



Hager Door Hardware Catalog #28

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General Information



WELCOME

Hager Companies provides single-source solutions for the door hardware industry with a line of quality products that includes:

- Architectural Hinges
- Residential Hinges
- Roton Continuous Geared Hinges
- Stainless Steel Continuous Hinges
- Trim & Auxiliary
- Thresholds & Weatherstripping
- Sliding Door Hardware
- Locks
- Door Closers
- Exit Devices

Since 1849, Hager's focus has been innovative products, exceptional value, and incomparable customer service. Additionally, Hager offers complimentary comprehensive consulting services. Our services include design development assistance, budget preparation, door hardware specification writing, code compliance, submitted schedules review and approval, and technical project support.

We believe that by offering these value-added services, along with our premium quality, value-priced products, you'll see for yourself how Hager gives you "more for your door than any other brand."

So whatever you're looking for—from simple everyday needs to solutions for unconventional applications—you'll find it in our 2016 Catalog.

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GENERAL INFORMATION

TERMINOLOGY

Terminology used in this catalog complies with the following ANSI/BHMA standards:

- ANSI A156.1 - Butts and Hinges
- ANSI A156.2 - Bored and Presassembled Locks and Latches
- ANSI A156.3 - Exit Devices
- ANSI A156.4 - Door Controls-Closers
- ANSI A156.5 - Auxiliary Locks and Associated Products
- ANSI A156.6 - Architectural Door Trim
- ANSI A156.7 - Template Hinge Dimensions
- ANSI A156.8 - Door Controls-Overhead Stops and Holders
- ANSI A156.12 - Interconnected Locks
- ANSI A156.13 - Mortise Locks and Latches
- ANSI A156.14 - Sliding and Folding Door Hardware
- ANSI A156.15 - Release Devices-Closer Holder, Electromagnetic and Electromechanical
- ANSI A156.16 - Auxiliary Hardware
- ANSI A156.17 - Self Closing Hinges and Pivots
- ANSI A156.18 - Materials and Finishes
- ANSI A156.21 - Thresholds
- ANSI A156.22 - Door Gasketing Systems
- ANSI A156.25 - Electrified Locking Devices
- ANSI A156.26 - Continuous Hinges
- ANSI A156.28 - Keying Systems

ANSI NUMBERING SYSTEM

Letter "A" denotes section "A" of ANSI Standard

First Numeral

The first numeral indicates general type of material used.

- 1 - Cast, Forged or Extruded Brass or Bronze
- 2 - Wrought Brass or Bronze
- 5 - Stainless Steel, 300 Series
- 8 - Wrought Steel, Forged Steel or Malleable Iron

Second Numeral

The second numeral identifies type of product.

- 1 - Full Mortise Hinges
- 2 - Half Mortise Hinges
- 3 - Full Surface Hinges
- 4 - Half Surface Hinges
- 5 - Anchor, Pivot Reinforced or Thrust Pivot Unit and Hinge Sets
- 6 - Olive Knuckle Hinges
- 7 - Pivot Hinges
- 8 - Rescue Hardware

Third Numeral

The third numeral identifies the function or the description of the item or both.

- 1 - Anti-Friction Bearing
- 2 - Anti-Friction Bearing - Swing Clear
- 3 - Plain Bearing
- 4 - Thru 0 - Special Conditions

Fourth Numeral

The fourth numeral designates the grade classification of the item.

- 1 - Grade 1 - 4BB Extra Heavy Weight - 2,500,000 Cycles
- 2 - Grade 2 - 2BB Standard Weight - 1,500,000 Cycles
- 3 - Grade 3 - Plain Bearing - 350,000 Cycles

Information taken from: ANSI A156.1 (Butts and Hinges)

CODES AND ILLUSTRATIONS

Units of Measure

EACH - Item in a box either with or without screws.

PACK - Items poly bagged (1 or more) per bag.

PAIR - Items (1 or more) pair per box.

SET - Items (1 or more) sets per box.

Illustrations

Pictures and illustrations shown in this catalog are for general product information only and are not meant to be used as templates. Contact Hager Companies Sales and Service for templates or installation instructions, or go to www.hagerco.com to download.

Packaging

The following codes have been established to provide clarification of packaging methods. The basic code letter(s) are shown in parenthesis in the unit column of each page. The letter designation refers to the standard Hager Pack.

Hager Companies reserves the right to change the packaging methods when deemed necessary and to increase or decrease quantities to make full case quantities on a specific item.

- B = Boxed
- PB = Poly Bag
- BLK = Bulk Pack
- SET = Set

APPROVAL

Hager Companies has been approved by the U.S. Corps of Engineers and by the Veterans Administration for use on all veterans hospitals and on other buildings that would come under their jurisdiction. Approved samples are on file at the National Bureau of Standards, Washington, D.C.



GENERAL INFORMATION

DOOR MATERIALS AND FREQUENCY

Approximate Door Weights - pounds per square foot					
Door Material	Door Thickness				
	1-3/8" (35 mm)	1-3/4" (45 mm)	2" (51 mm)	2-1/4" (57 mm)	2-1/2" (64 mm)
Ash	4.5	5.3	6.0	6.8	7.5
Birch	3.8	4.3	5.0	5.6	6.3
Fir	3.0	3.5	4.0	4.5	5.0
Mahogany	4.5	5.3	6.0	6.8	7.5
Oak	6.0	7.3	8.0	9.0	10.0
White Pine	3.0	3.5	4.0	4.0	5.0
Residential Hollow Core	1.7	2.5	-	-	-
Institutional Hollow Core	-	3.2	-	-	-
Staved Core	3.3	4.2	-	5.4	-
Particle Board Core	4.0	5.0	-	-	-
Mineral Core	-	4.0	-	-	-
Acoustical Core	-	8.3	-	10.6	-
Fiberglass	-	3.8	-	-	-
Hollow Metal 18 gauge	4.3	4.6	-	-	-
Hollow Metal 16 gauge	5.4	5.8	-	-	-
Hollow Metal 15 gauge	6.2	6.5	-	-	-
Hollow Metal 14 gauge	7.0	7.3	-	-	-
Hollow Metal 13 gauge	8.3	8.7	-	-	-
Hollow Metal 12 gauge	9.9	15.5	-	-	-
Hollow Metal 11 gauge	11.2	11.6	-	-	-
Hollow Metal 10 gauge	12.8	13.0	-	-	-
1-3/4" Wood + 1/16" Lead	-	8.7	-	-	-
1-3/4" Wood + 1/8" Lead	-	12.4	-	-	-
1-3/4" Wood + 3/16" Lead	-	16.1	-	-	-
1-3/4" Wood + 1/4" Lead	-	19.8	-	-	-
1-3/4" Wood + 3/8" Lead	-	27.2	-	-	-
1-3/4" Wood + 1/2" Lead	-	34.6	-	-	-

Frequency of Use		
Type of Building	Daily	Yearly
High Frequency		
Large Department Store Entrance	5,000	1,825,000
Large Office Building Entrance	4,000	1,460,000
Hospital Corridor and Surgical Doors	3,000	1,095,000
School Entrance	1,250	456,250
Office Stairwell	500	182,500
Medium Frequency		
Hospital Consultation Rooms	100	36,500
School Corridor	100	36,500
Office Building Corridor	80	29,200
Storage Room	50	18,250
Low Frequency		
Residential Entrance	30	10,950
Residential Interior	20	7,300

Note: Frequency chart recommendations apply to all average weight doors. Heavy ball bearing hinges should be used for doors having a thickness of 2" (51 mm) or more over a width of 3' 4" (1016 mm). Any doors on which a closing device is used should be equipped with bearing hinges, regardless of frequency of use.

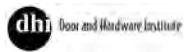
GENERAL INFORMATION

TRADE ORGANIZATIONS



The American Hardware Manufacturers Association

The purpose of AHMA is to promote the sale of American made products through the hardware distribution system. Hager Companies is a member in good standing of the American Hardware Manufacturers Association, the owner of the AHMA registered trademark.



Door and Hardware Institute

The purpose of the Institute is to represent the architectural openings industry as a major component of the construction industry. Hager recommends the service of a qualified A.H.C. for the preparation of hardware specification and schedules. Members of this society are qualified through years of experience and rigid examination to handle the most complex hardware situations.



Builders Hardware Manufacturers Association

The Builders Hardware Manufacturers Association is a national trade group of manufacturers whose products are classified (Standard Industrial Classification #34294) and most familiarly recognized as locks and builders hardware. Where applicable this catalog shows BHMA numbers in conjunction with Hager numbers. The purpose is to advance the interests of the Builders Hardware Industry in all lawful ways.



Association of Millwork Distributors

The Association of Millwork Distributors has continued to be recognized as the leader in the millwork wholesale distribution industry for almost half a century. The Southern Sash and Door and Northern Sash and Door organizations, joined forces 42 years ago to become the National Sash and Door Jobbers Association (NSDJA). On the 40th Anniversary of NSDJA, the association changed its name to the Association of Millwork Distributors (AMD). This change signified that the leadership and membership of the association recognized the changes in the millwork industry.

AMD represents the millwork industry with over 1,000 distributor, manufacturer, and manufacturer's representative companies, nationally and internationally, that promote the best in products and services that the millwork industry has to offer.

AMD is a chief advocate, actively engaged in issues regarding standards, trends, and resources in the millwork distribution industry. AMD monitors Congressional activity and various regulatory agencies, continually seeking to promote industry benefits for AMD members.

AMD is committed to being an essential resource for its members, providing educational products, networking events, and pertinent industry information to help members stay updated on millwork industry trends and available opportunities.

GENERAL INFORMATION

Florida Building Codes



The following products have been approved for statewide acceptance by the Florida Building Commission pursuant to Rule 9B-72.090, F.A.C., for approval of products and systems for use on Exterior Swinging Door Assemblies, in compliance with the structural requirements of the 2007 Florida Building Code.

Verification of Florida Statewide acceptance can be found at www.floridabuilding.org under the Product Approval section.

Severe Windstorm Resistant Components for Swinging Door Assemblies - ANSI A250.13 - 2003 Standard

Certified Hardware	Assembly Configuration	Door Size	Door Stiffness Class	Design Load	Florida Certification Number (FL#)
3100 Series Grade 1 Deadbolt	Single - Out Swing	3-0 x 7-0	-	1150 lbf (100 psf)*	6118
	Single - Out Swing	4-0 x 8-0	-	1150 lbf (70 psf)*	
3200 Series Grade 2 Deadbolt	Single - Out Swing	3-0 x 7-0	-	1150 lbf (100 psf)*	6118
	Single - Out Swing	4-0 x 8-0	-	1150 lbf (70 psf)*	
3400 Series Grade 1 Lockset	Single - Out Swing	3-0 x 7-0	-	1150 lbf (100 psf)*	6118
	Single - Out Swing	4-0 x 8-0	-	1150 lbf (70 psf)*	
3500 Series Grade 2 Lockset	Single - Out Swing	3-0 x 7-0	-	860 lbf (80 psf)*	7683
	Single - Out Swing	4-0 x 8-0	-	860 lbf (50 psf)*	
3800 Series Grade 1 Mortise	Single - Out Swing	3-0 x 7-0	-	1150 lbf (100 psf)*	12932
	Single - Out Swing	4-0 x 8-0	-	1150 lbf (70 psf)*	
4500 Rim Exit Device	Single - Out Swing	4-0 x 8-0 max.	I	+/- 70 psf - 350 ft-lbs Impact	9481
4500 SVR Exit Device	Out Swing	8-0 x 8-0 pair max.	I	+/- 50 psf - 350 ft-lbs Impact	13178
4700 Rim Exit Device	Single - Out Swing	4-0 x 8-0 max.	I	+/- 40 psf - 350 ft-lbs Impact	8293
780-112 Roton Hinge	Single Swing	4-0 x 8-0 max.	I	1150 lbf (72 psf)* - 350 ft-lbs Impact	6118
780-111, 780-224, 780-226 Roton Hinge (SD & HD)	Single Swing	4-0 x 8-0 max.	I	1150 lbf (72 psf)* - 350 ft-lbs Impact	13776
BB1191 Hinge	Single - Out Swing	-	-	1780 lbf**	6118
1279, 1191, BB1279, BB1168, BB1199	Single - Out Swing	-	-	1780 lbf**	13776

* Load in parenthesis indicates the equivalent load in pounds per square foot based on indicated door size and door stiffness (if applicable). This load is based on the hardware item taking half of the force applied to the door assembly by the wind load and the hinges taking the other half.

** This load indicates the design load for a single butt hinge. Maximum wind load should be calculated based on door size, number of hinges used, and the other available door hardware on the door assembly.

GENERAL INFORMATION

Basic Requirements for an Opening to be Classified as Fire-rated

The wall, frame, and door all have to be fire-rated. For example, as it would not make much sense to put a labeled door in a non-rated wall just as you cannot put a non-labeled door in a rated wall and call the opening fire-rated. The purpose of a fire-rated opening is to retard fire for a specific length of time. All components of the opening have to be rated. When an opening is also required to be "S" (smoke) labeled then additional gasketing items will be required to comply with the code.

Every swinging fire door must have a listed and labeled self-latching device to engage the strike to be fire-rated. Push and pull plates cannot be used on a fire-rated door. The door has to latch into the frame when closed so it stays closed. The latch prevents the door from opening during a fire if something falls against it. This means you must use at least a passage lock set on the door. Deadbolts cannot be used in place of a latching device because they are not self-latching.

The door must be self-closing to be fire-rated. A properly sized, listed and labeled closing device is part of basic fire door hardware requirements. If the door is left open during a fire, then that opening cannot retard the fire as it was meant to do; the door needs to close after somebody passes through it. This is usually done by a door closer or, in some cases, spring hinges.

Steel ball bearings and steel based hinges must be used on fire-rated doors. Brass, bronze and other base materials cannot be used, unless tested as an assembly. Continuous hinges are allowed as tested. Plain bearing hinges cannot be used. Bearing hinges minimize wear from everyday operation and help prevent door sag. During a fire, the door needs to operate smoothly so closers and latching devices work properly. Some manufacturers may provide doors with non-bearing type hinges only when they are part of the listed assembly.

Fire-rated and listed louvers can be installed on fire doors but they have to be a fusible link type. This means that once the heat from the fire reaches a certain temperature (usually 105°F) (41° C), the fusible link will melt which causes the louver blades to close. This will help prevent the spread of fire. The maximum size for these louvers is 24" x 24" (610 x 610 mm). There is no glass allowed in a fire-rated door if it has a louver and no louvers can be installed in a 3-hour rated door.

Basic fire door frames do not have hourly ratings. The exception being frames specially labeled for less than 3 hours. Frames bearing a recognized fire label may support a 3-hour, 1-1/2-hour, 3/4-hour or a 1/3-hour door. Frames used in masonry walls can be used with a maximum 3-hour fire door. While frames in drywall are intended for use with fire doors rated up to 1-1/2-hour, some manufacturers have tested for a 3-hour frame in drywall. Verify with your manufacturer for individual listing.

Remember, these are basic requirements. Codes differ from area to area and are enforced by the Authority Having Jurisdiction (AHJ)

The purpose of a fire-rated opening is to retard fire for a specific period of time.

The hourly designation indicates the duration for the fire test exposure and is known as the fire protection rating.

A Label: 3-hour rating (for a 4-hour wall): These doors are used for openings in walls separating buildings that are joined together. They are metal doors and glass is allowed as tested. "A" label doors might not require additional seals applied to the frame, check with your individual manufacturer's procedure. Typically, a hollow metal door needs no added seals. Metal and some composite doors expand when heated. The door itself effectively seals the opening and often does not require the addition of an edge sealing system for the fire label. However, this door would still need a smoke gasket if it were functioning as a smoke control door.

B Label: 1-1/2-hour rating (for a 2-hour wall): These doors are usually used for stairwell doors but are sometimes used at all the rated walls in a building (i.e., mechanical or electrical rooms). One-hundred square inches of exposed glass per door leaf is allowed. These are mostly wood composite and hollow metal doors. A "B" label 1-hour rating (1-hour wall) exists for use in buildings less than four stories tall; this rating currently only applies to wood doors. "B" label fire doors require the addition of an edge-sealing system (category "G" gasket) to the frame to comply with the new positive pressure test method. Some wood doors do not require the additional category "G" gasket; check with your manufacturer for availability.

GENERAL INFORMATION

C Label: 3/4-hour rating (for a 1-hour wall): These doors are used for openings from a corridor into another room in the same building. 1,296 square inches of exposed glass is allowed per vision light. These are mostly wood composite doors. "C" label fire doors require the addition of an edge-sealing system (category "G" gasket) to the frame to comply with the new positive pressure test method. Some wood doors do not require the additional category "G" gasket, check with your manufacturer for availability.

D Label: 1-1/2-hour rating (for a 2-hour wall): These are hollow metal doors used in exterior walls subject to severe fire exposure from outside the building. One-hundred square inches of exposed glass per door leaf is allowed. Check with your manufacturer's listing for the addition of a category "G" gasket to meet positive pressure requirements.

E Label: 3/4-hour rating (for a 1-hour wall): These are hollow metal doors used in exterior walls subject to moderate to light fire exposure from the outside of the building. 1,296 square inches of exposed glass is allowed per vision light. Check with your manufacturers listing for the addition of a category "G" gasket to meet positive pressure requirements.

1/3-Hour Door: 20-minute rating (for a 1-hour wall): These doors do not have a letter designation for their rating and can be a wood or particle core door. 1,296 square inches of exposed glass is allowed per vision light. They are tested with or without hose stream. Doors tested without hose stream are specially labeled: "Twenty Minute-Rating Without Hose Stream." These doors are used on condo/apartment entrances, offices of a 1-hour rated corridor wall and other applications where smoke and draft control is the primary concern.

S Label: The letter "S" is the designation on a door's fire label indicating it can be used as a Smoke Control Door. Door manufacturers are allowed to put an "S" on a fire label when the door opening has passed the air infiltration test. The door opening does not become approved for a Smoke and Draft Control unit until an approved category "H" gasket system has been installed on the frame. The federal government, many owners and some states require at least some openings to be labeled for smoke as well as fire. This is not limited to 20-minutes but includes all fire labeled doors that are rated 20-minutes and above. The addition of an approved category "H" smoke control gasket completes the installation instructions necessary to validate the labeled door to become a Smoke Control Door.

All of the labels listed above have the capability of being both fire and smoke barrier openings. Openings requiring smoke labels are detailed either by the fire authority having jurisdiction, local code, NFPA 101 or NFPA 5000.



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Commercial Hinges



In the mid 1800s, Charles Hager had a successful business forging metal wheel rims and hinges for wagons headed west. As a smart businessman who valued quality and innovation, Charles soon became a pioneer in product development, designing a revolutionary hinge that became a prototype for more than 5,000 hinges to follow.

Today, the Hager name is synonymous with commercial hinges. In fact, we are the industry's premiere designer and manufacturer of commercial hinges, with a product line that offers one of the widest varieties of sizes, shapes, and finishes--all of which meet or exceed ANSI standards. With legendary quality, time-tested durability, and consistent superior performance, Hager is the one name, and one brand, you can count on to provide it all.

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GENERAL INFORMATION - SELECTING A HINGE

Determine Type of Hinge

- What is the door material (wood, stainless steel, fiberglass, or hollow metal)?
- What is the frame material (wood, stainless steel, channel iron, or hollow metal)?

Hinges are manufactured in accordance with ANSI/BHMA A156.1. Self-closing hinges and pivots are in accordance with ANSI/BHMA A156.17 using three hinges per opening on a 3'0" x 7'0" x 1-3/4" (914 mm x 2134 mm x 44 mm) door.

Round corners are available in 1/4" (6 mm) (standard) or 5/8" (16 mm) radius.

Full Mortise

Both leaves are mortised, one leaf in the door and one leaf in the frame (wood door or hollow metal door with wood or hollow metal frame).

Example: BB1279 4-1/2" x 4-1/2" (114 mm x 114 mm), US26D

Half Mortise

One leaf is mortised in the door and the other is surface applied to the frame (hollow metal door with channel iron frame).

Example: BB1109 4-1/2" (114 mm), US26D

Full Surface

Both leaves are applied to the surface, one to the door and the other to the frame (metal clad door or hollow metal door with channel iron frame).

Example: BB2171 5" (127 mm), USP

Half Surface

One leaf is mortised in the frame and the other is surface applied to the face of the door (wood door with wood frame or hollow metal door with hollow metal frame).

Example: BB1163 5" (152 mm), US26D

Select the Proper Weight and Bearing Structure

Because of the variety of door sizes and weights, hinges are placed into three groups:

Heavy Weight - Ball Bearing

Example: BB1199 5" x 5" (127 mm x 127 mm), US32D

Standard Weight - Ball Bearing

Example: BB1279 4-1/2" x 4-1/2" (114 mm x 114 mm), US26D

Standard Weight - Plain Bearing

Example: 1279 4" x 4" (102 mm x 102 mm), US10

Hinge Type Minimum Cycle Requirements

Plain Bearing = 350,000

Standard Weight Ball Bearing = 1,500,000

Heavy Weight Ball Bearing = 2,500,000

There are three factors that determine the weight and structure of the hinge: weight and width of the door and frequency of use. It is advisable to include the approximate weight of additional hardware that will be installed on the door.

Determine the Size of Hinge

The first thing to find is the height of the hinge. Follow the examples below. These are only examples. Job situations will offer many more variables.

Only on the full mortise hinges are there two dimensions, such as a 4-1/2" x 4-1/2" (114 x 114 mm). The first dimension indicates the height and the second dimension indicates the width when the hinge is in the open position.

Height of Hinge

Thickness of Door	Width of Door	Height of Hinge
1-3/8" (35 mm) Door	To 32" (813 mm)	3-1/2" (89 mm)
1-3/8" (35 mm) Door	32" to 36" (813 to 914 mm)	4" (102 mm)
1-3/4" (45 mm) Door	To 36" (914 mm)	4-1/2" (114 mm)
1-3/4" (45 mm) Door	36" to 48" (914 to 1219 mm)	5" (127 mm)
1-3/4" (45 mm) Door	Over 48" (1212 mm)	6" (152 mm)
2", 2-1/4", 2-1/2" Door (51, 57 & 64 mm)	To 42" (1067 mm)	5" (127 mm) Heavy Weight
2", 2-1/4", 2-1/2" Door (51, 57 & 64 mm)	Over 42" (1067 mm)	6" (152 mm) Heavy Weight

Width of Hinge

There are three dimensions to know in order to determine the minimum width of the hinge: door thickness, hinge backset, and clearance required.

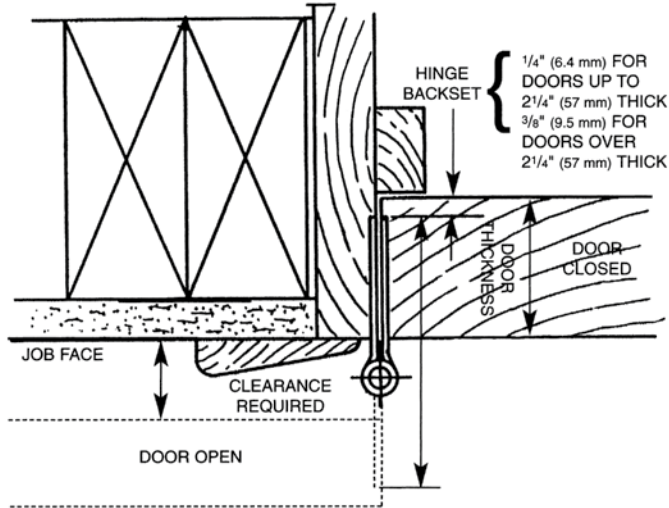
1. When figuring the calculations for a wood door and wood frame, the door is flush with the casing or face of the frame. When figuring the calculations for a wood or metal door with a hollow metal frame, the door is inset approximately 1/8" (3.2 mm).
2. For doors up to 2-1/4" (57 mm) thick, the hinge backset is 1/4" (6.4 mm) from the back face of the door.
3. For doors over 2-1/4" (57 mm) thick, the hinge backset is 3/8" (9.5 mm) from the back face of the door.

Once these dimensions are known, the formula can then be applied. **Take the door thickness, subtract the backset, multiply by two, and add the clearance required.** If the hinge size is not standard, then go to the next larger hinge width. If the width of the hinge is greater than the height of the hinge [example: 4-1/2" x 6" (114 mm x 152 mm)] this is referred to as a wide throw hinge. This would apply only to full mortise hinges.





GENERAL INFORMATION - SELECTING A HINGE



Doors up to 60" (1524 mm) in height shall be provided with two hinges and an additional hinge for each additional 30" (762 mm). Where spring hinges are used, at least two shall be provided.

Full Mortise Hinge Height	Frequency of Use	Max Door Weight	Maximum Door Width	Type
4-1/2" (114 mm)	Low	75	36" (914 mm)	1279
4-1/2" (114 mm)	Medium	150	36" (914 mm)	BB1279
4-1/2" (114 mm)	High	150	36" (914 mm)	BB1168
5" (127 mm)	Low	100	36" (914 mm)	1279
5" (127 mm)	Medium	175	36" (914 mm)	BB1279
5" (127 mm)	High	175	36" (914 mm)	BB1168
6" (152 mm)	Low	125	36" (914 mm)	1279
6" (152 mm)	Medium	230	36" (914 mm)	BB1279
6" (152 mm)	High	230	36" (914 mm)	BB1168

Door Thickness	Standard Backset	Max. Clearance Provided	Width of Hinge
1-3/8" (35 mm)	1/4" (6.4 mm)	1-1/4" (32 mm) 1-3/4" (45 mm)	3-1/2" (89 mm) 4" (102 mm)
1-3/4" (45 mm)	1/4" (6.4 mm)	1" (25 mm) 1-1/2" (38 mm) 2" (51 mm) 3" (76 mm)	4" (102 mm) 4-1/2" (114 mm) 5" (127 mm) 6" (152 mm)
2" (51 mm)	1/4" (6.4 mm)	1" (25 mm) 1-1/2" (38 mm) 2-1/2" (64 mm)	4-1/2" (114 mm) 5" (127 mm) 6" (152 mm)
2-1/4" (57 mm)	1/4" (6.4 mm)	1" (25 mm) 2" (51 mm)	5" (127 mm) 6" (152 mm)
2-1/2" (64 mm)	3/8" (9.5 mm)	3/4" (19 mm) 1-3/4" (45 mm)	5" (127 mm) 6" (152 mm)

Minimum Width of Hinge

Determine the Number of Hinges

The next determination is the number of hinges per door leaf. A general rule of thumb: one hinge for every 30" (762 mm) of door height or fraction thereof.

Door Height

Up to 60" (1524 mm)
Over 60" (1524 mm) and not over 90" (2286 mm)
Over 90" (2286 mm) and not over 120" (3048 mm)

Number of Hinges

2 Hinges
3 Hinges
4 Hinges

For doors with a width greater than 37" (940 mm) to 48" (122 mm), an extra hinge could be used for additional strength. The extra hinge helps support the additional weight and tension applied to the frame created by the wider door width.

Determine Type of Material

Steel

This has great strength, but it is a corrosive material. If the atmosphere that steel is used in is not stable, steel will begin to rust. The best application for steel is in a controlled environment, such as inside a building where the temperature and humidity are controlled.

Stainless Steel

This also has great strength. It is rust resistant and can be polished to a satin or bright finish. For highly corrosive areas, 316 grade or clear coat over 304L may be recommended. Hager Companies standard grade stainless steel is 304L.

Brass

This material is non-corrosive, rust resistant, and very decorative. However, it has less strength than the steel or stainless steel material. Brass is often used where appearance is of great concern as it may be polished and plated in various finishes.

Both steel and stainless steel hinges may be used on listed fire rated or labeled door openings. Brass material may not be used on fire rated or labeled openings because of the low melting point.



GENERAL INFORMATION - SELECTING A HINGE

Determine Type of Finish

All steel and brass material hinges can be plated to match the available finishes that are listed in the American National Standards Institute, standard ANSI/BHMA A156.18 Materials and Finishes.

Special Resisting Finishes

A nickel undercoat is a **standard process** that is applied to all **steel basted PLATED hinges**. The nickel undercoat is an **optional process** for **steel based PAINTED hinges** and must be ordered as an option if desired.

Note: Hager Companies only warrants US10B finish over brass base material. If steel base is necessary, Hager Companies recommends US10A lacquer finish.

Antimicrobial Protection

Hager Companies uses a powder coat process to apply antimicrobial treated coating to guarantee durability and protection. Antimicrobial resistance on products is affected by moisture in the air. Silver ions interact with humidity and are released creating a cleaner surface.

Architectural Finish Symbols Powder Coat Finishes

B.H.M.A. Symbol Base Material

*US3SC only available on AB800, AB850, and CB1191.

Hager	Description	Steel	Brass & Bronze	Stainless Steel	HEWI#
L1	Flat Black	693	693	N/A	N/A
L2	Dark Bronze	695	695	N/A	N/A
L3	Medium Bronze	694	694	N/A	N/A
LS	Luma Sheen® Aluminum Paint	689	689	N/A	N/A
13P	White	N/A	N/A	N/A	1
14P	Off White	N/A	N/A	N/A	5A
15P	Grey	N/A	N/A	N/A	5
33P	Yellow	N/A	N/A	N/A	14
34P	Red	N/A	N/A	N/A	33
35P	Green	N/A	N/A	N/A	6
36P	Blue	N/A	N/A	N/A	52
83P	Black	N/A	N/A	N/A	8
84P	Olive	N/A	N/A	N/A	62
85P	Brown	N/A	N/A	N/A	9
86P	Burgundy	N/A	N/A	N/A	30
87P	Dark Green	N/A	N/A	N/A	60
88P	Dark Blue	N/A	N/A	N/A	50

U.S. & Hager	Description	Steel	Brass & Bronze	Stainless Steel
2C	Plain Zinc Plate	603	N/A	N/A
H2H x BP	Mechanical Galvanized; Steel Only	N/A	N/A	N/A
3	Bright Brass	632	605	N/A
3A	Bright Brass - Unlacquered	N/A	N/A	N/A
3SC*	Brass SecureCoat® Lifetime Bright Brass Finish	N/A	N/A	N/A
4	Satin Brass	633	606	N/A
5	Satin Brass, Oxidized	638	609	N/A
9	Bright Bronze	637	611	N/A
10	Satin Bronze	639	612	N/A
10A(US11)	Antique Bronze, Lacquered	641/643	N/A	N/A
10B	Antique Bronze, Oiled	640	613	N/A
10Z	Antique Bronze - SPL	N/A	N/A	N/A
10D	Black Nickel, Oiled	640	613	N/A
SS/10Z	Antique Bronze, Stainless Steel	N/A	N/A	N/A
14	Bright Nickel	645	618	N/A
14B	Black Nickel, Bright	N/A	N/A	N/A
15	Satin Nickel	646	619	N/A
15A	Satin Nickel, Nickel Oxidized & Highlighted	647	620	N/A
17A	Black Nickel, Dull	648	621	N/A
26	Bright Chromium Plated	651	625	N/A
26D	Satin Chromium Plated	652	626	N/A
32	Stainless Steel Metal, Bright	N/A	N/A	629
32D	Stainless Steel Metal, Bright (304)	N/A	N/A	630
32D (316)	Stainless Steel Metal, Satin (316)	N/A	N/A	630
32D (CLR)	Stainless Steel Metal, Satin (Clear Coat)	N/A	N/A	630
P	Prime Coat	600	600	N/A
PS	Plain Steel	N/A	N/A	N/A
L1	Flat Black	693	693	N/A
L2 (90P)	Dark Bronze	695	695	N/A
L3	Medium Bronze	694	694	N/A
LS	Luma Sheen®	689	689	N/A





GENERAL INFORMATION

Bearing Options

When using steel based hinges, special options are available such as stainless steel pins, stainless steel bearings and stainless steel raceways.

Ball Bearing (BB) - Ball bearings are engineered to throw the knuckle weight against specially hardened steel raceways, which ride on the bearing surfaces. The one-piece cup protects the bearings from moisture and dust. The cup supports no weight so it is not subjected to functional friction, pressure or wear. Lateral wear is minimized because the pin is held against thrust by the hardened steel top and bottom raceways. The bearing units are securely press-fit to the leaf knuckle to prevent loss when the hinge is disassembled.

Oilite Bearings (OB) - The oilite bearing is made of porous metal that has been press-formed and impregnated with oil. The slight pressure and heat generated when the door is operated causes the oil to come to the surface of the bearing causing the surface to be slick and smooth.

Anti-Friction Nylon Bearings (AB/CB) - These are made of resilient engineering plastics that provide a self-lubricant and very strong bearing surface. The nylon acts as a cushion for the door yet it allows the door to flow smoothly on the surface of the nylon with an extremely low wear factor. (AB is standard on 3-knuckle hinges. CB is an option for 5-knuckle hinges).

Care and Maintenance

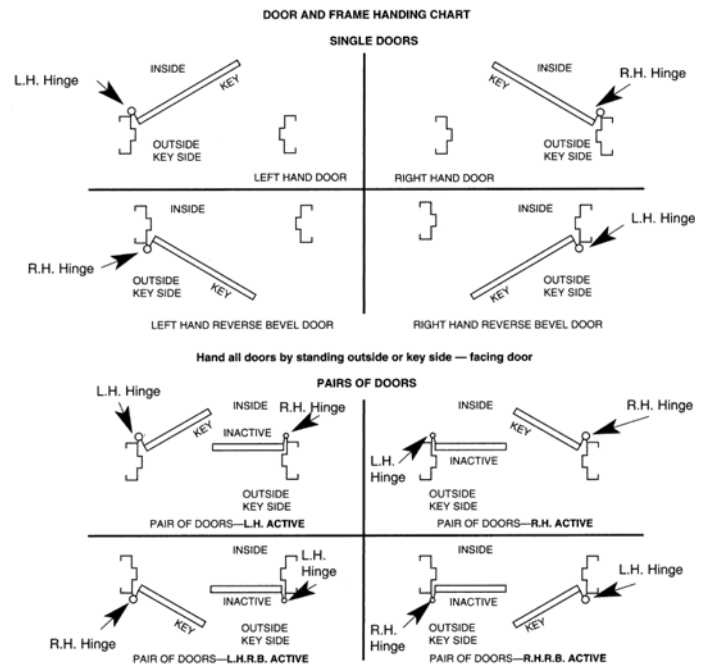
- Hinges must be free swinging without any binding. The use of shims to align hinges, if required, is satisfactory. Steel shims to be used on labeled openings.
- Hinges should be well greased and checked on a regular basis for lubrication. We recommend that hinges used in commercial, high-frequency applications or those in extreme environmental conditions be lubricated annually to ensure quiet operation and long life.
- Standard hinges are best lubricated by removing the pin, applying a generous coating of lithium grease, and reinserting the pin by driving it completely down to the shoulder of the pin head.
- Hospital Tip (HT) hinges that have fixed hinge pins have an oil port on the knuckle for the purpose of lubrication.
- Water displacing sprays such as WD-40 are not recommended for hinge lubrication.
- To remove dirt, simply wipe with a soft damp cloth. Abrasive cleaners or lacquer thinner should not be used to clean the surface of hinges. To do so will void any warranty for the product.

Determine Handing

On some applications it will be necessary to order hinges that are handed. Most manufacturers use the suffix RH (right hand) and LH (left hand). Another general rule of thumb, most manufacturers make the half surface, half mortise and full surface hinges for right hand use. Conversion from right hand to left hand is very simple; take the pin out of the

knuckle, remove the bottom plug, turn the hinge over, replace the plug in the bottom and the pin in the top of the knuckle, and the handing is reversed.

- The hand of a hinge is determined from the key of the door to which it is applied. This is usually the locked side.
- When standing key side, if the door opens away (into the area) to the right, it takes a right hand hinge (also referred to as RH). If it opens to the left, it takes a left hand hinge (also referred to as LH).
- When standing key side, if the door opens (out of the area) toward the right, it takes a left hand hinge (also referred to as right hand reverse bevel – RHRB). If it opens to the left, it takes a right hand hinge (also referred to as a left hand reverse bevel – LHRB).



Additional Considerations

Determine Pin and Tip Style

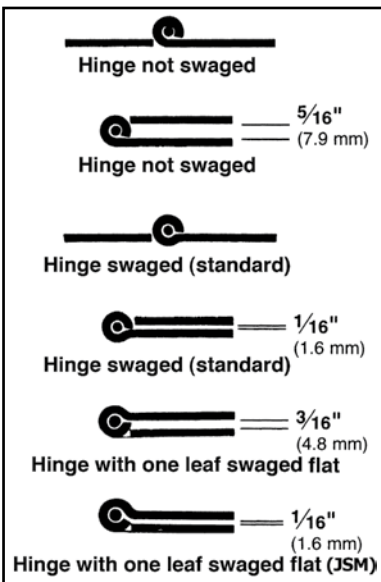
- The standard in the industry is the Flat Button Tip for 5-knuckle hinges.
- The flush/concealed tip is standard on 3-knuckle. If button tip is required, specify Exposed Tip (ET).
- Hospital Tips (HT) are used primarily for security areas in hospitals and in prisons. This tip prevents hanging any objects on the tip of the hinge. Hager provides all hospital tipped hinges with two non-removable cross pins, stainless steel hinge pin, and an oil port for lubrication purposes. If the hinge is ball bearing, the components used for the bearing are made of stainless steel. Using a Hospital Tip on spring hinges voids the UL listing.
- Decorative tips such as Acorn, Ball, Steeple, and Urn are used in highly decorative areas of offices and residences.
- Fast Riveted Pins (FRP) are spun on both ends, making the pin permanent.



GENERAL INFORMATION

Swaging

Swaging is a slight offset of the hinge leaf at the barrel. This offset permits the leaves to come closer together when the door is in the closed position. If the hinge were to be left in the natural state after the knuckle was rolled, the hinge would be referred to as a "flatback". A flatback hinge has a gap between the leaves of approximately 5/16" (7.9 mm). This would allow heat and air-conditioning to escape, not to mention the unsightly gap between the door and frame. Standard gap (Swag) is 1/16", specify "O" Swag for no gap.



The swaging on standard weight and heavy weight full mortise hinges provides 1/16" (1.6 mm) clearance between the leaves when the leaves are in the closed position. Full mortise hinges used on beveled doors will affect lockside clearance, especially for wide throw applications.

Security Features

Three additional features that are commonly used are: Non-Removable Pin (NRP), Safety Stud (SH), and Reverse Security Stud (RSS). **These features are intended as deterrents only.**

Non-Removable Pin



The **Non-Removable Pin (NRP)** hinge barrel is drilled and tapped to receive a small set screw which is tightened against the hinge pin. The pin has a groove in the position where the set screw makes contact, allowing the set screw to seat. The set screw is positioned so it cannot be reached unless the door is opened. If pin removal is necessary, the set screw is merely removed and the pin tapped from the bottom in the usual manner.

Safety Stud



The **Safety Stud (SH)** 3/16" (4.8 mm) projection is a feature that places a stud on one leaf and a locking hole on the other leaf. When the door is closed, the stud is anchored into the opposite leaf. Even if the hinge pin is removed, the door is secure because the leaves are locked together.

Reverse Security Stud



The **Reverse Security Stud (RSS)** 7/16" (11.1 mm) projection is a feature that has a welded stud projecting from the back of both leaves into the reinforcing plate of both the frame and the door. It is intended to keep the hinge locked in place from abuse of battering or trying to shear the hinge and screws. This feature is primarily used in prisons and psychiatric areas.

Tip Styles





GENERAL INFORMATION

Standard Screw Packs for Full Mortise Architectural Hinges

Part Number	Size	Finish	Screws
700, AB700, 1279, BB1279, EC1100, EC1105, 1250 (with or without NRP), ECBB1100	4-1/2" x 4-1/2" 4-1/2" x 4"	US3, US4, US5, US10, US10A (US11), US10B, US15, US15A, US26, US26D, USP	AMS & AWS
Other than listed above	4-1/2"	Other than listed above	AMS & 1/2 WS
All	3-1/2"	All	AWS & 1/2 MS
All	4"	All	AWS & 1/2 MS
All	5"	All	AMS & 1/2 WS
All	6"	All	AWS & 1/2 MS
All	7"	All	AWS & 1/2 MS
All hinges with decorative tips	All	All	AWS

Fire-Rated Application

Door Rating (Hr)	Maximum Door Size		Minimum Hinge Size		Type Hinge
	Width	Height	Height	Thickness	
For 1-3/4" (44.5 mm) or thicker doors					
3, 1-1/2, 1, 3/4, 1/2, 1/3	4 (1.22)	10 (3.05)	4-1/2 (114.3)	0.180 (4.57)	Steel, mortise or surface
3, 1-1/2, 1, 3/4, 1/2, 1/3	4 (1.22)	8 (2.44)	4-1/2 (114.3)	0.134 (3.40)	Steel, mortise or surface
1-1/2, 3/4, 1/2, 1/3	3-1/16 (0.96)	8 (2.44)	6 (152.4)	0.225 (5.72)	Steel, olive knuckle or paumelle
3, 1-1/2, 1, 3/4, 1/2, 1/3	4 (1.22)	10 (3.05)	4 (101.6)	0.225 (5.72)	Steel pivots (including top, bottom, and intermediate)
1-1/2, 1, 3/4, 1/2, 1/3	3 (0.91)	5 (1.52)	4 (101.6)	0.130 (3.30)	Steel, mortise or surface
1-1/2, 1, 3/4, 1/2, 1/3	2 (0.61)	3 (0.91)	3 (76.2)	0.092 (2.34)	Steel, mortise or surface
3, 1-1/2, 1, 3/4, 1/2, 1/3	3 (0.91)	7 (2.13)	4-1/2 (114.3)	0.134 (3.40)	Steel, mortise or surface (labeled, self-closing, spring type)
3, 1-1/2, 1, 3/4, 1/2, 1/3	3 (0.91)	7 (2.13)	4 (101.6)	0.105 (2.67)	Steel, mortise or surface (labeled, self-closing, spring type)
For 1-3/8" (34.9 mm) doors					
3, 1-1/2, 3/4, 1/2, 1/3	3 (0.91)	7 (2.13)	3-1/2 (89.9)	0.123 (3.12)	Steel, mortise or surface
3, 1-1/2, 1, 3/4, 1/2, 1/3	2-2/3 (0.81)	7 (2.13)	3-1/2 (89.9)	0.105 (2.67)	Steel, mortise or surface (labeled, self-closing, spring type)

Notes:

- All hinges or pivots, except spring hinges, shall be of the ball bearing type. Hinges or pivots employing other anti-friction bearing surfaces shall be permitted if they meet the requirements of ANSI A156.1, Standard for Butts and Hinges. Spring hinges shall be labeled and shall meet the requirements of ANSI A156.17, Standard for Self Closing Hinges and Pivots, Grade 1.
- Heavy weight hinges 4-1/2" (114 mm) high, 0.180" (4.57 mm) thick shall be permitted for use on wide and heavy doors or doors that are subjected to heavy use or unusual stress.
- Some manufacturers can provide fire doors with hinges of lighter weight that are not of the ball bearing type where they are part of a listed assembly and meet the requirements of ANSI A156.1, Standard for Butts and Hinges, and have been tested to a minimum of 350,000 cycles.
- Pivot sets made up of components that are smaller or of a lighter gauge than shown in this table shall be permitted to be used, provided they meet the requirements of ANSI A156.4, Door Controls (Closers) and are in accordance with the manufacturer's label service procedures.



SPECIALTY HINGES

Spring



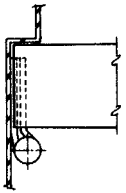
NFPA 80 has restricted the use of architectural grade spring hinges to fire-rated doors of a maximum size of 3'0" x 7'0" (914 mm x 2134 mm). Hager spring hinges have been tested and labeled for up to a 4'0" x 8'0" (1219 mm x 2438 mm) door when a minimum of three springs are used. Spring hinges must be used with ball bearing hinges. Do not use plain bearing hinges with spring hinges.

Air Transfer Hinge (ATH)



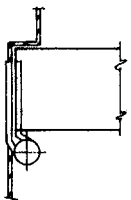
Pneumatic transfer hinge is used to transfer as much as 120 pounds of air pressure through the hinge in order to operate an air modified lock or exit device. Pneumatic power may be used in explosion-proof areas or where electric power is not sufficient to perform the necessary job.

Raised Barrel and Jamb Surface Mount



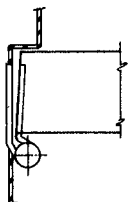
Jamb Surface Mount

This option is used when the door is set back into the frame. The hinge knuckle is offset to allow it to clear the obstruction of the frame. There are three different types of applications:



Raised Barrel Square

On the **Jamb Surface Mount (JSM)** application, the door is double mortised to accommodate both hinge leaves; it is also referred to as double mortise. The Jamb Surface Mount may be applied to either a square or beveled edged door. For cased opening, sometimes referred as one leaf swagged flat.



Raised Barrel Beveled

The **Raised Barrel for Square Edged (RBS)** and the **Raised Barrel for Beveled Edged (RBB)** door applications are mortised into the frame and door as a standard full mortise hinge. Standard offset is 3/8" (10 mm). Depending on the depth of the frame, all three of these applications may restrict the degree of opening. Specify handing and door thickness.

Swing Clear



This is used when the passage area must be the full width of the opening. Swing clear hinges are designed to swing the door completely clear of the opening when the door is opened 95°. Assembled RH, reversible to LH. Can be ordered as LH.

Detention



Investment cast full mortise hinges (IHTHB953 Series) are the standard 4-1/2" x 4-1/2" (114 mm x 114 mm) size with a mortise depth of 0.187" (4.7 mm). These hinges can carry doors weighing up to 600 pounds.

Anchor



The anchor hinges are intended for use on heavy wood or hollow metal doors in high frequency applications such as hospitals, schools, and public use buildings. These hinges are especially designed for use on doors where additional hardware (door closers or holders) may cause excessive strain or abuse to the door, frame, and/or hinges.

Anchor plates may be attached to either the frame and/or door. This prevents the hinges from pulling loose on the door or the frame.

There are two variations of the reinforcing/anchor hinge: one has a single extension leaf which is mortised into the frame only; the second has two extension leaves. One leaf is mortised into the frame and the other leaf is mortised into the top edge of the door. It will be necessary to know if the doors are square edged or beveled edged.

Aluminum Entrance



A slip-in hinge, plain bearing or ball bearing, is used with aluminum doors and frames. These hinges are manufactured for low to average frequency and medium weight aluminum doors and frames.

1277 or BB1277 – Both leaves are drilled and tapped for insertion into a slot in the door and the frame.

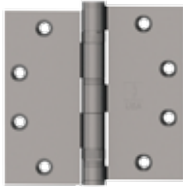
1278 or BB1278 – One leaf has the standard template hole punch and countersinking and the other leaf is drilled and tapped for insertion into a slot in the door or frame.





SPECIALTY HINGES

DROP LEAF HINGES



BB1279
Ball Bearing - Standard Weight

- BB1168**
Ball Bearing - Heavy Weight
- Drop leaf applied to door will lower the door away from the head 1/8"
 - Adjustable to 1/16" drop by repositioning and removing one of the 1/16" spacers
 - Non-rising removable pin with button tip and plug
 - Handed. Non-reversible
 - Also available 1/4" drop

SHORT LEAF HINGES



- BB1279**
Ball Bearing - Standard Weight
- Two ball bearings
 - Steel with steel pin
 - For use on medium doors requiring medium frequency service

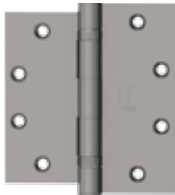
- BB1191**
Ball Bearing - Standard Weight
- Two ball bearings
 - Brass with stainless steel pin or stainless steel with stainless steel pin
 - For use on medium doors requiring medium frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12

Note: Additional sizes and hinges available. Contact Hager Customer Service for information.

- BB1168**
Ball Bearing - Heavy Weight
- Four ball bearings
 - Steel with steel pin
 - For use on heavy weight doors requiring high frequency service

UNEQUAL LEAF HINGES



- BB1279**
Ball Bearing - Standard Weight
- Two ball bearings
 - Steel with steel pin
 - For use on medium doors requiring medium frequency service

- BB1168**
Ball Bearing - Heavy Weight
- Four ball bearings
 - Steel with steel pin
 - For use on heavy doors requiring high frequency service
 - For use when door and frame have 4-1/2" and 5" cut-outs
 - An equal amount of material is trimmed from the top and bottom leaf
 - Two/Four ball bearings
 - Non-rising removable pin with button tip and plug
 - Handed. Right hand standard.
 - Unequal top/bottom available. Contact Hager Customer Service for information

- BB1199**
Ball Bearing - Heavy Weight
- Four ball bearings
 - Brass with stainless steel pin or stainless steel with stainless steel pin
 - For use on heavy doors requiring high frequency service
 - Short leaf applied to door will move the door 1/8" away from the stop. Reverse movement is accomplished by applying the short leaf to the frame.
 - Non-rising removable pin with button tip and plug
 - Handed. Right hand standard. Reversible to left hand.

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4-3/8	114 x 111	0.134	8	1/2 x 12-24	1-1/4 x 12

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5 x 4-1/2	127 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12

Note: Additional sizes and hinges available. Contact Hager Customer Service for information.



ELECTRIC HINGES

The electric hinge provides an easy means to monitor the opening as well as transferring power from the frame into the door.

Electric hinge modifications can be either exposed on the surface of the hinge or concealed in the hinge. When concealed, the modifications are not visible and normally go undetected by personnel using the openings.

All of the Hager Companies electric hinges have been tested through UL in order that our products can be used on fire-rated or labeled openings.

Another important point to remember, an electrically modified hinge is for **low voltage power transfer only (48 volts or under)**. Higher voltages are not allowed because of the potential dangers. Also a consideration is the amperage rating of the power transfer hinges. Hager's 18 gauge wires are rated for 50 volts AC/DC at 10 amps continuous. The maximum inrush is 20 AMPS for 4 seconds per wire. Hager 28 gauge wires include amperage ratings of 3.5 AMPS/continuous duty and 16.0 AMPS/intermittent duty (pulse).

Modifications are made to full mortise hinges. For other applications, consult Hager Engineering for availability.

It is recommended that the **CENTER HINGE LOCATION** be used with all electrically modified hinges.

Hager Companies recommends the use of a mortar box or jamb box in order to protect the wire terminations on the inside of the frame. If this box is not used, the grout that may be poured into the frame will destroy the wiring and usually void the warranty on the product.





HINGE SELECTOR - FULL MORTISE & HALF MORTISE HINGES

Hinge Description	Full Mortise	Half Mortise
	Hollow Metal or Wood Door	Hollow Metal or Wood Door
	Hollow Metal or Wood Frame	Channel Iron Frame
Tri-Con Std. Wt. PB, Steel	700	
Tri-Con Std. Wt. PB, Brass/Stainless Steel	800	
Tri-Con Std. Wt. AB, Steel	AB700	AB701
Tri-Con Std. Wt. AB, Brass/Stainless Steel	AB800	AB801
Tri-Con Hvy. Wt. AB, Steel	AB750	AB751
Tri-Con Hvy. Wt. AB, Brass/Stainless Steel	AB850	AB851
Spring Hinge Std. Wt., Steel	1250	
Std. Wt., PB, Steel	1279	1129
Std. Wt., PB, Brass/Stainless Steel	1191	
2BB, Std. Wt., Steel	BB1279	BB1129
2BB, Std. Wt., Brass/Stainless Steel	BB1191	BB1109
4BB, Hvy Wt., Steel	BB1168	BB1138
4BB, Hvy Wt., Brass/Stainless Steel	BB1199	BB2098
3K/5K Anchor Hinge Steel, One Prong	AB7505/BB1160	
3K/5K Anchor Hinge Brass/Stainless Steel One Prong	AB8505/BB1190	
3K/5K Anchor Hinge Steel, Two Prong, Square Edge Door	AB7506/BB1162	
3K/5K Anchor Hinge Brass/Stainless Steel, Two Prong/Square Edge Door	AB8506/BB1192	
3K/5K Anchor Hinge Steel/Two Prong, Beveled Edge Door	AB7508/BB1166	
3K/5K Anchor Hinge Brass/Stainless Steel, Two Prong/Beveled Edge Door	AB8508/BB1196	
3K/5K Anchor Hinge Steel/One Long/One Short Prong/Square Edge Door	AB7507/BB1165	
3K/5K Anchor Hinge Brass/Stainless Steel/One Long/One Short Prong/Square Edge Door	AB8507/BB1195	
3K/5K Anchor Hinge Steel/One Long/One Short Prong/Beveled Edge Door	AB7509/BB1167	
3K/5K Anchor Hinge Brass/Stainless Steel/One Long/One Short Prong/Beveled Edge Door	AB8509/BB1197	
Bronze Pivot Hinge - Top	495	
Bronze Pivot Hinge - Intermediate	496	
Bronze Pivot Hinge - Bottom	497	
3K/5K Swing Clear/Std. Wt., BB Steel/Beveled Edge Door	AB7001/BB1260	BB1264
3K/5K Swing Clear/Std. Wt., BB Steel/Beveled Edge Door	AB7002/BB1261	BB1265
3K/5K Swing Clear/Hvy. Wt., BB Steel/Square Edge Door	AB7501/BB1262	AB7511
3K/5K Swing Clear/Hvy. Wt., BB Steel/ Beveled Edge Door	AB7502/BB1263	AB7512
3K/5K Swing Clear/Hvy. Wt., BB Steel		
3K/5K Std. Wt., PB, Wide Throw/Steel	700/1279	
3K/5K Std. Wt., PB, Wide Throw/Brass/Stainless Steel	800/1191	
3K/5K Std. Wt., AB, Wide Throw/Steel	AB700/BB1279	
3K/5K Std. Wt., AB, Wide Throw/Brass/Stainless Steel	AB800/BB1191	
3K/5K Hvy. Wt., AB, Wide Throw/Steel	AB750/BB1168	
3K/5K Hvy. Wt., AB, Wide Throw/Brass/Stainless Steel	AB850/BB1199	

For Hospital Tip, use prefix "HT" on above number. Hospital Tip hinges are available on all architectural hinges with the exception of anchor hinges.

Note: When ordering round corner hinges, please specify a radius of either 1/4" (6.4 mm) or 5/8" (15.9 mm). If radius is not specified, 1/4" (6.4 mm) will be supplied.

Note: For special requirements - In the event a particular hinge is not found to meet your requirements, please contact our Customer Service Department and provide Hager with the specific requirements. The Hager Technical Service Staff will prepare drawings for the appropriate application.



HINGE SELECTOR - FULL SURFACE & HALF SURFACE HINGES

Hinge Description	Full Surface	Half Surface
	Composite or Tubular Steel Door	Composite or Wood Door
	Channel Iron Frame	Hollow Metal or Wood Frame
Tri-Con Std. Wt. PB, Steel		
Tri-Con Std. Wt. PB, Brass/Stainless Steel		
Tri-Con Std. Wt. AB, Steel	AB702	AB703
Tri-Con Std. Wt. AB, Brass/Stainless Steel	AB802	AB803
Tri-Con Hvy. Wt. AB, Steel	AB752	AB753
Tri-Con Hvy. Wt. AB, Brass/Stainless Steel	AB852	AB853
Spring Hinge Std. Wt., Steel		
Std. Wt., PB, Steel		1173
Std. Wt., PB, Brass/Stainless Steel		
2BB, Std. Wt., Steel	BB2171	BB1173
2BB, Std. Wt., Brass/Stainless Steel	BB2110	BB2112
4BB, Hvy Wt., Steel	BB2168/BB2169	BB1163
4BB, Hvy Wt., Brass/Stainless Steel	BB2108/BB2109	BB2113
3K/5K Anchor Hinge Steel, One Prong		
3K/5K Anchor Hinge Brass/Stainless Steel One Prong		
3K/5K Anchor Hinge Steel, Two Prong, Square Edge Door		
3K/5K Anchor Hinge Brass/Stainless Steel, Two Prong/Square Edge Door		
3K/5K Anchor Hinge Steel/Two Prong, Beveled Edge Door		
3K/5K Anchor Hinge Brass/Stainless Steel, Two Prong/Beveled Edge Door		
3K/5K Anchor Hinge Steel/One Long/One Short Prong/Square Edge Door		
3K/5K Anchor Hinge Brass/Stainless Steel/One Long/One Short Prong/Square Edge Door		
3K/5K Anchor Hinge Steel/One Long/One Short Prong/Beveled Edge Door		
3K/5K Anchor Hinge Brass/Stainless Steel/One Long/One Short Prong/Beveled Edge Door		
Bronze Pivot Hinge - Top		
Bronze Pivot Hinge - Intermediate		
Bronze Pivot Hinge - Bottom		
3K/5K Swing Clear/Std. Wt., BB Steel/Beveled Edge Door		
3K/5K Swing Clear/Std. Wt., BB Steel/Beveled Edge Door		
3K/5K Swing Clear/Hvy. Wt., BB Steel/Square Edge Door		
3K/5K Swing Clear/Hvy. Wt., BB Steel/ Beveled Edge Door		
3K/5K Swing Clear/Hvy. Wt., BB Steel	AB7523/BB1266	AB7534/BB1270
3K/5K Std. Wt., PB, Wide Throw/Steel		
3K/5K Std. Wt., PB, Wide Throw/Brass/Stainless Steel		
3K/5K Std. Wt., AB, Wide Throw/Steel		
3K/5K Std. Wt., AB, Wide Throw/Brass/Stainless Steel		
3K/5K Hvy. Wt., AB, Wide Throw/Steel		
3K/5K Hvy. Wt., AB, Wide Throw/Brass/Stainless Steel		

For Hospital Tip, use prefix "HT" on above number. Hospital Tip hinges are available on all architectural hinges with the exception of anchor hinges.
 Note: When ordering round corner hinges, please specify a radius of either 1/4" (6.4 mm) or 5/8" (15.9 mm). If radius is not specified, 1/4" (6.4 mm) will be supplied.
 Note: For special requirements - In the event a particular hinge is not found to meet your requirements, please contact our Customer Service Department and provide Hager with the specific requirements. The Hager Technical Service Staff will prepare drawings for the appropriate application.



CONCEALED LEAF - FULL MORTISE

TWO KNUCKLE HINGES



920
Plain Bearing - Standard Weight
 Steel with steel pin (ANSI A8133)

AB920
Concealed Anti-Friction Bearing - Standard Weight
 Steel with steel pin (ANSI A8112)

AB923
Concealed Anti-Friction Bearing - Standard Weight

- Brass with stainless steel pin (ANSI A2112) or stainless steel with stainless steel pin (ANSI A5112)
- Handed
- With door closer use ball bearing hinge or anti-friction
- For use on medium weight doors or doors requiring medium frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12



AB930
Concealed Anti-Friction Bearing - Heavy Weight
 Steel with steel pin (ANSI A8111)

AB933
Concealed Anti-Friction Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2111) or stainless steel with stainless steel pin (ANSI A5111)
- Handed
- For use on heavy weight doors or doors requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4	114 x 102	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.180	8	1/2 x 12-24	1-1/4 x 12

THREE KNUCKLE HINGES



700
Plain Bearing - Standard Weight
 Steel with steel pin (ANSI A8133)

800
Plain Bearing - Standard Weight

- Brass with stainless steel pin (ANSI A2133) or stainless steel with stainless steel pin (ANSI A5133)
- Non-rising removable pin with flush pin and plug
- With door closer use ball bearing hinge
- For use on medium weight doors or doors requiring low frequency service



AB700
Concealed Anti-Friction Bearing - Standard Weight
 Steel with steel pin (ANSI A8112)

AB800
Concealed Anti-Friction Bearing - Standard Weight

- Brass with stainless steel pin (ANSI A2112) or stainless steel with stainless steel pin (ANSI A5112)
- Non-rising removable pin with flush pin and plug
- AB800 available with SecureCoat[®] Lifetime finish (US3SC)
- For use on medium weight doors or doors requiring medium frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2 x 3-1/2	89 x 89	0.119	6	1/2 x 10-24	1 x 9
4 x 4	102 x 102	0.129	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12
5 x 4	127 x 102	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 4-1/2	127 x 114	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 5	127 x 127	0.145	8	1/2 x 12-24	1-1/4 x 12



FULL MORTISE

THREE KNUCKLE HINGES



WTAB700
Concealed Anti-Friction Bearing - Standard Weight - Wide Throw
 Steel with steel pin (ANSI A8112)

WTAB800
Concealed Anti-Friction Bearing - Standard Weight - Wide Throw

- Brass with stainless steel pin (ANSI A2112) or stainless steel with stainless steel pin (ANSI A5112)
- For square edge doors. Consult Hager Tech Service for bevel application.
- Wide throw
- Non-rising removable pin with flush pin and plug
- For use on medium weight doors or doors requiring medium frequency service
- Note: Wide throw hinges will reduce the weight capacity. Consult Hager Tech Service.



AB750
Concealed Anti-Friction Bearing - Heavy Weight
 Steel with steel pin (ANSI A8111)

AB850
Concealed Anti-Friction Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2111) or stainless steel with stainless steel pin (ANSI A5111)
- Non-rising removable pin with flush pin and plug
- AB850 available with SecureCoat® Lifetime finish (US3SC)
- For use on heavy weight doors or doors requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 5	114 x 127	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 6	114 x 152	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 7	114 x 178	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 8	114 x 203	0.134	8	1/2 x 12-24	1-1/4 x 12
5 x 6	127 x 152	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 7	127 x 178	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 8	127 x 203	0.145	8	1/2 x 12-24	1-1/4 x 12

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4-1/2	114 x 114	0.180	8	1/2 x 12-24	1-1/4 x 12
5 x 4-1/2	127 x 114	0.190	8	1/2 x 12-24	1-1/4 x 12
5 x 5	127 x 127	0.190	8	1/2 x 12-24	1-1/4 x 12
6 x 4-1/2	152 x 114	0.203	10	1/2 x 1/4-20	1-1/2 x 14
6 x 5	152 x 127	0.203	10	1/2 x 1/4-20	1-1/2 x 14
6 x 6	152 x 152	0.203	10	1/2 x 1/4-20	1-1/2 x 14

Note: Weight capacity diminishes the farther the pin is away from the door.



FULL MORTISE

THREE KNUCKLE HINGES



WTAB750
Concealed Anti-Friction Bearing - Heavy Weight - Wide Throw
 Steel with steel pin (ANSI A8111)

WTAB850
Concealed Anti-Friction Bearing - Heavy Weight - Wide Throw

- Brass with stainless steel pin (ANSI A2111) or stainless steel with stainless steel pin (ANSI A5111)
- Wide throw
- Non-rising removable pin with flush pin and plug
- For use on heavy weight doors or doors requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 5	114 x 127	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 6	114 x 152	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 7	114 x 178	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 8	114 x 203	0.180	8	1/2 x 12-24	1-1/4 x 12
5 x 6	127 x 152	0.190	8	1/2 x 12-24	1-1/4 x 12
5 x 7	127 x 178	0.190	8	1/2 x 12-24	1-1/4 x 12
5 x 8	127 x 203	0.190	8	1/2 x 12-24	1-1/4 x 12

FIVE KNUCKLE HINGES



1191
Plain Bearing - Standard Weight
 Brass with stainless steel pin (ANSI A2133) or stainless steel with stainless steel pin (ANSI A5133)

1279
Plain Bearing - Standard Weight

- Steel with steel pin (ANSI A8133)
- Non-rising removable pin with button tip and plug
- Use ball bearing hinge when door closer is installed on door
- 3-1/2" x 3-1/2" (89 mm x 89 mm) available with reverse hole pattern
- For use on medium weight doors or doors requiring low frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
2 x 2	51 x 51	0.083	4	-	3/4 x 8
2-1/2 x 2-1/2	64 x 64	0.089	6	-	3/4 x 8
3 x 3	76 x 76	0.097	6	-	1 x 9
3-1/2 x 3-1/2	89 x 89	0.119	6	1/2 x 10-24	1 x 9
4 x 4	102 x 102	0.129	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12
5 x 4	127 x 102	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 4-1/2	127 x 114	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 5	127 x 127	0.145	8	1/2 x 12-24	1-1/4 x 12
6 x 4-1/2	152 x 114	0.160	10	1/2 x 1/4-20	1-1/2 x 14
6 x 5	152 x 127	0.160	10	1/2 x 1/4-20	1-1/2 x 14
6 x 6	152 x 152	0.160	10	1/2 x 1/4-20	1-1/2 x 14



FULL MORTISE

FIVE KNUCKLE HINGES



WT1191
Plain Bearing - Standard Weight - Wide Throw

Brass with stainless steel pin (ANSI A2133) or stainless steel with stainless steel pin (ANSI A5133)

WT1279
Plain Bearing - Standard Weight - Wide Throw

- Steel with steel pin (ANSI A8133)
- Wide throw
- Non-rising removable pin with button tip and plug
- Use ball bearing hinge when door closer is installed on door
- For use on medium weight doors or doors requiring low frequency service
- Note: Wide throw hinges will reduce the weight capacity. Consult Hager Tech Service.

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2 x 5	89 x 127	0.119	6	1/2 x 10-24	1 x 9
3-1/2 x 6	89 x 152	0.119	6	1/2 x 10-24	1 x 9
4 x 5	102 x 127	0.129	8	1/2 x 12-24	1-1/4 x 12
4 x 6	102 x 152	0.129	8	1/2 x 12-24	1-1/4 x 12
4 x 7	102 x 178	0.129	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 5	114 x 127	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 6	114 x 152	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 7	114 x 178	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 8	114 x 203	0.134	8	1/2 x 12-24	1-1/4 x 12
5 x 6	127 x 152	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 7	127 x 178	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 8	127 x 203	0.145	8	1/2 x 12-24	1-1/4 x 12



CB1191
Concealed Bearing - Standard Weight

- Stainless steel with stainless steel pin (ANSI A5112) or brass
- Non-rising removable pin with button tip and plug

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2 x 3-1/2	89 x 89	0.119	6	-	1 x 9
4 x 4	102 x 102	0.129	8	-	1-1/4 x 12
4-1/2 x 4	114 x 102	0.134	8	-	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	-	1-1/4 x 12
5 x 4	127 x 102	0.145	8	-	1-1/4 x 12
5 x 4-1/2	127 x 114	0.145	8	-	1-1/4 x 12
5 x 5	127 x 127	0.145	8	-	1-1/4 x 12
6 x 4-1/2	152 x 114	0.160	10	-	1-1/2 x 14
6 x 5	152 x 127	0.160	10	-	1-1/2 x 14
6 x 6	152 x 152	0.160	10	-	1-1/2 x 14





FULL MORTISE

FIVE KNUCKLE HINGES



BB1191
Ball Bearing - Standard Weight
 Brass with stainless steel pin (ANSI A2112) or stainless steel with stainless steel pin (ANSI A5112)

BB1279
Ball Bearing - Standard Weight

- Steel with steel pin (ANSI A8112)
- Two ball bearings
- Non-rising removable pin with button tip and plug
- 3-1/2" x 3-1/2" (89 x 89 mm) BB1279 available with reversible hole pattern
- For use on medium weight doors or doors requiring medium frequency service



WTBB1191
Ball Bearing - Standard Weight - Wide Throw
 Brass with stainless steel pin (ANSI A2112) or stainless steel with stainless steel pin (ANSI A5112)

WTBB1279
Ball Bearing - Standard Weight - Wide Throw

- Steel with steel pin (ANSI A8112)
- Wide throw
- Two ball bearings
- Non-rising removable pin with button tip and plug
- For use on medium weight doors or doors requiring medium frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2 x 3-1/2	89 x 89	0.119	6	1/2 x 10-24	1 x 9
4 x 3-1/2	102 x 89	0.129	8	1/2 x 10-24	1-1/4 x 12
4 x 4	102 x 102	0.129	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12
5 x 4	127 x 102	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 4-1/2	127 x 114	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 5	127 x 127	0.145	8	1/2 x 12-24	1-1/4 x 12
6 x 4-1/2	152 x 114	0.160	10	1/2 x 1/4-20	1-1/2 x 14
6 x 5	152 x 127	0.160	10	1/2 x 1/4-20	1-1/2 x 14
6 x 6	152 x 152	0.160	10	1/2 x 1/4-20	1-1/2 x 14

Note: Optional concealed bearings available, see page 5 for options.

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2 x 5	89 x 127	0.119	6	1/2 x 10-24	1 x 9
3-1/2 x 6	89 x 152	0.119	6	1/2 x 10-24	1 x 9
4 x 5	102 x 127	0.129	8	1/2 x 12-24	1-1/4 x 12
4 x 6	102 x 152	0.129	8	1/2 x 12-24	1-1/4 x 12
4 x 7	102 x 178	0.129	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 5	114 x 127	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 6	114 x 152	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 7	114 x 178	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 8	114 x 203	0.134	8	1/2 x 12-24	1-1/4 x 12
5 x 6	127 x 152	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 7	127 x 178	0.145	8	1/2 x 12-24	1-1/4 x 12
5 x 8	127 x 203	0.145	8	1/2 x 12-24	1-1/4 x 12



FULL MORTISE

FIVE KNUCKLE HINGES



BB1168
Ball Bearing - Heavy Weight
 Steel with steel pin (ANSI A8111)

BB1199
Ball Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2111) or stainless steel with stainless steel pin (ANSI A5111)
- Four ball bearings
- Non-rising removable pin with button tip and plug
- For use on heavy weight doors or doors requiring high frequency service



WTBB1168
Ball Bearing - Heavy Weight - Wide Throw
 Steel with steel pin (ANSI A8111)

WTBB1199
Ball Bearing - Heavy Weight - Wide Throw

- Brass with stainless steel pin (ANSI A2111) or stainless steel with stainless steel pin (ANSI A5111)
- Wide throw
- Four ball bearings
- Non-rising removable pin with button tip and plug
- For use on heavy weight doors or doors requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4	114 x 102	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.180	8	1/2 x 12-24	1-1/4 x 12
5 x 4	127 x 102	0.190	8	1/2 x 12-24	1-1/4 x 12
5 x 4-1/2	127 x 114	0.190	8	1/2 x 12-24	1-1/4 x 12
5 x 5	127 x 127	0.190	8	1/2 x 12-24	1-1/4 x 12
6 x 4-1/2	152 x 114	0.203	10	1/2 x 1/4-20	1-1/2 x 14
6 x 5	152 x 127	0.203	10	1/2 x 1/4-20	1-1/2 x 14
6 x 6	152 x 152	0.203	10	1/2 x 1/4-20	1-1/2 x 14
8 x 6	203 x 152	0.203	16	1/2 x 1/4-20	1-1/2 x 14
8 x 8	203 x 203	0.203	16	1/2 x 1/4-20	1-1/2 x 14

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 5	114 x 127	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 6	114 x 152	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 7	114 x 178	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 8	114 x 203	0.180	8	1/2 x 12-24	1-1/4 x 12
5 x 6	127 x 152	0.190	8	1/2 x 12-24	1-1/4 x 12
5 x 7	127 x 178	0.190	8	1/2 x 12-24	1-1/4 x 12
5 x 8	127 x 203	0.190	8	1/2 x 12-24	1-1/4 x 12

Note: Optional concealed bearings available, see page 5 for options.





FULL MORTISE - CONCEALED ELECTRIC

EXPOSED ELECTRIC MODIFICATIONS

The following exposed electric modifications are available on our architectural grade ball bearing and anti-friction bearing hinges. To order a hinge with exposed electric modification, please add the modification code to the product number (for example, BB1279 E2).



E2

Electric Contact

- Three or five knuckle
- Available on architectural grade ball bearing and anti-friction bearing
- Two contacts minimum required to transfer electrical current
- Design includes insulated copper contacts
- Furnished with non-removable pins



E2/E1S

Electric Contact/Switch

- Three or five knuckle
- Available on architectural grade ball bearing and anti-friction bearing
- Single pole, double throw switch
- Design includes insulated copper contacts
- Furnished with non-removable pins

Hinge Size		Contacts
Inches	mm	
4 x 4	102 x 102	2 or 3
4-1/2 x 4-1/2	114 x 114	2, 3, or 4
5 x 5	127 x 127	2, 3, or 4

Contact Maximum Electrical Rating		
Volts	Amperes	
48 VDC	3.5 amps	CONTINUOUS
	16.0 amps	PULSE

Hinge Size	
Inches	mm
4 x 4	102 x 102
4-1/2 x 4-1/2	114 x 114
5 x 5	127 x 127

Contact Maximum Electrical Rating		
Volts	Amperes	
48 VDC	3.5 amps	CONTINUOUS
	16.0 amps	PULSE
Switch Maximum Electrical Rating		
24 VDC @ .250 amps		



E1S

Electric Switch

- Three or five knuckle
- Available on architectural grade ball bearing and anti-friction bearing
- Single pole, double throw switch
- Furnished with non-removable pins

Hinge Size	
Inches	mm
4 x 4	102 x 102
4-1/2 x 4-1/2	114 x 114
5 x 5	127 x 127

Switch Maximum Electrical Rating
24 VDC @ .250 amps



FULL MORTISE - CONCEALED ELECTRIC

CONCEALED ELECTRIC MODIFICATIONS

The following concealed electric modifications are available on our architectural grade ball bearing and anti-friction bearing hinges. To order a hinge with concealed electric modification, please add the modification code to the product number (for example, BB1279 EMN).

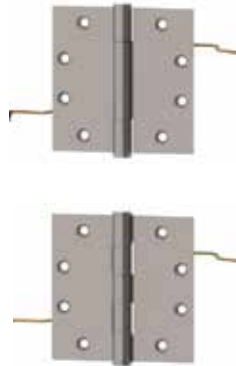


EMN

Electric Monitor Only

- Three or five knuckle
- Available on architectural grade ball bearing and anti-friction bearing
- Available in steel, brass, or stainless steel
- 28 gauge wire standard
- Standard size available 4" (102 mm) through 8" (203 mm)
- Hinge pins are not field removable - NRP variation is not available
- Monitoring capability only
- Concealed subminiature snap action, SPDT switch
- Adjustment feature for a wide range of switch sensitivity
- Preset switching circuit
- For open loop secure, closed loop secure or single pole double throw (SPDT)

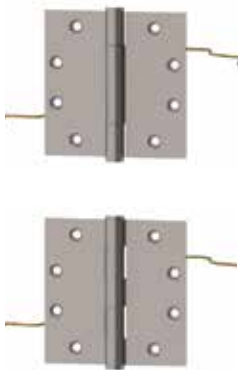
Switch Maximum Electrical Rating
30 VDC @ .500 amps



ETM

Electric Through-Wire with Monitoring

- Three or five knuckle
- Available on architectural grade ball bearing and anti-friction bearing
- Available in steel, brass, or stainless steel
- 18 and 28 gauge wire
- Standard size available 4" (102 mm) through 8" (203 mm)
- Hinge pins are not field removable - NRP variation is not available
- Both continuous electric conductors and monitoring capability
- Concealed monitor switch and 4, 8 or 10 continuous electrical conductors
- Adjustment feature for a wide range of switch sensitivity
- For open loop secure, closed loop secure or single pole double throw (SPDT)



*ETW

Electric Through-Wire Only

- Two, three or five knuckle
- Available on architectural grade ball bearing and anti-friction bearing
- Available in steel, brass, or stainless steel
- 18 and 28 gauge wire
- Standard size available 4" (102 mm) through 8" (203 mm)
- Hinge pins are not field removable - NRP variation is not available
- Low voltage electric current transfer capability only
- 4, 8, or 12 continuous electrical conductors
- For 6 wire, use 8
- For 10 wire, use 12

Wire Maximum Electrical Rating		
Volts	Amperes	
48 VDC	3.5 amps	CONTINUOUS
	16.0 amps	PULSE

Contact Maximum Electrical Rating		
Volts	Amperes	
48 VDC	3.5 amps	CONTINUOUS
	16.0 amps	PULSE
Switch Maximum Electrical Rating		
30 VDC @ .500 amps		

*Quick Connect Option (QC) available with all ETW and ETM hinges - must specify.





FULL MORTISE - CONCEALED ELECTRIC

CONCEALED AIR TRANSFER

The following hinges are available with a concealed air transfer (ATH) modification. They are available on architectural grade ball bearing and anti-friction bearing full mortise. Please note:

- ATH modification is for doors that require the transfer of compressed air.
- The hinges with ATH modification available use 5/32" (4 mm) plastic air tubing, have quick-connect fittings, and are capable of transferring 80-100 PSI through the air tubing.
- Steel or stainless steel hinges are acceptable for use on labeled or fire-rated doors.
- Hinge pins are not field removable.
- NRP and safety stud are not available.



430 Mortar Box

- Galvanized steel 0.040 (1 mm)
- Dimensions - 9" (2.29 mm) length with tabs, 7" (1.78 mm) inside, 1-3/4" x 1-3/4" (45 mm x 45 mm) inside dimension
- Removable back for servicing
- Serves as mortar shield
- Top and bottom knockouts for standard conduit fittings
- Fits hinge reinforcements for 4-1/2" (114 mm) or 5" (127 mm) architectural grade hinges



AB700 Standard Weight Steel



AB800 Standard Weight Stainless steel, brass



AB750 Heavy Weight Steel

AB850 Heavy Weight Stainless steel, brass



BB1191 Standard Weight Stainless steel, brass

BB1279 Standard Weight Steel

BB1168 Heavy Weight Steel

BB1199 Heavy Weight Stainless steel, brass

Hinge Size	
Inches	mm
4-1/2 x 4	112 x 102
4-1/2 x 4-1/2	114 x 114
5 x 4	127 x 102
5 x 4-1/2	127 x 114
5 x 5	127 x 127



FULL MORTISE - SPRING

SINGLE ACTING

The following single acting spring hinges are for automatic closing of doors, please note:

- 1150 is not available in 3-1/2" x 3-1/2" (89 mm x 89 mm) and 4" x 4" (102 mm x 102 mm) sizes.
- 1250 is available with raised barrel for square edge or beveled doors.
- 1250 UL approved for use on 4' 0" x 8' 0" (1219 mm x 2438 mm) doors. 3 springs/one BB for 8' door.
- For maximum versatility, use all spring hinges or a combination of spring and ball bearing hinges. Do not use plain bearing hinges.
- Full spring tension may not be required on all hinges.
- Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges. Available with HT - voids UL. Available with RBB/RBS - UL approved.



1150

Square Corner

Stainless steel with stainless steel components (ANSI K51071F)

1151

1/4" Radius

Stainless steel with stainless steel components (ANSI K51071F)



1152

5/8" Radius

Stainless steel with stainless steel components (ANSI K51071F)

1250

Square Corner

Steel with steel components (ANSI K81071F)

1251

1/4" Radius

Steel with steel components (ANSI K81071F)

1252

5/8" Radius

Steel with steel components (ANSI K81071F)

1255

Square Corner Set

Steel with steel components (ANSI K81071F)
Two (2) each 1250 and one (1) each AB700

1256

Square Corner Set

Steel with steel components (ANSI K81071F)
Two (2) each 1250 and one (1) each BB1279

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2 x 3-1/2	89 x 89	0.134	6	1/2 x 10-24	1 x 9
4 x 4	102 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12

Series	Size	Recommended Max Door Weight (lbs)	Spring Hinge	Ball Bearing Hinge
For use on 1-3/8" (35 mm) door				
1250	3-1/2 x 3-1/2	40	1	2
1250	3-1/2 x 3-1/2	70	2	1
1250	3-1/2 x 4-1/2	90	3	-
For use on 1-3/4" (45 mm) door				
1250	4 x 4	60	1	2
1250	4 x 4	85	2	1
1250	4 x 4	110	3	-
1150	4-1/2 x 4, 4-1/2 x 4-1/2	70	1	2
1150	4-1/2 x 4, 4-1/2 x 4-1/2	115	2	1
1150	4-1/2 x 4, 4-1/2 x 4-1/2	150	3	-
1250	4-1/2 x 4, 4-1/2 x 4-1/2	70	1	2
1250	4-1/2 x 4, 4-1/2 x 4-1/2	115	2	1
1250	4-1/2 x 4, 4-1/2 x 4-1/2	150	3	-
1255	4-1/2 x 4-1/2	115	2	1
1256	4-1/2 x 4-1/2	115	2	1





FULL MORTISE - SPRING

REVERSE ACTION - SINGLE ACTING

The following reverse action, single acting spring hinges are for automatic opening of door, please note:

- For maximum versatility, use all spring hinges or a combination of spring and ball bearing hinges. Do not use plain bearing hinges.
- Full spring tension may not be required on all hinges.
- Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges.



1257
Square Corner
Steel (ANSI K81071)

1258
1/4" Radius
Steel (ANSI K81071)

1259
5/8" Radius
Steel (ANSI K81071)

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2 x 3-1/2	89 x 89	0.134	6	1/2 x 10-24	1 x 9
4 x 4	102 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12

Size	Recommended Max Door Weight (lbs)	Spring Hinge	Ball Bearing Hinge
For use on 1-3/8" (35 mm) door			
3-1/2 x 3-1/2	40	1	2
3-1/2 x 3-1/2	70	2	1
3-1/2 x 3-1/2	90	3	-
For use on 1-3/4" (45 mm) door			
4 x 4	60	1	2
4 x 4	85	2	1
4 x 4	110	3	-
4-1/2 x 4, 4-1/2 x 4-1/2	70	1	2
4-1/2 x 4, 4-1/2 x 4-1/2	115	2	1
4-1/2 x 4, 4-1/2 x 4-1/2	150	3	-

SWING CLEAR

The following swing clear spring hinge is for automatic closing of door. It provides the features of both a swing clear hinge and a spring hinge. It meets codes for hotels, motels, institutions, and commercial buildings. Please note:

- For maximum versatility, use all spring hinges or a combination of spring and ball bearing hinges. Do not use plain bearing hinges.
- Full spring tension may not be required on all hinges.
- Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges.



