")	363.9				5.5 (12 lbs)		690
ESR-2-24	628.6 (24-3/4")	444.5 (17-1/2")	414.7				5.0 (11 lbs)		720
ESR-2-26	679.4 (26-3/4")	495.3 (19-1/2")	465.5						

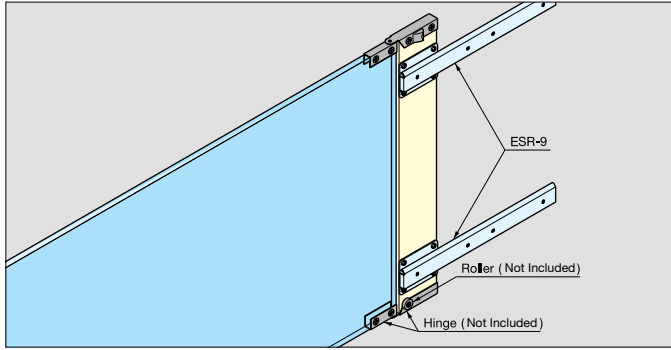
LINEAR BALL BEARING GUIDE



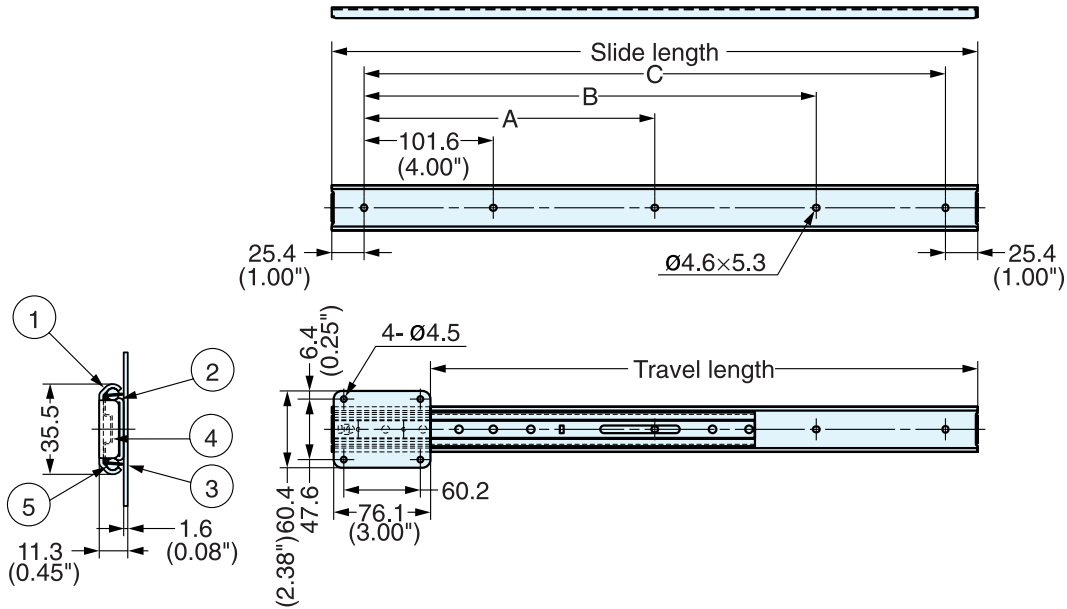
ESR-9

DRAWER SLIDES

STAINLESS STEEL SLIDES



- Non-handed.
- Mounting plate attached.
- Sold by each.
- Mount with M4 or #8 Binding, Pan, or Truss head screws.



25.4 mm=1"

No.	Part	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Mounting Plate	
④	Retainer	
⑤	Balls	

Item No.	Slide Length	Travel Length	A	B	C	# of Holes Outer Rail	Load Rating (kg/pair)	Weight (g)	Box (pcs)
ESR-9-12	304.8 (12")	225 (8-7/8")	-	152.4	254.0	4	5 (11 lbs)	280	20
ESR-9-14	355.6 (14")	276 (10-7/8")		203.2	304.8				
ESR-9-16	406.4 (16")	327 (12-7/8")		254.0	355.6				
ESR-9-18	457.2 (18")	378 (14-7/8")	203.2	304.8	406.4	5		373	
ESR-9-20	508.0 (20")	428 (16-7/8")	228.6	355.6	457.2			404	
ESR-9-22	558.8 (22")	479 (18-7/8")	254.0	406.4	508.0			441	
ESR-9-24	609.6 (24")	530 (20-7/8")	279.4	457.2	558.8			472	
ESR-9-26	660.4 (26")	581 (22-7/8")	304.8	508.0	609.6			503	
ESR-9-28	711.2 (28")	632 (24-7/8")	330.2	558.8	660.4	536			

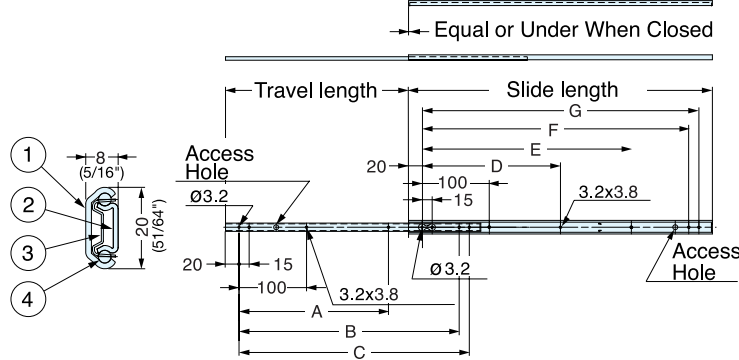
3/4 EXTENSION SLIDE (Low Profile)



ESR-2021



- 3/4 extension.
- Positive stop.
- Non-handed.
- Requires #4 or M3 pan head screw.
- Sold by each.



No.	Part Name	Material	Finish/Color
①	Outer Rail	304 Stainless Steel	Plain
②	Inner Rail		
③	Retainer		-
④	Balls		

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	Load Rating (kg/pair)	Box (pcs)
ESR-2021-200	200 (7-7/8")	134 (5-9/32")	-	145	160	-	-	145	160	13 (28 lbs)	200
ESR-2021-250	250 (9-27/32")	184 (7-15/64")	150	195	210			195	210	15 (33 lbs)	
ESR-2021-300	300 (11-13/16")	224 (8-13/16")	190	245	260			245	260	16 (35 lbs)	
ESR-2021-350	350 (13-25/32")	244 (9-39/64")	225	295	310			295	310	15 (33 lbs)	
ESR-2021-400	400 (15-3/4")	294 (11-37/64")	265	345	360			345	360	13 (28 lbs)	
ESR-2021-450	450 (17-23/32")	334 (13-9/64")	300	395	410	205	310	395	410	13 (28 lbs)	100
ESR-2021-500	500 (19-11/16")	384 (15-7/64")	337	445	460	230	360	445	460	11 (24 lbs)	

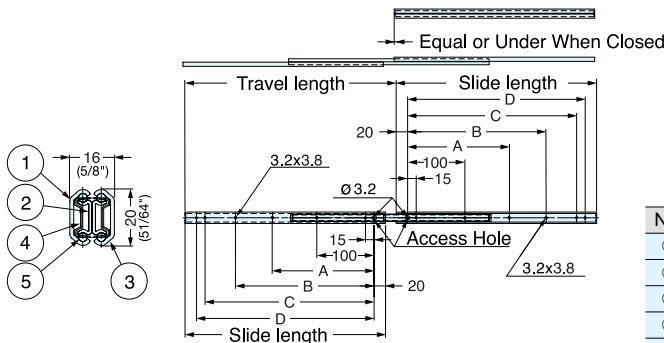
FULL EXTENSION SLIDE



ESR-2031



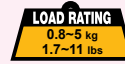
- Full extension.
- Positive stop.
- Non-handed.
- Requires #4 or M3 pan head screw.
- Sold by each.



No.	Part Name	Material	Finish/Color
①	Outer Rail	304 Stainless Steel	Plain
②	Intermediate Member		
③	Inner Rail		
④	Retainer		
⑤	Balls		-

Item No.	Slide Length	Travel Length	A	B	C	D	Load Rating (kg/pair)	Weight (g/pair)	Box (pcs)
ESR-2031-200	200 (7-7/8")	229 (9-1/64")	-	-	145	160	17 (37 lbs)	400	96
ESR-2031-250	250 (9-27/32")	269 (10-19/32")			195	210		500	
ESR-2031-300	300 (11-13/16")	329 (12-61/64")			245	260		600	
ESR-2031-350	350 (13-25/32")	369 (14-17/32")			295	310		700	
ESR-2031-400	400 (15-3/4")	429 (16-57/64")			345	360		800	
ESR-2031-450	450 (17-23/32")	469 (18-15/32")	205	310	395	410	16 (35 lbs)	900	48
ESR-2031-500	500 (19-11/16")	529 (20-53/64")	230	360	445	460	13 (28 lbs)	1000	

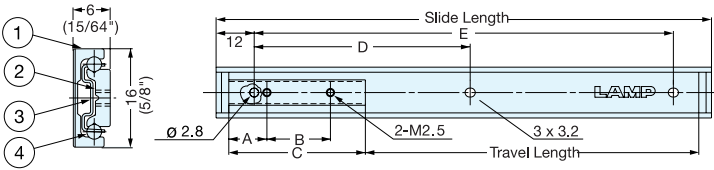
ALUMINUM MINI GUIDE



ARL2-16



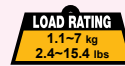
- Thin profile for various applications.
- Light-weight aluminum body.
- Sold by each.



No.	Part Name	Material	Finish
①	Outer Rail	Aluminum	Anodized
②	Inner Rail		
③	Retainer	Steel	Plain
④	Balls		

Item No.	Slide Length	Travel Length	A	B	C	D	E	Load Rating (kg/pair)		Weight (g/piece)	Box (pcs)
ARL2-16-70	70 (2-3/4")	30 (1-11/64")	5	18	28	-	46	2 (4.4 lbs)	0.8 (1.7 lbs)	13.5	100
ARL2-16-100	100 (3-15/16")	52 (2-3/64")	10	19	39	38	76	5 (11.0 lbs)	1.8 (4.0 lbs)	18.0	
ARL2-16-150	150 (5-29/32")	99 (3-57/64")								63	

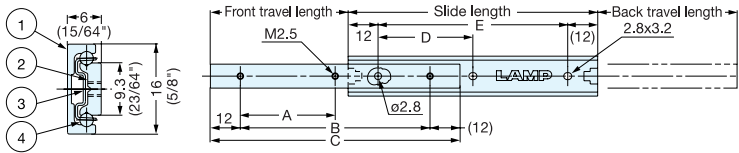
ALUMINUM MINI SLIDE (2-WAY)



ARW2-16



- Two-way travel.
- Thin profile for various applications.
- Light-weight aluminum body.
- Designed without positive stop for ease of assembly.
- Please add secondary stopper if necessary.
- Sold by each.



No.	Part Name	Material	Finish
①	Outer Rail	Aluminum	Anodized
②	Inner Rail		
③	Retainer	Steel	Plain
④	Balls		

Item No.	Slide Length	Front Travel Length	Back Travel Length	A	B	C	D	E	Load Rating (kg/pair)		Weight (g/piece)	Box (pcs)
ARW2-16-70	70 (2-3/4")	32 (1-1/4")	32 (1-1/4")	-	46	70	-	46	3 (6.6 lbs)	1.1 (2.4 lbs)	15.5	100
ARW2-16-100	100 (3-15/16")	40 (1-37/64")	40 (1-37/64")	38	76	100	38	76	5 (11.0 lbs)	2.0 (4.4 lbs)	21.5	
ARW2-16-150	150 (5-29/32")	79 (3-7/64")	79 (3-7/64")	63	129	150	63	126	7 (15.4 lbs)	3.1 (6.8 lbs)	29.5	

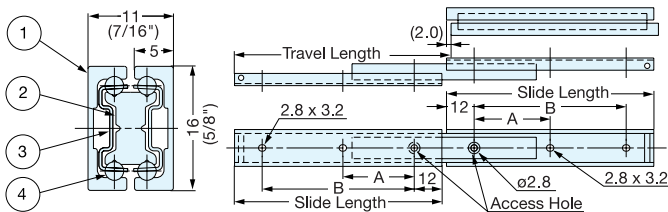
ALUMINUM MINI SLIDE



AR3-16



- Full extension.
- Positive stop.
- Thin profile for various applications.
- Light-weight aluminum body.
- Sold by each.



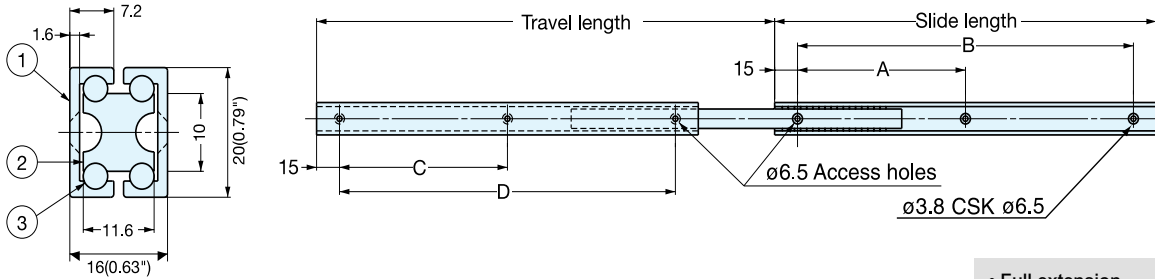
No.	Part Name	Material	Finish
①	Outer Rail	Aluminum	Anodized
②	Inner Rail		
③	Retainer	Steel	Plain
④	Balls		

Item No.	Slide Length	Travel Length	A	B	Load Rating (kg/pair)	Weight (g/piece)	Box (pcs)
AR3-16-80	80 (3-9/64")	77 (3-1/32")	-	56	2 (4.4 lbs)	31.5	50
AR3-16-100	100 (3-15/16")	117 (4-19/32")	38	76	3 (6.6 lbs)	36.0	
AR3-16-150	150 (5-29/32")	151 (5-15/16")	63	126	4 (8.8 lbs)	55.0	

FULL EXTENSION SLIDE



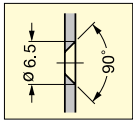
AR3



- Full extension.
- Positive stop.
- Non-handed.
- Sold by each.

25.4 mm=1"

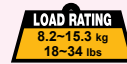
No.	Part	Material	Finish
①	Outer Rail	Aluminum	Anodized
②	Inner Rail		
③	Balls	Steel	-



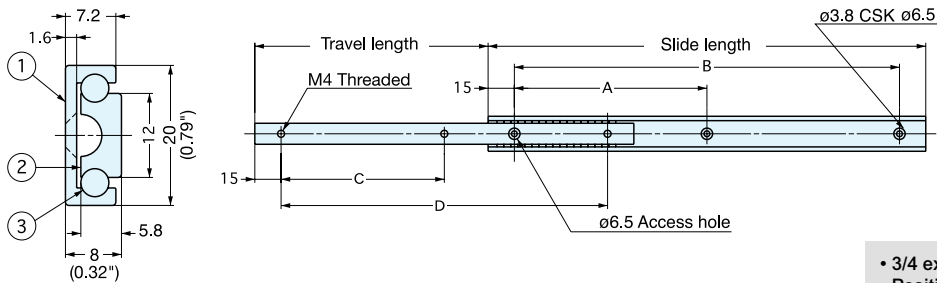
Hole Dimension (Outer Rail)

Item No.	Slide Length	Travel Length	A	B	C	D	Load Rating (kg/pair)	Weight (g)	Box (pcs)
AR3-100	100 (3-15/16")	100 (3-15/16")	-	70	-	70	11.2 (25 lbs)	63	30
AR3-200	200 (7-7/8")	223 (8-25/32")	85	170	85	170	9.2 (20 lbs)	128	
AR3-300	300 (11-13/16")	345 (13-19/32")	135	270	135	270	7.1 (16 lbs)	194	
AR3-400	400 (15-3/4")	460 (18-7/64")	185	370	185	370	5.1 (11 lbs)	260	20
AR3-500	500 (19-11/16")	576 (22-43/64")	235	470	235	470	3.1 (7 lbs)	325	

3/4 EXTENSION SLIDE



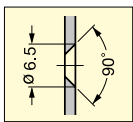
AR2



- 3/4 extension.
- Positive stop.
- Non-handed.
- Sold by each.

25.4 mm=1"

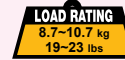
No.	Part	Material	Finish
①	Outer Rail	Aluminum	Anodized
②	Inner Rail		
③	Balls	Steel	-



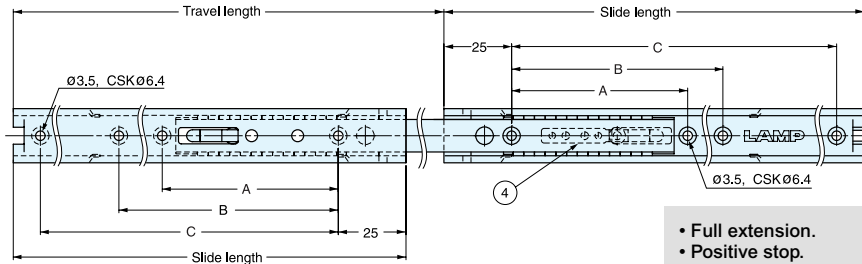
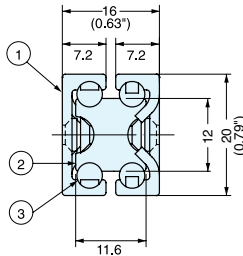
Hole Dimension (Outer Rail)

Item No.	Slide Length	Travel Length	A	B	C	D	Load Rating (kg/pair)	Weight (g)	Box (pcs)
AR2-100	100 (3-15/16")	60 (2-23/64")	-	70	-	70	15.3 (34 lbs)	31	50
AR2-200	200 (7-7/8")	120 (4-23/32")	85	170	85	170	12.2 (27 lbs)	63	
AR2-300	300 (11-13/16")	180 (7-5/64")	135	270	135	270	10.2 (22 lbs)	76	
AR2-400	400 (15-3/4")	240 (9-29/64")	185	370	185	370	9.2 (20 lbs)	129	
AR2-500	500 (19-11/16")	300 (11-13/16")	235	470	235	470	8.2 (18 lbs)	161	

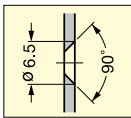
FULL EXTENSION SLIDE (W/HOLD-OUT DETENT)



AR3-K



- Full extension.
- Positive stop.
- Non-handed.
- Hold-out detent.
- Sold by each.



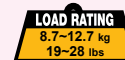
Hole Dimension (Outer Rail)

25.4 mm=1"

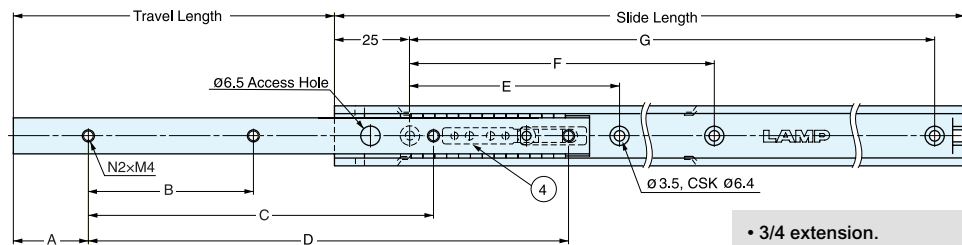
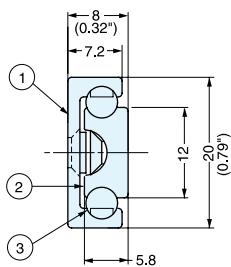
No.	Part	Material	Finish
①	Outer Rail	Aluminum	Anodized
②	Inner Rail		
③	Balls	Steel	-
④	Detent Catch	304 Stainless Steel	-

Item No.	Slide Length	Travel Length	A	B	C	Load Rating (kg/pair)	Weight (g)	Box (pcs)
AR3-K200	200 (7-7/8")	214 (8-53/64")	150	-	-	10.7 (23 lbs)	130	30
AR3-K300	300 (11-13/16")	314 (12-23/64")	130	250	-	10.2 (22 lbs)	198	
AR3-K400	400 (15-3/4")	414 (16-19/64")		280	350	9.2 (20 lbs)	263	
AR3-K500	500 (19-11/16")	514 (20-15/64")			450	8.7 (19 lbs)	304	20

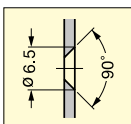
3/4 EXTENSION SLIDE (W/HOLD-OUT DETENT)



AR2-K



- 3/4 extension.
- Positive stop.
- Non-handed.
- Hold-out detent.
- Sold by each.



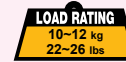
Hole Dimension (Outer Rail)

25.4 mm=1"

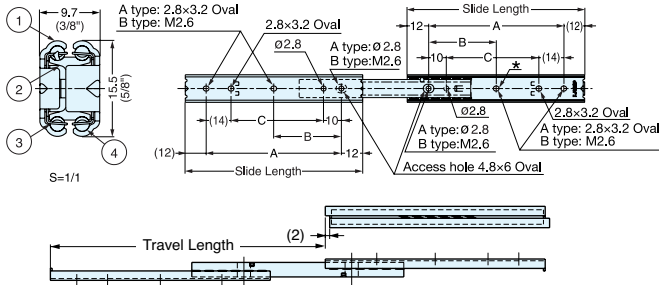
No.	Part	Material	Finish
①	Outer Rail	Aluminum	Anodized
②	Inner Rail		
③	Balls	Steel	-
④	Detent Catch	304 Stainless Steel	-

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	Load Rating (kg/pair)	Weight (g)	Box (pcs)
AR2-K200	200 (7-7/8")	110 (4-7/16")	25	60	160	-	150	-	-	12.7 (28 lbs)	64	50
AR2-K300	300 (11-13/16")	170 (6-11/16")	45	100	230	-	130	250	-	11.2 (25 lbs)	97	
AR2-K400	400 (15-3/4")	230 (9-1/16")	45	150	270	330	130	280	350	9.7 (21 lbs)	130	
AR2-K500	500 (19-11/16")	290 (11-27/64")	45	190	340	430	130	280	450	8.7 (19 lbs)	162	

FULL EXTENSION MINI SLIDE



SCR3



- Full extension.
- High precision design.
- Thin profile for various applications.
- Types with slide length 80 mm have no holes marked with(*)

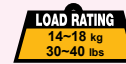


B type shown.

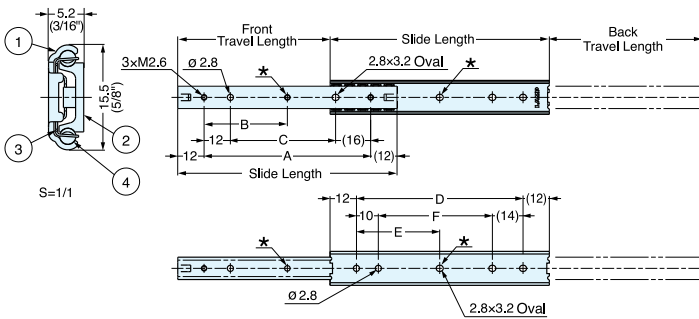
Item No.	Holes	Slide Length	Travel Length	A	B	C	Load Capacity kgf/pair	Weight (g/pc)	Box (pcs)	Carton (pcs)
SCR3-15-80A	A Type (Through Hole)	80 (3-1/8")	97 (3-13/16")	56	-	32	10 (22.0 lbs)	36	50	200
SCR3-15-100A		100 (3-15/16")	125 (4-15/16")	76	38	52	11 (24.2 lbs)	45		
SCR3-15-150A		150 (5-7/8")	177 (6-15/16")	126	63	102	12 (26.4 lbs)	70		
SCR3-15-80B	B Type (Screw Hole)	80 (3-1/8")	97 (3-13/16")	56	-	32	10 (22.0 lbs)	36		
SCR3-15-100B		100 (3-15/16")	125 (4-15/16")	76	38	52	11 (24.2 lbs)	45		
SCR3-15-150B		150 (5-7/8")	177 (6-15/16")	126	63	102	12 (26.4 lbs)	70		

No.	Part Name	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	Steel
④	Balls	

3/4 EXTENSION MINI SLIDE (2-WAY)



SCRW2



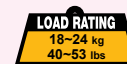
- Two-way travel.
- Thin profile for various applications.
- Types with slide length 80 mm have no holes marked with(*)



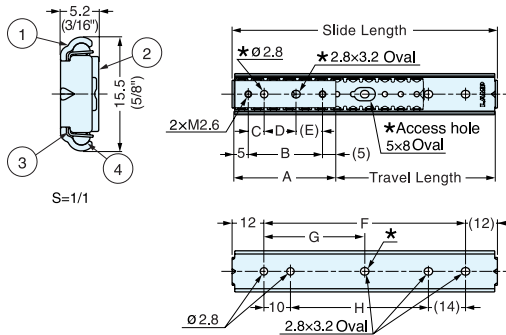
No.	Part Name	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	Steel
④	Balls	

Item No.	Slide Length	Front Travel Length	Back Travel Length	A	B	C	D	E	F	Load Capacity kgf/pair	Weight (g/pc)	Box (pcs)	Carton (pcs)
SCRW2-15-80A	80 (3-1/8")	48.5 (1-7/8")	48.5 (1-7/8")	56	-	28	56	-	32	14 (30.8 lbs)	21	200	400
SCRW2-15-100A	100 (3-15/16")	68.5 (2-11/16")	68.5 (2-11/16")	76	38	48	76	38	52	16 (35.2 lbs)	26	100	200
SCRW2-15-150A	150 (5-7/8")	94.5 (3-3/4")	94.5 (3-3/4")	126	63	98	126	63	102	18 (39.6 lbs)	41	100	200

STAINLESS STEEL MINI GUIDE



SCRL2



- Thin profile for various applications.
- Types with slide length 80 mm have no holes marked with(*)



No.	Part Name	Material
①	Outer Rail	304 Stainless Steel
②	Inner Rail	
③	Retainer	Steel
④	Balls	

Item No.	Slide Length	Travel Length	A	B	C	D	E	F	G	H	Load Capacity kgf/pair	Weight (g/pc)	Box (pcs)	Carton (pcs)
SCRL2-15-80A	80 (3-1/8")	49 (1-7/8")	28	18	-	-	-	56	-	32	18 (39.6 lbs)	16	50	200
SCRL2-15-100A	100 (3-15/16")	59 (2-5/16")	38	28	6	12	10	76	38	52	21 (46.2 lbs)	20		
SCRL2-15-150A	150 (5-7/8")	109 (4-5/16")	109	63	10	14	14	126	63	102	29	29		
SCRL2-15-200A	200 (7-7/8")	149 (5-7/8")	149	63	10	14	14	176	88	152	38	38		

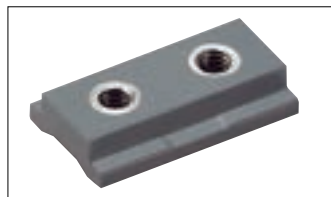
ULTRA MINI GUIDE BLOCK & RAIL



MRS-15, MR-15CS

DRAWER SLIDES

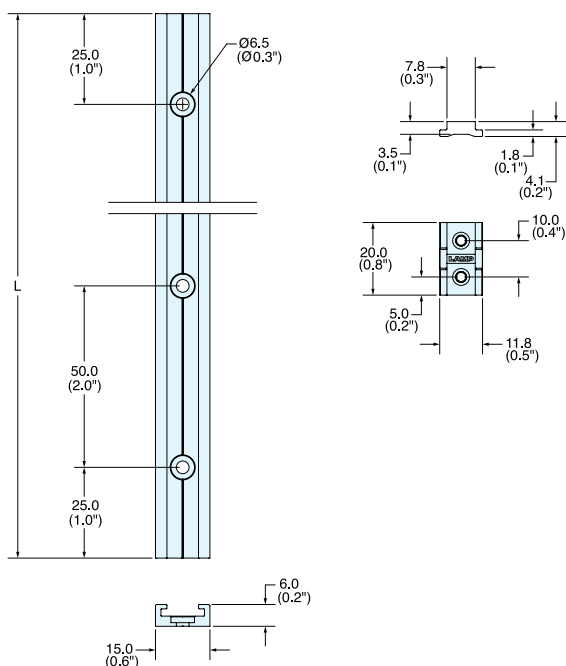
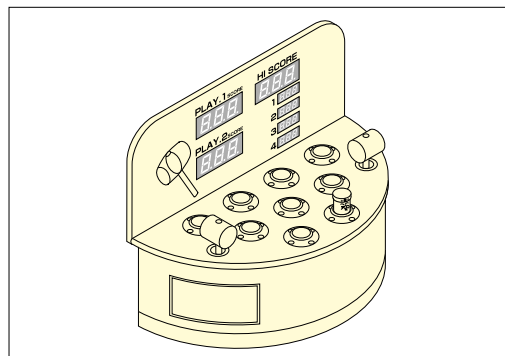
ULTRA MINI GUIDE BLOCK & RAIL



- Perfect for small stroke application.
- No lubricant (P. 415,416,417) needed.
- Block and rail sold separately.



MRS-15



*Both ends of rail are not anodized.

No.	Material	Finish
①	Polyethylene (UL 94HB)	Grey
②	304 Stainless Steel	Plain
③	Aluminum	Anodized

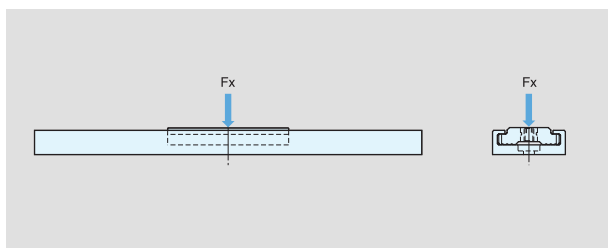
■ Block

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
MR-15CS	1	150	1000

■ Rail

Item No.	L	N	Weight (g)	Box (pcs)
MRS15-100	100 (3-15/16")	2	14.5	200
MRS15-200	200 (7-7/8")	4	29.0	200
MRS15-400	400 (15-3/4")	8	58.0	100
MRS15-800	800 (31-1/2")	16	117.0	80

MRS 15, MR-15CS LOAD RATING INFORMATION



Horizontal Static Load Fx	10.2 kgf (22.48 lbs)
Vertical Static Load Fy	3.0 kgf (6.61 lbs)

□ Reduction Factor

Certain reduction needs to be applied depending on application or environment.
 Low speed/Low operation frequency = 70% to 100% of Load Rating
 Moderate speed/High operation frequency = 35% to 65% of Load Rating
 High operation frequency with Vibration & Shocks = 10% to 30% of Load Rating

MINI GUIDE BLOCK & RAIL



MRS20, MR-20CS

DRAWER SLIDES

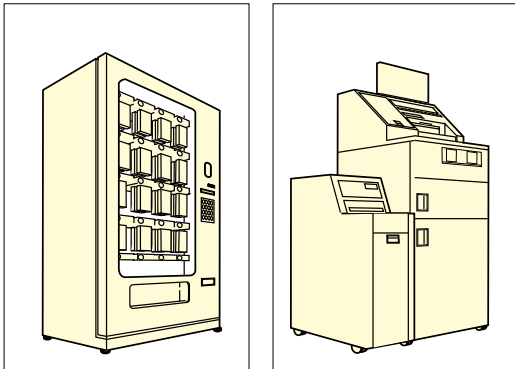
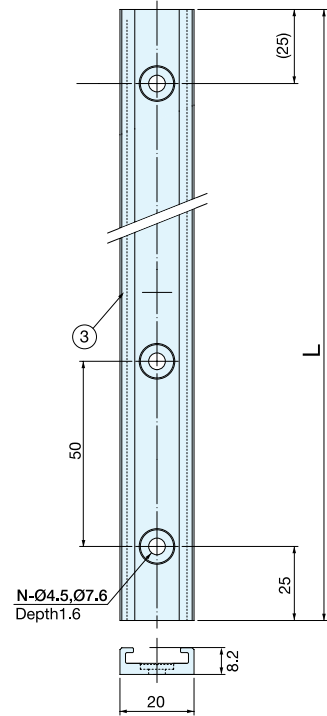
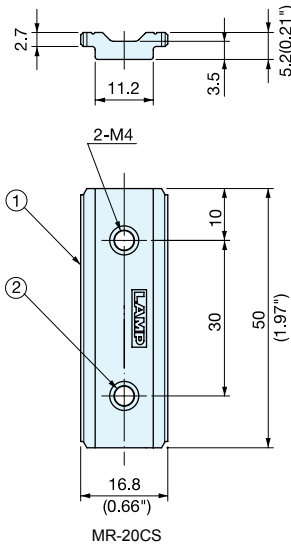
MINI GUIDE BLOCKS & RAILS



MR-20CS



- Perfect for small stroke application.
- No lubricant (P. 415,416,417) needed.
- * Block and Rail sold separately.



Installation

■ Rail 25.4 mm=1"

Item No.	L	N	Weight (g)	Box (pcs)
MRS20-100	100 (3-15/16")	2	20	200
MRS20-200	200 (7-7/8")	4	40	
MRS20-400	400 (15-3/4")	8	80	100
MRS20-800	800 (31-1/2")	16	160	80
MRS20-2000	2000 (78-3/4")	40	400	30

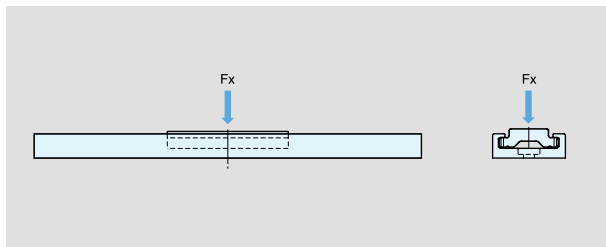
*Both ends of rail are not anodized.

No.	Material	Finish
①	Polyethylene (UL 94HB)	Grey
②	304 Stainless Steel	Plain
③	Aluminum	Anodized

■ Block

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
MR-20CS	6	50	1000

MRS 20, MR-20CS LOAD RATING INFORMATION



Horizontal Static Load Fx	30.6 kgf (67.5 lbs)
Vertical Static Load Fy	17.8 kgf (39.2 lbs)

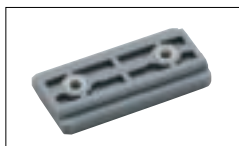
◆ Reduction Factor

Certain reduction needs to be applied depending on application or environment.
 Low speed/Low operation frequency = 70% to 100% of Load Rating
 Moderate speed/High operation frequency = 35% to 65% of Load Rating
 High operation frequency with Vibration & Shocks = 10% to 30% of Load Rating

GUIDE BLOCK & RAIL



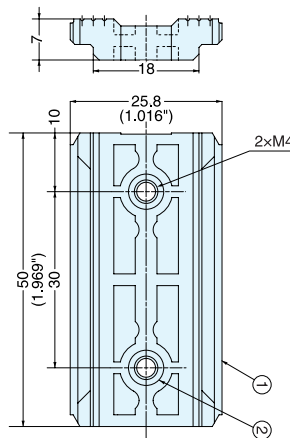
MRS30, MR-30CS



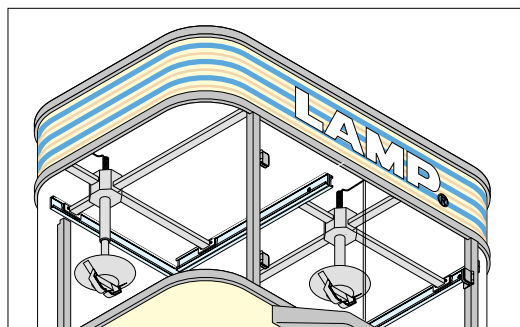
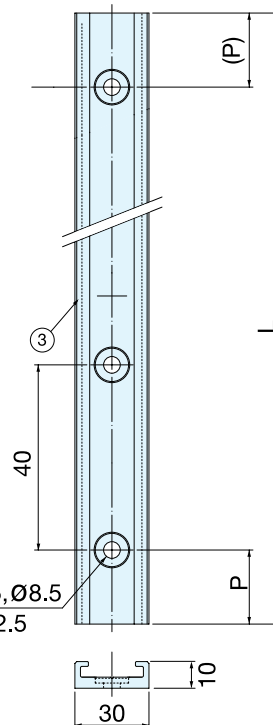
MR-30CS



- Perfect for small stroke application.
- No lubricant (P415,416,417) needed.
- * Block and Rail sold separately.
- * MR-30CS formerly MR-50C



MR-30CS



Installation

■ Rail						25.4mm=1"
Item No.	L	P	N	Weight (g)	Box (pcs)	
MRS30-100	100 (3-15/16")	10	3	39	200	
MRS30-200	200 (7-7/8")	20	5	79	100	
MRS30-400	400 (15-3/4")		10	159	50	
MRS30-800	800 (31-1/2")		20	312	40	
MRS30-2000	2000 (78-3/4")		50	790	15	

*Both ends of rail are not anodized.

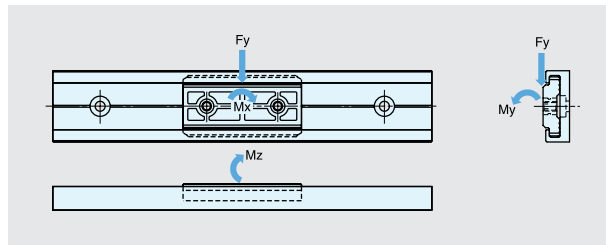
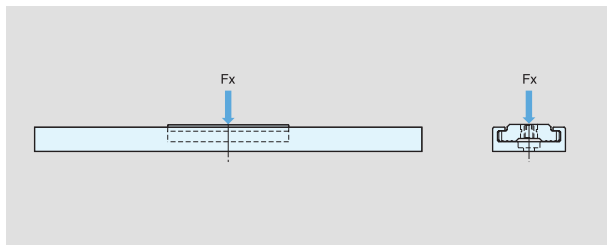
No.	Material	Finish
①	Polyethylene (UL 94HB)	Grey
②	304 Stainless Steel	Plain
③	Aluminum	Anodized

■ Block			
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
MR-30CS	7	50	1000

MRS 30, MR-30CS LOAD RATING INFORMATION

Dynamic Friction Coefficient: 1

Maximum PV (Pressure (kgf-mm²) × Velocity (m/min.)) = 3.06



Horizontal Static Load Fx	26.0 kgf (57.2 lbs)
Vertical Static Load Fy	15.0 kgf (33.0 lbs)
Vertical Dynamic Load Mx	25.0 kgf-cm (21.6 lbs-in)
Horizontal Dynamic Load My	12.5 kgf-cm (10.8 lbs-in)
Horizontal Dynamic Load Mz	12.5 kgf-cm (10.8 lbs-in)

◆ Reduction Factor

Certain reduction needs to be applied depending on application or environment.
 Low speed/Low operation frequency = 70% to 100% of Load Rating
 Moderate speed/High operation frequency = 35% to 65% of Load Rating
 High operation frequency with Vibration & Shocks = 10% to 30% of Load Rating

MULTI-ROLLER LINEAR SLIDE SYSTEM



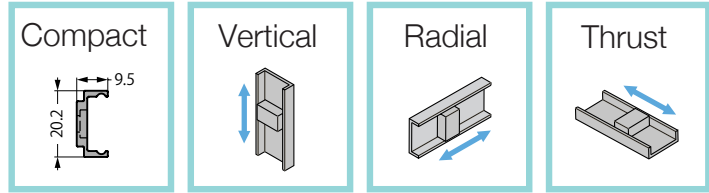
MLG

DRAWER SLIDES

MINI GUIDE BLOCKS & RAILS

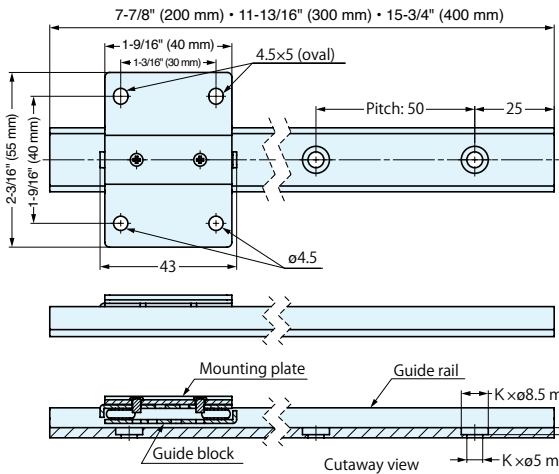


- Allows for smooth movement with the unique mechanism called "multi-roller".
- Please use with stoppers.
- The finish of the mounting holes and the rail edge is plain.
- Ideal for Medical equipment, food machine, amusement machine, analytical instruments applications

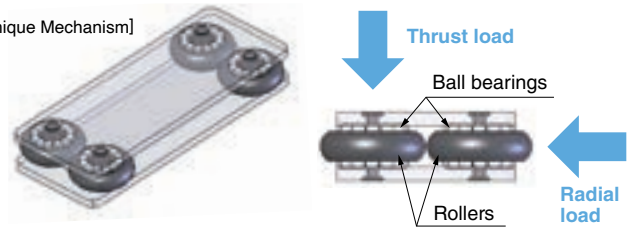


[Combination Drawings]

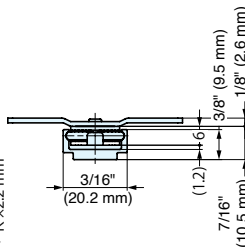
The guide rail, guide block, and mounting plate are used.



[The Unique Mechanism]



The multi-roller mechanism makes it possible to have smooth movements even with loads applied in radial or thrust directions.



[Rated Load Reference Values] The rated load refers to the load limit.

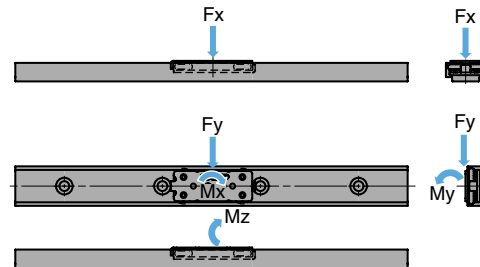
- Max. load = Static rated load × Static safety coefficient
- Operating load = Max. load × Dynamic safety coefficient

- Max. moment = Static rated moment × Static safety coefficient
- Operating moment = Max. moment × Static safety coefficient

Use Conditions	Static Safety Coefficient		Dynamic Safety Coefficient	
	N	kgf	N	kgf
Low movement frequency with gentle movement	0.4~0.5		0.9~1.0	
High movement frequency with smooth movement	0.3~0.4		0.6~0.8	
High movement frequency with vibration or impact	0.2~0.3		0.3~0.5	

Item Name	Horizontal Static Rated Load Fx		Vertical Static Rated Load Fy	
	N	kgf	N	kgf
MLG-20C	40	4.0	40	4.0

Item Name	Vertical Static Rated Moment Mx		Horizontal Static Rated Moment My		Horizontal Static Rated Moment Mz	
	N·m	kgf·cm	N·m	kgf·cm	N·m	kgf·cm
MLG-20C	1.2	12.2	0.4	4.0	0.8	8.1



The calculation formula above is for reference purpose only. Please confirm with the actual item before use.

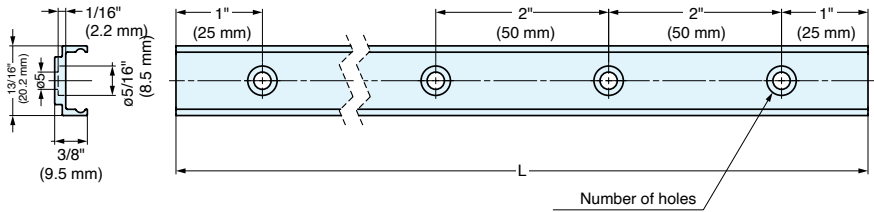
GUIDE RAIL



MLG20



• Recommended screw: Hexagon socket bolt M4



Item No.	L	No of Holes	Material	Finish	Weight (g)	Box (pcs)
MLG20-200	200 (7-7/8")	4	Aluminum Alloy	Anodized Silver	36	200
MLG20-300	300 (11-13/16")	6			54	100
MLG20-400	400 (15-3/4")	8			72	50

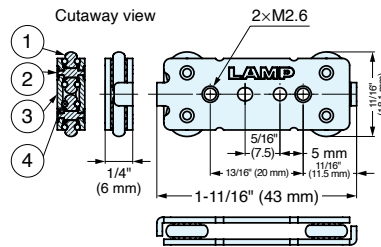
MULTI-ROLLER GUIDE BLOCK



MLG-20C



• Recommended screw: M2.6 (Max. length: sheet thickness + 4 mm)



[Parts Included]
• #0-1 pan head screw M2.6 x 4

[Recommended Screw]
• Screw M4

Item No.	Weight (g)	Box (pcs)
MLG-20C	13	200

No.	Part Name	Material
1	Roller	Plastic
2	Pin	303 Stainless Steel
3	Plate	304 Stainless Steel
4	Ball	Steel

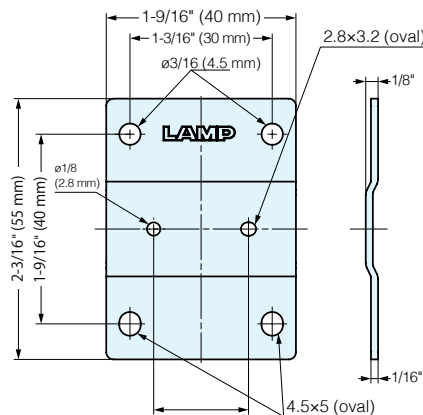
MOUNTING PLATE



MLG-20-P55-40



• Recommended screw: M4
• #0-1 pan head screw M2.6 x 4 included



Item No.	Material	Finish	Weight (g)	Box (pcs)
MLG-20-P55-40	304 Stainless Steel	Plain	26	100



HOOKS

HOOKS
LATCH HOOKS
SWING HOOKS
HANGER PLATES
RECESSED HOOKS
VANITY HOOKS
MAGNETIC HOOKS
COAT HOOKS
PXB HOOK SERIES

Zwei L HOOKS

Picture	Item No.	NSF	RoHS	STAINLESS	Load Capacity (lbs)	Page
	ZL-2101				81	423
	ZL-2102				66	423
	ZL-2103				-	424
	ZL-2104				36~107	424
	ZL-2105				33	425
	ZL-3401				45~90	425

LARGE HOOKS

Picture	Item No.	NSF	RoHS	STAINLESS	Load Capacity (lbs)	Page
	JF-45, 70, 110				22~26	426
	JF-50, 80, 120				26~48	426
	JFT-180, 260				22~33	427
	XL-CUJ				30~42	427
	XL-CUF				33~70	427
	XL-SB210				Upper Hook: 44 lbs Lower Hook: 83 lbs	428
	XL-SF115				83	428

SMALL HOOKS

Picture	Item No.	NSF	RoHS	STAINLESS	Load Capacity (lbs)	Page
	DS-H-50, 60				22	429
	KB-H-35, 40				44	429
	TA-3				35	429
	XL-HJT				17.6~22	430
	HJT				17.6~22	430
	EU				44~66	430
	EL-25, 30				44	431

SMALL HOOKS

Picture	Item No.	NSF	RoHS	STAINLESS	Load Capacity (lbs)	Page
	EP-25, 40				44	431
	FC-50, 65				22~26	431
	RN-50				20	434
	RI-074				11	434
	RB-102				-	434
	HJ				17.6~22	435
	2H				13.2~22	435
	HJU				17.6~22	435
	4HJU-40M				33.7	435.1
	5HJU-60M				44.9	435.1
	KB-F-70			-	436	
	KB-F-75			-	436	
	TY				6.6~17.6	437
	TF				6.6~26	437
	TL				11~26	437
	PF		-	4.4	438	
	CH				11~17.6	438

LATCH HOOKS

Picture	Item No.	NSF	RoHS	STAINLESS	Load Capacity (lbs)	Page
	EN-R100F				132	432
	EN-R80-K				44	432
	EN-K				44~132	433
	EN-R80				44	433
	WH				33	433

SWING HOOKS

Picture	Item No.	Load Capacity (lbs)	Page
	JF-T 	22	439
	JN-T100 	88	439
	HK-TS, HK-TT 	22.5-58.4	439,1
	TK, TKF 	17~26	440
	TZ-360 	6.6~13.2	440
	DZ-270 	6.6~17.6	440
	RF-D35 	11.7~23.4	441
	RF-U50 	13	441
	RF-50 	6.6	441
	XL-JSF40TT 	110	442
	UC 	12~14	442
	UJ 	14~19	442

HANGER PLATES

Picture	Item No.	Load Capacity (lbs)	Page
	AP 	22	443
	SP 	22	443

RECESSED HOOKS

Picture	Item No.	Load Capacity (lbs)	Page
	NF-60	44	444
	NF-60D	66	444
	NF-R52, R64, R77	44	445

VANITY HOOKS / MAGNET HOOKS

Picture	Item No.	Load Capacity (lbs)	Page
	SSF	12.8	446
	MJ-45	4.4	446

COAT HOOKS

Picture	Item No.	Load Capacity (lbs)	Page
	DSH-01 	22	447
	DSH-04 	22	447
	DSH-05 	22	447
	DSH-02 	22	448
	DSH-03 	22	448
	DSH-129 	22	449
	DSH-P5 	22	449
	EW-65E 	44	449

RECESSED HOOKS

Picture	Item No.	Load Capacity (lbs)	Page
	PXB-GR05-111	22	450
	PXB-GR05-211	22	450
	PXB-GN05-101	9	451
	PXB-GN05M-101 (mag)	2.4	451
	PXB-GN05-111	18	452
	PXB-WM05-111	22	452
	PXB-UM05-101	22	453
	PXB-UM05-101-Q1	22	453
	PXB-AB05	22	454
	PXB-AC05-111	44	454
	PXB-AS05-111	19.8	455
	PXB-LE05-111	25	455
	PXB-BN05	18.7~ 33	455,1
	HK-FH	22~33	455,2
	HK-LB	33.7	455,2



Zwei L[®]



Zwei L Hook



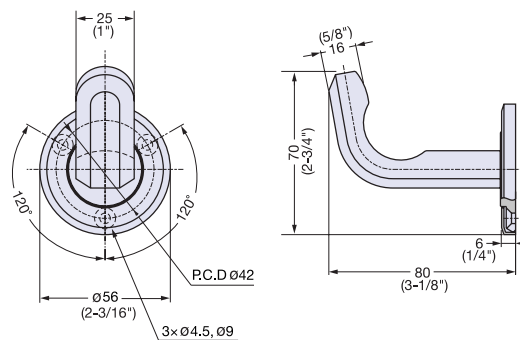
ZL-2101

HOOKS

Zwei L HOOKS



• Supplied with stainless steel wood screws (4.1 × 32) and concrete anchor (for wood screw 4.1, ø6 mm hole).



Item No.	Material	Finish/Color	Load Capacity (kg)	Weight (g)	Box (pcs)
ZL-2101	316 Stainless Steel	Zwei L	37 (81 lbs)	381	1

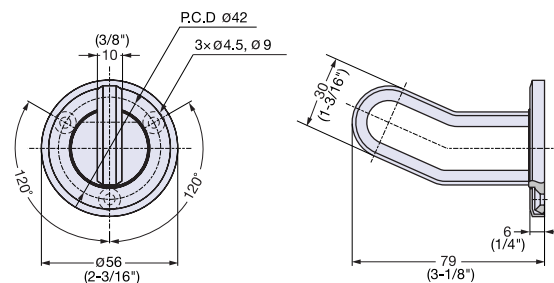
Zwei L Hook



ZL-2102



• Supplied with stainless steel wood screws (4.1 × 32) and concrete anchor (for wood screw 4.1, ø6 mm hole).



Item No.	Material	Finish/Color	Load Capacity (kg)	Weight (g)	Box (pcs)
ZL-2102	316 Stainless Steel	Zwei L	30 (66 lbs)	221	1

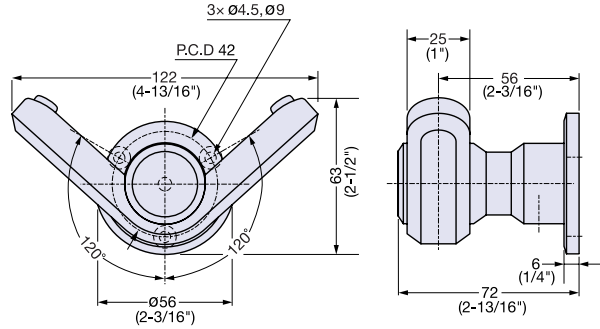
Zwei L Hook



ZL-2103



• Supplied with stainless steel wood screws (4.1 × 32), anchor plug and 3 mm allen key.



No.	Part Name	Material	Finish/Color
①	Hook	316 Stainless Steel	Zwei L
②	Cover		
③	Pin		Plain
④	Base Plate		
⑤	Cap	Silicone Rubber	Clear
⑥	Screws	316 Stainless Steel	Plain

Item No.	Weight (g)	Box (pcs)
ZL-2103	841	1

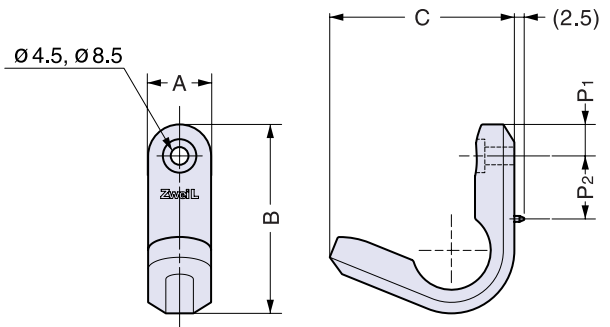
Zwei L Hook



ZL-2104



• Supplied with stainless steel wood screw (4.1 × 32).



Part Name	Material	Finish/Color
Body	316 Stainless Steel	Zwei L

Item No.	A	B	C	P ₁	P ₂	Load Capacity (kg)	Weight (g)	Box (pcs)
ZL-2104-10	10 (3/8")	29 (1-1/8")	29 (1-1/8")	5	7	16.3 (36 lbs)	-	1
ZL-2104-16	16 (5/8")	47 (1-7/8")	47 (1-7/8")	8	10	48.4 (107 lbs)	-	1

Zwei L Hook



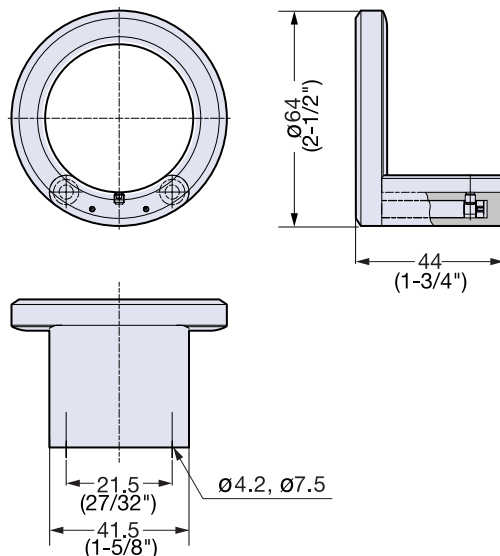
ZL-2105

HOOKS

Zwei L HOOKS



• Supplied with stainless steel wood screws (4 × 50).

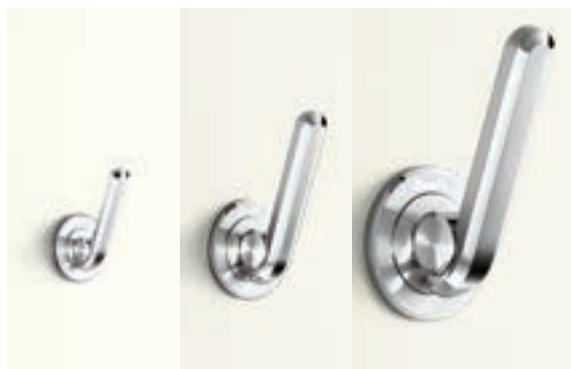


Item No.	Material	Finish/Color	Load Capacity (kg)
ZL-2105	316 Stainless Steel	Zwei L	15 (33 lbs)

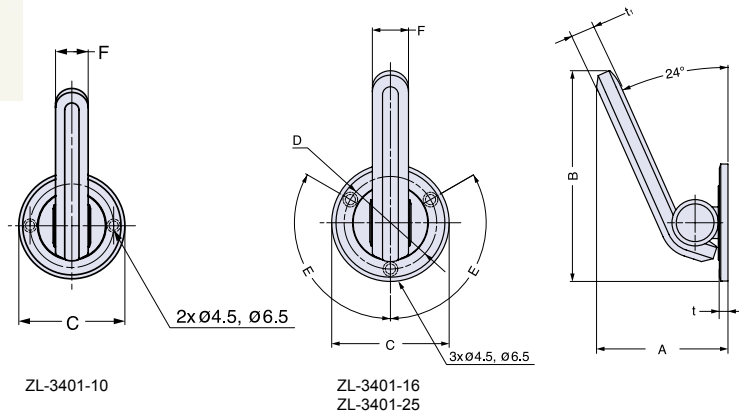
Zwei L Hook



ZL-3401



• Supplied with stainless steel wood screws (4 × 30).

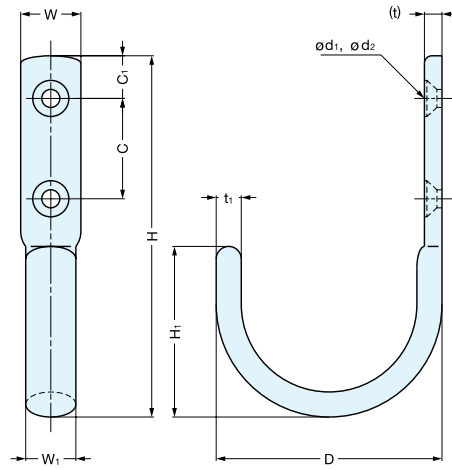


Item No.	Material	Finish Color	A	B	C	D	E	F	t	t ₁	Load Capacity (kg)
ZL-3401-10	316 Stainless Steel	Zwei L	36.7 (1-7/16")	60 (2-3/8")	37 (1-7/16")	24.5	90°	10 (13/32")	3.8	6	20.4 (45 lbs)
ZL-3401-16			58.0 (2-9/32")	93 (3-21/32")	52 (2-1/16")	41.0	120°	6 (5/8")	3.8	10	30.6 (67 lbs)
ZL-3401-25			91.0 (3-9/16")	145 (5-23/32")	80 (3-1/8")	65.0		25 (1")	6.0	16	40.8 (90 lbs)

LARGE UTILITY HOOK



JF-45, 70, 110



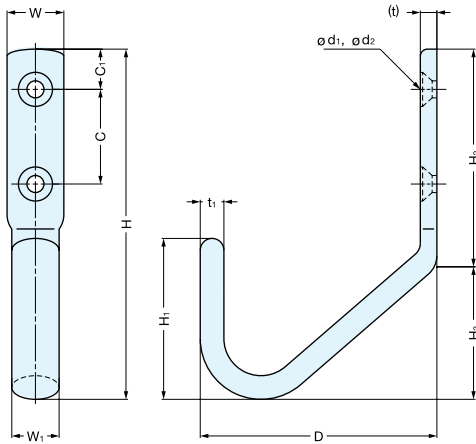
Material	Finish
303 Stainless Steel	Mirror

Item No.	D	W	W ₁	H	H ₁	C	C ₁	t	t ₁	d ₁	d ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
JF- 45	45 (1-25/32")	12	10	72 (2-27/32")	34	20	8.5	3.5	5	3.8	7.2	10 (22 lbs)	40	20	120	3.5 × 16
JF- 70	68 (2-11/16")	16	13	120 (4-23/32")	55	35	15.0	4.0	6	4.3	8.6		95	6	36	4.1 × 20
JF-110	110 (4-21/64")	18	14	200 (7-7/8")	90	70	17.0	5.5	8	5.3	10.6	12 (26 lbs)	270	5	30	5.1 × 32

LARGE UTILITY HOOK

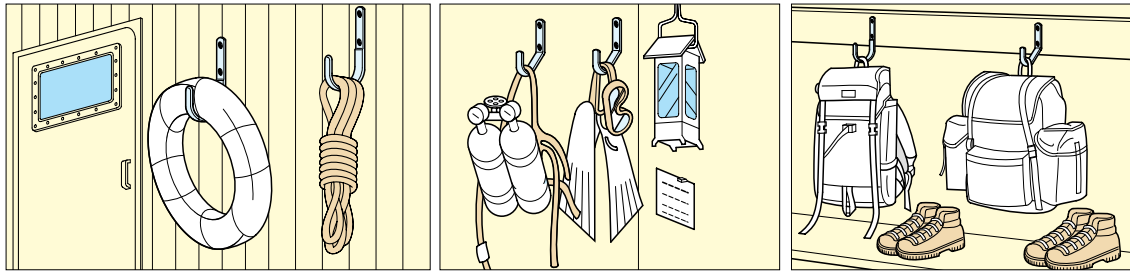


JF-50, 80, 120



Material	Finish
303 Stainless Steel	Mirror

Item No.	D	W	W ₁	H	H ₁	H ₂	H ₃	C	C ₁	t	t ₁	d ₁	d ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
JF- 50	50 (1-31/32")	12	10	74 (2-29/32")	34	46	28	20	8.5	3.5	5	3.8	7.2	12 (26 lbs)	40	20	120	3.5 × 16
JF- 80	80 (3-5/32")	16	13	115 (4-17/32")	50	65	50	30	15.0	4.0	6	4.3	8.6	20 (44 lbs)	95	6	36	4.1 × 20
JF-120	120 (4-23/32")	18	14	200 (7-7/8")	90	112	88	70	17.0	5.5	8	5.3	10.6	22 (48 lbs)	260	5	30	5.1 × 32

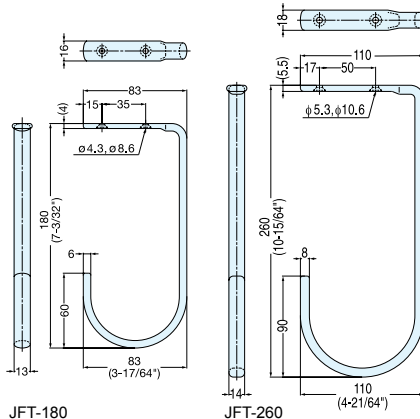


Installation

LARGE UTILITY HOOK



JFT-180, 260



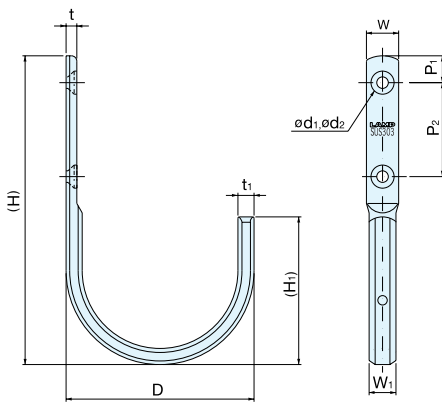
Material	Finish
303 Stainless Steel	Mirror

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
JFT-180	10 (22 lbs)	180	5	30	4.5 × 25
JFT-260	15 (33 lbs)	380			5.1 × 38

LARGE UTILITY HOOK



XL-CUJ



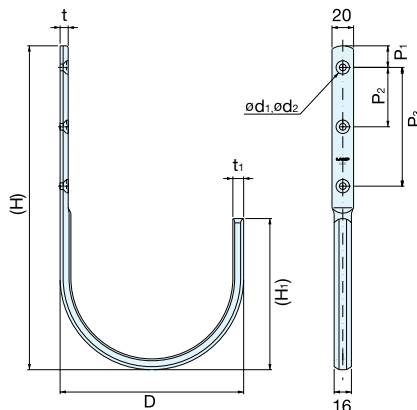
Material	Finish
303 Stainless Steel	Mirror Satin combination

Item No.	D	W	W ₁	(H)	(H ₁)	P ₁	P ₂	t	t ₁	d ₁	d ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
XL-CUJ-45TT	46 (1-13/16")	12	10	(75) (2-61/64")	(36)	8.5	20	4.5	6	3.8	7.2	19 (42 lbs)	48	20	120	3.5 × 20
XL-CUJ-70TT	72 (2-53/64")			(112) (4-13/32")	(56)	10.0	35	4.5	6	4.3	8.6	14 (30 lbs)	82	10	60	4.0 × 20

LARGE UTILITY HOOK



XL-CUF



Material	Finish
303 Stainless Steel	Mirror Satin combination

Item No.	D	(H)	(H ₁)	P ₁	P ₂	P ₃	t	t ₁	d ₁	d ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
XL-CUF-110TT	112	198	91.0	17	-	70	7.5	10	5.2	10.5	32 (70 lbs)	357	5	30	5 × 30
XL-CUF-170TT	173	300	138.5	20	55	110	7.5	10	6.2	12.5	15 (33 lbs)	552		20	6 × 30

LARGE HOOK



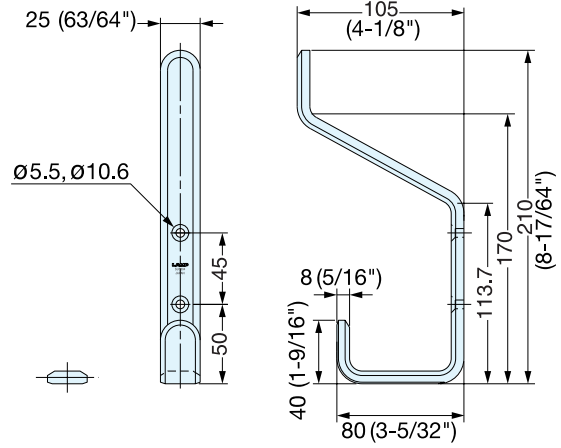
XL-SB210



Mirror

Satin

- Stainless steel hook with dimensional design.
- Two-in-one hook.



Item No.	Load Capacity (kg)		Weight (g)	Box (pcs)	Carton (pcs)
	Upper	Lower			
XL-SB210/M	20 (44 lbs)	38 (83 lbs)	500	2	20
XL-SB210/S					

Material	Finish
304 Stainless Steel	Mirror (M), Satin (S)

LARGE HOOK



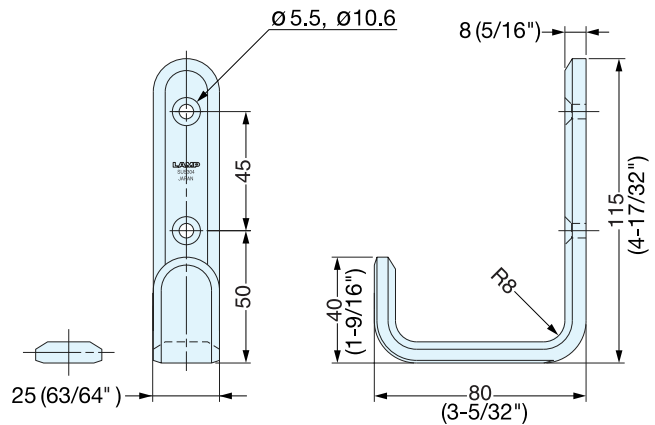
XL-SF115



Mirror

Satin

- Stainless steel hook with dimensional design.



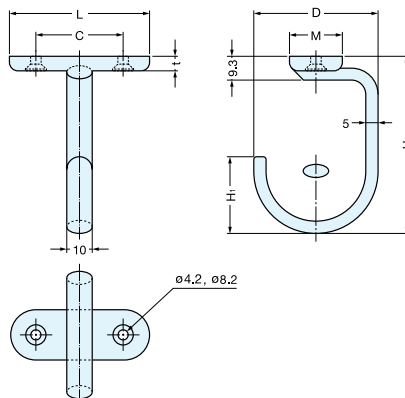
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
XL-SF115/M	38 (83 lbs)	280	4	40
XL-SF115/S				

Material	Finish
304 Stainless Steel	Mirror (M), Satin (S)

HOOK



DS-H-50, 60



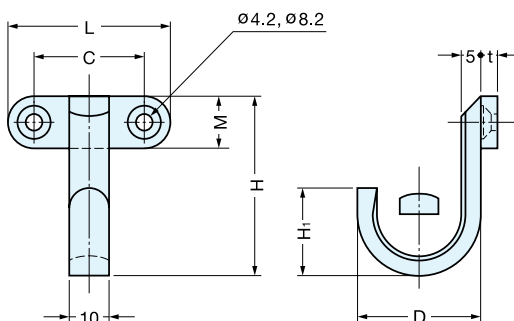
Material	Finish
303 Stainless Steel	Mirror

Item No.	D	C	H	H ₁	L	M	t	Load Capacity (kg)	Weight (g)	Box (pcs)
DS-H-50	50	35	70 (2-3/4")	30	55 (2-5/32")	20	6	10 (22 lbs)	100	5
DS-H-60	60		100 (3-15/16")	40					105	

HOOK



KB-H-35, 40



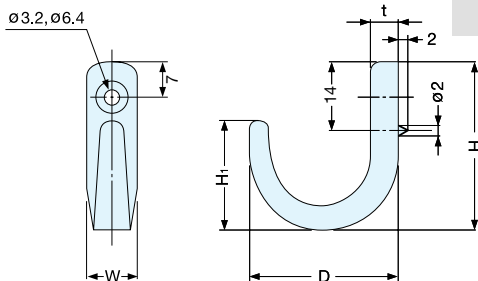
Material	Finish
303 Stainless Steel	Mirror

Item No.	D	C	H	H ₁	L	M	t	Load Capacity (kg)	Weight (g)	Box (pcs)
KB-H-35	35	27	45 (1-25/32")	22	40 (1-37/64")	13	4	20 (44 lbs)	50	10
KB-H-40	40		50 (1-31/32")	25					55	

HOOK



TA-3



• Anti-rotation pin prevents hook from turning.

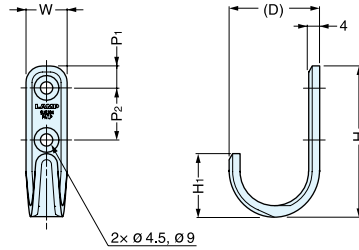
Material	Finish
304 Stainless Steel	Mirror

Item No.	D	W	H	H ₁	t	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TA-3S	22 (7/8")	9	29 (1-9/64")	16	4.0	16 (35 lbs)	10	30	600
TA-3L	30 (1-3/16")	10	34 (1-11/32")	22	5.5		19	20	400

HOOK



XL-HJT



- 304 stainless steel hooks.
- Available in Mirror (M) or Combination of Mirror and Satin (TT) finish.

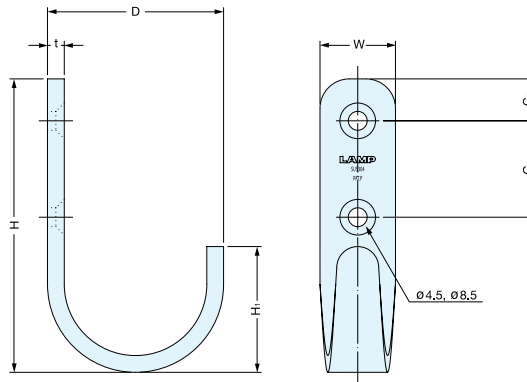
Item No.	D	W	H	H ₁	P ₁	P ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
XL-HJT-55/M	33	15.0	55	23	8	19	20 (44.0 lbs)	34	30	300
XL-HJT-55/TT		15.5								
XL-HJT-70/M	43	18.0	70	30	10	23	15 (33.0 lbs)	53	20	200
XL-HJT-70/TT		18.5								

Material	Finish	
	M	TT
304 Stainless Steel	Mirror	Mirror and Satin Combination

HOOK



HJT



- 4mm thick material designed for excellent durability.

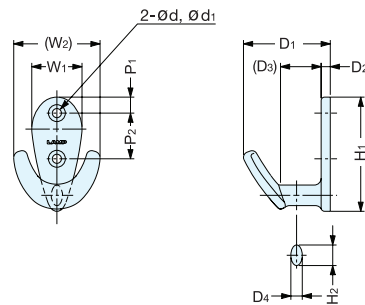
Item No.	D	H	H ₁	t	W	C ₁	C ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
HJT-55	33	55	23	4	15	8	19	10 (22.0 lbs)	34	30	300
HJT-70	43	70	30	4	18	10	23	8 (17.6 lbs)	53	20	200

Material	Finish
304 Stainless Steel	Satin

FORK HOOK



EU



- Hook with unique design.
- Can hang 3 items at the same time: two on the tips and one on the neck.
- Two-tip shape ideal to hang hats, caps etc.

Item No.	W ₁	(W ₂)	D ₁	D ₂	(D ₃)	D ₄	H ₁	H ₂	d	d ₁	P ₁	P ₂
EU-50	22	38 (1-1/2")	38 (1-1/2")	4	17.8	5	50 (1-31/32")	9	4	7.4	7	20
EU-72	32	56 (2-13/64")	52 (2-3/64")	6	23.0	8	72 (2-53/64")	14	4.6	8.6	10	34

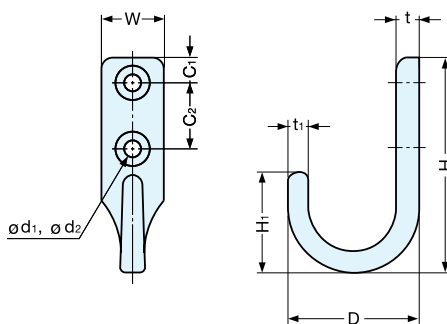
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
EU-50	20 (44 lbs)	42	20	120
EU-72	30 (66 lbs)	118	10	60

Material	Finish
316 Stainless Steel	Mirror

HOOK



EL-25, 30



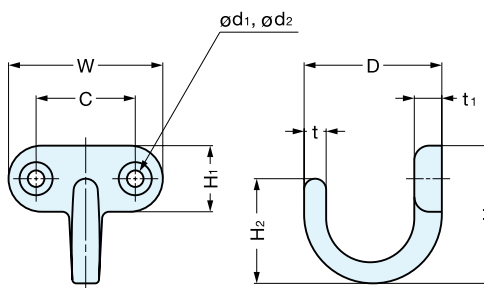
Material	Finish
304 Stainless Steel	Mirror

Item No.	D	H	H ₁	t	t ₁	W	C ₁	C ₂	d ₁	d ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
EL-25	26 (1-1/32")	40 (1-37/64")	19	5.5	4	12	5	12	3	6	20 (44 lbs)	19	30	300	2.7 × 16
EL-30	32 (1-17/64")	54.5 (2-9/64")	25	6.0	5	15	6	16	4	8		32	20	200	3.8 × 20

HOOK



EP-25, 40



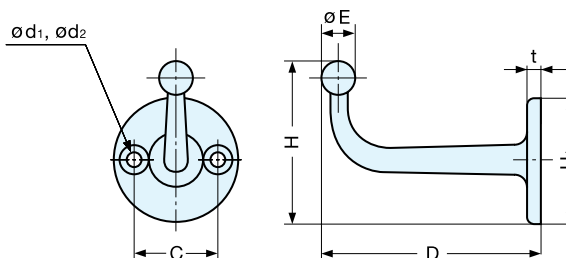
Material	Finish
304 Stainless Steel	Mirror

Item No.	D	W	H	H ₁	H ₂	t	t ₁	C	d ₁	d ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
EP-25	25 (63/64")	28	25 (63/64")	12	19	4	5	18	3	6	20 (44 lbs)	16	30	300	2.7 × 16
EP-40	32 (1-17/64")	36	33 (1-19/64")	16	25	5	6	23	4	8		31	20	200	3.8 × 20

HOOK



FC-50, 65



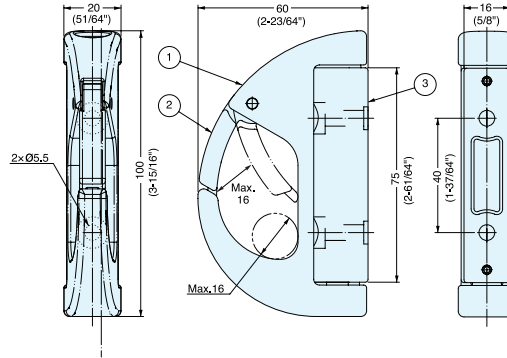
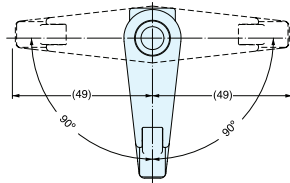
Material	Finish
304 Stainless Steel	Mirror

Item No.	D	H	H ₁	t	C	d ₁	d ₂	E	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
FC-50	47 (1-27/32")	37 (1-29/64")	28	3	18.5	3.3	6.5	6.5	10(22 lbs)	25.0	40	480	3.1 × 16
FC-65	65 (2-9/16")	44 (1-47/64")	35	4	22.5	4.2	8.0	8.0	12(26 lbs)	54.5	20	240	3.8 × 20

LATCH HOOK



EN-R100F



- Keeps items hooked, ideal for vibration or shock applications.
- Swivels 180 degrees.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
EN-R100F	60 (132 lbs)	350	10	50	316 Stainless Steel	Polished

LATCH HOOK (W/PADLOCK HOLE)



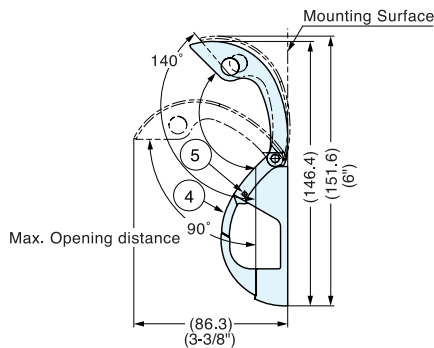
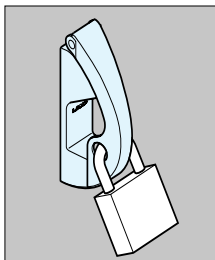
EN-R80-K



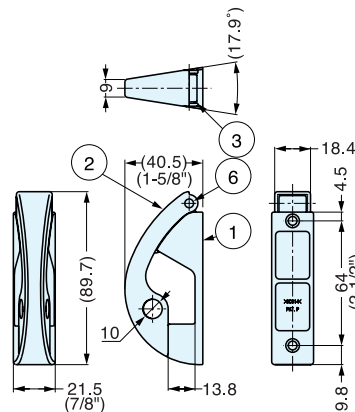
Closed



Open



- Keeps items hooked, ideal for vibration or shock applications.
- Can be used with padlock.



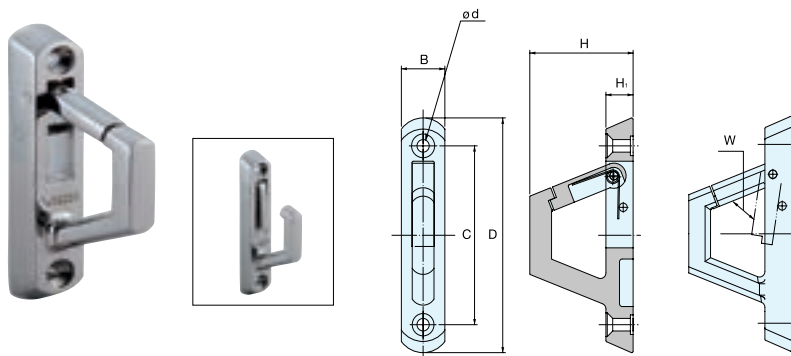
No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Mirror
②	Cover	316 Stainless Steel	Mirror
③	O ring	EPDM	Black
④	Lever	304 Stainless Steel	Mirror
⑤	Shaft	316 Stainless Steel	Plain
⑥	Shaft for cover		

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
EN-R80-K	20 (44 lbs)	180	10	60

LATCH HOOK



EN-K



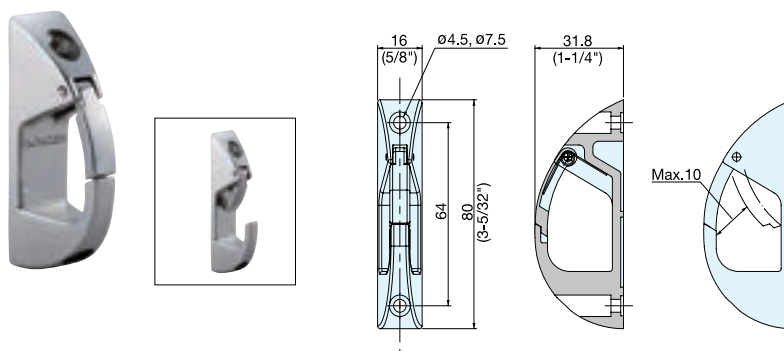
• Keeps items hooked, ideal for vibration or shock applications.

Item No.	D	C	B	H	H ₁	d	W	Load Capacity (kg)		Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
								Hook	Arm					
EN-K 84	84 (3-5/16")	64	16 (5/8")	38 (1-1/2")	10 (25/64")	4.5, 8.5	Max.10	20 (44 lbs)	10 (22 lbs)	92	10	120	316 Stainless Steel	Polished
EN-K120	120 (4-23/32")	96	22 (7/8")	54 (2-1/8")	12 (15/32")	5.4, 10.5	Max.20	60 (132 lbs)		280		60		

LATCH HOOK



EN-R80



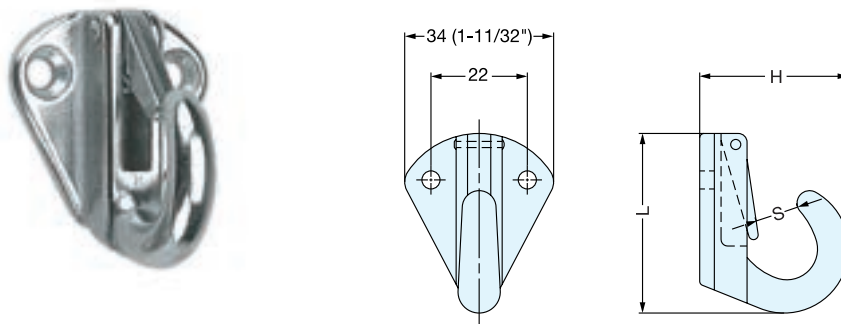
• Keeps items hooked, ideal for vibration or shock applications.

Item No.	Load Capacity (kg)		Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
	Hook	Arm					
EN-R80	20 (44 lbs)	10 (22 lbs)	85	10	120	316 Stainless Steel	Polished

LATCH HOOK



WH



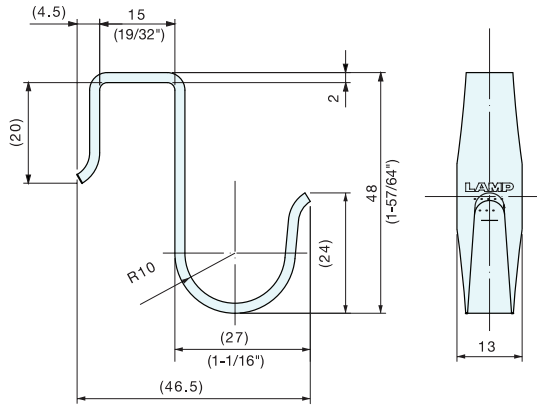
• Keep items hooked, ideal for vibration or shock applications.

Item No.	L	H	S	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
WH-2	41 (1-39/64")	34 (1-11/32")	10	55					

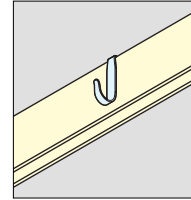
HOOK



RN-50



• Designed for use on partitions.



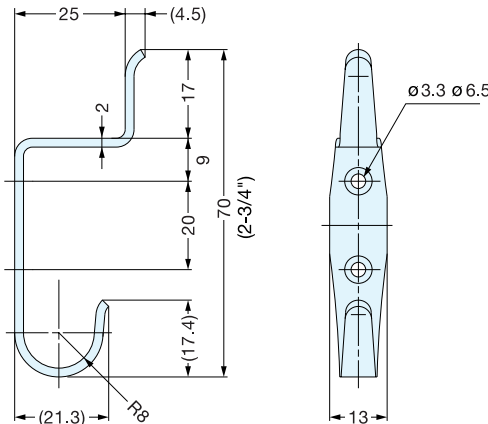
Installation

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
RN-50	9.4 (20 lbs)	17	40	400	304 Stainless Steel	Satin

DOUBLE HOOK



RI-074



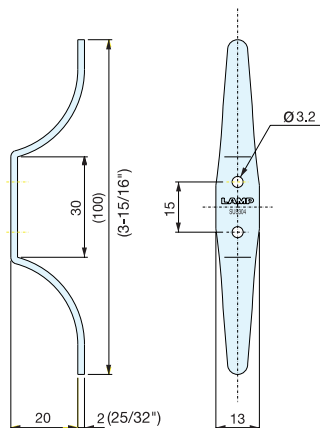
• Unique two-in-one hook.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
RI-074	5 (11 lbs)	16	40	400	304 Stainless Steel	Satin

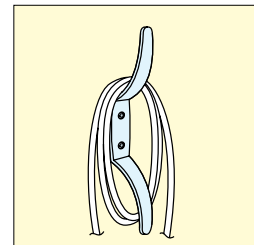
DOUBLE HOOK



RB-102



• Can be used as a light duty tie up cleat.



Installation

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
RB-102	16	40	400	304 Stainless Steel	Satin

HOOK

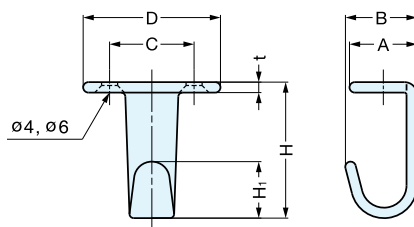


HJ

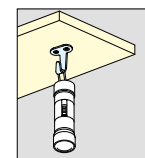


HJ-50

HJ-30SBL



• Ideal for undermount applications.



Installation

Material	Finish
304 Stainless Steel	Satin/Black (BL)

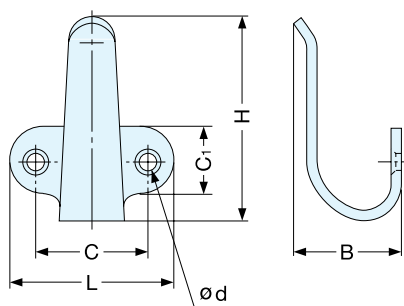
Item No.	D	C	H	H ₁	A	B	t	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
HJ-20	28.0 (1-3/32")	18	27.0 (1-11/16")	11.0	13	17 (43/64")	2.5	10 (22.0 lbs)	11	120	1200
HJ-20SBL											
HJ-30*	33.0 (1-9/32")	20	32.5 (1-9/32")	13.5	16	17 (43/64")	2.5	8 (17.6 lbs)	15	30	600
HJ-30SBL											
HJ-50*	43.5 (23/32")	30	47.0 (1-27/32")	19.6	21	22 (7/8")	2.5	10 (22.0 lbs)	30	40	800
HJ-50SBL											

* NSF Component

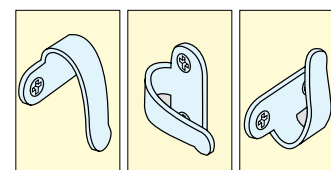
HOOK



2H



• Unique design, also can be used as a pull.



Installation

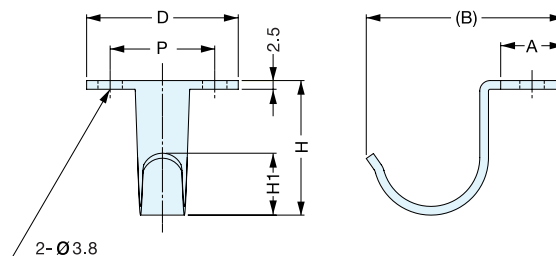
Material	Finish
304 Stainless Steel	Satin

Item No.	L	C	C ₁	H	B	d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
2H-20	28.0 (1-3/32")	18.0	10	30 (1-3/16")	18	4.62	10 (22.0 lbs)	13	120	1200	3.1 × 16
2H-30	32.5 (1-09/32")	20.0	13	39 (1-17/32")		4.70		18	100	1000	
2H-40	35.0 (1-3/8")	21.5	16	44 (1-47/64")	23	4.70	6 (13.2 lbs)	23	80	800	3.5 × 16
2H-50	43.0 (1-11/16")	30.0	18	56 (2-13/64")				25	34	50	

HOOK



HJU



Material	Finish
304 Stainless Steel	Satin

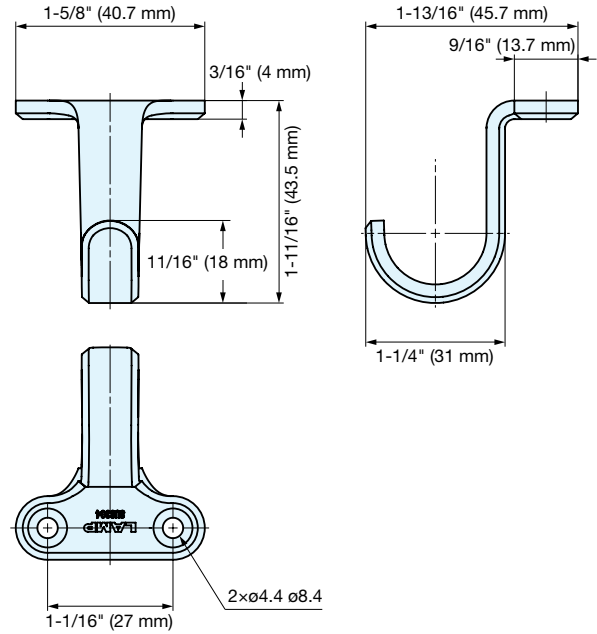
Item No.	D	P	H	H ₁	A	B	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
HJU-30S	32.5 (1-9/32")	20 (25/32")	25.0 (63/64")	13	13	41.8	8 (17.6 lbs)	15	30	600
HJU-50S	43.5 (1-45/64")	30 (1-11/64")	38.5 (1-33/64")	18	18	59.0	10 (22.0 lbs)	30	40	800

UNDERMOUNT HOOK



4HJU-40M

• Chamfered edges prevent injury.



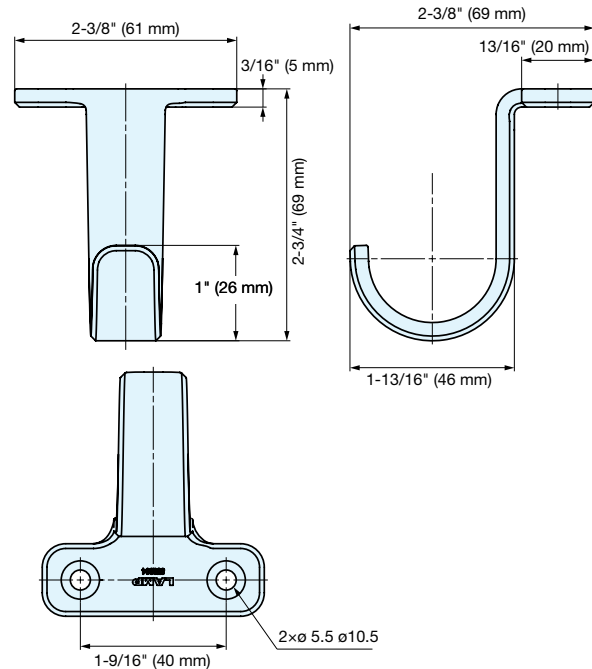
Item No.	Material	Finish	Load Capacity kgf	Weight (g)
4HJU-40M	304 Stainless Steel	Mirror	15.3 (33.7 lbs)	42.5

UNDERMOUNT HOOK



5HJU-60M

• Chamfered edges prevent injury.



Item No.	Material	Finish	Load Capacity kgf	Weight (g)
5HJU-60M	304 Stainless Steel	Mirror	20.4 (44.9 lbs)	130

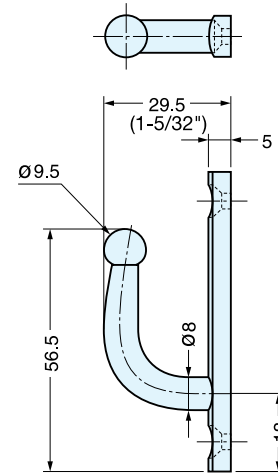
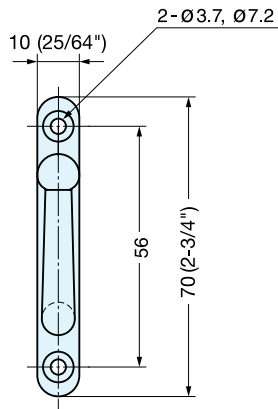
CURTAIN TIE BACK HOOK

STAINLESS
304
STEEL

STAINLESS
303
STEEL

3.5x20
STAINLESS

KB-F-70



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material	Finish
KB-F-70	46	5	50	Mounting plate	304 Stainless Steel	Polished
				Hook	303 Stainless Steel	

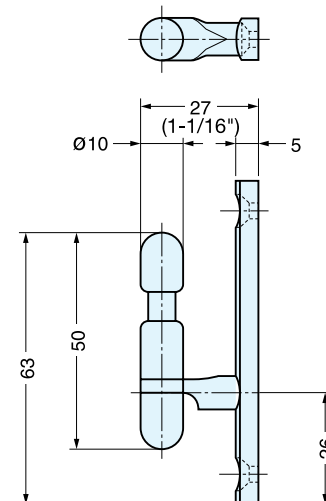
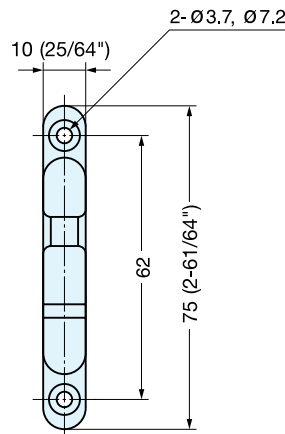
CURTAIN TIE BACK HOOK

STAINLESS
304
STEEL

STAINLESS
303
STEEL

3.5x20
STAINLESS

KB-F-75

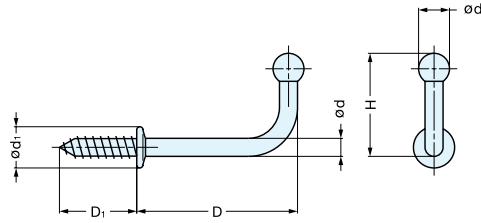


Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material	Finish
KB-F-75	56	5	50	Mounting plate	304 Stainless Steel	Polished
				Hook	303 Stainless Steel	

WIRE HOOK



TY



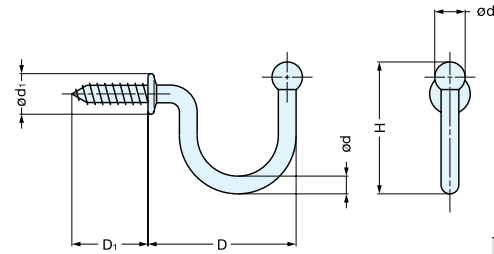
Material	Finish
304 Stainless Steel	Polished

Item No.	D	D ₁	H	d	d ₁	d ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TY-20	21.8 (55/64")	11	14 (35/64")	2.7	6.5	4.5	3 (6.6 lbs)	1.5	200	7200
TY-25	27.0 (1-1/16")	13	17 (43/64")	3.0	7.0	5.0		3.0		
TY-30	31.2 (1-7/32")	15	20 (25/32")	3.5	8.0	6.0	7 (15.4 lbs)	5.0	100	3600
TY-35-15	36.5 (1-7/16")	15	23 (29/32")	4.0	9.0	6.5		7.0		
TY-40-15	43.5 (1-23/32")		27 (1-1/16")	4.5	10.0	7.5		11.0	50	900

WIRE HOOK



TF



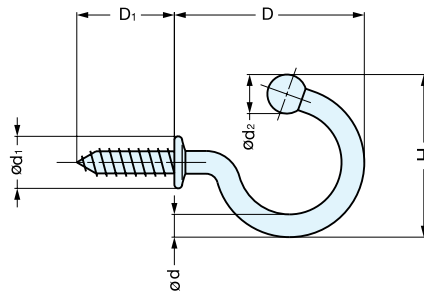
Material	Finish
304 Stainless Steel	Polished

Item No.	D	D ₁	H	d	d ₁	d ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TF-20	20.8 (13/16")	11	20 (25/32")	2.7	6.5	4.5	3 (6.6 lbs)	3.0	200	7200
TF-30	29.2 (1-5/32")	15	26 (1-1/32")	3.5	8.0	6.0	7 (15.4 lbs)	5.5	100	1800
TF-35	40.5 (1-19/32")	20	35 (1-3/8")	4.5	10.0	7.5	12 (26.0 lbs)	13.5	50	900

WIRE HOOK



TL



Material	Finish
304 Stainless Steel	Polished

Item No.	D	D ₁	H	d	d ₁	d ₂	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TL-15	16.8 (21/32")	11	15 (19/32")	2.7	6.5	4.5	5 (11 lbs)	1.9	200	7200
TL-20	22.8 (29/32")		20 (25/32")					2.1		
TL-30	29.2 (1-5/32")	15	25 (63/64")	3.5	8.0	6.0		50	900	
TL-40	40.5 (1-19/32")	20	34 (1-11/32")	4.5	10.0	7.5	12 (26 lbs)	13.5	50	900

HOOK

STAINLESS
304
STEEL

LOAD CAPACITY
2 kg
4.4 lbs

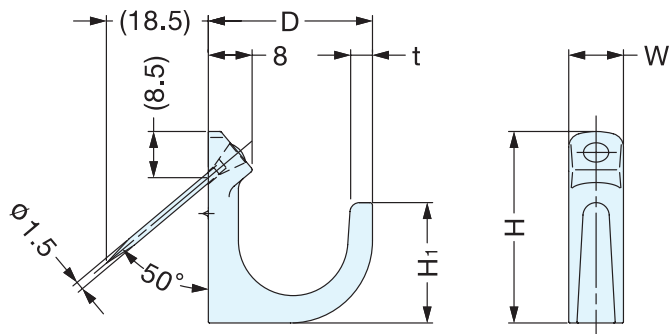
1.5x28
STAINLESS

PF

• For Dry Wall Mount.



Pin/Stainless Steel ø1.5



Material	Finish/Color
304 Stainless Steel	Mirror

Item No.	D	W	H	H ₁	t	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PF-22	22	9	30	16	3	2 (4.4 lbs)	13	20	200
PF-30	30	10	35	22	4		23		

HOOK

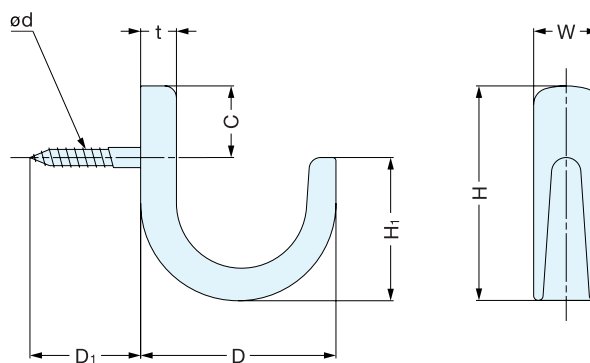
RoHS

STAINLESS
304
STEEL

LOAD CAPACITY
5-8 kg
11-17.6 lbs

TEST 4
P.696

CH



Material	Finish/Color
304 Stainless Steel	Mirror

Item No.	D	D ₁	W	H	H ₁	d	C	t	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
CH-S	22 (7/8")	17	9	27 (1-1/16")	15	3.1	9	4	5 (11.0 lbs)	10.0	30	600
CH-L	30 (1-3/16")		10	33 (1-19/64")	22		11	5	8 (17.6 lbs)	18.5	20	400

SWING HOOK (W/FRICTION)



JF-T

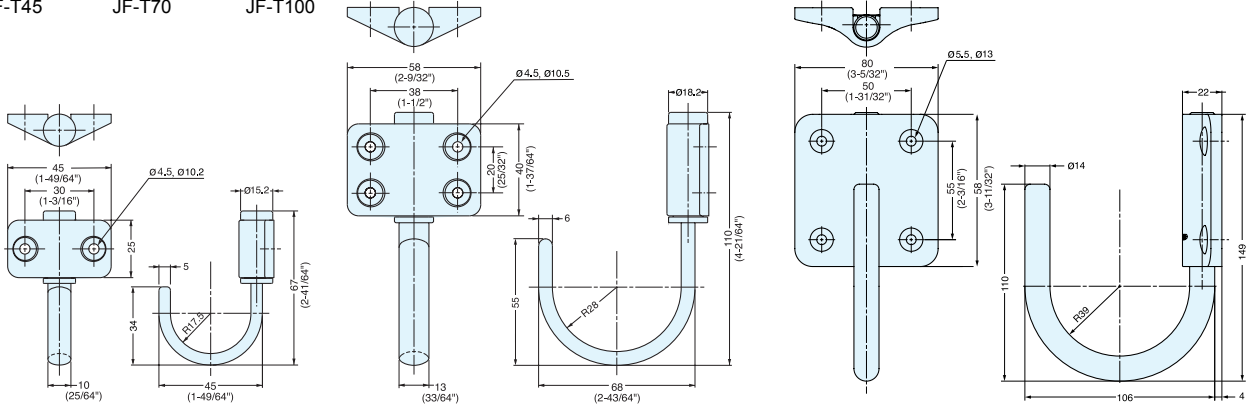
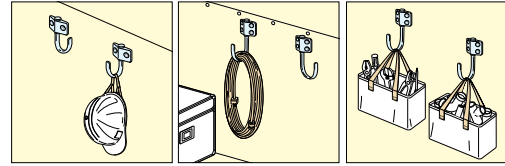


JF-T45

JF-T70

JF-T100

- Swivels 180 degrees.
- Hook has constant torque when swiveling.
- Ideal for vibration or shock applications.



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
JF-T45	17 (37 lbs)	90	10	100
JF-T70	17 (37 lbs)	225	10	100
JF-T100	40 (88 lbs)	638	5	20

Material	Finish
304 Stainless Steel	Mirror

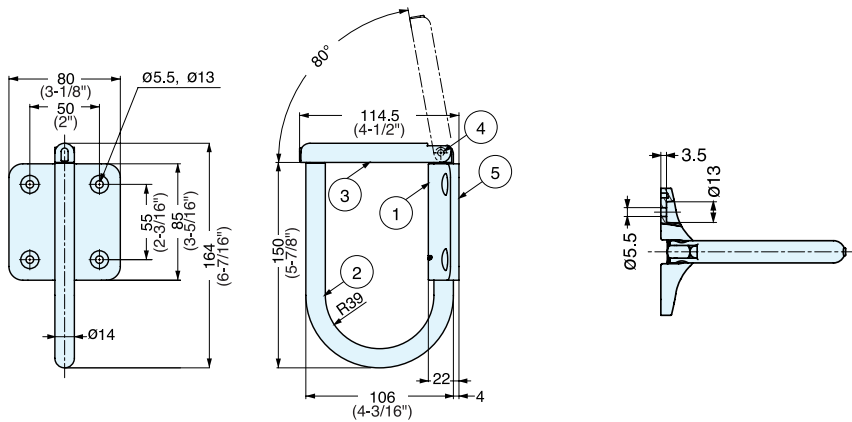
LARGE SWING LATCH HOOK (W/FRICTION)



JN-T100



- Swivels 180 degrees.
- Hook has constant torque when swinging.
- Ideal for vibration or shock applications.



No.	Part Name	Material	Finish
①	Strike	304 Stainless Steel	Mirror
②	Hook	303 Stainless Steel	
③	Arm	304 Stainless Steel	
④	Shaft	303 Stainless Steel	Plain
⑤	Back Plate	304 Stainless Steel	

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
JN-T100	40 (88 lbs)	780	5	20

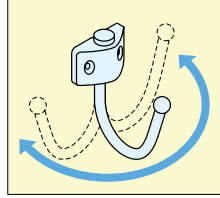
STAINLESS STEEL FRICTION TYPE LARGE HOOK



HK-TS

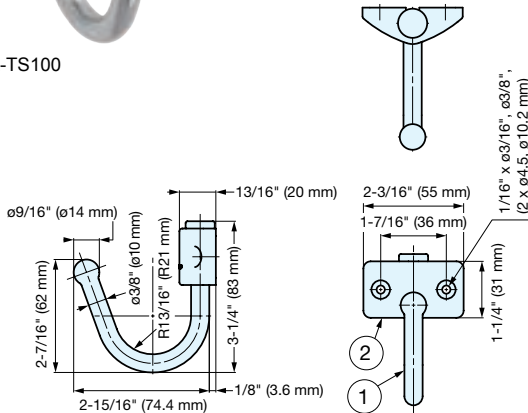


HK-TS70

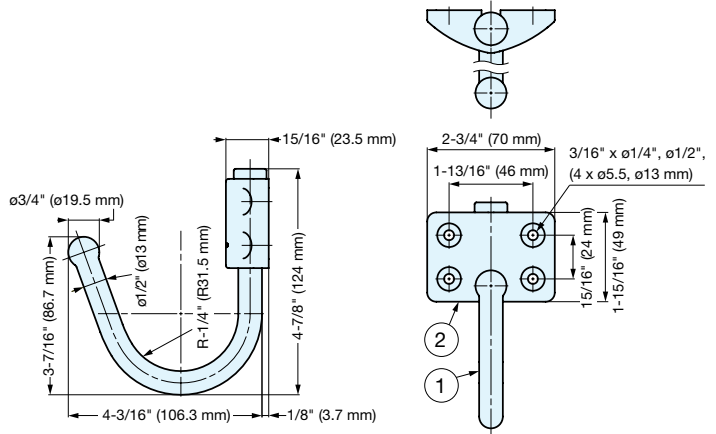


- Hook swivels 180°.
- Friction prevents unintended swivelling caused by vibrations.
- Ball shaped tip prevents injury.
- Double-hook type (HK-TT) is also available.

HK-TS100



HK-TS70



HK-TS100

Item No.	Load Capacity (kg)	Weight (g)
HK-TS70	22.5 lbs (10.2)	230
HK-TS100	58.4 lbs (26.5)	550

No.	Part Name	Material	Finish
①	Hook	304 Stainless Steel	Polished
②	Mount	Stainless Steel	

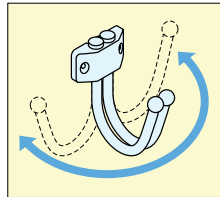
STAINLESS STEEL FRICTION TYPE DOUBLE LARGE HOOK



HK-TT

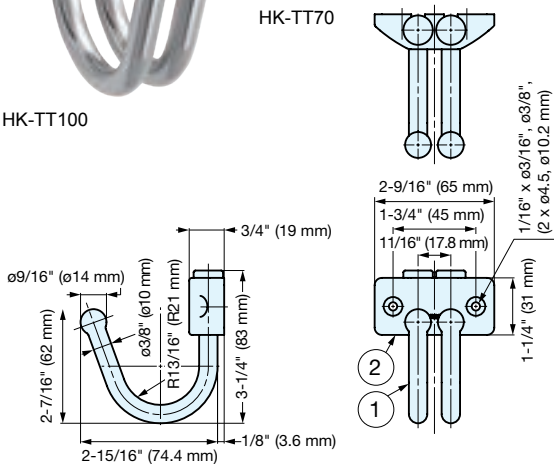


HK-TT70

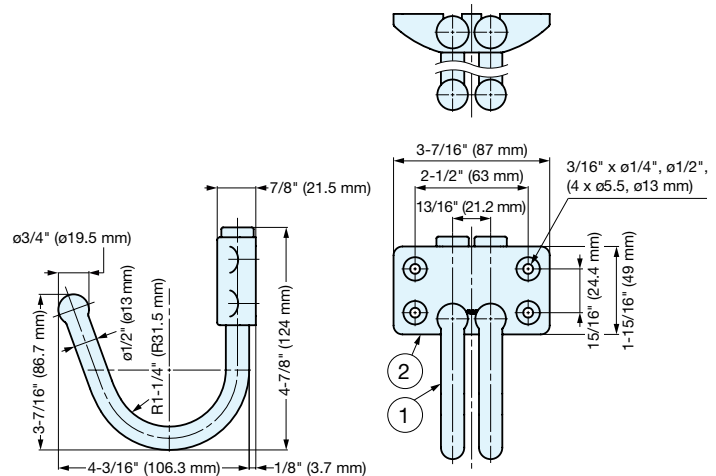


- Hook swivels 180°.
- Friction prevents unintended swivelling caused by vibrations.
- Ball shaped tip prevents injury.
- Single-hook type (HK-TS) is also available.

HK-TT100



HK-TT70



HK-TT100

Item No.	Load Capacity (kg)	Weight (g)
HK-TT70	22.5 lbs (10.2)	260
HK-TT100	58.4 lbs (26.5)	600

No.	Part Name	Material	Finish
①	Hook	304 Stainless Steel	Polished
②	Mount	Stainless Steel	

* Load capacity values are for one side only.

Decorative & Utility Hooks

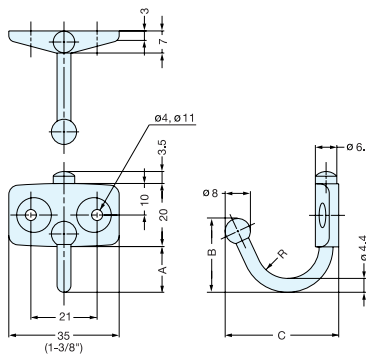


Sugatsune offers one of the most extensive line-up of decorative, wall, cabinet and utility hooks of any manufacture. Explore all of our decorative hooks undermount hooks, latch hooks, swing hooks, hanger plates, and even magnetic hooks and rubber hooks. Regardless of their application, our utility and decorative hooks for hanging are designed for convenience helping professionals to create spaces that maximize storage space without sacrificing their creative vision.

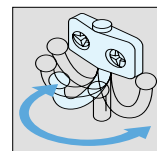
SWING HOOK



TK, TKF



- Swivels 180 degrees.
- Type "F" models have constant torque when swiveling.
- Ideal for vibration or shock applications.



Installation

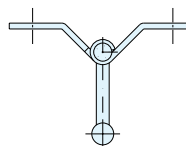
Material	Finish
304 Stainless Steel	Polished

Item No.	Type	A	B	C	R	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TK-30	Without Friction	14.5	23.4 (59/64")	36.0 (1-27/64")	10	12 (26 lbs)	17	100	1000
TK-45	Without Friction	19.4	28.4 (1-1/8")	44.3 (1-3/4")	15	8 (17 lbs)	20		
TK-30F	With Friction	14.5	23.4 (59/64")	36.0 (1-27/64")	10	12 (26 lbs)	17	100	1000
TK-45F	With Friction	19.4	28.4 (1-1/8")	44.3 (1-3/4")	15	8 (17 lbs)	20		

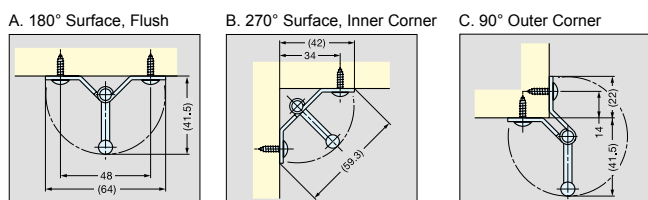
BUTTERFLY HOOK



TZ-360



- Hinged flap allows flush or corner mount.
- Applicable angle: 90°~270°



Installation

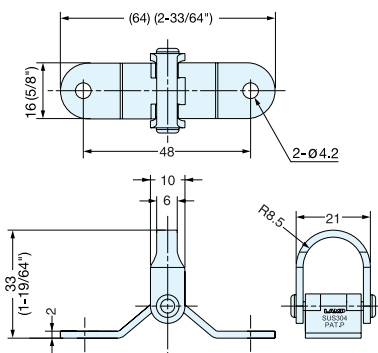
Material	Finish
304 Stainless Steel	Polished

Item No.	Load Capacity A (kg)	Load Capacity B (kg)	Load Capacity C (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TZ-360	6 (13.2 lbs)	5.6 (12.3 lbs)	3 (6.6 lbs)	27	50	500

BUTTERFLY HOOK

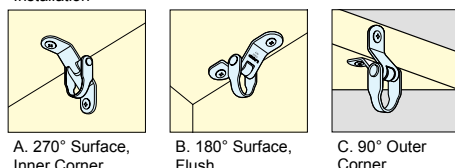


DZ-270



- Eyelet swivels for various installation applications.
- Hinged leaves for flush or corner mount.
- Includes 1/2" (M4 x 12) long screws.

Installation



Material	Finish
304 Stainless Steel	Polished

Item No.	Load Capacity A (270°)		Load Capacity B (180°)		Load Capacity C (90°)		Weight (g)	Box (pcs)	Carton (pcs)
	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical			
DZ-270	5.6 kg (12.3 lbs)	6 kg (13.2 lbs)	6 kg (13.2 lbs)	8 kg (17.6 lbs)	3 kg (6.6 lbs)	8 kg (17.6 lbs)	29	50	500

EYE HOOK







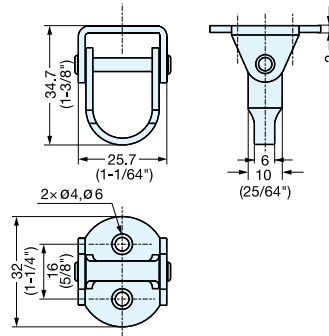
RF-D35



(A) Horizontal



(B) Vertical



- Eyelet swivels for various installation applications.
- Can be mounted horizontally to walls or under-mounted for vertical applications.
- Includes 5/8" (M3.5 × 16) long screws.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
RF-D35	(A) 5.3 (11.7 lbs) (B) 10.6 (23.4 lbs)	27	50	400	304 Stainless Steel	Satin

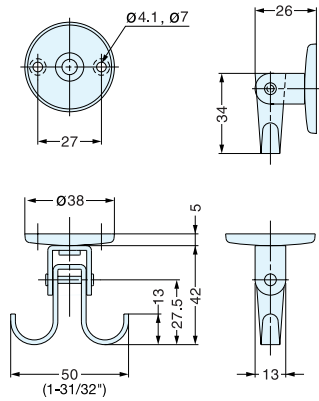
ROTATING/SWING HOOK







RF-U50



- Rotates 360° and swings 180°.
- Can be mounted in various directions.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
RF-U50	6.1 (13 lbs)	40	25	250	304 Stainless Steel	Satin

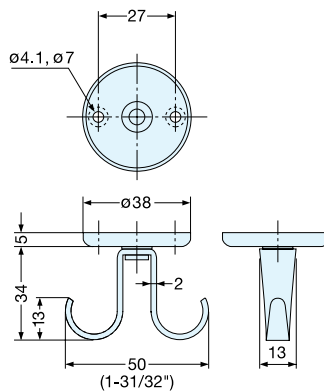
ROTATING HOOK








RF-50



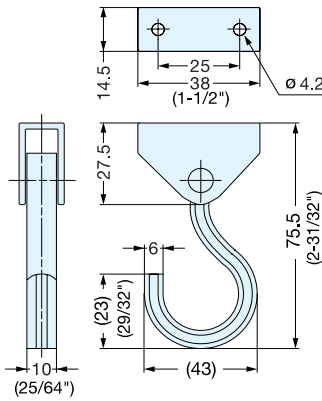
- Rotates 360°.
- Can be mounted in various directions.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
RF-50	3 (6.6 lbs)	33	25	500	304 Stainless Steel	Satin

SWING HOOK



XL-JSF40TT



• Vertical swivel allows for under mount applications.

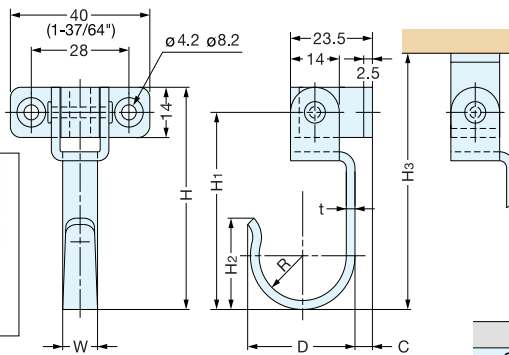
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
XL-JSF40TT	50 (110 lbs)	70	20	120

Part Name	Material	Finish
Hook	303 Stainless Steel	Mirror/Satin Combination
Bracket	304 Stainless Steel	Mirror/Satin Combination

SWING HOOK



UC



• Vertical swivel allows for under mount applications.

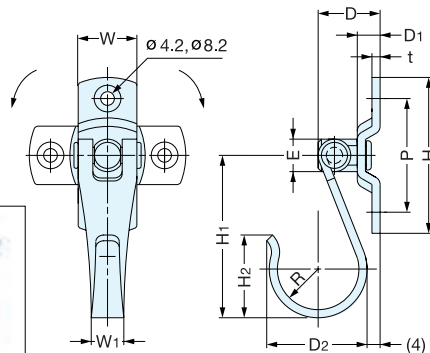
Material	Finish
304 Stainless Steel	Satin

Item No.	W	D	H	H ₁	H ₂	H ₃	C	R	t	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
UC-048	⁹ / _(23/64")	(24.9) (63/64")	55 (2-11/64")	48 (1-57/64")	(21.4) (27/32")	64.5	6.5	10.0	2.0	5.6 (12 lbs)	37	40	400
UC-055	¹⁰ / _(25/64")	(30.8) (1-7/32")	62 (2-7/16")	55 (2-11/64")	(25.5) (57/64")	71.5	5.0	12.5	2.5	6.7 (14 lbs)	45	25	250

SWING HOOK



UJ



• Rotates 360° and swivels 180°.
• Can be mounted in various directions.

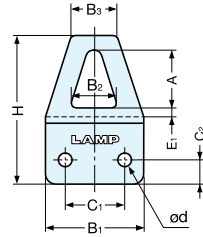
Material	Finish
304 Stainless Steel	Satin

Item No.	W	W ₁	D	D ₁	D ₂	H	H ₁	H ₂	P	E	R	t	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
UJ-040	16	(9)	16.5	5.5	(24.9) (63/64")	42	40 (1-37/64")	(21.4)	30	ø 9	10.0	2.0	6.7 (14 lbs)	27	50	500
UJ-050	18	(10)	19.0	7.0	(30.8) (1-7/32")	48	50 (1-31/32")	(25.5)	35	ø10	12.5	2.5	8.9 (19 lbs)	45	30	300

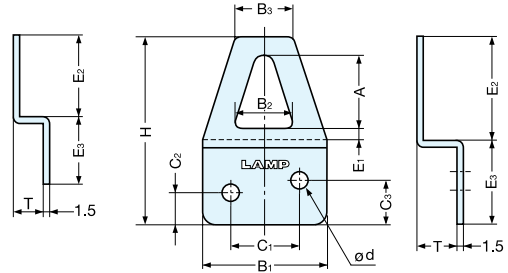
HANGER PLATE



AP



AP-20



AP-25, 32

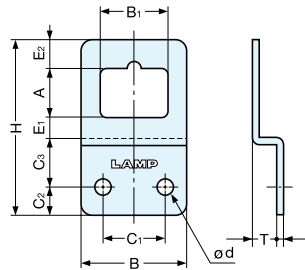
Material	Finish
304 Stainless Steel	Polished

Item No.	B ₁	B ₂	B ₃	H	A	C ₁	C ₂	C ₃	d	E ₁	E ₂	E ₃	T	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
AP-20	20 (25/32")	9.2	9.2	30.4 (1-3/16")	11.8	12	5.0	-	2.8	2.0	16.8	13.6	6	10 (22 lbs)	6	100	1000	2.7 × 13
AP-25	25 (63/64")	11.5	11.5	37.5 (1-15/32")	14.7	14	6.5	9	3.3	2.5	20.5	17.0	8		10			3.1 × 16
AP-32	32 (1-17/64")	14.8	14.8	47.0 (1-27/32")	17.2	18	8.0	12	4.2	3.2	24.5	22.5	10		16			3.5 × 16

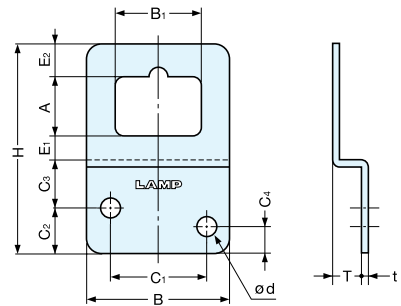
HANGER PLATE



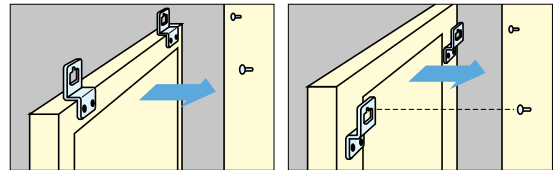
SP



SP-17, 22



SP-30



Material	Finish
304 Stainless Steel	Polished

Item No.	B	B ₁	H	A	C ₁	C ₂	C ₃	C ₄	d	E ₁	E ₂	T	t	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
SP-17	17 (43/64")	10.5	28.5 (1-1/8")	7	8	4.5	9.5	-	2.7	3.5	4	4	1.2	10 (22 lbs)	4	200	1000	2.7 × 13
SP-22	22 (7/8")	14.0	36.5 (1-7/16")	10	13	6.0	10.0	-	3.3	4.5	6	5	1.5		8			3.1 × 16
SP-30	30 (1-3/16")	18.0	43.5 (1-23/32")	12	20	9.5	10.0	5.5	4.2	5.0	7	6	1.5		13			500

RECESSED HOOK

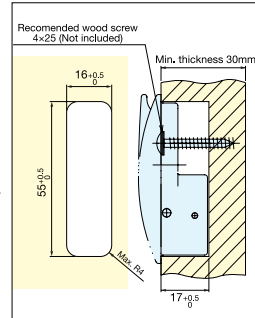
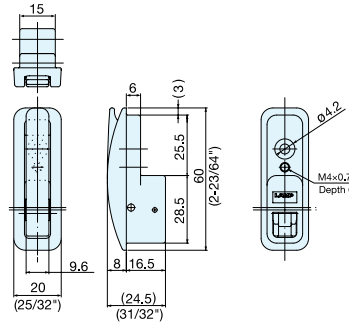


NF-60

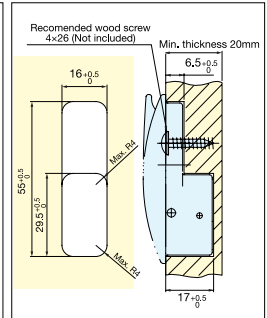


- Hook is spring loaded to retract.
- Ideal for vibration or shock applications.
- Panel Thickness: - Wood: Min. 20 mm (25/32")
- Sheet metal: 0.8~1.6 mm with optional bracket NF-50, sold separately.