1267
Square Corner
• Steel with steel components (ANSI K81071F)
• For square edge door. Use in conjunction with AB7001 or BB1260



Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12



FULL MORTISE - ECCO

FIVE KNUCKLE



EC1100 | EC1100NRP
Plain Bearing - Standard Weight
 Steel with steel pin (ANSI A8133)

EC1101
Plain Bearing - Standard Weight

- Stainless steel with stainless steel pin (ANSI A5133) or brass with stainless steel pin (ANSI A2133)
- Non-rising removable pin with button tip and plug
- Use ball bearing hinge when a door closer is installed on the door
- For use on medium weight doors or doors requiring low frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12



ECRC1100
Plain Bearing - Standard Weight

- Steel with steel pin (ANSI A8133)
- Non-rising removable pin with button tip and plug
- Use ball bearing hinge when a door closer is installed on the door
- Round corner with 1/4" (6 mm) radius standard
- For use on medium weight doors or doors requiring low frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4 x 4	102 x 102	0.129	8	1/2 x 12-24	1-1/4 x 12



ECBB1100 | ECBB1100NRP
Ball Bearing - Standard Weight
 Steel with steel pin (ANSI A8112)

ECBB1101 | ECBB1101NRP
Ball Bearing - Standard Weight

- Brass with stainless steel pin (ANSI A2112) or 304 stainless steel with stainless steel pin (ANSI A5112)
- Two ball bearings
- Non-rising removable pin with button tip and plug
- ECBB1101 and ECBB1101NRP only available in 4-1/2" x 4-1/2" (114 mm x 114 mm)
- For use on medium weight doors or doors requiring medium frequency service
- 304 stainless steel standard
- **316 stainless steel available**

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12



ECRCBB1100
Ball Bearing - Standard Weight

- Steel with steel pin (ANSI A8112)
- Two ball bearings
- Non-rising removable pin with button tip and plug
- Round corner with 1/4" (6 mm) radius standard
- For use on medium weight doors or doors requiring medium frequency service

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4 x 4	102 x 102	0.129	8	1/2 x 12-24	1-1/4 x 12





FULL MORTISE - ECCO

FIVE KNUCKLE



ECBB1102 | ECBB1102NRP

Ball Bearing - Heavy Weight

Steel with steel pin (ANSI A8111)

ECBB1103 | ECBB1103NRP

Ball Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2111) or 304 stainless steel with stainless steel pin (ANSI A5111)
- Four (4) ball bearings
- Non-rising removable pin with flush pin and plug
- ECBB1102NRP and ECBB1103NRP are the same as ECBB1102 and ECBB1103, but with a non-removable pin
- For use on heavy weight doors or doors requiring high frequency service
- 304 stainless steel standard
- **316 stainless steel available**
- **No US26D finish available**

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4-1/2	114 x 114	0.180	8	1/2 x 12-24	1-1/4 x 12
5 x 4-1/2	127 x 114	0.190	8	1/2 x 12-24	1-1/4 x 12

SPRING HINGE

The following ECCO single acting spring hinge is for automatic closing of door. Please note:

- For use on 1-3/4" (45 mm) doors
- For maximum versatility, use all spring hinges or a combination of spring and ball bearing hinges. Do not use plain bearing hinges.
- Full spring tension may not be required on all hinges.
- Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges
- UL approved for 4' x 8' door
- Three (3) spring hinges and one (1) ball bearing hinge required for labeled openings



EC1105

Square Corner

Steel (ANSI K81071F)

Note: the 4.5" x 4" size is only available in US26D.



Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12

Size	Recommended Max Door Weight (lbs)	Spring Hinge	Ball Bearing Hinge
4-1/2 x 4, 4-1/2 x 4-1/2	70	1	2
4-1/2 x 4, 4-1/2 x 4-1/2	115	2	1
4-1/2 x 4, 4-1/2 x 4-1/2	150	3	-



HALF MORTISE

THREE KNUCKLE HINGES



AB701
Concealed Anti-Friction Bearing - Standard Weight
 Steel with steel pin (ANSI A8212)

AB801
Concealed Anti-Friction Bearing - Standard Weight

- Brass with stainless steel pin (ANSI A2212) or stainless steel with stainless steel pin (ANSI A5212)
- Non-rising removable pin with flush pin and plug
- Reversible
- For use on medium weight hollow metal doors with channel iron frames requiring medium frequency service



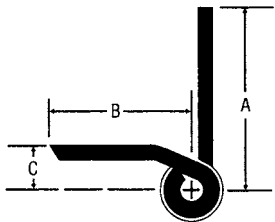
AB751
Concealed Anti-Friction Bearing - Heavy Weight
 Steel with steel pin (ANSI A8211)

AB851
Concealed Anti-Friction Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2211) or stainless steel with stainless steel pin (ANSI A5211)
- Non-rising removable pin with flush pin and plug
- Reversible
- For use on heavy weight hollow metal doors with channel iron frames requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.134	7	1/2 x 12-24 FH	1/2 x 12-24 OH
5	127	0.145	8	1/2 x 12-24 FH	1/2 x 12-24 OH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2	51	1-1/2	38	3/8	10
5	127	2	51	1-1/2	38	3/8	10



Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.180	7	1/2 x 12-24 FH	1/2 x 12-24 OH
5	127	0.190	8	1/2 x 12-24 FH	1/2 x 12-24 OH
6+	152	0.203* 0.190*	9	1/2 x 1/4-20 FH	1/2 x 1/4-20 OH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-1/16	53	1-1/2	38	7/16	11
5	127	2-1/16	53	1-1/2	38	7/16	11
6 x 1-3/4+	152	2-1/8	54	1-1/2	38	1/2	12.5

† Door thickness must be specified.
 * 0.203 for brass and steel. 0.190 for stainless steel.



HALF MORTISE

FIVE KNUCKLE HINGES



1129

Plain Bearing - Standard Weight

- Steel with steel pin (ANSI A8233)
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaf
- Not for use with door closer
- For use on medium weight hollow metal doors with channel iron frames requiring low frequency service

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.134	7	1/2 x 12-24 FH	1/2 x 12-24 OH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2	51	1-1/2	38	3/8	10



BB1138

Ball Bearing - Heavy Weight

Steel with steel pin (ANSI A8211)

BB2098

Ball Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2211) or stainless steel with stainless steel pin (ANSI A5211)
- Four ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaf
- For use on heavy weight hollow metal doors with channel iron frames requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.180	7	1/2 x 12-24 FH	1/2 x 12-24 OH
5	127	0.190	8	1/2 x 12-24 FH	1/2 x 12-24 OH
6+	152	0.203* 0.190*	9	1/2 x 1/4-20 FH	1/2 x 1/4-20 OH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-1/16	53	1-1/2	38	7/16	11
5	127	2-1/16	53	1-1/2	38	7/16	11
6 x 1-3/4+	152	2-1/8	54	1-1/2	38	1/2	12.5



BB1109

Ball Bearing - Standard Weight

Brass with stainless steel pin (ANSI A2212) or stainless steel with stainless steel pin (ANSI A5212)

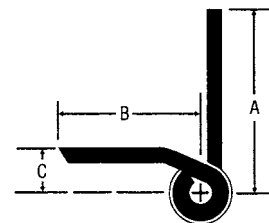
BB1129

Ball Bearing - Standard Weight

- Steel with steel pin (ANSI A8212)
- Two ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaf
- For use on medium weight hollow metal doors with channel iron frames requiring medium frequency service

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.134	7	1/2 x 12-24 FH	1/2 x 12-24 OH
5	127	0.145	8	1/2 x 12-24 FH	1/2 x 12-24 OH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2	51	1-1/2	38	3/8	10
5	127	2	51	1-1/2	38	3/8	10



+ Door thickness must be specified.

* 0.203 for brass and steel. 0.190 for stainless steel.



FULL SURFACE

THREE KNUCKLE HINGES



AB702
Concealed Anti-Friction Bearing - Standard Weight
 Steel with steel pin (ANSI A8312)

AB802
Concealed Anti-Friction Bearing - Standard Weight

- Brass with stainless steel pin (ANSI A2312) or stainless steel with stainless steel pin (ANSI A5312)
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with flush pin and plug
- Reversible
- Beveled surface leaves
- For use on medium weight tubular steel doors with channel iron frames requiring medium frequency service



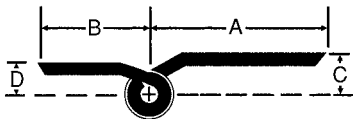
AB752
Concealed Anti-Friction Bearing - Heavy Weight
 Steel with steel pin (ANSI A8311)

AB852
Concealed Anti-Friction Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2311) or stainless steel with stainless steel pin (ANSI A5311)
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with flush pin and plug
- Reversible
- Beveled surface leaves
- For use on heavy weight hollow metal doors with channel iron frames requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.134	6	2 x 1/4-20 OH	1/2 x 12-24 OH
5	127	0.145	8	2 x 1/4-20 OH	1/2 x 12-24 OH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Jamb Leaf Offset "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-9/16	65	1-1/2	38	1/2	12.5	3/8	10
5	127	2-7/8	73	1-1/2	38	1/2	12.5	3/8	10



Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.180	6	2 x 1/4-20 OH	1/2 x 12-24 OH
5	127	0.190	8	2 x 1/4-20 OH	1/2 x 12-24 OH
6+	152	0.203* 0.190*	9	2 x 1/4-20 OH	1/2 x 12-20 OH

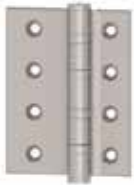
Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Jamb Leaf Offset "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-9/16	65	1-1/2	38	9/16	14	7/16	11
5	127	2-7/8	73	1-1/2	38	9/16	14	7/16	11
6+	152	3-1/4	83	1-1/2	38	5/8	15	1/2	12.5

+ Door thickness must be specified.
 * 0.203 for brass and steel. 0.190 for stainless steel.



FULL SURFACE

FIVE KNUCKLE HINGES



BB2108

Ball Bearing - Heavy Weight

Brass with stainless steel pin (ANSI A2361) or stainless steel with stainless steel pin (ANSI A5361)

BB2168

Ball Bearing - Heavy Weight

Steel with steel pin (ANSI A8361)

- Four ball bearings
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaves
- For use on tubular steel doors with channel iron frames requiring high frequency service



BB2109

Ball Bearing - Heavy Weight

Brass with stainless steel pin (ANSI A2311) or stainless steel with stainless steel pin (ANSI A5311)

BB2169

Ball Bearing - Heavy Weight

Steel with steel pin (ANSI A8311)

- Four ball bearings
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaves
- For use on heavy hollow metal or wood composite doors with channel iron frames requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.180	8	2 x 1/4-20 OH	1/2 x 1/4-20 OH
5	127	0.190	8	2 x 1/4-20 OH	1/2 x 1/4-20 OH
6+	152	0.203* 0.190*	8	2 x 1/4-20 OH	1/2 x 1/4-20 OH

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.180	8	1/4 - 20 x 2" OH	12 - 24 x 1/2" OH
5	127	0.190	8	1/4 x 20 x 2" OH	12 - 24 x 1/2" OH
6+	152	0.203* 0.190*	9	1/4 - 20 x 2" OH	1/4 - 20 x 1/2" OH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Jamb Leaf Offset "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2	51	1-1/2	38	9/16	14	7/16	11
5	127	2-5/16	59	1-1/2	38	9/16	14	7/16	11
6+	152	2-3/8	60	1-1/2	38	5/8	15	1/2	12.5

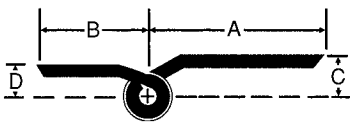
Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Jamb Leaf Offset "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-9/16	65	1-1/2	38	9/16	14	7/16	11
5	127	2-7/8	73	1-1/2	38	9/16	14	7/16	11
6+	152	3-1/4	83	1-1/2	38	5/8	15	1/2	12.5

+ Door thickness must be specified.

* 0.203 for brass and steel. 0.190 for stainless steel.

+ Door thickness must be specified.

* 0.203 for brass and steel. 0.190 for stainless steel.





FULL SURFACE

FIVE KNUCKLE HINGES



BB2110

Ball Bearing - Standard Weight
Brass with stainless steel pin (ANSI A2312) or stainless steel with stainless steel pin (ANSI A5312)

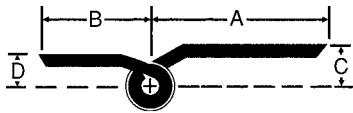
BB2171

Ball Bearing - Standard Weight

- Steel with steel pin (ANSI A8312)
- Two ball bearings
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with button top and plug
- Reversible
- Beveled surface leaves
- For use on medium weight hollow metal or wood composite doors with channel iron frames requiring medium frequency service

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.134	6	2 x 1/4-20 OH	1/2 x 12-24 OH
5	127	0.145	8	2 x 1/4-20 OH	1/2 x 12-24 OH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Jamb Leaf Offset "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-9/16	65	1-1/2	38	1/2	12.5	3/8	10
5	127	2-7/8	73	1-1/2	38	1/2	12.5	3/8	10



WELDING HINGES



1850-LP

Loose Oval Head Pin Plain Bearing - Heavy Weight

- Steel with steel pin
- Flat surface with no swage
- No holes
- Square corners
- Loose pin

Hinge Size		Gauge of Metal	Pin Diameter	Recommended Max Door Weight (lbs)
Inches	mm			
6 x 6	152 x 152	0.203	0.500	230

WELDING HINGES



1850

Riveted Pin Plain Bearing - Heavy Weight

- Steel with steel pin
- Flat surface with no swage
- No holes
- Square corners
- Fast riveted pin
- Manufactured with no holes and can easily be welded onto gates, dumpsters, and industrial applications such as bins or warehouse doors

Hinge Size		Gauge of Metal	Pin Diameter	Recommended Max Door Weight (lbs)
Inches	mm			
4 x 4	102 x 102	0.179	0.312	150
4-1/2 x 4-1/2	114 x 114	0.179	0.322	150
5 x 5	127 x 127	0.179	0.322	175
6 x 6	152 x 152	0.203	0.500	230

1850 6 x 6 LP (Loose Oval Pin)

Hinge Size		Door Thickness	Max Door Width
Inches	mm		
4 x 4	102 x 102	1-3/8" (35 mm) to 1-3/4" (45 mm)	36" (91 cm)
4-1/2 x 4-1/2	114 x 114	1-3/4" (45 mm) to 2" (51 mm)	36" (91 cm)
5 x 5	127 x 127	1-3/4" (45 mm) to 2-1/2" (64 mm)	42" (107 cm)
6 x 6	152 x 152	1-3/4" (45 mm) to 2-1/2" (64 mm)	48" (122 cm)

1850 6 x 6 LP (Loose Oval Pin)

SPRING HINGES



1303

Double Acting

- Steel (ANSI K81041)
- Adjustable

Product	Hinge Size		3 Hinges Max Door Weight	3 Hinges Max Door Width
	Inches	mm		
1303-3	3	76	35 lbs	2'-8"
1303-4	4	102	75 lbs	3'
1303-5	5	127	90 lbs	3'
1303-6	6	152	100 lbs	3'
Product	Min Door Thickness	Min Door Height	Wood Screw	
1303-3	3/4" - 1"	5'-0"	6 x (#6 x 3/4" FPH WS)	
1303-4	7/8" - 1-1/4"	6'-8"	8 x (#6 x 3/4" FPH WS)	
1303-5	1-1/8" - 1-1/2"	6'-8"	10 x (#8 x 1-1/4" FPH WS)	
1303-6	1-1/4" - 1-3/4"	7'-0"	10 x (#10 x 1-1/4" FPH WS)	





HALF SURFACE

THREE KNUCKLE HINGES



AB703
Concealed Anti-Friction Bearing - Standard Weight
 Steel with steel pin (ANSI A8412)

AB803
Concealed Anti-Friction Bearing - Standard Weight

- Brass with stainless steel pin (ANSI A2412) or stainless steel with stainless steel pin (ANSI A5412)
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with flush pin and plug
- Reversible
- Beveled surface leaf
- For use on medium weight hollow metal or wood composite doors with hollow metal frames requiring medium frequency service



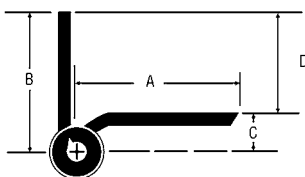
AB753
Concealed Anti-Friction Bearing - Heavy Weight
 Steel with steel pin (ANSI A8411)

AB853
Concealed Anti-Friction Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2411) or stainless steel with stainless steel pin (ANSI A5411)
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with flush pin and plug
- Reversible
- Beveled surface leaf
- For use on heavy weight hollow metal or wood composite doors with hollow metal frames requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.134	7	2 x 1/4-20 OH	1/2 x 12-24 FH
5	127	0.145	8	2 x 1/4-20 OH	1/2 x 12-24 FH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Application "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-9/16	65	2	51	1/2	12.5	1-1/2	38
5	127	2-7/8	73	2	51	1/2	12.5	1-1/2	38



Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.180	7	2 x 1/4-20 OH	1/2 x 12-24 FH
5	127	0.190	8	2 x 1/4-20 OH	1/2 x 12-24 FH
6+	152	0.203* 0.190*	10	2 x 1/4-20 OH	1/2 x 1/4-20 FH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Application "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-9/16	65	2-1/16	52	9/16	14	1-1/2	38
5	127	2-7/8	73	2-1/16	52	9/16	14	1-1/2	38
6+	152	3-1/4	83	2-1/8 or 2-1/2	54 or 64	5/8	16	1-1/2 or 1-7/8	38 or 48

+ Door thickness must be specified.
 * 0.203 for brass and steel. 0.190 for stainless steel.



HALF SURFACE

FIVE KNUCKLE HINGES



1173

Plain Bearing - Standard Weight

- Steel with steel pin (ANSI A8433)
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaf
- For use on regular weight hollow metal or wood composite doors with hollow metal frames requiring low frequency service



BB1163

Ball Bearing - Heavy Weight

Steel with steel pin (ANSI A8411)

BB2113

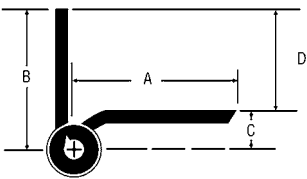
Ball Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2411) or stainless steel with stainless steel pin (ANSI A5411)
- Four ball bearings
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaf
- For use on heavy weight hollow metal or wood composite doors with hollow metal frames requiring high frequency service

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
3-1/2*	89	0.119	6	1-3/4 x 10-24 OH	1/2 x 10-24 FH
4*	102	0.129	7	2 x 1/4-20 OH	1/2 x 12-24 FH
4-1/2	114	0.134	7	2 x 1/4-20 OH	1/2 x 12-24 FH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Application "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
3-1/2*	89	1-5/8	41	1-9/16	31	7/16	11.5	1-1/16	27
4*	102	2-5/16	59	1-13/16	46	1/2	13	1-5/16	33
4-1/2	114	2-9/16	65	2	51	1/2	12.5	1-1/2	38

* For 1-3/8" door



Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.180	7	2 x 1/4-20 OH	1/2 x 12-24 FH
5	127	0.190	8	2 x 1/4-20 OH	1/2 x 12-24 FH
6+	152	0.203* 0.190*	10	2 x 1/4-20 OH	1/2 x 1/4-20 FH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Application "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-9/16	65	2-1/16	38	9/16	14	7/16	11
5	127	2-7/8	73	2-1/16	38	9/16	14	7/16	11
6+	152	3-1/4	83	2-1/8 or 2-1/2	54 or 64	5/8	16	1-1/2 or 1-7/8	38 or 48

+ Door thickness must be specified.

* 0.203 for brass and steel. 0.190 for stainless steel.





HALF SURFACE

FIVE KNUCKLE HINGES



BB1173

Ball Bearing - Standard Weight

Steel with steel pin (ANSI A841.2)

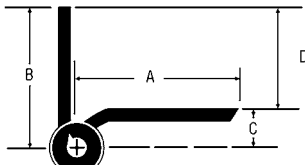
BB2112

Ball Bearing - Standard Weight

- Brass with stainless steel pin (ANSI A241.2) or stainless steel with stainless steel pin (ANSI A541.2)
- Two ball bearings
- Thru-bolts and grommets for wood door applications
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaf
- For use on regular weight hollow metal or wood composite doors with hollow metal frames requiring medium frequency service
- 4" is for 1-3/8" door. 4" for 1-3/4" door is available. Consult Hager Tech department.

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4*	102	0.129	7	2 x 1/4-20 OH	1/2 x 12-24 FH
4-1/2	114	0.134	7	2 x 1/4-20 OH	1/2 x 12-24 FH
5	127	0.145	8	2 x 1/4-20 OH	1/2 x 12-20 FH

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Door Leaf Offset "C"		Application "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4*	102	2-5/16	59	1-13/16	46	1/2	13	1-5/16	33
4-1/2	114	2-9/16	65	2	51	1/2	12.5	1-1/2	38
5	127	2-7/8	73	2	51	1/2	12.5	1-1/2	38



SPRING HINGES



1253

Single Acting

- Steel (ANSI K81081F)
- Thru-bolts and grommets for wood door applications
- For maximum versatility use all spring hinges or a combination of spring and ball bearing hinges (do not use plain bearing hinges)
- Full spring tension may not be required on all hinges
- Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges
- For automatic closing of door

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.134	7	2 x 1/4-20 with grommet nuts	1/2 x 12-24

Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Door Leaf Offset "C"		Application "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-9/16	65	2	52	1/2	14	1-1/2	38

Hinge Size		Recommended Max Door Weight		Spring Hinge	Ball Bearing Hinge	Spring Hinge Location
Inches	mm	lbs	kg			
4-1/2	114	70	32	1	2	Center
4-1/2	114	115	52	2	1	Top or Bottom
4-1/2	114	150	68	3	-	All



ALUMINUM ENTRANCE - SLIP IN HINGES

FIVE KNUCKLE

The following hinges are for use on aluminum doors with aluminum frames. They are applied by inserting the hinge leaves through a slot in the door or frame. These hinges:

- Have a non-rising removable pin with button tip and plug
- Are handed
- Use ball bearings when door closers are installed on doors



1277
Plain Bearing - Standard Weight
Both Leaves Tapped
 Steel with steel pin
 [ANSI A8143, 5/16" (8 mm) Swag]

1278
Plain Bearing - Standard Weight
One Leaf Tapped
 Steel with steel pin
 [ANSI A8153, 3/16" (5 mm) Swag]

1577
Plain Bearing - Standard Weight
Both Leaves Tapped
 Brass with stainless steel pin
 [ANSI A2143, 5/16" (8 mm) Swag] or
 stainless steel with stainless steel pin
 [ANSI A5143, 5/16" (8 mm) Swag]

1578
Plain Bearing - Standard Weight
One Leaf Tapped
 Brass with stainless steel pin
 [ANSI A2153, 3/16" (5 mm) Swag] or
 stainless steel with stainless steel pin
 [ANSI A5143, 3/16" (5 mm) Swag]



BB1277
Ball Bearing - Standard Weight
Both Leaves Tapped
 Steel with steel pin
 [ANSI A8142, 5/16" (8 mm) Swag]

BB1278
Ball Bearing - Standard Weight
One Leaf Tapped
 Steel with steel pin
 [ANSI A8152, 3/16" (5 mm) Swag]

BB1577
Ball Bearing - Standard Weight
Both Leaves Tapped
 Brass with stainless steel pin
 [ANSI A2142, 5/16" (8 mm) Swag] or
 stainless steel with stainless steel pin
 [ANSI A5142, 5/16" (8 mm) Swag]

BB1578
Ball Bearing - Standard Weight
One Leaf Tapped
 Brass with stainless steel pin
 [ANSI A2152, 3/16" (5 mm) Swag] or
 stainless steel with stainless steel pin
 [ANSI A5142, 3/16" (5 mm) Swag]

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12

4-1/2 x 3-1/2 - see template T-209 on Hager website - www.hagerco.com.





SWING CLEAR

THREE KNUCKLE HINGES



AB7001 | AB7002 Full Mortise - Concealed Anti-Friction Bearing - Standard Weight

- Steel with steel pin (ANSI A8122)
- Non-rising removable pin with flush pin and plug
- Reversible
- When opened 90°, door projects 3/32" (2 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- AB7001 is for square edge doors and AB7002 is for beveled edge doors
- Assembled RH - Reversible to LH

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2	114	0.139	8	1/2 x 12-24 FH	1-1/4 x 12 FH
5	127	0.139	8	1/2 x 12-24 FH	1-1/4 x 12 FH



AB7511 | AB7512 Half Mortise - Concealed Anti-Friction Bearing - Heavy Weight

- Steel with steel pin (ANSI A8221)
- Non-rising removable pin with flush pin and plug
- Reversible
- When opened 90°, door projects 11/64" (4 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- AB7511 is for square edge doors and AB7512 is for beveled edge doors
- Assembled RH - Reversible to LH

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5	127	0.187	8	1/2 x 12-24 FH 1-1/4 x 12 FH	1/2 x 1/4-20 FH 1-1/2 x 14 FH



AB7501 | AB7502 Full Mortise - Concealed Anti-Friction Bearing - Heavy Weight

- Steel with steel pin (ANSI A8121)
- Non-rising removable pin with flush pin and plug
- Reversible
- When opened 90°, door projects 11/64" (4 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- AB7501 is for square edge doors and AB7502 is for beveled edge doors
- Assembled RH - Reversible to LH

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2	114	0.187	8	1/2 x 12-24 FH	1-1/4 x 12 FH
5	127	0.187	8	1/2 x 12-24 FH	1-1/4 x 12 FH



AB7523 Full Surface - Concealed Anti-Friction Bearing - Heavy Weight

- Steel with steel pin (ANSI A8321)
- Non-rising removable pin with flush pin and plug
- Reversible
- Beveled surface leaves
- When opened 90°, door projects 11/64" (4 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- Assembled RH - Reversible to LH

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5	127	0.187	9	2 x 1/4-20 FH	1/2 x 12-24 FH



AB7534 Half Surface - Concealed Anti-Friction Bearing - Heavy Weight

- Steel with steel pin (ANSI A8421)
- Non-rising removable pin with flush pin and plug
- Reversible
- Beveled surface leaf
- When opened 90°, door projects 11/64" (4 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- Assembled RH - Reversible to LH

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5	127	0.187	9	2 x 1/4-20 FH	1/2 x 12-24 FH



SWING CLEAR

FIVE KNUCKLE HINGES



1260 | 1261 Full Mortise - Plain Bearing - Standard Weight

- Steel with steel pin (ANSI A8123)
- Non-rising removable pin with button tip and plug
- Reversible
- When opened 90°, door projects 9/64" (4 mm) past stop of jamb for 3-1/2" hinge and 3/16" (5 mm) past stop of jamb for 4" hinge
- For residential and commercial use
- 1260 is for square edge doors and 1261 is for beveled edge doors
- Assembled RH - reversible to LH



BB1262 | BB1263 Full Mortise - Ball Bearing - Heavy Weight

- Steel with steel pin (ANSI A8121)
- Four ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- When opened 90°, door projects 11/64" (4 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- BB1262 is for square edge doors and BB1263 is for beveled edge doors
- Assembled RH - reversible to LH



Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2	89	0.119	6	1/2 x 10-24 FH	1 x 9 FH
4	102	0.129	8	1/2 x 12-24 FH	1-1/4 x 12 FH

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2	114	0.180	8	1/2 x 12-24 FH	1-1/4 x 12 FH
5	127	0.190	8	1/2 x 12-24 FH	1-1/4 x 12 FH



BB1260 | BB1261 Full Mortise - Ball Bearing - Standard Weight

- Steel with steel pin (ANSI A8122)
- Two ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- When opened 90°, door projects 3/32" (2 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- BB1260 is for square edge doors and BB1261 is for beveled edge doors
- Assembled RH - reversible to LH



BB1360 | BB1361 Full Mortise - Ball Bearing - Standard Weight

- Stainless steel with stainless steel pin (ANSI A5122)
- Two ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- When opened 90°, door projects 3/32" (2 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- BB1360 is for square edge doors and BB1361 is for beveled edge doors
- Assembled RH - reversible to LH



Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2	114	0.134	8	1/2 x 12-24 FH	1-1/4 x 12 FH
5	127	0.145	8	1/2 x 12-24 FH	1-1/4 x 12 FH

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2	114	0.134	8	1/2 x 12-24 FH	1-1/4 x 12 FH
5	127	0.145	8	1/2 x 12-24 FH	1-1/4 x 12 FH





SWING CLEAR

FIVE KNUCKLE HINGES



BB1362 | BB1363 Full Mortise - Ball Bearing - Heavy Weight

- Stainless steel with stainless steel pin (ANSI A5121)
- Four ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- When opened 90°, door projects 11/64" (4 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- BB1362 is for square edge doors and BB1363 is for beveled edge doors
- Assembled RH - reversible to LH



BB1266 Full Surface - Ball Bearing - Heavy Weight

- Steel with stainless steel pin (ANSI A8321)
- Four ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaves
- When opened 90°, door projects 11/64" (4 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- Assembled RH - reversible to LH



Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
4-1/2	114	0.180	8	1/2 x 12-24 FH	1-1/4 x 12 FH
5	127	0.190	8	1/2 x 12-24 FH	1-1/4 x 12 FH

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
5	127	0.187	9	2 x 1/4-20 FH	1/2 x 1/4-20 FH



BB1264 | BB1265 Half Mortise - Ball Bearing - Heavy Weight

- Steel with steel pin (ANSI A8221)
- Four ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- When opened 90°, door projects 11/64" (4 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- BB1264 is for square edge doors and BB1265 is for beveled edge doors
- Assembled RH - reversible to LH



BB1270 Half Surface - Ball Bearing - Heavy Weight

- Steel with stainless steel pin (ANSI A8421)
- Four ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaf
- When opened 90°, door projects 11/64" (4 mm) past stop of jamb
- For use in hospitals or other institutional type buildings
- Assembled RH - reversible to LH



Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5	127	0.187	8	1/2 x 12-24 FH	1-1/4 x 12 FH
				Jamb Leaf Screw Size	
				Machine	Wood
				1/2 x 1/4-20 FH	1-1/4 x 12 FH

Hinge Size		Gauge of Metal	Hole Count	Machine Screw Size	
Inches	mm			Door Leaf	Jamb Leaf
5	127	0.187	9	2 x 1/4-20 FH	1/2 x 12-24 FH



ANCHORS

THREE KNUCKLE HINGES



AB7505
Concealed Anti-Friction Bearing - Heavy Weight
 Steel with steel pin (ANSI A8551)

AB8505
Concealed Anti-Friction Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2511) or stainless steel with stainless steel pin (ANSI A5511)
- Non-removable pin standard with flush pin and plug
- Handed
- One anchor leaf (frame)
- Must be used with one pair of heavy weight, full mortise hinges (AB750 or AB850) - sold separately
- For use on heavy weight doors receiving high frequency use

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5 x 4-1/2	127 x 114	0.190	12	1/2 x 12-24	1-1/4 x 12



AB7507 | AB7509
Concealed Anti-Friction Bearing - Heavy Weight
 Steel with steel pin (ANSI A8551)

AB8507 | AB8509
Concealed Anti-Friction Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2551) or stainless steel with stainless steel pin (ANSI A5551)
- Non-removable pin standard with flush pin and plug
- Handed
- Two anchor leaves
- Must be used with one pair of heavy weight, full mortise hinges (AB750 or AB850) - sold separately
- For use on heavy weight doors receiving high frequency use and when concealed door closer is used
- AB7507 is for square edge doors and AB7509 is for beveled edge doors
- AB8507 is for square edge doors and AB8509 is for beveled edge doors

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5 x 4-1/2	127 x 114	0.190	15	1/2 x 12-24	1-1/4 x 12



AB7506 | AB7508
Concealed Anti-Friction Bearing - Heavy Weight
 Steel with steel pin (ANSI A8551)

AB8506 | AB8508
Concealed Anti-Friction Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2551) or stainless steel with stainless steel pin (ANSI A5551)
- Non-removable pin standard with flush pin and plug
- Handed
- Two anchor leaves
- Must be used with one pair of heavy weight, full mortise hinges (AB750 or AB850) - sold separately
- For use on heavy weight doors receiving high frequency use
- AB7506 is for square edge doors and AB7508 is for beveled edge doors
- AB8506 is for square edge doors and AB8508 is for beveled edge doors

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5 x 4-1/2	127 x 114	0.190	18	1/2 x 12-24	1-1/4 x 12





ANCHORS

FIVE KNUCKLE HINGES



BB1160
Ball Bearing - Heavy Weight
 Steel with steel pin (ANSI A8551)

BB1190
Ball Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2551) or stainless steel with stainless steel pin (ANSI A5551)
- Four ball bearings
- Non-removable pin standard with button tip and plug
- Handed
- One anchor leaf (frame)
- Must be used with one pair of heavy weight, full mortise hinges (BB1168 or BB1199) - sold separately
- For use on heavy weight doors receiving high frequency use



BB1165 | BB1167
Ball Bearing - Heavy Weight
 Steel with steel pin (ANSI A8551)

BB1195 | BB1197
Ball Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2551) or stainless steel with stainless steel pin (ANSI A5551)
- Four ball bearings
- Non-removable pin standard with button tip and plug
- Handed
- Two anchor leaves
- Must be used with one pair of heavy weight, full mortise hinges (BB1168 or BB1199) - sold separately
- For use on heavy weight doors receiving high frequency use and when concealed door closer is used
- BB1165 is for square edge doors and BB1167 is for beveled edge doors
- BB1195 is for square edge doors and BB1197 is for beveled edge doors

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5 x 4-1/2	127 x 114	0.190	12	1/2 x 12-24	1-1/4 x 12



BB1162 | BB1166
Ball Bearing - Heavy Weight
 Steel with steel pin (ANSI A8551)

BB1192 | BB1196
Ball Bearing - Heavy Weight

- Brass with stainless steel pin (ANSI A2551) or stainless steel with stainless steel pin (ANSI A5551)
- Four ball bearings
- Non-removable pin standard with button tip and plug
- Handed
- Two anchor leaves
- Must be used with one pair of heavy weight, full mortise hinges (BB1168 or BB1199) - sold separately
- For use on heavy weight doors receiving high frequency use
- BB1162 is for square edge doors and BB1166 is for beveled edge doors
- BB1192 is for square edge doors and BB1196 is for beveled edge doors

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5 x 4-1/2	127 x 114	0.190	15	1/2 x 12-24	1-1/4 x 12

Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
5 x 4-1/2	127 x 114	0.190	18	1/2 x 12-24	1-1/4 x 12





PIVOTS

REINFORCING



251

Full Surface

- For 3-1/2" (89 mm) wide hinge
- Handed

252

Full Surface

- For 4" (102 mm) wide hinge
- Non-handed

253

Full Surface

- For 4-1/2" (114 mm) wide hinge
- Non-handed

254

Full Surface

- For 5" (127 mm) wide hinge
- Non-handed

Product	Butt Hinge Width		Projection*		Door Thickness	
	Inches	mm	Inches	mm	Inches	mm
251	3-1/2	89	5/8	16	1-3/8	35
252	4	102	1/2	12.5	1-3/4	45
253	4-1/2	114	3/4	19	1-3/4	45
254	5	127	1	25	1-3/4	45

*Projection from centerline of pivot to face of door.

Gauge of Metal	Screw Size	
	Machine	Wood
0.187	3/4 x 1/4-20	1-1/4 x 14

BALL AND THRUST BEARING - HEAVY WEIGHT



495

Top

Forged bronze (ANSI C07162)



496

Intermediate

- Forged bronze (ANSI C07321)
- Handed



497

Bottom

- Forged bronze (ANSI C07131)
- 3/4" (19 mm) offset
- Two knuckle
- For doors up to and including 3'0" x 8'0" (912 mm x 2438 mm) weighing maximum of 350 pounds, apply all three pivots 495, 496, 497
- For doors over 3'6" (1067 mm) up to 4'0" (1219 mm) in width, add one additional intermediate pivot, 496
- For each additional 12" (305 mm) in door height over 8'0" (2438 mm) add one intermediate pivot, 496
- Handed

Product	Hole Count	Screw Size	
		Machine	Wood
495	8	5/8 x 1/4-20	1-1/2 x 14
496	10	5/8 x 1/4-20	1-1/2 x 14
497	8	5/8 x 1/4-20	1-1/2 x 14





PIVOTS

SINGLE ACTING - STANDARD WEIGHT



Top



Bottom

500

Rack and Pinion

- ANSI A2793
- Pivot opens door to 105° maximum
- Non-handed
- Concealed
- Adjustable alignment

Designed for:

- 1-3/4" (45 mm) thick door
- Maximum weight not over 80 pounds
- Not to exceed 3' (914 mm) wide and 7' (2134 mm) high
- Cased opening frame required
- Consult Hager Tech Support for doors other than 1-3/4" (44 mm)

Screw Size	
Machine	Wood
Upon request	1-1/4 x 12 FH*

*Plastic cinch anchors

SINGLE ACTING - EXTRA HEAVY WEIGHT



Top



Bottom

551

Extra Heavy Duty Rack and Pinion

- ANSI A2792
- Pivot opens door to 105° maximum
- Non-handed
- Concealed
- Adjustable alignment

Designed for:

- 1-3/4" (45 mm) thick door
- Maximum weight not over 180 pounds
- Not to exceed 4" (102 mm) wide and 8" (203 mm) high
- Cased opening frame required
- Consult Hager Tech Support for doors other than 1-3/4" (44 mm)

Screw Size	
Machine	Wood
Upon request	1-1/4 x 12 FH*

*Plastic cinch anchors

SINGLE ACTING - HEAVY WEIGHT



Top



Bottom

550

Heavy Duty Rack and Pinion

- ANSI A2792
- Pivot opens door to 105° maximum
- Non-handed
- Concealed
- Adjustable alignment

Designed for:

- 1-3/4" (45 mm) thick door
- Maximum weight not over 150 pounds
- Not to exceed 3' (914 mm) wide and 7' (2134 mm) high
- Cased opening frame required
- Consult Hager Tech Support for doors other than 1-3/4" (44 mm)

Screw Size	
Machine	Wood
Upon request	1-1/4 x 12 FH*

*Plastic cinch anchors

HEAVY WEIGHT



615

For Frameless Openings

- ANSI A8782
- For use on doors up to 150 lbs and 1-3/8" - 1-3/4" (35 mm - 44 mm) thick
- Pivot opens door to 180° maximum
- Screw slots for horizontal or vertical adjustment

Wood Screw Size
12 x 1-1/4



PIVOTS

CAMTROL DOUBLE ACTING - HOSPITAL SET - RESCUE HARDWARE

The following pivots are for use on:

- Wood or metal doors up to 135 lbs
- Doors not over 3'6" x 7' (1067 mm x 2134 mm)
- Wood or metal frames
- Allows for square edge door on lock side, bull nose not required

Mortise Application in Wood Floors



510 Head and Floor Pivots

- ANSI A5702
- For use with square edge doors on hinge side

600 Head and Floor Pivots with Door Release (Set)

ANSI A5702

Surface Application in Masonry Floors



512 Head and Floor Pivots

- ANSI A5702
- For use with square edge doors on hinge side

612 Head and Floor Pivots with Door Release (Set)

ANSI A5702

Door Release



610 Door Release

ANSI A1882

Mortise Application in Masonry Floors



511 Head and Floor Pivots

- ANSI A5702
- For use with square edge doors on hinge side

611 Head and Floor Pivots with Door Release (Set)

ANSI A5702

Item No	Anchor Housing	
	Inches	mm
510 & 600	3-7/8 x 1-7/8 x 7/8	98 x 48 x 22
511 & 611	3-7/8 x 1-1/4 x 7/8	98 x 32 x 22
512 & 612	3-7/8 x 1-1/4 x 7/8	98 x 32 x 22

Door Mount Brackets Screw Size		Head Cam Box Screw Size		Floor Cam Box Screw Size	
Machine	Wood	Machine	Wood	Machine	Wood
1/2 x 12-24 FH	1-1/4 x 12 FH	1-1/4 x 12-24 FH	1-1/2 x 12-24 FH	-	1-1/2 x 12 FH

610					
Mortise Depth		Face Plate		Screw Size	
Inches	mm	Inches	mm	Machine	Wood
1-13/16	46	1-1/2 x 4-1/2 x 3/16	38 x 114 x 5	1/2 x 12-24 FH	1-1/4 x 12 FH

*Plastic cinch anchors





PIVOTS

DOUBLE LIPPED STRIKE

451

Center Hung Doors

- Brass
- ANSI A1882



Center Hung

452

Center Hung Doors

- Brass
- ANSI A1882



1/8" (3.2 mm)
Inset Hung

453

1/8" (3.2 mm) Inset Hung Doors

- Brass
- ANSI A1882

454

1/8" (3.2 mm) Inset Hung Doors

- Brass
- ANSI A1882
- To be used with Hager 600, 611, and 612 pivots and door release - this allows doors to be opened in both directions without damage to frame
- Standard latchbolt cutout is 1-1/4" x 11/16" (32 mm x 17 mm)
- Standard strike plates are optimized for cylindrical locks/latches mounted on 1-3/4" thick doors
- Mortise lock applications require special latch cutout location (consult specific manufactures for variations of cutout dimensions)
- For use with Camtrol double acting pivot

COMBINATION RESCUE DOOR STOP AND TWO WAY STRIKE PLATE (EMERGENCY STRIKE)

455

Center Hung Doors

- Brass
- ANSI A1882



Center Hung

456

Center Hung Doors

- Brass
- ANSI A1882



1/8" (3.2 mm)
Inset Hung

457

1/8" (3.2 mm) Inset Hung Doors

- Brass
- ANSI A1882

458

1/8" (3.2 mm) Inset Hung Doors

- Brass
- ANSI A1882
- Handed
- To be used with Hager 510, 511, and 512 pivots
- Door release allows doors to be opened in both directions without damage to frame
- Standard latchbolt cutout is 1-1/4" x 11/16" (32 mm x 17 mm)
- Standard strike plates are optimized for cylindrical locks/latches mounted on 1-3/4" thick doors
- Mortise lock applications require special latch cutout location (consult specific manufactures for variations of cutout dimensions)

Product	Face Plate		Gauge of Metal	Hole Count	Screw Size
	Inches	mm			
451	5-3/4 x 2-3/4	146 x 70	0.093	6	1/2 x 8-32 FH
452	6-3/4 x 2-3/4	171 x 70	0.093	6	1/2 x 8-32 FH
453	5-3/4 x 2-3/4	146 x 70	0.093	6	1/2 x 8-32 FH
454	6-3/4 x 2-3/4	171 x 70	0.093	6	1/2 x 8-32 FH

Product	Face Plate		Gauge of Metal	Hole Count	Screw Size
	Inches	mm			
455	5-3/4 x 2-3/4	146 x 70	0.093	6	1/2 x 8-32 FH
456	6-3/4 x 2-3/4	171 x 70	0.093	6	1/2 x 8-32 FH
457	5-3/4 x 2-3/4	146 x 70	0.093	6	1/2 x 8-32 FH
458	6-3/4 x 2-3/4	171 x 70	0.093	6	1/2 x 8-32 FH

Catalog Number	Frame Width	
452 & 454	4-3/4"	
	5-1/4"	
	5-7/8"	
	6-1/8"	
	6-1/4"	
	6-1/2"	
	Special Sizes Available	7-1/8"
		7-1/2"
		7-3/4"
		8
	8-1/4"	
	8-3/4"	

Catalog Number	Frame Width	
456 & 458	4-3/4"	
	5-1/4"	
	5-7/8"	
	6-1/8"	
	6-1/4"	
	6-1/2"	
	Special Sizes Available	7-1/8"
		7-1/2"
		7-3/4"
		8
	8-1/4"	
	8-3/4"	





DETENTION HARDWARE

THREE KNUCKLE HINGES



IHTHB953
Full Mortise - Concealed Bearings - Heavy Weight

- Stainless steel with stainless steel pin (ANSI A5111)
- Two concealed maintenance free bearings
- Investment cast
- Security torx screws
- Hospital tip and reverse security stud are standard
- Additional options include electric monitor (EMN), electric through wire (ETW), and electric through wire and monitor (ETM)
- For use on heavy weight doors ranging from 250-600 lbs

Hinge Size		Pin Diameter		Gauge of Metal	Hole Count	Machine Screw Size
Inches	mm	Inches	mm			
4-1/2 x 4-1/2	114 x 114	0.370	9	0.187	8	1/2 x 1/4-20 Torx



IHTAB750
Institutional Prison Hinge
 Steel with stainless steel pin (ANSI A8111)

- IHTAB850**
Institutional Prison Hinge
- Stainless steel with stainless steel pin (ANSI A5111)
 - Concealed maintenance free bearings
 - Welded hospital tips and plug
 - Welded knuckles
 - Additional options include security torx screws, electric monitor (EMN), electric through wire (ETW), electric through wire and monitor (ETM), reverse safety stud (RSS), and safety stud (SS)
 - For use on heavy weight doors ranging from 200-300 lbs

Made in USA

Hinge Size		Pin Diameter		Gauge of Metal	Hole Count	Machine Screw Size
Inches	mm	Inches	mm			
4-1/2 x 4-1/2	114 x 114	0.322	8	0.180	8	1/2 x 12-24 FPHM
5 x 4-1/2	127 x 114	0.322	8	0.190	8	1/2 x 12-24 FPHM
5 x 5	127 x 127	0.322	8	0.190	8	1/2 x 12-24 FPHM



Made in USA

990
Full Surface Heavy Weight Prison Utility Hinge

- Steel with steel pin (ANSI A8383)
- Plain bearing
- Welded pin
- Prime painted
- Torx button head bolt
- Two hinges support the weight of 150 lbs
- For use on small doors, access doors, and observation shutters

Hinge Size		Pin Diameter		Gauge of Metal	Hole Count	Machine Screw Size
Inches	mm	Inches	mm			
3 x 4	78 x 102	0.437	11	0.203	4	1 x #16-3/8 Torx



Made in USA

992
Full Surface Heavy Weight Prison Pass Through Hinge with Stop

- Steel with steel pin (ANSI A8383)
- Plain bearing
- Welded pin
- Prime painted
- Torx button head bolt
- Two hinges support the weight of 150 lbs
- For use on pass through in door

Hinge Size		Pin Diameter		Gauge of Metal	Hole Count	Machine Screw Size
Inches	mm	Inches	mm			
3 x 4	78 x 102	0.437	11	0.203	4	1 x #16-3/8 Torx





ACCESSORIES



100

Set Screw Set

- 1/8" x 10-32 set screws (quantity 300)
- 3/16" x 10-32 set screws (quantity 300)
- 3/32" hex key
- Hand tap "T" wrench
- 10-32 tap
- #21 drill bit
- This set converts removable pin hinges to non-removable pin (set screw in barrel) hinges as required



263

Sleeve Bolt

- Aluminum
- 9/16" (14 mm) head sex nut with 1/4" - 20 internal thread
- Knurled shoulder prevents bolt from turning
- Drill a 3/8" (9.5 mm) hole and insert the sex bolt
- Available in US2C finish only (compatible with US26D, US28, or US32D)
- For use in securing push bars, exposed door closers and other fixtures to doors 1-3/4" (45 mm) thick or greater



265

Molly Jack Nut (8S JN)

- Aluminum
- For use with the Hager reinforcing pivot hinges (250 Series)
- Easily installed by drilling a 7/16" (11.1 mm) pilot hole and following the instructions provided with each product
- For use in properly anchoring various products to hollow metal frames 3/16" - 3/8" (4.8 mm - 9.5 mm) thick



305

Hinge Reinforcement Plate

- Steel
- For metal frames
- Four (4) holes

Hinge Size		Width		Total Length	
Inches	mm	Inches	mm	Inches	mm
4-1/2	114	1.5	38	10	254
Offset		Gauge of Metal		Tapped for Screw	
0.074		0.154		12-24	



417

Back Plate

- Steel
- For wood doors
- For full or half surface hinges

Length		Width		Gauge of Metal
Inches	mm	Inches	mm	
4-5/8	117	1-13/16	46	0.074
5	127	2-1/8	54	0.097
Number of Holes		Machine Screw Size		
3		1/4 x 20		
4		1/4 x 20		



ACCESSORIES

DECORATOR TIP KITS



1712
Ball Standard Weight



1713
Ball Heavy Weight



1716
Acorn Standard Weight



1717
Acorn Heavy Weight



1722
Steeple Standard Weight



1723
Steeple Heavy Weight



1728
Urn Standard Weight



1729
Urn Heavy Weight

- Standard weight hinge size - 3-1/2" (89 mm), 4" (102 mm), 4-1/2" (114 mm), 5" (127 mm), 6" (152 mm)
- Heavy weight hinge size - 4-1/2" (114 mm), 5" (127 mm), 6" (152 mm), 8" (203 mm)
- Solid brass with stainless steel pin
- Conversion tips and pins for architectural grade hinges





One Family. One Brand. One Vision.™

www.hagerco.com

Residential Hinges



Serving the needs of the homeowner, contractor, pre-hung door supplier, and hardware supplier, Hager residential hinges offer several finishes and styles to enhance the design on any home.

Hager residential hinges are available in square and two sizes of radius corners to match home designs ranging from traditional to contemporary. Coordinating finishes is one of many all-important detail aspects of the design process and we offer finishes ranging from stainless steel, chrome, nickel, antique brass, flat black and bright brass, which is making a comeback in the interior design industry.

Several of our most popular hinges are offered in bulk packs for large projects and unassembled to be used in large door assembly processes.

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GENERAL INFORMATION

Hager residential hinges are provided without lubrication. We recommend lubricating the hinges after installation. Remove the pin, apply white lithium grease to the pin, then re-insert. All residential hinges conform to the "Light Weight" requirements of ANSI A156.1.

Finishes (not all hinges are available in all finishes)

US & Hager	Description	Steel	Brass	Stainless Steel
1D	Flat Black	631	N/A	N/A
2D	Brass Tone Dichromate	604	N/A	N/A
2CD	Brushed Zinc Plate	N/A	N/A	N/A
H2H x BP	Mechanical Galvanized	N/A	N/A	N/A
3	Bright Brass	632	605	N/A
3LB	Light Brass	N/A	N/A	N/A
4	Satin Brass	633	606	N/A
10A/US11	Antique Bronze, Lacquered	641/643	614	N/A
10R	Matte Lacquered Antique Bronze	N/A	N/A	N/A
15	Satin Nickel	646	619	N/A
26	Bright Chromium Plated	651	625	N/A
26D	Satin Chromium Plated	652	626	N/A
32	Stainless Steel Metal, Bright	N/A	N/A	629
32D	Stainless Steel Metal, Satin	N/A	N/A	630
32D x CLR	Stainless Steel Metal, Satin, clear	N/A	N/A	630
P	Prime Coat - Beige	600	600	N/A
ABA/US5	Antique Brass	638	609	N/A
AN/US15A	Antique Nickel	647	620	N/A

Packing

Box pack - 2 hinges per box
Bulk pack - 100 hinges per box

Hager Residential Hole Patterns



3-1/2" x 3-1/2"
Refer to template
T398



4" x 4"
Refer to template
T399





FULL MORTISE - FIVE KNUCKLE



1541

Plain Bearing

- Brass with brass pin (ANSI A2134) or stainless steel with stainless steel pin (ANSI A5134)
- Reversible
- Square corners
- Removable pin



RC1542

Plain Bearing

- Brass with brass pin (ANSI A2134) or stainless steel with stainless steel pin (ANSI A5134)
- Reversible
- Round corners - 5/8" (16 mm) radius
- Removable pin



BB1541

Ball Bearing

- Stainless steel with stainless steel pin (ANSI A5114)
- Reversible
- Square corners
- Removable pin



RCBB1542

Ball Bearing

- Stainless steel with stainless steel pin (ANSI A5114)
- Reversible
- Round corners - 5/8" (16 mm) radius
- Removable pin



RC1541

Plain Bearing

- Brass with brass pin (ANSI A2134) or stainless steel with stainless steel pin (ANSI A5134)
- Reversible
- Round corners - 1/4" (6 mm) radius
- Removable pin

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size (Wood)
Inches	mm				
3-1/2 x 3-1/2	89 x 89	0.085	6	0.234	3/4 x 9 FH
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH



RCBB1541

Ball Bearing

- Stainless steel with stainless steel pin (ANSI A5114)
- Reversible
- Round corners - 1/4" (6 mm) radius
- Removable pin



1543

Plain Bearing

- Brass with brass pin (ANSI A2134) or stainless steel with stainless steel pin (ANSI A5134)
- Assembled right hand
- Square by 5/8" (16 mm) radius
- Removable pin

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size (Wood)
Inches	mm				
3-1/2 x 3-1/2	89 x 89	0.085	6	0.234	3/4 x 9 FH
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH



BB1543

Ball Bearing

- Brass with brass pin (ANSI A2114) or stainless steel with stainless steel pin (ANSI A5114)
- Assembled right hand
- Square by 5/8" (16 mm) radius
- Removable pin

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size (Wood)
Inches	mm				
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH



FULL MORTISE - FIVE KNUCKLE



1741

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- Square corners
- Removable pin



BB1741

Ball Bearing

- Steel with steel pin (ANSI A8114)
- Reversible
- Square corners
- Removable pin



RC1741 | 7741

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- 7741 is RC1741 bulk unassembled
- RC1741 - specify box or bulk pack
- Round corners - 1/4" (6 mm) radius
- Removable pin



RCBB1741

Ball Bearing

- Steel with steel pin (ANSI A8114)
- Reversible
- Round corners - 1/4" (6 mm) radius
- Removable pin



RC1748

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- Round corners - 1/4" (6 mm) radius
- Removable pin
- Template hole pattern
- AMS and 1/2 wood screws

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size
Inches	mm				
3-1/2 x 3-1/2	89 x 89	0.085	6	0.234	1/2 x 10-24 (machine)
					1 x 9 FH (wood)



RC1749

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- Round corners - 1/4" (6 mm) radius
- Removable pin
- Template hole pattern
- AMS and 1/2 wood screws

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size
Inches	mm				
4 x 4	102 x 102	0.085	8	0.234	1/2 x 12-24 (machine)
					1-1/4 x 12 (wood)

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size (Wood)
Inches	mm				
3 x 3*	76 x 76*	0.085*	6*	0.234*	3/4 x 9 FH*
3-1/2 x 3-1/2	89 x 89	0.085	6	0.234	3/4 x 9 FH
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH

*3 x 3 not available for BB1741 or RCBB1741.





FULL MORTISE - FIVE KNUCKLE



1816

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Assembled right hand
- Square by 5/8" (16 mm) radius
- Removable pin
- Bulk assembled



BB1816

Ball Bearing

- Steel with steel pin (ANSI A8114)
- Assembled right hand
- Square by 5/8" (16 mm) radius
- Removable pin



1817

Plain Bearing

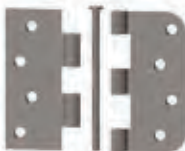
- Steel with steel pin (ANSI A8134)
- Assembled left hand
- Square by 5/8" (16 mm) radius
- Removable pin
- Bulk assembled



BB1817

Ball Bearing

- Steel with steel pin (ANSI A8114)
- Assembled left hand
- Square by 5/8" (16 mm) radius
- Removable pin



1848

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- Square by 5/8" (16 mm) radius
- Removable pin
- Unassembled - 2 per box
- AWS



8744

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Square by 5/8" (16 mm) radius
- Bulk unassembled



1818

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Assembled right hand
- Square by 5/8" (16 mm) radius
- Security stud
- Removable pin
- Bulk assembled



1819

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Assembled left hand
- Square by 5/8" (16 mm) radius
- Security stud
- Removable pin
- Bulk assembled



8746

Plain Bearing

- Steel with steel pin (ANSI A8134)
- Square by 5/8" (16 mm) radius
- Safety stud
- Bulk unassembled

Hinge Size		Gauge of	Hole	Pin	Screw Size
Inches	mm	Metal	Count	Diameter	(Wood)
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH

Hinge Size		Gauge of	Hole	Pin	Screw Size
Inches	mm	Metal	Count	Diameter	(Wood)
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH



FULL MORTISE - FIVE KNUCKLE



RC1842 | RC1841 | 8741
Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- Round corners - 5/8" (16 mm) radius
- RC1841 is RC1842 bulk assembled
- 8741 is RC1842 bulk unassembled
- RC1842 - Box pack (2 per box)
- Removable pin



RCBB1842
Ball Bearing

- Steel with steel pin (ANSI A8114)
- Reversible
- Round corners - 5/8" (16 mm) radius
- Removable pin



RC1847
Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- Square by 5/8" (16 mm) radius
- Riveted security pin
- Also available bulk assembled

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size (Wood)
Inches	mm				
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH

SIX KNUCKLE



RC1641 | 8641
Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- Round corners - 5/8" (16 mm) radius
- Removable pin
- RC1641 is assembled, 8641 is bulk unassembled

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size (Wood)
Inches	mm				
3-1/2 x 3-1/2	89 x 89	0.085	6	0.234	3/4 x 9 FH
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size (Wood)
Inches	mm				
3-1/2 x 3-1/2	89 x 89	0.085	6	0.234	3/4 x 9 FH
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH



RC1843
Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- Round corners - 5/8" (16 mm) radius
- Removable pin
- Security stud

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size (Wood)
Inches	mm				
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH



RC1846
Plain Bearing

- Steel with steel pin (ANSI A8134)
- Reversible
- Round corners - 5/8" (16 mm) radius
- Riveted security pin
- Also available bulk assembled
- Not recommended for exterior use

Hinge Size		Gauge of Metal	Hole Count	Pin Diameter	Screw Size (Wood)
Inches	mm				
4 x 4	102 x 102	0.085	8	0.234	3/4 x 9 FH





FULL MORTISE - SPRING

Spring hinges are for automatic closing of doors. They are light weight for residential use. 1734 and 1744 are also for metal frames.

Hinge Recommendation

Recommended Max Door Weight (lbs)	Spring Hinge	Butt Hinge	Spring Hinge Location
45	1	2	Center
70	2	1	Top/Btm or Ctr/Btm
90	3	-	All
45	1	2	Center
70	2	1	Top/Btm or Ctr/Btm
90	3	-	All



RC1734

- Stainless steel (ANSI K51071F)
- Round corners - 1/4" (6 mm) radius
- Template hole pattern

RC1744

- Steel (ANSI K81071F)
- Round corners - 1/4" (6 mm) radius
- Template hole pattern



Hinge Size		Gauge of Metal	Hole Count	Screw Size (Wood)
Inches	mm			
4 x 4	102 x 102	0.106	8	1-1/4" x 12 FPHW 12-12 x 1/2 FPHM

Additional Notes for Spring Hinges

For maximum versatility use all spring hinges or a combination of spring hinges and residential ball bearing hinges. Do not use plain bearing hinges.

- Full spring tension may not be required on all hinges.
- Strong wind conditions, drafts, carpeting drag, twisted/ misaligned frames, or weatherstripping on doors may require additional spring hinges.
- Not intended for exterior outswing doors.
- For fire-rated openings use all 3 spring hinges.
- For doors over 7 feet, please call Hager Companies.



1750

- Steel (ANSI K81071F)
- Square corners

RC1751

- Steel (ANSI K81071F)
- Round corners - 1/4" (6 mm) radius

RC1752

- Steel (ANSI K81071F)
- Round corners - 5/8" (16 mm) radius

1760

- Stainless steel (ANSI K51071F)
- Square corners

RC1761

- Stainless steel (ANSI K51071F)
- Round corners - 1/4" (6 mm) radius

RC1762

- Stainless steel (ANSI K51071F)
- Round corners - 5/8" (16 mm) radius

Hinge Size		Gauge of Metal	Hole Count	Screw Size (Wood)
Inches	mm			
3-1/2 x 3-1/2	89 x 89	0.106	6	3/4 x 9 FH
4 x 4	102 x 102	0.106	8	1 x 9 FH



1754

- Steel (ANSI K81071F)
- Square by 5/8" (16 mm) radius

1764

- Stainless steel (ANSI K51071F)
- Square by 5/8" (16 mm) radius



Hinge Size		Gauge of Metal	Hole Count	Screw Size (Wood)
Inches	mm			
4 x 4	102 x 102	0.106	8	1 x 9 FH



ACCESSORIES



1700

Pins for Residential Hinges

- Sizes:
- 3-1/2" (89 mm)
 - 4" (102 mm)
- Finishes:
- 3-1/2" - 2D, US15, US26D
 - 4" - 2D, US4, US15, US26D
- Notes:
- Sold in full box quantity of 100



1710

Residential Ball Tip Kit

- Materials:
- Brass tips and stainless steel pin
- Finishes:
- US3, US4, US5/ABA, US10A, US10R, US15, US15A/AN, US26, US26D
- Notes:
- Includes 2 ball tips and 1 pin
 - For use with 3-1/2" (89 mm) or 4" (102 mm) hinges



1720

Residential Steeple Tip Kit

- Materials:
- Brass tips and stainless steel pin
- Finishes:
- US3, US4, US5/ABA, US10A, US10R, US15, US15A/AN, US26, US26D
- Notes:
- Includes 2 steeple tips and 1 pin
 - For use with 3-1/2" (89 mm) or 4" (102 mm) hinges





9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES

FEATURES

- Durable powder-coated black rail and Conestoga Style, Barn Door Hangers
- Conforms to ANSI BHMA A156.14-2007
- Grade 1 for sliding doors by exceeding 100,000 cycles in operation

SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick

SLIDING BARN DOOR



Stock Number	Hager Part Number	Description
Conestoga Barn Door		
Rail Only		
186242	9450-48	48" Black Powder Coated, Flat Rail
186243	9450-72	72" Black Powder Coated, Flat Rail
186251	9450-96	96" Black Powder Coated, Flat Rail
<i>Hanger Kits Less Rail, All Kits Include two carriers, stops, floor guide and rail mounting brackets and fasteners</i>		
188467	9452	3" Black Powder Coated Hook Carrier Kit Less Rail
188468	9453	5" Black Powder Coated Hook Carrier Kit Less Rail
188469	9454	3" Black Powder Coated Strap Carrier Kit Less Rail
188470	9455	3" Black Powder Coated Top Mount Carrier Kit Less Rail
Optional Components		
Privacy Latch and Pull		
186296	1-269-8693	Sliding Door Privacy Latch & Strike Plate
186299	1-269-8694	4" x 1-3/4" x 7/16" Flush Pull
Accessories		
186289	1-269-8689	Bracket Kit: Includes 1 Wall Mount Bracket with Fastener
186290	1-269-8690	Stop Kit: Includes 2 End Stops with Fasteners
186292	1-269-8691	Splice Kit: Includes Splice Components and Fasteners for Joint Rails



9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES - HOW TO ORDER

IMPORTANT:

- 1.Track is ordered separately from hardware kit.
- 2.Track and Carrier Hardware are shipped in separate cartons.

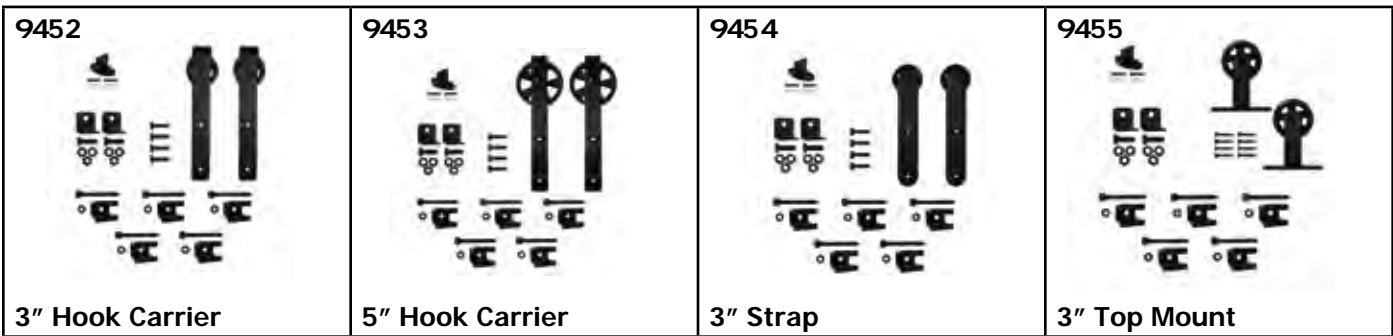
Single Door Solution:

- 1) **9450 Track:** Specify length (48", 72" or 96").

Example:

- 9450 - 48
- 9450 - 72
- 9450 - 96

- 2) **Carrier Hardware Kit:** Specify style - Includes all mounting hardware

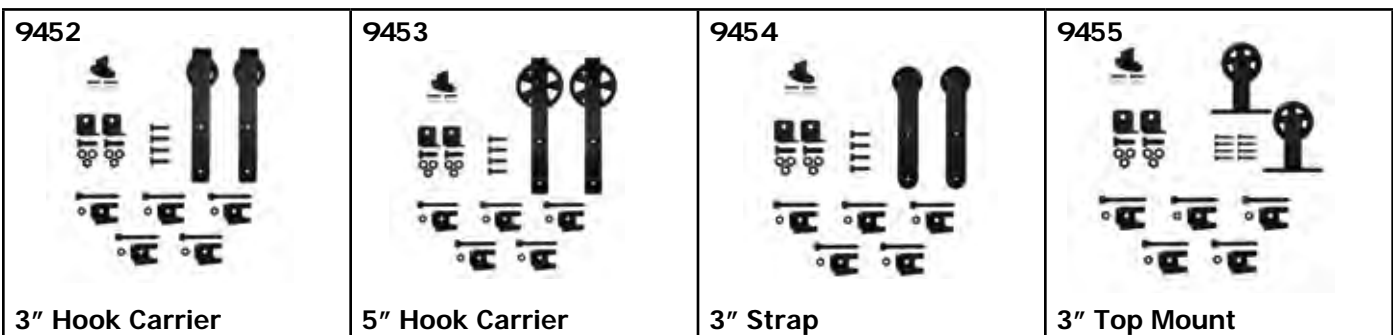


Bi-Part Door Solution:

If using two doors that are 3' wide, order a 6' track per door, for a total of 12'. This allows the doors to clear the door opening when in the open position. Order one carrier hardware kit per door and one Splice Kit.

To Order:

- 1) **9450 Track:** Specify quantity and length.
- 2) **Carrier Hardware Kit:** Specify quantity and carrier style. Example: Order 2 of part number 9453, 5" hook carrier style - Includes all mounting hardware.



- 3) **Splice Kit:** Order 1 of part number 1-269-8691 Flat Rail Splice Kit.





9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES

9450 Durable Black Powder-Coated Rail

FEATURES

Materials:	Durable powder-coated black aluminum
Available in:	48", 72" and 96" lengths



9452 3" Hook Carrier (Rail Not Included)

FEATURES

Materials:	Durable powder-coated black aluminum
System Includes:	<ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners
Standards:	Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick

9453 5" Hook Carrier (Rail Not Included)

FEATURES

Materials:	Durable powder-coated black aluminum
System Includes:	<ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners
Standards:	Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick



9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES

9454

3" Strap Carrier (Rail Not Included)

FEATURES

- | | |
|------------------|--|
| Materials: | Durable powder-coated black aluminum |
| System Includes: | <ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners |
| Standards: | Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles |

DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick



9455

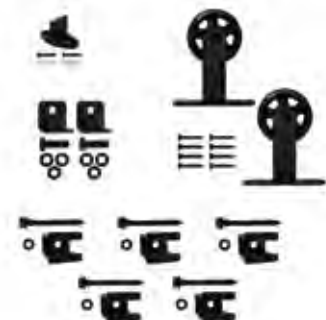
3" Top Mount Carrier (Rail Not Included)

FEATURES

- | | |
|------------------|--|
| Materials: | Durable powder-coated black aluminum |
| System Includes: | <ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners |
| Standards: | Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles |

DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick





9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES - OPTIONAL COMPONENTS



1-269-8689
Bracket Kit



1-269-8693
Privacy Latch



1-269-8690
Stop Kit



1-269-8694
Flush Pull



1-269-8691
Splice Kit



One Family. One Brand. One Vision.™

www.hagerco.com



The Original

Hager Companies has been manufacturing the original Continuous Geared Aluminum Hinges for over 25 years. The unique design of Roton® consists of three important parts: an internal rolling contact gear profile, a high-strength cover channel and solid bearings made of celanex. Working together, these parts evenly distribute door weight and maintain door alignment for superior performance.

Lifetime Warranty

Hager Companies offers a lifetime warranty. We believe in our product line and warrant our Roton® aluminum continuous geared hinges are free of any defects and take pride in our workmanship. As long as the hinges are installed according to our instructions, the hinges will not fail under normal usage.

Fire-Rated Bearings

To make it easy for our customers to purchase our Roton® Continuous Geared Aluminum Hinge, we provide fire-rated bearings for all fire-rated hinges. The UL stamp denotes the hinge is fire-rated. Best of all we do not charge for this.

Friction Free

Roton® Continuous Geared Aluminum Hinges are lubricated to eliminate the need for any assistance in maintaining a quiet performance.

LEED/Green Requirements

Environmentally-friendly building means thinking about every detail. Roton® hinges meet LEED requirements as they are made of recycled material.

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PRODUCT INFORMATION

Door and Frame Preparation

All Roton® Continuous Geared Hinges are surface applied. Cutout design and spacing coordination is thereby eliminated in both new construction and restoration work. Reinforcement plates are not required in doors or frames except where the gauge is too thin for the fasteners in relation to the door weight or where abusive operation is anticipated. Blank frames may be ordered with strike prep only or with a strike prep furnished on both sides to eliminate handing with any Roton® model that will cover the frame rabbet. Doors should always be ordered without cutouts except for use in labeled openings in which the tested door assembly may have manufacturing restrictions. Continuous frame mortar guards are desirable for masonry walls to avoid screw fastener interference with the mortar. An effective mortar guard made from an ordinary 1" (25 mm) x 2" (51 mm) stud, fastened to the back side of the frame can also be used. Check with both the frame supplier and the contractor for the best method. The main cause of door and frame breakdown is "kickback shock" transferred to conventional butt hinges or pivots. Installing Roton® hinges bond the door frame into a single, integrated unit, dissipating impact loads harmlessly.

Door Closers

Conventional surface or concealed sliding closers may be used with Roton®. (Note: Pivot type floor closers with a fixed, conflicting pivot point may not be used.) Closers will last considerably longer, adjust to operating requirements more readily and show consistent settings due to the reduced operating forces of Roton® hinging.

Standard Finishes

Roton® hinges are available in either satin etched, clear anodized aluminum (similar to US28), or dark bronze exterior anodized coating.

Special Anodizing

Roton® hinges are available in various colors, including black, and gold, as well as other anodized finishes with fasteners to match. Final assembly must be completed by Hager because of special non-removable metal coatings applied to all hinges during assembly. Users are cautioned against attempting to refinish any Roton® product. All hinges ordered in special colors should be ordered at the same time to guarantee finish uniformity. Supply color chip for best match.

Painted Hinges

Hager can supply unfinished materials to selected finishers for special projects which require unusual colors or coatings, but require final assembly be completed by Hager. Because of special non-removable metal coatings applied to all hinges during assembly, users are cautioned against attempting to refinish any Roton® product.

Standard Lengths

Roton® hinge standard lengths are for 6'8" doors - 79", for 7' doors - 83", for 7'2" doors - 85", for 8' doors - 95" and for 10' doors - 119", for convenience in application to nominal doors. This provides for threshold clearance, head clearance and door height allowances for carpeting. Other lengths may be ordered as non-standard items.

Roton® hinges are always installed flush with the top edge of the door. Recommended 1/8" (3 mm) for head clearance.

Where multiple net heights are likely to appear on the same job, group the sizes to 1/2" (13 mm) increments to be consistent in appearance. Generally, up to 1/2" (13 mm) of door heel exposure is acceptable, but all Roton® hinges should be within 1".

Extra Long Hinges

Hager Companies manufactures hinges over 119" (3023 mm) long as two separate lengths with a staggered joint for onsite connection. Hager will select hinge segment lengths from standard sizes for best economics in relation to quantity required. Handing specifications are required to position the cuts inconspicuously and to finish symmetrical pairs in double door applications (25 mm) of the net door height.

Non-Standard Lengths

All non-standard length Roton® hinges are trimmed from the bottom only and conform to published templates. If the desired length does not go through any screw holes, the hinge is manufactured as requested. If the desired length would cut through screw holes, the customer would have two options: Hager will suggest the closest length that does not go through a screw hole. If that length is not acceptable and the project requires the exact length specified, the item becomes an industrial part and the interfering screw holes would be eliminated. If the desired length would cut through bearings slots, Hager will cut through the bearing slots. This would not affect the integrity of the hinge and the cover channel would cover the cut slots leaving an aesthetically pleasing product.



PRODUCT INFORMATION

Field Modifications

While Roton® hinges can be cut in the field, any product modifications may void all warranties. Should in the field modifications be required, cut only from the bottom of the hinge. Do not cut through bearings or screw holes. When cutting electric hinges it is extremely important to clamp both hinge leaves securely to prevent hinge “chatter” which can damage the hinge’s internal wiring. Consult Hager Technical Service before proceeding.

Template Hinges

Hager Companies has developed templated hole patterns for Roton® hinge models in standard lengths. Drawings are available by contacting Hager Companies Customer Service or accessing the Hager website at www.hagerco.com. Due to normal variances inherent in the manufacturing process, Roton® custom length hinges are deemed by Hager to be non-templated.

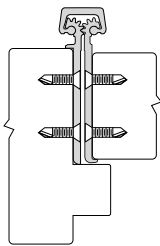
Special Hinges

Any hinge may be ordered with special hole locations for unusual frame or door conditions. Please provide specifications for each leaf when placing an order.

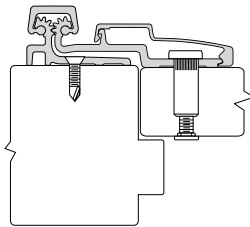
Process for Choosing the Correct Roton® Model

Determine	Select
Door and frame application (flush door and frame, inset door, door thickness, door height, etc.)	Roton® model
Frequency of door cycling and weight of door	Light, standard, heavy or extra heavy duty, lead lined
Door and frame material	Fasteners
Door opening finish	Roton® finish
Fire rating requirements, if needed	With stud or without stud

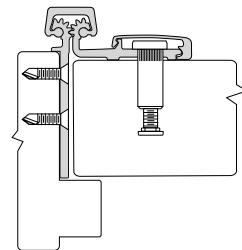
Concealed



Full Surface



Half Surface




Fire Ratings -Underwriters Laboratory Fire Rating File #A14627

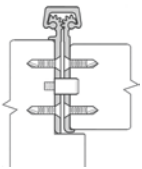


780 Series Roton® continuous geared hinges with stainless steel studs are approved for use on 4'x10' metal or wood swing type doors. 780 Series Roton® continuous geared hinges without stainless steel studs are approved for use on 4'x8' single swing metal doors and 4'x10' single swing wood doors used without stainless steel studs limited to 20 minute fire rating without hose stream.

- Hollow metal, tin-clad, sheet-metal and steel covered composite type rated up to and including 3-hours
- Wood composite doors rated up to and including 1-1/2 hours
- Wood core doors rated up to 20 minutes without hose stream, non-studded
- 780 Series Roton® continuous geared hinges meet requirements for positive pressure UL10C, UL10B and UBC7-2 Part 1

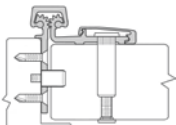
PRODUCT INFORMATION

UL10C Fire-Rated Roton®	Fully Concealed	Full Surface	Half Surface	NOTES: 1. All Roton® hinges will be marked with UL stamp if they are fire-rated.  2. Several hinge models cannot be fire-rated. Check each profile.
20 Minute Fire-Rated Wood Core Door x Fire-Rated Hollow Metal Frame	UL — FF STANDARD			
20 Minute Fire-Rated Metal Door x Fire-Rated Hollow Metal Frame	UL — FF STANDARD			
30 Minute Fire-Rated Wood Composite Door x Fire-Rated Hollow Metal Frame	UL — FF STANDARD			
30 Minute Fire-Rated Metal Door x Fire-Rated Hollow Metal Frame	UL — FF STANDARD			
45 Minute Fire-Rated Wood Composite Door x Fire-Rated Hollow Metal Frame	UL — FF STANDARD			
45 Minute Fire-Rated Metal Door x Fire-Rated Hollow Metal Frame	UL — FF STANDARD			
60 Minute Fire-Rated Wood Door x Hollow Metal Frame	UL — FF STANDARD			
60 Minute Fire-Rated Metal Door x Hollow Metal Frame	UL — FF STANDARD			
90 Minute Fire-Rated Metal Door x Fire-Rated Hollow Metal Frame	UL — FF STANDARD			
90 Minute Fire-Rated Wood Composite Door x Fire-Rated Hollow Metal Frame	UL — STUD REQUIRED * Must Specify			
3-hour Fire-Rated Metal Door x Fire-Rated Hollow Metal Frame	UL — STUD REQUIRED * Must Specify			



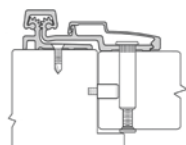
Fully Concealed with Stud

These models are concealed between the frame and the hinge edge of the door. Models available include: 780-041HD, 780-041LL, 780-110HD, 780-111, 780-111HD, 780-111LL, 780-112, 780-112HD, 780-112LL, 780-124HD, 780-124LL, 780-224, 780-224HD, 780-224LL, 780-226, 780-226HD, 780-226LL, and 780-235HD.



Half Surface with Stud

These models have the frame leaf concealed between the frame and the edge of the door. The door leaf is mounted to the door with thru-bolts or screws. Models available include: 780-045HD, 780-046HD, 780-053, 780-053HD, 780-054HD, and 780-211HD.



Full Surface with Stud

These models have the frame leaf mounted to the face of the frame and the face of the door. The door leaf is mounted to the face of the door with thru-bolts. Models available include: 780-057HD, 780-157, 780-157HD, 780-210, 780-210HD, and 780-257HD.

Checking the Load

To assist in the selection of an appropriate Roton® hinge series, divide the door weight including the weight of the hardware by the number of bearings in the Roton® hinge under consideration, then use the following guideline, with a maximum 4'0" wide door:

750 Series:	5-1/8" Centers	(Typical 7' door: 16 bearings)
780 Series:	5-1/8" Centers	(Typical 7' door: 16 bearings)
780 HD & LL:	2-9/16" Centers	(Typical 7' door: 32 bearings)

Frequency	Load
Low frequency interior doors	20 lbs. per bearing
Low frequency, very heavy doors (lead lined x-ray doors, ballistics doors, high security doors) with double rows of fasteners	30 lbs. per bearing
Medium frequency interior doors	15 lbs. per bearing
Medium frequency exterior doors	10 lbs. per bearing
High frequency exterior doors	7.5 lbs. per bearing
Very high frequency doors	5 lbs. per bearing





PRODUCT INFORMATION

Painted Cover Channels

Painted Roton® cover channels in bone white are offered as a standard stock color option. This is only available on the standard Roton cover channel.

Polished Cover Channels

Any Roton® hinge may be ordered with a polished clear cover channel (similar to US26) to complement clear anodized hinge leaves or a polished gold cover channel (similar to US3) to complement satin gold anodized hinge leaves.

Roton® Cover Channel Compatibility		
Hinge Model	Flat FBCC	Round RBCC
750-134	•	•
750-138	•	•
780-041	•	•
780-045	•	•
780-046	•	•
780-053	•	•
780-054	•	•
780-057	•	•
780-110	•	•
780-111	•	•
780-112	•	•
780-113	•	•
780-114	•	•
780-155	•	•
780-157	•	
780-208	•	
780-210	•	•
780-211	•	•
780-213	•	•
780-224	•	•
780-226	•	•
780-235	•	•
780-257	•	
780-259	•	•
780-300	•	
1200-600	•	
1200-650	•	

Rounded Back (RBCC)



GENERAL INFORMATION

Bearing At Top

This application allows for the bearing to be set at the very top of the cover channel. The cover channel is flush with the top of the geared hinge, preventing any obstructions or debris to be inserted in the top channel.

Hospital Tip

Concealed models only can be prepared with a cover channel tapered at 45° angle at the top of the hinge. These are ideal for use in hospitals and correctional facilities to help provide a clean and safe environment. Please consult the sales office for available models.

Tamper Resistant Hinge

This application is intended for use in hospital psychiatric areas and places of high security. The hinge is prepared with a hospital tip (concealed models only) and every other bearing is supplied with a set screw to lock against the inside of the cover channel for additional security.

Dutch Door Hinges

Hager Companies will prepare any of its hinge models for a dutch door application. The frame leaf is furnished as a continuous extrusion and the door leaf is cut to fit the dutch door heights specified. Hanging, overall net door height, amount of clearance between the top and bottom doors, their individual heights and door and frame materials should be clearly specified.

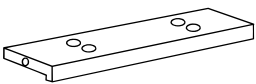
Special Holes

Any hinge may be ordered with special hole locations for unusual frame or door conditions. Please provide specifications for each leaf.

Bearing Replacement Kits

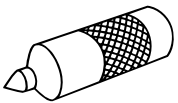
Available in standard or heavy duty and in clear anodized or dark bronze anodized finish for 780 and 1200 Series Roton®.

Marking Jigs



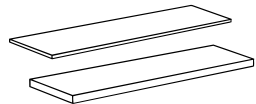
Marking jigs are available to locate the centers of the top end frame screws. These jigs must be ordered at the same time as the hinges to ensure fabrication accuracy.

Center Punches



Self-centering punches are available for #12 countersunk screws that are supplied. To make sure screw heads seat properly, accurate center punching is required.

Shim Stock

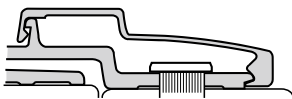


For clearance between the door and frame that may be excessive, a continuous shim is helpful (applied behind the frame leaf only). Anodized aluminum extrusions are supplied with no holes.

Item Marking

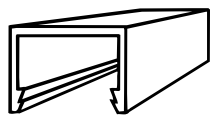
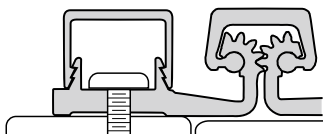
Marking and special packaging for job-site identification.

Replacement Moldings



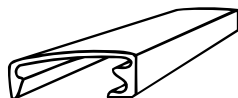
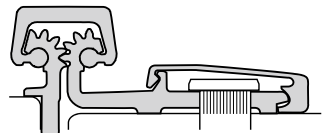
780-210M

Replacement door leaf molding for 780-210, 780-210HD, 780-211, 780-211HD, 780-213HD, 780-045HD, and 780-046HD. Furnished with Allen head set screw and wrench. Shipped in standard lengths for trimming in the field.



780-247M

Replacement frame leaf molding for 780-157, 780-157HD, and 780-257HD. Shipped in standard lengths for trimming in the field.



780-052M

Replacement door leaf molding for 780-053, 780-053HD, 780-054HD, 780-155HD, 780-057, 780-057HD, 780-157, 780-157HD, 780-257HD, and 780-259HD. Furnished with Allen head screw and wrench. Shipped in standard lengths for trimming in the field.

GENERAL INFORMATION

Fasteners

Hager Companies uses custom made, carefully engineered, and thoroughly tested fasteners exclusively. Each fastener is designed for ease of use as well as durability. Appropriate fasteners are furnished with each hinge, together with installation instructions for typical metal or wood doors and frames. The standard screw pack includes self-drilling screws. If wood screws are required, please specify on order and wood screws will be substituted.