Part Name	Material	Finish
Body	Aluminum	Grey
Pin/Spring	304 Stainless Steel	Plain
Rubber	Polychloroprene	Black



Bore Dimensions
(For thickness over 30 mm)



Bore Dimensions
(For thickness 20~29 mm)

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
NF-60	20 (44 lbs)	31	10	200

SOFT CLOSE RECESSED HOOK



NF-60D



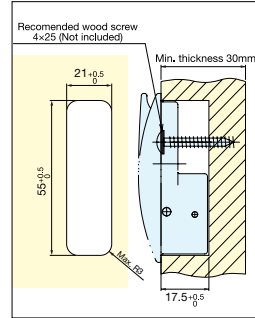
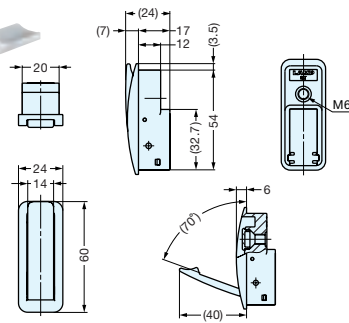
Grey

Silver

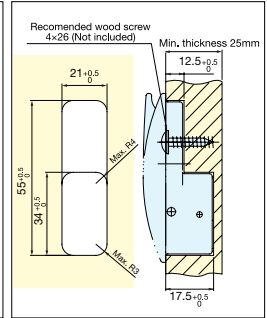
Metallic Silver

- Hook is spring loaded to retract with a soft closing action.
- Ideal for vibration or shock applications.
- Panel Thickness: - Wood: Min. 25 mm (1")
- Sheet metal: 0.8~1.6 mm with optional bracket NF-50, sold separately.

Part Name	Material	Finish
Body	Aluminum	Grey/Silver Metallic Silver
Pin/Spring	304 Stainless Steel	Plain
Rubber	Polychloroprene	Black
Rear Cover	POM	Grey



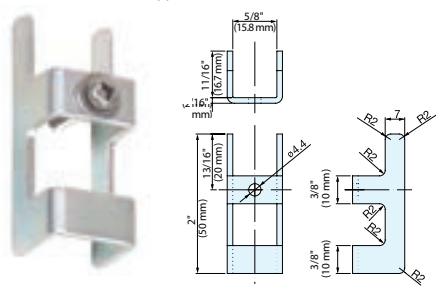
Bore Dimensions
(For thickness over 30 mm)



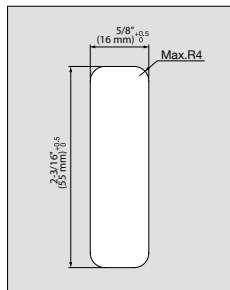
Bore Dimensions
(For thickness 25~29 mm)

Item No.	Finish	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
NF-60D/GR	Grey	30 (66 lbs)	49	10	200
NF-60D/SL	Silver				
NF-60D/MSL	Metallic Silver				

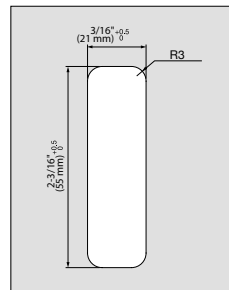
Bracket for sheet metal application



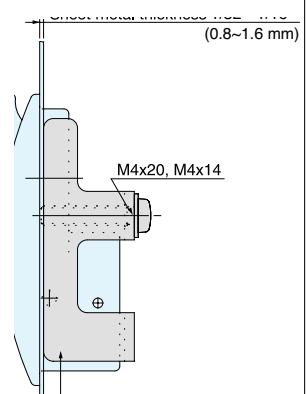
Supplied with M4x14 Stainless steel screw.



Cut Out Dimensions for NF-60



Cut Out Dimensions for NF-60D



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
NF-50	22	20	400	Steel	Yellow Zinc Chromate

RECESSED HOOK (W/SOFT CLOSE)

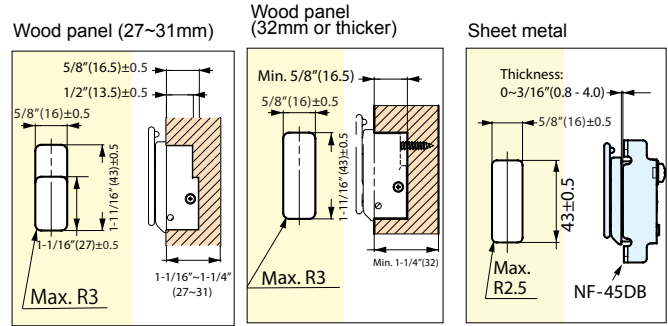
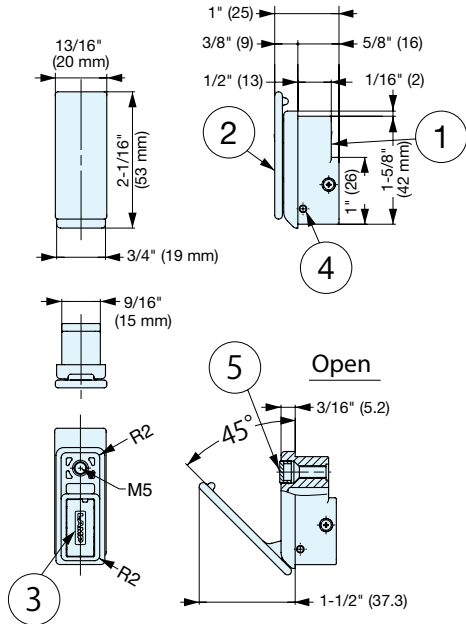


NF-45D



NF-45D-GR NF-45D-BL NF-45D-SSL NF-45D-WT

- A modern, clean hook solution with Motion Design Technology.
- Hook is spring loaded to retract and soft close.
- Ideal for vibration or shock applications.
- Panel Thickness: - Wood: Min. 27~31 mm (1-1/16~1-1/4")
- Sheet metal: 0.8~4.0 mm
- Hook bracket (NF-45DB) for sheet metal sold separately.



Cut Out Dimensions

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Grey/Black/Silver White
②	Arm		
③	Cover	Polyacetal	Plain
④	Pin	304 Stainless Steel	
-	Spring		Rubber
⑤	Bumper		

Item No.	Color	Load Capacity of Arm (kgf)	Load Capacity of Base (kgf)	Weight (g)	Box (pcs)	Carton (pcs)
NF-45D-GR	Grey	9.5 (21 lbsf)	51 (112 lbsf)	32	10	200
NF-45D-BL	Black					
NF-45D-SSL	Silver					
NF-45D-WT	White					

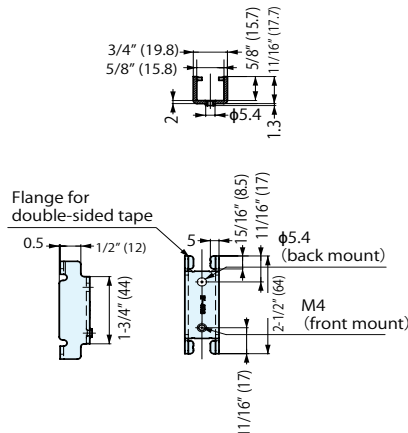
RECESSED HOOK BRACKET



NF-45DB



NF-45DB



- Allows for the NF-45D hook to be mounted onto sheet metal.
- Can be mounted from both front and back sides.
- Has flanges for double-sided tape, which allows for temporary fixing before mounting.

Item No.	Material	Finish	Box (pcs)	Carton (pcs)
NF-45DB	Steel	Yellow Zinc Chromate	40	40

COUNTER HOOKS

HK-CH35

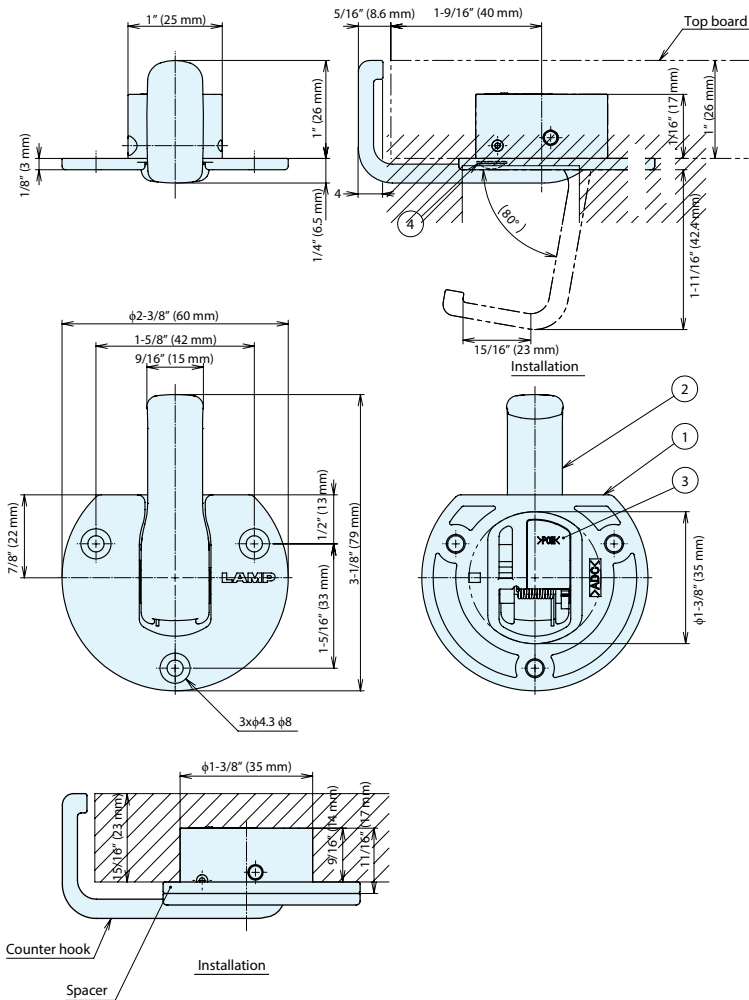
HOOKS



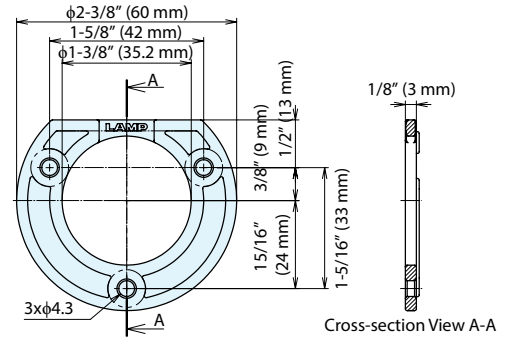
- Recessed mounted hook provides a clean appearance.
- Hook can be seen at the edge when unused.
- Hook closes and retracts with a soft-close motion into body when hooked items are removed.
- Board thickness: Min. 1" (26 mm).

Board Thickness	Qty of Spacers	Bore Depth
Min 1" (26mm)	None	11/16" (17mm)
15/16" ~1" (23~26mm)	1 pcs	9/16" (14mm)
13/16"~15/16" (20~23mm)	2 pcs	7/16" (11mm)
11/16"~13/16" (17~20mm)	3 pcs	5/16" (8 mm)

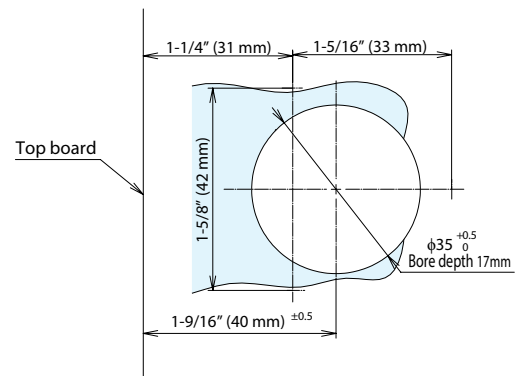
COUNTERR HOOKS



[Spacer]



[Bore Dimensions]



Item No.	Finish	LoadCapacity (kgf)	Box (pcs)	Carton (pcs)
HK-CH35-BL	Black	10 (22 lbf)	20	200
HK-CH35-BR	Brown			
HK-CH35-SL	Silver			

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy (ADC)	Enamel Finish Black/Brown/Silver
②	Arm	Aluminum Alloy (ADC)	Enamel Finish Black/Brown/Silver
③	Cover	Plastic (POM)	-
④	Bumper	PUR	Clear
⑤	Spacer	Plastic (PA)	Black



RECESSED HOOK

HOOKS

RECESSED HOOKS / HEAVY DUTY FOLDING PAD EYES

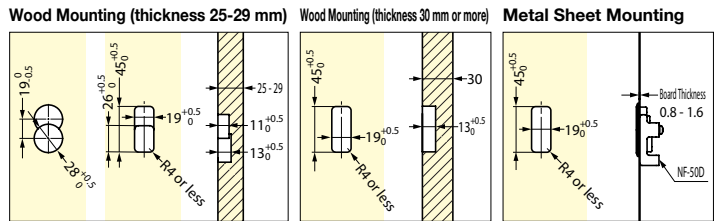
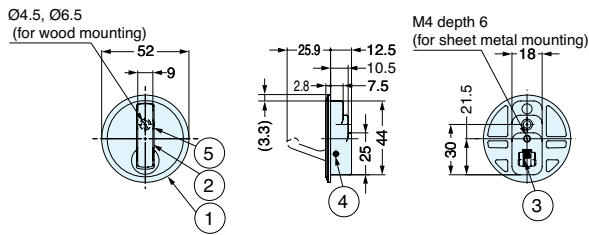


- Hook is spring loaded to retract.
- Ideal for vibration or shock application.

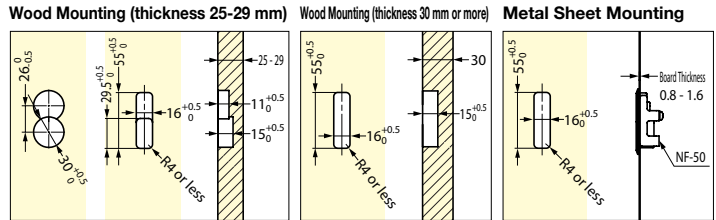
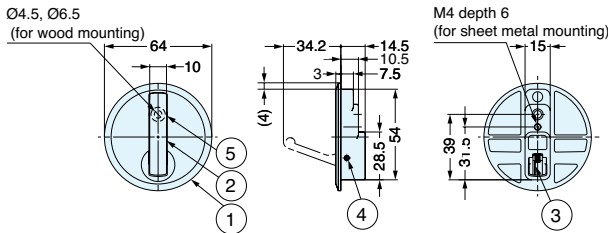


No.	Part Name	Material
①	Main Body	Zinc Alloy (ZDC)
②	Arm	
③	Spring	304 Stainless Steel
④	Knurled Pin	303 Stainless Steel
⑤	Cushioning Rubber	Chloroprene Rubber (CR)

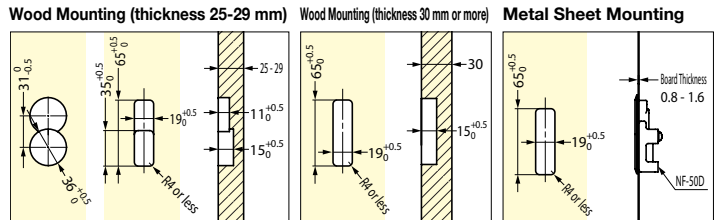
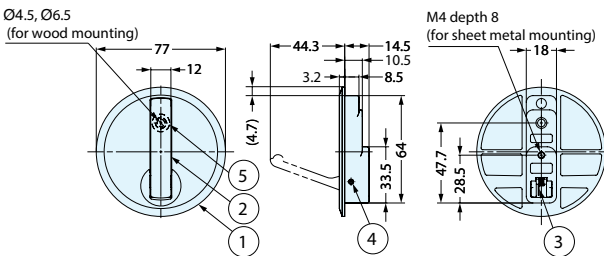
NF-R52



NF-R64



NF-R77



Item No.	Load Capacity (kg)	Weight (g)	Finish	Box (pcs)	Carton (pcs)	Material
NF-R52-SCR	20 (44 lbs)	70	Dull Chrome	10	120	Zinc Alloy
NF-R52-CR			Chrome Plating	10	120	
NF-R52-BL			Matte Black	10	120	
NF-R64-SCR	90	90	Dull Chrome	10	120	
NF-R64-CR			Chrome Plating	10	120	
NF-R64-BL			Matte Black	10	120	
NF-R77-SCR	130	130	Dull Chrome	10	120	
NF-R77-CR			Chrome Plating	10	120	
NF-R77-BL			Matte Black	10	120	

VANITY HOOK

LOAD CAPACITY
5.8 kg
12.8 lbs

3.5x30
STEEL

SSF

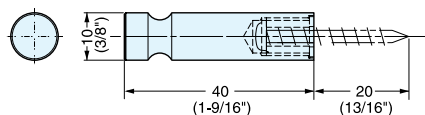


SSF-10/GA

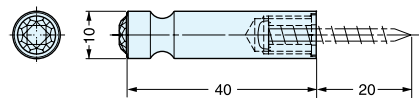


SSF-10/CR-SW

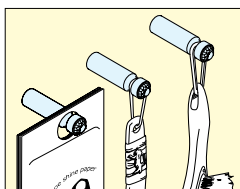
- Slim 3/8" (10 mm) diameter hook with groove, useful for hanging bags, brushes, etc.
- Includes 1-3/16" (3.5 x 30 mm) long self-tapping screw.
- Available in gold (GA) or chrome (CR) with option of designer crystals, adding a touch of glamour.



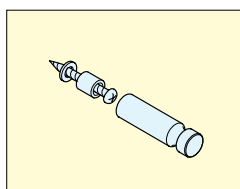
SSF-10/CR
SSF-10/GA



SSF-10/CR-SW
SSF-10/GA-SW



Application



Installation

Item No.	Material	Finish	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SSF-10/CR	Brass	Chrome	5.8 (12.8 lbs)	24	10	100
SSF-10/GA		Gold		25		
SSF-10/CR-SW	Brass, Crystal	Chrome				
SSF-10/GA-SW		Gold				

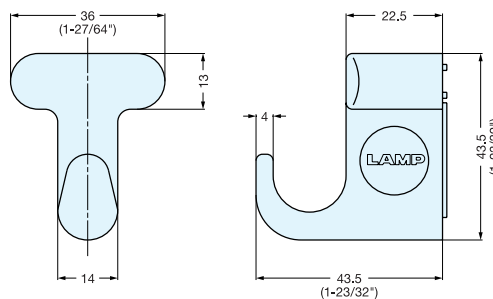
MAGNETIC HOOK

LOAD CAPACITY
2 kg
4.4 lbs

MJ-45



- Hook with strong magnet.
- Convenient for use on steel cabinets, refrigerators, tool cabinets etc.



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Color
MJ-45/BRN	2 (4.4 lbs)	58	20	240	Magnet ABS	Brown (BRN)
MJ-45/IVY						Ivory (IVY)
MJ-45/ORG						Orange (ORG)

COAT HOOK

STAINLESS
304
STEEL

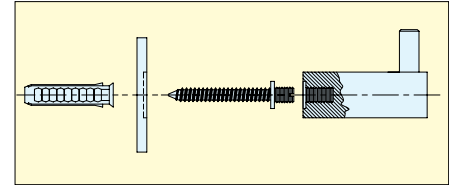
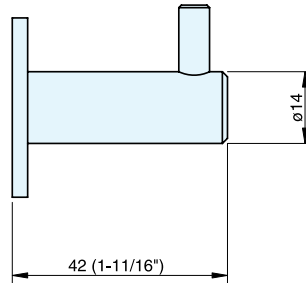
STAINLESS
303
STEEL

LOAD CAPACITY
10 kg
22 lbs

STEEL

DSH-01

• Supplied with screw, and plastic expansion anchor.



Installation

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSH-01	10 (22 lbs)	71	25	250	303/304 Stainless Steel	Satin

COAT HOOK

STAINLESS
304
STEEL

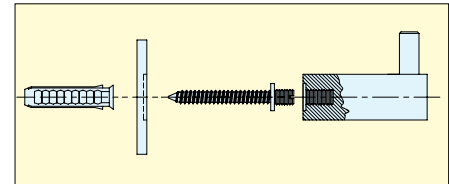
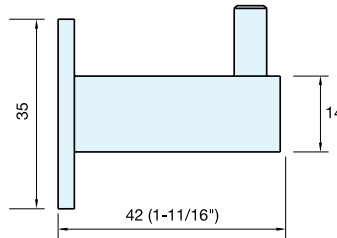
STAINLESS
303
STEEL

LOAD CAPACITY
10 kg
22 lbs

STEEL

DSH-04

• Supplied with screw, and plastic expansion anchor.



Installation

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSH-04	10 (22 lbs)	55	25	250	303/304 Stainless Steel	Satin

COAT HOOK

STAINLESS
304
STEEL

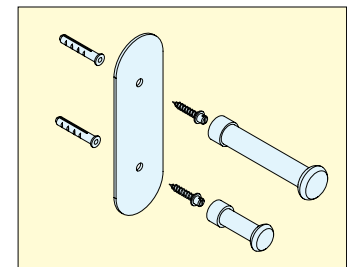
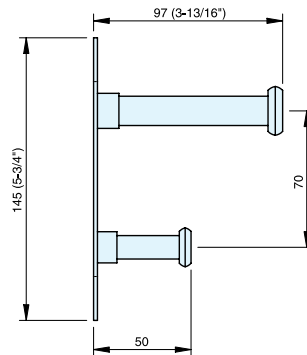
STAINLESS
303
STEEL

LOAD CAPACITY
10 kg
22 lbs

STEEL

DSH-05

• Supplied with screws and plastic expansion anchors.



Installation

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSH-05	10 (22 lbs)	280	1	10	303/304 Stainless Steel	Satin

COAT HOOK

STAINLESS
304
STEEL

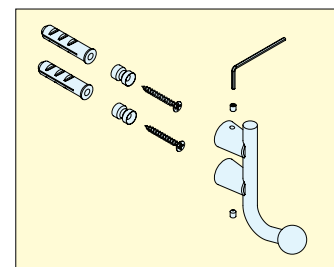
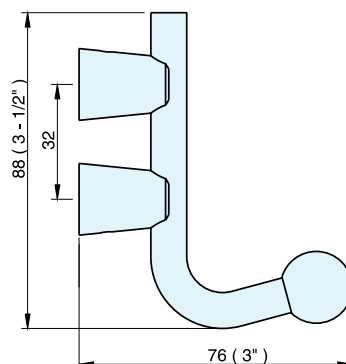
STAINLESS
303
STEEL

LOAD CAPACITY
10 kg
22 lbs



DSH-02

• Supplied with screws, brackets, plastic expansion anchors and allen key.



Installation

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSH-02	10 (22 lbs)	178	10	100	303/304 Stainless Steel	Satin

COAT HOOK

STAINLESS
304
STEEL

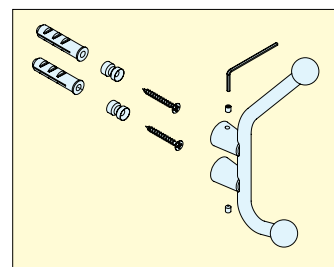
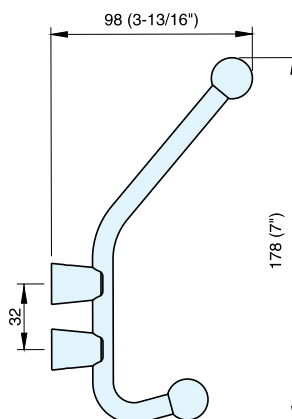
STAINLESS
303
STEEL

LOAD CAPACITY
10 kg
22 lbs



DSH-03

• Supplied with screws, brackets, plastic expansion anchors and allen key.



Installation

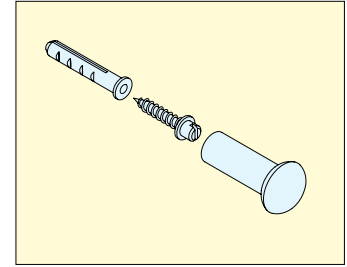
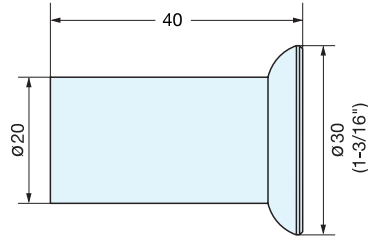
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSH-03	10 (22 lbs)	71	5	50	303/304 Stainless Steel	Satin

COAT HOOK



DSH-129

• Supplied with screw, and plastic expansion anchor.



Installation

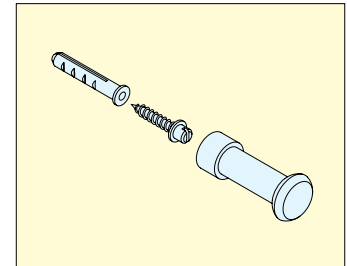
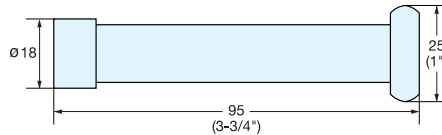
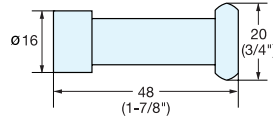
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSH-129	10 (22 lbs)	100	25	250	303/304 Stainless Steel	Satin

COAT HOOK



DSH-P5

• Supplied with screw, and plastic expansion anchor.



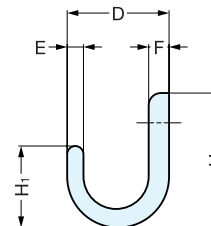
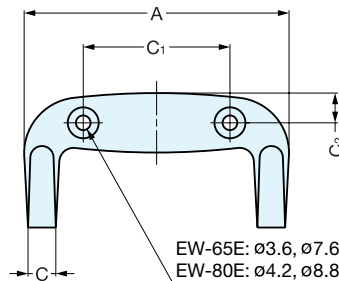
Installation

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSH-P5-20	10 (22 lbs)	45	25	250	303/304 Stainless Steel	Satin
DSH-P5-25		113				

HOOK



EW-65E, 80E



Material	Finish
304 Stainless Steel	Mirror

Item No.	A	C ₁	C	D	E	F	C ₂	H	H ₁	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
EW-65E	65 (2-9/16")	36	6.5	25	4	5	7.3	33 (1-19/64")	20	20 (44 lbs)	52	10	100	3.1 × 16
EW-80E	80 (3-5/32")	44	8.0	32	5	6	9.0	42 (1-21/32")	25		93			3.8 × 20

RUBBER HOOK (PASTEL COLOR)

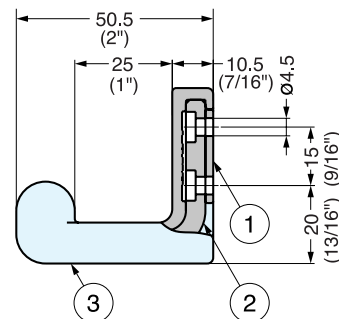
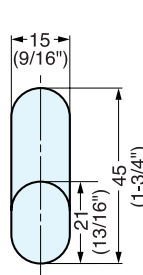


PXB-GR05-111



Red Yellow Green Blue White Black

- Simple and safe design.
- Base made of stainless steel provides high strength and durability.
- Available in a wide range of colors.



Item No.	Color	Load Capacity kg (lbs)	Weight (g)	Box (pcs)	Carton (pcs)
PXB-GR05-111-LRD	Red	10 (22 lbs)	48	10	100
PXB-GR05-111-LYE	Yellow				
PXB-GR05-111-LGN	Green				
PXB-GR05-111-LBU	Blue				
PXB-GR05-111-WT	White				
PXB-GR05-111-BL	Black				

No.	Part Name	Material	Finish
①	Base Plate	304 Stainless Steel	Plain
②	Base		
③	Cover	Silicone Rubber	-

RUBBER HOOK (HAT & COAT HOOK)

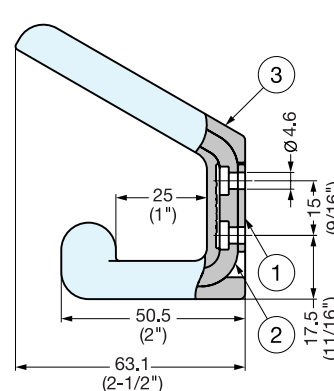
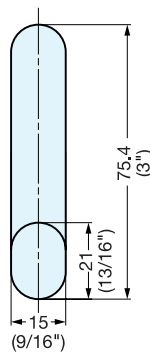


PXB-GR05-211



Red Yellow Green Blue White Black

- Simple and safe design.
- Base made of stainless steel provides high strength and durability.
- Available in a wide range of colors.



Item No.	Color	Load Capacity kg (lbs)	Weight (g)	Box (pcs)	Carton (pcs)
PXB-GR05-211-RD	Red	10 (22 lbs)	66	10	100
PXB-GR05-211-YE	Yellow				
PXB-GR05-211-GN	Green				
PXB-GR05-211-BU	Blue				
PXB-GR05-211-WT	White				
PXB-GR05-211-BL	Black				

No.	Part Name	Material	Finish
①	Base Plate	304 Stainless Steel	Plain
②	Base		
③	Cover	Silicone Rubber	-

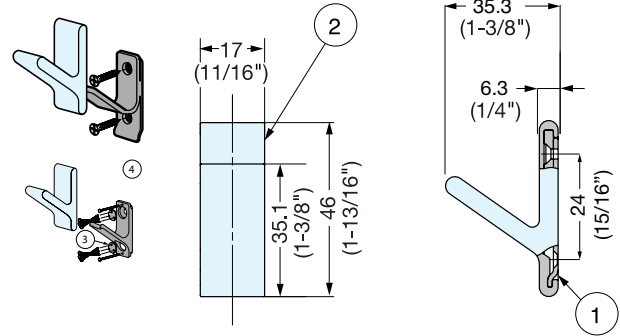
RUBBER HOOK (NORDIC)



PXB-GN05-101



- Simple and safe design.
- Includes pin for drywall installation.
- Available in a wide range of colors.



Item No.	Color	Load Capacity kg (lbs)	Weight (g)	Box (pcs)	Carton (pcs)
PXB-GN05-101-GWT	White	4.1 (9 lbs)	39	10	100
PXB-GN05-101-BR	Brown				
PXB-GN05-101-BL	Black				
PXB-GN05-101-GPK	Greyish Pink				
PXB-GN05-101-GYE	Greyish Yellow				
PXB-GN05-101-GGN	Greyish Green				
PXB-GN05-101-GBU	Greyish Blue				

No.	Part Name	Material	Finish
①	Base	Zinc Alloy	Nickel
②	Cover	Silicone Rubber	-
③	Drywall Pin	AES	Plain
④	Drywall Screw	Stainless Steel	

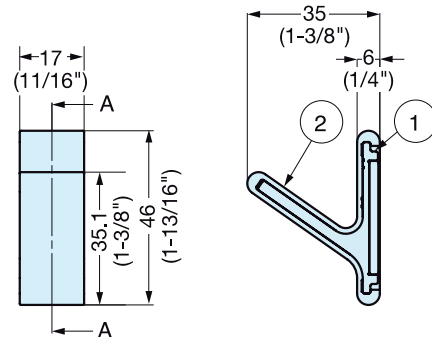
RUBBER HOOK (MAGNETIC)



PXB-GN05M-101



- Magnetic type
- Simple and safe design.
- Available in a wide range of colors.



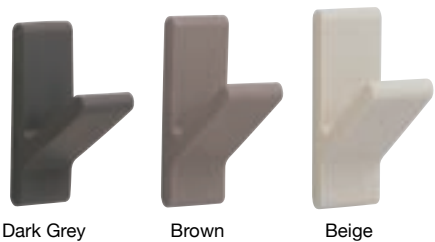
Item No.	Color	Load Capacity kg (lbs)	Weight (g)	Box (pcs)	Carton (pcs)
PXB-GN05M -101-GR	Grey	1.1 (2.4 lbs)	32	10	100
PXB-GN05M -101-GY	Green Yellow				
PXB-GN05M -101-NB	Navy Blue				
PXB-GN05M -101-GWT	White				
PXB-GN05M -101-YR	Orange				

No.	Part Name	Material	Finish
①	Base	Zinc Alloy	Plain
②	Cover	Silicone Rubber	-

RUBBER HOOK (NORDIC)

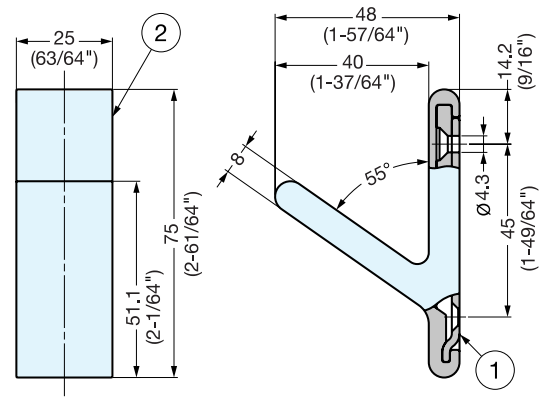


PXB-GN05-111



Dark Grey Brown Beige

- Simple and safe design.
- Base made of stainless steel provides high strength and durability.
- Designed to Integrate modern style.



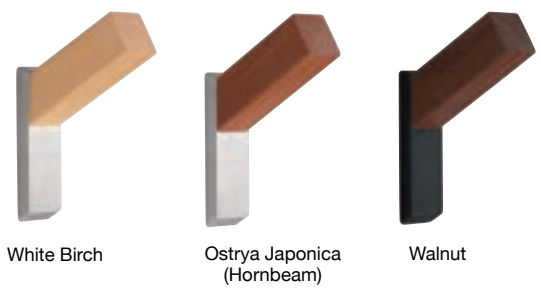
Item No.	Color	Load Capacity kgf (lbs)	Weight (g)	Box (pcs)	Carton (pcs)
PXB-GN05-111-DG	Dark Grey	8 (18 lbs)	93	10	100
PXB-GN05-111-BR	Brown				
PXB-GN05-111-BE	Beige				

No.	Part Name	Material	Finish
①	Base	Stainless Steel	Plain
②	Cover	Silicone Rubber	-

COAT HOOK (PREMIUM WOOD SERIES)

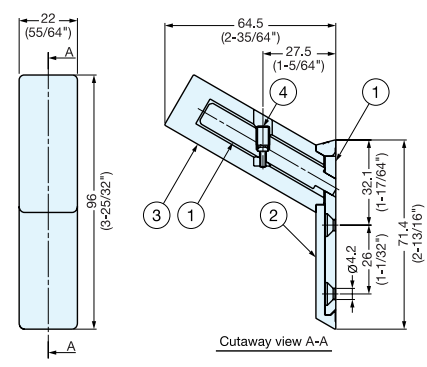
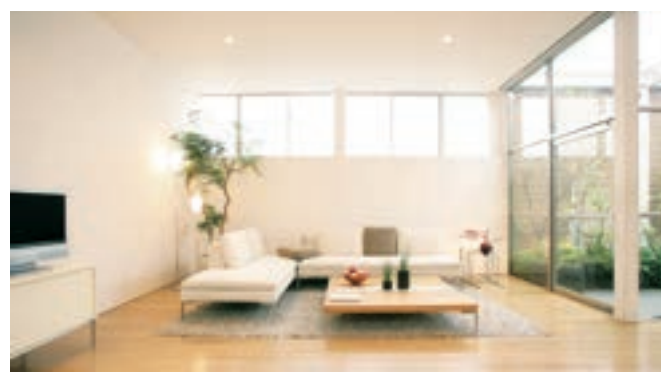


PXB-WM05-111



White Birch Ostrya Japonica (Hornbeam) Walnut

- The contrast of the gentle touch of wood surface and shiny metallic texture creates a unique rectilinear feature.
- Metal core inside the wooden arm provides high-durability.
- Clear coating greatly improves the endurance.



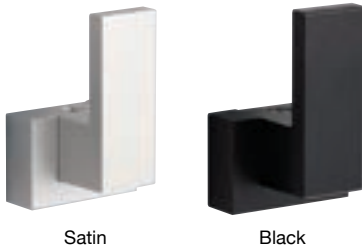
No.	Part Name	Material	Finish
①	Base	Steel	Zinc Chromate
②	Base Cover	Zinc Alloy	Nickel/Black
③	Arm	Wood	Clear Coating
④	Socket Screw	Stainless Steel	Plain

Item No.	Color	Load Capacity kgf (lbs)	Weight (g)	Box (pcs)	Carton (pcs)
PXB-WM05-111-MK	White Birch	10 (22 lbs)	110	6	48
PXB-WM05-111-AS	Ostrya Japonica (Hornbeam)				
PXB-WM05-111-WN	Walnut				

COAT HOOK (URBAN METAL SERIES)



PXB-UM05-101

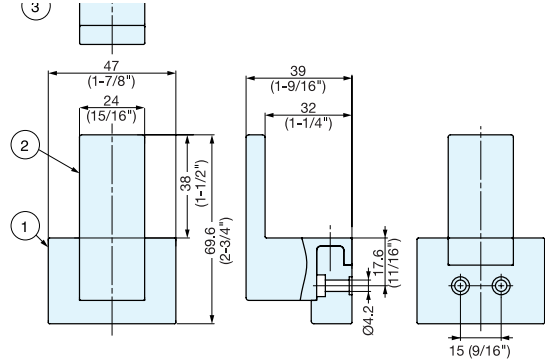


Satin

Black



- An unprecedented design with sleekness from aluminum extrusion and edge treatment.
- Designed to integrate with modern style interiors where rectilinear-themed.
- Modern and minimalistic appearance add to the high quality design



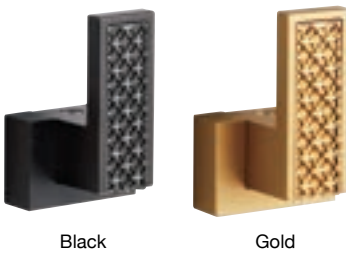
Item No.	Color	Load Capacity kg (lbs)	Weight (g)	Box (pcs)	Carton (pcs)
PXB-UM05-101-ST	Satin	10 (22 lbs)	112	8	64
PXB-UM05-101-BL	Black				

No.	Part Name	Material	Finish
①	Base	Aluminum	Satin/Black
②	Arm		
③	Socket Screw	Stainless Steel	Plain

COAT HOOK (URBAN METAL/QUEST SERIES)

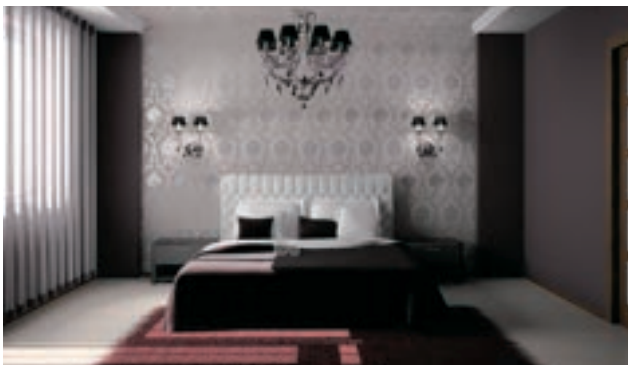


PXB-UM05-101-Q1

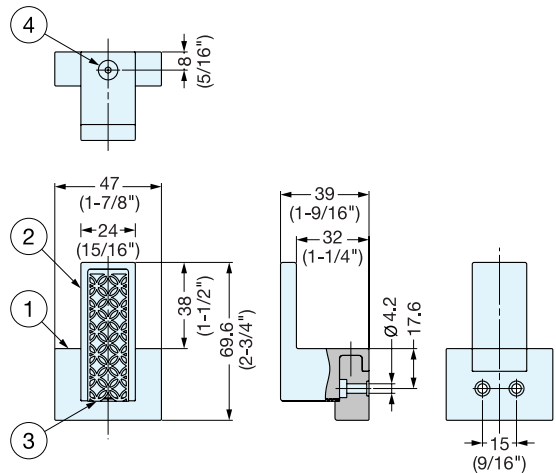


Black

Gold



- Decorative plate fitted into hook arm represents modern luxury style.
- The combination of simple form and decorative plate suite modern/classic interior design.
- Custom engraving available by special order.



Item No.	Color	Load Capacity kgf (lbs)	Weight (g)	Box (pcs)	Carton (pcs)
PXB-UM05-101-Q1-BL	Black	10 (22 lbs)	114	8	64
PXB-UM05-101-Q1-GL	Gold				

No.	Part Name	Material	Finish
①	Base	Aluminum	Gold/Black
②	Arm		
③	Plate	Brass	
④	Screw	Stainless Steel	Plain

COAT HOOK



PXB-AB05



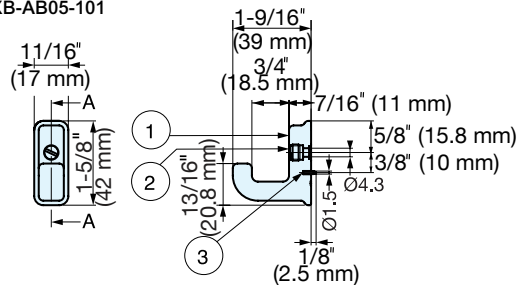
Bronze Brown

Bronze Black

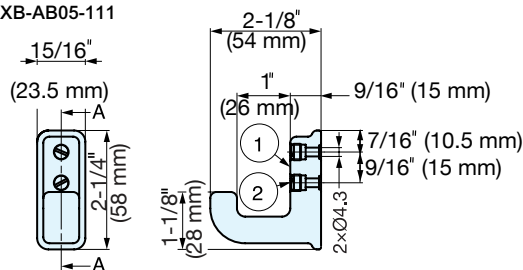


• Vintage design with brass casting.

PXB-AB05-101



PXB-AB05-111



Item No.	Color	Load Capacity kg (lbs)	W	H	D	Weight (g)
PXB-AB05-101-BL	Bronze Black	10 (22 lbs)	11/16" (17 mm)	1-5/8" (42 mm)	1-9/16" (39 mm)	79
PXB-AB05-101-BR	Bronze Brown					
PXB-AB05-111-BL	Bronze Black		15/16" (23.5 mm)	2-1/4" (58 mm)	2-1/8" (54 mm)	210
PXB-AB05-111-BR	Bronze Brown					

No.	Part Name	Material	Finish
①	Body	Brass	Bronze Black (BL)
②	Screw		Bronze Brown (BR)
③	Sharp Pin	Stainless Steel	Plain

COAT HOOK (AGED CAST)



PXB-AC05-111

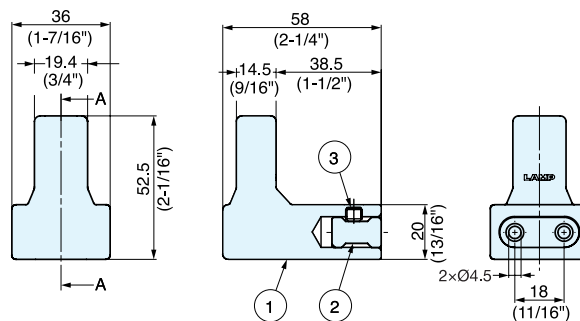


Bronze Black

Bronze Brown



• Vintage design with brass casting.



No.	Part Name	Material	Finish
①	Body	Brass	Bronze Black (BL)
②	Insert		Bronze Brown (BR)
③	Screw	Bronze	

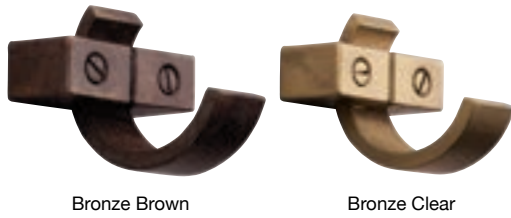
Item No.	Color	Load Capacity kgf (lbs)	W	H	D	Weight (g)
PXB-AC05-111-BL	Bronze Black	20 (44 lbs)	36 (1-7/16")	52.5 (2-1/16")	58 (2-1/4")	400
PXB-AC05-111-BR	Bronze Brown					

COAT HOOK (AGED SCREW SERIES)



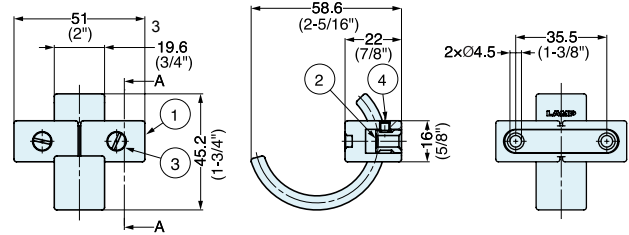
PXB-AS05-111

• Vintage design with brass casting.



Bronze Brown

Bronze Clear



No.	Part Name	Material	Finish
①	Body	Brass	Bronze Brown(BR) Bronze Clear(SD)
②	Insert		
④	Screw		

Item No.	Color	Load Capacity kgf (lbs)	W	H	D	Weight (g)
PXB-AS05-111-BR	Bronze Brown	9 (19.8 lbs)	51 (2'')	45.2 (1-3/4'')	58.6 (2-5/16'')	200
PXB-AS05-111-SD	Bronze Clear					

COAT HOOK (LEATHERY CHIC)



PXB-LE05-111

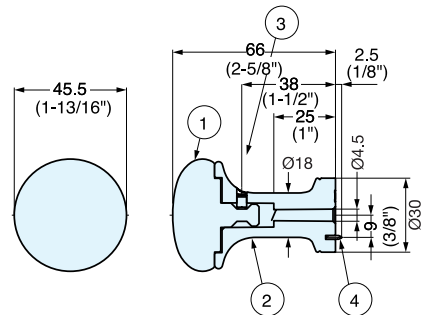
• Modern design with contrasting materials.



Black

Tan

Brown



No.	Part Name	Material	Finish
①	Head	ZDC	Black(BL) Brown(BR) Tan(TN)
②	Body		
③	Screw	304 Stainless Steel	
④	Pin	316 Stainless Steel	

Item No.	Color	Load Capacity kgf (lbs)	W	H	D	Weight (g)
PXB-LE05-111-BL	Black	11 (25 lbs)	45.5 (1-13/16'')	45.5 (1-13/16'')	66 (2-5/8'')	267
PXB-LE05-111-BR	Brown					
PXB-LE05-111-TN	Tan					

FORGED BRASS DOUBLE HOOK

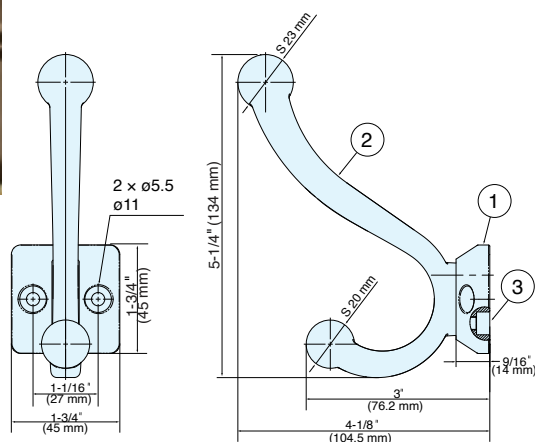


PXB-BN05-211

HOOKS



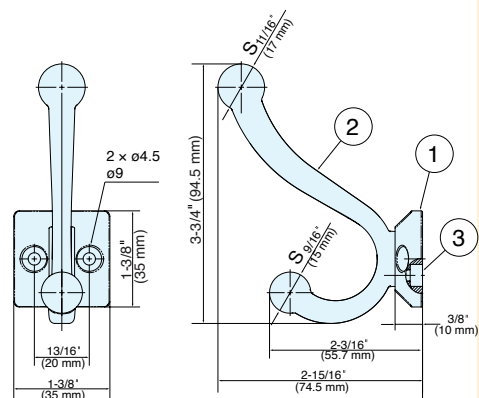
- A high-end design which harmonizes both classical and contemporary styles.
- Built from luxurious solid brass forged to perfection.
- Meticulously crafted to ensure durability and a high quality finish.
- A clear lacquer coating is applied to prevent tarnishing.
- The endpoints feature a spherical design making it safer to use and lowers the risk of accidental injury.
- Includes screws that match the color of the finish.



PXB-BN05-231



Blasted Metal Polished Brass Satin Brass Antique Brass Matte Black



PXB-BN05-211

Item No.	Material	Finish	Load Capacity	Weight (g)	Box (pcs)	Carton (pcs)
PXB-BN05-211-BM	Brass	Blasted Metal	18.7 lbs (8.5 kg)	165	4	20
PXB-BN05-211-PB		Polished Brass				
PXB-BN05-211-SB		Satin Brass				
PXB-BN05-211-AB		Antique Brass				
PXB-BN05-211-BL		Matte Black				
PXB-BN05-231-BM	Brass	Blasted Metal	33 lbs. (15 kg)	415	4	20
PXB-BN05-231-PB		Polished Brass				
PXB-BN05-231-SB		Satin Brass				
PXB-BN05-231-AB		Antique Brass				
PXB-BN05-231-BL	Matte Black					

No.	Part Name	Material
①	Base	Brass
②	Arm	
③	Hex Socket Bolts	Steel

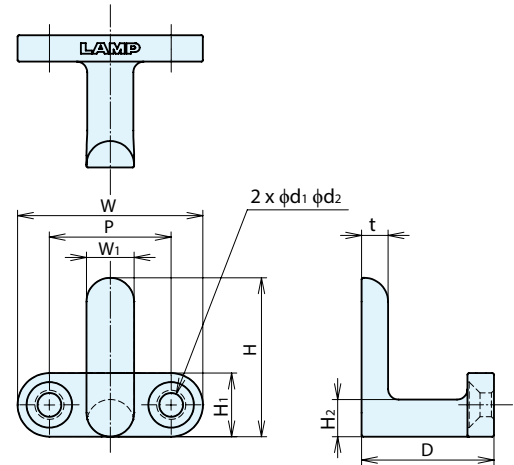
PXB HOOK SERIES COAT HOOKS

HOOK

HK-FH



- Decorative contemporary hook.
- Available in four finishes and two sizes.



Item No.	Material	Finish	D	d ₁	d ₂	H	H ₁	H ₂	P	t	W	W ₁	Load Capacity	Weight (g)	Box (pcs)	Carton (pcs)
HK-FH30-CR	Zinc Alloy	Chrome	1" (25 mm)	3/16" (4.5 mm)	5/16" (8.6 mm)	1-3/16" (30 mm)	1/2" (12 mm)	1/4" (7 mm)	15/16" (23 mm)	3/16" (5 mm)	1-5/16" (34 mm)	3/8" (9 mm)	22 lb (10 kg)	22	25	300
HK-FH30-BL		Black														
HK-FH30-DB		Copper														
HK-FH30-PB		Brass														
HK-FH50-CR	Zinc Alloy	Chrome	1-9/16 (39 mm)	3/16" (5.3 mm)	7/16" (10.6 mm)	1-3/4" (45 mm)	5/8" (16 mm)	3/8" (9.5 mm)	1-5/16" (34 mm)	1/4" (7 mm)	2" (50 mm)	1/2" (13 mm)	33 lb (15 kg)	65	15	200
HK-FH50-BL		Black														
HK-FH50-DB		Copper														
HK-FH50-PB		Brass														

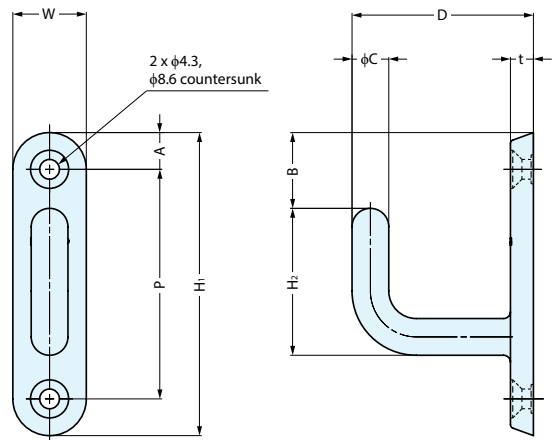
HOOK



HK-LB



- A stainless steel hook with a thick plate for a high-end look.
- Rounded hook tip to ensure safety.



Item No.	Material	Finish	W	H ₁	H ₂	P	A	B	C	D	t	Load Capacity (kgf)	Weight (g)
HK-LB50	316 Stainless Steel	Polished	5/8" (16 mm)	2-9/16" (65 mm)	1-1/4" (32 mm)	2" (50 mm)	5/16" (8 mm)	5/8" (16.5 mm)	5/16" (8 mm)	1-9/16" (39.5 mm)	3/16" (5 mm)	33.7 lbs (15.3 kgf)	46
HK-LB65			11/16" (18 mm)	3-3/8" (85 mm)	1-3/4" (44.5 mm)	2-9/16" (65 mm)	3/8" (9 mm)	13/16" (20 mm)	3/8" (9 mm)	1-15/16" (49 mm)	1/4" (6.5 mm)		81



SHELF & SUPPORT HARDWARE

GLASS CLAMPS
GLASS SHELF SUPPORTS
SOAP HOLDERS
BRACKETS
MIRROR SUPPORTS
GLASS STANDOFFS
SHELF STANDARDS & ACCESSORIES
SHELVING SYSTEMS

GLASS CLAMPS

Picture	Item No.		Glass Thickness (in)	Page
	9303VA2		3/8"	462
	9344VA2		3/8"	462
	4805		3/8"	463
	4846		3/8"	463
	4814		3/8"	463
	4860		5/16"-1/2"	464
	4866		5/16"-1/2"	464
	3001		1/4"	465
	3021		1/4"	465
	9320VA, 4820VA, 4826VA		1/4"-3/8"	465
	4849VA		3/8"	465

GLASS SHELF SUPPORTS





























Picture	Item No.		Glass Thickness (in)	Page
	ZL-2201		5/16"-3/8"	467
	ZL-2202		5/16"-3/8"	468
	ZL-2203		5/16"-3/8"	468
	2877ZN5		1/4"-3/8"	469
	2878ST8		1/4"-3/8"	469
	2879VA1		1/4"-3/8"	469
	2876		1/4"-5/16"	470
	2884		1/4"-3/8"	470
	2880		1/4"-3/8"	471
	2881		1/4"-3/8"	471
	2885		1/4"-3/8"	471

SOAP HOLDERS





Picture	Item No.		Page
	DSS-05		472
	DSC-05		472
	DSP		473

























BRACKET

Picture	Item No.	Load Capacity(lbs)	Page
	SU 	9~13	474
	SU-A 	22~52	474
	SU-B 	22~28	474
	XL-SA01 	26~50	475
	SV 	18~31	475
	BT, BTK, BTW 	33~181	476
	EB, EB-303/EP-D 	198~220	477- 477.2
	EBD 	Torque: Max. 75-133 (in-lbs)	477
	EB Lever Release 	-	477.3 - 477.4
	BTO 	89.9	478
	BOS	72-88	478
	388 	77~176	479
	GTS-300 	6.6	479
	BY 	110	480
	BU-200	66	480

MIRROR SUPPORTS

Picture	Item No.	Glass Thickness (in)	Page	Picture	Item No.	Glass Thickness (in)	Page
	ZL-3102-40 	1/4"	481		ZL-3101-200 	1/4"	481

GLASS STANDOFFS

Picture	Item No.	Glass Thickness (in)	Page	Picture	Item No.	Glass Thickness (in)	Page
	7000VA 	5/16"-1/2"	482		7051EO 	1/4"-9/16"	485
	7005VA 	5/16"-1/2"	482		7083VA 	1/4"-1/2"	485
	7010VA 	5/16"-1/2"	483		4872	1/4"-1/2"	485
	7015VA 	5/16"-1/2"	483		7120VA 	5/16"	486
	7060EO 	1/4"-1/2"	484		7140E1EV1	1/8"-1/4"	486
	7061VA 	1/4"-1/2"	484		7144E1EV1 	3/16"-5/16"	486
	7062VA 	1/4"-1/2"	484				

SHELF STANDARDS

SHELF & SUPPORT HARDWARE

Stainless Steel Shelf Supports

SPH-1820
(HEAVY DUTY)

NSF COMPONENT RoHS STAINLESS 304 STEEL Page 488~489



SPH-20
286lbs/4pcs



SPH-5
286lbs/4pcs



SPH-15
286lbs/4pcs



SP-18E

SPHL-1820
(HEAVY DUTY)

NSF COMPONENT RoHS STAINLESS 304 STEEL Page 495



SPHL-25
330lbs/4pcs



SPHL-30
330lbs/4pcs

SP-1820
(HEAVY DUTY)

NSF COMPONENT RoHS STAINLESS 304 STEEL Page 490~492



SPB-15R
220lbs/4pcs



SPB-20
99lbs/4pcs



SPF-20
176lbs/4pcs



SPF-20A



SPF-20LC



SPB-35
11lbs/pc



SPB-200
22lbs/per pair

SM-1820
(COVERED SLOT)

NSF COMPONENT RoHS STAINLESS 304 STEEL Page 493



SMB-15R
198lbs/4pcs



SPM-20B
132lbs/4pcs

SPE-1820
(THIN PROFILE)

RoHS STAINLESS 304 STEEL Page 494



SPE-FB20S
176lbs/4pcs



SPE-FC20

SPN-1820
(NARROW PROFILE)

RoHS Page 496



SPN-15
176lbs/4pcs



SPN-17EC

SPW-1820
(COVER-STRIP)

STAINLESS 430 STEEL RoHS Page 497



SPW-20
176lbs/4pcs



SPW-EC20

Aluminium Shelf Supports

AP-DM, AP-DH

ALUMINIUM Page 498~499



AP-FB20
99lbs/4pcs



AP-EC20



AP-FC20

FSL-Series
(Adjustable Mount)

STAINLESS 430 STEEL RoHS Page 499.1-499.2



FSL-V36



FSL-MB



FSL-S4

SHELVING SYSTEM



P.500~503
Max Shelf Weight 66 lbs
Specifications: For 5/16"-3/8" glass

XL-US02B
UNIT SHELF TYPE "B"



P.504~505
Max Shelf Weight 77 lbs
Specifications: For 5/16"-3/8" glass

XL-US02C
UNIT SHELF TYPE "C"



P.510
Max Shelf Weight 22~88 lbs
Specifications: For glass or wood shelves

VT-DS
LEVEL ADJUSTABLE
SHELVING SYSTEM



P.511
Max Shelf Weight 22~88 lbs
Specifications: For glass or wood shelves

VT-DF
LEVEL ADJUSTABLE
SHELVING SYSTEM



P.512~513

FLUQS.250 / 750
WALL SHELVING SYSTEM



P.514~517

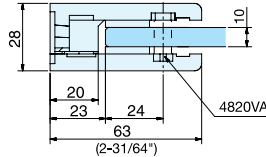
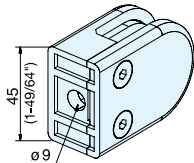
FLUQS.25 / ONE
WALL SHELVING SYSTEM



GLASS CLAMP



9303VA2



- 316 stainless steel clamp.
- For flat surface.
- Optional Parts: 4820VA (Safety Pin)
- See page 466 for load capacity.
- Tempered Glass Recommended.

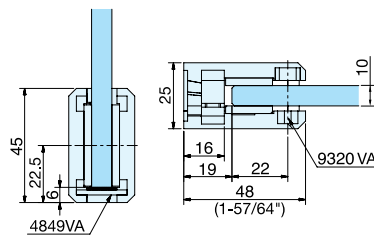
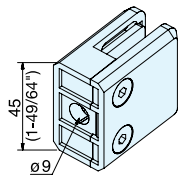
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
9303VA2	10	324	10	100	316 Stainless Steel	Satin



GLASS CLAMP



9344VA2



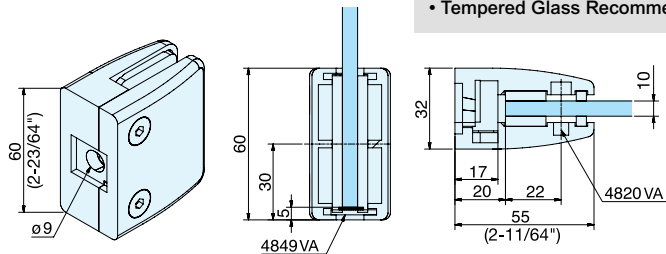
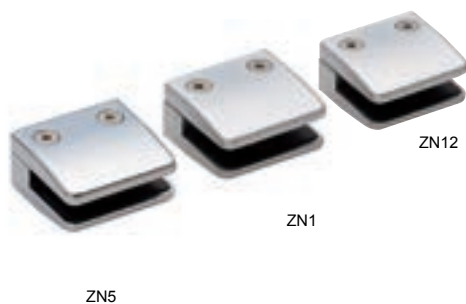
- 316 stainless steel clamp.
- For flat surface.
- Optional Parts: 9320VA (Safety Pin)
4849VA (Safety Plate)
- See page 466 for load capacity.
- Tempered Glass Recommended.

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
9344VA2	10	229	10	100	316 Stainless Steel	Satin



GLASS CLAMP

4805



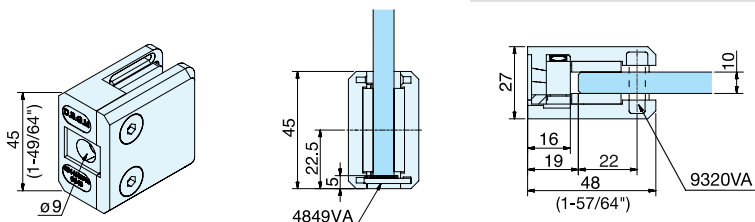
- Glass clamp for flat surface.
- Optional Parts: 4820VA (Safety Pin)
4849VA (Safety Plate)
- See page 466 for load capacity.
- Tempered Glass Recommended.

Item No.	Glass Thickness	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
4805ZN1	3/8" (10 mm)	289	10	100	Zinc Alloy	Matte Chrome
4805ZN5						Chrome
4805ZN12					Aluminum	Plain



GLASS CLAMP

4846



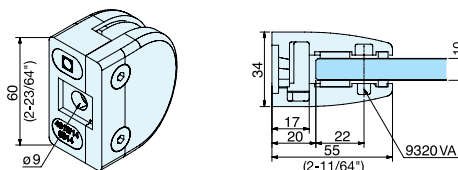
- Glass clamp for flat surface.
- Optional Parts: 9320VA (Safety Pin)
4849VA (Safety Plate)
- See page 466 for load capacity.
- Tempered Glass Recommended.

Item No.	Glass Thickness	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
4846ZN1	3/8" (10 mm)	196	10	100	Zinc Alloy	Matte Chrome
4846ZN5						Chrome



GLASS CLAMP

4814



- Glass clamp for flat surface.
- Optional Parts: 9320VA (Safety Pin)
- See page 466 for load capacity.
- Tempered Glass Recommended.

Item No.	Glass Thickness	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
4814ZN1	10	284	10	100	Zinc Alloy	Matte Chrome
4814ZN5						Chrome

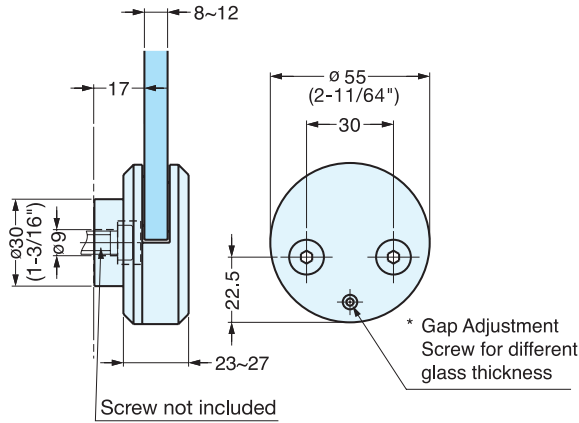


GLASS CLAMP

4860



- Front mount type glass clamp.
- Equipped with adjustment screw to accommodate different glass thickness.
- See page 466 for load capacity.
- Tempered Glass Recommended.



Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
4860ZN1	8~12	24	10	100	Zinc Alloy	Matte Chrome
4860ZN5						Chrome

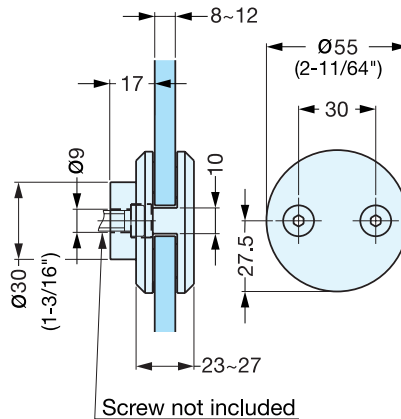


GLASS CLAMP

4866



- Front mount type glass clamp.
- For applications where glass panels need to be installed side by side.
- Equipped with adjustment screw to accommodate different glass thickness.
- See page 466 for load capacity.
- Tempered Glass Recommended.

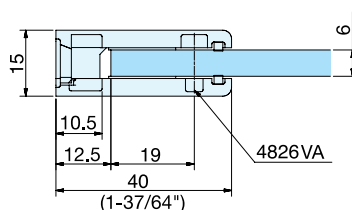
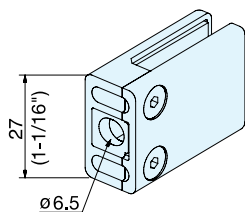


Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
4866ZN1	8~12	221	10	100	Zinc Alloy	Matte Chrome
4866ZN5						Chrome



MINI GLASS CLAMP

3001



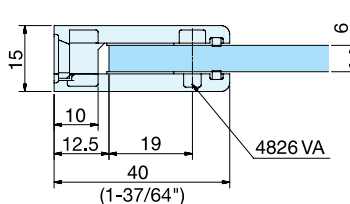
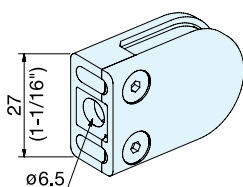
- Small glass clamp.
- Optional Parts: 4826VA (Safety Pin)
- See page 466 for load capacity.
- Tempered Glass Recommended.

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
3001ZN1-6	6	52	20	200	Zinc Alloy	Matte Chrome
3001ZN5-6						Chrome



MINI GLASS CLAMP

3021



- Small type glass clamp.
- Optional Parts: 4826VA (Safety Pin)
- See page 466 for load capacity.
- Tempered Glass Recommended.

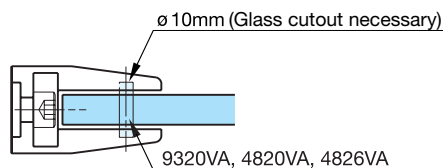
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
3021ZN1-6	6	48	20	200	Zinc Alloy	Matte Chrome
3021ZN5-6						Chrome



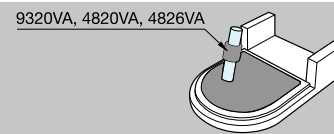
SAFETY PIN



9320VA, 4820VA, 4826VA



- 302 Stainless Steel Safety Pin with rubber ring.
- Use hammer to insert into clamp.



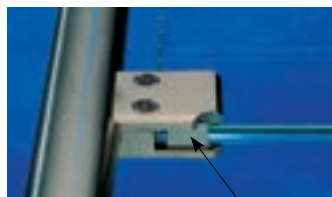
Item No.	Glass Thickness (mm)	Dimensions (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
9320VA	10	Ø6 × 20	5	20	200	302 Stainless Steel	Plain
4820VA		Ø6 × 16					
4826VA		Ø4 × 12					



SAFETY PLATE



4849VA



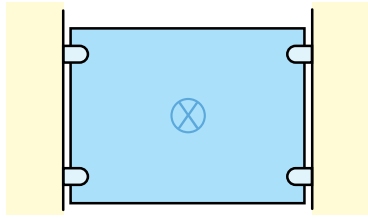
- 304 Stainless Steel Safety Plate (18 × 20 × 2 mm).

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
4849VA	10	6	20	200	304 Stainless Steel	Plain

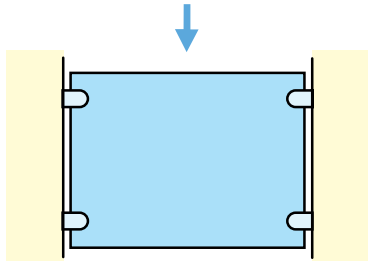
GLASS CLAMP LOAD RATING REFERENCE

SHELF & SUPPORT HARDWARE

GLASS CLAMP LOAD RATING REFERENCE



Test A - Load applied to the center of panel from above (when mounted horizontally).



Test B - Load applied to the center of panel from the edge (when mounted vertically).

• Load capacity test was conducted using 4 clamps on one panel. These figures are the load capacities of glass clamps, not the glass panel. Panels used are stronger than the clamps, bolted on to a strong steel structure with M8 bolts.

Item No.	Test A		Test B	
	N	Kg	N	Kg
3001ZN1-6	-	-	245	25 (55 lbs)
3001ZN5-6				
3021ZN1-6				
3021ZN5-6				
4805ZN1	3000	306 (673 lbs)	1000	102 (224 lbs)
4805ZN5			800	81 (178 lbs)
4814ZN1				
4814ZN5			600	61 (134 lbs)
4846ZN1				
4846ZN5				

Item No.	Test A		Test B	
	N	Kg	N	Kg
4856ZN1	3000	306 (673 lbs)	600	61 (134 lbs)
4856ZN5			500	51 (112 lbs)
4860ZN1				
4860ZN5				
4866ZN1				
4866ZN5			600	61 (134 lbs)
9303VA2				
9344VA2				



4846ZN5 (P.463)

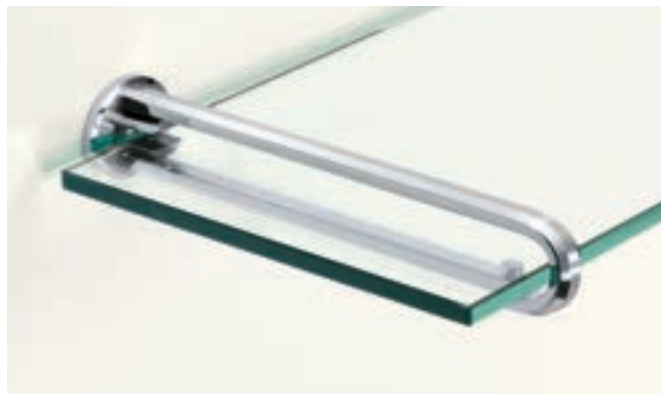
Zwei L Glass Shelf Support



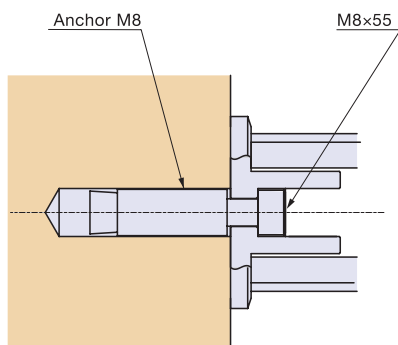
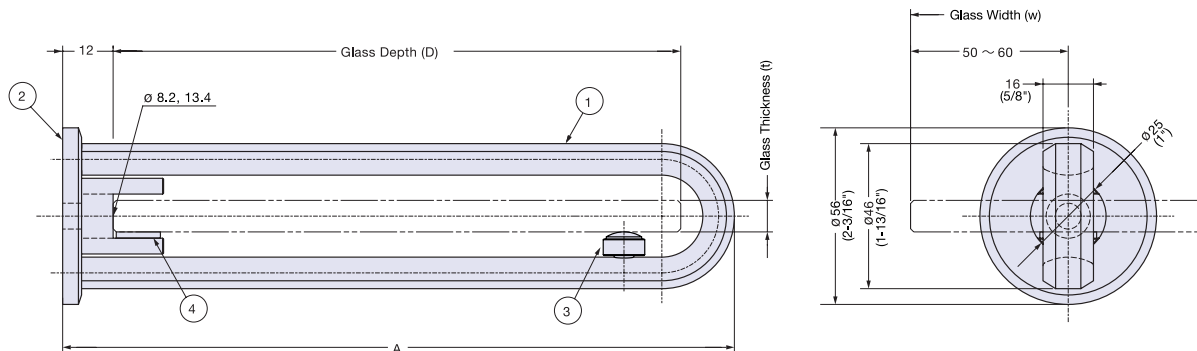
ZL-2201

SHELF & SUPPORT HARDWARE

Zwei L GLASS SHELF SUPPORTS



- Sold per each. Glass not included.
- Supplied with stainless steel Hex Socket Cap Screw (M8 x 55), concrete anchor (for M8, ϕ 14 mm hole) and 8 mm allen key
- Tempered glass recommended.



Item No.	A	Glass Dimensions (Per 2 Clamps)			Weight (g)	Box (pcs)
		t	D	W		
ZL-2201-120	150 (5-29/32")	8 or 10 (5/16" or 25/64")	120	Max. 640 (25-3/16")	293	2
ZL-2201-180	210 (8-17/64")		180	Max. 800 (31-1/2")	403	
ZL-2201-240	270 (10-5/8")		240	Max. 960 (37-13/16")	438	

No.	Part Name	Material	Finish/Color
①	Shelf Holder	316 Stainless Steel	Zwei L
②	Base Plate		
③	Level Adjuster	316 Stainless Steel/Polyurethane	Zwei L/Clear
④	Bumper	Synthetic Rubber	Black

Zwei L Glass Shelf Support



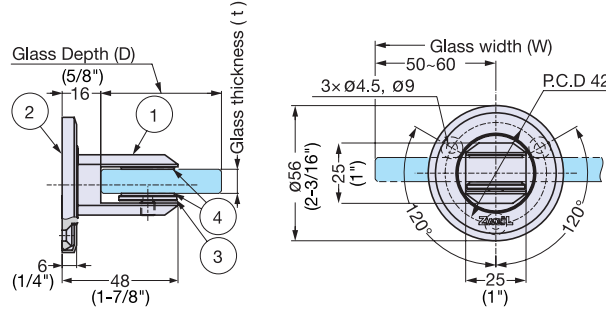
ZL-2202

SHELF & SUPPORT HARDWARE

Zwei L GLASS SHELF SUPPORTS



- Sold per each. Glass not included.
- Supplied with stainless steel wood screw (4.1 x 32) and concrete anchor (for wood screw 4.1, ø6 mm hole)
- Tempered glass recommended.



Item No.	Glass Dimensions (Per 2 Clamps)			Weight (g)	Box (pcs)
	t	D	W		
ZL-2202	8 or 10 (5/16" or 25/64")	Max. 160 (6-19/64")	Max. 480 (18-7/8")	119	2

No.	Part Name	Material	Finish/Color
①	Shelf Holder	316 Stainless Steel	Zwei L
②	Base Plate		
③	Bumper Plate	Synthetic Rubber	Black
④	Bumper		

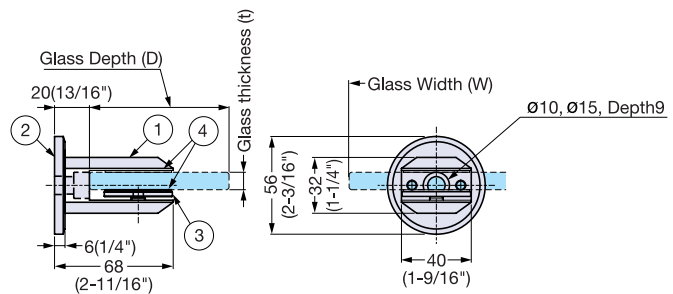
Zwei L Glass Shelf Clamp



ZL-2203



- Sold per each. Glass not included.
- Supplied with stainless steel Hex Socket Cap Screw (M8 x 55), concrete anchor (for M8, ø14 mm hole) and 8 mm allen key
- Tempered glass recommended.



Item No.	Glass Dimensions (Per 2 Clamps)		
	t	D	W
ZL-2203	8 or 10 (5/16" or 25/64")	Max. 240 (9-29/64")	Max. 640 (25-3/16")

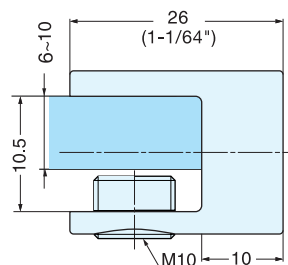
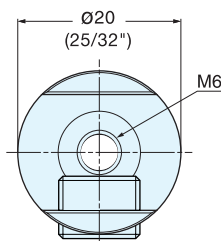
No.	Part Name	Material	Finish/Color
①	Shelf Holder	316 Stainless Steel	Zwei L
②	Base Plate		
③	Level Adjuster	Synthetic Rubber	Black
④	Bumper		



GLASS SHELF SUPPORT



2877ZN5



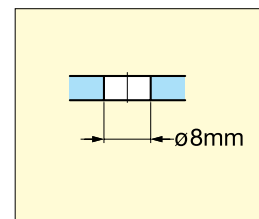
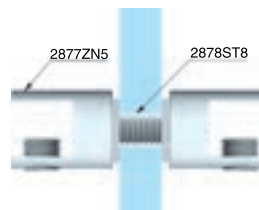
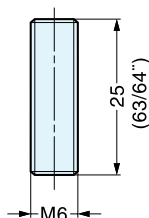
- Please specify mounting screw 2878ST8 or 2879VA1 when ordering sold separately, (see below).
- Tempered Glass Recommended.

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
2877ZN5	6~10	17	20	200	Zinc Alloy	Chrome



MOUNTING SCREW (FOR BACK-TO-BACK)

2878ST8



Cut Out Dimension

- Screw set for 2877ZN5 (sold separately).

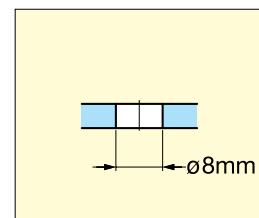
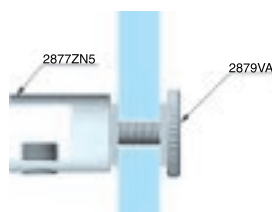
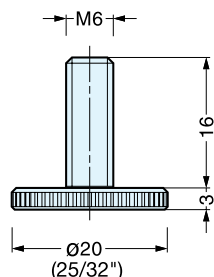
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
2878ST8	6~10	5	20	200	Steel	Clear Zinc Chromate



MOUNTING SCREW



2879VA1



Cut Out Dimension

- Screw set for 2877ZN5 (sold separately).

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
2879VA1	6~10	9	20	200	302 Stainless Steel	Polished



GLASS SHELF SUPPORT



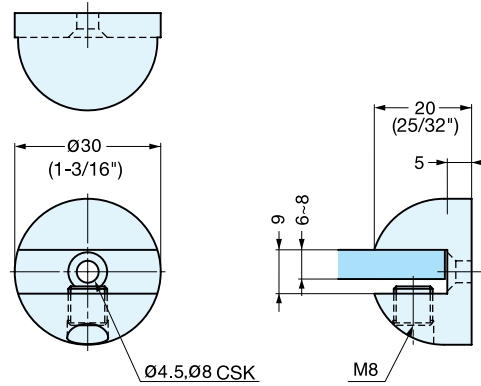
2876



MS15

MS7

- Load capacity (center of glass) 5 kg (11 lbs)/pair with shelf support distance max. 300 mm, glass depth max. 300 mm.
- Tempered Glass Recommended.



Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
2876MS 7	6~8	61	20	200	Brass	Chrome (MS7)
2876MS15						Polished Brass (MS15)



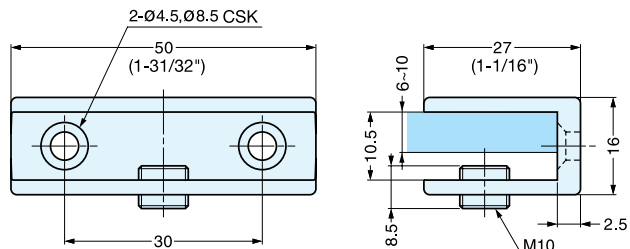
GLASS SHELF SUPPORT



2884



- Load capacity (center of glass) 5 kg (11 lbs)/pair with shelf support distance max. 300 mm, glass depth max. 300 mm.
- Tempered Glass Recommended.



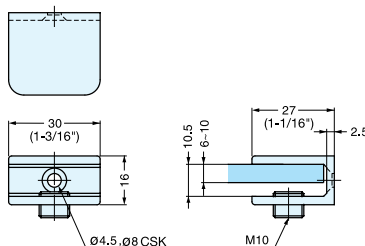
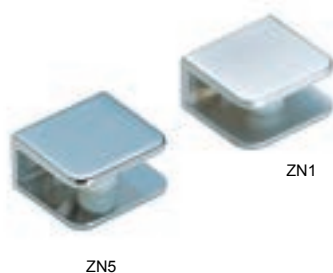
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
2884ZN5	6~10	49	20	200	Zinc Alloy	Chrome (ZN5)
2884VA2					304 Stainless Steel	Satin (VA2)



GLASS SHELF SUPPORT



2880



- Load capacity (center of glass) 5 kg (11 lbs)/pair with shelf support distance max. 300 mm, glass depth max. 300 mm.
- Tempered Glass Recommended.

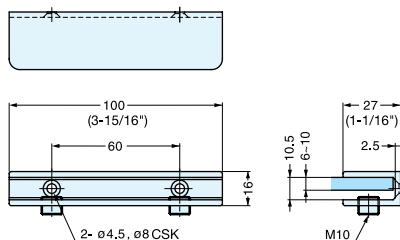
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
2880ZN1	6~10	34	20	200	Zinc Alloy	Matte Chrome (ZN1)
2880ZN5						Chrome (ZN5)
2880VA2					304 Stainless Steel	Satin (VA2)



GLASS SHELF SUPPORT



2881



- Load capacity (center of glass) 20 kg (44 lbs)/pair with shelf support distance max. 500 mm, glass depth max. 300 mm.
- Tempered Glass Recommended.

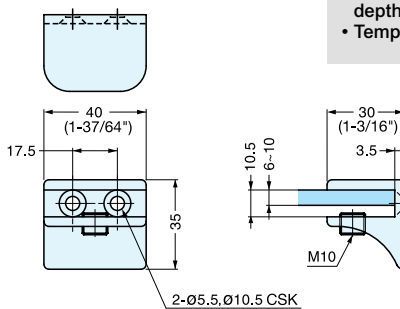
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
2881ZN1	6~10	118	20	200	Zinc Alloy	Matte Chrome (ZN1)
2881ZN5						Chrome (ZN5)



GLASS SHELF SUPPORT



2885



- Load capacity (center of glass) 25 kg (55 lbs)/pair with shelf support distance max. 500 mm, glass depth max. 300 mm.
- Tempered Glass Recommended.

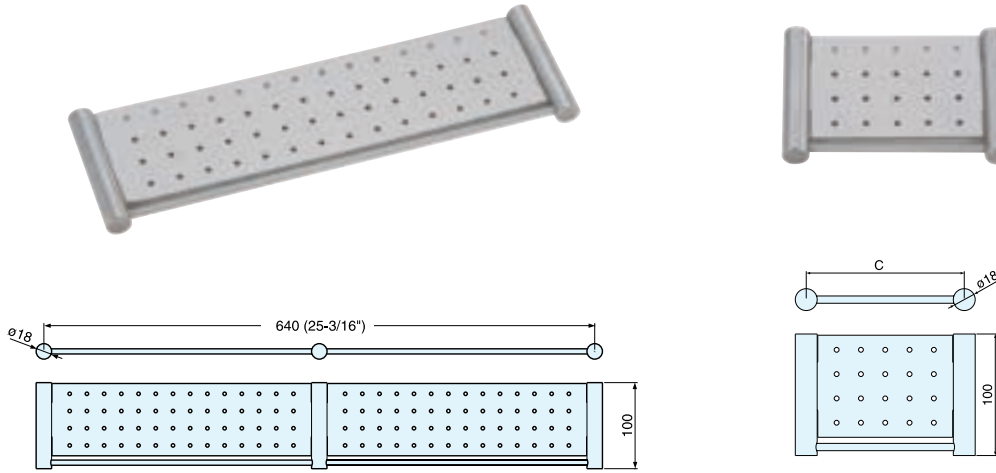
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
2885ZN1	6~10	83	20	200	Zinc Alloy	Matte Chrome (ZN1)
2885ZN5						Chrome (ZN5)
2885VA2					304 Stainless Steel	Satin (VA2)

SOAP HOLDER/SHELF



DSS-05

- Supplied with screws, brackets, plastic expansion anchors and allen key.
- Not designed for drywall installation.



Item No.	C	Weight (g)	Box (pcs)	Carton (pcs)
DSS-05/13	130 (5-1/8")	507	1	10
DSS-05/17	170 (6-11/16")	555		
DSS-05/32	320 (12-19/32")	731		
DSS-05/64	640 (25-3/16")	1270		

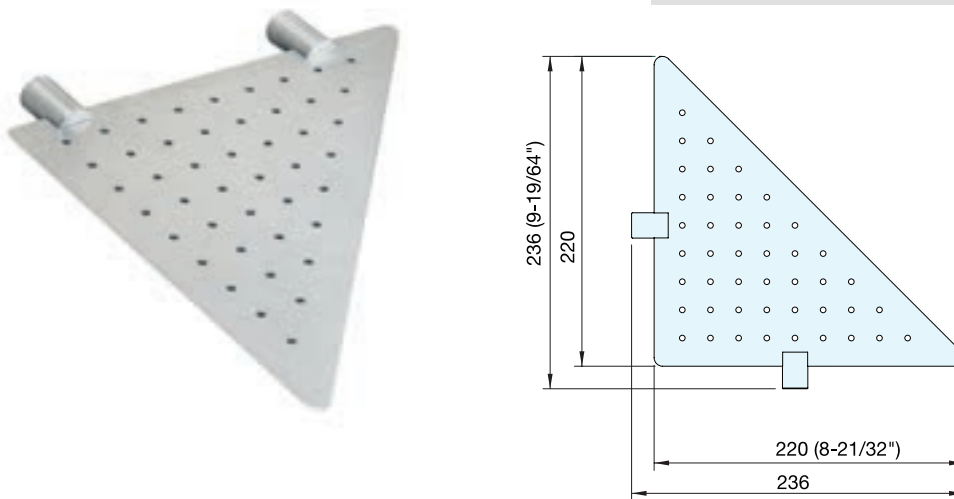
Material	Finish
303/304 Stainless Steel	Satin

SOAP HOLDER/SHELF (CORNER MOUNT)



DSC-05

- 2 posts included-posts can be attached anywhere along shelf edge.
- Supplied with screws, brackets, plastic expansion anchors and allen key.
- Not designed for drywall installation.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DSC-05	420	1	10

Material	Finish
304 Stainless Steel	Satin

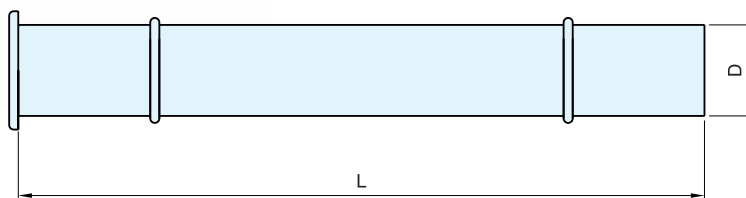
SHELF SUPPORT



DSP



- Supplied with screw and plastic expansion anchor.
- Sold per each.
- Glass not included.
- Not designed for drywall installation.



Shelf is not included.

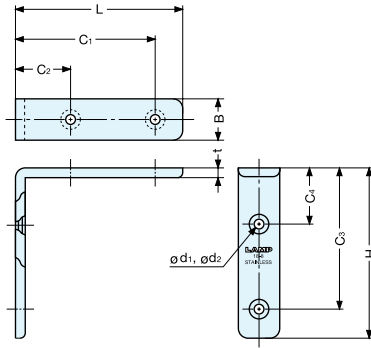
Material	Finish
303/304 Stainless Steel	Satin

Item No.	D	L	Weight (g)	Box (pcs)	Carton (pcs)
DSP-S/12	12 (15/32")	120 (4-45/64")	133	10	100
DSP-S/15	12 (15/32")	150 (5-57/64")	139		
DSP-S/20	12 (15/32")	200 (7-55/64")	184		
DSP-M/15	14 (35/64")	150 (5-57/64")	198		
DSP-M/20	14 (35/64")	200 (7-55/64")	255		
DSP-M/24	14 (35/64")	240 (9-7/16")	306		
DSP-M/30	14 (35/64")	300 (11-51/64")	380		
DSP-L/20	20 (25/32")	200 (7-55/64")	212		
DSP-L/25	20 (25/32")	250 (9-53/64")	238		
DSP-L/30	20 (25/32")	300 (11-51/64")	255		

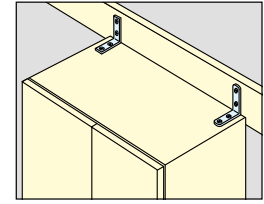
ANGLE BRACKET



SU



• Stainless steel bracket with soft and sleek design.



Installation

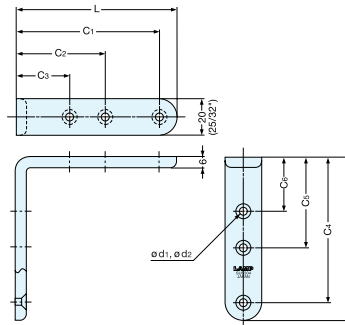
Material	Finish
304 Stainless Steel	Mirror (M), Satin (S)

Item No.	L	H	C ₁	C ₂	C ₃	C ₄	B	t	d ₁	d ₂	Holes	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw	
SU-30/M	SU-30/S	30 (1-7/32")	30 (1-7/32")	24	11	24	11	12 (15/32")	2.5	3.5	6.5	4	6 (13 lbs)	11	60	960	3.1 × 20
SU-45/M	SU-45/S	45 (1-13/16")	45 (1-13/16")	37	17	37	17	13 (33/64")	3.0	4.0	7.5	4	5 (11 lbs)	23	50	800	
SU-60/M	SU-60/S	60 (2-13/32")	60 (2-13/32")	50	20	50	20	15 (19/32")					4 (9 lbs)	36	40	640	

ANGLE BRACKET



SU-A



• Stainless steel angle bracket for applications where corrosion is an issue.

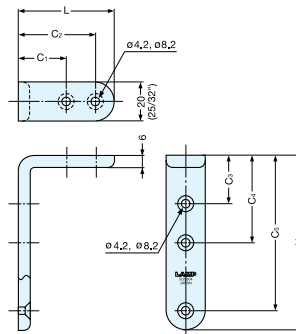
Material	Finish
304 Stainless Steel	Mirror

Item No.	L	H	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	d ₁	d ₂	Holes	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SU-A70/M	70 (2-3/4")	70 (2-3/4")	-	60	30	-	60	30	4.2	8.2	4	24 (52 lbs)	107	10	100
SU-A90/M	90 (3-35/64")	90 (3-35/64")	80	50		80	50					17 (37 lbs)	140		
SU-A120/M	120 (4-23/32")	120 (4-23/32")	110	60	30	110	60	30	4.2	8.2	6	13 (28 lbs)	194	8	80
SU-A150/M	150 (5-29/32")	150 (5-29/32")	140			140						60	10 (22 lbs)		

ANGLE BRACKET



SU-B



• Stainless steel angle bracket for applications where corrosion is an issue.

Material	Finish
304 Stainless Steel	Mirror

Item No.	L	H	C ₁	C ₂	C ₃	C ₄	C ₅	Holes	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SU-B50/M	50 (1-31/32")	90 (3-35/64")	25	40	25	45	80	5	13 (28 lbs)	106	10	100
SU-B65/M	65 (2-9/16")	120 (4-23/32")	30	55	30	60	110			145		
SU-B80/M	80 (3-5/32")	150 (5-29/32")		70			30	60	140	5	10 (22 lbs)	186

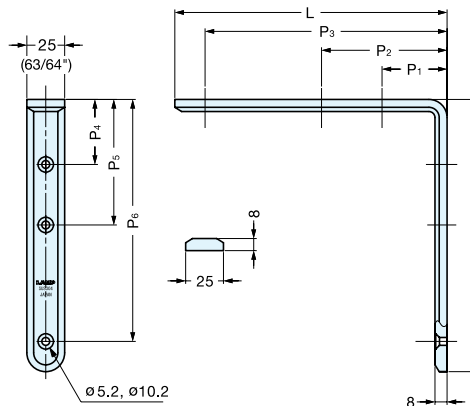
ANGLE BRACKET



XL-SA01



• Stainless steel bracket with soft and sleek design.



Material	Finish
304 Stainless Steel	Satin (S), Mirror (M)

Item No.		L	H	P ₁	P ₂	P ₃	P ₄	P ₅	P ₆	Holes	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
Satin	Mirror													
XL-SA01-120/S	XL-SA01-120/M	120 (4-23/62")	120 (4-23/62")	38	-	100	38	-	100	4	23 (50 lbs)	312	8	40
XL-SA01-150/S	XL-SA01-150/M	150 (5-29/32")	150 (5-29/32")	43	-	130	43	-	130	6	18 (39 lbs)	400	6	30
XL-SA01-180/S	XL-SA01-180/M	180 (7-5/64")	180 (7-5/64")		160	160		160						
XL-SA01-240/S	XL-SA01-240/M	240 (9-29/64")	240 (9-29/64")	83	83	220	83	83	220	6	12 (26 lbs)	660	4	20

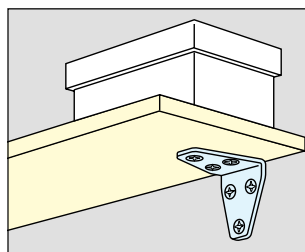
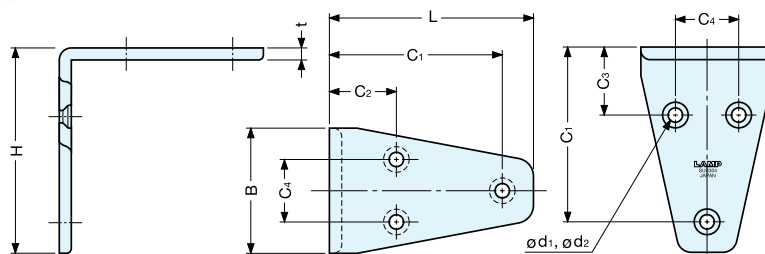
ANGLE BRACKET



SV



• Stainless steel angle bracket for applications where corrosion is an issue.



Installation

Material	Finish
304 Stainless Steel	Mirror (M), Satin (S)

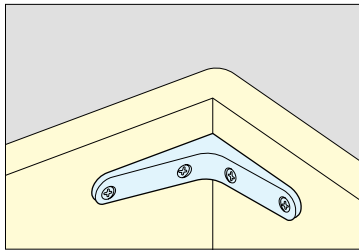
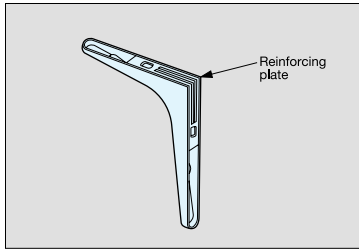
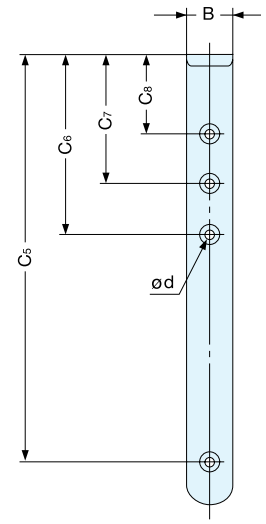
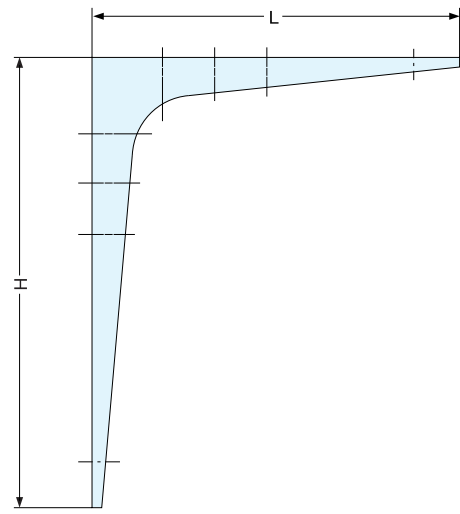
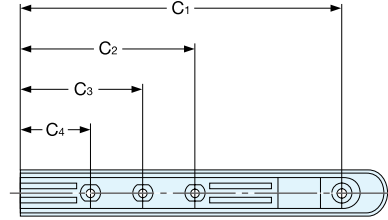
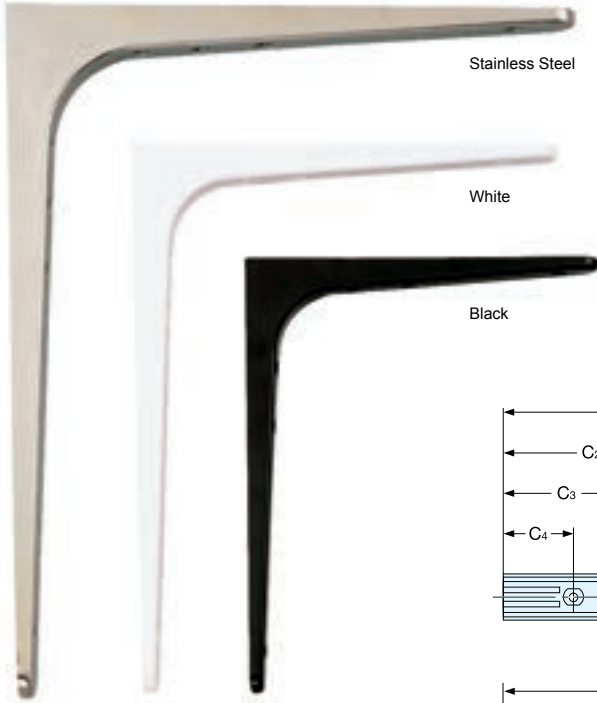
Item No.	SV	L	H	C ₁	C ₂	C ₃	C ₄	B	t	d ₁	d ₂	Holes	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Screw
SV-40/M	SV-40/S	40 (1-39/64")	40 (1-39/64")	34	17	17	-	25.0 (63/64")	3	3.3	6.5	4	8 (18 lbs)	29	40	640	3.1 × 20
SV-55/M	SV-55/S	55 (2-13/64")	55 (2-13/64")	47	18	18	17	36.5 (1-7/16")		3.8	7.5						
SV-80/M	SV-80/S	80 (3-5/32")	80 (3-5/32")	71	24	24	27	52.0 (2-3/64")	4	4.3	8.5	6	14 (31 lbs)	162	10	120	3.8 × 20

BRACKET

BT, BTK, BTW

SHELF & SUPPORT HARDWARE BRACKETS

• Stainless steel BT Series (satin finish) or steel BTW and BTK Series (white or black) available.



Installation

Item No.			L	H	B	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	C ₇	C ₈	d
Stainless	Steel													
BT-85	BTK-85	BTW-85	69.0 (2-23/32")	86.0 (3-25/64")	15 (19/32")	58.0	27.0	-	-	75.0	26.0	-	-	4.0
BT-120	BTK-120	BTW-120	100.0 (3-15/16")	120.0 (4-23/32")		85.0	43.0	-	-	106.0	42.0	-	-	
BT-180	BTK-180	BTW-180	148.5 (5-27/32")	180.5 (7-7/64")		131.0	71.0	50.0	-	162.5	72.5	51.5	-	
BT-240	BTK-240	BTW-240	199.0 (7-27/32")	240.0 (9-29/64")	18 (23/32")	176.0	91.0	59.0	-	217.0	92.0	60.0	-	
BT-300	BTK-300	BTW-300	238.5 (9-25/64")	301.0 (11-27/32")	20 (25/32")	206.5	92.5	60.5	-	269.0	95.0	63.0	-	
BT-380	BTK-380	BTW-380	318.0 (12-33/64")	378.0 (14-7/8")	23 (29/32")	285.0	145.0	75	345.0	145.0	110.0	75	5.0	
BT-480	BTK-480	BTW-480	400.0 (15-3/4")	480.0 (18-29/32")	30 (1-3/16")	360.0	180.0	135.0	90	440.0	180.0	135.0	90	5.5

Item No.			Holes	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
Stainless	Steel						
BT- 85	BTK- 85	BTW- 85	4	15.0 (33 lbs)	40	20	240
BT-120	BTK-120	BTW-120		20.0 (44 lbs)	60		100
BT-180	BTK-180	BTW-180		25.0 (55 lbs)	110		200
BT-240	BTK-240	BTW-240	6	28.0 (61 lbs)	200	10	100
BT-300	BTK-300	BTW-300		35.0 (77 lbs)	310		40
BT-380	BTK-380	BTW-380	8	65.0 (143 lbs)	470	6	60
BT-480	BTK-480	BTW-480		82.5 (181 lbs)	1100		

Material (BT)	Finish
304 Stainless Steel	Satin
Material (BTK/BTW)	Finish/Color
Steel	Black (BTK), White (BTW)

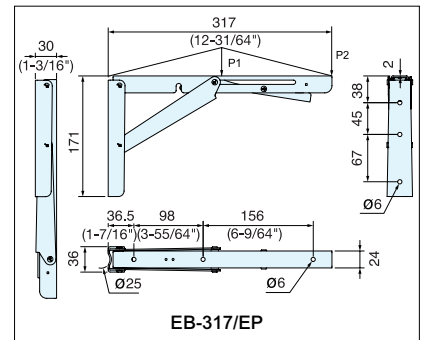
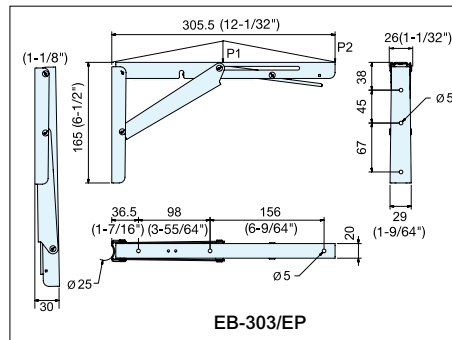
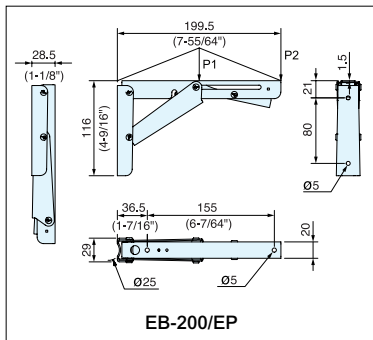
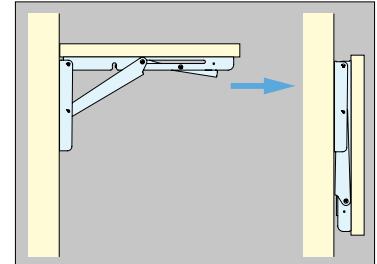
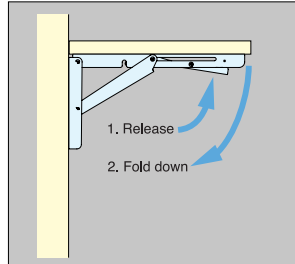
FOLDING BRACKET



EB



- Automatically locks when flap is in opened position.
- Press lever to release the lock.
- Bracket can be used without the need for hinges.
- Available in 3 different sizes.
- Damper unit EBD available for use with all EB series brackets (sold separately).



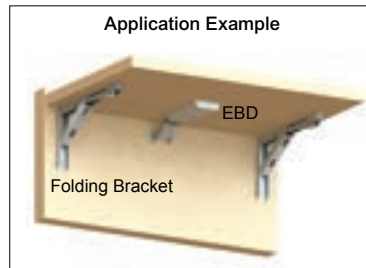
Item No.	Load Capacity P1 (kg)	Load Capacity P2 (kg)	Weight (g)	Carton (pcs)
EB-200/EP	175 (385 lbs)	90 (198 lbs)	330	20
EB-303/EP	150 (330 lbs)	75 (165 lbs)	515	20
EB-317/EP	200 (440 lbs)	100 (220 lbs)	750	20

Part Name	Material
Main Body	304 Stainless Steel
Plate Spring	
Rivet	

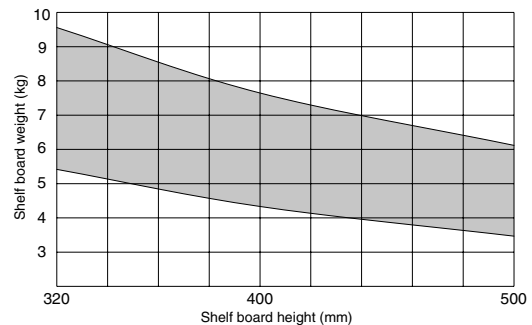
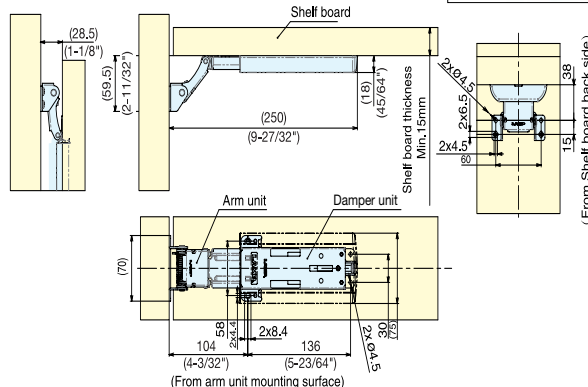
DAMPER FOR EB FOLDING BRACKET



EBD



- Designed to be used with folding brackets. (EB Series-sold separately)
- Lapcon technology provides soft-close movement downward.
- Easy surface-mount installation.
- Ideal for counter flaps at bars, restaurants and receptions.



Item No.	Torque (kg·cm)	Thickness (mm) Min. Panel	Weight (g)	Box (pcs)	Carton (pcs)
EBD	86.7-153.0 (75.3-132.8 lbs·in)	15	400	1	20

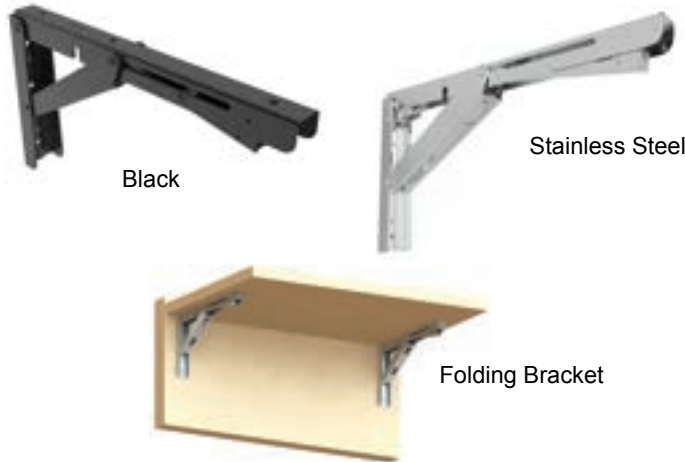
Material	Finish/Color
ABS/POM/Steel	Gray/Zinc/Chrome



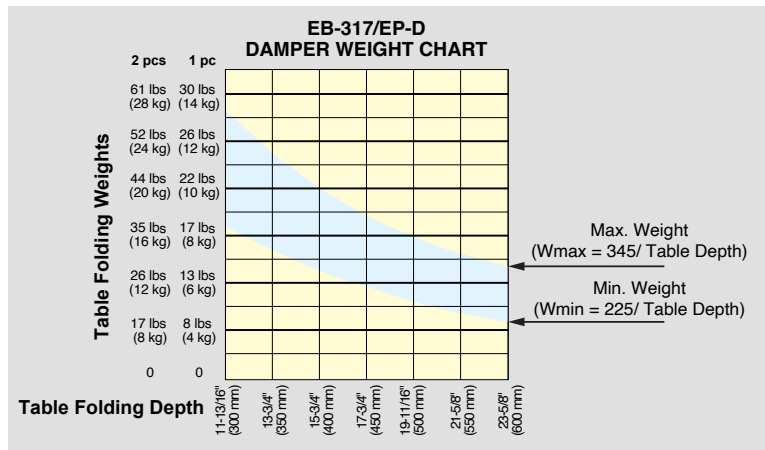
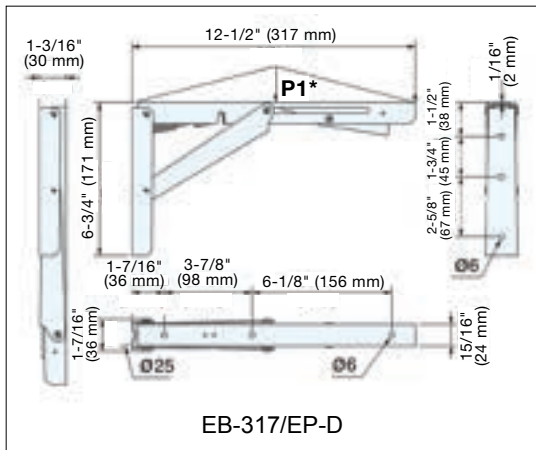
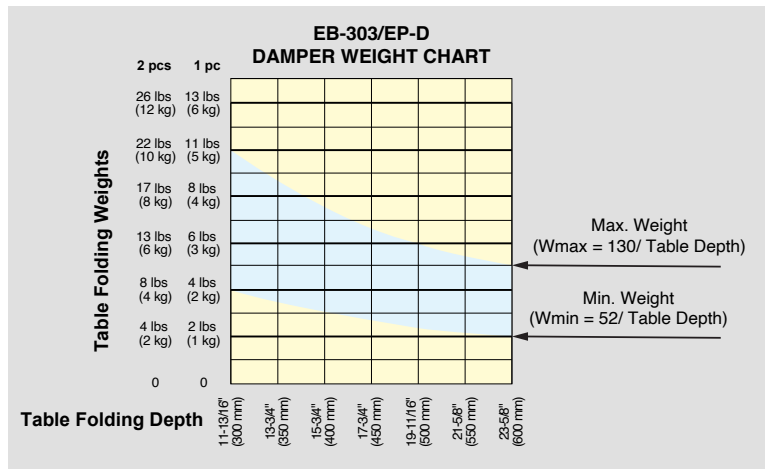
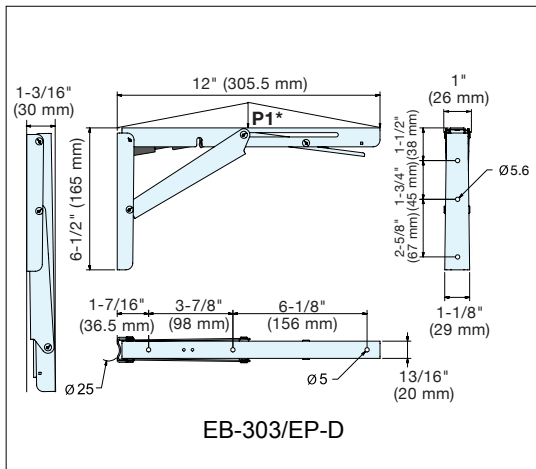
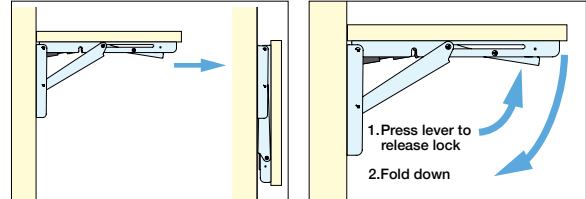
FOLDING BRACKET WITH SOFT-CLOSE



EB/EP-D



- Automatically locks when flap is in open position.
- Press lever to release the lock.
- Additional hinges not required.
- Damper unit with a soft-closing feature which makes bracket smoother and safer.
- Refer to DAMPER WEIGHT CHART below for appropriate table weight and depth when softly folding down the table.
- For panel thickness 9/16" ~ 1-3/8" (15 ~ 35 mm).
- Durability tested 50,000 cycles (private).



To find your Min./Max. table weight per single damper, please reference the formula shown next to the charts above and 18" depth examples below.

EB-303/EP-D
Maximum weight 7.2 lbs = 130/18 in.
Minimum weight 2.8 lbs = 52/18 in.

EB-317/EP-D
Maximum weight 19.1 lbs = 345/18 in.
Minimum weight 12.5 lbs = 225/18 in.

Item No.	Finish	Max Bracket Capacity (P1 Open Position)*	Max Capacity for Damper (Table Folding)	Weight (g)	Box (pcs)
EB-303/EP-D	Stainless	660 lbs/pair (300 kg)	22 lbs/pair (10 kg) at table depth 11-13/16"	515	20
EB-303/EP-BL-D	Black				
EB-317/EP-D	Stainless	880 lbs/pair (400 kg)	57 lbs/pair (26 kg) at table depth 11-13/16"	750	20
EB-317/EP-BL-D	Black				

Part Name	Material
Main Body	304 Stainless Steel
Plate Spring	
Rivet	

LEVER RELEASE for EB Folding Bracket

SHELF & SUPPORT HARDWARE

LEVER RELEASE FOR EB SERIES FOLDING BRACKETS



Side Levers

Connecting Lever
For EB-2000-3 only

Safety Lock Screw

Spring

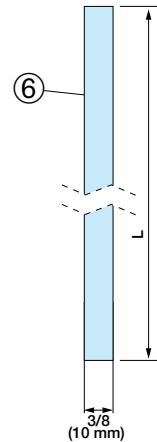
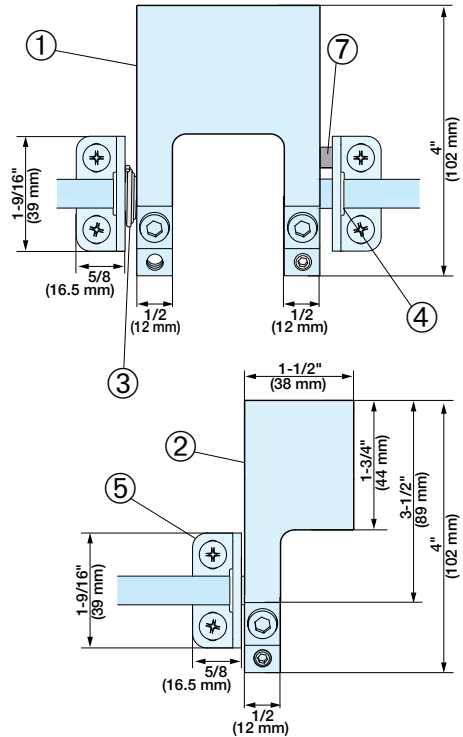
Holding Bracket

Connecting Rod



No.	Part Name	Material	Finish
1	Connecting Lever	Aluminum	Anodized Aluminum
2	Side Lever		
3	Spring	Stainless Steel	Plain
4	Washer	Plastic	-
5	Holding Bracket	Aluminum	Anodized Aluminum
6	Connecting Rod		
7	Safety Lock Screw	Stainless Steel	Plain

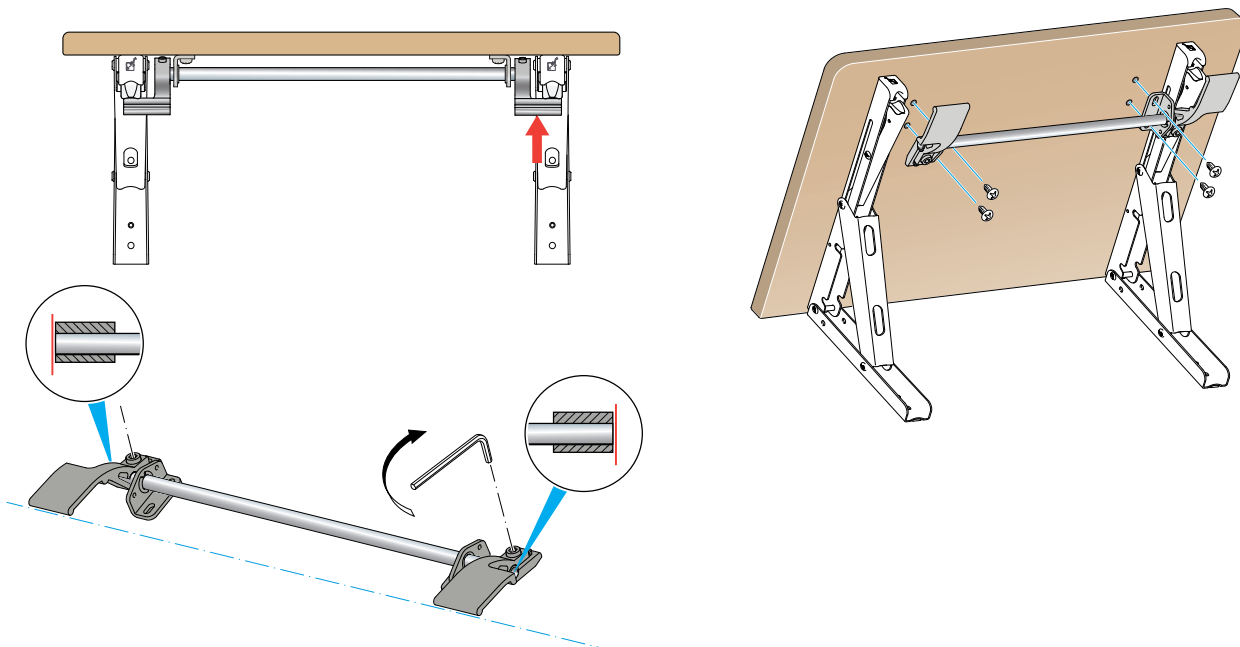
- Easy operation with a slide and push mechanism for locking and lever release.
- Lever can be used with either EB-303/EP, EB-303/EP-D, EB-200/EP or EB-317/EP.
- Use to unlock multiple brackets with one-hand operation while maintaining bracket locking feature.
- Connecting bar can be cut to sizes.
- Available for two or three brackets configuration.
- Corrosive resistant aluminum material allows for outdoor use.
- Simple installation, easier support for wide shelves.
- Ideal solution to save space in confined areas.



LEVER RELEASE for EB Folding Bracket



EB-1000-2/1500-2

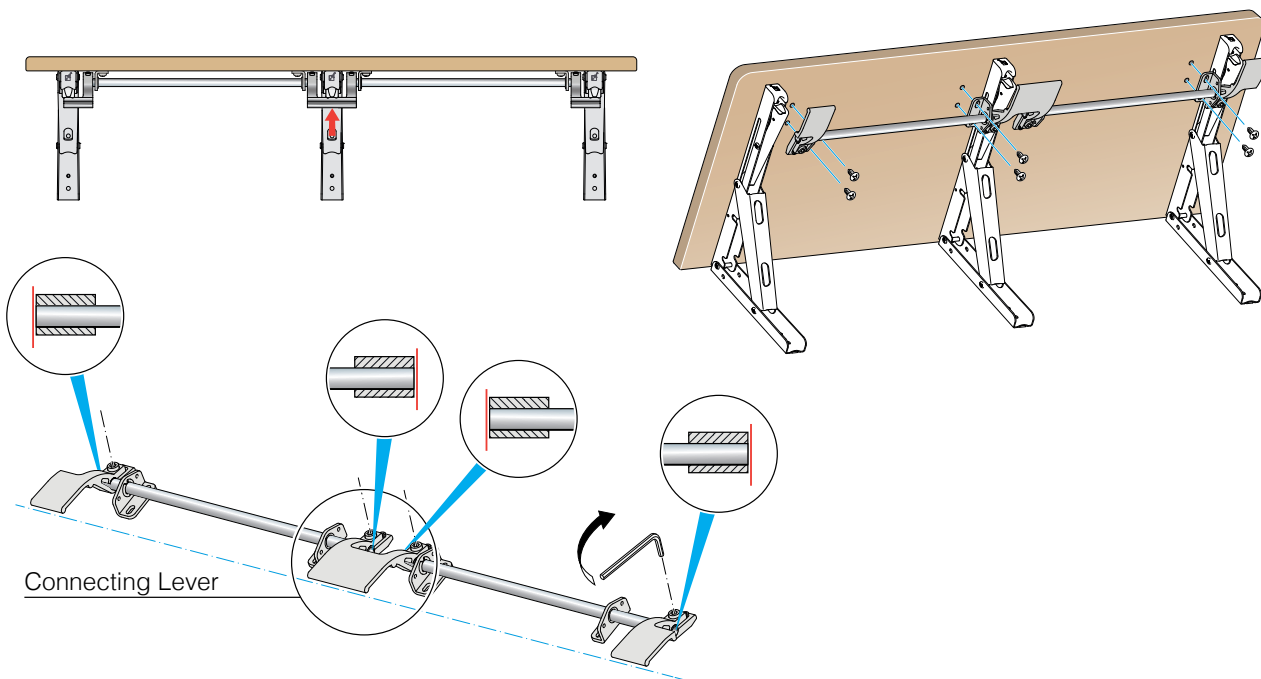


Item No.	Rod Qty	Rod Length (L)	Side Lever Qty	Safety Lock Qty	Holding Bracket Qty	Spring Qty
EB-1000-2	1	39-3/8" (1000 mm)	2	1	3	1
EB-1500-2	1	59-1/16" (1500 mm)	2	1	3	1

LEVER RELEASE for EB Folding Bracket



EB-2000-3

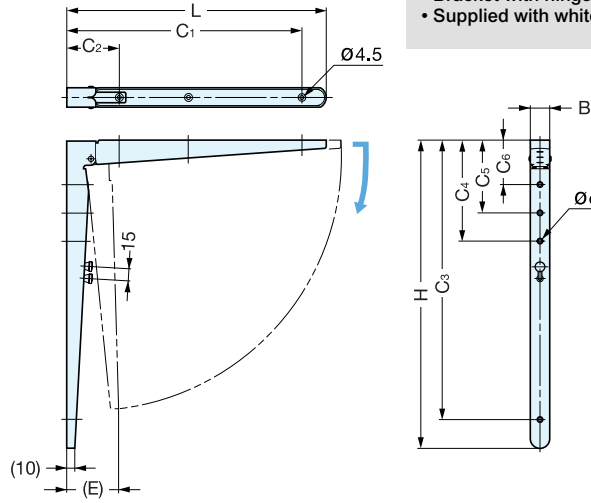


Item No.	Rod Qty	Rod Length (L)	Side Lever Qty	Connecting Lever Qty	Safety Lock Qty	Holding Bracket Qty	Spring Qty
EB-2000-3	2	39-3/8" (1000 mm) each	2	1	1	6	1

FOLDING BRACKET (W/STOPPER)



BTO



- Folding bracket with manual lock lever.
- Slide the lock lever to lock/unlock in open position.
- Bracket with hinge function in one unit.
- Supplied with white painted screws.