Fasteners for Use with Hinges in the 500 Series

8 - 18 X 3/4" Truss Phillips Head Screw

Fasteners for Use with Hinges in the 750 and 780 Series Metal Doors or Frames (Undercut Head Phillips Countersunk Screws):

Two types of screws are available for metal doors and frames: the Dril-Kwik® screw (with drill point tip) and the thread forming screw (no tapping necessary). The #12-24 x 11/16" self-drilling screw has a machine thread in the screw shank. The #12-24 x 13/32" thread-forming screw has a machine thread in the screw shank.

The standard screw pack contains #12-24 Dril-Kwik® self-drilling machine thread. This screw has a hardened steel drill point built into the end of the screw, allowing it to be installed without a pre-drilled hole if the metal thickness is no more than 1/8" (3.2 mm). It forms its own threads as the screw is drilled into the door or frame. It is longer than most screws of the type because of the built-in drill point.

When installing the self-drilling screw, make certain that the installer is familiar with the proper use and torque settings of a screw gun. Proper center-punching is extremely important with self-drilling screws. If center-punching is omitted or incorrectly done, the screw will "walk" in the same way as a drill bit, resulting in cocked screw heads and improperly closing hinge leaves.

The optional self-threading screw is typically used on grout filled frames to prevent bowing of the frame. This screw has a short tapered section at the tip. A drilled pilot hole (range: 0.173" to 0.185") is required prior to tapping.

Either of these screws may be used for the attachment of Roton® hinges to metal doors or frames, generally without reinforcement except in thin aluminum or with doors of very heavy weight or anticipated abuse. Both types require center-punching to ensure that the screw sits properly in the hinge leaf. Self-centering countersinking center-punches are available.

In all cases, care should be taken to ensure that no drill chips build up behind the hinge. It is best to premark the holes and drill for self-threading screws with the hinge removed, or hold the hinge very tightly against the door or frame when using the self-drilling screws.

Hinges normally requiring sex bolts will be furnished with suitable mounting holes. Blank leaves, special countersinking, or door fastening with pan-head screws are available upon request.

If special fasteners are required, customers must supply them except upon prior agreement. Please consult the factory for alternate fastener recommendations.

Fasteners for Use with Hinges in the 1200 Series

1/4" - 20 x 1" Undercut Flat Phillips Head Screw

Sex Bolts (Thru-Bolts)

On all applicable surface-mounted hinges, sex bolt sets are furnished in the hardware package together with a transfer punch for accurate marking of the 3/8" (10 mm) drilled holes required. The 1/4"-20 bolt has a 3/8" (10 mm) shoulder under a 9/16" (14 mm) pan head so that it can be reversed for exterior in-swing doors or for additional security.

Roton® sex bolts are intentionally designed to be shorter than the door thickness for proper clamping action with doors of slightly varying thickness and gauge in the 1" (25 mm) - 2-1/2" (63.5 mm) range. Unless otherwise requested, bolts suitable for the 1-3/8" (35 mm) - 1-3/4" (45 mm) range will be shipped. Shorter or longer bolts may be requested. Bolts that are outside the door thickness range of 1" (25 mm) - 2-1/2" (63.5 mm) must be provided by the installer.

DOOR AND FRAME DIMENSIONING

Half Surface Models

780-045HD, 780-046HD, 780-053, 780-053HD, 780-054HD, 780-155HD, 780-211HD, 780-213HD, 780-259, 780-259HD, and 780-300HD (leaf thickness clearance not required for 780-300HD)

Designed primarily for work involving new doors and frames, one leaf concealed and one leaf surface mounted. They can also be used on retrofit work where a new door can be ordered to fit an existing frame if the existing door is made of wood and can be reduced in size to accommodate the 1/8" (3.2 mm) leaf thickness, or the frame is to be replaced and can be furnished with an oversized header.

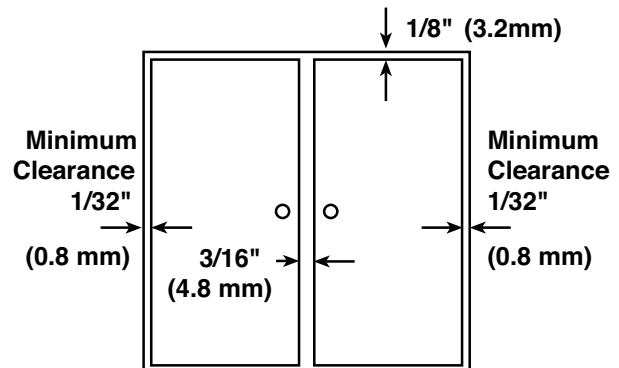
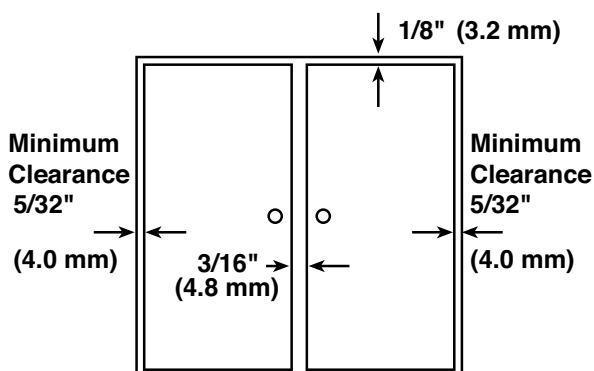
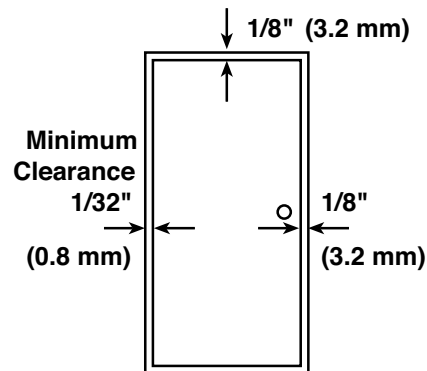
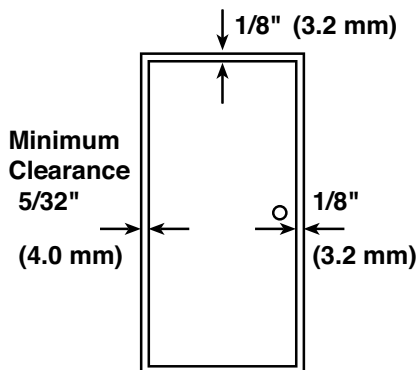
Clearance required as follows:

Single Doors (Square and Beveled Edge)

A. Leaf thickness	1/8" (3.2 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
Total	9/32" (7.2 mm)

Pairs of Doors (Square and Beveled Edge)

A. Leaf thickness	1/8" (3.2 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
D. Second allowance for frame irregularities	1/32" (0.8 mm)
E. Second leaf thickness	1/8" (3.2 mm)
Total	1/2" (12.8 mm)



Full Surface Models

780-057HD, 780-157, 780-157HD, 780-210, 780-210HD, and 780-257HD

The above models are designed for retrofit applications and require no special dimensioning. Full surface models are designed to be mounted to the exposed surface of the door and frame. No additional clearance is required except for door and frame painting.

Clearance required as follows:

Single Doors (Square and Beveled Edge)

A. Additional allowance for frame irregularities	1/32" (0.8 mm)
B. Lockside clearance for single door	1/8" (3.2 mm)
Total	5/32" (4.0 mm)

Pairs of Doors (Square and Beveled Edge)

A. Additional allowance for frame irregularities	1/32" (0.8 mm)
B. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
C. Second allowance for frame irregularities	1/32" (0.8 mm)
Total	1/4" (6.4 mm)

*For fire-rated doors, please refer to door manufacturer's requirement for edge to edge clearance to maintain compliance with NFPA requirements.



DOOR AND FRAME DIMENSIONING

Concealed Models

750-134, 750-138, 780-110HD, 780-111, 780-111HD, 780-111LL, 780-112, 780-112HD, 780-112LL, 780-124HD, 780-124LL, 780-224, 780-224HD, 780-224LL, 780-226HD, 780-226LL, and 780-235HD. The following are not recommended for doors with beveled edged applications – 780-041HD and 780-041LL.

Designed primarily for work involving new doors and frames, these models have parallel, fully concealed leaves. They can also be used on retrofit work where a new door can be ordered to fit an existing frame if the existing door is made of wood and can be reduced in size to accommodate the 5/16" (7.9 mm) hinge thickness, or the frame is to be replaced and can be furnished with an oversized header.

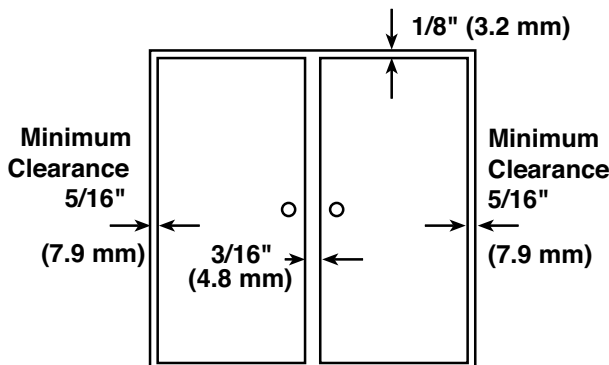
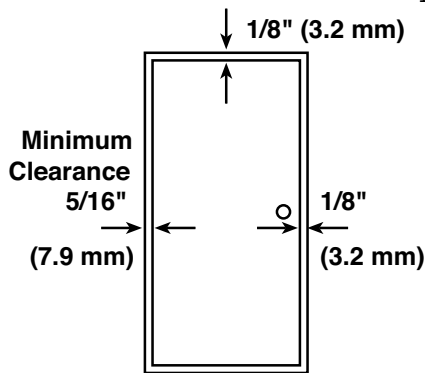
Clearance required as follows:

Single Doors (Square Edged)

A. Hinge thickness	5/16" (7.9 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
Total	15/32" (11.9 mm)

Single Doors (Beveled Edged)

A. Hinge thickness	5/16" (7.9 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
D. Allowance for beveled edge	1/32" (0.8 mm)
Total	1/2" (12.7 mm)



Pairs of Doors (Square Edged)

A. Hinge thickness	5/16" (7.9 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
D. Second allowance for frame irregularities	1/32" (0.8 mm)
E. Second hinge thickness	5/16" (7.9 mm)
Total	7/8" (22.2 mm)

Pairs of Doors (Beveled Edged)

A. Hinge thickness	5/16" (7.9 mm)
B. Allowance for beveled edge	1/32" (0.8 mm)
C. Additional allowance for frame irregularities	1/32" (0.8 mm)
D. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
E. Second allowance for frame irregularities	1/32" (0.8 mm)
F. Second allowance for beveled edge	1/32" (0.8 mm)
G. Second hinge thickness	5/16" (7.9 mm)
Total	15/16" (23.8 mm)

Concealed Model Exceptions - 780-113HD

Single Doors (Square Edged)

A. Hinge thickness	13/16" (20.6 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
Total	31/32" (24.6 mm)

Single Doors (Beveled Edged)

A. Hinge thickness	13/16" (20.6 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
D. Allowance for beveled edge	1/32" (0.8 mm)
Total	1" (25.4 mm)

Pairs of Doors (Square Edged)

A. Hinge thickness	13/16" (20.6 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
D. Second allowance for frame irregularities	1/32" (0.8 mm)
E. Second hinge thickness	13/16" (20.6 mm)
Total	1-7/8" (47.6 mm)

Pairs of Doors (Beveled Edged)

A. Hinge thickness	13/16" (20.6 mm)
B. Allowance for beveled edge	1/32" (0.8 mm)
C. Additional allowance for frame irregularities	1/32" (0.8 mm)
D. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
E. Second allowance for frame irregularities	1/32" (0.8 mm)
F. Second allowance for beveled edge	1/32" (0.8 mm)
G. Second hinge thickness	13/16" (20.6 mm)
Total	1-15/16" (49.2 mm)

*For fire-rated doors, please refer to door manufacturer's requirement for edge to edge clearance to maintain compliance with NFPA requirements.

DOOR AND FRAME DIMENSIONING

Concealed Model Exceptions - 780-114HD Single Doors (Square Edged)

A. Hinge thickness	15/16" (23.8 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
Total	1-3/32" (27.8 mm)

Pair of Doors (Square Edged)

A. Hinge thickness	15/16" (23.8 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
D. Second allowance for frame irregularities	1/32" (0.8 mm)
E. Second hinge thickness	15/16" (23.8 mm)
Total	2-1/8" (54.0 mm)

1200-600XHD, 1200-650XHD Single Doors (Square Edged)

A. Hinge thickness	15/32" (11.9 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance	1/8" (3.2 mm)
Total	5/8" (15.9 mm)

Single Doors (Beveled Edged)

A. Hinge thickness	15/32" (11.9 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
D. Allowance for beveled edge	1/32" (0.8 mm)
Total	21/32" (16.7 mm)

Pair of Doors (Square Edged)

A. Hinge thickness	15/32" (11.9 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
D. Second allowance for frame irregularities	1/32" (0.8 mm)
E. Second hinge thickness	15/32" (11.9 mm)
Total	1-3/16" (30.2 mm)

Pair of Doors (Beveled Edged)

A. Hinge thickness	15/32" (11.9 mm)
B. Allowance for beveled edge	1/32" (0.8 mm)
C. Additional allowance for frame irregularities	1/32" (0.8 mm)
D. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
E. Second allowance for frame irregularities	1/32" (0.8 mm)
F. Second allowance for beveled edge	1/32" (0.8 mm)
G. Second hinge thickness	15/32" (11.9 mm)
Total	1-1/4" (31.8 mm)

780-208HD

Single Doors (Square Edged)

A. Hinge thickness	1/2" (12.7 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
Total	21/32" (16.7 mm)

Single Doors (Beveled Edged)

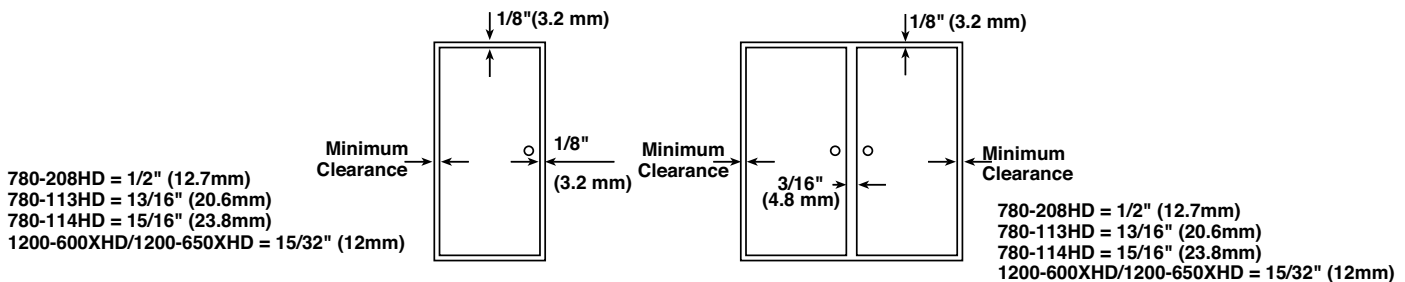
A. Hinge thickness	1/2" (12.7 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
D. Allowance for beveled edge	1/32" (0.8 mm)
Total	11/16" (17.5 mm)

Pair of Doors (Square Edged)

A. Hinge thickness	1/2" (12.7 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
D. Second allowance for frame irregularities	1/32" (0.8 mm)
E. Second hinge thickness	1/2" (12.7 mm)
Total	11/4" (31.8 mm)

Pair of Doors (Beveled Edged)

A. Hinge thickness	1/2" (12.7 mm)
B. Allowance for beveled edge	1/32" (0.8 mm)
C. Additional allowance for frame irregularities	1/32" (0.8 mm)
D. Edge to edge clearance (recommended)*	3/16" (4.8 mm)
E. Second allowance for frame irregularities	1/32" (0.8 mm)
F. Second allowance for beveled edge	1/32" (0.8 mm)
G. Second hinge thickness	1/2" (12.7 mm)
Total	1-5/16" (33.3 mm)



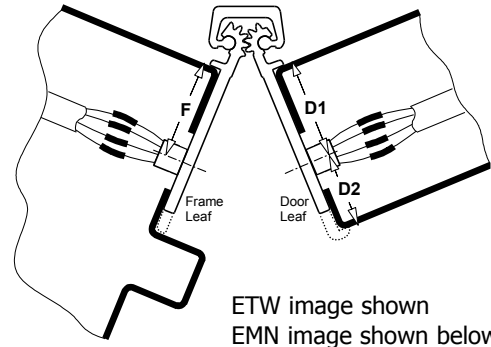
*For fire-rated doors, please refer to door manufacturer's requirement for edge to edge clearance to maintain compliance with NFPA requirements.



ELECTRIC HINGE MODIFICATIONS

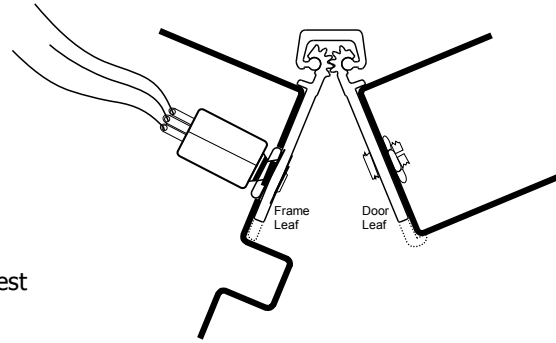
Concealed Electric Through-Wire and Monitoring:

- To order, use symbol "ETM" plus the number of wires required as a suffix, ie: 780-224LL 85" Bronze ETM - 4
- This combines the continuous electric conductors and the miniature switch to provide both power transfer and monitoring
- Four, six, eight or ten continuous electric conductors
- Miniature switch is incorporated into the frame leaf
- Specify handing and the dimension from the top edge of the door to the centerline of each electric modification location
- Templates regarding location of monitoring switch, available upon request



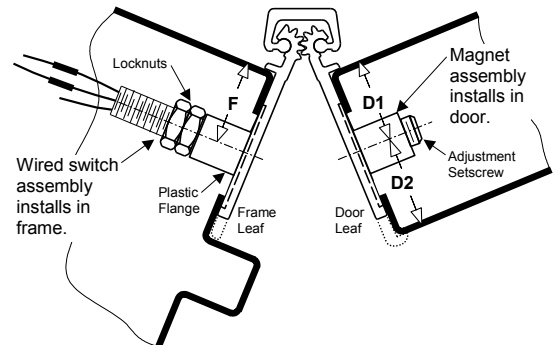
Exposed Electric Switches

- To order, use symbol "E1S" as a suffix, ie: 780-112HD 85" Clear E1S
- Miniature push button switch is incorporated in the hinge frame leaf to monitor position of the door
- Three 12" wire leads
- Each monitoring hinge only needs one E1S switch
- Specify handing and the dimension from the top edge the door to the centerline of the electric switch location
- Templates regarding location of contact switch available upon request



Concealed Electric Monitoring

- To order, use symbol "EMN", as a suffix, ie: 780-224HD 119" Bronze EMN
- Miniature switch is incorporated into the frame leaf
- Three 12" wire leads
- Specify handing and the dimension from the top edge of the door to the centerline of electric monitoring location
- Templates regarding location of monitoring switch available upon request



Von Duprin EPT 2 or EPT 10 Electric Power Transfer Preparation

Concealed Leaf
Half Surface

- Hinge leaf cutout to accommodate power transfer device
- Specify handing and the dimension from the top edge of the door to the centerline of the power transfer location

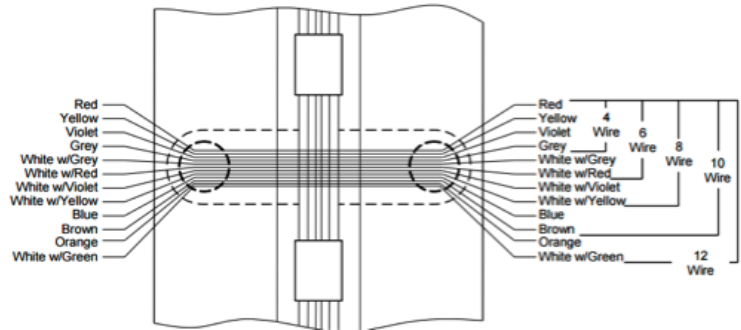
Note: Special Electric Modifications and EPT locations may require additional charges if screw holes have to be moved. Contact Hager Companies Customer Service for charges.



ELECTRIC HINGE MODIFICATIONS

Concealed Electric Through-Wire

- To order, use symbol "ETW" plus the number of wire leads, 12" per side required as a suffix, ie: 780-112HD 85" Clear ETW - 4
- Transfers power discreetly from building to door hardware
- 4, 6, 8, 10 or 12 wire continuous electric conductors
- Specify handing and the dimension from the top edge of the door to the centerline of electric through-wire location
- Templates regarding location of through-wires available upon request



Removable Electric Through-Wire

- To order, use symbol "RETW", ie: 780-112HD 85" Clear RETW
- Transfers power discreetly from building to door hardware
- 4" removable 10 or 12 wire ETW module can easily be removed for adjustment or service
- Available on these heavy duty models only: 780-111HD, 780-112HD, 780-124HD, 780-224HD, 780-226HD
- Specify handing and the dimension from the top edge of the door to the centerline of electric monitoring location
- Templates regarding location of module available upon request



Component #	Finish	# of Wires
7-102-1860	Clear	10
7-112-1870	Dark Bronze	10
7-112-7825	Gold	10
7-112-1875	Black	10
7-102-1870	Clear	12
7-112-1872	Dark Bronze	12
7-112-1876	Gold	12
7-112-1881	Black	12

Mortar Box - 430

- Serves as a mortar shield
- Overall dimensions: 9" (229 mm) length with tabs, 7" (178 mm) inside, 1-3/4" x 1-3/4" (45 mm x 45 mm) inside dimension
- Galvanized steel 0.040" (1 mm)
- Top and bottom knockouts for standard conduit fittings



Exposed Electric Contacts

- To order, use symbol "E" plus the number of contacts required as a suffix, ie: 780-112HD 85" Clear E4
- Transfers power to door in closed position
- Must have at least two contacts to transfer power
- Specify handing and the dimension from the top edge of the door to the centerline of the electric contact location
- Templates regarding location of contacts available upon request

ELECTRIC HINGE MODIFICATIONS

Quick Connect

Available for ETM, ETW, and RETW options. Top and bottom knockouts for standard conduit fittings.

Concealed Electric Monitoring (EMN)

- Miniature switch is incorporated into the frame leaf.
- Specify handing and the dimension from the top edge of the door to the centerline of the electric monitoring location.
- Special Electric Modifications and EPT locations may require additional charges if screw holes have to be moved.
- Templates regarding location of monitoring switch available upon request.

Concealed Electric Through-Wire and Monitoring (ETM)

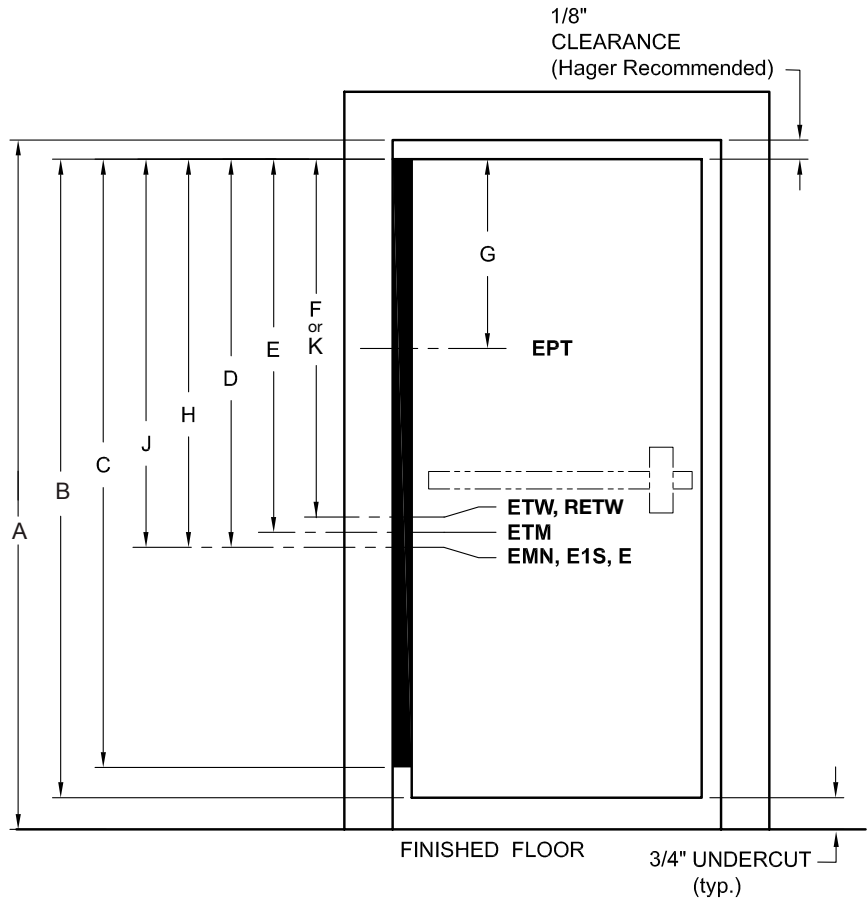
- Electric Preparation
 - ETM-4
 - ETM-6
 - ETM-8
 - ETM-10
- All ETM have 28-gauge continuous conductors.
- This combines the continuous electric conductors and the miniature switch to provide both power transfer and monitoring.
- Miniature switch is incorporated into the frame leaf.
- Specify handing and the dimension from the top edge of the door to the centerline of each electric modification location.
- Templates regarding location of monitoring switch available upon request.

Concealed Electric Through-Wire (ETW)

- Electric Preparation
 - ETW-4
 - ETW-6
 - ETW-8
 - ETW-10
 - ETW-12
- All ETW have 28-gauge continuous conductors.
- 12" per side required as a suffix.
- Cut out for prep - 1/2" drilled hole.
- Transfers power discreetly from building to door hardware.
- Specify handing and the dimension from the top edge of the the door to the centerline of the electric through-wire location.
- Special electric modifications and EPT locations may require additional charges if screw holes have to moved. Contact Hager Customer Service for charges.
- Templates regarding location of through-wires available upon request.

ELECTRIC HINGE MODIFICATIONS

- A = Opening
- B = Door height
- C = Actual hinge length
- D = C.L. of EMN (electric monitor)
- E = C.L. of ETM (electric through-wires & monitor)
- F = C.L. of ETW (electric through-wires)
- G = C.L. of EPT (electric power transfer)
- H = C.L. of E1S (exposed switch)
- J = C.L. of E (exposed contact)
- K = C.L. of RETW (removable electric through-wires)



For ease of ordering, Hager Companies has established standard locations for power transfer cutouts. All standard location dimensions are referenced from the top edge of the door to the centerline of the power transfer cutout. Please specify handing.

NOTE: These locations are for concealed hinges only.

	Opening	Door Height	Actual Hinge Length	EMN	ETM	ETW	EPT	E1S	E	RETW
79 SD	80"	79-1/8"	79"	40-3/4"	42-3/4"	40-3/4"	34-3/8"	42-1/2"	42-1/2"	-
79 HD	80"	79-1/8"	79"	40-3/4"	43-3/8"	40-3/4"	34-3/8"	42-1/2"	42-1/2"	43-3/8"
83 SD	84"	83-1/8"	83"	45-5/16"	44-3/4"	45-5/16"	36-3/8"	46-1/2"	46-1/2"	-
83 HD	84"	83-1/8"	83"	45-5/16"	45-3/8"	45-5/16"	36-3/8"	46-1/2"	46-1/2"	45-3/8"
85 SD	86"	85-1/8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
85 HD	86"	85-1/8"	85"	46-5/16"	46-3/8"	46-5/16"	37-3/8"	48-1/2"	48-1/2"	46-3/8"
95 SD	96"	95-1/8"	95"	56-3/8"	55-13/16"	56-3/8"	47-1/2"	59-3/4"	59-3/4"	-
95 HD	96"	95-1/8"	95"	56-3/8"	56-1/2"	56-3/8"	47-1/2"	59-3/4"	59-3/4"	56-1/2"
119 SD	120"	119-1/8"	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
119 HD	120"	119-1/8"	119"	81-1/4"	81-5/16"	81-1/4"	72-5/16"	83-3/4"	83-3/4"	81-5/16"

SD = Standard Duty

HD = Heavy Duty



ELECTRIC HINGE MODIFICATIONS

Part Number	Von Duprin EPT 2 or EPT 10 Power Transfer Preparation	Exposed Electric Contacts	Exposed Electric Switches	Concealed Electric Through-Wire	Concealed Electric Monitoring	Concealed Electric Through-Wire and Monitoring	Removable Electric Through-Wire
	EPT	E	E1S	ETW	EMN	ETM	RETW
780-045HD	•						
780-046HD	•						
780-053	•						
780-053HD	•						
780-054HD	•						
780-057				•			•
780-110HD			•				
780-111	•	•	•	•	•	•	
780-111HD	•	•	•	•	•	•	•
780-111LL	•	•	•	•	•	•	
780-112	•	•	•	•	•	•	
780-112HD	•	•	•	•	•	•	•
780-112LL	•	•	•	•	•	•	
780-124HD	•	•	•	•	•	•	•
780-124LL	•	•	•	•	•	•	
780-157				•			•
780-224	•	•	•	•	•	•	
780-224HD	•	•	•	•	•	•	•
780-224LL	•	•	•	•	•	•	
780-226HD	•	•	•	•	•	•	•
780-226LL	•	•	•	•	•	•	
780-235HD				•			
1200-600	•			•			
1200-650	•			•			

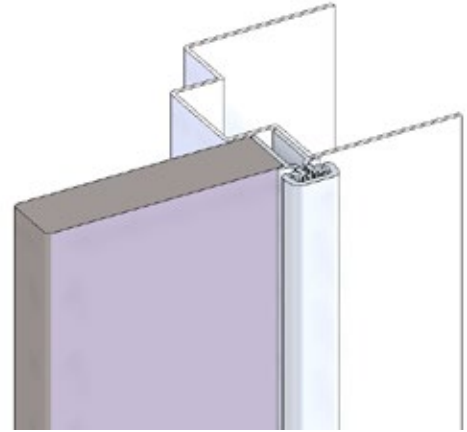
500 SERIES LIGHT DUTY - 500-048 - LIGHT DUTY, CONCEALED LEAF HINGE

SPECIFICATIONS

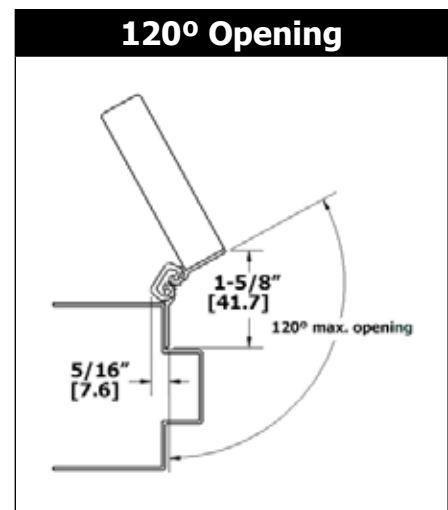
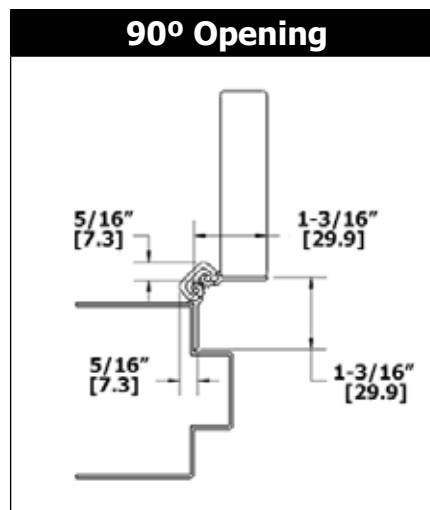
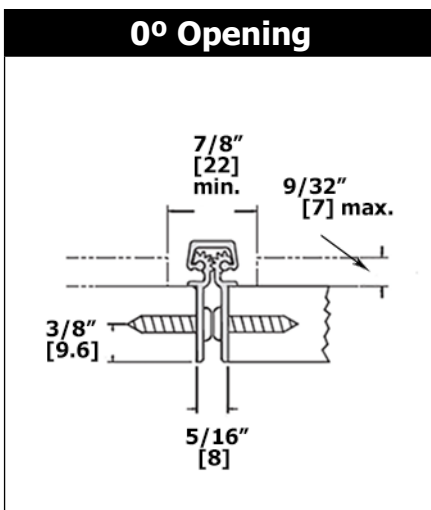
Material:	Aluminum 6063-T6 - 1/16" (1.5 mm) leaf thickness
Clearance:	5/16" (8 mm)
Fasteners:	#8-18 x 3/4" truss head Phillips tapping AB zinc plated steel. Painted to match. For sheet metal or wood applications.
Length Options:	Standard and custom lengths available

FEATURES

- Universal hinge used for a wide variety of applications including marine applications, wood cabinet construction, medical equipment, portable exhibits and displays, electronic cabinets, switchboxes, etc.
- Bearings spaced to distribute door weight evenly up to 50 lbs.
- Can be used for vertical or horizontal applications
- Alignment ribs for easy installation and proper hinge location



Length		Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
24	610	6	6
36	914	9	9
48	1219	12	12
72	1829	18	18





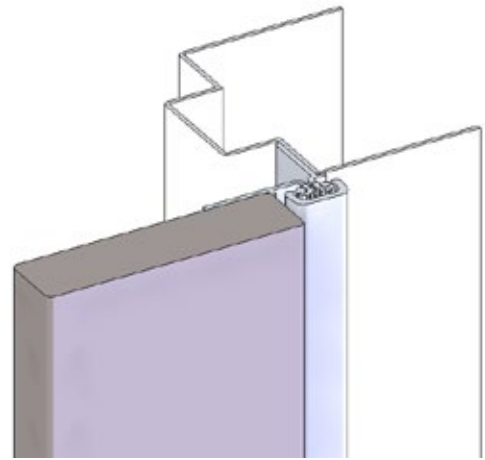
500 SERIES LIGHT DUTY - 500-200 - LIGHT DUTY, HALF SURFACE HINGE

SPECIFICATIONS

Material:	Aluminum 6063-T6 - 1/16" (1.5 mm) leaf thickness
Clearance:	7/32" (5.6 mm) minimum
Fasteners:	#8-18 x 3/4" truss head Phillips tapping AB zinc plated steel. Painted to match. For sheet metal or wood applications. Shorter screws required for openings past 90° when applied as shown in "A" (not provided).
Length Options:	Standard and custom lengths available

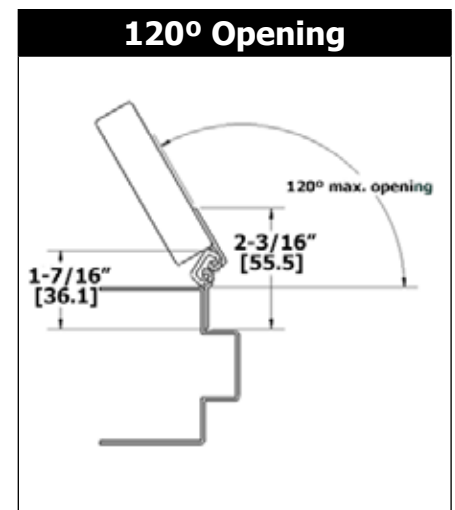
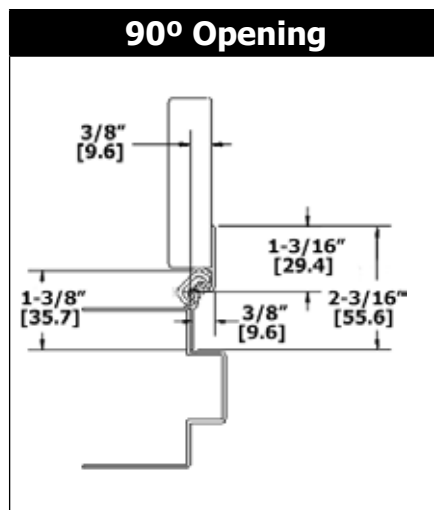
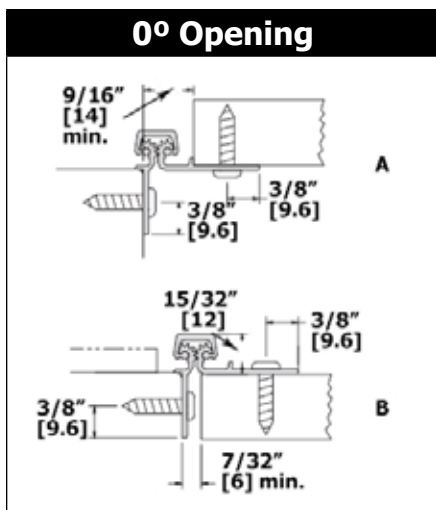
FEATURES

- Universal hinge used for a wide variety of applications including marine applications, wood cabinet construction, medical equipment, portable exhibits and displays, electronic cabinets, switchboxes, etc.
- Bearings spaced to distribute door weight evenly up to 50 lbs.
- Can be used for vertical or horizontal applications
- Alignment ribs for easy installation and proper hinge location



(Left hand shown)

Length		Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
24	610	6	6
36	914	9	9
48	1219	12	12
72	1829	18	18



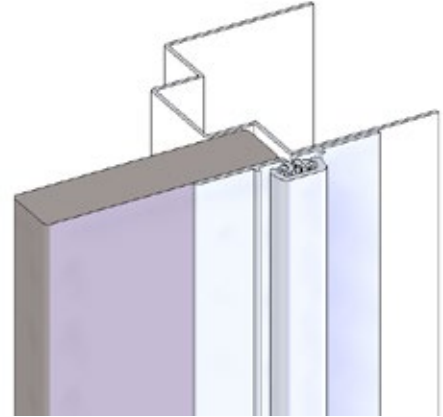
500 SERIES LIGHT DUTY - 500-220 - LIGHT DUTY, FULL SURFACE HINGE

SPECIFICATIONS

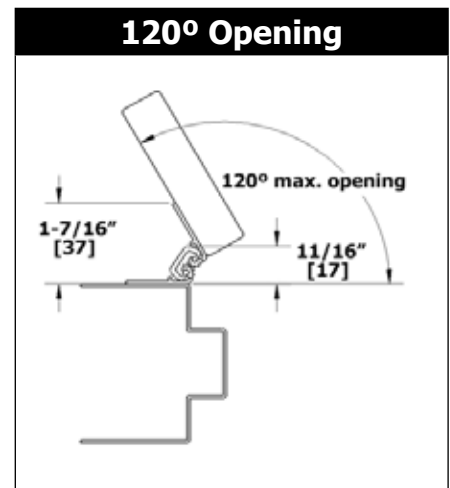
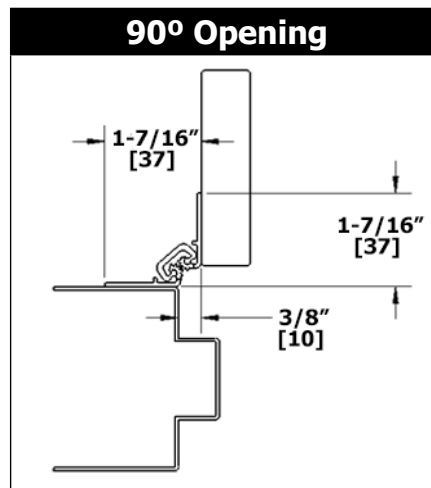
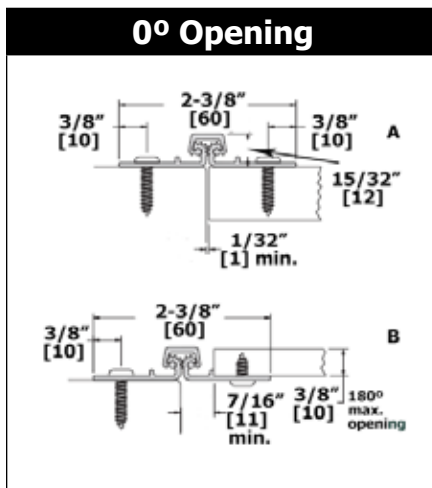
Material:	Aluminum 6063-T6 - 1/16" (1.5 mm) nominal leaf thickness
Clearance:	1/32" (1 mm) minimum
Fasteners:	#8-18 x 3/4" truss head Phillips tapping AB zinc plated steel. Painted to match. For sheet metal or wood applications. Shorter screws required for 90° and 180° openings when applied. Shorter screws required for openings past 90° when applied.
Length Options:	Standard and custom lengths available

FEATURES

- Universal hinge used for a wide variety of applications including marine applications, wood cabinet construction, medical equipment, portable exhibits and displays, electronic cabinets, switchboxes, etc.
- Allows either inset or outset applications for recessed or surface mounting
- Bearings spaced to distribute door weight evenly up to 50 lbs.
- Can be used for vertical or horizontal applications
- Alignment ribs for easy installation and proper hinge location



Length		Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
24	610	6	6
36	914	9	9
48	1219	12	12
72	1829	18	18

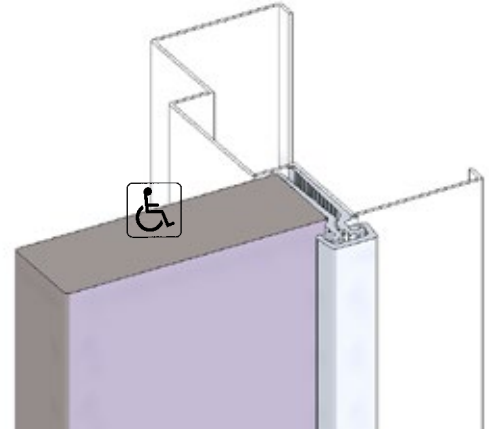




750 SERIES CONCEALED LEAF - 750-134 - STANDARD DUTY

SPECIFICATIONS

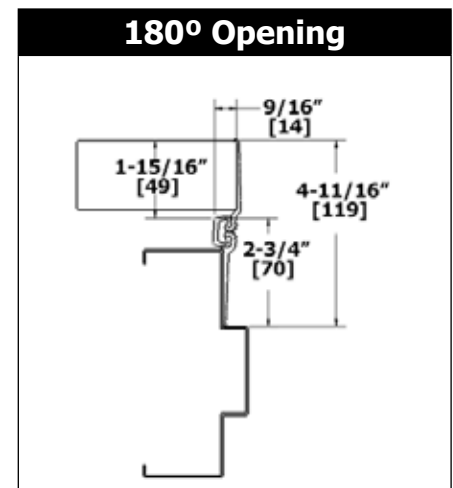
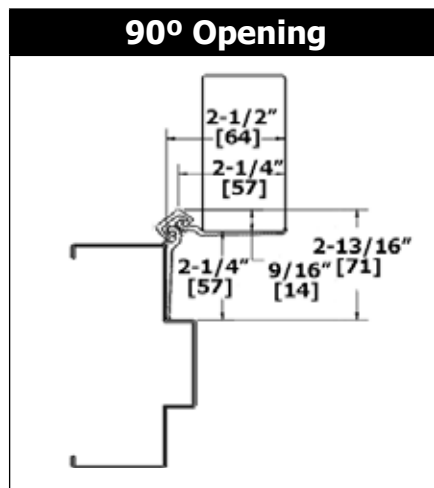
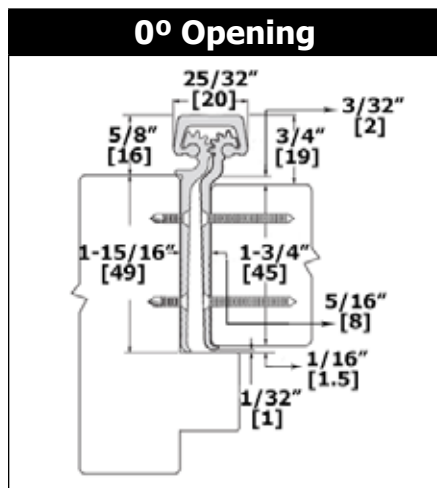
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® and wood screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required



FEATURES

- For medium frequency, 1-3/4" (44 mm) thick solid core wood interior doors up to 100 pounds
- Door edge protection lip
- Offset joint to clear casing
- Frame leaf alignment rib for proper hinge location

Length		Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	15	15
83	2108	19	19
85	2159	19	19
95	2413	20	20
119	3023	23	23



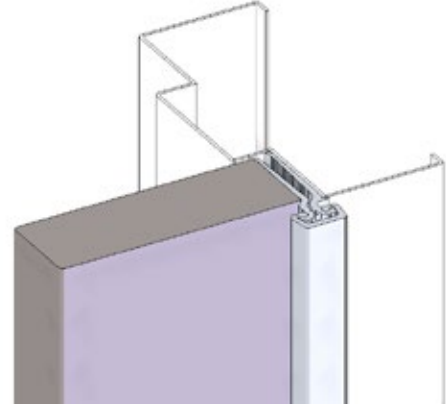
750 SERIES CONCEALED LEAF - 750-138 - STANDARD DUTY

SPECIFICATIONS

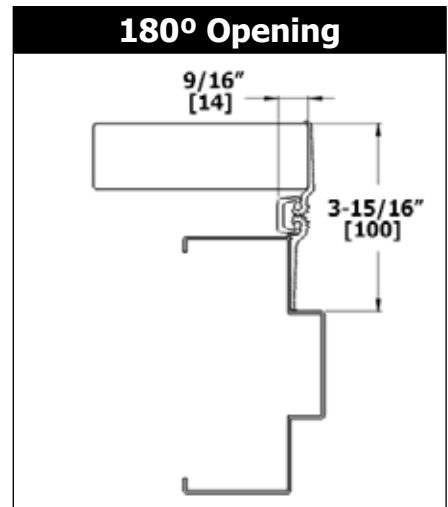
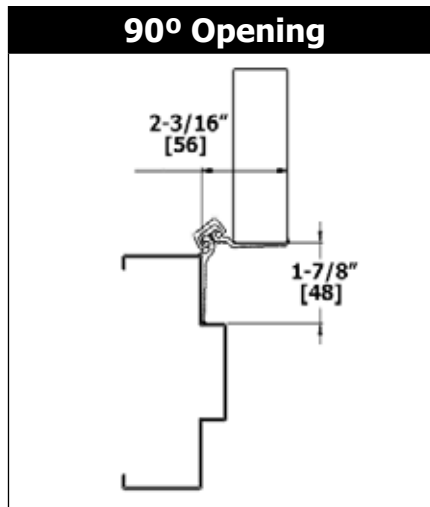
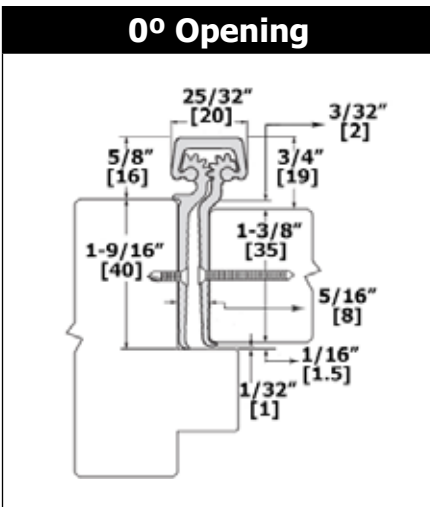
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® and wood screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required

FEATURES

- For medium frequency, 1-3/8" (35 mm) thick solid core wood interior doors up to 100 pounds
- Door edge protection lip
- Offset joint to clear casing
- Frame leaf alignment rib for proper hinge location



Length		Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	16	16
83	2108	18	18
85	2159	18	18
95	2413	20	20
119	3023	26	26

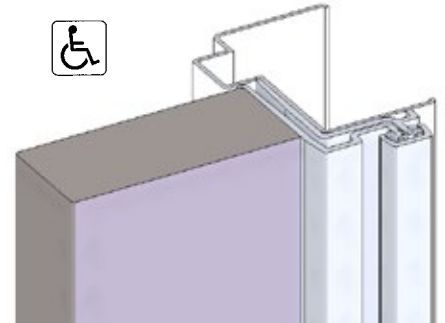




780 SERIES CONCEALED LEAF - 780-041HD | 780-041LL - HEAVY DUTY OR LEAD LINED

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws
LL Fasteners:	1/2 Dril-Kwik® screws, 1/2 wood screws
Length Options:	Standard and custom sizes available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3

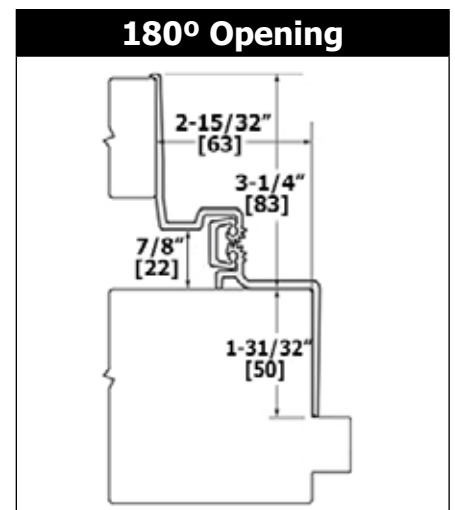
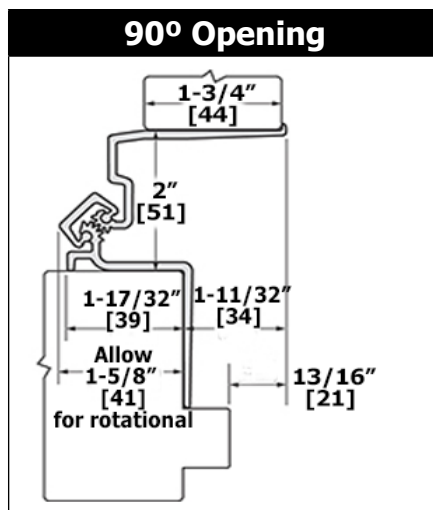
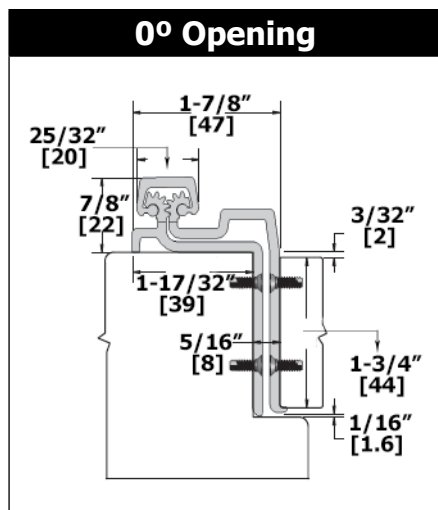


(Left hand shown)

FEATURES

- Heavy duty for high frequency doors - for wood or metal doors 1-3/4" (44 mm) thick
- Lead lined model for hospital x-ray room doors with double row of screws to straddle lead (specify "LL")
- Door edge protection lip
- Swing-clear action and ADA compliant for classroom or patient room doors
- Not recommended for doors with a beveled edge on the hinge side

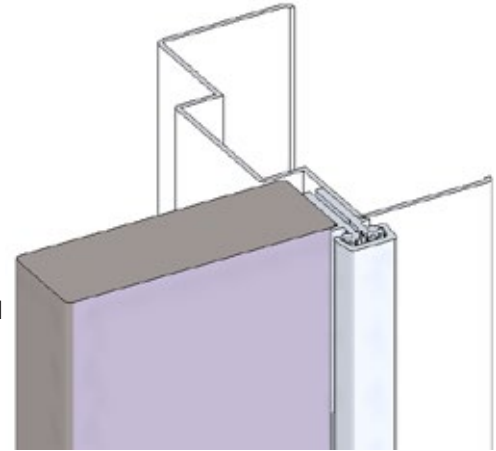
Length		Fastener Count			
Inches	Millimeters	# Per Door		# Per Jamb	
		HD	LL	HD	LL
79	2007	15	32	15	32
83	2108	19	36	19	36
85	2159	19	36	19	36
95	2413	20	42	20	42
119	3023	23	48	23	48



780 SERIES CONCEALED LEAF - 780-110HD - HEAVY DUTY

SPECIFICATIONS

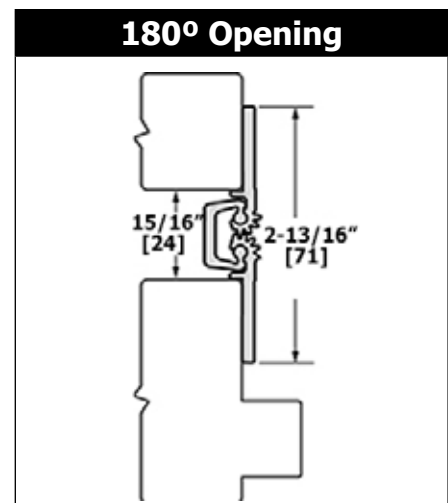
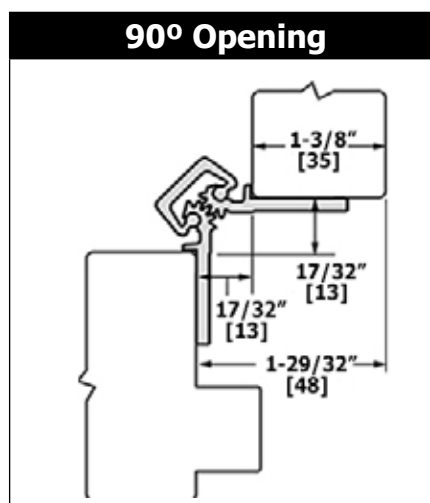
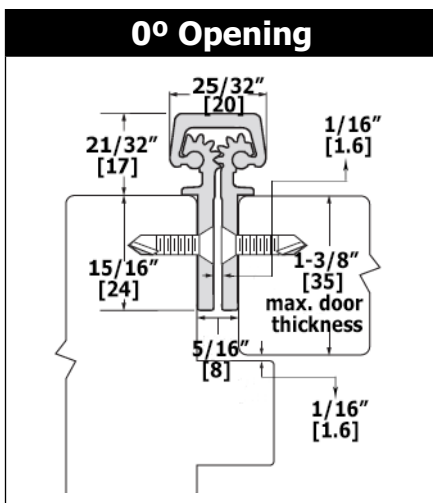
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Notes:	See additional fire rating details on page 3



FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors. For doors 1" (25 mm) to 1-3/8" (35 mm) thick.
- Frame and door leaf alignment ribs for proper hinge and door location

Length		HD Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	16	16
83	2108	18	18
85	2159	18	18
95	2413	20	20
119	3023	26	26

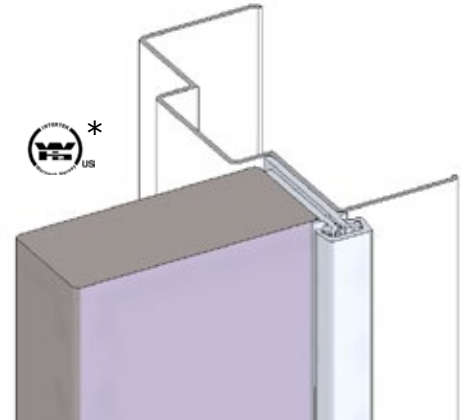




780 SERIES CONCEALED LEAF - 780-111* | 780-111HD* | 780-111LL - STANDARD DUTY, HEAVY DUTY OR LEAD LINED

SPECIFICATIONS

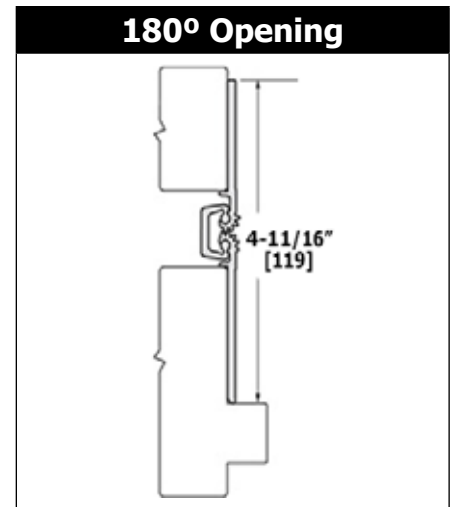
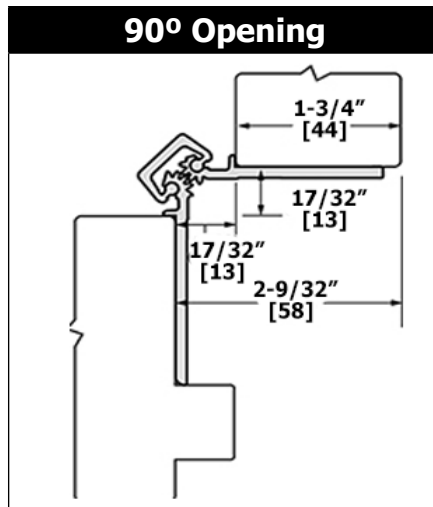
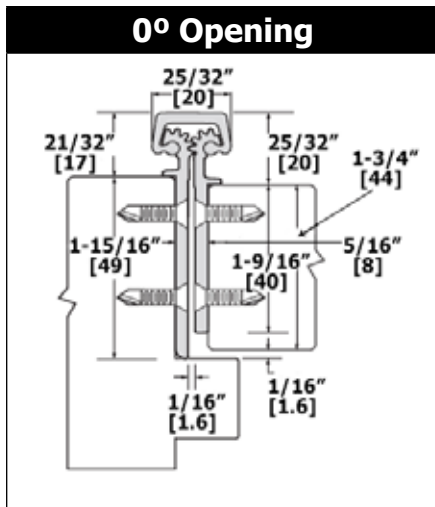
- Material: Aluminum 6063-T6
- Clearance: 5/16" (8 mm) hinge side plus standard lockside clearance
- Fasteners: Dril-Kwik® screws
- LL Fasteners: 1/2 Dril-Kwik® screws, 1/2 wood screws
- Length Options: Standard and custom lengths available
- Door/Frame Reinforcement: None required to 200 lbs., heavier weight use 16-gauge channel
- Optional Fire Rating: Up to 3-hour metal and 90 minute wood composite (with studs)
- Notes: See additional fire rating details on page 3



FEATURES

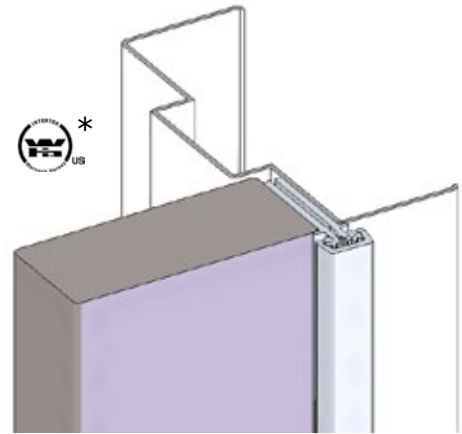
- Standard duty for medium frequency doors. Heavy duty for high frequency doors or heavy, medium frequency doors.
- Lead lined model for hospital x-ray room doors with double row of screws to straddle lead (Specify "LL")
- Frame and door leaf alignment ribs for proper hinge and door location
- 1/8" (3 mm) inset

Length		Fastener Count					
Inches	Millimeters	# For Door			# For Jamb		
		SD	HD	LL	SD	HD	LL
79	2007	15	15	32	15	15	32
83	2108	19	19	36	19	19	36
85	2159	19	19	36	19	19	36
95	2413	20	20	42	20	20	42
119	3023	23	23	48	23	23	48



SPECIFICATIONS

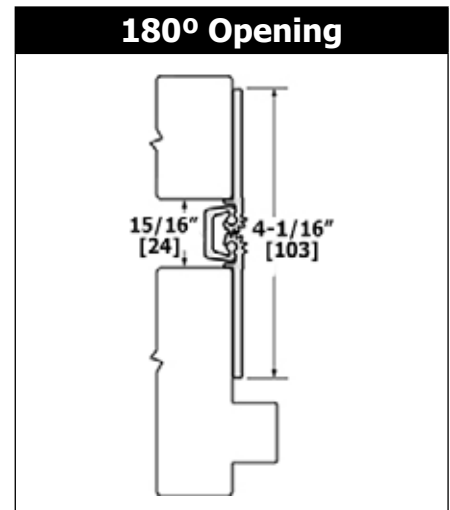
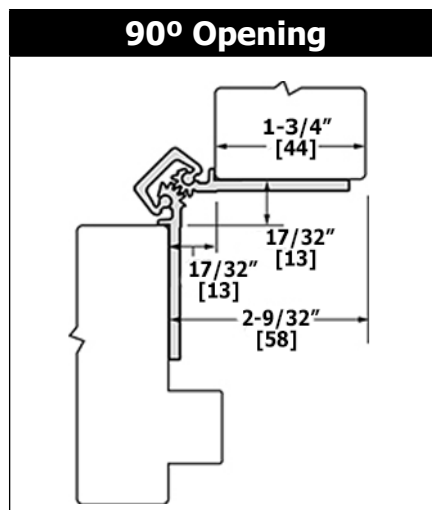
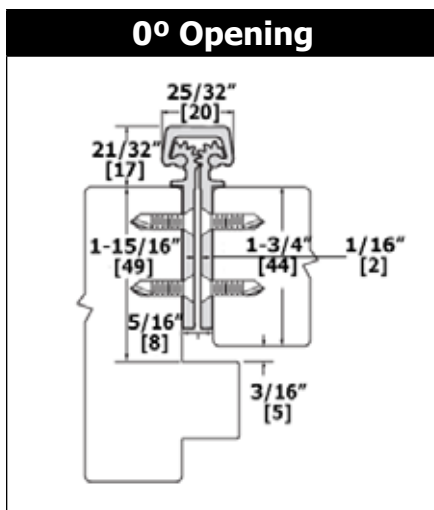
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws
LL Fasteners:	1/2 Dril-Kwik® screws, 1/2 wood screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3



FEATURES

- Standard duty for medium frequency doors. Heavy duty for high frequency doors or heavy, medium frequency doors.
- Lead lined model for hospital x-ray room doors with double row of screws to straddle lead (Specify "LL")
- Frame and door leaf alignment ribs for proper hinge and door location

Length		Fastener Count					
Inches	Millimeters	# For Door			# For Jamb		
		SD	HD	LL	SD	HD	LL
79	2007	15	15	32	15	15	32
83	2108	19	19	36	19	19	36
85	2159	19	19	36	19	19	36
95	2413	20	20	42	20	20	42
119	3023	23	23	48	23	23	96

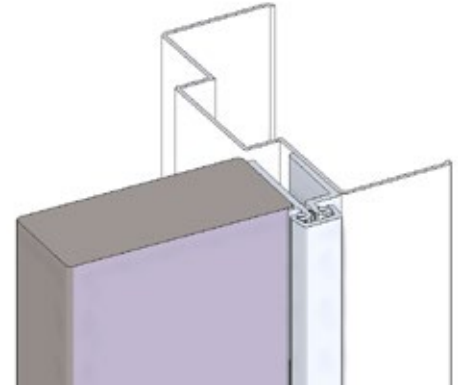




780 SERIES CONCEALED LEAF - 780-113HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	13/16" (21 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Notes:	See additional fire rating details on page 3

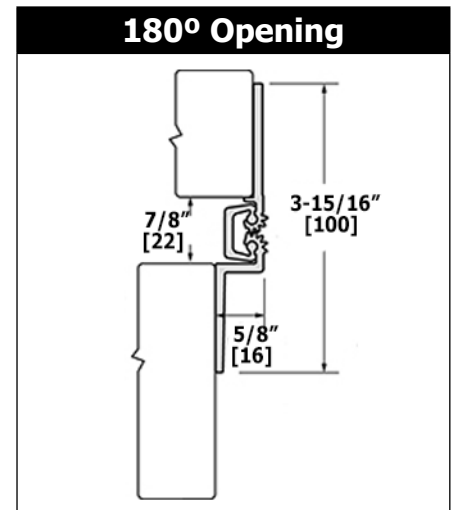
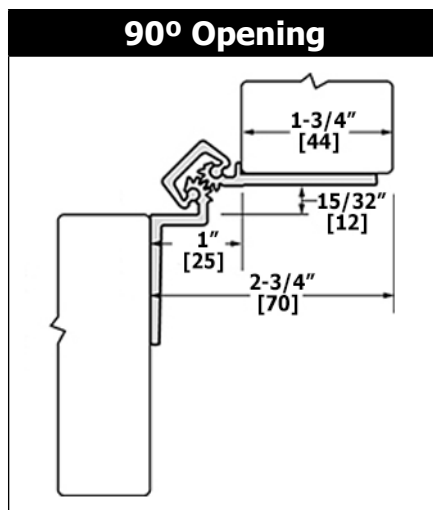
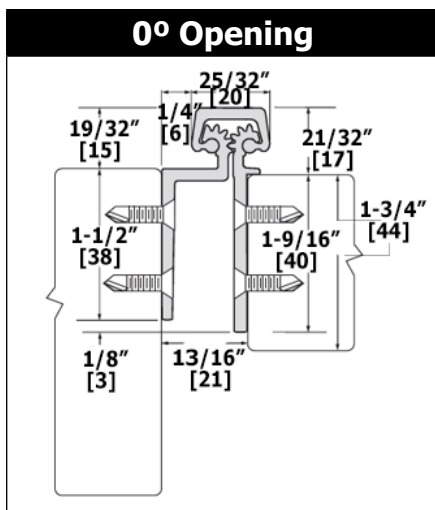


(Left hand shown)

FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- "Safety Hinge" for early education centers, nursing homes, etc. (when used without frame stop)
- Door leaf alignment rib for proper door location
- 1/16" (1.5 mm) inset

Length		HD Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	15	16
83	2108	19	18
85	2159	19	18
95	2413	20	20
119	3023	23	26



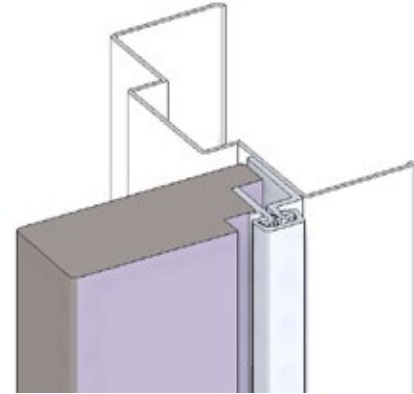
780 SERIES CONCEALED LEAF - 780-114HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	15/16" (24 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel

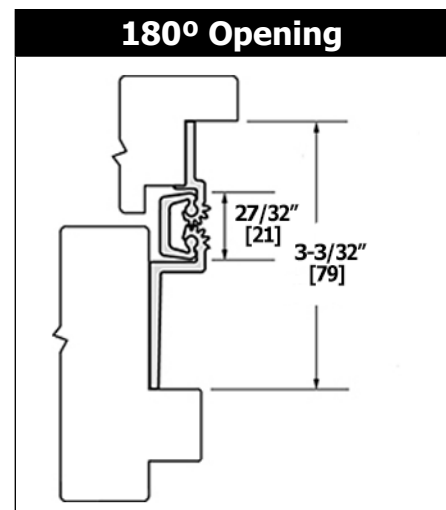
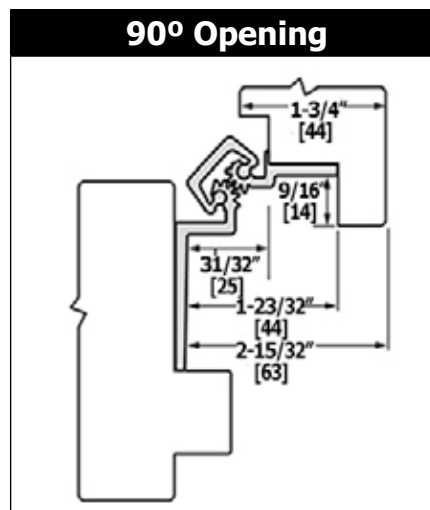
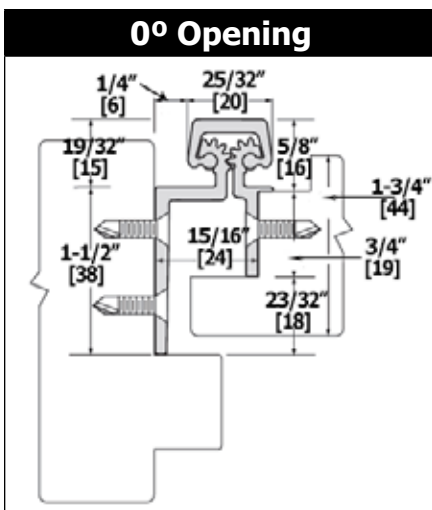
FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- For deep inset or flush-with-frame (when using rabbeted frames) applications, center hung doors, heavy cabinets
- For square edged doors on hinge side



(Left hand shown)

Length		HD Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	16	16
83	2108	18	18
85	2159	18	18
95	2413	20	20
119	3023	26	26

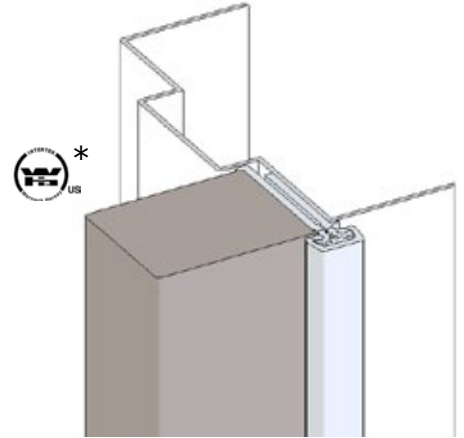




780 SERIES CONCEALED LEAF - 780-124HD*- 780-124LL - HEAVY DUTY OR LEAD LINED

SPECIFICATIONS

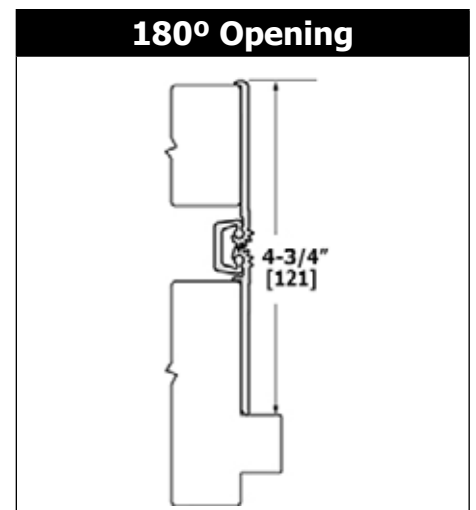
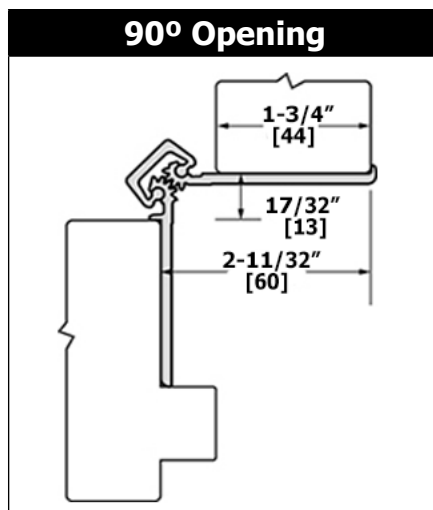
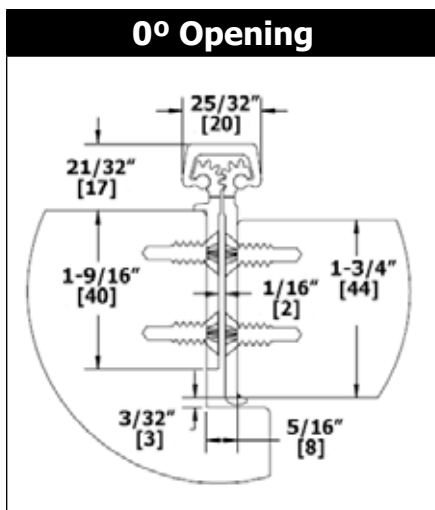
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws
LL Fasteners:	1/2 Dril-Kwik® screws, 1/2 wood screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3



FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- Lead lined model for hospital x-ray room doors with double row of screws to straddle lead (Specify "LL")
- Frame alignment rib for proper hinge and door location
- Door edge protection tip

Length		Fastener Count			
Inches	Millimeters	# Per Door		# Per Jamb	
		HD	LL	HD	LL
79	2007	15	32	15	32
83	2108	19	36	19	36
85	2159	19	36	19	36
95	2413	20	42	20	42
119	3023	23	48	23	48



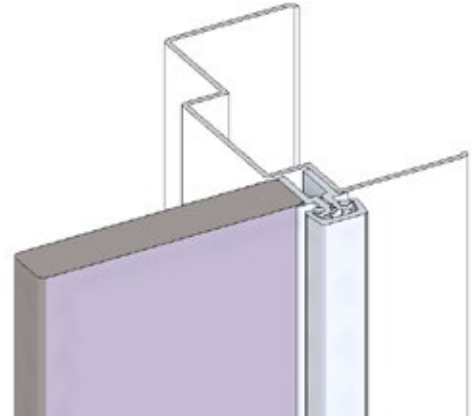
780 SERIES CONCEALED LEAF - 780-208HD - HEAVY DUTY

SPECIFICATIONS

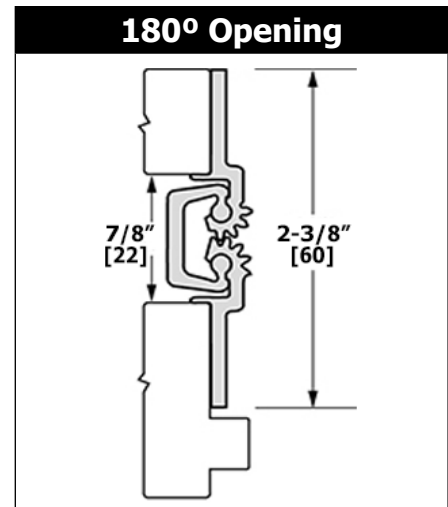
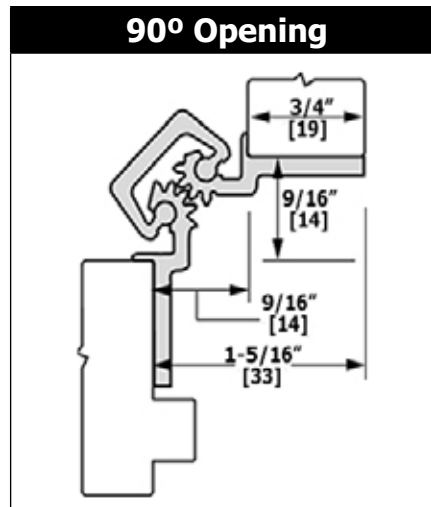
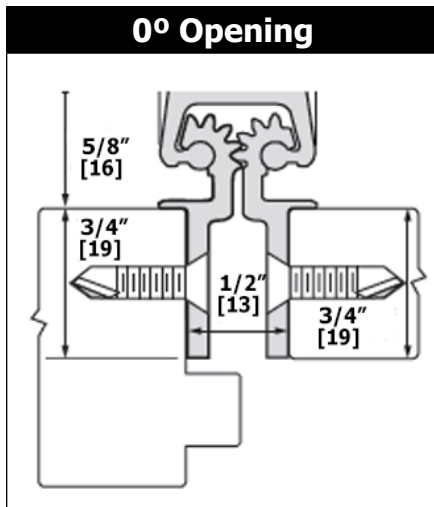
Material:	Aluminum 6063-T6
Clearance:	1/2" (13 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel

FEATURES

- Standard duty for medium frequency doors. Heavy duty for high frequency doors or heavy, medium frequency doors.
- For millwork, toilet stall doors, windows, and rabbeted bi-fold doors
- Frame and door leaf alignment ribs for proper hinge and door location



Length		HD Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	16	16
83	2108	18	18
85	2159	18	18
95	2413	20	20
119	3023	26	26

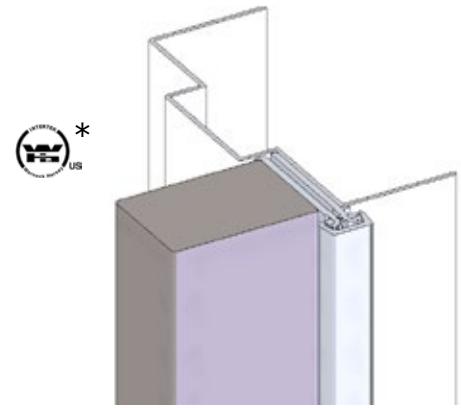




780 SERIES CONCEALED LEAF - 780-224* | 780-224HD* | 780-224LL - STANDARD DUTY, HEAVY DUTY OR LEAD LINED

SPECIFICATIONS

- Material: Aluminum 6063-T6
- Clearance: 5/16" (8 mm) hinge side plus standard lockside clearance
- Fasteners: Dril-Kwik® screws
- LL Fasteners: 1/2 Dril-Kwik® screws, 1/2 wood screws
- Length Options: Standard and custom lengths available
- Door/Frame Reinforcement: None required to 200 lbs., heavier weight use 16-gauge channel
- Optional Fire Rating: Up to 3-hour metal and 90 minute wood composite (with studs)
- Notes: See additional fire rating details on page 3

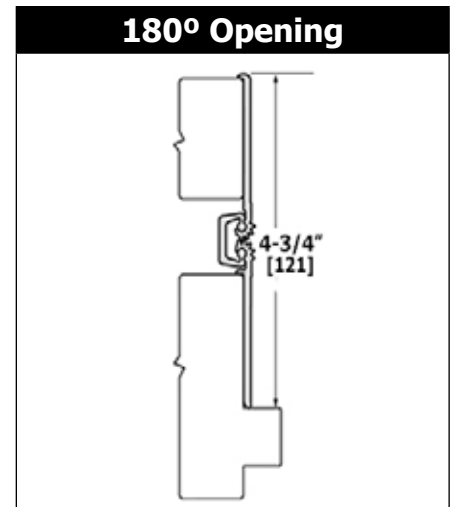
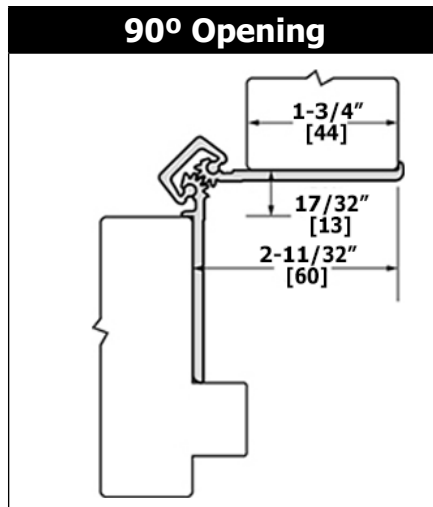
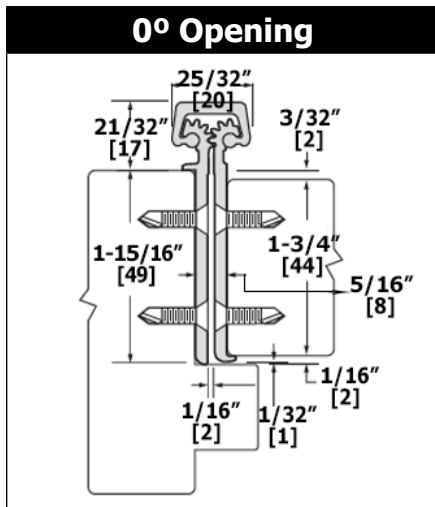


(Left hand shown)

FEATURES

- Standard duty for medium frequency doors. Heavy duty for high frequency doors or heavy, medium frequency doors. All for doors 1-3/4" (44 mm) thick.
- Lead lined model for hospital x-ray room doors with double row of screws to straddle lead (Specify "LL")
- Door edge protection lip
- Frame leaf alignment rib for proper hinge and door location
- 3/32" (2 mm) inset hinge and door location

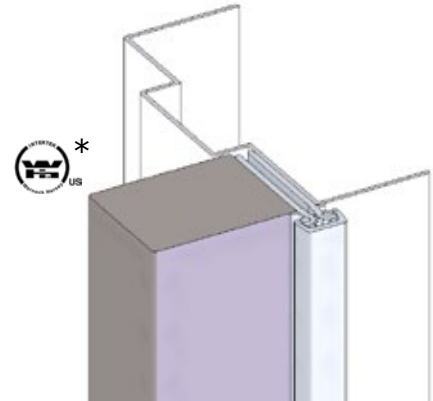
Length		Fastener Count					
Inches	Millimeters	# For Door			# For Jamb		
		SD	HD	LL	SD	HD	LL
79	2007	15	15	32	15	15	32
83	2108	19	19	36	19	19	36
85	2159	19	19	36	19	19	36
95	2413	20	20	42	20	20	42
119	3023	23	23	48	23	23	48



780 SERIES CONCEALED LEAF - 780-226HD* | 780-226LL - HEAVY DUTY OR LEAD LINED

SPECIFICATIONS

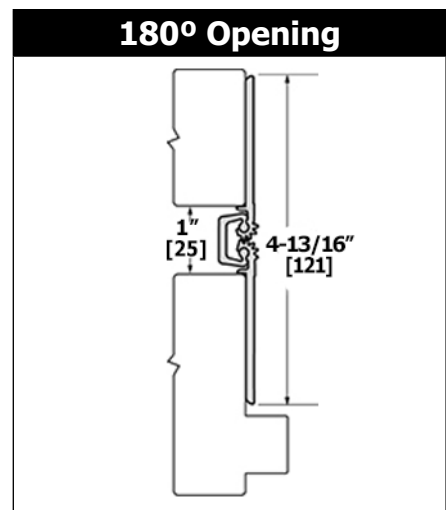
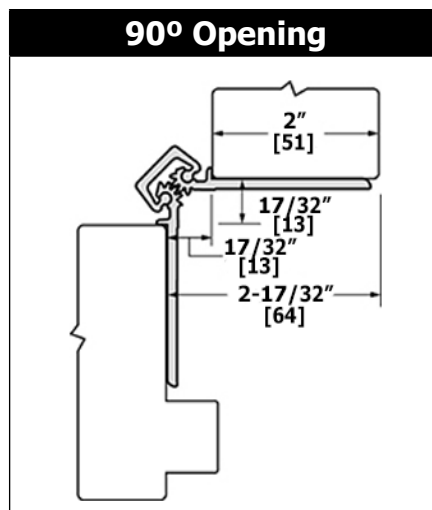
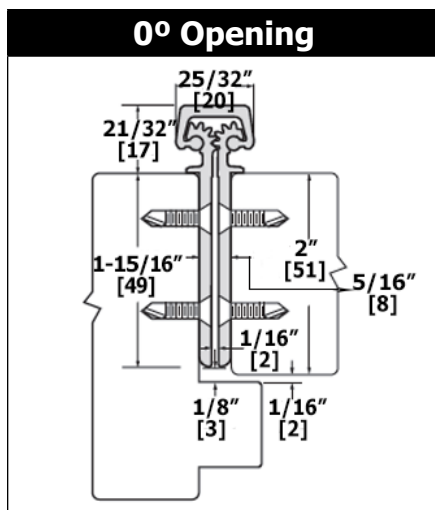
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws
LL Fasteners:	1/2 Dril-Kwik® screws, 1/2 wood screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3



FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors. All for doors 2" (51 mm) thick or greater.
- Lead lined model for hospital x-ray room doors with double row of screws to straddle lead (Specify "LL")
- Frame and door leaf alignment ribs for proper hinge and door location

Length		Fastener Count			
Inches	Millimeters	# Per Door		#Per Jamb	
		HD	LL	HD	LL
79	2007	15	32	15	32
83	2108	19	36	19	36
85	2159	19	36	19	36
95	2413	20	42	20	42
119	3023	23	48	23	48

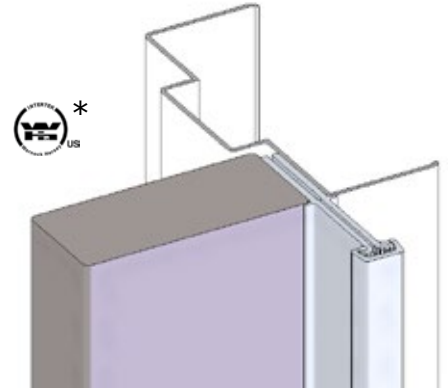




780 SERIES CONCEALED LEAF - 780-235HD* - HEAVY DUTY

SPECIFICATIONS

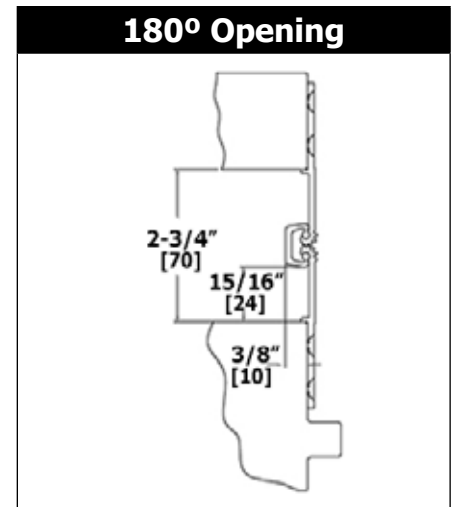
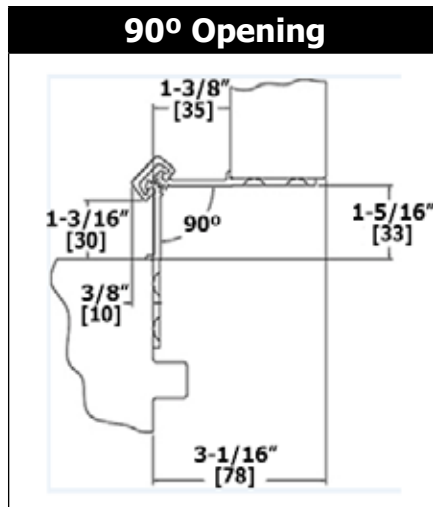
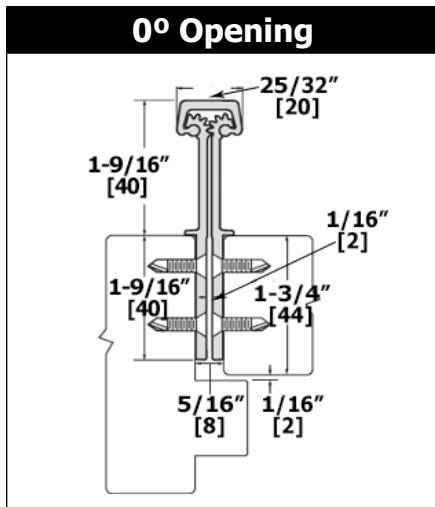
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus allow an additional 1/32" to the standard lockside clearance
Fasteners:	Dril-Kwik® screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3



FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- Wide Throw for applications that require extra clearance for door or frame
- Frame and door leaf alignment ribs for proper hinge and door location
- For square edged doors on hinge side

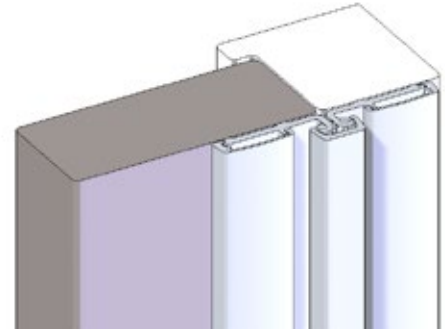
Length		HD Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	15	15
83	2108	19	19
85	2159	19	19
95	2413	20	20



780 SERIES FULL SURFACE - 780-057HD - HEAVY DUTY

SPECIFICATIONS

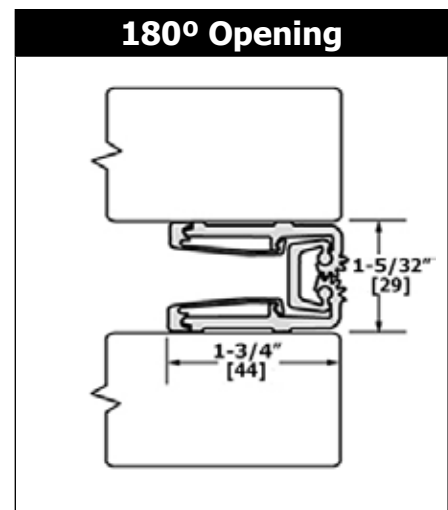
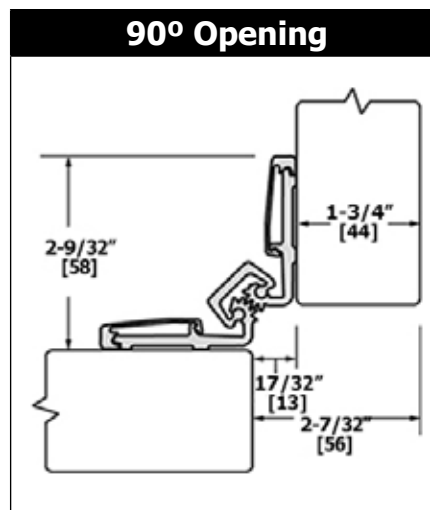
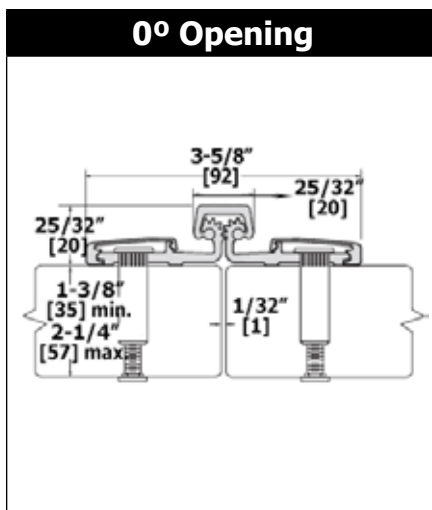
Material:	Aluminum 6063-T6
Clearance:	1/32" (1 mm) minimum recommended between doors
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3



FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- Bi-fold applications
- Security moldings

Length		HD Fastener Count	
Inches	Millimeters	# Sex Bolts	# Pan Head
79	2007	16	34
83	2108	16	38
85	2159	16	38
95	2413	20	38
119	3023	24	46

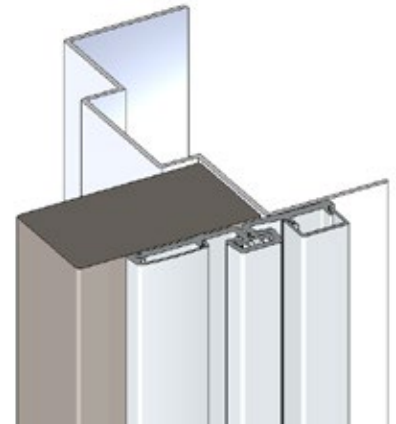




780 SERIES FULL SURFACE - 780-157 | 780-157HD - STANDARD DUTY OR HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	1/32" (1 mm) minimum recommended for hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3

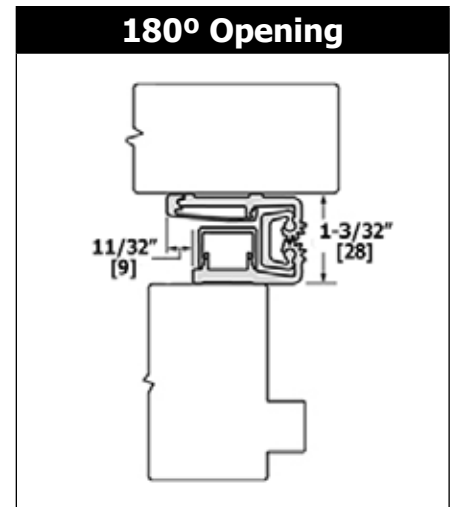
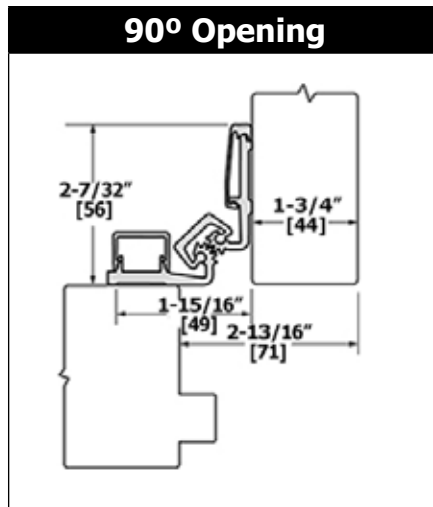
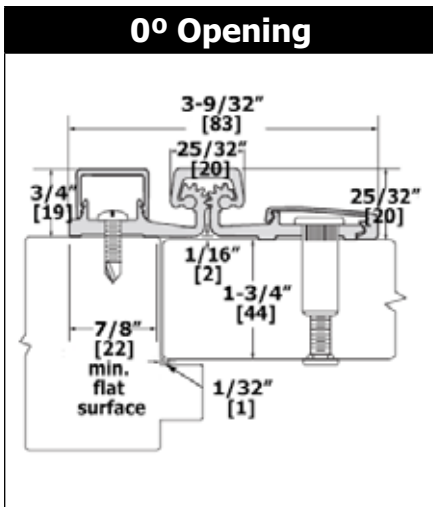


(Left hand shown)

FEATURES

- Standard duty for medium frequency doors.
Heavy duty for high frequency doors or heavy, medium frequency doors.
- For surface applications where frame face dimension is limited
- Security moldings
- 1/16" (1.5 mm) inset

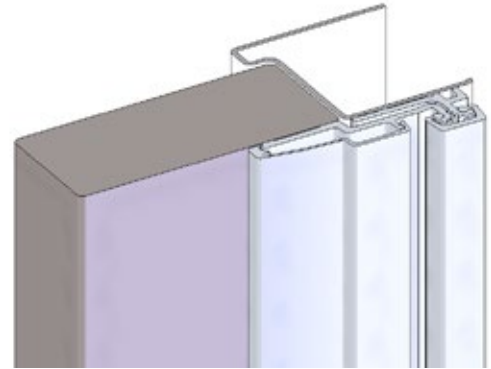
Length		Fastener Count			
		# Sex Bolts		# Pan Head	
Inches	Millimeters	SD	HD	SD	HD
79	2007	8	8	34	34
83	2108	8	8	38	38
85	2159	8	8	38	38
95	2413	10	10	38	38
119	3023	12	12	46	46



780 SERIES FULL SURFACE - 780-210 | 780-210HD - STANDARD DUTY OR HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	1/32" (1 mm) minimum recommended for hinge side plus standard lockside clearance. 1-5/8" (41 mm) minimum frame face required plus 3/16" (5 mm) rotational clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3

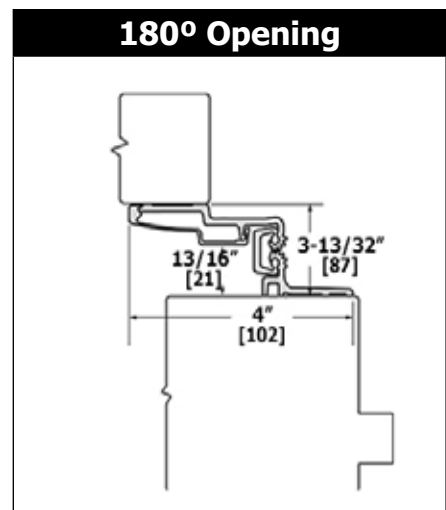
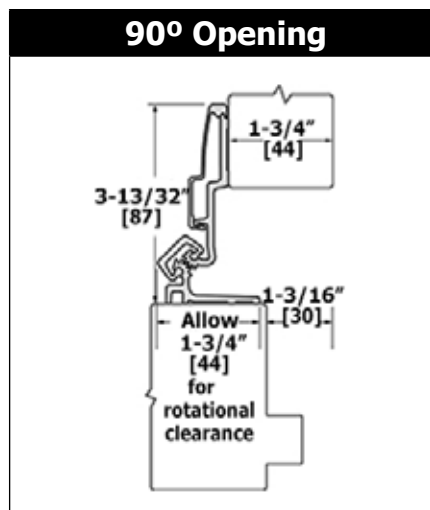
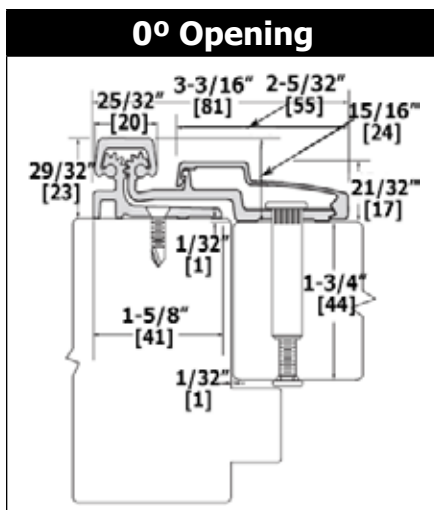


(Left hand shown)

FEATURES

- Standard duty for medium frequency doors. Heavy duty for high frequency doors or heavy, medium frequency doors.
- Can be used with any door and frame material
- Security molding
- 1/32" (1 mm) inset

Length		Fastener Count					
		# Sex Bolts		# Pan Head		# For Jamb	
Inches	Millimeters	SD	HD	SD	HD	SD	HD
79	2007	8	8	17	17	17	17
83	2108	8	8	19	19	19	19
85	2159	8	8	19	19	19	19
95	2413	10	10	19	19	19	19
119	3023	12	12	23	23	23	23

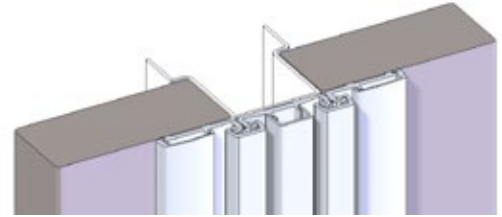




780 SERIES FULL SURFACE - 780-257HD - HEAVY DUTY

SPECIFICATIONS

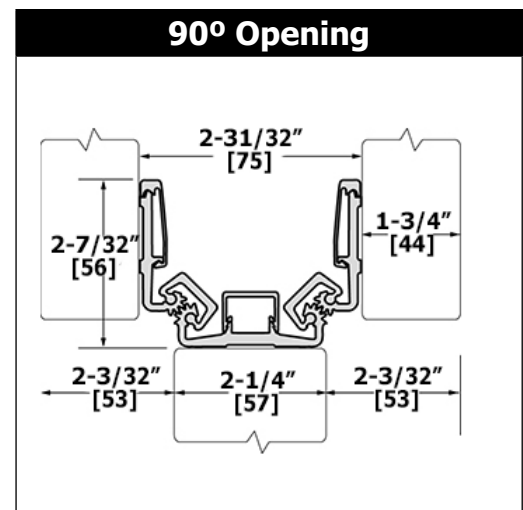
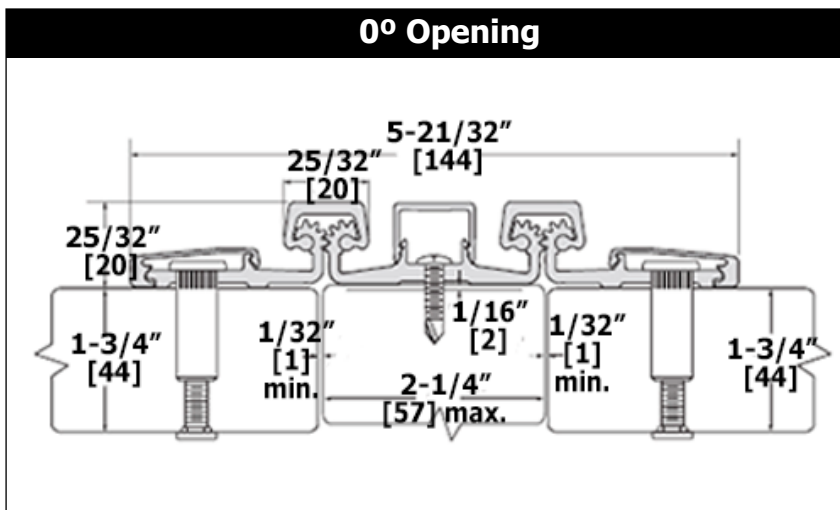
Material:	Aluminum 6063-T6
Clearance:	1/32" (1 mm) minimum recommended between mullion and door plus standard lockside clearance - 1-1/2" (38 mm) to 2-1/4" (57 mm) mullion width
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3



FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- Double hinge for hanging two entrance doors from a fixed mullion
- Security moldings
- 1/16" (1.5 mm) inset

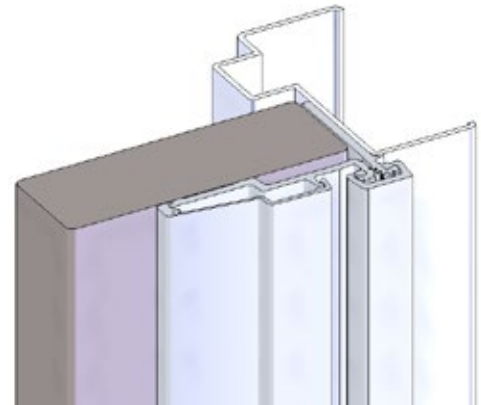
Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	16	34	17
83	2108	16	38	19
85	2159	16	38	19
95	2413	20	38	19
119	3023	24	46	23



780 SERIES HALF SURFACE - 780-045HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	5/32" (4 mm) minimum recommended hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3

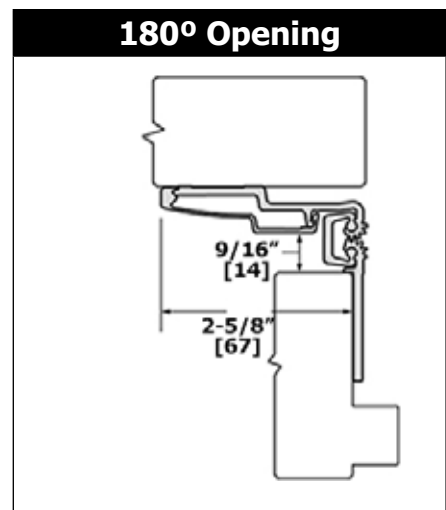
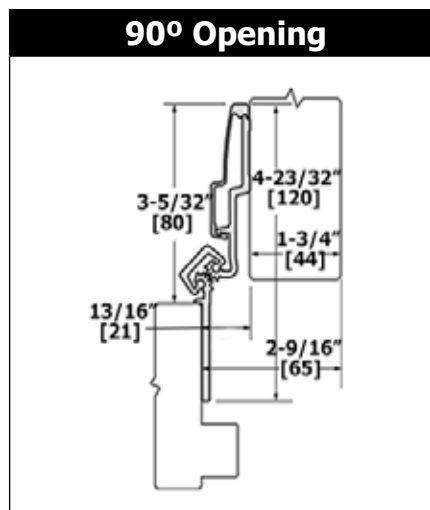
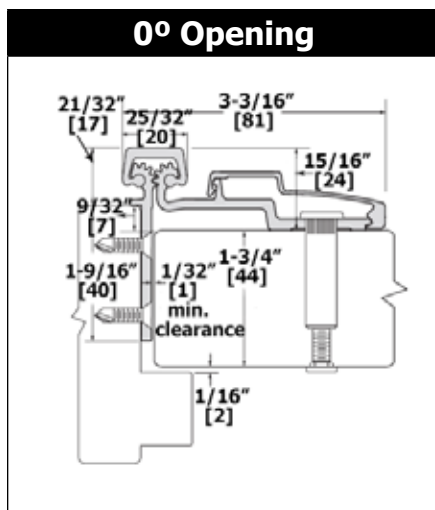


(Left hand shown)

FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- Frame leaf alignment rib for proper hinge location
- Security molding
- 9/32" (7 mm) inset

Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	15
83	2108	8	19	19
85	2159	8	19	19
95	2413	10	19	20
119	3023	12	23	23

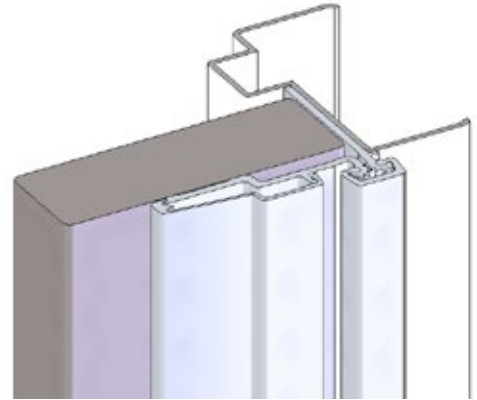




780 SERIES HALF SURFACE - 780-046HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	5/32" (4 mm) minimum recommended hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3

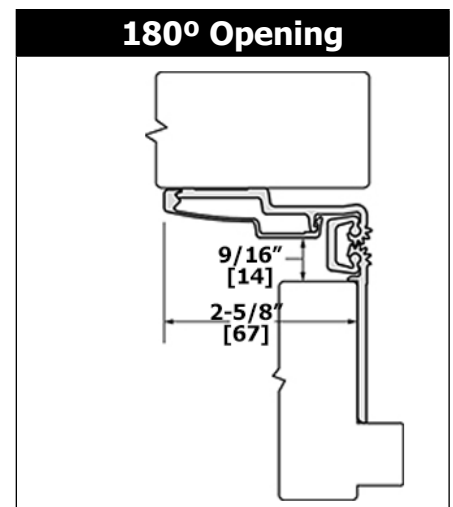
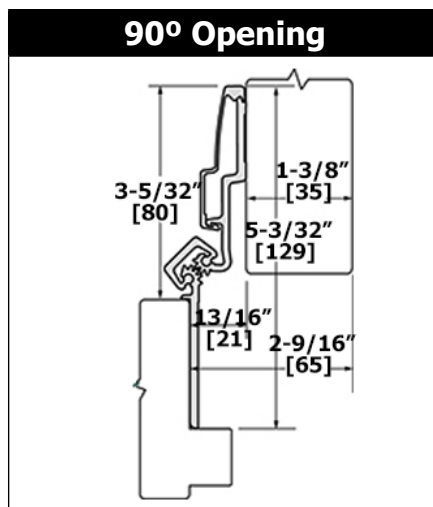
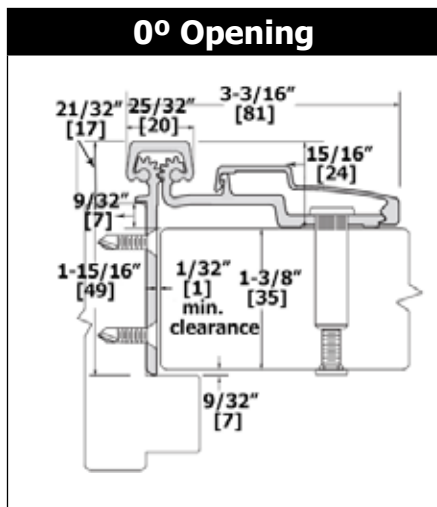


(Left hand shown)

FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- Complete frame rabbet coverage for 1-3/4" (45 mm) frames, with 1-3/8" (35 mm) doors
- Frame leaf alignment rib for proper hinge location
- Security molding
- 9/32" (7 mm) inset

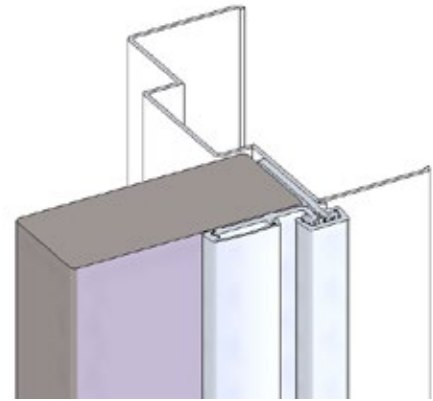
Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	15
83	2108	8	19	19
85	2159	8	19	19
95	2413	10	19	20
119	3023	12	23	23



780 SERIES HALF SURFACE - 780-053 | 780-053HD - STANDARD DUTY OR HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	5/32" (4 mm) minimum recommended hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite; (with studs)
Notes:	See additional fire rating details on page 3

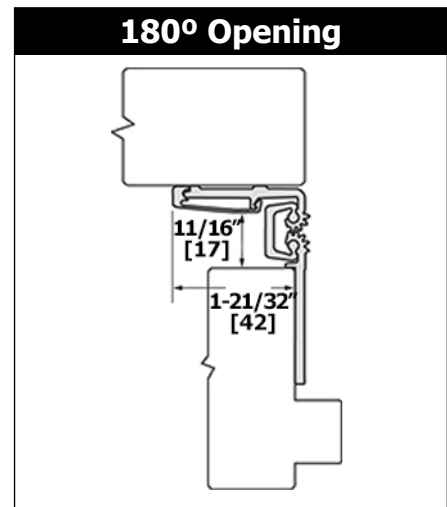
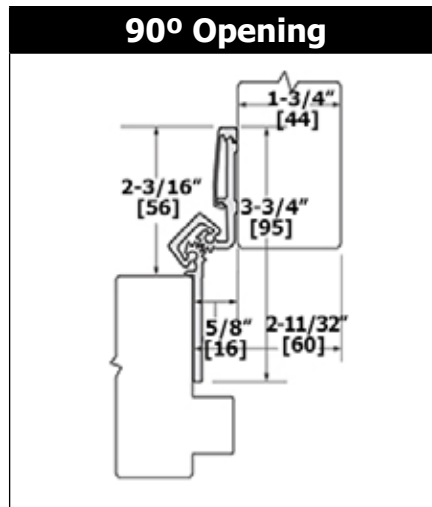
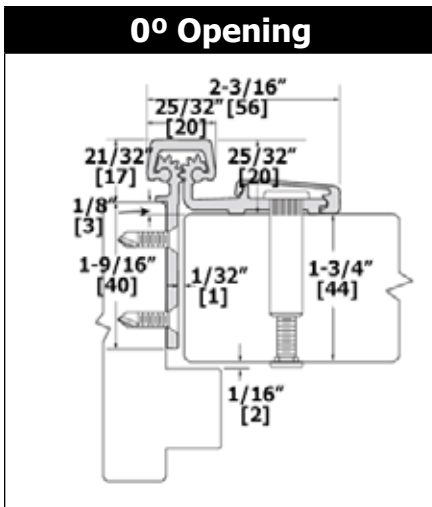


(Left hand shown)

FEATURES

- Standard duty for medium frequency doors. Heavy duty for high frequency doors or heavy, medium frequency doors
- Frame leaf alignment rib for proper hinge location
- Security molding
- 1/8" (3 mm) inset

Inches	Millimeters	Fastener Count					
		# Sex Bolts		# Pan Head		# For Jamb	
		SD	HD	SD	HD	SD	HD
79	2007	8	8	17	17	15	15
83	2108	8	8	19	19	19	19
85	2159	8	8	19	19	19	19
95	2413	10	10	19	19	20	20
119	3023	12	12	23	23	23	23

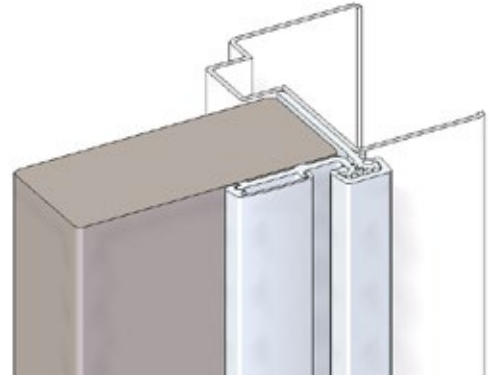




780 SERIES HALF SURFACE - 780-054HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	5/32" (4 mm) minimum recommended hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Optional Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)
Notes:	See additional fire rating details on page 3

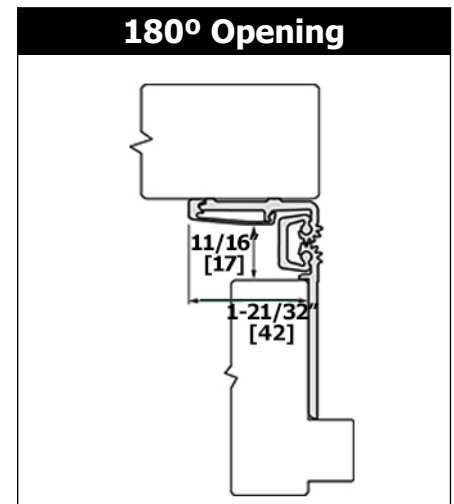
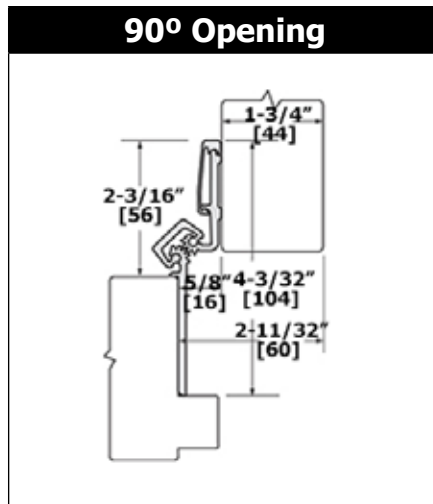
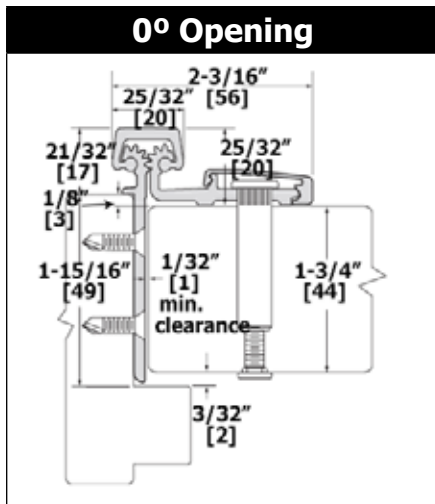


(Left hand shown)

FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- Frame leaf alignment rib for proper hinge location
- Security molding
- 1/8" (3 mm) inset

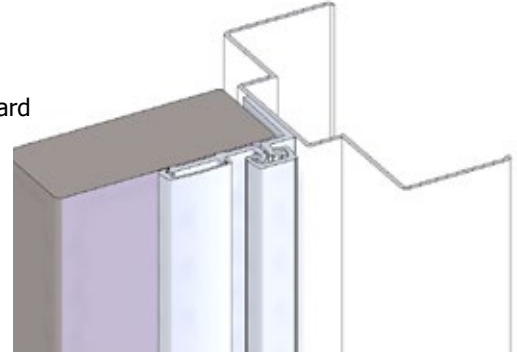
Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	15
83	2108	8	19	19
85	2159	8	19	19
95	2413	10	19	20
119	3023	12	23	23



780 SERIES HALF SURFACE - 780-155HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	5/32" (4 mm) minimum recommended hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel

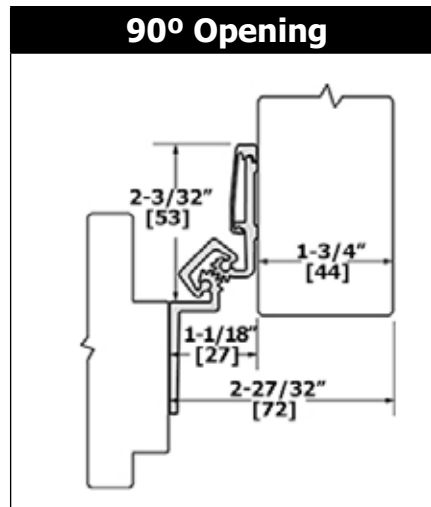
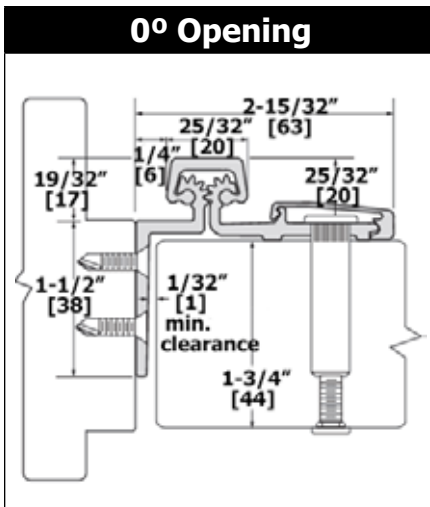


(Left hand shown)

FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- For center hung and double egress conversions
- Security molding

Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	16
83	2108	8	19	18
85	2159	8	19	18
95	2413	10	19	20
119	3023	12	23	26

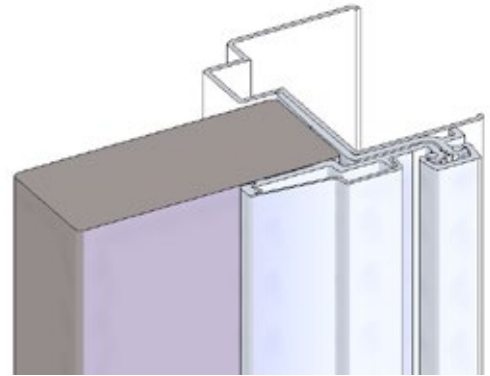




780 SERIES HALF SURFACE - 780-211HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	5/32" (4 mm) minimum recommended hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel
Fire Rating:	Up to 3-hour metal and 90 minute wood composite (with studs)

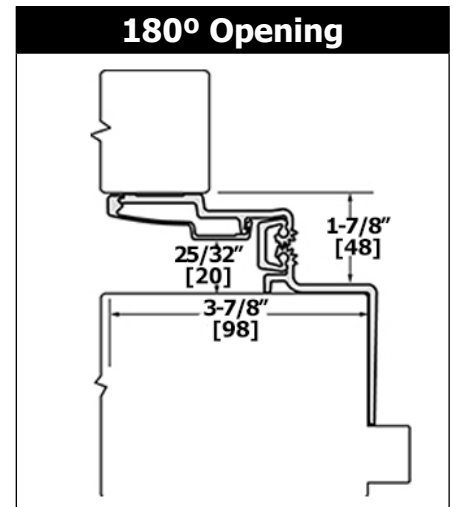
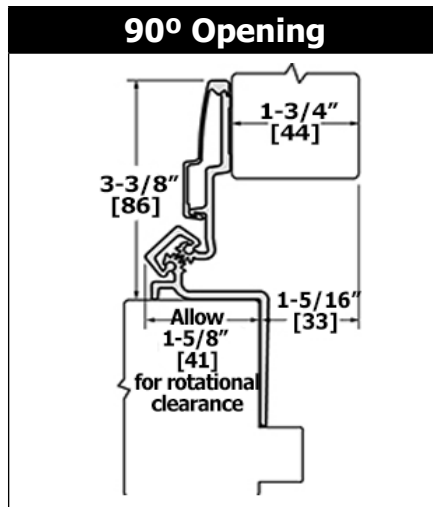
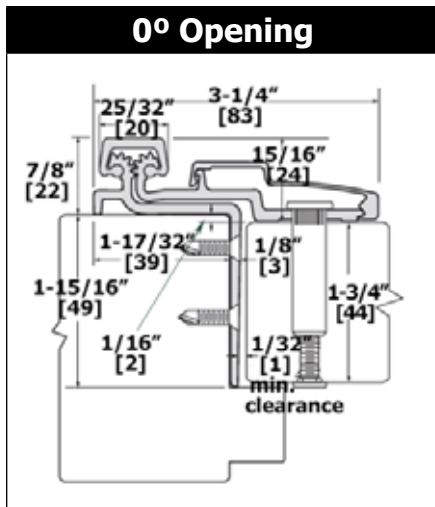


(Left hand shown)

FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- Frame leaf wrap-around reinforcement for damaged frames
- Security molding
- 1/16" (1.5 mm) inset

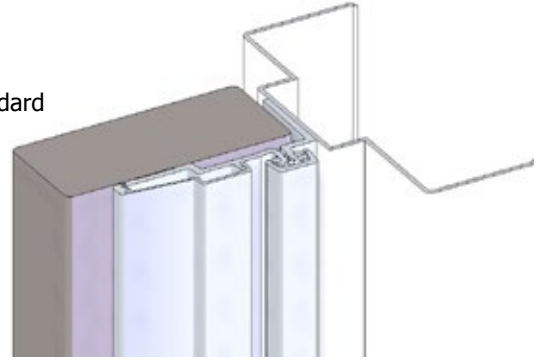
Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	15
83	2108	8	19	19
85	2159	8	19	19
95	2413	10	19	20
119	3023	12	23	26



780 SERIES HALF SURFACE - 780-213HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	5/32" (4 mm) minimum recommended hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel

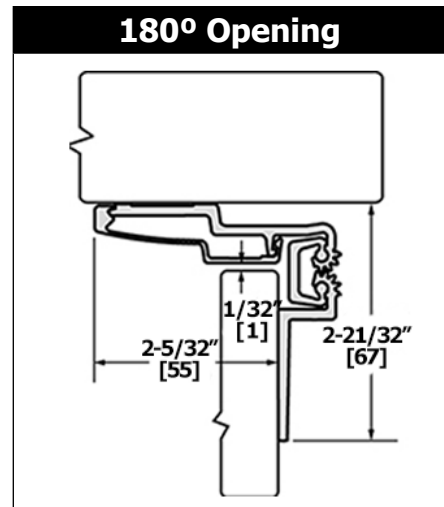
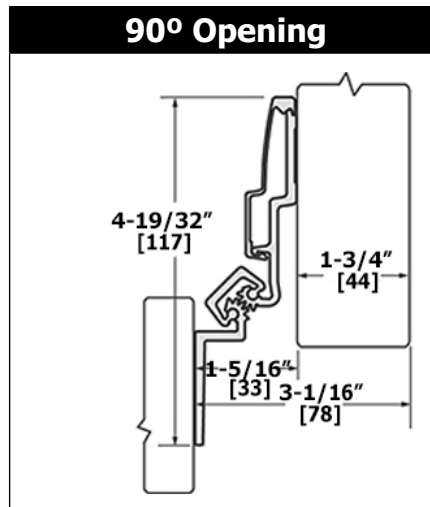
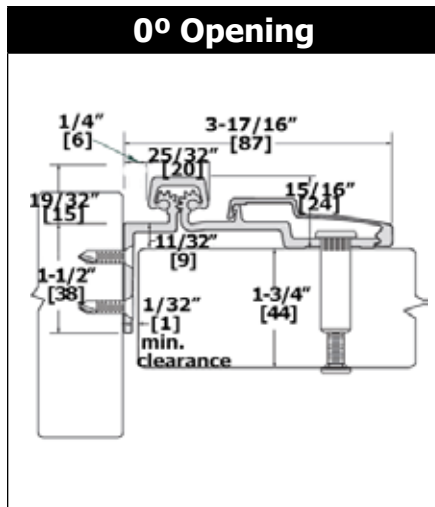


(Left hand shown)

FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- For center hung door where large edge radii or finger guards require a long reach
- Security molding

Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	16
83	2108	8	19	18
85	2159	8	19	18
95	2413	10	19	20
119	3023	12	23	26

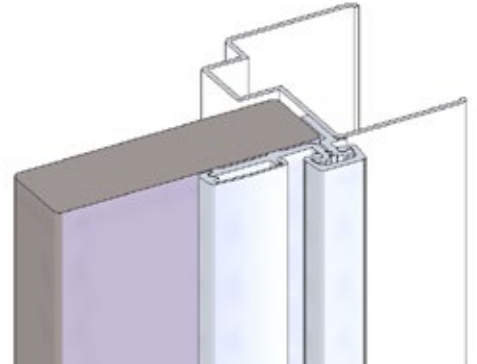




780 SERIES HALF SURFACE - 780-259HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	5/32" (4 mm) minimum recommended hinge side plus standard lockside clearance
Fasteners:	Dril-Kwik® screws and sex bolts
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel

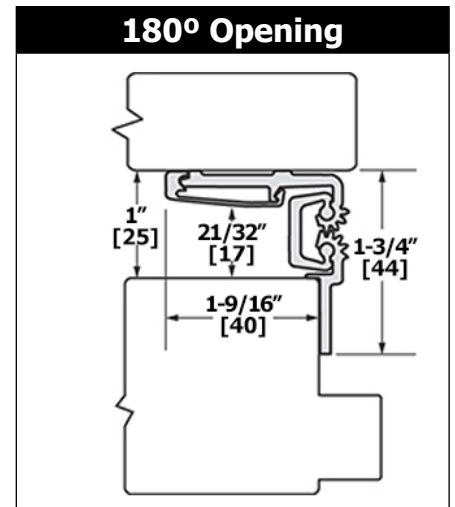
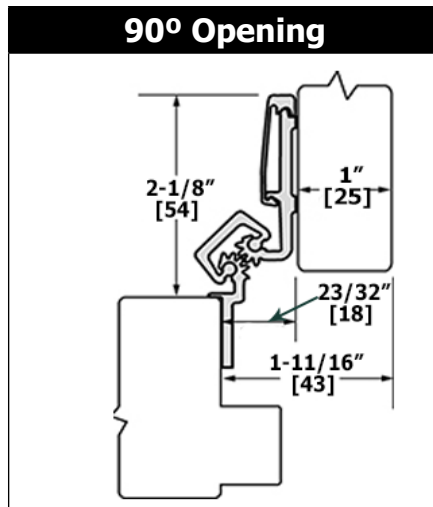
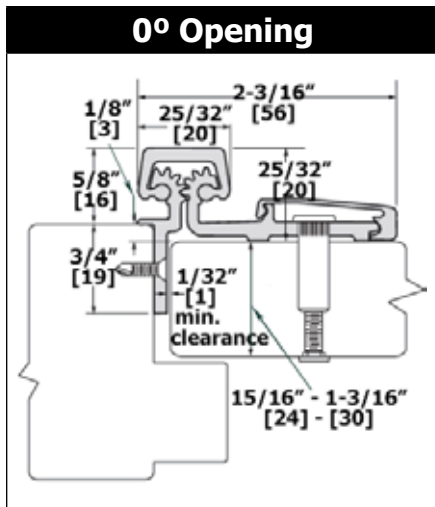


(Left hand shown)

FEATURES

- Heavy duty for high frequency doors or heavy, medium frequency doors
- Frame leaf alignment rib for proper hinge location
- For custom applications with thinner doors
- Security molding
- 1/8" (3 mm) inset

Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	16
83	2108	8	19	18
85	2159	8	19	18
95	2413	10	19	20
119	3023	12	23	26



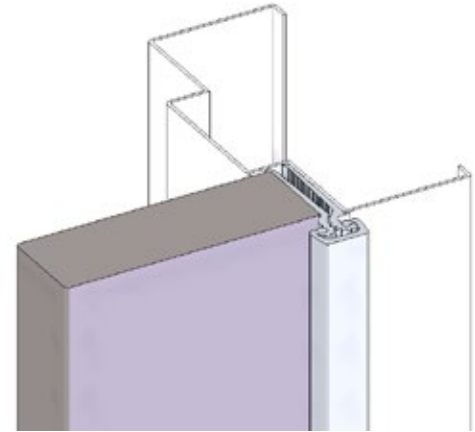
780 SERIES HALF SURFACE - 780-300HD - HEAVY DUTY

SPECIFICATIONS

Material:	Aluminum 6063-T6
Clearance:	1/32" (1 mm) minimum recommended between door and frame
Fasteners:	Dril-Kwik® screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel

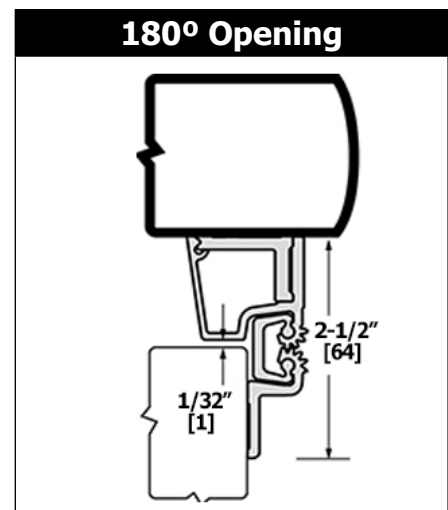
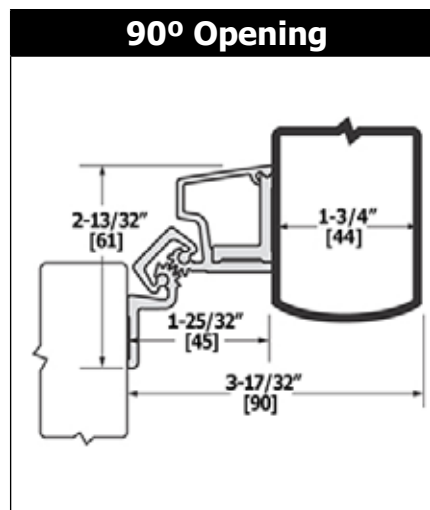
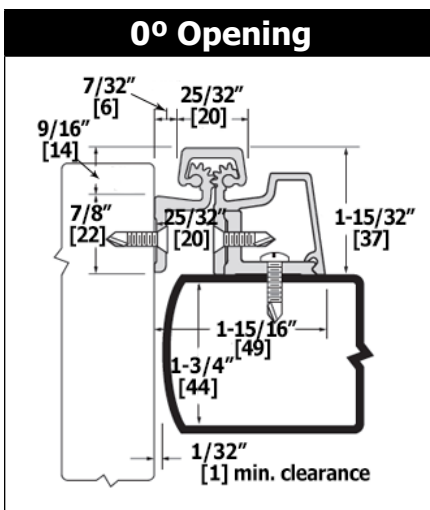
FEATURES

- Heavy duty for high frequency, center hung doors or heavy, medium frequency, center hung doors
- For center hung door application
- 3/4" (19 mm) minimum inset



(Left hand shown)

Length		HD Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	12	12
83	2108	14	14
85	2159	14	14
95	2413	16	16
119	3023	20	20

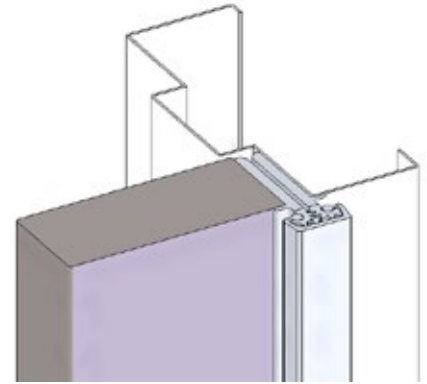




1200 SERIES EXTRA HEAVY DUTY - 1200-600XHD - CONCEALED LEAF HINGE

SPECIFICATIONS

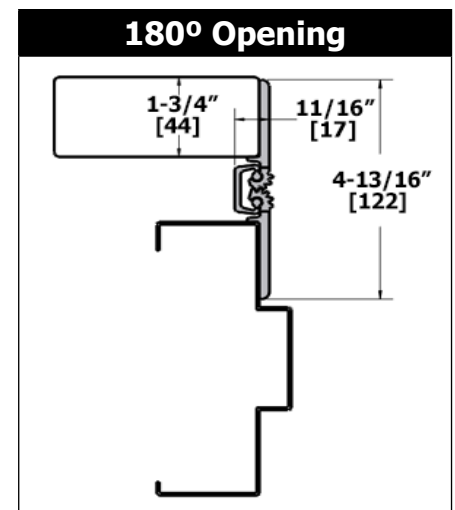
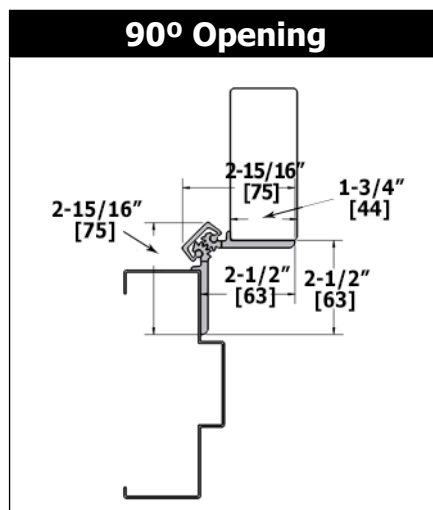
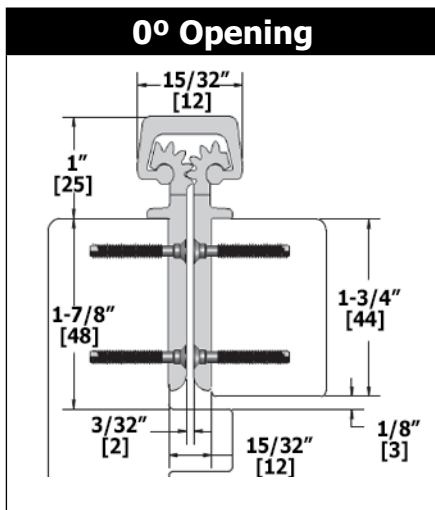
Material:	Aluminum 6063-T6
Clearance:	15/32" (12 mm) hinge side plus standard lockside clearance
Fasteners:	1/4"-20 Dril-Kwik® screws or optional 1/4-14 x 1-1/2" wood screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	For doors up to 200 lbs. Use 1/8" reinforcement for doors greater than 200 lbs.



FEATURES

- Strong enough to swing doors heavier than 600 lbs., wider than 4 feet, and taller than 10 feet. Extra heavy duty for heavy, high frequency doors or extremely heavy, low frequency doors; for doors 1-3/4" (45 mm) to 2-3/8" (60 mm) thick.
- Lead lined model for hospital x-ray room doors with double row of screws to straddle lead (Specify "LL")
- Frame and door leaf alignment ribs for proper hinges and door location

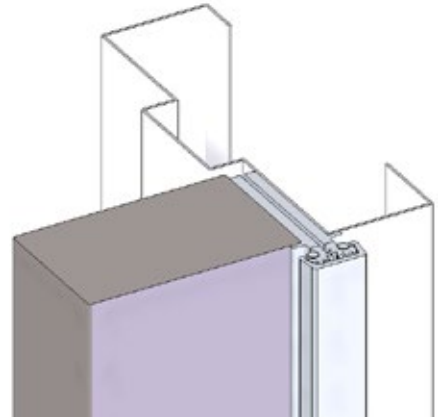
Length		XHD Fastener Count	
Inches	Millimeters	# Per Door	# Per Jamb
79	2007	22	22
83	2108	26	26
85	2159	26	26
95	2413	28	28
119	3023	33	33



1200 SERIES EXTRA HEAVY DUTY - 1200-650XHD - CONCEALED LEAF HINGE

SPECIFICATIONS

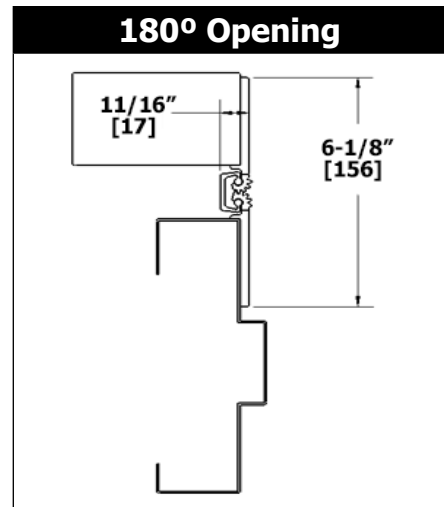
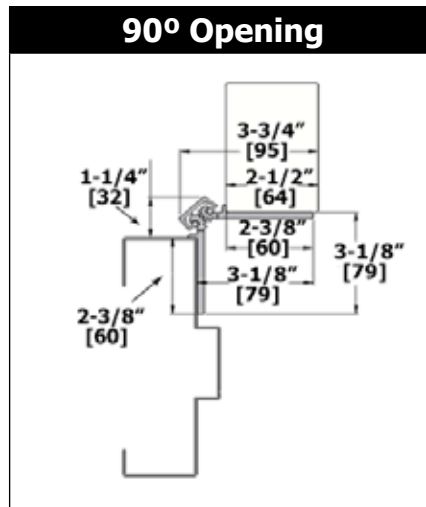
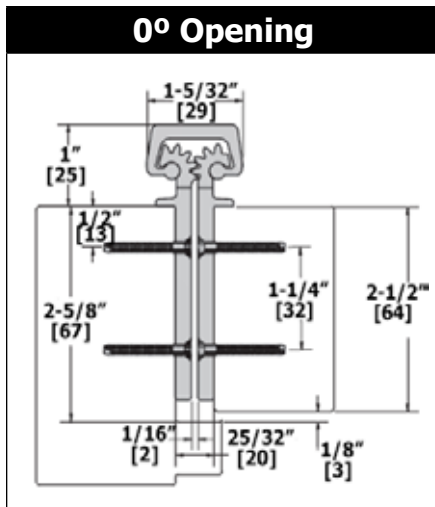
Material:	Aluminum 6063-T6
Clearance:	15/32" (12 mm) hinge side plus standard lockside clearance
Fasteners:	1/4"-20 Dril-Kwik® screws or optional 1/4-14 x 1-1/2" wood screws
Length Options:	Standard and custom lengths available
Door/Frame Reinforcement:	For doors up to 200 lbs. Use 1/8" reinforcement for doors greater than 200 lbs.



FEATURES

- Strong enough to swing doors heavier than 600 lbs., wider than 4 feet, and taller than 10 feet. Extra heavy duty for heavy, high frequency doors or extremely heavy, low frequency doors; for doors thicker than 2-3/8" (60 mm).
- Lead lined model for hospital x-ray room doors with double row of screws to straddle lead (Specify "LL")
- Frame and door leaf alignment ribs for proper hinges and door location

Length		XHD Fastener Count	
Inches	Millimeters	# Per Door	# Per Jamb
79	2007	22	22
83	2108	26	26
85	2159	26	26
95	2413	28	28
119	3023	33	33





One Family. One Brand. One Vision.™

www.hagerco.com

Stainless Steel Continuous Hinges



Why Continuous? Hager Companies heavy duty stainless steel continuous hinges are designed and engineered to evenly distribute door weight along the full length of the door, which eliminates localized stresses on the frame and reduces hinge failure. Hinges also help eliminate stress on closers, automatic operators, and panic and locking hardware by helping doors to stay properly aligned and offer proven reliability that can stand up to the daily rigors of high-traffic, high-impact areas.

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General Information	6
Electric Modifications	8
Concealed Leaf	10
Half Surface	15
Half Mortise	16
Full Surface	18



BENEFITS AND FEATURES

Heavy Duty, High-Quality Construction

Hager Companies stainless steel continuous hinges are 14-gauge type 304 stainless steel with lubricated nylon 6/6 bearings between each knuckle and stainless steel pin. They are corrosion resistant for swimming pool buildings, sewage and water treatment plants, and salt spray environments. These hinges are ideal for hospitals and other institutions where doors and frames are subjected to severe abuse.

Superior Performance

Hager Companies stainless steel continuous hinges allow doors to stay properly aligned, eliminating stress on closers, automatic operators, panic, and locking hardware.

Ease of Installation

Each hinge has symmetrical, non-handed hole patterns on standard sizes.

Ideal for Retrofit

Hager Companies 790 Series stainless steel continuous hinges use the existing frame and cover the old butt hinge cut out locations.

Energy Savings

These stainless steel continuous hinges provide a permanent weather barrier and reduce air infiltration by creating a seal from top to bottom of the door at the hinge stile.

Fire-Rated

Hager Companies 790 Series stainless steel continuous hinges are stamped with an Underwriters Laboratories Inc. fire label. Refer to the individual catalog pages for UL listing information.



Security

Hager Companies 790 Series stainless steel continuous hinges eliminate the gap between the door and frame, so doors cannot be pried open.

Privacy

Hager Companies 790 Series stainless steel continuous hinges eliminate the gap or sightline at the hinge edge, offering privacy on hospital or toilet partition applications.

Certification

Hager Companies 790 Series stainless steel continuous hinges are approved for ANSI A156.26 Grade 1 for 150-pound doors.

Added Features

Moldings are supplied to cover exposed fastener heads on half-surface and full-surface models and are screwed in place. Models with hinge guards are supplied with adjustable screws allowing up to 1/4" (9 mm) width adjustment for doors to be squared accurately and easily in new installations and retrofits.

Wide Throw

The width of the hinge leaf can be extended in order to clear the trim or wall conditions.





PRODUCT INFORMATION

DOOR AND FRAME PREPARATION

All 790 Series stainless steel continuous hinges are surface applied without cutouts. Cutout design and spacing coordination is thereby eliminated in both new construction and restoration work.

For models other than double edge guard models, reinforcement plates are not required in doors and frames except where the gauge is too thin or the material is too weak for the fasteners in relation to the door weight, or where abusive operation is anticipated. Consult Hager Companies Technical Service for more information.

Blank frames may be ordered with strike prep only or with a strike prep furnished on both sides with any model that will cover the frame rabbet. Doors should always be ordered without cutouts except for use in labeled openings in which the tested door assembly may have manufacturing restrictions. Continuous frame mortar guards are strongly recommended for masonry walls to avoid screw fastener interference with the mortar.

Standard Finish

All 790 Series stainless steel continuous hinges are brushed to a satin finish (US32D).

Special Finishes

Available in powder coat and offered in our stock colors listed in the price book.

Recommended Lengths

All 790 Series stainless steel continuous hinges are always installed flush with the top edge of the door. Recommended head clearance is 1/8" (3 mm). Order each hinge equal to the net door height. In the field, trimming should be done from the bottom of the hinge only.

Custom Length Hinges

Hager Companies manufactures hinges over 119" (2023 mm) as two separate lengths. Hager will select hinge segment lengths from standard sizes for best economics in relation to length required. A special length should be specified from the net door height. To order, list the required hinge length dimension along with the "actual length" or "net door height."

Custom Designs

For special designs and special applications, contact Hager Customer Service for more information. While such orders become subject to the change and cancellation policy, hole positioning will be optimized to ensure that the appearance and operation of the products are maintained.

Custom Hole Pattern

Any hole pattern or shape other than Hager's standard hole pattern are available on all models. Contact Hager Customer Service for more information.

No-Hole (Blank) Hinges

Holes omitted for special applications (i.e. welded hinge) is available on all models. Contact Hager Customer Service for more information.

PRODUCT INFORMATION

Door Edge Guards

Various models are supplied with a 14-gauge stainless steel channel that wraps the door edge and protects the door edges from damage by carts, beds, and equipment. Other models offer protection to the jamb with a wrap-around guard. Refer to individual catalog pages for additional information. Edge guards for the latch side edge of the door are available through our Trim & Auxiliary product line.

Dutch Door Hinges

The frame leaf is furnished as a continuous leaf and the door leaf is cut to fit the dutch door heights specified. Upper and lower door leaves are prepped for extra screws. Handing, overall net door height, amount of clearance between the top and bottom doors, their individual heights and door and frame materials should be clearly specified.

Non-Rising Pin

The pin is held securely in place and will not rise or fall from the knuckles during use. The top and bottom plugs are permanently secured to the hinge.

Raised Barrel

For applications where the door is set back in the frame, the knuckle is offset to allow the hinge to clear the frame.

Replacement Moldings

Brushed aluminum replacement moldings with molding clips and fasteners are available in stock lengths for trimming in the field. This option is available for 790-903, 790-904, 790-906, 790-909.

Sheared Leaf

For narrow door thicknesses, leaf width can be trimmed. This option is available for 790-900, 790-903, 790-905, 790-909, 790-911, 790-915, 790-926.

Dust Free Bearings

Provide a clean and quiet operation as they prevent metal on metal wearing.

Tamper Resistant Hospital Tip

Concealed models, specifically 790-905 and 790-915, can be prepared with a tapered, 45° angled tip at the top of the hinge. These modified hinges are ideal for use in hospitals and correctional facilities to help provide a clean and safe environment.

FASTENERS

Hager Companies 790 Series stainless steel continuous hinges are provided exclusively with carefully engineered and thoroughly tested fasteners. Each fastener is designed for ease of use as well as durability. Appropriate fasteners are furnished with each hinge, together with installation instructions for typical metal and wood doors hung on metal frames. The standard screw pack includes Dril-Kwik[®] self-drilling screws for metal doors and frames as well as wood screws for wood doors.

Special adjustment studs and screws are standard on all models with the double door edge protection lip. The special adjustment studs and screws allow correction of door fit problems up to 3/8" (9 mm). Sex bolts are optional and must be requested at time of order. If special fasteners are required, customers must supply them except upon prior agreement. Please consult Hager Technical Service for alternate fastener recommendations.

Optional Sex Bolts

On all applicable full-surface and half-surface mounted hinge models, sex bolts can be ordered. Sex bolts are intentionally designed shorter than the door thickness to ensure proper clamping action of 1-3/4" (44 mm) doors of slightly varying thickness.

Security Fasteners

These fasteners improve building security and reduce hinge tampering. Security Torx are available in place of standard fasteners upon request.

Security Studs

These stainless steel security studs are mounted through the frame leaf into the door frame. Security studs are available in place of standard fasteners upon request.

Fastener Installation

Fasteners for both metal and wood applications are supplied standard with each hinge. The Dril-Kwik[®] self-drilling screw is used in metal door and frame applications and has an undercut head and a machine thread on the screw shank. The type AB wood screw is supplied for wood door and frame applications.

The Dril-Kwik[®] self-drilling screw's drill point allows it to be placed without pre-drilled holes when installed in a hollow metal frame less than 1/8" (3 mm) thick. It forms its own threads as it is drilled into the frame.

Mortar Guards, made of either styrofoam or wood, are recommended for new construction, eliminating the use of masonry bits. For existing grout-filled frames, pre-drilling is required before installation of the Dril-Kwik[®] self-drilling screws. Here, the screw acts as a machine screw since drilling has already taken place. Center-punching is recommended on both hollow metal and grout-filled frames to ensure that the screw seats properly in the hinge leaf. Stainless steel frames require pre-drilling.

In all cases, care should be taken to ensure that no drill chips build up behind the hinge. It is best to pre-mark the holes and pre-drill with the hinge removed or clamp the hinge very tightly against the door or frame when using the self-drilling screws.

When installing the self-drilling type screw, make certain that the installer is familiar with the proper use and torque settings of a screw gun. Proper center-punching is extremely important with self-drilling screws. If center-punching is omitted or incorrectly done, the screw will "walk" in the same way as a drill bit, resulting in cocked screw heads and improperly closing hinges.

GENERAL INFORMATION - DOOR AND FRAME DIMENSIONING

Models 790-900, 790-911, 790-915

Designed primarily for work involving new doors and frames.
Clearance required as follows:

Single Doors (Square and Beveled Edged)

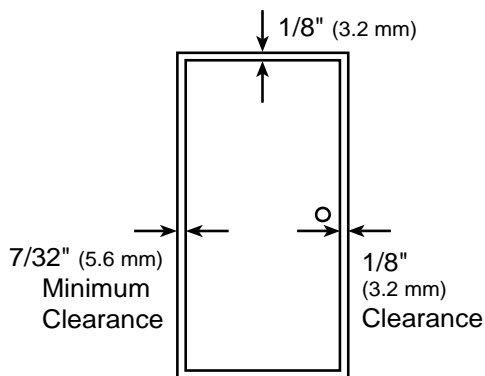
A. Hinge thickness	7/32"	5.6 mm
B. Additional allowance for frame irregularities	1/32"	0.8 mm
C. <u>Lockside clearance for single door</u>	1/8"	3.2 mm
Total	3/8"	9.5 mm

Pairs of Doors (Square and Beveled Edged)

A. Hinge thickness	7/32"	5.6 mm
B. Additional allowance for frame irregularities	1/32"	0.8 mm
C. Clearance between doors (recommended)*	3/16"	4.8 mm
D. Second hinge thickness	7/32"	5.6 mm
E. <u>Second allowance for frame irregularities</u>	1/32"	0.8 mm
Total	11/16"	17.5 mm

Notes:

- Some minimal clearance may be required for paint and/or weatherstripping.
- For doors that are pre-beveled 1/8" (3.2 mm)-in-2" (51 mm) on the hinge edge, add 1/32" (0.8 mm) per door to the TOTAL clearance shown (Model 790-900 only). For Models 790-911 and 790-915, the hinge edge of the door should not be beveled.



Models 790-905, 790-926

Designed primarily for work involving new doors and frames.
Clearance required as follows:

Single Doors (Square and Beveled Edged)

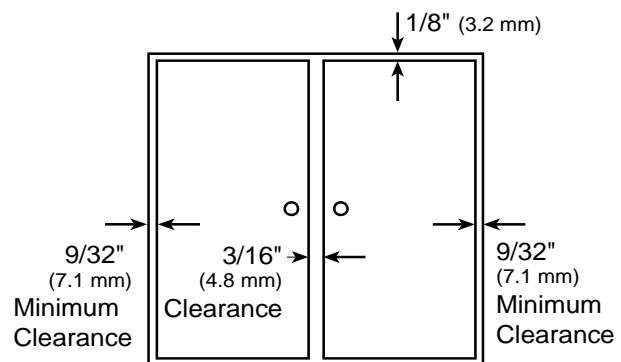
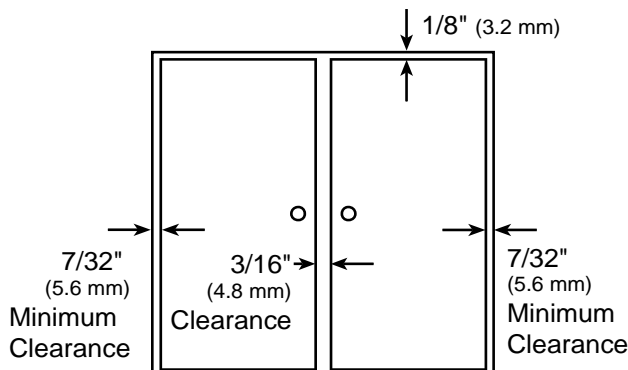
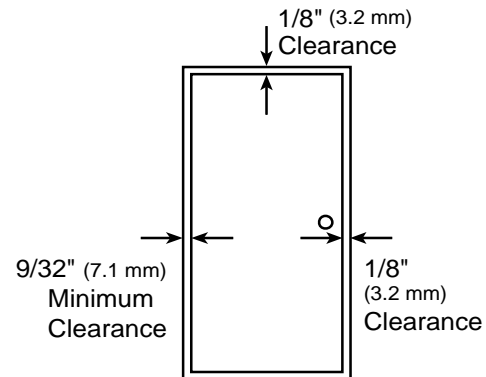
A. Hinge thickness	9/32"	7.1 mm
B. Additional allowance for frame irregularities	1/32"	0.8 mm
C. <u>Lockside clearance for single door</u>	1/8"	3.2 mm
Total	7/16"	11.1 mm

Pairs of Doors (Square and Beveled Edged)

A. Hinge thickness	9/32"	7.1 mm
B. Additional allowance for frame irregularities	1/32"	0.8 mm
C. Clearance between doors (recommended)*	3/16"	4.8 mm
D. Second hinge thickness	9/32"	7.1 mm
E. <u>Second allowance for frame irregularities</u>	1/32"	0.8 mm
Total	13/16"	20.6 mm

Notes:

- Some minimal clearance may be required for paint and/or weatherstripping.
- Not recommended for use on doors/panels that have a beveled edge on the hinge side.
- *For fire rated doors, please refer to door manufacturer's requirement for edge to edge clearance to maintain compliance with NFPA requirements.





GENERAL INFORMATION - DOOR AND FRAME DIMENSIONING

Models 790-903, 790-904, 790-906, 790-909

Designed primarily for work involving new doors and frames.
Clearance required as follows:

Single Doors (Square and Beveled Edged)

A. Hinge thickness	1/8"	3.2 mm
B. Additional allowance for frame irregularities	1/32"	0.8 mm
C. <u>Lockside clearance for single door</u>	<u>1/8"</u>	<u>3.2 mm</u>
Total	9/32"	7.2 mm

Pairs of Doors (Square and Beveled Edged)

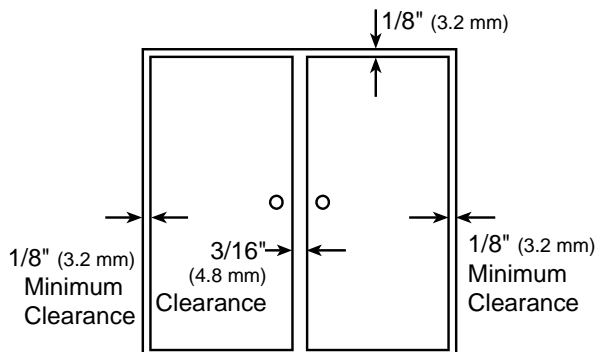
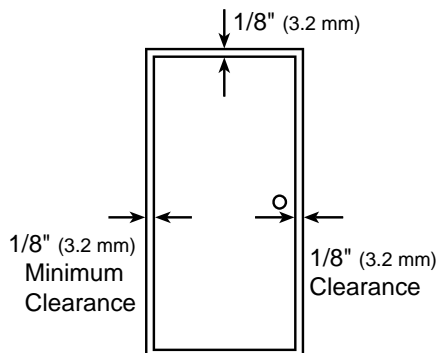
A. Hinge thickness	1/8"	3.2 mm
B. Additional allowance for frame irregularities	1/32"	0.8 mm
C. Clearance between doors (recommended)*	3/16"	4.8 mm
D. Second hinge thickness	1/8"	3.2 mm
E. <u>Second allowance for frame irregularities</u>	<u>1/32"</u>	<u>0.8 mm</u>
Total	1/2"	12.7 mm

Notes for 790-904 only:

- Some minimal clearance may be required for paint and/or weatherstripping.
- For doors that are pre-beveled 1/8" (3.2 mm)-in-2" (51 mm) on the hinge edge, add 1/32" (0.8 mm) per door to the TOTAL clearance shown.

Notes for 790-906 only:

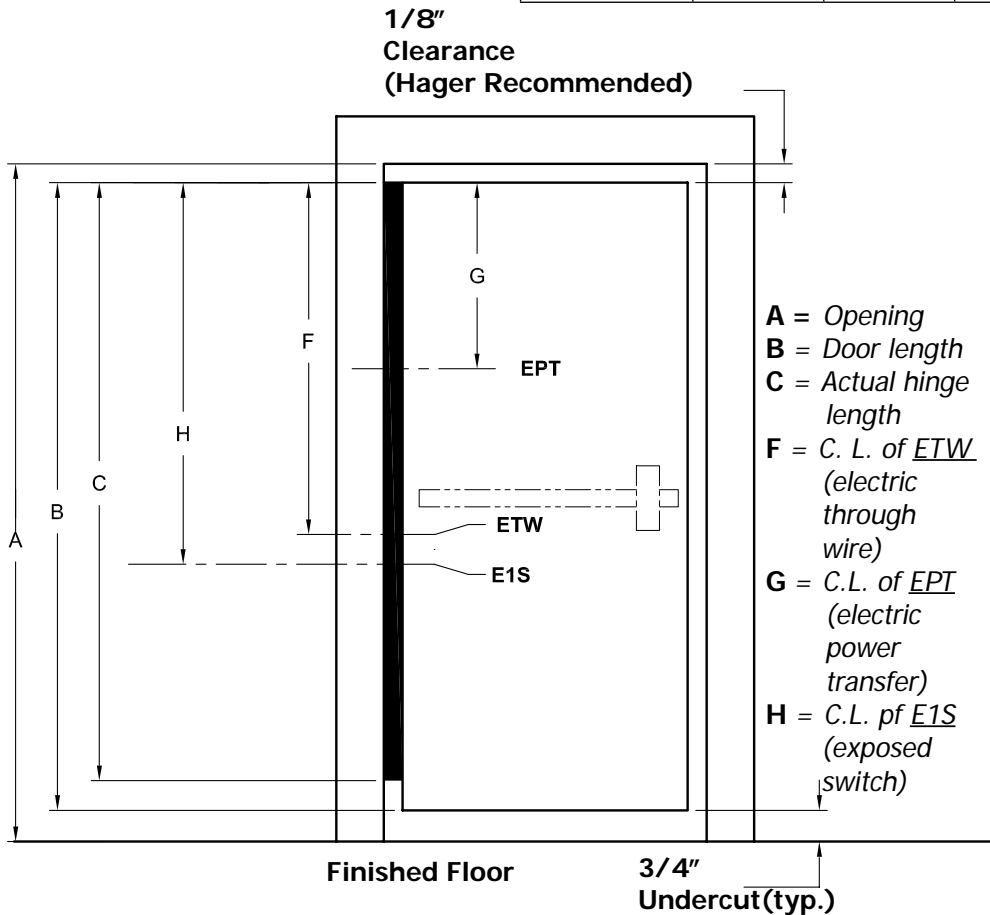
- The hinge edge of the door should not be beveled.
- *For fire-rated doors, please refer to door manufacturer's requirement for edge to edge clearance to maintain compliance with NFPA requirements.



ELECTRIC MODIFICATIONS

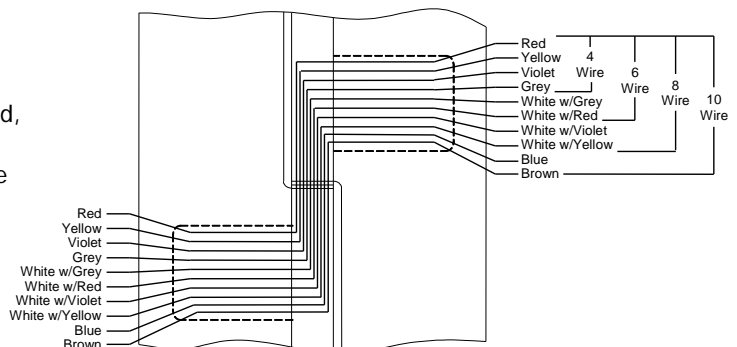
* For ease of ordering, Hager has established standard locations for power transfer cutouts. All standard location dimensions are referenced from the top edge of the door to the centerline of the power transfer cutout. Please specify handing.

	79"	83"	85"	95"	119"
Opening	80"	84"	86"	96"	120"
Door Height	79-1/8"	83-1/8"	85-1/8"	95-1/8"	119-1/8"
Hinge Length	79-3/16"	83-1/8"	85-1/8"	95"	118-3/4"
ETW	41-1/2"	43-1/2"	45-1/2"	55-3/8"	79-1/8"
EPT	24-1/2"	28-7/16"	30-7/16"	40-1/2"	64-7/16"
E1S	41-1/2"	43-1/2"	45-1/2"	55-3/8"	79-1/8"



Concealed Electric Through-Wire:

- Transfers power discreetly from building to door hardware
- Four, eight, or ten 24-gauge wires with 12" wire leads
- To order, use symbol "ETW" plus the number of wires required, as a suffix. Example: 790-900 HD 85" US32D ETW - 4
- Specify handing and dimension from top of hinge to centerline of electric through-wire location. Please note the clearance from top of hinge to underside of header, typically 1/16" to 1/8" (1.6 mm to 3.2 mm).
- Modification available on 790-900 and 790-915





ELECTRIC MODIFICATIONS

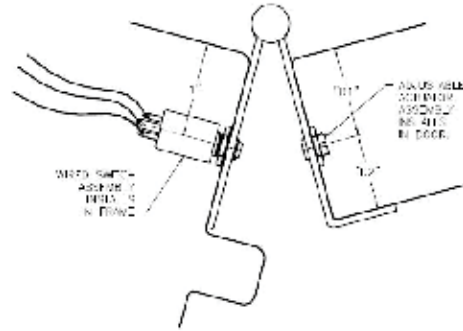
Von Duprin EPT2 or EPT10 Electric Power Transfer Preparation

- Hinge leaf cutout to accommodate power transfer device
- Specify handing and dimension from top of hinge to centerline of power transfer cutout location. Please note the clearance from top of hinge to underside of header, typically 1/16" to 1/8" (1.6 mm to 3.2 mm).
- Modification available on models 790-900, 790-903, 790-904, and 790-915



Exposed Electric Switches:

- Miniature push button switch is incorporated in the hinge frame leaf to monitor position of the door.
- Includes three 12" wire leads.
- To order, use symbol "E1S" as a suffix.
Example: 790-900 85" US32D E1S
- Each monitoring hinge only needs one E1S switch.
- Specify handing and dimension from top of hinge to centerline of electric through-wire location. Please note the clearance from top of hinge to underside of header, typically 1/16" to 1/8" (1.6 mm to 3.2 mm).
- Templates regarding location of contact switch available upon request.
- Modification available on models 790-900 and 790-915.



Quick Connect:

Available for electric through wire option.



Mortar Box - 430

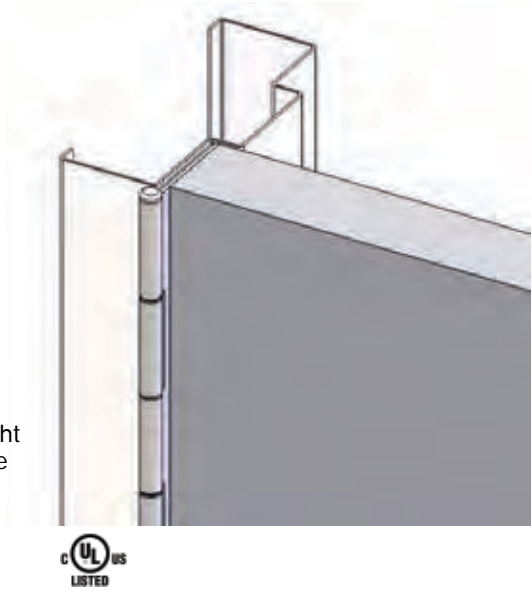
- Serves as a mortar shield.
- Overall dimensions are 9" (229 mm) length with tabs, 7" (178 mm) (inside), 1-3/4" x 1-3/4" (45 mm x 45 mm) inside dimension.
- Galvanized steel 0.040" (1 mm).
- Top and bottom knockouts for standard conduit fittings.