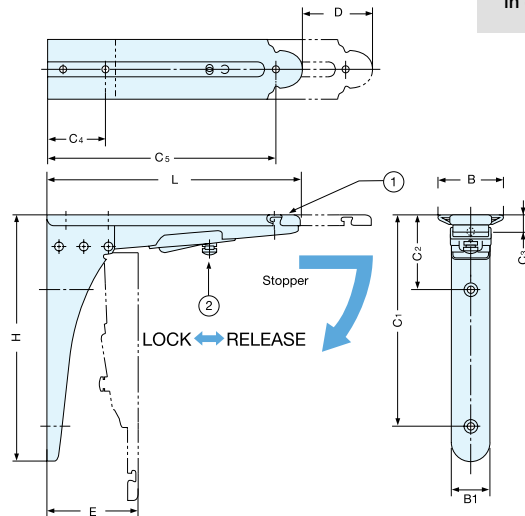
Item No.	L	H	B	(E)	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	d	t
BTO-300S BTO-300W	241 (9-31/64")	300 (11-13/16")	23 (29/32")	(57)	211	61	270	80	50	-	5	-

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	NO.	Part Name	Material	Finish/Color
BTO-300S BTO-300W	40.8 (89.9 lbs)/pc	510	10	40	①	Body	304 Stainless Steel (S)/Steel (W)	Satin (S)/White (W)
					②	Knob	Brass	Plain

FOLDING BRACKET (W/STOPPER)



BOS



- Folding bracket with locking bracket.
- Slide the locking bracket to lock/unlock in open position.

NO.	Part Name	Material	Finish/Color
①	Body	304 Stainless Steel	Satin
②	Knob	Brass	Nickel
	Cap	EPDM	Black

Item No.	L	H	B	B1	D	E	C ₁	C ₂	C ₃	C ₄	C ₅	Load Capacity (kg)/pc	Weight (g)	Box (pcs)	Carton (pcs)
BOS-180	181 (7-1/8")	181 (7-1/8")	45.5 (1-51/64")	26	50	65	155	56	11.5	42	162	40 (88 lbs)	476	1	20
BOS-240	240 (9-7/16")	250 (9-27/32")			64	81	220	70	15.0	80	215	33 (72 lbs)	770		

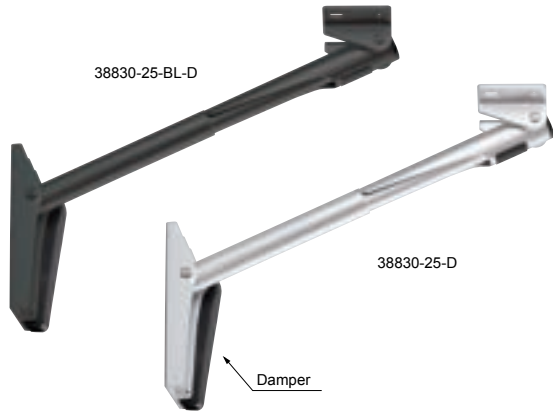
FOLDING BRACKET (W/ DAMPER)



388-D

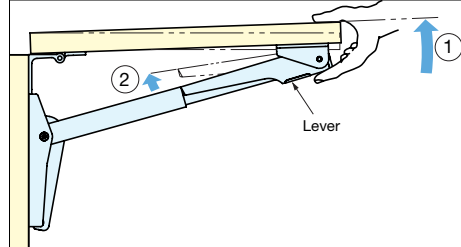
SHELF & SUPPORT HARDWARE

FOLDING BRACKETS (W/DAMPER)



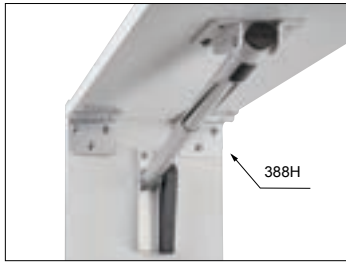
- Automatically locks when flap is in opened position.
- Press lever to release the lock.
- Damper unit with a soft-closing feature which makes it smoother and safer.
- 388H mounting hinge (sold separately) creates an easy installation.
- For panel thickness 9/16" ~ 1-3/8" (15 ~ 35 mm).
- Durability: 20,000 open/close cycles passed (private test).
- Refer to the DAMPER WEIGHT CHART below for appropriate shelf weight and depth when folding down the shelf.

How to Use

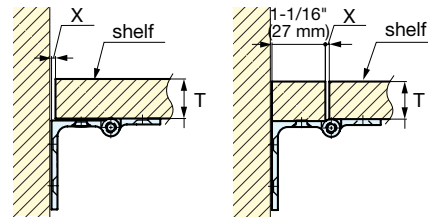


Do not lift up the shelf forcibly. It may result in breakage.

Recommended Hinge: 388H

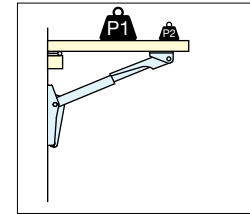


Installation with the 388H Hinges



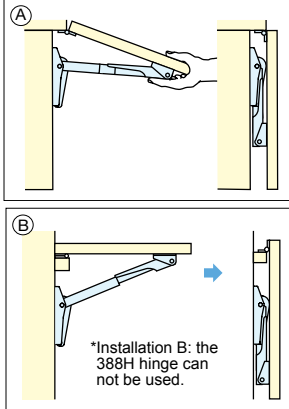
Thickness T and Clearance X	
T	X
< 13/16" (20 mm)	3/64" (1 mm)
13/16" ~ 1-9/16" (20 mm - 40 mm)	5/64" (2 mm)

Weight Distribution



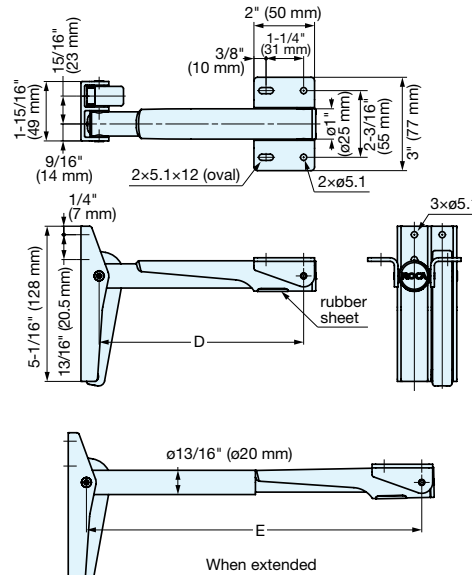
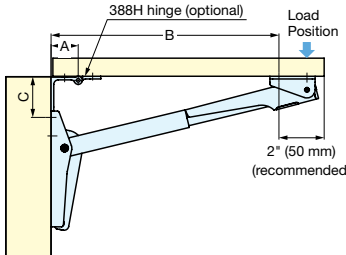
P1: Evenly Distributed Load
P2: Point Load

Installation Example

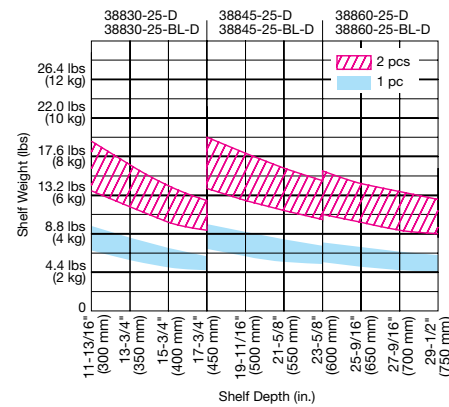


*Installation B: the 388H hinge can not be used.

Dimensions



Damper Weight Chart
Number of Brackets and Shelf Spec



*If 388-D (1pc) is used together with 388 (1pc), please refer to 1 pc of graph above.

Item No.	Finish	A	B	C	D	E	Max Bracket Capacity P1 Open Position	Max Bracket Capacity P2 Open Position (kg)	Weight (g)	Box (pcs)	Carton (pcs)
38830-25-D	Anodized	1" ~ 1-9/16"	9-15/16"	1-3/4"	6-5/8"	10-7/8"	209 lbs (95 kg)	121 lbs (55 kg)	341	5	40
38830-25-BL-D	Black	(25 mm ~ 39 mm)	(252 mm)	(45 mm)	(168 mm)	(275.9 mm)					
38845-25-D	Anodized	1" ~ 2"	15-13/16"	3-7/16"	10-3/16"	16-15/16"	264 lbs (120 kg)	132 lbs (60 kg)	411	5	30
38845-25-BL-D	Black	(25 mm ~ 50 mm)	(402 mm)	(87 mm)	(258.5 mm)	(430.8 mm)					
38860-25-D	Anodized	1" ~ 1-9/16"	21-5/8"	5-3/8"	14-1/2"	23-1/16"	308 lbs (140 kg)	176 lbs (80 kg)	491	5	25
38860-25-BL-D	Black	(25 mm ~ 40 mm)	(549 mm)	(137 mm)	(368.5 mm)	(585.8 mm)					

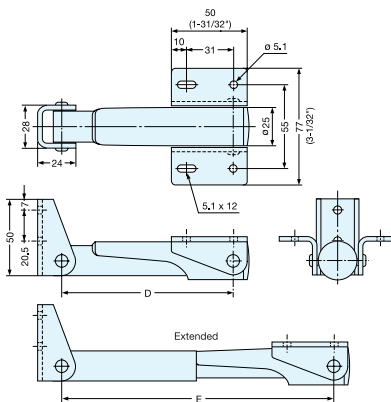
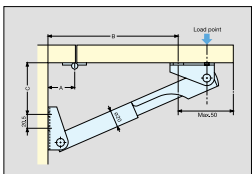
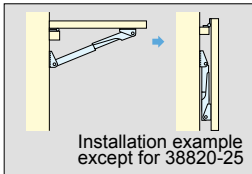
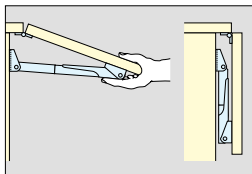
FOLDING BRACKET



388



- Automatically locks when flap is in opened position.
- Press lever to release the lock.
- For panel thickness 15~35 mm (19/32"~1-3/8")
- Required Quantity:
 - Width up to 600 mm (23-5/8")...1 pc
 - Width 600~1300 mm (23-5/8"~51-3/16")...2 pcs



Material	Finish/Color
Aluminum	Anodized
	Black (BLK)

Item No.	A	B	C	D	E	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
38820-25	25~30	161	15	114.0	180.0	35 (77 lbs)	149	5	50
38820-25/BLK									
38830-25	25~39	252	45	168.0	275.9	55 (121 lbs)	187		
38830-25/BLK									
38845-25	25~50	402	87	258.5	430.8	60 (132 lbs)	266		
38845-25/BLK								5	50
38860-25	25~40	549	137	368.5	585.8	80 (176 lbs)	342	5	30
38860-25/BLK								5	50

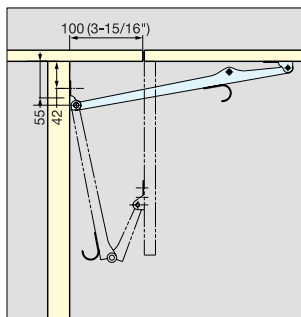
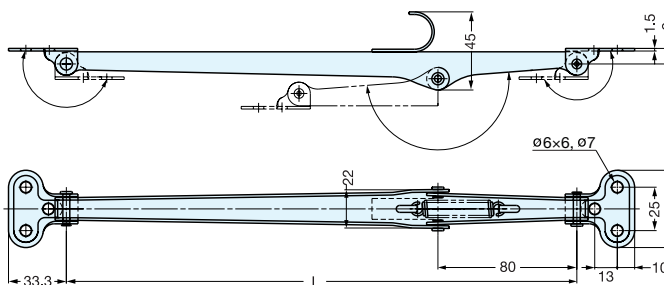
SPRING LOADED BRACKET



GTS-300



- Spring loaded for lift assist feature.
- Pull the knob to fold down.
- Max. depth of shelf is 450 mm (17-3/4")
- Max. width of shelf is 300 mm (11-13/16")



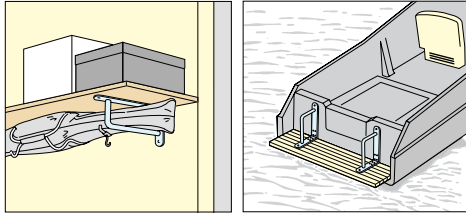
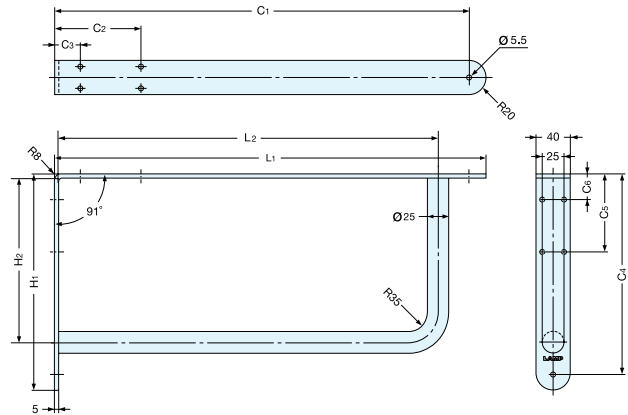
Material	Finish
304 Stainless Steel	Satin

Item No.	L	Load Capacity (kg)	Weight (g)	Box (pc)	Carton (pcs)
GTS-300	294 (11-37/64")	3 (6.6 lbs)/pc, 6 (13 lbs)/2pcs	190	12	96

BRACKET



BY



Installation

Material	Finish
304 Stainless Steel	Mirror

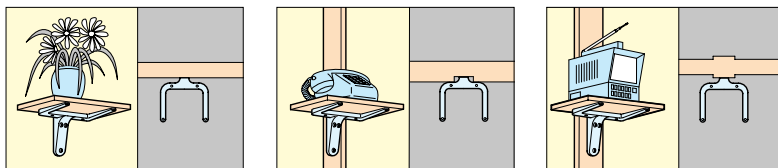
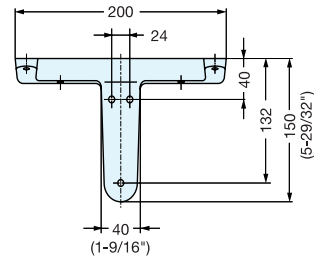
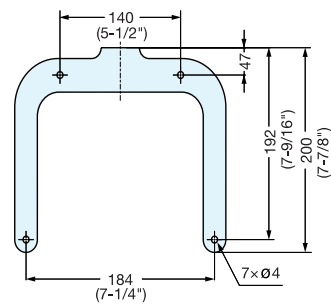
Item No.	L1	L2	H1	H2	C1	C2	C3	C4	C5	C6	Holes	Screw
BY-300	300 (11-13/16")	240	150 (5-29/32")	90	280	100	30	130	-	30	8	5 × 25, 5 × 16
BY-400	400 (15-3/4")	340	200 (7-7/8")	140	380	120		180	90		10	
BY-500	500 (19-11/16")	440	250 (9-27/32")	190	480	160		230				

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
BY-300	50 (110 lbs)/pc	1100	2	6
BY-400		1400		
BY-500		1800		

FORK BRACKET



BU-200



Sample Installation

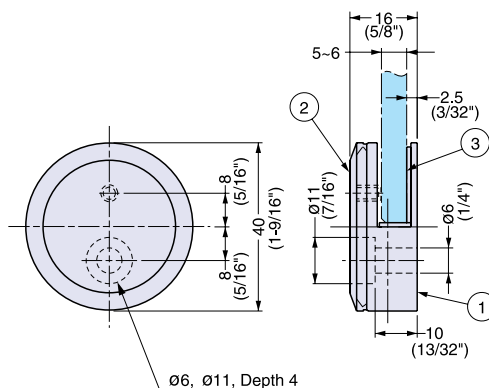
Material	Finish
Aluminum	Ivory/Black

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
BU200-I	30 (66 lbs)	280	10	100
BU200-B				

Zwei L Mirror Support



ZL-3102-40



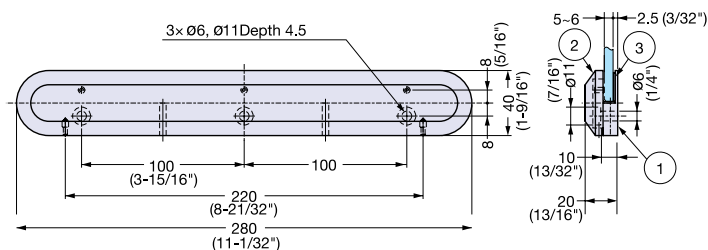
Item No.	Mirror Thickness (mm)	Box (pcs)
ZL-3102-40	5-6 (3/16"~15/64")	4

No.	Part Name	Material	Finish/Color
①	Body	316 Stainless Steel	Zwei L
②	Cover		
③	Bumper	Synthetic Rubber	Black

Zwei L Mirror Support



ZL-3101-200



Item No.	Mirror Thickness (mm)	Box (pcs)
ZL-3101-200	5-6 (3/16"~15/64")	2

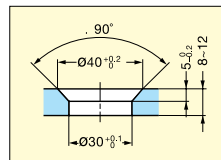
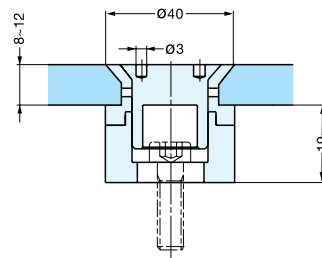
No.	Part Name	Material	Finish/Color
①	Body	316 Stainless Steel	Zwei L
②	Cover		
③	Bumper	Synthetic Rubber	Black



GLASS STANDOFF



7000VA



Cut Out Dimension

- Flush mount type glass standoff.
- Recommended Screw Size: M8 bolt
- Longer base 80~180 mm (3-5/32"~7-3/32") available as special order.
- Recommended for use with tempered glass.



Z058
* Special wrench Z058 required for installation. (Sold Separately)

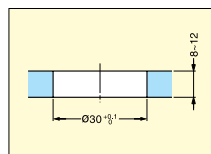
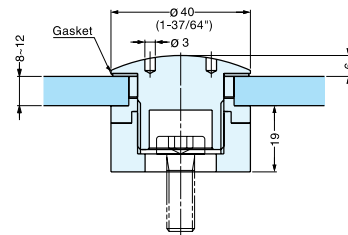
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
7000VA	8~12	167	4	40	302 Stainless Steel/Aluminum	Satin



GLASS STANDOFF



7005VA



Cut Out Dimension

- Glass standoff with round face plate.
- Recommended Screw Size: M8 bolt
- Longer base 80~180 mm (3-5/32"~7-3/32") as special order.
- Recommended for use with tempered glass.



Z058
* Special wrench Z058 required for installation. (Sold Separately)

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
7005VA	8~12	192	4	40	302 Stainless Steel/Aluminum	Satin



GLASS STANDOFF



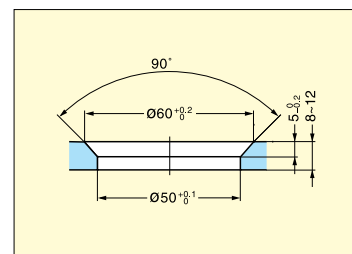
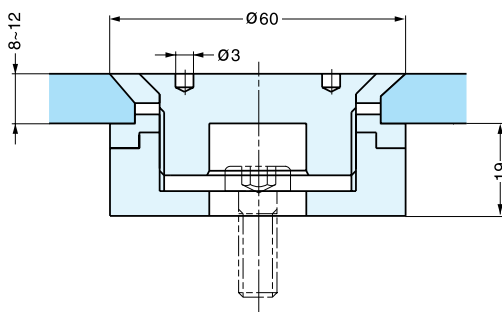
7010VA



- Flush mount type glass standoff.
- Recommended Screw Size: M8 bolt
- Recommended for use with tempered glass.



Z058
* Special wrench Z058 required for installation. (Sold Separately)



Cut Out Dimension

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
7010VA	8~12	435	4	40	302 Stainless Steel/Aluminum	Satin



GLASS STANDOFF



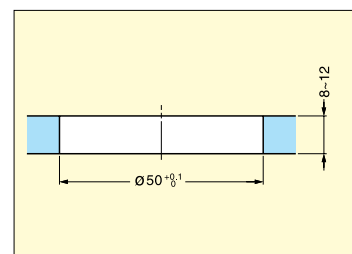
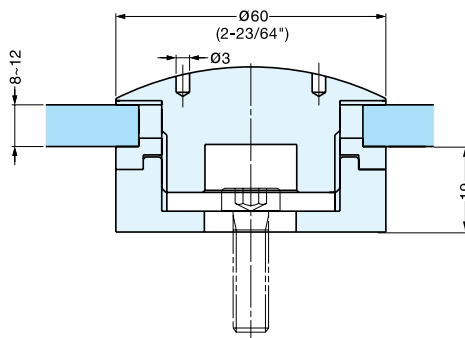
7015VA



- Glass standoff with round face plate.
- Recommended Screw Size: M8 bolt
- Recommended for use with tempered glass.



Z058
* Special wrench Z058 required for installation. (Sold Separately)



Cut Out Dimension

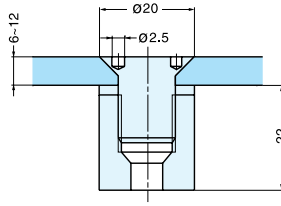
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
7015VA	8~12	520	4	40	302 Stainless Steel/Aluminum	Satin



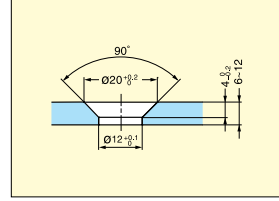
GLASS STANDOFF



7060EO



- Flush mount type glass standoff.
- Recommended Screw Size: M5 bolt
- Recommended for use with tempered glass.



Cut Out Dimension



Z059
* Special wrench Z059 required for installation. (Sold Separately)

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
7060EO	6~12	23	10	100

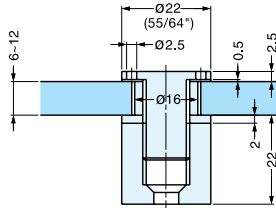
Material	Finish
Aluminum	Anodized



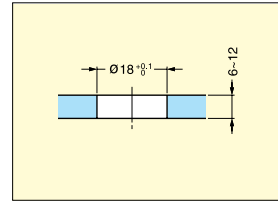
GLASS STANDOFF



7061VA



- Glass standoff with flat face plate.
- Recommended Screw Size: M5 bolt
- Recommended for use with tempered glass.



Cut Out Dimension



Z059
* Special wrench Z059 required for installation. (Sold Separately)

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
7061VA	6~12	69	10	100

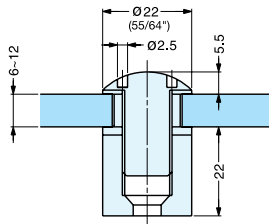
Material	Finish
304 Stainless Steel	Satin



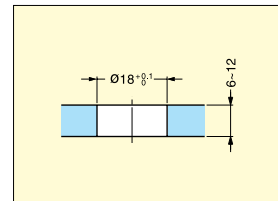
GLASS STANDOFF



7062VA



- Glass standoff with round face plate.
- Recommended Screw Size: M5 bolt
- Recommended for use with tempered glass.



Cut Out Dimension



Z059
* Special wrench Z059 required for installation. (Sold Separately)

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
7062VA	6~12	71	10	100

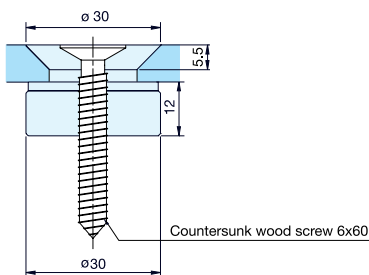
Material	Finish
304 Stainless Steel	Satin



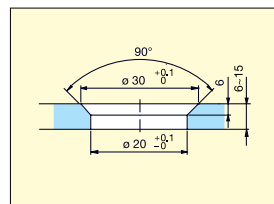
GLASS STANDOFF



7051EO



- Flush mount type glass standoff.
- Recommended for use with tempered glass.



Cut Out Dimension

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
7051EO	6~15	67	10	100

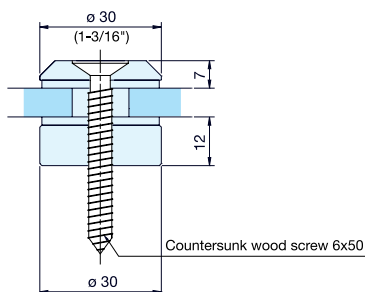
Material	Finish
304 Stainless Steel/Aluminum	Satin



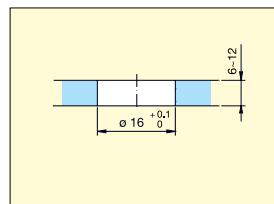
GLASS STANDOFF



7083VA



- Glass standoff with round face plate.
- Recommended for use with tempered glass.



Cut Out Dimension

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
7083VA	6~12	84	10	100

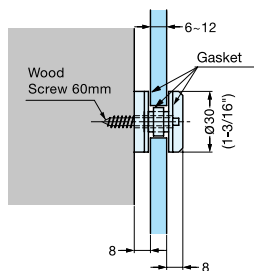
Material	Finish
304 Stainless Steel	Satin



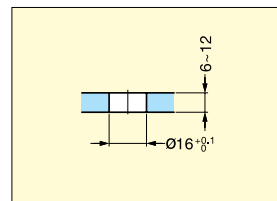
GLASS STANDOFF



4872



- Glass standoff with plain flat face plate.
- Supplied with 60 mm length wood screw.
- Recommended for use with tempered glass.



Cut Out Dimension



Z057
* Special wrench Z057 required for installation. (Sold Separately)

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
4872ZN1	6~12	80	10	100
4872ZN5				

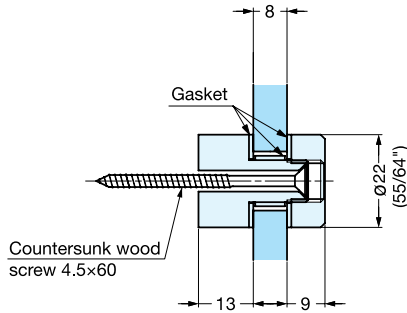
Material	Finish
Zinc Alloy	Matte Chrome
	Chrome



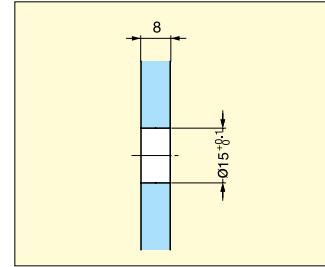
GLASS STANDOFF



7120VA



- Small stand off with cover cap.
- Supplied with flat head wood screw 4.5 x 60.
- Recommended for use with tempered glass.



Cut Out Dimension

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
7120VA	8	62	10	100

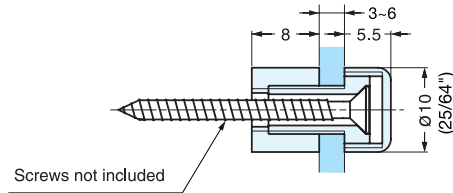
Material	Finish
304 Stainless Steel	Satin



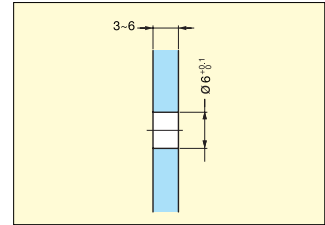
GLASS STANDOFF



7140E1EV1



- Mini stand off with cover cap.
- Screw not supplied.
- Recommended for use with tempered glass.
- Recommended screw size: M3



Cut Out Dimension

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
7140E1EV1	3-6	3	10	100

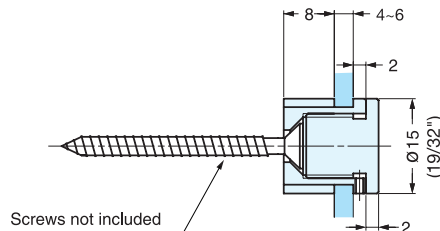
Material	Finish
Aluminum/Brass	Anodized/Nickel Plated



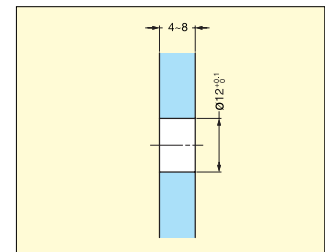
GLASS STANDOFF



7144E1EV1



- Small stand off with cover cap.
- Screw not supplied.
- Recommended for use with tempered glass.
- Recommended screw size: M4



Cut Out Dimension

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
7144E1EV1	4-8	5	10	100

Material	Finish
Aluminum	Anodized

Stainless Steel Shelf Supports

SPH-1820
(HEAVY DUTY)

NSF COMPONENT, RoHS, STAINLESS 304 STEEL, Page 488~489



SPH-20
286lbs/4pcs



SPH-5
286lbs/4pcs



SPH-15
286lbs/4pcs



SP-18E

SPHL-1820
(HEAVY DUTY)

NSF COMPONENT, RoHS, STAINLESS 304 STEEL, Page 495



SPHL-25
330lbs/4pcs



SPHL-30
330lbs/4pcs

SPN-1820
(NARROW PROFILE)

RoHS, Page 496



SPN-15
176lbs/4pcs



SPN-17EC

SP-1820
(HEAVY DUTY)

NSF COMPONENT, RoHS, STAINLESS 304 STEEL, Page 490~492



SPB-15R 220lbs/4pcs



SPB-20 99lbs/4pcs



SPF-20 176lbs/4pcs



SPF-20A



SPF-20LC



SPB-35 11lbs/pc



SPB-200 22lbs/per pair

SM-1820
(COVERED SLOT)

NSF COMPONENT, RoHS, STAINLESS 304 STEEL, Page 493



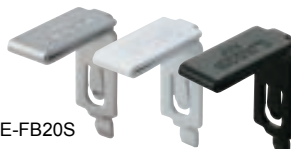
SMB-15R
198lbs/4pcs



SPM-20B
132lbs/4pcs

SPE-1820
(THIN PROFILE)

RoHS, STAINLESS 304 STEEL, Page 494



SPE-FB20S
176lbs/4pcs



SPE-FC20

SPW-1820
(COVER-STRIP)

STAINLESS 430 STEEL, RoHS, Page 497



SPW-20
176lbs/4pcs



SPW-EC20

Aluminium Shelf Supports

AP-DM, AP-DH

ALUMINIUM, Page 498~499



AP-FB20
99lbs/4pcs



AP-FC20

AP-EC20

FSL-Series
(Adjustable Mount)

STAINLESS 430 STEEL, RoHS, Page 499.1-499.2



FSL-V36



FSL-MB



FSL-S4

FSL-L

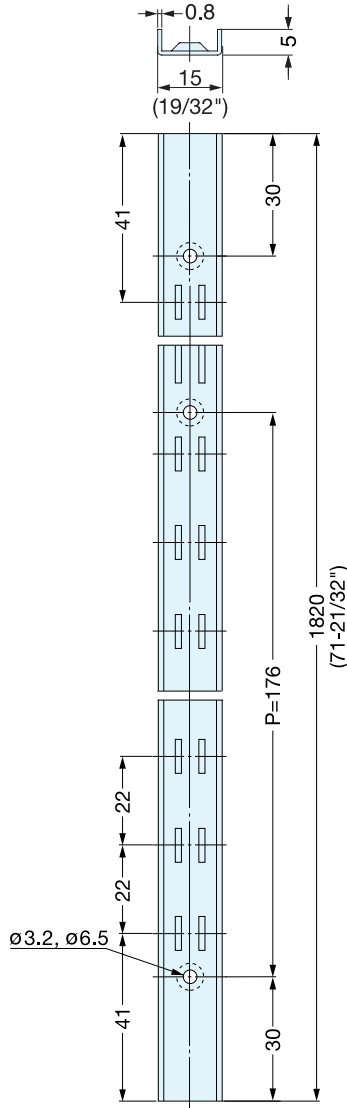
SHELF STANDARD



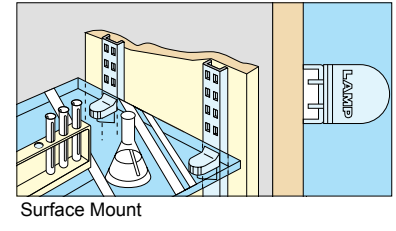
SPH-1820

SHELF & SUPPORT HARDWARE

SHELF STANDARDS / SHELF SUPPORTS



- Easy height adjustment for changing shelf level.
- Shelf support options:
SPH-5, SPH-15, SPH-20 (Shelf Supports) SP-18E (End Cap)

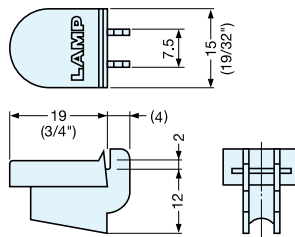


Item No.	Weight (g)	Box (pcs)	Material	Finish
SPH-1820	230	80	304 Stainless Steel	Satin

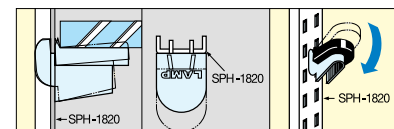
SHELF SUPPORT



SPH-20



- Shelf support for SPH-1820.
- Rubber pad provides a gripped surface to reduce slippage.



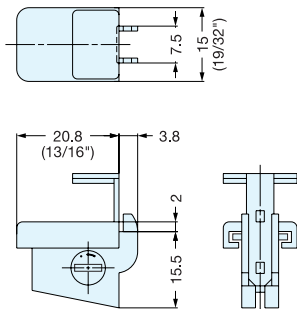
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPH-20	130 (286 lbs)/4 pcs	4.5	300	3000

Material	Finish/Color
304 Stainless Steel	Satin
Synthetic Rubber Pad	Black

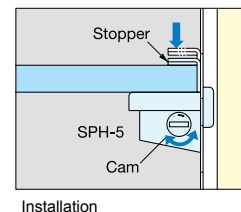
SHELF SUPPORT (W/HOLDER)



SPH-5



- Shelf support for SPH-1820.
- Shelf support is friction retention.
- Glass thickness: 4-8 mm (5/32"-5/16") thickness
- Rubber pad provides a gripped surface to reduce slippage.



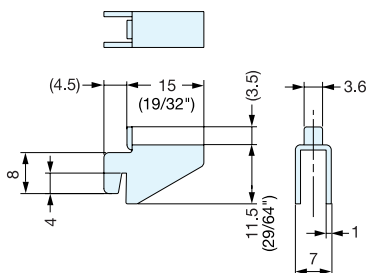
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPH-5	130 (286 lbs)/4 pcs	8	100	1000

Material	Finish/Color
304 Stainless Steel	Satin
Synthetic Rubber pad	Black

SHELF SUPPORT



SPH-15



- Shelf support for SPH-1820.

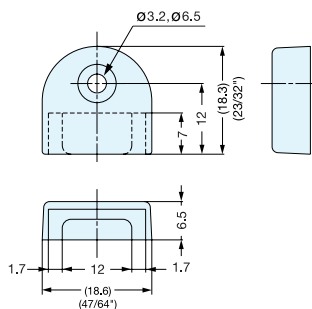
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPH-15	130 (286 lbs)/4 pcs	2.6	400	4000

Material	Finish
304 Stainless Steel	Satin

END CAP



SP-18E



- End cover cap for SPH, SM, SP, SPW shelf standards.

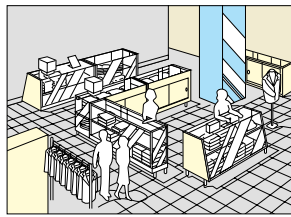
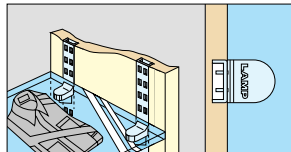
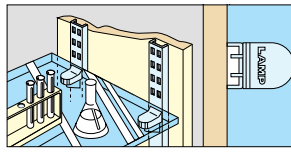
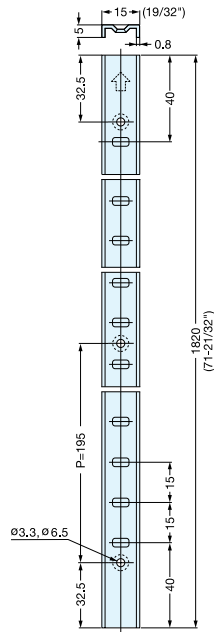
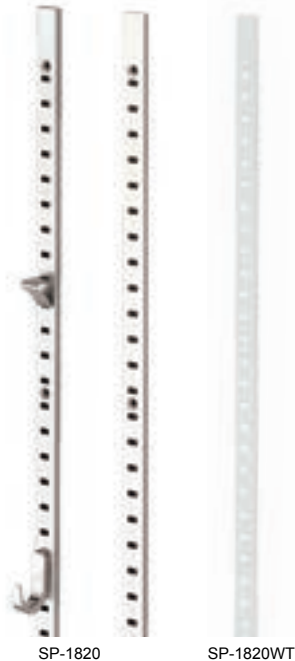
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SP-18E/BLK	1.3	500	5000
SP-18E/WHT			

Material	Color
ABS	Black (BLK), White (WHT)

SHELF STANDARD



SP-1820



- Easy height adjustment for changing shelf level.
- Shelf support/accessory options: SPB-15R, SPB-20, SPF-20, SPF-20LC (shelf supports), SPF-20A (shelf holder), SPB-35 (hook), SP-18E, SPW-EC20 (end cap), SPB-200, 250 (bracket).

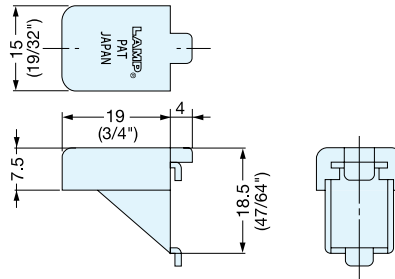
Item No.	Holes	Weight (g)	Box (pcs)
SP-1820	10	222	60
SP-1820WT			

Material	Finish/Color
304 Stainless Steel	Satin, White

SHELF SUPPORT



SPB-15R



- Shelf support for SP-1820.
- Rubber pad provides a gripped surface to reduce slippage.

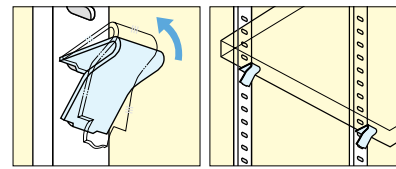
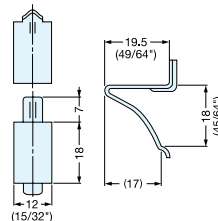
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPB-15R	100 (220 lbs)/4 pcs	6	300	3000

Material	Finish/Color
304 Stainless Steel	Satin
Elastomer	Black

SHELF SUPPORT



SPB-20



- Shelf support for SP-1820.

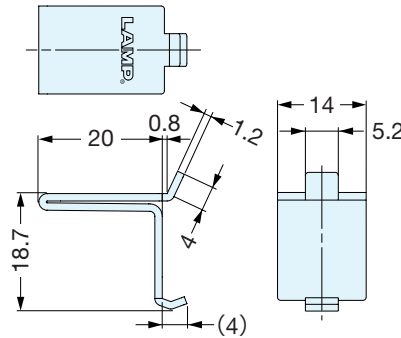
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPB-20	45 (99 lbs)/4 pcs	3.6	300	3000
SPB-20WT				

Material	Finish/Color
304 Stainless Steel	Satin, White

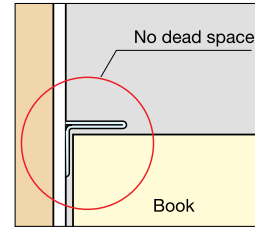
SHELF SUPPORT



SPF-20



- Shelf support for SP-1820.
- Designed to eliminate dead space.



Installation

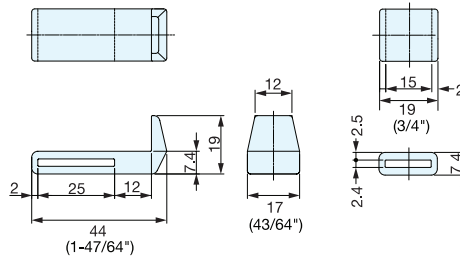
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPF-20	80 (176 lbs)/4 pcs	7	300	3000
SPF-20WT				

Material	Finish/Color
304 Stainless Steel	Satin, White

SHELF HOLDER

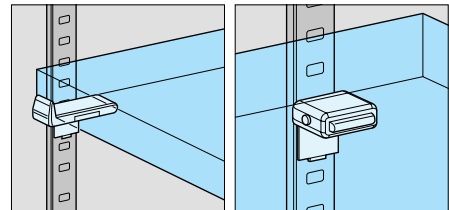


SPF-20A



- Plastic holder to keep the shelf in position.
- Used together with SPF-20. (sold separately)
- Distance from center of front shelf support to front shelf edge is 18~30 mm. (adjustable)
- One each of front and back holder sold as set.

Sample Installation



Front

Back

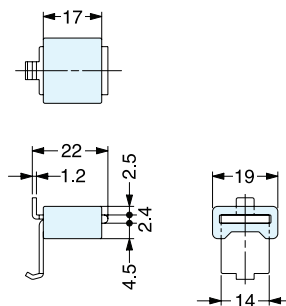
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SPF-20A	4	100	2500

Material	Color
Polyethylene	White

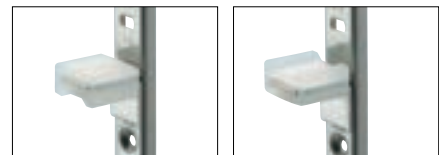
SHELF SUPPORT WITH LEVELING CAP



SPF-20LC



- Includes both shelf support (SPF-20) & leveling cap.
- Shelf level can be adjusted by flipping over the cap.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SPF-20LC	9.5	200	2000

Part Name	Material	Finish/Color
Cap	Silicone	Milky White
Body	304 Stainless Steel	Satin

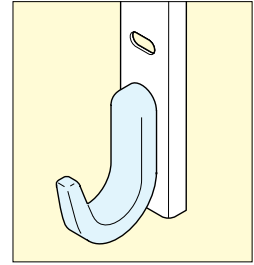
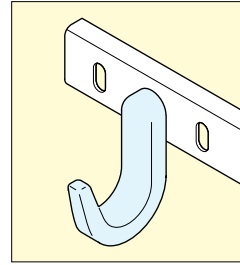
SHELF HOOK



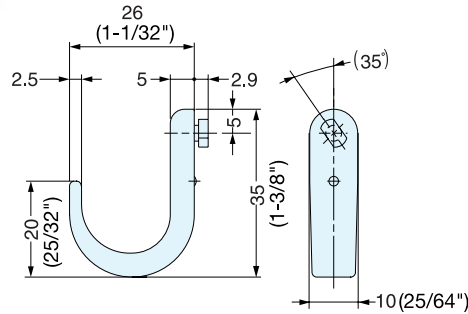
SPB-35



- Hook for SP-1820.
- Can be used with a vertical or horizontal standard.



Installation



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
SPB-35	5 (11 lbs)/pc	15.5	150	450	Zinc Alloy	Nickel

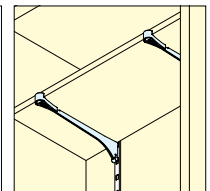
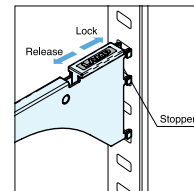
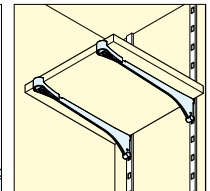
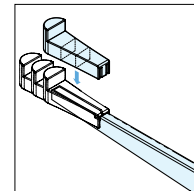
BRACKET



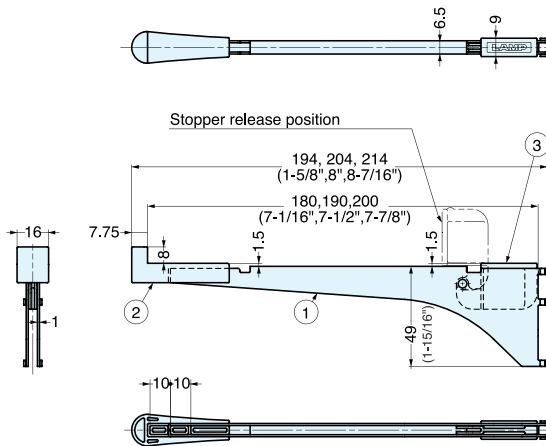
SPB-200



- For SP and SPS series shelf standards.
- Use 2 or 3 pcs for installing 1 shelf.
- With holder to simply fix shelf.
- Able to adjust depth in 3 different positions.
- With drop off prevention function.
- Can be used with a glass shelf.
- Maximum size of shelf board is With 900 x Depth 200.



Installation



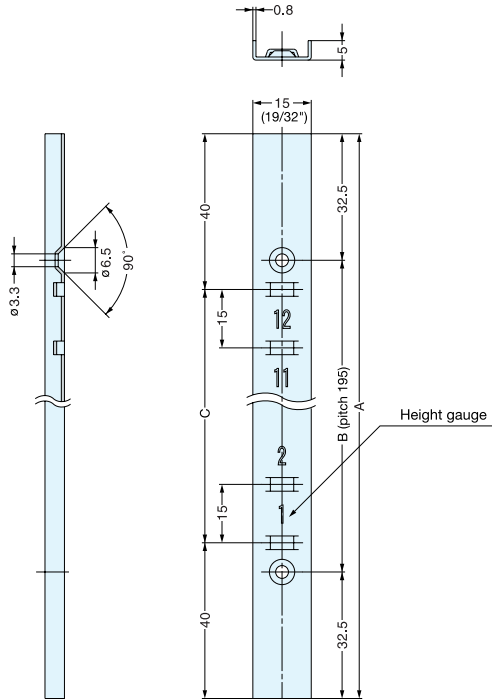
No.	Part Name	Material	Finish/Color
①	Main Body	304 Stainless Steel	Satin
②	Shelf Retainer Clip	Polypropylene	White
③	Base Hook		

Item No.	Load Capacity (kg)/2pcs	Load Capacity (kg)/3pcs	Weight (g)	Box (pcs)	Carton (pcs)
SPB-200	10 (22 lbs)	15 (33 lbs)	65	50	200

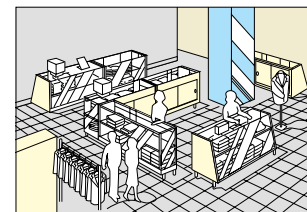
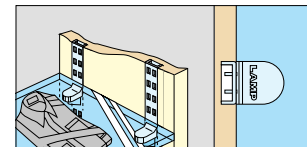
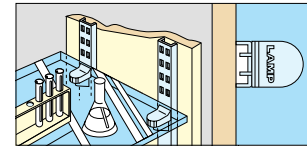
SHELF STANDARD



SM-1820



- Easy height adjustment for changing shelf level.
- Shelf support/Accessory options: SMB-15R, SPM-20B. (shelf support) SP-18E, SPW-EC20 (end cap)



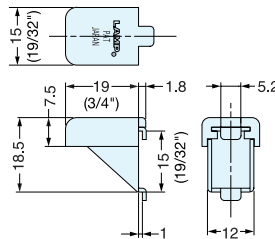
Item No.	A	B	C	Weight (g)	Box (pcs)
SM-1820	1820 (71-21/32")	1755	1740	245	60

Material	Finish
304 Stainless Steel	Satin

SHELF SUPPORT



SMB-15R



- Shelf support for SM-1820.
- Shelf support is friction retention type.

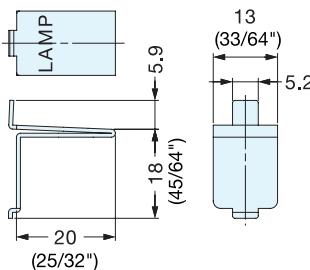
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SMB-15R	90 (198 lbs)/4 pcs	6	300	3000

Material	Finish/Color
304 Stainless Steel	Satin
Elastomer	Grey

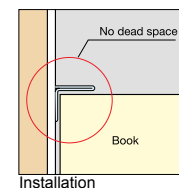
SHELF SUPPORT



SPM-20B



- Shelf support for SM-1820.
- Designed to eliminate dead space.



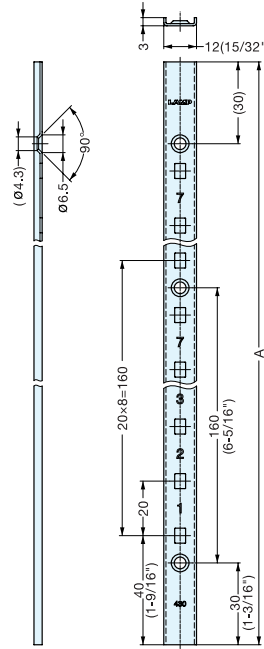
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPM-20B	60 (132 lbs)/4 pcs	5	300	3000

Material	Finish
304 Stainless Steel	Satin

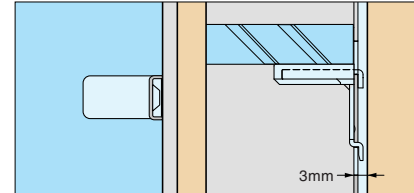
THIN SHELF STANDARD



SPE-1820



- 430 stainless steel shelf standard, available in Plain, White (WT) or Black (BL) finish.
- Use with SPE-FB20S shelf supports and AP-EC20 end caps (both sold separately)



Item No.	Length	Weight (g)	Box (pcs)
SPE-1820	1820 mm (71-5/8")	156	100
SPE-1820WT			
SPE-1820BL			

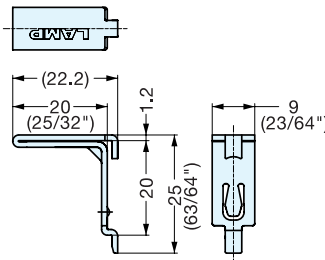
Material	Finish
430 Stainless Steel	Plain, White (WT), Black (BL)

SHELF SUPPORT / CAP



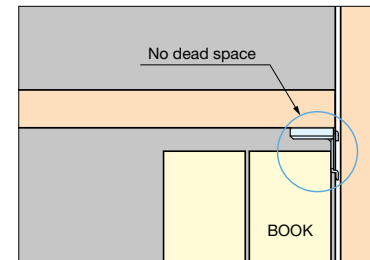
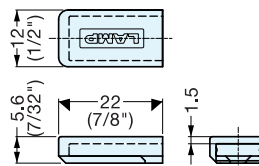
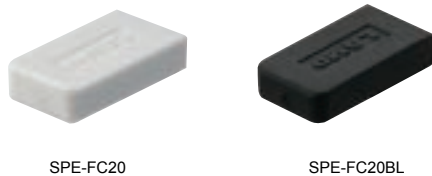
SPE-FB20S, SPE-FC20

■ SHELF SUPPORT



- SPE-FB20S available in Plain, White (WT) or Black (BL) finish.
- Use with SPE-1820 shelf standards and SPE-FC20 support caps (both sold separately).

■ CAP



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPE-FB20S	80 (176 lbs)/4 pcs	5	300	3000
SPE-FB20SWT				
SPE-FB20SBL				

• SHELF SUPPORT

Material	Finish
430 Stainless Steel	Plain, White (WT), Black (BL)

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
SPE-FC20	1	300	3000
SPE-FC20BL			

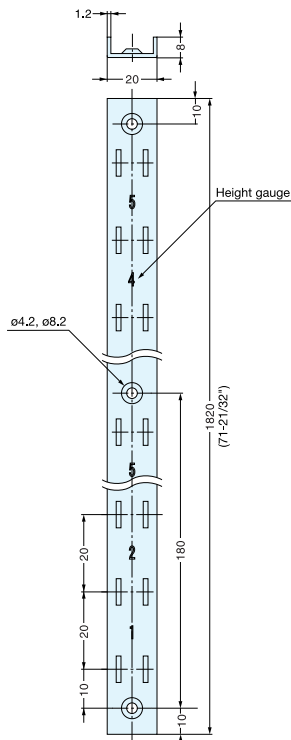
• CAP

Material	Finish
Elastomer (TPE)	Light Grey, Black (BL)

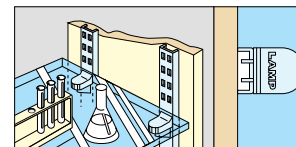
HEAVY DUTY SHELF STANDARD



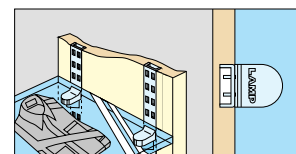
SPHL-1820



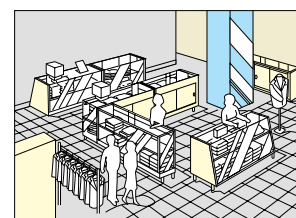
- Heavy duty shelf standard.
- Easy height adjustment for changing shelf level.
- Shelf support options: SPHL-25
SPHL-30



Surface Mount



Mortise Mount



Installation

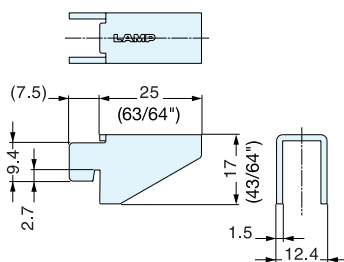
Item No.	Weight (g)	Box (pcs)
SPHL-1820	500	30

Material	Finish
304 Stainless Steel	Satin

SHELF SUPPORT



SPHL-25



- Shelf support for SPHL-1820.

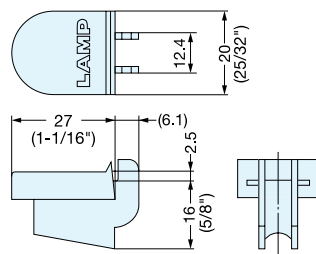
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPHL-25	150 (330 lbs)/4 pcs	11	200	1200

Material	Finish
304 Stainless Steel	Satin

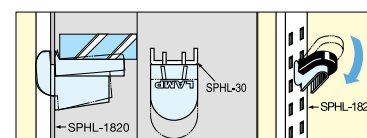
HEAVY DUTY SHELF SUPPORT



SPHL-30



- Shelf support for SPHL-1820.
- Rubber pad prevents glass shelf from sliding.
- Rubber pad provides a gripped surface to reduce slippage.



Installation

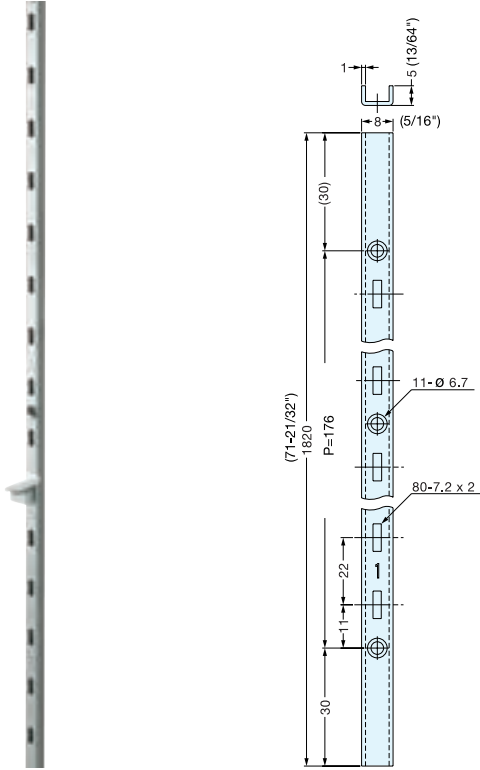
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPHL-30	150 (330 lbs)/4 pcs	12.3	100	1000

Material	Finish/Color
304 Stainless Steel	Satin
Elastomer	Black

NARROW SHELF STANDARD



SPN-1820



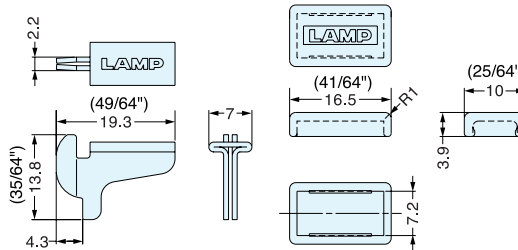
- Unique slim 8 x 5 profile.
- Easy to cut to desired length.
- Slim 8 mm profile.
- Shelf support options:
 - SPN-15 (Shelf Support), SPN-17EC (End Cap)

		Material	Finish	
		430 Stainless Steel	Satin	
Item No.	Length (mm)	Hole	Weight (g)	Box (pcs)
SPN-1820	1820 (71-21/32")	11	205	60

SHELF SUPPORT



SPN-15



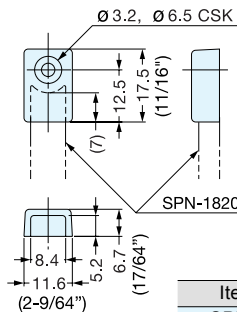
- Shelf support for SPN-1820.

Item No.	Material	Color	Weight (g)	Box (pcs)	Carton (pcs)	
SPN-15C	Elastamer	White	0.5	400	4000	
Item No.	Material	Finish	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPN-15	304 Stainless Steel	Plain	80 (176 lbs)/4 pcs	2	400	4000

END CAP



SPN-17



- End cap for SPN-1820.

Item No.	Material	Color	Weight (g)	Box (pcs)	Carton (pcs)
SPN-17EC	Polypropylene	White	0.9	400	4000

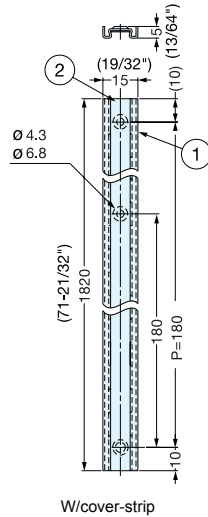
COVERED SHELF STANDARD



SPW-1820

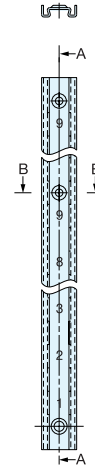


Standard Cover-strips

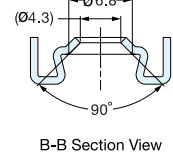


W/cover-strip

- Screw holes and slots are concealed when used with cover-strip (SPW-CV).
- Shelf supports and cover strips sold separately.
- End cap options: SP-18E, SPW-EC20.



W/O cover-strip A-A



B-B Section View

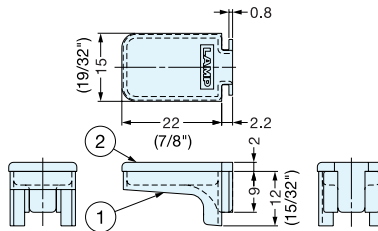
No.	Item No.	Material	Finish
①	SPW-1820	430 Stainless Steel	Satin
②	SPW-CV1820	PVC Plasic	White/Brown

Item No.	Part Name	Length (mm)	Finish	Hole	Weight (g)	Box (pcs)
SPW-1820	Shelf Standard	1820 (71-21/32")	Satin	11	335	60
Item No.	Part Name	Length (mm)	Color	Weight (g)	Box (pcs)	
SPW-CV1820-WT	Cover Strip	1820 (71-21/32")	White	8	20	
SPW-CV1820-BR			Brown			

SHELF SUPPORT



SPW-20



• Shelf support for SPW-1820.

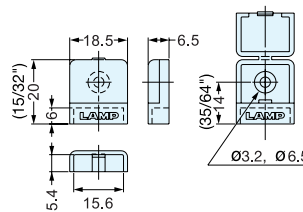
No.	Part Name	Material	Finish
①	Housing	304 Stainless Steel	Plain
②	Cover	Elastomer	White/Brown

Item No.	Color	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
SPW-20-WT	White	80 (176 lbs)/4pcs	4.5	200	2000
SPW-20-BR	Brown				

END CAP



SPW-EC20



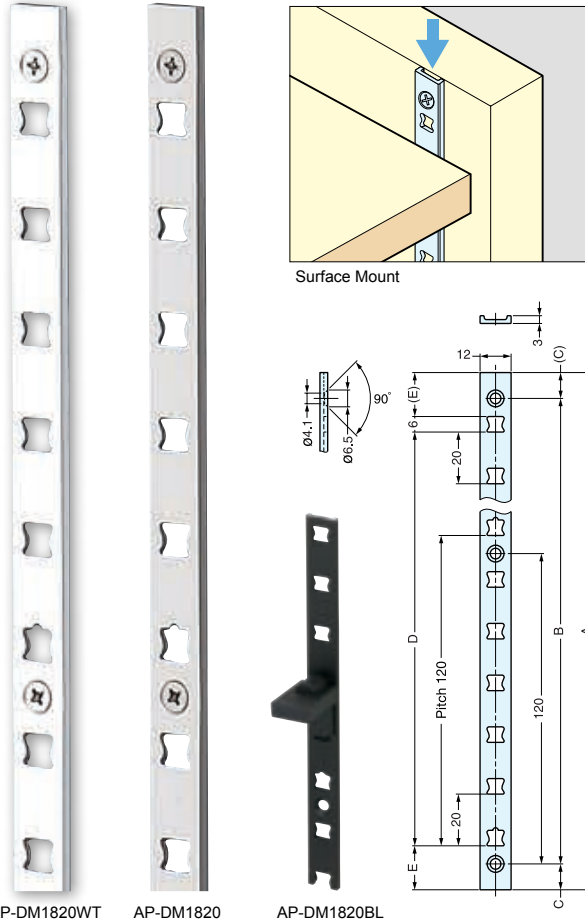
• End cap for SPW, SP, SM and SPH shelf standards.

Item No.	Material	Color	Weight (g)	Box (pcs)	Carton (pcs)
SPW-EC20-WT	Polypropylene	White	2	400	4000
SPW-EC20-BR		Brown			

SHELF STANDARD

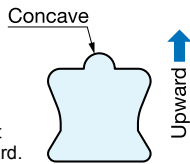


AP-DM, AP-DH



AP-DM1820WT AP-DM1820 AP-DM1820BL

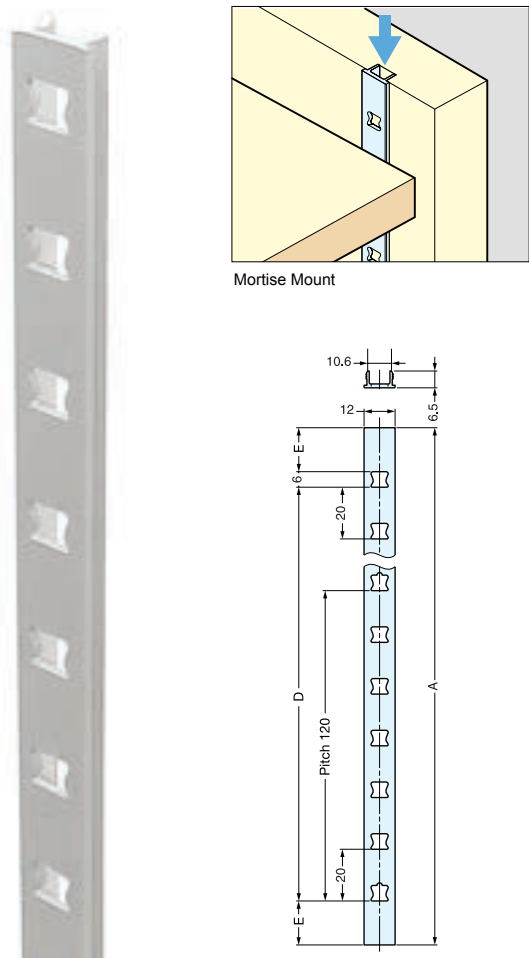
- Aluminum shelf standard.
- Easy to cut to desired length.
- Thin profile (3 mm, 1/8") suitable for surface mount.
- Screw hole located every 120 mm (4-23/32").
- New slot shape to prevent shelf support from falling off.
- Special screw with silver finish available. (AP-SC3-16)
- Screws and accessories sold separately.



* Install the standard with concave slot (located every 120 mm) pointing upward.

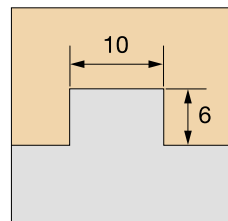
Item No.	Screw Type	Finish / Color	Material	Box (set)
AP-SC3-16	Flat-head wood 3 × 16	Yellow Zinc Chromate (Head-Silver)	Steel	1
AP-SC3-16WT		Yellow Zinc Chromate (Head-White)		
AP-SC3-16BL		Yellow Zinc Chromate (Head-Black)		
AP-SC3-30	Flat-head wood 3 × 30	Yellow Zinc Chromate (Head-Silver)		
AP-SC3-30WT		Yellow Zinc Chromate (Head-White)		
AP-SC3-30BL		Yellow Zinc Chromate (Head-Black)		

Item No.	Mounting Type	A	B	C	D	E	Weight (g)	Material	Finish	Box (pcs)				
AP-DM1820	Surface Mount	1820 (71-21/32")	1800	10	1780	17	113	Aluminum	Anodized	100				
AP-DM1820WT									White					
AP-DM1820BL									Black					
AP-DM2600	Mortise Mount	2600 (102-3/8")	2520	40	2500	47	161		Anodized	60				
AP-DH1820									-	-	1780	17	131	100
AP-DH2600									-	-	2500	47	187	60

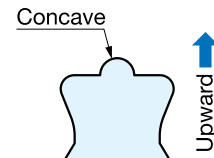


AP-DH1820

- Aluminum shelf standard.
- Easy to cut to desired length.
- Designed for press-fit mount without using screws.
- New slot shape to prevent shelf support from falling off.
- Screws and accessories sold separately.



Bore Dimension (In case of Plywood)
* Fit tightness may vary depending on the panel/wall material. Use adhesive if loose.

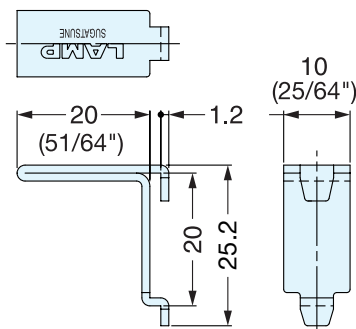


* Install the standard with concave slot (located every 120 mm) pointing upward.

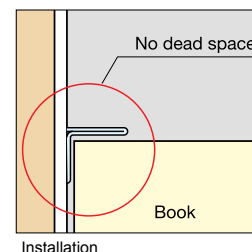
SHELF SUPPORT



AP-FB20



- Shelf support for AP-DM and AP-DH.
- Designed to eliminate dead space at bottom of bracket.



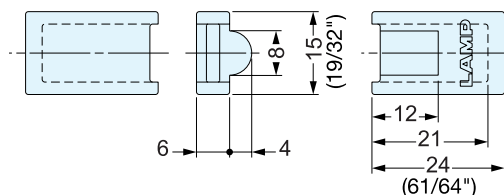
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
AP-FB20	45 (99 lbs) / 4 pcs	5	300	3000
AP-FB20-BL				

Material	Finish
430 Stainless Steel	Satin, Black

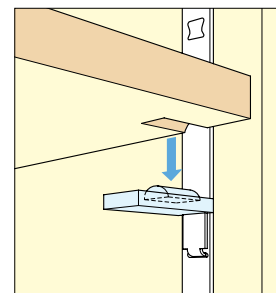
SHELF SUPPORT CAP



AP-FC20



- Rubber cap for shelf support AP-FB20.
- Insert the cap with half round shape facing up, and cutout the shelf to prevent from sliding.



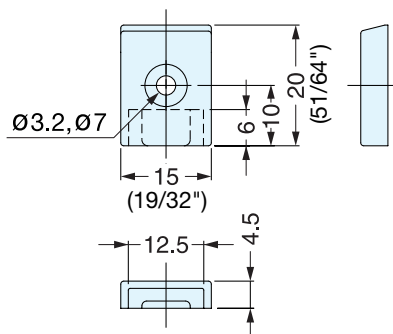
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
AP-FC20	5	400	4000
AP-FC20-BL			

Material	Color
Elastomer	Light Grey, Black

END CAP



AP-EC20



- End cap for AP-DM.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
AP-EC20	5	400	4000
AP-EC20-BL			

Material	Color
ABS	Light Grey, Black

ADJUSTABLE MOUNT

FSL-V36

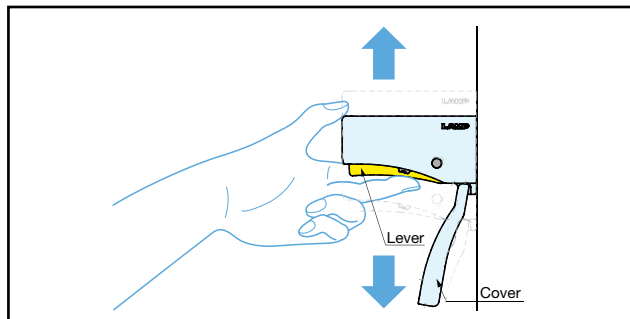
BRACKETS & SHELVING SYSTEM

ADJUSTABLE MOUNT

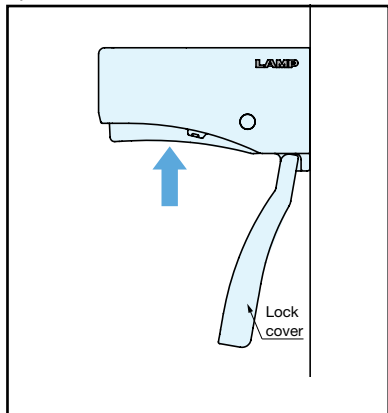


- Holds at any height on aluminium frames.
- The cover prevents unintentional lock release.
- Designed for use with the FSL-L, an aluminium frame.
- The cover prevents unintentional lock release.
- The locking mechanism prevents only downward motion.
- Can be installed to an aluminium frame that is already assembled.
- A monitor can be mounted on the FSL-V36 when used with the FSL-MB, an optional monitor-mounting bracket.

Holds at any height

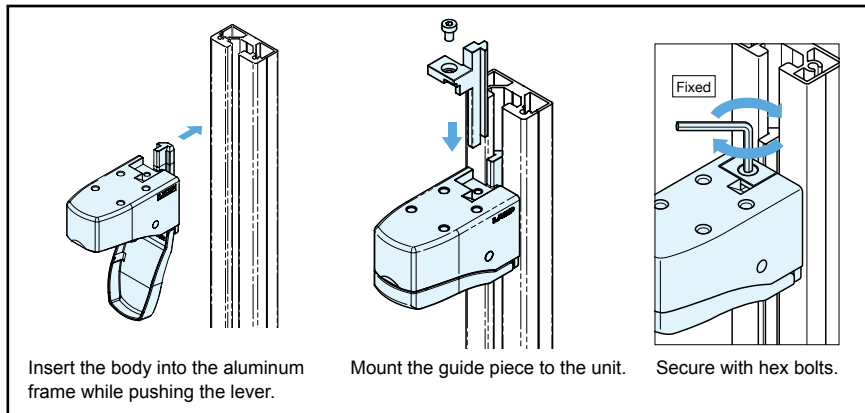


Operation

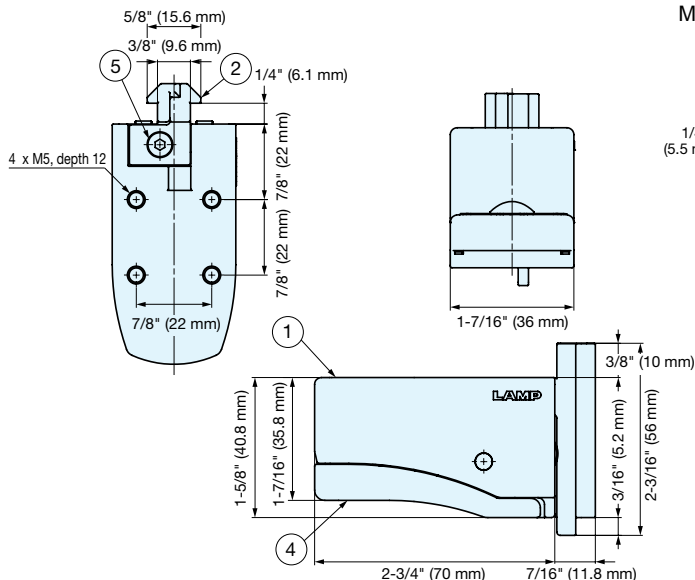


Open the cover and push the lever to move the unit up or down. The unit stops where the lever is released.

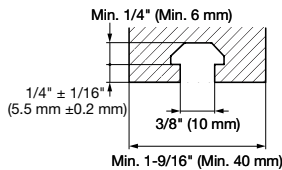
Installation



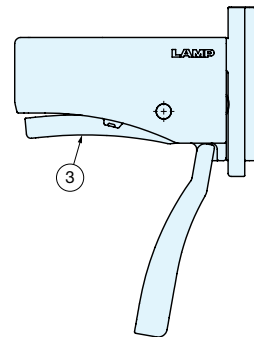
Can be installed to an aluminium frame that is already assembled. (see the instruction manual for details)



Mountable Aluminium Frame



When cover is opened

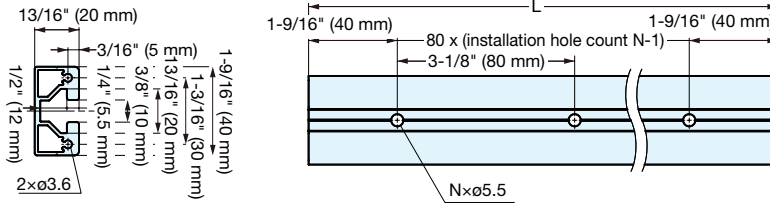


No.	Part Name	Material	Finish
①	Main Body	Zinc Alloy (ZDC)	Satin Chrome Plating
②	Guide Piece		
③	Lever	ABS Resin	White
④	Lock Cover	ABS Resin	White
⑤	Hexagonal socket cap low head bolt M4x6	Stainless Steel	Plain

Item No.	Vertical Load Capacity kgf	Weight (g)
FSL-V36	12 (26.5 lbs)	310

ALUMINIUM FRAME

FSL-L



- Optional Parts:
FSL-EC End Cap
FSL-S4 Stopper

Item No.	L	Installation Hole Count N	Material	Finish	Weight (g)
FSL-L400	15-3/4" (400 mm)	5	Aluminium Alloy	Silver Anodising	333
FSL-L800	31-1/2" (800 mm)	10			665
FSL-L1200	47-1/4" (1200 mm)	15			998
FSL-L2000	78-3/4" (2000 mm)	25			1663

MONITOR MOUNTING BRACKET

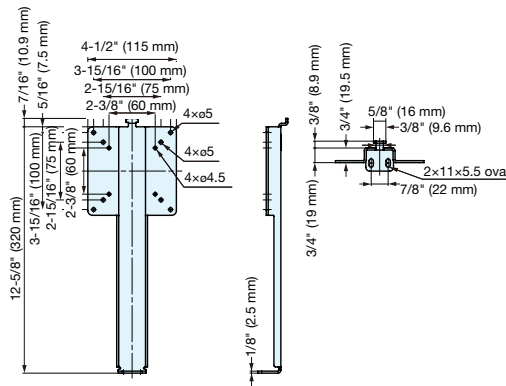
FSL-MB



Application



Used with FSL-V36 and KA-T100S50

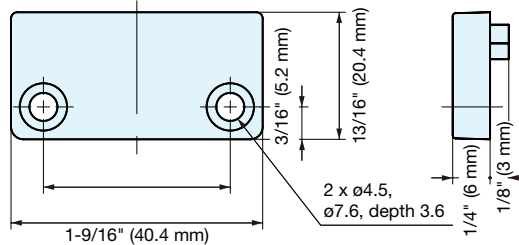


- Enables mounting of monitors with hole pitch compliant with the VESA standard (75 x 75 mm, 100 x 100 mm)

Item No.	Material	Finish/Color	Weight (g)
FSL-MB	Steel (SPCC)	Enamel Silver	566

END CAP

FSL-EC

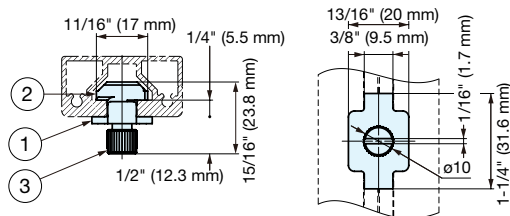


- End cap for the FSL-L Aluminium Frame.

Item No.	Material	Finish/Color	Weight (g)
FSL-EC	ABS Resin	Grey	3.1

STOPPER

FSL-S4



- A stopper for the FSL-L Aluminium Frame.
- Can also be used with other companies' aluminium frames that are over 40 mm in width. Please see the drawing of the FSL-V36 for details.

Item No.	Weight (g)	Box (pcs)	No.	Part Name	Material	Finish
FSL-S4	22	20	①	Body	SPCC	Chrome Plating
			②	AS Nut	316 Stainless Steel	Barrel Polished
			③	Knurled Knob	Steel	Nickel Plating

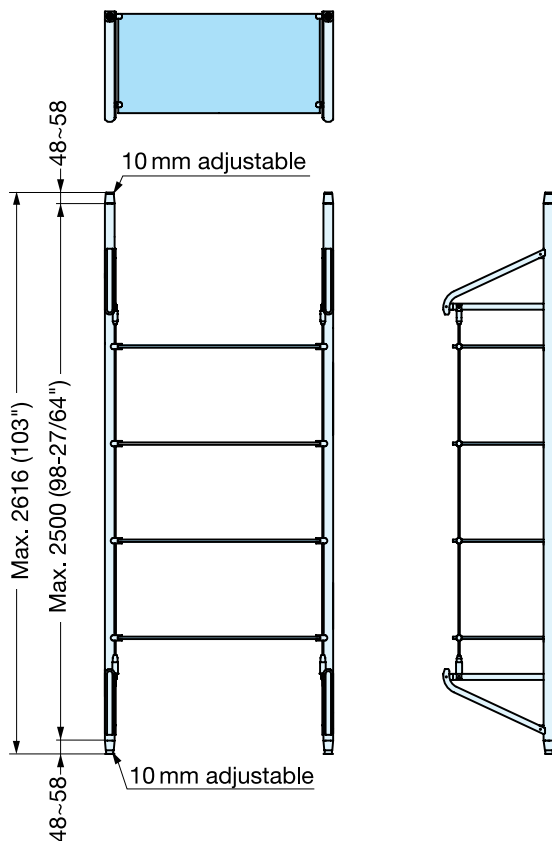
UNIT SHELF TYPE "B"

SPECIAL ORDER

XL-US02B

SHELF & SUPPORT HARDWARE

UNIT SHELF TYPE "B"



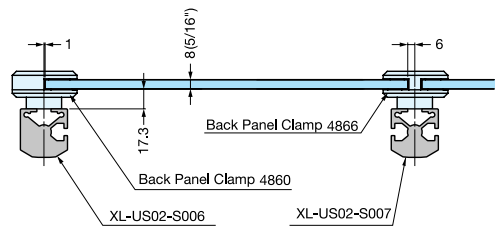
- Adjustable shelf height.
- Designed for ceiling to floor pressure fit installation with extendable leveling glides.
- Can also be wall mounted by using optional wall mounting bracket. XL-US02-S010 (sold separately).
- Please see P.502~P.503 for part details.

Glass Thickness	8 or 10 mm
Overall Height	Max. 2616 mm (103")
Glass Width	Max. 1200 mm (47-1/4") (Glass Thickness 8 mm) Max. 1500 mm (59-3/64") (Glass Thickness 10 mm)
Glass Depth	400~450 mm (15-3/4"~17-23/32")
Load Capacity	Max. 30 kg (66 lbs)/Shelf

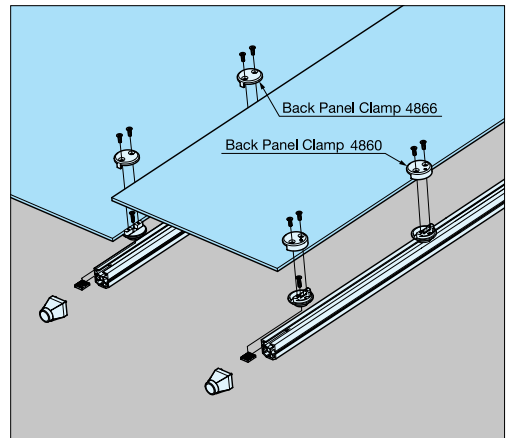
Sample Installation



Back Panel Installation

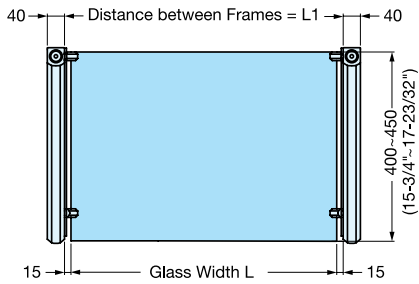


Back Panel Clamp Installation



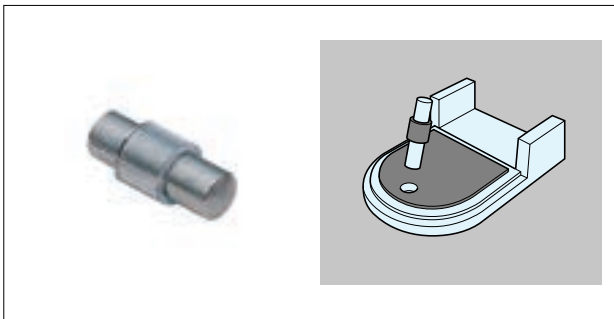
*Insert clamp fasteners before mounting leveling legs.

Glass Shelf Dimensions



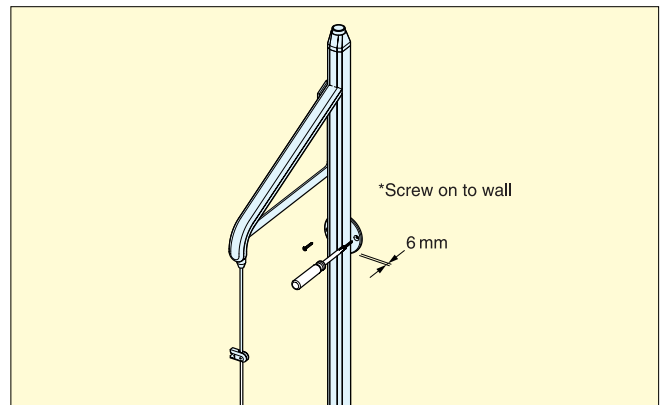
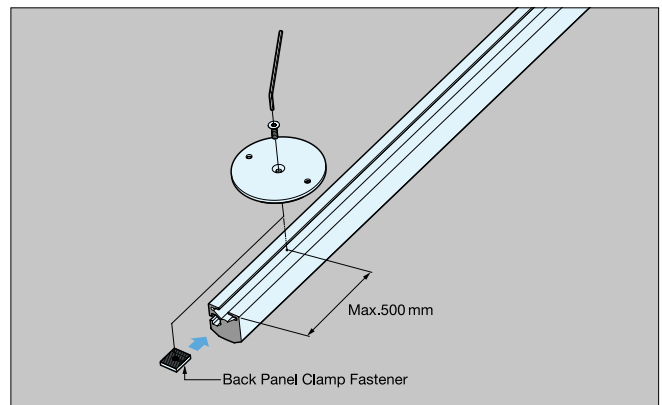
$L = L1 - 30$

Safety Pin for glass clamp (Optional)



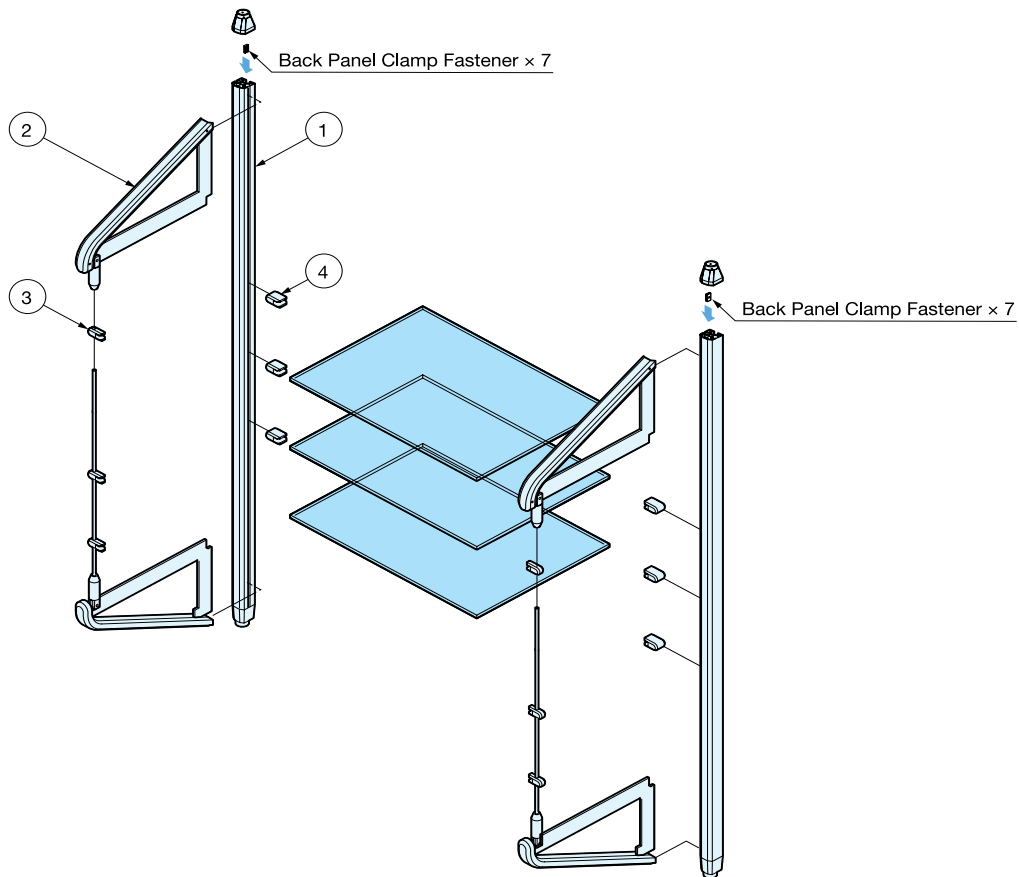
* Prevents glass slipping out from clamp

Vertical Frame Installation



* Please refer to P.503 for Alternate Vertical Frame Installation

Detailed View



"Type B" Part Details

No.	Item No.	Part Name	Dimensions	Description
①	XL-US02-S006	Vertical Frame (1 Slot Type)	<p>39.5 30 10 mm Height Adjustable Max.2616 41.5 A A 10 mm Height Adjustable A-A Cross Section</p>	<ul style="list-style-type: none"> ● Material Aluminum, Zinc Alloy ● Finish/Color Anodized, Grey ● Length Max. Height: 2600 mm (102-3/8") (Floor to Ceiling) <p>*2 leveling legs included per frame *Double slotted frame available. Please see XL-US02-S007 on page 505 for details.</p>
②	XL-US02-S011	Type B Wire Kit	<p>Max.2002 251 251 6 455 1500 (59-3/64")</p>	<ul style="list-style-type: none"> ● Material Aluminum, Steel, 430 Stainless Steel ● Finish/Color Matte Chrome <p>*For Main Frame 2100 mm~2500 mm</p>

No.	Item No.	Part Name	Dimensions	Description
③	XL-US01-F20	Type B Shelf Support (For Wire Shaft)		<ul style="list-style-type: none"> ● Material Zinc Alloy ● Finish/Color Matte Chrome *2 Supports necessary for 1 Shelf
④	XL-US01-B20	Type B Shelf Support (For Main Frame, 2pcs/shelf)		<ul style="list-style-type: none"> ● Material Zinc Alloy ● Finish/Color Matte Chrome *2 Supports necessary for 1 Shelf

Type "B" Optional Part Overview Please see page P.508~P.509 for details

Part Name	Wall Mounting Plate	Wall Mounting Bracket	Wall Mounting Bracket	Back Panel Clamp
Item No.	XL-US02-S010	XL-US02-S008	XL-US02-S009	4860ZN1, 4860ZN5

Part Name	Back Panel Clamp	Back Panel Clamp Fastener	Edge Cover
Item No.	4866ZN1, 4866ZN5	XL-US02-S013	AF-25-P01-25

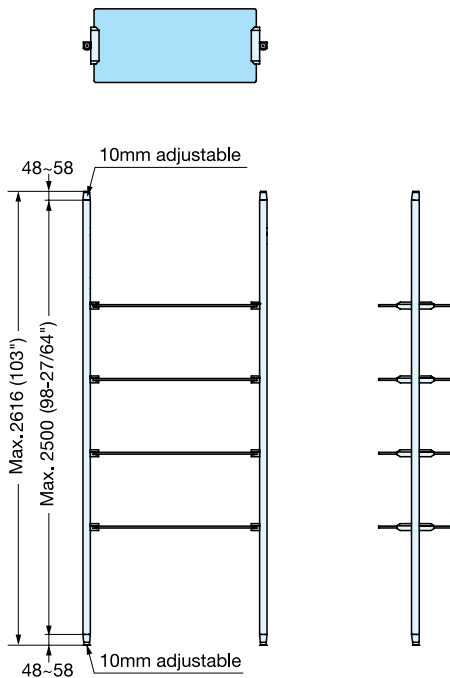
UNIT SHELF TYPE "C"

SPECIAL ORDER

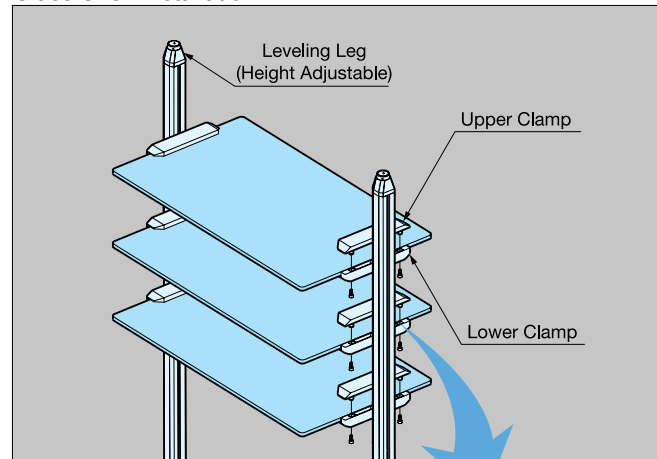
XL-US02C

SHELF & SUPPORT HARDWARE

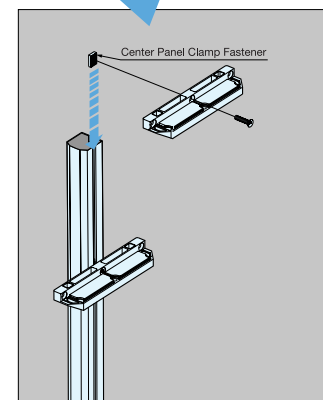
UNIT SHELF TYPE "C"



Glass Shelf Installation

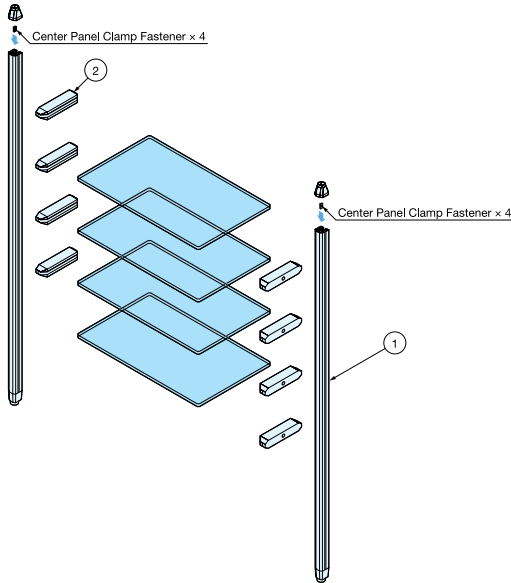


* Insert clamp fasteners before mounting leveling legs.



Glass Thickness	8 or 10 mm
Overall Height	Max. 2616 mm (103")
Glass Width	Max. 1200 mm (47-1/4") for 8 mm thick glass Max. 1500 mm (59-3/64") for 10 mm thick glass
Glass Depth	200~450 mm (7-7/8"~17-23/32")
Load Capacity	Max. 35 kg (77 lbs)/Shelf

Detailed View



Type "C" Part Details

No.	Item No.	Part Name	Dimensions	Description
-	XL-US02-S006	Vertical Frame (1 Slot Type)		<ul style="list-style-type: none"> ● Material Aluminum, Zinc Alloy ● Finish/Color Anodized, Grey ● Length Max. Height: 2600 mm (102-3/8") (Floor to Ceiling) <p>*2 leveling legs included per frame *For use as an end frame.</p>
①	XL-US02-S007	Vertical Frame (2 Slot Type)		<ul style="list-style-type: none"> ● Material Aluminum, Zinc Alloy ● Finish/Color Anodized, Grey ● Length Max. Height: 2600 mm (102-3/8") (Floor to Ceiling) <p>*2 leveling legs included per frame *For use as an intermediate frame in an installation with adjacent bays.</p>
②	XL-US01-S200	Shelf Clamp (For Glass Shelf)		<ul style="list-style-type: none"> ● Material Zinc Alloy, Elastomer ● Finish/Color Matte Chrome, Black ● Glass Thickness 8 mm, 10 mm <p>*2 Clamps necessary for 1 Shelf *Glass Shelf not included</p>

Type "C" Optional Part Overview Please see P.508~P509 for details

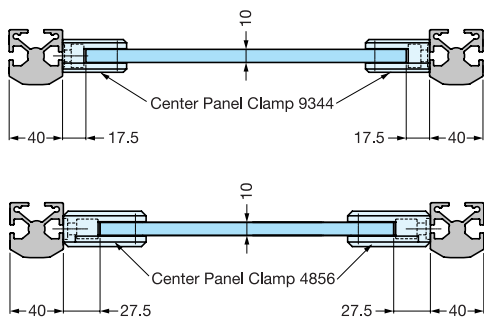
Part Name	Shelf Support (For Wood Shelf)	Shelf Edge (For Wood Shelf)	Shelf Support for Glass (Angle Adjustable)	Shelf Edge (For Glass Shelf)	Edge Cover
Item No.	XL-US02-S002	XL-US02-S014	XL-US02-S003	XL-US02-S015	AF-25-P01-25
Part Name	Center Panel Clamp	Center Panel Clamp	Center Panel Clamp Fastener	Wall Mounting Bracket	Wall Mounting Bracket
Item No.	9344VA2	4856ZN1, 4856ZN5	XL-US02-S012	XL-US02-S008	XL-US02-S009

Application Example

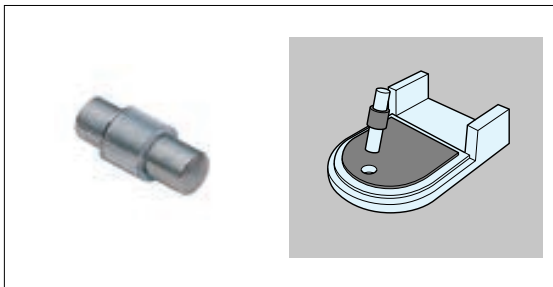


Wire kit and halogen lamp are not provided

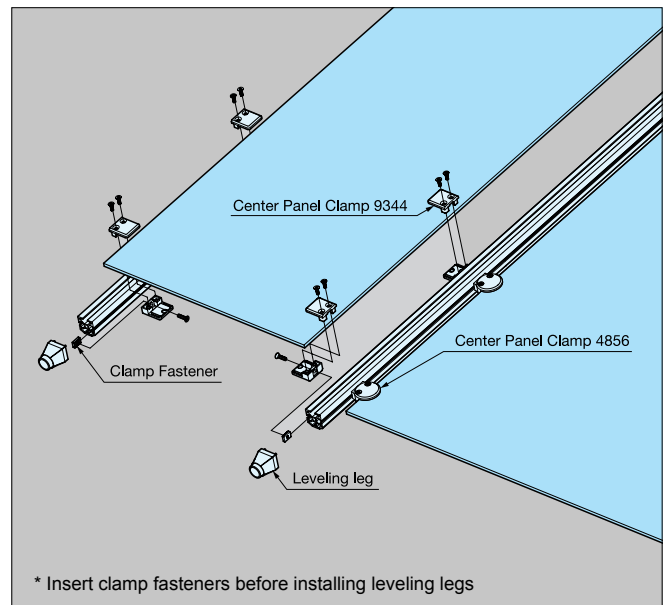
Installation with Center Panel Clamp



Safety Pin (Optional)

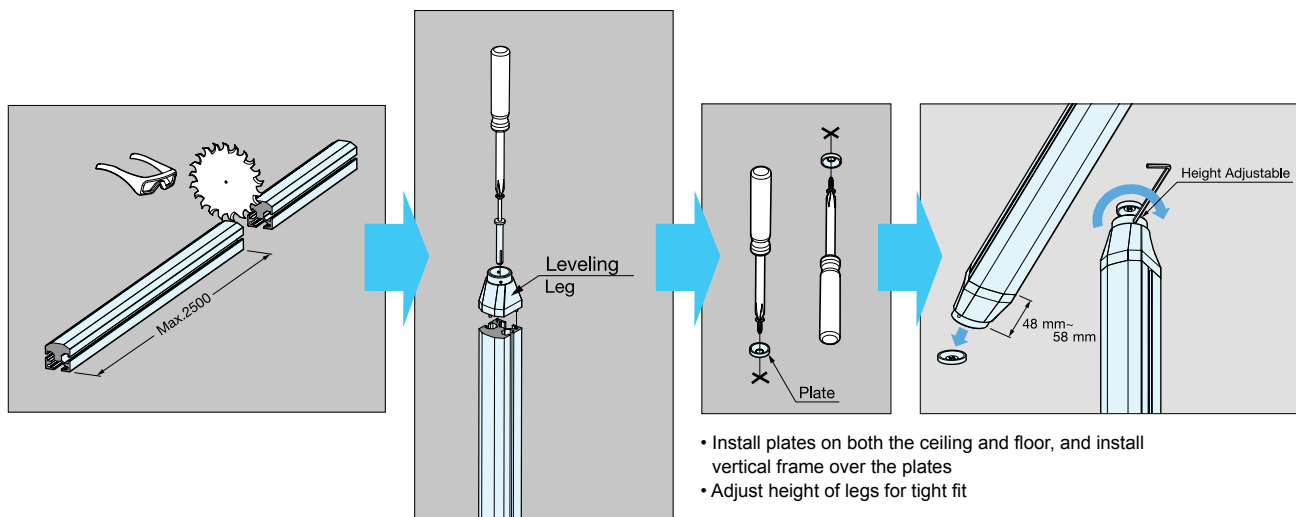


* Prevents glass from slipping out from clamp.



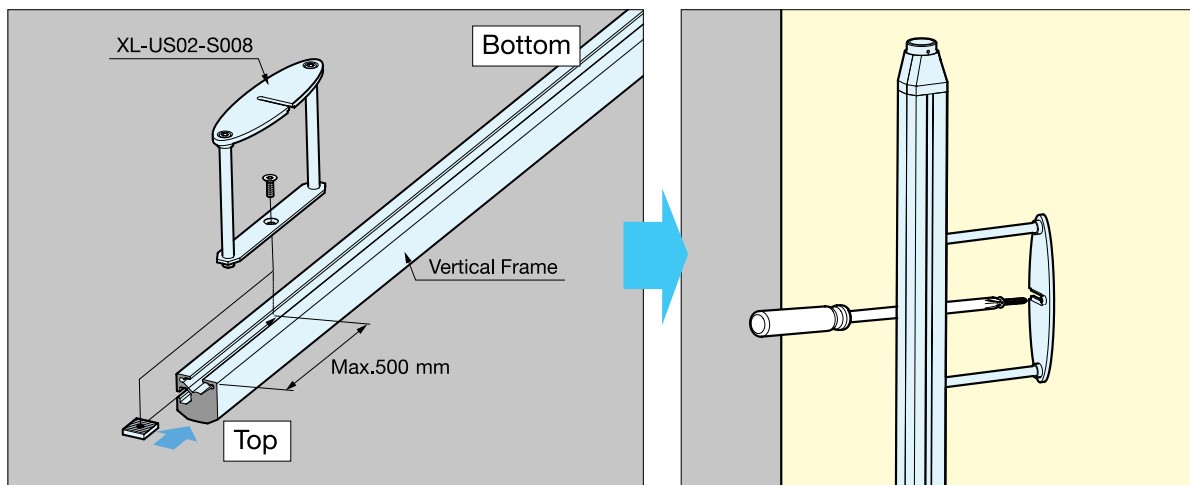
INSTALLATION (TYPE B/C)

Vertical Frame Installation (For top/bottom pressure fit)

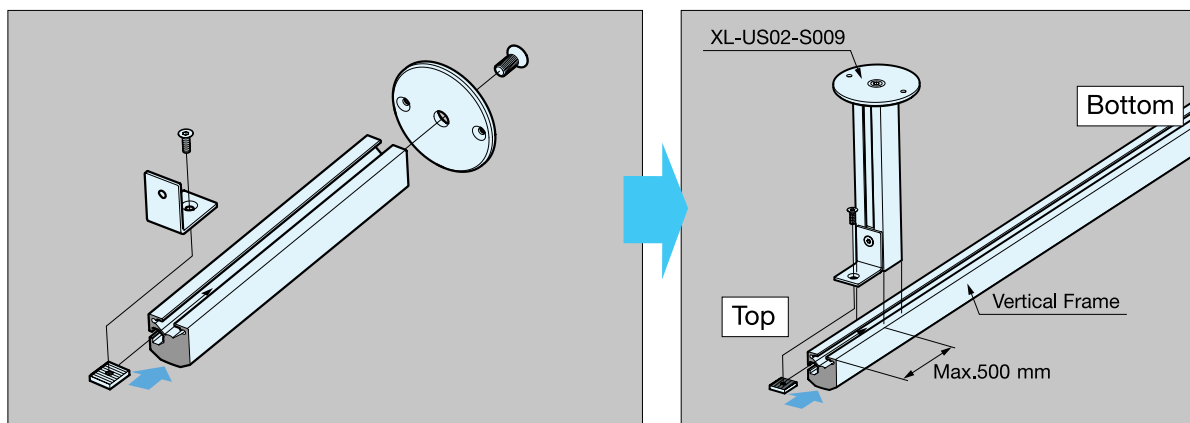


- Install plates on both the ceiling and floor, and install vertical frame over the plates
- Adjust height of legs for tight fit

Wall Mounting Bracket Installation (1) (XL-US02-S008)


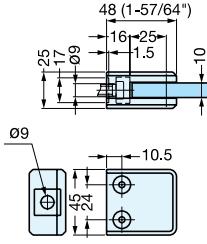

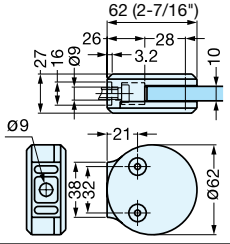

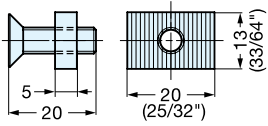

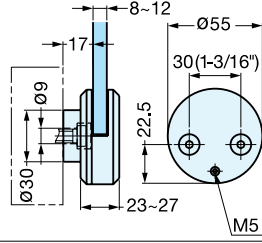

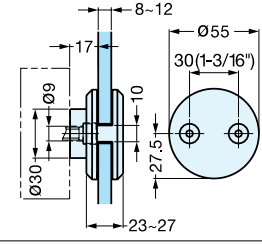

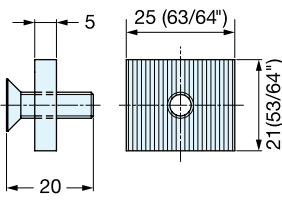

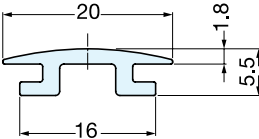


Wall Mounting Bracket Installation (2) (XL-US02-S009)



Optional Part Details (Type B/C)

No.	Item No.	Part Name	Dimensions	Description
①	XL-US02-S010	Wall Mounting Plate (For Type B)		<ul style="list-style-type: none"> ● Material Aluminum ● Finish/Color Anodized *To be used with Main Frame (1 Slot Type) *For Type B
②	XL-US02-S008	Wall Mounting Bracket		<ul style="list-style-type: none"> ● Material 304 Stainless Steel, Steel ● Finish/Color Grey
③	XL-US02-S009	Wall Mounting Bracket		<ul style="list-style-type: none"> ● Material Aluminum ● Finish/Color Anodized
④	XL-US02-S002	Shelf Support (For Wood Shelf)		<ul style="list-style-type: none"> ● Material 304 Stainless Steel ● Finish/Color Plain *Shelf not included *For Type C
⑤	XL-US02-S003	Shelf Support for Glass (Angle Adjustable)		<ul style="list-style-type: none"> ● Material 304 Stainless Steel ● Finish/Color Polished, Plain ● Glass Thickness 10 mm *Angle adjustable each 30 degrees *Glass not included *For Type C *Pre-drilled holes (countersunk) required on glass *Please order special wrench Z058 for installation
⑥	XL-US02-S014	Shelf Edge (For Wood Shelf)		<ul style="list-style-type: none"> ● Material Aluminum ● Finish/Color Anodized *Prevents items falling off from shelves *For wood shelf *To be mounted on side edge *For Type C
⑦	XL-US02-S015	Shelf Edge (For Glass Shelf)		<ul style="list-style-type: none"> ● Material Aluminum, Zinc Alloy ● Finish/Color Anodized, Matte Chrome *Prevent items from falling off *For glass shelf *To be mounted on front or back edge *For Type C

No.	Item No.	Part Name		Dimensions	Description
⑧	9344VA2	Center Panel Clamp			<ul style="list-style-type: none"> ● Material 316 Stainless Steel ● Finish/Color Satin ● Panel Thickness 10 mm *Holds panel between Main Frames
⑨	4856ZN1, 4856ZN5 Discontinued	Center Panel Clamp			<ul style="list-style-type: none"> ● Material Zinc Alloy ● Finish/Color Matte Chrome (ZN1) Chrome (ZN5) ● Panel Thickness 10 mm *Holds panel between Main Frames
⑩	XL-US02-S012	Center Panel Clamp Fastener			<ul style="list-style-type: none"> ● Material 304 Stainless Steel, Steel ● Finish/Color Plain *Nut/Bolt to fasten Center Panel Clamp and Main Frame
⑪	4860ZN1, 4860ZN5	Back Panel Clamp			<ul style="list-style-type: none"> ● Material Zinc Alloy ● Finish/Color Matte Chrome (ZN1) Chrome (ZN5) ● Panel Thickness 8~12 mm *Holds panel between Main Frames
⑫	4866ZN1, 4866ZN5	Back Panel Clamp			<ul style="list-style-type: none"> ● Material Zinc Alloy ● Finish/Color Matte Chrome (ZN1) Chrome (ZN5) ● Panel Thickness 8~12 mm *Holds panel between Main Frames (2 Slot Type)
⑬	XL-US02-S013	Back Panel Clamp Fastener			<ul style="list-style-type: none"> ● Material 304 Stainless Steel, Steel ● Finish/Color Plain *Nut/Bolt to fasten Back Panel Clamp and Main Frame
⑭	AF-25-P01-25	Edge Cover			<ul style="list-style-type: none"> ● Material Elastomer ● Finish/Color Light Grey ● Length 2500 mm (98-27/64\"

LEVEL ADJUSTABLE SHELVING SYSTEM

SPECIAL ORDER

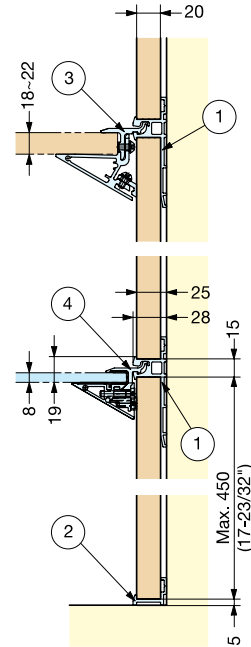
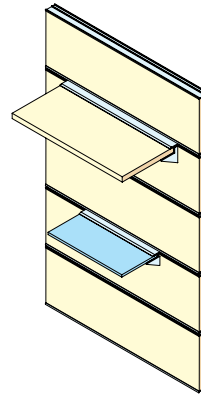
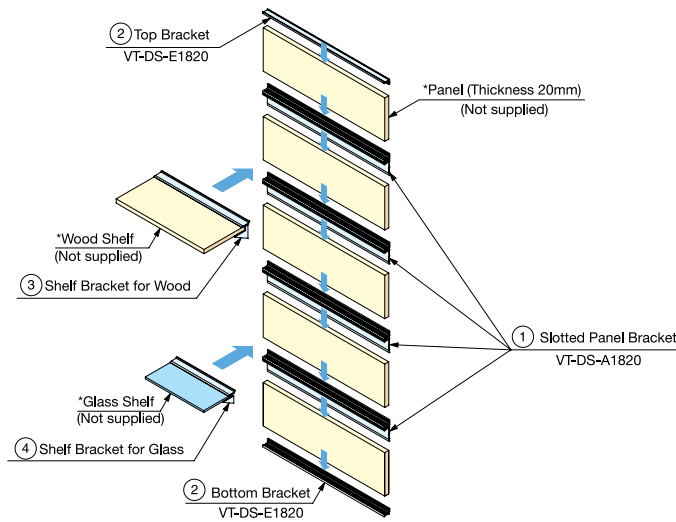
VT-DS

SHELF & SUPPORT HARDWARE

LEVEL ADJUSTABLE SHELVING SYSTEM



- Slotted shelving system for flexible layout.
- Shelves can be installed anywhere in the slot.
- Simple and easy installation.
- Use with desired panel to match the surrounding design.
- Wall Panel Size:
 - Thickness-20 mm
 - Width-Max. 1820 mm (71-21/32")
 - Height-105~450 mm (4-1/8"~17-23/32")
 - * Panel not included.
- Shelf bracket for wood or glass available. (Shelf board not included).
- Level adjustable.



No.	Item No.	Part Name	Dimensions	Material	Finish/Color	Length	Wall Panel Thickness	Shelf Board Size			Load Capacity (kg)		
								Width	Depth	Thickness			
①	VT-DS-A1820	Slotted Panel Bracket		Aluminum	Anodized	1820 mm	20 mm	-	-	-	-		
②	VT-DS-E1820	Top/Bottom Bracket						1820 mm	20 mm	-	-	-	-
③	VT-DS-X-450	Shelf Bracket For Wood		Aluminum ABS	Anodized Grey	450 mm	-	450~600 mm	150~300 mm	18~22 mm	40 kg (88 lbs)		
	VT-DS-X-800							800~900 mm					
④	VT-DS-G-450	Shelf Bracket For Glass				450 mm	-	450~600 mm	-	450~600 mm	150~300 mm	8 mm	10 kg (22 lbs)
	VT-DS-G-685									685~900 mm			

LEVEL ADJUSTABLE SHELVING SYSTEM

SPECIAL ORDER

VT-DF

SHELF & SUPPORT HARDWARE

LEVEL ADJUSTABLE SHELVING SYSTEM



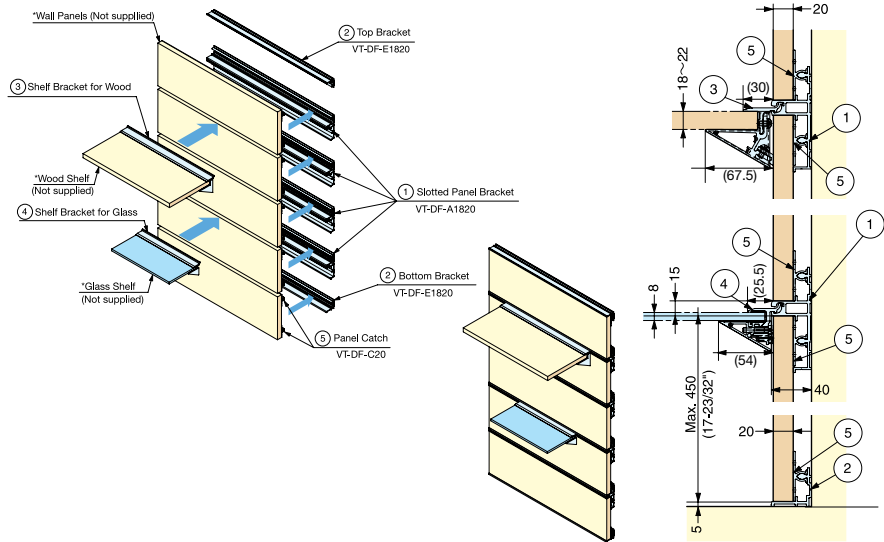
- Slotted shelving system for flexible layout.
- Shelves can be installed anywhere in the slot.
- Simple and easy installation.
- Use with desired panel to match the surrounding design.
- Snap-in type catch for easy panel installation.
- Wall Panel Size:
Thickness-20 mm
Width-Max. 1820 mm (71-21/32")
Height-105~450 mm (4-1/8"~17-23/32")
*Panel not included.
- Designed to have space behind panels for electric wiring, and for rotating/seasonal displays.
- Shelf bracket for wood or glass available. (Shelf board not included.)
- Level adjustable.



Snap in panels installed



Snap in panels removed



No.	Item No.	Part Name	Dimensions	Material	Finish/Color	Length	Wall Panel Thickness	Shelf Board Size			Load Capacity (kg)
								Width	Depth	Thickness	
①	VT-DF-A1820	Slotted Panel Bracket	 8pcs. of catch ⑤ included.	Aluminum	Anodized	1820 mm	20 mm	-	-	-	-
②	VT-DF-E1820	Top / Bottom Bracket	 8pcs. of catch ⑤ included.					-	-	-	-
③	VT-DS-X-450	Shelf Bracket For Wood		Aluminum	Anodized Grey	450 mm	-	450~600 mm	150~300 mm	18~22 mm	40 kg (88 lbs)
	VT-DS-X-800							800~900 mm			
④	VT-DS-G-450	Shelf Bracket For Glass		ABS	Anodized Grey	450 mm	-	450~600 mm	150~300 mm	8 mm	10 kg (22 lbs)
	VT-DS-G-685							685~900 mm			
⑤	VT-DF-C20	Panel Catch		Polyacetal	Natural	-	-	-	-	-	-

WALL SHELVING SYSTEM

SPECIAL ORDER

FLUQS® 250/750

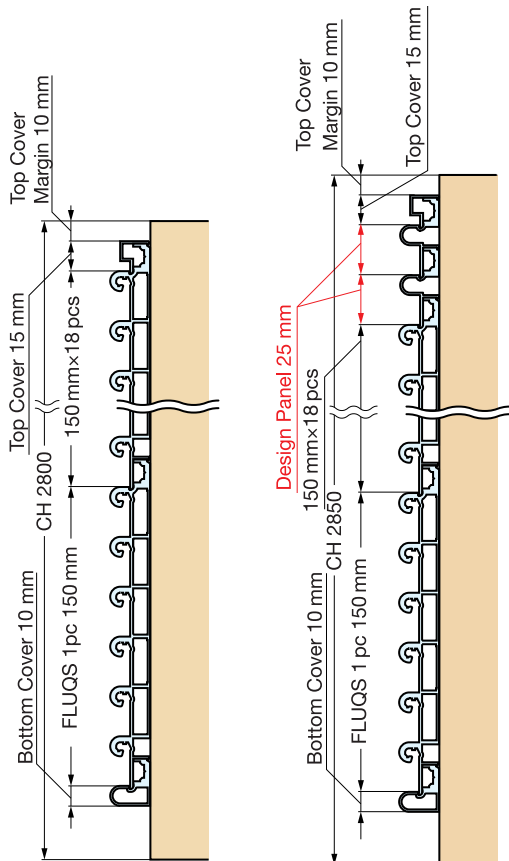
SHELF & SUPPORT HARDWARE

WALL SHELVING SYSTEM

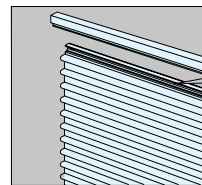
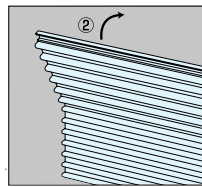
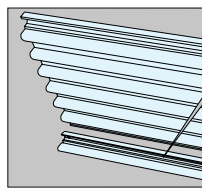
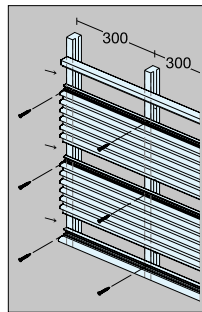


Installation Example

Ceiling Height (CH) : 2800 mm Ceiling Height (CH) : 2850 mm



2 design panels are used to cover 50 mm space in case of ceiling height 2850 mm.

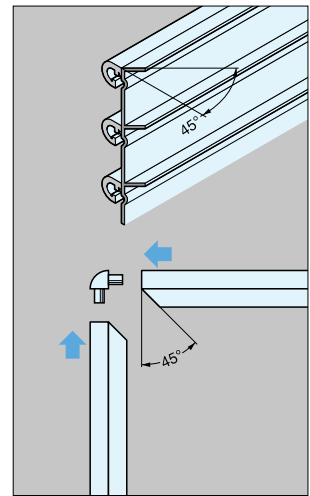


Install the bottom rail ①. Level the bottom rail before fastening. Insert the profile ② into the bottom rail. Fasten with screws.

Install the profile ② until it reaches required height. The profile will cover the screws.

Snap-in the top rail to cover all the screws.

Corner Installation



Corner Example

Part Details

No.	Item No.	Part Name	Dimensions	Material	Finish/Color	Length	Description
①	EX001-21	Main Panel FLUQS 250		Aluminum	Anodized	1820 mm (71-21/32")	<ul style="list-style-type: none"> ● Basic Aluminum Wall Panel (Rail pitch 25 mm) ● Screw hole pitch 300 mm
②	EX004-21	Main Panel FLUQS 750		Aluminum	Anodized		<ul style="list-style-type: none"> ● Basic Aluminum Wall Panel (Rail pitch 75 mm) ● Screw hole pitch 300 mm
③	EX007-21	Top Cover		Aluminum	Anodized		<ul style="list-style-type: none"> ● Top Cover Track ● Covers the screw heads
④	EX008-21	Bottom Rail		Aluminum	Anodized		<ul style="list-style-type: none"> ● Bottom Track ● Screw hole pitch 300 mm
⑤	EX905-21	End Cap (1Way Type)		ABS	Matte Silver	-	-
⑥	EX906-21	End Cap (2Way Type)		ABS	Matte Silver	-	-
⑦	EX701-21	Design Panel 150		Aluminum	Anodized	1820 mm (71-21/32")	<ul style="list-style-type: none"> ● Panel with design pattern same as FLUQS 250 (25 mm rail pitch type) ● No Slot for Hooks/Shelves ● For space where the design pattern is needed but hooks/shelves are not necessary. ● Screw hole pitch 300 mm
⑧	EX709-21	Design Panel 25		Aluminum	Anodized		<ul style="list-style-type: none"> ● Panel to adjust overall height (25 mm) ● No Slot for Hooks/Shelves ● Screw hole pitch 300 mm
⑨	EX009-21	Connector		Aluminum	Anodized	50 mm	<ul style="list-style-type: none"> ● Used to align Panels ● Use 2 pcs per Panel (2 pcs per set)
⑩	EX901-21	Corner Angle		Aluminum	Anodized	3000 mm (118-7/64")	<ul style="list-style-type: none"> ● Corner plate to cover the edge of aluminum panel. ● Screws not included

*Please see P.516~517 for accessories.

WALL SHELVING SYSTEM

SPECIAL ORDER

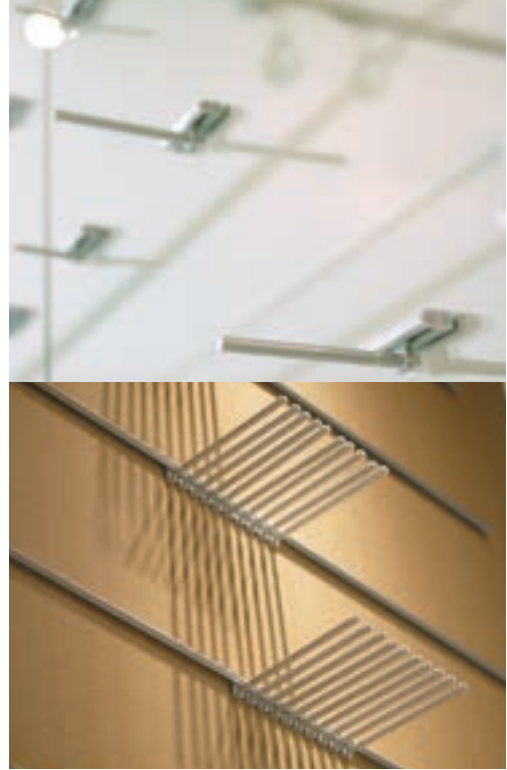
FLUQS® 25/ONE

SHELF & SUPPORT HARDWARE

WALL SHELVING SYSTEM



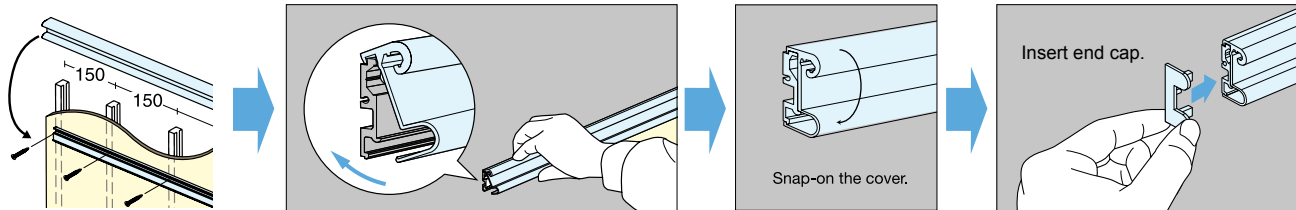
FLUQS 25



FLUQS ONE

FLUQS 25

Installation



FLUQS25 Part Details

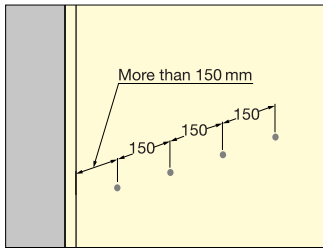
No.	Item No.	Part Name	Dimensions	Material	Finish/Color	Length	Description
①	EX022-21	FLUQS 25		Aluminum	Anodized	1820 mm (71-21/32")	<ul style="list-style-type: none"> ● Single Aluminum Profile. ● Easy installation type ● End Cap 2 pcs included ● Screw hole pitch 150 mm
②	EX025-31	End Cap for FLUQS 25		ABS	Grey	-	<ul style="list-style-type: none"> ● Non-handed (2pcs per set)

Please see P.516~517 for accessories.

FLUQS ONE

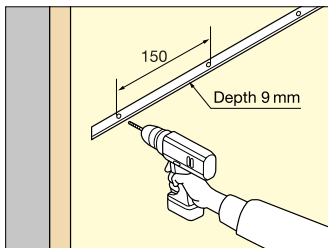
Installation

Glass/Acrylic, Surface Mount

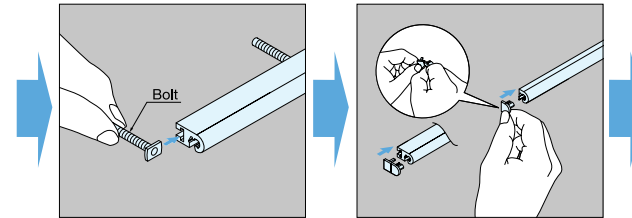


*Minimum Thickness:
Glass/Acrylic 10 mm
*Use accessories "For FLUQS ONE Surface Mount". (Please see P.569 for details)
When using other accessories, adaptor (sold separately) is required.

Wood Panel, Recess Mount

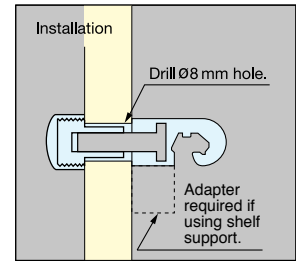


*Minimum Thickness:
Wood 24 mm

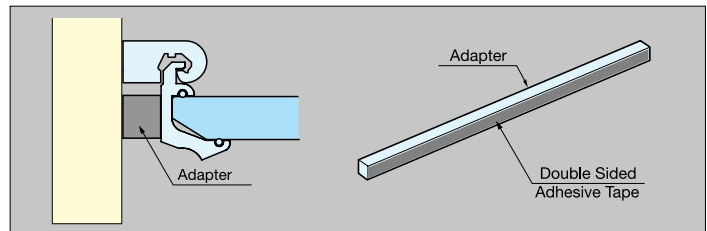
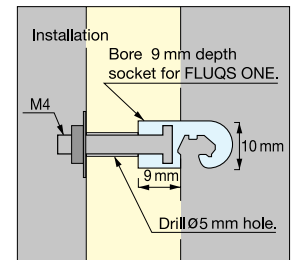


Adapter (sold separately) is required to attach shelves when FLUQS ONE is installed on a surface. (See p.517)

Plastic Panel



Wood Panel



FLUQS ONE Part Details

No.	Item No.	Part Name	Dimensions	Material	Finish/Color	Length	Description
①	EX012-21	FLUQS ONE		Aluminum	Anodized	50 mm (1-31/32")	<ul style="list-style-type: none"> ● Single Aluminum Profile ● Simple and flexible layout design ● End Cap 2 pcs included ● For Recess Mount, cut the End Cap at the cut line and use the ※ 1 shape part.
	EX010-21					1820 mm (71-21/32")	
②	EX018-45	End Cap for FLUQS ONE		Polypropylene	Plain	-	<ul style="list-style-type: none"> ● For Recess Mount, cut the End Cap at the cut line and use the ※ 2 shape part. (2 pcs per set)
③	EX019-25	FLUQS ONE Screw Set for Wood		Steel	Chromate	-	<ul style="list-style-type: none"> ● Fastener to attach FLUQS ONE to Wood Panel
④	EX020-20	FLUQS ONE Screw Set for Plastic Panel		Steel	Silver	-	<ul style="list-style-type: none"> ● Fastener to attach FLUQS ONE to Glass Panel

Please see P.516~517 for accessories.

ACCESSORIES

Hook Series (For FLUQS 250/750/25/ONE Recess Mount)

No.	Item No.	Part Name	Dimensions	Material	Finish/Color	Length	Load Capacity
①	EX030-20	Hook (ø3)		Steel	Chrome	15 (19/32")	1 kg (2.2 lbs)
	EX031-20					30 (1-3/16")	
	EX032-20					55 (2-11/64")	
	EX030-07				Matte Silver	15	
	EX031-07 Discontinued					30	
	EX032-07					55	
②	EX035-20	Hook (ø4)		Steel	Chrome	50 (1-31/32")	1 kg (2.2 lbs)
	EX036-20					75 (2-61/64")	
	EX037-20 Discontinued					100 (3-15/16")	
	EX035-07				Matte Silver	50	
	EX036-07					75	
	EX037-07					100	
③	EX040-20	Hook (ø6)		Steel	Chrome	50	2 kg (4.4 lbs)
	EX041-20					100	
	EX042-20					150	
	EX040-07				Matte Silver	50	
	EX041-07 Discontinued					100	
	EX042-07					150	
④	EX046-20	Hook (ø9)		Steel	Chrome	100 (3-15/16")	3 kg (6.6 lbs)
	EX047-20					150 (5-29/32")	
	EX048-20					200 (7-7/8")	
	EX046-07				Matte Silver	100	
	EX047-07 Discontinued					150	
	EX048-07					200	

Shelf Series

No.	Item No.	Part Name	Dimensions	Material	Finish/Color	W	D	t	Description	
①	EX201-41	Acrylic Shelf Set		Aluminum (Bracket)	Anodized (Bracket)	300 (11-13/16")	-	10	150 (5-29/32")	
	EX202-41								200 (7-7/8")	
	EX203-41								250 (9-27/32")	
	EX206-41			Acrylic (Shelf)	Light Green (Shelf)	450 (17-23/32")	-	-	-	150
	EX207-41									200
	EX208-41									250
	EX211-41			-	-	600 (23-5/8")	-	-	-	150
	EX212-41									200
	EX213-41									250
②	EX204-41	Adapter		Acrylic	-	300	-	-	For Shelf Holder when used with FLUQS ONE surface mount profile and bracket (with double sided adhesive tape)	
	EX209-41									450
	EX214-41									600
③	EX026-21	Shelf Holder		Aluminum	Anodized	1820 (71-5/8")	10	9	*For 10 mm (3/8") glass *Maximum shelf depth: 250 mm (9-13/16") *For permanent installation, apply caulk to bracket and glass/acrylic *1 rubber strip (clear, 1820 mm) included *Glass not included, chamfer required as shown Load Capacity 14.4 kg (31.7 lbs)	
④	EX027-21	Shelf Holder		Aluminum	Anodized	1820 (71-5/8")	-	-	*For 10 mm (3/8") glass *Maximum shelf depth: 450 mm (17-3/4") *For permanent installation, apply caulk to bracket and glass/acrylic *1 clear rubber strip (1820 mm) included *Glass not included, chamfer required as shown Load Capacity 30 kg (66 lbs)	
⑤	EX271-21	Shelf Plate		Aluminum	Anodized	300	-	-	Load Capacity 5 kg (11 lbs)	
	EX276-21					450				
⑥	EX090-21	Mini Hook		Aluminum	Anodized	10 (25/64")	-	-	Load Capacity 3 kg (6.6 lbs)	

*Additional end caps for shelf holders available by special order.

The background of the page is a collage of various closet hardware components. At the top, there are two horizontal rods with different types of end caps and hangers. In the middle, a vertical rod is shown with a sliding mechanism. At the bottom, there is a horizontal rod with several small hangers and a vertical rod with a circular end cap. The hardware is all in a light gold or brass finish.

CLOSET HARDWARE

CLOSET ROD LIFT MECHANISM
HANGERS
TIE RACKS

CLOSET ROD LIFT MECHANISM

Picture	Item No.	Load Capacity (lbs)	Page
	TAS-800	17.6	522
	TAW-1200	33	522
	TAT-800	17.6	522
	TAB (BRACKET FOR TALLMAN HANG)	-	523
	TAC (COVER FOR TAB BRACKET)	-	523
	TAE (TAW EXTENSION ROD)	-	523

HANGERS

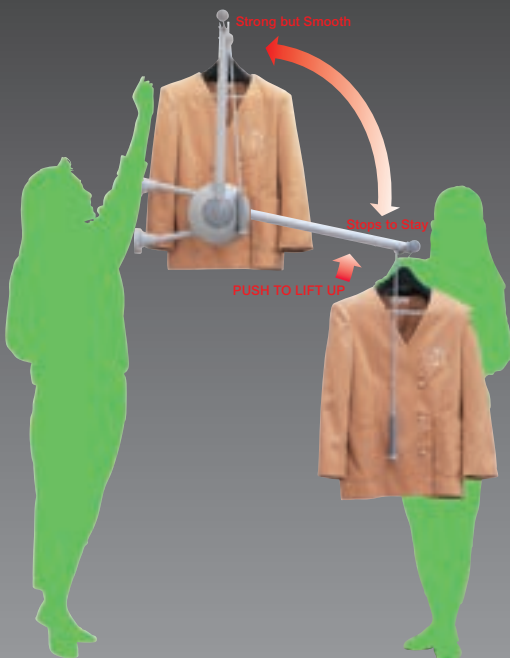
Picture	Item No.	Load Capacity (lbs)	Page
	UH SERIES	6.6	524
	W SERIES	8.8~13.2	524
	TE-700, TE-800	44	525
	A SERIES	11	526
	CK	3.3	526
	HM-250Y	6.6	527
	HM-250V	6.6	527
	HM-330	6.6	527

TIE RACKS

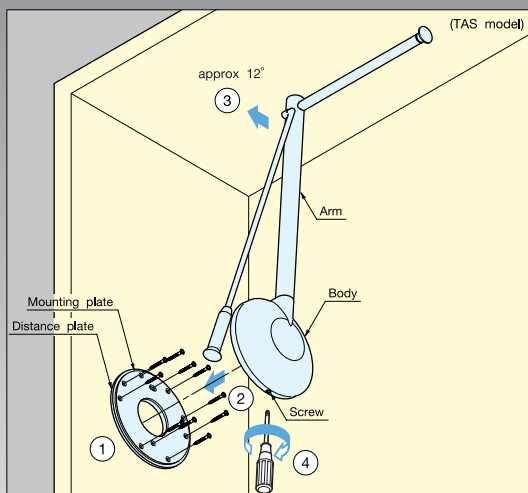
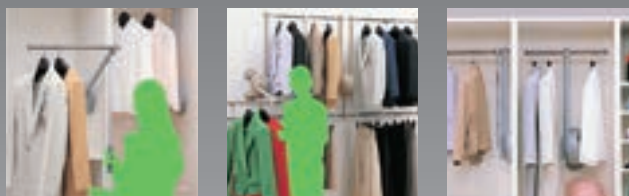
Picture	Item No.	Load Capacity (lbs)	Page
	MST-20	0.7	528
	TIEM	0.7	528
	TIE-33	0.7	528
	S-350	-	529
	STR	-	529
	DTR	-	529

TALLMAN CLOSET ROD LIFT MECHANISM

Innovative closet storing mechanism to hang clothes in high places, allowing for your closet space to be utilized more efficiently.



- New Shock Absorbing Mechanism:**
 Designed to soften sudden “pop-ups” even when rod is released halfway.
 Allows the closet rod to stay at position when the rod is pulled all the way down.
- Easy to use:**
 Easy to return the rod to its normal position.
- Simple to install:**
 Install mounting plate on the wall, fasten rod unit to the mounting plate with one hidden screw.
- Choose your size:**
 We offer single, double or a T-type to accommodate your space requirements.



Easy Installation:

- ① Secure the mounting plate in the selected area with screws.
- ② Insert the body into the fastening holes located on the mounting plate.
- ③ Rotate the body until the arm is locked (approximately 12°).
- ④ Simply secure the body to the mounting plate with one screw.

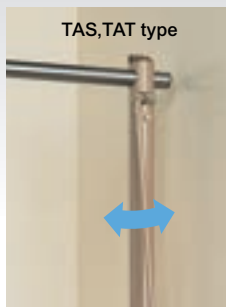


Improved Pipe Fixture for TAS



Insert the pipe end into arm hole and tighten the pipe fixture by turning clockwise as shown.

Flexible Pull Down Rod



Flexible pull down rod allows smooth operation.

TAS (SINGLE TYPE)

TAW (DOUBLE TYPE)

TAT (T-TYPE)



TAS-800R/U (Right) Umber

TAW-1200/U Umber

TAT-800R/G (Right) Grey

- This single-type model is designed for installation on a side wall of a cabinet or closet.
- Both right-hand and left-hand models are available.

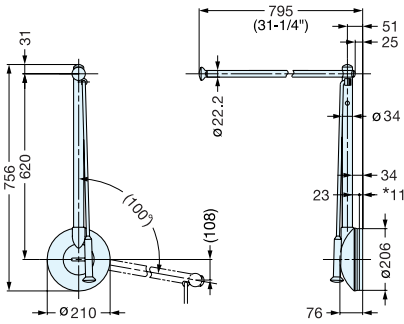
Load capacity: Up to 8 kg (17.6 lbs)
(evenly distributed).
Packaging: 1 set/box
(about 5 kg or 11 lbs).

- The double-type model is designed for installation on side walls of a cabinet or closet, using it in full width.
- Adjusting the length of the rod is easily done in just one step.

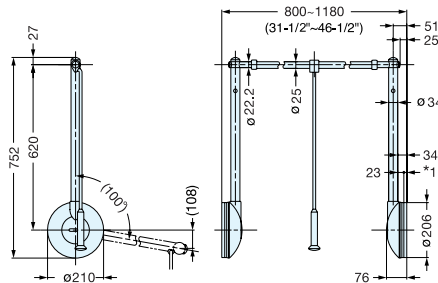
Load capacity: Up to 15 kg (33 lbs)
(evenly distributed).
Packaging: 1 set/box
(about 9 kg or 19.8 lbs).

- The T-type model is designed for front facing installation with the use of a bracket which is sold separately (TAB).
- Create space more efficiently by separating short and long clothes.

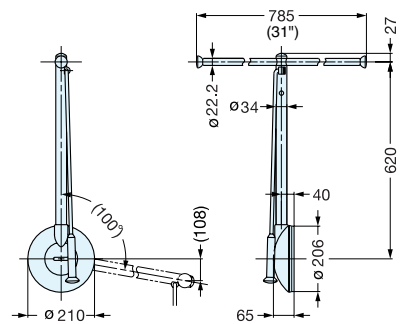
Load capacity: Up to 8 kg (17.6 lbs)
(evenly distributed).
Packaging: 1 set/box
(about 5 kg or 11 lbs).



*Thickness of Distance Plate



*Thickness of Distance Plate

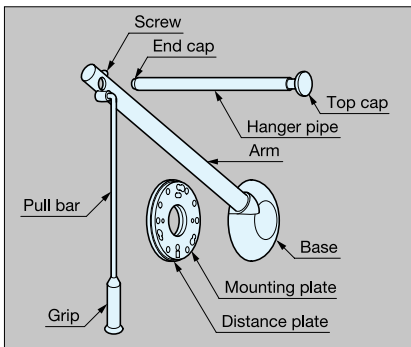


Product Specification	Grey (G)	Umber (U)
Right-Hand	TAS-800R/G	TAS-800R/U
Left-Hand	TAS-800L/G	TAS-800L/U

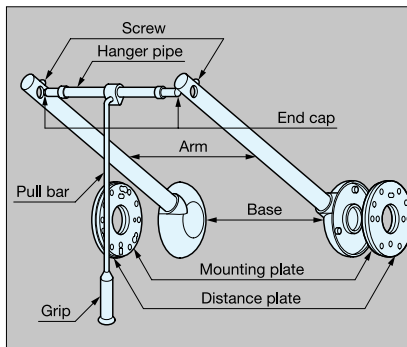
Grey (G)	Umber (U)
TAW-1200/G	TAW-1200/U

Product Specification	Grey (G)
Right-Hand	TAT-800R/G
Left-Hand	TAT-800L/G

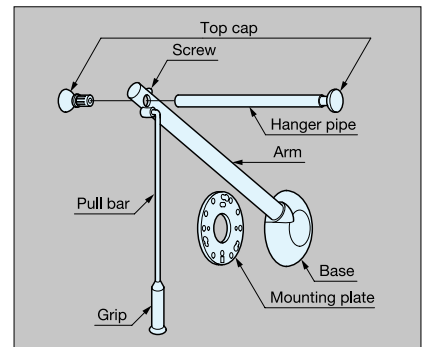
TAS-800L



TAW-1200



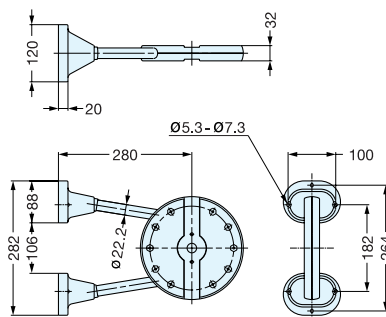
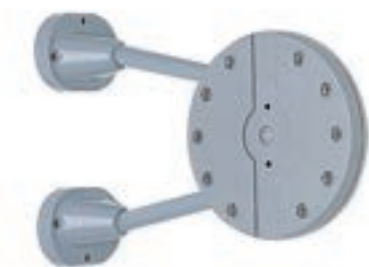
TAT-800L



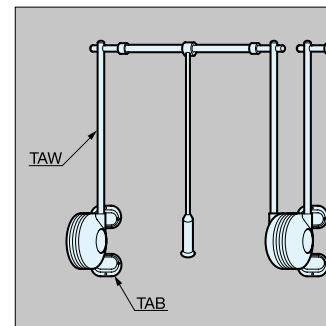
BRACKET



TAB



• Back wall mount bracket for TAS, TAW and TAT.

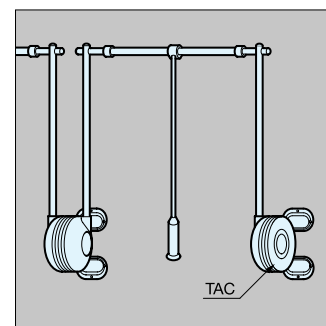
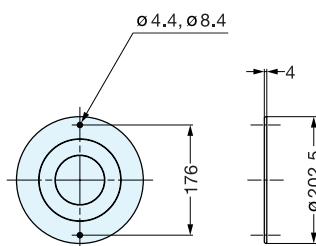


Item No.	Weight (kg)	Box (pcs)	Carton (pcs)	Material	Color
TAB/G	1.5 (3.3 lbs)	1	4	Steel/Plastic	Grey
TAB/U					Umber

COVER FOR TAB BRACKET



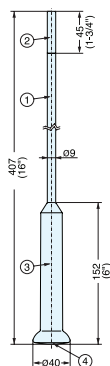
TAC



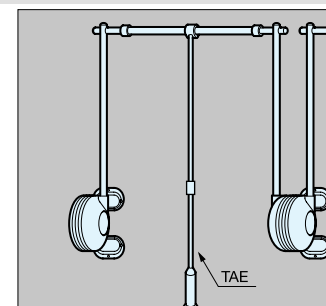
Item No.	Weight (kg)	Box (pcs)	Carton (pcs)	Material	Color
TAC/G	0.21 (0.46 lbs)	1	4	Steel	Grey
TAC/U					Umber

EXTENSION ROD

TAE



• 12" extension for pull down rod for TAW, TAS, and TAT.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish
TAE/G	300	10	50	①	Rod	Steel	Grey/Umber
TAE/U				②	Nut		Nickel
				③	Grip	ABS	Grey/Umber
				④	End Cap		

EXTENSION HANGER

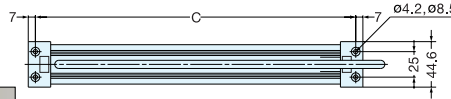
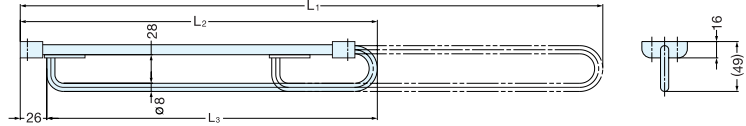
LOAD CAPACITY
3 kg
6.6 lbs

TEST 5
P.696

4x25
STAINLESS

UH SERIES

- Space-saving, undermount design for narrow spaces.
- Includes 1" (M4 × 25) long screws.



Part Name	Material	Finish/Color
Hanger Rod	304 Stainless Steel	Chrome/Black
Rod Retainer	Steel	
End Cap	Plastic	

Item No.	L ₁	L ₂	L ₃	C	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
UH-300	491 (19-21/64")	300	274	264 (10-25/64")	3 (6.6 lbs)	365	5	30
UH-350	571 (22-31/64")	350	324	314 (12-23/64")		440		
UH-400	636 (25-1/32")	400	374	364 (14-21/64")		505		
UH-450	721 (28-25/64")	450	424	414 (16-19/64")		570		

EXTENSION HANGER

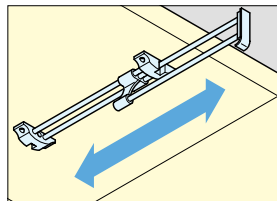
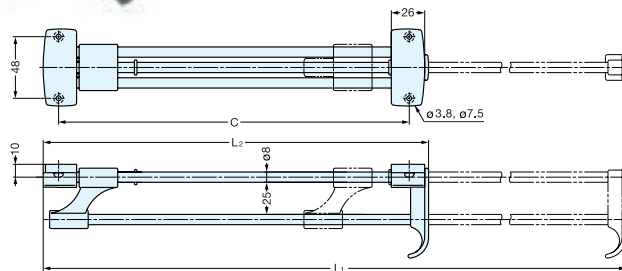
LOAD CAPACITY
4-6 kg
8.8-13.2 lbs

TEST 5
P.696

3.5x20
STEEL

W SERIES

- Space-saving, undermount design for narrow spaces.
- Molded nylon finger grip for easy accessibility.
- Includes 3/4" (M3.5 × 20) long screws.



Part Name	Material	Finish/Color
Hanger Rod	Steel	Nickel/Black
Retainer Guide	Nylon	

Item No.	L ₁	L ₂	H	C	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
W-300	498 (19-39/64")	300 (11-13/16")	73	273	6 (13.2 lbs)	485	5	30
W-350	556 (21-57/64")	350 (13-25/32")		323	5 (11 lbs)	560		
W-400	628 (24-23/32")	400 (15-3/4")		373	5 (11 lbs)	630		
W-450	698 (27-31/64")	450 (17-23/32")		423	4 (8.8 lbs)	715		

EXTENSION HANGER

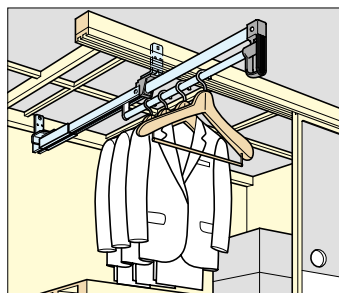
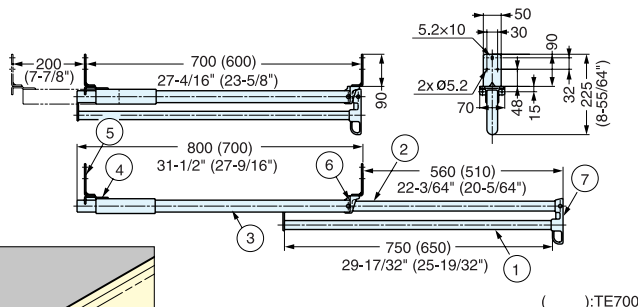
LOAD CAPACITY
20 kg
44 lbs

4.5x20
STEEL

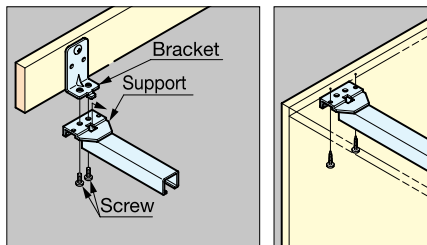
TE-700, TE-800



- Space-saving, undermount design for deep, narrow spaces.
- Use L-brackets (included) for side-mount.
- 7-7/8" rear support can be adjusted for shorter/longer spaces.
- Includes 3/4" (M4.5 x 20) long screws.



Installation



No.	Part Name	Material	Finish
①	Hanger Rod	Steel	Chrome
②	Rod Retainer		Brown
③	Retainer		
④	Support		
⑤	Bracket	Plastic	Black
⑥	Cap		
⑦	Pull		

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TE-700	20 (44 lbs)	2400	1	6
TE-800		2700		



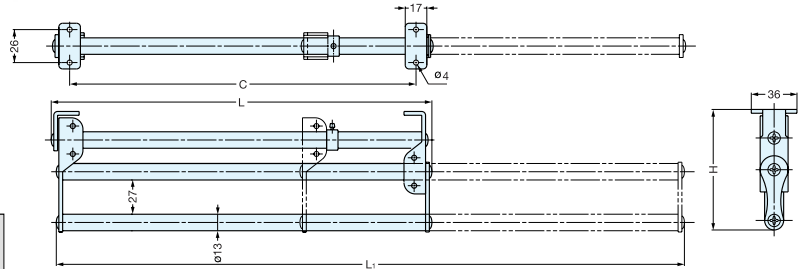
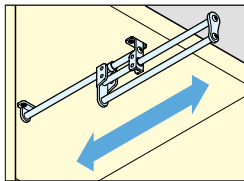
EXTENSION HANGER



A SERIES



- Space-saving, undermount design for narrow spaces.
- Includes 1" (3.5 × 25) long screws.



Material	Finish
430 Stainless Steel	Satin

Item No.	L ₁	L	H	C	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
A-300	495 (19-31/64")	300 (11-13/16")	95	273	5 (11 lbs)	382	5	50
A-330	545 (21-29/64")	330 (13")		303		400		
A-360	598 (23-35/64")	360 (14-11/64")		333		440		
A-400	665 (26-3/16")	400 (15-3/4")		373		460		

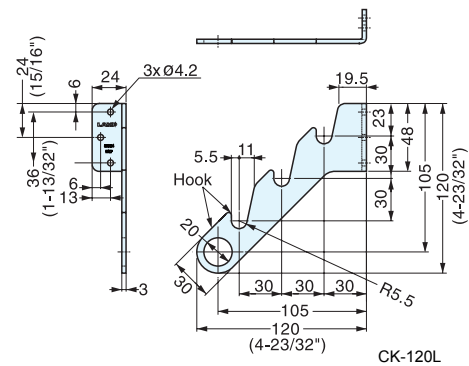
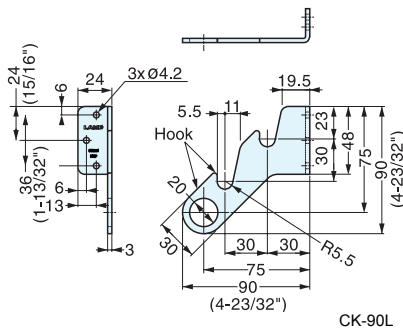
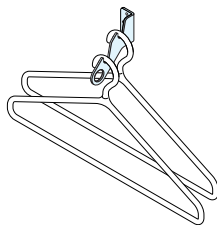
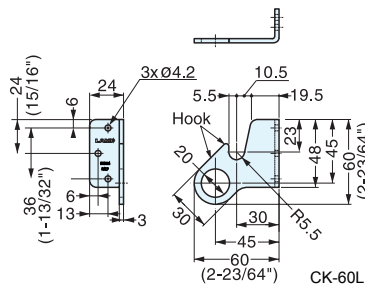
HANGER BRACKET



CK



- Light duty hanger brackets for hanging garments, umbrellas, etc.
- Available with multiple notches and 3/4" hole.
- Surface mount onto wood panel/stud.
- Not recommended for drywall installation, or for use with laundry rods.
- Includes 3/4" (M4 × 20) long screws.



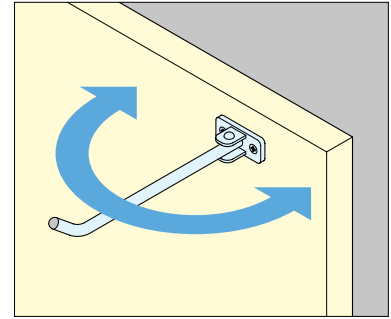
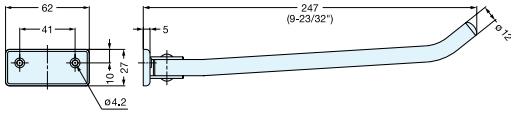
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
CK- 60L	1.5 kg (3.3 lbs)	66	15	150
CK- 90L		90	15	150
CK-120L		113	10	100

Material	Finish
304 Stainless Steel	Satin

SWINGING HANGER



HM-250Y

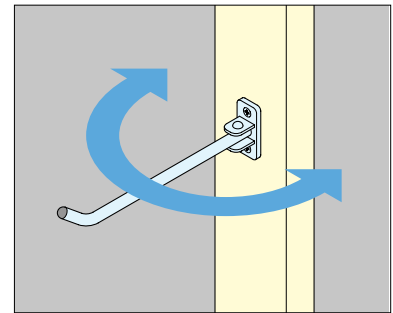
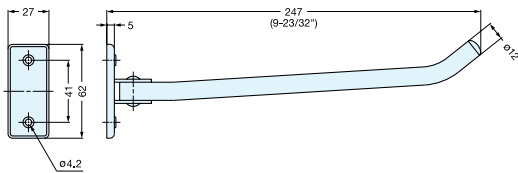


Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
HM-250Y	3 (6.6 lbs)	125	10	100	304 Stainless Steel	Satin

SWINGING HANGER



HM-250V

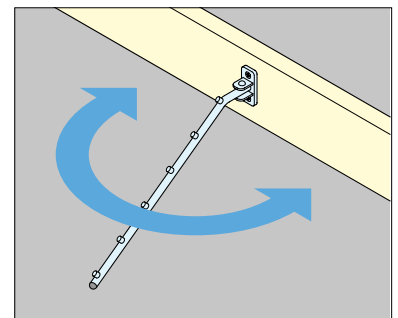
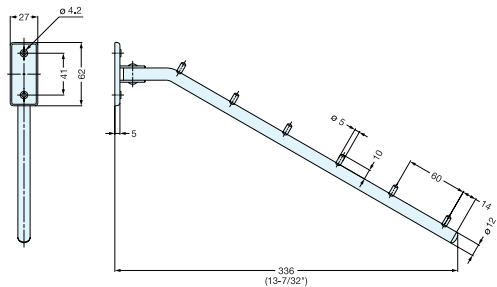


Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
HM-250V	3 (6.6 lbs)	120	10	100	304 Stainless Steel	Satin

SWINGING HANGER



HM-330



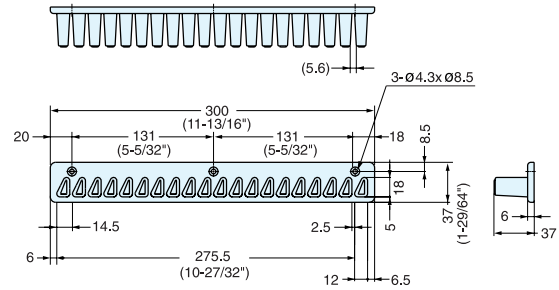
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
HM-330	3 (6.6 lbs)	170	10	100	304 Stainless Steel	Satin

TIE RACK

LOAD CAPACITY
0.3 kg
0.7 lbs

4x14
STAINLESS

MST-20



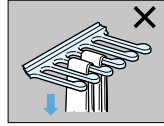
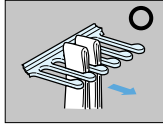
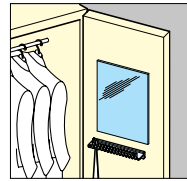
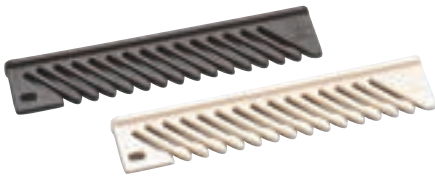
Item No.	Color	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material
MST-20BL	Brown	0.3 (0.7 lbs)	10.5	10	120	Body	ABS
MST-20GR	Ivory					Rubber	Elastomer

TIE RACK

LOAD CAPACITY
0.3 kg
0.7 lbs

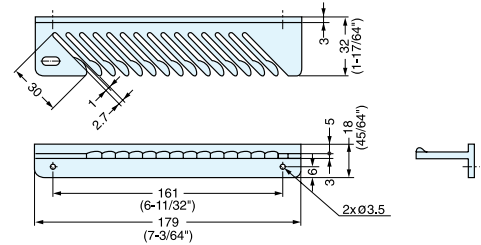
NO SCREW

TIEM



•How to use
Folded necktie should be inserted in between TIEMATE arms. This will hold the tie without stretching it. Hanging ties on the arms is not recommended.

- Uniquely designed tie rack neatly organizes and holds ties without stretching them.
- Screws not included.



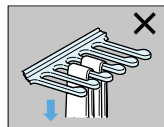
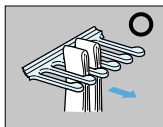
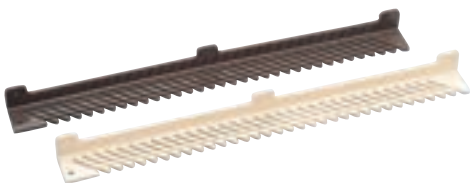
Item No.	Color	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material
TIEM-BR	Brown	0.3 (0.7 lbs)	22	20	400	Body	Polycarbonate
TIEM-I	Ivory						

TIE RACK

LOAD CAPACITY
0.3 kg
0.7 lbs

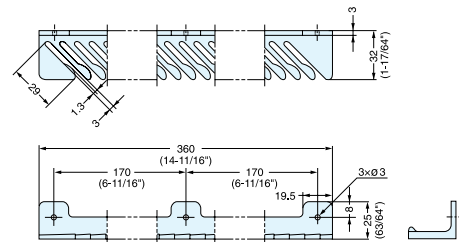
STEEL

TIE-33



•How to use
Folded necktie should be inserted in between TIEMATE arms. This will hold the tie without stretching it. Hanging ties on the arms is not recommended.

- Uniquely designed tie rack neatly organizes and holds ties without stretching them.

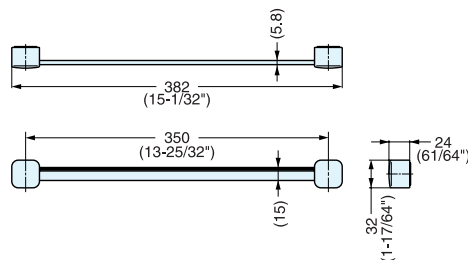


Item No.	Color	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material
TIE-33BR	Brown	0.3 (0.7 lbs)	50	20	300	Body	Polycarbonate
TIE-33I	Ivory						

TIE RACK



S-350



Item No.	Color	Weight (g)	Box (pcs)	Carton (pcs)	Part Name	Material
S-350W	White	80	10	100	Bracket	ABS
S-350B	Black				Rod	304 Stainless Steel

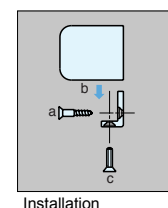
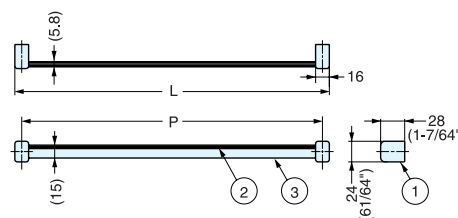
TIE RACK



STR



Part Name	Material	Color
① Bracket	Zinc Alloy	Chrome
② Anti-slip Strip	PVC	Black
③ Rod	304 Stainless Steel	Mirror



Item No.	L	P	Weight (g)	Box (pcs)	Carton (pcs)
STR-300	316 (12-7/16")	300 (11-13/16")	160	10	60
STR-350	366 (14-13/32")	350 (13-25/32")	170		
STR-400	416 (16-3/8")	400 (15-3/4")	180		
STR-450	466 (18-11/32")	450 (17-23/32")	190		

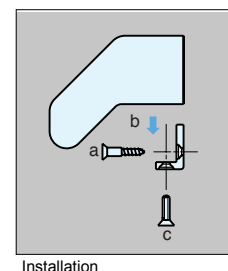
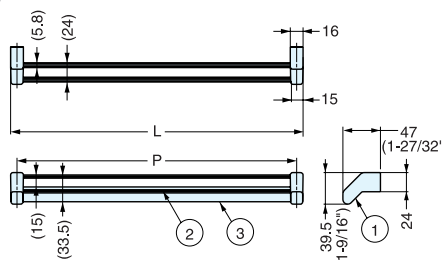
TIE RACK



DTR



Part Name	Material	Color
① Bracket	Zinc Alloy	Chrome
② Anti-slip Strip	PVC	Black
③ Rod	304 Stainless Steel	Mirror



Item No.	L	P	Weight (g)	Box (pcs)	Carton (pcs)
DTR-350	366 (14-13/32")	350 (13-25/32")	250	5	30
DTR-400	416 (16-3/8")	400 (15-3/4")	270		
DTR-450	466 (18-11/32")	450 (17-23/32")	285		

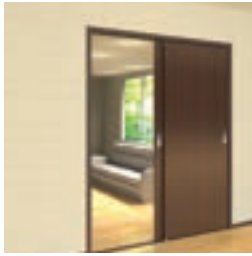


SLIDING & FOLDING DOOR HARDWARE

SLIDING DOOR HARDWARE
SYNCHRONIZED SLIDING DOOR HARDWARE
LATERAL OPENING DOOR HARDWARE
GLASS SLIDING DOOR HARDWARE
FOLDING DOOR HARDWARE
ALUMINUM FRAME DOOR HARDWARE

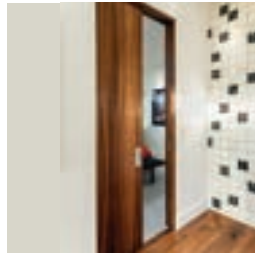
SLIDING & FOLDING DOOR HARDWARE

SLIDING, SOFT CLOSE OPTION / FOLDING DOOR HARDWARE

**FD30**

P.534~535

Max. Door Weight 66 lbs

**FD80-PD** Surface

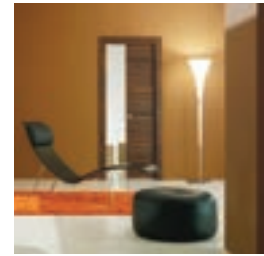
P.535.1-535.2

Max. Door Weight 275 lbs

**FD80-PD** Recessed

P.535.3-535.4

Max. Door Weight 600 lbs

**SDR-RA80-RM**

P.536~537

Max. Door Weight 200 lbs

**SDR-RA80-SM**

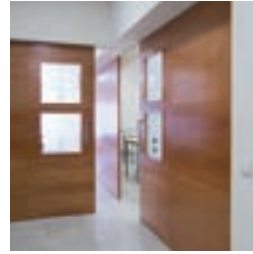
P.538~539

Max. Door Weight 200 lbs

**SDR-A125**

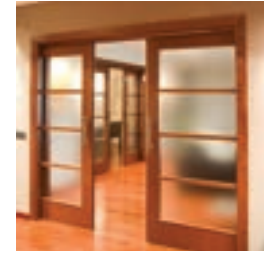
P.540~541

Max. Door Weight 275 lbs

**SDR-A300**

P.542~543

Max. Door Weight 600 lbs

**SDR-RA80SYN**

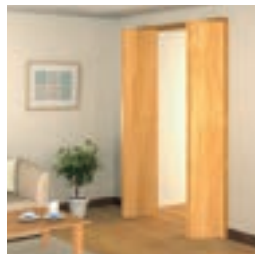
P.544~545 Synchronized

Max. Door Weight 176 lbs

**SDR-A125SYN**

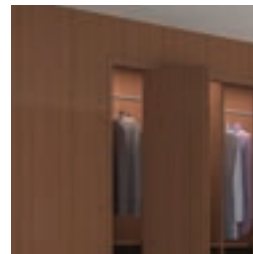
P.546~547 Synchronized

Max. Door Weight 275 lbs

**SFD**

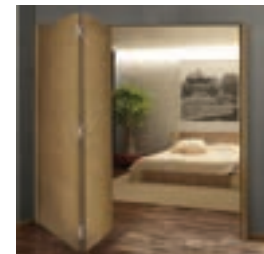
P.548~551

Max. Door Weight 17.6 lbs

**FD30-F**

P.552~557

Max. Door Weight 33 lbs

**SDR-A84D**

P.558~559

Max. Door Weight 88 lbs

SPECIALITY DOOR HARDWARE



P.561~562

Lateral Opening Door
Max. Door Weight 198 lbs**LIN-X1000**

P.568~569

Self Closing Door
Max. Door Weight 66~176 lbs**LM-80**

SPECIALITY DOOR HARDWARE



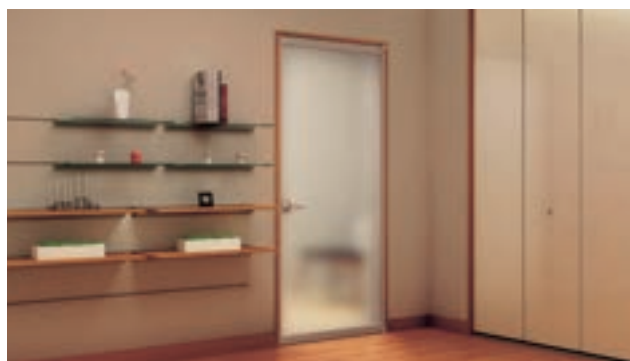
MonoFlat UNISON.

P.566~567

Flush Closing Door Max. Door Weight 66 lbs

MFU

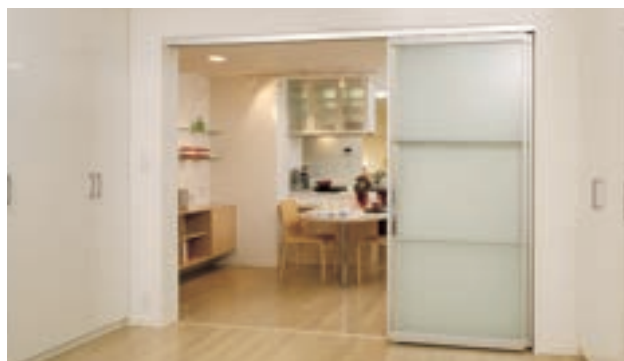
ALUMINUM FRAME DOOR HARDWARE



P.570~572

Swing Open
Max. Door Weight 88 lbs

AF-25D



P.574~577

Sliding Door/Soft Close Option
Max. Door Weight 176 lbs

FD80-AF

GLASS SLIDING DOOR HARDWARE



P.582~583

Self Closing
Max. Door Weight 66 ~ 176 lbs

LM-80G

SLIDING DOOR SYSTEM (Door Weight 66 lbs)

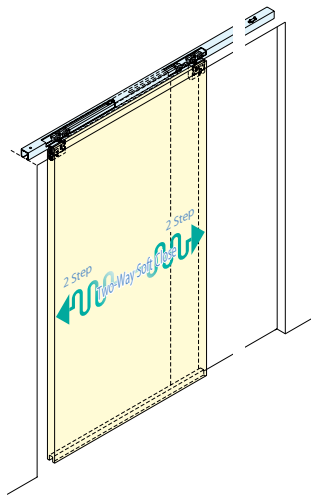
FD30

SLIDING & FOLDING DOOR HARDWARE

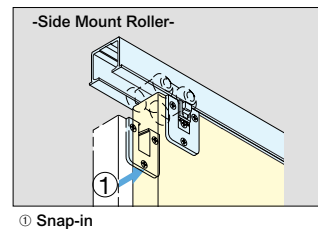
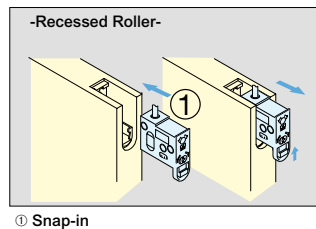


Type	FD30			
	Standard Sliding		One-way Soft Close	Two-way Soft Close
Roller	Recessed	Side Mount	Recessed	Recessed
Door Weight	Max. 66 lbs (30 kg)			
Door Thickness (Min.)	1"(24 mm)	1-1/8"(28 mm)	1"(24 mm)	
Door Width	Max. 39-3/8" (1000 mm)		20"~39-3/8" (510~1000 mm)	23-1/4"~39-3/8" (590~1000 mm)
Door Height	Max.94-1/2" (2400 mm)			

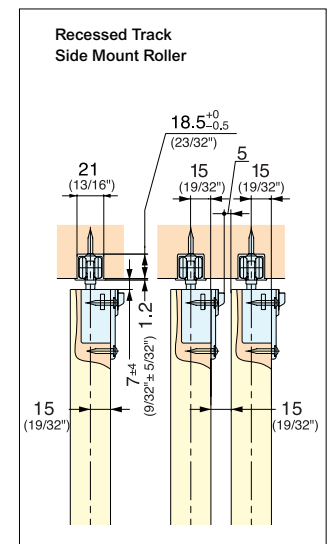
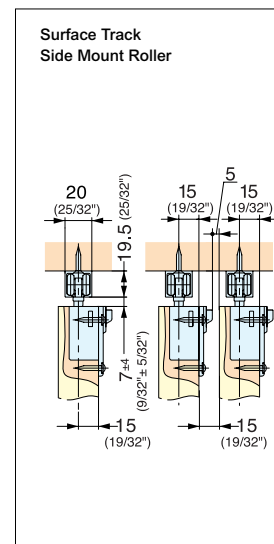
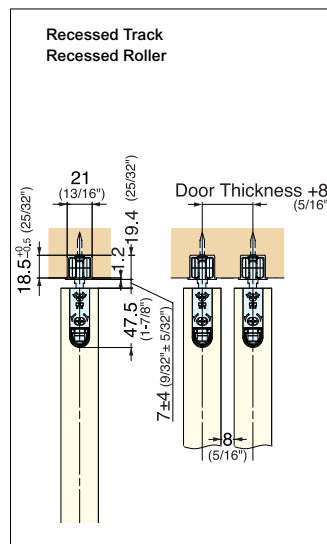
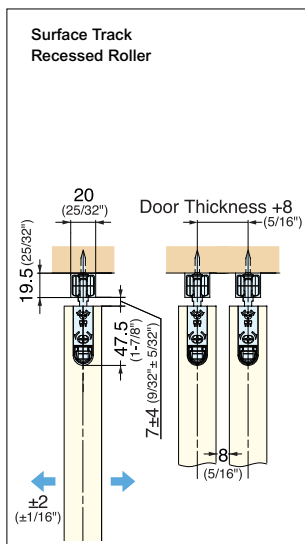
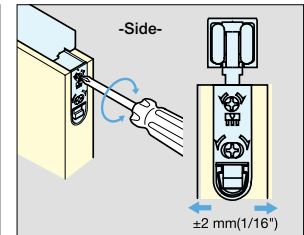
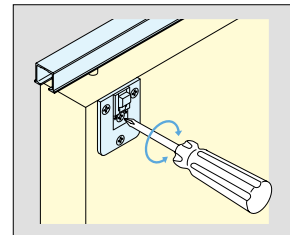
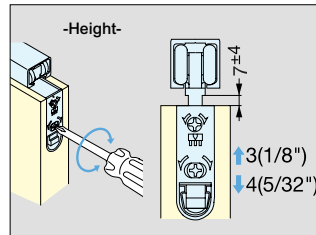
- Thin profile allows flexible design on various application
- Soft-Close Type available by selecting each roller type
- Various parts available for many applications
- *Designed for interior use, not exterior.



Door Installation



Adjustment (With Phillips Screwdriver)



SLIDING DOOR SYSTEM (DOOR WEIGHT 66 LBS)

Parts Set (per door)		Necessary Parts	
		Please refer to "Qty [a]~[d]" for parts included in each set.	
Item No.	Description	Roller	Function
[a]	FD30-DHCP	Recessed	Two Way Soft-Close
[b]	FD30-HCP	Recessed	One Way Soft-Close
[c]	FD30-HHP	Recessed	Standard Sliding
[d]	FD30-HUP	Side-Mount	Standard Sliding

Parts Included

No.	Qty				Part Name	Description
	[a]	[b]	[c]	[d]		
1	1 pc	-	-	-	Recessed-Roller Soft-Closer (Two-Way) FD30-WRH-DSC	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal Finish Yellow Zinc Chromate /Light Brown
2	-	1 pc	-	-	Recessed-Roller Soft-Closer (One-Way) FD30-WRH-SC	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal Finish Yellow Zinc Chromate /Light Brown
3	1 pc	1 pc	2 pcs	-	Recessed-Roller Standard Sliding FD30-WRH	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal Finish Yellow Zinc Chromate /Light Brown
4	-	-	-	2 pcs	Side-Mount Roller Standard Sliding FD30-WRU	<ul style="list-style-type: none"> Material Steel/Polyacetal Finish Yellow Zinc Chromate /Brown
5	1 pc	1 pc	1 pc	1 pc	Floor Guide FD30-HBG	<ul style="list-style-type: none"> Material Steel/Polyamide Finish Yellow Zinc Chromate /Light Brown
6	-	1 pc	2 pcs	2 pcs	End Stopper FD30-HTST-DB	<ul style="list-style-type: none"> Material Steel/Polyacetal Finish Yellow Zinc Chromate /Brown

Optional Parts

	Part Name	Description
7	Door Stopper FD30-HTKY	<ul style="list-style-type: none"> Material Zinc Alloy/Rubber Finish/Grey
8	Stopper Block FD30-HSB	<ul style="list-style-type: none"> Material/Polyacetal Finish/Dark Brown
9	Cover Cap FD30-WRH-CP	<ul style="list-style-type: none"> Material Polypropylene Finish: Light Brown *Dark Brown/White
10	Bottom Guide (For By-pass Door) FD30-HGW	<ul style="list-style-type: none"> Material/Polyamide Finish/Light Brown
11	Door Guide Track FD30-HBRT1500SIL	<ul style="list-style-type: none"> Material/Aluminum Finish Anodized Silver

Upper Tracks

	Length	Item No.		Dimension, Material / Finish	
		Surface Mount	Recessed Mount	Surface	Recessed
Standard	71-5/8" (1820 mm)	FD30-TRM1820SIL	FD30-TRH1820SIL		
	107-1/2" (2730 mm)	FD30-TRM2730SIL	FD30-TRH2730SIL		
	143-5/16" (3640 mm)	FD30-TRM3640SIL	FD30-TRH3640SIL		
Soft-closing	71-5/8" (1820 mm)	FD30-TRM1820SCSIL	FD30-TRH1820SCSIL		
	107-1/2" (2730 mm)	FD30-TRM2730SCSIL	FD30-TRH2730SCSIL		
	143-5/16" (3640 mm)	FD30-TRM3640SCSIL	FD30-TRH3640SCSIL		
				Aluminum / Anodized Silver	

SLIDING POCKET DOOR SYSTEM (Surface Mount)

FD80DHCMP-PD

SLIDING & FOLDING
DOOR HARDWARE

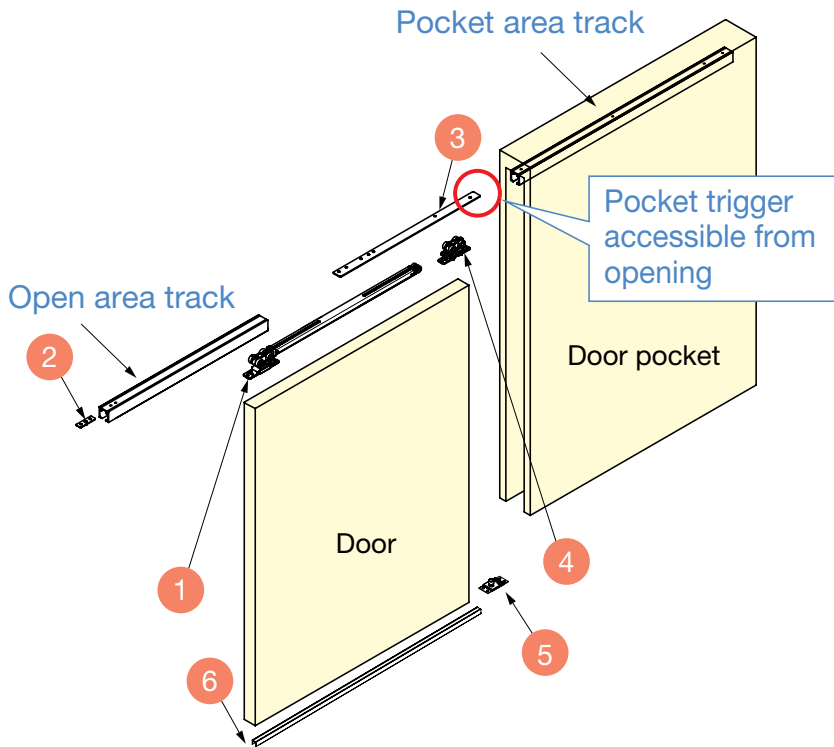
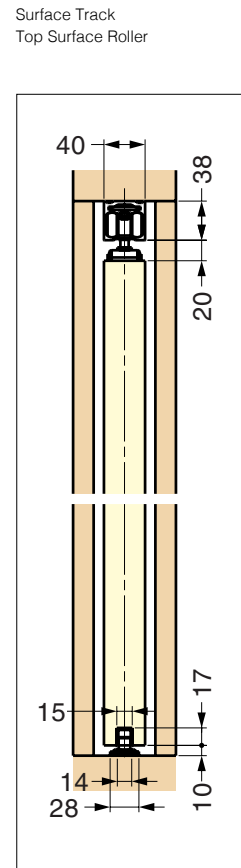
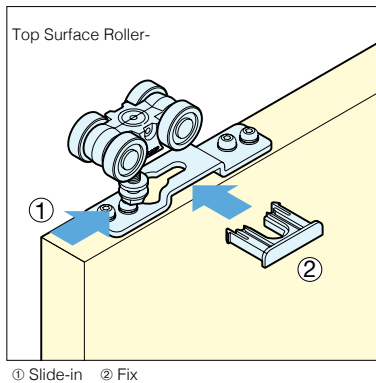
SLIDING DOOR SYSTEM (DOOR WEIGHT 176 LBS)



Door Weight	Max. 176 lbs (80 kg)
Door Thickness (Min.)	1-3/16" (30 mm)
Door Width	30-7/8" ~ 59-1/16" (784-1500 mm) [98-7/16" (2500 mm) or less in height] 33-7/16" ~ 59-1/16" (850-1500 mm) [98 7/16" ~ 106-5/16 (2501-2700 mm) in height]
Door Height	Max. 106-5/16" (2700 mm)

- Easy installation and maintenance
 - Built in soft-close and soft-open damper.
 - Two-rail system, allows all components to be fixed or adjusted through the opening without breaking the pocket (Sold Separately).
 - For interior use only.
 - Rollers are surface mounted to top of door.
 - High durability, passed 200,000 cycle test (private).
- NOTE:** Pocket Door Retail Kit (FD80PD-SM2-RT) includes hardware and 2160 mm track.

Door Installation



Parts Set (Per Door)		Necessary Parts
Item Code	Item Name	Description
250-029-722	FD80DHCMP-PD	Surface Mount Roller Two-Way Soft Close

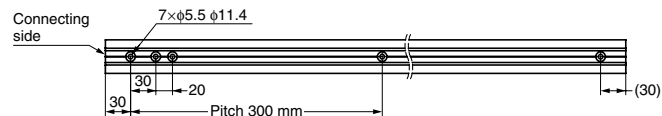
Parts Included

No.	Qty	Part Name	Dimensions	Description
1	1 pc	Surface Mount Roller Two-Way Soft Close		<p>Item Name: FD80-WRM-DSC</p> <ul style="list-style-type: none"> Material: Steel / Polyacetal (POM) Finish: Chromate / Black Screw: Pan Head Tapping Screw 4x45 <p>Remark: Do not use the included trigger.</p>
2	1 pc	Front Trigger		<p>Item Name: FD80-TRGPF</p> <ul style="list-style-type: none"> Material: Stainless Steel (SUS304) Finish: Plain
3	1 pc	Pocket Trigger		<p>Item Name: FD80-TRGPB-MB</p> <ul style="list-style-type: none"> Material: Stainless Steel (SUS304) Finish: Plain
4	1 pc	Surface Mount Roller		<p>Item Name: FD80-WRM</p> <ul style="list-style-type: none"> Material: Zinc Alloy (ZDC) / Polyacetal (POM) Finish: Nickel / Natural Screw: Pan Head Tapping Screw 4x45
5	1 pc	Floor Guide		<p>Item Name: FD50-BGR18</p> <ul style="list-style-type: none"> Material: Stainless Steel (SUS430) / Polyacetal (POM) Finish: Countersunk / Natural Screw: Pan Head Tapping Screw 4x45
6	1 pc	Bottom Guide Rail (1500 mm)		<p>Item Name: FD30-HBRT1500SIL</p> <ul style="list-style-type: none"> Material: Aluminium Alloy Finish: Anodized Silver

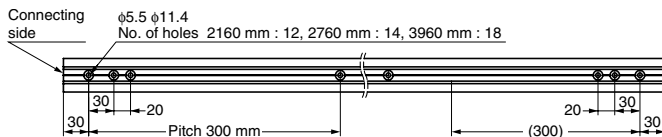
Upper Track		Necessary Parts			
No.	Length	Item Code	Part Name	Dimensions	Desc.
7	1260 mm	FD80-TRP1260-SL	Upper Track		<ul style="list-style-type: none"> Material: Aluminium Alloy Finish: Anodized Silver
8	2160 mm	FD80-TRP2160-SL			
9	2760 mm	FD80-TRP2760-SL			
10	3960 mm	FD80-TRP3960-SL			

Hole Dimensions of Upper Track

In case of 1260 mm



In case of 2160 mm, 2760 mm & 3960 mm



SLIDING POCKET DOOR SYSTEM (Recessed Mount) FD80DHCHP-PD

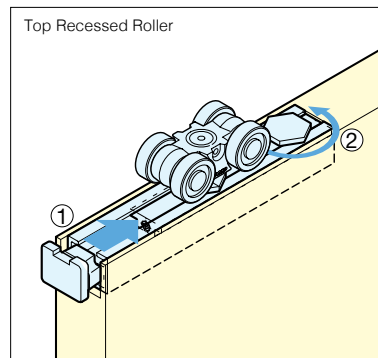


Door Weight	Max. 176 lbs (80 kg)
Door Thickness (Min.)	Recessed: 1-5/16" (34 mm), Surface: 1-3/16" (30 mm)
Door Width	30-7/8" ~ 59-1/16" (784-1500 mm) [98-7/16" (2500 mm) or less in height] 33-7/16" ~ 59-1/16" (850-1500 mm) [98 7/16" ~ 106-5/16 (2501-2700 mm) in height]
Door Height	Max. 106-5/16" (2700 mm)

- Easy installation and maintenance
- Built in soft-close and soft-open damper.
- Two-rail system, allows all components to be fixed or adjusted through the opening without breaking the pocket (Sold Separately).
- For interior use only.
- Rollers are recess mounted to top of door.
- High durability, passed 200,000 cycle test (private)

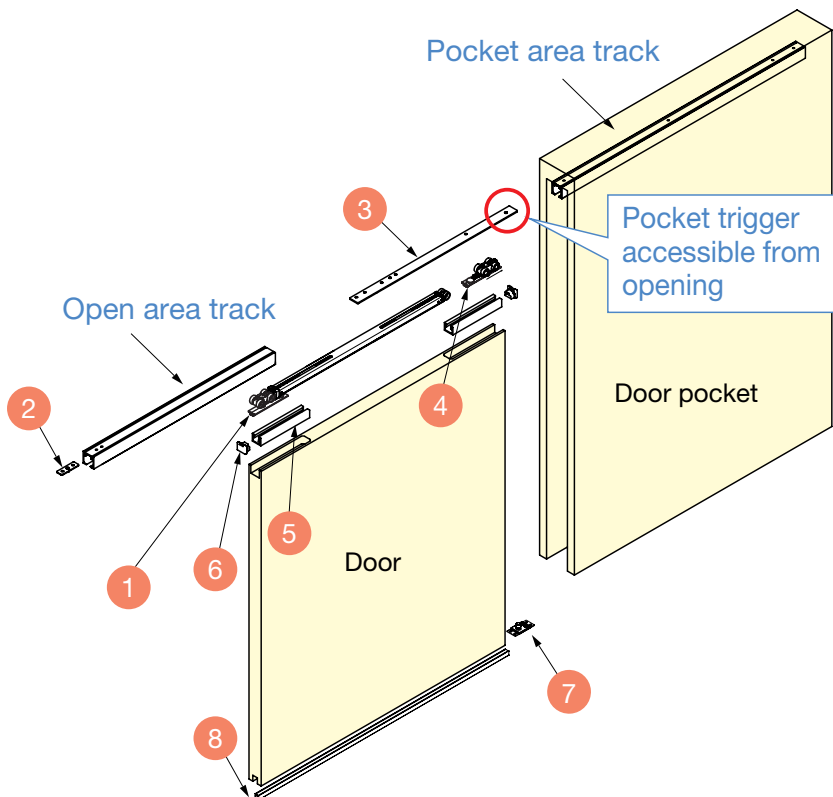
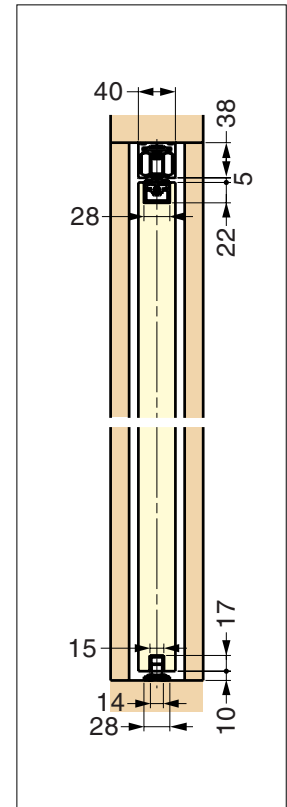
NOTE: Pocket Door Retail Kit (FD80PD-RM2-RT) includes hardware and 2160 mm track.

Door Installation



① Slide-in ② Turn & Fix

Surface Track
Top Recessed Roller



Parts Set
(Per Door)

Necessary Parts

Item Code	Item Name	Description
250-029-771	FD80DHCHP-PD	Recessed Roller Two-Way Soft Close

Parts Included

No.	Qty	Part Name	Dimensions	Description
1	1 pc	Recessed Mount Roller Two-Way Soft Close		<p>Item Name: FD80-WRH-DSC</p> <ul style="list-style-type: none"> Material: Zinc Alloy (ZDC) / Polyacetal (POM) Finish / Colour: Nickel / Black <p>Remarks: Do not use the included trigger.</p>
2	1 pc	Front Trigger		<p>Item Name: FD80-TRGPF</p> <ul style="list-style-type: none"> Material: Stainless Steel (SUS304) Finish: Plain
3	1 pc	Pocket Trigger		<p>Item Name: FD80-TRGPB-MB</p> <ul style="list-style-type: none"> Material: Stainless Steel (SUS304) Finish: Plain
4	1 pc	Recessed Roller		<p>Item Name: FD80-WRH</p> <ul style="list-style-type: none"> Material: Zinc Alloy (ZDC) / Polyacetal (POM) Finish / Colour: Nickel / Natural
5	2 pcs	Hanging Bracket (160 mm)		<p>Item Name: FD70B-HB160</p> <ul style="list-style-type: none"> Material: Aluminium Alloy Finish: Anodized Silver Screw: Pan Head Tapping Screw 5x40
6	2 pcs	End Cap		<p>Item Code: 250-121-142</p> <p>Item Name: FD70B-EC-BL</p> <ul style="list-style-type: none"> Material: Elastomer (TPE) Colour: Black
7	1 pc	Floor Guide		<p>Item Name: FD50-BGR18</p> <ul style="list-style-type: none"> Material: Stainless Steel (SUS430) / Polyacetal (POM) Finish / Colour: Polished / Natural Screw: Raised Countersunk Head Tapping Screw 3.5x30
8	1 pc	Bottom Guide Rail (1500 mm)		<p>Item Name: FD30-HBRT1500SIL</p> <ul style="list-style-type: none"> Material: Aluminium Alloy Finish: Anodized Silver

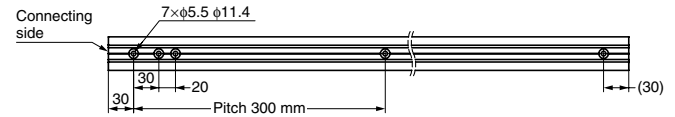
Upper Track

Necessary Parts

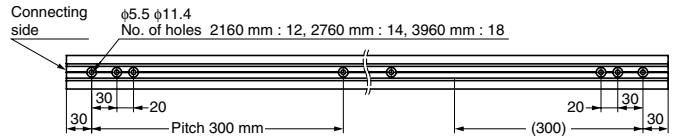
No.	Length	Item Code	Part Name	Dimensions	Desc.
9	1260 mm	FD80-TRP1260-SL	Upper Track		<ul style="list-style-type: none"> Material: Aluminium Alloy Finish: Anodized Silver
10	2160 mm	FD80-TRP2160-SL			
11	2760 mm	FD80-TRP2760-SL			
12	3960 mm	FD80-TRP3960-SL			

Hole Dimensions of Upper Track

• In case of 1260 mm



• In case of 2160 mm, 2760 mm & 3960 mm



RECESSED MOUNT SLIDING DOOR HARDWARE (Door Weight 200 lbs) SDR-RA80-RM

SLIDING & FOLDING DOOR HARDWARE

RECESSED MOUNT SLIDING DOOR HARDWARE (DOOR WEIGHT 200 LBS)



Type	SDR-RA80-RM	
	Recessed Mount Sliding Door	
Roller	Top Recessed	
Track Mounting	Ceiling	Wall w/Continuous Bracket
Door Weight	Max. 200 lbs (90 kg)	
Door Thickness	Min. 1-1/8"(28 mm)	
Door Width	Two-Way Soft Close Min. 33-7/16" (850 mm) Standard Close Min. 23-5/8" (600 mm)	


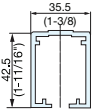

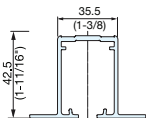
- Successfully passed 100,000 cycles test (private).
- 200 lbs (90kg)
- Ceiling and Barn Door Mount
- Recessed Mounted door brackets
- Double rollers with ball bearings
- Quiet precision movement
- Soft Close Feature
- Low profile minimum gap of 1/8" (3 mm)
- Vertical Adjustment $\pm 1/16"$ (1 mm)

■ How to order






1. Select track and track length
 - 1A. Select any optional parts for track
2. Choose a hardware set (dual soft closing or standard)

Ordering Information





■ 1. Track Options

Track Type	Length	Item No.	Description
Standard Aluminum Track	78-3/4" (2000 mm)	SDR-RA80-2000	 
	118-1/8" (3000 mm)	SDR-RA80-3000	
False Ceiling Aluminum Track	78-3/4" (2000 mm)	SDR-RA80-TC-2000	 

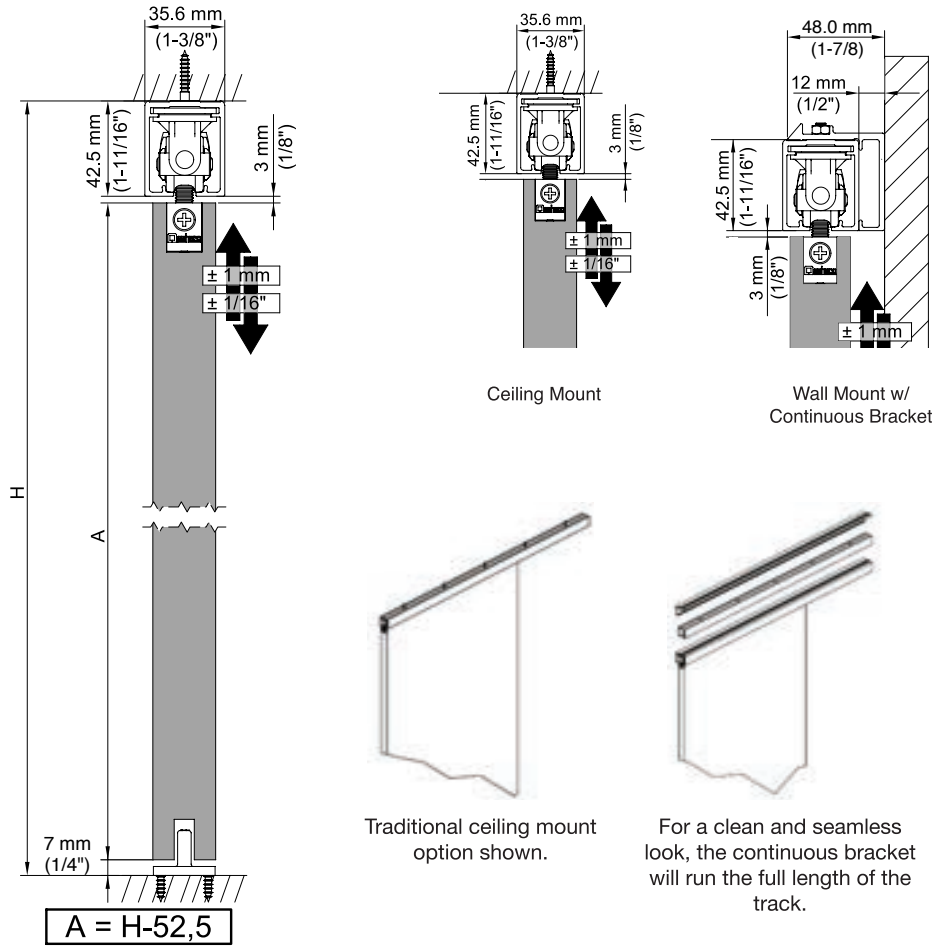
■ 1A Optional Parts for Track

 SDR-RA80WL-2000 SDR-RA80WL-3000 Wall Mount Bracket	 SDR-RA80-8083 End Cover for Track	 SDR-RA80-8085 End Cover for Track & Wall Mount Bracket	 SDR-A-4140 Bottom Guide Roller	 SDR-A-4131 Bottom Guide Channel
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■ 2. Hardware Set

Closing Feature	Item No.	Set Details
Two-Way Soft Close	SDR-RA80-RM-DSC	 +  (1) SDR-RA80-8084 Recessed Bracket (2) SDR-RA80-8006 Soft Close Rollers
Standard Closing	SDR-RA80-RM-RR	 +  (1) SDR-RA80-8084 Recessed Bracket (2) SDR-RA80-8080 Standard Rollers

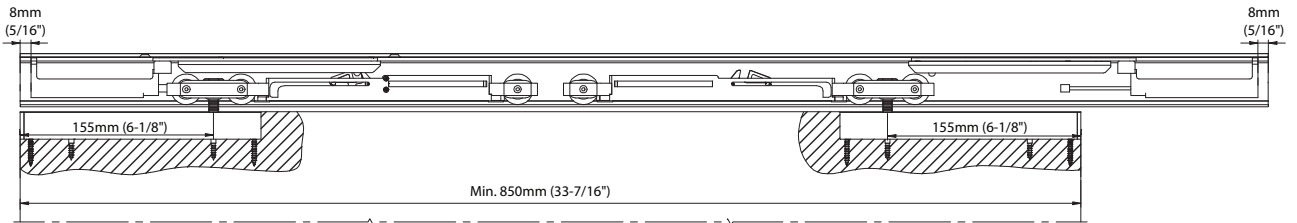
TRACK MOUNTING OPTIONS



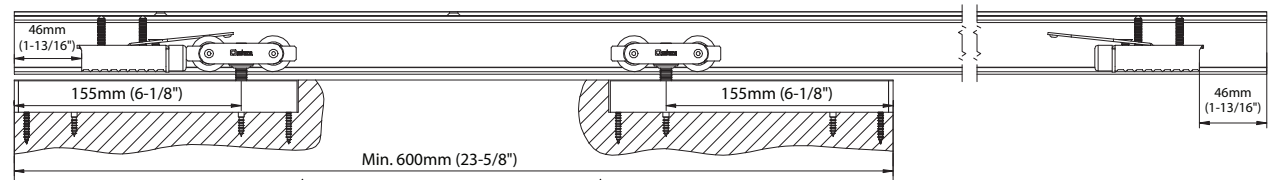
Track Details

Two-Way Soft Close

* Complete smooth and silent soft close motion in both directions



Standard Closing



SURFACE MOUNT SLIDING DOOR HARDWARE (Door Weight 200 lbs)

SDR-RA80-SM

SLIDING & FOLDING DOOR HARDWARE

SURFACE MOUNT SLIDING DOOR HARDWARE (DOOR WEIGHT 200 LBS)



Type	SDR-RA80-SM	
	Surface Mount Sliding Door	
Roller	Top Surfaced	
Track Mounting	Ceiling	Wall w/Continuous Bracket
Door Weight	Max. 200 lbs (90 kg)	
Door Thickness	Min. 1-1/8" (28 mm)	
Door Width	Two-Way Soft Close Min. 32-1/2" (825 mm) Standard Close Min. 23-5/8" (600 mm)	

- Successfully passed 100,000 cycles test (private).
- 200 lbs (90kg)
- Ceiling and Barn Door Mount
- Surface Mounted door brackets
- Double rollers with ball bearings
- Quiet precision movement
- Soft Close Feature
- Vertical Adjustment $\pm 1/16"$ (1 mm)

■ How to order

1. Select track and track length
 - 1A. Select any optional parts for track
2. Choose a hardware set (dual soft closing or standard)

Ordering Information

■ 1. Track Options

Track Type	Length	Item No.	Description
Standard Aluminum Track	78-3/4" (2000 mm)	SDR-RA80-2000	
	118-1/8" (3000 mm)	SDR-RA80-3000	
False Ceiling Aluminum Track	78-3/4" (2000 mm)	SDR-RA80-TC-2000	

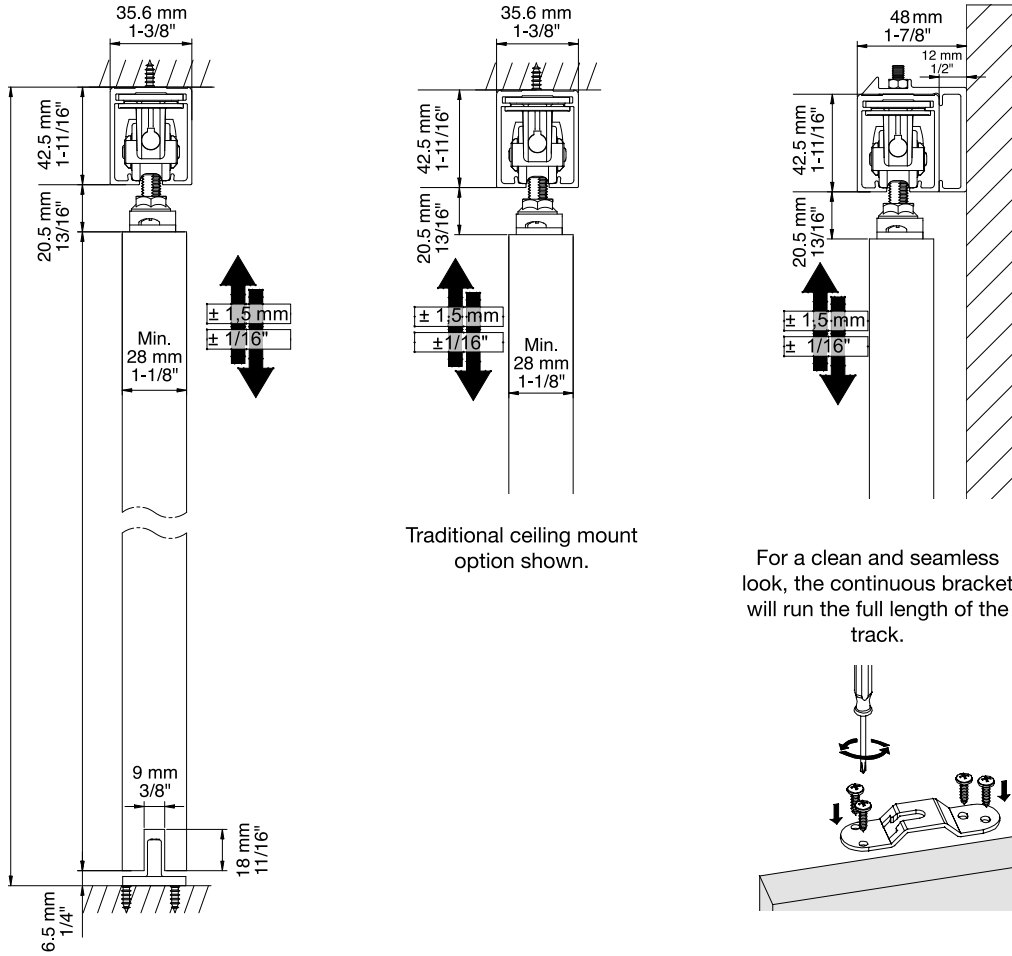
■ 1A Optional Parts for Track

<p>SDR-RA80WL-2000 SDR-RA80WL-3000 Wall Mount Bracket</p>	<p>SDR-RA80-8083 End Cover for Track</p>	<p>SDR-RA80-8085 End Cover for Track & Wall Mount Bracket</p>	<p>SDR-A-4140 Bottom Guide Roller</p>	<p>SDR-A-4131 Bottom Guide Channel</p>
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■ 2. Hardware Set

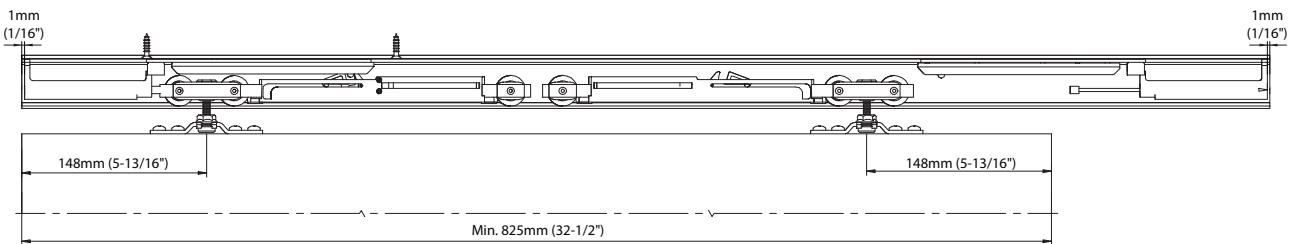
Closing Feature	Item No.	Set Details
Dual Soft Close	SDR-RA80-SM-DSC	<p>(1) SDR-RA80-SM-KIT Surface Mount Brackets</p> <p>+</p> <p>(2) SDR-RA80-8006 Soft Close Rollers</p>
Standard Closing	SDR-RA80-SM-RR	<p>(1) SDR-RA80-SM-KIT Surface Mount Brackets</p> <p>+</p> <p>(2) SDR-RA80-8080 Standard Rollers</p>

TRACK MOUNTING OPTIONS

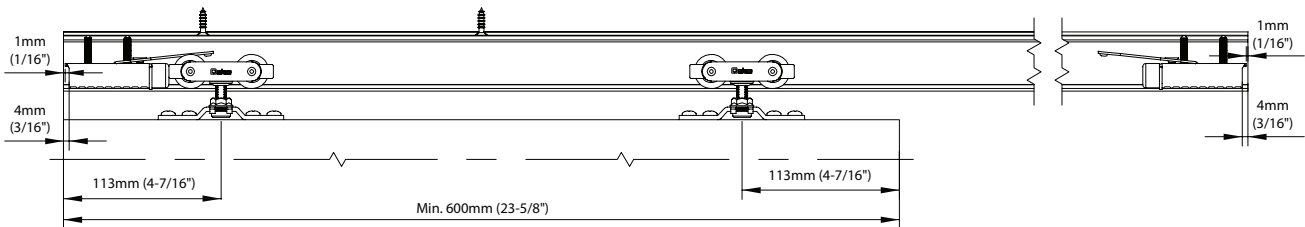


Two-Way Soft Close

* Complete smooth and silent soft close motion in both directions



Standard Closing



SLIDING DOOR HARDWARE (Door Weight 275 lbs)

SDR-A125

SLIDING & FOLDING DOOR HARDWARE

SLIDING DOOR HARDWARE (DOOR WEIGHT 275 LBS)



Type	SDR-A125	
	Standard Sliding	
Roller	Top Recessed	Top Surface
Door Weight	Max. 275 lbs (125 kg)	
Door Thickness	Min. 1-3/8" (35 mm)	
Door Width	Min. 19-11/16" (500 mm)	


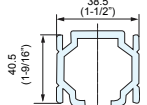

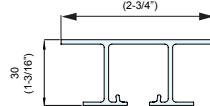
- 275 lbs (125 kg)
- Ceiling mount
- Recessed and Top Surface Mounted door brackets
- Double rollers with ball bearings
- Quiet precision movement
- Low profile minimum gap of 1/8" (3 mm) Recess mount
- Vertical Adjustment
 - o Recessed mount $\pm 1/16"$ (1 mm)
 - o Surface mount $\pm 1/8"$ (2.5 mm)

■ How to order








1. Select track and track length
 - 1A. Select any optional parts for track
2. Select a hardware set

Ordering Information



■ 1. Track Options

Track Type	Length	Item No.	Description
Standard Aluminum Track	118-1/8" (3000 mm)	SDR-A125-3000	 
False Ceiling Aluminum Track	118-1/8" (3000 mm)	SDR-A125-12532	 

■ 1A Optional Parts for Track

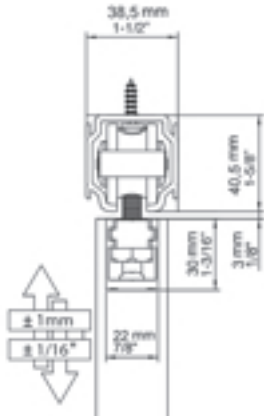
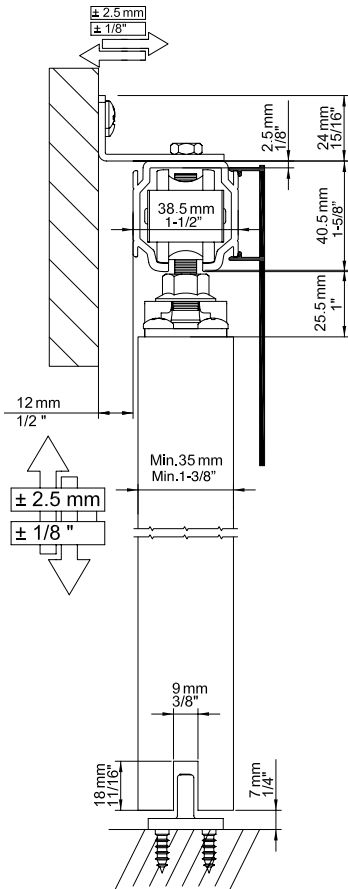
 SDR-A125-10433 Clip on Fascia	 SDR-A-6056 Clip on Bracket for Timber	 SDR-A125-12557 End Caps for Track	 SDR-A81-6961 Aluminum Separator
 SDR-A-4131 Bottom Guide Channel	 SDR-A-4140 Bottom Guide Roller	 SDR-A300-30064 Short Bracket	

■ 2. Hardware Set

Door Mount	Item No.	Set Details
Top Recessed	SDR-A125TR-PRT	 Top Recessed Roller Set
Top Surface	SDR-A125TS-PRT	 Top Surface Roller Set

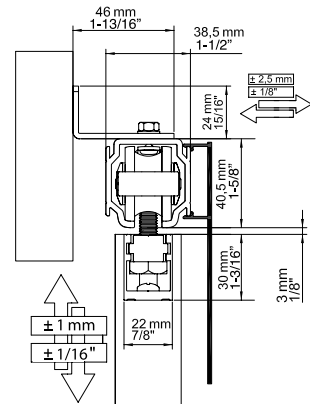
TRACK MOUNTING OPTIONS

Top Recessed (SDR-A125TR)



Ceiling Mount

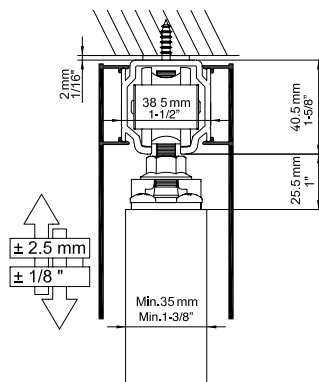
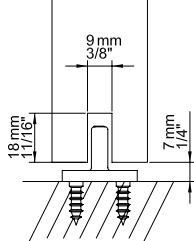
Traditional Ceiling mount option shown with recessed rollers.



Wall Mount w/ Short Bracket

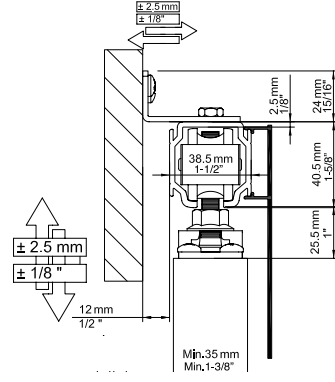
Top track short bracket for Barn Door style mounting that allows fast and simple installation.

Top Surface (SDR-A125TS)



Ceiling Mount

Traditional Ceiling mount option shown. Fascia can be mounted on both sides if needed

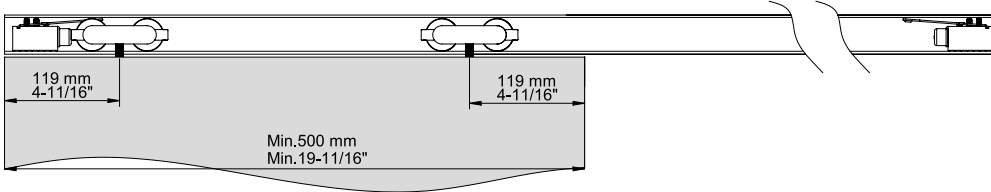


Wall Mount w/ Short Bracket

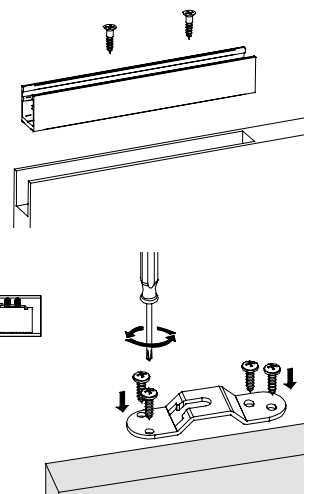
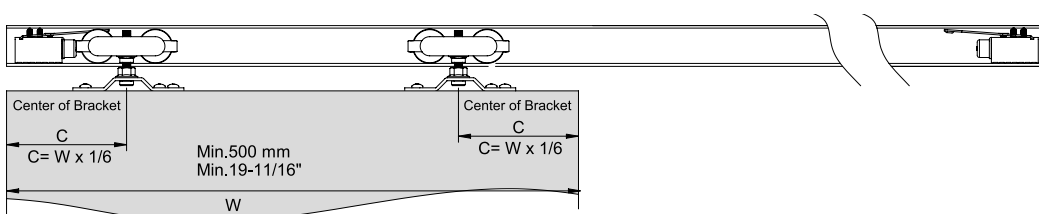
Top track short bracket for Barn Door style mounting that allows fast and simple installation.

Track Details

Top Recessed



Top Surface



SLIDING DOOR HARDWARE (Door Weight 660 lbs)

SDR-A300

SLIDING & FOLDING DOOR HARDWARE

SLIDING DOOR HARDWARE (DOOR WEIGHT 660 LBS)



Type	SDR-A300	
	Standard Sliding	
Roller	Top Recessed	Top Surfaced
Door Weight	Max. 660 lbs (300 kg)	
Door Thickness	Min. 1-3/8" (35 mm)	
Door Width	Min. 23-5/8" (600 mm)	


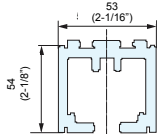
- 660 lbs (300 kg) Heavy Duty Model
- Ceiling and Barn Door Mount
- Recessed and Top Surface Mounted door brackets
- Double rollers with ball bearings
- Quiet precision movement
- Low profile minimum gap of 1/8" (3 mm) Recess Mount
- Vertical Adjustment $\pm 1/16"$ (1 mm)
 - o Recessed mount $\pm 1/4"$ (6 mm)
 - o Surface mount $\pm 1/16"$ (2 mm)

■ How to order





1. Select track and track length
 - 1A. Select any optional parts for track
2. Select a mounting type

Ordering Information



■ 1. Track Options

Track Type	Length	Item No.	Description
Standard Aluminum Track	118-1/8" (3000 mm)	SDR-A300-3000	 

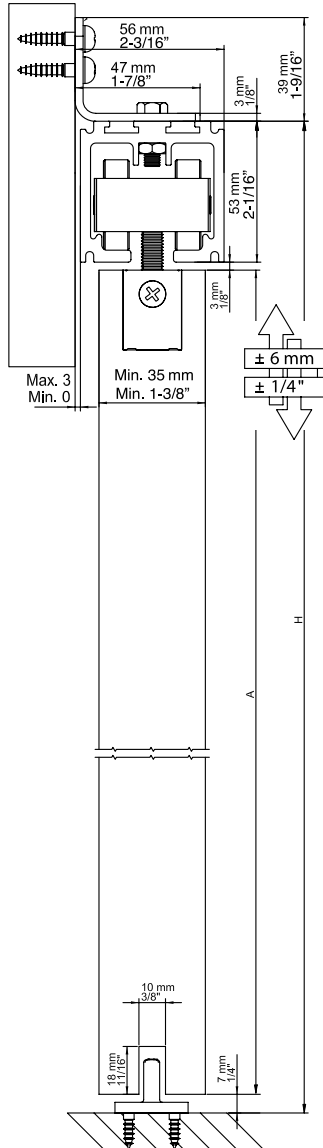
■ 1A Optional Parts for Track

 SDR-A-4131 Bottom Guide Channel	 SDR-A300-30057 End Caps for Tracks	 SDR-A-4140 Bottom Guide Roller	 SDR-A300-30064 Short Bracket
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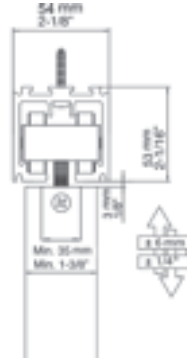
■ 2. Hardware Set

Door Mount	Item No.	Set Details
Top Recessed	SDR-A300TR-PRT	 Top Recessed Roller Set
Top Surface	SDR-A300TS-PRT	 Top Surface Roller Set

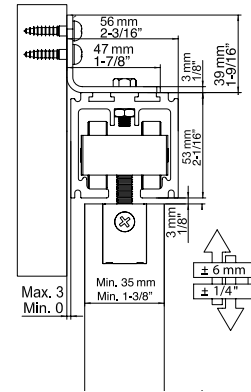
TRACK MOUNTING OPTIONS



Top Recessed (SDR-A300TR)

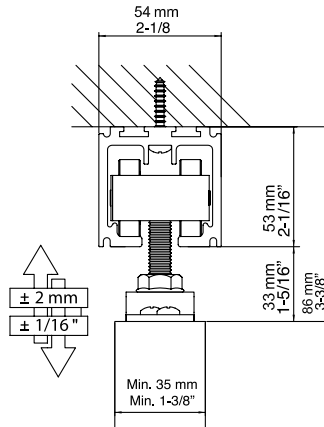


Ceiling Mount
Traditional Ceiling mount option shown with recessed rollers.

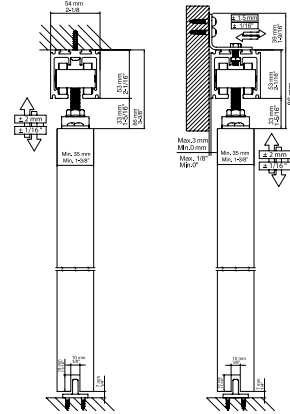


Wall Mount w/ Short Bracket
Top track short bracket for Barn Door style mounting that allows fast and simple installation.

Top Surface (SDR-A300TS)



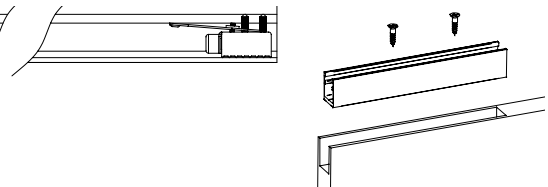
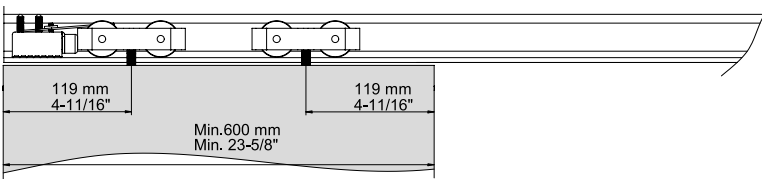
Ceiling Mount
Traditional Ceiling mount option shown. Fascia can be mounted on both sides if needed



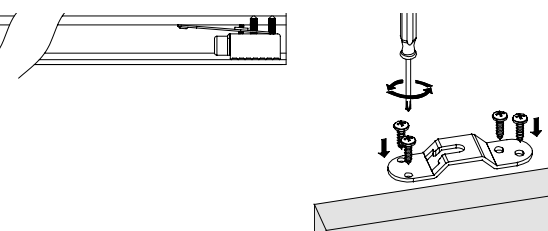
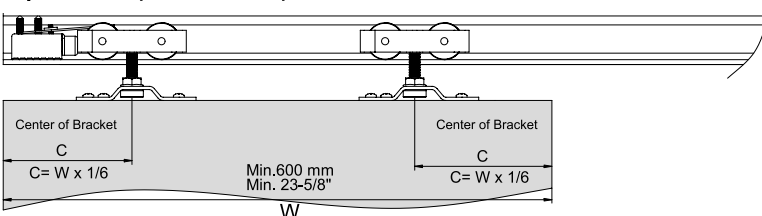
Wall Mount w/ Short Bracket
Top track short bracket for Barn Door style mounting that allows fast and simple installation.

Track Details

Top Recessed (SDR-A300TR)



Top Surface (SDR-A300TS)



SOFT-CLOSE SYNCHRONIZED SLIDING DOOR HARDWARE **SDR-RA80SYN**

SLIDING & FOLDING DOOR HARDWARE

SOFT-CLOSE SYNCHRONIZED SLIDING DOOR HARDWARE



Type	SDR-RA80SYN	
	Synchronized Bi-Parting	
Roller	Top Surface Mount	
Track Mounting	Ceiling	Wall w/Continuous Bracket
Door Weight	Max. 176 lbs (80 kg)	
Door Thickness	Min. 1-1/16" (27 mm)	
Door Width	40 kg door (88 lbs) Min: 28-1/8" (715 mm) Max: 59-1/16" (1500 mm)	80 kg door (176 lbs) Min: 36" (915 mm) Max: 59-1/16" (1500 mm)


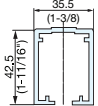
- Successfully passed 100,000 cycles test (private).
- 176 lbs (80 kg)
- Ceiling and Wall/Barn Door Mount
- Surface Mounted Door Brackets
- Double Rollers with Ball Bearings
- Quiet Precision Movement
- Soft Close Feature
- Vertical Adjustment $\pm 1/16"$ (1 mm)

■ How to order




1. Select track and track length
 - 1A. Select any optional parts for track
2. Choose a hardware set

Ordering Information



■ 1. Track Options

Track Type	Length	Item No.	Description
Standard Aluminum Track	78-3/4" (2000 mm)	SDR-RA80-2000	 
	118-1/8" (3000 mm)	SDR-RA80-3000	

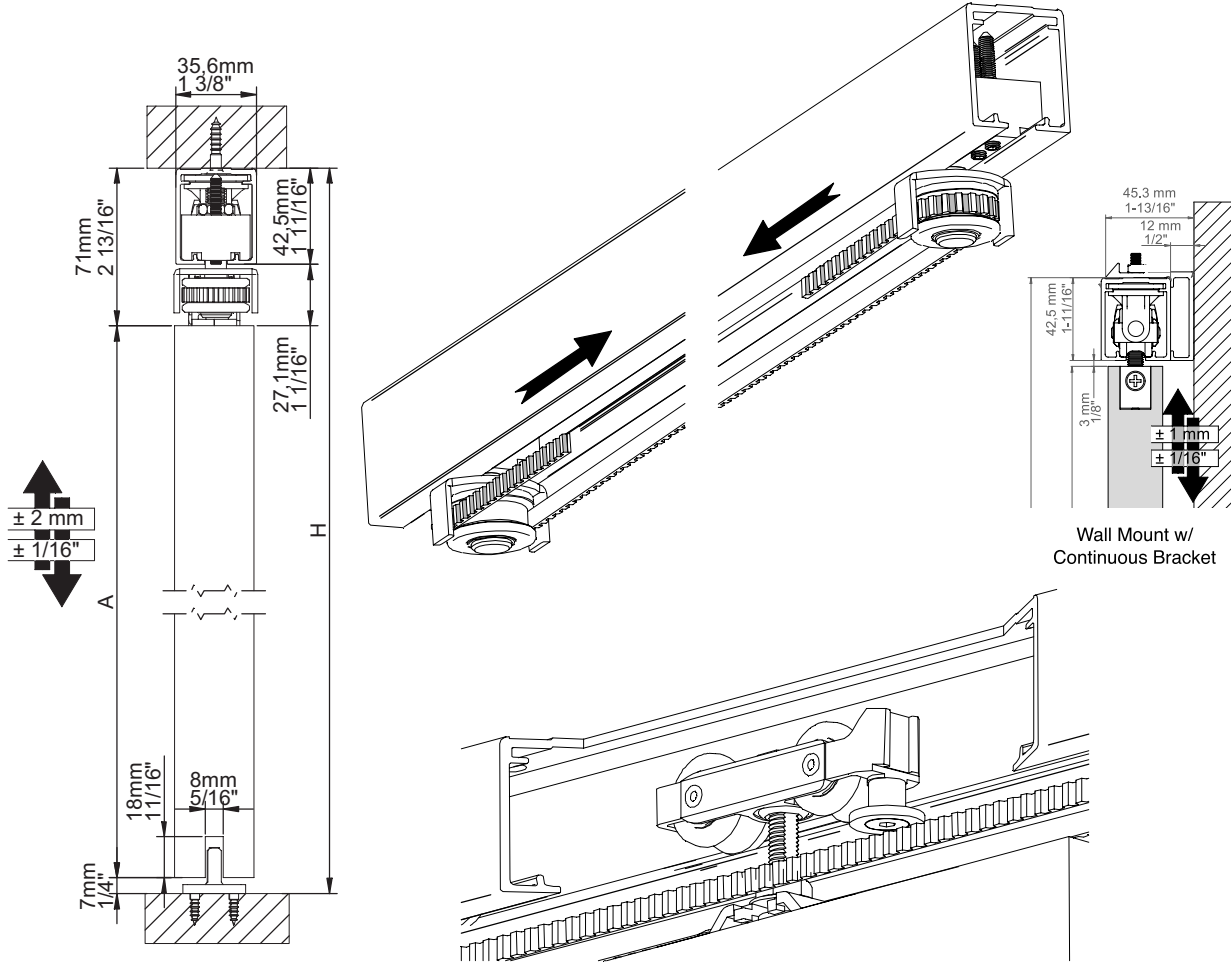
■ 1A Optional Parts for Track

 SDR-RA80WL-2000 SDR-RA80WL-3000 Wall Mount Bracket	 SDR-RA80-8083 End Cover for Track	 SDR-RA80-8085 End Cover for Track & Wall Mount Bracket
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■ 2. Hardware Set

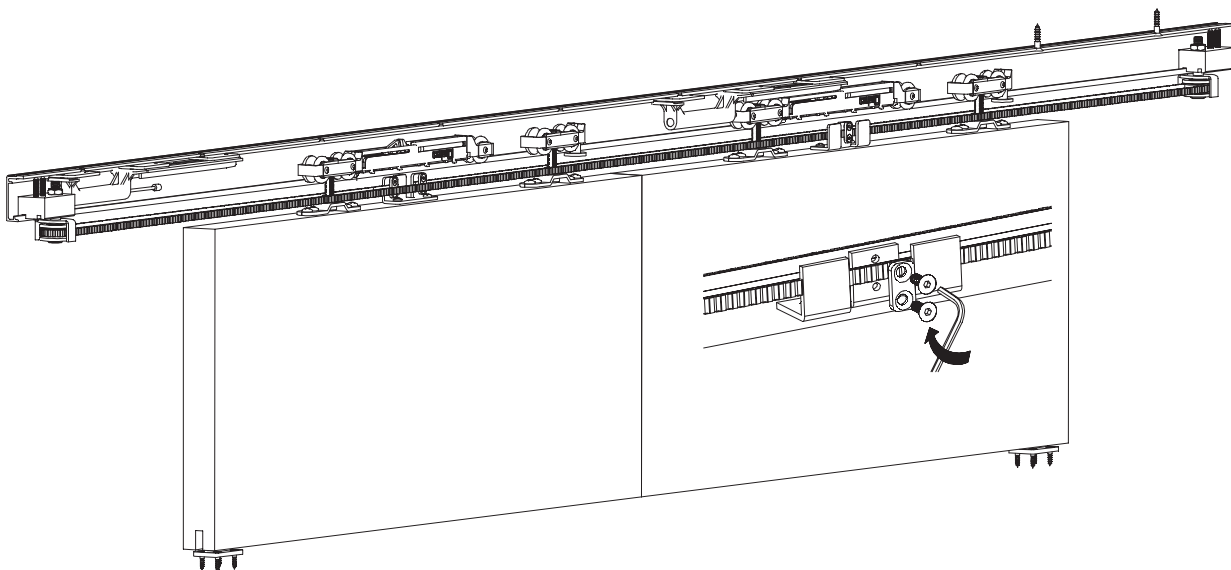
Load Rating (Per Door)	Item No.	Set Details
up to 88 lbs (40 kg)	SDR-RA80SYN-40	 Roller & Surface Door Mount Synchronized Set
up to 176 lbs (80 kg)	SDR-RA80SYN-80	 Roller & Surface Door Mount Synchronized Set

TRACK MOUNTING OPTIONS



This synchronous system allows 2 doors to open simultaneously. Can hold doors up to 88 lbs or 176 lbs., depending on the door width.

Synchronized system features an anti jump feature attached to the rollers.



SYNCHRONIZED SLIDING DOOR HARDWARE (Door Weight 275 lbs per door) SDR-A125SYN

SLIDING & FOLDING DOOR HARDWARE

SYNCHRONIZED SLIDING DOOR HARDWARE (DOOR WEIGHT 275 LBS PER DOOR)



Type	SDR-A125SYN
	Bi-Parting Synchronizing
Track Mounting	Ceiling
Door Weight	Max. 275 lbs (125 kg)
Door Thickness	Min. 1-3/8" (35 mm)
Door Width	23-5/8" (600 mm) ~ 47-1/4" (1200 mm)


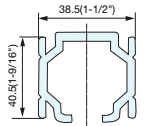
- 275 lbs (125 kg)
- Smooth Bi-Parting synchronized function
- Ceiling Mount
- Surface Mounted door brackets
- Double rollers with ball bearings
- Quiet precision movement
- Vertical Adjustment $\pm 1/8"$ (2.5 mm)

How to order


1. Choose track and track length
 - 1A. Select any optional parts for track
2. Select a hardware set

Ordering Information

1. Track Options

Track Type	Length	Item No.	Description
Standard Aluminum Track	118-1/8" (3000 mm)	SDR-A125-3000	 

1A Optional Parts for Track

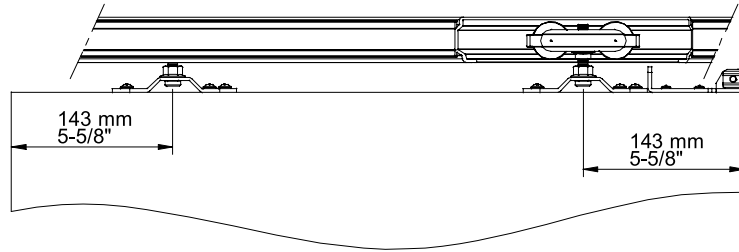
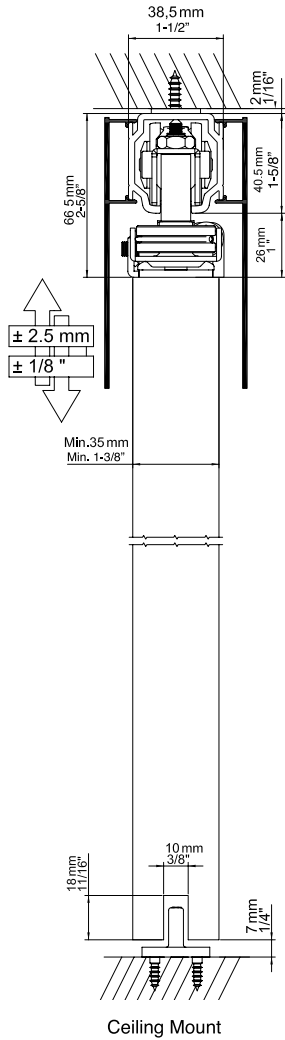
 SDR-A-125-10433 Anodized Aluminum Fascia (3000 mm)	 SDR-A81-6061 Aluminum Separator
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* If installing fascia for ceiling mount, one per each fixing point

2. Hardware Set

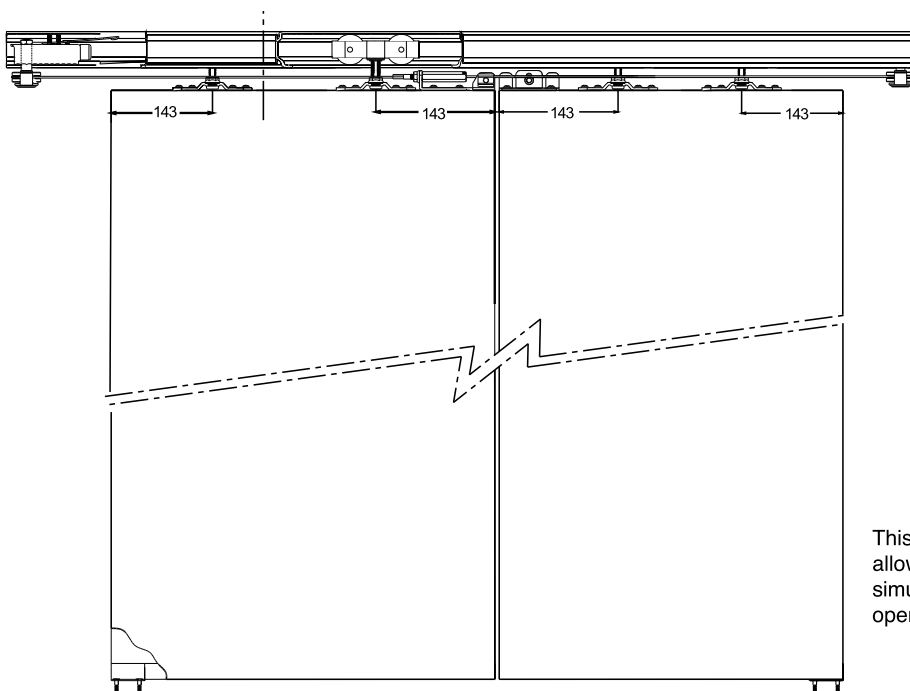
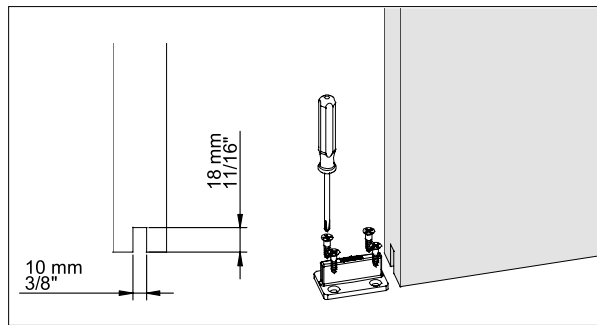
Door Mount	Item No.	Set Details
Surface Bracket with Synchronized Bracket Set	SDR-A125SYN-KIT	 (2) SDR-A125TS-PRT + (1) SDR-A125SYN-PRT

TRACK MOUNTING OPTIONS



The Bi-parting Synchronized door system allows for wider door openings in a variety of spaces. The top hung doors leave the floor free of tracks and make this system desirable for entrances to conference rooms, kitchen or bathrooms.

■ Floor Guide Installation



This synchronous system allows 2 sliding doors to open simultaneously. Can be applied to opening of 7' and 10-1/2".

SELF AND SOFT-CLOSE FOLDING DOOR SYSTEM



SFD

SLIDING & FOLDING DOOR HARDWARE

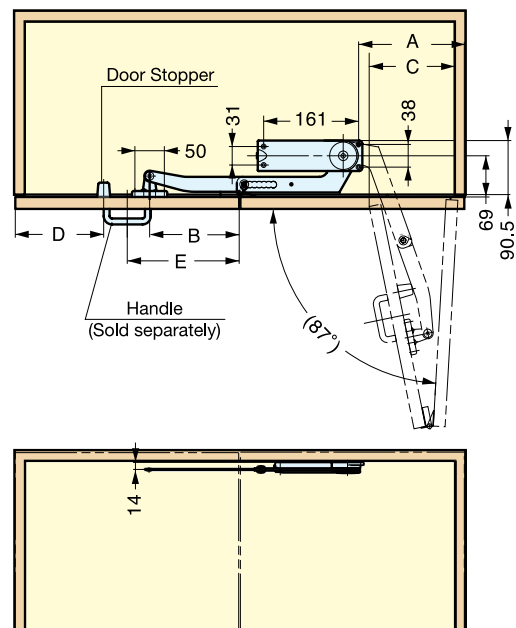
SELF AND SOFT-CLOSE FOLDING DOOR SYSTEM



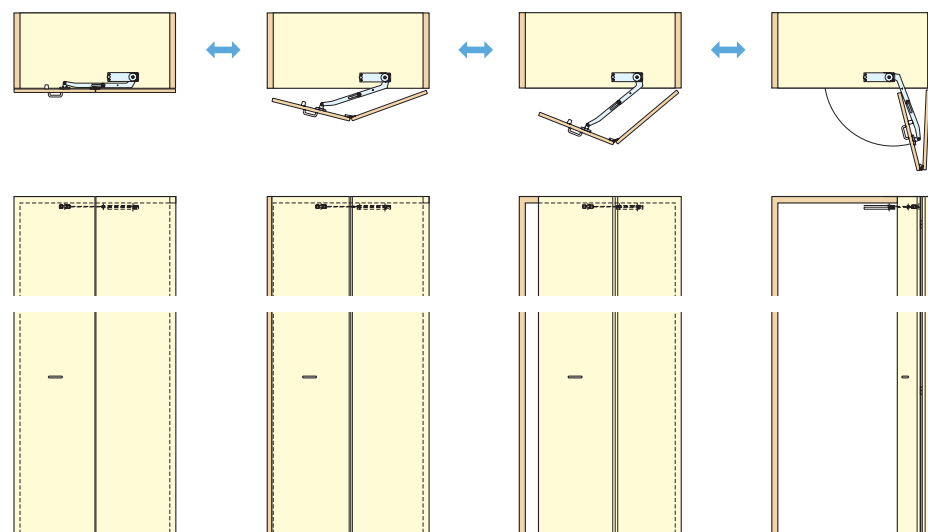
- Unique soft close mechanism ideal for cabinets.
- Dampening mechanism provides smooth and soft close movement.
- No guide rail on top and bottom.
- Arm length adjustable to fit different door width.
- Easy Installation.