CONCEALED LEAF - 790-900 - DOOR OF ANY MATERIAL

SPECIFICATIONS

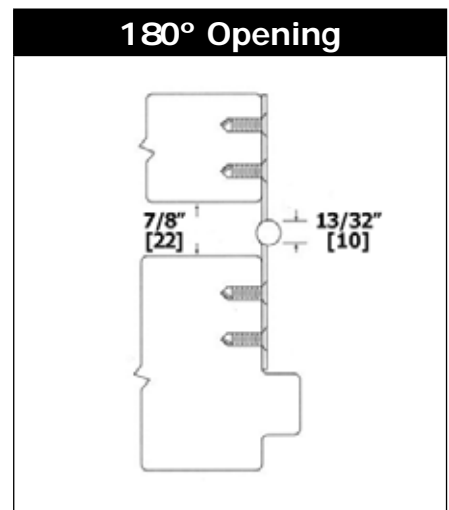
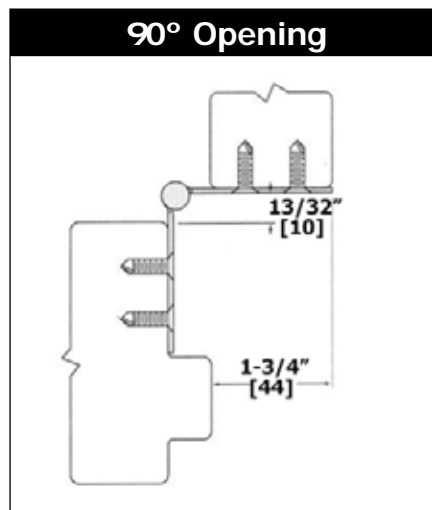
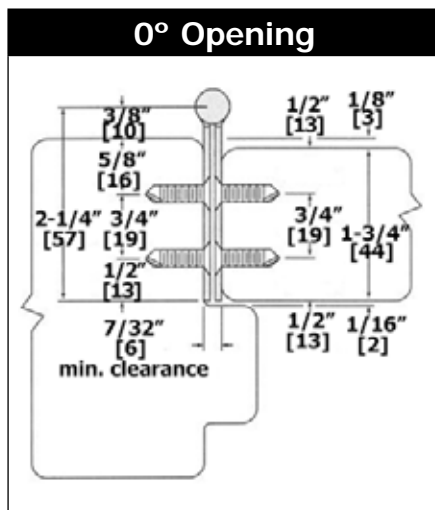
Material:	14-gauge 304 stainless steel
Finish:	US32D Satin
Clearance:	7/32" (5.6 mm) hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • #10-24 x 5/8" S/S Dril-Kwik® (metal frame/door) • #10-16 x 1-1/4" S/S Type AB (wood door)
Length Options:	Standard and custom lengths available
Door/Frame Reinforcements:	<ul style="list-style-type: none"> • Wood – None required up to 200 lbs. • Metal – Recommended 16-gauge channel for heavier weight • For metal doors, a 1/8" (3.2 mm) thick reinforcement plate is recommended along the hinge edge for proper thread engagement of the adjustment studs
Fire Rating:	Up to 3 hour metal and 90 minute wood composite



FEATURES

- For doors 1-3/4" (44 mm) thick and up to 300 pounds
- 1/4" (6.3 mm) diameter stainless steel pin
- Dual 6/6 nylon bearings between each knuckle
- May be used with beveled or square edge doors
- 1/8" (3.2 mm) inset

Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27

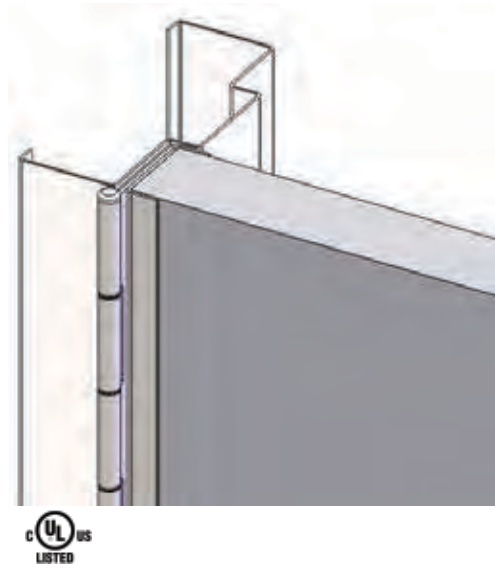




CONCEALED LEAF - 790-905 - DOOR OF ANY MATERIAL

SPECIFICATIONS

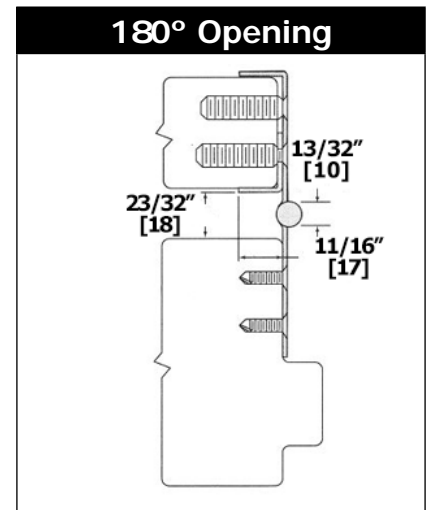
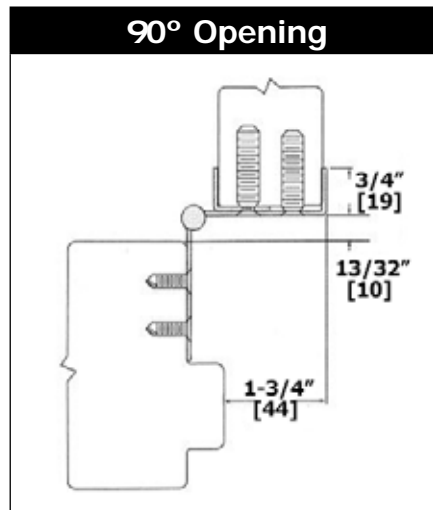
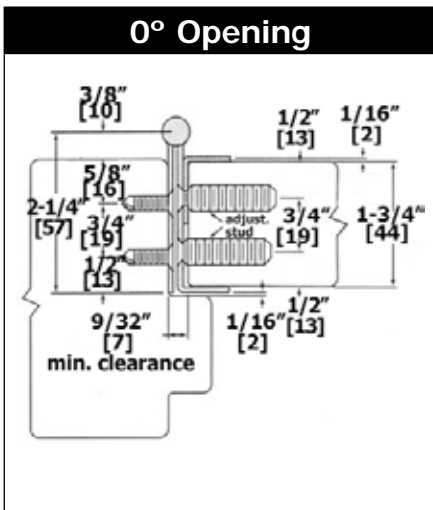
Material:	14-gauge 304 stainless steel
Finish:	US32D Satin
Clearance:	9/32" (7.1 mm) minimum hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • #10-24 x 5/8" S/S Drill-Kwik® (metal frame) • #1/4-32 x 3/4" S/S machine screw (used with adjustment stud) • #7/16-20 x 1-3/8" S/S adjustment stud (metal/wood door)
Length Options:	Standard and custom lengths available
Door/Frame Reinforcements:	<ul style="list-style-type: none"> • Wood – None required up to 200 lbs. • Metal – Recommended 16-gauge channel for heavier weight • For metal doors, a 1/8" (3.2 mm) thick reinforcement plate is recommended along the hinge edge for proper thread engagement of the adjustment studs
Fire Rating:	Up to 3 hour metal and 90 minute wood composite



FEATURES

- For doors 1-3/4" (44 mm) thick and up to 300 pounds
- 1/4" (6.3 mm) diameter stainless steel pin
- Dual 6/6 nylon bearings between each knuckle
- Door edge protection lip (both faces of door)
- Not recommended for doors with a beveled edge on the hinge side
- 1/16" (1.6 mm) inset

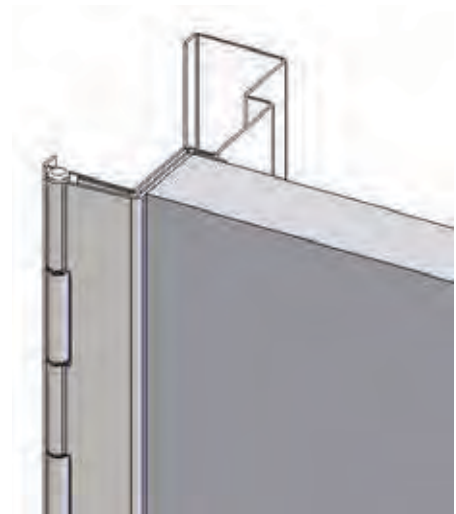
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27



CONCEALED LEAF - 790-911 - SWING CLEAR - DOOR OF ANY MATERIAL

SPECIFICATIONS

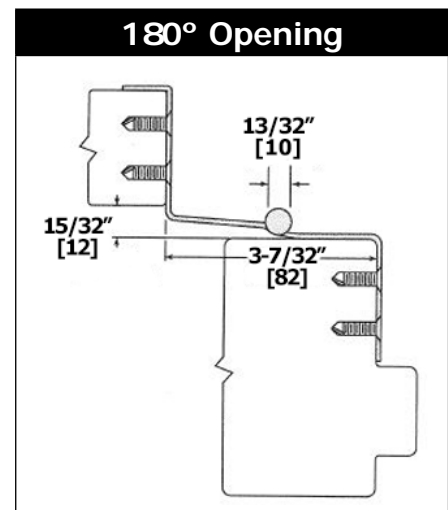
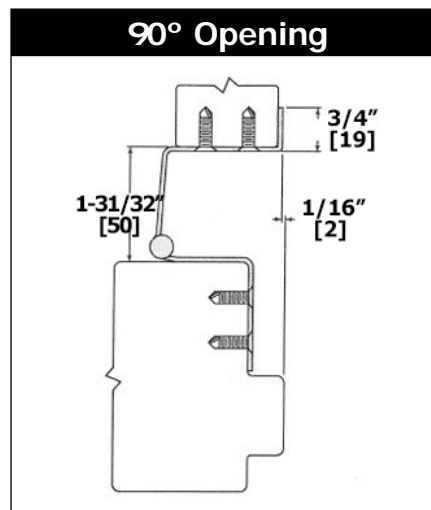
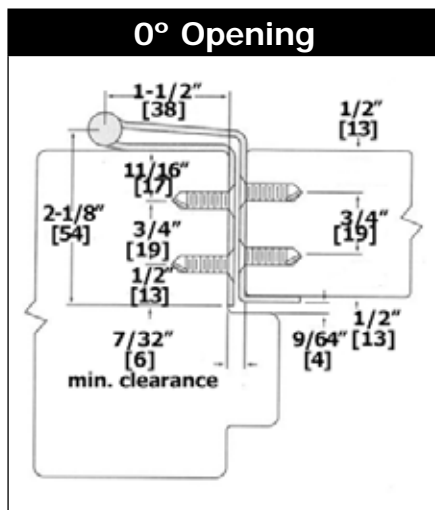
Material:	14-gauge 304 stainless steel
Finish:	US32D Satin
Clearance:	7/32" (5.6 mm) hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • #10-24 x 5/8" S/S Dril-Kwik® (metal frame/door) • #10-16 x 1-1/4" S/S Type AB (wood door)
Length Options:	Standard and custom lengths available
Door/Frame Reinforcements:	<ul style="list-style-type: none"> • Wood – None required up to 200 lbs. • Metal – Recommended 16-gauge channel for heavier weight • For metal doors, a 1/8" (3.2 mm) thick reinforcement plate is recommended along the hinge edge for proper thread engagement of the adjustment studs
Fire Rating:	Up to 3 hour metal and 90 minute wood composite



FEATURES

- For doors 1-3/4" (44 mm) thick and up to 300 pounds
- 1/4" (6.3 mm) diameter stainless steel pin
- Dual 6/6 nylon bearings between each knuckle
- Wrap-around frame leaf design for easy installation and protection
- Door edge protection lip (stop side only)
- Useful for ADA upgrade work
- Not for use on doors with a beveled edge on the hinge side

Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27

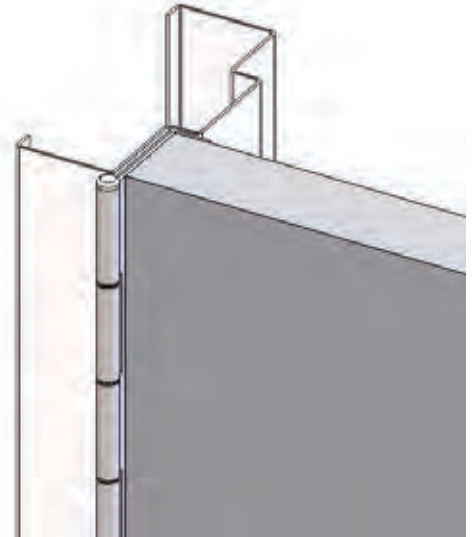




CONCEALED LEAF - 790-915 - DOOR OF ANY MATERIAL

SPECIFICATIONS

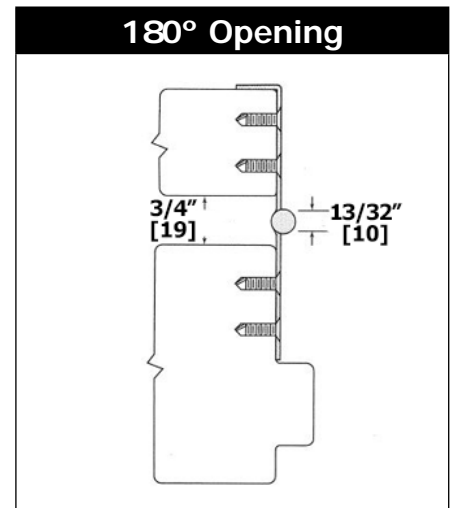
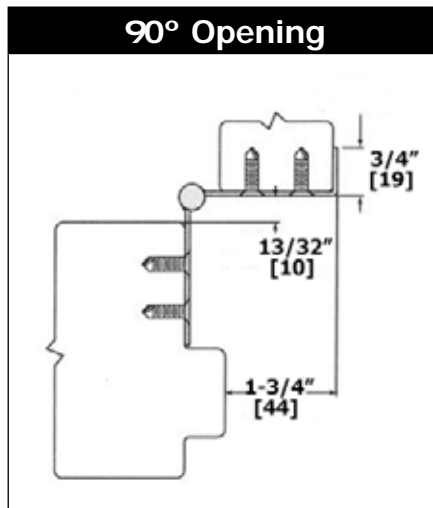
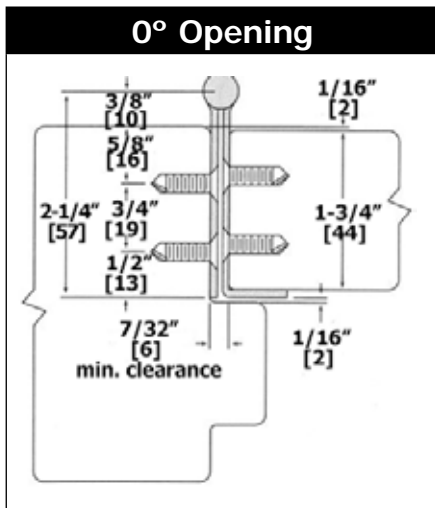
Material:	14-gauge 304 stainless steel
Finish:	US32D Satin
Clearance:	7/32" (5.6 mm) plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • #10-24 x 5/8" S/S Dril-Kwik® (metal frame/door) • #7/16-20 x 1-1/4" S/S Type AB (wood door)
Length Options:	Standard and custom lengths available
Door/Frame Reinforcements:	<ul style="list-style-type: none"> • Wood – None required up to 200 lbs. • Metal – Recommended 16-gauge channel for heavier weight • For metal doors, a 1/8" (3.2 mm) thick reinforcement plate is recommended along the hinge edge for proper thread engagement of the adjustment studs
Fire Rating:	Up to 3 hour metal and 90 minute wood composite



FEATURES

- For doors 1-3/4" (44 mm) thick and up to 300 pounds
- 1/4" (6.3 mm) diameter stainless steel pin
- Dual 6/6 nylon bearings between each knuckle
- Door edge protection lip (stop side only)
- Not recommended for doors with a beveled edge on the hinge side
- 1/16" (1.6 mm) inset
- Door edge protection lip (stop side only)

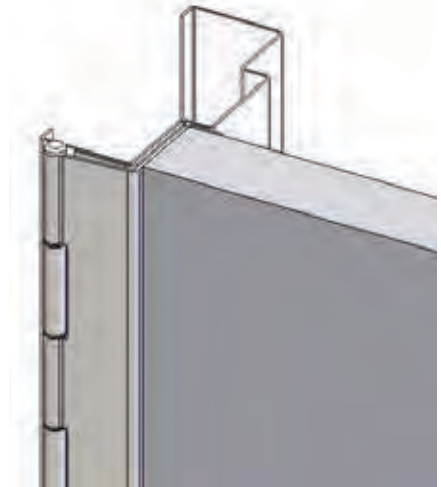
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27



CONCEALED LEAF - 790-926 - SWING CLEAR - DOOR OF ANY MATERIAL

SPECIFICATIONS

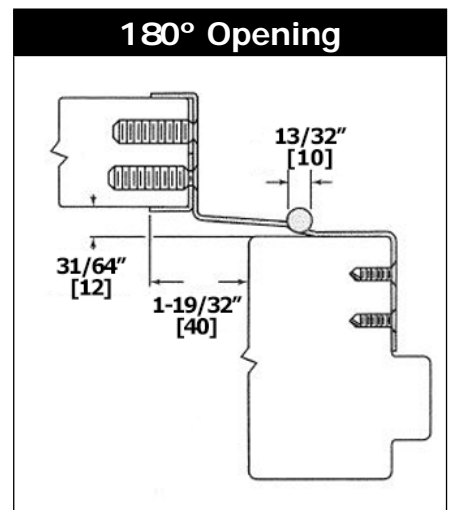
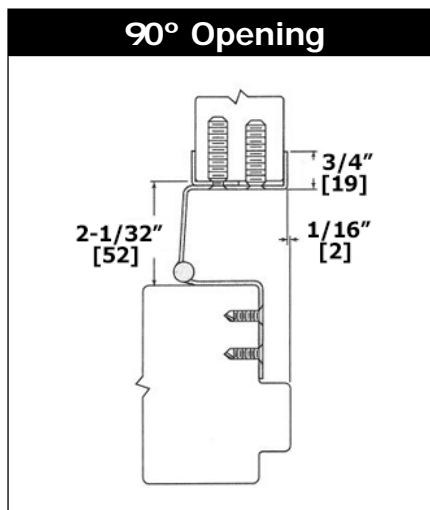
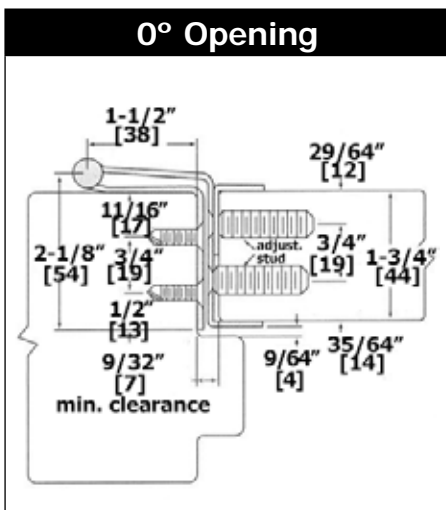
Material:	14-gauge 304 stainless steel
Finish:	US32D Satin
Clearance:	9/32" (7.1 mm) minimum hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • #10-24 x 5/8" S/S Dril-Kwik® (metal frame) • #10-32 x 3/4" S/S machine (used with adjustment stud) • #7/16-20 x 1-3/8" S/S adjustment stud (metal/wood door)
Length Options:	Standard and custom lengths available
Door/Frame Reinforcements:	<ul style="list-style-type: none"> • Wood – None required up to 200 lbs. • Metal – Recommended 16-gauge channel for heavier weight • For metal doors, a 1/8" (3.2 mm) thick reinforcement plate is recommended along the hinge edge for proper thread engagement of the adjustment studs
Fire Rating:	Up to 3 hour metal and 90 minute wood composite



FEATURES

- For doors 1-3/4" (44 mm) thick and up to 300 pounds
- 1/4" (6.3 mm) diameter stainless steel pin
- Dual 6/6 nylon bearings between each knuckle
- Wrap-around frame leaf design for easy installation and protection
- Door edge protection lip (stop side only)
- Useful for ADA upgrade work
- Not recommended for doors with a beveled edge on hinge side

Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27

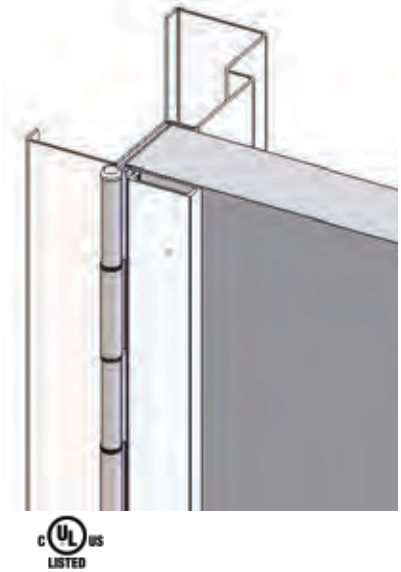




HALF SURFACE - 790-903 - DOOR OF ANY MATERIAL

SPECIFICATIONS

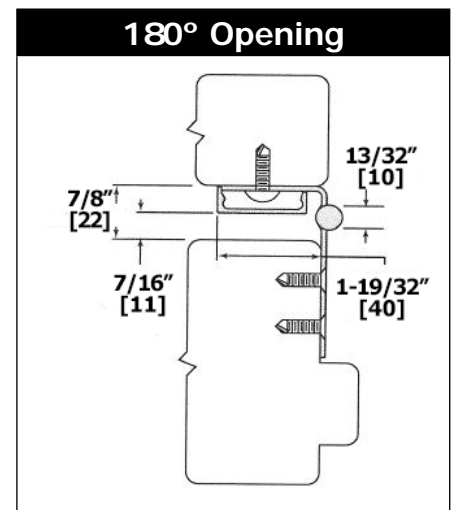
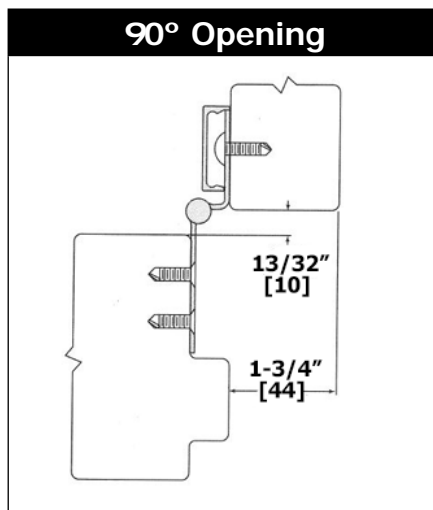
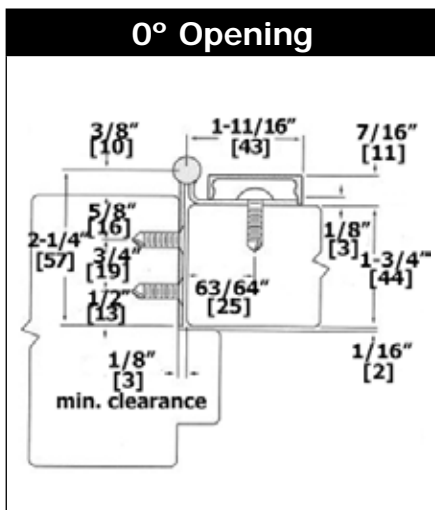
Material:	14-gauge 304 stainless steel
Finish:	US32D Satin
Clearance:	1/8" (3.2 mm) minimum hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • #10-24 x 5/8" S/S Dril-Kwik® (metal frame) • #1/4-20 x 3/4" 2C Dril-Kwik® (metal door) • #1/4-14 x 1" 2C Type AB (wood door)
Length Options:	Standard and custom lengths available
Door/Frame Reinforcements:	<ul style="list-style-type: none"> • Wood – None required up to 200 lbs. • Metal – Recommended 16-gauge channel for heavier weight • For metal doors, a 1/8" (3.2 mm) thick reinforcement plate is recommended along the hinge edge for proper thread engagement of the adjustment studs
Fire Rating:	Up to 3 hour metal and 90 minute wood composite



FEATURES

- For doors 1-3/4" (44 mm) thick and up to 300 pounds
- 1/4" (6.3 mm) diameter stainless steel pin
- Dual 6/6 nylon bearings between each knuckle
- Security molding
- 1/8" (3.2 mm) inset

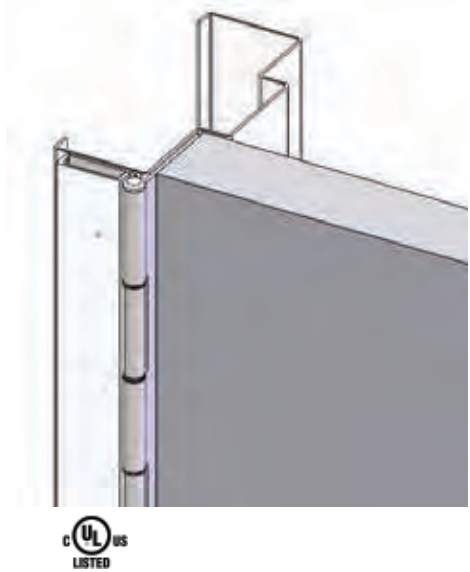
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	13	14	14	15	18
Jamb Screws	19	21	21	23	27



HALF MORTISE - 790-904 - DOOR OF ANY MATERIAL

SPECIFICATIONS

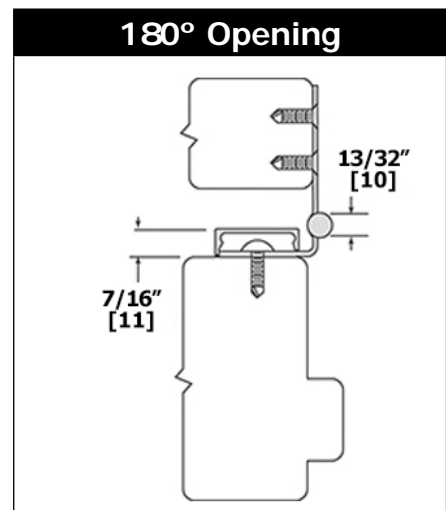
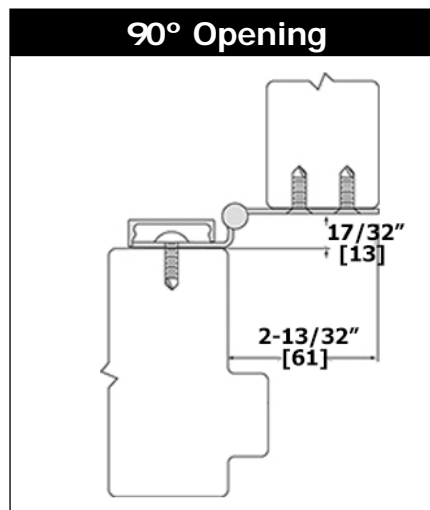
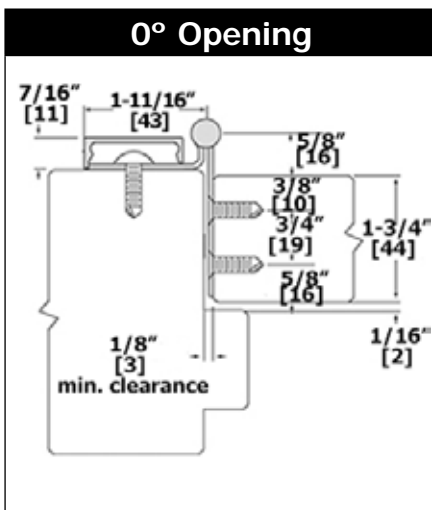
Material:	14-gauge 304 stainless steel
Finish:	US32D Satin
Clearance:	1/8" (3.2 mm) hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • #10-24 x 5/8" S/S Dril-Kwik® (metal door) • #1/4-20 x 3/4" 2C Dril-Kwik® (metal frame) • #10-16 x 1-1/4" S/S Type AB (wood door)
Length Options:	Standard and custom lengths available
Door/Frame Reinforcements:	<ul style="list-style-type: none"> • Wood – None required up to 200 lbs. • Metal – Recommended 16-gauge channel for heavier weight • For metal doors, a 1/8" (3.2 mm) thick reinforcement plate is recommended along the hinge edge for proper thread engagement of the adjustment studs
Fire Rating:	Up to 3 hour metal and 90 minute wood composite



FEATURES

- For doors 1-3/4" (44 mm) thick and up to 300 pounds
- 1/4" (6.3 mm) diameter stainless steel pin
- Dual 6/6 nylon bearings between each knuckle
- Not recommended for doors with a beveled edge on the hinge side
- 1/8" (3.2 mm) inset

Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	13	14	14	15	18

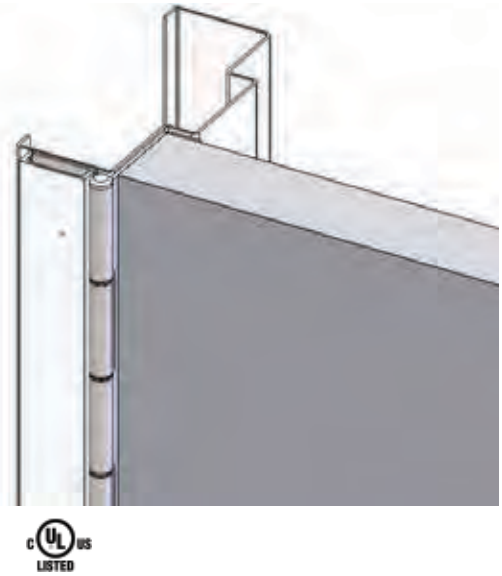




HALF MORTISE - 790-906 - DOOR OF ANY MATERIAL

SPECIFICATIONS

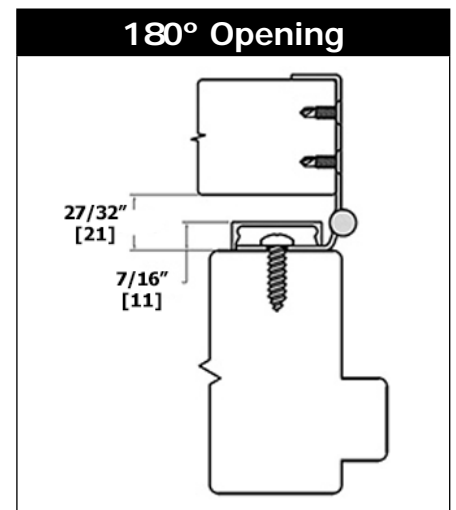
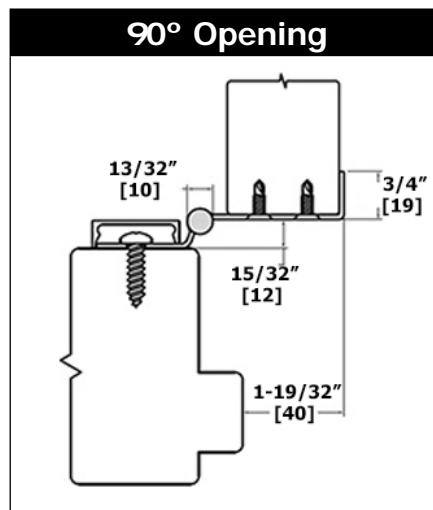
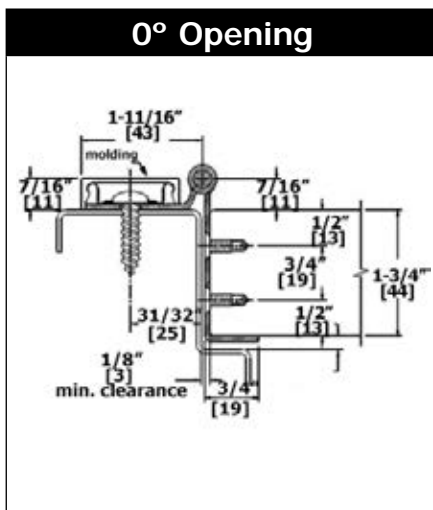
Material:	14-gauge 304 stainless steel
Finish:	US32D Satin
Clearance:	1/8" (3.2 mm) minimum hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • #10-24 x 5/8" S/S Dril-Kwik® (metal door) • #1/4-20 x 3/4" 2C Dril-Kwik® (metal door) • #1/4-14 x 1" 2C Type AB (wood frame)
Length Options:	Standard and custom lengths available
Door/Frame Reinforcements:	<ul style="list-style-type: none"> • Wood – None required up to 200 lbs. • Metal – Recommended 16-gauge channel for heavier weight • For metal doors, a 1/8" (3.2 mm) thick reinforcement plate is recommended along the hinge edge for proper thread engagement of the adjustment studs
Fire Rating:	Up to 3 hour metal and 90 minute wood composite



FEATURES

- For doors 1-3/4" (44 mm) thick and up to 300 pounds
- 1/4" (6.3 mm) diameter stainless steel pin
- Dual 6/6 nylon bearings between each knuckle
- Security molding
- Door edge protection lip (stop side only)
- Not recommended for doors with a beveled edge on the hinge side

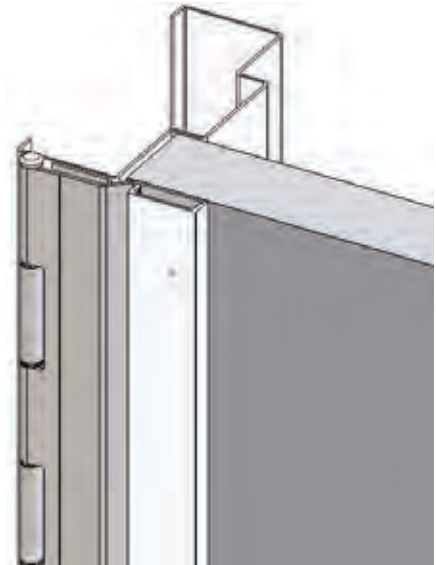
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	13	14	14	15	18



FULL SURFACE - 790-909 - SWING CLEAR - DOOR OF ANY MATERIAL

SPECIFICATIONS

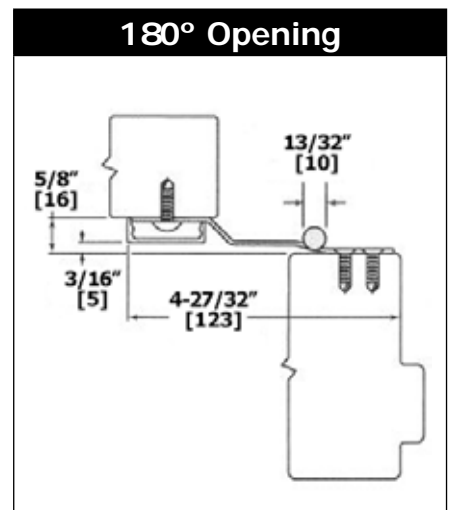
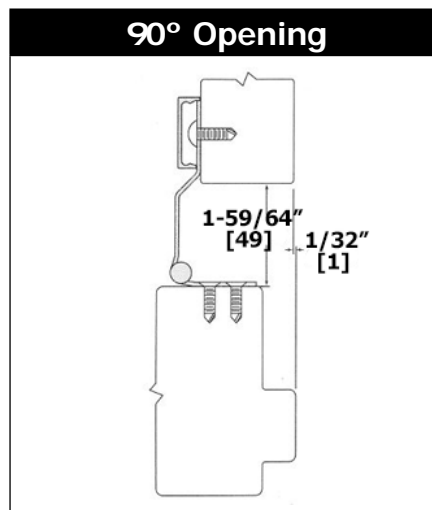
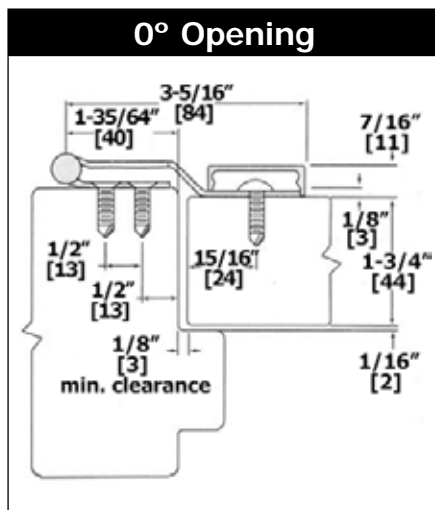
- Material: 14-gauge 304 stainless steel
- Finish: US32D Satin
- Clearance: 1/8" (0.8 mm) minimum recommended hinge side plus standard lockside clearance
- Fasteners:
 - #10-24 x 5/8" S/S Dril-Kwik® (metal frame)
 - #1/4-20 x 3/4" 2C Dril-Kwik® (metal door)
 - #1/4-14 x 1" 2C Type AB (wood door)
- Length Options: Standard and custom lengths available
- Door/Frame Reinforcements:
 - Wood – None required up to 200 lbs.
 - Metal – Recommended 16-gauge channel for heavier weight
 - For metal doors, a 1/8" (3.2 mm) thick reinforcement plate is recommended along the hinge edge for proper thread engagement of the adjustment studs
- Fire Rating: Up to 3 hour metal and 90 minute wood composite



FEATURES

- For doors 1-3/4" (44 mm) thick and up to 300 pounds
- 1/4" (6.3 mm) diameter stainless steel pin
- Dual 6/6 nylon bearings between each knuckle
- Useful for ADA upgrade work
- Security molding
- For beveled or square edge doors
- 1/8" (3.2 mm) inset

Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	13	14	14	15	18





One Family. One Brand. One Vision.™

www.hagerco.com

Exit Devices



Every Hager exit device is designed and engineered to assure you and your customers years and years of superior performance in a variety of commercial applications. Hager exit devices use fewer moving parts, are constructed with high quality materials and are backed by industry leading warranties.

All Hager exit devices meet or exceed accepted U.S. domestic and international standards. All are UL listed for panic or fire-rated hardware and comply with ANSI A117.1 for accessible buildings and facilities. Many models are also certified for Hurricane Resistant applications.

Hager exit devices were designed with ease of installation in mind. All are non-handed and packaged for convenience and versatility with thru-bolts, slotted strikes, and both wood and machine screws in every box. Minimal door prep is needed with Hager exit device escutcheon trim with the locking mechanism built inside.

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4500 Series

HEAVY DUTY COMMERCIAL APPLICATION



Hager 4500 Series Exit Devices are ideal for use in heavy duty commercial applications including office buildings, medical facilities, schools, and hospitality structures. The Hager 4500 Series is designed and engineered to provide a lifetime of superior performance on doors in heavy duty commercial applications. Properly applied and maintained Hager 4500 Series Exit Devices and Trim are backed by a lifetime warranty, providing peace of mind from distributor to building owner. Go to www.hagerco.com for specific warranty conditions.

Hager 4500 Series Exit Devices are BHMA certified Grade 1 and meet Life Safety codes and Fire Safety requirements. The 4500 Series Rim and Surface Vertical Rod devices meet ANSI requirements to be listed as Severe Windstorm Components and are approved for High Velocity Hurricane Zone areas.

Extruded aluminum construction, stainless steel push bar cover, die cast caps and covers, and dead locking stainless steel Pullman type latchbolts provide premium security and performance at value pricing.





4500 SERIES - COMPLIANCE & CERTIFICATIONS

4500 SERIES DEVICES

BHMA Certified ANSI A156.3 Grade 1



UL305 Listed for Panic Hardware



UL10C Positive Pressure Rated



UL10B Neutral Pressure Rated



Complies with ANSI A117.1 for Accessible Buildings and Facilities



ANSI A 250.13 Severe Windstorm Resistant Component

Miami Dade NOA #11-1219.14

	RIM	SVR	LBR	CVR	CLB	MOR
BHMA Certified ANSI A156.3 Grade 1	YES	YES	YES	YES	YES	YES
UL305 Listed for Panic Hardware	YES	YES	YES	YES	YES	YES
UL10C Positive Pressure Rated	YES	YES	YES	YES	YES	YES
UL10B Neutral Pressure Rated	YES	YES	YES	YES	YES	YES
Complies with ANSI A117.1 for Accessible Buildings and Facilities	YES	YES	YES	YES	YES	YES
ANSI A 250.13 Severe Windstorm Resistant Component	YES	YES	---	---	---	---
Miami Dade NOA #11-1219.14	YES	YES	---	---	---	---

4500 SERIES FIRE-RATED DEVICES

UL/cUL Listed for "A" Label Door Up to and Including...

Rim with Fire-rated Removable Mullion 4900UF UL/cUL Listed and Warnock Hersey Listed for "A" Label Door Up to and Including...



VR X VR SAME DIRECTION*
UL/cUL Listed for "A" Label Door Up to and Including...

VR X VR Double Egress
UL/cUL Listed for "A" Label Door Up to and Including...

	RIM F	SVR F	LBR F	CVR F	CLB F	MOR F
UL/cUL Listed for "A" Label Door Up to and Including...	3 HR 4'X8'	3 HR 4'X10'	---	3 HR 4'X10'	---	3 HR 4'X8'
Rim with Fire-rated Removable Mullion 4900UF UL/cUL Listed and Warnock Hersey Listed for "A" Label Door Up to and Including...	3 HR 8'X8'	---	---	---	---	---
VR X VR SAME DIRECTION* UL/cUL Listed for "A" Label Door Up to and Including...	---	90 MIN 8'X10'	90 MIN 8'X8'	90 MIN 8'X10'	90 MIN 8'X8'	---
VR X VR Double Egress UL/cUL Listed for "A" Label Door Up to and Including...	---	3 HR 8'X10'	3 HR 8'X8'	3 HR 8'X10'	3 HR 8'X8'	---

*Currently, no door manufacturer offers a listing over 90 minutes with doors swinging same direction. Consult wood door manufacturers for current UL listings.



4500 SERIES - GENERAL INFORMATION

Installation Made Easy

For the convenience of our customers, Hager Companies introduced several key features to the exit device market:

- Thru-bolts are included with every model. Wood and machine screws are also provided standard in every package.
- Slotted strikes speed up installation, allowing the installer to make easy adjustments to align the latch to the strike.
- Non-handed device offers added versatility and means less inventory.
- Escutcheon trim is surface mounted with the locking mechanism built inside, reducing door preparation and installation time by requiring fewer holes in the door.

Shim Kits

Shim kits are available for devices on doors with glass bead kits or other interfacing moldings. Each kit contains two 1/8" (3.2 mm) shims and the appropriate longer fasteners.

Dogging

Cylinder dogging or less dogging are available to replace the standard hex key dogging on panic exit devices. For cylinder dogging, specify CD on order or purchase 4926 for retrofit applications. Unit requires 1-1/8" mortise cylinder (part number 3902) with standard cam. For less dogging, specify LD on order.

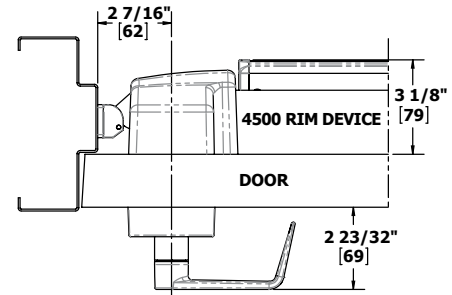
Sizing

The exit device is cut for 36" (914 mm) and 48" (1219 mm) wide doors. For other door widths, cut exit device to appropriate length. Recommended overall length of exit device is equal to the door width minus four inches. The surface vertical rod devices are supplied for an 84" (2134 mm) opening standard, but can be ordered for a 96" (2438 mm) opening. Extension rods are available to accommodate openings taller than 96" (2438 mm) and up to 120" (3048 mm).

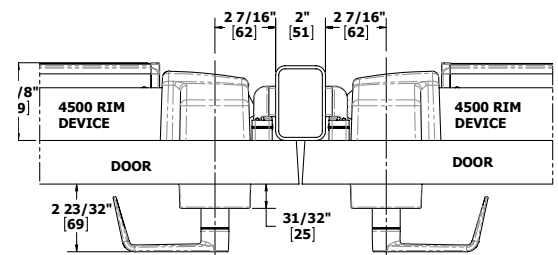
Trim Functions	Part Number	Function Description	ANSI Number
Blank Escutcheon	45BE, 45MB	Always operable (Passage)	14
Cylinder Escutcheon	45CE, 45MC	Key locks or unlocks lever	08
Dummy	45DT, 45MD 45PD	Pull when device is dogged down	02
Night Latch	45NL, 45MN 45PN	Key retracts latchbolt	03
Cylinder Thumbpiece	45PT	Key locks or unlocks thumbpiece	05
Electrified Trim	45ET EL 45ET EU	Fail safe Fail secure	E05 E06

Applications

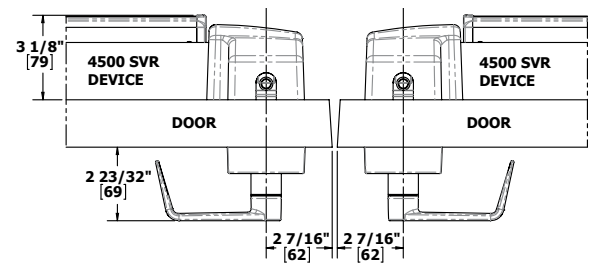
Single Door (Rim Device)



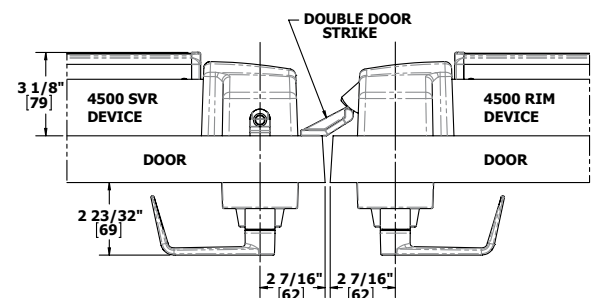
Double Door with Mullion (Rim x Rim)



Double Door (SVR x SVR)

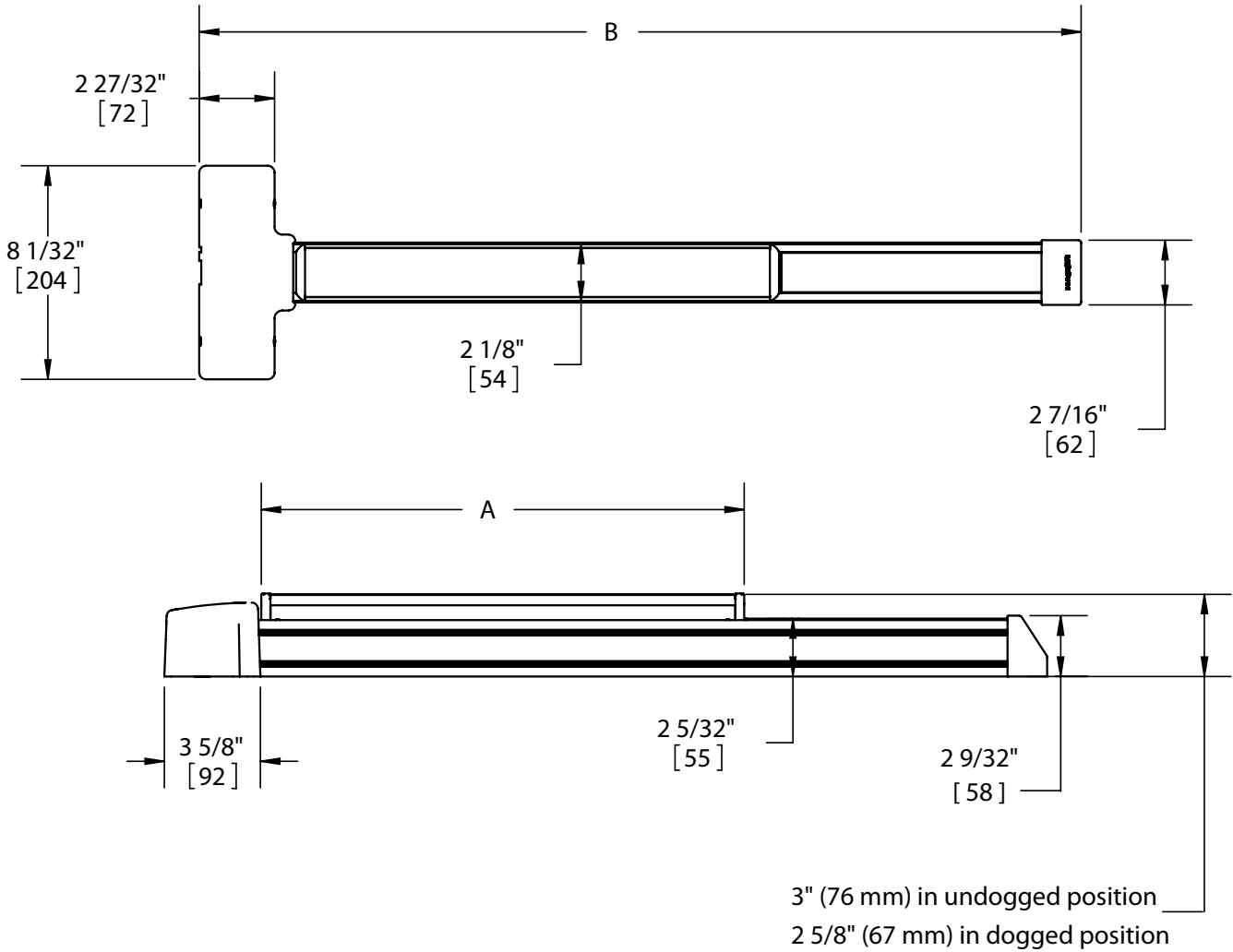


Double Door (SVR x Rim)





4500 SERIES - DEVICE PROFILES



4500 SERIES	A	B
4500 PANIC - 36"	18 5/32"(461mm)	33 5/32"(842mm)
4500 FIRE - 36"		
4500 PANIC - 48"	24"(611mm)	44"(1121mm)
4500 FIRE - 48"		





4500 SERIES - HOW TO ORDER

4500 SERIES EXIT DEVICE

4501

RIM

F

36"

US3

1-3/4"

ELR

Type	
RIM -	Rim Device
SVR -	Surface Vertical Rod
LBR -	Surface Vertical Rod Less Bottom Rod *
CVR -	Concealed Vertical Rod
CLB -	Concealed Vertical Rod Less Bottom Rod *
DMY -	Dummy Push Pad
MRT -	Mortise Device (MC, MB, MD)
MRTN -	Mortise Night Latch Device (MN)

Door Size**

36"
48"
36" x 84"
36" x 96"
48" x 84"
48" x 96"

Finish

US3
US4
US10
US10B
US26
US26D
US32D
BLK****

Door Thickness

1-5/8"
1-3/4"
2"
2-1/2"
3"

Electric Modifications

AI -	Authorized Ingress ***
ALK -	Alarm Kit
ALL -	Alarm Kit w/ Tamper Switch and Latch Monitor
ALM -	Alarm Kit w/ Latch Monitor
ALT -	Alarm Kit w/ Tamper Switch
ED -	Electric Dogging
EDRX -	Electric Dogging w/ Request to Exit
ELR -	Electric Latch Retraction
ELRX -	Electric Latch Retraction w/ Request to Exit
LM -	Latchbolt Monitor ***
RX -	Request to Exit
RX2 -	Dual Request to Exit
RXAI -	Request to Exit w/ Authorized Ingress ***
RXML -	Request to Exit w/ Latchbolt Monitor ***
MLR -	Motor Driven Electric Latch Retraction
MLRX -	Motor Driven Electric Latch Retraction w/ Request to Exit

duct Group

ries, Grade 1

Rating

FR -	Fire-Rated
O -	Non-Fire Rated
CD -	Cylinder Dogging
L -	Less Dogging
WR -	Windstorm Rated
W -	Windstorm and Fire-Rated

*Fire-rated LBR and CLB devices must be ordered in pairs of vertical rod devices or can be used in conjunction with an approved automatic or constant latching flush bolt. When ordering pairs, specify one device LBR and second device LBR with fire bolt, for example: 4501 LBR Fire 36" x 84" plus 4501 LBR Fire 36" x 84" EO with bolt -OR- 4501 LBR Fire 36" x 84" plus an approved automatic or constant latching flush bolt. 24" door size available (Extended lead-time). *** Not available on Mortise Exit Devices

4500 SERIES TRIM

45

CE

ARC

US3

1-3/4"

EL24

Product Group

45 - 4500 Series, Grade 1

Trim/Function

BE -	Blank Escutcheon Function 14, always operable
CE -	Cylinder Escutcheon Function 08, key locks/unlocks
DT -	Dummy Trim Function 02, pull when dogged down
ET -	Electric Escutcheon Trim
NL -	Night Latch (1-3/4" to 2-1/2" doors) Function 03, key retracts latchbolt
PD -	Pull Plate Dummy Trim (Not available for CVR device) Function 02, pull when dogged down
PN -	Pull Plate Night Latch (Not available for CVR device) Function 03, key retracts latchbolt
PT -	Thumbpiece Entrance (Not available for CVR device) Function 05, key locks or unlocks thumbpiece
VR -	Vandal Resistant
MB -	Mortise Blank Escutcheon (14) *
MC -	Mortise Cylinder Escutcheon (08) *
MD -	Mortise Dummy Trim (02) *
MN -	Mortise Night Latch (03) *

Lever Style

ARC -	Archer
AUG -	August
WLM -	William
WTN -	Withnell
CHA -	Charles
JHN -	Johnston**
JOS -	Joshua
LOU -	Louis
WRN -	Warren**

Finish

US3
US4
US10
US10B
US26
US26D
US32D (pull plate trim only)
BLK****

Door Thickness

1-5/8"
1-3/4"
2"
2-1/2"
3"

Options

EL12-	Fail Safe, 12 Volt ***
EL24-	Fail Safe, 24 Volt ***
EU12-	Fail Secure, 12 Volt ***
EU24-	Fail Secure, 24 Volt ***
TW -	Tactile Warning
A-	Antimicrobial Coating (US26D and US32D only)

- * Mortise trim does not match centerline of other 4500 series trim. Cannot be used with 4500 Series Rim or Vertical Rod devices.
- ** Johnston and Warren lever designs are handed - specify LHR/RH or RHR/LH when ordering.
- *** Not available on Mortise Exit trim
- **** Extended lead time for flat black finish.

Notes:

1. Mortise cylinder 3902 is required for use with cylinder escutcheon trim and pull plate with thumbpiece trim and is sold separately.
2. Rim cylinder with long tailpiece 3901 is required for use with night latch trim and is sold separately.
3. For more cylinder information, please refer to Cylinder, Core & Keying in the Locks section of the catalog.
4. If using shim kit, specify total door thickness including shims.
5. For ET trim, must specify Fail Safe (EL) or Fail Secure (EU) and 12 or 24 volt.





4500 SERIES - GRADE 1 RIM DEVICE

WARRANTY

Lifetime warranty

FEATURES

Certification:

BHMA Certified Grade 1 and meets life safety codes and fire-safety requirements. See charts on page 4 for details and options.

Covers:

Stainless steel, zinc

Cover Tube:

Aluminum

Dogging:

- Hex key dogging standard on panic-rated devices
- Less dogging available on panic-rated devices, specify LD
- Cylinder dogging available on panic-rated devices, specify CD (3902 1-1/8" (29 mm) mortise cylinder sold separately)

End Caps:

- Zinc
- Flush end cap option available

Fasteners:

- Wood and machine screws
- Thru-bolts supplied standard

Latchbolt:

3/4" (19 mm) throw, pullman type with automatic dead-latching, stainless steel

Strikes:

- Stainless steel with stainless steel pin and roller - included standard with panic device
- Solid stainless steel - included standard with fire-rated device
- Surface applied to frame with slotted holes for easy adjustment
- Double door strike for use with surface vertical rod and rim device available



SPECIFICATIONS

Door Thickness:

1-3/4" (44 mm) - Standard up to 3", except with night latch (NL) which is 2-1/2"

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door

Projection:

- 3" (76 mm) in undogged position
- 2-5/8" (67 mm) in dogged position

Stile Width:

- 5-3/8" (137 mm) - minimum stile width required for single door and 5/8" (16 mm) stop
- 4-7/8" (124 mm) - minimum stile width required for double door x surface vertical rod with double door strike
- 5-3/4" (146 mm) - minimum stile width required for double doors with 2" (51 mm) mullion
- All stile widths are measured from door edge.

Notes:

Recommended for use on appropriately reinforced doors

TRIM

- 4500 Series excutcheon trim for rim device is surface mounted with a variety of lever options (pp. 22-23)
- Pull plate trim
- Vandal resistant
- Rim cylinder x optional pull

FINISHES

- US3, US4, US10, US10B, US26, US26D, US32D, BLK
- Trim not available in US32D
- Anti-Microbial available with US26D, US32D





4500 SERIES - GRADE 1 RIM DEVICE - ELECTRIFIED

WARRANTY

- One-year on electrified components
- Lifetime on hardware components

FEATURES

Same as 4500 Series Rim Device



SPECIFICATIONS

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door for devices with any monitoring switches
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door for devices with any monitoring switches
- 36" field sizeable to 34" door minimum for devices with motorized electric latch retraction or delayed egress
- 36" door minimum for devices with solenoid electric latch retraction, electric dogging or alarm kit
- 48" field sizeable to 42" door minimum for devices with solenoid, electric dogging or alarm kit
- 48" field sizeable to 40" door minimum with motorized electric latch retraction or delayed egress

FUNCTIONS

- ELR - Electric Latch Retraction
- ED - Electric Dogging
- RX - Request to Exit (field installation kit 2-649-5001)
- RX2 - Dual Request to Exit
- ELRX - Electric Latch Retraction with Request to Exit
- EDRX - Electric Dogging with Request to Exit
- ALK - Alarm Kit (kit 4940, tamper switch 2-649-1090)
- AI - Authorized Ingress
- RXAI - Request to Exit with Authorized Ingress
- LM - Latchbolt Monitor (2-649-0168)
- RXLM - Request to Exit with Latchbolt Monitor
- MLR - Motor Driven Electric Latch Retraction (field installation kit 2-649-5007)
- MLRX - Motor Driven Electric Latch Retraction with Request to Exit
- DE - Delayed Egress (must order wall mount controller 2-679-0630 separately)

Electrical Specifications and Wire Requirements - See 4500 Series Electric Modifications page 20.



4500 SERIES - GRADE 1 SURFACE VERTICAL ROD DEVICE

WARRANTY	Lifetime warranty
FEATURES	
Certification:	BHMA Certified Grade 1 and meets life safety codes and fire-safety requirements. See charts on page 4 for details and options.
Covers:	Stainless steel, zinc
Cover Tube:	Aluminum
Dogging:	<ul style="list-style-type: none"> • Hex key dogging standard on panic-rated devices • Less dogging available on panic-rated devices, specify LD • Cylinder dogging is available on panic-rated devices, specify CD (3902 1-1/8" (29 mm) mortise cylinder sold separately)
End Caps:	<ul style="list-style-type: none"> • Zinc • Flush end cap option available
Fasteners:	<ul style="list-style-type: none"> • Wood and machine screws • Thru-bolts supplied standard
Latchbolt:	<ul style="list-style-type: none"> • Top - 1/2" (13 mm) throw, pullman type with automatic dead-latching, stainless steel • Bottom - 1/2" (13 mm) throw, pullman type, held retracted during door swing, stainless steel
Strikes:	<ul style="list-style-type: none"> • Stainless steel with stainless steel pin and roller - included standard with panic device • Solid stainless steel - included standard with fire-rated device • Surface applied to frame with slotted holes for easy adjustment • 10' (3048 mm) fire-rated device requires strike and hook kit, 4912 for top strike • Double door strike for use with surface vertical rod and rim device available



SPECIFICATIONS

Door Thickness:	1-3/4" (44 mm) - Standard up to 3", except with night latch (NL) function which is 2-1/2"
Door Width:	<ul style="list-style-type: none"> • 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door • 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door
Projection:	<ul style="list-style-type: none"> • 3" (76 mm) in undogged position • 2-5/8" (67 mm) in dogged position
Vertical Rods:	<ul style="list-style-type: none"> • Rods for 7' (2134 mm) doors - 33-1/4" (845 mm) top rod length • Rods for 8' (2438 mm) doors - 45-1/4" (1149 mm) top rod length • Extension rods kits available, 2' (610 mm) or 3' (914 mm) for doors over 7'
Stile Width:	<ul style="list-style-type: none"> • 5-3/8" (137 mm) - Minimum stile width required for single door and 5/8" (16 mm) stop • 4-7/8" (124 mm) - Minimum stile width required for double doors • 4-7/8" (124 mm) - Minimum stile width required for double door x Rim Device with double door strike • All stile widths are measured from door edge
Notes:	<ul style="list-style-type: none"> • Center line prep is 40". If door prep elevation is lower, a longer top rod will need to be ordered. • Recommended for use on appropriately reinforced doors

TRIM	<ul style="list-style-type: none"> • 4500 Series escutcheon trim for vertical rod device is surface mounted with variety of lever options (pp. 22-23) • Pull plate trim (excluding 45PT) • Vandal resistant • Rim cylinder x optional pull
-------------	--

FINISHES	<ul style="list-style-type: none"> • US3, US4, US10, US10B, US26, US26D, US32D, BLK • Trim is not available in US32D • Anti-microbial available with US26D, US32D
-----------------	--





4500 SERIES - GRADE 1 SURFACE VERTICAL ROD DEVICE - LESS BOTTOM ROD (LBR)

WARRANTY

Lifetime warranty

FEATURES

Certification:

BHMA Certified Grade 1 and meets life safety codes and fire-safety requirements. See charts on page 4 for details and options.



Covers:

Stainless steel, zinc

Cover Tube:

Aluminum

Dogging:

- Hex key dogging standard on panic-rated devices
- Less dogging available on panic-rated devices, specify LD
- Cylinder dogging is available on panic-rated devices, specify CD (3902 1-1/8" (29 mm) mortise cylinder sold separately)

End Caps:

- Zinc
- Flush end cap option available

Fasteners:

- Wood and machine screws
- Thru-bolts supplied standard

Latchbolt:

Top - 1/2" (13 mm) throw, pullman type with automatic dead-latching, stainless steel

Strikes:

- Stainless steel with stainless steel pin and roller - included standard with panic device
- Solid stainless steel - included standard with fire-rated device
- Surface applied to frame with slotted holes for easy adjustment
- Double door strike for use with surface vertical rod and rim device available

SPECIFICATIONS

Door Thickness:

1-3/4" (44 mm) - Standard up to 3", except with night latch (NL) function escutcheon trim which is 2-1/2"

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door

Projection:

- 3" (76 mm) in undogged position
- 2-5/8" (67 mm) in dogged position

Vertical Rods:

- Rods for 7' (2134 mm) doors - 33-1/4" (845 mm) top rod length
- Rods for 8' (2438 mm) doors - 45-1/4" (1149 mm) top rod length
- Extension rod kits available, 2' (610 mm) or 3' (914 mm) for doors over 7'

Stile Width:

- 5-3/8" (137 mm) - Minimum stile width required for single door and 5/8" (16 mm) stop
- 4-7/8" (124 mm) - Minimum stile width required for double doors
- 4-7/8" (124 mm) - Minimum stile width required for double doors x rim device with double door strike
- All stile widths are measured from door edge

Notes:

- Hole plug for head cover included standard
- Recommended for use on appropriately reinforced doors
- A spring loaded fire bolt 2-649-0166 must be used on fire-rated LBR devices used on a pair of doors to ensure the device's fire rating

TRIM

- 4500 Series escutcheon trim for vertical rod device is surface mounted with a variety of lever options (pp. 22-23)
- Pull plate trim (excluding 45PT)
- Vandal resistant
- Rim cylinder x optional pull

FINISHES

- US3, US4, US10, US10B, US26, US26D, US32D, BLK
- Trim is not available in US32D
- Anti-Microbial available with US26D, US32D



4500 SERIES - GRADE 1 SURFACE VERTICAL ROD/LBR DEVICES - ELECTRIFIED

WARRANTY

- One-year on electrified components
- Lifetime on hardware components

FEATURES

Same as 4500 Series SVR Device

SPECIFICATIONS

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door for devices with any monitoring switches
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door for devices with any monitoring switches
- 36" field sizeable to 34" door minimum for devices with motorized electric latch retraction or delayed egress
- 36" door minimum for devices with solenoid electric latch retraction, electric dogging or alarm kit
- 48" field sizeable to 42" door minimum for devices with solenoid, electric dogging or alarm kit
- 48" field sizeable to 40" door minimum with motorized electric latch retraction or delayed egress



FUNCTIONS

- ELR - Electric Latch Retraction
- ED - Electric Dogging
- RX - Request to Exit (field installation kit 2-649-5001)
- RX2 - Dual Request to Exit
- ELRX - Electric Latch Retraction with Request to Exit
- EDRX - Electric Dogging with Request to Exit
- ALK - Alarm Kit (kit 4940, tamper switch 2-649-1090)
- AI - Authorized Ingress
- RXAI - Request to Exit with Authorized Ingress
- LM - Latchbolt Monitor (2-649-0168)
- RXLM - Request to Exit with Latchbolt Monitor
- MLR - Motor Driven Electric Latch Retraction (field installation kit 2-649-5007)
- MLRX - Motor Driven Electric Latch Retraction with Request to Exit
- DE - Delayed Egress (must order wall mount controller 2-679-0630 separately)

Electrical Specifications and Wire Requirements - See 4500 Series Electric Modifications page 20.





4500 SERIES - GRADE 1 CONCEALED VERTICAL ROD

WARRANTY

Lifetime warranty

FEATURES

Certification:

BHMA Certified Grade 1 and meets life safety codes and fire-safety requirements. See charts on page 4 for details and options.

Covers:

Stainless steel, zinc

Cover Tube:

Aluminum

Dogging:

- Hex key dogging standard on panic-rated devices
- Less dogging available on panic-rated devices, specify LD
- Cylinder dogging is available on panic-rated devices, specify CD (3902 1-1/8" (29 mm) mortise cylinder with standard cam sold separately)

End Caps:

- Zinc
- Flush end cap option available

Fasteners:

- Wood and machine screws
- Thru-bolts supplied standard

Latchbolt:

- Top - 1/2" (13 mm) throw, pullman type with automatic dead-latching, stainless steel
- Bottom - 1/2" (13 mm) throw, pullman type, held retracted during door swing, stainless steel

Strikes:

- Stainless steel with stainless steel pin and rollers - included standard with panic device
- Solid stainless steel - included standard with fire-rated device
- Top strike mortised into frame
- Double door strike for use with CVR and RIM device available



SPECIFICATIONS

Door Thickness:

1-3/4" (44 mm) - Standard

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door

Projection:

- 3" (76 mm) in undogged position
- 2-5/8" (67 mm) in dogged position

Vertical Rods:

- Rods for 7' (2134 mm) doors - 34-5/8" (879 mm) top rod length
- Rods for 8' (2438 mm) and 10' (3048 mm) doors - 46-5/8" (1184 mm) top rod length
- Extension rod kits available, 2' (610 mm) or 3' (914 mm) for doors over 7'

Stile Width:

- 4" (102 mm) minimum stile width required
- All stile widths are measured from door edge

Notes:

- NOT recommended for doors with inset greater than 1/8", for example: double egress frames, or jamb depths over 5-3/4" or greater - for additional information, contact Hager Companies
- Center line prep is 40" (1016 mm) - if door prep elevation is lower, a longer top rod will need to be ordered
- Recommended for use on appropriately reinforced doors

TRIM

- 4500 Series escutcheon trim for vertical rod device is surface mounted with a variety of lever options (pp. 22-23)
- Pull plate trim (excluding 45PT)
- Vandal resistant
- Rim cylinder x optional pull

FINISHES

- US3, US4, US10, US10B, US26, US26D, US32D, BLK
- Trim is not available in US32D
- Anti-Microbial available with US26D, US32D



4500 SERIES - GRADE 1 CONCEALED VERTICAL ROD - LESS BOTTOM ROD (CLB)

WARRANTY

Lifetime warranty

FEATURES

Certification:

BHMA Certified Grade 1 and meets life safety codes and fire-safety requirements. See charts on page 4 for details and options.

Covers:

Stainless steel, zinc

Cover Tube:

Aluminum

Dogging:

- Hex key dogging standard on panic-rated devices
- Less dogging available on panic-rated devices, specify LD
- Cylinder dogging is available on panic-rated devices, specify CD (3902 1-1/8" (29 mm) mortise cylinder with standard cam sold separately)

End Caps:

- Zinc
- Flush end cap option available

Fasteners:

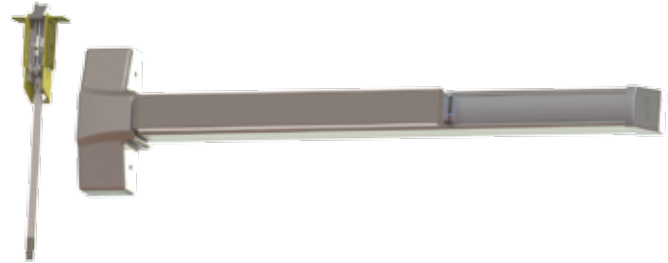
- Wood and machine screws
- Thru-bolts supplied standard

Latchbolt:

Top - 1/2" (13 mm) throw, pullman type with automatic dead-latching, stainless steel

Strikes:

- Stainless steel with stainless steel pin and roller - included standard with panic device
- Solid stainless steel - included standard with fire-rated device
- Top strike mortised into frame
- Double door strike for use with CVR and RIM device available



SPECIFICATIONS

Door Thickness:

1-3/4" (44 mm) - Standard

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door

Projection:

- 3" (76 mm) in undogged position
- 2-5/8" (67 mm) in dogged position

Vertical Rods:

- Rods for 7' (2134 mm) doors - 34-5/8" (879 mm) top rod length
- Rods for 8' (2438 mm) and 10' (3048 mm) doors - 46-5/8" (1184 mm) top rod length
- Extension rod kits available, 2' (610 mm) or 3' (914 mm) for doors over 7'

Stile Width:

- 4" (102 mm) minimum stile width required
- All stile widths are measured from door edge

Notes:

- NOT recommended for doors with inset greater than 1/8", for example: double egress frames, or jamb depths over 5-3/4" or greater
- A spring loaded fire bolt 2-649-0166 must be used on fire-rated LBR devices used on a pair of doors to ensure the device's fire rating
- Center line prep is 40" (1016 mm) - if door prep elevation is lower, a longer top rod will need to be ordered
- Recommended for use on appropriately reinforced doors

TRIM

- 4500 Series escutcheon trim for vertical rod device is surface mounted with a variety of lever options (pp. 22-23)
- Pull plate trim (excluding 45PT)
- Vandal resistant
- Rim cylinder x optional pull

FINISHES

- US3, US4, US10, US10B, US26, US26D, US32D, BLK
- Trim is not available in US32D
- Anti-Microbial available with US26D, US32D





4500 SERIES - GRADE 1 CONCEALED VERTICAL ROD/CLB DEVICES - ELECTRIFIED

WARRANTY

- One-year on electrified components
- Lifetime on hardware components

FEATURES

Same as 4500 Series CVR Device

SPECIFICATIONS

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door for devices with any monitoring switches
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door for devices with any monitoring switches
- 36" field sizeable to 34" door minimum for devices with motorized electric latch retraction or delayed egress
- 36" door minimum for devices with solenoid electric latch retraction, electric dogging or alarm kit
- 48" field sizeable to 42" door minimum for devices with solenoid electric latch retraction, electric dogging or alarm kit
- 48" field sizeable to 40" door minimum with motorized electric latch retraction or delayed egress

Notes:

- NOT recommended for doors with inset greater than 1/8", for example: double egress frames, or jamb depths over 5-3/4" or greater
- A spring loaded fire bolt 2-649-0166 must be used on fire-rated LBR devices used on a pair of doors to ensure the device's fire rating

FUNCTIONS

- ELR - Electric Latch Retraction
- ED - Electric Dogging
- RX - Request to Exit (field installation kit 2-649-5001)
- RX2 - Dual Request to Exit
- ELRX - Electric Latch Retraction with Request to Exit
- EDRX - Electric Dogging with Request to Exit
- ALK - Alarm Kit (kit 4940, tamper switch 2-649-1090)
- AI - Authorized Ingress
- RXAI - Request to Exit with Authorized Ingress
- LM - Latchbolt Monitor (2-649-0168)
- RXLM - Request to Exit with Latchbolt Monitor
- MLR - Motor Driven Electric Latch Retraction (field installation kit 2-649-5007)
- MLRX - Motor Driven Electric Latch Retraction with Request to Exit
- DE - Delayed Egress (must order wall mount controller 2-679-0630 separately)

Electrical Specifications and Wire Requirements - See 4500 Series Electric Modifications page 20.





4500 SERIES - GRADE 1 MORTISE DEVICE

WARRANTY

Lifetime warranty

FEATURES

Certification:

BHMA Certified Grade 1 and meets life safety codes and fire-safety requirements. See charts on page 4 for details and options.

Covers:

Stainless steel, zinc

Cover Tube:

Aluminum

Dogging:

- Hex key dogging standard on panic-rated devices
- Less dogging available on panic-rated devices, specify LD
- Cylinder dogging is available on panic-rated devices, specify CD (3902 1-1/8" (29 mm) mortise cylinder with standard cam sold separately)

End Caps:

- Zinc
- Flush end cap option available

Fasteners:

- Wood and machine screws
- Thru-bolts supplied standard

Latchbolt:

3/4" (19 mm) throw with anti-friction tongue, all stainless steel with auxiliary deadlocking latch

Strikes:

4-7/8" (124 mm) ASA strike-standard



SPECIFICATIONS

Door Thickness:

1-3/4" (44 mm) - Standard

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door

Projection:

- 3" (76 mm) in undogged position
- 2-5/8" (67 mm) in dogged position

Stile Width:

- 4-1/2" (114 mm)
- All stile widths are measured from door edge.

Notes:

Recommended for use on appropriately reinforced doors

TRIM

- 4500 Series escutcheon trim for mortise device is available with a variety of lever options (p. 25) (3902, 1-5/8" cylinder with standard cam sold separately)
- Mortise cylinder (1-3/8") with cylinder collar (11/16") x optional pull
- Mortise trim (45MB, 45MC, 45MD, 45MN) does not match center line of other 4500 Series trim (45BE, 45CE, 45DT, 45NL)

FINISHES

- US3, US4, US10, US10B, US26, US26D, US32D, BLK
- Trim is not available in US32D
- Anti-Microbial available with US26D, US32D





4500 SERIES - GRADE 1 MORTISE DEVICE - ELECTRIFIED

WARRANTY

- One-year on electrified components
- Lifetime on hardware components

FEATURES

Same as 4500 Series Mortise Device



SPECIFICATIONS

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door for devices with any monitoring switches
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door for devices with any monitoring switches
- 36" field sizeable to 34" door minimum for devices with motorized electric latch retraction or delayed egress
- 36" door minimum for devices with electric dogging or alarm kit
- 48" field sizeable to 42" door minimum for devices with electric dogging or alarm kit
- 48" field sizeable to 40" door minimum with motorized electric latch retraction or delayed egress

FUNCTIONS

- ED - Electric Dogging
- EU/EL - Electrified Mortise Exit Device - provides means of locking/unlocking outside lever trim control remotely
- RX - Request to Exit
- RX2 - Dual Request to Exit
- EDRX - Electric Dogging with Request to Exit
- ALK - Alarm Kit (kit 4940, Latchbolt Monitor 2-649-0168, Tamper Switch 2-649-1090)
- MLR - Motor Driven Electric Latch Retraction (field installation kit 2-649-5007)
- MLRX - Motor Driven Electric Latch Retraction with Request to Exit
- DE - Delayed Egress (must order wall mount controller 2-679-0630 separately)

Electrical Specifications and Wire Requirements - See 4500 Series Electric Modifications page 20.



4500 SERIES - DUMMY PUSH PAD

WARRANTY

Lifetime warranty

FEATURES

Application: For use with 4500 and 4600 Series Exit Devices

Cover Tube: Aluminum

End Caps:

- Zinc
- Flush end cap option available

Fasteners:

- Wood and machine screws
- Thru-bolts supplied standard

Available Electric Functions:

- RX - Request to Exit
- RX2 - Dual Request to Exit

SPECIFICATIONS

Door Thickness: 1-3/4" (44 mm) - Standard

Door Width:

- 36" (914 mm) field sizeable to 27" (686 mm) door
- 48" (1219 mm) field sizeable to 36" (914 mm) door

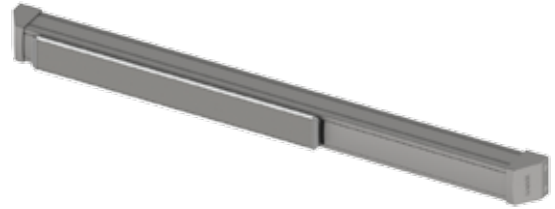
Projection: 2-5/8" (67 mm)

Stile Width:

- 2-1/8" (54 mm) - minimum stile width
- All stile widths are measured from door edge

FINISHES

- US3, US10B, US26D, US32D, BLK
- Anti-Microbial available with US26D, US32D





4500 SERIES - 4940 ALARM KIT

WARRANTY

- One-year on electrified components
- Lifetime on hardware components

SPECIFICATIONS

Battery:

- Standard 9-Volt battery required
- Audible chirp and alternating LED color flash when battery is low

Alarm:

100 decibel horn sounds immediately upon pressing push pad

Cylinder:

- 1-1/8" or 1-1/4" Mortise cylinders acceptable
- Hager standard cam required
- Cylinder sold separately

Activation:

- Alarm is armed by turning key clockwise
- Alarm is disarmed by turning the key counter-clockwise
- Alarm is turned to service mode by turning the key counter-clockwise twice

Alarm Timing:

- Alarm will sound for either 1, 3, 5 minutes or continuously
- Times are selectable by on board switches

Warning Decal:

"Emergency Exit Only – Alarm Will Sound" on push pad of exit device

Indicator:

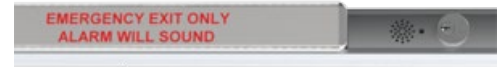
- LED Indicator
- Red LED will illuminate intermittently when armed
- Green LED will illuminate when unarmed
- Blue LED will illuminate in service mode
- Alternate colors flash when battery is low

Options:

- Tamper switch available that sounds alarm when end cap is removed
- Latch monitor switch is available that sounds alarm when latch is retracted without actuating the push pad
- Latch monitor switch typically used with Surface Vertical Rod devices
- When utilizing the latch monitor, the outside trim unit will also sound alarm

Output:

Alarm is equipped with output port





4500 SERIES - ELECTRIC MODIFICATIONS

FUNCTION	#	DESCRIPTION
Electric Latch Retraction - Solenoid	ELR	Provides the means of locking or unlocking exit devices remotely. Requires the use of Hager 2901 or 2902 power supply or warranty voided. <i>Note: Mortise Exits require Motor Driven Latch Retraction (MLR).</i>
Electric Dogging	ED	Provides continuous latch retraction and dogging simultaneously.
Request to Exit	RX	Used to shunt an alarm, activate an alarm, provide release of magnetic locks, or signal a console.
Electric Latch Retraction with Request to Exit	ELRX	Provides the means of locking or unlocking exit devices remotely, along with an SPDT switch. Requires the use of Hager 2901 or 2902 power supply or warranty voided. <i>Note: Mortise Exits will require Motor Driven Latch Retraction.</i>
Electric Dogging with Request to Exit	EDRX	Provides continuous latch retraction and dogging simultaneously along with an SPDT switch.
Dual Request to Exit	RX2	Features two SPDT switches
Latchbolt Monitoring	LM	An internal SPDT switch that monitors the latchbolt to signal both egress and access of an opening.
Latchbolt Monitoring/ Request to Exit	RXLM	Two internal SPDT switches that monitor the latchbolt and the pushbar simultaneously.
Electric Trim	ET	Provides the means of locking or unlocking outside lever trim controls remotely. Specify Fail Safe (EL) or Fail Secure (EU) and voltage (12V or 24V).
Authorized Ingress/Key Monitoring	AI	An internal SPDT switch that monitors the operation of the outside trim, available for use with either the 45BE, 45CE or 45NL trim or Night Latch by optional pull. Must be ordered with the device.
Request to Exit/ Authorized Ingress	RXAI	Two internal SPDT switches that monitor the pushbar and the outside trim simultaneously, available for use with either the 45CE or 45NL trim. Must be ordered with the device.
OnBoard Delayed Egress	OBDE	Delays egress for 15 seconds (30 seconds optional) when unauthorized egress is initiated. Modification can be made to 4501 or 4601 exit devices.
Delayed Egress	DE	Delays egress for 15 or 30 seconds when unauthorized egress is initiated. Wall mount controller (2-679-0630) provides digital countdown display with verbal instructions or alarm tone only and must be ordered separately.
Motor Driven Electric Latch Retraction	MLR	Provides the means of locking or unlocking exit devices remotely using an electric motor. Recommend Hager 2903 or 2904 Power Supply.
Motor Driven Electric Latch Retraction with Request to Exit	MLRX	Provides the means of locking or unlocking exit devices remotely using an electric motor, along with an SPDT switch. Recommend Hager 2903 or 2904 Power Supply.
Electrified Mortise Exit Device	EU/EL	Provides the means of locking or unlocking outside lever trim controls remotely. Specify Fail Safe (EL) or Fail Secure (EU) and voltage (12V or 24V).

ELECTRICAL SPECIFICATION/RATINGS AND WIRE REQUIREMENTS

Electrical Specification/Ratings:

- ED; .225 AMP @ 24 Volt +/- 2V
- RX or LM; 125 VAC (3 AMP current); 30 VDC (2 AMP current)
- ELR; Requires 2901/2902 power supply
- MLR; 1 AMP in rush @ 24 VDC +/- 2V, 400 mA holding
- DE; Single, 430 mA, Tandem 680 mA @ 24 VDC
- OBDE; Single, 540 mA; Tandem 790 mA @ 24 VDC

Wire Requirements:

- Status switches (i.e. RX, LM, etc.) require 2 wires per switch to monitor a normally open (NO) or normally closed (NC) position
- All devices provide 3 wires per switch so both NO and NC positions can be monitored
- Monitoring both positions will require 3 wires per switch

QUICK CONNECT

Available on AI, ED, ELR, LM, MLR, and RX

POWER SUPPLIES

For power supply options see electrified section, pages 41-49.

ALARMED DEVICES - SPECIFY WHEN ORDERING (Note: Alarm kit components may be purchased separately)

ALK - Alarm Kit

ALM - ALK with latch monitor switch (recommended for use with SVR devices)

ALT - ALK with tamper switch

ALL - ALK with latch monitor and tamper switch





4500 SERIES ESCUTCHEON TRIM - FOR 4500 RIM & VERTICAL ROD DEVICES

WARRANTY

- One-year on electrified components
- Lifetime on hardware components

SPECIFICATIONS

Escutcheon: 2-7/8" x 10-3/4" (73 mm x 273 mm)

Notes:

- Cannot be used with 4500 Series Mortise exit device
- 45BE, 45CE, 45DT, 45NL trim does not match centerline of 4500 Series Mortise trim (45MB, 45MC, 45MD and 45MN)

LEVERS

Archer, August, Charles, Johnston, Joshua, Louis, Warren, William or Withnell Levers

FINISHES

US3, US4, US10, US10B, US26, US26D (Not Available in US32D), BLK
Anti-Microbial available on US26D



45BE

Blank Escutcheon

ANSI Function: 14 - Always operable (passage)



45CE

Cylinder Escutcheon (Free-wheeling when locked)

ANSI Function: 08 - Key locks or unlocks lever

Cylinder: Requires 3902 mortise cylinder with standard cam (sold separately)



45DT

Dummy Trim

ANSI Function: 02 - Pull when device is dogged down



45NL

Night Latch

ANSI Function: 03 - Key retracts latchbolt

Cylinder: Requires 3901 rim cylinder with long tailpiece (sold separately)



45ET

Electrified Trim (Free-wheeling when locked)

ANSI Function: • 45ET EL- Electric Trim (Fail Safe)

• 45ET EU- Electric Trim (Fail Secure)

Cylinder: Requires 3902 mortise cylinder, 1-1/4" with standard cam (sold separately)

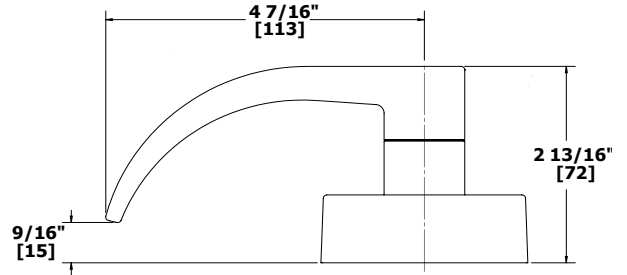
Voltage: 12V or 24V

Electrical Specifications and Wire Requirements - See 4500 Series Electric Modifications page 20.

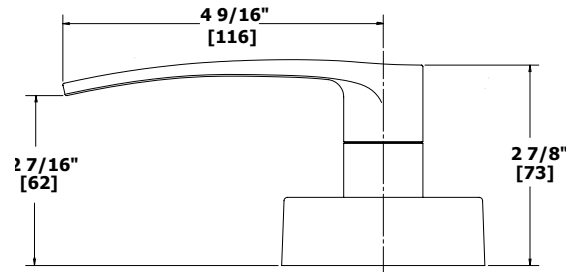


4500 SERIES - ESCUTCHEON TRIM - LEVER OPTIONS FOR 4500 RIM & VERTICAL ROD DEVICES

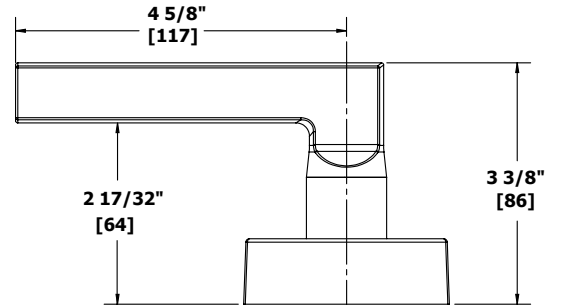
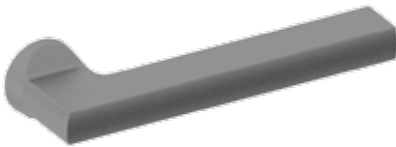
ARCHER LEVER



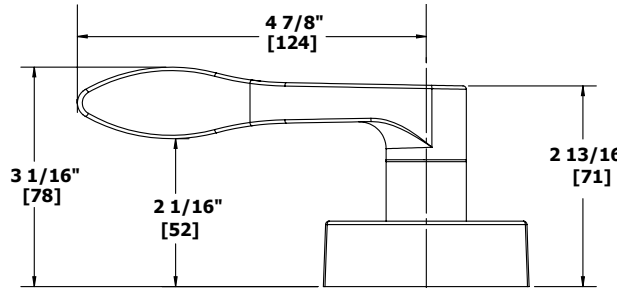
AUGUST LEVER



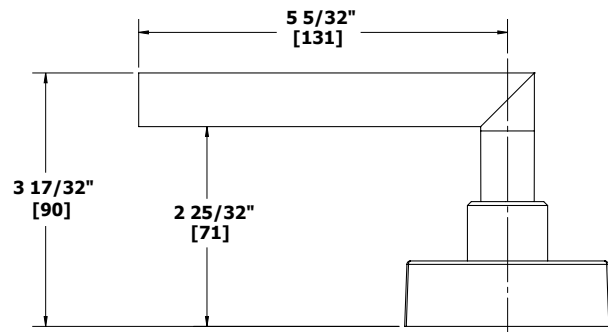
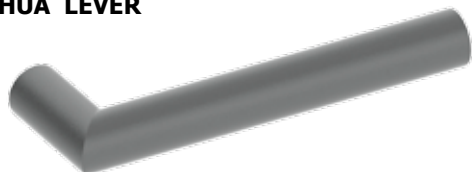
CHARLES LEVER



JOHNSTON LEVER - HANDED



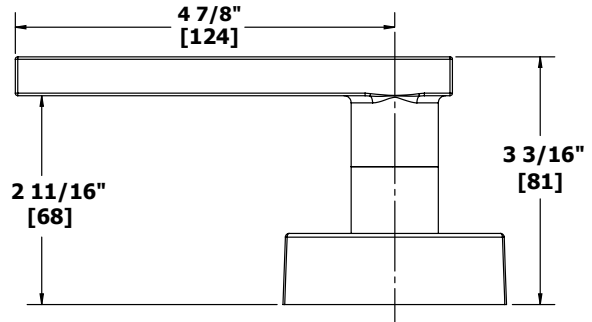
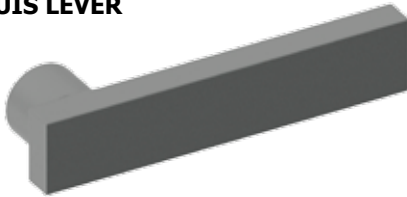
JOSHUA LEVER



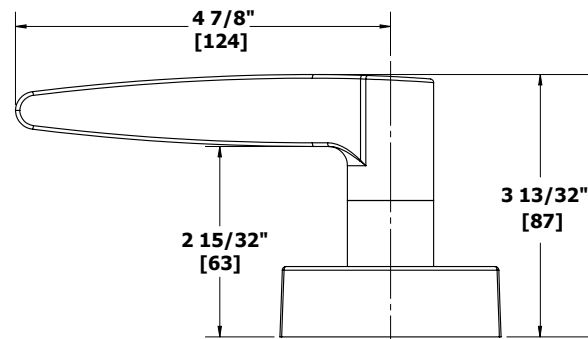
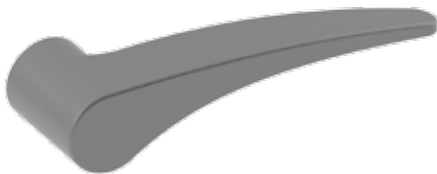


4500 SERIES - ESCUTCHEON TRIM - LEVER OPTIONS FOR 4500 RIM & VERTICAL ROD DEVICES

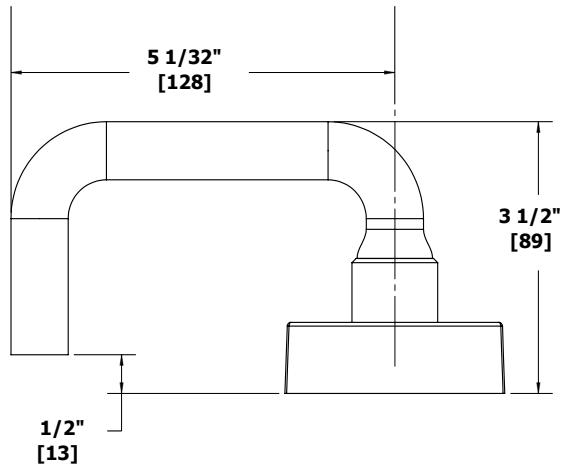
LOUIS LEVER



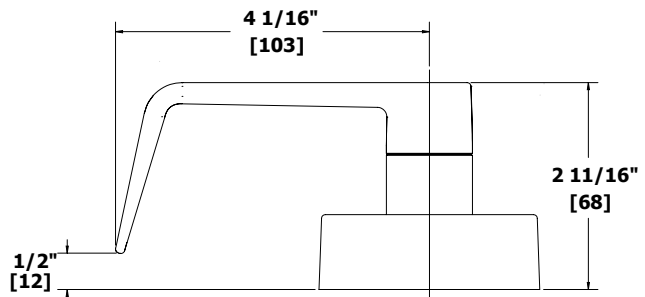
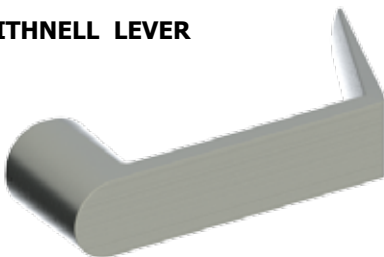
WARREN LEVER - HANDED



WILLIAM LEVER



WITHNELL LEVER





4500 SERIES - ESCUTCHEON TRIM - FOR 4500 MORTISE DEVICE

WARRANTY

- One-year on electrified components
- Lifetime on hardware components

SPECIFICATIONS

Escutcheon: 2-15/16" x 10" (75 mm x 254 mm)

Notes:

- Cannot be used with 4500 Series Rim or Vertical Rod devices
- Mortise trim (45MB, 45MC, 45MD, 45MN) does **not** match center line of other 4500 Series trim (45BE, 45CE, 45DT, 45NL)

LEVERS

Archer, August, William or Withnell Levers

FINISHES

- US3, US4, US10, US10B, US26, US26D, (Not Available in US32D), BLK
- Anti-Microbial available with US26D



45MB

Blank Escutcheon - For Use with 4501M Mortise Exit Device

ANSI Function: 14 - Always operable (passage)



45MC

Cylinder Escutcheon - For Use with 4501M Mortise Exit Device

ANSI Function: 08 - Key locks or unlocks lever (free-wheeling when locked)

Cylinder: Requires 3902, 1-5/8" mortise cylinder with standard cam (sold separately)



45MD

Dummy Trim - For Use with 4501M Mortise Exit Device

ANSI Function: 02 - Pull when device is dogged down

Cylinder: Requires 3902, 1-5/8" mortise cylinder with standard cam (sold separately)



45MN

Night Latch - For Use with 4501N Mortise Exit Device

ANSI Function: 03 - Key retracts latchbolt

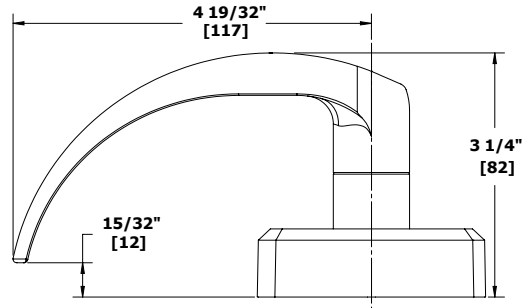
Cylinder: Requires 3902, 1-5/8" mortise cylinder with standard cam (sold separately)



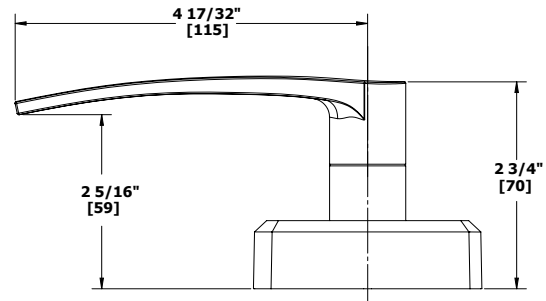


4500 SERIES - ESCUTCHEON TRIM - LEVER OPTIONS FOR 4500 MORTISE DEVICE

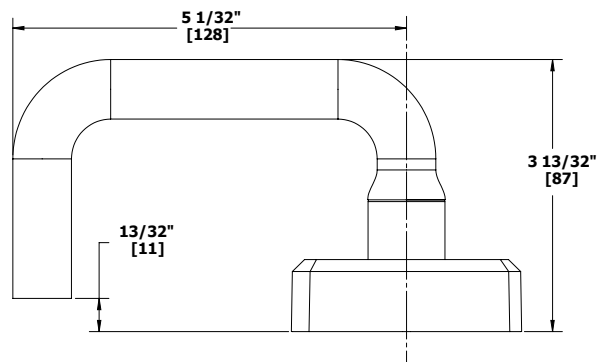
ARCHER LEVER



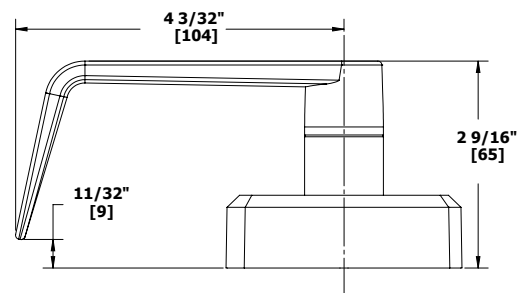
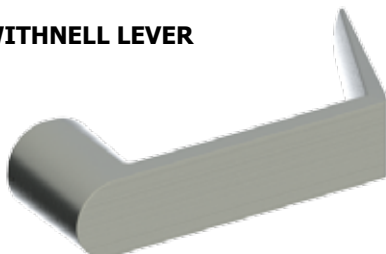
AUGUST LEVER



WILLIAM LEVER



WITHNELL LEVER





4500 SERIES - PULL PLATE TRIM

SPECIFICATIONS (45PD, 45PN, 45PT)

Plate:	3" x 14" (76 mm x 356 mm)
Projection:	1-3/4" (44 mm)
Pull CTC:	5-1/2" (140 mm)



45PD

Dummy Trim

ANSI Function:	02 - Pull when device is dogged down
Finishes:	US3, US4, US10, US10B, US26, US26D, US32D
Notes:	<ul style="list-style-type: none"> • For use with 4500 RIM, SVR, LBR, CLB devices, <u>not</u> for use with CVR • Anti-Microbial available with US26D, US32D



45PN

Night Latch

ANSI Function:	03 - Key retracts latchbolt
Finishes:	US3, US4, US10, US10B, US26, US26D, US32D
Cylinder:	Requires 3901 rim cylinder (sold separately)
Notes:	<ul style="list-style-type: none"> • Includes retaining cup for 161 door prep • For use with 4500 RIM, SVR, LBR, CLB devices, <u>not</u> for use with CVR • Anti-Microbial available with US26D, US32D



45PT

Thumb Piece Pull Plate Trim

ANSI Function:	05 - Key locks or unlocks thumbpiece
Finishes:	US32D
Cylinder:	Requires 3902 mortise cylinder with standard cam (sold separately)
Notes:	For use with 4500 Rim exit only, <u>not</u> for use with vertical rod devices



313S

Anti Vandal Pull

Certification:	Meets ANSI A156.6 for J401 Pull and J407 Pull Plate
Size:	6-11/32" x 11" (161 mm x 280 mm)
Projection:	1-7/8" (48 mm)
Clearance:	1-5/8" (41 mm)
Door Thickness:	1-3/4" - 2" (45 mm - 51 mm)
Materials:	11 gauge stainless steel
Finishes:	US32D
Fasteners:	Thru bolts directly to device
Options:	<ul style="list-style-type: none"> • Cylinder cutout available 1-1/4" (32 mm) dia. standard for exit device, specify handing • Plastisol grip available
Cylinder:	Cylinder and cylinder collar must be ordered separately <ul style="list-style-type: none"> • Requires 2-649-0137 7/16" cylinder collar with 3901 rim cylinder 1-1/4"- 1-3/8" long (see instructions for more detail)
Notes:	Available with latchguard (specify 313L)



RIM Cylinder by Optional Pull

ANSI Function:	03 - Key retracts latchbolt
Finishes:	US3, US4, US10, US10B, US26, US26D, US32D, BLK
Cylinder:	Requires 3901 rim cylinder (sold separately). Standard (attached) and long tailpieces in every box.
Notes:	<ul style="list-style-type: none"> • For use with 4500 RIM, SVR, LBR, CLB devices, <u>not</u> for use with CVR • For pull options see Trim & Auxiliary section





4500 SERIES - STRIKES



**4915
Threshold Strike**
Optional strike for use with surface vertical rod exit device and saddle threshold; not for fire-rated doors

Finishes: US32D



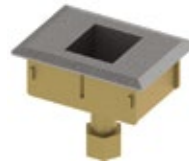
**4924
Bottom Strike**
Included standard with 4500 Series Vertical Rod exit devices; not for fire-rated doors

Finishes: US32D



**4920
Strike**
Included standard with 4500 Series Rim exit devices; not for fire-rated doors

Finishes: US32D



**4924F
Fire-rated Bottom Strike**
Included standard with fire-rated 4500 Series Vertical Rod exit devices

Finishes: US32D



**4920F
Fire-rated Strike**
Included standard with fire-rated 4500 Series rim exit devices

Finishes: US32D



**4945
Top Strike**
Included standard with 4500 Series Concealed Vertical Rod exit devices; not for fire-rated doors

Finishes: US32D



**4921
Double Door Strike**
Optional strike to be used with 4500 Series Surface Vertical Rod and Rim exit devices; not for fire-rated doors

Finishes: US3, US4, US10, US10B, US26, US32D, BLK



**4945F
Fire-rated Top Strike**
Included standard with fire-rated 4500 Series Concealed Vertical Rod exit devices

Finishes: US32D



**4923
Top Strike**
Included standard with 4500 Series Surface Vertical Rod exit devices; not for fire-rated doors

Finishes: US32D



MORTISE EXIT STRIKE

Included standard with 4500 Series Mortise exit device; not for fire-rated doors.

Finishes: US10B (2-649-0205), US26D (2-649-0204), US32D (2-649-0203)



**4923F
Fire-rated Top Strike**
Included standard with fire-rated 4500 Series Surface Vertical Rod exit devices

Finishes: US32D



FIRE-RATED MORTISE EXIT STRIKE

Included standard with fire-rated 4500 Series Mortise exit device; not for fire-rated doors.

Finishes: US10B (2-649-0208), US26D (2-649-0207), US32D (2-649-0206)



4500 SERIES - ACCESSORIES



4926

Cylinder Dogging Conversion Kit

For use with panic-rated 4500 Series devices

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK. Anti-microbial available with US26D, US32D.

Packaging: One (1) each dogging plate, cylinder collar, cash box nut

Notes:

- Mortise cylinder 3902 with standard cam, sold separately
- Specify 36" (914 mm) or 48" (1219 mm)



4927

Bottom Latch Assembly

For use with 4500 Series Surface Vertical Rod exit device

Description: 1/2" (13 mm) throw, pullman type, held retracted during door swing, stainless steel

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK

Packaging: One (1) bottom latch with cover and appropriate fasteners



4928

Top Latch Assembly

For use with 4500 Series Surface Vertical Rod exit device

Description: 1/2" (13 mm) throw, pullman type, held retracted during door swing, stainless steel

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK

Packaging: One (1) top latch with cover and appropriate fasteners



2-649-0250/2-649-0257

Photoluminescent

Push bar cover option for 4500 & 4600 Series exit devices

Description: 2-649-0250 - 4500/4600 36"
2-649-0275 - 4500/4600 48"

Features:

- Requires no wiring or maintenance
- Recharges with exposure to ambient light



4929

Top/Bottom Rod Replacement Kit

For use with 4500 Series Surface Vertical Rod exit device

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK.

Packaging: One (1) each 45-1/4" (1149 mm) rod, rod guide, rod connector, and appropriate fasteners



4929C

Concealed Rod Replacement Kit

For use with 4500 Series Concealed Vertical Rod exit device

Material: Hardened aluminum

Finishes: US26D

Packaging: One (1) each 46-5/8" (1184 mm) rod, rod connector and appropriate fasteners



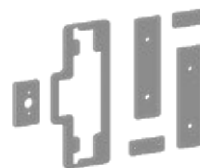
4930R

Shim Kit

For use with 4500 Series Rim exit devices where a glass bead kit would interfere with exit device

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK

Packaging: Two (2) each 1/8" (3 mm) shims and appropriate fasteners



4930S

Shim Kit

For use with 4500 Series Surface Vertical Rod exit devices where a glass bead kit would interfere with exit device

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK

Packaging: Two (2) each 1/8" (3 mm) shims and appropriate fasteners





4500 SERIES - ACCESSORIES



4932C

Head Cover

For use with 4500 Series Concealed Vertical Rod or Mortise exit devices

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK. Anti-microbial available with US26D, US32D.

Packaging: One (1) head cover and four (4) each M4 x 6mm MS



4932R

Head Cover

For use with 4500 Series Rim exit device

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK, Anti-microbial available with US26D, US32D.

Packaging: One (1) head cover and four (4) each M4 x 6mm MS



4932S

Head Cover

For use with 4500 Series Surface Vertical Rod exit devices

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK. Anti-microbial available with US26D, US32D.

Packaging: One (1) head cover and four (4) each M4 x 6mm MS



4936

24" Extension Rod Kit

For use with 4500 Series Vertical Rod exit devices

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK

Packaging: One (1) each 24" (610 mm) extension rod, rod connector, rod guide, plus wood and machine screws

Notes: Extension rods threaded on both ends; if cuts are required, cut the standard rod on non-threaded end



4937

36" Extension Rod Kit

For use with 4500 Series Vertical Rod exit devices

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK

Packaging: One (1) each 36" (914 mm) extension rod, rod connector, rod guide, plus wood and machine screws

Notes: Extension rod threaded on both ends; if cuts are required, cut the standard rod on non-threaded end



Standard



Flush

END CAPS

For use with all 4500 and 4600 Series exit devices

Finishes: Anti-microbial available with US26D, US32D.

	Standard	Flush
US3	(2-649-0038)	(2-649-0218)
US4	(2-649-0039)	(2-649-0220)
US10	(2-649-0040)	(2-649-0214)
US10B	(2-649-0041)	(2-649-0215)
US26	(2-649-0042)	(2-649-0216)
US26D	(2-649-0043)	(2-649-0217)
US32D	(2-649-0044)	(2-649-0219)
BLK	(2-649-5013)	(2-649-5012)

Packaging: One (1) each cap and bracket plus fasteners



2-649-0166

Fire Bolt Kit

For use with fire-rated 4500 Series Vertical Rod less bottom rod device

Faceplate: 1-25/32" x 1" (45 mm x 25 mm)

Bolt Diameter: 7/16" (11 mm)

Bolt Length: 1-1/2" (38 mm)

Materials: Stainless steel

Packaging: One (1) each fire bolt, plastic plug, head cover plug, and appropriate fasteners

Notes: Required with a fire-rated pair of LBR or LLB devices to ensure rating

4600 Series

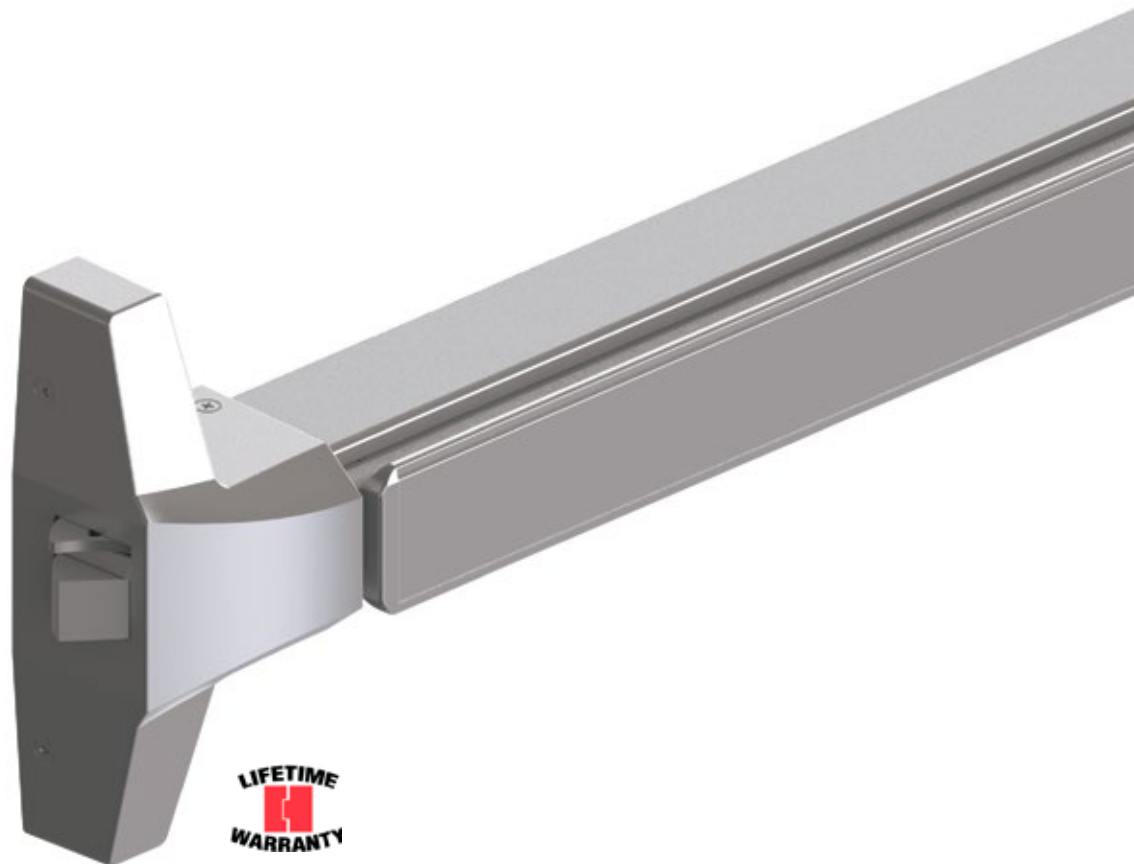


NARROW STILE HEAVY DUTY COMMERCIAL APPLICATION

The Hager 4600 Series is designed and engineered to provide a lifetime of superior performance on narrow stile doors (2-inch minimum) in heavy duty commercial applications. The 4600 Series design complements aluminum and glass construction and provides excellent durability for a range of applications. Properly applied and maintained Hager 4600 Series Exit Devices and Trim are backed by a lifetime warranty, providing peace of mind from distributor to building owner. Go to www.hagerco.com for specific warranty conditions.

Hager 4600 Series Exit Devices are BHMA certified Grade 1 and meet Life Safety codes and Fire Safety requirements.

Extruded aluminum construction, stainless steel push bar covers, die cast caps and covers, and dead locking stainless steel Pullman type latchbolts provide premium security and performance at value pricing.





4600 SERIES - COMPLIANCE AND CERTIFICATIONS

4600 SERIES DEVICES

BHMA Certified ANSI A156.3 Grade 1



UL305 Listed for Panic Hardware



UL10C Positive Pressure Rated



UL10B Neutral Pressure Rated



Complies with ANSI A117.1 for Accessible Buildings and Facilities



4600 SERIES FIRE-RATED DEVICES

UL/cUL Listed for "A" Label Door Up to and Including 3 hours on 4' x 8' doors

Rim with Fire-rated Removable Mullion 4900UF UL/cUL Listed and Warnock Hersey Listed for "A" Label Door Up to and Including 3 hours on 8' x 8' doors





4600 SERIES - GENERAL INFORMATION

Installation Made Easy

For the convenience of our customers, Hager Companies introduced several key features to the exit device market.

- Thru-bolts are included with every model. Wood and machine screws are also provided standard in every package.
- Slotted strikes speed up installation, allowing the installer to make easy adjustments to align the latch to the strike.
- Non-handed device offers added versatility and means less inventory.
- Escutcheon trim is surface mounted with the locking mechanism built inside, reducing door preparation and installation time by requiring fewer holes in the door.

Shim Kits

Shim kits are available for devices on doors with glass bead kits or other interfacing moldings. Each kit contains two 1/8" (3.2 mm) shims and the appropriate longer fasteners.

Dogging

Cylinder dogging or less dogging are available to replace the standard hex key dogging on panic exit devices. For less dogging, specify LD on order. For cylinder dogging, specify CD on order or purchase 4926 for retrofit applications. Unit requires 1-1/8" (29 mm) mortise cylinder (part number 3902) with standard cam.

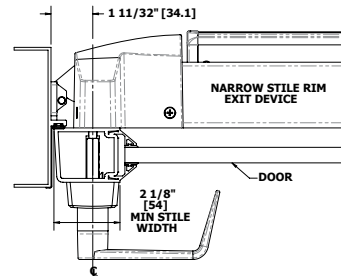
Sizing

The exit device is cut for 36" (914 mm) and 48" (1219 mm) wide doors. For other door widths, cut exit device to appropriate length. Recommended overall length of exit device is equal to the door width minus four inches.

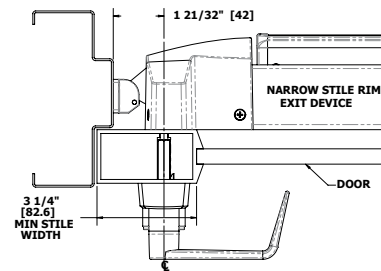
Trim Functions	Part Number	Function Description	ANSI Number
Blank Escutcheon	46BE	Always operable (Passage)	14
Cylinder Escutcheon	46CE	Key locks or unlocks lever	08
Dummy	46DT	Pull when device is dogged down	02
Night Latch	46NL	Key retracts latchbolt	03
Night Lever	46NK	Key releases lever; trim locked when key removed	09

Applications

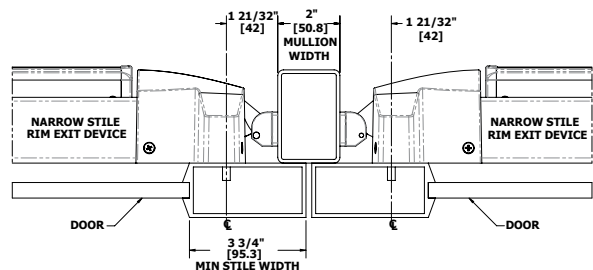
Single Door Panic Exit Hardware - Blade Stop Strike (4950) and Frame



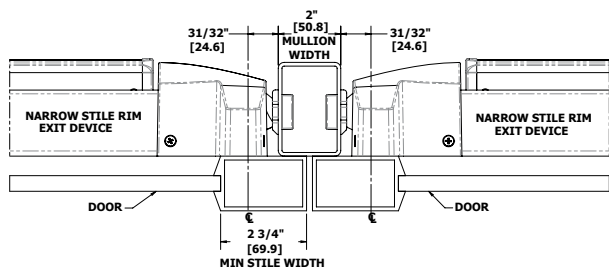
Single or Double Door with Panic Exit Hardware - Standard Strike (4920) and Frame



Single or Double Door with Panic Exit Hardware - Standard Strike (4920) and Mullion

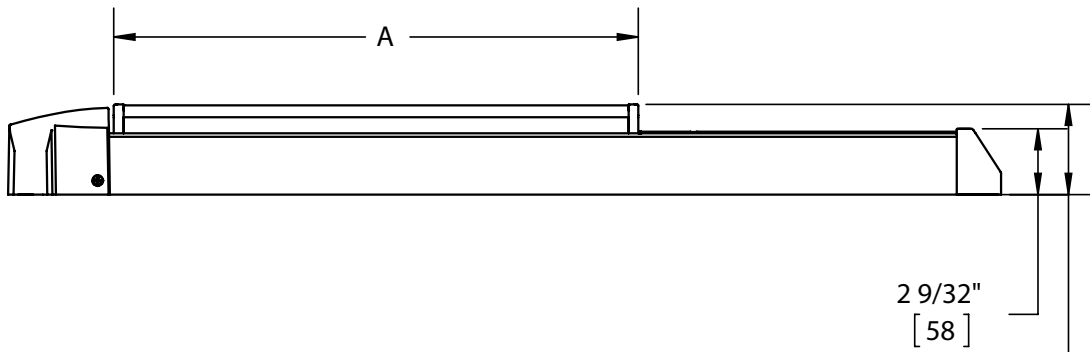
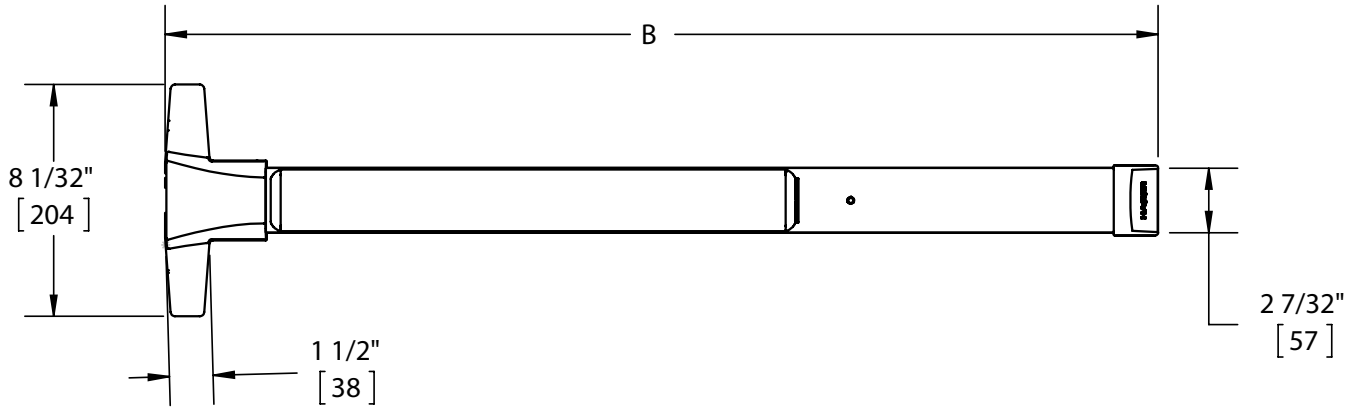


Single or Double Door with Panic Exit Hardware - Semi-Flush Mount Strike (4952) and Mullion





4600 SERIES - DEVICE PROFILE



3" (76 mm) in undogged position
 2 5/8" (67 mm) in dogged position

4600 SERIES	A	B
4600 PANIC -36"	18 5/32" (461mm)	34 3/8"(873mm)
4600 FIRE -36"		
4600 PANIC -48"	24"(609mm)	45 13/64"(1148mm)
4600 FIRE -48"		





4600 SERIES - HOW TO ORDER

4600 SERIES EXIT DEVICE

4601

Product Group
4600 Series, Grade 1

RIM

Type
RIM - Rim Device

F

Rating
F - Fire Rated
O - Non-Fire Rated
C - Cylinder Dogging
L - Less Dogging

36"

Size
36"
48"

US3

Finish
US3
US4
US10
US10B
US26
US26D
US32D
BLK

Door Thickness

1-5/8"
1-3/4"
2"
2-1/2"
3"

1-3/4"

ELR

Electric Modifications

ALK - Alarm Kit
ALL - Alarm Kit w/ Tamper Switch and Latch Monitor
ALM - Alarm Kit w/ Latch Monitor
ALT - Alarm Kit w/ Tamper Switch
ED - Electric Dogging
EDRX - Electric Dogging w/ Request to Exit
ELR - Electric Latch Retraction
ELRX - Electric Latch Retraction w/ Request to Exit
LM - Latchbolt Monitor
RX - Request to Exit
RX2 - Dual Request to Exit
RXLM - Request to Exit w/ Latchbolt Monitor
MLR - Motor Driven Electric Latch Retraction
MLRX - Motor Driven Electric Latch Retraction w/ Request to Exit

4600 SERIES TRIM

46

Trim/Function
BE - Blank Escutcheon
Function 14, always operable
CE - Cylinder Escutcheon
Function 08, key locks/unlocks lever
DT - Dummy Trim
Function 02, pull when dogged down
NL - Night Latch (Not available for 3" door)
Function 03, key retracts latchbolt
(for use with 4600 Rim Device only)
NK - Night Lever, Function 09, key releases lever,
lever locked when key is removed

Product Group

46 - 4600 Series, Grade 1

CE

ARC

Lever Style

ARC - Archer
AUG - August
WLM - William
WTN - Withnell

US3

Finish
US3
US4
US10
US10B
US26
US26D
BLK

1-3/4"

Door Thickness

1-5/8"
1-3/4"
2"
2-1/2"
3"

TW

Options

TW - Tactile Warning
A - Antimicrobial
Coating (US26D only)

Notes:

1. Mortise cylinder 3902 with 3976 L cam is required for use with cylinder escutcheon trim and is sold separately.
 2. Rim cylinder 3901 with long tailpiece is required for use with night latch trim and is sold separately.
 3. For more cylinder information, please refer to Cylinder, Core & Keying in the Locks section of the catalog.
 4. If using shim kit, specify total door thickness including shims.
- * Extended lead time on flat black finish.



4600 SERIES - GRADE 1 NARROW STILE RIM DEVICE

WARRANTY

Lifetime warranty

FEATURES

Certification:

BHMA Certified Grade 1 and meets life safety codes and fire-safety requirements.
See page 32 for details and options.

Covers:

Stainless steel, zinc

Cover Tube:

Aluminum

Dogging:

- Hex key dogging standard on panic-rated devices
- Less dogging available on panic-rated devices, specify LD
- Cylinder dogging available on panic-rated devices, specify CD
3902 1-1/8" (29 mm) mortise cylinder with standard cam sold separately

End Caps:

- Zinc
- Flush end cap option available

Fasteners:

- Wood and machine screws
- Thru-bolts supplied standard

Latchbolt:

3/4" (19 mm) throw, pullman type with automatic dead-latching, stainless steel

Strikes:

- Blade stop (4950) - Standard with panic device
- Fire-rated strike (4920F) - Standard with fire-rated device
- Standard strike (4920) - Optional
- Single rabbit strike (4951) - Optional
- Semi-flush mount strike (4952) - Optional

SPECIFICATIONS

Door Thickness:

1-3/4" (44 mm) - Standard up to 3", except with night latch (NL) which is 2-1/2"

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door

Projection:

- 3" (76 mm) in undogged position
- 2-5/8" (67 mm) in dogged position

Stile Width:

- 2-1/8" (54 mm) - Minimum stile width required for 1/2" (13 mm) blade stop frame and 4950 blade stop strike
- 3-1/4" (83 mm) - Minimum stile width required for single door, 5/8" (16 mm) stop and 4920 standard strike
- 3-3/4" (95 mm) - Minimum stile width required for double door x mullion x 4920 strike
- 2-3/4" (70 mm) - Minimum stile width required for double doors with 2" (51 mm) mullion and 4952 semi-flush mount strike
- All stile widths are measured from door edge

Notes:

Recommended for use on appropriately reinforced doors

TRIM

- 4600 Series escutcheon trim for rim device is surface mounted with a variety of lever options (p. 41)
- Rim cylinder x optional pull

FINISHES

- US3, US4, US10, US10B, US26, US26D, US32D, BLK
- Trim not available in US32D
- Anti-Microbial available with US26D, US32D





4600 SERIES - GRADE 1 NARROW STILE RIM DEVICE - ELECTRIFIED

WARRANTY

- One-year on electrified components
- Lifetime on hardware components

FEATURES

Same as 4600 Series Narrow Stile Rim Device



SPECIFICATIONS

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) panic-rated door and 28" (711 mm) fire-rated door for devices with any monitoring switches
- 48" (1219 mm) field sizeable to 36" (914 mm) panic- or fire-rated door for devices with any monitoring switches
- 36" field sizeable to 34" door minimum for devices with motorized electric latch retraction or delayed egress
- 36" door minimum for devices with solenoid electric latch retraction, electric dogging, or alarm kit
- 48" field sizeable to 42" door minimum for devices with solenoid electric latch retraction, electric dogging or alarm kit
- 48" field sizeable to 40" door minimum with motorized electric latch retraction or delayed egress

FUNCTIONS

- ELR - Electric Latch Retraction
- ED - Electric Dogging
- RX - Request to Exit (field installation kit 2-649-5001)
- RX2 - Dual Request to Exit
- ELRX - Electric Latch Retraction with Request to Exit
- EDRX - Electric Dogging with Request to Exit
- ALK - Alarm Kit (kit 4941, tamper switch 2-649-1090)
- LM - Latchbolt Monitor (2-649-0168)
- RXLM - Request to Exit with Latchbolt Monitor
- MLR - Motor Driven Electric Latch Retraction (field installation kit 2-649-5007)
- MLRX - Motor Driven Electric Latch Retraction with Request to Exit
- DE - Delayed Egress (must order with wall mount controller 2-679-0630 separately)

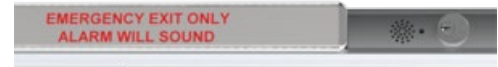
Electrical Specifications and Wire Requirements - See 4600 Series Electric Modifications page 39.



4600 SERIES - 4941 ALARM KIT

WARRANTY

- One-year on electrified components
- Lifetime on hardware components



SPECIFICATIONS

Battery:	<ul style="list-style-type: none">• Standard 9-Volt battery required• Audible chirp and alternating LED color flash when battery is low
Alarm:	100 decibel horn sounds immediately upon pressing push pad
Cylinder:	<ul style="list-style-type: none">• 1-1/8" or 1-1/4" Mortise cylinders acceptable• Hager standard cam required• Cylinder sold separately
Activation:	<ul style="list-style-type: none">• Alarm is armed by turning key clockwise• Alarm is disarmed by turning the key counter-clockwise• Alarm is turned to service mode by turning the key counter-clockwise twice
Alarm Timing:	<ul style="list-style-type: none">• Alarm will sound for either 1, 3, 5 minutes or continuously• Times are selectable by on board switches
Warning Decal:	"Emergency Exit Only – Alarm Will Sound" on push pad of exit device
Indicator:	<ul style="list-style-type: none">• LED Indicator• Red LED will illuminate intermittently when armed• Green LED will illuminate when unarmed• Blue LED will illuminate in service mode• Alternate colors flash when battery is low
Options:	<ul style="list-style-type: none">• Tamper Switch available that sounds alarm when end cap is removed• Latch monitor switch is available that sounds alarm when latch is retracted without actuating the push pad• Latch Monitor Switch typically used with Surface Vertical Rod devices• When utilizing the latch monitor, the outside trim unit will also sound alarm
Output:	Alarm is equipped with output port



4600 SERIES - ELECTRIC MODIFICATIONS

FUNCTION	#	DESCRIPTION
Electric Latch Retraction - Solenoid	ELR	Provides the means of locking or unlocking exit devices remotely. Requires the use of Hager 2901 or 2902 power supply or warranty voided. <i>Note: Mortise Exits require Motor Driven Latch Retraction (MLR).</i>
Electric Dogging	ED	Provides continuous latch retraction and dogging simultaneously.
Request to Exit	RX	Used to shunt an alarm, activate an alarm, provide release of magnetic locks, or signal a console.
Electric Latch Retraction with Request to Exit	ELRX	Provides the means of locking or unlocking exit devices remotely, along with an SPDT switch. Requires the use of Hager 2901 or 2902 power supply or warranty voided. <i>Note: Mortise Exits will require Motor Driven Latch Retraction.</i>
Electric Dogging with Request to Exit	EDRX	Provides continuous latch retraction and dogging simultaneously along with an SPDT switch.
Dual Request to Exit	RX2	Features two SPDT switches
Latchbolt Monitoring	LM	An internal SPDT switch that monitors the latchbolt to signal both egress and access of an opening.
Latchbolt Monitoring/Request to Exit	RXLM	Two internal SPDT switches that monitor the latchbolt and the pushbar simultaneously.
Delayed Egress	DE	Delays egress for 15 or 30 seconds when unauthorized egress is initiated. Wall mount controller (2-679-0630) provides digital countdown display with verbal instructions or alarm tone only and must be ordered separately.
Motor Driven Electric Latch Retraction	MLR	Provides the means of locking or unlocking exit devices remotely using an electric motor. Recommend Hager 2903 or 2904 Power Supply.
Motor Driven Electric Latch Retraction with Request to Exit	MLRX	Provides the means of locking or unlocking exit devices remotely using an electric motor, along with an SPDT switch. Recommend Hager 2903 or 2904 Power Supply.

ELECTRICAL SPECIFICATION/RATINGS AND WIRE REQUIREMENTS

Electrical Specifications/Ratings:

- ED; .225 AMP @ 24 Volt +/- 2V
- RX or LM; 125 VAC (3 AMP current); 30 VDC (2 AMP current)
- ELR; Requires 2901/2902 power supply
- MLR; 1 AMP in rush @ 24 VDC +/- 2V, 400 mA holding

Wire Requirements:

- Status switches (i.e. RX, LM, etc.) require 2 wires per switch to monitor a normally open (NO) or normally closed (NC) position
- All devices provide 3 wires per switch so both NO and NC positions can be monitored
- Monitoring both positions will require 3 wires per switch

QUICK CONNECT

Available on ED, ELR, LM, MLR, and RX

POWER SUPPLIES

PRODUCT #	DESCRIPTION
2901	For use with 4500/4600 Series electric latch retraction (ELR)
2902	For use with 4500/4600 Series electric latch retraction in a day/night mode of operation (ELR)
2903	Provides 24 Volt DC power for Fail Safe or Fail Secure locking devices and interface with building alarm controls, card readers, keypads, and other door controls
2904	Provides 24 Volt DC power and control for openings with an electrified locking device and automatic door operator
2908	Provides up to 1 amp of 12 or 24 Volt DC power - modular
2909	Provides up to 2 amps of 12 or 24 Volt DC power - modular

ALARMED DEVICES - SPECIFY WHEN ORDERING: (Note: Alarm kit components may be purchased separately)

ALK - Alarm Kit

ALM - ALK with Latch Monitor Switch

ALT - ALK with Tamper Switch

ALL - ALK with Latch Monitor and Tamper Switch





4600 SERIES - ESCUTCHEON TRIM

WARRANTY | Lifetime on hardware components

SPECIFICATIONS

Escutcheon: | 1-11/16" x 7-7/8" (43 mm x 200 mm)

LEVERS | Archer, August, William or Withnell Levers

FINISHES | • US3, US4, US10, US10B, US26, US26D (Not Available in US32D), BLK
• Anti-Microbial available with US26D



46BE
Blank Escutcheon
ANSI Function: 14 - Always operable (passage)



46CE
Cylinder Escutcheon
ANSI Function: 08 - Key locks or unlocks lever
Cylinder: Requires 3902 mortise cylinder with 3976 L cam (sold separately)



46DT
Dummy Trim
ANSI Function: 02 - Pull when device is dogged down



46NK
Night Lever
ANSI Function: 09 - Key locks or unlocks lever. Lever is locked when key is removed.
Cylinder: Requires 3902 mortise cylinder, with 3976 L cam (sold separately)



46NL
Night Latch
ANSI Function: 03 - Key retracts latchbolt
Cylinder: Requires 3901 rim cylinder with long tailpiece (sold separately)
Notes: Maximum door thickness compatibility is 2-1/2" (38 mm)

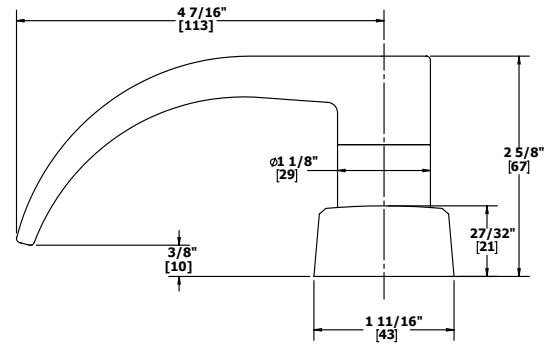


RIM Cylinder by Optional Pull
ANSI Function: 03 - Key retracts latchbolt
Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK
Cylinder: Requires 3901 rim cylinder (sold separately). Standard (attached) and long tailpieces in every box.
Notes: • For use with 4600 RIM
• For pull options see Trim & Auxiliary section

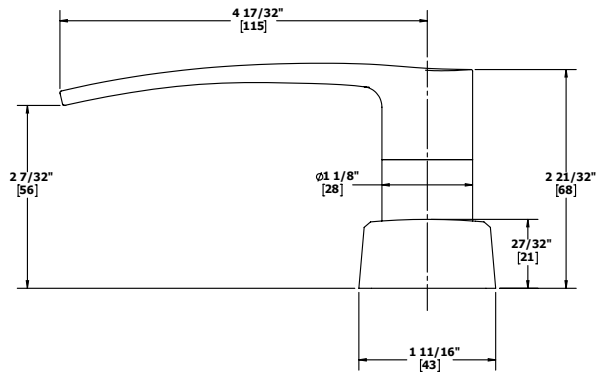
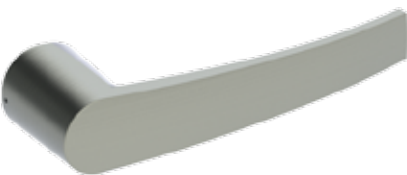


4600 SERIES - ESCUTCHEON TRIM - LEVER OPTIONS

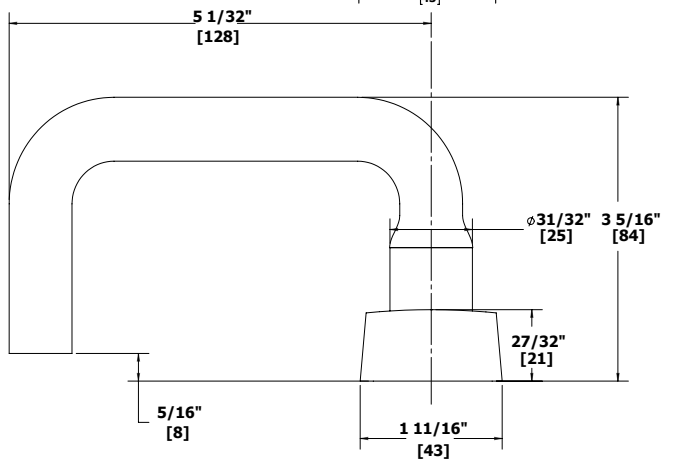
ARCHER LEVER



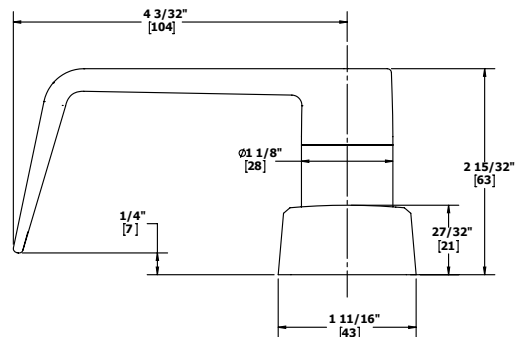
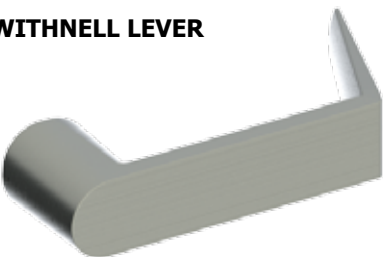
AUGUST LEVER



WILLIAM LEVER



WITHNELL LEVER





4600 SERIES - STRIKES

4600 SERIES - ACCESSORIES



4920 Strike

Optional strike to be used with 4600 Series Rim exit device; not for fire-rated doors

Finishes: US32D
Notes: For standard surface mounted applications



4920F Fire-rated Strike

Included standard with 4600 Series Fire-rated Rim exit device

Finishes: US32D
Notes: For standard surface mounted applications



4950 Blade Stop Strike

Included standard with 4600 Series Rim exit device; not for fire-rated doors

Finishes: US32D



4951 Single Rabbit Strike

Optional strike to be used with 4600 Series Rim exit device; not for fire-rated doors

Finishes: US32D



4952 Semi-Flush Mount Strike

Optional strike to be used with 4600 Series Rim exit device; not for fire-rated doors

Finishes: US32D



2-649-0250/2-649-0257 Photoluminescent

Push bar cover option for 4500 & 4600 Series exit devices

Description: 2-649-0250 - 4500/4600 36"
2-649-0275 - 4500/4600 48"
Features:

- Requires no wiring or maintenance
- Recharges with exposure to ambient light



4925R

Cylinder Dogging Conversion Kit

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK, Anti-Microbial available with US26D and US32D

Packaging: One (1) each dogging plate, cylinder collar, cash box nut
Notes:

- Mortise cylinder 3902 with standard cam, sold separately
- Specify 36" (914 mm) or 48" (1219 mm)



4960R Shim Kit

To be used with 4600 Series Rim exit device where a glass bead kit would interfere with exit device

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK
Packaging: Two (2) each 1/8" (3 mm) shims and appropriate fasteners



4965 Head Cover

For use with 4600 Series Rim exit device

Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK, Anti-Microbial
Packaging: One (1) head cover and four (4) each M4 x 6mm MS



Standard



Flush

END CAPS

For use with all 4500 and 4600 Series exit devices

Packaging: One (1) each cap and bracket plus fasteners
Finishes: Anti-Microbial available with US26D and US32D

	Standard	Flush
US3	(2-649-0038)	(2-649-0218)
US4	(2-649-0039)	(2-649-0220)
US10	(2-649-0040)	(2-649-0214)
US10B	(2-649-0041)	(2-649-0215)
US26	(2-649-0042)	(2-649-0216)
US26D	(2-649-0043)	(2-649-0217)
US32D	(2-649-0044)	(2-649-0219)
BLK	(2-649-5013)	(2-659-5012)



4700 Series

STANDARD DUTY APPLICATION



The Hager 4700 Series is designed and engineered to provide superior performance on standard stile doors in a range of light commercial and standard duty applications. Properly applied and maintained Hager 4700 Series Exit Devices and Trim are backed by a five-year warranty. Go to www.hagerco.com for specific warranty conditions.

Hager 4700 Series Exit Devices meet Life Safety codes and Fire Safety requirements. The 4700 Series Rim device meets the requirements for a Severe Windstorm Resistant Component.

Made with superior materials and with dead locking stainless steel Pullman type latchbolts, the 4700 Series Exit Devices provide necessary security and performance at economy pricing.





4700 SERIES - COMPLIANCE AND CERTIFICATIONS

4700 SERIES

UL305 Listed for Panic Hardware



UL10C Positive Pressure Rated



UL10B Neutral Pressure Rated



Complies with ANSI A117.1 for Accessible Buildings and Facilities



ANSI A 250.13 Severe Windstorm Resistant Component

RIM	SVR
YES	YES
YES	YES
YES	YES
YES	YES
YES	---

4700 SERIES FIRE-RATED DEVICES

UL/cUL Listed for "A" Label Door Up to and Including...

UL/cUL Listed for "B" Label Door Up to and Including...

Rim with Fire-rated Removable Mullion 4900UF
UL/cUL Listed and Warnock Hersey Listed for
"A" Label Door Up to and Including...



VR X VR SAME DIRECTION*

UL/cUL Listed for "A" Label Door Up to and Including...

VR X VR Double Egress

UL/cUL Listed for "A" Label Door Up to and Including...

RIM F	SVR F
3 HR 4'X8'	---
---	90 MIN 4'X8'
3 HR 8'X8'	---
---	90 MIN 8'X8'
---	90 MIN 8'x8'

*Currently, no door manufacturer offers a listing over 90 minutes with doors swinging same direction. Consult wood door manufacturers for current UL listings.





4700 SERIES - GENERAL INFORMATION

Installation Made Easy

For the convenience of our customers, Hager Companies introduced several key features to the exit device market.

- Thru-bolts are included with every model. Wood and machine screws are also provided standard in every package.
- Slotted strikes speed up installation, allowing the installer to make easy adjustments to align the latch to the strike.
- Escutcheon trim is surface mounted with the locking mechanism built inside, reducing door preparation and installation time by requiring fewer holes in the door.

Shim Kits

Shim kits are available for devices on doors with glass bead kits or other interfacing moldings. Each kit contains two 1/8" (3.2 mm) shims and the appropriate longer fasteners.

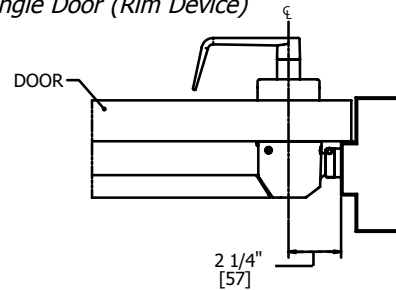
Sizing

The exit device is cut for 36" (914 mm) and 48" (1219 mm) wide doors. For other door widths, cut exit device to appropriate length. Recommended overall length of exit device is equal to the door width minus four inches. The surface vertical rod devices are supplied for an 84" (2134 mm) opening standard, but can be ordered for a 96" (2438 mm) opening. Extension rods are available to accommodate openings taller than 96" (2438 mm) up to 120" (3048 mm).

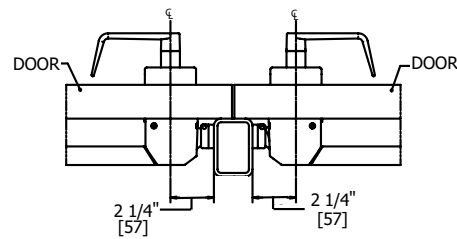
Trim Functions	Part Number	Function Description	ANSI Number
Passage	47BE* 47BT 47KP	Always operable (*specify handing when ordering)	14
Classroom	47CE* 47KE	Key locks or unlocks lever (*specify handing when ordering)	08
Dummy	47DT* 47KD 47PD 47RD	Pull when device is dogged down (*specify handing when ordering)	02
Night Latch	47NL* 47KN 47PN 47RN	Key retracts latchbolt (*specify handing when ordering)	03
Cylinder Thumbpiece	47PT	Key locks or unlocks thumbpiece	05

Applications

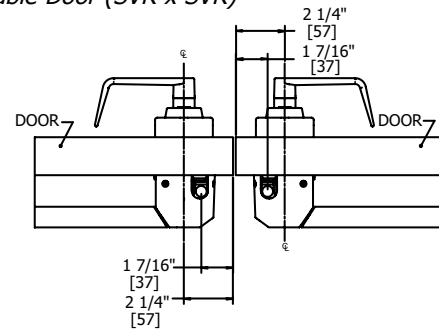
Single Door (Rim Device)



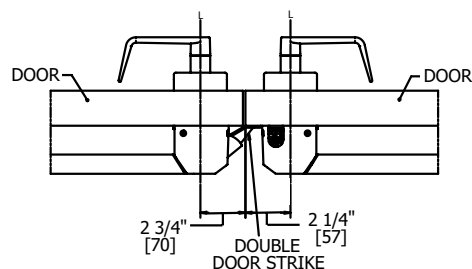
Double Door with Mullion (Rim x Rim)



Double Door (SVR x SVR)

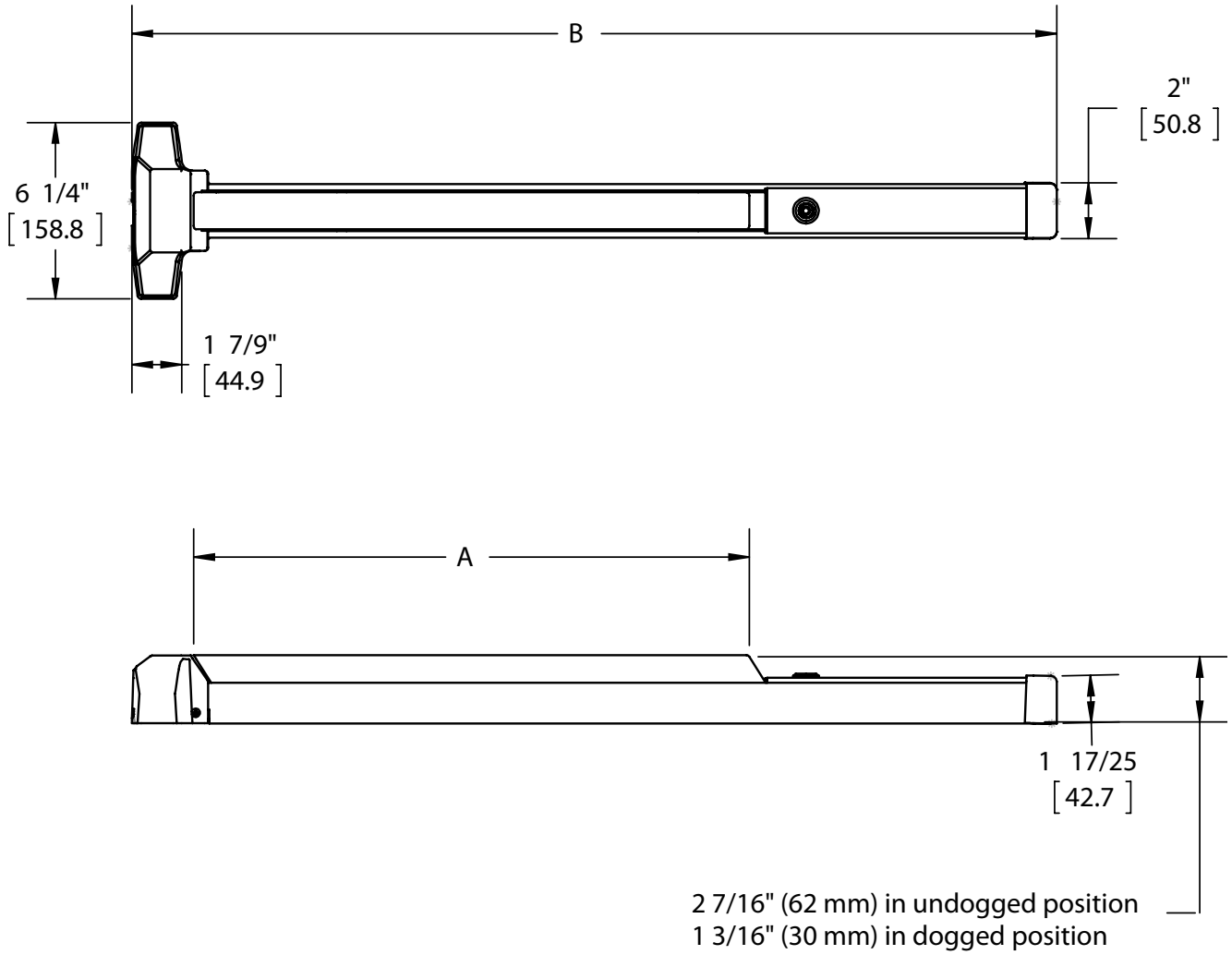


Double Door (SVR x Rim)





4700 SERIES - DEVICE PROFILE



4700 SERIES	A	B
4700 PANIC - 36"	19 45/64 (500mm)	32 51/64 (833mm)
4700 FIRE - 36"		
4700 PANIC - 48"	24 29/64 (621mm)	44 51/64 (1137mm)
4700 FIRE - 48"		



4700 SERIES - HOW TO ORDER

4700 SERIES EXIT DEVICE

4701	RIM	F	36"	US3	2"
Product Group	Type	Rating	Size	Finish	Door Thickness
4700 Series, Standard Duty	RIM - Rim Device SVR - Surface Vertical Rod	F - Fire Rated O - Non-Fire Rated	36" 48" 36" x 84" 36" x 96" 48" x 84" 48" x 96"	US3 US32D ALM DBZ	1-5/8" 1-3/4" 2" 2-1/4"

4700 SERIES TRIM

47	CE	RH	ARC	US3	2"	TW
Product Group	Trim/Function	Handing	Lever Style	Finish	Door Thickness	Options
47 - 4700 Series, Standard Duty	CE - Cylinder Escutcheon BE - Blank Escutcheon NL - Night Latch DT - Dummy Trim KD - Key in Lever - Dummy Trim KE - Key in Lever - Entrance KN - Key in Lever - Night Latch KP - Key in Lever - Passage PD - Pull Plate Dummy Trim PN - Pull Plate Night Latch RD - Raised Lip Pull - Dummy Trim RN - Raised Lip Pull - Night Latch BT - Thumbpiece Pull Plate, Passage PT - Thumbpiece Pull Plate, Entrance	RH - Right Handed / LHR LH - Left Handed / RHR	ARC - Archer AUG - August WTN - Withnell APL - Apollo knob	US3 US32D ALM DBZ	1-5/8" 1-3/4" 2" 2-1/4"	TW - Tactile Warning A - Antimicrobial Coating

Notes:

1. Handing is required for the 4700 Series trim.
2. Cylinders sold separately.
3. For more cylinder information, please refer to Cylinder, Core & Keying in the Locks section of the catalog.
4. Maximum door thickness compatibility for key-in-lever (Entrance, Night Latch, and Passage) trim is 1-3/4" (44 mm)



4700 SERIES - STANDARD DUTY RIM DEVICE

WARRANTY

Five-year warranty

FEATURES

Certification:	Meets life safety codes and fire-safety requirements. See charts on page 44 for details and options.
Covers:	Cast brass, bronze, stainless steel, zinc
Cover Tube:	Painted steel, plated steel, stainless steel
Dogging:	Hex dogging feature standard on non-fire labeled doors
End Caps:	Painted steel, plated steel, stainless steel
Fasteners:	<ul style="list-style-type: none"> • Wood and machine screws • Thru-bolts supplied standard
Latchbolt:	3/4" (19 mm) throw, pullman type with automatic dead-latching, stainless steel
Strikes:	<ul style="list-style-type: none"> • Stainless steel with stainless steel pin and roller - included standard with panic and fire-rated devices • Surface applied to frame with slotted holes for easy adjustment • Optional double door strike for use with surface vertical rod and rim devices



SPECIFICATIONS

Door Thickness:	1-3/4" (44 mm) - Standard
Door Width:	<ul style="list-style-type: none"> • 36" (914 mm) field sizeable to 30" (762 mm) door • 48" (1219 mm) field sizeable to 36" (914 mm) door
Projection:	<ul style="list-style-type: none"> • 2-7/16" (62 mm) in undogged position • 1-3/16" (30 mm) in dogged position
Stile Width:	<ul style="list-style-type: none"> • 4-1/2" (114 mm) - minimum stile width required for single door and 5/8" (16 mm) stop • 4-1/2" (114 mm) - minimum stile width required for double door x surface vertical rod device with double door strike • 3-3/4" (95 mm) - minimum stile width required for double door x mullion x 4920 strike • 5" (127 mm) - minimum stile width required for double doors with 2" (51 mm) mullion • All stile widths are measured from door edge
Notes:	<ul style="list-style-type: none"> • Cylinders sold separately • Escutcheon and thumbpiece pull plate trim is handed • Apollo knob is not ADA compliant • Recommended for use on appropriately reinforced doors

TRIM

- 4700 Series escutcheon trim for rim device is available with a variety of lever options (p. 51)
- 4700 Series key-in-trim is available with a variety of lever options plus a knob option (p. 53)
- Pull plate trim
- Raised lip pull
- Rim cylinder x optional pull


FINISHES

US3, US32D, ALM, DBZ





4700 SERIES - STANDARD DUTY SURFACE VERTICAL ROD DEVICE

WARRANTY	Five-year warranty	
FEATURES		
Certification:	Meets life safety codes and fire-safety requirements. See charts on page 44 for details and options.	
Covers:	Cast brass, bronze, stainless steel, zinc	
Cover Tube:	Painted steel, plated steel, stainless steel	
Dogging:	Hex dogging feature standard on non-fire labeled doors	
End Caps:	Painted steel, plated steel, stainless steel	
Fasteners:	<ul style="list-style-type: none"> • Wood and machine screws • Thru-bolts supplied standard 	
Latchbolt:	<ul style="list-style-type: none"> • Top - 3/8" (9 mm) throw with automatic dead-latching, stainless steel • Bottom - 3/8" (9 mm) throw held retracted during door swing, stainless steel 	
Strikes:	<ul style="list-style-type: none"> • Stainless steel with stainless steel pin and roller - included standard with panic and fire-rated devices • Surface applied to frame with slotted holes for easy adjustment • Optional double door strike for use with surface vertical rod and rim devices • Optional threshold strike for use with saddle threshold 	
SPECIFICATIONS		
Door Thickness:	1-3/4" (44 mm) - Standard	
Door Width:	<ul style="list-style-type: none"> • 36" (914 mm) field sizeable to 30" (762 mm) door • 48" (1219 mm) field sizeable to 36" (914 mm) door 	
Projection:	<ul style="list-style-type: none"> • 2-7/16" (62 mm) in undogged position • 1-3/16" (30 mm) in dogged position 	
Vertical Rods:	<ul style="list-style-type: none"> • Rods for 7' (2134 mm) doors - 35-1/4" (895 mm) top rod length • Rods for 8' (2438 mm) doors - 47-1/4" (1200 mm) top rod length • Extension rod kits available, 2' (610 mm) or 3' (914 mm) for doors over 7' 	
Stile Width:	<ul style="list-style-type: none"> • 4-1/2" (114 mm) - minimum stile width required for single door and 5/8" (16 mm) stop • 4" (102 mm) - minimum stile width required for double doors • 4-1/2" (114 mm) - minimum stile width required for double door x Rim device with double door strike • All stile widths are measured from door edge 	
Notes:	<ul style="list-style-type: none"> • Escutcheon and thumbpiece pull plate trim is handed • Apollo knob is not ADA compliant • Recommended for use on appropriately reinforced doors 	
TRIM	<ul style="list-style-type: none"> • 4700 Series escutcheon trim for vertical rod device is available with a variety of lever options (p. 51) • 4700 Series key-in-trim is available with a variety of lever options plus a knob option (p. 53) • Pull plate trim • Raised lip pull • Rim cylinder x optional pull 	
FINISHES	US3, US32D, ALM, DBZ	



4700 SERIES - ESCUTCHEON TRIM

WARRANTY | Five-year warranty

SPECIFICATIONS

Escutcheon: 1-11/16" x 7-7/8" (43 mm x 200 mm)

Handing: Specify when ordering

Door Thickness: For doors thicker than 1-3/4" or when used with a shim kit, must specify total door thickness

LEVERS | Archer, August or Withnell Levers

FINISHES | ALM, DBZ, US3, US32D



47BE
Blank Escutcheon
 ANSI Function: 14 - Always operable (Passage)



47CE
Cylinder Escutcheon
 ANSI Function: 08 - Key locks or unlocks lever
 Cylinder: Requires 3902 mortise cylinder with standard cam (sold separately)



47DT
Dummy Trim
 ANSI Function: 02 - Pull when device is dogged down

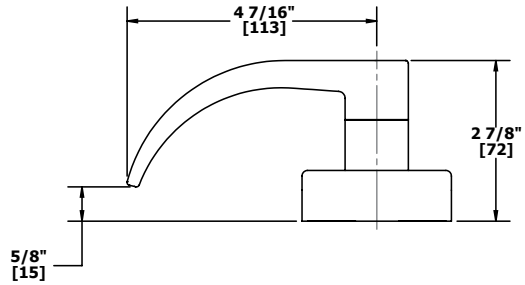


47NL
Night Latch
 ANSI Function: 03 - Key retracts latchbolt
 Cylinder: Requires 3902 mortise cylinder with standard cam (sold separately)

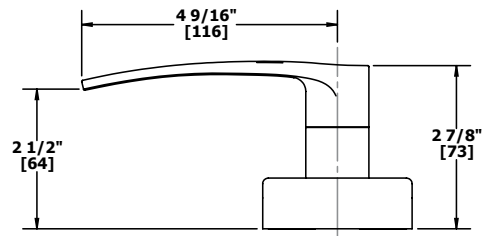


4700 SERIES - ESCUTCHEON TRIM - LEVER OPTIONS

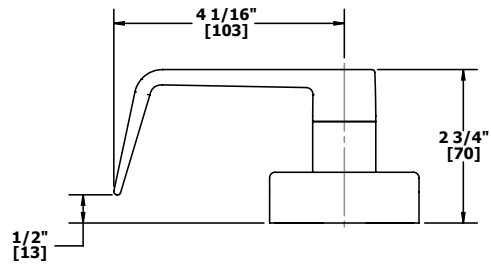
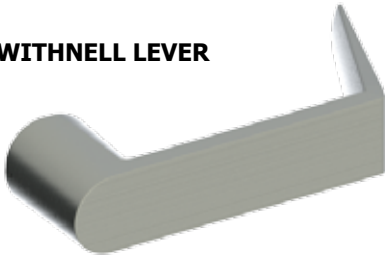
ARCHER LEVER



AUGUST LEVER



WITHNELL LEVER





4700 SERIES - KEY-IN-LEVER TRIM

WARRANTY | Five-year warranty

SPECIFICATIONS

Rose Diameter: | 3-3/8" (86 mm)

Notes: | Apollo knob is not ADA compliant. Best used where accessibility is not an issue.

LEVERS/KNOB | Archer, August or Withnell Levers; Apollo Knob (47KE, 47KN, US32D only)

FINISHES | ALM, DBZ, US3, US32D



47KD

Key-in-Lever Dummy Trim

ANSI Function: 02 - Entrance by trim when actuating bar is locked down



47KE

Key-in-Lever Entrance

ANSI Function: 08 - Entrance by lever; key locks or unlocks lever

Cylinder:

- Standard core, C keyway - Standard
- Small Format Interchangeable Core available. 3981 core sold separately.

Keys: Two (2) brass keys per lock



47KN

Key-in-Lever Night Latch

ANSI Function: 03 - Entrance by trim when latchbolt is released by key; key is removable when locked

Cylinder:

- Standard core, C keyway - Standard
- Small Format Interchangeable Core available. 3981 core sold separately.

Keys: Two (2) brass keys per lock



47KP

Key-in-Lever Passage

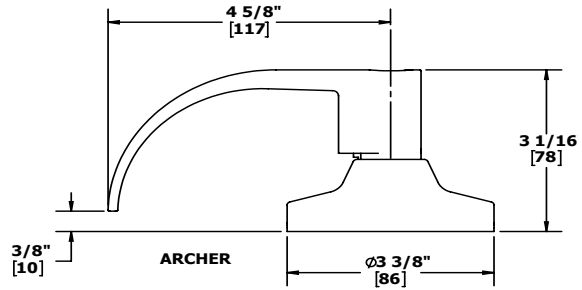
ANSI Function: 14 - Entrance by trim when latchbolt is released by lever; always active, no cylinder



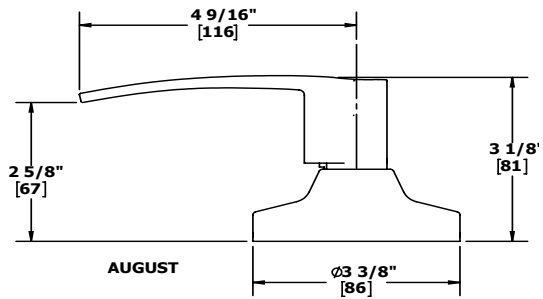


4700 SERIES - KEY-IN-LEVER TRIM - LEVER AND KNOB OPTIONS

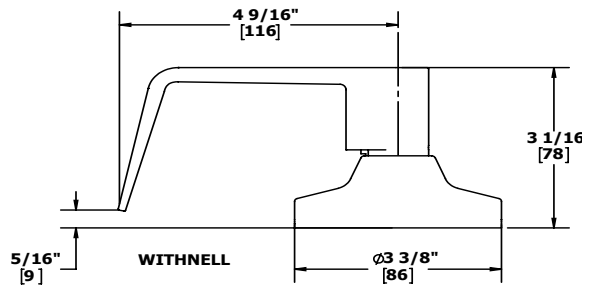
ARCHER LEVER



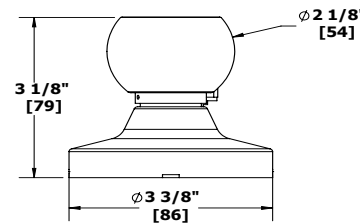
AUGUST LEVER



WITHNELL LEVER



APOLLO KNOB





4700 SERIES - PULL PLATE TRIM

SPECIFICATIONS

Escutcheon:	<ul style="list-style-type: none"> • 47BT and 47PT - 3" x 14-5/8" (76 mm x 371 mm) • 47PD and 47PN - 3" x 11" (76 mm x 279 mm)
Projection:	1-3/4" (44 mm)
Pull CTC:	5-1/2" (140 mm)

FINISHES

- 47PD and 47PN - ALM, DBZ, US3, US32D
- 47BT and 47PT - US32D



47PD Dummy Trim

ANSI Function: 02 - Pull when device is dogged down



47PN Night Latch

ANSI Function: 03 - Key retracts latchbolt
 Cylinder: Requires 3901 rim cylinder (sold separately)
 Notes: Supplied with retaining cup for use with 161 door prep



47BT Passage

ANSI Function: 15 - Entrance by trim when latch is released by thumbpiece.
 Thumbpiece is always active.
 Handing: Specify when ordering



47PT Entrance

ANSI Function: 05 - Entrance by thumbpiece. Key locks or unlocks thumbpiece.
 Cylinder: Requires 3902 mortise cylinder 1-1/8" to 1-3/8" with standard cam (sold separately)
 Handing: Specify when ordering





4700 SERIES - RAISED LIP TRIM

SPECIFICATIONS

Size: 3" x 7-3/4" (76 mm x 197 mm)
 Projection: 1" (25 mm)

FINISHES | ALM, DBZ, US3, US32D



47RD

Raised Lip Pull Dummy

Function: 02 - Pull when device is dogged down



47RN

Raised Lip Pull Night Latch

Function: 03 - Key retracts latchbolt
 Cylinder: Requires the use of a Rim cylinder, 3901, sold separately
 Notes: Retaining cup, 2-649-0137, included for 161 door prep

4700 SERIES - STRIKES



4910

Strike

Included standard with 4700 Series Rim exit device
 Finishes: US32D
 Notes: For use with panic- or fire-rated doors



4911

Double Door Strike

Optional strike for use with 4700 Series Surface Vertical Rod and Rim exit device
 Finishes: US32D
 Notes: Not for fire-rated doors



4913

Top Strike

Included standard with 4700 Series Surface Vertical Rod exit device
 Finishes: US32D
 Notes: For use with panic- or fire-rated doors



4914

Bottom Strike

Included standard with 4700 Series Surface Vertical Rod exit device
 Finishes: US32D
 Notes: For use with panic- or fire-rated doors



4915

Threshold Strike

Optional strike for use with surface vertical rod exit device and saddle threshold.
 Finishes: US32D
 Notes: Not for fire-rated doors



4700 SERIES - ACCESSORIES



4917

Bottom Latch Assembly

For use with 4700 Surface Vertical Rod exit device; not for fire-rated doors
 Finishes: US3, ALM, DBZ, US32D
 Packaging: One (1) bottom latch with cover and appropriate fasteners



4917F

Bottom Latch Assembly

For use with 4700 Surface Vertical Rod exit device; for fire-rated doors
 Finishes: US3, ALM, DBZ, US32D
 Packaging: One (1) bottom latch with cover and appropriate fasteners



4918

Top Latch Assembly

For use with 4700 Surface Vertical Rod exit device
 Finishes: US3, ALM, DBZ, US32D
 Packaging: One (1) top latch with cover and appropriate fasteners



4919

Top or Bottom Rod Replacement Kit

For use with 4700 Surface Vertical Rod exit device
 Finishes: US3, ALM, DBZ, US32D
 Packaging: One (1) each 47-1/4" (1200 mm) rod, rod guide, rod connector assembly, and appropriate fasteners



4931R

Shim Kit

To be used with 4700 Rim exit devices where a glass bead kit or molding would interfere with exit device
 Finishes: US3, ALM, DBZ, US32D
 Packaging: Two (2) each 1/8" (3 mm) shims and appropriate fasteners



4931S

Shim Kits

To be used with 4700 Series Surface Vertical Rod exit devices where a glass bead kit or molding would interfere with exit device
 Finishes: US3, ALM, DBZ, US32D
 Packaging: Two (2) each 1/8" (3 mm) shims and appropriate fasteners



4933R

Head Cover

For use with 4700 Series Rim exit device
 Finishes: US3, ALM, DBZ, US32D
 Packaging: One (1) head cover with four (4) each M4 x 6 mm MS



4933S

Head Cover

For use with 4700 Series Surface Vertical Rod exit device
 Finishes: US3, ALM, DBZ, US32D
 Packaging: One (1) head cover with four (4) each M4 x 6 mm MS





4700 SERIES - ACCESSORIES



4934

Panic-Rated Dogging Plate

For use with 4700 Series exit devices

Finishes: US3, ALM, DBZ, US32D

Packaging: One (1) each dogging plate and hex key

Notes: Not for use on fire-rated device



END CAP

For use with all 4700 Series exit devices

Packaging: One (1) each cap and bracket plus fasteners

Finishes:

ALM (2-649-0144)

DBZ (2-649-0145)

US3 (2-649-0146)

US32D (2-649-0147)



4934F

Fire-Rated Dogging Plate

For use with 4700 Series exit devices

Finishes: US3, ALM, DBZ, US32D

Packaging: One (1) each dogging plate



4936

24" Extension Rod Kit

For use with 4700 Series Surface Vertical Rod exit device

Finishes: US3, ALM, DBZ, US32D

Packaging: One (1) each
24" (610 mm) extension rod, rod connector, rod guide, plus wood and machine screws

Notes: Threaded on both ends; if cuts are required, cut the standard top rod on non-threaded end.



4937

36" Extension Rod Kit

For use with 4700 Series Surface Vertical Rod exit device

Finishes: US3, ALM, DBZ, US32D

Packaging: One (1) each 36" (914 mm) extension rod, rod connector, rod guide, plus wood and machine screws

Notes: Threaded on both ends; if cuts are required, cut the standard top rod on non-threaded end.

4900 Series

MULLIONS



Hager 4900 Series offers both a keyed removable mullion and a non-keyed removable mullion. Both are designed for use on double door openings with 4500, 4600 and 4700 Series Rim devices providing increased security and tighter closure, while providing easy adaptation for full width access. Our 4900 Series Mullions sets include a mullion tube, top and bottom brackets, and fasteners. Fire-rated mullions are UL listed for 3 hours on fire-rated pairs of doors up to 8 feet by 8 feet.





4900 SERIES - HOW TO ORDER

4900 SERIES MULLION SETS

4900



Product Group

4900 Series, Mullions

U



Type

- T - Keyed Removable Mullion
- U - Non-Keyed Removable Mullion

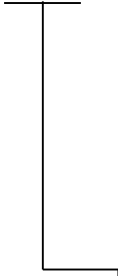
F



Fire Rating

- F - Fire Rated
- 0 - Non-Fire Rated

84"



Size

- 84"
- 96"
- 10' (120")

USP



Finish

USP

Notes:

1. Keyed removable mullion requires 3901 rim cylinder (sold separately).
2. Fire rated strike and hook kits sold separately (4912 for use with 4500 Series fire-rated exit device and mullion or 4916 for use with 4700 Series fire-rated exit device and mullion).
3. Stabilizer kit 4953 (sold separately).





4900 SERIES - KEYED REMOVABLE MULLION

WARRANTY | One-year warranty

SPECIFICATIONS

Certification:	UL/cUL/Warnock Hersey listed for fire-rated doors up to 8' (2438 mm) x 8' (2438 mm)
Cylinders:	<ul style="list-style-type: none"> • Solid brass 6-pin rim cylinders (3901, sold separately) • Standard core, C keyway - Standard • Small Format Interchangeable Core available (sold separately)
Mullion:	2" x 3" (51 mm x 76 mm) – 11 gauge steel tube
Fasteners:	<ul style="list-style-type: none"> • Four (4) 8 - 32 x 3/4" (19 mm) FPHMS • Four (4) 5/16" - 18 x 5/8" (16 mm) FPHMS • Two (2) 5/16" - 18 x 1-1/2" (38 mm) FPHMS • Two (2) 3/8" wedge anchors
Shims:	<ul style="list-style-type: none"> • 1/2" (13 mm) and 5/8" (16 mm) shims included (top) • 1/8" (4 mm) shims included (bottom)
Strikes:	<ul style="list-style-type: none"> • Panic-rated mullions use standard Rim strike supplied with exit device • Fire-rated strike and hook kit 4912 (4500 or 4600 Series) or 4916 (4700 Series) must be purchased separately
Top Fitting:	<ul style="list-style-type: none"> • Dead latch on fire-rated device • Latching head allows the mullion to be removed in seconds • Mullion can be locked in place without the use of a key



4900T/TF

FINISHES | USP - grey primer only



4900T

Mullion Set

Certification: Panic-rated
 Opening Height: 84" (2134 mm),
 96" (2438 mm),
 120" (3048 mm)
 Material: 11 gauge steel tube



4900TF

Fire-Rated Mullion Set

Certification: UL fire-rated
 Opening Height: 84" (2134 mm),
 96" (2438 mm)
 Material: 11 gauge steel tube



4900 SERIES - NON-KEYED REMOVABLE MULLION

WARRANTY | One-year warranty

SPECIFICATIONS

- Certification:** UL/cUL Listed for fire-rated pairs of doors up to 8' (2438 mm) X 8' (2438 mm)
- Mullion:**
- 2" x 3" (51 mm x 76 mm) – 11 gauge steel tube
 - Mullion easily removed by loosening top and bottom screws
- Fasteners:**
- Four (4) each 5/16" - 18 x 5/8" FHPMS (top bracket)
 - Two (2) each 5/16" - 18 x 1-1/2" FHPMS (top bracket)
 - Four (4) each 5/16" - 18 x 1-1/2" FHMS (bottom bracket)*
 - Four (4) each 5/16" - 18 masonry anchors (5/8" diameter x 7/8" long) (bottom bracket)**
 - Two (2) each 1/4" - 20 x 1-1/4" FHPMS (top fitting)
 - Two (2) each 1/4" - 20 thru bolts (top fitting)
 - Two (2) #10 - 24 x 3/8" FHPMS (top fitting)
 - One (1) 1/4 - 20 x 3/16" set screw (top fitting)
 - Fire-rated device - 5/16" - 18 x 1-1/4" FHMS, 5/16" - 18 masonry anchors (1/2" diameter x 1-1/2" long)
- Shims:**
- Two (2) each 1/2" (13 mm) and 5/8" (16 mm) shims included (top)
 - Two (2) 1/16" (1.6 mm) shims included (bottom)
- Strikes:**
- Panic-rated mullions use standard Rim strike supplied with exit device
 - Fire-rated strike and hook kit 4912 (4500 or 4600 Series) or 4916 (4700 Series) must be purchased separately



4900U/UF

FINISHES | USP - grey primer only



4900U
Non-Keyed Removable Mullion Set

Certification: Panic-rated
Opening Height: 84" (2134 mm),
96" (2438 mm),
120" (3048 mm)
Material: 11 gauge steel tube



4900UF
Fire-Rated Non-Keyed Removable Mullion Set

Certification: UL fire-rated*
Opening Height: 84" (2134 mm),
96" (2438 mm),
Material: 11 gauge stainless steel tube



4900 SERIES - STRIKES AND STABILIZER KIT

4900T - ACCESSORIES



4912

Fire-Rated Strike and Hook Kit for 4500 and 4600 Series

Finishes: US32D
Notes: Must order for use with fire-rated mullion and fire-rated Rim devices to ensure fire rating



4902

Top/Bottom Bracket Set

Certification: Non-fire-rated
Function: Keyed Removable
Materials: Steel
Fasteners: Two (2) each MS #5/16 -18 x 1-1/2" FHP stainless; four (4) each MS #8-32 x 3/4" 100 degree FHP; four (4) each MS #5/16-18 x 5/8" FHP stainless zinc plated
Cylinder: Rim cylinder, 3901, sold separately



4916

Fire-Rated Strike and Hook Kit for 4700 Series

Finishes: US32D
Notes:

- Must order for use with fire-rated mullion and fire-rated Rim devices to ensure fire rating
- For use with 4900NKR mullion only



4902F

Fire-Rated Top/Bottom Bracket Set

Certification: Fire-rated
Function: Keyed removable
Materials: Steel
Fasteners: Two (2) each MS #5/16 - 18 x 1-1/2" FHP stainless; four (4) each MS #10 x 1" Type A FHP undercut stainless; four (4) each MS 10 - 24 x 5/8" FHP undercut stainless; four (4) each MS #5/16 - 18 x 5/8" FHP stainless zinc plated
Cylinder: Rim cylinder, 3901, sold separately



4953

Mullion Stabilizer Kit

Finishes: US32D
Notes: For use with mullion and exit devices for added security

4900T - CYLINDER



3901

Rim Cylinder

Conventional cylinder and Small Format Interchangeable Core sold separately. For more cylinder information, please refer to Cylinder, Core & Keying in the Lock section of this catalog.