Item No.	Door Height	Door Width	Door Weight	Door Thickness
SFD-3L-R (Right Open)	Max. 2600 mm (102-3/8")	380~460 mm (14-61/64"~18-7/64") / Door	Max. 8 kg (17.6 lbs) / Door	20 mm (3/4")
SFD-3L-L (Left Open)				

Door Width	Applicable Door Width	Arm Adjustment point	A	B	C	D	E
380	375~385	1	179.5	152	(145)	(150)	(190)
390	385~395	2	184.5	155	(150)	(155)	(195)
400	395~405	3	189.5	158	(154)	(160)	(200)
410	405~415	4	194.5	161	(158)	(165)	(205)
420	415~425	5	199.5	164	(162)	(170)	(210)
430	425~435	6	204.5	167	(168)	(170)	(215)
440	435~445	7	209.5	170	(172)	(175)	(220)
450	445~455	8	214.5	173	(177)	(180)	(225)
460	455~465	9	219.5	176	(181)	(180)	(230)



Door Opening / Closing

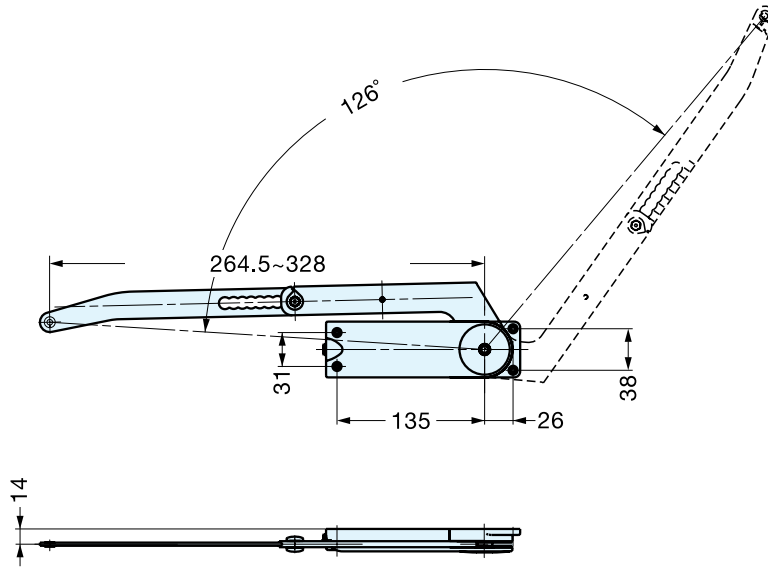


Door Height	Required Quantity	
	Center Hinge ②	Concealed Hinge ④ Plate ③
~500 mm	2	2
500~1000 mm	2	3
1000~1500 mm	3	4
1500~2000 mm	4	5
2000~2600 mm	4	6

Part Details

No.	Item No.	Part Name	Dimensions	Quantity	Description
①	SFD-3L-R/L (Right Open is shown)	Soft Closing Door Mechanism	Dimension 1 (P.576)	1 pc	Reference 1 (P.576)
②	CH-75/NI	Center Hinge	Dimension 2 (P.576)	Necessary quantity (see table)	Reference 2 (P.576)
	CH-75/GB				
③	230-P4W-32T	Mounting Plate	Dimension 3 (P.576)	Necessary quantity (see table)	Reference 3 (P.576)
④	H230-26/16T	Overlay Door Concealed Hinge	Dimension 4 (P.577)	Necessary quantity (see table)	Reference 4 (P.577)
	H230-26/0T	Inset Door Concealed Hinge	Dimension 5 (P.577)		Reference 5 (P.577)

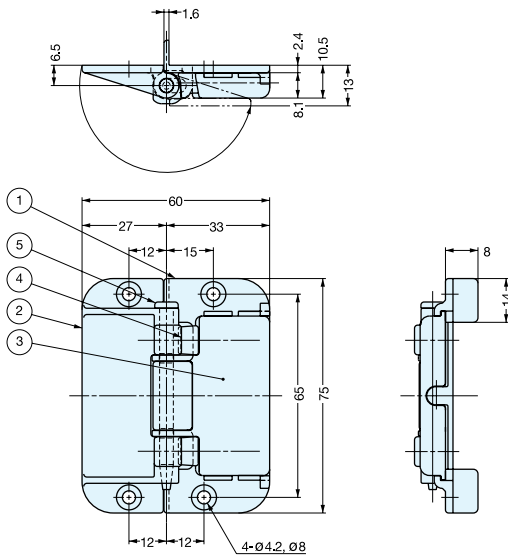
Dimension 1



Reference 1

Item No.	Material	Finish/Color
SFD-3L-R/L	Steel, ABS	Nickel, Light Grey

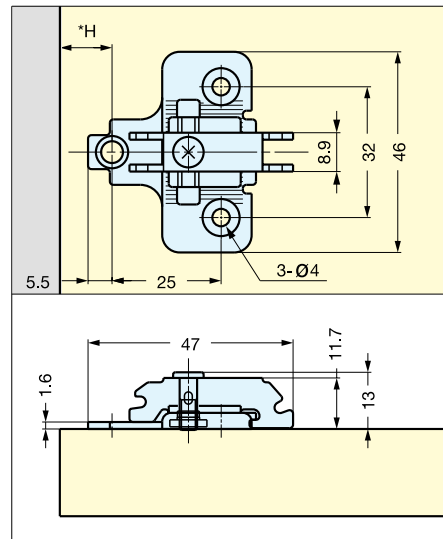
Dimension 2



Reference 2

No.	Part Name	Material	Finish/Color
①	Body A	Zinc Alloy	Nickel (NI)
②	Body B	Zinc Alloy	Bronze (GB)
③	Catch	Polyamide	Brown
④	Latch	Polyamide	Black
⑤	Shaft	Steel	Black

Dimension 3

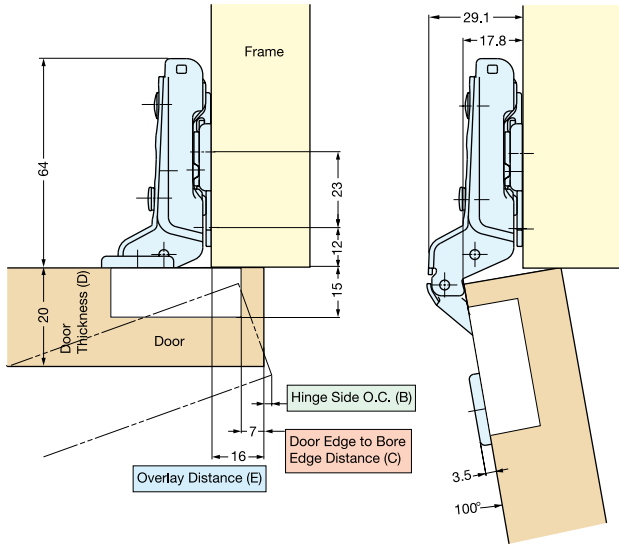


*Overlay use: H=12mm
Inset use: H=Door Thickness+17mm

Reference 3

Item No.	Material	Finish/Color
230-P4W-32T	Steel	Nickel

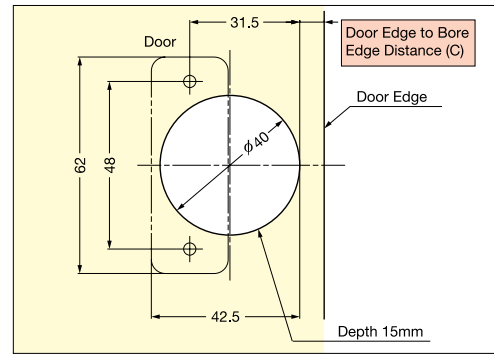
Dimension 4



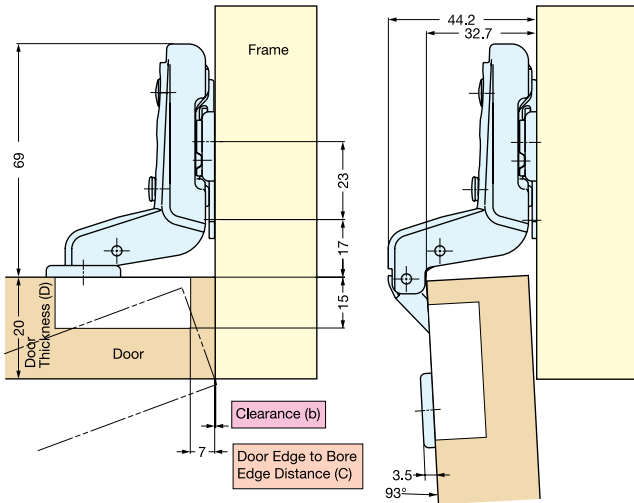
Reference 4

Item No.	Material		Finish/Color		
H230-26/16T	Steel		Nickel		
Door Edge to Bore Edge Distance (C)	3	4	5	6	7
Overlay Distance (E)	12	13	14	15	16
Door Thickness (D)	Door Edge to Bore Edge Distance (C)				
	3	4	5	6	7
18	0.2	0.2	0.2	0.2	0.2
20	0.3	0.3	0.3	0.3	0.3
Hinge Side O.C. (B)					

Bore Dimension



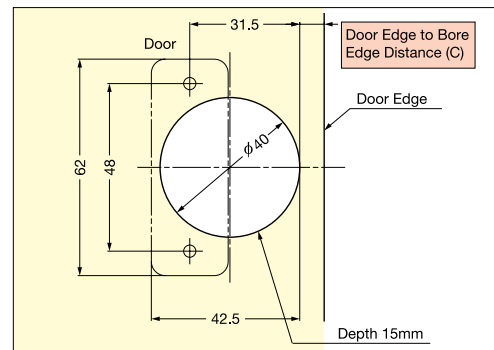
Dimension 5



Reference 5

Item No.	Material		Finish/Color		
H230-26/0T	Zinc Alloy, Steel		Nickel		
Door Edge to Bore Edge Distance (C)	3	4	5	6	7
Clearance (b)	4.3	3.3	2.3	1.3	0.3
Door Thickness (D)	Door Edge to Bore Edge Distance (C)				
	3	4	5	6	7
18	0	0	0	0	0
20	0	0	0	0	0
Hinge Side O.C. (B)					

Bore Dimension



FOLDING DOOR SYSTEM

FD30-F

SLIDING & FOLDING DOOR HARDWARE

FOLDING DOOR SYSTEM (MAX. 33 LBS PER PANEL)



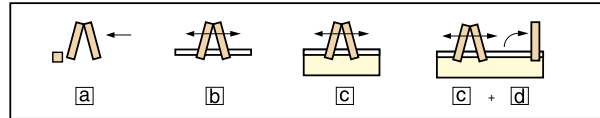
Item No.	FD30UKP	FD30URP	FD30UMP	FD30UP
Application	Standard Folding (One pivot fixed)	Slidable Folding (for partition use)	Slidable (for cabinet use)	Swing Door
Door Width	Max. 450 mm (17-3/4")			
Door Height	Max. 2400 mm (94-1/2")			
Door Thickness	Min. 30 mm (1-3/16")			
Door Weight	Max. 15 kg (33 lbs) per door panel			

Parts Set (Per 2 doors)	Necessary Parts
	Please refer to "Qty [a] ~ [d]" for parts included in each set.
Item No.	Description
[a]	FD30UKP Pivoted Folding, Center Hinge (Surface Mount)
[b]	FD30URP Slidable Folding, Center Hinge (Door Edge Recessed Mount)
[c]	FD30UMP Slidable Folding, Center Hinge (Back Side Recessed Mount)
[d]	FD30UP Pivoted Swing open (Single Panel)

Parts Included

No.	Qty				Part Name / Item No.	Description
	a	b	c	d		
1	2 pcs	2 pcs	-	1 pc	Upper Roller (Recessed Type) FD30-WRH	• Material Zinc Alloy/Polyacetal • Finish Chromate/Light Brown
2	-	-	2 pcs	-	Upper Roller (Side-Mount) FD30-WRU	• Material Steel/Polyacetal • Finish Chromate/Brown
3	1 pc	-	-	-	Stopper Block FD30-HSB	• Material Polyacetal • Finish Dark Brown
4	1 pc	-	-	1 pc	Bottom Pin FD30-FBP	• Material Steel/Polyacetal • Finish Chromate/White
5	-	2 pcs	2 pcs	-	Guide Pin FD30-FGR	• Material Steel/Polyacetal • Finish Chromate/White
6	1 pc	1 pc	1 pc	1 pc	Pin Insert Jig FD30-FKPIJ	-
7	1 pc	-	-	1 pc	Spanner Wrench FD30-FSP	-
8	-	-	-	1 pc	Top Bracket FD30-FSK	• Material Steel • Finish Chromate

Configuration



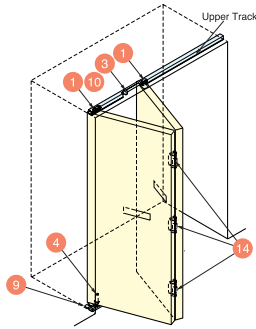
No.	Qty				Part Name / Item No.	Description
	a	b	c	d		
9	1 pc	-	-	-	Pivot Bracket (Bottom) FD30-FPU	• Material Steel • Finish Chromate
10	1 pc	-	-	1 pc	Fixing Plate FD30-FKK	• Material Steel • Finish Chromate
11	-	2 pc	2 pc	-	Upper Stopper FD30-FTST	• Material Steel/Polyacetal • Finish Chromate/Brown
12	-	2 pc	2 pc	-	Bottom Stopper FD30-FBKS	• Material Steel/Polyacetal • Finish Chromate/Brown
13	-	-	-	1 pc	Magnetic Catch FD30-FMC	• Material Steel/ABS Plastic • Finish Chromate/Brown
14	3 pcs	-	-	-	Center Hinge (Surface Mount, Angle adjustable) FD30-CHM	• Material Steel • Finish Black
15	-	-	3 pcs	-	Center Hinge (Recess Mount, Angle adjustable, W/Detent Stop) FD30-CHH	• Material Steel • Finish Black
16	-	3 pcs	-	-	Center Hinge (Door Edge Mount, Angle adjustable, W/Detent Stop) FD30-CHK	• Material Zinc Alloy • Finish Dark Brown

Upper Track		Necessary Parts			
	Mounting	Length	Item No.	Dimensions	Material / Finish
17	Surface Mount	910 mm	FD30-TRM910SIL		• Material Aluminum • Finish Anodized Silver
18		1820 mm	FD30-TRM1820SIL		
19		2730 mm	FD30-TRM2730SIL		
20		3640 mm	FD30-TRM3640SIL		
21	Recessed Mount	910 mm	FD30-TRH910SIL		• Material Aluminum • Finish Anodized Silver
22		1820 mm	FD30-TRH1820SIL		
23		2730 mm	FD30-TRH2730SIL		
24		3640 mm	FD30-TRH3640SIL		

Bottom Guide Track		Necessary Parts			
*Must be ordered when using <input type="checkbox"/> b <input type="checkbox"/> c <input type="checkbox"/> d					
	Mounting	Length	Item No.	Dimensions	Material / Finish
25	Floor Surface Mount	910 mm	FD30-FBRM910SIL		• Material Aluminum • Finish Anodized Silver
26		1820 mm	FD30-FBRM1820SIL		
27		2730 mm	FD30-FBRM2730SIL		
28		3640 mm	FD30-FBRM3640SIL		
29	Floor Recessed Mount	910 mm	FD30-FBRH910SIL		• Material Aluminum • Finish Anodized Silver
30		1820 mm	FD30-FBRH1820SIL		
31		2730 mm	FD30-FBRH2730SIL		
32		3640 mm	FD30-FBRH3640SIL		

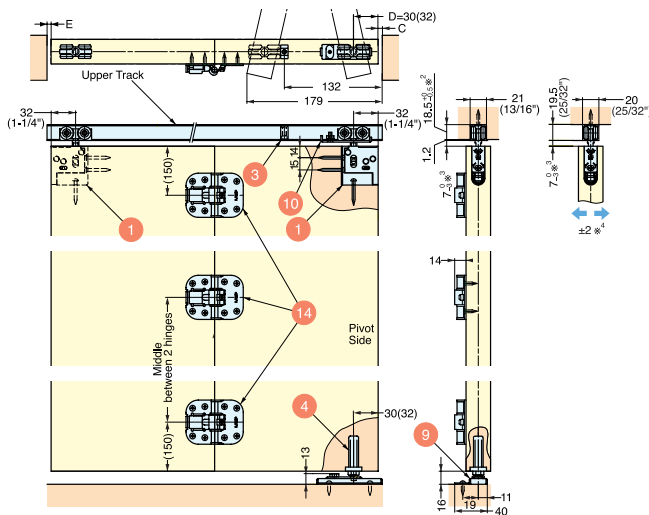
Optional Parts				
No.	Item No.	Part Name	Installation	Description
33	FD30-WRH-CP	End Cap (For Rollers)		• Material Polypropylene • Finish Brown *For roller 1
34	FD30-FMF	Door End Holder (Magnetic)		• Material Polycarbonate • Neodymium • Finish Dark Brown
35	FD30-FTF	Door End Holder (Pin)		• Material Polyamide / Steel • Finish White / Chromate
36	FD30-FHL	Latch Unit		• Material Polyacetal • Finish Dark Brown *To be used when ordering <input type="checkbox"/> c + <input type="checkbox"/> d

a Pivoted Folding, Center Hinge - Surface Mount



• Center Hinge has angle adjustment, detent stop feature and mounted on surface at back side of door for easy installation.

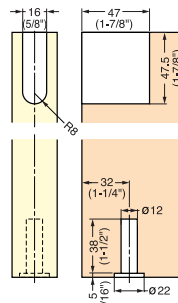
■ Installation Example
(In case of 1-9/16" thick, 17-3/4" wide door)



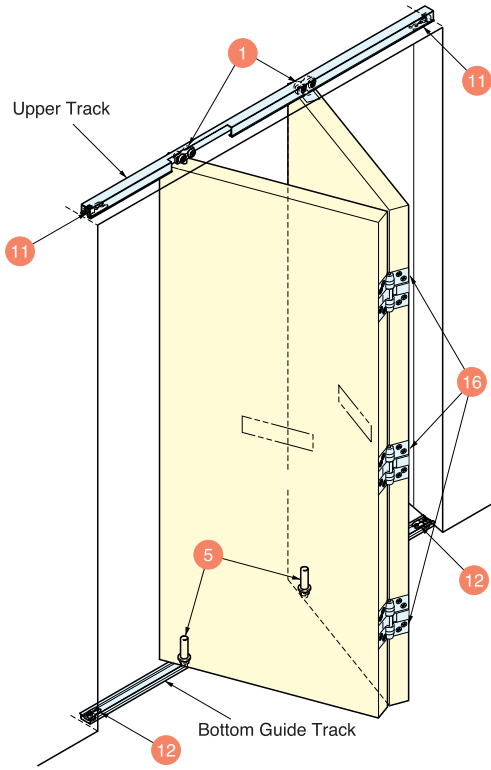
■ Gap - Door and Frame

Door Thickness	C=Gap	Gap total : C + E			
		Width 300	Width 350	Width 400	Width 450
30	4.0	7.5	7.0	6.7	6.4
35	5.2	9.5	8.9	8.5	8.2
40	6.5	11.7	11.0	10.5	10.1

■ Door Preparation

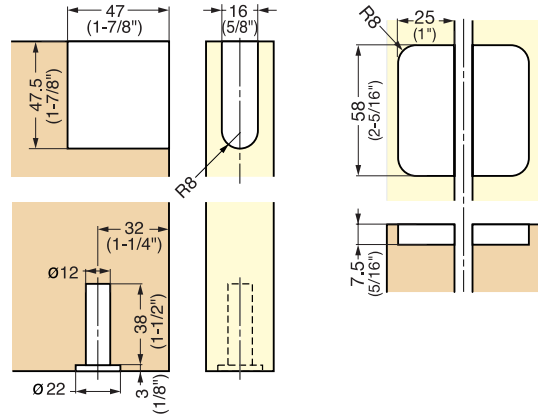


b Slidable Folding, Center Hinge – Door Edge Recessed Mount



- Center Hinge has angle adjustment, detent stop feature and mounted in recess at door edge which is invisible from both side.
- Detent center hinge allows the folding door to slide freely for easy access and to maximize the space.

■ Door Preparation

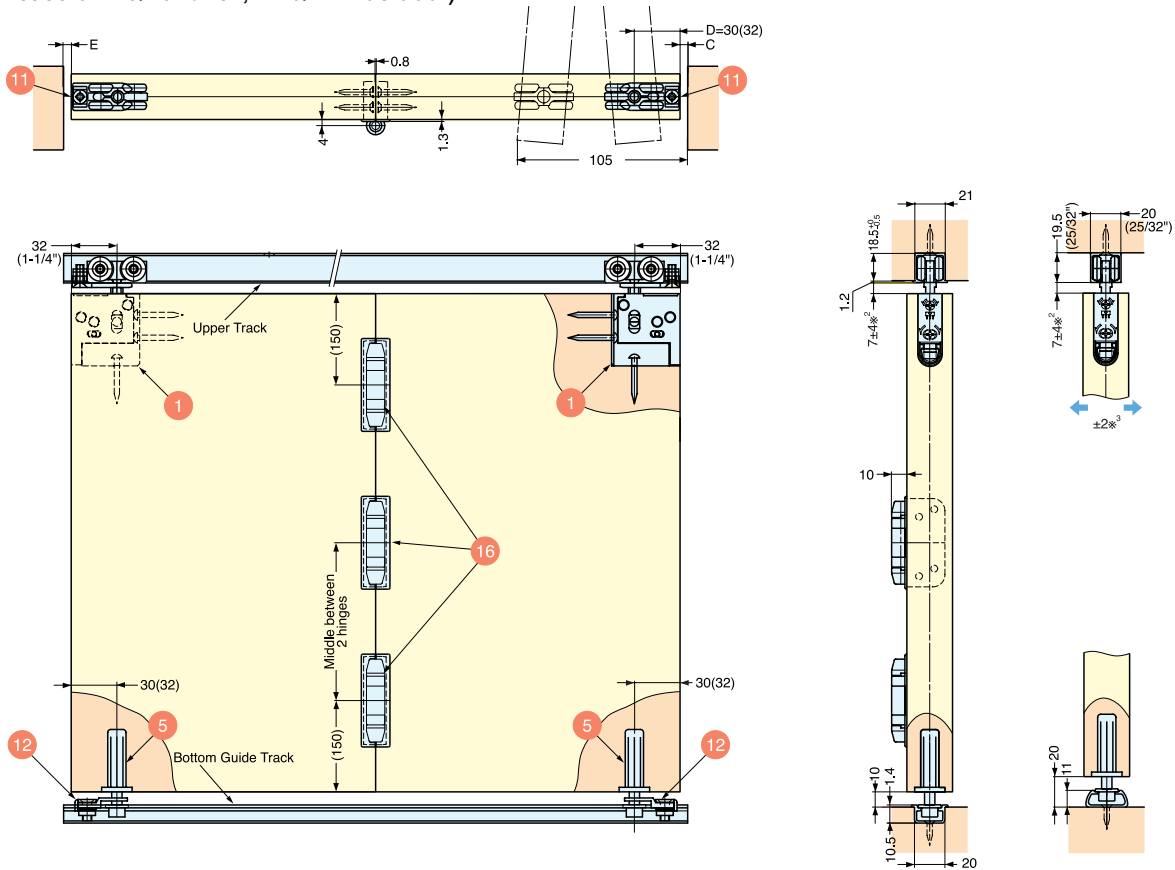


■ Gap - Door and Frame

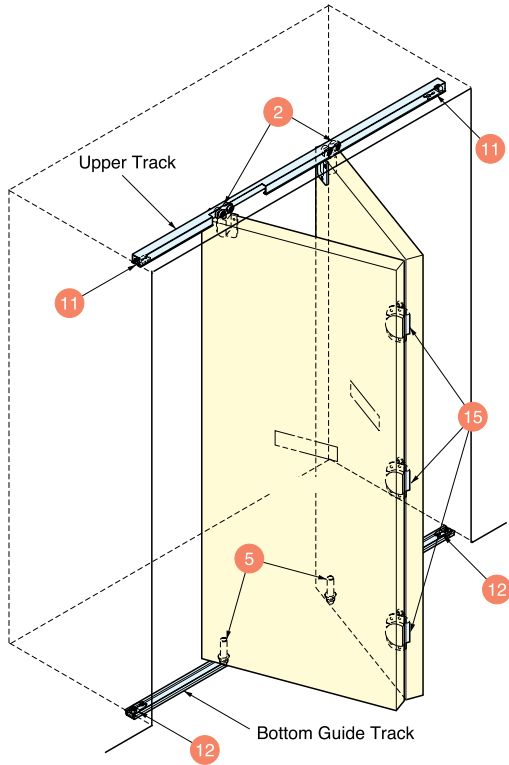
Door Thickness	C=Gap	Gap total : C + E			
		Width 300	Width 350	Width 400	Width 450
30	4.0	7.5	7.0	6.7	6.4
35	5.2	9.5	8.9	8.5	8.2
40	6.5	11.7	11.0	10.5	10.1

■ Installation Example

(In case of 1-9/16" thick, 17-3/4" wide door)



C Slidable Folding, Center Hinge – Back Side Recessed Mount



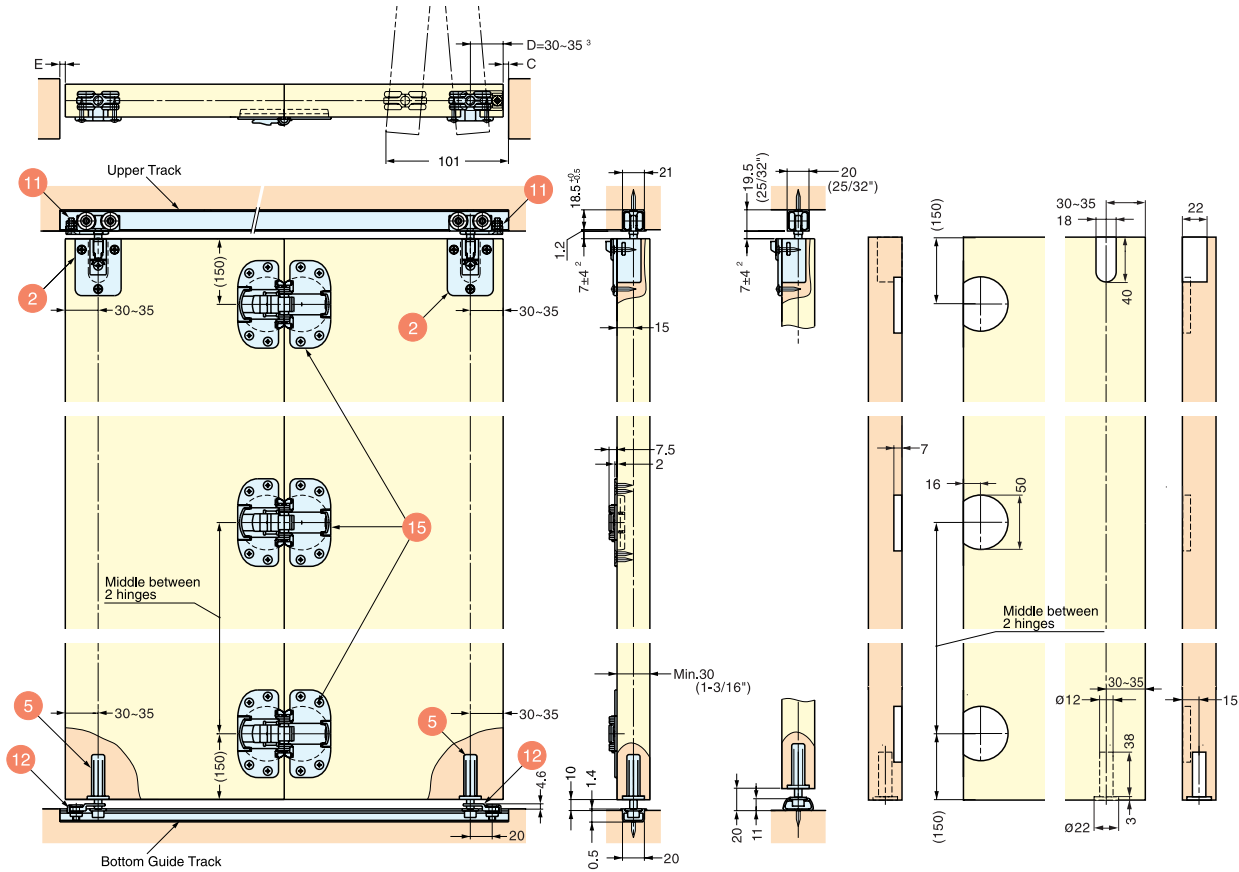
- Center Hinge has angle adjustment, detent stop feature and mounted in recess at back side of door.
- Detent center hinge allows the folding door to slide freely for easy access and to maximize the space.

■ Gap - Door and Frame

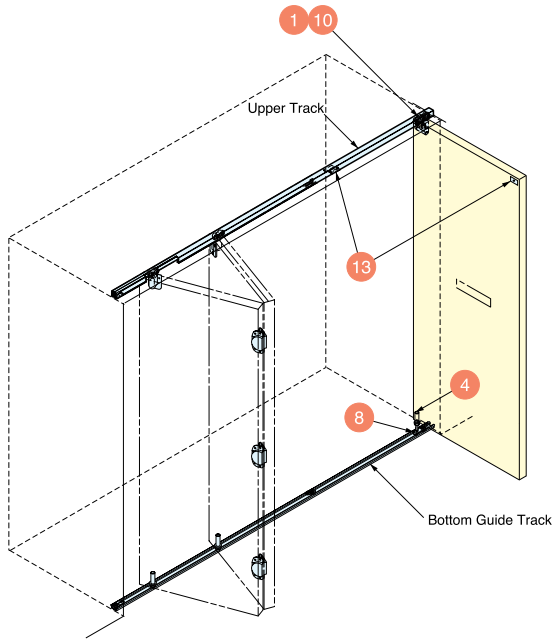
Door Thickness	C=Gap	Gap total : C + E			
		Width 300	Width 350	Width 400	Width 450
30	3.6	6.0	5.7	5.5	5.3
35	5.8	8.8	8.4	8.1	7.9
40	12.0	12.0	11.6	11.2	11.0

■ Installation Example

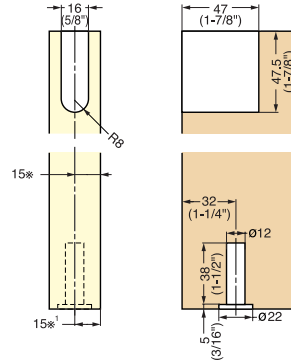
(In case of 1-9/16" thick, 17-3/4" wide door)



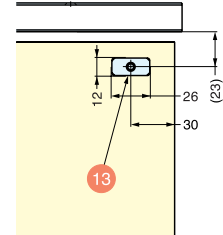
d Pivoted Swing open (Single Panel)



■ Door Preparation



■ Preparation for counter plate

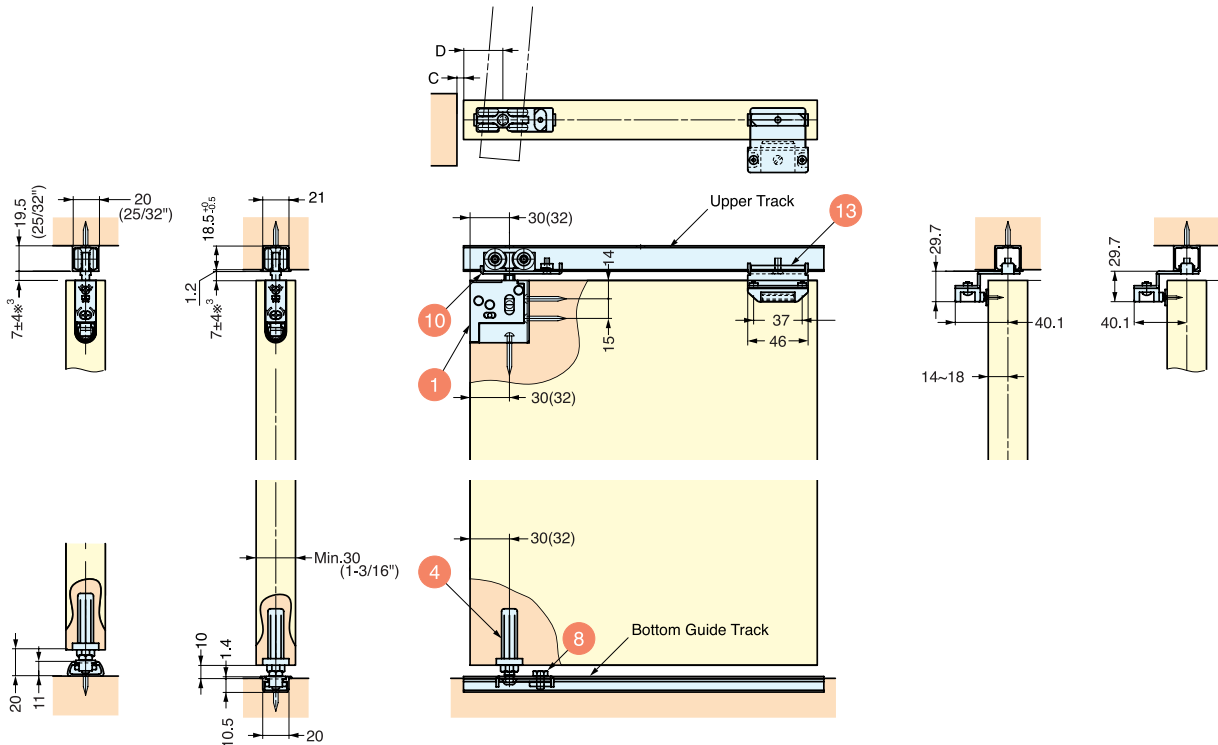


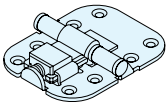
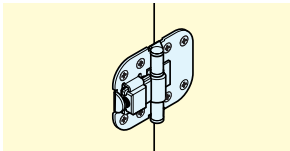
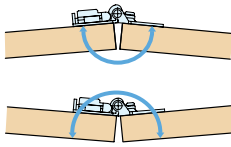
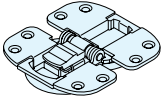
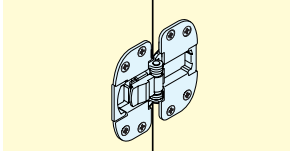
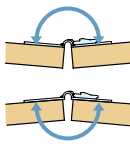
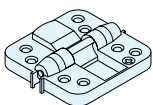
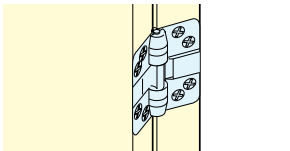
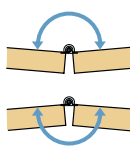
■ Gap - Door and Frame

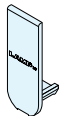
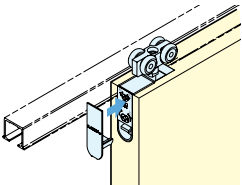
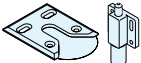
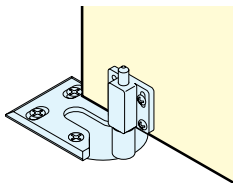
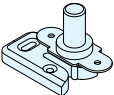
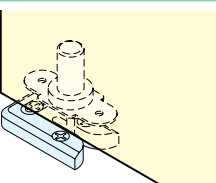
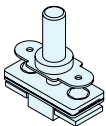
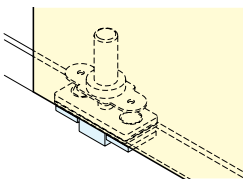
Door Thickness	C=Gap (In Case D = 30)
30	4.0
35	5.2
40	6.5

SLIDING & FOLDING DOOR HARDWARE

FOLDING DOOR SYSTEM (MAX. 33 LBS PER PANEL)



Center Hinge - Details				
No.	Item No.	Installation	Angle Adjustment	Detent
14	 FD30-CHM	Surface Mount 		37° angle
15	 FD30-CHH	Back Side Recessed Mount 		50° angle
16	 FD30-CHK	Door Edge Recessed Mount 		47° angle

Optional Parts - Details				
No.	Part Name / Item No.	Installation	Specification	Description
33	End Cap (For Rollers)  FD30-WRH-CP		Cover Cap for Upper Roller ①	<ul style="list-style-type: none"> • Material Polypropylene • Finish Brown
34	Door End Holder (Magnetic)  FD30-FMF		Prevents door racking when door is closed, especially in double doors	<ul style="list-style-type: none"> • Material Polycarbonate Neodymium • Finish Dark Brown
35	Door End Holder (Pin)  FD30-FTF		Prevents door racking when door is closed, especially in double doors	<ul style="list-style-type: none"> • Material Polyamide / Steel • Finish White / Chromate
36	Latch Unit  FD30-FHL		To hold the door close in [d] configuration, to be installed on bottom guide track	<ul style="list-style-type: none"> • Material Polypropylene • Finish Brown

FOLDING DOOR HARDWARE (Door Weight 88 lbs per door)

SDR-A84D

SLIDING & FOLDING DOOR HARDWARE

FOLDING DOOR HARDWARE (DOOR WEIGHT 88 LBS PER DOOR)



Type	SDR-A84D	
	Folding Door	
Roller	Top Recessed	
Track Mounting	Ceiling	
Door Weight	Max. 88 lbs (40 kg) Per Panel	
Door Thickness	1-3/8"(35 mm) ~ 2" (50 mm)	
Door Panel Width	Min. 21-1/32"(550 mm)	
Door Width	Two Doors: Max. 39-3/8" (1000 mm)	Four Doors: Max. 29-1/2" (750 mm)

- 88 lbs per panel capacity
- Compatible with 2 or 4 doors
- Ceiling mount options
- Recessed Mounted door brackets
- Concealed Hinges Recommended
- Double rollers with ball bearings
- Quiet precision movement
- Low profile minimum gap of 3/16" (5 mm)
- Recess Mount
- Optional bottom track (not required)

How to order

1. Select track and track length
 - 1A. Select any optional parts for track
2. Select a hardware set
 - 2A. Select any optional parts for hardware set

1. Track Options

Track Type	Length	Item No.	Description	1A Optional Parts for Track
Standard Aluminum Track	78-3/4" (2000 mm)	SDR-A84D-2000		 SDR-A-4131 Bottom Guide Channel
	118-1/8" (3000 mm)	SDR-A84D-3000		
False Ceiling Aluminum Track	118-1/8" (3000 mm)	SDR-A84D-TC-3000		

2. Hardware Set

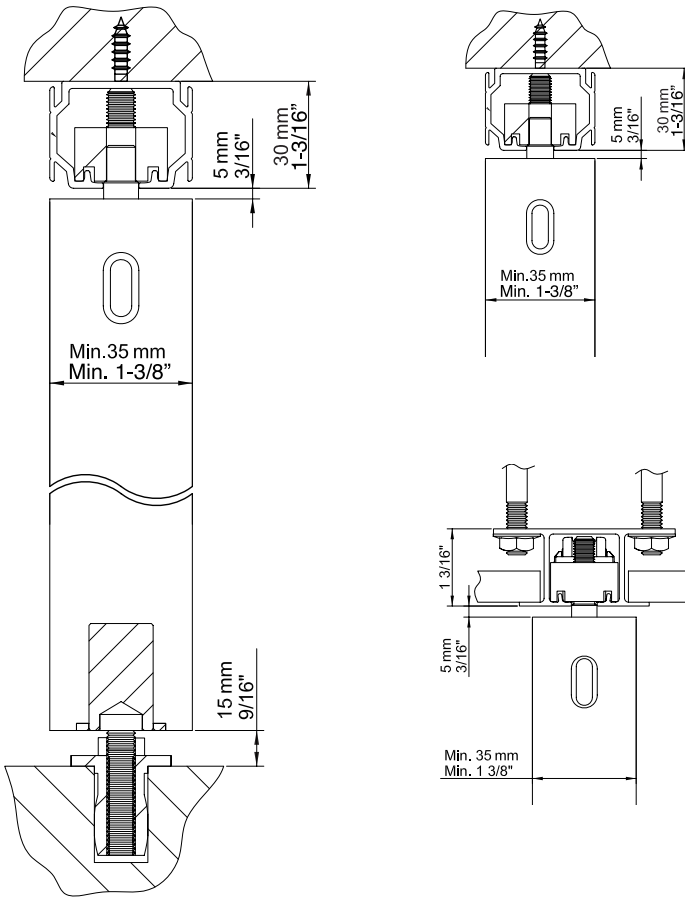
Door Mount	Load Rating Per Door	Item No.	Set Details
Two Door Assembly	Up to 66 lbs	SDR-A84D-2D-2HDC	 (1) Set for (1) Pair of Doors
	Up to 88 lbs	SDR-A84D-2D-3HDC	 (1) Set for (1) Pair of Doors
Four Door Assembly	Up to 66 lbs	SDR-A84D-4D-4HDC	 (1) Set for (1) Pair of Doors
	Up to 88 lbs	SDR-A84D-4D-6HDC	 (1) SDR-A84D-8802 Set for SECOND Pair of Doors

2A Optional Parts for Hardware Set

 SDR-A84D-8800 Set for Pair of Doors	 SDR-A84D-8801 Set for Single Door	 SDR-A84D-8802 Set for SECOND PAIR of Doors
--	--	---

* As necessary, can be used with knuckle hinges etc..

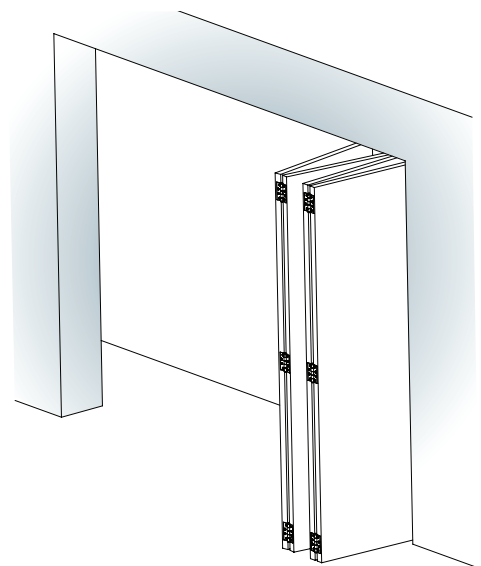
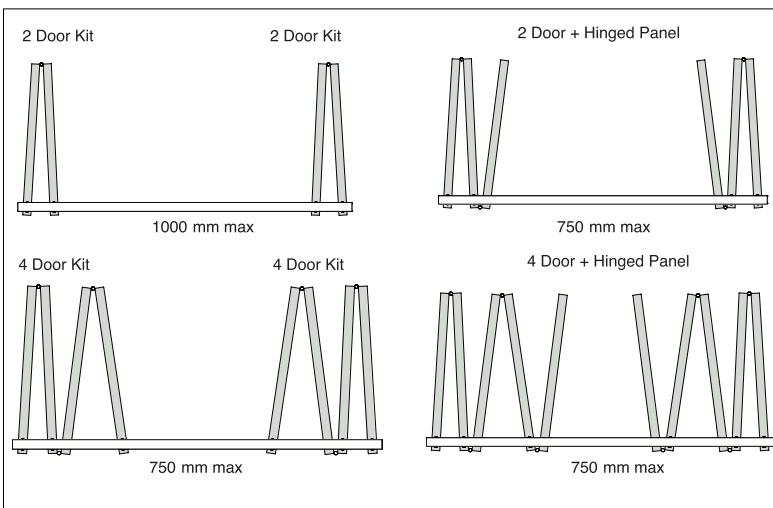
TRACK MOUNTING OPTIONS



Ceiling Mount
Standard ceiling mount for doorways and closets. Requires 1-3/8" thick doors.

False Ceiling Mount
False ceiling mount for room partition applications. Requires 1-3/8" minimum thick doors. Hardware for sliding doors is completely concealed.

■ Configuration Options





Lateral Opening Door System with Built-in Dampening Technology.

LIN-X1000 was designed to transform your ordinary door opening movement into something spectacular.



Sleek, flush finish when doors are closed.

LATERAL OPENING DOOR SYSTEM

LIN-X1000



- Lateral Opening Mechanism: Allows doors to swing out laterally in a small radius, ideal for tight front space application.
- Heavy Duty: Max. weight 198 lbs.
- 4-Way Adjustable: Vertical, horizontal, depth and parallel adjustment.
- Smooth Movement: Built-in dampers provide a smooth soft-closing movement.
- Use in various applications: Ideal for closet entryways, large pantry doors, storage, hidden rooms, etc.
- Hardware is non-handed: can be used for left- or right-opening doors.
- Designed for overlay installation, but can be installed flush with the surrounding cabinet or wall. Please contact customer service for details on inset installations.

Innovative design internationally recognized with the following awards:



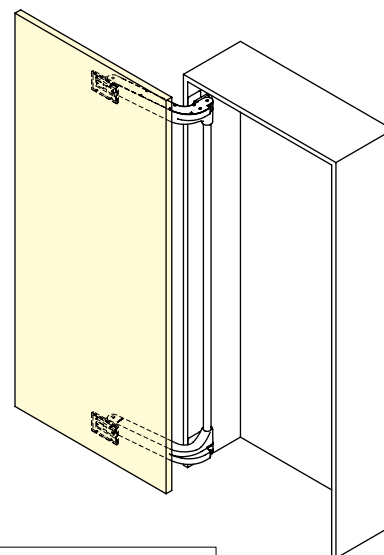
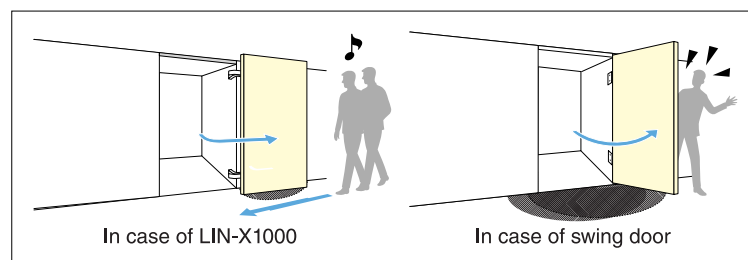
reddot award 2017
winner



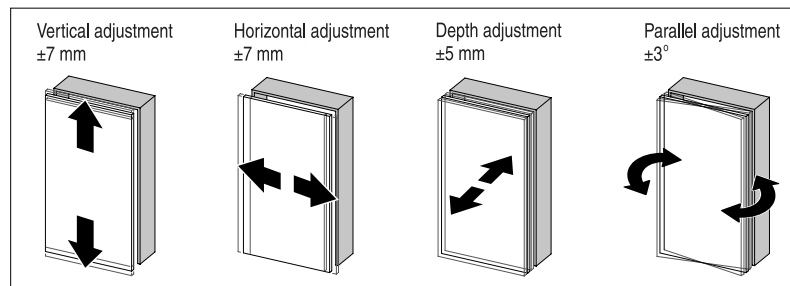
Item No.	Overlay	Material	Finish
LIN-X1000/WT-S	3/4" (19 mm)	Steel, Aluminum	White
LIN-X1000/BL-S			Black

Door Width	29-1/2"~43-5/16" (750~1100 mm)
Max. Door Height	117-5/16" (2980 mm)
Door Thickness	15/16"~1-9/16" (24~40 mm)
Max. Door Weight	198 lbs (90 kg/door)

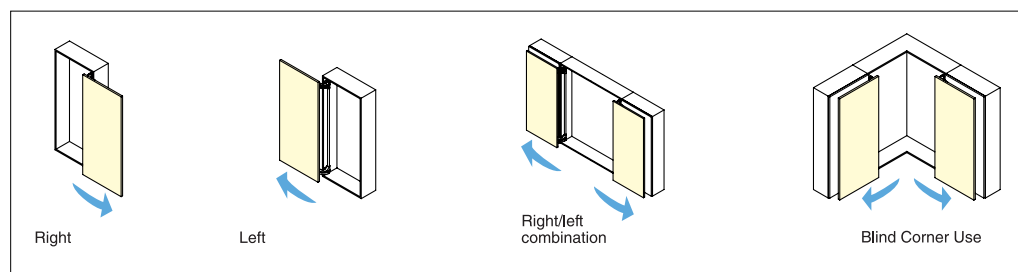
Minimize opening clearance required with LIN-X1000, compared to traditional swinging doors. When closed, the LIN-X door can be flush with the surrounding walls.



Installation Examples



Adjustability



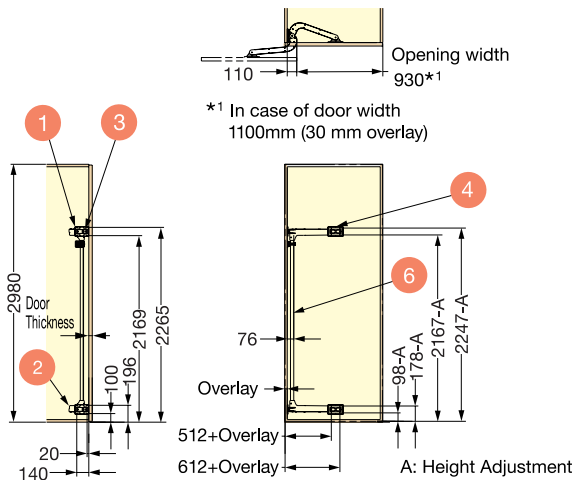
Adjustable in vertical, horizontal, depth and parallel directions.

LIN-X1000 COMPONENT DETAILS

No.	Qty	Dimensions	Description
1	1 pc		Upper Arm Material: Aluminum Alloy Finish: White/Black Powder Coated
2	1 pc		Lower Arm Material: Aluminum Alloy Finish: White/Black Powder Coated
3	4 pcs		Cover for Mounting Plate (Hinge Side) Material: ABS Finish: White/Black

No.	Qty	Dimensions	Description
4	4 pcs		Cover for Mounting Plate (Door Side) Material: ABS Finish: White/Black
5	1 pc		Damper for Opening Material: PBT Finish: White/Black

No.	Qty	Dimensions	Description
6	1 pc		Connecting Bar Material: Aluminum Alloy Finish: White Anodized/Black Anodized



Range of Motion

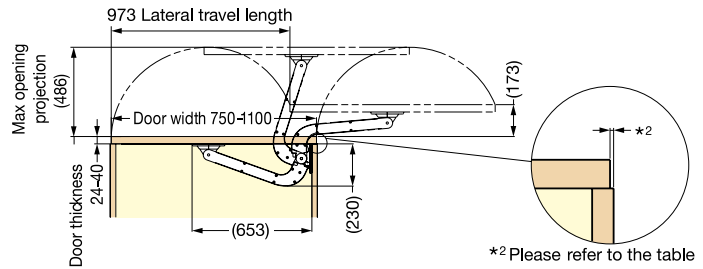


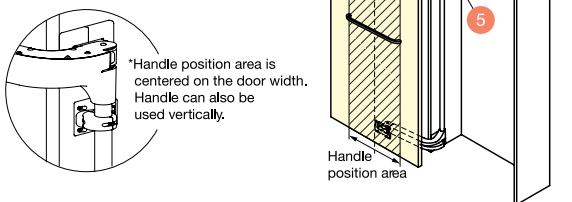
Table 1: Handle position area (for door thickness 40 mm)

Door width	Hinge side clearance		
	10 mm	15 mm	20 mm
750 mm - 900 mm	Max. 300 mm	Max. 350 mm	Max. 500 mm
900 mm - 1000 mm	Max. 200 mm	Max. 250 mm	Max. 400 mm
1000 mm - 1100 mm	Max. 100 mm	Max. 150 mm	Max. 300 mm

Table 2: Please follow Height Adjustment (A) based on the following table so that the door will not contact the floor.

Door weight	Height Adjustment
20 kg	2.0 mm
30 kg	3.5 mm
40 kg	5.0 mm
50 kg	6.5 mm
60 kg	8.0 mm
70 kg	9.5 mm
80 kg	11.0 mm
90 kg	12.5 mm

[Details of 5]





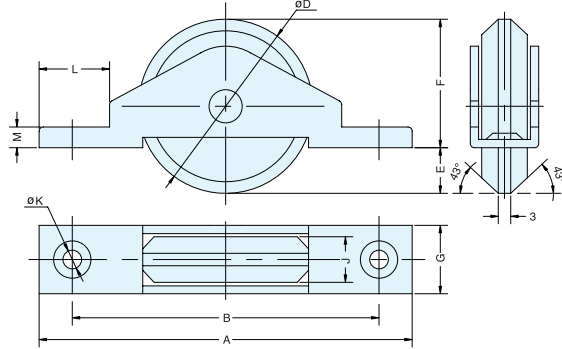
SLIDING DOOR ROLLER

STAINLESS
304
STEEL

FMS, FDS, FES



- Smooth and quiet movement with plastic rollers.
- FES and FMS are equipped with ball bearings providing easy operating even with heavy load.



Part Name	Series	Material	Finish
Bracket, Pin	FDS, FES, FMS	304 Stainless Steel	Plain
Wheel	FDS, FES	Polyacetal	White
	FMS	MC Nylon	Blue

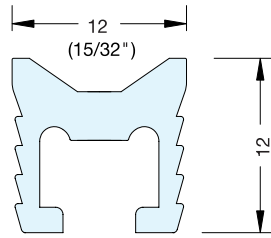
Item No.	A	B	D	E	F	G	J	K	L	M	Load Capacity (kg) /per 2pcs	Weight (g)	Box (pcs)	Carton (pcs)
FDS-0259	60 (2-23/64")	50	25	5.0	20.0	11	7	3	10	1.2	15 (33 lbs)	15	12	120
FDS-0339	74 (2-29/32")	63	33	5.5	27.5	13	8	4	12	1.5	25 (55 lbs)	25		
FES-0339	68 (2-43/64")	57	33	7.0	26.0	13	9	4	14	5.0	50 (110 lbs)	35	4	40
FES-0429	92 (3-5/8")	76	42	6.0	36.0	14	9	4	18	5.0	70 (154 lbs)	60		
FMS-0509	110 (4-21/64")	85	50	8.0	42.0	17	11	5	19	5.0	100 (220 lbs)	95		

"V" RAIL FOR SLIDING DOOR

ALUMINUM

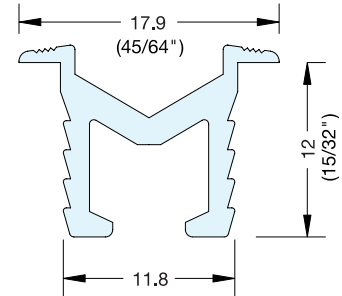
AV

- Bottom rail for FMS, FDS, FES Rollers.



Item No.: AVF-12S/1820

Applicable Rollers: FDS-0259, FDS-0339
FES-0339, FES-0429
FMS-0509



Item No.: AVED-12S/1820

Applicable Rollers: FDS-0259, FDS-0339
FES-0339, FES-0429

Item No.	Length	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
AVF-12S/1820	1820 (71-5/8")	256	1	10	Aluminum	Anodized
AVED-12S/1820		309				

No More Headaches

Sugatsune has created the perfect system for pocket doors. This two-track system means all components are easily accessible from the opening. Never break another wall when making adjustments to your pocket door. Available in recessed and surface mount retail box kits.

Get details on the FD80-PD Pocket Door system in pages 532.1 to 531.4



Scan the QR code for additional instructions or visit us at www.sugatsune.com.

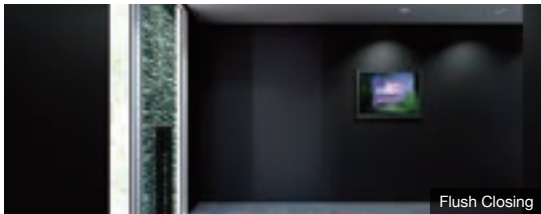
FLUSH SLIDING DOOR SYSTEM

MFU-1200

MonoFlat UNISON



Lateral Opening

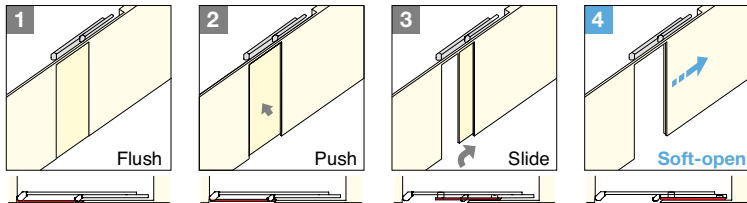


Flush Closing

	MFU1200-40	MFU1200-70
Door Width	31-1/2"~47-1/4" (800~1200 mm)	
Door Height	Max. 106-5/16" (2700 mm)	
Door Thickness	1-3/16"~1-9/16" (30-40 mm)	
Door Weight	44~88 lbs (20-40 kg)	88~154 lbs (40-70 kg)
Adjustability	Depth: ±3.5 mm (1/8")	
	Horizontal: ±4 mm (3/16")	
	Vertical: ±4 mm (3/16")	

- Features dual damper that soft opens and soft closes the door.
- Minimal parts for easy installation and excellent performance.
- Designed to CLOSE FLUSH against surrounding walls, providing clean appearance.
- UNIQUE MOVEMENT: Door moves in first, and then slides sideways.
- CLEAN APPEARANCE: No bottom rails on floor required on MFU-System

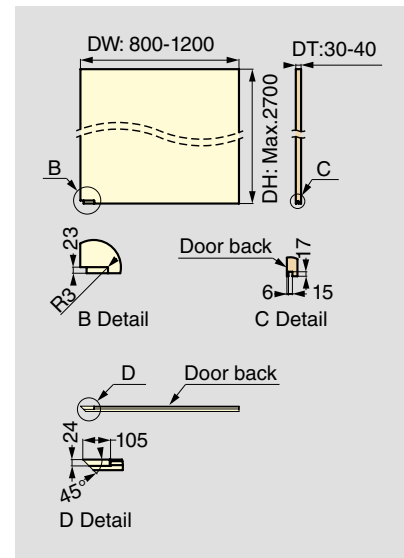
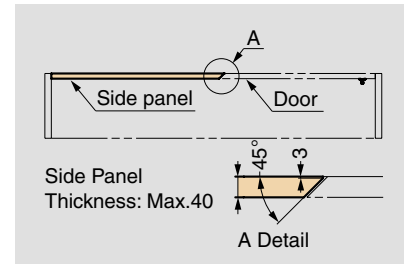
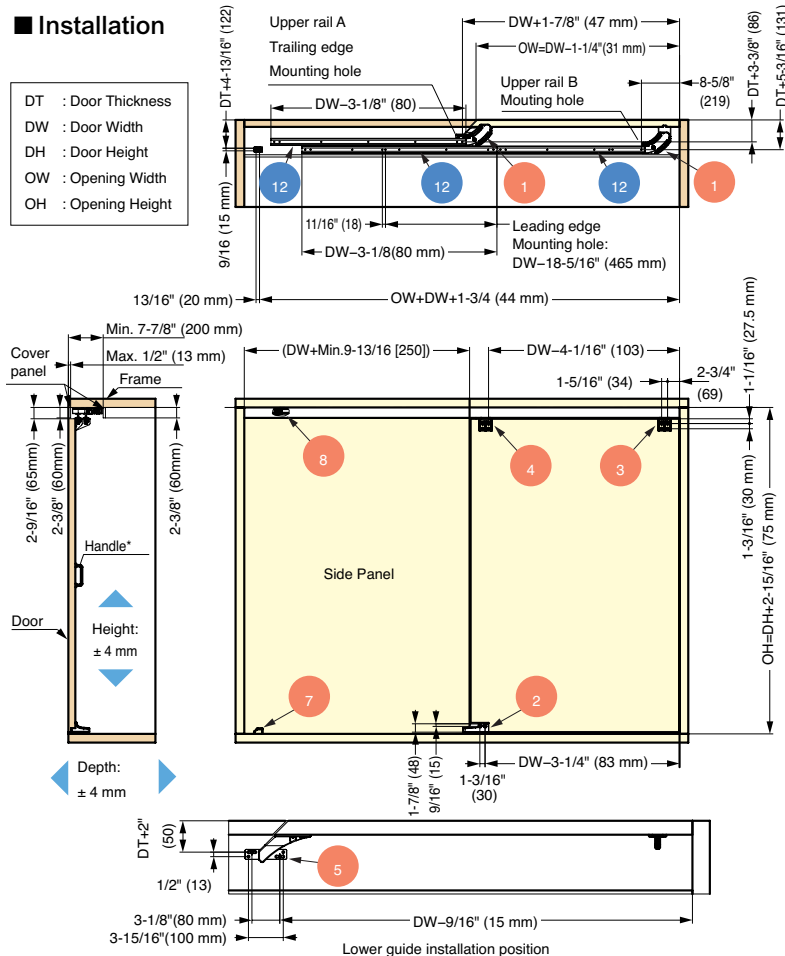
How the door moves



No handle is needed on the door front for opening.

Installation

- DT : Door Thickness
- DW : Door Width
- DH : Door Height
- OW : Opening Width
- OH : Opening Height



* Drawings are for a Left to Right opening (MFU1200-L). Right to Left opening (MFU1200-R) is symmetrically opposed.
* The door cannot be opened from the inside without a handle (not included).

For a complete set of MFU1200

Order: **Bracket Set** + **Closer Set** + **Rail Set**

Bracket Set Necessary parts

Set Name	RoHS	CAD	Item Name
Bracket set (L type)	-		MFU1200-L-BL
Bracket set (R type)	-		MFU1200-R-BL

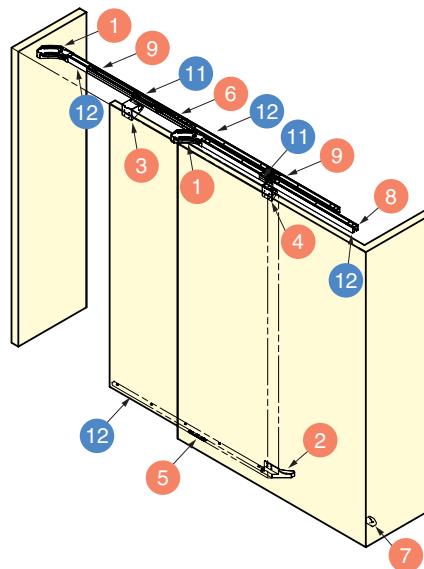
Detail

No.	Qty	Part Name	Drawing (L type) in mm	Description
1	2	Guiding track (top)		<ul style="list-style-type: none"> Material: aluminium alloy Finish: enamel / black
2	1	Guiding track (bottom)		<ul style="list-style-type: none"> Material: aluminium alloy Finish: enamel / black
3	1	Bracket (leading edge)		<ul style="list-style-type: none"> Material: steel Finish: enamel / black
4	1	Bracket (trailing edge)		<ul style="list-style-type: none"> Material: steel Finish: enamel / black
5	1	Bottom guide		<ul style="list-style-type: none"> Material: steel / POM Finish/Colour: electro-deposition / black
6	1	Connecting plate		<ul style="list-style-type: none"> Material: steel Finish: electro-deposition / black
7	1	Door stopper (floor)		<ul style="list-style-type: none"> Material: zinc alloy / elastomer Finish/Colour: chromate treatment (trivalent)/grey
8	1	Bumper block		<ul style="list-style-type: none"> Material: steel/elastomer Finish/Colour: chromate/grey
9	2	Trigger		<ul style="list-style-type: none"> Material: steel Finish: chromate treatment (trivalent)
10	1	Jig	Can be ordered separately	<ul style="list-style-type: none"> Item Name: FD80-TRJ Material: POM Colour: green

Closer Set				Necessary parts		
				Select the appropriate part depending on door weight		
No.	Type	RoHS	CAD	Part Name	Drawing	Description
11	Door Weight 20-40 (kg)	-		Soft closer (leading edge)		<ul style="list-style-type: none"> Material: steel/POM Finish: electro-deposition / black
				Item: MFU1200-40DSC-BL	1 pc	
11	Door Weight 40-70 (kg)	-		Door roller (trailing edge)		<ul style="list-style-type: none"> Material: steel Finish: electro-deposition / black
				Item: MFU1200-70DSC-BL	1 pc	

Rail Set				Necessary parts		
No.	RoHS	CAD	Part Name	Drawing	Description	
12	-		Upper track A			<ul style="list-style-type: none"> Material: aluminium alloy Finish: black anodising + coating / clear
			1120mm	2 pcs		
			Upper track B			
12	-		Item: MFU1200-RS-BL	850mm	1 pc	
			Bottom track			<ul style="list-style-type: none"> Material: aluminium alloy Finish: silver anodising + coating / clear
				1100mm	1 pc	

* Cut upper track A and bottom track according to the door size.



SELF CLOSING SLIDING DOOR SYSTEM (Door Weight 66~176 lbs)

LM-80

SLIDING & FOLDING DOOR HARDWARE

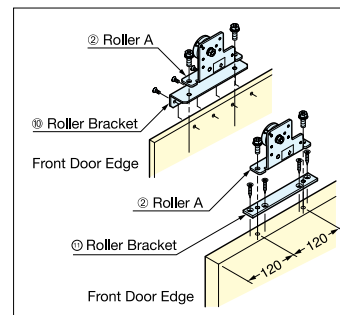
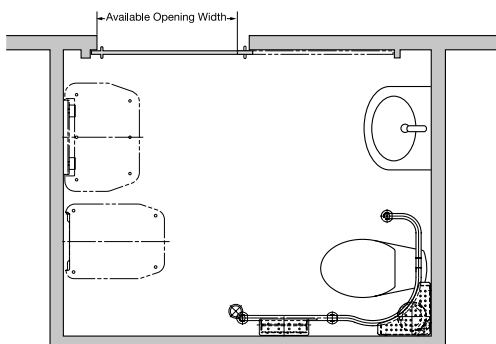
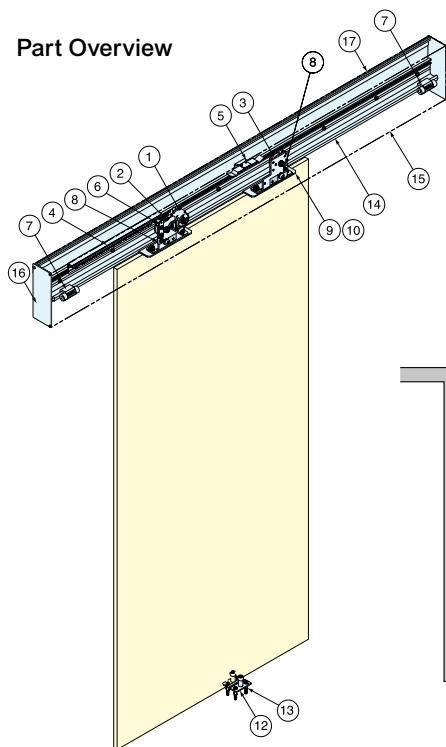
SELF CLOSING SLIDING DOOR SYSTEM (DOOR WEIGHT 66~176 LBS)



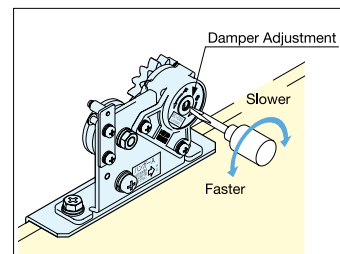
Item No.	LM-80
Door Width	700~1200 mm (27-9/16"~47-1/4")
Door Thickness	13 or 28~40 mm (1/2" or 1-1/8"~1-9/16")
Door Weight	30~80 kg/Door (66~176 lbs/door)
Door Travel	Max. 1100 mm (in case of door width 1200 mm) Max. 43-5/16" (in case of door width 47-1/4")

- Self closing sliding door system.
- Equipped with damper for smooth and soft closing, eliminating slam shut.
- Dampening speed adjustable for best soft closing.
- Wall surface mount type for easy installation.
- No bottom rail needed for clean appearance.
- Door opens lightly for easy operation.
- Door catch included to hold door in fully open position.
- Designed for 13 mm solid phenolic panel or 28~40 mm thick wood doors.
- Non-handed.
- Glass door system available (See P.571~572).

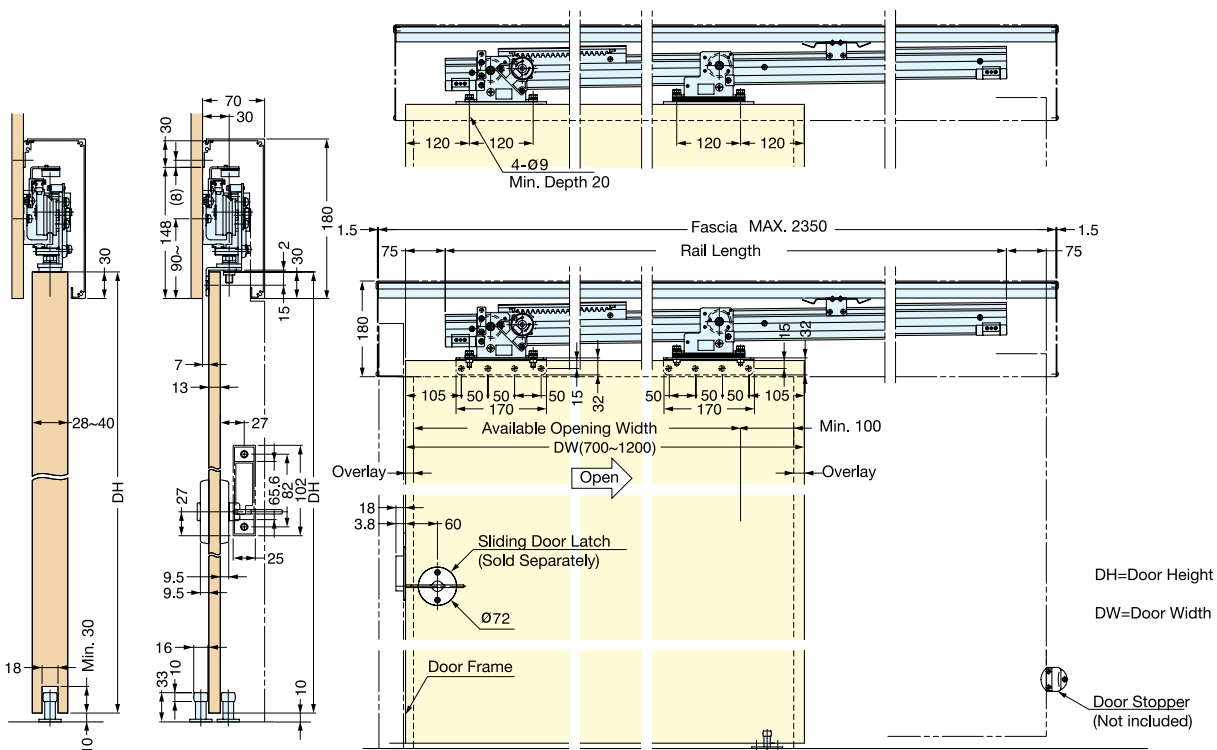
Part Overview



Roller Brackets for solid phenolic panel and wood door included.



Closing speed adjustable by turning adjustment screw on damper.



Part Details

No.	①	②	③	④	⑤	⑥	⑦
Name	Damper	Roller A	Roller B	Gear Rack	Spring	Stopper Roller	Door Stopper
Qty. / Set	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	2 pcs

No.	⑧	⑨	⑩	⑪	⑫	⑬	⑭
Name	Stopper Plate	Height Adjustment Spacer	Roller Bracket (For Solid Phenolic)	Roller Bracket (For Wood)	Bottom Roller Guide	Anchor	Roller Rail (2200 mm)
Qty. / Set	2 pcs	t1:15 pcs, t0.5:1 pc	2 pcs	2 pcs	2 pcs	4 pcs	1 pc

No.	⑮	⑯	⑰
Name	Fascia (2350 mm)	Side Cover	Mounting Plate (For Fascia) (2350 mm)
Qty. / Set	1 pc	1 pc ea. (Left & Right)	1 pc

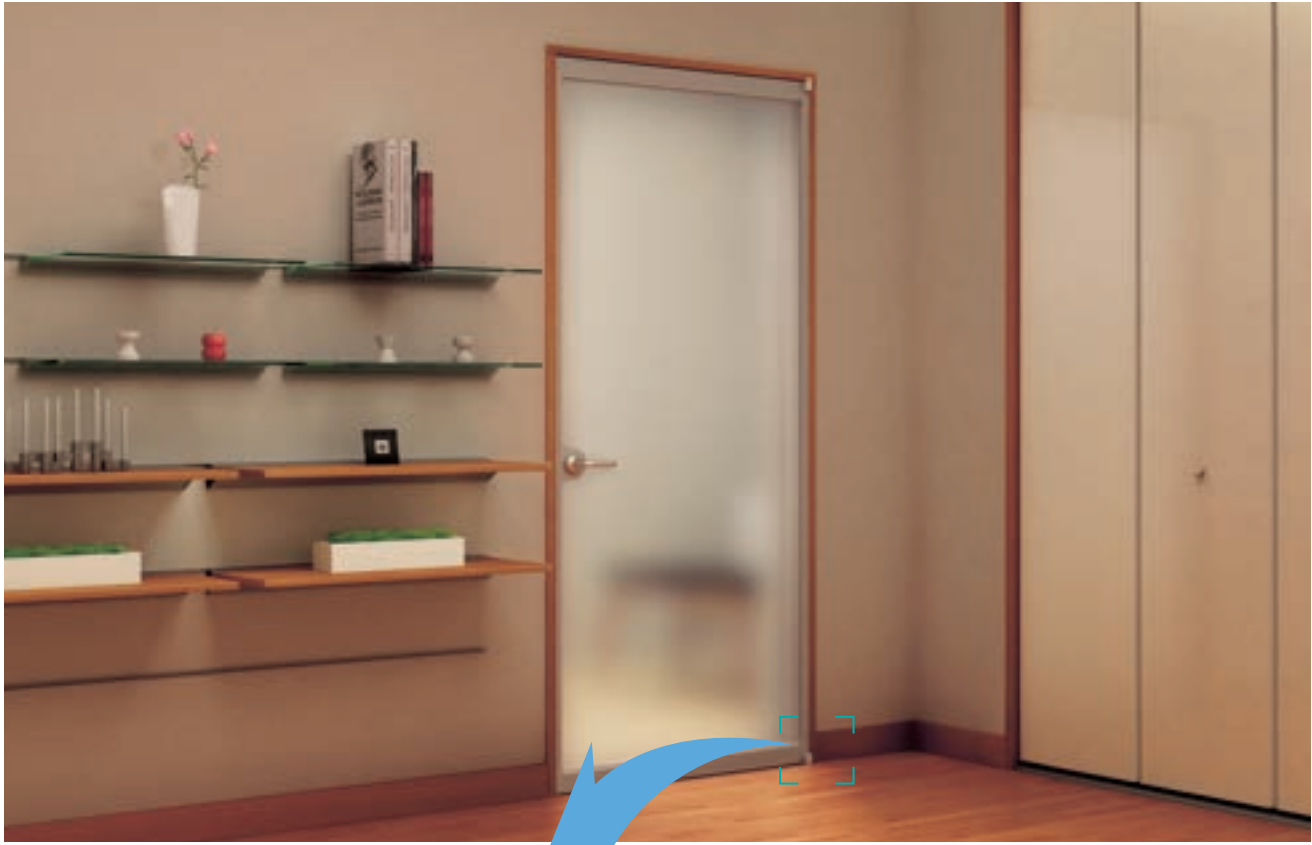
No.	Option
Name	Latch w/indicator
Item No.	ET-125T
Qty. / Set	1 pc

ALUMINUM FRAME SWING DOOR (2 WAY ADJUSTABLE)

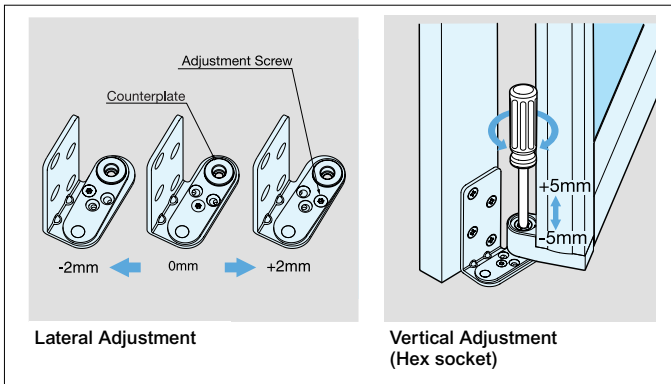
AF-25D

SLIDING & FOLDING
DOOR HARDWARE

ALUMINUM FRAME SWING DOOR (2 WAY ADJUSTABLE)



Adjustable Hinge

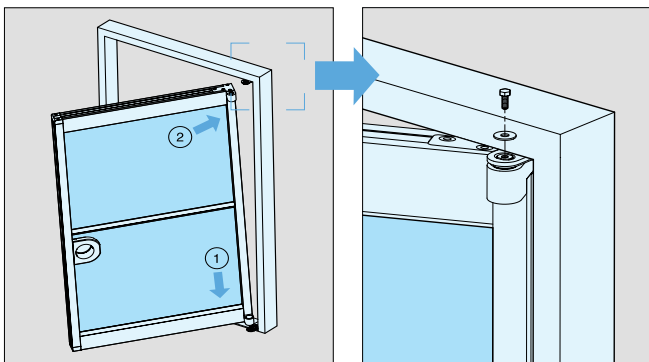


- Aluminum profile provides excellent rigidity preventing door flex.
- Intermediate support not needed when door size within H 2200 mm x W 900 mm (H 86-39/64" x W 35-7/16").
- Vertically and laterally adjustable after installed.
- Hinge is non-handed.
- Sliding door version available.
- Please see P.574~577 for details.

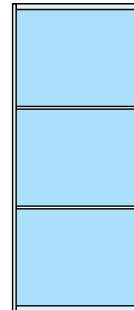
Door Height	Max. 2500 mm (98-27/64")
Door Width	Max. 1000 mm (39-3/8")
Door Weight	Max. 40 kg (88 lbs)
Glass Thickness	5 or 6 mm
Standard Size	H 2200 mm x W 900 mm (H 86-39/64" x W 35-7/16")

* Intermediate support required when either door height or door width exceeds standard size.

Easy Door Installation

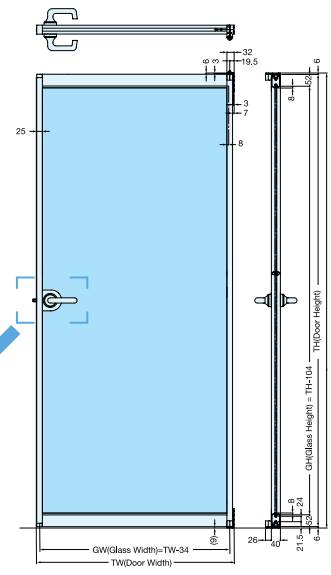
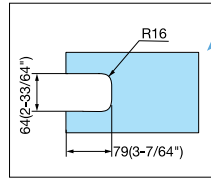
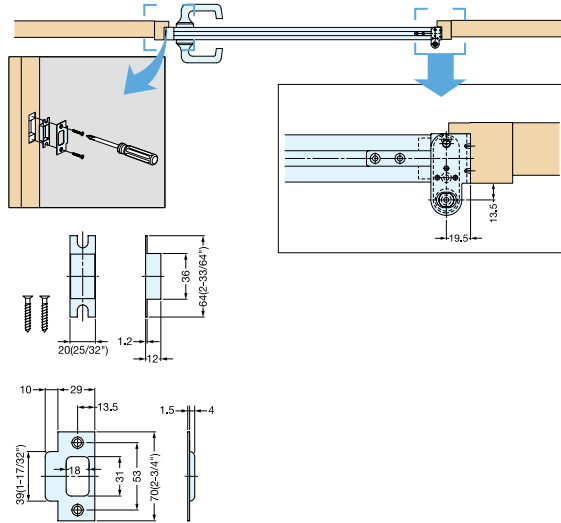


Standard Size
(Smaller than H 2200 x W 900)



2 Supports
(Smaller than H 2500 x W 800)

Dimensions

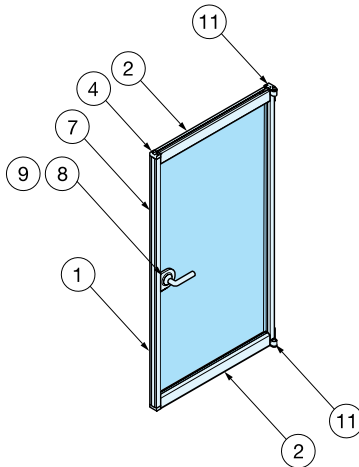


Part Details (for one door)

No.	Item No.	Part Name	Dimensions	Quantity	Description
①	AF-25-W01	Vertical Frame		Necessary quantity	<ul style="list-style-type: none"> Material: Aluminum Finish/Color: Matte Silver Length: 2500 mm (98-27/64")
②	AF-25-W02	Horizontal Frame		Necessary quantity	<ul style="list-style-type: none"> Material: Aluminum Finish/Color: Matte Silver Length: 2000 mm (78-47/64")
③	AF-25-W03	Intermediate Support (Optional)		Necessary quantity	<ul style="list-style-type: none"> Material: Aluminum Finish/Color: Matte Silver Length: 2000 mm (78-47/64")
④	AF-25-P04	Connector		4 pcs	<ul style="list-style-type: none"> Material: Zinc Alloy Finish/Color: Matte Chrome
⑤	AF-25-P02 (For 5 mm Glass)	Gasket		Necessary quantity	<ul style="list-style-type: none"> Material: Elastomer Finish/Color: Light Grey Length: 2500 mm (98-27/64") (AF-25-P02) 3000 mm (118-7/64") (AF-25-P15)
	AF-25-P15 (For 6 mm Glass)				
⑥	AF-25-P03 (For 5 mm Glass)	Gasket for Intermediate Support (Optional)		Necessary quantity	<ul style="list-style-type: none"> Material: Elastomer Finish/Color: Light Grey Length: 2500 mm (98-27/64") (AF-25-P03) 2500 mm (98-27/64") (AF-25-P16)
	AF-25-P16 (For 6 mm Glass)				
⑦	AF-25-P01-25	Edge Cover		Necessary quantity	<ul style="list-style-type: none"> Material: Synthetic Rubber Finish/Color: Light Grey Length: 2500 mm (98-27/64")

No.	Item No.	Part Name	Image	Dimensions	Quantity	Description
⑧	AF-25-P06	Handle Case A			1 set	<ul style="list-style-type: none"> ● Material Zinc Alloy ● Finish/Color Matte Silver (Cover)
		Handle Case B				
⑨	-	Lever Handle			1 set	<ul style="list-style-type: none"> ● Material Aluminum ● Finish/Color Anodized, Satin *Passage: No Lock Privacy: Thumbturn and Slotted Lock Combination. Can be opened from outside with small coin or screwdriver.
		HCSA138F11 (Passage)				
		HCSA138SF11G (Cylinder Lock & Thumbturn)				
		HCSA138SF11H (Indicator & Thumbturn)				
⑩	-	Strikeplate			Included in Lever Handle package	<ul style="list-style-type: none"> ● Material Steel, Polyamide ● Finish/Color Plain, Black ● Screw 4x30 Flat Head Screw x 2 included
		HCSA138F11 is shown.				
⑪	AF-25-P10	Pivot Hinge for Aluminum Frame			1 pair	<ul style="list-style-type: none"> ● Material Zinc Alloy (Body) 304 Stainless Steel (Bracket) ● Finish/Color Matte Chrome (Body) Plain (Bracket)
⑫	AF-25-DS	Screw Set for AF-25D			1 set	<ul style="list-style-type: none"> ● Material 304 Stainless Steel ● Finish/Color Plain ● Screws Breakdown M6 x 30 Hex. Socket Cap x 8pcs M4 x 30 Hex. Socket Cap x 6pcs M4 x 25 Hex/Flat Head x 12pcs 5 x 30 Hex/Flat Head x 8pcs *Screws for 3 Intermediate Supports included.

* Glass not included.



ORDERING INFO:

Please order parts based on required door size and opening dimensions.

e.g.) Single Swing Door Application

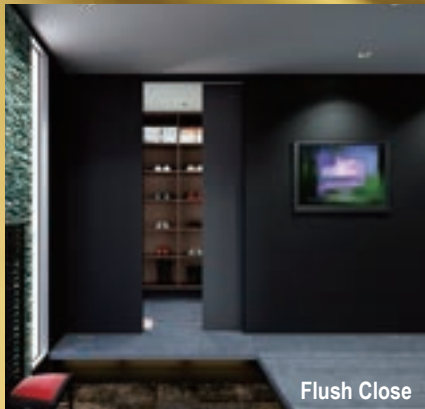
Door Size: H 2200 x W 900 mm (H 86-5/8" x W 35-7/16")

Glass Thickness: 6 mm

Qty	No.	Item No.
2	①	AF-25-W01
1	②	AF-25-W02
-	③	AF-25-W03
4	④	AF-25-P04
3	⑤	AF-25-P15 (For 6 mm Glass)
-	⑥	AF-25-P16 (For 6 mm Glass)
2	⑦	AF-25-P01-25
1	⑧	AF-25-P06
1	⑨⑩	HCSA138F11 (Passage Type)
1	⑪	AF-25-P10
1	⑫	AF-25-DS

Functional Sliding Door Systems

Sugatsune - progressive sliding door systems for the modern interior. Sliding doors allow home dwellers to utilize more space in a room than traditional hinged doors because of its minimized opening and closing profile. Our innovative sliding door systems add unique features such as soft closing, soft opening, discreet flush appearance, folding, and frameless glass mounting. If you're looking for an unparalleled look within your home, look no further than our product line.



ALUMINUM FRAME SLIDING DOOR (Door Weight 176 lbs)

FD80-AF

SLIDING & FOLDING DOOR HARDWARE



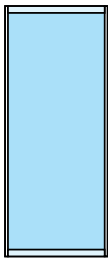
Type	FD80-AF			
	Standard Sliding		Two-Way Soft Close	
Roller	Top Recessed	Top Surface	Top Recessed	Top Surface
Door Weight	Max. 80 kg (176 lbs)			
Glass Thickness	5 or 6 mm			
Door Width	Max. 1500 mm (59-1/16")		804 ~ 1500 mm (31-5/8"~59-1/16")	
Door Height	Max. 2500 mm (98-27/64")			

- Two-way soft closer option available.
- Top surface or recessed mount roller available.
- Thick aluminum profile provides excellent rigidity preventing door flex.
- Ball bearing roller provides ultra smooth movement.
- Easy assembly and installation.
- Intermediate support not needed when door size within H 2200 mm x W 900 mm (H 86-39/64" x W 35-7/16").
- No rail on floor needed.
- Swing door version available for total coordination. Please see P.570~572 for details.
- Black frame available by special order only.

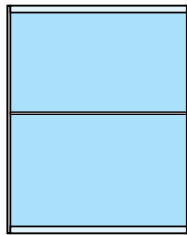


ALUMINUM FRAME SLIDING DOOR (DOOR WEIGHT 176 LBS)

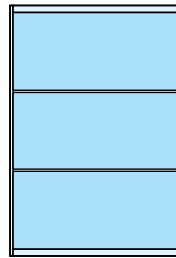
* Intermediate support required when either door height or door width exceeds standard size. Pictures shown below are door size examples which require intermediate support.



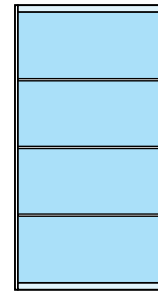
Standard Size
(Smaller than H 2200 x W 900)



1 Support
(Smaller than H 2000 x W 1600)



2 Supports
(Smaller than H 2200 x W 1500)



3 Supports
(Smaller than H 2500 x W 1300)

Parts Set (per door)		Necessary Parts	
Please refer to "Qty [a]-[d]" for parts included in each set.			
Item No.	Description	Roller	
		Roller	Function
a	FD80-DHCHP-AF	Top Recessed	Two Way Soft-Close
b	FD80-HHP-AF	Top Recessed	Standard Sliding
c	FD80-DHCMP-AF	Top Surface	Two Way Soft-Close
d	FD80-HMP-AF	Top Surface	Standard Sliding

Parts Included

No.	Qty				Part Name	Description
	a	b	c	d		
1	1 pc	-	-	-	Top Recessed Roller Soft-Closer (Two-Way) FD80-WRH-DSC	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal/Steel Finish Nickel/Black
2	1 pc	2 pc	-	-	Top Recessed Roller Standard Sliding FD80-WRH	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal/Steel Finish Nickel/Natural
3	-	-	1 pcs	-	Top-Surface Roller Soft-Closer (Two-Way) FD80-WRM-DSC	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal/Steel Finish Nickel/Black
4	-	-	1 pc	2 pcs	Top-Surface Roller Standard Sliding FD80-WRM	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal/Steel Finish Nickel/Natural
5	1 pc	1 pc	1 pc	1 pc	Floor Guide FD50-BG18	<ul style="list-style-type: none"> Material 304 Stainless Steel, POM Finish Plain/White
6	-	2 pcs	-	2 pcs	End Stopper FD80-HTST	<ul style="list-style-type: none"> Material Steel/Polyacetal Finish Chromate/White
7	-	-	1 pc	1 pc	Sheet Nut FD80-AFB	<ul style="list-style-type: none"> Material Steel Finish/Chromate
8	2 pcs	2 pcs	-	-	End Cap AF-25HB-EC	<ul style="list-style-type: none"> Material/Elastomer Finish/Grey

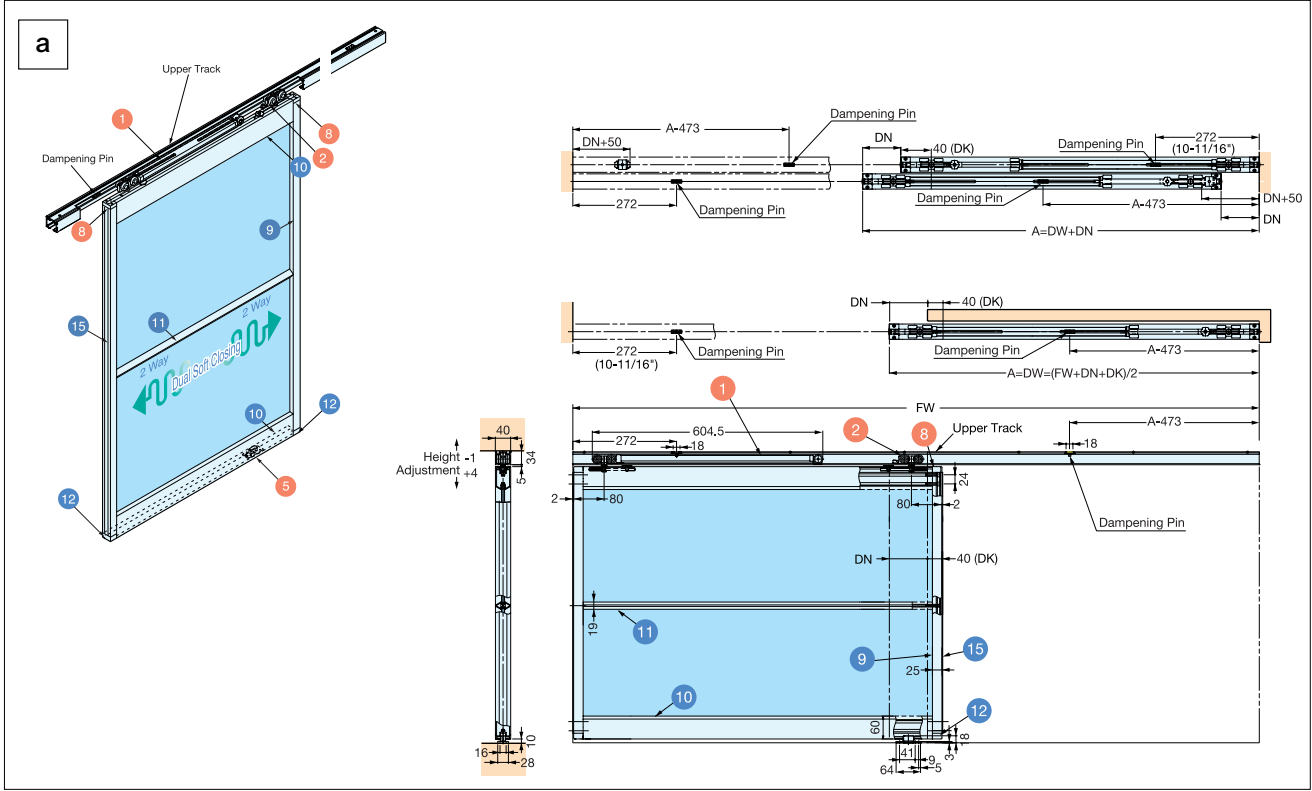
Part Details

No.	Part Name	Description
9	Vertical Frame AF-25-W01	<ul style="list-style-type: none"> Material Aluminum Finish Matte Silver
10	Horizontal Frame AF-25-W02	<ul style="list-style-type: none"> Material Aluminum Finish Matte Silver
11	Intermediate Support (Optional) AF-25-W03	<ul style="list-style-type: none"> Material Aluminum Finish Matte Silver
12	Connector AF-25-P04	<ul style="list-style-type: none"> Material Zinc Alloy Finish Matte Chrome
13	Gasket	<ul style="list-style-type: none"> AF-25-P02 (For 5 mm Glass) AF-25-P15 (For 6 mm Glass) Material Elastomer Finish Light Grey
14	Gasket for Intermediate Support (Optional)	<ul style="list-style-type: none"> AF-25-P03 (For 5 mm Glass) AF-25-P16 (For 6 mm Glass) Material/Elastomer Finish/Light Grey
15	Edge Cover AF-25-P01-25	<ul style="list-style-type: none"> Material Elastomer Finish Light Grey
16	Handle (Optional) MN799Z160E101	<ul style="list-style-type: none"> Material Zinc Alloy Finish Matte Chrome
17	Screw Set for AF-25H AF-25-HS	<ul style="list-style-type: none"> Material 304 Stainless Steel Finish Plain

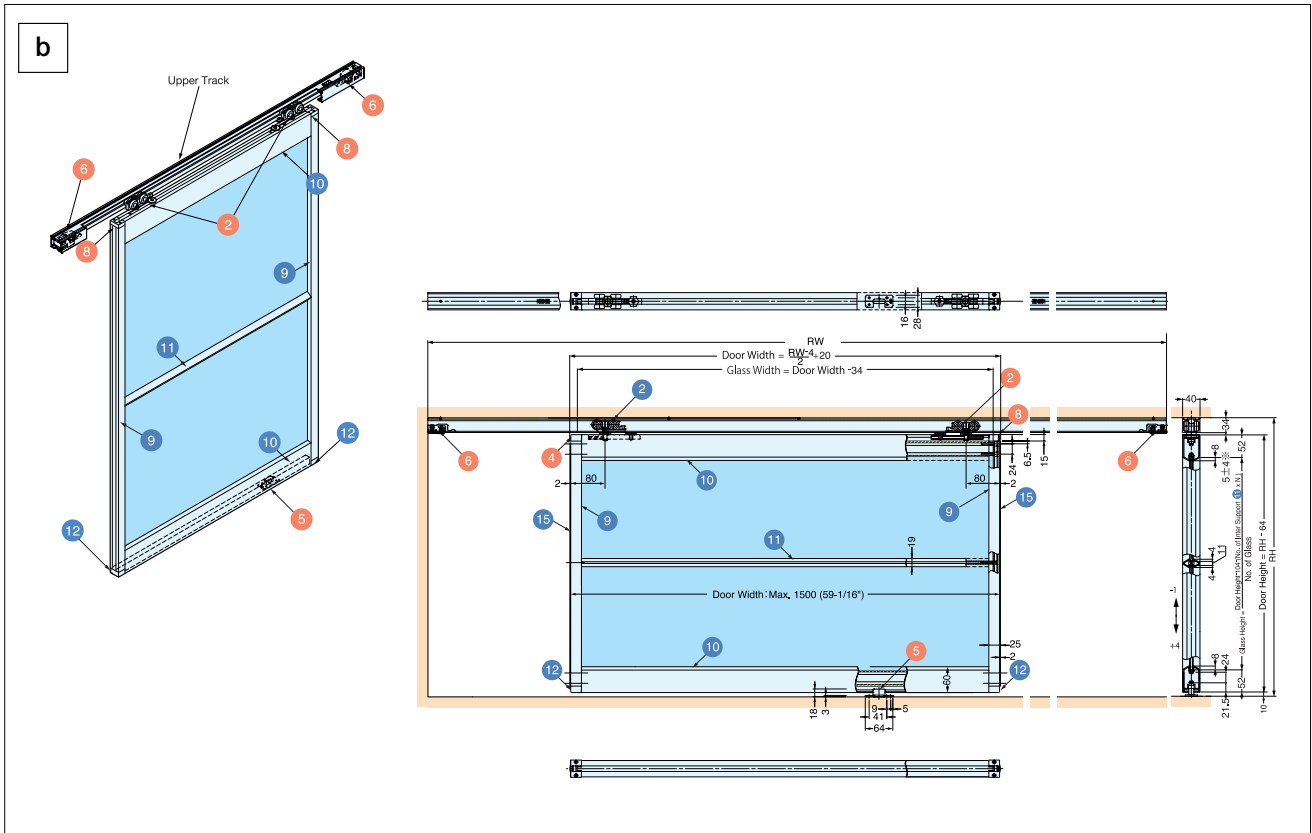
Upper Tracks

Length	Item No.	Dimensions, Material / Finish
78-3/4" (2000 mm)	FD80-TRM2000SIL	 Aluminum / Anodized Silver
107-1/2" (2730 mm)	FD80-TRM2730SIL	
143-5/16" (3640 mm)	FD80-TRM3640SIL	

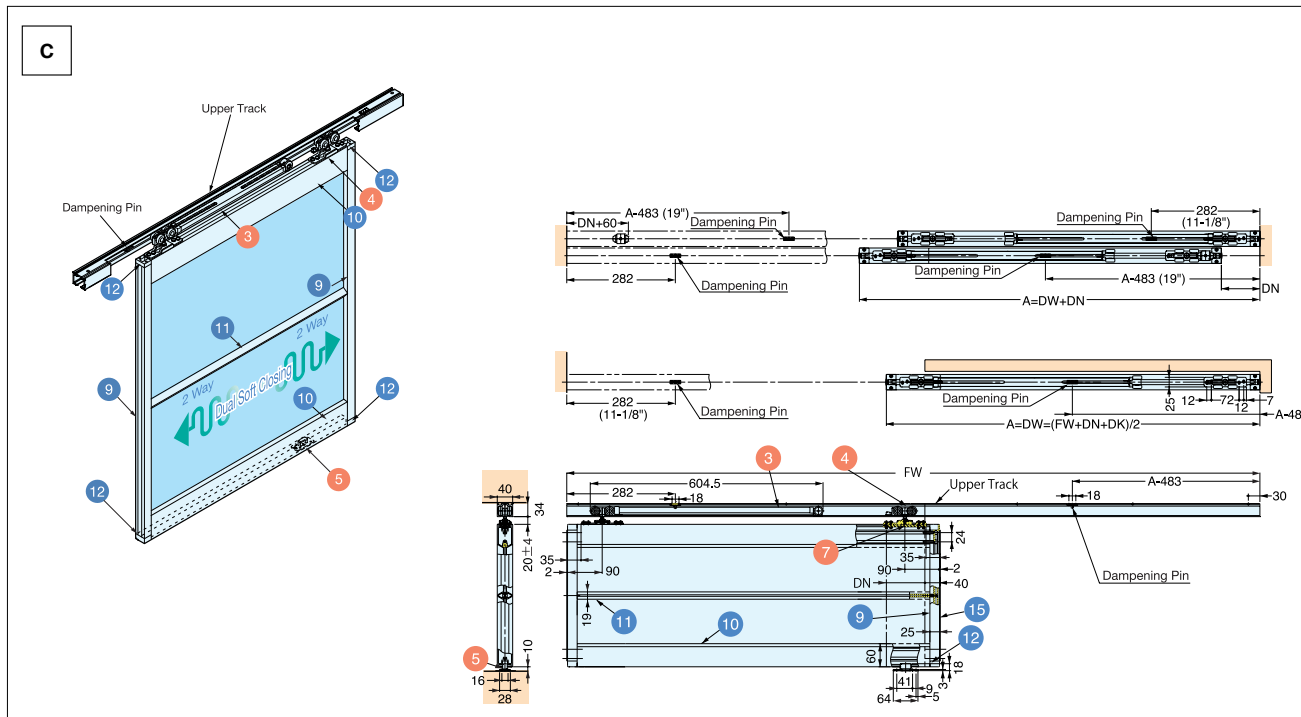
■ FD80-AF / Top Recessed Roller / Two-Way Soft Close



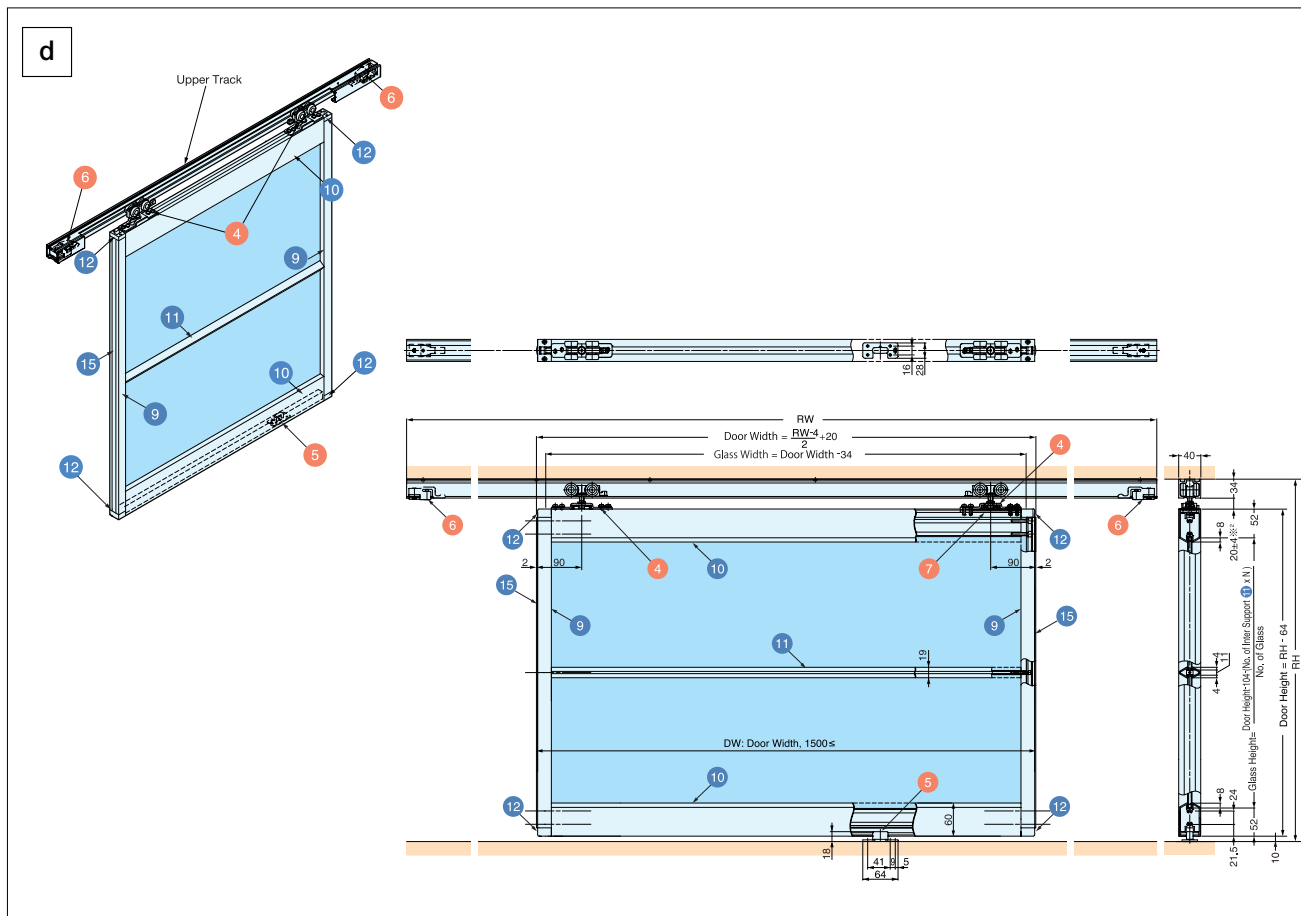
■ FD80-AF / Top Recessed Roller / Standard Sliding



■ FD80-AF / Top Surface Roller / Two-Way Soft Close



■ FD80-AF / Top Surface Roller / Standard Sliding



SELF CLOSING GLASS SLIDING DOOR SYSTEM (Door Weight 66 ~ 176 lbs) **LM-80G**

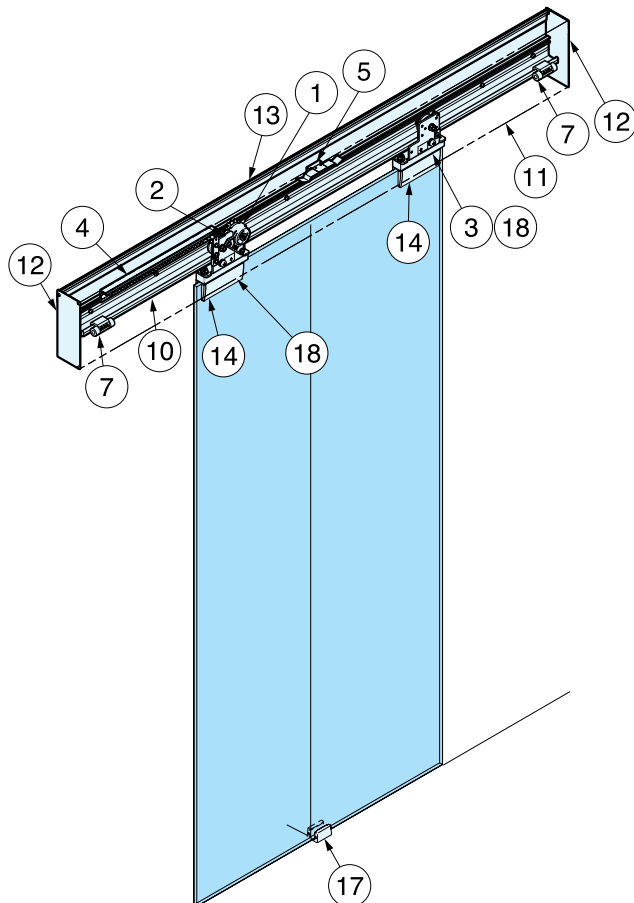
SLIDING & FOLDING
DOOR HARDWARE

SELF CLOSING GLASS SLIDING DOOR SYSTEM (DOOR WEIGHT 66~176 LBS)

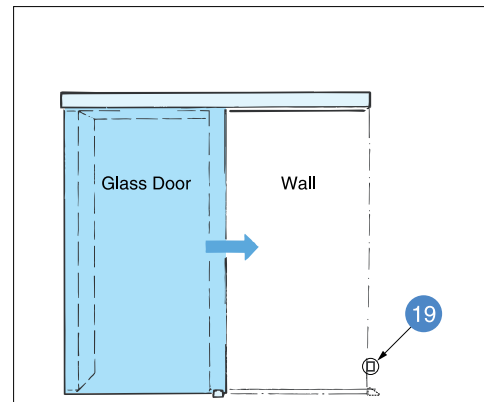


Item No.	LM-80G
Door Width	700~1200 mm (27-9/16"~47-1/4")
Door Thickness	8~12 mm
Door Weight	30~80 kg/Door (66~176 lbs/door)
Door Travel	Max. 1100 mm (in case of door width 1200 mm) Max. 43-5/16" (in case of door width 47-1/4")

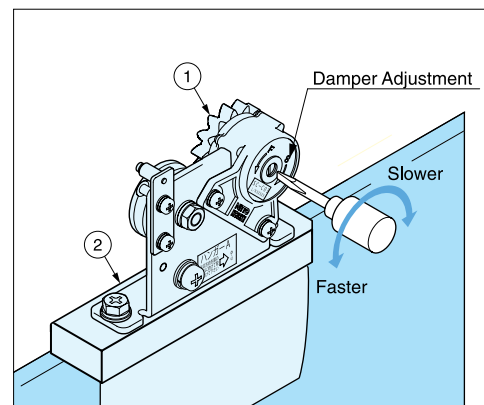
- Self closing sliding door system – no electricity required
- Equipped with damper for smooth and soft closing, eliminating slamming.
- No-pre-drilled holes on glass needed for installation.
- Door catch included to hold door in fully open position.



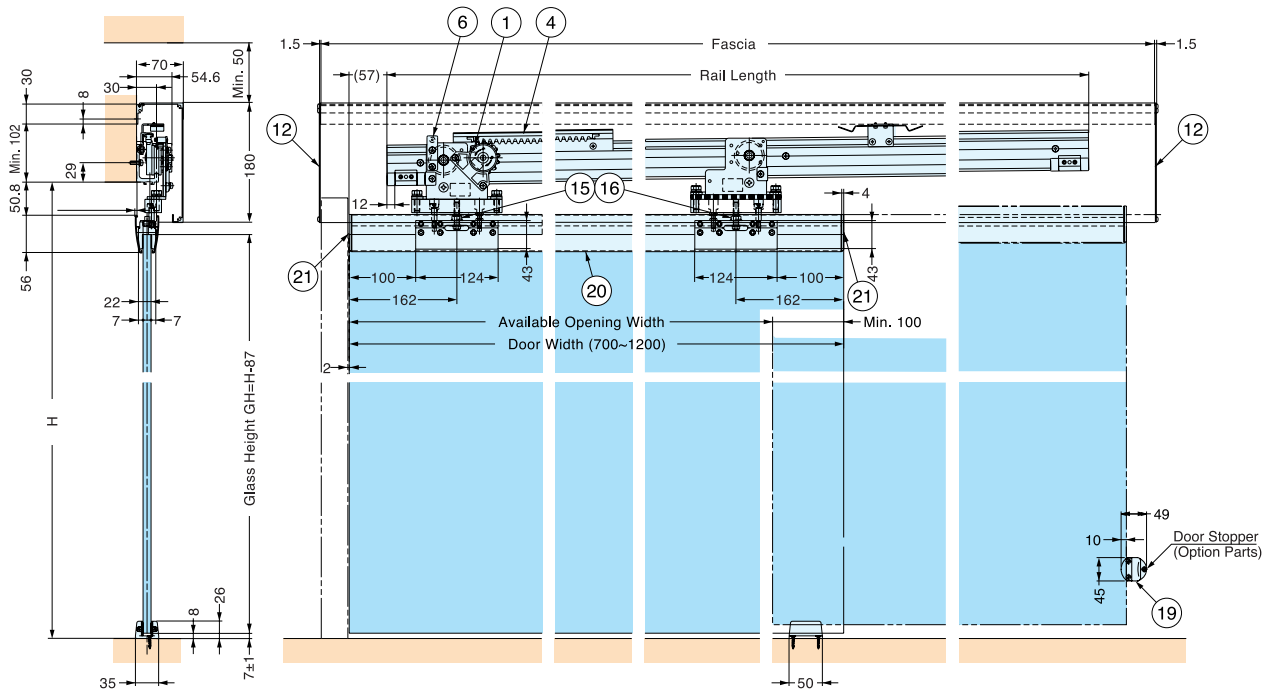
■ Door Stopper



■ Speed Adjustment



Closing speed adjustable by turning adjustment screw on damper.



Part Details

No.	①	②	③	④	⑤	⑥	⑦
Name	Damper	Roller A	Roller B	Gear Rack	Spring	Stopper Roller	Door Stopper
Qty. / Set	1 pc	1 pc	1 pc	1 pc	1 pc	1 pc	2 pcs
No.	⑧	⑨	⑩	⑪	⑫	⑬	⑭
Name	Stopper Plate	Height Adjustment Spacer	Roller Rail (2200 mm)	Fascia (2350 mm)	Side Cover	Mounting Plate (For Fascia) (2350 mm)	Glass Bracket
Qty. / Set	2 pcs	t1:15 pcs, t0.5:1 pc	1 pc	1 pc	1 pc ea. (Left & Right)	1 pc	2 pcs
No.	⑮	⑯	⑰	⑱	⑲	⑳	㉑
Name	Hanger Bolt	Nut	Bottom Guide	Bracket	Door Stopper	Bracket cover	End Cap Set
Qty. / Set	2 pcs	2 pcs	1 pc	2 pcs	1 pc	1 pc	1 set

ALUMINUM FRAME SLIDING DOOR (Door Weight 176 lbs)

FD80-AF

SLIDING & FOLDING
DOOR HARDWARE

ALUMINUM FRAME SLIDING DOOR (DOOR WEIGHT 176 LBS)

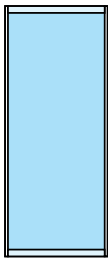


Type	FD80-AF			
	Standard Sliding		Two-Way Soft Close	
Roller	Top Recessed	Top Surface	Top Recessed	Top Surface
Door Weight	Max. 80 kg (176 lbs)			
Glass Thickness	5 or 6 mm			
Door Width	Max. 1500 mm (59-1/16")		804 ~ 1500 mm (31-5/8"~59-1/16")	
Door Height	Max. 2500 mm (98-27/64")			

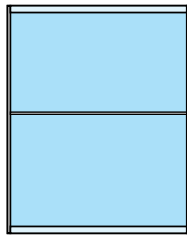
- Two-way soft closer option available.
- Top surface or recessed mount roller available.
- Thick aluminum profile provides excellent rigidity preventing door flex.
- Ball bearing roller provides ultra smooth movement.
- Easy assembly and installation.
- Intermediate support not needed when door size within H 2200 mm x W 900 mm (H 86-39/64" x W 35-7/16").
- No rail on floor needed.
- Swing door version available for total coordination. Please see P.570~572 for details.
- Black frame available by special order only.



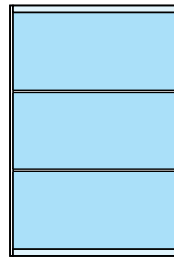
* Intermediate support required when either door height or door width exceeds standard size. Pictures shown below are door size examples which require intermediate support.



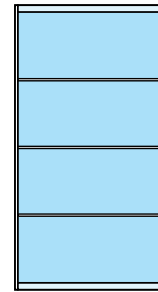
Standard Size
(Smaller than H 2200 x W 900)



1 Support
(Smaller than H 2000 x W 1600)



2 Supports
(Smaller than H 2200 x W 1500)



3 Supports
(Smaller than H 2500 x W 1300)

**Parts Set
(per door)**

Necessary Parts

Please refer to "Qty [a]-[d]" for parts included in each set.

	Item No.	Description	
		Roller	Function
[a]	FD80-DHCHP-AF	Top Recessed	Two Way Soft-Close
[b]	FD80-HHP-AF	Top Recessed	Standard Sliding
[c]	FD80-DHCMP-AF	Top Surface	Two Way Soft-Close
[d]	FD80-HMP-AF	Top Surface	Standard Sliding

Parts Included

No.	Qty				Part Name	Description
	[a]	[b]	[c]	[d]		
1	1 pc	-	-	-	Top Recessed Roller Soft-Closer (Two-Way) FD80-WRH-DSC	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal/Steel Finish Nickel/Black
2	1 pc	2 pc	-	-	Top Recessed Roller Standard Sliding FD80-WRH	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal/Steel Finish Nickel/Natural
3	-	-	1 pcs	-	Top-Surface Roller Soft-Closer (Two-Way) FD80-WRM-DSC	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal/Steel Finish Nickel/Black
4	-	-	1 pc	2 pcs	Top-Surface Roller Standard Sliding FD80-WRM	<ul style="list-style-type: none"> Material Zinc Alloy/Polyacetal/Steel Finish Nickel/Natural
5	1 pc	1 pc	1 pc	1 pc	Floor Guide FD50-BG18	<ul style="list-style-type: none"> Material 304 Stainless Steel, POM Finish Plain/White
6	-	2 pcs	-	2 pcs	End Stopper FD80-HTST	<ul style="list-style-type: none"> Material Steel/Polyacetal Finish Chromate/White
7	-	-	1 pc	1 pc	Sheet Nut FD80-AFB	<ul style="list-style-type: none"> Material Steel Finish/Chromate
8	2 pcs	2 pcs	-	-	End Cap AF-25HB-EC	<ul style="list-style-type: none"> Material/Elastomer Finish/Grey

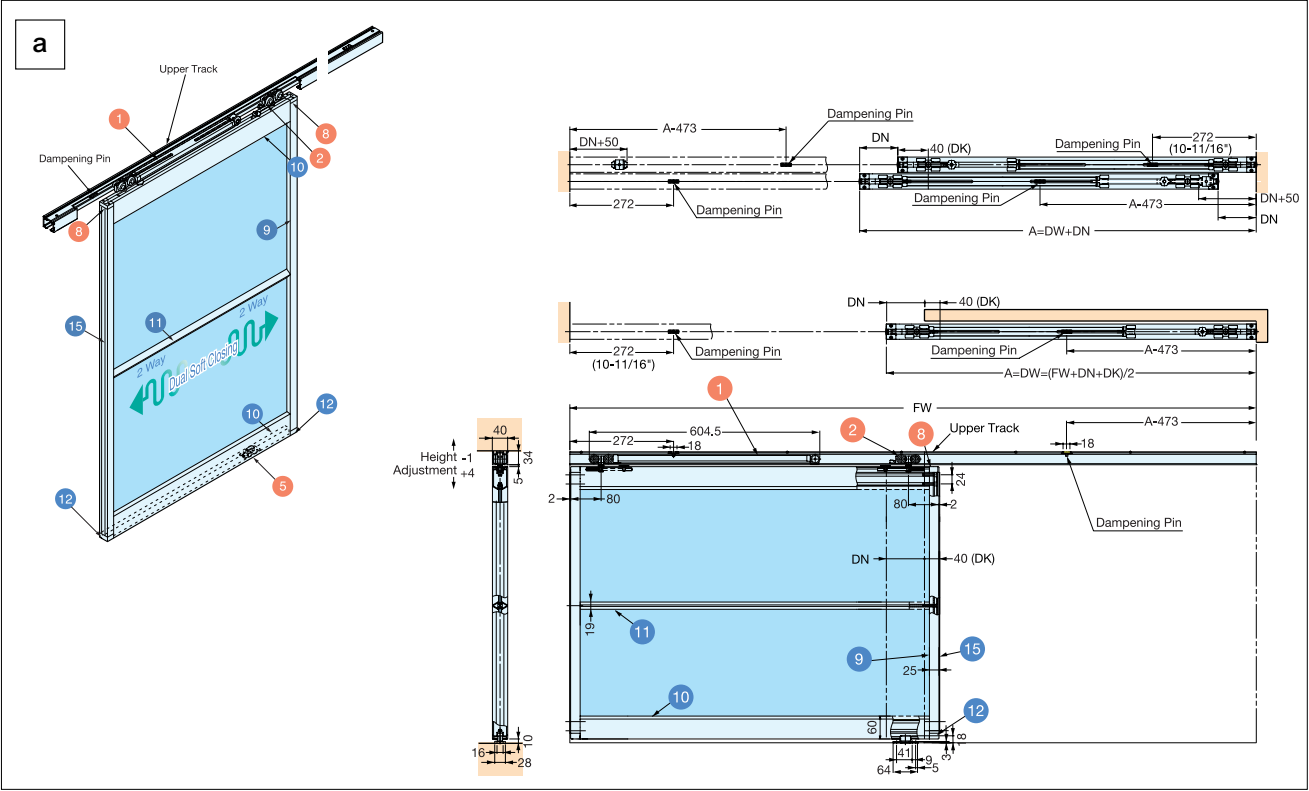
Part Details

No.	Part Name	Description
9	Vertical Frame AF-25-W01	<ul style="list-style-type: none"> Material Aluminum Finish Matte Silver
10	Horizontal Frame AF-25-W02	<ul style="list-style-type: none"> Material Aluminum Finish Matte Silver
11	Intermediate Support (Optional) AF-25-W03	<ul style="list-style-type: none"> Material Aluminum Finish Matte Silver
12	Connector AF-25-P04	<ul style="list-style-type: none"> Material Zinc Alloy Finish Matte Chrome
13	Gasket	<ul style="list-style-type: none"> Material Elastomer Finish Light Grey
14	Gasket for Intermediate Support (Optional)	AF-25-P02 (For 5 mm Glass)
		AF-25-P15 (For 6 mm Glass)
14	Gasket for Intermediate Support (Optional)	AF-25-P03 (For 5 mm Glass)
		AF-25-P16 (For 6 mm Glass)
15	Edge Cover AF-25-P01-25	<ul style="list-style-type: none"> Material Elastomer Finish Light Grey
16	Handle (Optional) MN799Z160E101	<ul style="list-style-type: none"> Material Zinc Alloy Finish Matte Chrome
17	Screw Set for AF-25H AF-25-HS	<ul style="list-style-type: none"> Material 304 Stainless Steel Finish Plain

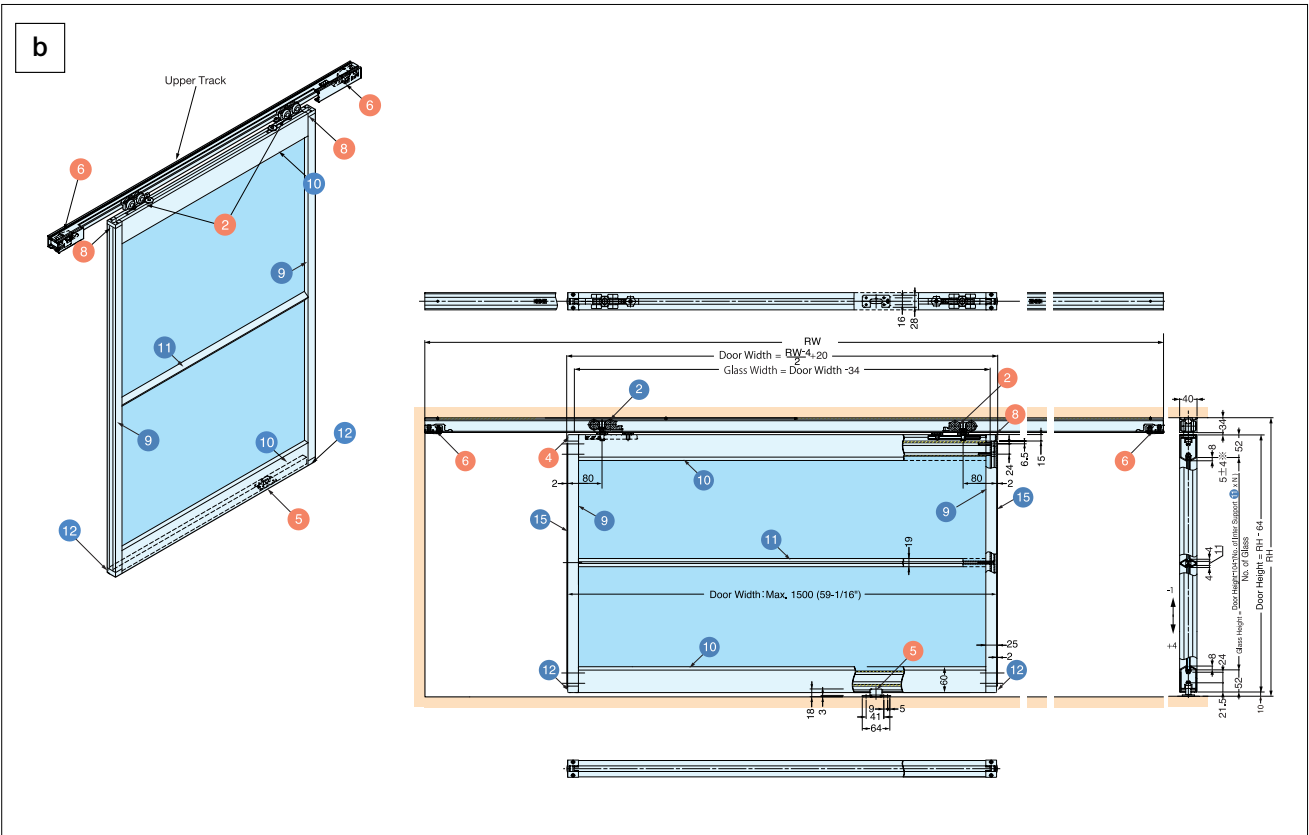
Upper Tracks

Length	Item No.	Dimensions, Material / Finish
78-3/4" (2000 mm)	FD80-TRM2000SIL	<p>Aluminum / Anodized Silver</p>
107-1/2" (2730 mm)	FD80-TRM2730SIL	
143-5/16" (3640 mm)	FD80-TRM3640SIL	

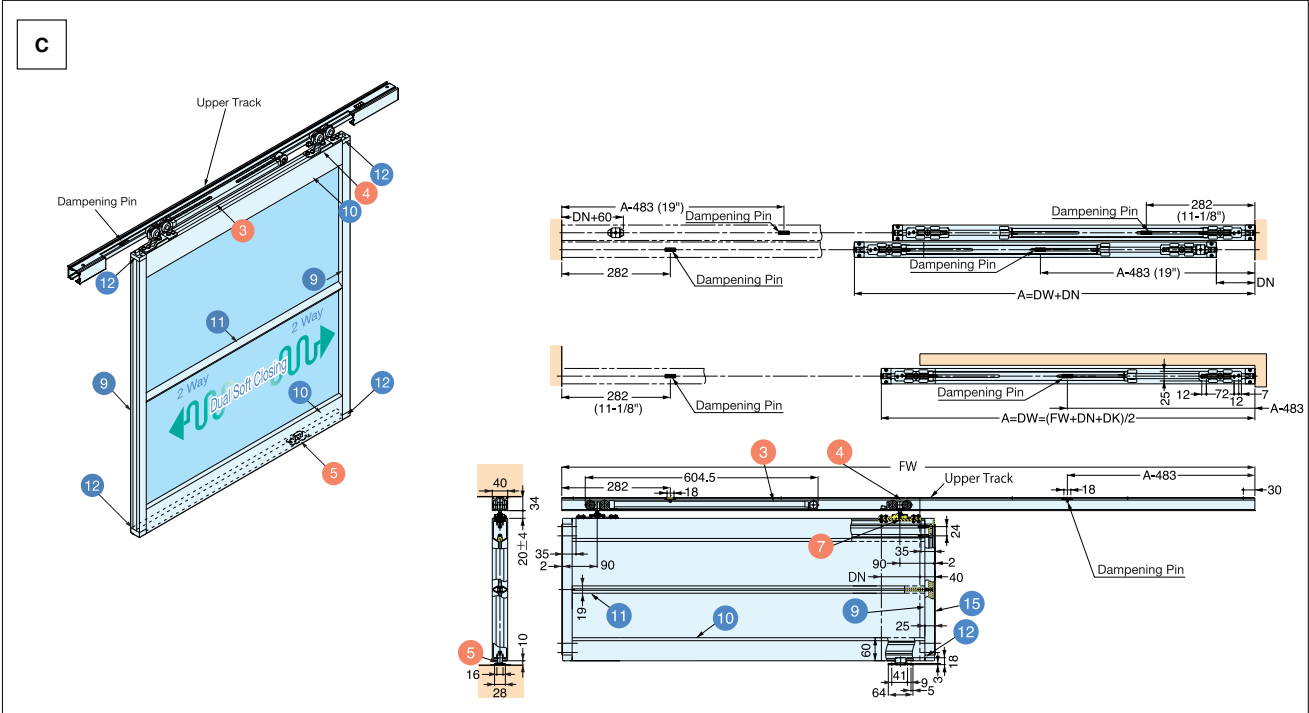
■ FD80-AF / Top Recessed Roller / Two-Way Soft Close



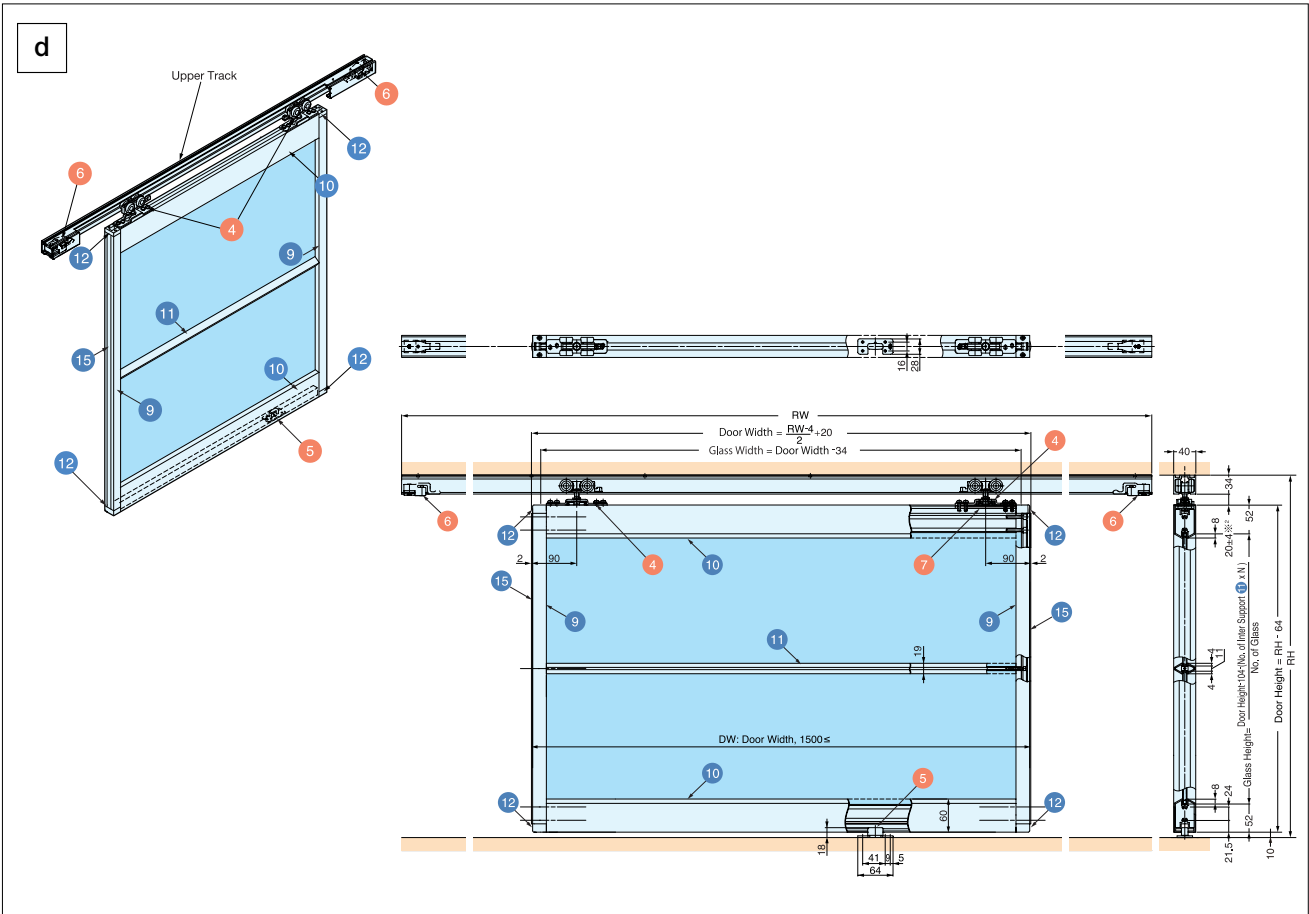
■ FD80-AF / Top Recessed Roller / Standard Sliding



■ FD80-AF / Top Surface Roller / Two-Way Soft Close



■ FD80-AF / Top Surface Roller / Standard Sliding





CABINET DOOR HARDWARE

LATERAL OPENING DOOR SYSTEM
GLASS SHOWCASE HARDWARE

CABINET DOOR HARDWARE

LATERAL OPEN
CABINET HARDWARE

LATERAL OPENING DOOR SYSTEM

MonoFlat **LIN-X** hinge™**LIN-X450**

P.592~595

Custom Set: Max. Door Weight 15 lbs
Standard Set: Max. Door Weight 37 lbsMonoFlat **LIN-X** hinge™**LIN-X600**

P.596~597

Custom Set: Max. Door Weight 20 lbs
Standard Set: Max. Door Weight 53 lbsMonoFlat **LIN-X** hinge™**LIN-X800**

P.598~599

Custom Set: Max. Door Weight 15 lbs
Standard Set: Max. Door Weight 37 lbs

LATERAL OPENING DOOR SYSTEM



MonoFlat FAD™
P.601
Max. Door Weight 11 lbs

FAD-5



MonoFlat FAD™
P.602~602
Max. Door Weight 44 lbs

FAD-20

SPECIALITY DOOR HARDWARE



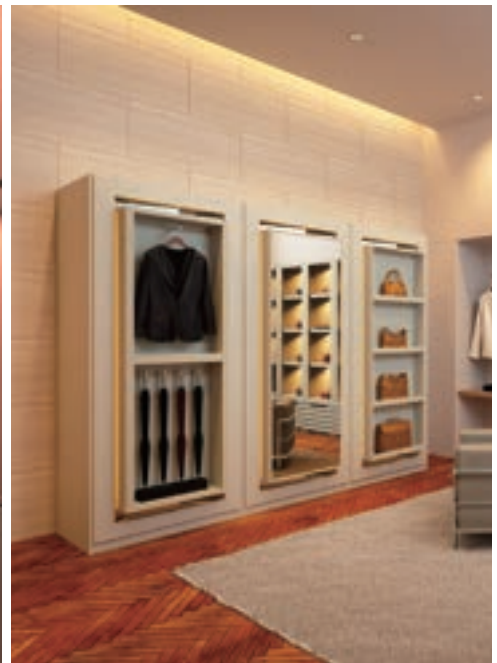
P.604~605
Door Straighteners

DSR



P.606
Glass Showcase Hardware
Max. Door Weight 27 lbs

XL-GC SERIES

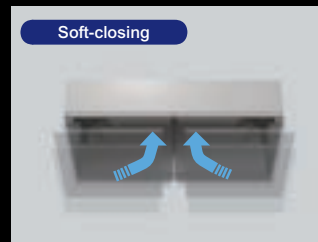
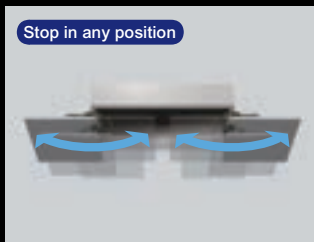


P.608~609
180° Rotating Cabinet System
Max. Door Weight 165 lbs

RB-600



MonoFlat LIN-X hinge™



LATERAL OPENING DOOR SYSTEM

LIN-X450 / LIN-X600

Item No.	LIN-X450	LIN-X600
Door Width	400~500 mm (15-3/4"~19-11/16")	550~650 mm (21-5/8"~25-9/16")
Door Height	600~2400 mm (23-5/8"~94-1/2")	
Door Thickness	15~24 mm (5/8"~15/16")	
Door Weight	*Max 17 kg (37.4 lbs)	*Max 24 kg (52.8 lbs)

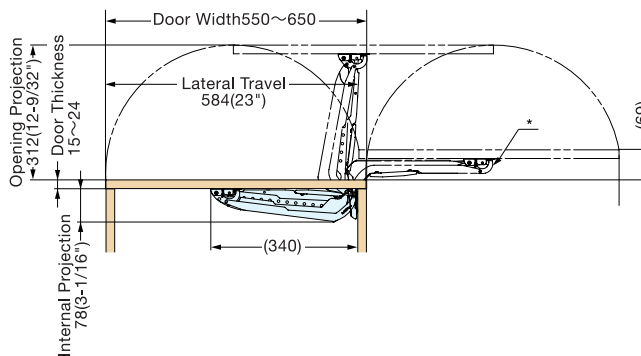
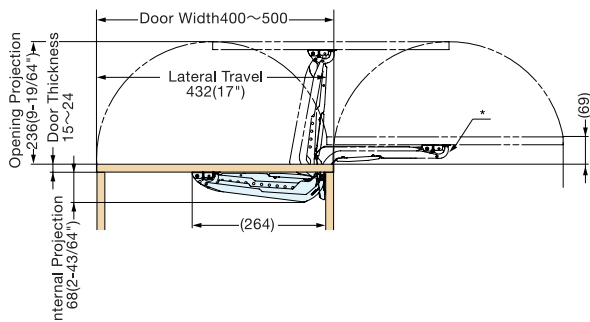
*Max door weight will vary depending on number of hinges used.

- **Lateral Swing Mechanism**
Allows doors to swing out laterally in a small radius, ideal for tight front space application.
- **Full Access to Cabinet**
Door will not get in the way when fully opened providing full access to the cabinet.
- **Free Swing & Soft-close**
- **Easy Installation**
Designed for standard 32 mm system mounting, with snap-on hinge.
- **4-Way Adjustable**
3-way adjustable like concealed hinges and also with parallel adjustment.
- **Various Applications**
Can be used in single or double door configuration. Ideal for cabinets in kitchen, bathroom, laundry room etc.
*For overlay use.



■ LIN-X450

■ LIN-X600



■ Application

Kitchen Corner (Inside)



Kitchen Corner (Outside)



Kitchen



TV Base Cabinet



TV Cabinet



■ Face Frame Bracket



Item No.	Material
FFCB-HG-1	304 Stainless Steel

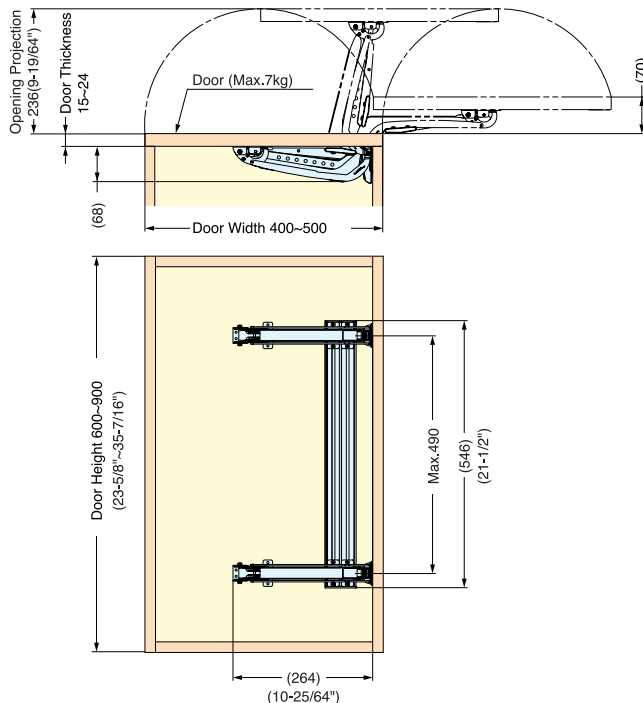
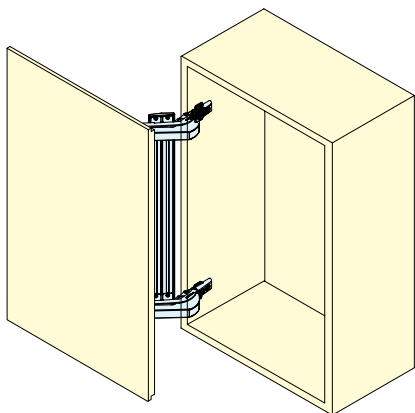
LATERAL OPENING DOOR SYSTEM

LIN-X450

LATERAL OPEN CABINET HARDWARE

LATERAL OPENING DOOR SYSTEM LIN-X HINGES

Standard Kit



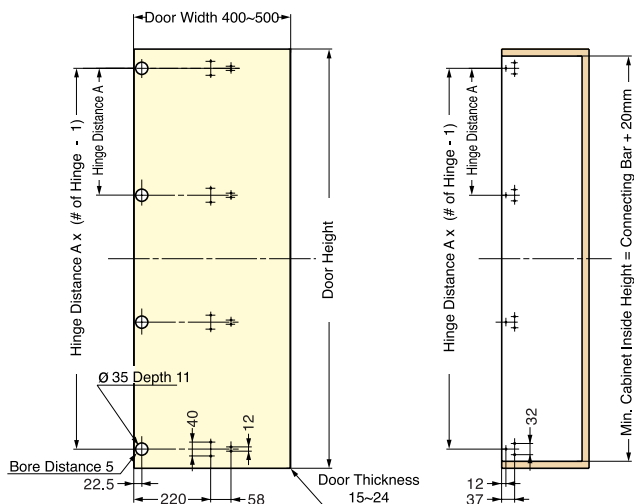
Item No.	Overlay	Material	Finish
LIN-X450	19 mm (3/4")	Steel/Aluminum	Nickel/Anodized
LIN-X450+5	14 mm (35/64")		

Door Width	400~500 mm (15-3/4"~19-11/16")
Door Height	600~900 mm (23-5/8"~35-7/16")
Door Thickness	15~24 mm (5/8"~15/16")
Door Weight	Max. 7 kg (15.4 lbs) / Door

*Can be used on heavier / taller doors by adding hinge arms.
Please see below for details.

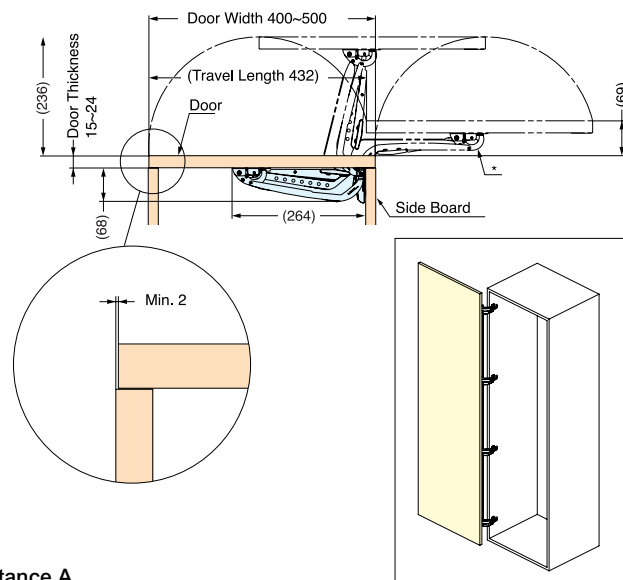
Individual Parts for Tall / Heavy Door

Door Preparation



Hinge in middle should be positioned at or equally distributed from center of door.

Cabinet Preparation



Hinge Distance A

Door Width	400~500 mm (15-3/4"~19-11/16")
Door Height	600~2400 mm (23-5/8"~94-1/2")
Door Thickness	15~24 mm (5/8"~15/16")
Door Weight	Max. 17 kg (37.4 lbs)

# of Hinges	Length of Connecting Bar (mm)					
	540	840	1140	1440	1740	2040
2 pcs	490.0	790.0	1090.0	-	-	-
3 pcs	245.0	395.0	545.0	695.0	845.0	-
4 pcs	-	263.3	363.3	463.3	563.3	663.3
5 pcs	-	-	272.5	347.5	422.5	497.5

Individual Parts - Ordering Chart

Ordering Info

Use corresponding letter in below table, and see "Parts Breakdown Table" for parts to be ordered.

Door Height	Door Weight				Connecting Bar / Cover Cap
	~15.5 lbs (~7.0 kg)	15.6~23.0 lbs (7.1~10.5 kg)	23.1~31 lbs (10.6~14.0 kg)	31.1~37.4 lbs (14.1~17.0 kg)	
23-5/8"~35-7/16" (600~900 mm)	LIN-X450 Standard Set Connecting Bar & Cover included	B			LIN-X450-L540 1 pc LIN-X450C 2 pcs
35-7/16"~47-1/4" (901~1200 mm)	A	B	C		LIN-X450-L840 1 pc LIN-X450C 2 pcs
47-1/4"~59-3/64" (1201~1500 mm)	A	B	C	D	LIN-X450-L1140 1 pc LIN-X450C 2 pcs
59-3/64"~70-7/8" (1501~1800 mm)	B	B	C	D	LIN-X450-L1440 1 pc LIN-X450C 2 pcs
70-7/8"~82-11/16" (1801~2100 mm)	B	B	C	D	LIN-X450-L1740 1 pc LIN-X450C 2 pcs
82-11/16"~94-1/2" (2101~2400 mm)	C	C	C	D	LIN-X450-L2040 1 pc LIN-X450C 2 pcs

Parts Breakdown Table

Item Number	Description		Qty Required			
			A	B	C	D
LIN-X450ACD	Single Arm (with Damper)		2	3	3	3
LIN-X450A	Single Arm (without Damper)		-	-	1	2
230-P4W-32T (for 19 mm overlay) or 230-P4W-32T+5 (for 14 mm overlay)	Mounting Plate *Requires 3 pcs of TAP3515NI Screw 3.5 x 15NI (Sold separately) per Mounting Plate		2	3	4	5
LIN-X450-L540	Connecting Bar L=540 mm		See table above			
LIN-X450-L840	Connecting Bar L=840 mm					
LIN-X450-L1140	Connecting Bar L=1140 mm					
LIN-X450-L1440	Connecting Bar L=1440 mm					
LIN-X450-L1740	Connecting Bar L=1740 mm					
LIN-X450-L2040	Connecting Bar L=2040 mm					
LIN-X450C	End Cap for Connecting Bar		2			

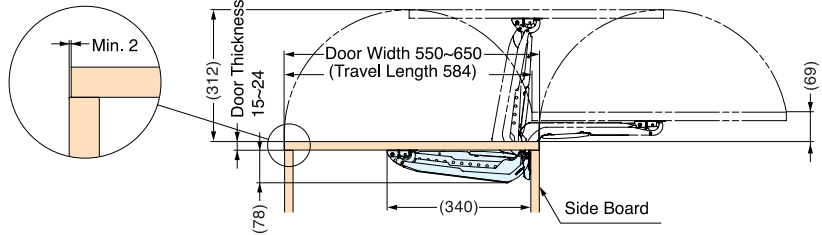
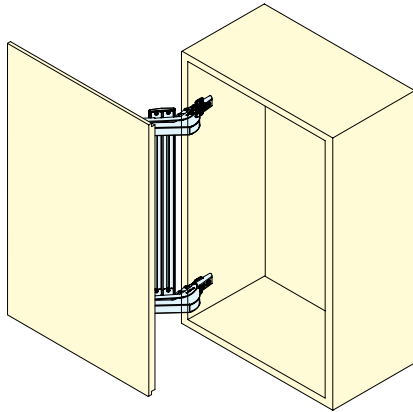
LATERAL OPENING DOOR SYSTEM

LIN-X600

LATERAL OPEN CABINET HARDWARE

LATERAL OPENING DOOR SYSTEM LIN-X HINGES

Standard Kit



Please note handle position on other doors before installation, so that hinges will not interfere with the handles.

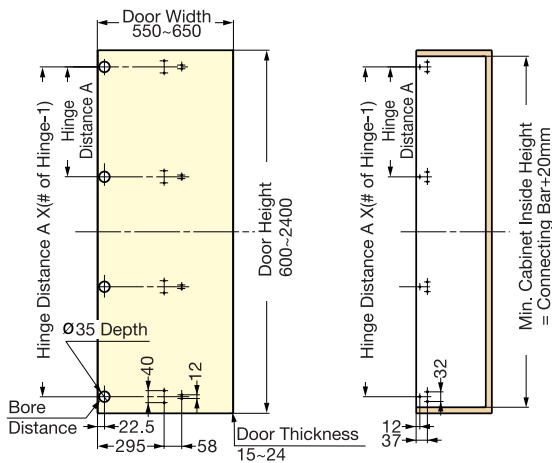
Item No.	Overlay	Material	Finish
LIN-X600	19 mm (3/4")	Steel, Aluminum	Nickel, Anodized

Included Parts: 2 each of Hinge Arms, Mounting Plates, Cup Covers, Bar End Caps and 1 Connecting Bar.

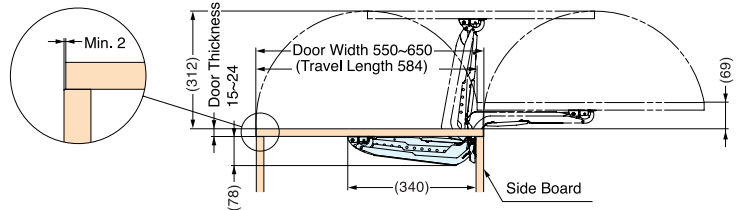
Door Width	550~650 mm (21-5/8"~25-9/16")
Door Height	600~900 mm (23-5/8"~35-7/16")
Door Thickness	15~24 mm (5/8"~15/16")
Door Weight	MAX. 9 kg (19.8 lbs) / Door

Individual Parts for Tall / Heavy Door

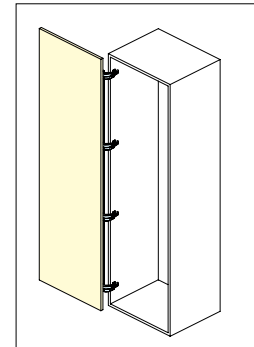
Door Preparation



Cabinet Preparation



Please note handle position on other doors before installation, so that hinges will not interfere with the handles.



Hinge Distance A

Door Width	550~650 mm (21-5/8"~25-9/16")
Door Height	600~2400 mm (23-5/8"~94-1/2")
Door Thickness	15~24 mm (5/8"~15/16")
Door Weight	Max. 24 kg (52.8 lbs)

# of Hinges	Length of Connecting Bar (mm)					
	540	840	1140	1440	1740	2040
2 pcs	490.0	790.0	-	-	-	-
3 pcs	245.0	395.0	545.0	695.0	845.0	-
4 pcs	-	-	363.3	463.3	563.3	663.3
5 pcs	-	-	-	347.5	422.5	497.5

Individual Parts - Ordering Chart

Ordering Info

Use corresponding letter in below table, and see "Parts Breakdown Table" for parts to be ordered.

Door Height	Door Weight					Connecting Bar / Cover Cap
	~19.9 lbs (~9.0 kg)	20.0~26.5 lbs (9.1~12.0 kg)	26.6~35.4 lbs (12.1~16.0 kg)	35.5~44.2 lbs (16.1~20.0 kg)	44.3~52.8 lbs (20.1~24.0 kg)	
23-5/8"~35-7/16" (600~900 mm)	LIN-X600 Standard Set Connecting Bar & Cover included	B				LIN-X60-L540 1 pc LIN-X60C 2 pcs
35-7/16"~47-1/4" (901~1200 mm)		B	B			LIN-X60-L840 1 pc LIN-X60C 2 pcs
47-1/4"~59-3/64" (1201~1500 mm)		B	B	C		LIN-X60-L1140 1 pc LIN-X60C 2 pcs
59-3/64"~70-7/8" (1501~1800 mm)		B	B	C	D	LIN-X60-L1440 1 pc LIN-X60C 2 pcs
70-7/8"~82-11/16" (1801~2100 mm)		B	B	C	D	LIN-X60-L1740 1 pc LIN-X60C 2 pcs
82-11/16"~94-1/2" (2101~2400 mm)		C	C	C	D	LIN-X60-L2040 1 pc LIN-X60C 2 pcs

Parts Breakdown Table

Item Number	Description	Image	Qty Required			
			A	B	C	D
LIN-X600ACD	Single Arm (with Damper)		2	3	3	3
LIN-X600A	Single Arm (without Damper)		-	-	1	2
230-P4W-32T (for 19 mm overlay)	Mounting Plate *Requires 3 pcs of TAP3515NI Screw 3.5 x 15NI (Sold separately) per Mounting Plate		2	3	4	5
LIN-X60-L540	Connecting Bar L=540 mm		See table above			
LIN-X60-L840	Connecting Bar L=840 mm					
LIN-X60-L1140	Connecting Bar L=1140 mm					
LIN-X60-L1440	Connecting Bar L=1440 mm					
LIN-X60-L1740	Connecting Bar L=1740 mm					
LIN-X60-L2040	Connecting Bar L=2040 mm					
LIN-X60C	End Cap for Connecting Bar		2			

LATERAL OPENING DOOR SYSTEMS

LIN-X800

LATERAL OPEN
CABINET HARDWARE

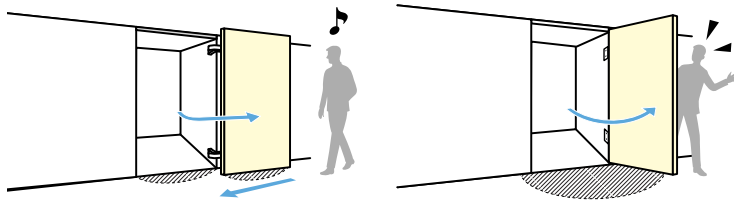
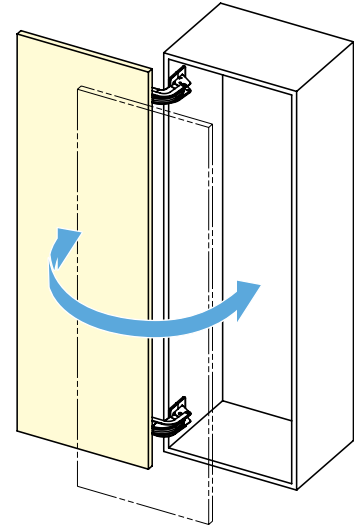
LATERAL OPENING DOOR SYSTEM



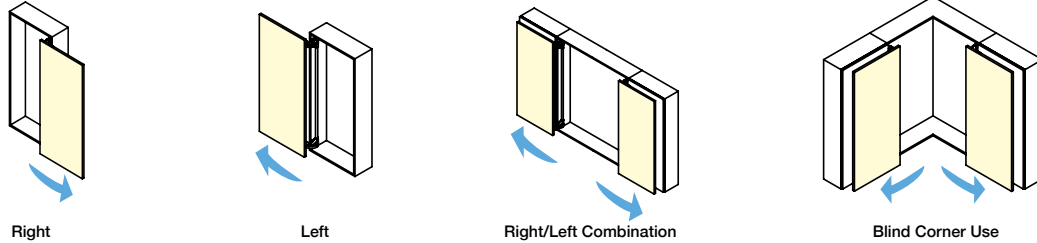
- **Lateral Opening Mechanism:** Allows doors to swing out laterally in a small radius, ideal for tight front space application.
- **4-Way Adjustable:** Vertical, horizontal, depth and parallel adjustment.
- **Smooth Movement:** Built-in dampers provide a smooth soft-closing movement.
- **Use in various applications:** Ideal for closet entryways, large pantry doors, storage, hidden rooms, etc. Can also be used on L shaped corner spaces.
- **Hardware is non-handed:** can be used for left- or right-opening doors.
- **Designed for overlay installation,** but can be installed flush with the surrounding cabinet or wall. Please contact customer service for details on inset installations.



Minimize opening clearance required with LIN-X800, compared to traditional swinging doors. When closed, the LIN-X door can be flush with the surrounding walls.

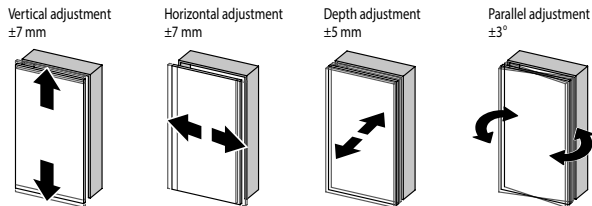


Installation Examples



Adjustability

Adjustable in vertical, horizontal, depth and parallel directions.

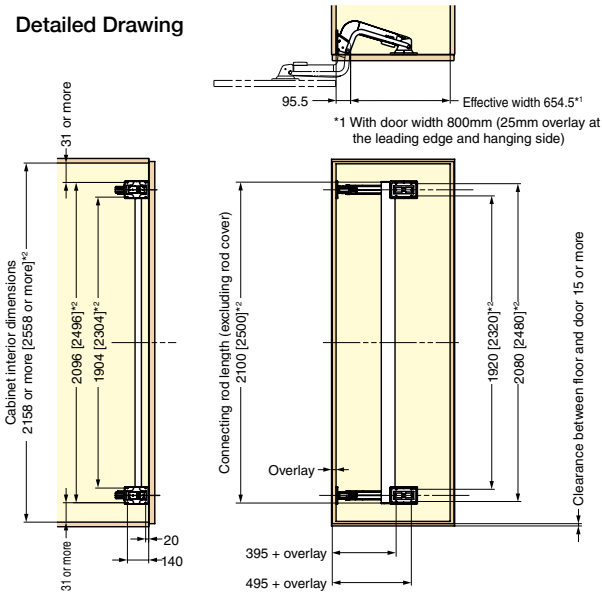


	LIN-X800	LIN-X800H
Door Width	750~850mm (29-1/2"~33-7/16")	
Max. Door Height	2400mm (94-1/2")	2980mm (117-5/16")
Door Thickness	24~40mm (15/16"~1-9/16")	
Max. Door Weight	40kg/door (88lbs/door)	

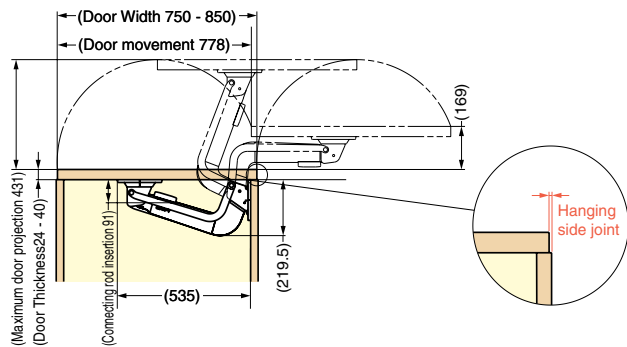
Item No.	Material	Weight (kg)	Finish
LIN-X800-WT-S	Steel, Aluminum	18kg (40lbs)	White
LIN-X800-BL-S			Black
LIN-X800H-WT-S		18.7kg (44lbs)	White
LIN-X800H-BL-S			Black

No.	Qty.	Parts in Set	Dimensions	Material	No.	Qty.	Parts in Set	Dimensions	Material
1	A · B 1 each	Hinge A		Steel, Plastic (POM) Finish: White, Matte Black	2	4 pcs	Washer cover (hanging side)		Plastic (ABS)
		Hinge B		Plastic (ABS)					
5	1	Connecting Rod		Aluminium Alloy Finish: Anodised: Black/silver	4	2 pcs	Washer cover (leading edge)		Plastic (POM)
				Aluminium Alloy Finish: Anodised: Black/silver			Rod cover		Plastic (POM)

Detailed Drawing



Range of Motion



^{*2} The dimensions in [] indicate LIN-X800H specifications.

^{*2} For cabinet interior dimensions smaller than the minimum value, reduce the other dimensions marked with ^{*2} by an equivalent amount. The connecting rod must be cut by the customer.

Ideal for Walk-in closet, hidden shop storage, restaurant or ballroom bars as well as partition office doors.

Model	Weight	Door Size (min. / max.)
LIN-X1000	200 lbs(90kg)	750 / 1100
LIN-X800H	88 lbs(40kg)	750 / 850
LIN-X800	88 lbs(40kg)	750 / 850
LIN-X600	52.8 lbs(24kg)	550 / 650
LIN-X450	37.4 lbs(17kg)	400 / 500

^{*2}Inside cabinet 94-1/2" (2400mm)

LATERAL OPENING DOOR SERIES

LATERAL OPEN
CABINET HARDWARE



MonoFlat FAD™
FAD-5
 Door Weight: Max. 5 kg (11 lbs)
 Please see P.599 for details

MonoFlat LIN-X hinge™
LIN-X450 / 600
 Door Weight: Max.17~24 kg (37~53 lbs)
 Please see P.592~597 for details

LATERAL OPENING DOOR SERIES



MonoFlat FAD™
FAD-20
 Door Weight: Max.20 kg (44 lbs) Please see P.600~601 for details

FAD-20



MonoFlat UNISON™
MFU
 Door Weight: Max.30 kg (66 lbs) Please see P.566~567 for details

MFU

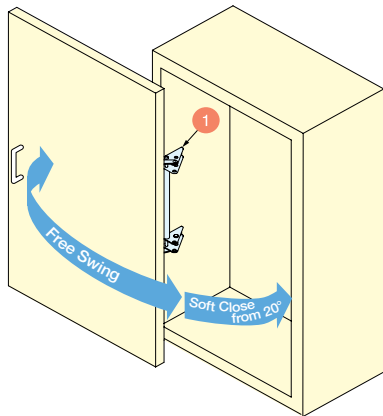


MonoFlat FAD™

Door Width	270~350 mm (10-5/8"~13-3/4")
Door Height	260~650 mm (10-1/4"~25-9/16")
Door Thickness	15~20 mm (19/32"~25/32")
Door Weight	5 kg (11 lbs)

LATERAL OPENING DOOR SYSTEM (For Light Weight Doors)

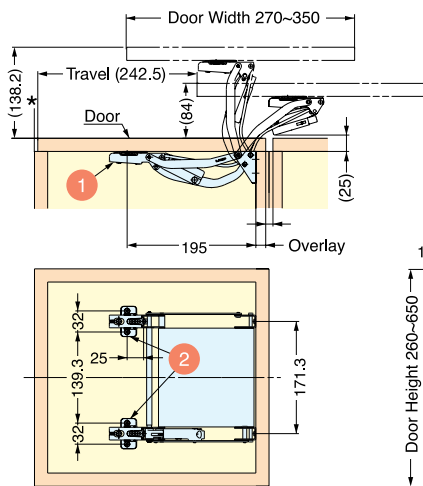
FAD-5



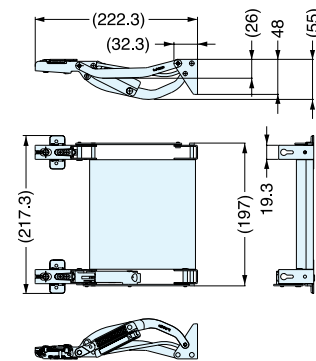
- Lateral Swing Mechanism
Allows doors to swing out laterally in a small radius, ideal for tight front space application.
- Free Swing & Soft-close
- 3-Way Adjustable
- Various Applications
Can be used in single or double door configuration.
Ideal for cabinets in kitchen, bathroom, laundry room etc.
*For overlay use.

• Other "MonoFlat series" available.

MonoFlat FAD-20	For door weight 20 kg (44 lbs) – P.600~601
MonoFlat LIN-X	For door weight 24 kg (53 lbs) – P.592~597
MonoFlat Unison	For door weight 30 kg (66 lbs) – P.566~567
MonoFlat FAD-44	For door weight 35 kg (77 lbs) – P.602~603
MonoFlat FAD-54	For door weight 35 kg (77 lbs) – P.564~565



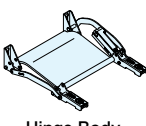
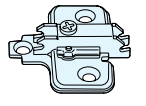
■ Hinge Dimensions



■ Part Details

Item No.	Box (sets)
FAD-5	1

1set includes both hinge body and mounting plates.

No.	Qty	Part Name	Material / Finish
1	1pc	 Hinge Body	<ul style="list-style-type: none"> • Material Aluminum, Polyacetal, Steel • Finish/Color Anodized, Grey, Nickel
2	2pcs	 Mounting Plate	<ul style="list-style-type: none"> • Material/Steel • Finish/Nickel

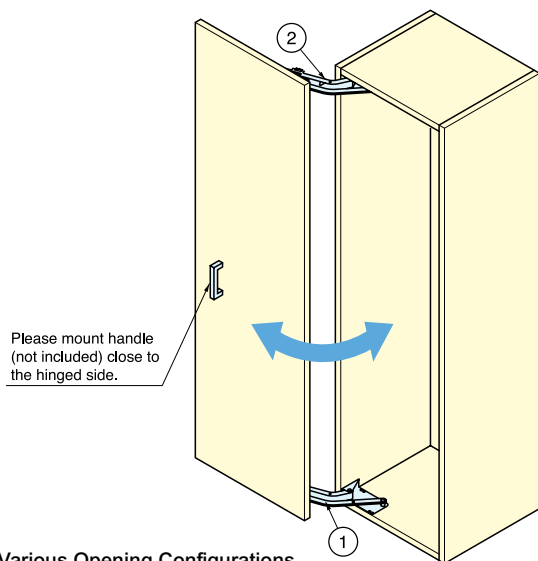


MonoFlat FAD™

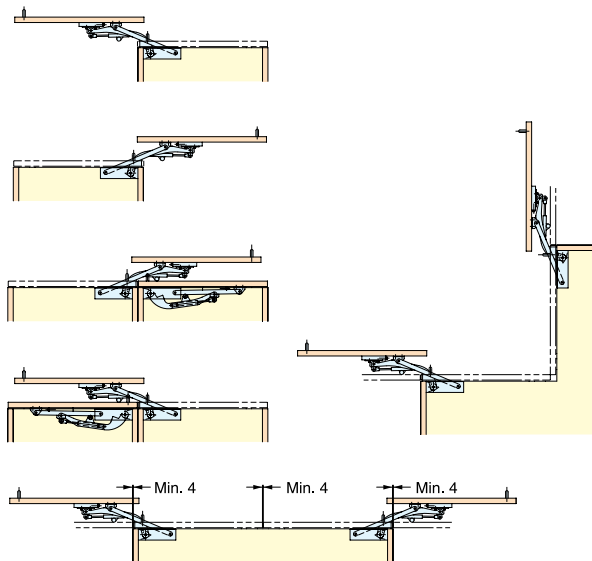
Inside Door Width	500~550 mm (19-11/16"~21-21/32")
Inside Door Height	Max. 2420 mm (95-9/32")
Door Thickness	Max. 35 mm (1-3/8")
Door Weight	Max. 20 kg (44 lbs) / Door

- Lateral Opening Mechanism
Allows doors to swing out laterally in a small radius, ideal for tight front space application.
 - Smooth Movement
Built-in gas spring provides a smooth self opening & closing movement.
 - Various applications
Can be used in single or double door configuration.
Ideal for storage cabinets in kitchen, closet room, bathroom, laundry room etc.
- *For overlay use.

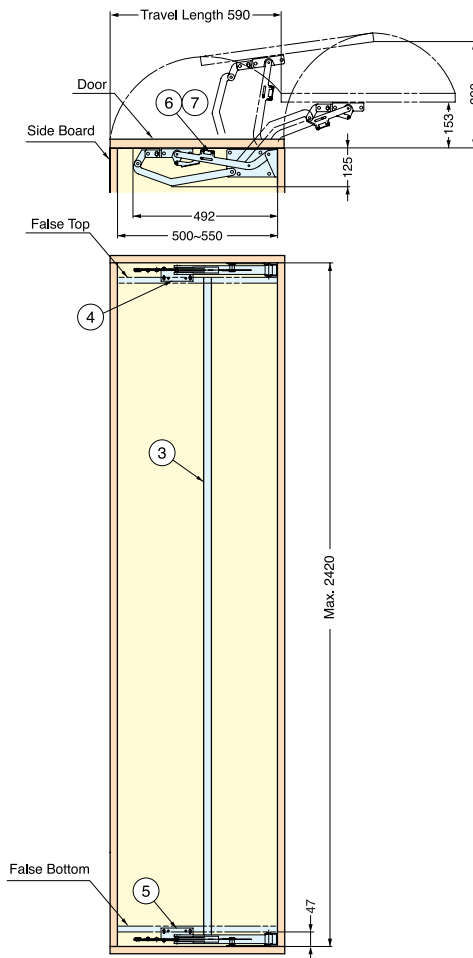
LATERAL OPENING DOOR SYSTEM (For Medium Weight Doors) FAD-20



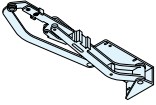
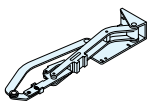

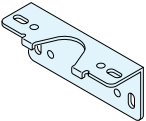
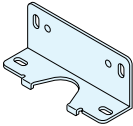
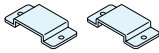

Various Opening Configurations



- Other "MonoFlat series" available.
 - MonoFlat FAD-5 For door weight 5 kg (11 lbs) – P. 599
 - MonoFlat LIN-X For door weight 24 kg (53 lbs) – P.592~597
 - MonoFlat Unison For door weight 30 kg (66 lbs) – P.566~567
 - MonoFlat FAD-44 For door weight 35 kg (77 lbs) – P.602~603
 - MonoFlat FAD-54 For door weight 35 kg (77 lbs) – P.564~565



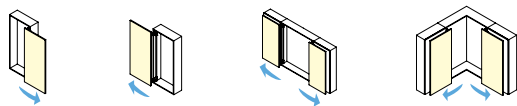
Part Details

No.	①	②	③	④	⑤	⑥	⑦
Name	Arm A	Arm B	Connecting Bar	Door Bracket (Top)	Door Bracket (Bottom)	Bar Clamp	End Cap
							
Qty. / Set	1 pc	1 pc	1 pc	1 pc	1 pc	2 pcs	2 pcs
Discription	<ul style="list-style-type: none"> • Material Aluminum, Steel • Finish/Color Silver 	<ul style="list-style-type: none"> • Material Aluminum, Steel • Finish/Color Silver 	<ul style="list-style-type: none"> • Material/Steel • Finish/Color Silver 	<ul style="list-style-type: none"> • Material/Steel • Finish/Color Silver 	<ul style="list-style-type: none"> • Material/Steel • Finish/Color Silver 	<ul style="list-style-type: none"> • Material/Steel • Finish/Color Silver 	<ul style="list-style-type: none"> • Material Polyethylene • Finish/Color Black



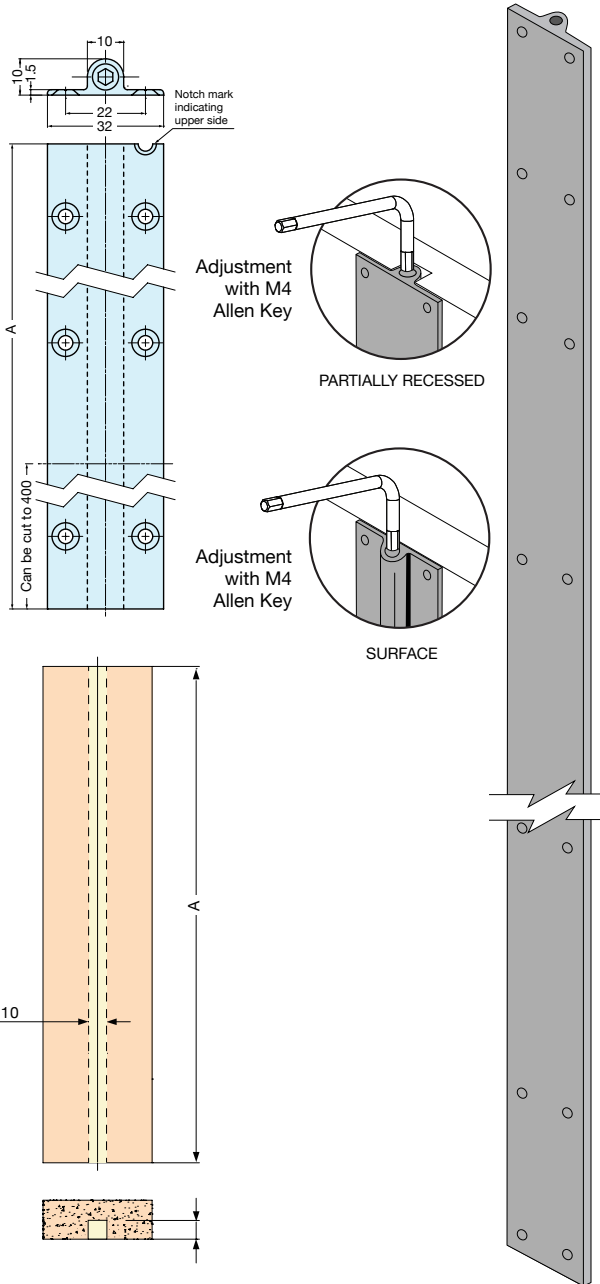
Lateral Opening Door Systems

Sugatsune's Lin-X systems were designed to open in a lateral direction giving you more space in front of doors and cabinets and allowing for full access in corner applications. The Lin-X systems are easy to install with no tracks or rails needed. Doors will never slam with the soft-close dampers and the free-stop capability allows for the doors to stop at any opening desired.



DSR701-RECESSED/SURFACE

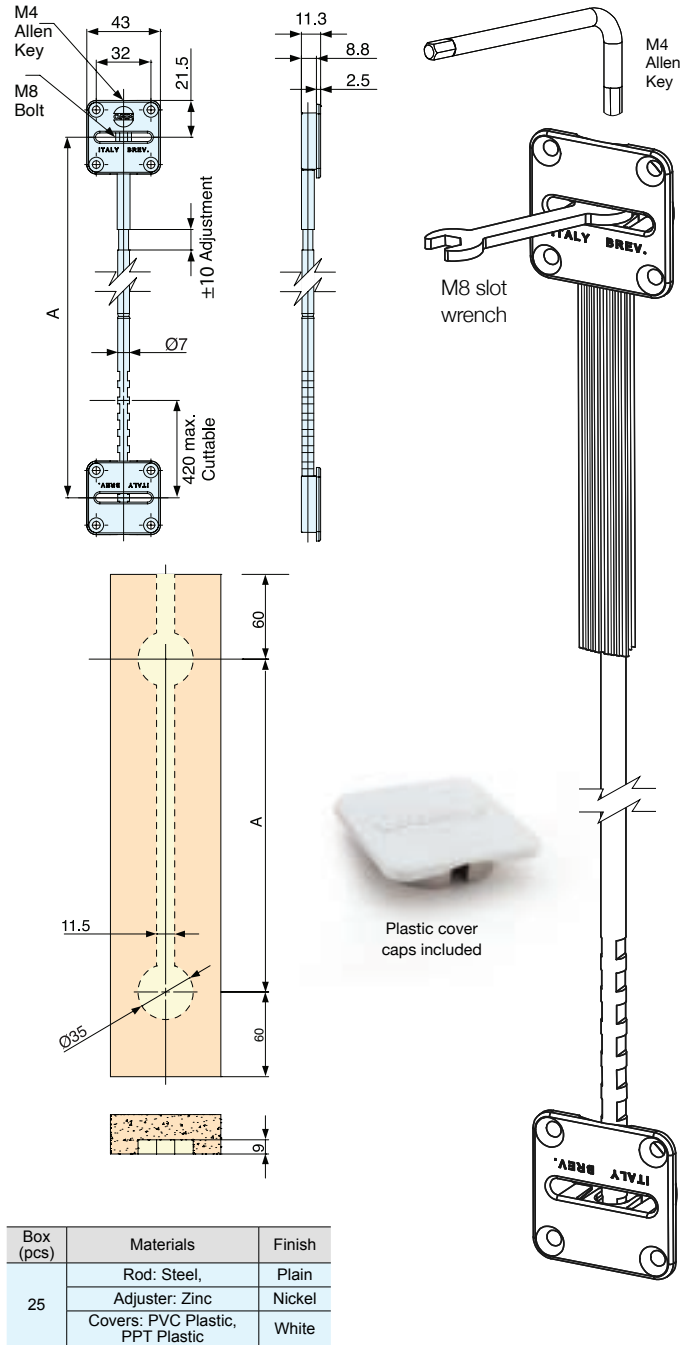
- Installed post-production to fix warped doors.
- Must run complete height of door.
- Can be partially recessed or surface mounted to the back of the door.
- ± 10 mm adjustment can be made from the top of the door with a M4 Allen Key (included).
- Min. door thickness 16 mm (9/16").
- Requires M4 (U.S. #8) flathead wood countersunk screws for partially recessed installation or wood panhead screws for surface installation.
- Can be cut from the bottom up to 400mm.
- Note: Sold in Boxes of 10 pieces.



Item No.	Min. Door Thickness	Adjust (mm)	Length Min-Max (A)	Box (pcs)	Materials	Finish
DSR701-1830/B-10	5/8"	$\pm 3/8$ "	56-5/16" ~ 72-1/16"	10	Rod: Steel Casing: Aluminum	Black
DSR701-1830/S-10						Silver
DSR701-2200/B-10			Black			
DSR701-2200/S-10			Silver			

DSR213-RECESSED

- Installed at time of production to prevent door from warping.
- Adjustors installed 60 mm from the top and bottom of the door.
- Partially Recessed Door Straightener with Cover Caps.
- ± 10 mm adjustment can be made from the top of the door with a M4 Allen Key (included) or from the back of the door with a M8 slot wrench (included).
- Min. door thickness 16 mm (5/8")
- Requires 8 M4 (U.S. #8) flathead contersunk wood screws for installation.
- Note: Sold in Boxes of 25 pieces.

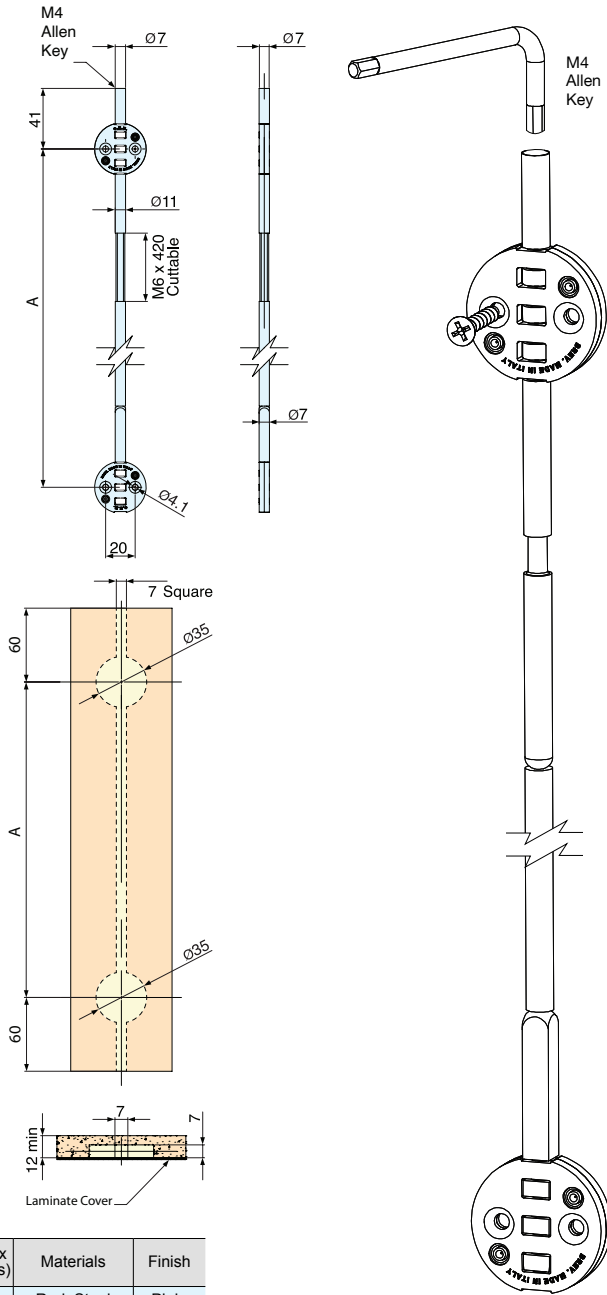


Box (pcs)	Materials	Finish
25	Rod: Steel,	Plain
	Adjuster: Zinc	Nickel
	Covers: PVC Plastic, PPT Plastic	White

Item No.	Min. Door Thickness	Adjust	Center Distance (A)	Door Length
DSR213-1524-25	5/8"	$\pm 3/8$ "	43-7/16" ~ 60"	48-3/16" ~ 64-3/4"
DSR213-1930-25			59-7/16" ~ 76"	64-3/16" ~ 80-11/16"
DSR213-2330-25			75-3/16" ~ 91-3/4"	79-15/16" ~ 96-7/16"
DSR213-2700-25			89-3/4" ~ 106-5/16"	94-1/2" ~ 111"

DSR423-CONCEALED

- Installed at time of production to prevent door from warping.
- Adjustors installed 60 mm from the top and bottom of the door.
- Fully concealed/hidden door straightener. Recessed mounted under laminate.
- ± 10 mm adjustment can be made from the top of the door with a M4 Allen Key (included).
- Min. door thickness 12mm (1/2").
- Optional mounting holes to secure door straightner to door using 4 M4 (U.S. #8) flathead countersunk wood screws.
- Note: Sold in Boxes of 25 pieces.

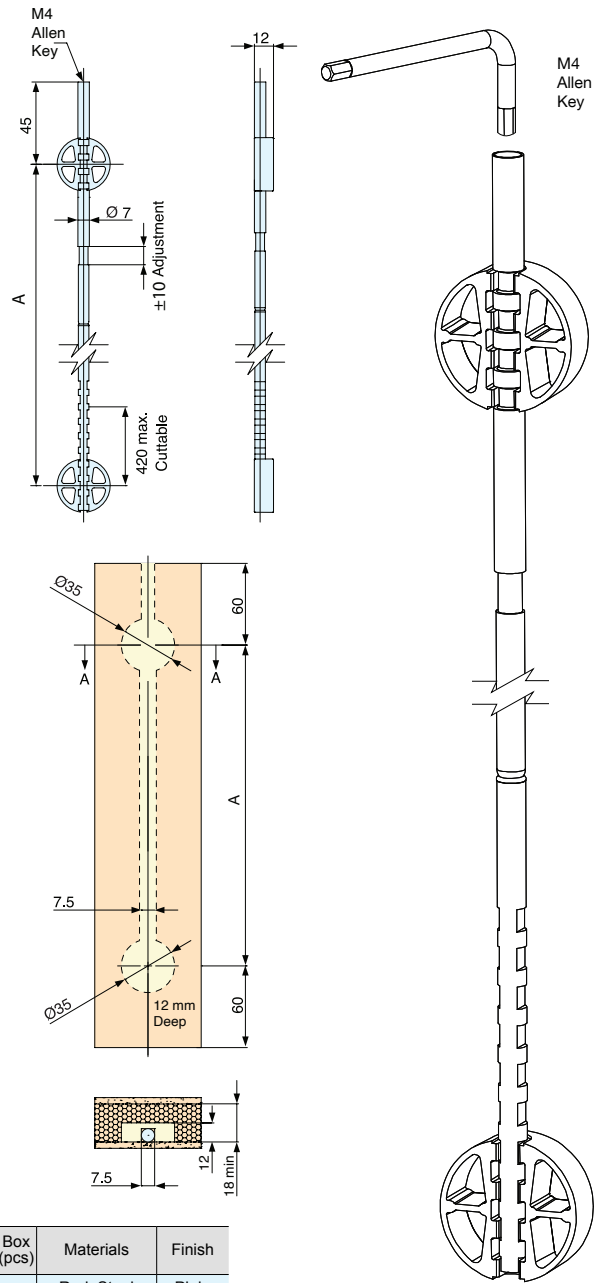


Box (pcs)	Materials	Finish
25	Rod: Steel	Plain
	Adjuster: Zinc	Nickel

Item No.	Min. Door Thickness	Adjust	Center Distance (A)	Door Length
DSR423-1524-25	1/2"	$\pm 3/8$ "	43-7/16" ~ 60"	48-3/16" ~ 64-3/4"
DSR423-1930-25			59-7/16" ~ 176"	64-3/16" ~ 80-11/16"
DSR423-2300-25			74" ~ 90-9/16"	78-3/4" ~ 95-1/4"
DSR423-2700-25			89-3/4" ~ 106-5/16"	94-1/2" ~ 111"

DSR403-CONCEALED

- Installed at time of production to prevent door from warping.
- Adjustors installed 60 mm from the top and bottom of the door.
- Fully Concealed/Hidden Door Straightener. Recess mounted under laminate.
- ± 10 mm adjustment can be made from the top of the door with a M4 Allen Key (included).
- Min. door thickness 18mm (11/16").
- Pressure-fit into place, screws not needed for installation.
- Note: Sold in Boxes of 25 pieces.



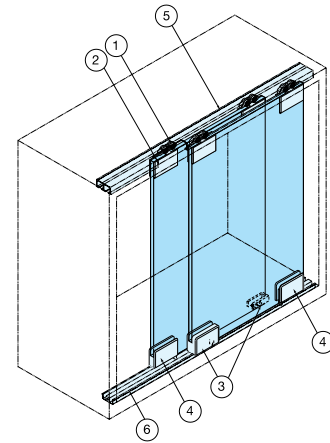
Box (pcs)	Materials	Finish
25	Rod: Steel	Plain
	Adjuster: Zinc	Nickel

Item No.	Min. Door Thickness	Adjust	Center Distance (A)	Door Length
DSR403-1524-25	11/16"	$\pm 3/8$ "	43-7/16" ~ 60"	48-3/16" ~ 64-3/4"
DSR403-1930-25			59-7/16" ~ 176"	64-3/16" ~ 80-11/16"
DSR403-2300-25			74" ~ 90-9/16"	78-3/4" ~ 95-1/4"
DSR403-2700-25			89-3/4" ~ 106-5/16"	94-1/2" ~ 111"

XL-GC SERIES (FOR SLIDING DOORS)

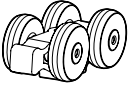
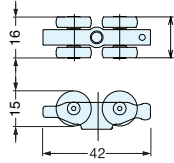



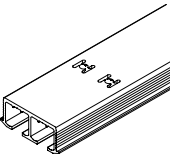
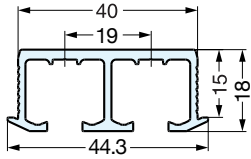
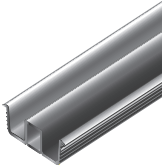
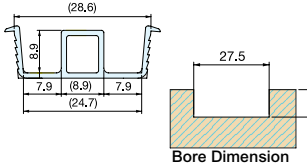


• Installation example: Double bypass doors.
(Refer to order quantity below)



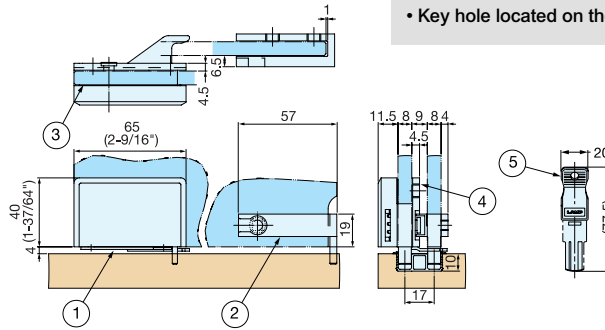
Door Width	Max. 500 mm (19-11/16")
Door Height	Max. 1200 mm (47-1/4")
Door Weight	Max. 12 kg (26.5 lbs) / Per Door
Glass Thickness	8 mm (5/16")

Part Details

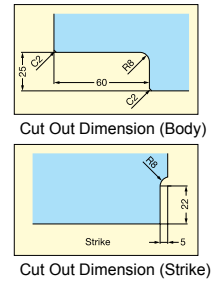
Order Quantity	No.	Item No.	Part Name	Dimensions	Description
4 ea	①	57-3149-071	Upper Roller 		<ul style="list-style-type: none"> ● Material Zinc Alloy (Body) Polyacetal (Roller) ● Finish/Color Yellow Zinc Chromate (Body) White (Roller)
1 set	②	XL-GC06-C	Upper Bracket 	See P.605	<ul style="list-style-type: none"> ● Material Zinc Alloy ● Finish/Color Chrome <p>*4 pcs per set (for 2 glass doors)</p>
1 ea	③	XL-GC03-C	Lock 	See P.605	<ul style="list-style-type: none"> ● Material Zinc Alloy ● Finish/Color Chrome <p>*24 key changes (2 keys Included)</p>
1 pair	④	XL-GC08-C	Bottom Guide Bracket 	See P.605	<ul style="list-style-type: none"> ● Material Zinc Alloy ● Finish/Color Chrome <p>*1 pair (Left / Right) per set</p>
1 ea	⑤	XL-GC06-UL1200N	Upper Rail 		<ul style="list-style-type: none"> ● Material Aluminum ● Finish/Color Plain <p>*Length: 1200 mm (47-1/4")</p>
1 ea	⑥	XL-GC03-GL 1200	Bottom Rail 	 Bore Dimension	<ul style="list-style-type: none"> ● Material ABS ● Finish/Color Black <p>*Length: 1200 mm (47-1/4")</p>

GLASS LOCK (FOR SLIDING DOOR)

XL-GC03



• Key hole located on the side for clean appearance.

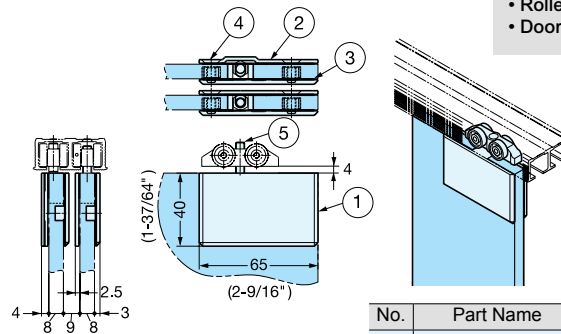


Item No.	Glass Thickness (mm)	Key Changes	Key (pcs)	Weight (g)	Box (pcs)	Carton (pcs)
XL-GC03-C	8 (5/16")	24	2	351	1	24

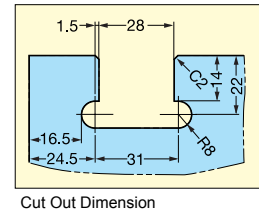
No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Chrome
②	Strike		
③	Spacer	Synthetic Rubber	Black
④	Screws	304 Stainless Steel	Plain
⑤	Key	Brass	Nickel

UPPER BRACKET (FOR SLIDING DOOR)

XL-GC06



• 4 pcs per set
 • Roller (53-3061-081) sold separately.
 • Door Size: Max. W500 x H1200 x t8mm

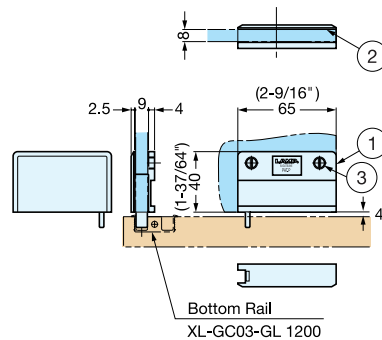


Item No.	Glass Thickness (mm)	Load Capacity (kg)	Weight (g)	Box (sets)	Carton (sets)
XL-GC06-C	8 (5/16")	12 (26.5 lbs) / Door	400	1	24

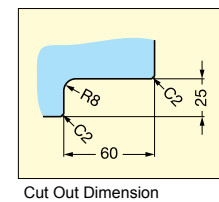
No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Chrome
②	Backplate	Steel	
③	Spacer	Synthetic Rubber	Clear
④	Screws	304 Stainless Steel	Plain
⑤	Bolt	Steel	Clear Zinc Chromate

BOTTOM GUIDE BRACKET (FOR SLIDING DOOR)

XL-GC08



• 1pair (Left / Right) per set



Item No.	Glass Thickness (mm)	Weight (g)	Box (pairs)	Carton (pairs)
XL-GC08-C	8 (5/16")	360	1	24

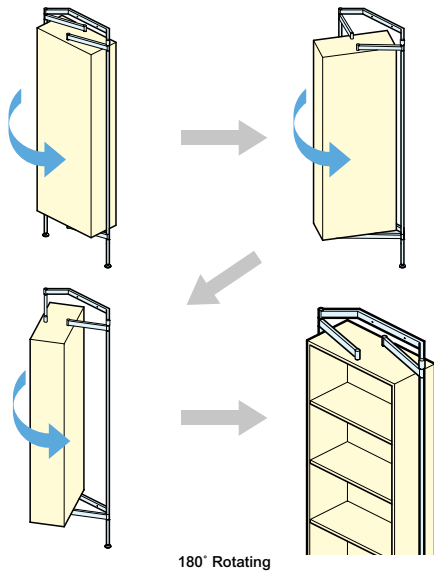
No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Chrome
②	Spacer	Synthetic Rubber	Black
③	Screws	304 Stainless Steel	Plain

180° ROTATING CABINET SYSTEM

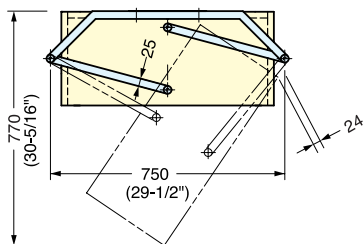
RB-600

SPECIALTY CABINET HARDWARE

180° ROTATING CABINET SYSTEM



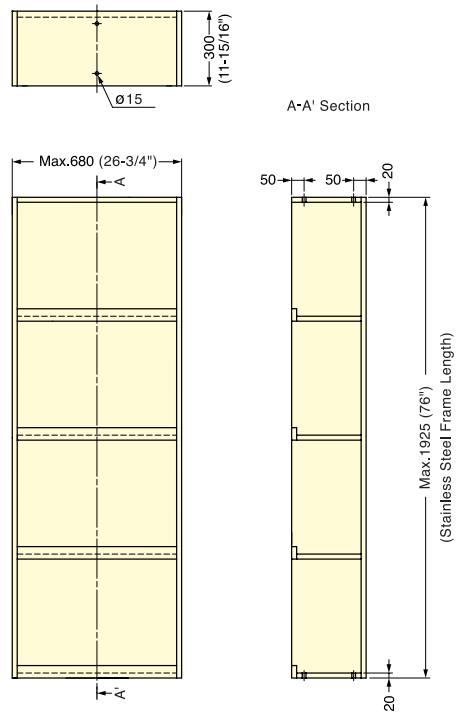
Rotating Clearance



Cabinet Width	Max. 680 mm (26-3/4")
Cabinet Height	Max. 1930 mm (76")
Total Height	RB-600-NC--- Cabinet Height + 230 (9-1/16") RB-600-ST--- Cabinet Height + 435 (17-1/8") RB-600-CH--- Cabinet Height + 600 (26")
Cabinet Depth	300 mm (11-13/16")
Load capacity	Max. 75 kg (165 lbs) **incl. cabinet**

- Innovative "reversible" cabinet system rotates 180° for easy access to both sides.
- 3 model types available: Inset Wall Type (NC), Floor Type (ST), and Floor-to-Ceiling Type (CH).
- Stainless steel frame can be cut to length to accommodate cabinets of various heights.
- Useful for a variety of storage and display installations in residential and retail settings.

Cabinet Preparation



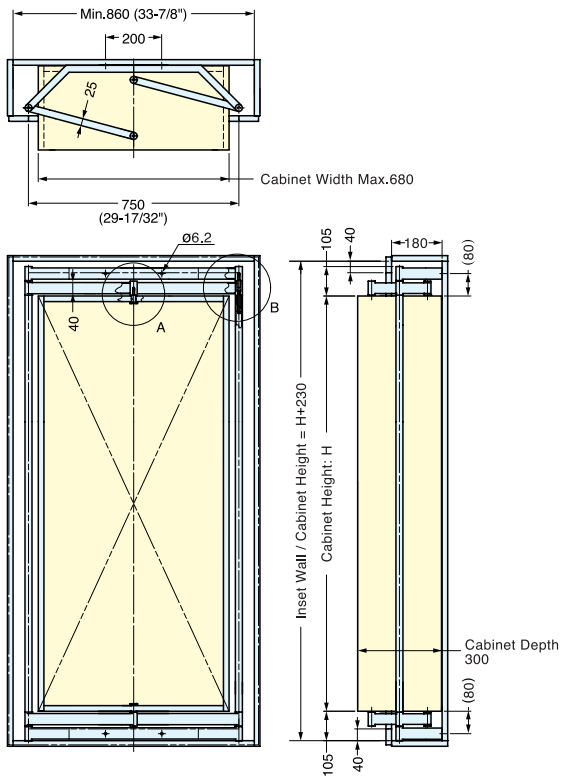
Item No.	Installation	Material/Finish
RB-600-NC	Inset Wall/Cabinet	304 Stainless Steel/Satin
RB-600-ST	Floor	
RB-600-CH	Floor-to-Ceiling	

Assembly Wrench (Sold separately)



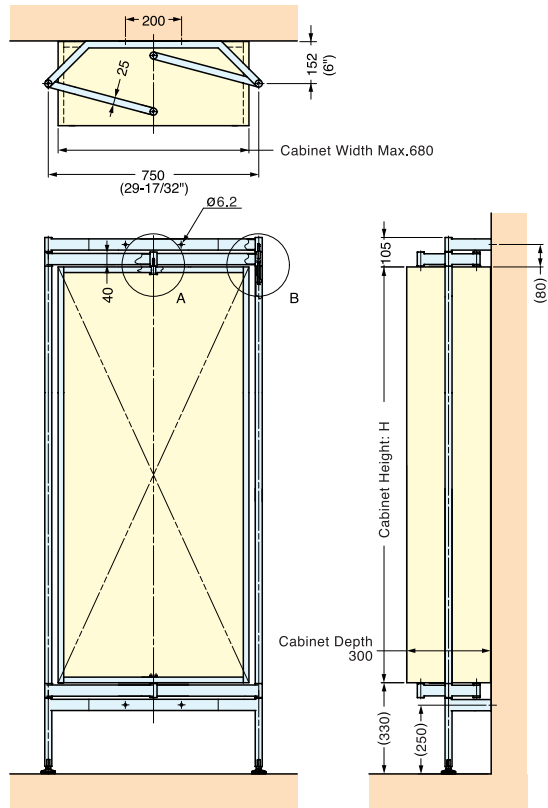
Item No.	Z059
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■ RB-600-NC, Inset Wall / Cabinet



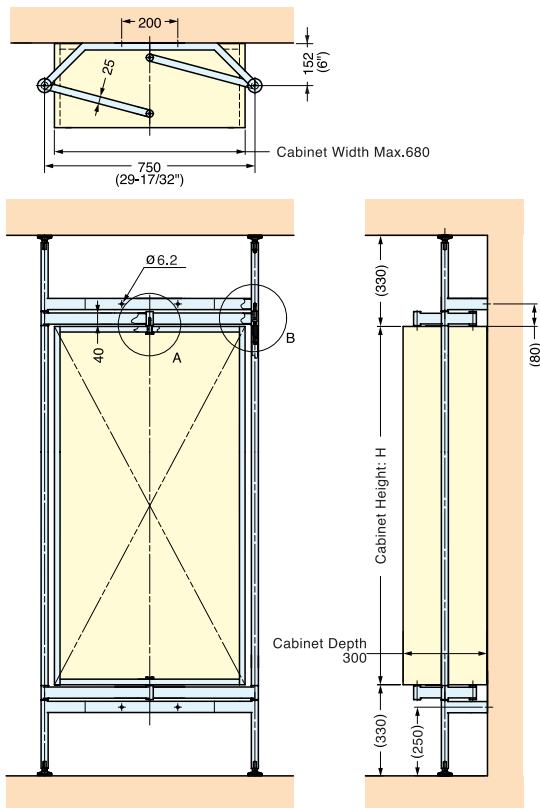
Max. cabinet height: 1925 mm (75-3/4")

■ RB-600-ST, Installation - Floor



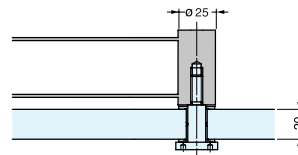
Max. cabinet height: 1925 mm (75-3/4")

■ RB-600-CH, Installation - Floor-to-Ceiling

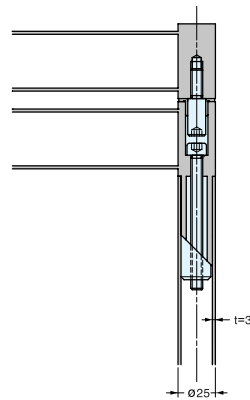


Max. cabinet height: 1925 mm (75-3/4")

■ Detail-A



■ Detail-B





LOCKS

GLASS LOCKS
CABINET LOCKS
SHEET METAL CAM LOCKS
PUSH LOCKS
CAM LOCKS

HOW TO ORDER

For all lock orders, please specify one of the following keying options at the time of order:

- **Keyed Alike:**

All locks will have the same key number, and can be unlocked with the same key. Good option for low-security environments, or when multiple displays need to be easily accessed.

- **Keyed Differently:**

Each lock will have a different key number, and cannot be unlocked with the same key. Option for higher security environments, lockers, etc., when access must be restricted.

- **Keyed Differently with Master Keying:**

Each lock will have a different key number; a master key can be used to access all locks. For higher security environments with restricted access, where a supervisor or custodian requires complete access. (Not available for all models, available by special order only. A master key surcharge may apply.)

GLASS LOCKS

Picture	Item No.		Key Changes	Master Key Option	Page
	XL-GC01		24	-	614
	XL-GC02		24	-	614
	XL-GC03		24	-	615
	2100GLK		12	-	615
	1300GL		1 Million	2520 changes per master key	616
	2200GL		12	Master key option available	616
	NO990		40,000	-	617
	1310GL		1 Million	2520 changes per master key	618
	1310GLW		1 Million	2520 changes per master key	618
	MD-N1		7800	750 changes per master key	619-622
	MD-MK1, K1		-	-	619-622
	1330GL-MK		7800	750 changes per master key	619

MILLION CABINET LOCKS

Picture	Item No.		Key Changes	Master Key Option	Page
	1830-MK		7800	750 changes per master key	621
	6830-30MK		7800	750 changes per master key	622
	7810		1 Million	2520 changes per master key	623
	6810-SP		-	-	623
	8810-24		3 Million	3000 changes per master key	624

CABINET LOCKS

Picture	Item No.	Key Changes	Master Key Option	Page	Picture	Item No.	Key Changes	Master Key Option	Page	
	2100	12	-	625		3320	156	-	630	
	2200	12	Master key option available	626		5830-24MK	3120	780 changes per master key	631	
	2550	300	Master key option available	627		5830-SP	-	-	631	
	2650	48-96 key changes available (varies by model)	-	628		2200QL		300	170 changes per master key	632
	3310	156	-	629		3810S		300	Master key option available	632
	TSSP	-	-	629						

PUSH LOCKS

Picture	Item No.	Key Changes	Master Key Option	Page
	2300, 2400	1 Million	2520 changes per master key	634
	2160M	24	-	634
	2100M	12	-	635
	2110M	12	-	635
	2100B	12	-	636
	2110B	12	-	636
	2150B	24	-	637
	6300	96	-	637

SHEET METAL CAM LOCKS

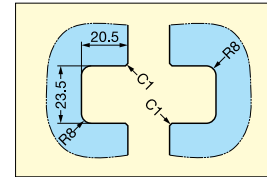
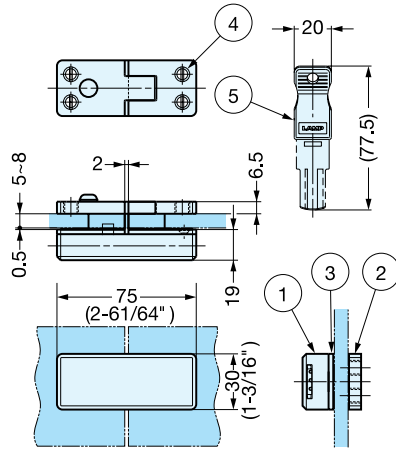
Picture	Item No.	Key Changes	Master Key Option	Page
	LA SERIES	-	-	633
	1300SK	1 Million	2520 changes per master key	633
	900	1 Million	2520 changes per master key	638
	SN-711-8	Up to 1500 key changes	-	638
	DCY-34	2000	866 changes per master key	639
	3800S	300	Master key option available	639
	NAL-S	Key change by special order only	-	640
	NAL	Up to 5000 key changes	-	640
	7110	-	-	640.1

GLASS DOOR LOCK FOR SWINGING DOUBLE DOORS

XL-GC01



- Dual locking mechanism: locks and unlocks both doors at once by inserting the key.
- Non-handed. Key hole located on the right side for a clean appearance.
- Key acts as a knob when unlocked.
- Includes 2 keys.
- Use with XL-GC Series glass showcase hardware (sold separately, P.271).



Cut Out Dimension

Item No.	Glass Thickness (mm)	Key Changes	Key (pcs)	Weight (g)	Box (pcs)	Carton (pcs)
XL-GC01-C	5~8 (3/16"~5/16")	24	2	406	1	24

No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Chrome
②	Counterplate		
③	Spacer	Synthetic Rubber	Black
④	Screws	304 Stainless Steel	Plain
⑤	Key	Brass/ABS	Nickel/Black

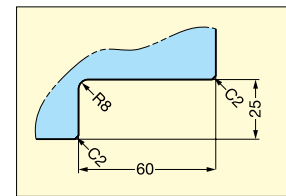
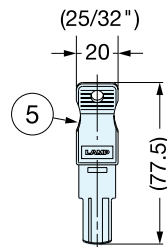
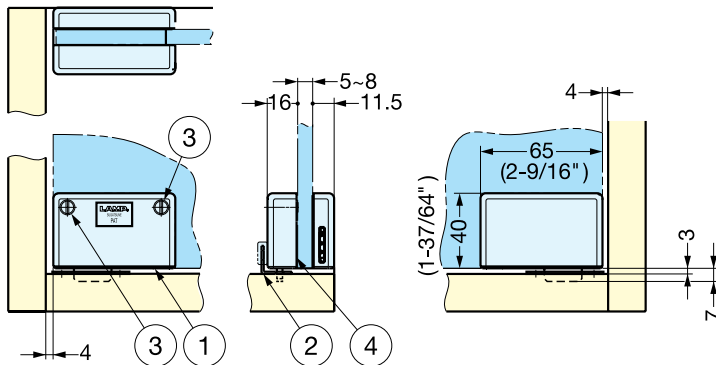
GLASS DOOR LOCK FOR INSET SWINGING DOORS



XL-GC02



- Locks are handed left or right. Key hole located on the side for a clean appearance.
- Lock cam swings downwards into frame.
- Includes 2 keys.
- Use with Inset Glass Pivot Hinge XL-GC04 (sold separately, P.272).
- Use with XL-GL Series glass showcase hardware (sold separately, P.271).



Cut Out Dimension

Item No.	Type	Glass Thickness (mm)	Key Changes	Key (pcs)	Weight (g)	Box (pcs)	Carton (pcs)
XL-GC02-R-C	Right	5~8 (3/16"~5/16")	24	2	415	1	24
XL-GC02-L-C	Left						

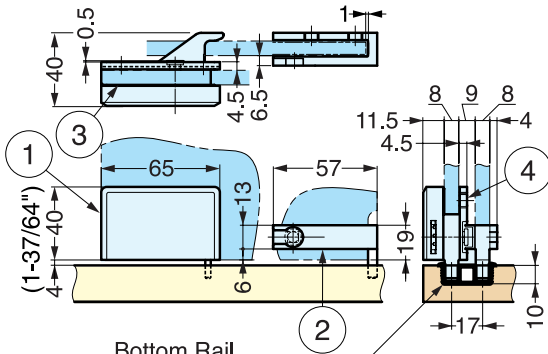
No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Chrome
②	Counterplate	304 Stainless Steel Chloroprene Rubber	Polished/Black
③	Screws	304 Stainless Steel	Plain
④	Spacer	Synthetic Rubber	Black
⑤	Key	Brass/ABS	Nickel/Black

GLASS DOOR LOCK FOR SLIDING DOOR

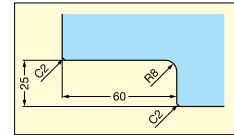
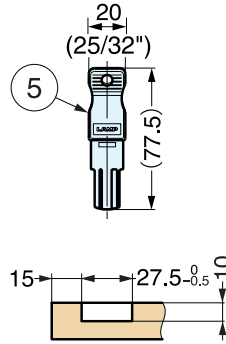
XL-GC03



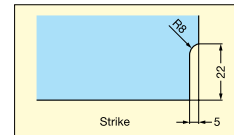
- For bypass sliding glass doors.
- Key hole located on the right side for a clean appearance.
- Includes 2 keys.
- Use with XL-GC Series glass showcase hardware (sold separately, P.604).
- Please order 1pc per 2 doors.



Bottom Rail
XL-GC03-GL1200
Sold separately (P.604)



Cut Out Dimension (Body)



Cut Out Dimension (Strike)

Item No.	Glass Thickness (mm)	Key Changes	Key (pcs)	Weight (g)	Box (pcs)	Carton (pcs)
XL-GC03-C	8 (5/16")	24	2	351	1	24

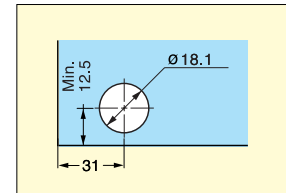
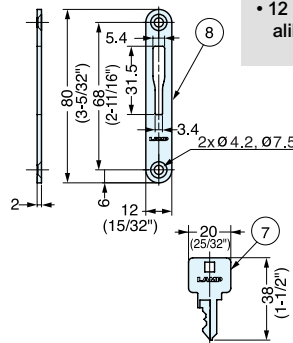
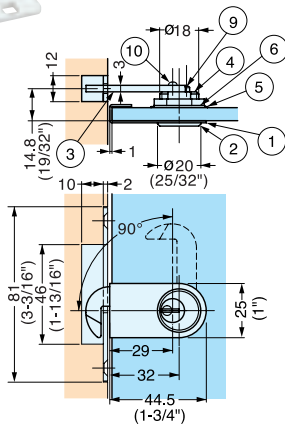
No.	Part Name	Material	Finish/Color
①	Body	Zinc Alloy	Chrome
②	Strike		
③	Spacer	Synthetic Rubber	Black
④	Screws	304 Stainless Steel	Plain
⑤	Key	Brass/ABS	Nickel/Black

GLASS DOOR CAM LOCK

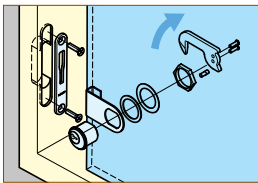
2100GLK



- For swinging glass doors with glass 5/32" to 1/4" (4-6 mm) thick.
- Requires $\varnothing 23/32"$ (18.1 mm) bore for installation.
- Non-handed, swinging cam can be mounted to swing left or right.
- Key acts as a knob and can only be removed when locked.
- 12 key changes are available; please specify keyed alike or differently when ordering.



Cut Out Dimension



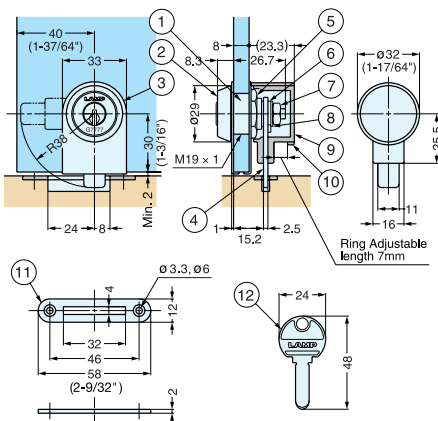
Item No.	Glass Thickness (mm)	Key Changes	Key (pcs)	Weight (g)	Box (pcs)	Carton (pcs)
2100GLK	4~6 (5/32"~1/4")	12	1	75	12	120

No.	Part Name	Material	Finish/Color
①	Front Plate	304 Stainless Steel	Satin
②	Body	Brass	Satin Nickel
③	Cam	Steel	Nickel
④	Hex Nut	Brass	Nickel
⑤	Plastic Washer	Polyamide	Natural
⑥	Washer	Steel	Nickel
⑦	Key	Brass	Nickel
⑧	Counterplate	Steel	Nickel
⑨	Pin	Brass	Plain
⑩	Screw	Steel	Nickel

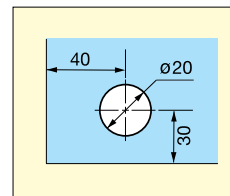
GLASS DOOR CAM LOCK



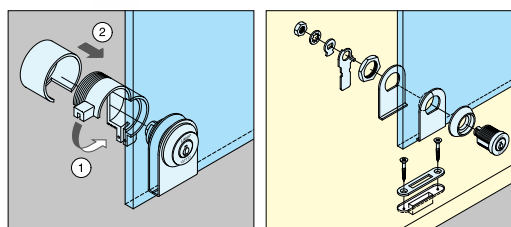
1300GL



- Dimple key lock series ideal for showcase application.
- High security reversible key. (3 keys supplied)
- 1 million key changes available; please specify keyed alike or differently when ordering.
- Master key system available at surcharge. (Max. 2,520 key changes per master key.)



Cut Out Dimension



Installation

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
1300GL	5~8 (3/16"~5/16")	140	12	60

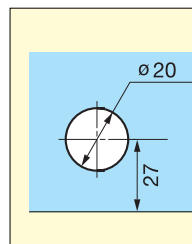
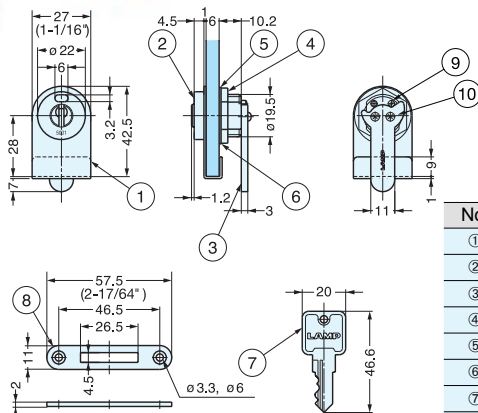
No.	Part Name	Material	Finish
①	Body	Brass	Satin Nickel
②	Ring		
③	Front Plate	304 Stainless Steel	Polished
④	Cam		
⑤	Hex Nut	Steel	Silver
⑥	Washer	Brass	Nickel
⑦	Hex Nut	Steel	Silver
⑧	Washer		
⑨	Case Cover	Polypropylene	Black
⑩	Ring		
⑪	Counterplate	303 Stainless Steel	Polished
⑫	Key	Brass	Nickel

GLASS DOOR CAM LOCK (W/INDICATOR)

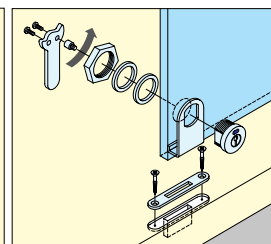
2200GL



- Brass cylinder lock with 2 keys.
- Locked/Unlocked Indicator
- Unlocked: Blue
- Locked: Red
- Master key system (2200 GLMK) available at surcharge.
- Key can be shared with other 2200 series locks.
- 12 key changes available; please specify keyed alike or differently when ordering.



Cut Out Dimension



Installation

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
2200GL	4~6 (5/32"~1/4")	75	12	120

No.	Part Name	Material	Finish
①	Front Plate	303 Stainless Steel	Polished
②	Body	Brass	Nickel
③	Cam	Steel	
④	Hex. Nut	Brass	
⑤	Plastic Washer	Polyamide	Natural
⑥	Washer	Steel	Chrome
⑦	Key	Brass	Nickel
⑧	Counterplate	Steel	Chrome
⑨	Pin	Brass	Plain
⑩	Screw	Steel	Nickel(M2.5x8)

SHEET METAL CAM LOCK (MAGNETIC KEY SYSTEM)



NO990

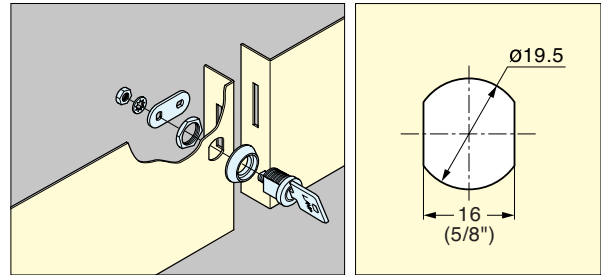
- Magnetic key system for high security.
- 90 degree cam rotation.
- Key is removable in locked position only.
- Maximum 40,000 key changes available.



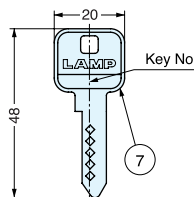
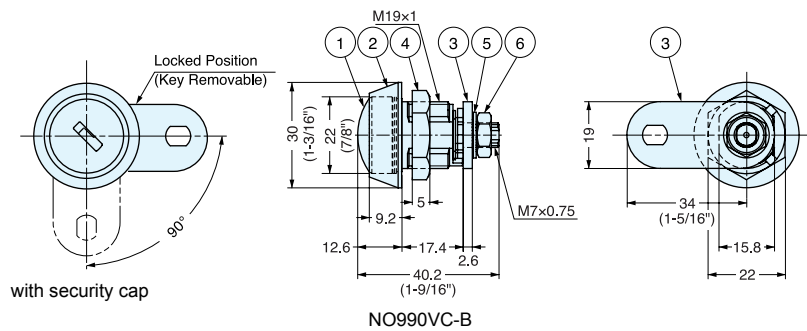
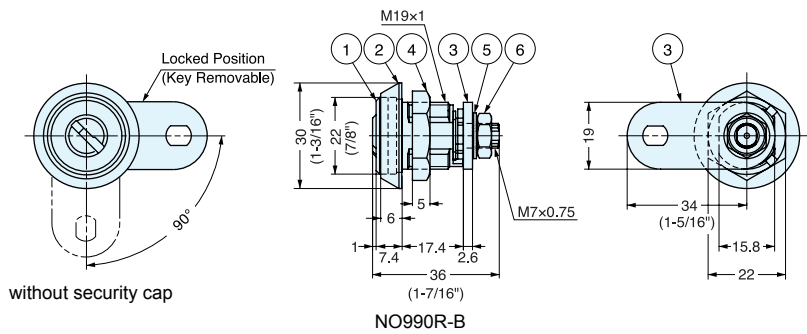
NO990R-B



NO990VC-B



Cut Out Dimensions



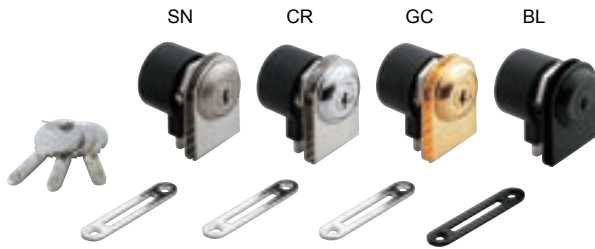
No.	Part Name	Material	Finish
①	Body	Brass	Chrome
②	Ring		
③	Cam	Steel	Yellow Zinc Chromate
④	Hex Nut	Zinc Alloy	Chrome
⑤	Washer	Steel	Yellow Zinc Chromate
⑥	Cam Nut		
⑦	Key	Brass/Ferrite	Nickel

Item No.	Metal Thickness (mm)	Security Cap	Keys Included	Weight	Box (pcs)
NO990R-B	0.8~8.0	Without security cap	2	103	1
NO990VC-B	(1/32"~5/16")	With security cap		109	

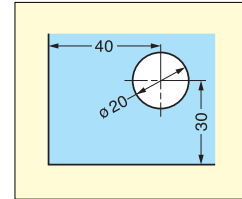
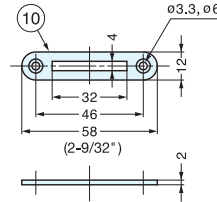
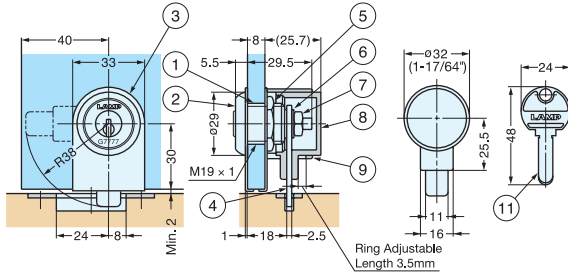
GLASS DOOR CAM LOCK



1310GL



- Dimple key lock series ideal for showcase application.
- High security reversible key. (3 keys supplied)
- Key acts as a knob and can only be removed when locked.
- 1 million key changes available; please specify keyed alike or differently when ordering.
- Available in Satin Nickel (SN), Chrome (CR), Gold (GC) or Black Chrome (BL) finish.
- Master key system available at surcharge. (Max. 2,520 key changes per master key.)



Cut Out Dimension

Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
1310GL-SN	5~8 (3/16"~5/16")	139	12	60
1310GL-CR				
1310GL-GC				
1310GL-BL				

No.	Part Name	Material	Finish			
			SN	CR	GC	BL
①	Body	Brass	Nickel	Chrome	Gold	Black Chrome
②	Ring					
③	Front Plate	304 Stainless Steel	Satin	Polished	Gold	Black Chrome
④	Cam				Plain	
⑤	Hex Nut	Steel			Silver	
⑥	Washer				Nickel	
⑦	Hex Nut				Silver	
⑧	Case Cover	Polypropylene			Black	
⑨	Ring					
⑩	Counterplate	303 Stainless Steel		Polished		Black Chrome
⑪	Key	Brass				Nickel

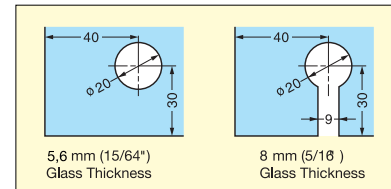
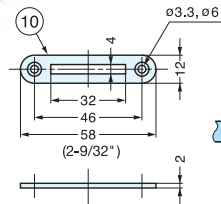
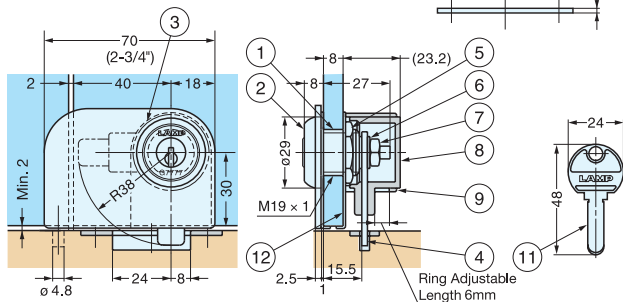
GLASS DOOR CAM LOCK FOR DOUBLE DOORS



1310GLW



- Dimple key lock series ideal for showcase application.
- High security reversible key. (3 keys supplied)
- Key acts as a knob and can only be removed when locked.
- 1 million key changes available; please specify keyed alike or differently when ordering.
- Master key system available at surcharge. (Max. 2,520 key changes per master key.)



Cut Out Dimensions

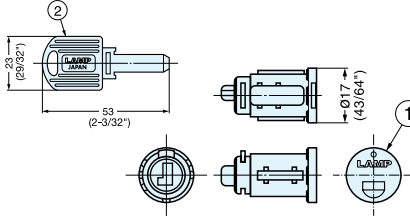
Item No.	Glass Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
1310GLW	5~8 (3/16"~5/16")	206	12	60

No.	Part Name	Material	Finish	
			SN	CR
①	Body	Brass	Nickel	
②	Ring			
③	Front Plate	304 Stainless Steel	Satin	Plain
④	Cam			
⑤	Hex Nut	Steel		Silver
⑥	Washer			
⑦	Hex Nut			
⑧	Case Cover	Polypropylene		Black
⑨	Ring			
⑩	Counterplate	304 Stainless Steel	Polished	
⑪	Key	Brass	Nickel	
⑫	Backplate	304 Stainless Steel	Polished	
⑬	Stopper	Polyamide	Brown	

INTERCHANGEABLE CYLINDER KEY



MD-N1



- Cylinder and key set for 1830, 6830 and 1330GL locks.
- Interchangeable feature allows easy cylinder replacement in case key is lost.
- Up to 7,800 key changes available. (750 key changes per master key.)
- Keyed Alike (KA) or Keyed Different (KD) available. Please specify when ordering.

Item No.	Component	Weight (g)	Box (pcs)	Carton (pcs)	Component	Material	Finish
MD-N1	Cylinder	21	12	60	Cylinder	304 Stainless Steel/Zinc Alloy	Polished/Yellow Zinc Chromate
	Key	12			Key	Brass/ABS	Nickel/Black

INTERCHANGEABLE CYLINDER KEY



MD-MK1, K1



- MD-MK1 - Master key for easy key management.
- MD-K1 - Key to remove existing cylinder only. Does NOT open lock.

Item No.	Key Type	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish/Color
MD-MK1	Master Key	12	1	10	Brass/ABS	Nickel/Black
MD-K1	Change Key					

GLASS DOOR CAM LOCK



1330GL-MK

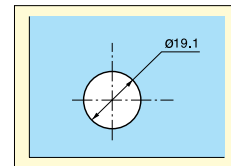
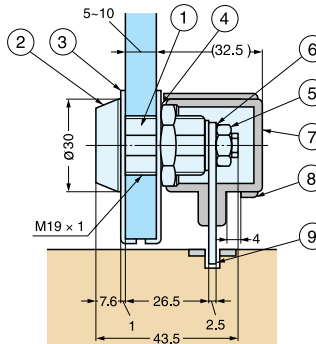
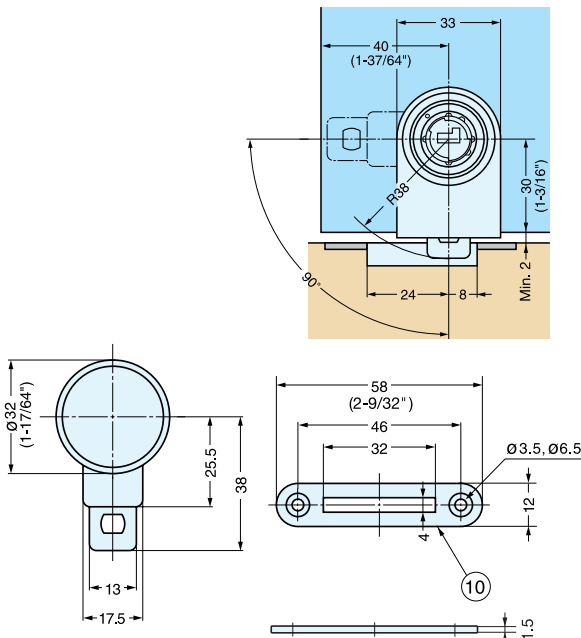


1330GL-MK/GA



1330GL-MK/DN

- Glass door cam lock with interchangeable cylinder. (Please see page P.620 for details.)
- Cylinder can be changed by using change key MD-K1.
- Easy to replace cylinder in case key is lost. Note: Cylinder housing only. Interchangeable Cylinder MD-N1 must be ordered for a complete assembly.
- Up to 7,800 key changes available. (750 key changes per master key.)



Cut Out Dimension

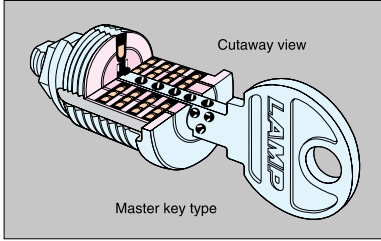


Master Key, Interchangeable Cylinder, Interchangeable Cylinder Key are sold separately.

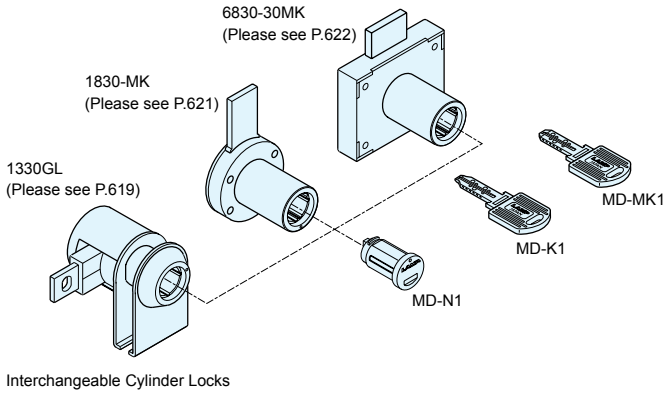
No.	Part Name	Material	Finish
①	Cylinder Housing	Zinc Alloy	Satin Nickel (DN)/Gold (GA)
②	Front Ring	Brass	
③	Front Plate	304 Stainless Steel	Satin Nickel (DN)/Gold
④	Large Hex Nut	Steel	Yellow Zinc Chromate
⑤	Small Hex Nut		Chromate
⑥	Washer	Polypropylene	Black
⑦	Case Cover		Black
⑧	Ring	304 Stainless Steel	Polished
⑨	Cam		
⑩	Counterplate		

Item No.	Glass Thickness (mm)	Finish	Weight (g)	Box (pcs)	Carton (pcs)
1330GL-MK/GA	5~10	Gold (GA)	130	12	60
1330GL-MK/DN	(3/16"~3/8")	Satin Nickel (DN)			

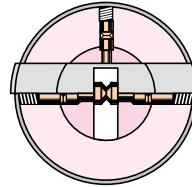
MILLION LOCK SERIES



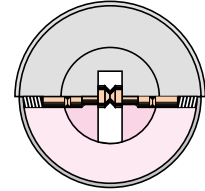
Interchangeable Cylinder + Million Lock = Complete Assembly
 Example: MD-N1 + 6830-30MK/DN



- Dimple key lock series.
- Cylinder changeable type.
 - One cylinder can be used on 3 different types of locks. (1830, 6830 and 1330GL)
 - Using with master key system allows easy key management.



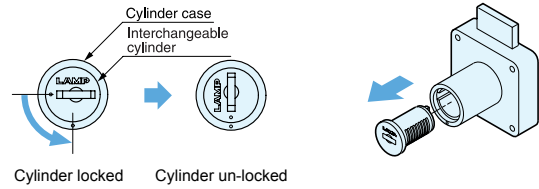
Master key type



Standard key type

To remove the cylinder:

Turn cylinder by using cylinder change key (optional).
 Match dots on cylinder and case.
 Pull key to detach.



INTERCHANGEABLE CYLINDER KEY

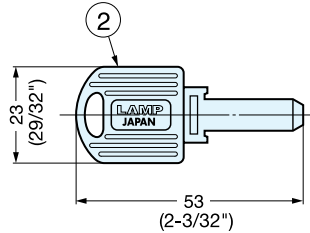


MD-N1

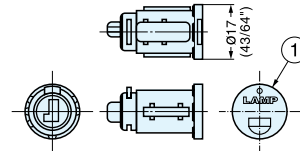


MD-N1

MD-N1



- Cylinder and key set for 1830, 6830 and 1330GL locks.
- Interchangeable feature allows easy cylinder replacement in case key is lost.
- Up to 7,800 key changes available. (750 key changes per master key.)
- Keyed Alike (KA) or Keyed Different (KD) available. Please specify when ordering.



Item No.	Component	Weight (g)	Box (pcs)	Carton (pcs)	No.	Component	Material	Finish
MD-N1	Cylinder	21	12	60	①	Interchangeable Cylinder	304 Stainless Steel/Zinc Alloy	Polished/Yellow Zinc Chromate
	Key	12			②	Key	Brass/ABS	Nickel/Black

INTERCHANGEABLE CYLINDER KEY



MD-MK1, K1



- MD-MK1 - Master key for easy key management.
- MD-K1 - Key to remove existing cylinder only. Does NOT open lock.

Item No.	Key Type	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish/Color
MD-MK1	Master Key	12	1	10	Brass/ABS	Nickel/Black
MD-K1	Change Key					

DRAWER LOCK (HOUSING)



1830-MK

LOCKS

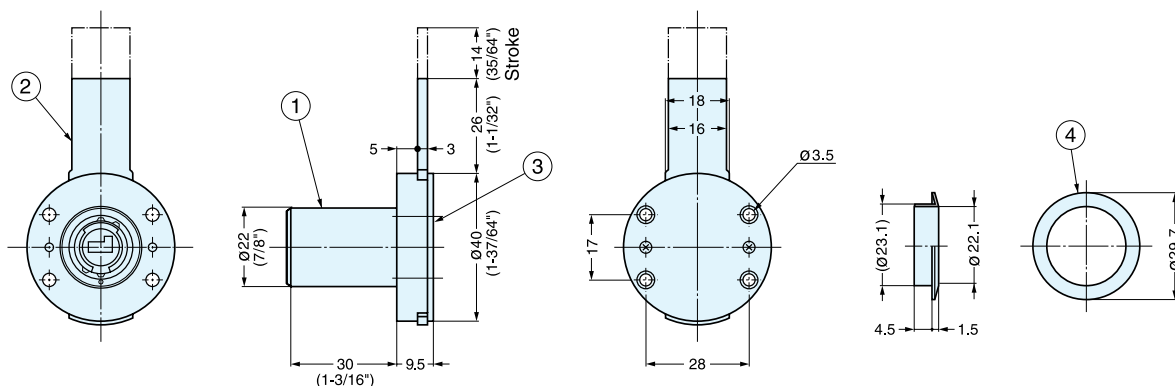


- Interchangeable Cylinder Lock
- Cylinder can be changed by using change key MD-K1. Easy to replace cylinder in case key is lost.
- Up to 7,800 key changes available. (750 key changes per master key.)
- Cylinder housing Diameter: 22 mm (7/8")
- * Cylinder housing only. Interchangeable Cylinder MD-N1 must be ordered for a complete assembly.



Master Key, Interchangeable Cylinder & Key are sold separately. See P.622

DRAWER LOCK



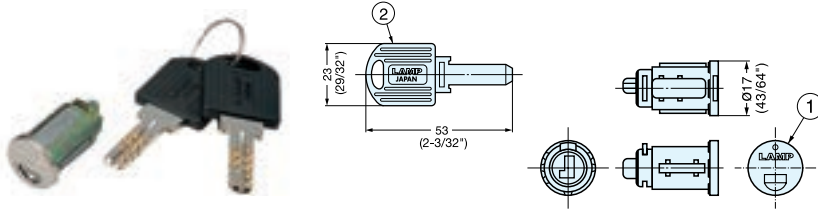
No.	Part Name	Material	Finish
①	Cylinder Housing	Zinc Alloy	Satin Nickel (DN)/Gold (GA)
②	Dead Bolt	304 Stainless Steel	Polished
③	Cover		
④	Ring	Brass	Satin Nickel (DN)/Gold (GA)

Item No.	Door Thickness	Finish	Weight (g)	Box (pcs)	Carton (pcs)
1830-MK/GA	30 (1-3/16")	Gold (GA)/Clear	185	12	60
1830-MK/DN	30 (1-3/16")	Satin Nickel (DN)			

INTERCHANGEABLE CYLINDER & KEY



MD-N1



- Cylinder and key set for 1830, 6830 and 1330GL locks.
- Interchangeable feature allows easy cylinder replacement in case key is lost.
- Up to 7,800 key changes available. (750 key changes per master key.)
- Keyed Alike (KA) or Keyed Different (KD) available. Please specify when ordering.

Item No.	Component	Weight (g)	Box (pcs)	Carton (pcs)	Component	Material	Finish
MD-N1	Cylinder	21	12	60	Cylinder	304 Stainless Steel/Zinc Alloy	Polished/Yellow Zinc Chromate
	Key	12			Key	Brass/ABS	Nickel/Black

INTERCHANGEABLE CYLINDER KEY



MD-MK1, K1



- MD-MK1 - Master key for easy key management.
- MD-K1 - Key to remove existing cylinder only. Does NOT open lock.

Item No.	Key Type	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish/Color
MD-MK1	Master Key	12	1	10	Brass/ABS	Nickel/Black
MD-K1	Change Key					

CABINET LOCK (HOUSING)



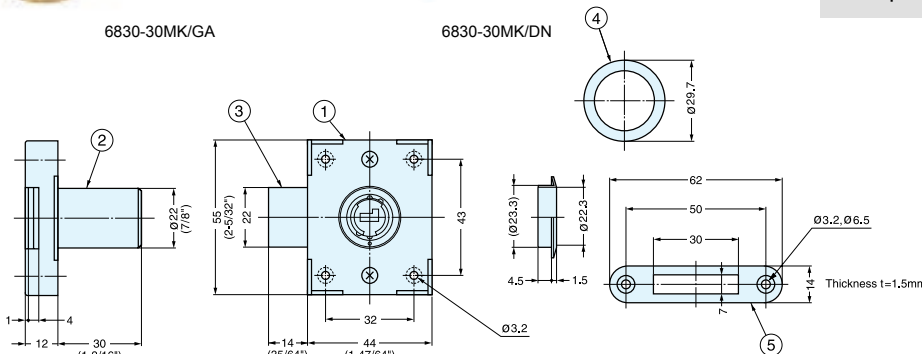
6830-30MK



6830-30MK/GA

6830-30MK/DN

- Cylinder lock with stainless steel body.
- Interchangeable Cylinder Lock
- Cylinder can be changed by using change key MD-K1. Easy to replace cylinder in case key is lost.
- Up to 7,800 key changes available. (750 key changes per master key.)
- Cylinder housing Diameter: 22 mm (7/8")
- 2 mm (5/64") plastic distance plate 6810-SP available for various door thickness. See P.581
- * Cylinder housing only. Interchangeable Cylinder MD-N1 must be ordered for a complete assembly.



Master Key, Interchangeable Cylinder & Key are sold separately. See P.619

Item No.	Door Thickness	Finish	Weight (g)	Box (pcs)	Carton (pcs)
6830-30MK/GA	30 (1-3/16")	Gold/Clear	180	12	60
6830-30MK/DN	30 (1-3/16")	Nickel			

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Satin
②	Cylinder Housing	Zinc Alloy	Satin Nickel (DN)/Gold (GA)
③	Dead Bolt	304 Stainless Steel	-
④	Ring	Brass	Satin Nickel (DN)/Gold (GA)
⑤	Counterplate	304 Stainless Steel	Satin

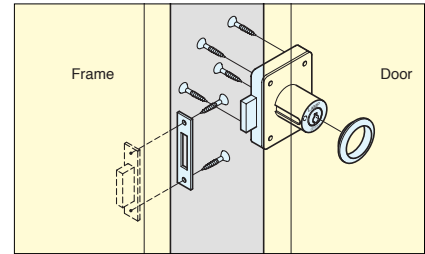
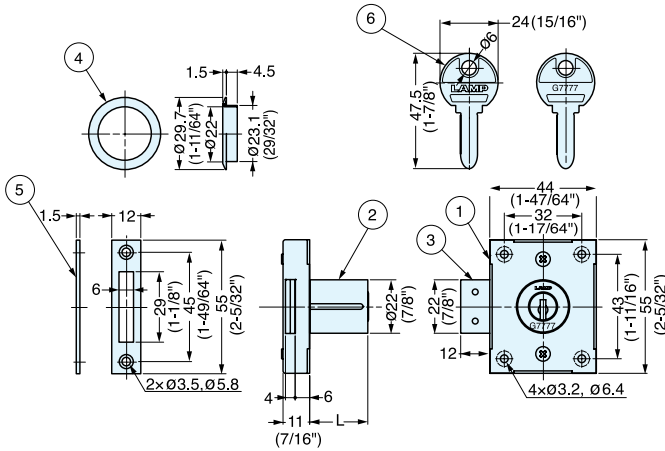
CABINET LOCK



7810



- For use on right-handed doors (Lock for drawer application available by special order).
- High-security Million Lock dimple key; keys are reversible. Turn the key 360° to lock or unlock.
- Brass cylinder lock with stainless steel body.
- One million key changes available; Please specify keyed alike or differently when ordering.
- Includes screws.
- Available in Satin Nickel (NI), Chrome (CR) or Black (BL) finish.
- Can be used with spacer 6810-SP, sold separately. See below.
- Master key system available at a surcharge (Max. 2,520 key changes per master key.)

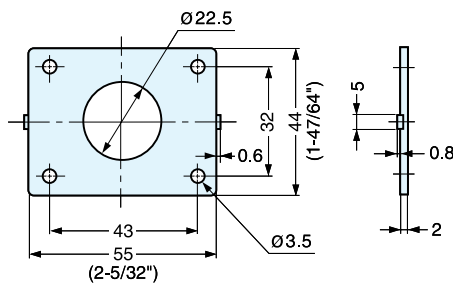


No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Satin
②	Cylinder Housing	Brass	Satin Nickel(NI) / Chrome(CR) / Black Chrome (BL)
③	Dead Bolt	304 Stainless Steel	Plain
④	Ring	Brass	Satin Nickel(NI) / Chrome(CR) / Black Chrome (BL)
⑤	Counterplate	304 Stainless Steel	Satin / Black Chrome (BL)
⑥	Key	Brass	Nickel

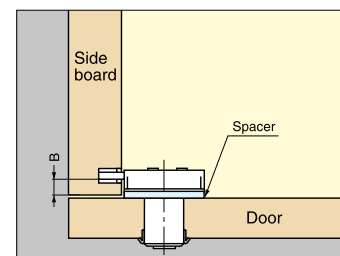
Item No.	L	Door Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
7810-24NI	24 (15/16")	22~24 (7/8"~15/16")	190	12	60
7810-24CR					
7810-24BL					
7810-30NI	30 (1-3/16")	28~30 (1-3/32"~1-3/16")	210		
7810-30CR					
7810-30BL					
7810-36NI	36 (1-7/16")	34~36 (1-3/18"~1-7/16")	225		
7810-36CR					
7810-36BL					

SPACER

6810-SP



- Distance spacer for 3810S, 6830, 7810, and 8810-24 series locks.
- Use when additional distance on dimension B is required.
- Thickness: 2mm (5/64")
- Multiple spacers can be used if needed.



Item No.	Thickness	Weight (g)	Box (pcs)	Carton (pcs)
6810-SP	2	4.5	150	1500

CABINET LOCK (W/BUILT-IN KEY CHANGE)



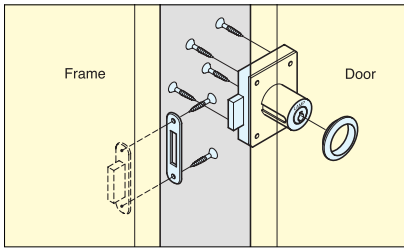
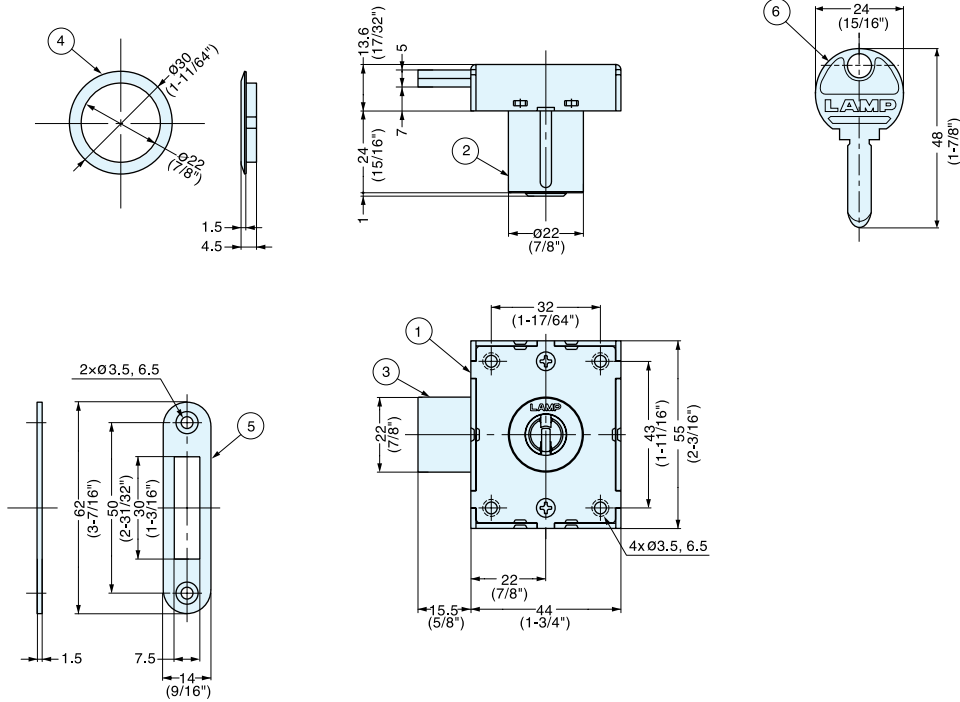
8810-24

LOCKS

CABINET LOCKS (W/BUILT-IN KEY CHANGE)



- Lock's key number can be changed in place without removing the lock.
- Cost effective hardware where retrieving keys can be problematic, such as lockers, laundry rooms, etc.
- Change each lock's key number up to 2 times.
- High security dimple key.
- Up to 3 million key changes available. (3,000 key changes per master key.)
- Please specify keyed alike or differently when ordering.
- Master key available at a surcharge.
- Includes screws and original keys.
- 36 mm cylinder models available as special order items.



Installation for door

How it works:

- Each lock includes keys for the original key number only. (Change keys sold separately)
- To change the lock's key number, enter the new key and rotate 360°.
- After changing the lock's key number, the previously used key cannot open the lock.
- 1st and 2nd change keys are sold separately.

Master Key System:

- Master keys for each key number change are available. (Sold separately)
- Master keys must be also changed after the lock's key number is changed.
- If only some of the locks' key numbers in a master key system are changed, multiple master keys for that portion should still be kept.

No.	Part Name	Material	Finish
①	Body	430 Stainless Steel	Satin
②	Cylinder Housing	Brass	Satin Nickel
③	Dead Bolt	430 Stainless Steel	Plain
④	Ring	Brass	Nickel
⑤	Counterplate	430 Stainless Steel	Satin
⑥	Key	Nickel Silver	Polished

Item No.	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
8810-24	22~24	190	12	60
8810-24MK	(7/8" ~ 15/16")			

CABINET LOCK

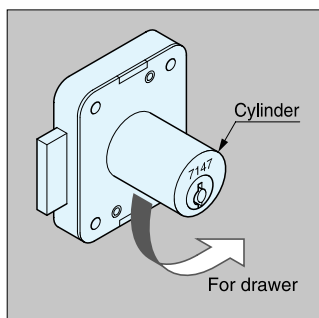
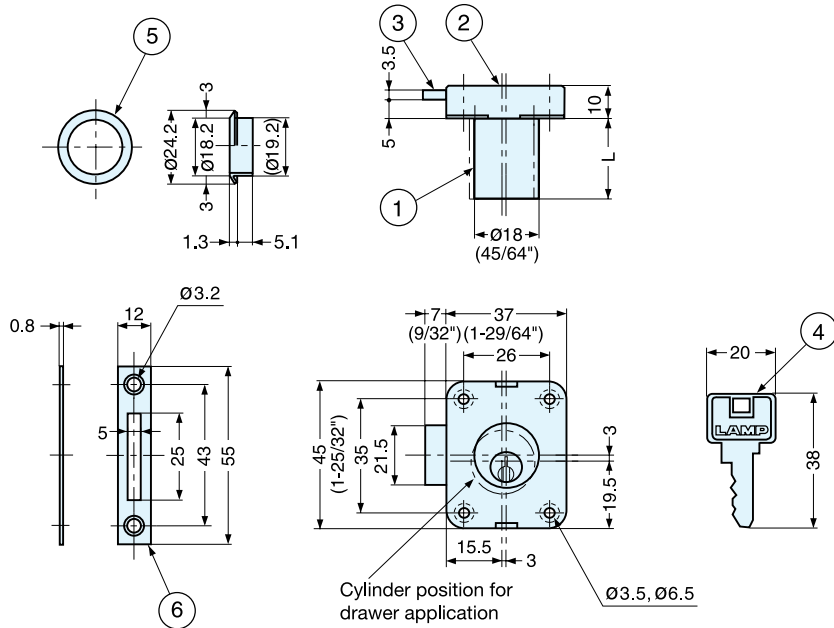


2100

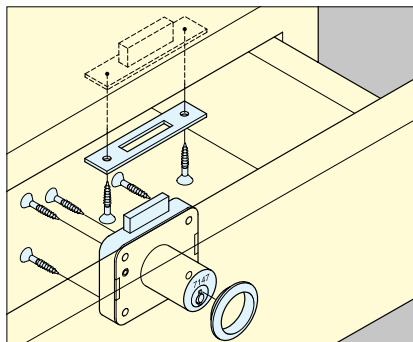
LOCKS

CABINET LOCKS

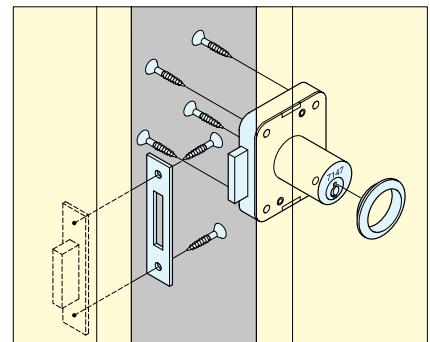
- Brass cylinder lock.
- Cylinder rotates for either drawer or cabinet door application.
- Cylinder Diameter: 18 mm (11/16")
- 12 key changes available; Please specify keyed alike or differently when ordering.
- Master key NOT available.
- Keys can be shared with other 2100 series locks.



To change lock for drawer application: turn lock cylinder 90° counterclockwise.



Installation for drawer



Installation for right-handed door

No.	Part Name	Material	Finish
①	Cylinder Housing	Brass	Nickel
②	Body		
③	Dead Bolt		
④	Key		
⑤	Ring	304 Stainless Steel	Plain
⑥	Counterplate		

Item No.	L	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
2100-24	24 (15/16")	24 (15/16")	116	12	120
2100-30	30 (1-3/16")	30 (1-3/16")	125		

CABINET LOCK (W/INDICATOR)



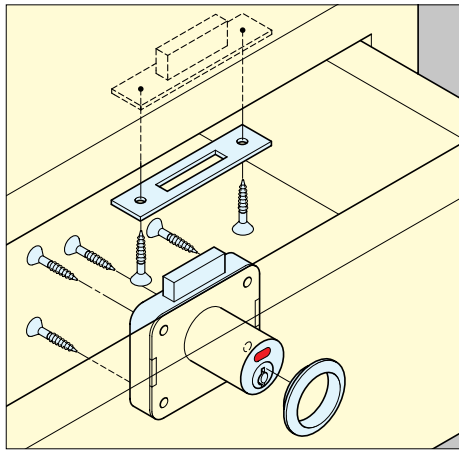
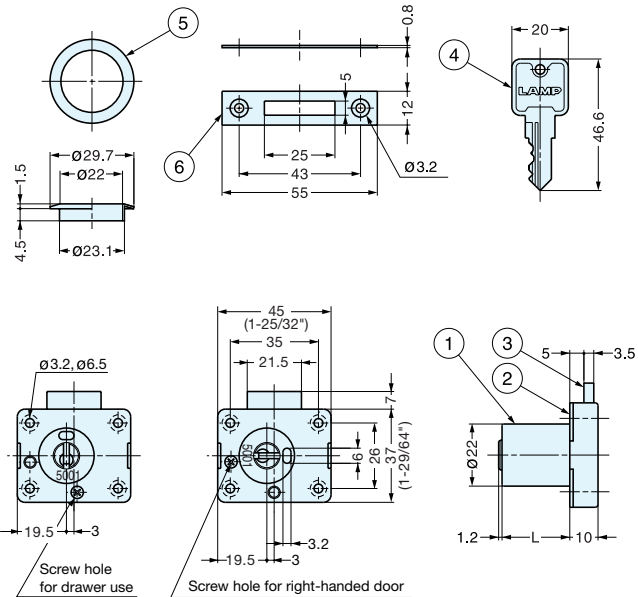
2200

LOCKS

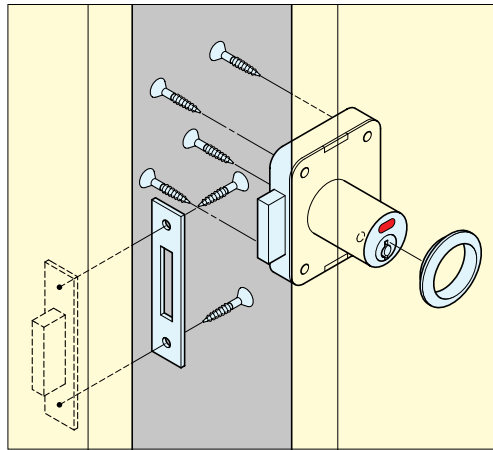
CABINET LOCKS



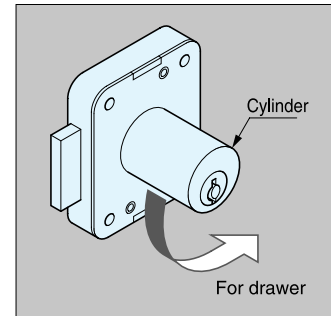
- Cylinder lock with locked/unlocked indicator.
- Indicator: Unlocked - Blue, Locked - Red
- Cylinder rotates for either drawer or cabinet door application.
- Cylinder Diameter: 22 mm (7/8")
- 12 key changes available.
- Keyed Alike (KA) or Keyed Different (KD) available; Please specify when ordering.
- Master key available at surcharge. (2200-24MK, 2200-30MK)
- Keys can be shared with other 2200 series locks.
- 4 mm (5/32") plastic distance plate TSSP available for various door thickness. See P.629



Installation for drawer



Installation for right-handed door



To change lock for drawer application: turn lock cylinder 90° counterclockwise and install fixing screw.