4907

Mullion Tube

Certification: Fire-rated up to 96" (2438 mm)
Opening Height: 84" (2134 mm), 96" (2438 mm), 120" (3048 mm)
Finishes: USP grey primer
Materials: Steel



4900 SERIES - 4900U ACCESSORIES



4904

Top/Bottom Bracket Set

Certification: Non-fire-rated
Function: Non-keyed removable
Materials: Steel



4904F

Fire-Rated Top/Bottom Bracket Set

Certification: Fire-rated
Function: Non-keyed removable
Materials: Steel



4905

Mullion Tube

Certification: Fire-rated
Opening Height: • 84" (2134 mm)
• 96" (2438 mm)
• 120" (3048 mm)
Finishes: USP grey primer
Materials: Steel
Notes: 120" (3048 mm) not fire-rated





One Family. One Brand. One Vision.™

www.hagerco.com

Locks



Hager Companies offers a wide range of Grade 1 and Grade 2 products to meet almost any application and specification requirements. Hager locks are manufactured to the highest quality standards and extensively tested to ANSI standards and BHMA certification requirements. In addition, all leversets comply with ADA requirements outlined in ANSI A117.1.

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2300 Series



Hager 2300 Series tubular lockset provides the necessary security and dependability for applications where there is a need for interior functions requiring a residential look and feel. It is well suited for light duty residential interior applications such as multi-family housing. It is offered in many of the popular designs that are seen throughout the industry today.





2300 SERIES - HOW TO ORDER

2310

Function

- 10 - Passage
- 17 - Single Dummy
- 27 - Double Dummy
- 40 - Privacy

2³/₄"

Backset/Faceplate

- 2-3/4" (70 mm)
- 2-3/8" (60 mm)

US15

Finish

- US3
- US15
- US10B
- US26
- US26D

US26D

Interior Finish
(if different)

CHA

Lever Style

- CHA - Charles Lever
- *JHN - Johnston Lever
- JOS - Joshua Lever
- LOU - Louis Lever
- *WRN - Warren Lever

ASA

Strike

- ASA
- TEE
- FLRC and FULL
(Default)





Product Group

- Tubular, DECO

* Handing required for Johnston and Warren levers when specifying single dummy function.

Note:
Finishes other than US10B, US15, and US26D are subject to longer lead times.

2300 SERIES FUNCTION CHART

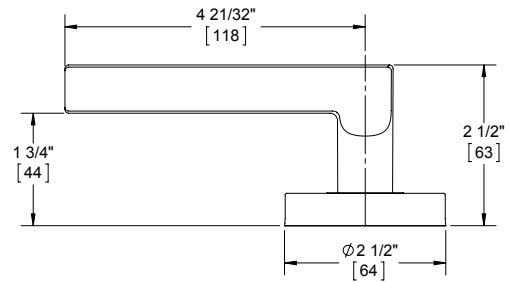
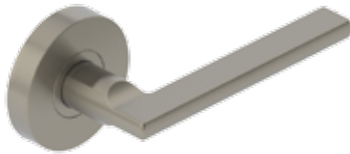
Function	Function No.	Function Description	ANSI No.	
Non-Keyed				
	Passage	10	Latchbolt operated by lever from either side at all times.	-
	Dummy - Single	17	Pull one side, no mechanical operation.	-
	Dummy - Double	27	Pull both sides, no mechanical operation (back to back).	-
	Privacy	40	Latchbolt operated by lever from either side. Outside lever is locked by push button and unlocked by emergency release outside or operating inside lever.	-



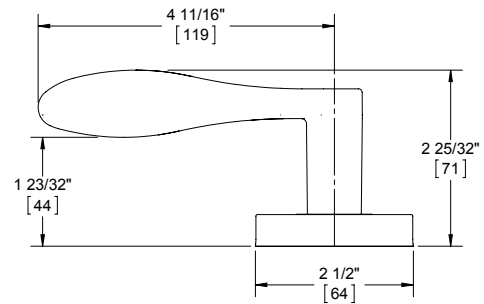
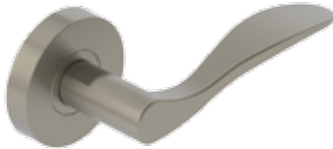


2300 SERIES - LEVER OPTIONS

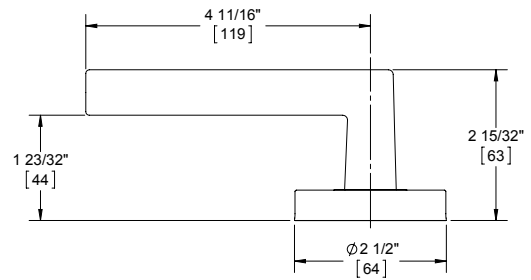
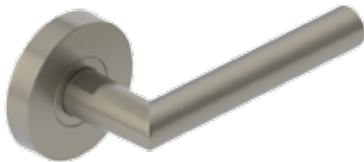
CHARLES LEVER



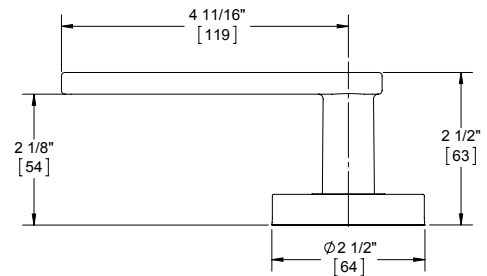
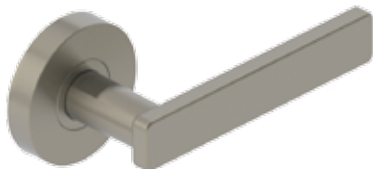
JOHNSTON LEVER



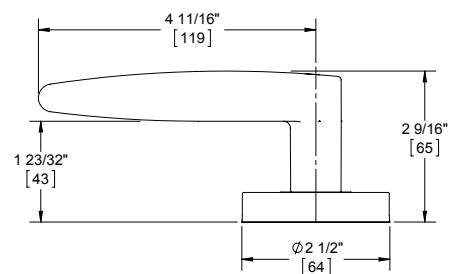
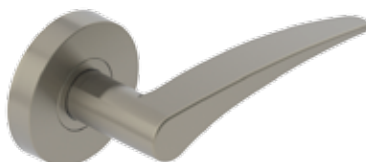
JOSHUA LEVER



LOUIS LEVER



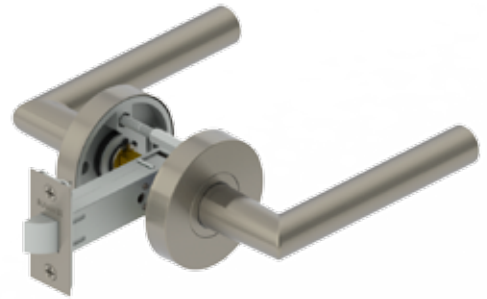
WARREN LEVER





2300 SERIES - DECO TUBULAR - LIGHT DUTY RESIDENTIAL - MULTI FAMILY

WARRANTY	Five-year warranty
FEATURES	<ul style="list-style-type: none">• ADA Compliant• No exposed mounting screws
Lever Options:	Charles, Johnston, Joshua, Louis, and Warren
Options:	Split finish available
SPECIFICATIONS	
Exposed Trim:	<ul style="list-style-type: none">• Levers: Solid cast zinc (4.69" / 119 mm length)• Rose: Stainless steel (2.5" / 63.5 mm diameter)
Door Thickness:	1-3/8" - 1-3/4" (35 mm - 45 mm)
Rose Diameter:	2-1/2" (63.5 mm)
Backset:	<ul style="list-style-type: none">• 2-3/4" (70 mm) - Standard• 2-3/8" (60 mm) - Optional
Latchbolt:	<ul style="list-style-type: none">• 7/16" (11 mm) throw• 1" x 2-1/4" (25 mm x 57 mm) faceplate• Square and round corner faceplates come standard
Strike:	Square and round corner full lip strikes come standard
Door Handing:	Non-handed (except for Johnston and Warren, 17 Functions)
Functions:	10 Passage, 17 Dummy, 27 Back to Back Dummy, 40 Privacy
FINISHES	US3, US10B, US15, US26, US26D



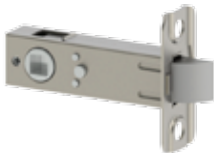


2300 SERIES LATCHBOLTS

2300 SERIES ADDITIONAL STRIKES



- 2-639-7607**
2-3/4" Backset Passage Spring Latch
- Square and round corner standard
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with passage function



- 2-639-7608**
2-3/4" Backset Privacy Spring Latch
- Square and round corner standard
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with privacy function



- 2-639-7609**
2-3/8" Backset Passage Spring Latch
- Square and round corner standard
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with passage function



- 2-639-7610**
2-3/8" Backset Privacy Spring Latch
- Square and round corner standard
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with privacy function



- 3933**
T-Strike with Plastic Dust Box
- 1-1/8" x 2-3/4" (29 mm x 70 mm)
 - Dust box included



- 3935**
Standard ASA Strike Plate
- 1-1/4" x 4-7/8" (32 mm x 124 mm)
 - 1-5/16" lip
 - Other lengths available upon request



- 3959**
Faceplate Adapter
- Converts 1" (25 mm) to 1-1/8" (28 mm) width

2500 Series

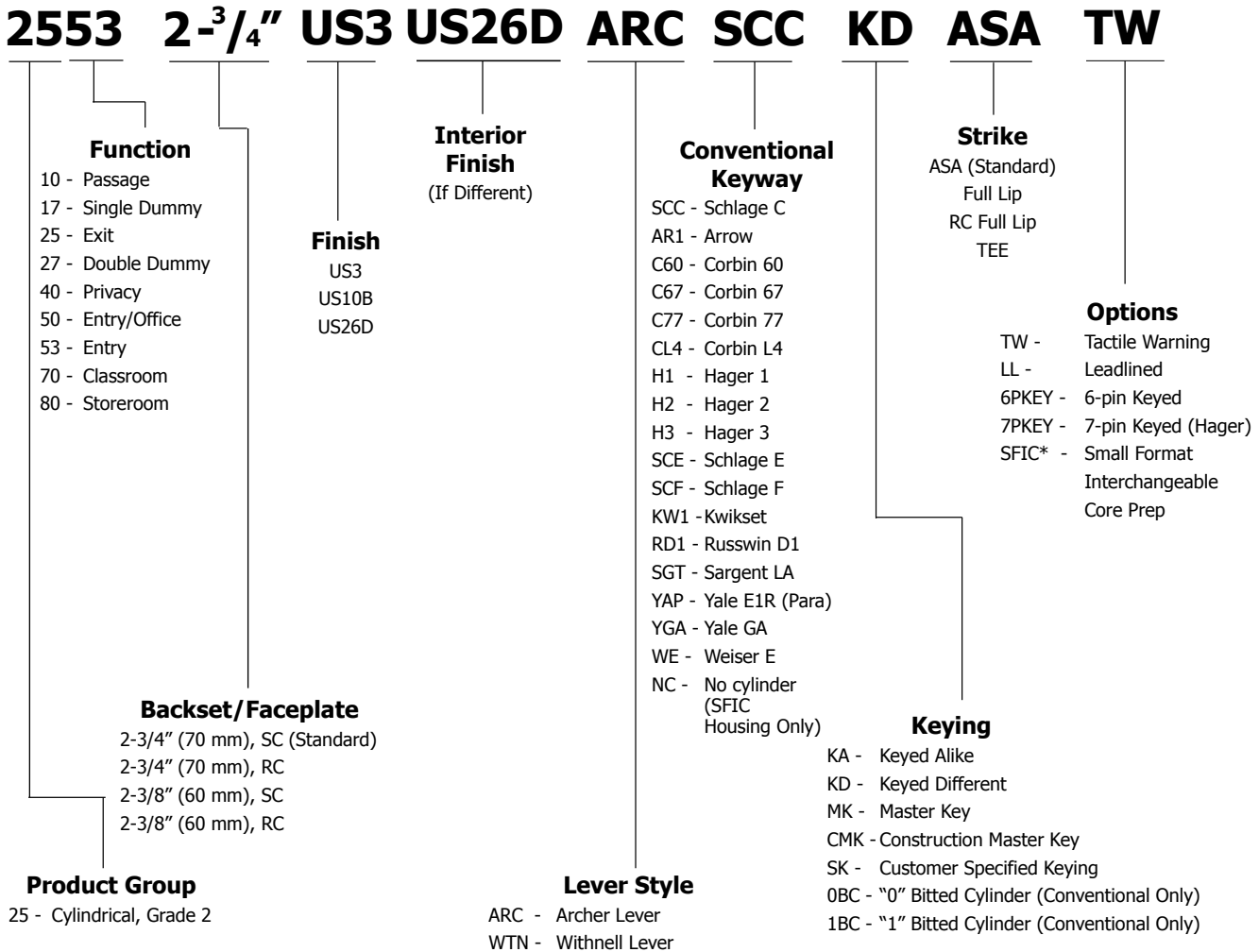


Hager 2500 Series Grade 2 lock is a perfect combination of value and performance and is the ideal choice of lock for typical commercial applications. The inherent value of this lock and the product offering make our 2500 Series lock a perfect choice for a stocking program. As an economical alternative to other Grade 2 cylindrical locks, it offers both dependability and affordability.





2500 SERIES - HOW TO ORDER



Notes:

1. If masterkeyed, include completed master key form with order (available on page 88 or www.hagerco.com).
2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 73).










* Small format interchangeable core sold separately. Available in Best Keyways (A Standard), or Hager Keyways (optional).

Ordering example: 2553 2-3/4" US26D WTN NC ASA SFIC





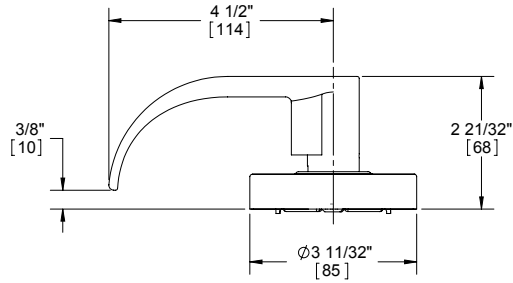
2500 SERIES - FUNCTION CHART

Function	Function No.	Function Description	ANSI No.	
Non-Keyed				
	Passage	10	Latchbolt operated by lever from either side at all times.	F75
	Dummy - Single	17	Pull one side, no mechanical operation.	-
	Exit	25	Blank plate outside (13/16" [31 mm] projection). Inside lever is always unlocked.	F111
	Dummy - Double	27	Pull both sides. No mechanical operation (back to back).	-
	Privacy	40	Latchbolt operated by lever from either side. Outside lever is locked by push button inside and unlocked by emergency release outside, operating inside lever or closing door.	F76A
Keyed				
	Entry/Office	50	Deadlocking latchbolt operated by lever from either side except when outside lever is locked by push button on inside lever. When outside lever is locked, operating key in outside lever or operating inside lever unlocks push button or other locking device and retracts latchbolt. Closing door does not release push button.	F82A
	Entry	53	Deadlocking latchbolt by lever either side, except when turn button inside locks outside lever. Pushing turn button in locks outside lever, requiring use of key outside to unlock. Turning inside lever unlocks outside lever. Pushing in and turning button locks outside lever, requiring key at all times. Turning inside lever does not unlock outside lever until button is manually turned to unlocked position. Inside lever always free.	F109
	Classroom	70	Deadlocking latchbolt operated by lever from either side except when outside lever is locked from outside by key. When outside lever is locked, latchbolt is operated by inside lever.	F84
	Storeroom	80	Deadlocking latchbolt operated by key in outside lever, or by operating inside lever. Outside lever is always locked. Inside lever is always unlocked.	F86

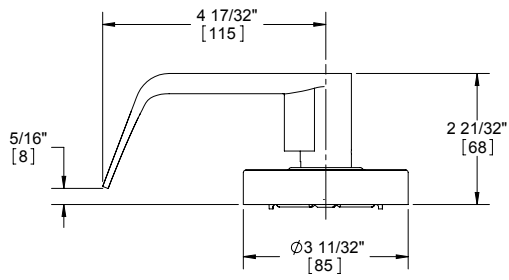


2500 SERIES - LEVER OPTIONS

ARCHER LEVER



WITHNELL LEVER



Optional tactile warning available on all lever styles (only outside lever will include raised surfaces unless otherwise specified).





2500 SERIES - GRADE 2 CYLINDRICAL - STANDARD DUTY COMMERCIAL

WARRANTY	One-year warranty
FEATURES	<ul style="list-style-type: none"> • No exposed mounting screws • Non-handed • Conventional cylinder and small format interchangeable core option available
Applications:	<ul style="list-style-type: none"> • Standard duty commercial • Standard door prep - 2-1/8" (54 mm) diameter (bore) • Latch hole - 1" (25.4 mm) diameter (cross bore)
Certifications:	<ul style="list-style-type: none"> • Meets BHMA ANSI A156.2, Series 4000, Grade 2 • ADA Compliant ANSI A117.1 Accessibility Code • UL/cUL Listed for all functions up to 3 hours "A" label single doors • UL 10C Positive Pressure Related • UL 10B Neutral Pressure Rated
Lever Options:	Archer, Withnell levers
Options:	<ul style="list-style-type: none"> • Lead lined • Tactile warning
SPECIFICATIONS	
Exposed Trim:	<ul style="list-style-type: none"> • Wrought brass, bronze, and stainless steel • Lever is zinc based, plated to match BHMA symbols
Rose Diameter:	3-11/32" (85 mm)
Lock Chassis:	<ul style="list-style-type: none"> • Heavy gauge steel, zinc dichromated for corrosion resistance • "Non-clutching" exterior lever on keyed functions • Removable thru-bolts • Failure to install thru-bolts and removable screw posts voids BHMA certification, UL rating, and warranty
Keys:	Two operating keys supplied per lock
Cylinders/Cores:	<ul style="list-style-type: none"> • Brass, keyed different, Schlage C keyway standard • Cylinder drilled 6-pin, keyed 5-pin • Other keying options, including keyed 6-pin, available from the factory (see cylinders, cores and keying sections). • Small Format Interchangeable Core option available • SFIC uncombined or combined, brass 6- or 7-pin cores sold separately
Door Thickness:	1-3/8" - 2" (35 mm - 51 mm)
Backset:	<ul style="list-style-type: none"> • 2-3/4" (70 mm) - Standard • 2-3/8" (60 mm) - Optional
Latchbolt:	<ul style="list-style-type: none"> • 1/2" (13 mm) throw, stainless steel • 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate for 2-3/4" (70 mm) backset • 1" x 2-1/4" (25 mm x 57 mm) faceplate for 2-3/8" (60 mm) backset • Deadlocking latchbolt prevents manipulation when door is closed; keyed functions and 25 function only
Strike:	<ul style="list-style-type: none"> • 3935 ASA 1-1/4" x 4-7/8" (32 mm x 124 mm) strike standard • Optional strikes available
Functions:	10 Passage, 17 Dummy, 25 Exit Only, 27 Back to Back Dummy, 40 Privacy, 50 Entry/Office, 53 Entry, 70 Classroom, 80 Storeroom
Notes:	Blank plate projection is 13/16" (21 mm) for function 25
FINISHES	US3, US10B, US26D





2500 SERIES - LATCHBOLTS

Spring Latches



3947
2-3/4" (70 mm) Backset
Passage Spring Latch
• Square and round corner available
• 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate



3949
2-3/8" (60 mm) Backset
Passage Spring Latch
• Square and round corner available
• 1" x 2-1/4" (25 mm x 57 mm) faceplate

3965
2-3/4" (70 mm) Backset
Privacy Spring Latch
• Square and round corner available
• 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

3967
2-3/8" (60 mm) Backset
Privacy Spring Latch
• Square and round corner available
• 1" x 2-1/4" (25 mm x 57 mm) faceplate

Dead Latches



3948
2-3/4" (70 mm) Backset
Dead Latch
• Square and round corner available
• 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

3950
2-3/8" (60 mm) Backset
Dead Latch
• Square and round corner available
• 1" x 2-1/4" (25 mm x 57 mm) faceplate

Optional Drive-In Spring Latches



3922
2-3/4" (70 mm) Backset
Passage Spring Latch

3925
2-3/8" (60 mm) Backset
Passage Spring Latch



3923
2-3/4" (70 mm) Backset
Privacy Spring Latch

3926
2-3/8" (60 mm) Backset
Privacy Spring Latch

Optional Drive-In Dead Latches



3924
2-3/4" (70 mm) Backset
Dead Latch

3927
2-3/8" (60 mm) Backset
Dead Latch

Backset Extension Links



3917
3-3/4" (95 mm) Backset
Extension Link
For use with 2-3/8" (60 mm) backset latch to achieve 3-3/4" total backset



3937
5" (127 mm) Backset
Extension Link
For use with 2-3/4" (70 mm) backset latch to achieve 5" total backset





2500 SERIES - STRIKES

2500 SERIES ACCESSORIES



3933
T-Strike with Plastic Dust Box
1-1/8" x 2-3/4" (29 mm x 70 mm)



3911
Thru-Bolt Jig



3934
Full Lip Strike
1-5/8" x 2-1/4" (41 mm x 57 mm)



3935
ASA Strike Plate - Standard

- 1-1/4" x 4-7/8" (32 mm x 124 mm)
- 1-5/16" lip
- Other lengths available upon request



3958
Full Lip Strike with Round Corner

- 1-5/8" x 2-1/4" (41 mm x 57 mm)
- 1/4" (6 mm) radius



3959
Faceplate Adapter
Converts 1" (25 mm) to 1-1/8" (28 mm) width

3100 Series

 **HAGER**
COMPANIES



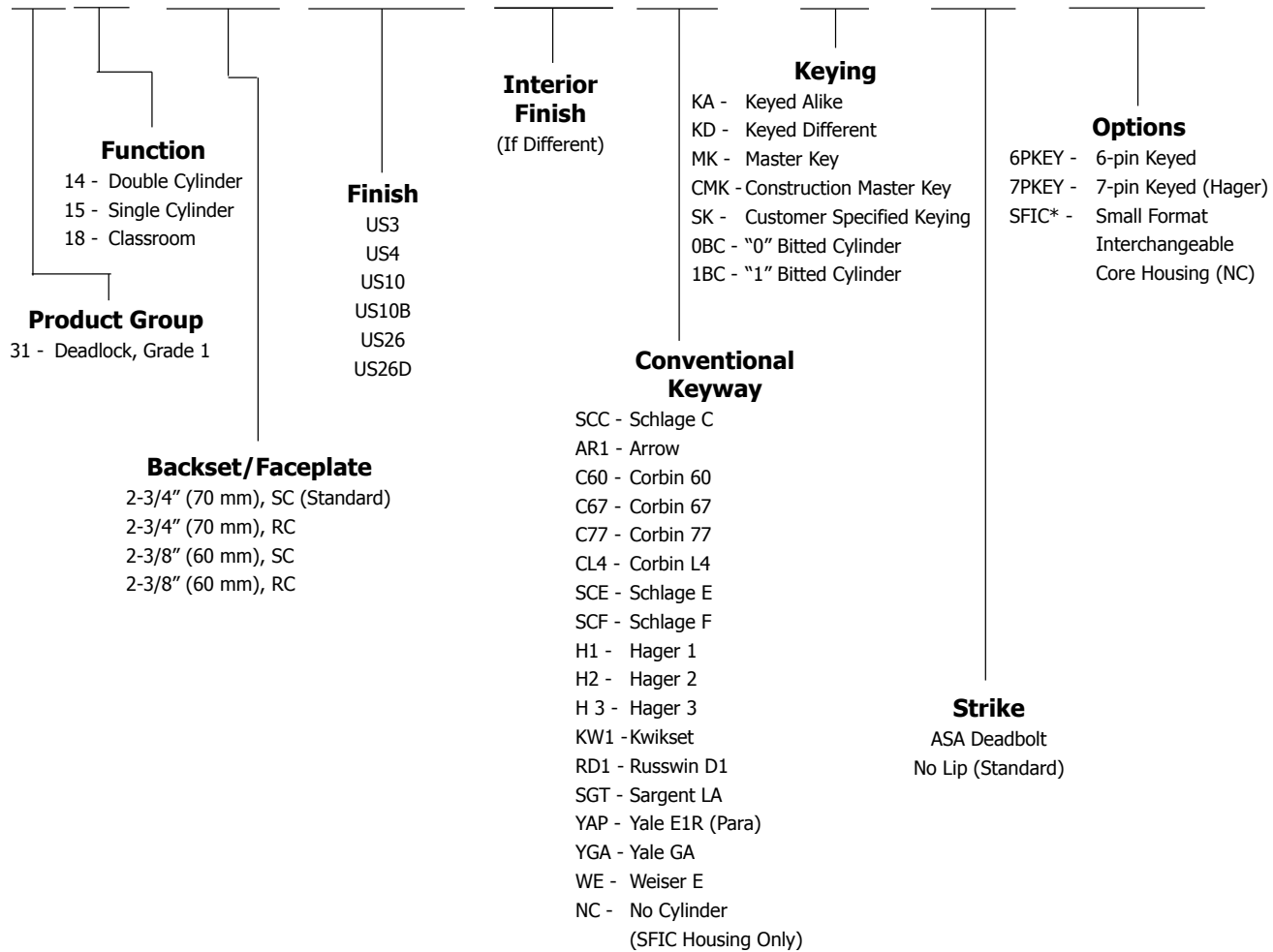
Hager 3100 Series Grade 1 deadlock is designed and engineered to withstand the most abusive environments. It is the perfect complement to Hager 3400 Series lockset for extra protection against break-in and is backed by a lifetime warranty.








3100 SERIES - HOW TO ORDER

3114 2-3/4" US26D US26 SCC KD ASA 6PKEY



Notes:
1. If masterkeyed, include completed master key form with order (available on page 88 or www.hagerco.com).
2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 73).
* Small format interchangeable core sold separately. Available in Best Keyways (A Standard), or Hager Keyways (optional).
Ordering example: 3114 2-3/4" US26D NC SFIC

3100 SERIES FUNCTION CHART

Function	Function No.	Function Description	ANSI No.
 Double Cylinder	14	Deadbolt thrown or retracted by key from either side. Bolt automatically deadlocks when fully thrown.	E2141
 Cylinder x Thumbturn	15	Deadbolt thrown or retracted by key from outside or by inside thumbturn. Bolt automatically deadlocks when fully thrown.	E2151
 Classroom	18	Deadbolt thrown or retracted by key outside. Inside thumbturn will retract bolt only. Bolt automatically deadlocks when fully thrown.	E2171



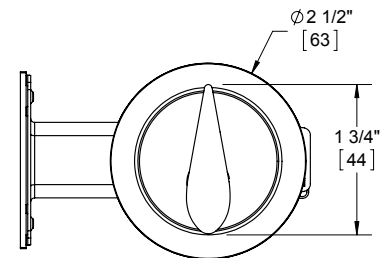
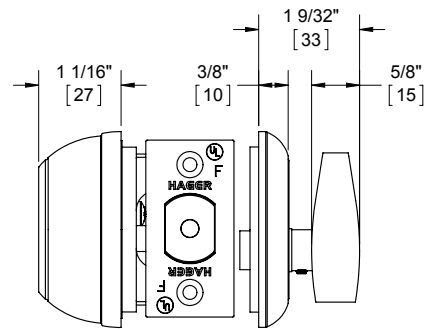
3100 SERIES - GRADE 1 DEADLOCK - AUXILIARY

WARRANTY	Lifetime warranty
FEATURES	<ul style="list-style-type: none"> • Non-handed • Conventional cylinder or Small Format Interchangeable Core option available
Certifications:	<ul style="list-style-type: none"> • BHMA Certified ANSI A156.5 Grade 1 • ANSI A250.13 Severe Windstorm Resistant Component • UL/cUL Listed for all functions up to 3 hours for "A" label single doors • UL10C Positive Pressure Rated • UL10B Neutral Pressure Rated • ADA - Thumbturn
Options:	<ul style="list-style-type: none"> • Split finish • Additional deadbolts and strikes available



SPECIFICATIONS

Standard Door Prep:	<ul style="list-style-type: none"> • Cylinder hole: 2-1/8" (54 mm) diameter (bore) • Latch hole: 1" (25 mm) diameter (coss bore)
Exposed Trim:	Wrought brass or bronze
Mechanism:	Steel, zinc dichromate plating
Keys:	Two operating keys supplied per lock
Cylinders/Cores:	<ul style="list-style-type: none"> • Brass - Keyed Different - Schlage C Keyway standard • Cylinder drilled 6-pin, Keyed 5-pin - Standard • Other keying options, including keyed 6-pin, available from the factory (see Cylinder, Core and Keying section) • Small Format Interchangeable Core option available • SFIC uncombined or combined, brass 6- or 7-pin cores sold separately
Door Thickness:	<ul style="list-style-type: none"> • 1-3/4" - 2" (45 mm - 51 mm) - Standard • 2" - 2-1/4" (57 mm) available for conventional cylinder - Must specify
Backset:	<ul style="list-style-type: none"> • 2-3/4" (70 mm) - Standard • 2-3/8" (60 mm) - Optional
Latchbolt:	<ul style="list-style-type: none"> • 1" (25 mm) Throw - Brass with concealed hardened steel roller to prevent sawing or cutting • 1-1/8" x 2-1/4" (29 mm x 57 mm) Square Corner Faceplate
Strikes:	<ul style="list-style-type: none"> • 3930 Square Corner, 1-1/8" x 2-3/4" (29 mm x 70 mm) with dustbox - Standard • 3929 ASA Deadbolt Strike - Optional
Functions:	14 Double Cylinder, 15 Cylinder x Thumbturn, 18 Classroom



FINISHES	US3, US4, US10, US10B, US26, US26D
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3100 SERIES LATCHBOLTS



3940
2-3/4" (70 mm) Backset Latchbolt - Standard

- Square and round corner available
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate
- Round corner not available in US32/32D

3941
2-3/8" (60 mm) Backset Latchbolt - Optional

- Square and round corner available
- 1" x 2-1/4" (25 mm x 57 mm) faceplate
- Round corner not available in US32/32D

3100 SERIES STRIKES



3929
ASA Deadbolt Strike - Optional
1-1/4" x 4-7/8" (32 mm x 124 mm)



3930
Strike Plate - Standard
• 1-1/8" x 2-3/4" (29 mm x 70 mm)
• Dust box included



3200 Series



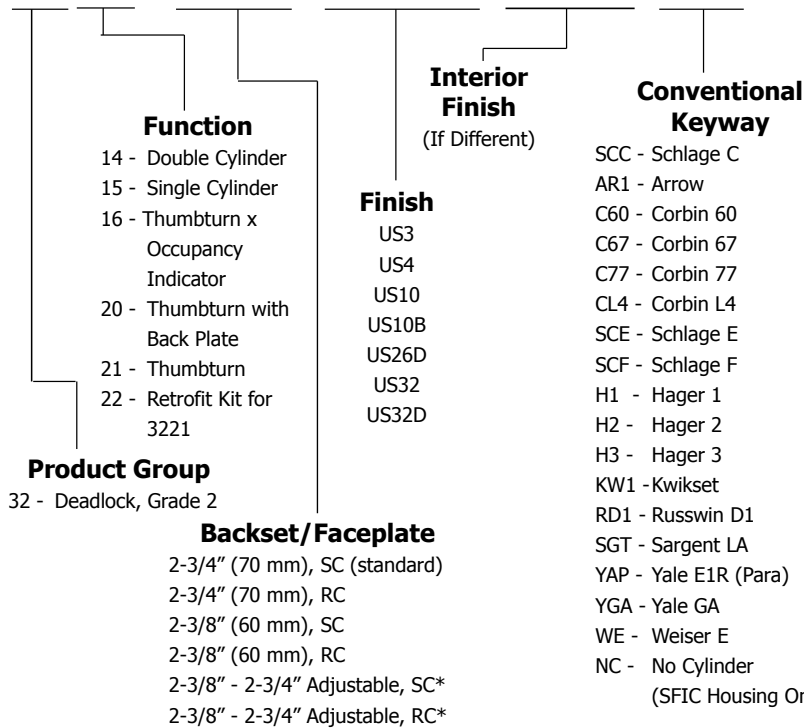
Hager 3200 Series Grade 2 deadlock provides a perfect combination of value and performance and is the ideal choice of lock for typical commercial applications. Our 3200 Series is an economical alternative to Grade 1 when Grade 1 is not required. It is a perfect complement to our 3500 Series for extra protection against break-in and is backed by a lifetime warranty.



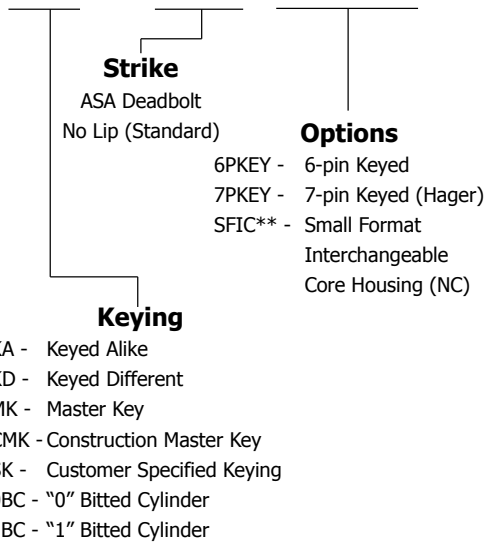


3200 SERIES - HOW TO ORDER

3214 2-3/4" US26D US26 SCC








KD ASA 6PKEY



- Notes:
1. If masterkeyed, include completed master key form sheet with order (available on page 88 or www.hagerco.com).
 2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 73).

* Adjustable backset deadbolts supplied with 3220 and 3221.
 ** Small format interchangeable core sold separately. Available in Best Keyways (A Standard), or Hager Keyways (optional).
Ordering example: 3214 2-3/4" US26D NC SFIC

3200 SERIES FUNCTION CHART

Function	Function No.	Function Description	ANSI No.
 Double Cylinder	14	Deadbolt thrown or retracted by key from either side. Bolt automatically deadlocks when fully thrown.	E2142
 Cylinder x Thumbturn	15	Deadbolt thrown or retracted by key from outside or by inside thumbturn. Bolt automatically deadlocks when fully thrown.	E2152
 Thumbturn x Occupancy Indicator	16	Deadbolt operated by thumbturn inside, emergency override key outside. Outside indicator displays "In Use" when deadbolt is thrown and "Vacant" when deadbolt is retracted.	_____
 Thumbturn w/ Blank Plate (no cylinder)	20	Deadbolt thrown or retracted by thumbturn only. Outside blank plate. Bolt automatically deadlocks when fully thrown.	E21112
 Thumbturn Only (no cylinder)	21	Deadbolt thrown or retracted by thumbturn only. No outside trim. Bolt automatically deadlocks when fully thrown.	E2192

Note: 3222 available for retrofit applications, converting a 3221 into a 3220.



3200 SERIES - GRADE 2 DEADLOCK - AUXILIARY

WARRANTY | Lifetime warranty

FEATURES

- Non-handed
- Conventional cylinder or Small Format Interchangeable Core option available

Certifications:

- BHMA Certified ANSI A156.5 Grade 2
- ANSI A250.13 Severe Windstorm Resistant Component
- UL/cUL Listed for all functions up to 3 hours for "A" label single doors
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated
- ADA - Thumbturn

Options:

- Split finish
- Additional deadbolts and strikes available

SPECIFICATIONS

Standard Door Prep:

- Cylinder hole: 2-1/8" (54 mm) diameter (bore)
- Latch hole: 1" (25 mm) diameter (cross bore)

Exposed Trim: Wrought brass, bronze or stainless steel

Mechanism: Steel, zinc dichromate plating

Keys: Two operating keys supplied per lock

Cylinders/Cores:

- Brass - Keyed Different - Schlage C Keyway standard
- Cylinder drilled 6-pin, Keyed 5-pin - Standard
- Other keying options, including keyed 6-pin, available from the factory (see Cylinder, Core and Keying section)
- Small Format Interchangeable Core option available
- SFIC uncombined or combined, brass 6- or 7-pin cores sold separately

Door Thickness:

- 1-3/4" (45 mm) only - 3214 SFIC and 3216
- 1-3/8" - 1-3/4" (35 mm - 45 mm) - Standard
- 2" - 2-1/4" (51 mm - 57 mm) available for conventional cylinder only - Must specify

Backset:

- 2-3/4" (70 mm) - Standard
- 2-3/8" (60 mm) - Optional
- 2-3/8" - 2-3/4" adjustable backset supplied with 3220 and 3221 (not available on 3214 or 3215)

Latchbolt:

- 1" (25 mm) Throw - Brass with concealed hardened steel roller to prevent sawing or cutting
- 1-1/8" x 2-1/4" (29 mm x 57 mm) square corner faceplate

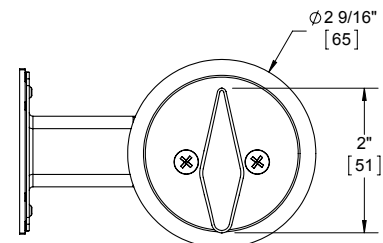
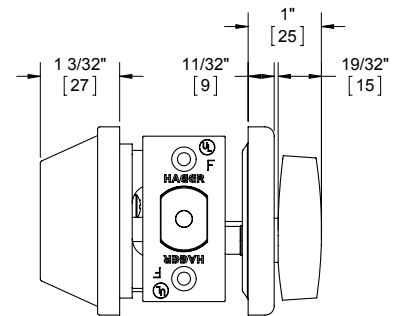
Strikes:

- 3930 Square Corner, 1-1/8" x 2-3/4" (29 mm x 70 mm) with dustbox - Standard
- 3929 ASA Deadbolt Strike - Optional

Functions: 14 Double Cylinder, 15 Cylinder x Thumbturn, 16 Thumbturn x Occupancy Indicator, 20 Thumbturn w/ Blank Plate, 21 Thumbturn Only

Notes: 3222 retrofit kit available for use with 21 function

FINISHES | US3, US4, US10, US10B, US26D, US32, US32D





3200 SERIES LATCHBOLTS

3200 SERIES STRIKES



3940
2-3/4" (70 mm) Backset Latchbolt - Standard

- Square and round corner available
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate
- Round corner not available in US32/32D

3941
2-3/8" (60 mm) Backset Latchbolt - Optional

- Square and round corner available
- 1" x 2-1/4" (25 mm x 57 mm) faceplate
- Round corner not available in US32/32D



3942
2-3/8" (60 mm) - 2-3/4" (70 mm) Adjustable Backset Latchbolt - Standard for 3220 and 3221

- Square and round corner available
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate - Standard
- 1" x 2-1/4" (25 mm x 57 mm) faceplate - Optional
- Round corner not available in US32/32D



3929
ASA Deadbolt Strike - Optional
1-1/4" x 4-7/8" (32 mm x 124 mm)



3930
Strike Plate - Standard
• 1-1/8" x 2-3/4" (29 mm x 70 mm)
• Dust box included



3400 Series



Hager 3400 Series Grade 1 lock is designed and engineered to withstand the most abusive environments. We've categorized it 'extra heavy duty' and you can rest assured that it has been tested against heavy use, impact, strength, resistance, and abuse. We're so confident in our 3400 Series lock, it's backed by a lifetime warranty. The exceptional quality of our 3400 Series lock has made it incredibly successful in application after application across the country and around the globe.





3400 SERIES - HOW TO ORDER

3453	2-³/₄"	US26D	US26	WTN	SCC	KD	ASA	TW	
<p>Function</p> <ul style="list-style-type: none"> 10 - Passage 17 - Single Dummy 40 - Privacy 50 - Entry/Office 53 - Entry 70 - Classroom 73 - Corridor 80 - Storeroom 95 - Intruder Classroom 		<p>Interior Finish (If Different)</p>		<p>Conventional Keyway</p> <ul style="list-style-type: none"> SCC - Schlage C AR1 - Arrow C60 - Corbin 60 C67 - Corbin 67 C77 - Corbin 77 CL4 - Corbin L4 SCE - Schlage E SCF - Schlage F H1 - Hager 1 H2 - Hager 2 H3 - Hager 3 KW1 - Kwikset RD1 - Russwin D1 SGT - Sargent LA YAP - Yale E1R (Para) YGA - Yale GA WE - Weiser E NC - No Cylinder (SFIC and LFIC Only) 		<p>Strike</p> <ul style="list-style-type: none"> ASA (Standard) Full RC Full TEE 		<p>Options</p> <ul style="list-style-type: none"> TW - Tactile Warning LL - Leadlined EL24 - Fail Safe 24 Volt EL12 - Fail Safe 12 Volt EU24 - Fail Secure 24 Volt EU12 - Fail Secure 12 Volt RX - Request to Exit ELRX24 - Fail Safe 24 Volt with Request to Exit ELRX12 - Fail Safe 12 Volt with Request to Exit EURX24 - Fail Secure 24 Volt with Request to Exit EURX12 - Fail Secure 12 Volt with Request to Exit 6PKEY - 6-pin Keyed 7PKEY - 7-pin Keyed (Hager Only) SFIC* - Small Format Interchangeable Core Prep LFIC** - Large Format Interchangeable Core Prep (Leverset Only) ANTI - Antimicrobial Coating (26D only) 	
<p>Backset/Faceplate</p> <ul style="list-style-type: none"> 2-3/4" (70 mm), SC (Standard) 2-3/4" (70 mm), RC 2-3/8" (60 mm), SC 2-3/8" (60 mm), RC 		<p>Finish</p> <ul style="list-style-type: none"> US3 - Knob/Lever US4 US10 US10B US26 US26D US32D - Knob Only 		<p>Lever Style</p> <ul style="list-style-type: none"> APL - Apollo Knob ARC - Archer Lever AUG - August Lever WTN - Withnell Lever 		<p>Keying</p> <ul style="list-style-type: none"> KA - Keyed Alike KD - Keyed Different MK - Master Key CMK - Construction Master Key SK - Customer Specified Keying OBC - "0" Bitted Cylinder 1BC - "1" Bitted Cylinder 		<p>Product Group</p> <ul style="list-style-type: none"> 34 - Cylindrical, Grade 1 	










Notes:
 1. If masterkeyed, include completed master key form with order (available on page 88 or www.hagerco.com).
 2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 73).

* Small format interchangeable core sold separately. Available in Best Keyways (A Standard) or Hager Keyways (optional).
 ** Large format interchangeable core sold separately. Available in Schlage C Keyway only.

Ordering example: 3453 2-3/4" US26D WTN NC ASA SFIC : 3453 2-3/4" US26D WTN NC ASA LFIC



3400 SERIES - FUNCTION CHART

	Function	Function No.	Function Description	ANSI No.
Non-Keyed				
	Passage	10	Latchbolt operated by lever from either side at all times.	F75
	Dummy - Single	17	Pull one side, no mechanical operation.	-
	Privacy	40	Latchbolt operated by lever from either side. Outside lever is locked by push button inside and unlocked by emergency release outside, operating inside lever or closing door.	F76A
Keyed				
	Entry/Office	50	Deadlocking latchbolt operated by lever from either side except when outside lever is locked by push button on inside lever. When outside lever is locked, operating key in outside lever or operating inside lever unlocks push button. Closing door does not release push button.	F82A
	Entry	53	Deadlocking latchbolt by lever either side, except when turn button inside locks outside lever. Pushing turn button in locks outside lever, requiring use of key outside to unlock. (Lever handle is freewheeling in locked position.) Turning inside lever unlocks outside lever. Pushing in and turning button locks outside lever, requiring key at all times. Turning inside lever does not unlock outside lever until button is manually turned to unlocked position. Inside lever always operates latchbolt.	F109
	Classroom	70	Deadlocking latchbolt operated by lever from either side except when outside lever is locked from outside by key. When outside lever is locked, latchbolt is operated by inside lever.	F84
	Corridor	73	Deadlocking latchbolt operated by lever from either side except when outside lever is locked by key in outside lever or by push button on inside. Key in outside lever locks or unlocks outside lever. Operating inside lever releases push button. Closing door releases push button. Inside lever always operates latchbolt.	F90
	Storeroom	80	Deadlocking latchbolt operated by key in outside lever, or by operating inside lever. Outside lever is always locked. Inside lever is always unlocked.	F86
	Intruder Classroom*	95	Deadlocking latchbolt operated by lever from either side. Key either inside or outside locks or unlocks outside lever. Inside lever always operates latchbolt.	F110

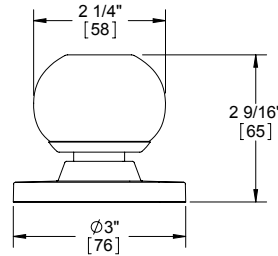
Notes: *Intruder Classroom includes locking direction indicator stamped on the inside rose standard.



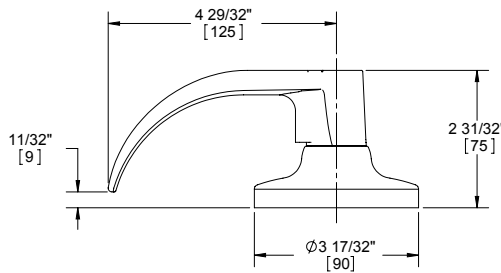


3400 SERIES - LEVER OPTIONS

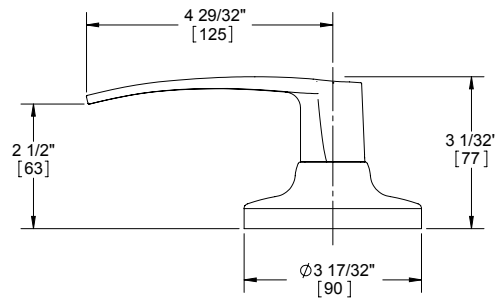
APOLLO KNOB



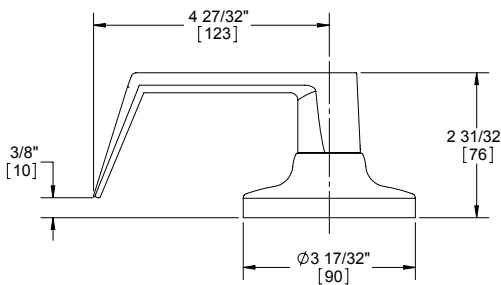
ARCHER LEVER



AUGUST LEVER



WITHNELL LEVER



Optional tactile warning available on all lever styles (only outside lever will include raised surfaces unless otherwise specified).





3400 SERIES - GRADE 1 CYLINDRICAL - HEAVY DUTY

WARRANTY	Lifetime warranty
FEATURES	<ul style="list-style-type: none"> • Heavy duty commercial, industrial, institutional • No exposed mounting screws • Non-handed • Conventional cylinder, Small Format Interchangeable Core, and Large Format Interchangeable Core option available
Certifications:	<ul style="list-style-type: none"> • BHMA Certified ANSI A156.2 Series 4000 Grade 1 • ADA Compliant ANSI A117.1 Accessibility Code (levers only) • ANSI A250.13 Severe Windstorm Resistant Component • UL/cUL Listed for all functions up to 3 hours for "A" label doors • UL10C Positive Pressure Rated • UL10B Neutral Pressure Rated
Lever Options:	Apollo knob; Archer, August, Withnell levers
Options:	<ul style="list-style-type: none"> • Lead lined (leversets only) • Tactile warning (levers only) • Antimicrobial coating (26D finish only) • Split finish • Additional latchbolts and strikes available
SPECIFICATIONS	
Standard Door Prep:	<ul style="list-style-type: none"> • 2-1/8" (54 mm) diameter (bore) • Latch hole: 1" (25 mm) diameter (cross bore)
Exposed Trim:	<ul style="list-style-type: none"> • Knobs: Wrought brass or stainless steel • Levers: Cast zinc • Rose: Wrought brass or stainless steel
Rose Diameter:	3-17/32" (90 mm) levers; 3" (76 mm) knobs
Lock Chassis:	<ul style="list-style-type: none"> • Heavy gauge steel, zinc dichromated for corrosion resistance • Free wheeling (levers only) • Thru-bolt mounting (levers only)
Keys:	Two operating keys supplied per lock
Cylinders/Cores:	<ul style="list-style-type: none"> • Brass 6-pin, keyed different - Schlage C Keyway - Standard • Cylinder drilled 6-pin, Keyed 5-pin - Standard • Other keying options, including keyed 6-pin, available from factory (see cylinder, core and keying section) • Small Format Interchangeable Core option available • SFIC uncombined or combined, brass 6- or 7-pin cores sold separately • Large Format Interchangeable Core option available - leversets only • LFIC zero bitted or combined, brass 6-pin cores sold separately - Schlage C only
Door Thickness:	<ul style="list-style-type: none"> • Knobs: 1-3/8" - 1-3/4" (35 mm - 45 mm) • Levers: 1-3/8" - 2" (35 mm - 51 mm)
Backset:	<ul style="list-style-type: none"> • 2-3/4" (70 mm) - Standard • 2-3/8" (60 mm) - Optional • 3-3/4" (94 mm) - Optional • 5" (128 mm) - Optional
Latchbolt:	<ul style="list-style-type: none"> • 1/2" (13 mm) throw, stainless steel • 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate • Square corner faceplates standard, round corner available • Deadlocking latchbolt prevents manipulation when door is closed; keyed functions only • 3/4" (18 mm) latch available
Strike:	3935 ASA 1-1/4" x 4-7/8" (32 mm x 124 mm) strike - Standard
Functions:	10 Passage, 17 Dummy, 40 Privacy, 50 Entry/Office, 53 Entry, 70 Classroom, 73 Corridor (levers only), 80 Storeroom, 95 Intruder Classroom (levers only)
FINISHES	<ul style="list-style-type: none"> • US3, US4, US10, US10B, US26, US26D (levers only) • US3, US32D (knobs only)





3400 SERIES - ELECTRIFIED - GRADE 1 CYLINDRICAL HEAVY DUTY

WARRANTY

- Lifetime warranty on mechanical locking components
- One-year warranty on electric components

FEATURES

- Deadlocking latchbolt
- Key override allows latchbolt to be momentarily retracted with the key even though electrically locked. Note that locks that are electrically unlocked may not be locked via the key cylinder.
- Inside lever always allows egress
- Interface with life-safety systems
- Continuous-duty solenoids



Function:

80 - Storeroom

Applications:

- Provides remote locking and unlocking ideal for access control where added security is necessary
- Stairtower doors
- Office doors
- Classrooms
- Elevator lobby doors
- Computer rooms
- Hospital equipment rooms
- Pharmaceutical storage rooms

Voltage:

- 12V AC/DC; current - .250AMP
- 24V AC/DC; current - .150AMP
- Specify 12V or 24V when ordering

FINISHES

US3, US4, US10, US10B, US26, US26D

Function	Function No.	Function Description
Storeroom - Fail Safe	3480EL	Outside lever continuously locked electrically. Latchbolt operable from the outside by key, by breaking electric current, or by power failure. Auxiliary latch deadlocks latchbolt when door is closed. Inside always free for immediate egress.
Storeroom - Fail Secure	3480EU	Outside lever continuously locked. Latchbolt operable from the outside by key or by applying electrical current. Auxiliary latch deadlocks latchbolt when door is closed. Inside always free for immediate egress.
Storeroom - Request to Exit	3480RX	Monitors inside lever rotation. Incorporates into fire alarm system or in conjunction with an electromagnet.
Storeroom - Fail Safe w/ Request to Exit	3480ELRX	Outside lever continuously locked electrically. Latchbolt operable from the outside by key, by breaking electric current, or by power failure. Auxiliary latch deadlocks latchbolt when door is closed. Inside always free for immediate egress. Inside lever rotation is monitored. Incorporates into fire alarm system.
Storeroom - Fail Secure w/ Request to Exit	3480EURX	Outside lever continuously locked. Latchbolt operable from the outside by key or by applying electrical current. Auxiliary latch deadlocks latchbolt when door is closed. Inside always free for immediate egress. Inside lever rotation is monitored. Incorporates into fire alarm system.





3400 SERIES - POWER SUPPLIES

See power supply area within the Electrified Products section for more details on our full selection of power supplies. Hager 2903, 2908 and 2909 power supplies are designed to power locking devices. Their features include:

- UL Listed
- Filtered/regulated 24VDC
- Overload protection
- Over voltage protection
- Short circuit protection
- Surge suppression on Fail Safe and Fail Secure outputs
- Fire alarm input standard

2903 Power Supply Includes:

- 24VDC, 2Amp
- Automatically accepts 120 or 240VAC input
- Auxiliary 24VDC output for stand alone devices
- Switch 24VDC outputs for fail safe or fail secure locking hardware
- Surge suppression on Fail Safe and Fail Secure outputs

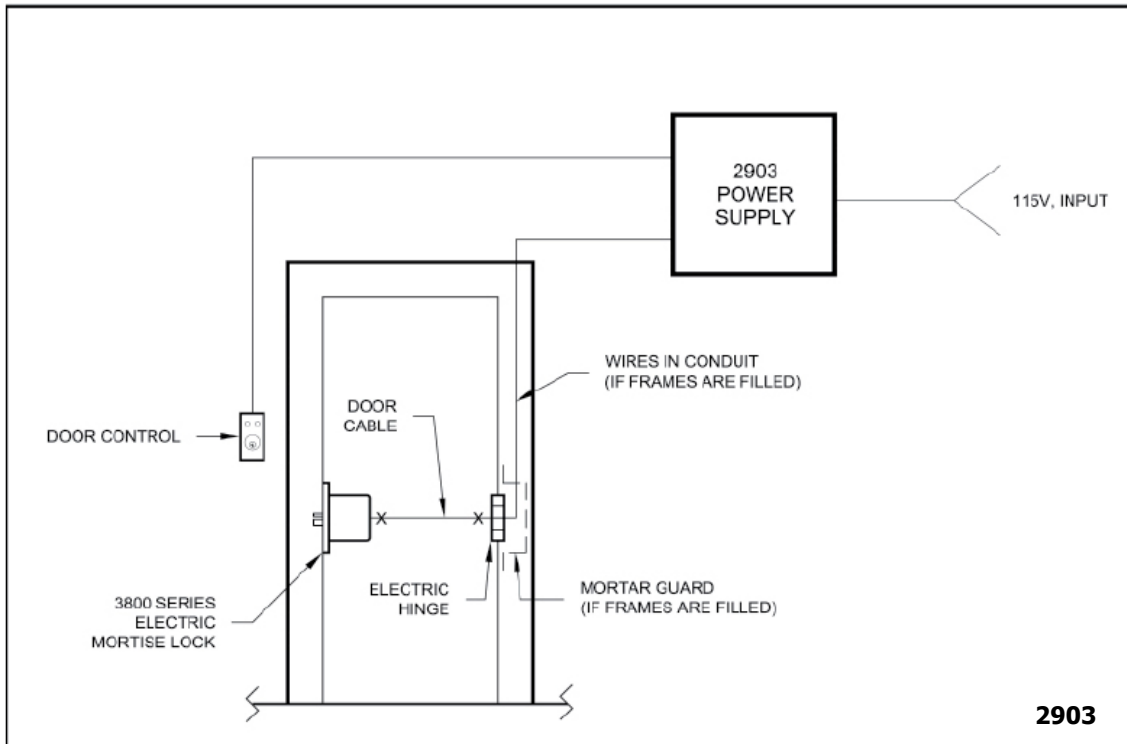
2908 Power Supply Includes:

- Field selectable 12VDC or 24VDC, 1Amp
- 115VAC standard (230VAC optional)
- Separate PTC protected charging for battery backup
- LED status indicator
- Modular design allows optional components to fit any application (see Electrified Catalog for a full list of components)

2909 Power Supply Includes:

- Field selectable 12VDC or 24VDC, 2Amp
- 115VAC standard (230VAC optional)
- Separate PTC protected charging for battery backup
- LED status indicator
- Modular design allows optional components to fit any application (see Electrified Catalog for a full list of components)

Hager Locking System





3400 SERIES - LATCHBOLTS

Spring Latches



3943
2-3/4" (70 mm) Backset
Passage Spring Latch - Standard

- Square and round corner available
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

3945
2-3/8" (60 mm) Backset
Passage Spring Latch

- Square and round corner available
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate



3964
2-3/4" (70 mm) Backset
Privacy Spring Latch - Standard

- Square and round corner available
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

3966
2-3/8" (60 mm) Backset
Privacy Spring Latch

- Square and round corner available
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

Dead Latches



3932
2-3/4" (70 mm) Backset
Dead Latch

- 3/4" (18 mm) throw
- Square corner only
- For use on fire rated pairs of doors
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate



3944
2-3/4" (70 mm) Backset
Dead Latch - Standard

- Square and round corner available
- For use with all keyed functions other than corridor
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

3946
2-3/8" (60 mm) Backset
Dead Latch

- Square and round corner available
- For use with all keyed functions other than corridor
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

Backset Extension Links



3916
3-3/4" (95 mm) Backset
Extension Link

Must use with 2-3/8" (60 mm) backset latch to achieve 3-3/4" total backset



3936
5" (127 mm) Backset
Extension Link

Must use with 2-3/4" (70 mm) backset latch to achieve 5" total backset



3992
2-3/8" (60 mm) Backset
Dead Latch - Corridor Function Only

- Square and round corner available
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

3993
2-3/4" (70 mm) Backset
Dead Latch - Corridor Function Only

- Square and round corner available
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate





3400 SERIES - STRIKES

3400 SERIES ACCESSORIES



3933

T-Strike with Plastic Dust Box

- 1-1/8" x 2-3/4" (29 mm x 70 mm)
- Dust box included



3934

Full Lip Strike

- 1-5/8" x 2-1/4" (41 mm x 57 mm)



3935

Standard ASA Strike Plate

- 1-1/4" x 4-7/8" (32 mm x 124 mm)
- 1-5/16" lip
- Other lengths available upon request



3958

Full Lip Strike with Round Corner

- 1-5/8" x 2-1/4" (41 mm x 57 mm)
- 1/4" (6 mm) radius



3911

Thru-Bolt Jig

For lever set only

3500 Series



Hager 3500 Series Grade 2 lock provides a perfect combination of value and performance and is the ideal choice of lock for typical commercial applications. It is an economical alternative to Grade 1 when Grade 1 is not required. Our 3500 Series lock offers superior dependability and is backed by a lifetime warranty.





3500 SERIES - HOW TO ORDER

3553	2- ³ / ₄ "	US26D	US26	WTN	SCC	KD	ASA	TW	
Function 10 - Passage 17 - Single Dummy 25 - Exit 27 - Double Dummy 40 - Privacy 50 - Entry/Office 53 - Entry 70 - Classroom 73 - Corridor 79 - Keyed Communicating 80 - Storeroom		Interior Finish (If Different)		Conventional Keyway SCC - Schlage C AR1 - Arrow C60 - Corbin 60 C67 - Corbin 67 C77 - Corbin 77 CL4 - Corbin L4 SCE - Schlage E SCF - Schlage F H1 - Hager 1 H2 - Hager 2 H3 - Hager 3 KW1 - Kwikset RD1 - Russwin D1 SGT - Sargent LA YAP - Yale E1R (Para) YGA - Yale GA WE - Weiser E NC - No Cylinder (SFIC Housing Only)		Strike ASA (standard) Full Lip RC Full Lip TEE		Options TW - Tactile Warning LL - Leadlined 6PKEY - 6-pin Keyed 7PKEY - 7-pin Keyed (Hager) SFIC* - Small Format Interchangeable Core Prep ANTI - Antimicrobial Coating (26D Only)	
Backset/Faceplate 2-3/4" (70 mm), SC (standard) 2-3/4" (70 mm), RC 2-3/4" (70 mm) Drive-In 2-3/8" (60 mm), SC 2-3/8" (60 mm), RC 2-3/8" (60 mm) Drive-In		Finish US3 - Knob/Lever US4 US10 US10B US26 US26D US32D - Knob Only		Lever Style APL - Apollo Knob ARC - Archer Lever AUG - August Lever WTN - Withnell Lever		Keying KA - Keyed Alike KD - Keyed Different MK - Master Key CMK - Construction Master Key SK - Customer Specified Keying 0BC - "0" Bitted Cylinder (Conventional Only) 1BC - "1" Bitted Cylinder (Conventional Only)			
Product Group 35 - Cylindrical, Grade 2									

Notes:

1. If masterkeyed, include completed master key form with order (available on page 88 or www.hagerco.com).
2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 73).









* Small format interchangeable core sold separately. Available in Best Keyways (A Standard) or Hager Keyways (optional).

Ordering example: 3553 2-3/4" US26D WTN NC ASA SFIC








3500 SERIES - FUNCTION CHART

Function	Function No.	Function Description	ANSI No.	
Non-Keyed				
	Passage	10	Latchbolt operated by lever from either side at all times.	F75
	Dummy - Single	17	Pull one side, no mechanical operation (back to back).	-
	Exit	25	Blank plate outside (13/16" [31 mm] projection). Inside lever always unlocked.	F111
	Dummy - Double	27	Pull both sides. No mechanical operation (back to back).	-
	Privacy	40	Latchbolt operated by lever from either side. Outside lever is locked by push button inside and unlocked by emergency release outside, operating inside lever or closing door.	F76A
Keyed				
	Entry/Office	50	Deadlocking latchbolt operated by lever from either side except when outside lever is locked by push button on inside lever. When outside lever is locked, operating key in outside lever or operating inside lever unlocks push button and retracts latchbolt. Closing door does not release push button.	F82A
	Entry	53	Deadlocking latchbolt by lever either side, except when turn button inside locks outside lever. Pushing turn button in locks outside lever, requiring use of key outside to unlock (lever handle is freewheeling in locked position). Turning inside lever unlocks outside lever. Pushing in and turning button locks outside lever, requiring key at all times. Turning inside lever does not unlock outside lever until button is manually turned to unlocked position. Inside lever always operates latchbolt.	F109
	Classroom	70	Deadlocking latchbolt operated by lever from either side except when outside lever is locked from outside by key. When outside lever is locked, latchbolt is operated by inside lever.	F84



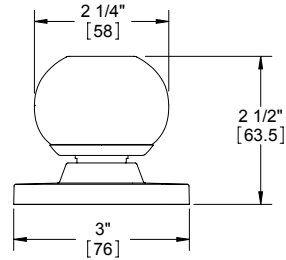
3500 SERIES - FUNCTION CHART

Function	Function No.	Function Description	ANSI No.	
Keyed (continued)				
	Corridor	73	Deadlocking latchbolt operated by lever from either side except when outside lever is locked by key in outside lever or by push button. Key in outside lever locks or unlocks outside lever. Operating inside lever releases push button. Closing door releases push button. Inside lever always operates latchbolt.	F90
	Keyed Communicating	79	Deadlocking latchbolt by inside lever except when locked by key. Non-removable blank plate outside (13/16" [31 mm] projection).	F113
	Storeroom	80	Deadlocking latchbolt operated by key in outside lever, or by operating inside lever. Outside lever is always locked. Inside lever is always unlocked.	F86

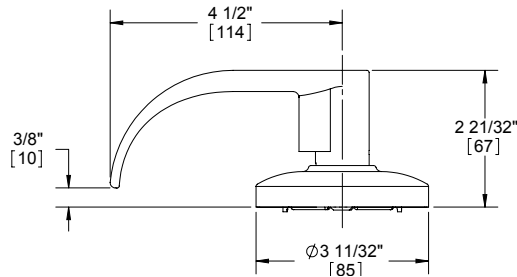


3500 SERIES - LEVER OPTIONS

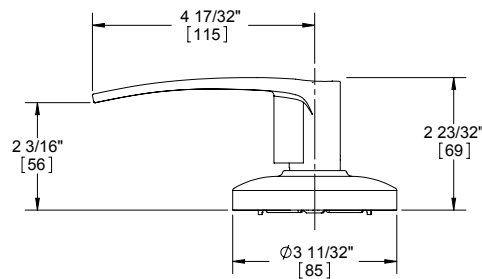
APOLLO KNOB



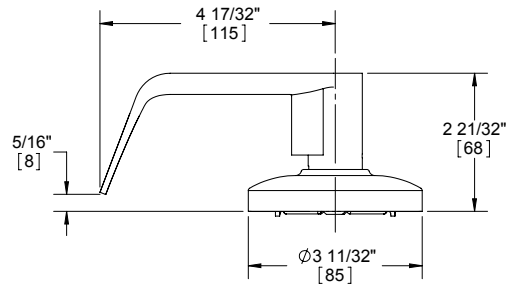
ARCHER LEVER



AUGUST LEVER



WITHNELL LEVER



Notes: Optional tactile warning available on all lever styles (only outside lever will include raised surfaces unless otherwise specified).



3500 SERIES - GRADE 2 CYLINDRICAL - STANDARD DUTY COMMERCIAL

WARRANTY

Lifetime warranty

FEATURES

- No exposed mounting screws
- Non-handed
- Conventional cylinder or Small Format Interchangeable Core option available

Certifications:

- BHMA Certified ANSI A156.2 Series 4000 Grade 2
- ADA Compliant ANSI A117.1 Accessibility Code (levers only)
- ANSI A250.13 Severe Windstorm Resistant Component
- UL/cUL Listed for all functions up to 3 hours for "A" label single doors
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated

Lever Options:

Apollo knob; Archer, August, Withnell levers

Options:

- Lead lined (leversets only)
- Tactile warning (levers only)
- Antimicrobial coating (26D finish only)
- Split finish
- Additional latchbolts and strikes available



SPECIFICATIONS

Standard Door Prep:

- 2-1/8" (54 mm) diameter (bore)
- Latch hole: 1" (25 mm) diameter (cross bore)

Exposed Trim:

- Knobs: Wrought brass or stainless steel
- Levers: Cast zinc
- Rose: Wrought brass or stainless steel

Rose Diameter:

3-11/32" (85 mm) levers; 3" (76 mm) knobs

Lock Chassis:

- Heavy gauge steel, zinc dichromated for corrosion resistance
- Free wheeling (levers only)
- Removable thru-bolts (Note: Failure to install thru-bolts and removable screw posts voids BHMA certification, UL rating and warranty)

Keys:

Two operating keys supplied per lock

Cylinders/Cores:

- Brass - keyed different - Schlage C Keyway - Standard
- Cylinder drilled 6-pin, keyed 5-pin - Standard
- Other keying options, including keyed 6-pin, available from factory (see cylinder, core and keying section)
- Small Format Interchangeable Core option available
- SFIC uncombined or combined, brass 6- or 7-pin cores sold separately

Door Thickness:

- Knobs: 1-3/8" - 1-3/4" (35 mm - 45 mm)
- Levers: 1-3/8" - 2" (35 mm - 51 mm)

Backset:

- 2-3/4" (70 mm) - Standard
- 2-3/8" (60 mm) - Optional
- 3-3/4" (94 mm) - Optional
- 5" (128 mm) - Optional

Latchbolt:

- 1/2" (13 mm) throw, stainless steel
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate for 2-3/4" (70 mm) backset
- 1" x 2-1/4" (29 mm x 57 mm) faceplate for 2-3/8" (60 mm) backset
- Deadlocking latchbolt prevents manipulation when door is closed; keyed functions and 25 function only
- Square corner faceplate standard, round corner available

Strike:

3935 ASA 1-1/4" x 4-7/8" (32 mm x 124 mm) strike - Standard

Functions:

10 Passage, 17 Dummy, 25 Exit (only), 27 Back to Back Dummy (levers only), 40 Privacy, 50 Entry/Office, 53 Entry, 70 Classroom, 73 Corridor (levers only), 79 Keyed Communicating, 80 Storeroom
(Notes: Blank plate projection is 13/16" for functions 25 and 79)

FINISHES

- US3, US4, US10, US10B, US26, US26D (levers only)
- US3, US32D (knobs only)





3500 SERIES - LATCHBOLTS

Spring Latches



- 3947**
2-3/4" (70 mm) Backset
Passage Spring Latch
- Square and round corner available
 - 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

- 3949**
2-3/8" (60 mm) Backset
Passage Spring Latch
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate



- 3965**
2-3/4" (70 mm) Backset
Privacy Spring Latch
- Square and round corner available
 - 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

- 3967**
2-3/8" (60 mm) Backset
Privacy Spring Latch
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate

Dead Latches



- 3948**
2-3/4" (70 mm) Backset
Dead Latch
- Square and round corner available
 - 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate
 - For use with all keyed functions other than corridor

- 3950**
2-3/8" (60 mm) Backset
Dead Latch
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with all keyed functions other than corridor



- 3995**
2-3/4" (70 mm) Backset
Dead Latch - Corridor Function Only
- Square and round corner available
 - 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

- 3994**
2-3/8" (60 mm) Backset
Dead Latch - Corridor Function Only
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate

Optional Drive-In Spring Latches



- 3922**
2-3/4" (70 mm) Backset
Passage Spring Latch

- 3925**
2-3/8" (60 mm) Backset
Passage Spring Latch



- 3923**
2-3/4" (70 mm) Backset
Privacy Spring Latch

- 3926**
2-3/8" (60 mm) Backset
Privacy Spring Latch

Optional Drive-In Dead Latches



- 3924**
2-3/4" (70 mm) Backset
Dead Latch
- For use with all keyed functions other than corridor

- 3927**
2-3/8" (60 mm) Backset
Dead Latch
- For use with all keyed functions other than corridor



- 3996**
2-3/8" (60 mm) Backset
Dead Latch - Corridor Function Only

- 3997**
2-3/4" (70 mm) Backset
Dead Latch - Corridor Function Only



3500 SERIES LATCHBOLTS

Backset Extension Links



3917
3-3/4" (95 mm) Backset Extension Link

Must use with 2-3/8" (60 mm) backset latch to achieve 3-3/4" total backset



3937
5" (127 mm) Backset Extension Link

Must use with 2-3/4" (70 mm) backset latch to achieve 5" total backset



3933
T-Strike with Plastic Dust Box
• 1-1/8" x 2-3/4" (29 mm x 70 mm)
• Dust box included



3934
Full Lip Strike
1-5/8" x 2-1/4" (41 mm x 57 mm)



3935
Standard ASA Strike Plate
• 1-1/4" x 4-7/8" (32 mm x 124 mm)
• 1-5/16" lip
• Other lengths available upon request



3958
Full Lip Strike with Round Corner
• 1-5/8" x 2-1/4" (41 mm x 57 mm)
• 1/4" (6 mm) radius

3500 SERIES ACCESSORIES



3959
Faceplate Adapter
Converts 1" (25 mm) to 1-1/8" (28 mm) width



3912
Thru-Bolt Jig
For 3500 Series lever set only



3600 Series

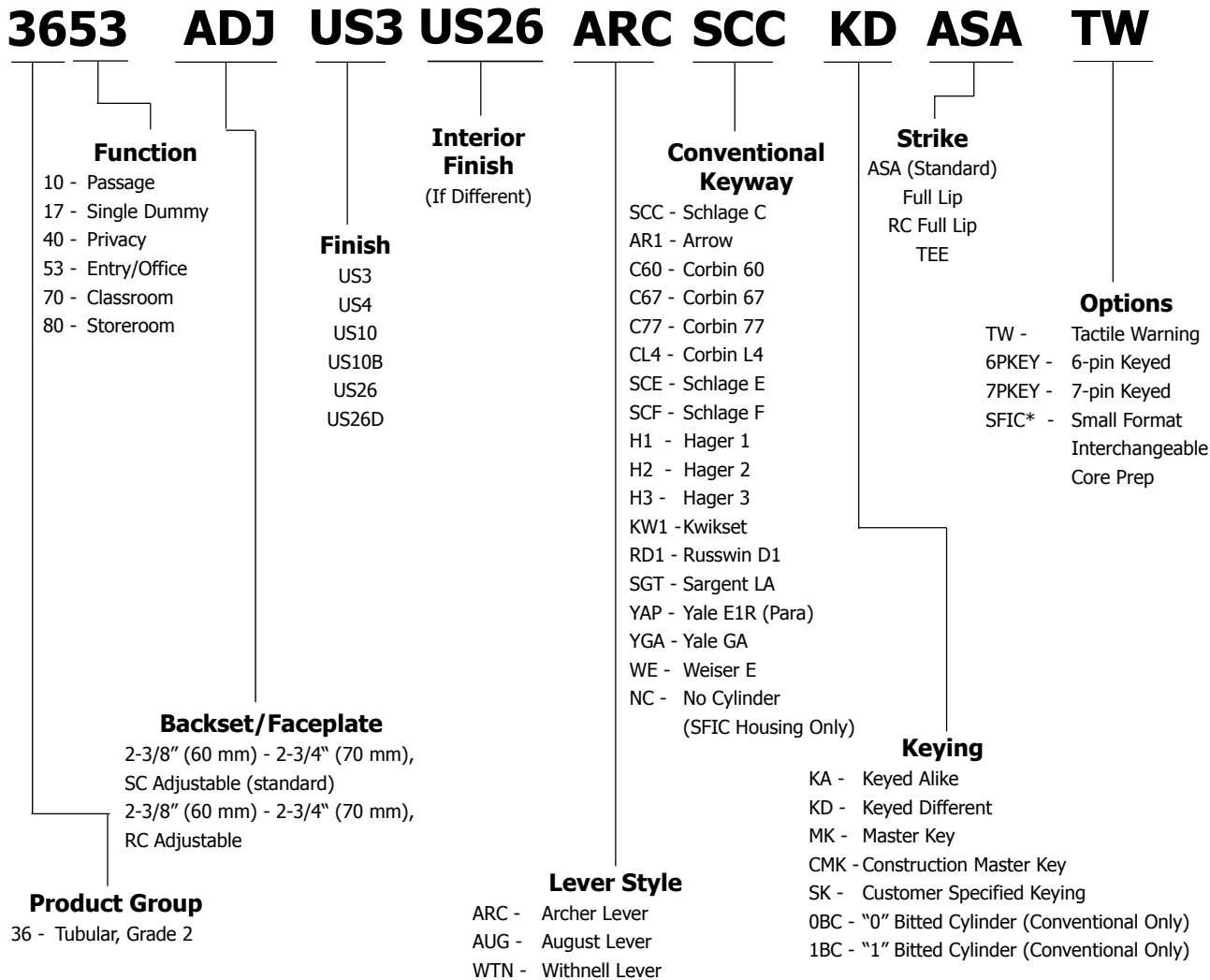


Hager 3600 Series Grade 2 tubular lockset provides the necessary security and dependability of a commercial lock with a more residential look. It is well suited for medium duty commercial or heavy duty residential applications such as multi-family housing.





3600 SERIES - HOW TO ORDER



Notes:

1. If masterkeyed, include completed master key form with order (available on page 88 or www.hagerco.com).
2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 73).







* Small format interchangeable core sold separately. Available in Best Keyways (A Standard) or Hager Keyways (optional).

Ordering example: 3653 ADJ 2-3/8" to 2-3/4" US26D WTN NC ASA SFIC





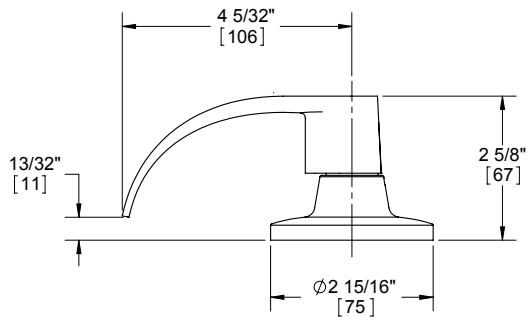
3600 SERIES - FUNCTION CHART

Function	Function No.	Function Description	ANSI No.	
Non-Keyed				
	Passage	10	Latchbolt operated by lever from either side at all times.	F75
	Dummy - Single	17	Pull one side, no mechanical operation.	-
	Privacy	40	Latchbolt operated by lever from either side. Outside lever is locked by push button inside and unlocked by emergency release outside or operating inside lever.	F76B
Keyed				
	Entry/Office	53	Deadlocking latchbolt operated by lever from either side except when outside lever is locked by push button on inside. When outside lever is locked, operating key in outside lever unlocks locking device. Locking device shall automatically release when inside lever is operated. Closing door does not release push button.	F82A
	Classroom	70	Deadlocking latchbolt operated by lever from either side except when outside lever is locked from outside by key. When outside lever is locked, latchbolt is operated by inside lever.	F84
	Storeroom	80	Deadlocking latchbolt operated by key in outside lever, or by operating inside lever. Outside lever is always locked. Inside lever is always unlocked.	F86

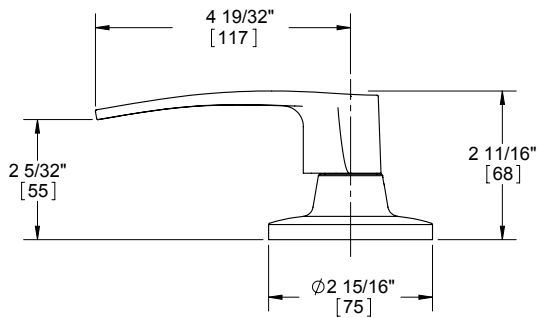


3600 SERIES - LEVER OPTIONS

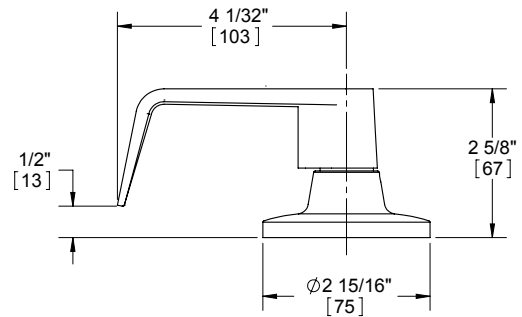
ARCHER LEVER



AUGUST LEVER



WITHNELL LEVER



Notes: Optional tactile warning available on all lever styles (only outside lever will include raised surfaces unless otherwise specified).