No.	Part Name	Material	Finish
①	Cylinder Housing	Zinc Alloy	Nickel
②	Body	Brass	
③	Dead Bolt		
④	Key		
⑤	Ring	304 Stainless Steel	Plain
⑥	Counterplate		

Item No.	L	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
2200-24	24 (15/16")	24 (15/16")	115	12	120
2200-30	30 (1-3/16")	30 (1-3/16")	141		

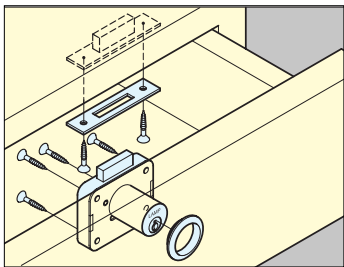
CABINET LOCK



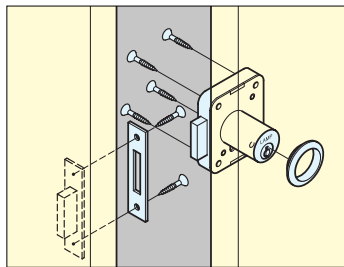
2550

LOCKS

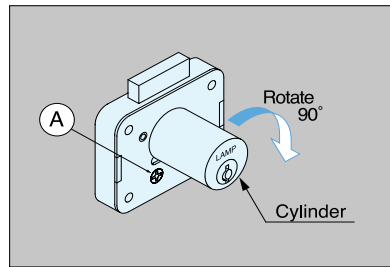
- Cabinet lock with 90° rotating cylinder for right-handed doors (see diagram below).
- Up to 300 key changes available; Please specify keyed alike or differently when ordering. (80 key changes per master key.)
- Includes screws.
- Master key available as a special order at a surcharge.



Installation for drawer

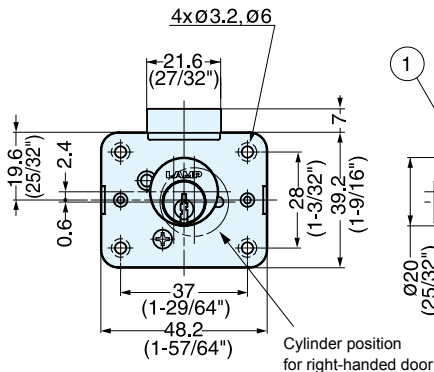
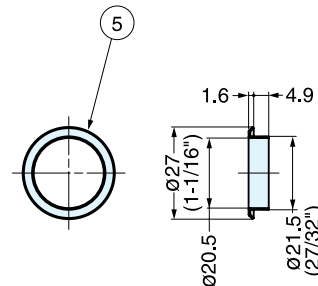
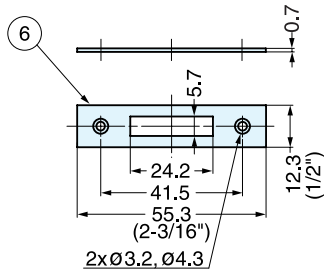


Installation for right-handed door



To rotate cylinder, loosen screw ⑥ and rotate cylinder 90° clockwise and tighten it afterwards.

CABINET LOCKS



No.	Part Name	Material	Finish
①	Cylinder Housing	Brass	Nickel
②	Body	Zinc Alloy	Yellow Zinc Chromate
③	Dead Bolt		Nickel
④	Key	Brass	Nickel
⑤	Ring		Satin Nickel
⑥	Counterplate		Nickel

Item No.	L	Door Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
2550-24-DN	24 (15/16")	24 (15/16")	140	12	60
2550-24-DNMK					80
2550-36-DN	36 (1-7/16")	36 (1-7/16")	170		60
2550-36-DNMK					80

CABINET LOCK

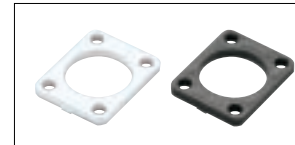


2650

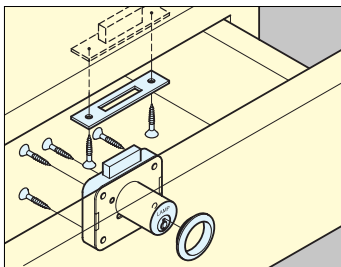
LOCKS

CABINET LOCKS

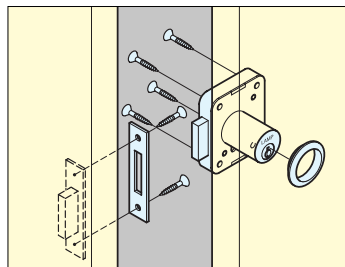
- Cabinet lock with 90° rotating cylinder for right-handed doors (see diagram below).
- Up to 48 key changes available for 2650-16; up to 96 key changes available for each of 2650-22 and 2650-30.
- Please specify keyed alike or differently when ordering.
- Can be used with spacer TSSP (P.629), sold separately.



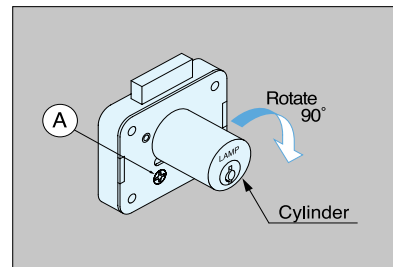
TSSP SERIES (Sold separately)



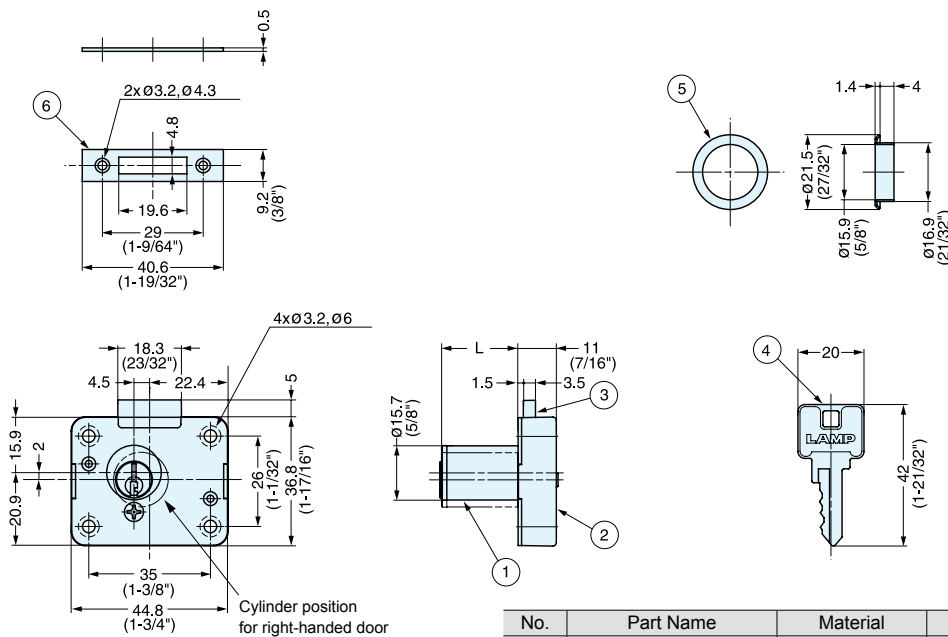
Installation for drawer



Installation for right-handed door



To rotate cylinder, loosen screw A and rotate cylinder 90° clockwise and tighten it afterwards.



No.	Part Name	Material	Finish
①	Cylinder Housing	Zinc Alloy	Satin Nickel
②	Body		Yellow Zinc Chromate
③	Dead Bolt		Nickel
④	Key	Brass	Nickel
⑤	Ring		Satin Nickel
⑥	Counterplate		Plain

Item No.	L	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
2650-16-DN	16 (5/8")	16 (5/8")	81.5	12	240
2650-22-DN	22 (7/8")	22 (7/8")	89.5		
2650-30-DN	30 (1-3/16")	30 (1-3/16")	98.0		

CABINET LOCK



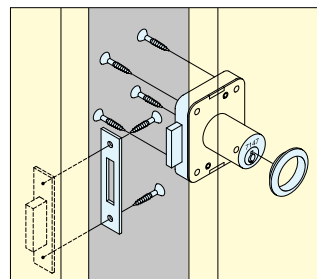
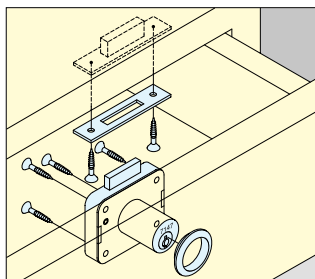
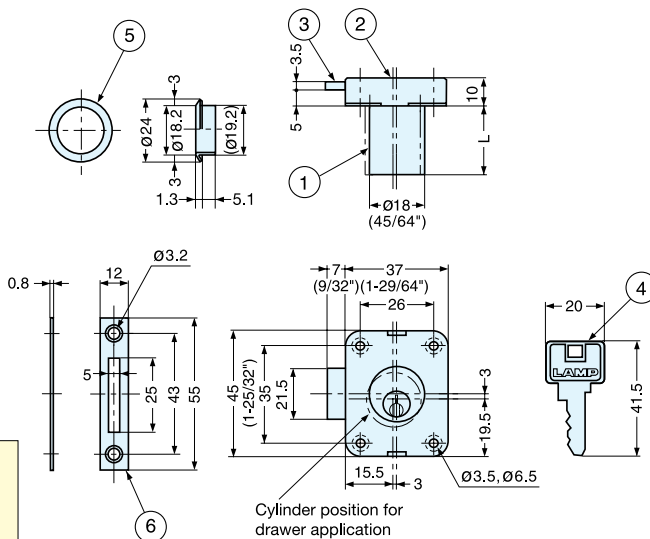
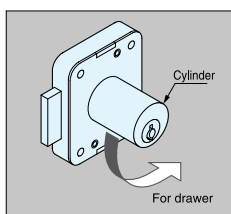
3310

LOCKS

CABINET LOCKS



- Brass cylinder lock.
- Cylinder rotates for either drawer or cabinet door application.
- Cylinder Diameter: 18 mm (11/16")
- 156 key changes available; Please specify keyed alike or differently when ordering.
- Master key NOT available.
- Keys can be shared with other 3300 series locks.
- 4 mm (5/32") plastic distance plate TSSP available for various door thickness. See below.



No.	Part Name	Material	Finish
①	Cylinder Housing	Brass	Nickel
②	Body		
③	Dead Bolt		
④	Key		
⑤	Ring	304 Stainless Steel	-
⑥	Counterplate		

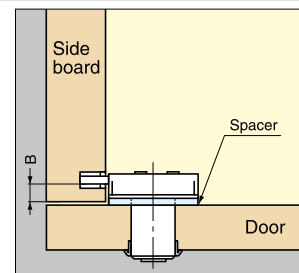
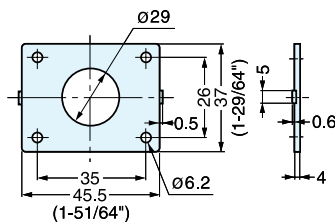
Item No.	L	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
3310-24	24 (15/16")	24 (15/16")	116	12	120
3310-30	30 (1-3/16")	30 (1-3/16")	125		

SPACER

TSSP



- Spacer for 2100, 2200, 2650, 3310, and 3320 locks.
- Use when additional distance on dimension B is required.
- Thickness: 4mm (5/32")
- Multiple spacers can be used if needed.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Color
TSSP-W	14	150	1500	ABS	White/Black
TSSP-B					

CABINET LOCK



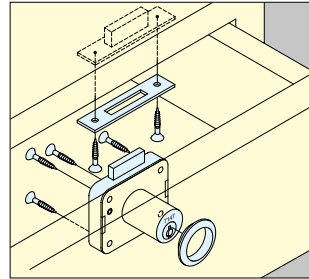
3320

LOCKS

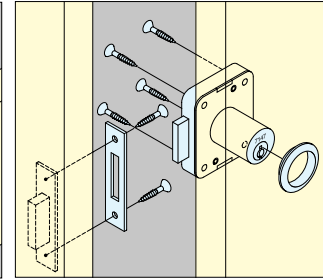
CABINET LOCKS



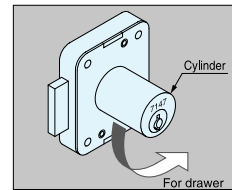
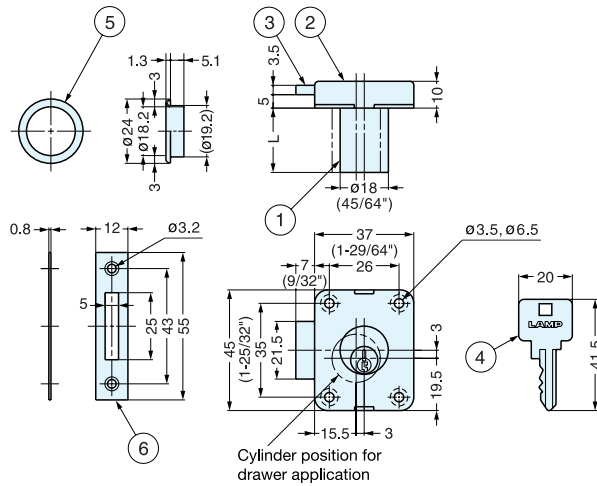
- Brass cylinder lock.
- Cylinder rotates for either drawer or cabinet door application.
- Cylinder Diameter: 18 mm (11/16")
- 156 key changes available; Please specify keyed alike or differently when ordering.
- Master key NOT available.
- Key is not removable in unlocked position, can be used as a knob.
- Keys can be shared with other 3300 series locks.
- 4 mm (5/32") plastic distance plate TSSP available for various door thickness.



Installation for drawer



Installation for right-handed door



To change lock for drawer application: turn lock cylinder 90° counterclockwise.

No.	Part Name	Material	Finish
①	Cylinder Housing	Brass	Nickel
②	Body		
③	Dead Bolt		
④	Key		
⑤	Ring	304 Stainless Steel	Plain
⑥	Counterplate		

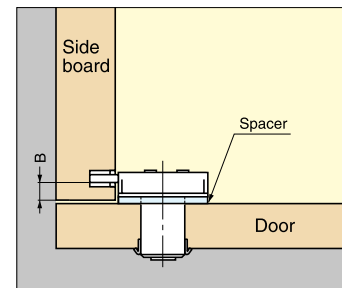
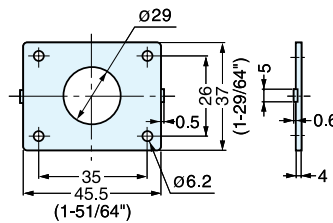
Item No.	L	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
3320-24	24 (15/16")	24 (15/16")	123	12	120
3320-30	30 (1-3/16")	30 (1-3/16")	135		

SPACER

TSSP



- Spacer for 2100, 2200, 2650, 3310 and 3320 locks.
- Use when additional distance on dimension B required.
- Thickness: 4 mm (5/32").
- Multiple spacers can be used if needed.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
TSSP-W	TSSP-B	14	150

1-800-562-5267
(U.S.A. Only)

Material	Color
ABS	White/Black

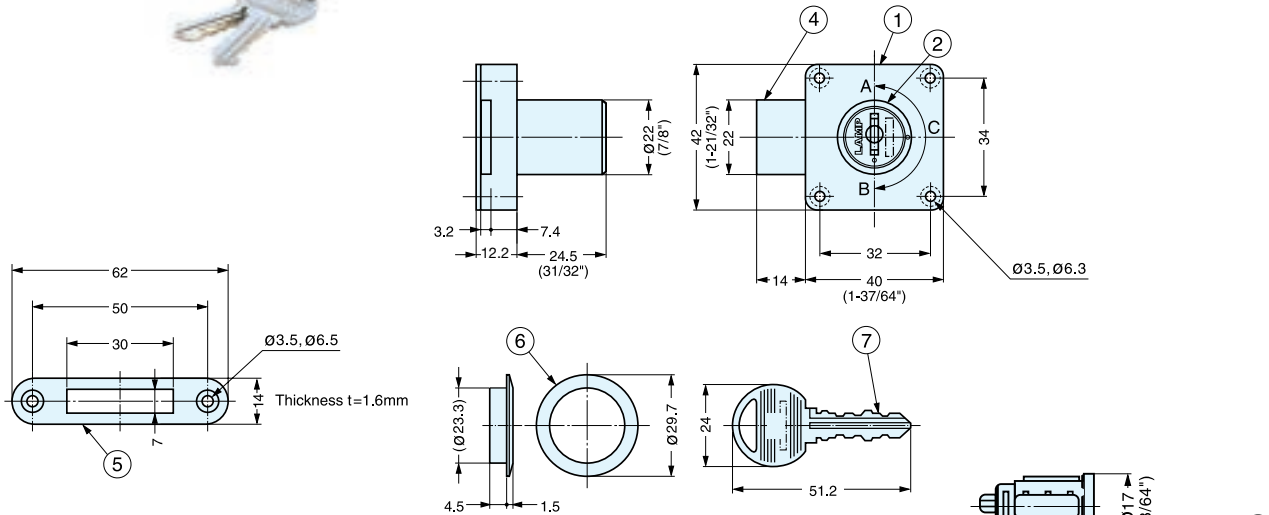
CABINET LOCK



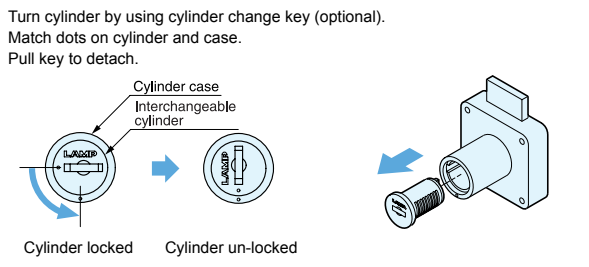
5830-24MK



- Interchangeable Cylinder Lock.
- Inner cylinder can be replaced, ideal for applications where keys are often lost, and key numbers need to be changed for security.
- Long dead bolt.
- Lock housing, cylinder and 2 keys supplied per set.
- Cylinder housing Diameter: 22 mm (7/8")
- Maximum 3,120 key changes available. (780 per master key.)
- Master Key, Cylinder Change Key and Cylinder for replacement sold separately.
 Master Key - 5830-MK1
 Cylinder Change Key - 5830-K1
 Replacement Cylinder - 5830-N1



To remove the cylinder:

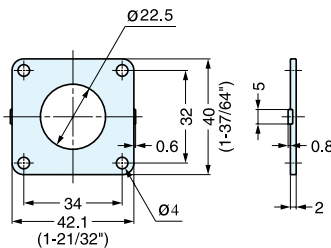


No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Nickel
②	Cylinder Housing	Steel	
③	Interchangeable Cylinder	Zinc Alloy	
④	Dead Bolt	Steel	
⑤	Counterplate		
⑥	Ring	Brass	
⑦	Key		

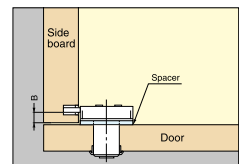
Item No.	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
5830-24MK	24 (15/16")	155	12	60

SPACER

5830-SP



- Spacer for 5830-24MK.
- Use when additional distance on dimension B required.
- Thickness: 2 mm (5/64")
- Multiple spacers can be used if needed.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Color
5830-SP	14	25	250	ABS	White

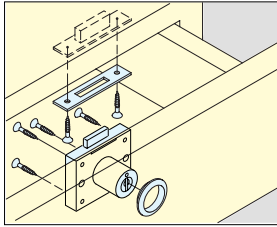
CABINET LOCK (W/INDICATOR)



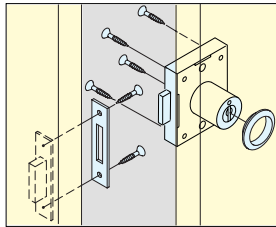
2200QL



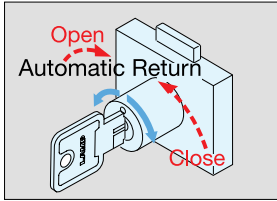
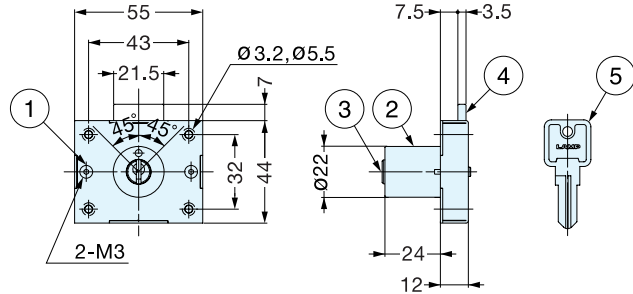
- Only 1/8 turn is needed to unlock/lock the door.
- Key automatically returns to original position, making it easy to remove the key.
- With indicator.
- 300 key changes available; Please specify keyed alike or differently when ordering.
- Master key type available at surcharge. (Maximum 170 key changes per master key)
- Keys can be shared with other 2200 series locks.



Installation for drawer



Installation for right-handed door
(This application is available with special ordered lock.)



Operation

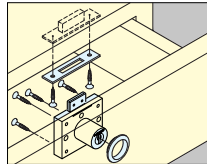
Item No.	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
2200QL-24	24 (15/16")	200	12	60

No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Plain
②	Cylinder (Outer)	Brass	Satin Nickel
③	Cylinder (Inner)	Zinc Alloy	
④	Dead Bolt		Nickel
⑤	Key	Brass	

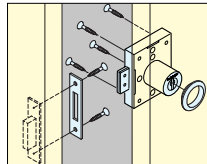
STAINLESS STEEL CABINET LOCK



3810S

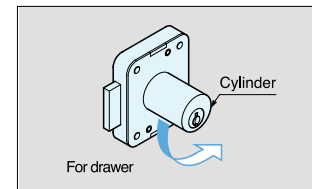
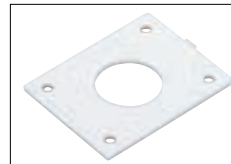
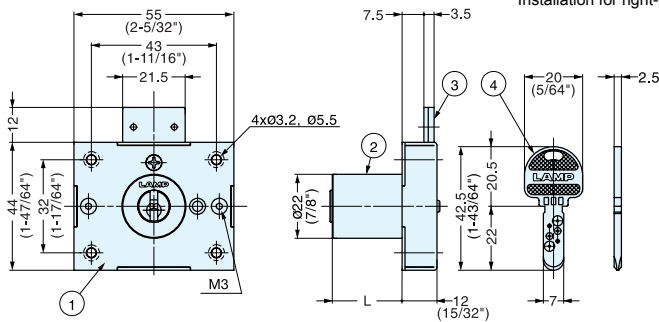


Installation for drawer



Installation for right-handed door

- Components made of 304 stainless steel for corrosion resistance.
- Durable key made of corrosion/abrasion resistant nickel. Key is reversible.
- Cylinder rotates for either drawer or cabinet door application.
- Up to 300 key changes available. Please specify keyed alike or differently when ordering.
- Master key option available as a special order at a surcharge.
- Can be used with spacer 6810-SP (P.623), sold separately.



To change lock for drawer application, turn cylinder 90° counterclockwise and install fixing screw.

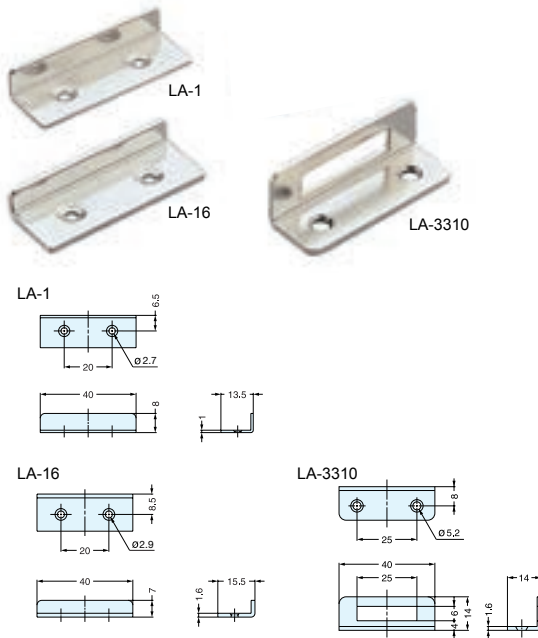
Item No.	L	Door Thickness (mm)	Weight (g)	Box (pcs)	Carton (pcs)
3810S-24	24 (15/16")	24 (15/16")	180	12	60
3810S-30	30 (1-3/16")	30 (1-3/16")	195		

No.	Part Name	Material	Finish
①	Body*	304 Stainless Steel	Plain
②	Cylinder Housing		Satin
③	Dead Bolt		Plain
④	Key	Nickel Silver	

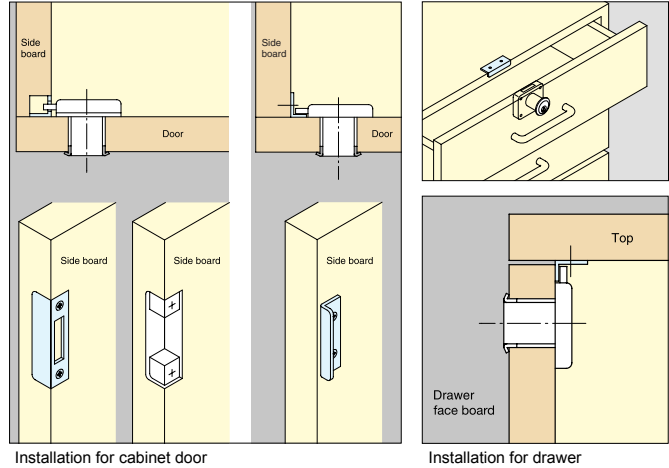
*Cylinder pins are made of brass.

STRIKE

LA SERIES



- Optional strike plates for applications where dead bolt is close to the cabinet edge, or for inset applications.
- LA-3310 is for double door application of 3310 series and 3320 series.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
LA-1	6	400	1600	Steel	Nickel
LA-16	9				
LA-3310	11	100	1000		

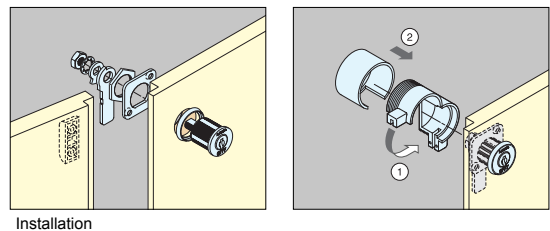
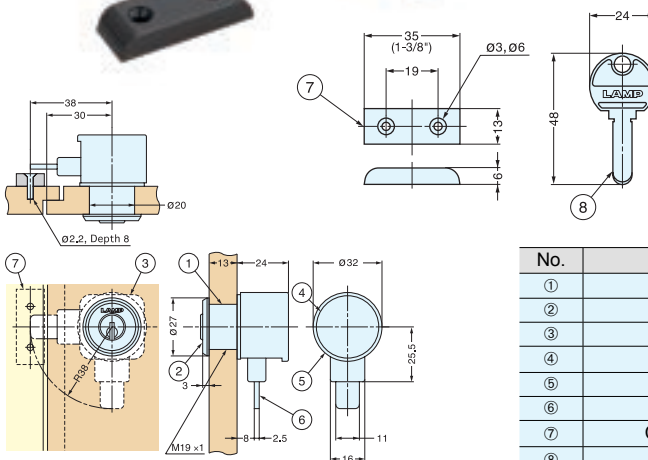
CAM LOCK FOR WOOD DOORS



1300SK



- Dimple key lock series.
- Reversible key. (3 keys supplied)
- Designed for door thickness 13 mm (1/2").
- 1 million key changes available; Please specify keyed alike or differently when ordering.
- Turn the key 360° to lock or unlock.
- 90° cam rotation.
- Master key system available at surcharge. (Max. 2,520 key changes per master key.)



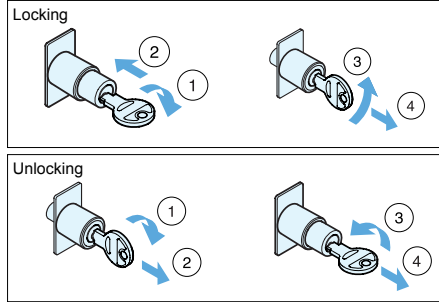
No.	Part Name	Material	Finish
①	Body	Brass	Nickel
②	Base Ring		
③	Plate	Steel	Zinc Chromate
④	Case Cover	Polypropylene	Black
⑤	Ring		
⑥	Cam	303 Stainless Steel	Satin
⑦	Counterplate	ABS	Brown
⑧	Key	Brass	Nickel

Item No.	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
1300SK	13 (1/2")	115	12	60

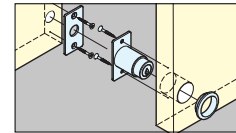
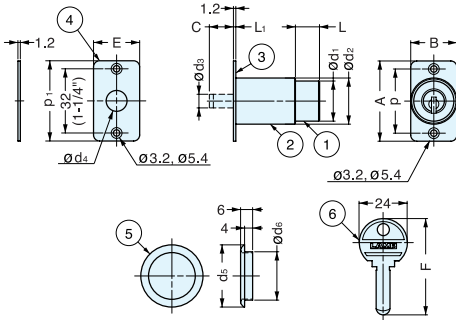
PUSH LOCK



2300, 2400



- Push lock for bypass sliding doors.
- Back-surface mount lock, counterplate is mounted on the front face of the back door.
- Locking: Turn key 90° to the right, push in, turn key 90° to the left, and remove.
- Unlocking: Turn key 90° to the right and lock will automatically disengage and turn the key 90° back, and remove.
- High-security Million Lock dimple key; one million key changes available.
- Please specify keyed alike or differently when ordering. (2,520 key changes per master key.)
- Master key system available by special order at a surcharge.



Installation

No.	Part Name	Material	Finish
①	Body	Brass	Chrome
②	Cylinder Housing	Zinc Alloy	
③	Counterplate	304 Stainless Steel	Plain
④	Mounting Plate		
⑤	Ring	Brass	Chrome
⑥	Key		Nickel

Item No.	Door Thickness (mm)	A	B	C	D	E	F	L ₁	L ₂	d ₁	d ₂	d ₃	d ₄	d ₅	d ₆	P	P ₁	Weight(g)	Box (pcs)	Carton (pcs)
2400M-20	20 (13/16")	35 (1-3/8")	20 (25/32")	10	35 (1-3/8")	20	46	22 (7/8")	10	16	20	7	7.5	26	21.1	27	27	65	12	60
2400M-25	25 (1")																			
2300M	30 (1-3/16")	40 (1-9/16")	24 (15/16")	12	40 (1-9/16")	24	48	30 (1-3/16")	12	20	24	10	10.4	32	25.1	32	32	100		

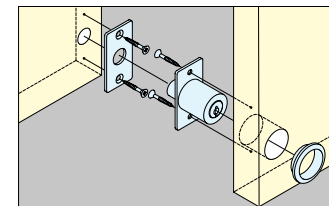
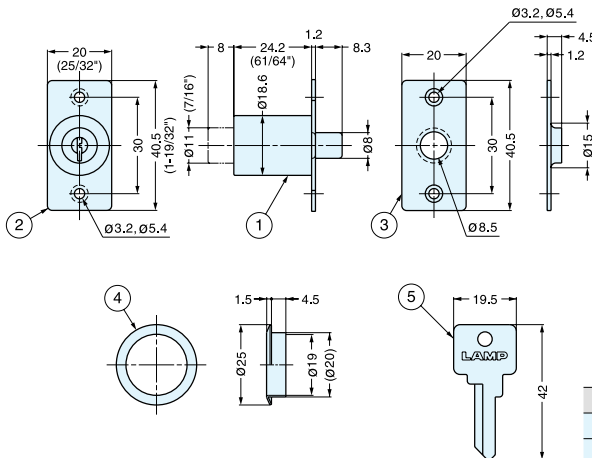
PUSH LOCK



2160M



- Push lock for 1" thick bypass sliding doors.
- Back-surface mount lock, counterplate is mounted on the front face of the back door.
- Unlock by inserting the key and gently turning to the right and ejecting the cylinder.
- Lock by inserting the key and push the cylinder in.
- Up to 24 key changes available; master key option not available.
- Please specify keyed alike or differently when ordering.



Installation

No.	Part Name	Material	Finish
①	Cylinder Housing	Zinc Alloy	Nickel
②	Mounting Plate	Brass	
③	Counterplate		
④	Ring		
⑤	Key		

Item No.	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
2160M	24 (15/16")	50	24	240

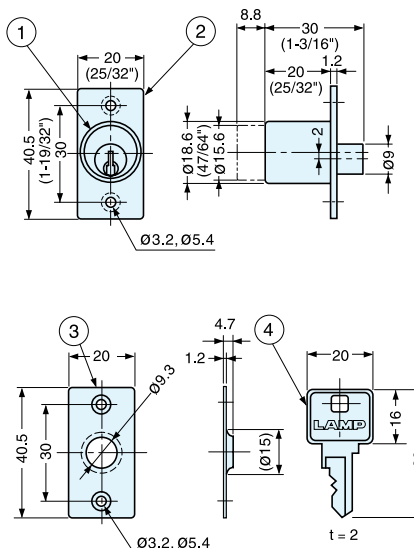
PUSH LOCK



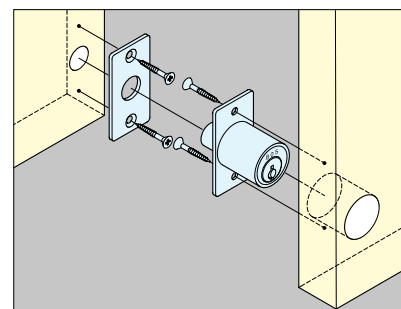
2100M

LOCKS

PUSH LOCKS



- Zinc alloy cylinder push lock for sliding doors.
- Push cylinder to lock.
- Cylinder Length: 20 mm (25/32")
- Cylinder Diameter: 18.6 mm (47/64")
- 12 key changes available.
- Please specify keyed alike or differently when ordering.
- Master key NOT available.
- Keys can be shared with other 2100 series locks.



Installation

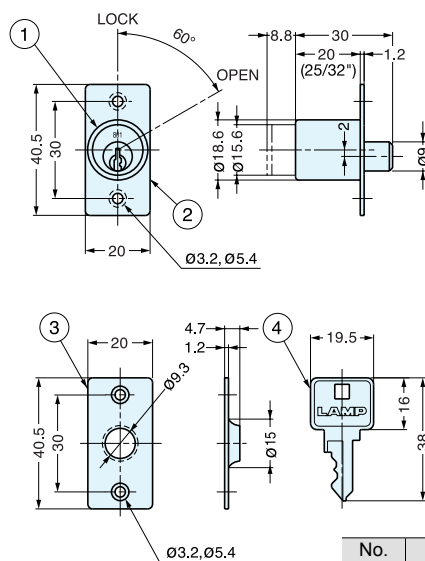
Item No.	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
2100M	20 (25/32")	60	12	240

No.	Part Name	Material	Finish
①	Cylinder Housing	Zinc Alloy	Satin Nickel
②	Mounting Plate	Brass	Nickel
③	Counterplate		
④	Key		

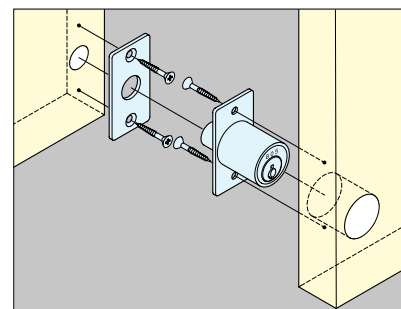
PUSH LOCK



2110M



- Zinc alloy cylinder push lock for sliding doors.
- Key is required to lock and to unlock.
 - To Lock: Insert key and turn 60° clockwise.
 - Push-in the cylinder and turn the key 60° back.
- Key is removable in both locked and un-locked position.
- Cylinder Length: 20 mm (25/32")
- Cylinder Diameter: 18.6 mm (47/64")
- 12 key changes available.
- Please specify keyed alike or differently when ordering.
- Master key NOT available.
- Keys can be shared with other 2100 series locks.



Installation

Item No.	Door Thickness	Weight (g)	Box (pcs)	Carton (pcs)
2110M	20 (25/32")	60	12	240

No.	Part Name	Material	Finish
①	Cylinder Housing	Zinc Alloy	Nickel
②	Mounting Plate	Brass	
③	Counterplate		
④	Key		

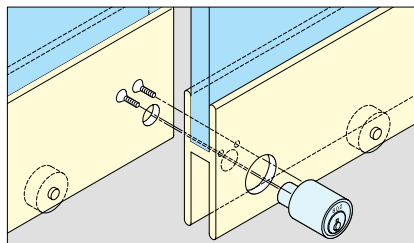
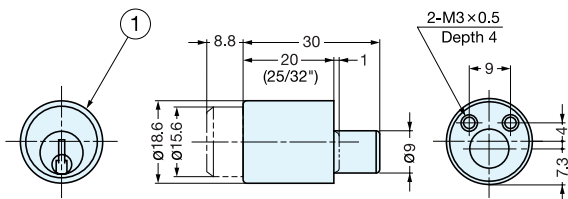
PUSH LOCK



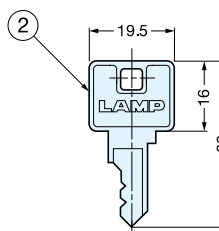
2100B



- Zinc alloy cylinder push lock for metal-framed glass doors or sheet metal double sliding doors.
- Push cylinder to lock.
- Cylinder Diameter: 18.6 mm (47/64")
- Keys can be shared with other 2100 series locks.
- 12 key changes available; Please specify keyed alike or differently when ordering.



Installation



No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Satin Nickel
②	Key	Brass	Nickel

Item No.	Metal Frame Thickness	Cylinder Diameter	Key Changes	Keys Included	Weight (g)	Box (pcs)	Carton (pcs)
2100B	20 (25/32")	18.6 (47/64")	12	2	50	40	400

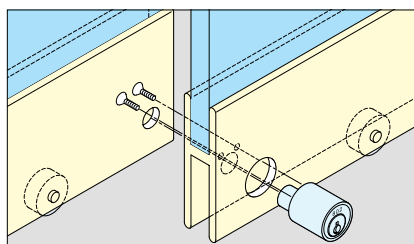
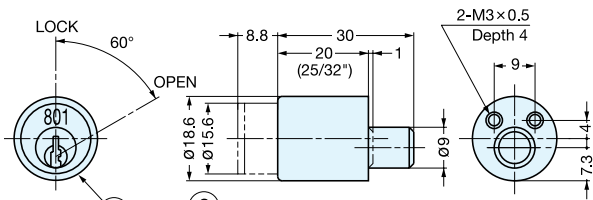
PUSH LOCK



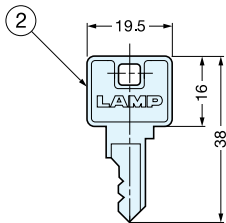
2110B



- Zinc alloy cylinder push lock for metal-framed glass doors or sheet metal double sliding doors.
- Key is required to lock and to unlock.
- To Lock: Insert key and turn 60° clockwise. Push-in the cylinder and turn the key 60° back.
- Cylinder Diameter: 18.6 mm (47/64")
- Keys can be shared with other 2100 series locks.
- 12 key changes available; Please specify keyed alike or differently when ordering.



Installation



No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Satin Nickel
②	Key	Brass	Nickel

Item No.	Metal Frame Thickness	Cylinder Diameter	Key Changes	Keys Included	Weight (g)	Box (pcs)	Carton (pcs)
2110B	20 (25/32")	18.6 (47/64")	12	2	50	40	400

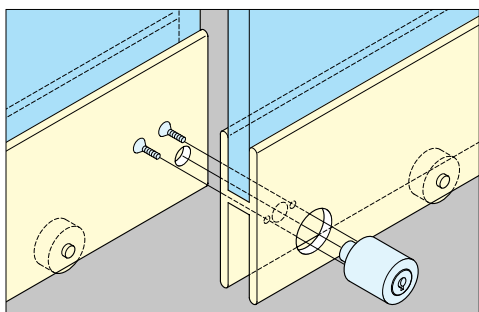
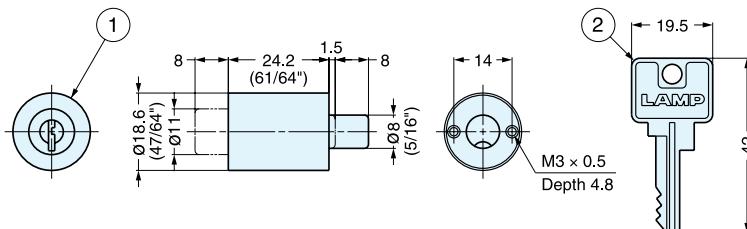
PUSH LOCK



2150B



- Zinc alloy cylinder push lock for metal-framed glass door or sheet metal double sliding doors.
- Push cylinder to lock.
- Cylinder Diameter: 18.6 mm (47/64")
- 24 key changes available; Please specify keyed alike or differently when ordering.
- Master key NOT available.



Installation

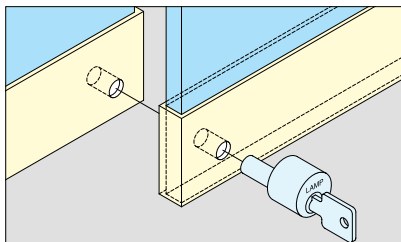
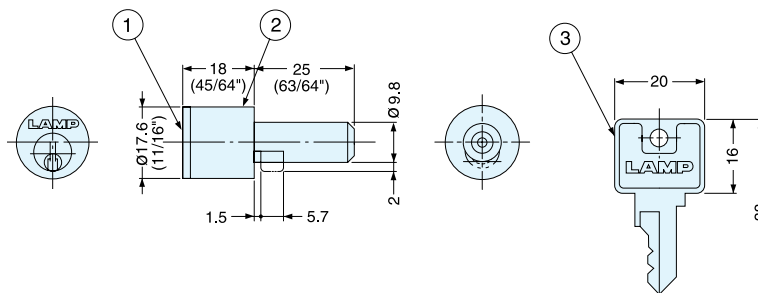
Item No.	Metal Frame Thickness	Weight (g)	Box (pcs)	Carton (pcs)	No.	Part Name	Material	Finish
2150B	24 (15/16")	50	24	240	①	Body	Zinc Alloy	Nickel
					②	Key	Brass	

PUSH LOCK

6300



- Zinc alloy cylinder push lock for metal-framed glass doors.
- Easy installation. 10 mm hole required on door.
- Cylinder Diameter: 17.6 mm (11/16")
- Bolt Length: 25 mm (63/64")
- Bolt Diameter: 9.8 mm (25/64")
- 96 key changes available; Please specify keyed alike or differently when ordering.
- Master key NOT available.
- For material thickness is 1.2 mm.



Installation

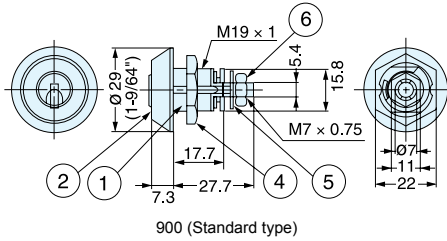
No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Satin Nickel
②	Cover	Brass	Nickel
③	Key		

Item No.	Metal Frame Thickness	Cylinder Diameter	Key Changes	Keys Included	Weight (g)	Box (pcs)	Carton (pcs)
6300	19 (3/4")	17.6 (11/16")	96	2	50	24	240

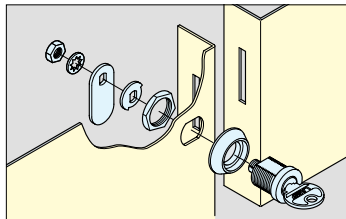
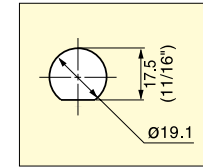
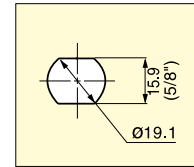
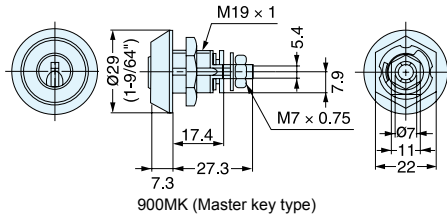
SHEET METAL CAM LOCK



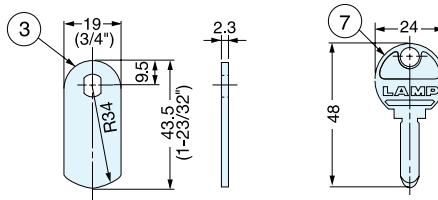
900



- Brass cylinder cam lock.
- Reversible key.
- 90 degree cam rotation.
- Key is removable in locked position only. (Key works as a knob in unlocked position.)
- 1 million key changes available; Please specify keyed alike or differently when ordering.
- Master key type available at surcharge. (Maximum 2,520 key changes per master key.)



Installation



No.	Part Name	Material	Finish
①	Body	Brass	Chrome
②	Ring		
③	Cam	Steel	Yellow Zinc Chromate
④	Hex Nut		Nickel
⑤	Washer		Yellow Zinc Chromate
⑥	Hex Nut	Brass	Nickel
⑦	Key		

Item No.	Metal Thickness (mm)	Keys Included	Weight (g)	Box (pcs)	Carton (pcs)
900	0.8~8 (1/32"~5/16")	2	120	12	60
900MK (with Master Key)					

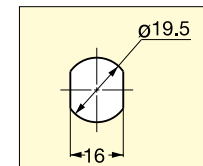
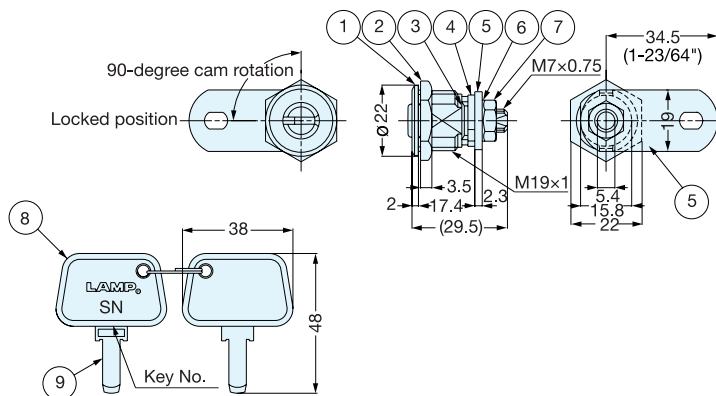
SHEET METAL CAM LOCK



SN-711-8



- Brass cylinder cam lock.
- 90 degree cam rotation.
- Key is removable in locked position only. "Keyed differently" is available by special order. (Up to 1,500 key changes.)
- * Extreme pressure on key when in unlocked position may cause damage to the lock.



No.	Part Name	Material	Finish/Color
①	Body	Brass	Chrome
②	Large Hex Nut	Steel	Yellow Zinc Chromate
③	Ring	304 Stainless Steel	Plain
④	Cam	Steel	Chromate
⑤	Plate		
⑥	Washer		
⑦	Small Hex Nut		
⑧	Cover	ABS	Black
⑨	Key	Brass	Nickel

Item No.	Metal Thickness (mm)	Keys Included	Weight (g)	Box (pcs)	Carton (pcs)
SN-711-8	0.1~9 (1/64"~23/64")	2	77	50	150

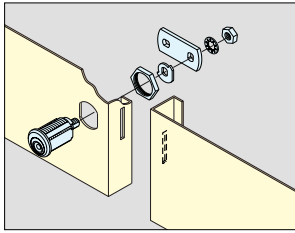
SHEET METAL CAM LOCK



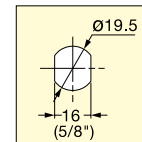
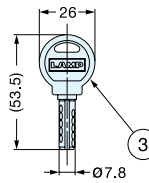
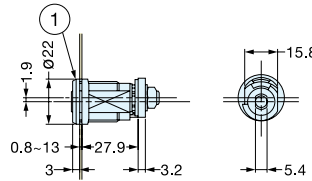
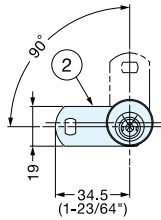
DCY-34



- High security with special key design.
- Reversible key.
- 90 degree cam rotation
- Key is removable in locked position only. (Key works as a knob in unlocked position.)
- Universal direction - Cam direction changeable.
- 2,000 key changes available; Please specify keyed alike or differently when ordering.
- Master key type available at surcharge. (Maximum 866 key changes per master key)



Installation



Cut Out Dimensions

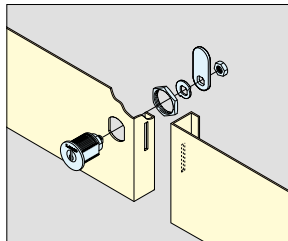
No.	Part Name	Material	Finish
①	Body	Brass	Chrome
②	Cam		Yellow Zinc Chromate
③	Key	Brass/ABS	Nickel/Black

Item No.	Metal Thickness (mm)	Keys Included	Weight (g)	Box (pcs)	Carton (pcs)
DCY-34	0.8~13 (1/32"~1/2")	2	101	12	60

SHEET METAL CAM LOCK

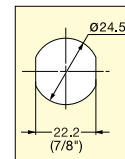
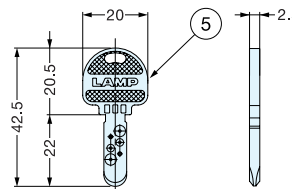
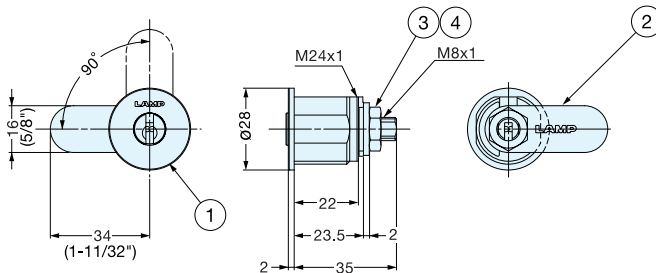


3800S



Installation

- High corrosion resistance.
- Reversible key.
- Key is removable in locked position only. (Key works as a knob in unlocked position.)
- Universal direction - Cam direction changeable.
- 300 key changes available; Please specify keyed alike or differently when ordering.
- Master key type available at surcharge.



Cut Out Dimensions

No.	Part Name	Material	Finish
①	Body	303 Stainless Steel	Satin
②	Cam	304 Stainless Steel	Plain
③	Small Hex Nut	303 Stainless Steel	
④	Washer	304 Stainless Steel	
⑤	Key	Nickel Silver	

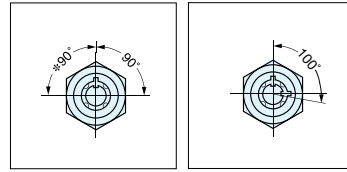
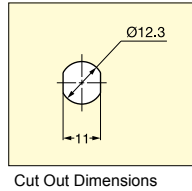
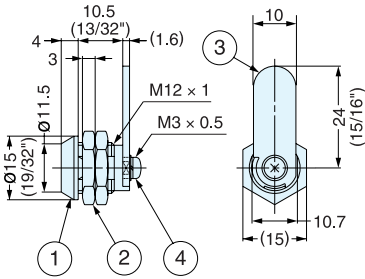
Item No.	Metal Thickness (mm)	Keys Included	Weight (g)	Box (pcs)	Carton (pcs)
3800S	2~10 (5/64"~3/8")	2	119	12	60

SHEET METAL MINI CAM LOCK

NAL-S



- Mini zinc alloy cylinder cam lock for sheet metal doors.
- 90 degrees cam rotation.
- Cam is reversible.
- NAL-S-1: Key withdrawals in locked position only. (Key works as a knob in unlocked position.)
- NAL-S-2: Key withdrawals in both locked and unlocked positions.
- Keyed alike only. Keyed differently type available upon request. (Special order)
- * Cam should be horizontal when unlocked, and should be pointing upwards when locked.
- * Not suitable for compression latch situation.
- * Pressure to cam may cause damage to cylinder.



*Turn the cam (3) over to use NAL-S as a counterclockwise turn lock.

No.	Part Name	Material	Finish
①	Body	Zinc Alloy	Chrome
②	Hex Nut	Steel	Chromate
③	Cam		Chrome
④	Screw		Chromate
⑤	Key		Chrome
⑥	Key Ring	304 Stainless Steel	Plain

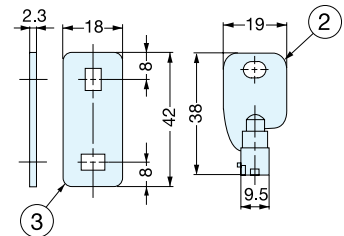
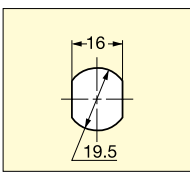
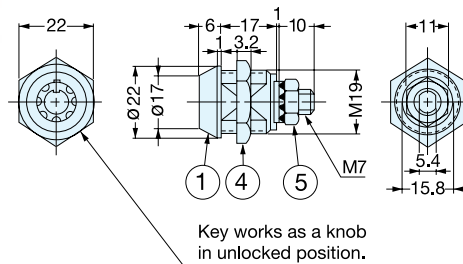
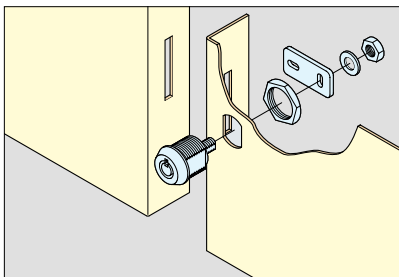
Item No.	Number of Slot (s)	Cylinder Diameter	Key Changes	Keys Included	Weight (g)	Box (pcs)	Carton (pcs)
NAL-S-1	1	12 (1/2") / Width 10.7 (7/16")	100	2	25	100	500
NAL-S-2	2	12 (1/2") / Width 10.7 (7/16")					

SHEET METAL CAM LOCK

NAL



- Brass cylinder tubular cam lock for sheet metal doors.
- 90 degree cam rotation.
- Key is removable in locked position only. (Key acts as a knob in un-locked position.)
- Please specify key No. or combination when ordering if necessary.
- 5,000 key changes available; Please specify keyed alike or differently when ordering.



No.	Part Name	Material	Finish
①	Body	Brass	Chrome
②	Key	Steel	Nickel
③	Cam	Brass	Yellow Zinc Chromate
④	Hex Nut		
⑤			

Item No.	Door Thickness (mm)	Cylinder Diameter	Key Changes	Keys Included	Weight (g)	Box (pcs)	Carton (pcs)
NAL	Max.10 (3/8")	19 (3/4")/Width 15.8 (5/8")	5000	2	55	100	300

HIGH SECURITY CABINET CYLINDER LOCK (w/ round stem key)

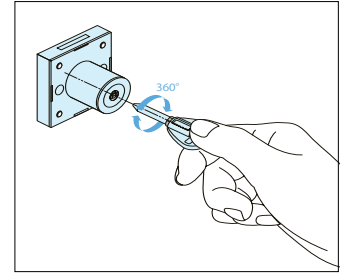


7110

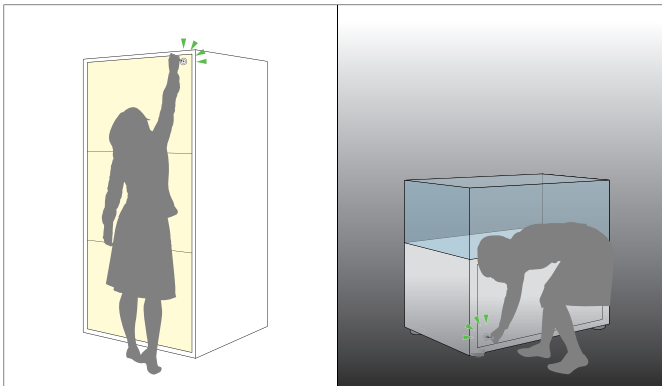


- Round stem dimple key is difficult to duplicate, and the cylinder lock is difficult to pick, adding additional security.
- Key can be easily inserted into the lock at any angle.
- Lock is non-handed, and can be installed on cabinet drawers, swinging doors, display cases, or cabinets for safes.
- Includes 3 keys, counterplate and wood screws for installation.
- Specify keyed alike or different when ordering.
- Maximum 500,000 key changes available.
- Master keying options available by special order.

Unlike regular keys, these keys can be inserted at any angle.

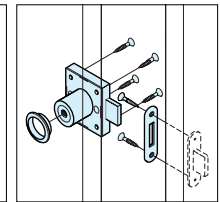
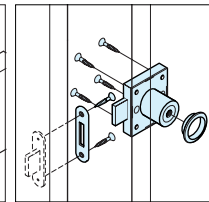
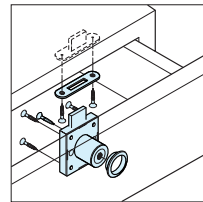


Insert key easily in cabinets that are difficult to access.



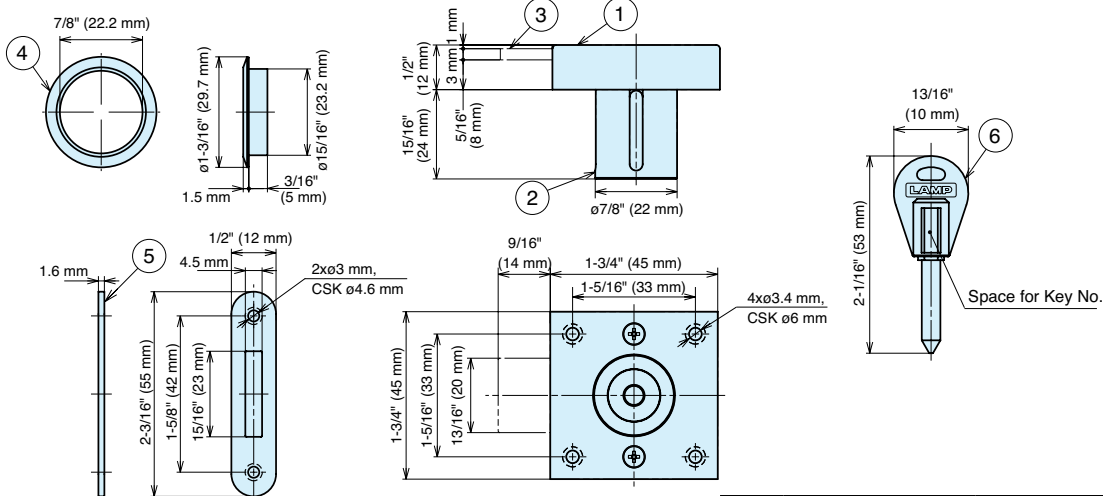
Drawer Application

Swing Door Application



Right handed door

Left handed door



No.	Part Name	Material	Finish
①	Body	304 Stainless Steel	Plain
②	Cylinder	Brass	Nickel
③	Dead Bolt	304 Stainless Steel	Plain
④	Ring	Brass	Nickel
⑤	Strike	Steel	
⑥	Key	304 Stainless Steel, Polyacetal (POM)	Plain

Item No.	Metal Frame Thickness	Cylinder Diameter	Weight (g)	Box (pcs)	Carton (pcs)
7110-24-DN	7/8"~15/16" (22~24 mm)	7/8" (22 mm)	160	12	60



CASTERS & LEVELING GLIDES

TWIN WHEEL CASTERS
DUAL BRAKE SYSTEM CASTERS
LOW PROFILE HEAVY DUTY CASTERS
CASTER WITH LEVELING GLIDES
LEVELING GLIDES
ACCESSORIES

TWIN WHEEL CASTERS

Picture	Item No.	Load Capacity	Wheel Diameter	Page
	FA-45-PS, P (PLATE)	110 (lbs)	1-57/64"	644
	FP-45-PS, P (PLATE)	88 (lbs)	1-57/64"	644
	FP-45-NS, N (THREADED BOLT)	88 (lbs)	1-57/64"	645
	FP-55-PS, P (THREADED BOLT)	110 (lbs)	2-3/32"	645
	FAU-55-NS, N (THREADED BOLT)	154 (lbs)	2-3/32"	646
	GX-75-PS, P (PLATE)	438 (lbs)	2-61/64"	647
	GX-W50K (NON-SWIVEL)	441 (lbs)	1-31/32"	647
	GX-W50GN12, GN16, GP (THREADED BOLT & PLATE)	441 (lbs)	1-31/32"	647
	GX-50-PS, P (PLATE)	220 (lbs)	1-31/32"	648
	GX-50-N12S, N12 (THREADED BOLT)	220 (lbs)	1-31/32"	648
	GX-60-PS, P (PLATE)	330 (lbs)	2-23/64"	649
	GX-60-N12S, N12 (THREADED BOLT)	330 (lbs)	2-23/64"	649

SINGLE WHEEL CASTERS

Picture	Item No.	Load Capacity	Wheel Diameter	Page
	PLN50P (PLATE)	176 (lbs)	1-31/32"	646
	PLN50N10 (PLATE)	176 (lbs)	1-31/32"	646

DUAL BRAKE SYSTEM CASTERS

Picture	Item No.	Load Capacity	Wheel Diameter	Page
	EX-100PS, P (PLATE)	220 (lbs)	3-15/16"	650
	EX-100N (THREADED BOLT)	220 (lbs)	3-15/16"	650
	MX-125PS, P (PLATE)	264 (lbs)	4-15/16"	651
	MX-125N (THREADED BOLT)	264 (lbs)	4-15/16"	651























LOW PROFILE HEAVY DUTY CASTERS

Picture	Item No.	Load Capacity	Wheel Diameter	Page
	UHG (PLATE)	898~1795 (lbs)	1-31/32" ~3-15/16"	652
	HG (PLATE)	359~719 (lbs)	1-31/32" ~2-61/64"	652
	HR (NON-SWIVEL)	359~561 (lbs)	1-31/32" ~2-61/64"	653





CASTER WITH LEVELING GLIDES

Picture	Item No.	Load Capacity	Wheel Diameter	Page
	AF-50, 60 (HEAVY DUTY)	561 (lbs)	1-31/32" ~2-9/16"	654
	CA (PARTS SEPARABLE)	132~264 (lbs)	1-31/32" ~2-61/64"	655

LEVELING GLIDES

Picture	Item No.	Load Capacity (lbs)	Height	Page
	ADPS  	660~1938	3" ~8-5/16"	656
	ADCS  	660~1938	5-45/64"~8-17/64"	656
	MKP 	264~352	1-27/64"~1-15/32"	657
	MKPS   	440~881	1-27/64"~2-1/32"	657
	MKR (W/RUBBER PAD) 	88~132	1-27/64"~1-15/32"	658
	MKRS (W/RUBBER PAD)  	88~220	1-27/64"~2-1/32"	659
	MKPLS (LONG STEM)  	440~748	3-13/16"~3-15/16"	660
	MKRLS (LONG STEM)   	176~220	3-13/16"~3-15/16"	660
	MN  	264~352	1-37/64"~1-31/32"	661
	RP 	132~1368	1-7/32"~2-5/8"	661
	TG 	220~396	53/64"~1-1/32"	662
	TN 	308	3-3/16"~3-1/4"	663
	EA (PARTS SEPARABLE) 	110~594	1-7/32"~2-1/64"	663
	SAJ30 (AUTOMATIC HEIGHT ADJUSTING)	110	1-19/64"~1-47/64"	664
	MKR-N	132~176	1-13/32"~2-3/8"	665
	MKR-N32	100	1-7/8"	665
	MDSF	4pcs:450~1687	2-5/8"~5-11/16"	666

ACCESSORIES

Picture	Item No.	Load Capacity (lbs)	Thread Size	Page
	AD-438 	110	M8	667
	AP-36  	-	W3/8, M8, M10, M12	667
	KD-555 	-	W5/16, W3/8, W1/2, M10	667

TWIN WHEEL CASTER (PLATE TYPE)



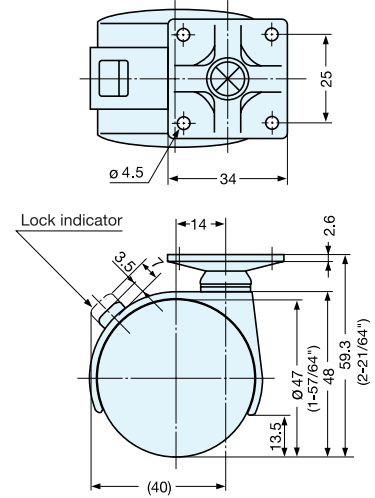
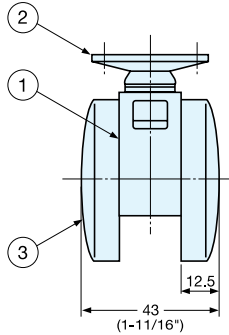
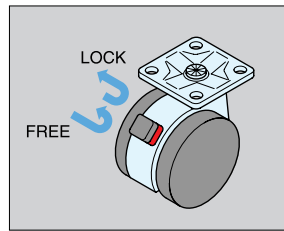
FA-45-PS, P

• Light & durable aluminum body construction.



FA-45-PS
(w/ Brake)

FA-45-P
(w/o Brake)



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
FA-45-PS	50 (110 lbs)	117	4	100
FA-45-P	50 (110 lbs)	113		

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Silver
②	Mounting Plate	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide	Black

TWIN WHEEL CASTER (PLATE TYPE)



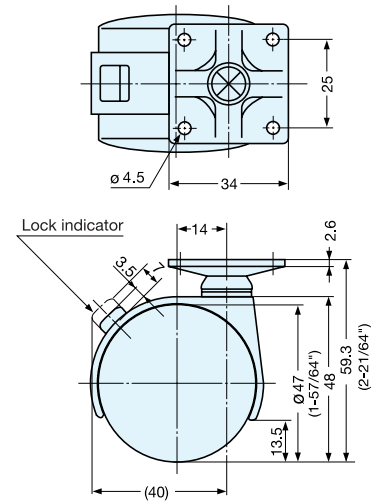
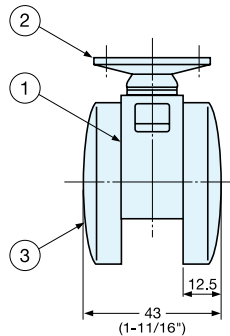
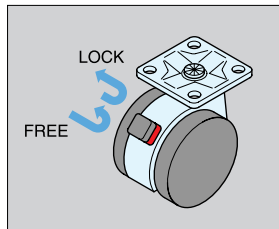
FP-45-PS, P

• Caster with high quality polyamide body.
Excellent durability, chemical / weather / wear resistance.



FP-45-PS
(w/ Brake)

FP-45-P
(w/o Brake)



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
FP-45-PS	40 (88 lbs)	98	4	100
FP-45-P	40 (88 lbs)	94		

No.	Part Name	Material	Finish
①	Body	Polyamide	Black
②	Mounting Plate	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide	Black

TWIN WHEEL CASTER (THREADED BOLT TYPE)



LOAD CAPACITY
40 kg
88 lbs

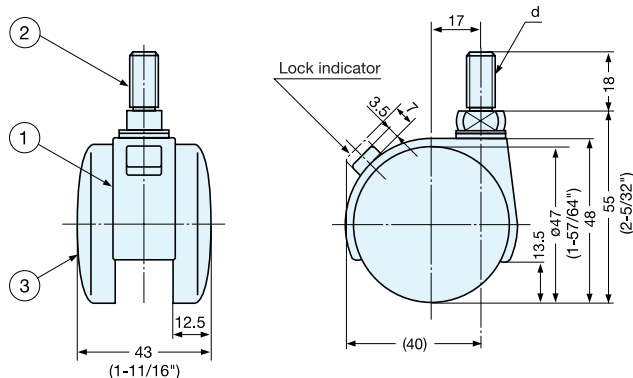
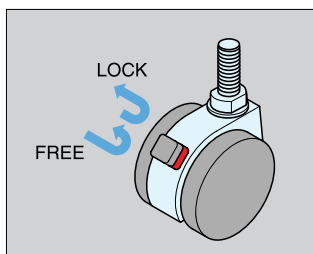
FP-45-NS, N



FP-45-NS
(w/ Brake)

FP-45-N
(w/o Brake)

• Caster with high quality polyamide body. Excellent durability, chemical/weather/wear resistance.



Item No.	d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
FP-45-NS	W3/8-16UNC	40 (88 lbs)	84	4	100
FP-45-N	W3/8-16UNC	40 (88 lbs)	79		

No.	Part Name	Material	Finish
①	Body	Polyamide	Black
②	Threaded Bolt	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide	Black

TWIN WHEEL CASTER (PLATE TYPE)



LOAD CAPACITY
50 kg
110 lbs



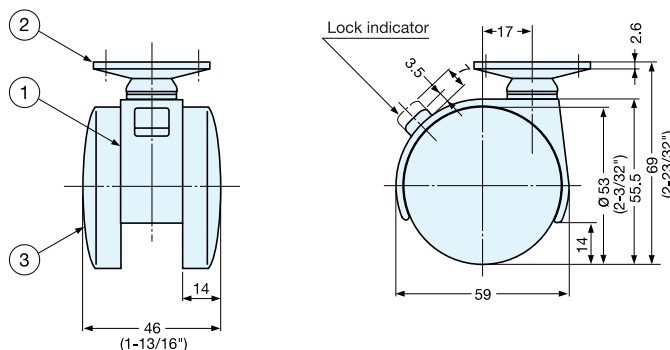
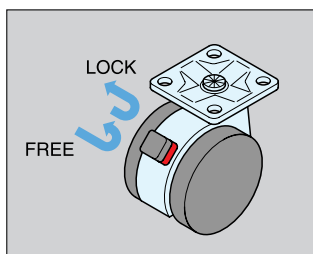
FP-55-PS, P



FP-55-PS
(w/ Brake)

FP-55-P
(w/o Brake)

• Caster with high quality polyamide body. Excellent durability, chemical/weather/wear resistance.



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
FP-55-PS	50 (110 lbs)	133	4	72
FP-55-P	50 (110 lbs)	128		

No.	Part Name	Material	Finish
①	Body	Polyamide	Black
②	Mounting Plate	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide	Black

TWIN WHEEL CASTER (THREADED BOLT TYPE)



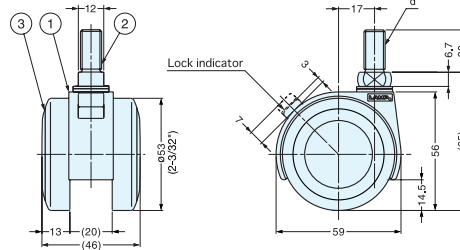
FAU-55-NS, N



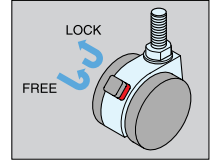
FAU-55-N
(w/o Brake)



FAU-55-NS
(w/ Brake)



- Wheels are covered with elastomer (rubber) for smooth and quiet movement, by absorbing vibration.
- Light & durable aluminum body construction.



No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Silver
②	Threaded Bolt	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide, Elastomer	Black

Item No.	d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
FAU-55-NS	W3/8-16UNC	70 (154 lbs)	155	4	72
FAU-55-N	W3/8-16UNC	70 (154 lbs)	151		

CASTER (PLATE TYPE)



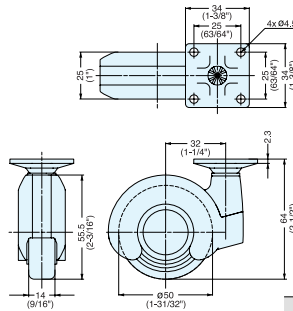
PLN50P



PLN50PCR



PLN50PBL



- Sleek contemporary design, available in Black (BL) or Chrome (CR)
- Ball-bearing type caster for exceptionally smooth movement.

Part Name	Material	Finish
Body	Zinc Alloy	BL=Black, CR=Chrome
Plate	Steel	Yellow Zinc Chromate
Wheel	Polyamide	Black

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PLN50PBL	80 (176 lbs)	220	1	28
PLN50PCR				

CASTER (THREADED BOLT TYPE)



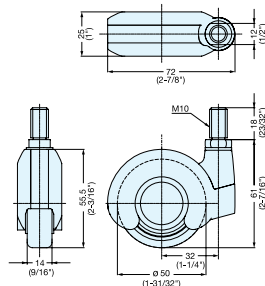
PLN50N10



PLN50N10CR



PLN50N10BL



- Sleek contemporary design, available in Black (BL) or Chrome (CR)
- Ball-bearing type caster for exceptionally smooth movement.

Part Name	Material	Finish
Body	Zinc Alloy	BL=Black, CR=Chrome
Plate	Steel	Yellow Zinc Chromate
Wheel	Polyamide	Black

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
PLN50N10BL	80 (176 lbs)	203	1	40
PLN50N10CR				

TWIN WHEEL CASTER (PLATE TYPE)

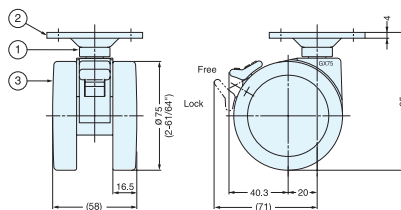


GX-75-PS, P



GX-75-P
(w/o Brake)

GX-75-PS
(w/ Brake)



- Heavy duty and low profile.
- Twin wheel caster with excellent stability.

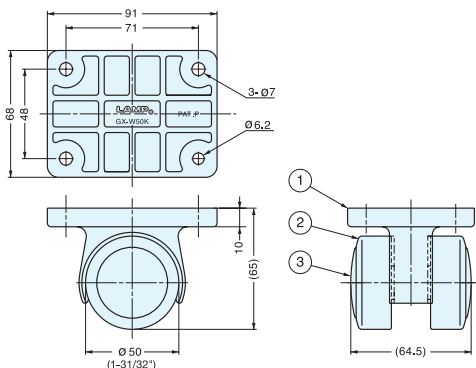
Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
GX-75-PS	200 (438 lbs)	445	2	24
GX-75-P	200 (438 lbs)	430		

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Polished
②	Mounting Plate	Steel	Zinc Chromate
③	Wheel	Polyamide	Black

TWIN WHEEL CASTER (NON-SWIVEL)



GX-W50K



- Non-swivel (fixed) caster.
- Heavy duty and low profile.
- Twin wheel caster with excellent stability.
- Use in combination with GX-W50GN12, GN16 or GP (Swivel Type) for easy handling.

Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
GX-W50K	200 (441 lbs)	300	2	48

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Polished
②	Wheel	Polyacetal	Black
③	Cover	Polyamide	

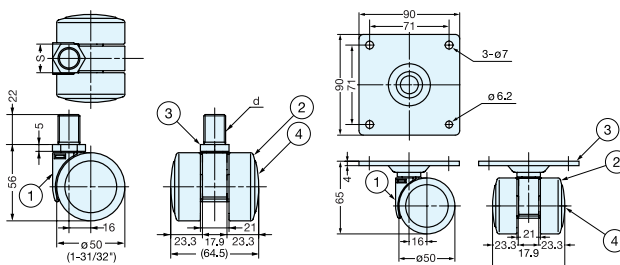
TWIN WHEEL CASTER (THREADED BOLT & PLATE)



GX-W50GN12, GN16, GP



GX-W50GN12, GN16
(Threaded bolt type)



GX-W50GN12, GN16

GX-W50GP

- Swivel type, heavy duty and low profile.
- Twin wheel caster with excellent stability.
- Use in combination with GX-W50K (Non-swivel type) for easy handling.
- Threaded bolt or plate type available.

Item No.	d	S	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
GX-W50GN12	M12 x 1.75	19	200 (441 lbs)	208	4	80
GX-W50GN16	M16 x 2.0	21		223		
GX-W50GP	-	-		420	2	40

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Polished
②	Wheel	Polyacetal	Black
③	Threaded Bolt Mounting Plate (GP)	Steel	Yellow Zinc Chromate
④	Cover	Polyamide	Black

TWIN WHEEL CASTER (PLATE TYPE)

LOAD CAPACITY
100 kg
220 lbs

TEST 13
P.698



GX-50-PS, P

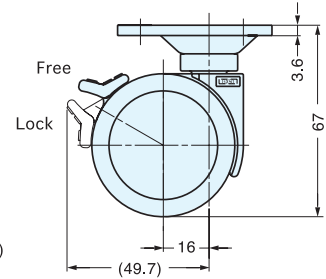
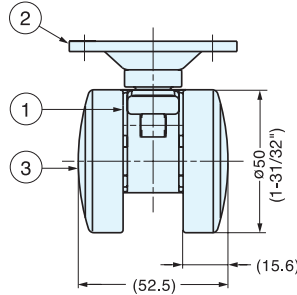
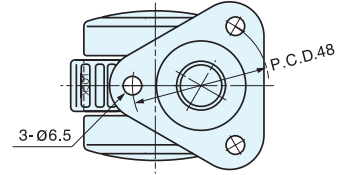
- Heavy duty and low profile.
- Twin wheel caster with excellent stability.



GX-50-P
(w/o Brake)



GX-50-PS
(w/ Brake)



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
GX-50-PS	100 (220 lbs)	235	4	72
GX-50-P	100 (220 lbs)	230		

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Polished
②	Mounting Plate	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide	Black

TWIN WHEEL CASTER (THREADED BOLT TYPE)

LOAD CAPACITY
100 kg
220 lbs

TEST 13
P.698

GX-50-N12S, N12

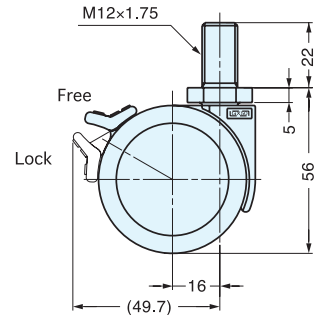
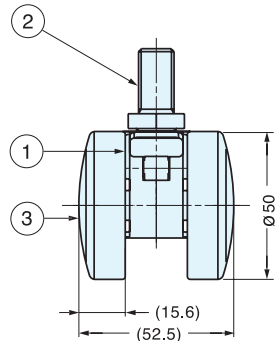
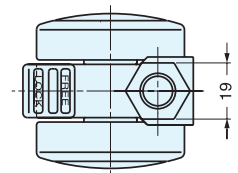
- Heavy duty and low profile.
- Twin wheel caster with excellent stability.



GX-50-N12
(w/o Brake)



GX-50-N12S
(w/ Brake)



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
GX-50-N12S	100 (220 lbs)	175	4	72
GX-50-N12	100 (220 lbs)	170		

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Polished
②	Threaded Bolt	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide	Black

TWIN WHEEL CASTER (PLATE TYPE)



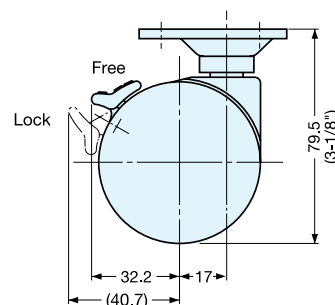
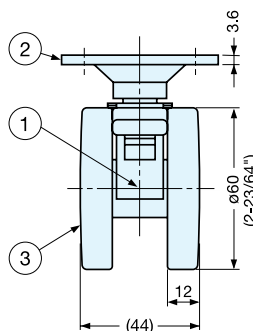
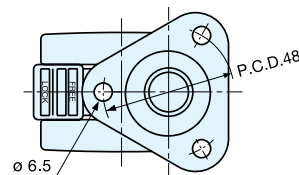
GX-60-PS, P

- Heavy duty and low profile.
- Twin wheel caster with excellent stability.



GX-60-P
(w/o Brake)

GX-60-PS
(w/ Brake)



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
GX-60-PS	150 (330 lbs)	234	4	60
GX-60-P	150 (330 lbs)	229		

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Polished
②	Mounting Plate	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide	Black

TWIN WHEEL CASTER (THREADED BOLT TYPE)



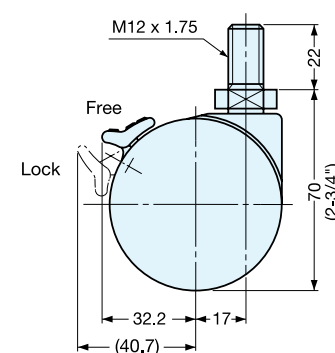
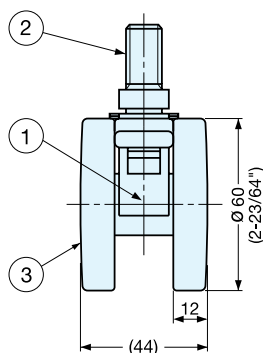
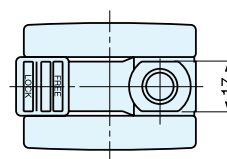
GX-60-N12S, N12

- Heavy duty and low profile.
- Twin wheel caster with excellent stability.



GX-60-N12
(w/o Brake)

GX-60-N12S
(w/ Brake)



Item No.	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
GX-60-N12S	150 (330 lbs)	185	4	60
GX-60-N12	150 (330 lbs)	180		

No.	Part Name	Material	Finish
①	Body	Aluminum Alloy	Polished
②	Threaded Bolt	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide	Black

DUAL BRAKE SYSTEM CASTER (PLATE TYPE)

LOAD CAPACITY
100 kg
220 lbs

TEST 13
P.698

NO SCREW

EX-100PS, P



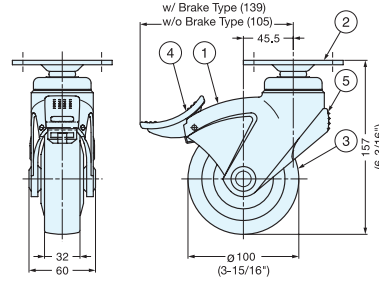
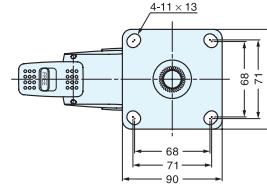
EX-100P
(w/o Brake)

EX-100PS
(w/Brake)



Lock Indicator

- Locks both wheel and swivel.
- Ball bearing equipped in both swivel and wheel to provide maximum smooth movement.
- Front rubber bumper protects from impact.
- Large brake lever and indicator for easy operation.



Item No.		Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
EX-100PS	w/Brake	100 (220 lbs)	919	20	200
EX-100P	w/o Brake		877		

No.	Part Name	Material	Finish
①	Body	Polyamide	Light Grey
②	Mounting Plate	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide Polyurethane	Grey
④	Brake	Polyamide	
⑤	Rear Bumper	Elastomer	

DUAL BRAKE SYSTEM CASTER (THREADED BOLT TYPE)

LOAD CAPACITY
100 kg
220 lbs

TEST 13
P.698

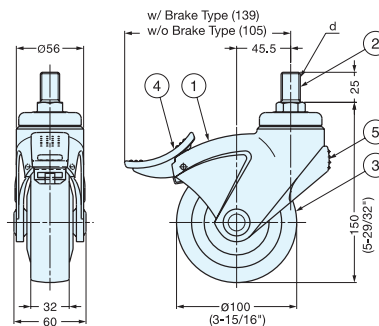
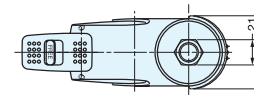
EX-100N



(w/o Brake)

(w/Brake)

- Locks both wheel and swivel.
- Ball bearing equipped in both swivel and wheel to provide maximum smooth movement.
- Front rubber bumper protects from impact.
- Large brake lever and indicator for easy operation.



Item No.		d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
EX-100N12S	w/Brake	M12×1.75	100 (220 lbs)	703	20	200
EX-100N12	w/o Brake	M12×1.75		658		
EX-100N16S	w/Brake	M16×2.0		703		
EX-100N16	w/o Brake	M16×2.0		658		

No.	Part Name	Material	Finish
①	Body	Polyamide	Light Grey
②	Threaded Bolt	Steel	Yellow Zinc Chromate
③	Wheel	Polyamide Polyurethane	Grey
④	Brake(w/Brake type)	Polyamide	
④	Front Bumper(w/o Brake type)	Elastomer	
⑤	Rear Bumper	Elastomer	

DUAL BRAKE SYSTEM CASTER (PLATE TYPE)



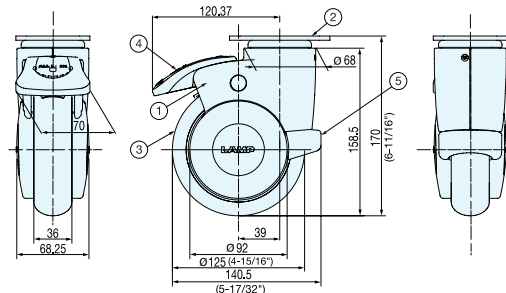
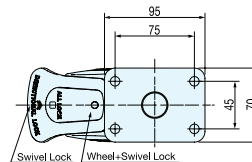
MX-125PS, P



w/o Brake

w/Brake

- Caster with clean appearance.
- Dual brake system.
Can be locked on "swivel only" or "wheel and swivel" in one step.
Large lock lever for swivel, and small lock lever for wheel.
- Easy operation.
- Works as rigid type when swivel locked for easy movability.



Item No.		Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MX-125PS	w/Brake	120 (264 lbs)	1450	2	8
MX-125P	w/o Brake		1350		

No.	Part Name	Material	Finish
①	Body	Polypropylene	Light Grey
②	Mounting Plate	Steel	Chromate
③	Wheel	Nylon/Polyurethane	Dark Grey
④	Brake	Nylon	Blue
⑤	Rear Bumper	Polyurethane	Dark Grey

DUAL BRAKE SYSTEM CASTER (THREADED BOLT TYPE)



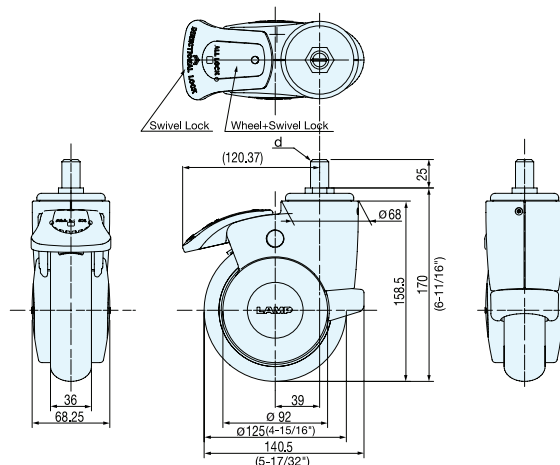
MX-125N



w/o Brake

w/Brake

- Caster with clean appearance.
- Dual brake system.
Can be locked on "swivel only" or "wheel and swivel" in one step.
Large lock lever for swivel, and small lock lever for wheel.
- Easy operation.
- Works as rigid type when swivel locked for easy movability.



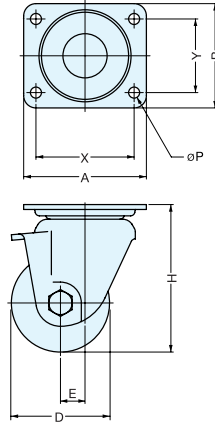
Item No.		d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MX-125N16S	w/Brake	M16×2	120 (264 lbs)	1310	2	8
MX-125N16	w/o Brake			1210		

No.	Part Name	Material	Finish
①	Body	Polypropylene	Light Grey
②	Threaded Bolt	Steel	Chromate
③	Wheel	Nylon/Polyurethane	Dark Grey
④	Brake	Nylon	Blue
⑤	Rear Bumper	Polyurethane	Dark Grey

LOW PROFILE HEAVY DUTY CASTER



UHG



- Low profile and heavy duty up to 816kg (1795 lbs), ideal for manufacturing equipment.
- Sealed ball bearing swivel assembly provides smooth and long-term service.
- Hexavalent chromium free. Using trivalent chromium for RoHS compliance.
- Choose wheel type from Phenolic, Reinforced Nylon, MC Nylon or Electro-conductive MC Nylon.
- All wheels equipped with heavy duty ball bearing.

*Please specify wheel type when ordering.

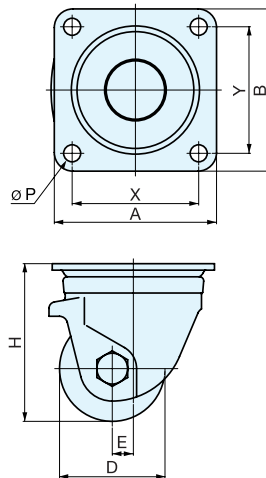
Part Name	Material	Finish
Body / Mounting Plate	Steel	Clear Zinc Chromate (Trivalent Chromium)
Wheel	Phenolic Resin (PB)	Black
	Reinforced Nylon (GFB)	
	MC Nylon (MC)	
	Electro-conductive MC Nylon (MCE)	

Item No.	Bearing in wheels	D	Wheel Width	H	A	B	X	Y	P	E	Swivel Radius	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
UHG-50 (PB,MC,MCE)	With Bearing	50	38	79	84	84	64	64	8.5	11	49	408 (898 lbs)	820	20	200
UHG-65 (PB,GFB,MC,MCE)		65	48	97	100	100	78	78	10.5	14	57	510 (1122 lbs)	1540	12	120
UHG-75 (PB,GFB,MC,MCE)		75	48	107	100	100	78	78	10.5	14	57	612 (1347 lbs)	1625	12	120
UHG-80MC		80	48	120	100	85	80	60	9.0	20	62	816 (1795 lbs)	1680	12	120
UHG-100MC		100	48	140	150	110	121	59	13.0	20	72	816 (1795 lbs)	2160	8	80

LOW PROFILE HEAVY DUTY CASTER



HG



- Low profile and heavy duty up to 255 kg (561 lbs), ideal for manufacturing equipment.
- Hardened frame for maximum rigidity and strength.
- Sealed ball bearing swivel assembly provides smooth and long-term service.
- Hexavalent chromium free. Using trivalent chromium for RoHS compliance.
- Two wheel types:
 - Phenolic
 - Reinforced Nylon with ball bearing spindle
- Wheel brake available on special order.

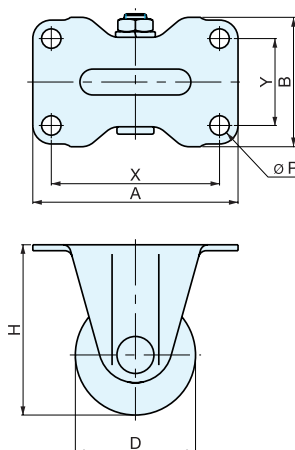
Part Name	Material	Finish
Body	Steel	Clear Zinc Chromate (Trivalent Chromium)
Mounting Plate		
Wheel	Reinforced Nylon(GNB)	Black
	Phenolic Resin(PB)	

Item No.	Bearing in wheels	D	Wheel Width	H	A	B	X	Y	P	E	Swivel Radius	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
HG-50GNB	Without Bearing	50	28	68	50	50	64	64	6.5	25	51	163 (359 lbs)	320	36	600
HG-65PB	With Bearing	65	38	92	90	90	71	71	10.5	22	57	306 (675 lbs)	880	20	200
HG-75PB		75	38	106	90	90	71	71	10.5	22	61	326 (719 lbs)	970	20	120

LOW PROFILE HEAVY DUTY CASTER



HR



- Low profile and heavy duty up to 255 kg (561 lbs), ideal for manufacturing equipment.
- Hardened frame for maximum rigidity and strength.
- Hexavalent chromium free. Using trivalent chromium for RoHS compliance.
- Two wheel types:
 - Phenolic
 - Reinforced Nylon with ball bearing spindle

Part Name	Material	Finish
Body	Steel	Clear Zinc Chromate (Trivalent Chromium)
Mounting Plate		
Wheel	Reinforced Nylon(GNB)	Black
	Phenolic Resin(PB)	

Item No.	Bearing in wheels	D	Wheel Width	H	A	B	X	Y	P	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
HR-50GNB	Without Bearing	50	28	68	80	50	66	36	6.5	163 (359 lbs)	200	36	600
HR-65PB	With Bearing	65	38	92	111	67	91	47	10.5	234 (516 lbs)	615	12	120
HR-75PB		75	38	106	123	72	103	52	10.5	255 (561 lbs)	725	12	120

CASTER COMBINATION – SET UP

Better



Cost	Stability	Control	Load Capacity
A	B / C	A / B	E
B / C / D	D / E	D / E	B / C / D
E	A	C	A

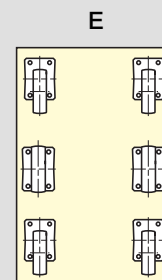
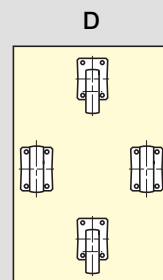
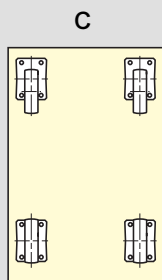
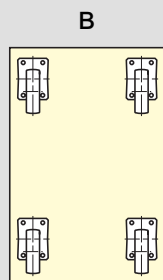
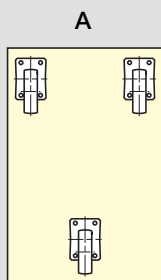
A: TYPE - 3 x Swivel
SET UP - 2 + 1 Triangle

B: TYPE - 4 x Swivel
SET UP - Square

C: TYPE - 2 x Swivel & 2 x Fix
SET UP - Square

D: TYPE - 2 x Swivel & 2 x Fix
SET UP - Rhombus

E: TYPE - 4 x Swivel & 2 x Fix (Middle)
SET UP - Square



CASTER WITH LEVELING GLIDE



AF-50, 65

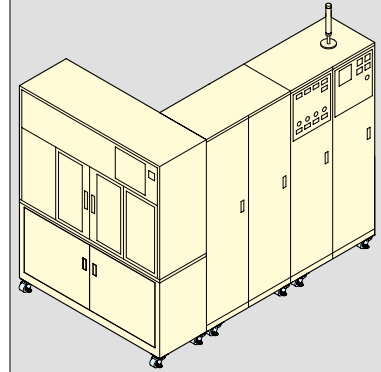
CASTERS & LEVELING GLIDES

CASTERS WITH LEVELING GLIDES

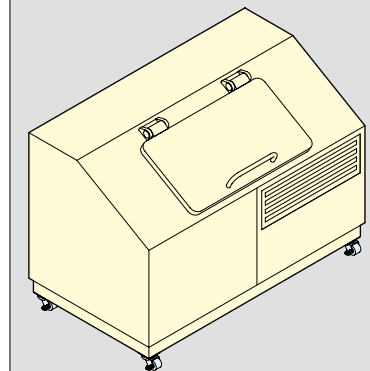
- Heavy duty, low profile caster with built-in leveling glide.
- Allows solid support by leveler once equipment is in place.
- Simplifies mounting as leveler is integrated with caster.



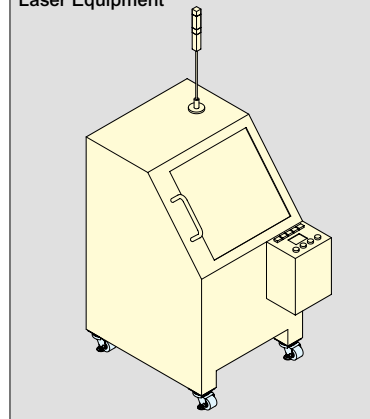
Semiconductor Equipment



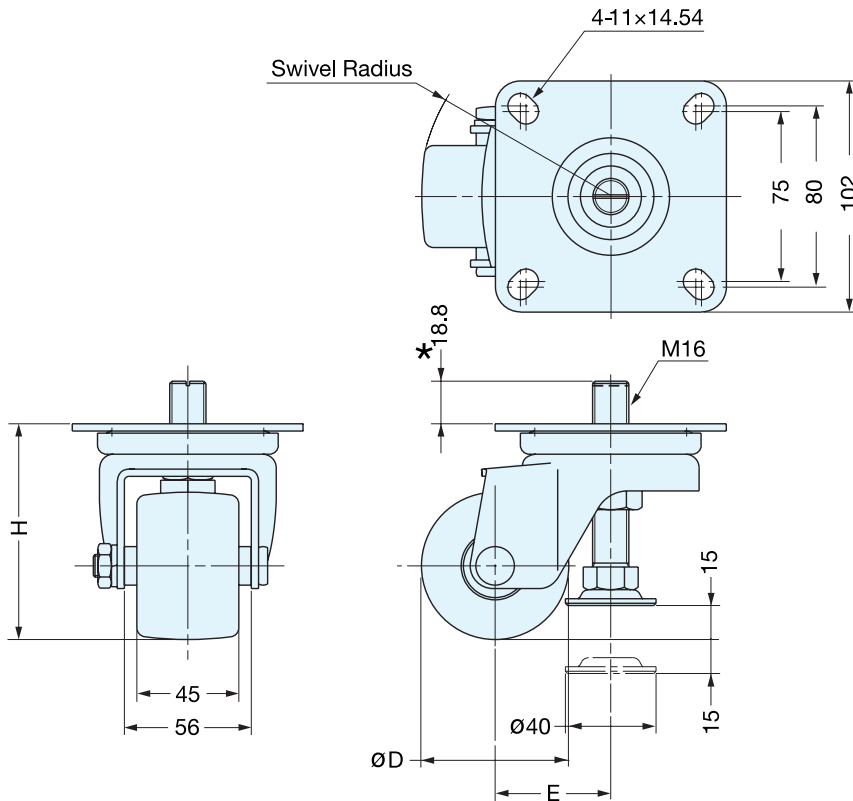
Garbage Container



Laser Equipment



Installation



*Round cut out or bore is required for bolt of leveler.

Part Name	Material	Finish
Body	Steel	Chrome
Wheel	Nylon	Black

Item No.	D	H	E	Swivel Radius	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
AF-50	50	74	46	73	255 (561 lbs)	1205	18	180
AF-65	65	95	51	85	255 (561 lbs)	1335	12	120

PARTS SEPARABLE CASTER (W/GLIDE)



CA

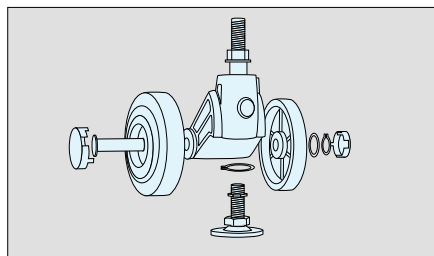
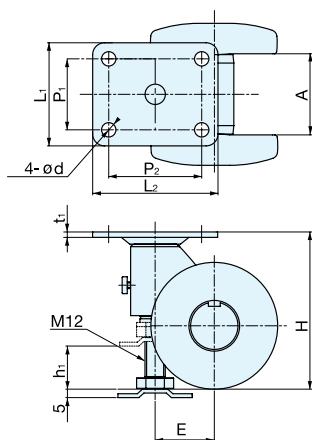
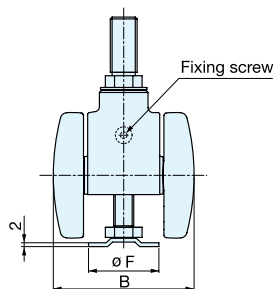
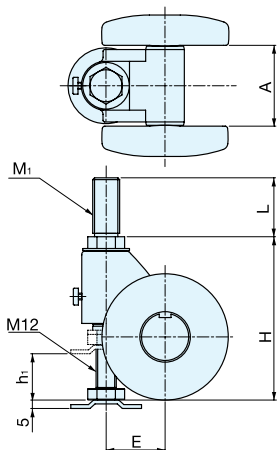


CABF-75/BLK

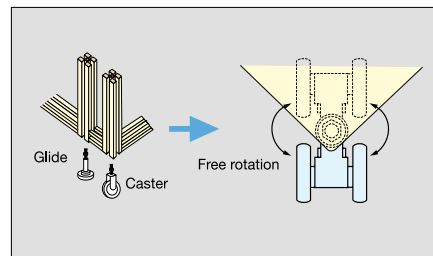


CAPS-50/WHT

- Special order item.
- Built-in leveling glide allows easy installation rather than installing two separate parts.
- Glides provide better stability than regular caster with stopper.
- Caster body rotates freely when raised by the glide. Tighten fixing screw to fix the position.
- Parts can be easily separated for recycling purpose.



• Parts can be easily separated for recycling purpose.



- Built-in leveling glide allows easy installation rather than installing two separate parts.
- Caster body rotates freely when raised by the glide. Tighten fixing screw to fix the position.

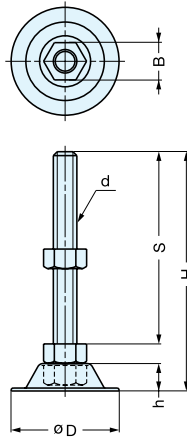
Part Name	Material	
	CABF, CAPF	CABS, CAPS
Body / Wheel	Polyamide (Black, White)	Polyamide (White)
Glide	Steel (Yellow Zinc Chromate)	304 Stainless Steel (Passivated)
Threaded Bolt Plate		

Item No.		Type	H	h ₁	E	F	A	B	L	L ₁	L ₂	P ₁	P ₂	d	t ₁	M ₁	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
Black	White																			
CABF-50/BLK	CABF-50/WHT	Stem	67	10	30	34	40	69	35	-	-	-	-	-	-	M12	60 (132 lbs)	260	40	400
CABF-75/BLK	CABF-75/WHT		95	24	35	42	50	84								M16	120 (264 lbs)	400	20	200
-	CABS-50/WHT		67	10	30	34	40	69								M12	60 (132 lbs)	262	40	400
-	CABS-75/WHT		95	24	35	42	50	84								M16	120 (264 lbs)	402	20	200
CAPF-50/BLK	CAPF-50/WHT	Plate	63	10	30	34	40	69	-	61	74	42	55	8.5	3.2	-	60 (132 lbs)	306	40	400
CAPF-75/BLK	CAPF-75/WHT		92	24	35	42	50	84									120 (264 lbs)	424	20	200
-	CAPS-50/WHT		63	10	30	34	40	69									60 (132 lbs)	300	40	400
-	CAPS-75/WHT		92	24	35	42	50	84									120 (264 lbs)	420	20	200

STAINLESS STEEL LEVELING GLIDE



ADPS



• Nut on bottom of glide allows easy installation and height adjustment with socket wrench.

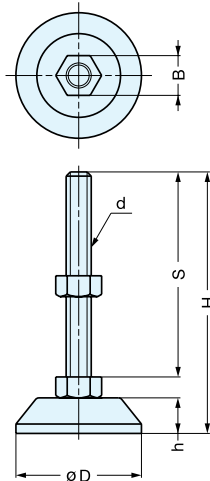
Material	Finish
304 Stainless Steel	Polished

Item No.	D	H	h	S	B	d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
ADPS37- 8- 60	37 (1-26/64")	76 (3")	10.5	60	13	M 8 x 1.25	300 (660 lbs)	56	200	2000
ADPS37-10- 50	37 (1-26/64")	67.5 (2-21/32")	10.5	50	17	M10 x 1.5	300 (660 lbs)	78	200	2000
ADPS55-12-100	55 (2-5/32")	122 (4-13/16")	14.0	100	19	M12 x 1.75	300 (660 lbs)	174	100	1000
ADPS55-12-120	55 (2-5/32")	142 (5-19/32")	14.0	120	19	M12 x 1.75	300 (660 lbs)	187	80	800
ADPS55-12-150	55 (2-5/32")	172 (6-25/32")	14.0	150	19	M12 x 1.75	300 (660 lbs)	210	70	700
ADPS75-16-100	75 (2-61/64")	128 (5-1/32")	18.0	100	24	M16 x 2.0	560 (1233 lbs)	318	50	500
ADPS75-16-130	75 (2-61/64")	158 (6-7/32")	18.0	130	24	M16 x 2.0	560 (1233 lbs)	358	40	400
ADPS75-16-150	75 (2-61/64")	178 (7")	18.0	150	24	M16 x 2.0	560 (1233 lbs)	382	30	300
ADPS75-16-180	75 (2-61/64")	208 (8-3/16")	18.0	180	24	M16 x 2.0	560 (1233 lbs)	426	30	300
ADPS75-20-100	75 (2-61/64")	131 (5-5/32")	18.0	100	30	M20 x 2.5	880 (1938 lbs)	490	40	400
ADPS75-20-130	75 (2-61/64")	161 (6-11/32")	18.0	130	30	M20 x 2.5	880 (1938 lbs)	553	30	300
ADPS75-20-150	75 (2-61/64")	181 (7-1/8")	18.0	150	30	M20 x 2.5	880 (1938 lbs)	593	30	300
ADPS75-20-180	75 (2-61/64")	211 (8-5/16")	18.0	180	30	M20 x 2.5	880 (1938 lbs)	655	25	250

STAINLESS STEEL LEVELING GLIDE



ADCS



• Nut on bottom of glide allows easy installation and height adjustment with socket wrench.

Material	Finish
304 Stainless Steel	Plain

Item No.	D	H	h	S	B	d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
ADCS60-12-120	60 (2-23/64")	145 (5-45/64")	17	120	19	M12 x 1.75	300 (660 lbs)	365	35	350
ADCS60-16-100	60 (2-23/64")	127 (5")	17	100	24	M16 x 2.0	560 (1233 lbs)	440	25	250
ADCS60-16-130	60 (2-23/64")	157 (6-3/16")	17	130	24	M16 x 2.0	560 (1233 lbs)	480	25	250
ADCS60-16-180	60 (2-23/64")	207 (8-5/32")	17	180	24	M16 x 2.0	560 (1233 lbs)	550	20	200
ADCS60-20-100	60 (2-23/64")	130 (5-1/8")	17	100	30	M20 x 2.5	880 (1938 lbs)	590	20	200
ADCS60-20-130	60 (2-23/64")	160 (6-19/64")	17	130	30	M20 x 2.5	880 (1938 lbs)	650	20	200
ADCS60-20-180	60 (2-23/64")	210 (8-17/64")	17	180	30	M20 x 2.5	880 (1938 lbs)	750	15	150

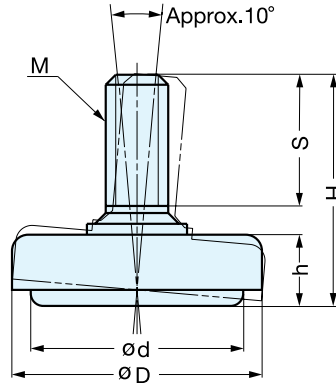
LEVELING GLIDE



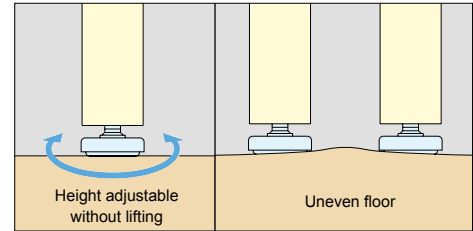
LOAD CAPACITY
120-160 kg
264-352 lbs

TEST 12
P.698

MKP



- Double structure of cover/bolt and base allow easy height adjustment without lifting the leg.
- Swivels approximately 10° to compensate for uneven floors.
- Includes slide base KD-555-28(P.667) at no charge.



Material	Finish
Steel	Chrome

Item No.	M	D	d	H	h	S	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MKP-32	W3/8-16	32 (1-17/64")	27	36.0 (1-27/64")	11.0	21	160 (352 lbs)	44	80	480
MKP-40	W3/8-16	40 (1-37/64")	34	37.0 (1-29/64")	11.4	21	160 (352 lbs)	65	50	300
MKP-50	W3/8-16	50 (1-31/32")	44	37.5 (1-15/32")	11.5	21	120 (264 lbs)	90	20	120

STAINLESS STEEL LEVELING GLIDE

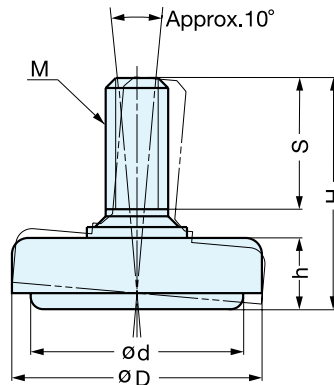


STAINLESS 304 STEEL

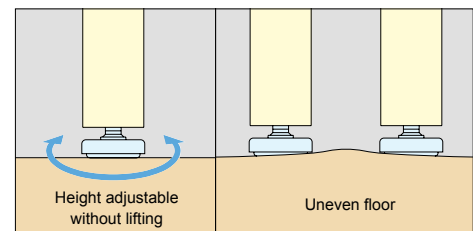
LOAD CAPACITY
200-400 kg
440-881 lbs

TEST 12
P.698

MKPS



- Double structure of cover/bolt and base allow easy height adjustment without lifting the leg.
- Swivels approximately 10° to compensate for uneven floors.
- 304 stainless steel construction is ideal for humid environments or application where corrosion is an issue.



Material	Finish
Stainless Steel	Satin

Item No.	M	D	d	H	h	S	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MKPS-32N3	W3/8-16	32 (1-17/64")	27	36.0 (1-27/64")	11.0	21	200 (440 lbs)	50	60	480
MKPS-40N3	W3/8-16	40 (1-37/64")	34	37.0 (1-29/64")	11.4	21	320 (704 lbs)	70	40	320
MKPS-50N3	W3/8-16	50 (1-31/32")	44	37.5 (1-15/32")	11.5	21	360 (792 lbs)	95	30	240
MKPS-60M12	M12x1.75	60 (2-23/64")	54	51.5 (2-1/32")	11.5	35	400 (881 lbs)	140	15	120

LEVELING GLIDE (W/RUBBER PAD)

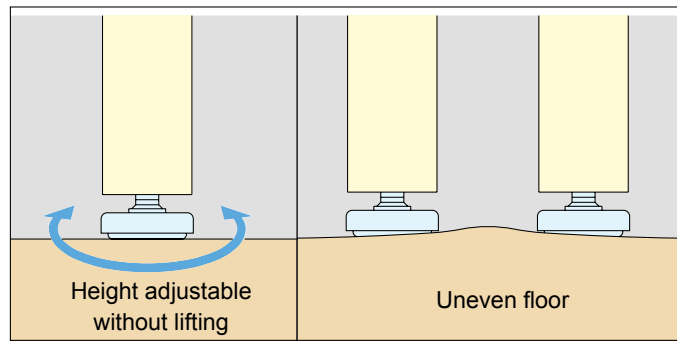
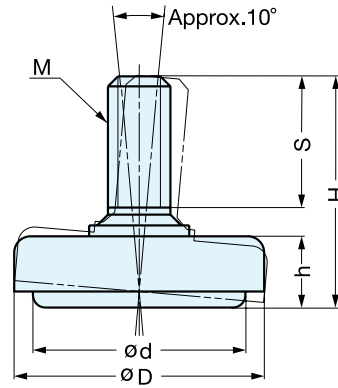
LOAD CAPACITY
40-60 kg
88-132 lbs

MKR

CASTERS & LEVELING GLIDES

LEVELING GLIDES / STAINLESS STEEL LEVELING GLIDES

- Leveling glide with elastomer base to prevent skidding.
- Double structure of cover/bolt and base allow easy height adjustment without lifting the leg.
- Swivels approximately 10° to compensate for uneven floors.
- Includes slide base KD-555-28(P.667) at no charge.



Part Name	Material	Finish
Body	Steel	Chrome
Base	Elastomer	Black

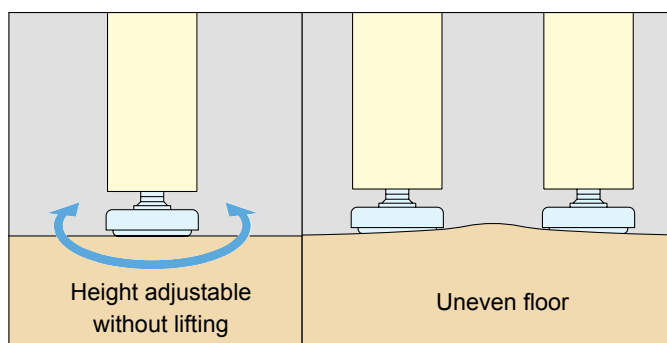
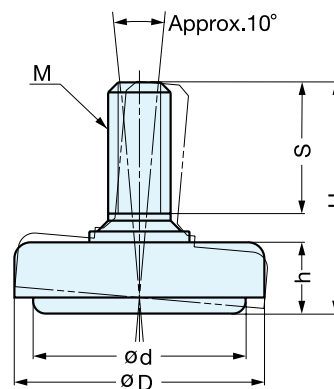
Item No.	M	D	d	H	h	S	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MKR-32	W3/8-16	32 (1-17/64")	27	36.0 (1-27/64")	11.0	21	40 (88 lbs)	41	80	480
MKR-40	W3/8-16	40 (1-37/64")	34	37.0 (1-29/64")	11.4	21	60 (132 lbs)	60	50	300
MKR-50	W3/8-16	50 (1-31/32")	44	37.5 (1-15/32")	11.5	21	60 (132 lbs)	87	20	120

STAINLESS STEEL LEVELING GLIDE (W/RUBBER PAD)



MKRS

- Leveling glide with elastomer base to prevent skidding.
- Double structure of cover/bolt and base allow easy height adjustment without lifting the leg.
- Swivels approximately 10° to compensate for uneven floors.
- 304 stainless steel construction is ideal for humid environments or application where corrosion is an issue.



*** Only Item No.MKRS-50N3 is not RoHS compliant.

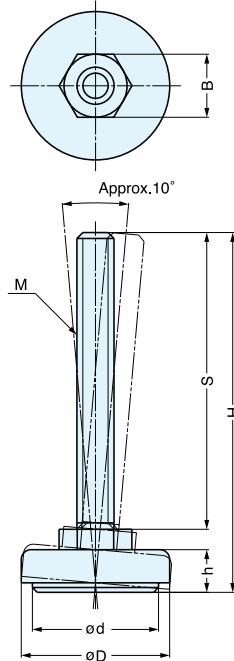
Part Name	Material	Finish
Body	304 Stainless Steel	Satin
Base	Elastomer	Black

Item No.	M	D	d	H	h	S	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MKRS-32N3	W3/8-16	32 (1-17/64")	27	36.0 (1-27/64")	11.0	21	40 (88 lbs)	50	60	480
MKRS-40N3	W3/8-16	40 (1-37/64")	34	37.0 (1-29/64")	11.4	21	80 (176 lbs)	70	40	320
MKRS-50N3	W3/8-16	50 (1-31/32")	44	37.5 (1-15/32")	11.5	21	100 (220 lbs)	90	30	240
MKRS-60M12	M12x1.75	60 (2-23/64")	54	51.5 (2-1/32")	11.5	35	100 (220 lbs)	150	15	120
MKRS-70M14	M14x2	70 (2-3/4")	64	51.5 (2-1/32")	11.5	35	100 (220 lbs)	200	15	120

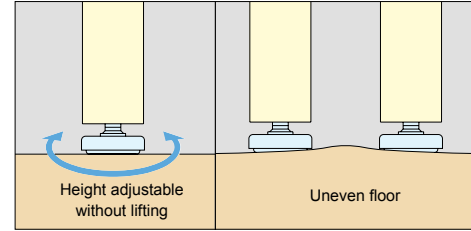
STAINLESS STEEL LONG-STEM LEVELING GLIDE



MKPLS



- Double structure of cover/bolt and base allow easy height adjustment without lifting the leg.
- Swivels approximately 10° to compensate for uneven floors.
- 304 stainless steel construction is ideal for humid environments or application where corrosion is an issue.



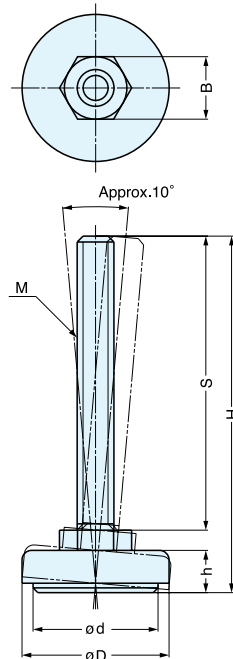
Part Name	Material	Finish
Body	304 Stainless Steel	Satin
Cover		Plain
Base		

Item No.	M	D	d	H	h	S	B	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MKPLS-32/10/80	M10x1.5	32 (1-17/64")	27	96 (3-25/32")	10.5	80.0	17	200 (440 lbs)	79	30	240
MKPLS-40/12/80	M12x1.75	40 (1-37/64")	34	97 (3-13/16")	11.5			300 (660 lbs)	125		
MKPLS-50/12/80		M16x2.0	50 (1-31/32")	44	100 (3-15/16")		78.5	24	340 (748 lbs)	150	20
MKPLS-50/16/78	320 (704 lbs)								220	15	120

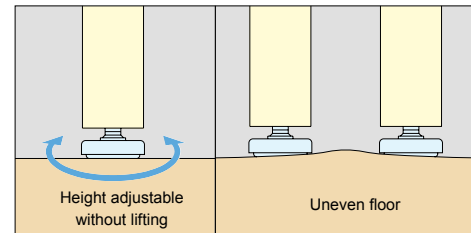
STAINLESS STEEL LONG-STEM LEVELING GLIDE



MKRLS



- Double structure of cover/bolt and base allow easy height adjustment without lifting the leg.
- Swivels approximately 10° to compensate for uneven floors.
- Leveling glide with elastomer base to prevent skidding.



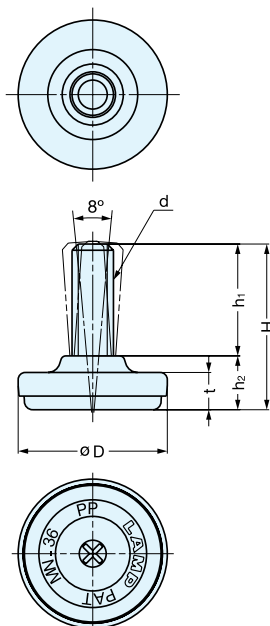
Part Name	Material	Finish
Body	304 Stainless Steel	Satin
Base	Elastomer	Black

Item No.	M	D	d	H	h	S	B	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MKRLS-40/12/80	M12x1.75	40 (1-37/64")	34	97 (3-13/16")	11.5	80.0	17	80 (176 lbs)	120	30	240
MKRLS-50/12/80		50 (1-31/32")	44					100 (220 lbs)	140	20	160

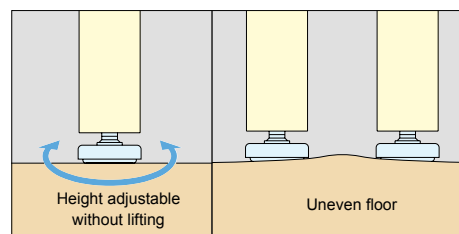
LEVELING GLIDE



MN



- Easy installation with phillips screw driver.
- Swivels approximately 8° to compensate for uneven floors.
- White polypropylene base to prevent floor damage.
- Include glide base.



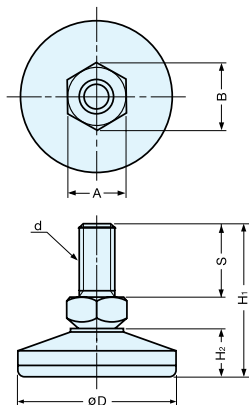
Part Name	Material	Finish
Cover	304 Stainless Steel	Satin
Bolt	Steel	Chrome
Base	Polypropylene	Natural

Item No.	D	H	h ₁	h ₂	t	d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MN-25	25 (63/64")	40 (1-37/64")	27	13	9	W5/16-18	120 (264 lbs)	26	100	600
MN-32	32 (1-17/64")	40 (1-37/64")	27	13	9	W3/8-16	160 (352 lbs)	34	80	480
MN-36	36 (1-27/64")	40 (1-37/64")	27	13	9	W3/8-16		39	60	360
MN-40	40 (1-37/64")	40 (1-37/64")	27	13	9	W3/8-16		42	50	300
MN-50	50 (1-31/32")	50 (1-31/32")	34	16	11	W1/2-12		77	20	120

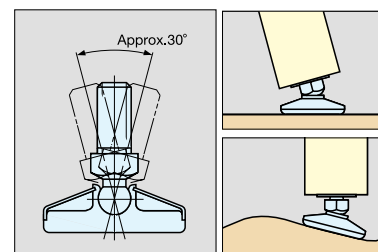
LEVELING GLIDE



RP



- Compensates for uneven of floors.
- Include glide base.



Part Name	Material	Finish
Base Cover	304 Stainless Steel	Satin
Bolt	Steel	Clear Zinc Chromate
Base	Polyamide	Natural

Item No.	A	D	B	H ₁	S	H ₂	d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
RP-25M6	8 (5/16")	25 (63/64")	9.2	31.0 (1-7/32")	14	9.7	M6x1.0	60 (132 lbs)	11	50	500
RP-30M8	10 (25/64")	30 (1-3/16")	11.5	37.5 (1-15/32")	19	11.2	M8x1.25	110 (242 lbs)	21	35	350
RP-30N25							W5/16.0				
RP-40M10	13 (33/64")	40 (1-37/64")	15.0	42.5 (1-43/64")	20	13.7	M10x1.5	160 (352 lbs)	38	25	250
RP-40N3							W3/8.0				
RP-50M12	17 (43/64")	50 (1-31/32")	19.6	51.0 (2")	25	16.0	M12x1.75	320 (704 lbs)	70	15	
RP-70M14	19 (3/4")	70 (2-3/4")	22.0	66.5 (2-5/8")	30	24.7	M14x2.0	622 (1368 lbs)	150	10	100

LEVELING GLIDE



TG

CASTERS & LEVELING GLIDES

LEVELING GLIDES

- Low profile leveling glide.
- Knurled rim for easy adjustment.
- Easy installation with phillips screw driver.



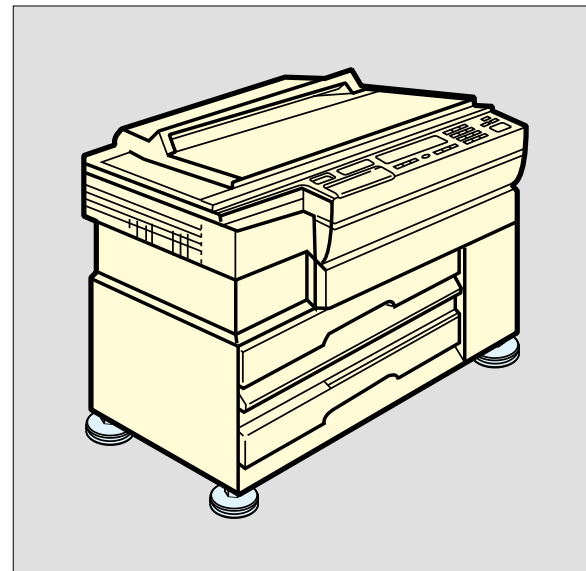
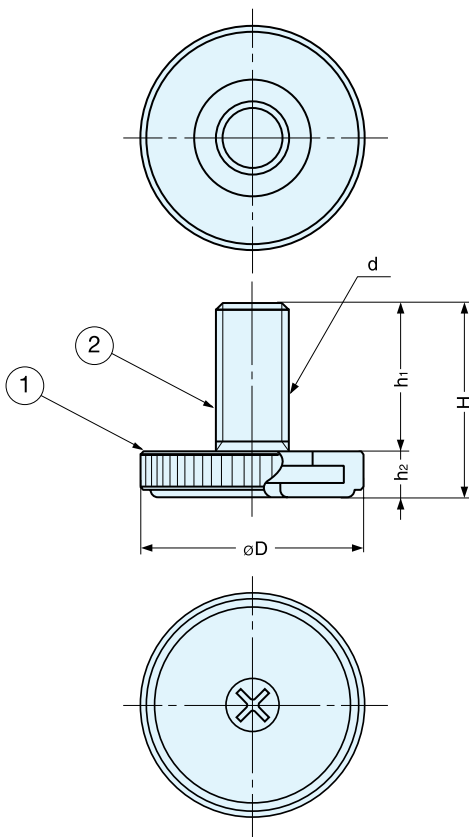
TG-40



TG-30WT



TG-20



Installation

No.	Part Name	Material	Finish
①	Base	Polyamide	Dark Grey/White
②	Bolt	Steel	Clear Zinc Chromate

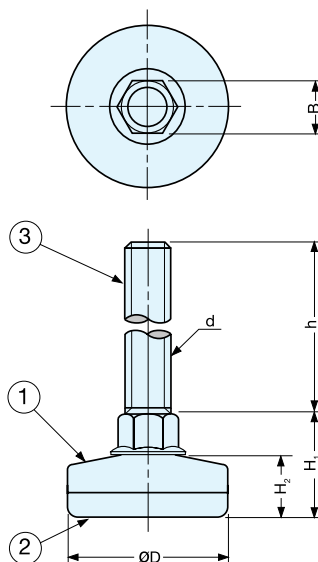
Item No.		D	H	h ₁	h ₂	d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
Dark Grey	White									
TG-20	TG-20WT	20 (25/32")	21 (53/64")	15	6	M 8 x 1.25	100 (220 lbs)	11	120	720
TG-30	TG-30WT	30 (1-3/16")	26 (1-1/32")	20	6	M 10 x 1.5	150 (330 lbs)	25	100	600
TG-40	TG-40WT	40 (1-37/64")	26 (1-1/32")	20	6	M 10 x 1.5	180 (396 lbs)	36	60	360

LEVELING GLIDE



LOAD CAPACITY
140 kg
308 lbs

TN



No.	Part Name	Material	Finish
①	Body	Steel	Chrome
②	Base	Polypropylene	Natural
③	Bolt	Steel	Clear Zinc Chromate

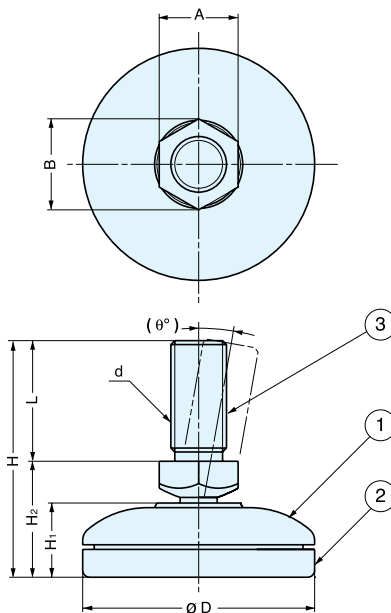
Item No.	D	H ₁	H ₂	h	d	B	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
TN-25S	25.0	21.0	12.0	60	M10x1.5	13	140 (308 lbs)	50	50	500
TN-35S	35.0	22.5	13.5					60	30	300
TN-45S	43.5							70	20	260

LEVELING GLIDE (PARTS SEPARABLE)

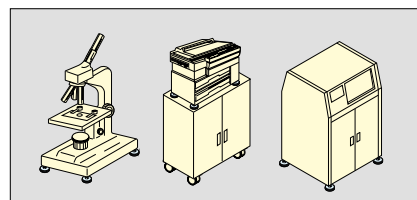
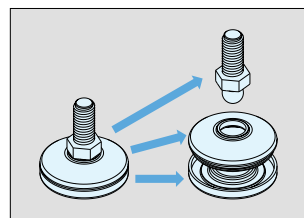


LOAD CAPACITY
50-270 kg
110-594 lbs

EA



- Bolt swivels to compensate for uneven floors.
- Parts can be easily separated for recycling purpose.



Installation

No.	Part Name	Material	Finish
①	Body	ABS	Dark Grey
②	Base		
③	Bolt	Steel	Chromate

Item No.	A	B	D	H	H ₁	H ₂	L	θ°	d	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
EA-25M 6	8	9.2	25	31.0	8.5	14.0	17.0	10.0	M 6 x 1.0	50 (110 lbs)	10	120	1200
EA-30M 8	10	11.5	30	37.5	10.5	17.0	20.5	15.0	M 8 x 1.25	100 (220 lbs)	20	80	800
EA-40M 10	13	15.0	40	42.5	13.0	20.5	22.0	12.5	M10 x 1.5	130 (286 lbs)	32	40	400
EA-50M 12	17	19.6	50	51.0	16.0	25.0	26.0	10.0	M12 x 1.75	270 (594 lbs)	60	20	200

AUTOMATIC HEIGHT ADJUSTING LEVELING GLIDE

LOAD CAPACITY
50 kg
110 lbs

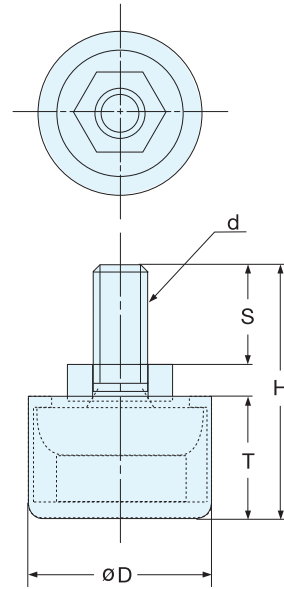
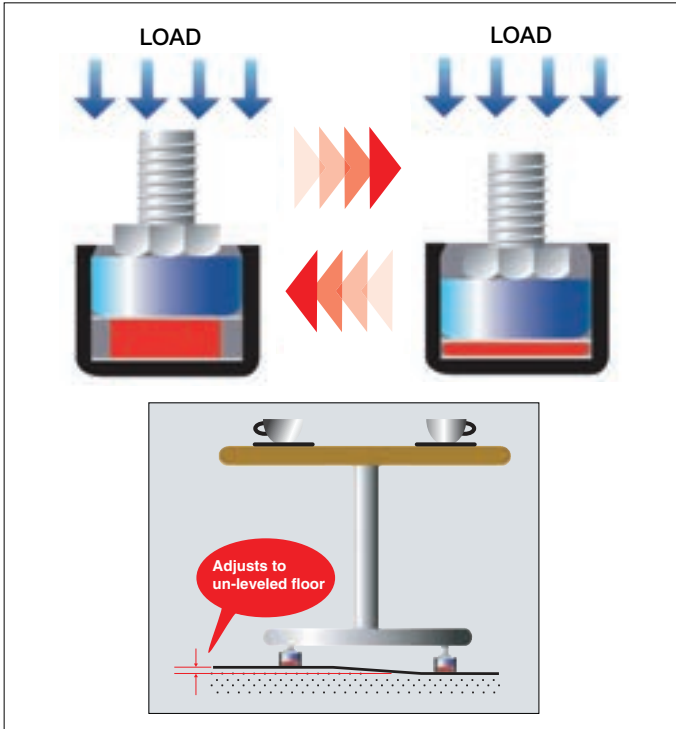
SAJ30

CASTERS & LEVELING GLIDES

LEVELING GLIDES



- Self height adjustment feature up to 3 mm (1/8") & 6 mm (15/64").
- Gel inside of the glide allows for gentle adjustment to uneven surfaces.
- Automatically adjusts each time the table is moved.
- Ideal for tables which are frequently moved. (e.g. Restaurants, Cafeteria, shop etc.)



SAJ-WRENCH

Part Name	Material	Finish	Box (pcs)	Carton (pcs)
SAJ-WRENCH10 (For M6)	Steel	Yellow Zinc Chromate	1	40
SAJ-WRENCH13 (For M8)				
SAJ-WRENCH14 (For N2.5)				
SAJ-WRENCH17 (For N3,M10)				

Part Name	Material	Finish / Color
Body	Polyethylene	Black
Nut (10)	Steel	Chromate
Nut (12)		
Screw		

Item No.	Height Adjustment (mm)	D	H	T	S	d	Applicable Table Weight			Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)	
							6 pcs use (kg)	5 pcs use (kg)	4 pcs use (kg)					
SAJ30-10N2.5	3 (1/8")	32	33	19	9	W5/16	10~18 (22~39 lbs)	8~15 (17~33 lbs)	7~12 (15~26 lbs)	50 (110 lbs)	26	40	400	
SAJ30-10N3					12	W3/8								21
SAJ30-10M6					10	M6								25
SAJ30-10M8					9	M8	38							
SAJ30-10M10					11	M10	26							
SAJ30-12N2.5					9	W5/16	36							
SAJ30-12N3					12	W3/8	21							
SAJ30-12M6					10	M6	25							
SAJ30-12M8					9	M8	38							
SAJ30-12M10					11	M10	29							
SAJ30-12-6N2.5	6 (15/64")	41	42	24	11	W5/16	18~36 (39~79 lbs)	15~30 (33~66 lbs)	12~24 (26~53 lbs)	50 (110 lbs)	29	40	400	
SAJ30-12-6N3					12	W3/8								39
SAJ30-12-6M6					12	M6								29
SAJ30-12-6M8					10	M8	22							
SAJ30-12-6M8					10	M8	41							
SAJ30-12-6M10					10	M10								

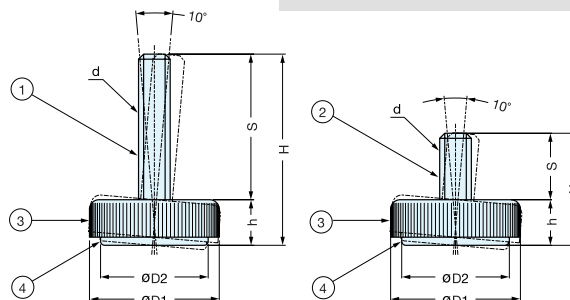
LEVELING GLIDE

LOAD CAPACITY
60-80 kg
132-176 lbs

MKR-N



- Base adjusts up to 10°, maintaining balance even on lightly sloping surfaces.
- Design allows for easy height adjustment.
- Durable unit distributes load evenly.
- Base coated with non-slip synthetic rubber that reduces floor damage.



MKR-N50M10H60

Other Glides

No.	Part Name	Material	Finish
①	Bolt	Steel	Yellow Zinc Chromate
②	Bolt	Steel	Chrome
③	Cover	Polyamide	Black
④	Base	Elastomer	Black

*For MKR-N50M10H60, Bolt is available only with a Yellow Zinc Chromate finish.

Item No.	d	D ₁	D ₂	H	h	S	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MKR-N32M10	M10	33 (1-5/16")	27	36.0 (1-13/32")	14.0	22.0	60 (132 lbs)	35	80	480
MKR-N32N3	W3/8							45		
MKR-N40M10	M10	41 (1-5/8")	34	37.0 (1-29/64")	15.0		70 (154 lbs)	40	50	300
MKR-N40N3	W3/8							40		
MKR-N50M10	M10	51 (2")	44	37.5 (1-31/64")	15.5	44.5	80 (176 lbs)	60	20	120
MKR-N50M10H60	M10			60.0 (2-3/8")				22.0		
MKR-N50N3	W3/8			37.5 (1-31/64")				22.0		

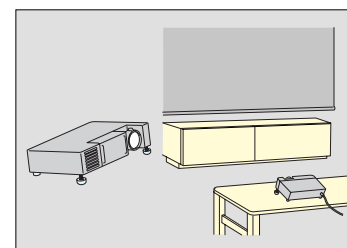
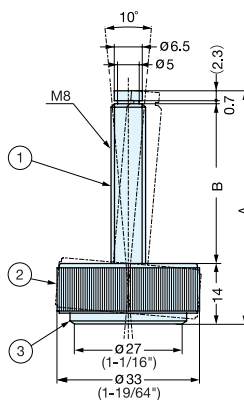
LEVELING GLIDE

LOAD CAPACITY
46 kg
100 lbs

MKR-N32



- Base adjusts up to 10°, maintaining balance even on lightly sloping surfaces.
- Design allows for easy height adjustment.
- Durable unit distributes load evenly.
- Base coated with non-slip synthetic rubber that reduces floor damage.



Application

No.	Part Name	Material	Finish
①	Bolt	Steel	Chromate
②	Cover	Polyamide	Dark Grey
③	Base	Elastomer	Black

Item No.	Color	A	B	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
MKR-N32DG32	Dark Gray	47 (1-7/8")	30 (1-3/16")	46 (100 lbs)	31	50	300
MKR-N32GR32	Gray						

LEVELING GLIDES *Special Order Item

MDSF

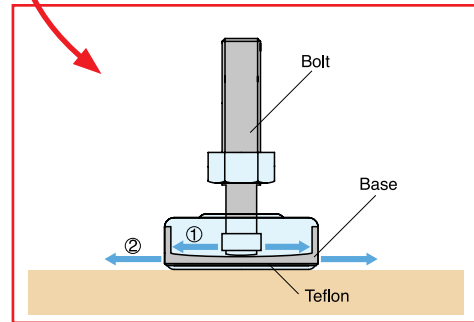
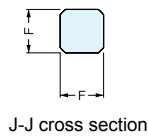
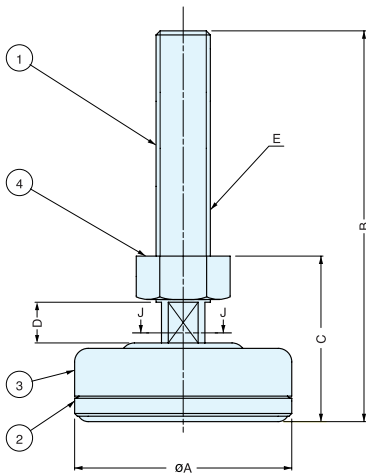
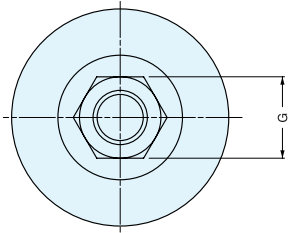
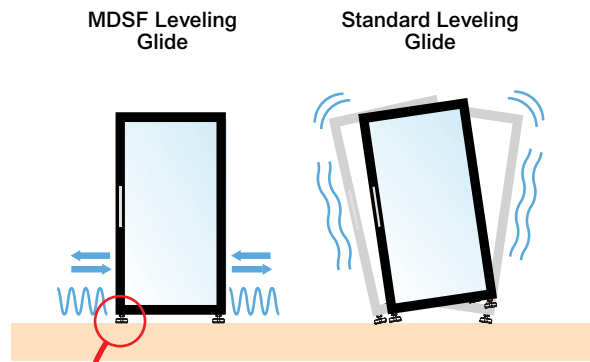
CASTERS & LEVELING GLIDES

LEVELING GLIDES



MDSF80-20-100 MDSF58-16-80 MDSF58-10-40

- Glide absorbs shock to reduce movement transmitted to cabinets and equipment, reducing damage to objects within the cabinet as well as those in the surrounding area.
- Keeps aisles and emergency exits clear by reducing the risk of falling furniture or equipment.
- Can be used in raised/access flooring where floor anchors cannot be used.
- Similar installation and appearance to traditional glides, but with value-added function and higher cost performance.
- 2-step shock absorption: internally between bolt and glide base, and externally between glide base and flooring.
- Use with computer server racks, precision equipment, medical equipment, etc.
- Sold in sets of 4 pieces.



No.	Part Name	Material	Finish
①	Bolt	Steel	Nickel
②	Base	Steel, Teflon	-
③	Cover	NBR	-
④	Nut	Steel	Chromate

Item No.	Max. Recommended Dimensions (WxDxH)	Maximum Weight (kg)/4pcs
MDSF58-10- 40	16-1/8"x24-13/16"x15-3/8" (410x630x390 mm)	204 (450 lbs)
MDSF58-16- 80	28-3/4"x28-3/4"x57-1/2" (730x730x1460 mm)	510 (1122 lbs)
MDSF80-20-100	39-3/8"x39-3/8"x78-3/4" (1000x1000x2000 mm)	765 (1687 lbs)

Item No.	A	B	C	D	E	F	G	Weight (g)	Box (pcs)	Carton (pcs)
MDSF58-10- 40	58 (2-5/16")	66 (2-5/8")	35	8	M10	8	17	180	4 (1 set)	40 (10 sets)
MDSF58-16- 80	58 (2-5/16")	114 (4-1/2")	48	11	M16	13	24	300		
MDSF80-20-100	80 (3-1/8")	114 (5-11/16")	61	15	M20	16	30	580		

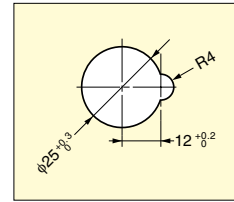
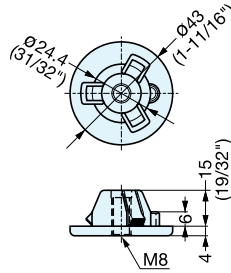
GLIDE BASE



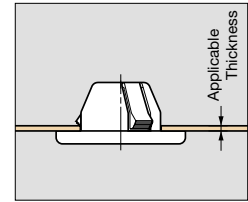
AD-438



• Snap-in glide base for sheet metal 1/32" to 1/16" (0.8-1.6 mm) thick.



Bore Dimension



Installation

Material	Finish
Polycetal	Grey

Item No.	Applicable Sheet Metal Thickness (mm)	Load Capacity (kg)	Weight (g)	Box (pcs)	Carton (pcs)
AD-438	0.8~1.6 (1/32"-1/16")	50 (110lbs)	10	100	1000

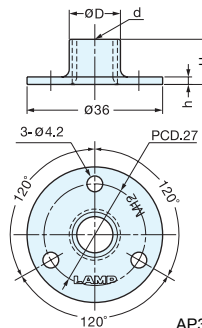
STAINLESS STEEL GLIDE BASE



AP-36



• 304 stainless steel for rust and corrosion resistance.



AP36-M12 is shown.

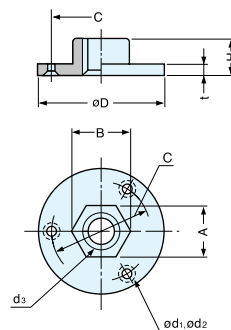
Material	Finish
304 Stainless Steel	Plain

Item No.	d	D	h	H	Weight (g)	Box (pcs)	Carton (pcs)
AP-36-M8	M8X1.25	(9.6)	1.5	12.0	16	100	1000
AP-36-M10	M10X1.5	(11.5)	1.5	12.0	16	100	1000
AP-36-N3	W3/8-16.0	(10.9)	1.5	12.0	16	100	1000
AP-36-M12	M12X1.75	(13.9)	2.0	11.5	20	80	800

GLIDE BASE



KD-555



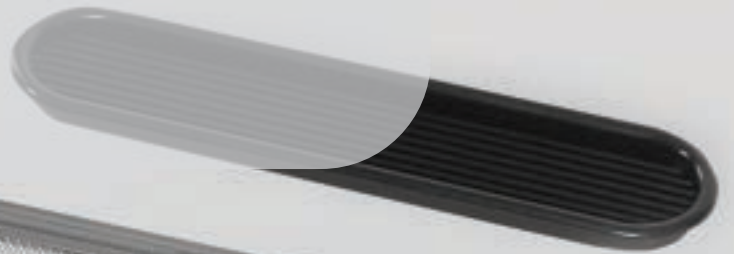
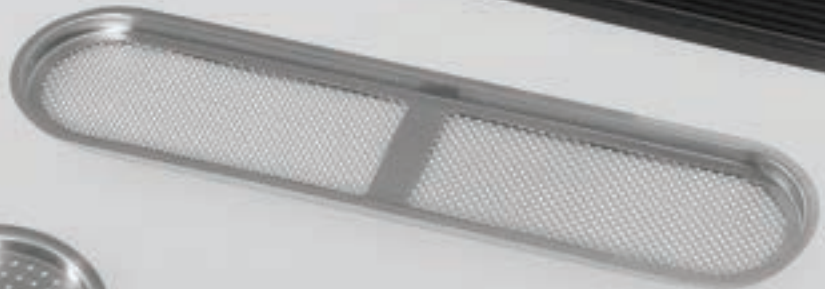
Material	Finish
Zinc Alloy	Clear Zinc Chromate

Item No.	D	C	H	t	d ₁	d ₂	d ₃	A	B	Weight (g)	Box (pcs)	Carton (pcs)
KD-555-28-M10	28 (1-3/32")	20	9	2.7	3.2	6.4	M10x1.5	13.0	14.0	15	240	1440
KD-555-25	25 (1")	19	8	2.7	3.2	5.3	W5/16-18	11.2	12.5	10	320	1920
KD-555-28	28 (1-3/32")	20	9	2.7	3.2	6.4	W3/8-16	13.0	14.0	15	240	1440
KD-555-39	39 (1-17/32")	30	11	3.0	3.2	6.4	W1/2-12	15.8	16.8	30	100	600



MISCELLANEOUS

CABLE GROMMETS
VENTILATORS
BATHROOM ACCESSORIES
MULTI-PURPOSE DOORS, LIDS
TOWEL BARS, RACKS



VENTILATORS

Picture	Item No.		Page
	SAM	NSF COMPONENT, RoHS Compliant, STAINLESS 304 STEEL	672
	SAD	NSF COMPONENT, RoHS Compliant, STAINLESS 304 STEEL	672
	ASM	RoHS Compliant, STAINLESS 304 STEEL	672
	ASD	RoHS Compliant, STAINLESS 304 STEEL	673
	AST	RoHS Compliant, STAINLESS 304 STEEL	673
	AST-160, 210	RoHS Compliant, STAINLESS 304 STEEL	673
	1-1122	STAINLESS 316 STEEL	674
	1-1212	STAINLESS 316 STEEL	674
	1-2211	STAINLESS 316 STEEL	675
	1-2222	STAINLESS 316 STEEL	675
	APK, APKL	RoHS Compliant	676
	APD, APDL	RoHS Compliant	676
	APD-KH		677
	APM		678
	APB		678

CABLE GROMMETS

Picture	Item No.		Page
	S445, S51, S60, S76, S89	RoHS Compliant	679
	S165-76	RoHS Compliant	679
	V60, V80	RoHS Compliant	680
	V2000	RoHS Compliant	680
	LSU, LS		681
	CHC		681
	LN72D		682
	LN72S		682

BATHROOM ACCESSORIES

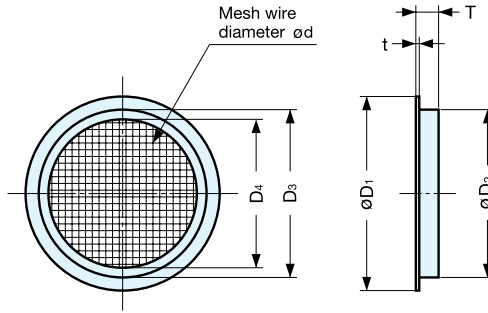
MULTI-PURPOSE DOORS, LIDS & GROMMETS

Picture	Item No.		Page	Picture	Item No.		Page
	ZL-3201 (TOWEL BAR)		683		AZ-GD231-HL	 	689
	ZL-3202 (TOWEL BAR)		683		AZ-GD232-HL	 	689
	KB-T (TOWEL BAR)		684		AZ-GD	 	690
	DSR-01/18 (TOWEL BAR)	 	684		AZ-SLP	 	691
	DST-06 (TOWEL BAR)	 	685		AZ-HD230/HL, AZ-HD310/HL	 	691
	DSR-02 (TOWEL BAR)	 	685		AD-KH	 	692
	DSR-08 (TOWEL RACK)	 	686		AN-KH	 	692
	DSD-80 (TOWEL RACK)	 	686		AD-GD	 	693
	DSB-01 (TOILET PAPER HOLDER)	 	687		AD-DH015-HL	 	693
	DSB-03 (TOILET PAPER HOLDER)	 	687		AN-DH020		694
	DSB-04 (TOILET PAPER HOLDER)	 	687		AZ-DD310/HL	 	694
	DSB-09 (TOILET BRUSH/HOLDER)	 	688		AZ-ND	 	694
	DSB-07 (TOILET PAPER HOLDER)		688		AN-DH, AN-LH	 	695

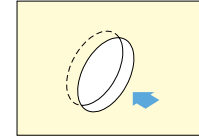
VENTILATOR



SAM



- 0.4 mm mesh wire diameter.
- Affix with glue.



Installation

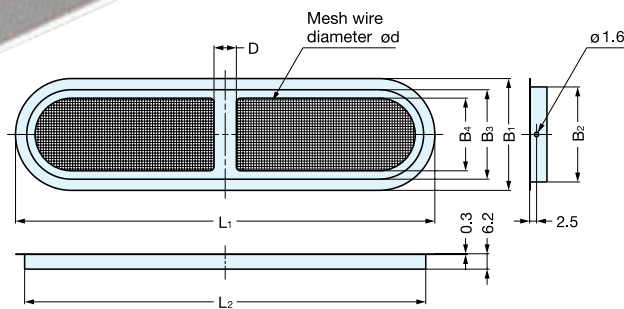
Material	Finish
304 Stainless Steel	Satin

Item No.	D ₁	D ₂	D ₃	D ₄	T	t	d	Weight (g)	Box (pcs)	Carton (pcs)
SAM- 37	36 (1-27/64")	31.5 (1-1/4")	30.0	25	5.2	0.3	0.4	4.5	70	1400
SAM- 45	46 (1-13/16")	41.5 (1-41/64")	40.0	35	5.2			6.0	60	1200
SAM- 60	60 (2-23/64")	53.5 (2-7/64")	52.0	46	6.5			9.5	50	1000
SAM- 85	85 (3-11/32")	77.8 (3-1/16")	76.5	68	7.0			16.5	30	600
SAM- 120	120 (4-23/32")	110.5 (4-23/64")	108.0	99	7.2	0.5		46.5	20	200

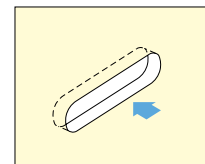
VENTILATOR



SAD



- 0.4 mm mesh wire diameter.
- Affix with glue or tack.



Installation

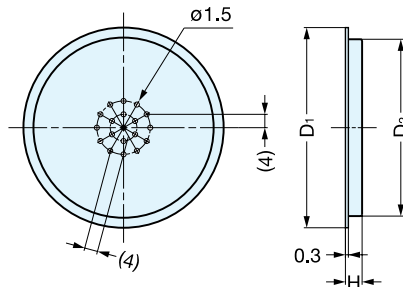
Material	Finish
304 Stainless Steel	Satin

Item No.	L ₁	B ₁	B ₃	B ₄	L ₂	B ₂	D	d	Weight (g)	Box (pcs)	Carton (pcs)
SAD-150	150.0 (5-29/32")	40 (1-37/64")	32	26	143.5	34	8	0.4	18.5	30	600
SAD-200	200.5 (7-57/64")	50 (1-31/32")	42	35	194.0	44	10		30.0		300

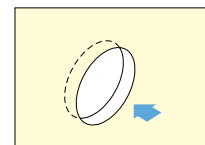
VENTILATOR



ASM



- 1.5 mm (1/16") diameter holes.
- Affix with glue.



Installation

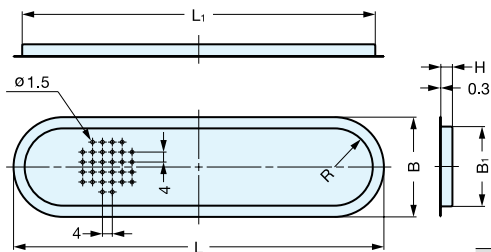
Material	Finish
304 Stainless Steel	Satin

Item No.	D ₁	D ₂	H	Holes	Weight (g)	Box (pcs)	Carton (pcs)
ASM-37	36 (1-27/64")	31 (1-7/32")	4.5	37	3.0	100	3600
ASM-45	46 (1-13/16")	41 (1-39/64")		59	5.0		
ASM-60	60 (2-23/64")	53 (2-3/32")	127	8.0			
ASM-85	85 (3-11/32")	77 (3-1/32")	5	271	13.5	50	1000

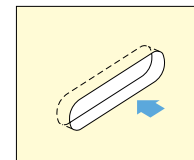
VENTILATOR



ASD



- 1.5 mm (1/16") diameter holes.
- Affix with glue.



Installation

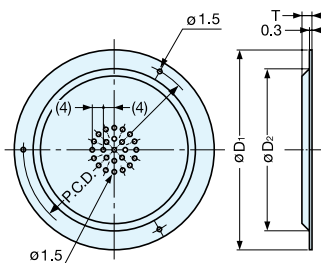
Material	Finish
304 Stainless Steel	Satin

Item No.	L	L ₁	H	B	B ₁	R	Holes	Weight (g)	Box (pcs)	Carton (pcs)
ASD-150	150 (5-29/32")	143	5	40 (1-37/64")	33.0	16	268	14.5	80	1920
ASD-200	200 (7-7/8")	193		50 (1-31/32")	42.8	21	450	23.0	40	960

VENTILATOR



AST



- 1.5 mm (1/16") diameter holes.
- Supplied with tacks.

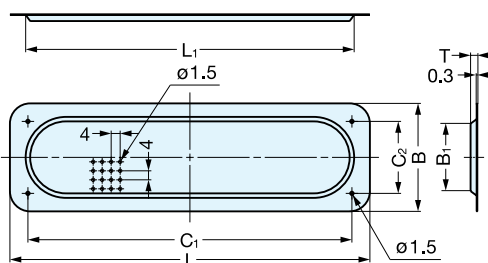
Material	Finish
304 Stainless Steel	Satin

Item No.	D ₁	D ₂	T	P.C.D.	Holes	Weight (g)	Box (pcs)	Carton (pcs)
AST-45	45 (1-25/32")	34 (1-11/32")	3	40	37	4	100	3600
AST-55	55 (2-5/32")	44 (1-47/64")		50	59	5		
AST-70	70 (2-3/4")	55 (2-5/32")		64	127	9		
AST-100	100 (3-15/16")	81 (3-3/16")	4	91	271	19	50	500

VENTILATOR



AST-160, 210



- 1.5 mm (1/16") diameter holes.
- Supplied with tacks.

Material	Finish
304 Stainless Steel	Satin

Item No.	L	L ₁	B	B ₁	C ₁	C ₂	T	Holes	Weight (g)	Box (pcs)	Carton (pcs)
AST-160	160 (6-19/64")	146	48 (1-57/64")	36	144	32	3	268	18	50	1000
AST-210	210 (8-17/64")	196	58 (2-9/32")	46	194	42	4	450	28		200

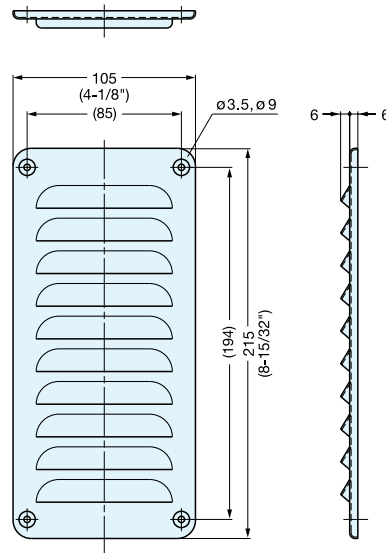
VENTILATOR



1-1122

MISCELLANEOUS

VENTILATORS

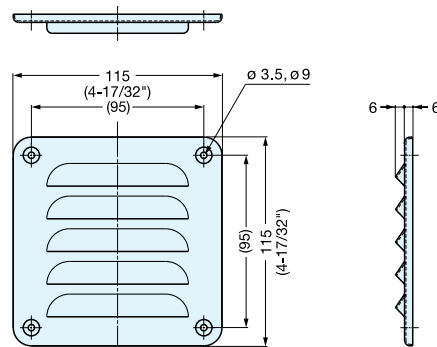


Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
1-1122	165	10	100	316 Stainless Steel	Satin

VENTILATOR



1-1212

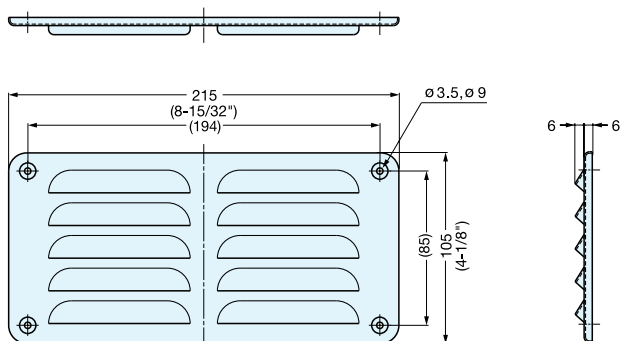


Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
1-1212	165	10	100	316 Stainless Steel	Satin

VENTILATOR



1-2211



MISCELLANEOUS

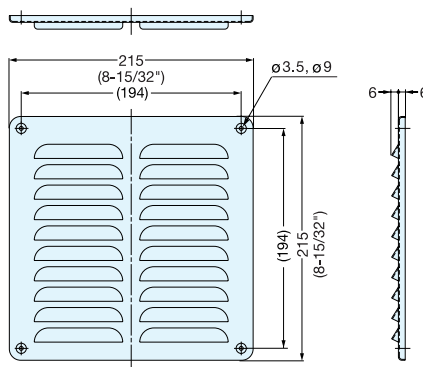
VENTILATORS

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
1-2211	165	10	100	316 Stainless Steel	Satin

VENTILATOR



1-2222



Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
1-2222	295	10	100	316 Stainless Steel	Satin



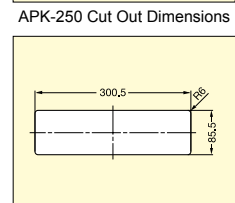
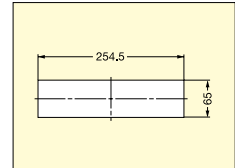
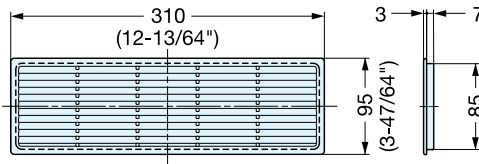
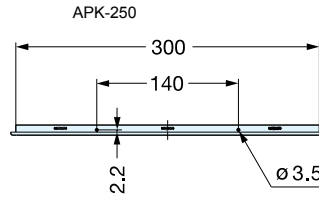
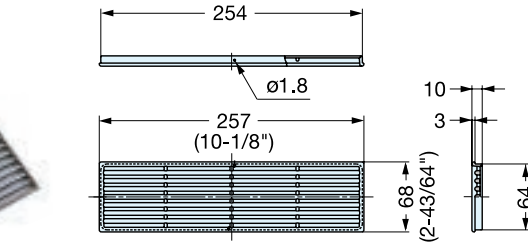
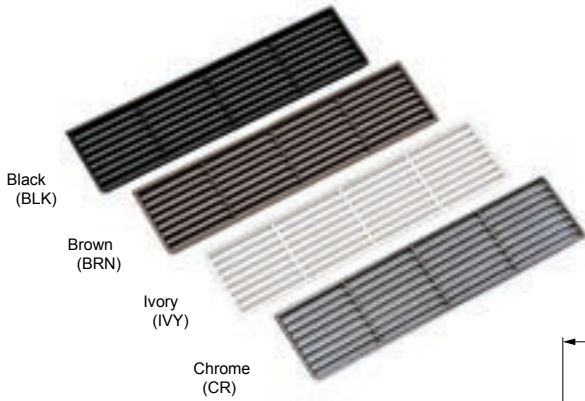
APK, APKL

MISCELLANEOUS

VENTILATORS

VENTILATOR

• ABS ventilator.



Please specify the finish when ordering.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
APK -250	57	20	160
APKL -310	100	10	80

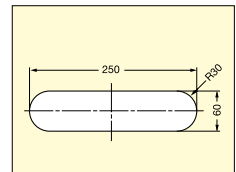
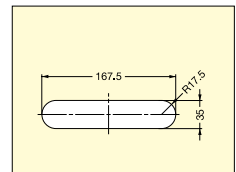
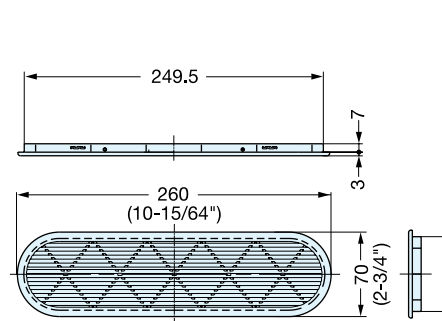
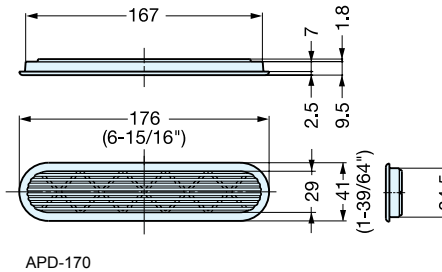
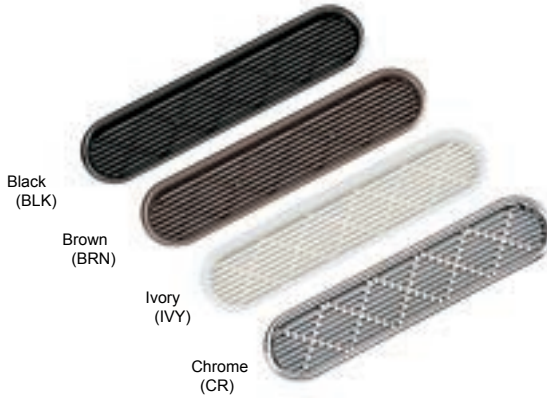
Material	Finish
ABS	Black (BLK), Brown (BRN), Ivory (IVY), Chrome (CR)-APK-250 type only

VENTILATOR



APD, APDL

• ABS ventilator.



Please specify the finish when ordering.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)
APD -170	22	40	320
APDL -260	60	10	80

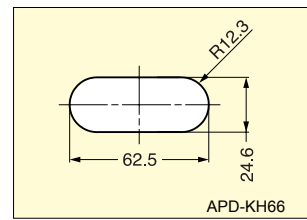
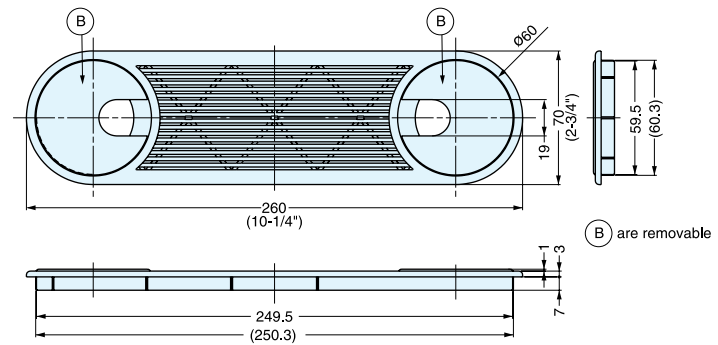
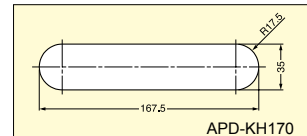
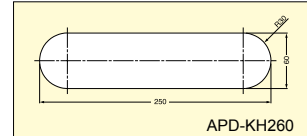
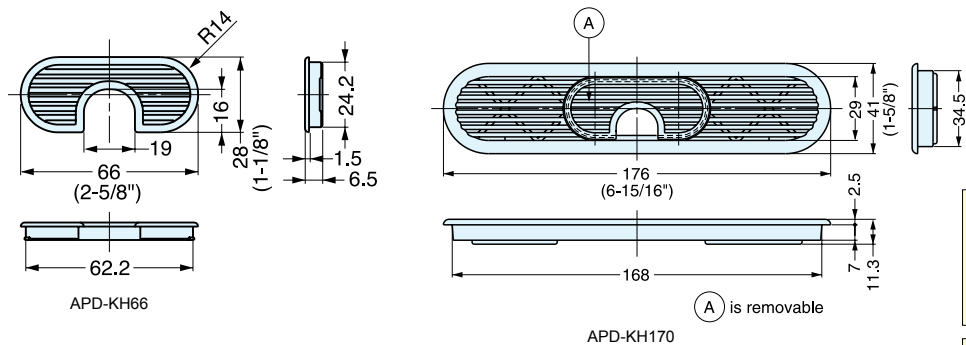
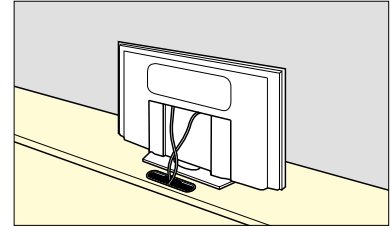
Material	Finish
ABS	Black (BLK), Brown (BRN), Ivory (IVY), Chrome (CR)-APD-170 type only

VENTILATOR (W/CABLE GROMMETS)

APD-KH



- ABS ventilator.
- Removable grommet inserts for excellent cable management.



Cut Out Dimensions

APD-KH260

Item No.	Material	Finish	Weight (g)	Box (pcs)	Carton (pcs)
APD-KH66-CR	ABS	Chrome	3.7	100	500
APD-KH66-IV		Ivory	3.0		
APD-KH66-BL		Black			
APD-KH66-BR		Brown			
APD-KH66-WT		White	24.0		
APD-KH170-CR		Chrome		20.0	
APD-KH170-IV		Ivory			
APD-KH170-BL		Black			
APD-KH170-BR		Brown	40		320
APD-KH170-WT		White			
APD-KH260-IV		Ivory		55.0	
APD-KH260-BL		Black			
APD-KH260-BR		Brown	10		80

VENTILATOR

APM

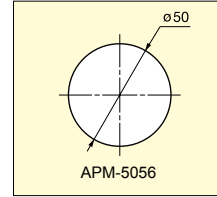


APM-5056/BRN

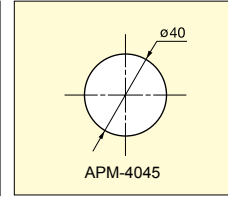


APM-5056/WHT

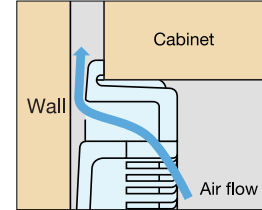
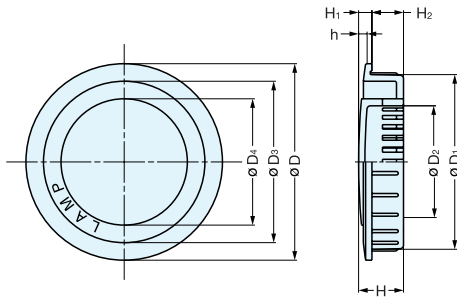
• Slits for ventilation cannot be seen from outside.



Bore Dimensions



APM-4045



Allows air flow even if the surface of the ventilator is directly on the wall.

Material	Finish
ABS	White (WHT), Brown (BRN)

Please specify the finish when ordering.

Item No.	D	D ₁	D ₂	D ₃	D ₄	H	H ₁	H ₂	h	Bore Dimension	Weight (g)	Box (pcs)	Carton (pcs)
APM-4045	45 (1-25/32")	39.8 (1-9/16")	24.6	36.2	28.2	10.3	3.3	7	1.6	40	5	150	900
APM-5056	56 (2-13/64")	49.8 (1-31/32")	32.0	46.0	36.0	12.8	3.8	9	1.8	50	9	100	600

VENTILATOR

APB



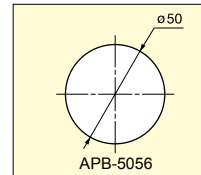
APB-5056/WHT



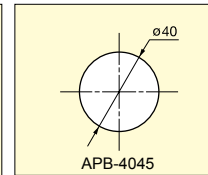
APB-4045/WHT



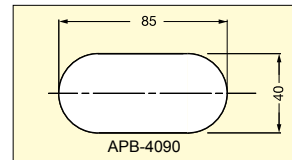
APB-4090/WHT



APB-5056

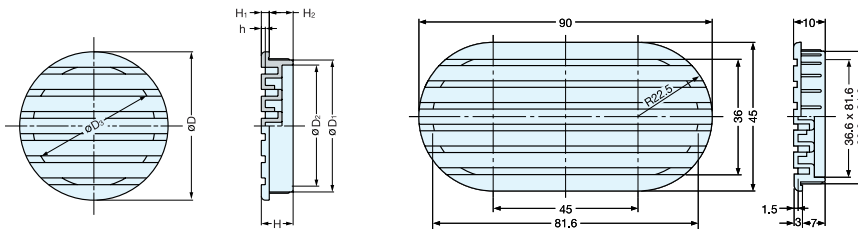


APB-4045



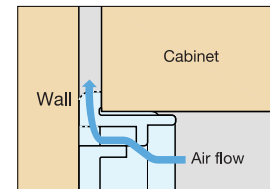
APB-4090

Bore Dimensions



APB-4045, APB-5056

APB-4090



Allows air flow even if the surface of the ventilator is directly on the wall.

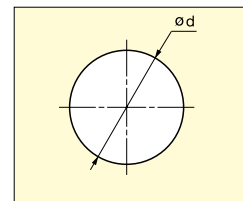
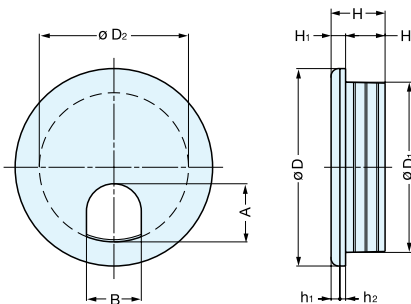
Material	Finish
ABS	White (WHT)

Item No.	D	D ₁	D ₂	D ₃	H	H ₁	H ₂	h	Bore Dimension	Weight (g)	Box (pcs)	Carton (pcs)
APB-4045	45 (1-25/32")	39.8 (1-9/16")	36.6	36.6	10	3	7	1.5	40	7	150	900
APB-5056	56 (2-13/64")	49.8 (1-31/32")	46.0	46.0	12		9		50	11	100	600
APB-4090	-	-	-	-	10		7		40 × 85	16	80	480

CABLE GROMMET



S445, S51, S60, S76, S89



Bore Dimensions

Please specify the finish when ordering.

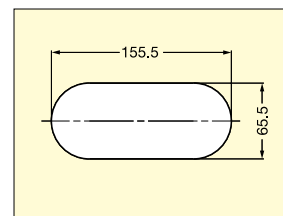
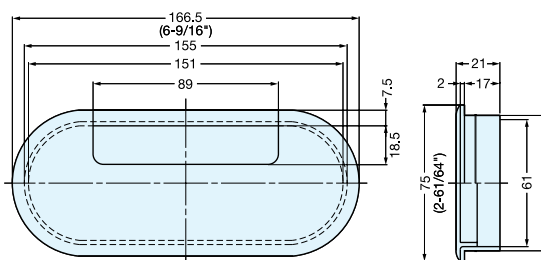
Material	Finish
ABS	White (WHT), Black (BLK)

Item No.	D	D ₁	D ₂	H	H ₁	H ₂	h ₁	h ₂	A	B	d	Weight (g)	Box (pcs)	Carton (pcs)
S445	45.0 (1-25/32")	38.8 (1-17/32")	34.0	19.7	3.3	16.4	2.0	1.3	16.7	12.5	38.5	8.7	100	1200
S51	51.0 (2")	44.5 (1-3/4")	39.7	19.9	3.6	16.3		1.6	19.0	15.5	44.2	11.1		800
S60	60.5 (2-3/8")	48.8 (1-59/64")	44.0	19.8		16.2			20.8	19.0	48.5	13.7		600
S76	76.5 (3-1/64")	64.4 (2-17/32")	59.0	20.3	4.2	16.1	2.6	1.5	21.5	21.5	64.2	21.8	50	350
S89	89.4 (3-33/64")	76.5 (3-1/64")	71.4	20.6	4.1	16.5			25.0	22.0	76.5	30.3		250

CABLE GROMMET



S165-76



Bore Dimensions

Please specify the finish when ordering.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
S165-76	47.7	150	1500	ABS	White (WHT), Black (BLK)

CABLE GROMMET



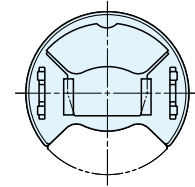
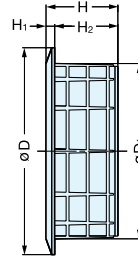
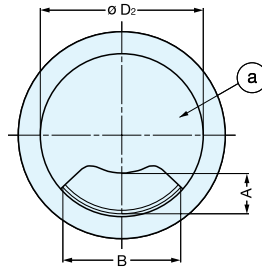
V60, V80



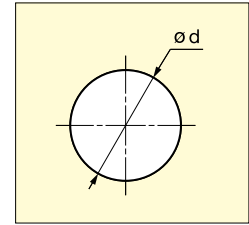
V60/WHT



V60/BLK



Backside of Cap (a)
(When lid open)



Bore Dimensions

Material	Finish
Plastic	White (WHT), Black (BLK)

Please specify the finish when ordering.

Item No.	D	D ₁	D ₂	H	H ₁	H ₂	A	B	d	Weight (g)	Box (pcs)	Carton (pcs)
V60	72 (2-27/32")	61.0 (2-13/32")	56.7	25	3	22	14	41	60.5	26.7	90	900
V80	92 (3-5/8")	80.5 (3-11/64")	77.0					50	80.0	37.9	88	880

CABLE GROMMET



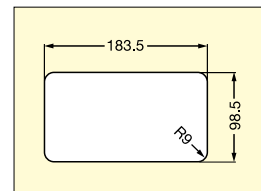
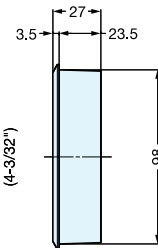
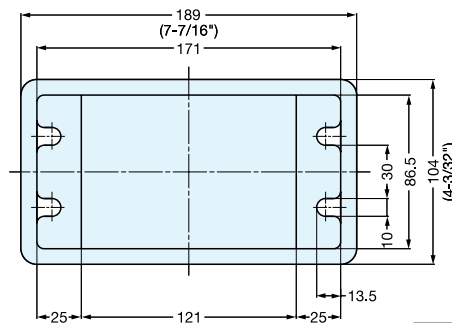
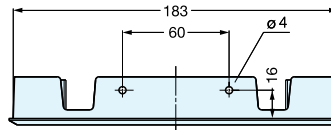
V2000



V2000/BLK



V2000/WHT



Bore Dimensions

Please specify the finish when ordering.

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
V2000	102	33	330	Plastic	White (WHT), Black (BLK)

CABLE GROMMET

LSU, LS

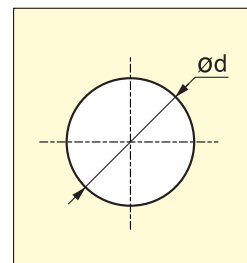
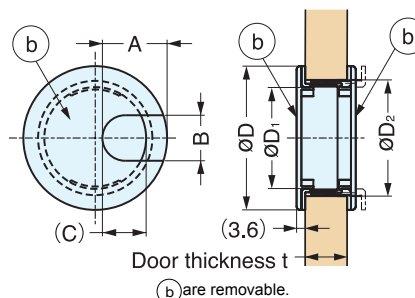
• Double-sided grommets.



LSU60WHT



LSU60BLK



Bore Dimensions

Item No.	Finish	Material	D	D ₁	D ₂	A	B	C	t	d	Weight (g)	Box (pcs)	Carton (pcs)							
LSU60WT	White	ABS	60 (2-3/8")	42.5 (1-43/64")	48.5	27	19	18.0	12~18 (1/2"~3/4")	48.5	19	20	160							
LSU60BL	Black								18~24 (3/4"~1")					20						
LS60WT	White								76 (3")		58.2 (2-19/64")	64.2	34	22	25.1	25~40 (1"~1-9/16")	64.2	25	12	96
LS60BL	Black																			
LS76WT	White																			
LS76BL	Black																			

CABLE GROMMET

CHC

• Choose from 1/2" (12 mm) or 19/32" (15 mm) grommets, perfect for phone, fax, or LAN data cables.

Weight: CHC-18 8.3 g
CHC-22 14.5 g



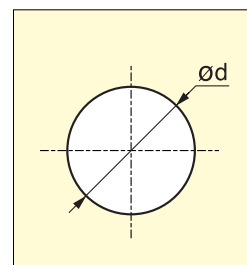
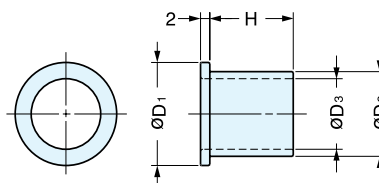
CHC-22/GB
(Antique Brass)



CHC-18/NI
(Nickel)



CHC-18/GA
(Gold)



Bore Dimensions

Item No.	Material	Finish	H	D ₁	D ₂	D ₃	d	Box (pcs)
CHC-18/NI	Brass	Satin Nickel	16 (5/8")	18 (11/16")	14 (9/16")	12 (1/2")	14.5 (9/16")	120
CHC-18/GA		Gold						
CHC-18/GB		Antique Brass						
CHC-22/NI		Satin Nickel	18 (11/16")	22 (7/8")	18 (11/16")	15 (19/32")	18.5 (11/16")	60
CHC-22/GA		Gold						
CHC-22/GB		Antique Brass						

CABLE GROMMET

LN72D



LN72D/WT

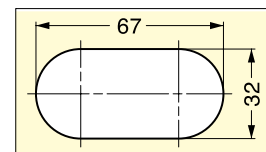
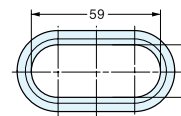
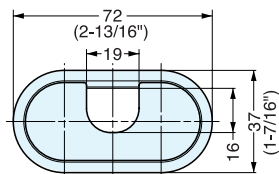


LN72D/BL

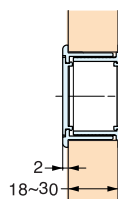
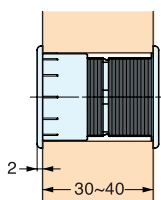
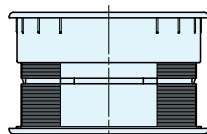


Cover Grommet

- Double-sided adjustable grommet
- For panel thickness 1-3/16" to 1-9/16" (30 to 40 mm); also for 11/16" to 1-9/16" (18 to 30 mm) by snapping off edge.
- Cover can be removed to increase the grommet opening.



Bore Dimensions



Item No.	Color	Material	Weight (g)	Box (pcs)	Carton (pcs)
LN72D/WT	White	ABS	19	40	320
LN72D/BL	Black				

CABLE GROMMET

LN72S

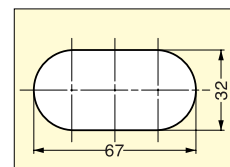
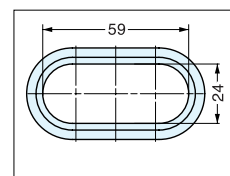
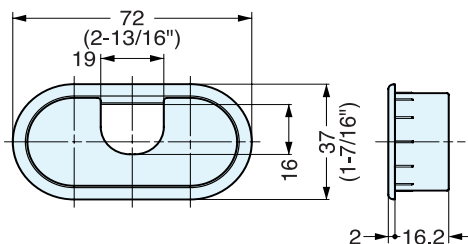


LN72S/WT



LN72S/BL

- Cover can be removed to increase the grommet opening.



Bore Dimensions

Item No.	Color	Material	Weight (g)	Box (pcs)	Carton (pcs)
LN72S/WT	White	ABS	8	40	320
LN72S/BL	Black				

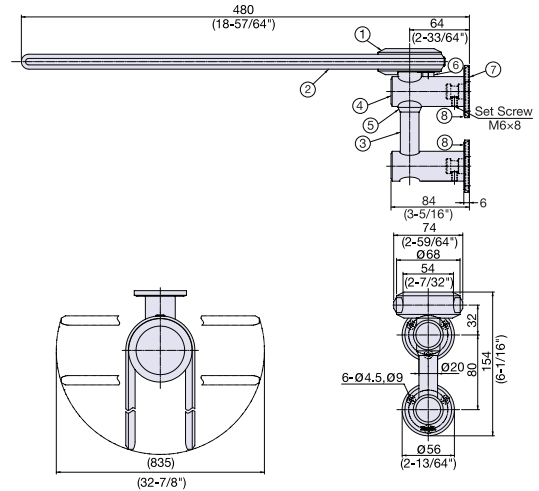
Zwei L Towel Bar

STAINLESS
316
STEEL

ZL-3201



- Supplied with stainless steel wood screw (4.1 x 32), anchor plug and 3 mm allen key.



Item No.	Weight (g)	Box (pcs)	
ZL-3201	-	1	
No.	Part Name	Material	Finish
①	Bracket	316 Stainless Steel	Zwei L
②	Arm		Mirror
③	Pin		Zwei L
④	Post		
⑤	Bushing	Polyacetal	Black
⑥	Swivel Stopper		
⑦	Base Plate	316 Stainless Steel	Plain
⑧	Cover		Zwei L

MISCELLANEOUS

Zwei L TOWEL BARS

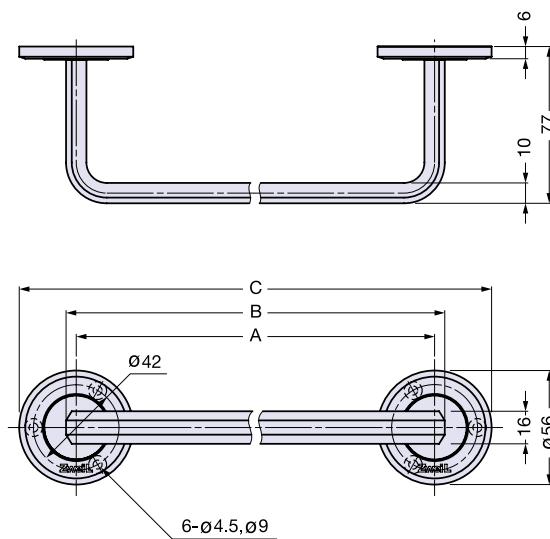
Zwei L Towel Bar

STAINLESS
316
STEEL

ZL-3202



- Supplied with stainless steel wood screws (4.1 x 25) and concrete anchor (for wood screw 4.1, Ø6 mm hole).



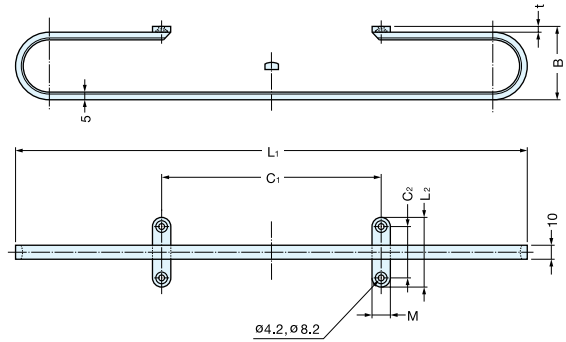
Item No.	Material	Finish/Color	A	B	C
ZL-3202-480	316 Stainless Steel	Zwei L	480	490	536 (21-7/64")
ZL-3202-640			640	650	696 (27-13/32")

TOWEL BAR



KB-T

• Supplied with 4 x 20 stainless steel wood screws.



Material	Finish
303 Stainless Steel	Mirror

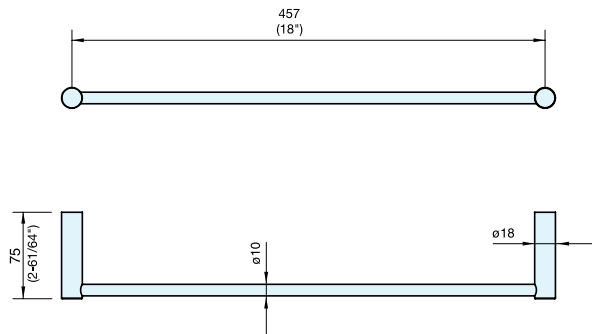
Item No.	B	C ₁	C ₂	L ₁	L ₂	M	t	Weight (g)	Box (pcs)	Carton (pcs)
KB-T-350	50	150	35	350 (13-25/32")	48	13	4	240	1	10
KB-T-450		250		450 (17-23/32")				275		

TOWEL BAR



DSR-01/18

• Supplied with screws, brackets, plastic expansion anchors and allen key.



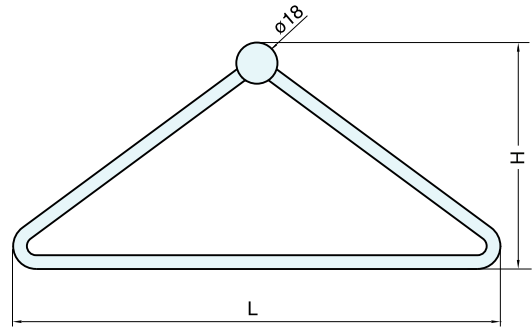
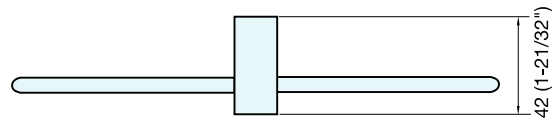
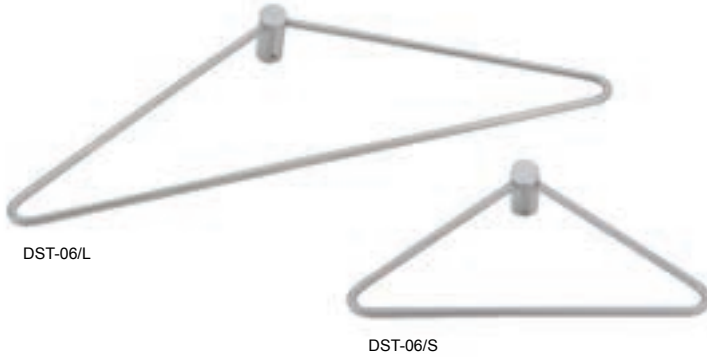
Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
DSR-01/18	580	1	10	303/304 Stainless Steel	Satin

TOWEL BAR



DST-06

- Supplied with screw, bracket, plastic expansion anchor and allen key.



Item No.	L	H	Weight (g)	Box (pcs)	Carton (pcs)
DST-06/S	213 (8-25/64")	108 (4-1/4")	173	1	10
DST-06/L	390 (15- 3/8")	125 (4-15/16")	241		

Material	Finish
303/304 Stainless Steel	Satin

TOWEL BAR

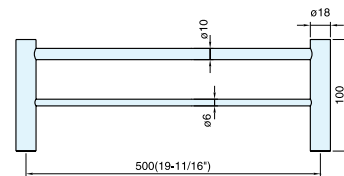


DSR-02

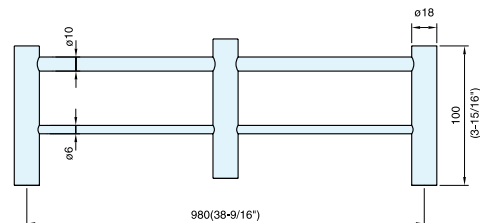
- Supplied with screws, brackets, plastic expansion anchors and allen key.



DSR-02/50



DSR-02/98



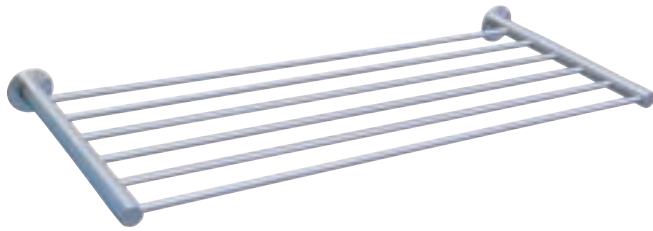
Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DSR-02/50	777	1	10
DSR-02/98	1352		

Material	Finish
303/304 Stainless Steel	Satin

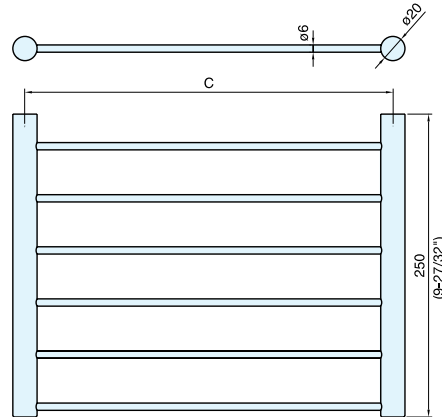
TOWEL RACK



DSR-08



- Supplied with screws, brackets, plastic expansion anchors and allen key.



Item No.	C	Weight (g)	Box (pcs)	Carton (pcs)
DSR-08/45	450 (17-3/4")	1423	1	10
DSR-08/60	600 (23-5/8")	1778		

Material	Finish
303/304 Stainless Steel	Satin

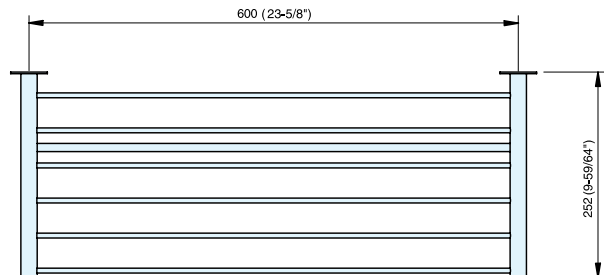
TOWEL RACK



DSD-80



- Supplied with screws, brackets, plastic expansion anchors and allen key.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DSD-80	2700	1	10

Material	Finish
303/304 Stainless Steel	Satin

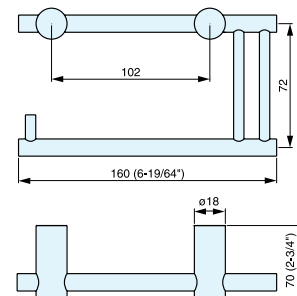
TOILET PAPER HOLDER



DSB-01



- Supplied with screws, brackets, plastic expansion anchors and allen key.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DSB-01	456	1	10

Material	Finish
303/304 Stainless Steel	Satin

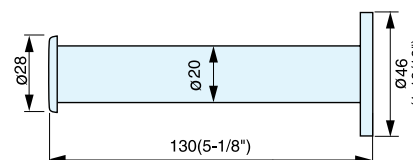
TOILET PAPER HOLDER



DSB-03



- Toilet paper holder for side-wall mount.
- Supplied with screw and plastic expansion anchor.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DSB-03	201	5	50

Material	Finish
303/304 Stainless Steel	Satin

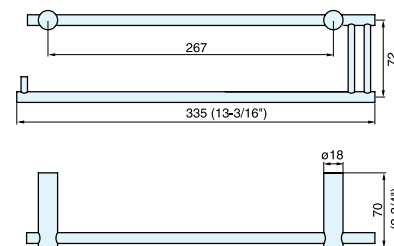
PAPER TOWEL HOLDER



DSB-04



- Paper towel holder, also can be used as towel bar.
- Supplied with screws, brackets, plastic expansion anchors and allen key.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DSB-04	669	1	10

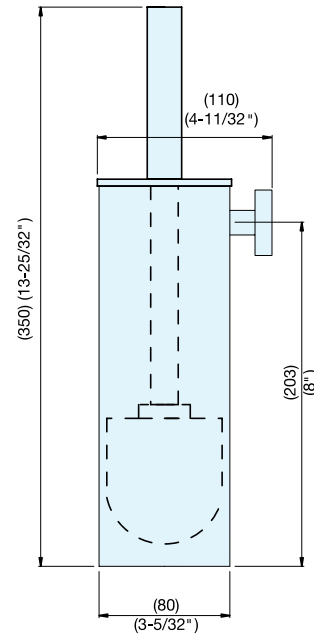
Material	Finish
303/304 Stainless Steel	Satin

TOILET BRUSH/HOLDER



DSB-09

- Removable plastic basket for easy cleaning.
- Supplied with screws, brackets, plastic expansion anchors and allen key.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DSB-09	748	1	10

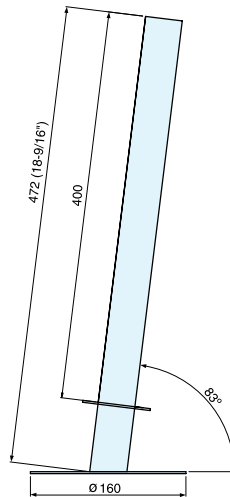
Material	Finish
303/304 Stainless Steel	Satin

TOILET PAPER HOLDER



DSB-07

- Toilet paper stand ideal to keep stock organized.



Item No.	Weight (g)	Box (pcs)	Carton (pcs)
DSB-07	1009	1	10

Material	Finish
304 Stainless Steel	Satin

MULTI-PURPOSE LID W/DAMPER



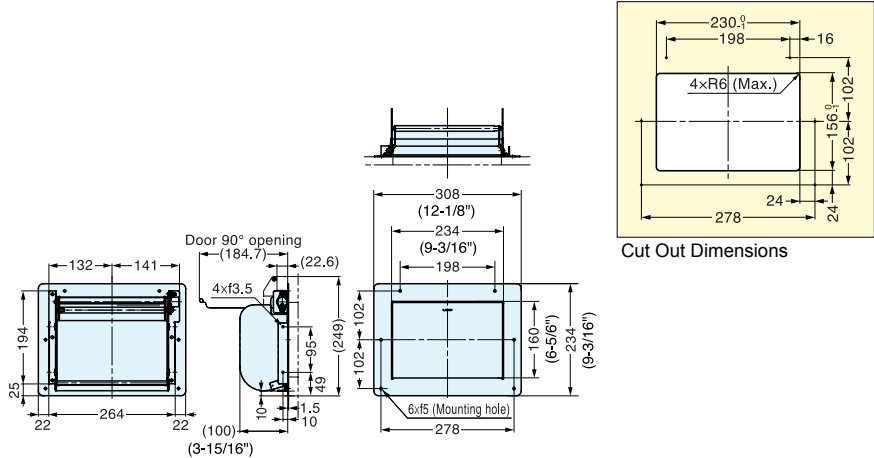
AZ-GD231-HL



- Installed from the inside of the waste box for clean appearance.
- With damper to keep the lid from slamming shut.
- Integrated with anti-pinching plates.
- Corrosion resistant.
- Guide sold separately (AZ-SLP)



[Application Example]



Item No.	L	H	D	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
AZ-GD231-HL	308 (12-1/8")	234 (9-3/16")	100 (3-15/16")	1486	1	10	304 Stainless Steel	Satin

MULTI-PURPOSE LID W/DAMPER



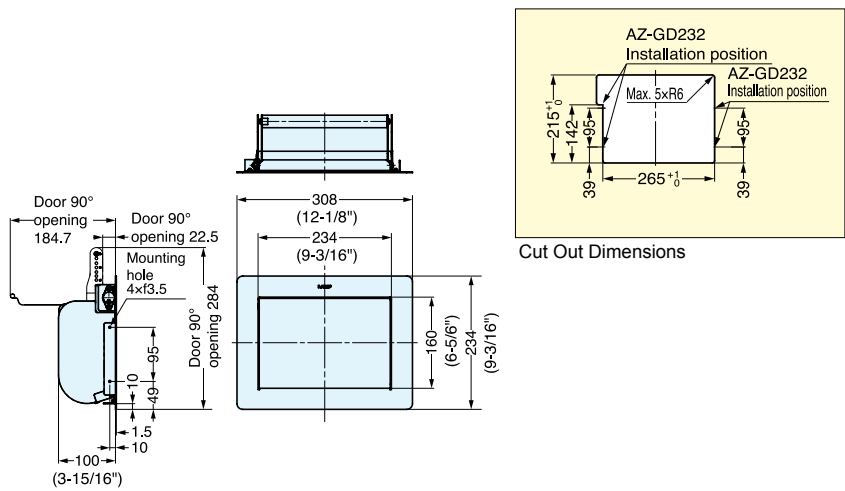
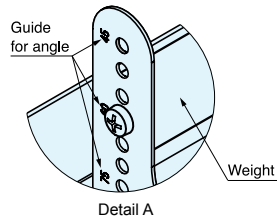
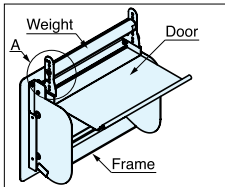
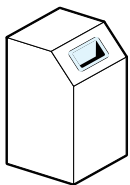
AZ-GD232-HL



- Able to install the lid up to 45°.
- Inclined mount.
- Easy to adjust angle by changing the weight position.
- Integrated anti-pinching plates.
- Corrosion resistant.
- Guide sold separately.

[Installation]

[How to Adjust Angle]



Item No.	L	H	D	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
AZ-GD232-HL	308 (12-1/8")	234 (9-3/16")	100 (3-15/16")	2200	1	10	304 Stainless Steel	Satin

MULTI-PURPOSE LID W/DAMPER



AZ-GD

MISCELLANEOUS

MULTI-PURPOSE LID W/DAMPER



AZ-GD180-HL



AZ-GD230-HL

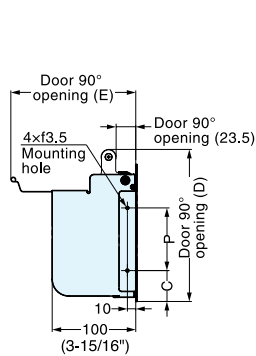
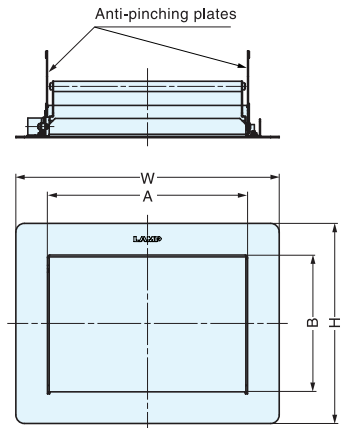


AZ-GD310-HL

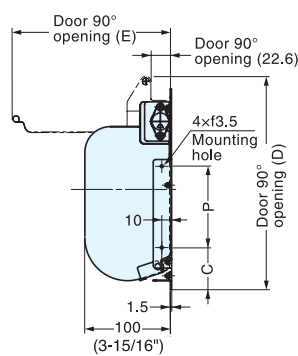


AZ-GD400-HL
(Slim Frame Type)

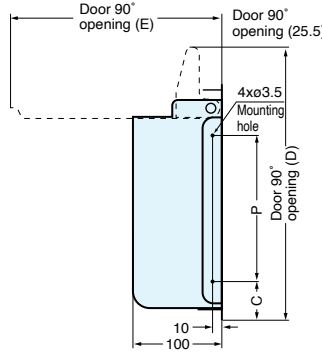
- Built in damper to keep the lid from slamming shut.
- Integrated anti-pinching plates.
- Vertical use only.
- Corrosion resistant.
- Guide sold separately.



AZ-GD180-HL

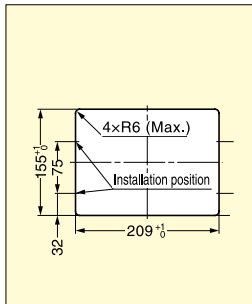


AZ-GD230-HL
AZ-GD310-HL

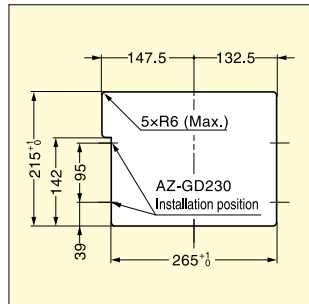


AZ-GD400-HL

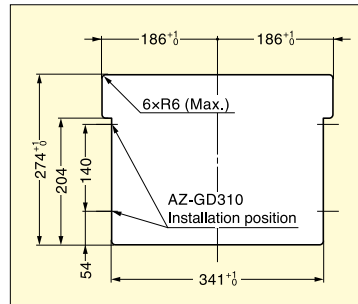
Cut Out Dimensions



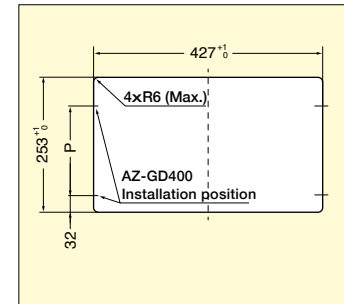
AZ-GD180-HL



AZ-GD230-HL



AZ-GD310-HL



AZ-GD400-HL

Material	Finish
304 Stainless Steel	Satin

Item No.	A	B	W	H	C	D	E	P	Weight (g)	Box (pcs)	Carton (pcs)
AZ-GD180-HL	182 (7-11/64")	128 (5-3/64")	218 (8-37/64")	164 (6-29/64")	37	182	149.5	75	1042	1	10
AZ-GD230-HL	234 (9-7/32")	160 (6-19/64")	308 (12-1/8")	234 (9-7/32")	49	249	184.7	95	1486		
AZ-GD310-HL	310 (12-13/64")	220 (8-21/32")	384 (15-1/8")	294 (11-37/64")	64	310	244.7	140	2236		
AZ-GD400-HL	400 (15-3/4")	220 (8-21/32")	450 (17 23/32")	270 (10-5/8")	44	312	240.0	167	2236		

GUIDE FOR MULTI-PURPOSE LID

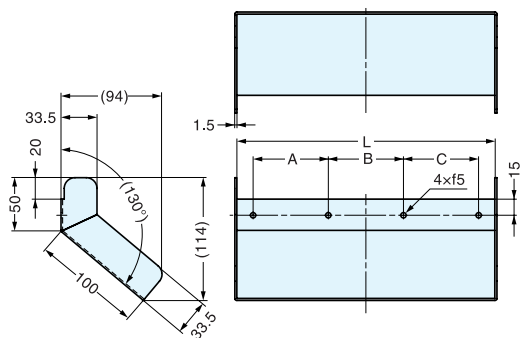


AZ-SLP

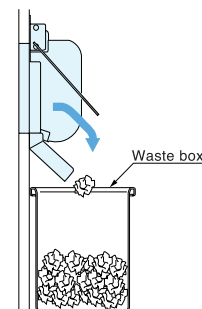


- Guide for garbage into waste basket.
- Use with AZ-GD, AZ-GD231-HL, AZ-GD232-HL and AZ-HD.

[Application Example]



[Installation]



Item No.	A	B	C	L	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
AZ-SLP230	70	70	70	241	450	20	-	304 Stainless Steel	Satin
AZ-SLP310	80	80	80	317	570				

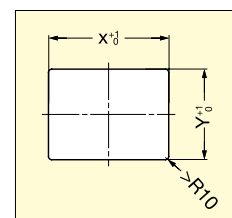
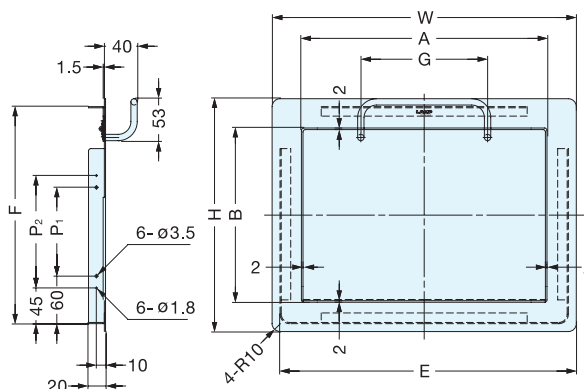
MULTI-PURPOSE LID (W/HANDLE)



AZ-HD230/HL, 310/HL



- Easy to open with the handle.
- No need to put hands inside enclosure.
- 304 Stainless Steel lid, frame, and handle.



Cut Out Dimensions

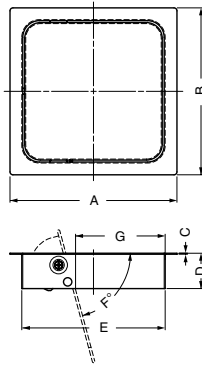
Item No.	A	B	W	H	E	F	G	P ₁	P ₂	X	Y	Weight (g)	Box (pcs)	Carton (pcs)
AZ-HD230/HL	234 (9-7/32")	160 (6-19/64")	308 (12-1/8")	234 (9-7/32")	288	214	120 (4-23/32")	60	90	289	215	1800	1	10
AZ-HD310/HL	310 (12-13/64")	220 (8-21/32")	384 (15-1/8")	294 (11-37/64")	364	274	160 (6-19/64")	112	142	365	275	2200		

Material	Finish
304 Stainless Steel	Satin

MULTI-PURPOSE LID (W/DAMPER)



AD-KH



- Features damper to keep lid from slamming shut.
- Made of stainless steel for corrosion resistance.
- Wide opening.
- Balance weight restores lid to horizontal position.
- Operating temperature: 32°F~104°F.

6-11/16" (170 mm)



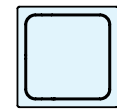
AD-KH015-HL

8-11/16" (220 mm)

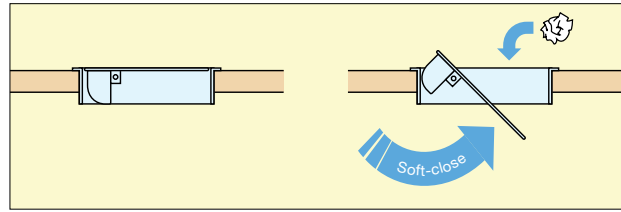
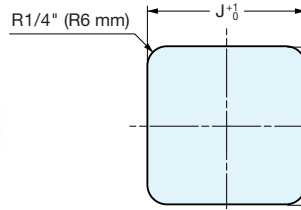


AD-KH020-HL

11-13/16" (300 mm)



AD-KH028-HL



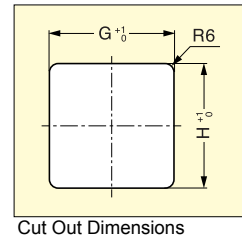
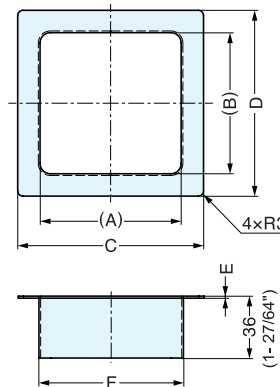
Item No.	Material	Finish	A	B	C	D	E	F	G	H	J	Weight (g)
AD-KH015-HL	304 Stainless Steel	Satin	6-11/16" (170 mm)	6-11/16" (170 mm)	1/16" (1.2 mm)	1-7/16" (36 mm)	5-3/4" (146 mm)	80°	3-11/16" (93 mm)	5-13/16" (147 mm)	5-13/16" (147 mm)	970
AD-KH020-HL			8-11/16" (220 mm)	8-11/16" (220 mm)	1/16" (1.2 mm)	2" (50 mm)	7-3/4" (196 mm)	77°	5" (127 mm)	7-3/4" (197 mm)	7-3/4" (197 mm)	1400
AD-KH028-HL			11-13/16" (300 mm)	11-13/16" (300 mm)	1/16" (1.2 mm)	2-13/16" (72 mm)	10-7/8" (276 mm)	80°	7-1/2" (191 mm)	10-15/16" (277 mm)	10-15/16" (277 mm)	2700

MULTI-PURPOSE GROMMET



AN-KH

- Corrosion resistant.
- Ideal for small dustbin applications.



Cut Out Dimensions

Material	Finish
304 Stainless Steel	Satin

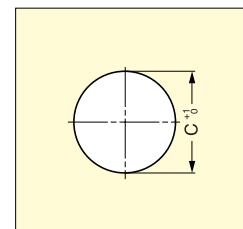
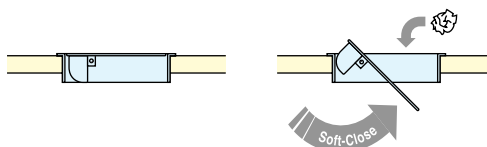
Item No.	Old Item No.	A	B	C	D	E	F	G	H	Weight (g)	Box (pcs)	Carton (pcs)
AN-KH005-HL	-	56 (2-13/64")	56 (2-13/64")	82 (3-15/64")	82 (3-15/64")	1.2	58	59	59	87	1	150
AN-KH008-HL	AN-KH001	82 (3-15/64")	82 (3-15/64")	108 (4-1/4")	108 (4-1/4")		84	85	85	126		10
AN-KH015-HL	AN-KH017	144 (5-43/64")	144 (5-43/64")	170 (6-11/16")	170 (6-11/16")		146	147	147	217		

MULTI-PURPOSE LID (SOFT CLOSE)

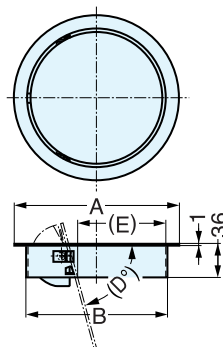


AD-GD

- Soft and slow closing movement with a built-in damper mechanism.
- Horizontal use only.



Cut Out Dimensions



Material	Finish
304 Stainless Steel	Satin
303 Stainless Steel	
Polyacetal	
Steel	
CRC	
NBR (Rubber)	

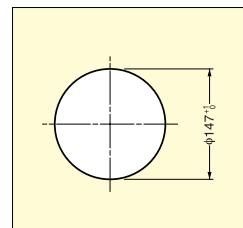
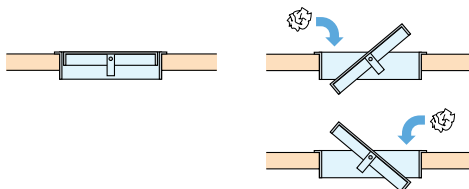
Item No.	Old Item No.	A	B	C	D	E	Weight (g)	Box (pcs)	Carton (pcs)
AD-GD011-HL	AD-DH011-HL	136 (5-23/64")	106 (4-11/64")	107 (4-7/32")	87 (3-27/64")	62 (2-7/16")	460	1	10
AD-GD015-HL	AD-DH017-HL	170 (6-11/16")	146 (5-3/4")	147 (5-25/32")	75 (2-61/64")	90 (3-35/64")	1000		

MULTI-PURPOSE LID

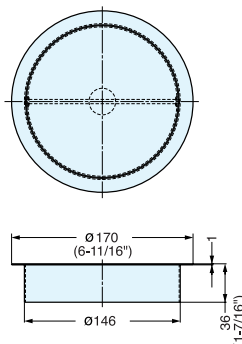


AD-DH015-HL

- Self-leveling lid.
- Horizontal use only.



Cut Out Dimensions

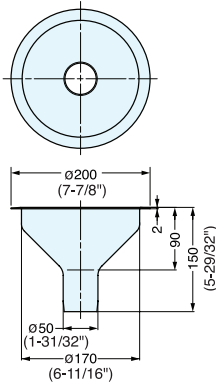


Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
AD-DH015-HL	554	1	10	304 Stainless Steel	Satin

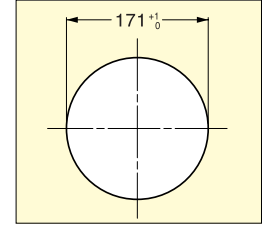
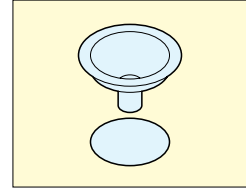
DRAIN SPOUT



AN-DH020



- Wide 6-11/16" diameter drain spout for use in food service environments.
- Lip outer diameter 7-7/8".
- Stainless steel construction for easy cleaning.
- 2" diameter tubing can be attached to the spout.



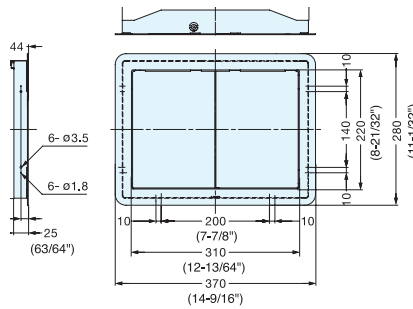
Cut Out Dimensions

Item No.	Weight (g)	Box (pcs)	Carton (pcs)	Material	Finish
AN-DH020	490	1	10	304 Stainless Steel	Polished Mirror/Satin

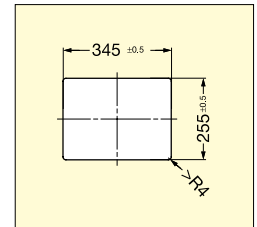
MULTI-PURPOSE LID (DOUBLE DOOR)



AZ-DD310/HL



- Synchronized doors allow for easy opening.
- 304 Stainless Steel lid and frame.



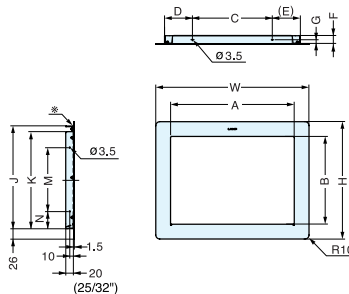
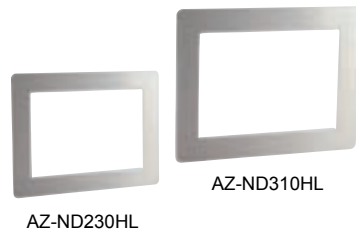
Cut Out Dimensions

Item No.	Weight (kg)	Box (pcs)	Carton (pcs)	Material	Finish
AZ-DD310/HL	2.2	1	10	304 Stainless Steel	Satin

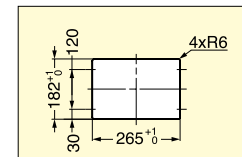
MULTI-PURPOSE LID (SQUARE BEZEL)



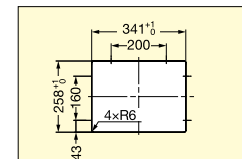
AZ-ND



- Corrosion resistant.
- 304 Stainless Steel



AZ-ND230HL Cut Out Dimensions



AZ-ND310HL Cut Out Dimensions

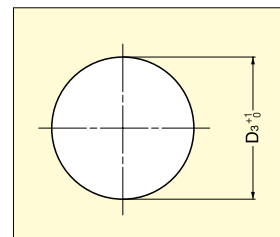
Item No.	Material	Finish	A	B	W	H				
AZ-ND230	Stainless Steel (SUS304)	Satin	234 (9-7/32")	160 (6-19/64")	308 (12-1/8")	234 (9-7/32")				
AZ-ND310HL			310 (12-13/64")	220 (8-21/32")	384 (15-1/8")	394 (15-33/64")				
Item No.	C	D	E	F	G	J	K	M	N	Weight (kg)
AZ-ND230HL	-	-	-	-	-	-	170	120	30	0.72
AZ-ND310HL	200	70	70	20	10	257	243	160	43	1.05

MULTI-PURPOSE GROMMET



AN-DH, AN-LH

- Corrosion resistant.
- Wide range of sizes and finishes.

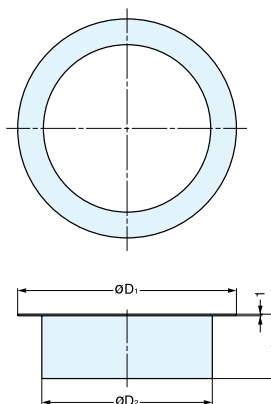
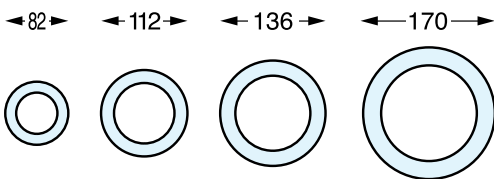


Cut Out Dimensions



AN-DH:Deep Type

AN-LH:Shallow Type



MISCELLANEOUS

MULTI-PURPOSE GROMMET

Item No.	Old Item No.	A	D ₁	D ₂	D ₃	Material	Finish	Weight (g)
AN-DH005-GP	-	36	82 (3-15/64")	58 (2-9/32")	59 (2-21/64")	Stainless Steel (SUS 304)	Gold	66
AN-DH005-MR	-						Mirror	
AN-DH005-HL	-						Satin	
AN-DH008-GP	AN-DH001-GP	36	112 (4-13/32")	82 (3-15/64")	83 (3-17/64")		Gold	107
AN-DH008-MR	AN-DH001-MR						Mirror	
AN-DH008-HL	AN-DH001-HL						Satin	
AN-DH011-GP	-	40	136 (5-23/64")	106 (4-11/64")	107 (4-7/32")		Gold	137
AN-DH011-MR	-						Mirror	
AN-DH011-HL	-						Satin	
AN-DH015-GP	-	36	170 (6-11/16")	146 (5-3/4")	147 (5-25/32")	Gold	182	
AN-DH015-MR	-					Mirror		
AN-DH015-HL	-					Satin		

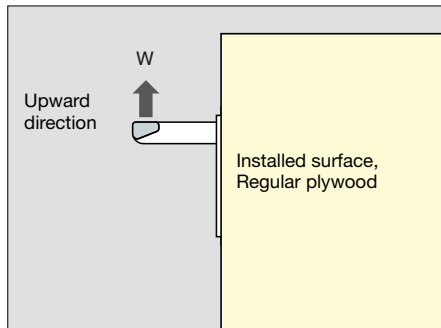
Item No.	Old Item No.	A	D ₁	D ₂	D ₃	Material	Finish	Weight (g)
AN-LH005-GP	-	22	82 (3-15/64")	58 (2-9/32")	59 (2-21/64")	Stainless Steel (SUS 304)	Gold	50
AN-LH005-MR	-						Mirror	
AN-LH005-HL	-						Satin	
AN-LH008-GP	AN-LH001-GP	22	112 (4-13/32")	82 (3-15/64")	83 (3-17/64")		Gold	77
AN-LH008-MR	AN-LH001-MR						Mirror	
AN-LH008-HL	AN-LH001-HL						Satin	
AN-LH011-GP	-	22	136 (5-23/64")	106 (4-11/64")	107 (4-7/32")		Gold	92
AN-LH011-MR	-						Mirror	
AN-LH011-HL	-						Satin	
AN-LH015-GP	-	22	170 (6-11/16")	146 (5-3/4")	147 (5-25/32")	Gold	122	
AN-LH015-MR	-					Mirror		
AN-LH015-HL	-					Satin		

TEST METHODS

■ About Test Methods

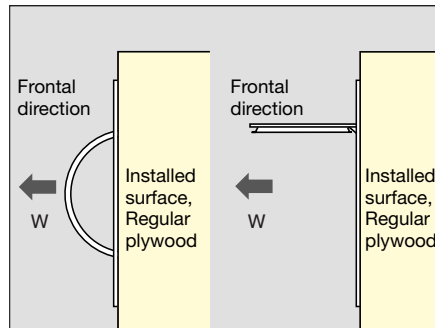
Various values about products with Test logo, such as the load capacity, hanging load capacity, catch force and retaining force, are determined by the tests performed by our company as described below. Values are to provide guidance for the safe use of our products. Product without Test logo may not be based on these criteria in some cases.

TEST 1 LOAD CAPACITY TEST (TEST 1)



The load capacity is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure.

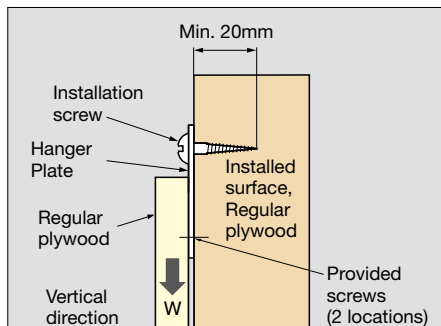
TEST 2 LOAD CAPACITY TEST (TEST 2)



The load capacity is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure. Product may fail or distort if the force is applied

in a direction other than the frontal direction. Please do not use on application other than in the pull direction.

TEST 3 HANGING-LOAD CAPACITY TEST (TEST 3)

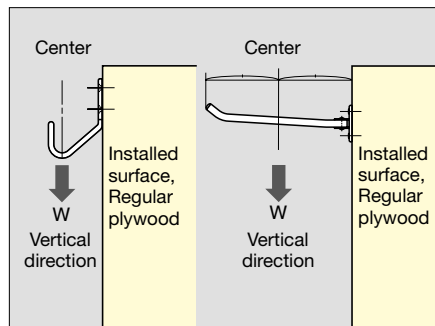


The hanging-load capacity is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure. This value will vary according to the

diameter / length of the screw(s) used and strength of the installed surface.

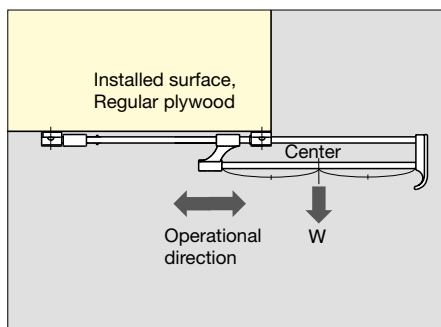
Hanging load of 10kg (22 lbs), in case of using round-head wood screw 3.8 x 25.

TEST 4 HANGING-LOAD CAPACITY TEST (TEST 4)



The hanging-load capacity is measured when the force (W) is gently applied at the center of the product in the direction of the arrow under the condition indicated by the figure.

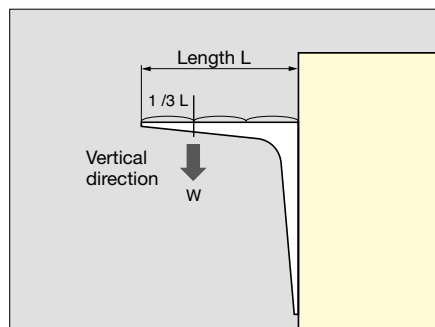
TEST 5 MAXIMUM HANGING-LOAD TEST (TEST 5)



The maximum hanging-load capacity is measured when the force (W) is gently applied in the direction of the arrow and operated under the condition indicated by the figure.

If the load is concentrated at the front tip of the hanger, the front tip may sag or the movement may become heavy.

TEST 6 LOAD CAPACITY TEST (TEST 6)

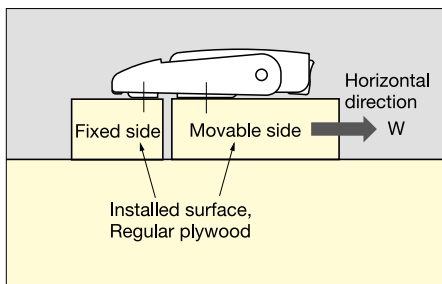


The load capacity is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure. (This is based on the force (W) applied at the center

of the shelf board with its length $4/3$ times longer than the shelf bracket or angle bracket.)

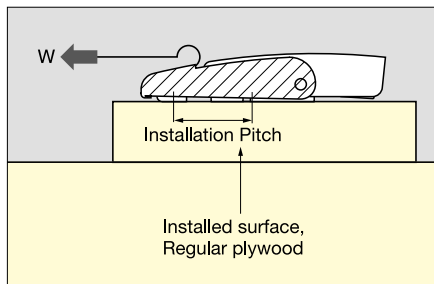
TEST METHODS

TEST 7 LOAD CAPACITY TEST (TEST 7)



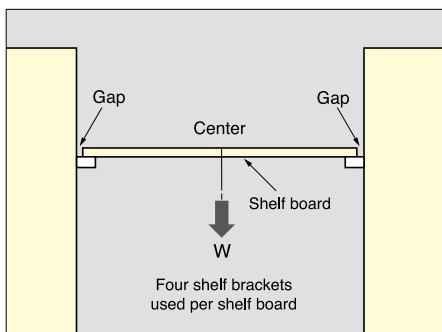
The load capacity is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure.

TEST 8 CLAMPING FORCE TEST UNDER STANDARD INSTALLATION (TEST 8)



The capacity of the clamping force under standard installation is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure, and when the shaded portion begins to slide.

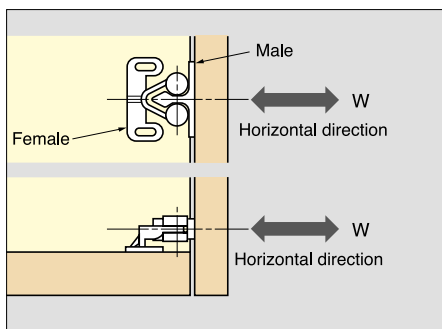
TEST 9 LOAD CAPACITY TEST (TEST 9)



The load capacity is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure. Follow the conditions below to prevent the shelf bracket or shelf board from falling off.

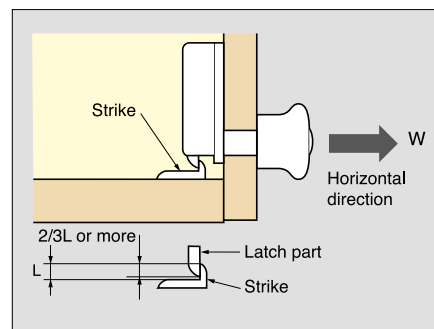
- 1: The total gap between the shelf board and side board shall be 1mm or less.
- 2: Use shelf board which has sufficient durability.

TEST 10 CATCH FORCE TEST (TEST 10)



The catch force is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure. Note: Misalignment of the male and female parts may cause the catch force to decrease or parts failure.

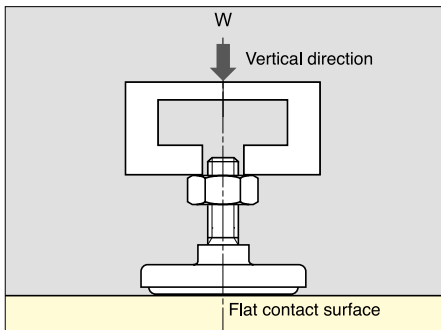
TEST 11 RETAINING FORCE TEST (TEST 11)



The retaining force is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure. Note: Latch and strike must be engaged at least 2/3L or more. (See the figure.)

TEST METHODS

TEST 12 LOAD CAPACITY TEST (TEST 12)



The load capacity is measured when the force (W) is applied in the direction of the arrow under the condition indicated in the figure. Product may break or distort if the contact surface is not flat.

TEST 13 LOAD CAPACITY OF CASTER (TEST 13)

The load capacity is based on a flat steel floor surface. Following is the safety factor which should be taken into consideration in case of using four casters:

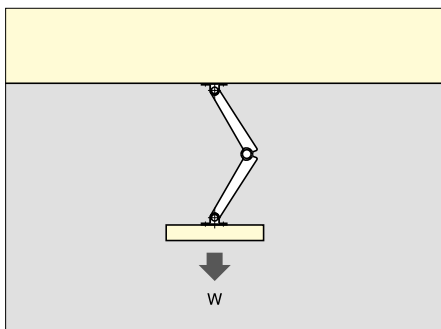


Proper load kg (lbs) = Load capacity value kg (lbs) x 4 (each) x 0.75

The safety factor will vary depending on the conditions of use such as the rolling surface, rolling speed, etc.

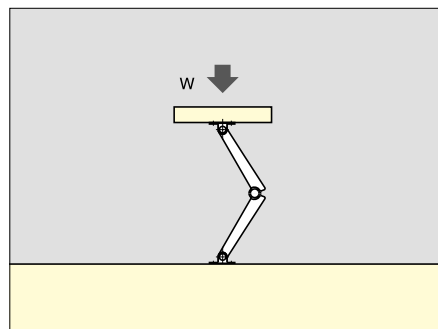
When using under adverse conditions, please test the casters in the intended application.

TEST 14 PULL LOAD TEST (TEST 14)



The pull load capacity is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure.

TEST 15 COMPRESSION LOAD TEST (TEST 15)



The compression load capacity is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure.

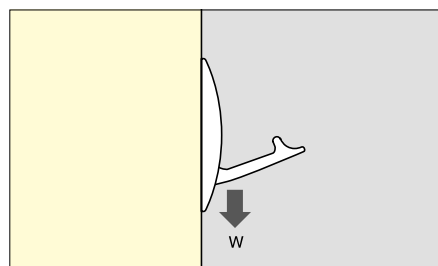
TEST 16 PERMISSIBLE LOAD OF FASTENER (TEST 16) TEST 17 HOOK LOAD CAPACITY TEST (TEST 17)

The permissible load is based on the following safety factor:

$$\text{Permissible load kg (lbs)} = \text{Ultimate Load} \div 3$$

The safety factor will vary depending on the conditions of use.

When used under adverse conditions, please test the fastener in intended application.



The load capacity is measured when the force (W) is gently applied in the direction of the arrow under the condition indicated by the figure.

The load capacity is based on the following safety factor:

$$\text{Load capacity kg (lbs)} = \text{Ultimate Load} \div 3$$

However, the safety factor will vary depending on the conditions of use. When used under adverse conditions, please test the hook in intended application.

MATERIALS

Material	Type	Characteristics
430 Stainless Steel	Ferretic	18% Chromium (Cr) added to steel. Commonly used because of its excellent formability and cost performance. Low corrosion resistance compared to 304 grade.
304 Stainless Steel	Austenitic	Most common grade which contains 18% chromium and 8% nickel, also called 18/8 stainless steel. Low carbon content, excellent formability and weldability with good corrosion resistance.
316 Stainless Steel	Austenitic	Nickel (Ni) and Molybdenum (Mo) added to maximize corrosion resistance. Better acid and pitting resistance than 304 grade. Also has high strength at high temperature.
Zinc Alloy	-	This is an alloy having zinc (Zn) as main component along with other materials such as aluminum (Al), copper (Cu), magnesium (Mg), iron (Fe), etc. This alloy is widely used along with aluminum alloy for die-casting. Zinc alloy facilitates the manufacturing of product with high dimensional accuracy, beautiful cast surface, and it can be plated for superior corrosion resistance. Zinc Alloy also has superior mechanical characteristics such as high tensile strength, compressive strength, hardness, bend (flexural) strength, modulus of elasticity, etc. Also zinc alloy can be plated with good corrosion resistance.
Aluminum Alloy	-	This is an alloy having aluminum (Al) as a main component along with other materials such as copper (Cu), silicon (Si), iron (Fe), magnesium (Mg), zinc (Zn), etc. Aluminum alloy is the most widely used material today for die-casting. This alloy facilitates the manufacturing of lightweight product having appropriate mechanical characteristics and corrosion resistance. Also it has good physical characteristics such as fine thermal conductivity, and also the characteristics do not change at low temperature.
Brass	-	Brass is an alloy having copper (Cu) and zinc (Zn) as the main components. It has yellow (or golden) color and good cutting characteristics. This alloy is easy to fabricate and is often used for the body of locks, hinges, handles, etc.

Material	Acronym	Characteristics
ABS Resin	ABS	Thermal plastic developed to enhance the impact resistance of polystyrene. ABS can be plated.
Polyamide	PA	Very resistant to wear and abrasion suitable for parts like gears and bearings. Also has good chemical and oil resistance.
Polypropylene	PP	Strong against organic solvent. Difficult for adhesion and painting. Resistant to bending stress ideal for bending applications.
Polyacetal	POM	Superior abrasion resistance. Good tensile/bending strength and elasticity.
Polyethylene	PE	Low material cost. Excellent formability usable for various application. Has very low water absorption rate, suitable for water resistant purpose.
Polycarbonate	PC	High impact resistance and good dimensional stability for high precision. Also has high transparency.

SURFACE TREATMENT

Name	Characteristics
Zinc Plating	Zinc plating is commonly used on steel to prevent oxidation. Chromate is generally applied over zinc to enhance corrosion resistance.
Chromate Conversion Coating	Major coating mainly applied on parts after zinc plated or cadmium plated. Parts are immersed in a solution mainly consisting of chromic acid or heavy chromic acid to create the coating. This is used to improve corrosion resistance and appearance of metals, metal coloration, and is also used as a pre-treatment for painting. Various chromate coatings are developed such as yellow chromate (rainbow color), clear chromate, black chromate, green chromate, etc.
Chrome Plating	Common electroplating for various industrial purposes. Reflective finish can be achieved by polishing. High hardness and good corrosion resistance along with thermal resistance, abrasion resistance and good adhesion characteristics. Generally used as final finish for various decorative parts and products due to its uniquely deep coloration.
Nickel Plating	Nickel is commonly used for decorative and anti-corrosion purpose because of its stability against air or humidity compared to iron. However, since the surface of the nickel plating will slightly discolor through exposure to air, chrome is often used after nickel to keep the finish/color. Nickel plating has moderate hardness / corrosion-resistance and widely used on industrial application.
Alumite or Anodizing (Anodic Oxidation Film Processing)	Also called the “anodic oxidation film processing”. This process thickens and toughens natural oxide layer on metal, commonly applied to aluminum for corrosion resistance and dyeing. In aluminum anodizing, aluminum object serves as the anode (the positive electrode) when electrolyzed in the sulfuric acid. This will create a layer of porous oxide film which has high electric insulation and abrasion resistance. The film is normally transparent when it is thin, although it becomes dull as the thickness increases. The pores produced by anodizing are closed by a process called sealing, which is done by high-pressurized or boiling-hot deionized water. This process fills the pores and creates a thin layer that is corrosion resistant, suitable for various aluminum parts / products.

* Hexavalent-Chromium (CR6) Free

Sugatsune is strictly controlling the use of chemicals that would adversely impact the environment. We are designing and developing products with minimum use of materials which has adverse environmental impact. Hexavalent chromium compound is especially known for its adverse effects on the human body. We are eagerly substituting this Hexavalent-chromium (CR6) with the less toxic substance Trivalent-chromium (CR3).

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Inch to Metric Conversion table

Metric to Inch Conversion

	1"	2"	3"	4"	5"	6"	7"	8"	9"	10"	11"	12"	
0/0	0.0	25.4	50.8	76.2	101.6	127.0	152.4	177.8	203.2	228.6	254.0	279.4	304.8
1/64	0.4	25.8	51.2	76.6	102.0	127.4	152.8	178.2	203.6	229.0	254.4	279.8	305.2
1/32	0.8	26.2	51.6	77.0	102.4	127.8	153.2	178.6	204.0	229.4	254.8	280.2	305.6
3/64	1.2	26.6	52.0	77.4	102.8	128.2	153.6	179.0	204.4	229.8	255.2	280.6	306.0
1/16	1.6	27.0	52.4	77.8	103.2	128.6	154.0	179.4	204.8	230.2	255.6	281.0	306.4
5/64	2.0	27.4	52.8	78.2	103.6	129.0	154.4	179.8	205.2	230.6	256.0	281.4	306.8
3/32	2.4	27.8	53.2	78.6	104.0	129.4	154.8	180.2	205.6	231.0	256.4	281.8	307.2
7/64	2.8	28.2	53.6	79.0	104.4	129.8	155.2	180.6	206.0	231.4	256.8	282.2	307.6
1/8	3.2	28.6	54.0	79.4	104.8	130.2	155.6	181.0	206.4	231.8	257.2	282.6	308.0
9/64	3.6	29.0	54.4	79.8	105.2	130.6	156.0	181.4	206.8	232.2	257.6	283.0	308.4
5/32	4.0	29.4	54.8	80.2	105.6	131.0	156.4	181.8	207.2	232.6	258.0	283.4	308.8
11/64	4.4	29.8	55.2	80.6	106.0	131.4	156.8	182.2	207.6	233.0	258.4	283.8	309.2
3/16	4.8	30.2	55.6	81.0	106.4	131.8	157.2	182.6	208.0	233.4	258.8	284.2	309.6
13/64	5.2	30.6	56.0	81.4	106.8	132.2	157.6	183.0	208.4	233.8	259.2	284.6	310.0
7/32	5.6	31.0	56.4	81.8	107.2	132.6	158.0	183.4	208.8	234.2	259.6	285.0	310.4
15/64	6.0	31.4	56.8	82.2	107.6	133.0	158.4	183.8	209.2	234.6	260.0	285.4	310.8
1/4	6.4	31.8	57.2	82.5	108.0	133.4	158.8	184.2	209.6	235.0	260.4	285.8	311.2
17/64	6.7	32.1	57.5	82.9	108.3	133.7	159.1	184.5	209.9	235.3	260.7	286.1	311.5
9/32	7.1	32.5	57.9	83.3	108.7	134.1	159.5	184.9	210.3	235.7	261.1	286.5	311.9
19/64	7.5	32.9	58.3	83.7	109.1	134.5	159.9	185.3	210.7	236.1	261.5	286.9	312.3
5/16	7.9	33.3	58.7	84.1	109.5	134.9	160.3	185.7	211.1	236.5	261.9	287.3	312.7
21/64	8.3	33.7	59.1	84.5	109.9	135.3	160.7	186.1	211.5	236.9	262.3	287.7	313.1
11/32	8.7	34.1	59.5	84.9	110.3	135.7	161.1	186.5	211.9	237.3	262.7	288.1	313.5
23/64	9.1	34.5	59.9	85.3	110.7	136.1	161.5	186.9	212.3	237.7	263.1	288.5	313.9
3/8	9.5	34.9	60.3	85.7	111.1	136.5	161.9	187.3	212.7	238.1	263.5	288.9	314.3
25/64	9.9	35.3	60.7	86.1	111.5	136.9	162.3	187.7	213.1	238.5	263.9	289.3	314.7
13/32	10.3	35.7	61.1	86.5	111.9	137.3	162.7	188.1	213.5	238.9	264.3	289.7	315.1
27/64	10.7	36.1	61.5	86.9	112.3	137.7	163.1	188.5	213.9	239.3	264.7	290.1	315.5
7/16	11.1	36.5	61.9	87.3	112.7	138.1	163.5	188.9	214.3	239.7	265.1	290.5	315.9
29/64	11.5	36.9	62.3	87.7	113.1	138.5	163.9	189.3	214.7	240.1	265.5	290.9	316.3
15/32	11.9	37.3	62.7	88.1	113.5	138.9	164.3	189.7	215.1	240.5	265.9	291.3	316.7
31/64	12.3	37.7	63.1	88.5	113.9	139.3	164.7	190.1	215.5	240.9	266.3	291.7	317.1
1/2	12.7	38.1	63.5	88.9	114.3	139.7	165.1	190.5	215.9	241.3	266.7	292.1	317.5
33/64	13.1	38.5	63.9	89.3	114.7	140.1	165.5	190.9	216.3	241.7	267.1	292.5	317.9
17/32	13.5	38.9	64.3	89.7	115.1	140.5	165.9	191.3	216.7	242.1	267.5	292.9	318.3
35/64	13.9	39.3	64.7	90.1	115.5	140.9	166.3	191.7	217.1	242.5	267.9	293.3	318.7
9/16	14.3	39.7	65.1	90.5	115.9	141.3	166.7	192.1	217.5	242.9	268.3	293.7	319.1
37/64	14.7	40.1	65.5	90.9	116.3	141.7	167.1	192.5	217.9	243.3	268.7	294.1	319.5
19/32	15.1	40.5	65.9	91.3	116.7	142.1	167.5	192.9	218.3	243.7	269.1	294.5	319.9
39/64	15.5	40.9	66.3	91.7	117.1	142.5	167.9	193.3	218.7	244.1	269.5	294.9	320.3
5/8	15.9	41.3	66.7	92.1	117.5	142.9	168.3	193.7	219.1	244.5	269.9	295.3	320.7
41/64	16.3	41.7	67.1	92.5	117.9	143.3	168.7	194.1	219.5	244.9	270.3	295.7	321.1
21/32	16.7	42.1	67.5	92.9	118.3	143.7	169.1	194.5	219.9	245.3	270.7	296.1	321.5
43/64	17.1	42.5	67.9	93.3	118.7	144.1	169.5	194.9	220.3	245.7	271.1	296.5	321.9
11/16	17.5	42.9	68.3	93.7	119.1	144.5	169.9	195.3	220.7	246.1	271.5	296.9	322.3
45/64	17.9	43.3	68.7	94.1	119.5	144.9	170.3	195.7	221.1	246.5	271.9	297.3	322.7
23/32	18.3	43.7	69.1	94.5	119.9	145.3	170.7	196.1	221.5	246.9	272.3	297.7	323.1
47/64	18.7	44.1	69.5	94.9	120.3	145.7	171.1	196.5	221.9	247.3	272.7	298.1	323.5
3/4	19.1	44.5	69.9	95.2	120.7	146.1	171.5	196.9	222.3	247.7	273.1	298.5	323.9
49/64	19.4	44.8	70.2	95.6	121.0	146.4	171.8	197.2	222.6	248.0	273.4	298.8	324.2
25/32	19.8	45.2	70.6	96.0	121.4	146.8	172.2	197.6	223.0	248.4	273.8	299.2	324.6
51/64	20.2	45.6	71.0	96.4	121.8	147.2	172.6	198.0	223.4	248.8	274.2	299.6	325.0
13/16	20.6	46.0	71.4	96.8	122.2	147.6	173.0	198.4	223.8	249.2	274.6	300.0	325.4
53/64	21.0	46.4	71.8	97.2	122.6	148.0	173.4	198.8	224.2	249.6	275.0	300.4	325.8
27/32	21.4	46.8	72.2	97.6	123.0	148.4	173.8	199.2	224.6	250.0	275.4	300.8	326.2
55/64	21.8	47.2	72.6	98.0	123.4	148.8	174.2	199.6	225.0	250.4	275.8	301.2	326.6
7/8	22.2	47.6	73.0	98.4	123.8	149.2	174.6	200.0	225.4	250.8	276.2	301.6	327.0
57/64	22.6	48.0	73.4	98.8	124.2	149.6	175.0	200.4	225.8	251.2	276.6	302.0	327.4
29/32	23.0	48.4	73.8	99.2	124.6	150.0	175.4	200.8	226.2	251.6	277.0	302.4	327.8
59/64	23.4	48.8	74.2	99.6	125.0	150.4	175.8	201.2	226.6	252.0	277.4	302.8	328.2
15/16	23.8	49.2	74.6	100.0	125.4	150.8	176.2	201.6	227.0	252.4	277.8	303.2	328.6
61/64	24.2	49.6	75.0	100.4	125.8	151.2	176.6	202.0	227.4	252.8	278.2	303.6	329.0
31/32	24.6	50.0	75.4	100.8	126.2	151.6	177.0	202.4	227.8	253.2	278.6	304.0	329.4
63/64	25.0	50.4	75.8	101.2	126.6	152.0	177.4	202.8	228.2	253.6	279.0	304.4	329.8

mm	Inches
0.1	0.0039
0.2	0.0079
0.3	0.0118
0.4	0.0157
0.5	0.0197
0.6	0.0236
0.7	0.0276
0.8	0.0315
0.9	0.0354
1	0.0394
2	0.0787
3	0.1181
4	0.1575
5	0.1969
6	0.2362
7	0.2756
8	0.3150
9	0.3543
10	0.3937
11	0.4331
12	0.4724
13	0.5118
14	0.5512
15	0.5906
16	0.6299
17	0.6693
18	0.7087
19	0.7480
20	0.7874
21	0.8268
22	0.8661
23	0.9055
24	0.9449
25	0.9843
26	1.0236
27	1.0630
28	1.1024
29	1.1417
30	1.1811
31	1.2205
32	1.2598
33	1.2992
34	1.3386
35	1.3780
36	1.4173
37	1.4567
38	1.4961
39	1.5354
40	1.5748
41	1.6142
42	1.6535
43	1.6929
44	1.7323
45	1.7717
46	1.8110
47	1.8504
48	1.8898
49	1.9291
50	1.9685
51	2.0079
52	2.0472
53	2.0866
54	2.1260
55	2.1654