3600 SERIES - GRADE 2 TUBULAR

WARRANTY	Five-year warranty
FEATURES	<ul style="list-style-type: none"> • Heavy duty residential - medium duty commercial • No exposed mounting screws • Non-handed • Conventional cylinder or Small Format Interchangeable Core option available
Certifications:	<ul style="list-style-type: none"> • BHMA Certified ANSI A156.2 Series 4000 Grade 2 • ADA Compliant ANSI A117.1 Accessibility Code • UL/cUL Listed for all functions up to 3 hours for "A" label single doors • UL10C Positive Pressure Rated • UL10B Neutral Pressure Rated
Lever Options:	Archer, August, Withnell levers
Options:	<ul style="list-style-type: none"> • Tactile warning • Split finish
SPECIFICATIONS	
Standard Door Prep:	<ul style="list-style-type: none"> • 2-1/8" (54 mm) diameter (bore) • Latch hole: 1" (25 mm) diameter (cross bore)
Exposed Trim:	<ul style="list-style-type: none"> • Levers: Cast zinc • Rose: Wrought brass
Rose Diameter:	2-15/16" (75 mm)
Lock Chassis:	Heavy gauge steel, zinc dichromated
Keys:	Two operating keys supplied per lock
Cylinders/Cores:	<ul style="list-style-type: none"> • Brass - keyed different - Schlage C Keyway - Standard • Cylinder drilled 6-pin, keyed 5-pin - Standard • Other keying options, including keyed 6-pin, available from factory (see cylinder, core and keying section) • Small Format Interchangeable Core option available • SFIC uncombined or combined, brass 6- or 7-pin cores sold separately
Door Thickness:	1-3/8" - 1-3/4" (35 mm - 45 mm)
Backset:	<ul style="list-style-type: none"> • Adjustable 2-3/8" - 2-3/4" (60 mm - 70 mm) • Preset at factory for 2-3/8" (60 mm)
Latchbolt:	<ul style="list-style-type: none"> • 1/2" (13 mm) throw, stainless steel • 1" x 2-1/4" (25 mm x 57 mm) faceplate • Square corner faceplate standard, round corner available • Deadlocking latchbolt prevents manipulation when door is closed; keyed functions only
Strike:	3935 ASA 1-1/4" x 4-7/8" (32 mm x 124 mm) strike - Standard
Functions:	10 Passage, 17 Dummy, 40 Privacy, 53 Entry, 70 Classroom, 80 Storeroom
FINISHES	US3, US4, US10, US10B, US26, US26D





3600 SERIES LATCHBOLTS

Adjustable Backset Spring Latches



- 3951**
2-3/8" (60 mm) - 2-3/4" (70 mm)
**Adjustable Backset
Spring Latch - Standard**
- Square corner
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with Passage/Privacy functions



- 3953**
2-3/8" (60 mm) - 2-3/4" (70 mm)
**Adjustable Backset
Spring Latch**
- Round corner
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with Passage/Privacy functions

5" Backset Spring Latches



- 3939**
5" (127 mm) Backset
Spring Latch
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with Passage/Privacy functions

Adjustable Backset Dead Latches



- 3952**
2-3/8" (60 mm) - 2-3/4" (70 mm)
**Adjustable Backset
Dead Latch - Standard**
- Square corner
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with all keyed functions



- 3954**
2-3/8" (60 mm) - 2-3/4" (70 mm)
**Adjustable Backset
Dead Latch**
- Round corner
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with all keyed functions

5" Backset Dead Latches



- 3938**
5" (127 mm) Backset
Dead Latch
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with all keyed functions

Optional Drive-In Latchbolts



- 3914**
2-3/8" (60 mm) - 2-3/4" (70 mm)
**Adjustable Backset
Spring Latch**
- For use with Passage/Privacy functions



- 3915**
2-3/8" (60 mm) - 2-3/4" (70 mm)
**Adjustable Backset
Dead Latch**
- For use with all keyed functions

3600 SERIES STRIKES



- 3933**
T-Strike with Plastic Dust Box
- 1-1/8" x 2-3/4" (29 mm x 70 mm)
 - Dust box included



- 3934**
Full Lip Strike
- 1-5/8" x 2-1/4" (41 mm x 57 mm)



- 3935**
ASA Strike - Standard
- 1-1/4" x 4-7/8" (32 mm x 124 mm)
 - 1-5/16" lip
 - Other lengths available upon request



- 3958**
Full Lip Strike with Round Corner
- 1-5/8" x 2-1/4" (41 mm x 57 mm)
 - 1/4" radius



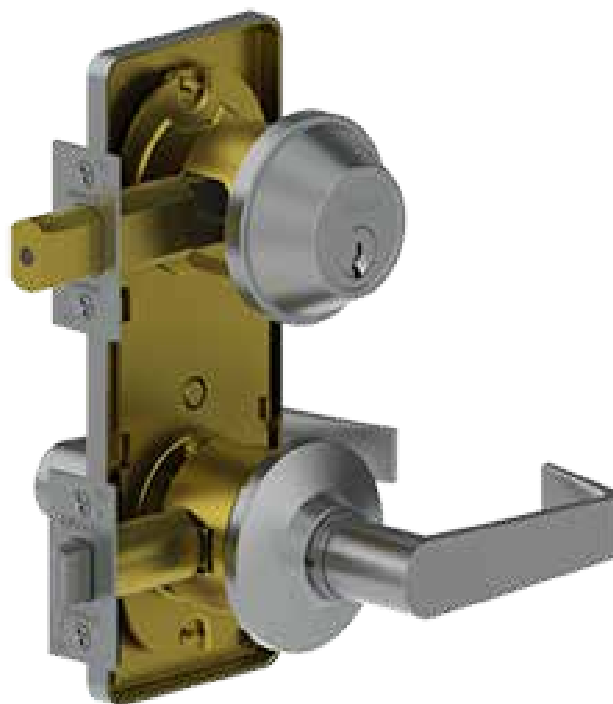
- 3959**
Faceplate Adapter
- Converts 1" (25 mm) to 1-1/8" (28 mm) width
 - Supplied standard with 3600 Series



3700 Series

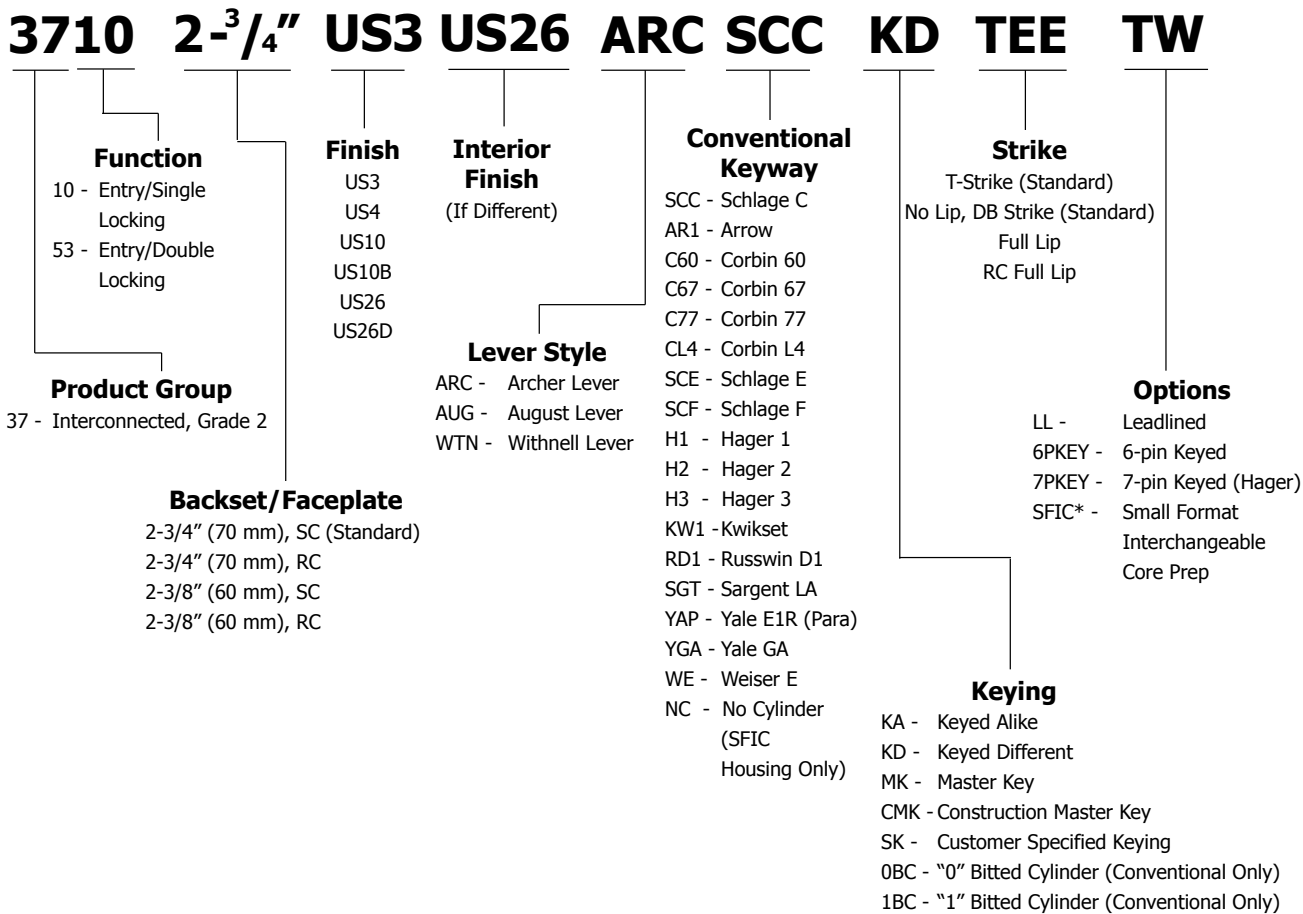


Hager 3700 Series Grade 2 interconnected lock is a perfect match for residential or commercial applications such as apartment buildings and assisted living facilities. These versatile locks provide a single action for retracting the latchbolt and deadbolt simultaneously for panic-free egress. They are supplied with an optional exterior escutcheon plate standard and are backed by a lifetime warranty.





3700 SERIES - HOW TO ORDER





Notes:

1. If masterkeyed, include completed master key form with order (available on page 88 or www.hagerco.com).
2. For additional keying information, please refer to Cylinder, Core & Keying section of catalog (page 73).

* Small format interchangeable core sold separately. Available in Best Keyways (A Standard) or Hager Keyways (optional).

Ordering example: 3753 2-3/4" US26D WTN NC TEE SFIC

3700 SERIES FUNCTION CHART

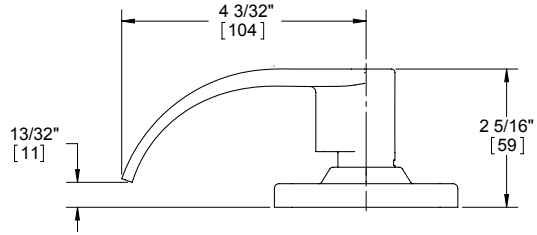
Function	Function No.	Function Description	ANSI No.	
Interconnected				
	Interconnected Single Locking Entry	10	Deadbolt thrown or retracted by key outside or by inside thumbturn. Bolt automatically deadlocks when fully thrown. Latchbolt retracted by lever from either side. Inside lever retracts deadbolt and latchbolt simultaneously for immediate exit.	F95
	Interconnected Double Locking Entry	53	Deadbolt thrown or retracted by key outside or by inside thumbturn. Bolt automatically deadlocks when fully thrown. Deadlatch retracted by key outside when locked by pushing turnbutton on inside lever. Outside lever may be fixed in locked position by rotating turnbutton. Inside lever retracts deadbolt and deadlatch simultaneously for immediate exit.	F97



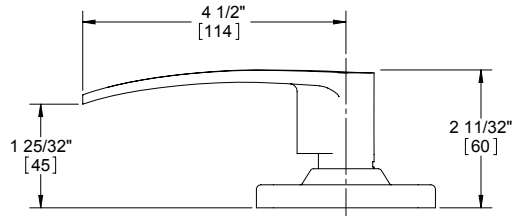


3700 SERIES - LEVER OPTIONS

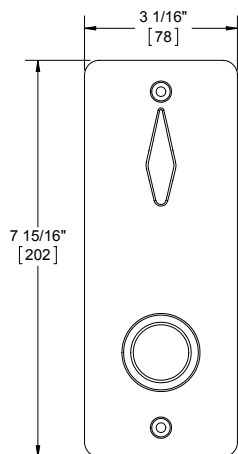
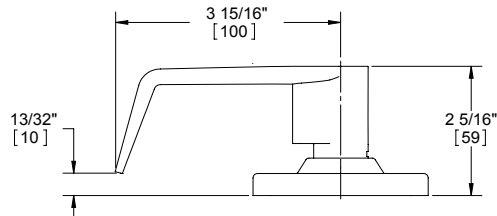
ARCHER LEVER



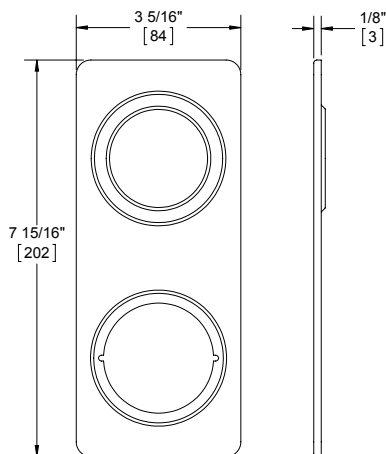
AUGUST LEVER



WITHNELL LEVER



INSIDE ESCUTCHEON



OPTIONAL OUTSIDE ESCUTCHEON



3700 SERIES - GRADE 2 INTERCONNECTED - MEDIUM DUTY COMMERCIAL

WARRANTY

Lifetime warranty

FEATURES

- Cylindrical chassis
- Non-handed
- Conventional cylinder or Small Format Interchangeable Core option available

Certifications:

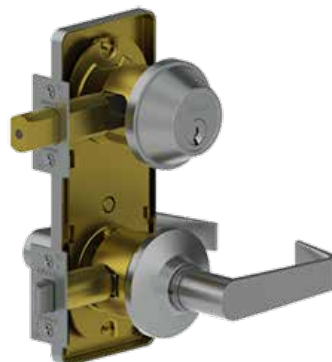
- BHMA Certified ANSI A156.12 Grade 2
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL Listed for all functions up to 3 hours for "A" label single doors
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated

Lever Options:

Archer, August, Withnell levers

Options:

- Split finish
- Split lever design



SPECIFICATIONS

Standard Door

- 4" (102 mm) center of deadbolt to center of lock chassis
- 2-1/8" (54 mm) diameter (bore)

Prep:

- Latch hole: 1" (25 mm) diameter (cross bore)

Exposed Trim:

Wrought brass or bronze, cast zinc lever

Rose Diameter:

2-1/2" (63 mm)

Lock Chassis:

- Heavy gauge steel, zinc dichromated
- Thru-bolt mounting
- "Non-clutching" exterior lever

Outside Escutcheon:

3-5/16" x 7-15/16" x 3/8" (84 mm x 202 mm x 10 mm)

Inside Escutcheon:

3-1/16" x 7-15/16" x 1/8" (78 mm x 202 mm x 3 mm)

Keys:

Two operating keys supplied per lock

Cylinders/Cores:

- Brass - keyed different - Schlage C Keyway - Standard
- Cylinder drilled 6-pin, keyed 5-pin - Standard
- Other keying options, including keyed 6-pin, available from the factory (see cylinder, cores and keying section)
- Small Format Interchangeable Core option available
- SFIC uncombined or combined, brass 6- or 7-pin cores sold separately

Door Thickness:

- 1-3/8" - 1-3/4" (35 mm - 45 mm) - Standard
- 2" (52 mm) doors - Optional

Backsets:

- 2-3/4" (70 mm) - Standard
- 2-3/8" (60 mm) - Optional

Latchbolt:

- 1/2" (13 mm) Throw - stainless steel
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate for 2-3/4" (70 mm) backset
- 1" x 2-1/4" (25 mm x 57 mm) faceplate for 2-3/8" (60 mm) backset
- Deadlocking latchbolt prevents manipulation when door is closed; keyed functions only
- Square corner faceplate standard, round corner available

Deadbolt:

- 1" (25 mm) Throw - brass with concealed steel roller to prevent sawing or cutting
- 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate for 2-3/4" (70 mm) bracket
- 1" x 2-1/4" (25 mm x 57 mm) faceplate for 2-3/8" (60 mm) faceplate

Strikes:

- 3933 square corner t-strike with plastic dust box, 1-1/8" x 2-3/4" (29 mm x 70 mm) - Standard
- 3930 square corner strike plate with dust box, 1-1/8" x 2-3/4" (29 mm x 70 mm) - Standard

Functions:

- 10 Single Locking Entry
- 53 Double Locking Entry

FINISHES

US3, US4, US10, US10B, US26, US26D





3700 SERIES - LATCHBOLTS

3700 SERIES STRIKES

Spring Latches



- 3947**
2-3/4" (70 mm) Backset
Passage Spring Latch
- Square and round corner available
 - 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate



- 3949**
2-3/8" (60 mm) Backset
Passage Spring Latch
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate

Dead Latches



- 3948**
2-3/4" (70 mm) Backset
Dead Latch - Standard
- Square and round corner available
 - 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate



- 3950**
2-3/8" (60 mm) Backset
Dead Latch
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate

3700 SERIES DEADBOLTS



- 3920**
2-3/4" (70 mm) Backset
Tapered Deadbolt - Standard
- Square and round corner available
 - 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate



- 3921**
2-3/8" (60 mm) Backset
Tapered Deadbolt
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate



- 3930**
Strike Plate
 1-1/8" x 2-3/4" (29 mm x 70 mm)



- 3933**
T-Strike with Plastic Dust Box
 1-1/8" x 2-3/4" (29 mm x 70 mm)



- 3934**
Full Lip Strike
 1-5/8" x 2-1/4" (41 mm x 57 mm)



- 3958**
Round Corner Full Lip Strike
- 1-5/8" x 2-1/4" (41 mm x 57 mm)
 - 1/4" (6 mm) radius



- 3959**
Faceplate Adapter
 Converts 1" (25 mm) to 1-1/8" (28 mm) width

3800 Series



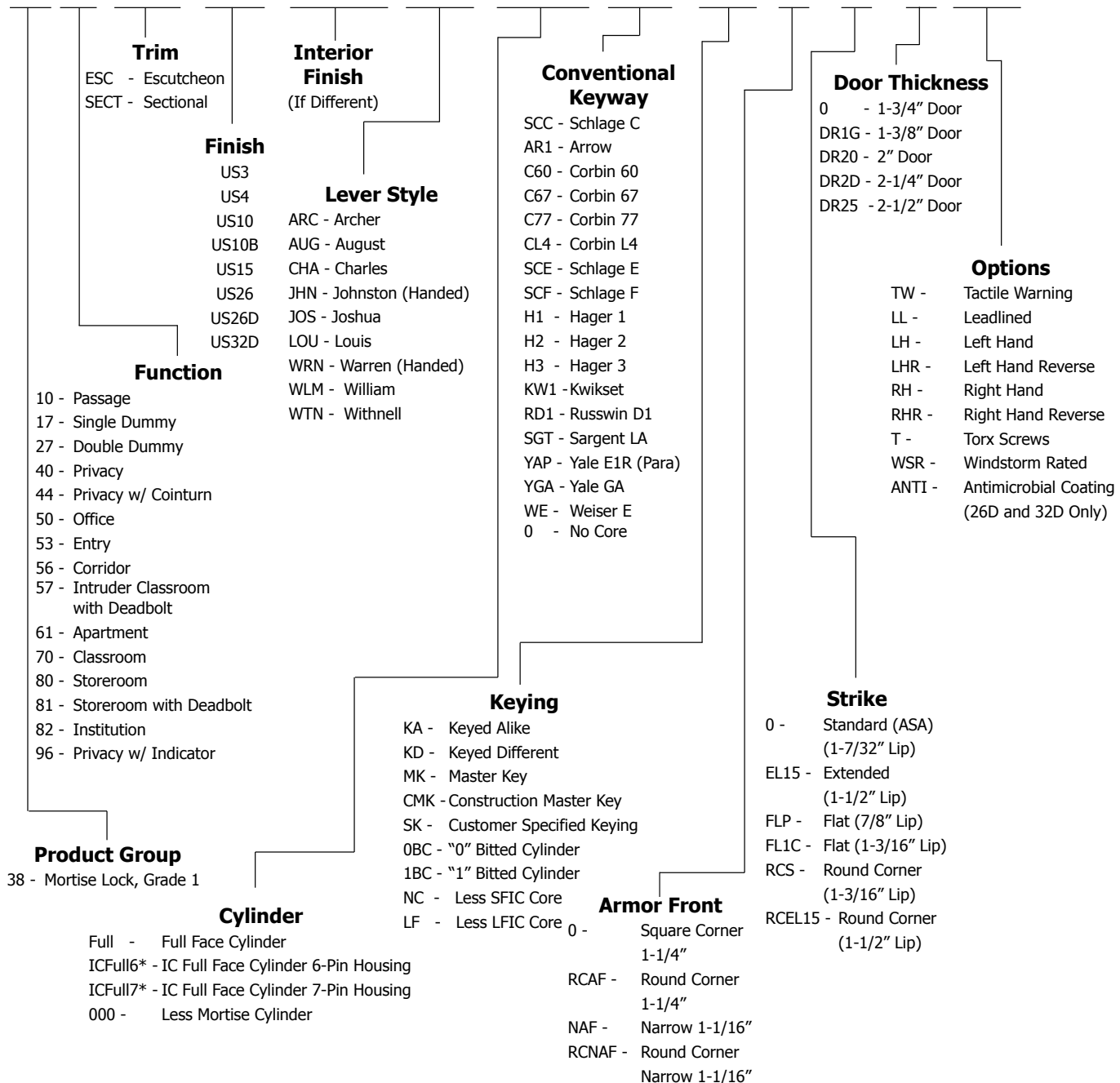
Hager 3800 Series mortise lock provides maximum security and durability for the harshest environments. With field reversible handing, ease of installation, and both escutcheon and sectional models available, our 3800 Series lock provides great flexibility. What's more, it is ANSI certified Grade 1 Operational and Security and is backed by a lifetime warranty.





3800 SERIES - ESCUTCHEON & SECTIONAL MORTISE LOCKS - HOW TO ORDER

3853 ESC US3 US26 ARC Full6 SCC KD 0 0 0 TW



Notes:

- Finishes other than US10B, US15, US26D and US32D will be subject to extended lead times.
- If masterkeyed, include completed master key form with order (available on page 88 or www.hageco.com).
- For additional keying information, refer to cylinder, core, and keying section of catalog (page 73).
- Quick Connect option available on 3800 Series Electrified Sectional and Escutcheon models (EL, EU, RX, DPM, and LM).

Ordering example: 3880 SECT US26D WTN EU24QC

* Small format interchangeable core sold separately. Available in Best Keyways (A Standard), Hager Keyways (optional).

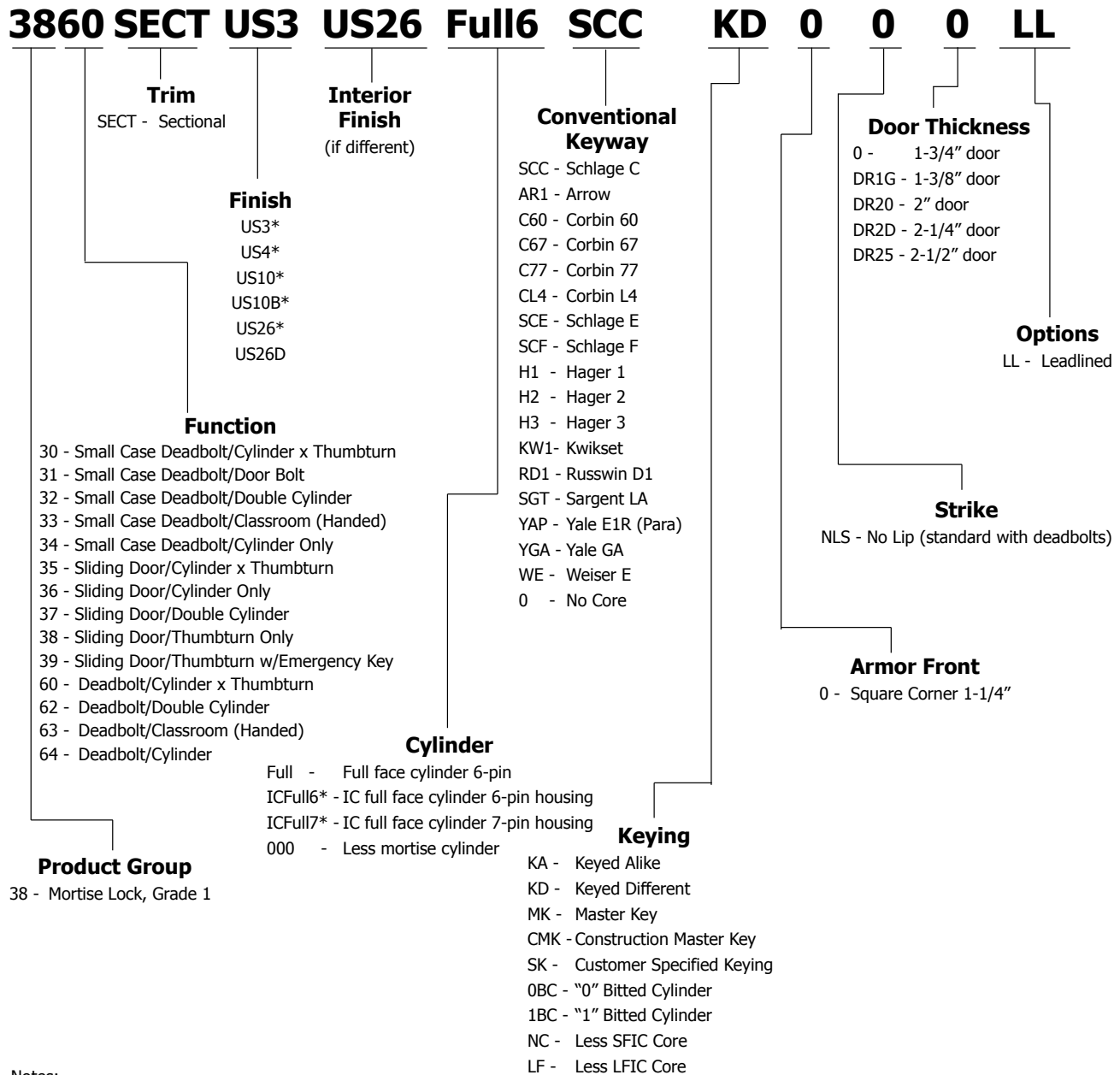
* Large format interchangeable core sold separately. Available in Schlage C Keyway only.

**Ordering example: • 3850 ESC 26D WTN ICFULL6 NC
• 3850 ESC 26D WTN ICFULL6 LF**





3800 SERIES - MORTISE DEADLOCKS - HOW TO ORDER



Notes:

- Finishes other than US26D may require extended lead times.
- If masterkeyed, include completed master key form with order (available on page 88 or www.hagerco.com).
- For additional keying information, refer to cylinder, core, and keying section of catalog (page 73).













* Small format interchangeable core sold separately. Available in Best Keyways (A standard), or Hager Keyways (optional).

* Large format interchangeable core sold separately. Available in Schlage C Keyway only.

Ordering example: • 3860 SECT 26D ICFULL6 NC
• 3860 SECT 26D ICFULL6 LF






3800 SERIES - ESCUTCHEON AND SECTIONAL LOCK FUNCTION CHART

Function	Function No.	Function Description	ANSI No.	
Keyed Without Deadbolt				
	Office	50	Latchbolt retracted by lever from either side unless outside is made inoperative by key outside or by turning inside thumbturn. When outside is locked, latchbolt is retracted by lever inside. Outside lever remains locked until thumbturn is returned to vertical or unlocked by key. Auxiliary latch deadlocks latchbolt when door is closed.	F04
	Apartment Entrance	61	Latchbolt retracted by lever from either side unless outside is locked by key from inside. When locked, latchbolt retracted by key outside or lever inside. Auxiliary latch deadlocks when door is closed.	F09
	Classroom	70	Latchbolt retracted by lever from either side unless outside is locked by key. Unlocked from outside by key. Inside lever always free for immediate exit. Auxiliary latch deadlocks latchbolt when door is closed.	F05
	Storeroom	80	Latchbolt retracted by key outside or by lever inside. Outside lever always inoperative. Inside lever always free for immediate exit. Auxiliary latch deadlocks latchbolt when door is closed.	F07
	Institution	82	Latchbolt retracted by key from either side. Lever on both sides always inoperative. Auxiliary latch deadlocks latchbolt when door is closed.	F30
Keyed With Deadbolt				
	Entry	53	Latchbolt retracted by lever from either side unless outside is locked by 20° rotation of thumbturn. Deadbolt thrown or retracted by 90° rotation of thumbturn. When locked, key outside or lever inside retracts deadbolt and latchbolt simultaneously. Outside lever remains locked until thumbturn is restored to vertical position. Throwing deadbolt automatically locks outside lever. Auxiliary latch deadlocks latchbolt when door is closed.	F20
	Corridor	56	Latchbolt retracted by lever from either side. Deadbolt thrown or retracted by key outside or thumbturn side. Throwing deadbolt locks outside lever. Turning inside lever simultaneously retracts deadbolt and latchbolt and unlocks the outside lever.	F13
	Intruder Classroom w/ Deadbolt	57	Latchbolt retracted by lever from either side. Deadbolt thrown or retracted by key from either side. Throwing deadbolt locks outside lever. Turning inside lever simultaneously retracts deadbolt and latchbolt and unlocks outside lever.	F33
	Storeroom w/ Deadbolt	81	Latchbolt retracted by key outside or by lever inside. Outside lever always fixed. Deadbolt thrown or retracted by key outside or thumbturn inside. Turning inside lever simultaneously retracts deadbolt and latchbolt. Auxiliary latch deadlocks latchbolt when door is closed.	-
Non-Keyed Without Deadbolt				
	Passage	10	Latchbolt retracted by lever from either side at all times.	F01
	Privacy	40	Latchbolt retracted by lever from either side unless outside is locked by inside thumbturn. Turning inside lever or closing door unlocks outside lever. To unlock from outside, remove emergency button, insert emergency turn (furnished) in access hole and rotate.	F22
	Privacy with Cointurn	44	Latchbolt retracted by lever from either side unless outside is locked by inside thumbturn or outside cointurn. Operating inside lever, closing door, rotating inside thumbturn, or rotating outside cointurn unlocks outside lever.	-















3800 SERIES - ESCUTCHEON AND SECTIONAL LOCK FUNCTION CHART





Function	Function No.	Function Description	ANSI No.	
Non-Keyed Without Deadbolt				
	Privacy with Indicator	96	Latchbolt retracted by lever from either side. Turning inside thumbturn locks outside lever and displays "Occupied." Operating inside lever, closing door, rotating inside thumbturn. To unlock from outside, remove emergency button, insert emergency turn (furnished) in access hole and rotate.	-
Non-Keyed Dummy				
	Single Dummy	17	Pull one side. No mechanical operation.	-
	Double Dummy	27	Pull both sides. No mechanical operation (back to back).	-

3800 SERIES DEADLOCK FUNCTION CHART

Function	Function No.	Function Description	ANSI No.	
	Cylinder x Thumbturn (Small Case)	30	Deadbolt operated by key from outside and by thumbturn from inside.	E06071
	Door Bolt (Small Case)	31	Deadbolt operated by thumbturn from one side only. No trim on other side.	E06181
	Double Cylinder Lock (Small Case)	32	Deadbolt operated by key from either side.	E06061
	Classroom (Small Case)	33	Deadbolt operated by key from outside. Cylinder turn from inside retracts but does not project deadbolt.	E06091
	Cylinder Only (Small Case)	34	Deadbolt operated by key from one side only.	E06081
	Cylinder x Thumbturn (Sliding Door)	35	Deadbolt operated by key from outside and by thumbturn from inside.	-
	Cylinder Only (Sliding Door)	36	Deadbolt operated by key from one side only.	-
	Double Cylinder Lock (Sliding Door)	37	Deadbolt operated by key from either side.	-
	Thumbturn Only (Sliding Door)	38	Deadbolt operated by thumbturn from one side only.	-
	Thumbturn w/ Emergency Key (Sliding Door)	39	Deadbolt operated by thumbturn from inside. To unlock from outside, remove emergency button, insert emergency key (furnished) in access hole and rotate.	-



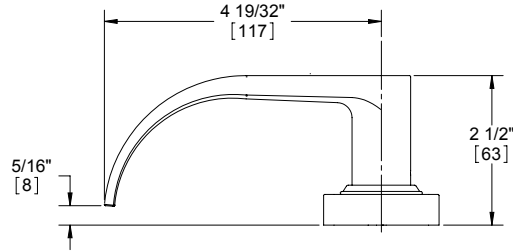
3800 SERIES - ESCUTCHEON AND SECTIONAL LOCK FUNCTION CHART

Function	Function No.	Function Description	ANSI No.
 Cylinder x Thumbturn (Full Case)	60	Deadbolt thrown or retracted by key outside or thumbturn inside.	F17
 Double Cylinder (Full Case)	62	Deadbolt operated by key from either side.	F16
 Classroom (Full Case)	63	Deadbolt thrown or retracted by key from outside. Inside thumbturn cylinder retracts deadbolt but cannot project it.	F29
 Cylinder (Full Case)	64	Deadbolt thrown or retracted by key from one side. No trim on opposite side.	F18

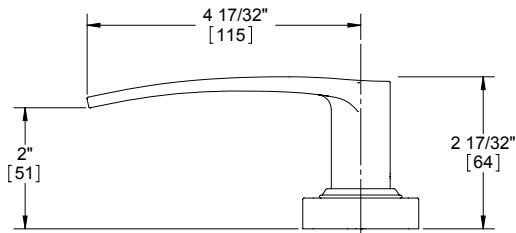


3800 SERIES - ESCUTCHEON - STANDARD LEVER OPTIONS

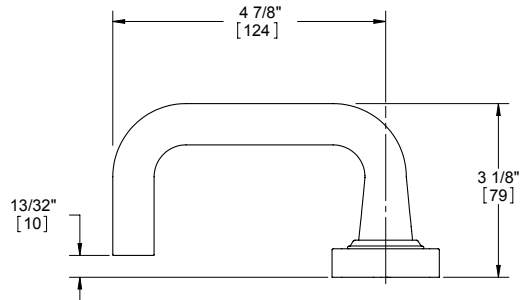
ARCHER LEVER



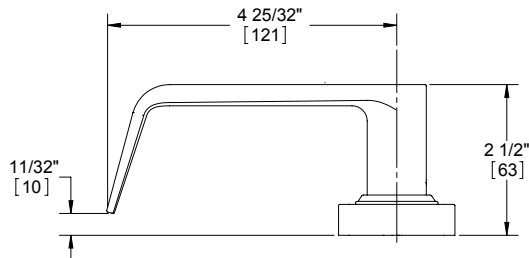
AUGUST LEVER



WILLIAM LEVER



WITHNELL LEVER

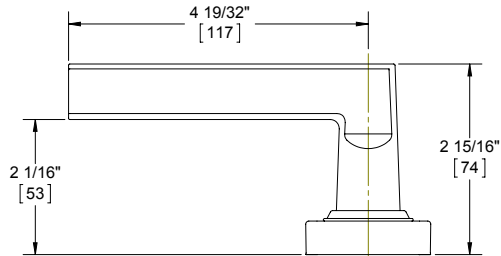


Optional tactile warning available on all lever styles (only outside lever will include raised surfaces unless otherwise specified).

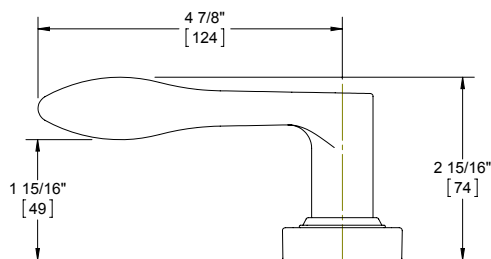


3800 SERIES - ESCUTCHEON - DECORATIVE LEVER OPTIONS

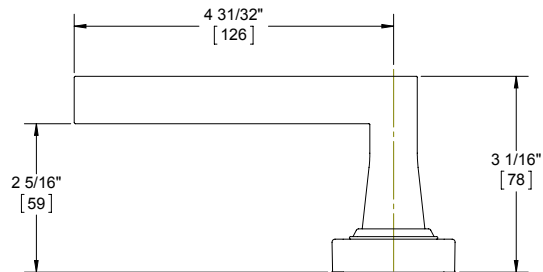
CHARLES LEVER



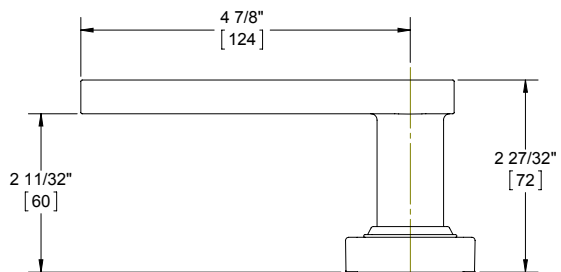
JOHNSTON LEVER



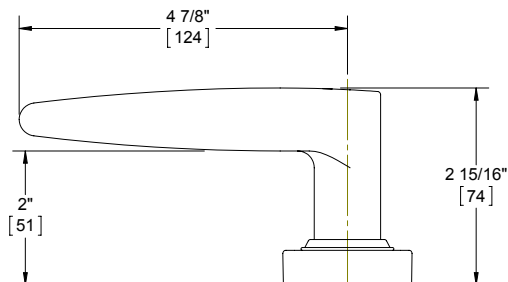
JOSHUA LEVER



LOUIS LEVER



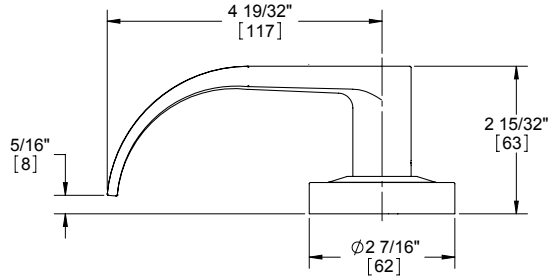
WARREN LEVER



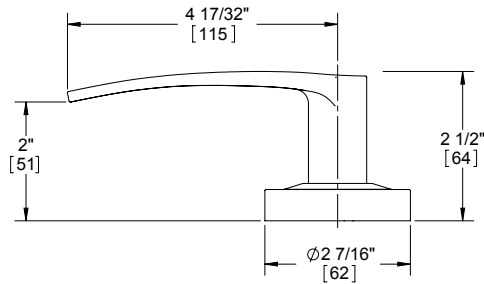


3800 SERIES - SECTIONAL - STANDARD LEVER OPTIONS

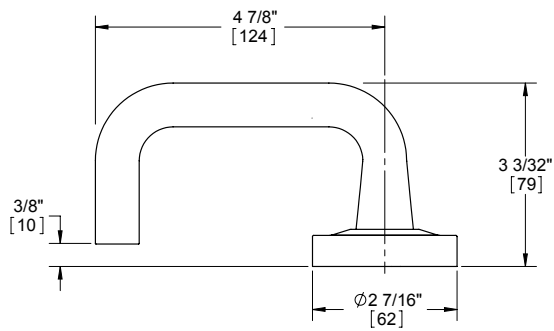
ARCHER LEVER



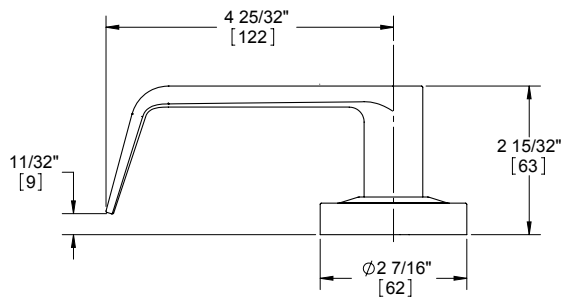
AUGUST LEVER



WILLIAM LEVER



WITHNELL LEVER

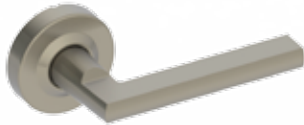


Optional tactile warning available on all lever styles (only outside lever will include raised surfaces unless otherwise specified).



3800 SERIES - SECTIONAL - DECORATIVE LEVER OPTIONS

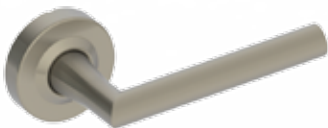
CHARLES LEVER



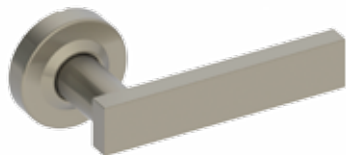
JOHNSTON LEVER



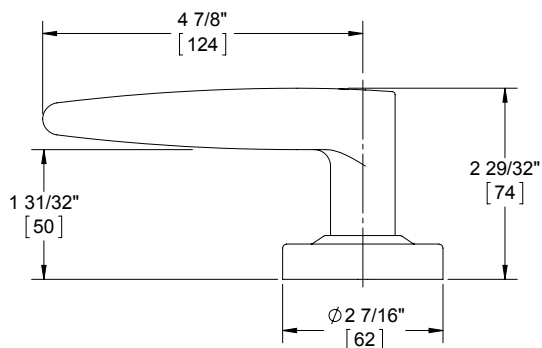
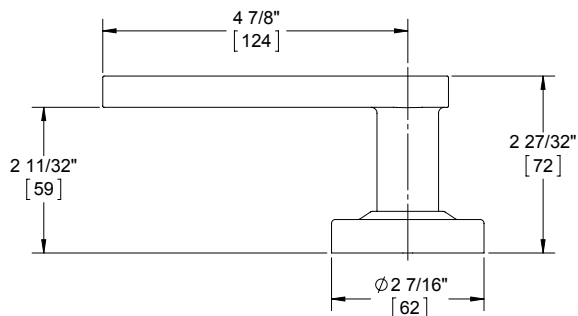
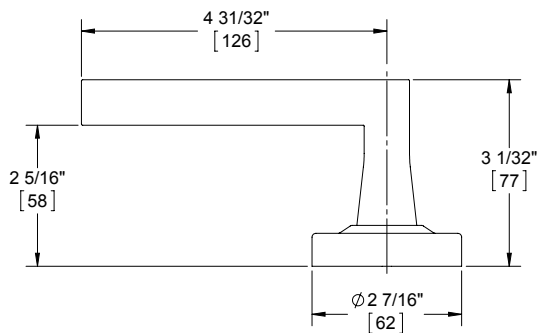
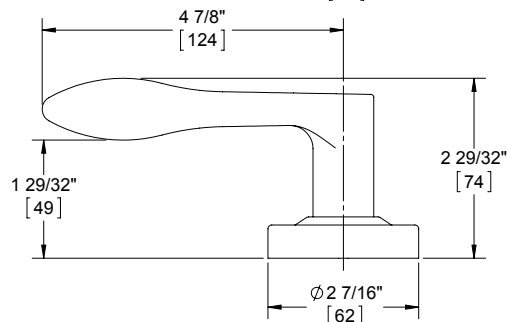
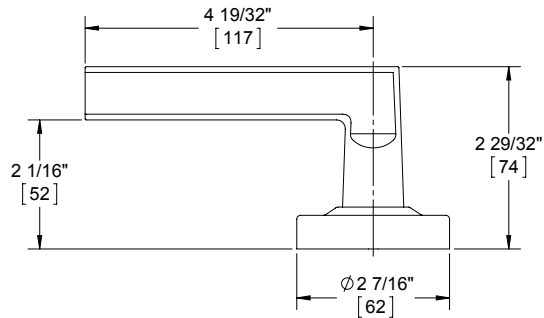
JOSHUA LEVER



LOUIS LEVER



WARREN LEVER





3800 SERIES - GRADE 1 MORTISE (ESCUTCHEON) - HEAVY DUTY

WARRANTY

Lifetime warranty

FEATURES

- Heavy duty commercial, industrial, institutional
- Concealed thru-bolts
- Lock body handing is field reversible (default from the factory is Left Hand Reverse)
- Conventional mortise cylinder, Small Format Interchangeable Core, or Large Format Interchangeable Core option available
- BHMA Certified Grade 1 Security with standard mortise cylinder

Certifications:

- BHMA Certified ANSI A156.13 Grade 1 Series 1000 Operational and Security
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL Listed for all functions up to 3 hours for "A" label doors
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated
- A250.13 Severe Windstorm Resistant (only available in **53 and 81** Functions)

Lever Options:

Archer, August, Charles, Johnston (handed), Joshua, Louis, Warren (handed), William, Withnell levers

Options:

- Tactile warning
- Lead lining
- Split finish
- Antimicrobial coating (26D and 32D only)
- Factory handing available if specified



SPECIFICATIONS

Standard Door

- 3-5/8" (92 mm) center of cylinder to spindle
- 2-7/16" (62 mm) center of thumbturn to spindle

Exposed Trim:

Cast zinc - Standard

Lock Case:

4-5/16" x 6" x 1" (110 mm x 152 mm x 25 mm)

Armor Front:

1-1/4" x 8" x 7/32" (32mm x 203mm x 5mm) - Square corner standard, round corner optional

Escutcheon:

1-15/16" x 8" (50 mm x 203 mm)

Keys:

Two operating keys supplied per lock

Cylinders/Cores:

- Brass - keyed different - Schlage C Keyway
- Cylinder drilled 6-pin, keyed 5-pin - Standard
- Other keying options, including keyed 6-pin, available from factory
- Large Format Interchangeable Core cylinder option available
- LFIC core available zero bitted or combined, brass 6-pin cores sold separately
- Small Format Interchangeable Core cylinder option available
- SFIC uncombined or combined, brass 6- or 7-pin cores sold separately
- Schlage "L" cam - Standard
- For function 61, ext cylinders, use standard cam

Door Thickness:

- 1-3/4" - 2-1/2" (45 mm - 64 mm)
- Privacy functions have a max door thickness of 2" (51 mm)
- Must specify door thickness if greater than 1-3/4" (45 mm)

Backset:

2-3/4" (70 mm) only

Latchbolt:

3/4" (19 mm) throw with anti-friction tongue, all stainless steel

Deadbolt:

1" (25 mm) throw - stainless steel

Strike:

3985 1-1/4" x 4-7/8" (32 mm x 124 mm), 1-7/32" (31 mm) lip - Standard

Fasteners:

Thru-bolted trim concealed under escutcheon

Functions:

10 Passage, 17 Dummy, 27 Double Dummy, 40 Privacy, 44 Privacy with Cointurn, 50 Office, 53 Entry, 56 Corridor, 57 Intruder Classroom with Deadbolt, 61 Apartment, 70 Classroom, 80 Storeroom, 81 Storeroom with Deadbolt, 82 Institution, 96 Privacy with Indicator

Notes:

- Self-adjusting case for beveled doors or square edge doors
- Stopworks are incorporated in thumbturn
- Non-handed, stainless steel, deadlocking latchbolt

FINISHES

- US3, US4, US10, US10B, US15, US26, US26D, US32D
- US3, US4, US10 and US26 may be subject to extended lead times





3800 SERIES - GRADE 1 MORTISE (SECTIONAL) - HEAVY DUTY

WARRANTY

Lifetime warranty

FEATURES

- Heavy duty commercial, industrial, institutional
- Concealed thru-bolts
- Lock body handing is field reversible (default from the factory is Left Handed Reverse)
- Conventional mortise cylinder, Small Format Interchangeable Core, or Large Format Interchangeable Core option available
- BHMA Certified Grade 1 Security with standard mortise cylinder

Certifications:

- BHMA Certified ANSI A156.13 Series 1000 Grade 1 Operational and Security
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL Listed for all functions up to 3 hours for "A" label doors
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated
- A250.13 Severe Windstorm Resistant (only available in **53 and 81** Functions)

Lever Options:

Archer, August, Charles, Johnston (handed), Joshua, Louis, Warren (handed), William, Withnell levers

Options:

- Tactile warning
- Lead lining
- Split finish
- Antimicrobial coating (26D and 32D only)
- Factory handing available if specified



SPECIFICATIONS

Standard Door

- 3-5/8" (92 mm) center of cylinder to spindle
- 2-7/16" (62 mm) center of thumbturn to spindle

Exposed Trim:

Cast zinc - Standard

Lock Case:

4-5/16" x 6" x 1" (110 mm x 152 mm x 25 mm)

Armor Front:

1-1/4" x 8" x 7/32" (32mm x 203mm x 5mm) - Square corner standard, round corner optional

Rose Diameter:

2-7/16" (62 mm)

Keys:

Two operating keys supplied per lock

Cylinders/Cores:

- Brass - keyed different - Schlage C Keyway
- Cylinder drilled 6-pin, keyed 5-pin - Standard
- Other keying options, including keyed 6-pin, available from factory
- Large Format Interchangeable Core cylinder option available
- LFIC core available zero bitted or combined, brass 6-pin cores sold separately
- Small Format Interchangeable Core cylinder option available
- SFIC uncombined or combined, brass 6- or 7-pin cores sold separately
- Schlage "L" Cam - Standard
- For Function 61, Ext Cylinders, use Standard Cam

Door Thickness:

- 1-3/4" - 2-1/2" (45 mm - 64 mm)
- Privacy functions have a max door thickness of 2" (51 mm)
- Must specify door thickness if greater than 1-3/4" (45 mm)

Backset:

2-3/4" (70 mm) only

Latchbolt:

3/4" (19 mm) throw with anti-friction tongue, all stainless steel

Deadbolt:

1" (25 mm) throw - stainless steel

Strike:

3985 1-1/4" x 4-7/8" (32 mm x 124 mm), 1-7/32" (31 mm) lip - standard

Fasteners:

Thru-bolted trim concealed under rose

Functions:

10 Passage, 17 Dummy, 27 Double Dummy, 40 Privacy, 44 Privacy with Cointurn, 50 Office, 53 Entry, 56 Corridor, 57 Intruder Classroom with Deadbolt, 61 Apartment, 70 Classroom, 80 Storeroom, 81 Storeroom with Deadbolt, 82 Institution, 96 Privacy with Indicator

Notes:

- Self-adjusting case for beveled doors or square edge doors
- Stopworks are incorporated in thumbturn
- Non-handed, stainless steel, deadlocking latchbolt

FINISHES

- US3, US4, US10, US10B, US15, US26, US26D, US32D
- US3, US4, US10 and US26 may be subject to extended lead time





3800 SERIES - ELECTRIFIED - GRADE 1 MORTISE - HEAVY DUTY

WARRANTY

- Lifetime warranty on mechanical locking components
- One-year warranty on electric components

FEATURES

- Deadlocking latch
- Key override allows latchbolt to be momentarily retracted with the key even though electrically locked. Note that locks that are electrically unlocked may not be locked via the key cylinder.
- Inside lever always allows egress
- Interface with life-safety systems
- Continuous-duty solenoids



Function:

80 - Storeroom
82 - Institutional

Applications:

- Provides remote locking and unlocking ideal for door control where added security is necessary
- Stairtower doors
- Office doors
- Classrooms
- Elevator lobby doors
- Computer rooms
- Hospital equipment rooms
- Pharmaceutical storage rooms

Voltage:

- 12V AC/DC; current - .612AMP
- 24V AC/DC; current - .330AMP
- Specify 12V or 24V when ordering

Quick Connect:

Available option on EL, EU, RX, DPM, and LM. Compatible with Hager Quick Connect Harness Cable which can plug into Hager Hinges with Quick Connects for quick and accurate wiring of the door.

FINISHES

- US3, US4, US10, US10B, US15, US26, US26D, US32D
- US3, US4, US10 and US26 may be subject to extended lead time

Function	Function No.	Function Description
Storeroom - Fail Safe	3880EL	Outside lever continuously locked electrically. Latchbolt operable from the outside by key, by breaking electric current, or by power failure. Auxiliary latch deadlocks latchbolt when door is closed. Inside always free for immediate egress.
Storeroom - Fail Secure	3880EU	Outside lever continuously locked. Latchbolt operable from the outside by key or by applying electrical current. Auxiliary latch deadlocks latchbolt when door is closed. Inside always free for immediate egress.
Institution - Fail Safe	3882EL	Both levers continuously locked electrically. Latchbolt operable by key, by breaking electric current, or by power failure. Auxiliary latch deadlocks latchbolt when door is closed.
Institution - Fail Secure	3882EU	Both levers continuously locked. Latchbolt operable by key or by applying electrical current. Auxiliary latch deadlocks latchbolt when door is closed.
Request to Exit	RX	Monitors inside lever rotation. Incorporates into fire alarm systems or in conjunction with an electromagnet. Available on 3880 or in combination with 3880EL/3880EU.
Latchbolt Monitor	LM	A single switch (SPDT) mounted inside lockset monitors the full extension of the latchbolt. Available on 3880 or in combination with 3880EL/3880EU.
Door Position Monitor	DPM	A single switch (SPDT Reed Magnetic Switch) mounted inside lockset monitors whether the door is fully closed. Available on 3880, 3882, or in combination with 3880EL/3880EU or 3882EL/3882EU.



3800 SERIES - POWER SUPPLIES

See power supply area within the Electrified Products section for more details on our full selection of power supplies. Hager 2903, 2908 and 2909 power supplies are designed to power locking devices. Their features include:

- UL Listed
- Filtered/regulated 24VDC
- Overload protection
- Over voltage protection
- Short circuit protection
- Surge suppression on Fail Safe and Fail Secure outputs
- Fire alarm input standard

2903 Power Supply Includes:

- 24VDC, 2Amp
- Automatically accepts 120 or 240VAC input
- Auxiliary 24VDC output for stand alone devices
- Switch 24VDC outputs for fail safe or fail secure locking hardware
- Surge suppression on Fail Safe and Fail Secure outputs

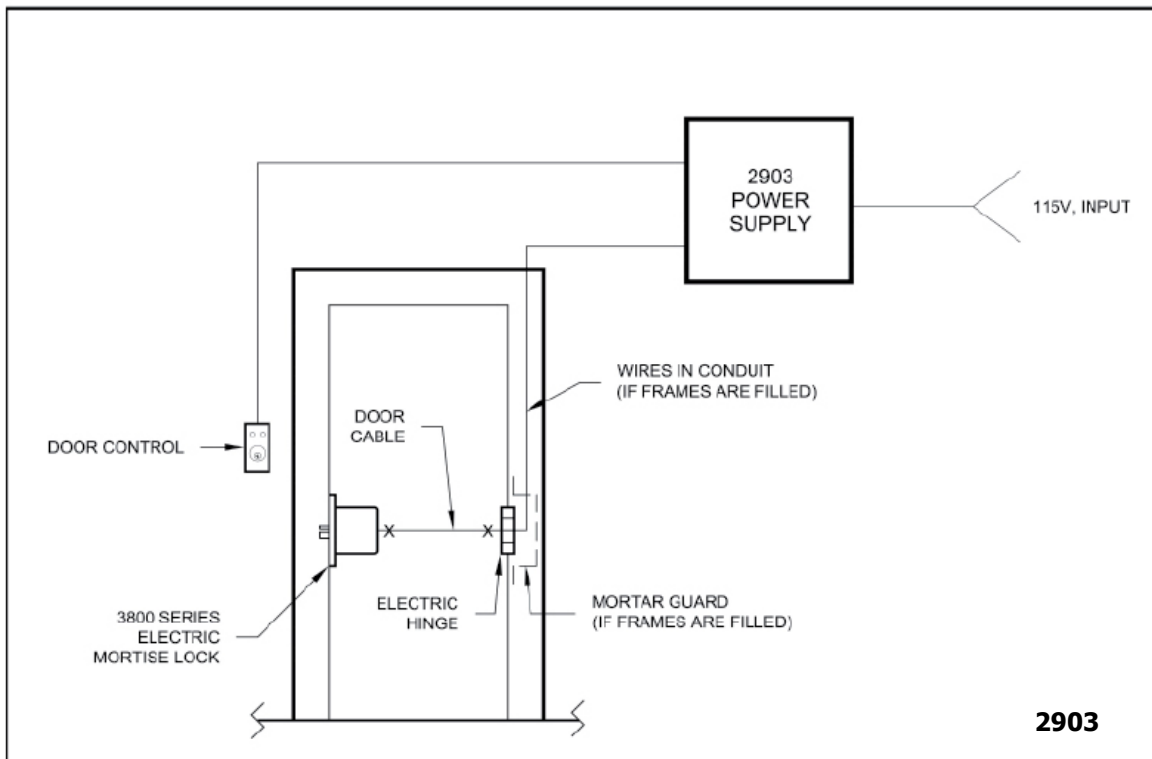
2908 Power Supply Includes:

- Field selectable 12VDC or 24VDC, 1Amp
- 115VAC standard (230VAC optional)
- Separate PTC protected charging for battery backup
- LED status indicator
- Modular design allows optional components to fit any application (see Electrified Catalog for a full list of components)

2909 Power Supply Includes:

- Field selectable 12VDC or 24VDC, 2Amp
- 115VAC standard (230VAC optional)
- Separate PTC protected charging for battery backup
- LED status indicator
- Modular design allows optional components to fit any application (see Electrified Catalog for a full list of components)

Hager Locking System





3800 SERIES - STRIKES

3800 SERIES - MORTISE CYLINDERS



3985

Standard Lip Strike

- Square corner
- 1-1/4" x 4-7/8" x 1-7/32" lip
(32 mm x 124 mm x 31 mm)



3986

Extended Lip Strike

- Square corner
- 1-1/4" x 4-7/8" x 1-1/2" lip
(32 mm x 124 mm x 30 mm)



3987

Standard Lip Strike

- Round corner
- 1-1/4" x 4-7/8" x 1-7/32" lip
(32 mm x 124 mm x 31 mm)



3988

Extended Lip Strike

- Round corner
- 1-1/4" x 4-7/8" x 1-1/2" lip
(32 mm x 124 mm x 38 mm)



3989

Flat Lip Strike

- Square corner
- 1-1/4" x 4-7/8" x 7/8" lip
(32 mm x 124 mm x 22 mm)



3990

Extended Flat Lip Strike

- Square corner
- 1-1/4" x 4-7/8" x 1-7/32" lip
(32 mm x 124 mm x 31 mm)



3902

Mortise Cylinder

- If cylinder is ordered separately from the mortise lock, please specify Schlage "L" Cam; **For 61 Function, specify Standard Cam and "L" Cam**
- Available in Conventional, Small Format Interchangeable Core, and Large Format Interchangeable Core (6-pin only)
- SFIC core sold separately
- LFIC core sold separately
- Conventional cylinder available in 1-1/8" (29 mm) and 1-1/4" (32 mm)
- SFIC cylinder available in 1-1/4" (32 mm) and 1-3/8" (35 mm) length
- LFIC cylinder available in 1-1/2" (38 mm) length
- For more cylinder information, please refer to Cylinder, Core, and Keying section.



3800 SERIES - GRADE 1 MORTISE DEADLOCK - HEAVY DUTY

WARRANTY

Lifetime warranty

FEATURES

- Heavy duty commercial, industrial, institutional
- Non-handed (except for 63 Classroom Function)
- Conventional mortise cylinder, Small Format Interchangeable Core or Large Format Interchangeable option available
- BHMA Certified Grade 1 Security with standard mortise cylinder

Certifications:

- BHMA Certified ANSI A156.13 Grade 1 Series 1000
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL Listed for all functions up to 3 hours for "A" label doors
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated

Options:

Lead lining



SPECIFICATIONS

Lock Case:

4-5/16" x 6" x 1" (110 mm x 152 mm x 25 mm)

Armor Front:

• 1-1/4" x 8" x 7/32" (32mm x 203mm x 5mm) - Square corner standard, round corner optional

Keys:

Two operating keys supplied per lock

Cylinders/Cores:

- Brass - keyed different - Schlage C Keyway
- Cylinder drilled 6-pin, keyed 5-pin - standard
- Other keying options, including keyed 6-pin, available from factory
- Large Format Interchangeable Core cylinder option available
- LFIC core available zero bitted or combined, brass 6-pin cores sold separately
- Small Format Interchangeable Core cylinder option available
- SFIC uncombined or combined, brass 6- or 7-pin cores sold separately
- Schlage "L" Cam - standard

Door Thickness:

- 1-3/4" - 2-1/2" (45 mm - 64 mm)
- Must specify door thickness if greater than 1-3/4" (45 mm)

Backset:

2-3/4" (70 mm) only

Deadbolt:

1" (25 mm) throw - stainless steel

Strike:

3991 1-1/4" x 4-7/8" (32 mm x 124 mm) no lip - Standard

Functions:

60 Cylinder x Thumbturn, 62 Double Cylinder, 63 Classroom, 64 Cylinder

Notes:

Self-adjusting case for beveled doors or square edge doors

FINISHES

- US3, US4, US10, US10B, US26, US26D
- US3, US4, US10, US10B, and US26 may be subject to extended lead time

3800 SERIES DEADLOCK STRIKES



3991

No Lip Strike

- Square corner
- 1-1/4" x 4-7/8" (32 mm x 124 mm)
- For use with 60, 62, 63 and 64 Functions only

3800 SERIES MORTISE CYLINDERS



3902

Mortise Cylinder

- If cylinder is ordered separately from the mortise lock, please specify Schlage "L" Cam
- Available in Conventional, Small Format Interchangeable Core, and Large Format Interchangeable Core (6-pin only)
- SFIC core sold separately
- LFIC core sold separately
- Conventional cylinder available in 1-1/8" (29 mm) and 1-1/4" (32 mm) length.
- SFIC cylinder available in 1-1/4" (32 mm) and 1-3/8" (35 mm) length
- LFIC cylinder available in 1-1/2" (38 mm) length
- For more cylinder information, please refer to Cylinder, Core, and Keying section.





3800 SERIES - GRADE 1 SMALL CASE MORTISE DEADLOCK - HEAVY DUTY

WARRANTY | Lifetime warranty

FEATURES

- Heavy duty commercial, industrial, institutional
- Non-handed (except for 33 Classroom Function)
- Conventional mortise cylinder, Small Format Interchangeable Core or Large Format Interchangeable Core option available
- BHMA Certified Grade 1 Security with standard mortise cylinder

Certifications:

- BHMA Certified ANSI A156.13 Grade 1 Series 1000
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL Listed for all functions up to 3 hours for "A" label doors
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated

Options: | Lead lining



SPECIFICATIONS

Lock Case: | 4-5/16" x 3-9/16" x 1" (110 mm x 90 mm x 25 mm)

Armor Front: | • 1-1/4" x 5-5/8" x 7/32" (32 mm x 143 mm x 5 mm) - Standard

Keys: | Two operating keys supplied per lock

Cylinders/Cores:

- Brass - keyed different - Schlage C Keyway
- Cylinder drilled 6-pin, keyed 5-pin - standard
- Other keying options, including keyed 6-pin, available from factory
- Large Format Interchangeable Core cylinder option available
- LFIC core available zero bitted or combined, brass 6- pin cores sold separately
- Small Format Interchangeable Core cylinder option available
- SFIC uncombined or combined, brass 6- or 7-pin cores sold separately
- Schlage "L" Cam - standard

Door Thickness: | • 1-3/4" - 2-1/2" (45 mm - 64 mm)
• Must specify door thickness if greater than 1-3/4" (45 mm)

Backset: | 2-3/4" (70 mm) only

Deadbolt: | 1" (25 mm) throw - stainless steel

Strike: | 3999 1-1/8" x 3-1/2" (29 mm x 89 mm) no lip - Standard

Functions: | 30 Cylinder x Thumbturn, 31 Door Bolt, 32 Double Cylinder, 33 Classroom, 34 Cylinder

Notes: | Self-adjusting case for beveled doors or square edge doors

FINISHES

- US3, US4, US10, US10B, US26, US26D
- US3, US4, US10, US10B, and US26 may be subject to extended lead time

3800 SERIES DEADLOCK STRIKES



3999

No Lip Strike

- Square corner
- 1-1/8" x 3-1/2" (29 mm x 89 mm)
- For use with 30, 31, 32, 33 and 34 Functions only

3800 SERIES MORTISE CYLINDERS



3902

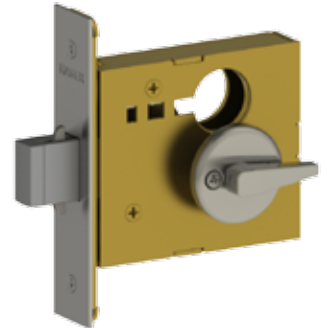
Mortise Cylinder

- If cylinder is ordered separately from the mortise lock, please specify Schlage "L" Cam
- Available in Conventional, Small Format Interchangeable Core, and Large Format Interchangeable Core (6-pin only)
- SFIC core sold separately
- LFIC core sold separately
- Conventional cylinder available in 1-1/8" (29 mm) and 1-1/4" (32 mm) length.
- SFIC cylinder available in 1-1/4" (32 mm) and 1-3/8" (35 mm) length
- LFIC cylinder available in 1-1/2" (38 mm) length
- For more cylinder information, please refer to Cylinder, Core, and Keying section.



3800 SERIES - SLIDING DOOR MORTISE LOCK - HEAVY DUTY

WARRANTY	Lifetime warranty
FEATURES	<ul style="list-style-type: none"> • Heavy duty commercial, industrial, institutional • Non-handed • Conventional mortise cylinder, Small Format Interchangeable Core or Large Format Interchangeable Core option available
Certifications:	<ul style="list-style-type: none"> • ADA Compliant ANSI A117.1 Accessibility Code
SPECIFICATIONS	
Lock Case:	4-5/16" x 3-9/16" x 1" (110 mm x 90 mm x 25 mm)
Armor Front:	1-1/4" x 5-5/8" x 7/32" (32 mm x 143 mm x 5 mm) - Standard
Keys:	Two operating keys supplied per lock
Cylinders/Cores:	<ul style="list-style-type: none"> • Brass - keyed different - Schlage C Keyway • Cylinder drilled 6-pin, keyed 5-pin - standard • Other keying options, including keyed 6-pin, available from factory • Large Format Interchangeable Core cylinder option available • LFIC core available zero bitted or combined, brass 6- pin cores sold separately • Small Format Interchangeable Core cylinder option available • SFIC uncombined or combined, brass 6- or 7-pin cores sold separately • Schlage "L" Cam - standard
Door Thickness:	<ul style="list-style-type: none"> • 1-3/4" - 2-1/2" (45 mm - 64 mm) • Must specify door thickness if greater than 1-3/4" (45 mm)
Backset:	2-3/4" (70 mm) only
Deadbolt:	1" (25 mm) throw - stainless steel
Strike:	1-1/8" x 3-1/2" (29 mm x 89 mm) no lip - Standard
Functions:	35 Cylinder x Thumbturn, 36 Single Cylinder, 37 Double Cylinder, 38 Thumbturn Only, 39 Thumbturn with Emergency Key (Privacy)
FINISHES	U26D



3800 SERIES MORTISE CYLINDERS



3902 Mortise Cylinder

- If cylinder is ordered separately from the mortise lock, please specify Schlage "L" Cam
- Available in Conventional, Small Format Interchangeable Core, and Large Format Interchangeable Core (6-pin only)
- SFIC core sold separately
- LFIC core sold separately
- Conventional cylinder available in 1-1/8" (29 mm) and 1-1/4" (32 mm) length.
- SFIC cylinder available in 1-1/4" (32 mm) and 1-3/8" (35 mm) length
- LFIC cylinder available in 1-1/2" (38 mm) length
- For more cylinder information, please refer to Cylinder, Core, and Keying section.



Cylinder, Core & Keying





CYLINDER, CORE & KEYING - CONVENTIONAL CYLINDERS

Keying Options

Keyed function locks are supplied standard with Schlage 'C' keyway cylinder, cylinder drilled 6-pin, keyed 5-pin and will be keyed different with two operating keys unless otherwise specified.

- Keyed Alike, 0 Bitted, 1 Bitted
- Master Keyed [must specify quantity of Master keys where applicable, 3961 (5-pin) or 3962 (6-pin)]
- Construction Master Keyed (Schlage C, E & F)
- Keyed to Specific or Existing Number
- Submit master keying form; pages 88-91 or at www.hagerco.com
- Extra Cut Keys (3961 - Cut 5-pin, 3962 - Cut 6-pin)
- Key Markings: 1AA, 2AA etc. (per key)
- Key Markings other than Key Set (per key)
- Cylinder markings
- Bitting Lists are available, ordered separately from Master Keyed order, specify 3998
- All optional keyways below may not be immediately available. Contact customer service for more information on a particular keyway.

Optional Keyways (Conventional Cylinders)



Arrow AR1



Corbin 60



Corbin 77



**Corbin/
Ruswin L4**



Kwikset KW1



Weiser E



Ruswin D1



Sargent LA



Schlage E



Schlage F



**Yale E1R
(PARA)**



Yale GA

Keys



3955
Key Blank
5-pin, C keyway



3961
Cut Key
5-pin, keyed to specific or existing number



3956
Key Blank
6-pin, C keyway



3962
Cut Key
6-pin, keyed to specific or existing number





CYLINDER, CORE & KEYING - CONVENTIONAL CYLINDERS

Cylinders



3960
Key-in Lever/Doorlock Cylinder
 Includes two operating keys
 Specify keyway, tailpiece, and how keyed
 Note: Cylinder instructions and ordering guide available on www.hagerco.com



2-639-7008
Tailpiece 9
 Pack of 10 tailpieces for use with 3653L, 3670L and 3680L



2-639-7018
Tailpiece W
 Pack of 10 tailpieces for use with 3473L

Tailpieces



2-639-7000
Tailpiece 1
 Pack of 10 tailpieces for use with 3453L, 3450L, 3480L, 2580L



2-639-7087
Tailpiece Z
 Pack of 10 tailpieces for use with 3570L and 3573L



2-639-7001
Tailpiece 2
 Pack of 10 tailpieces for use with 3470L



2-639-7094
Tailpiece X
 Pack of 10 tailpieces for use with 3495L



2-639-7002
Tailpiece 3
 Pack of 10 tailpieces for use with 3453K, 3480K, 3550L, 3553L, 3553K, 3579L, 3580L, 3580K, 3753L, 2550L, 2553L



2-639-7192
Tailpiece K
 Pack of 10 tailpieces for use with 4700 key-in-lever trim (KE, KN)



2-639-7003
Tailpiece 4
 Pack of 10 tailpieces for use with 3470K, 3570K



2-639-7322
Tailpiece V
 Pack of 10 tailpieces for use with 2570L



2-639-7005
Tailpiece 6
 Pack of 10 tailpieces for use with 3114DB and 3214DB exterior cylinders

Rim Cylinder Housing



3901
Rim Cylinder

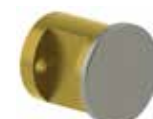
- Conventional cylinder supplied drilled 6-pin, keyed 5-pin standard
- Furnished with trim ring, mounting plate, and break off screws
- Long tail piece standard
- Supplied with two operating keys



2-639-7006
Tailpiece 7
 Pack of 10 tailpieces for use with 3114DB and 3214DB interior cylinders



2-639-7007
Tailpiece 8
 Pack of 10 tailpieces for use with 3115DB, 3118DB, 3215DB, 3710DB, 3753DB

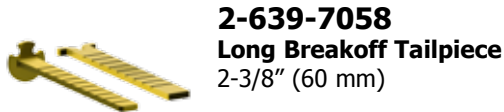


3903
Rim Dummy Cylinder



CYLINDER, CORE & KEYING - CONVENTIONAL CYLINDERS

Rim Cylinder Accessories



2-639-7058
Long Breakoff Tailpiece
2-3/8" (60 mm)



2-300-0118
Extra Long Breakoff Screws
2-3/8" (60 mm)



2-649-0137
Retaining Cup
Can be used with 45PN, 47PN, and 47RN

Mortise Cylinder Housing



3902
Mortise Cylinder

- Conventional cylinder supplied drilled 6-pin, keyed 5-pin standard
- 3975 standard cam attached and 3972 Adams Rite cam shipped loose in the box
- Thread size is 1.150" x 32 UNS
- Cylinder face diameter is 1.360"
- Supplied with two operating keys
- 1-1/8" (29 mm) standard length, 1-1/4" (31 mm), and 1-5/8" (41 mm) for mortise exit devices
- Other lengths may be available with extended lead time
- **Must specify length, cam, keyway, and keying requirements**



3904
Mortise Dummy

- 1-1/8" (29 mm) length
- 1-1/4" (31 mm) length



3905
Mortise ADA Turn Knob

- 1-1/8" (29 mm) length
- 1-1/4" (31 mm) length

Note: Ships with Schlage "L" Cam; specify if different

Mortise Cylinder Cams



3971
Yale Cam
Radius .722" (18 mm)



3972
Adams Rite Cam
Radius .560 (14 mm)



3973
Standard Cloverleaf
Radius .741" (19 mm)



3974
Marks Cam
Radius .755" (19 mm)



3975
Standard Cam
Radius .723" (18 mm)
For use with Hager exit devices and trim



3976
Schlage L Cam
Radius .637" (16 mm)
For use with Hager mortise locks (all functions)



3977
Sargent/Yale Cam
Radius .733" (18.6 mm)



3978
Corbin/Ruswin/Best Cloverleaf
Radius .725" (18.5 mm)





CYLINDER, CORE & KEYING - SMALL FORMAT INTERCHANGEABLE CORE

Keying Options

Cores are furnished keyed different unless otherwise specified. Other keying options include:

- Keyed Alike
- Construction Cores
- Master keyed (Must specify quantity of master keys, control keys, or additional change keys, 3984.)
- Keyed to specific or existing number
- Key Markings: 1AA, 2AA etc. (per key) - VKC
- Key markings other than key set
- Core markings (Visual or concealed)
- Do not duplicate
- Bitting Lists are available, ordered separately from Master Keyed order, specify 3998

* Construction master keyed not available.

SFIC Keyways (Best) - A, B, C, D, E, F, G, H, J, K, L, M, Q

SFIC Cores



3981-C
Combined Core 6-Pin
 Includes two change keys
 Finishes include US4 or US26D

3981-U
Uncombined Core 6-Pin
 Includes two key blanks
 Finishes include US4 or US26D

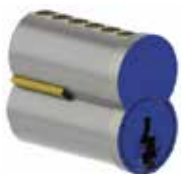


3982-C
Combined Core 7-Pin
 Includes two change keys
 Finishes include US4 or US26D

3982-U
Uncombined Core 7-Pin
 Includes two key blanks
 Finishes include US4 or US26D

SFIC Construction Cores

Construction Small Format Interchangeable Cores are available in blue or red and are keyed alike. Will receive full credit, less shipping, of original cost upon return of construction cores with keys.



3981-Blue or 3981-Red
Construction Core
 Combined, 6-pin
 Includes two operating keys



3982-Blue or 3982-Red
Construction Core
 Combined, 7-pin
 Includes two operating keys

SFIC Keys



3983
SFIC Key Blank
 Best Keyways used with 6-pin and 7-pin cores



3984
SFIC Cut Key
 Best Keyways used with 6-pin and 7-pin cores

SFIC Construction Core Keys



2-639-7168
3984 Control Key (BA IC 6 Blue)

2-639-7169
3984 Control Key (BA IC 7 Blue)

2-639-7170
3984 Control Key (BA IC 7 Red)

2-639-7113
3984 Control Key (BA IC 6 Red)

Note: Two (2) control keys will be shipped with an order unless otherwise specified.



CYLINDER, CORE & KEYING - SMALL FORMAT INTERCHANGEABLE CORE

SFIC Tailpieces



2-639-7060

Pack of 10 tailpieces for use with 2500/3500 Series SFIC lever (6-pin/7-pin combo)



2-639-7061

Pack of 10 tailpieces for use with 3400/3500 Series SFIC knob (6-pin/7-pin combo)



2-639-7090

Pack of 10 tailpieces for use with 3753 Interconnected Lock SFIC lever (6-pin/7-pin combo)



2-639-7091

Pack of 10 tailpieces for use with 3114/3214 SFIC deadbolt (6-pin/7-pin combo)



2-639-7095

Pack of 10 tailpieces for use with 3115/3118/3215 and 3710/3753 SFIC deadbolt (6-pin/7-pin combo)

SFIC Rim Cylinder Housing

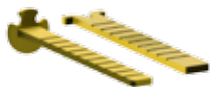


3901

Rim Cylinder

- Furnished with trim ring, mounting plate, and break off screws
- Long tail piece standard
- Small Format Interchangeable Core housing supplied less core
- Specify 6- or 7-pin

SFIC Rim Cylinder Accessories



2-639-7058

Long Breakoff Tailpiece
2-3/8" (60 mm)



2-300-0118

Extra Long Breakoff Screws
2-3/8" (60 mm)



2-649-0137

Retaining Cup
Can be used with 45PN, 47PN, and 47RN

SFIC Mortise Cylinder Housing



3902

Mortise Cylinder

- 2-639-7082 standard cam; 2-639-7083 Adams Rite cam shipped loose in the box
- Thread size is 1.150" x 32 UNS. Cylinder face diameter is 1.360"
- Small Format Interchangeable Core housing supplied less core
- **Must specify length and cam, 6-pin 1-1/4", 7-pin 1-3/8", 7-pin 1-5/8" (for mortise exit device)**

SFIC Mortise Cylinder Cams



2-639-7082

Standard Yale Cam



2-639-7083

Adams Rite Cam



2-639-7084

Standard Cloverleaf Cam



2-639-7085

Schlage "L" Cam

For use with Hager mortise locks (all functions)



2-639-7086

Sargent/Yale Cam





CYLINDER, CORE & KEYING - LARGE FORMAT INTERCHANGEABLE CORE

Keying Options

Cores are furnished zero bitted - unless otherwise specified. Other keying options include:

- Keyed alike
- Keyed different
- Master keyed (must specify quantity of master keys, control keys or additional change keys)
- Construction master keyed
- Keyed to specific or existing number
- Key Markings: 1AA, 2AA etc. (per key) - VKC
- Key markings other than key set
- Core markings (visual or concealed)
- Bitting Lists are available, ordered separately from master keyed order, specify 3998

LFIC Cores (Available in Schlage C Only)



3919

Zero Bitted Core 6-Pin

Includes two key blanks
Finishes include US4 or US26D

Combinated Core 6-Pin

Includes two change keys
Finishes include US4 or US26D

LFIC Tailpieces



2-639-7645

50, 53 and 80 functions only



2-639-7646

70 function only



2-639-7647

73 and 95 functions only

LFIC Rim Cylinder Housing



3901

Rim Cylinder

- Furnished with trim ring, mounting plate, and break off screws
- Tail piece supplied standard
- Large Format Interchangeable Core housing supplied less core.
- 6-pin only

LFIC Keys



3956

Key Blank

Schlage C Keyway, 6-pin only



3962

Cut Key

Schlage C Keyway, 6-pin only



3963

3919 Control Cut Key



2-639-7649

3919 Control Key Blank

LFIC Rim Cylinder Accessories



2-639-7578

Breakoff Tailpiece Assy

2-3/8" (60 mm)



2-300-0175

Breakoff Screws

2-1/8" (54 mm)



CYLINDER, CORE & KEYING - LARGE FORMAT INTERCHANGEABLE CORE

LFIC Mortise Cylinder Housing



3902

Mortise Cylinder

- 2-639-7082 standard cam;
2-639-7083 Adams Rite Cam shipped loose in the box.
- Thread size is 1.150" x 32 UNS.
Cylinder face diameter is 1.360".
- Large Format Interchangeable Core housing supplied less core
- **Must specify cam, 1-1/2" length**

LFIC Mortise Cylinder Cams



2-639-7570
Standard Yale Cam



2-639-7571
Adams Rite Cam



2-639-7572
Schlage "L" Cam
For use with Hager mortise locks
(all functions)



2-639-7573
Corbin Cam



2-639-7574
Sargent/Yale Cam





CYLINDER, CORE & KEYING - CONVENTIONAL CYLINDERS - HAGER KEYWAY - (7-PIN ONLY)

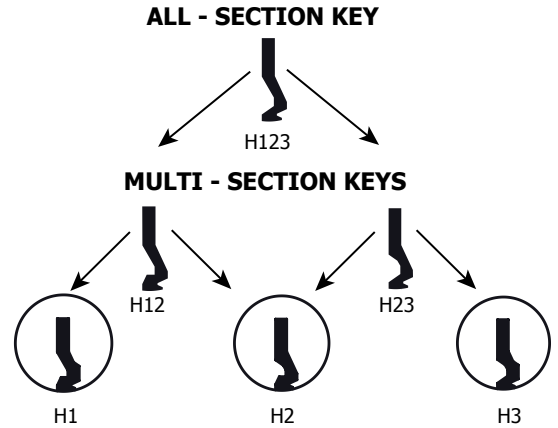
Keying Options

Keyed function locks are supplied keyed different unless otherwise specified.

- Keyed alike, 0 bitted, 1 bitted
- Master keyed (must specify quantity of Master keys where applicable)
- Construction master keyed
- Keyed to specific or existing number
- Submit master keying form (page 86)
- Extra cut keys (3908 - Cut 7-pin)
- Key markings: 1AA, 2AA etc. (per key)
- Key markings other than key set (per key)
- Cylinder markings (visual or concealed)
- Do not duplicate standard
- Bitting lists are available, ordered separately from Master keyed order, specify 3998

Notes: • Keys are cut bow to tip

- Must purchase capping block/press and key punch due to 140 pin spacing



Hager Keyway (Conventional Cylinders)



Cylinders



3906

Key-in Lever/ Deadlock Cylinder

- 140 Pin spacing
- Includes two operating keys
- Specify Hager keyway, tailpiece, and keying requirements

Note: Cylinder instructions and ordering guide available online.

Rim Cylinders



3901 Rim Cylinder

- 140 Pin spacing
- Conventional cylinder supplied 7-pin only
- Furnished with trim ring, mounting plate, and break off screws
- Long tail piece standard
- Supplied with two operating keys

Mortise Cylinders



3902

Mortise Cylinder

- 140 Pin spacing
- Conventional cylinder supplied 7-pin only
- 3975 standard cam attached and 3972 Adams Rite cam shipped loose in the box
- Thread size is 1.150" x 32 UNS
- Cylinder face diameter is 1.360"
- Supplied with two operating keys
- 1-1/8" (29 mm) standard length, 1-1/4" (31 mm) available, 1-5/8" (41 mm) for mortise exit devices
- **Must specify length, cam, keyway, and keying requirements**

Keys



3907 Key Blank

Hager keyways (H1, H2, H3, H12, H23, H123)



3908 Cut Key

- Hager keyways (H1, H2, H3, H12, H23, H123)
- Specify keying required (masterkey, construction masterkey, control key)



CYLINDER, CORE & KEYING - SFIC - HAGER KEYWAY - (7-PIN ONLY)

Keying Options

Cores are furnished keyed different unless otherwise specified. Other keying options include:

- Keyed alike
- Master keyed (must specify quantity of master keys, control keys or additional change keys)
- Keyed to specific or existing number
- Key markings: 1AA, 2AA etc. (per key) - VKC
- Key markings other than key set
- Core markings (visual or concealed)
- Do not duplicate standard
- Bitting lists are available, ordered separately from master keyed order, specify 3998
- * Construction master keyed not available.

Notes: • Keys are cut bow to tip
• Must purchase capping block/press and key punch due to 140 pin spacing

Keyways (Hager) - H1, H2 and H3 SFIC Cores



- 3969**
Combinated Core 7-Pin
- Includes two change keys
 - Finishes include US4 or US26D
 - 140 Pin spacing



- 3909**
Uncombinated Core 7-Pin
- Includes two key blanks
 - Finishes include US4 or US26D
 - 140 Pin spacing

SFIC Keys



- 3907**
SFIC Key Blank
Hager keyways (H1, H2, H3, H12, H23, H123)



- 3908**
SFIC Cut Key
- Hager keyways (H1, H2, H3, H12, H23, H123)
 - Specify keying required (masterkey, construction masterkey, control key)

SFIC Rim Cylinder Housing



- 3901**
Rim Cylinder
- Furnished with trim ring, mounting plate, and break off screws
 - Long tail piece standard
 - Small Format Interchangeable Core housing supplied less core
 - Specify 7-pin

SFIC Mortise Cylinder Housing



- 3902**
Mortise Cylinder
- 2-639-7082 standard cam; 2-639-7083 shipped loose in the box
 - Thread size is 1.150" x 32 UNS. Cylinder face diameter is 1.360".
 - Small Format Interchangeable Core housing supplied less core
 - **Must specify length and cam, 7-pin 1-3/8"**





CYLINDER, CORE & KEYING - HAGER KEYWAY ACCESSORIES

2-639-7511

Pin Kit

- Includes top pins, SFIC bottom pins, full size bottom pins and springs
- Does not include SFIC caps

2-639-7517

Construction Balls

- Used for lost ball construction key
- Order in multiples of 1,000

2-639-7519

Retaining Pin Spring

Sold in multiples of 100

2-639-7520

Individual SFIC Caps

Sold in multiples of 500

2-639-7526

Retaining Pin

Secures screw cap on KIK cylinder

2-639-7527

Plug Follower (KIK)

2-639-7529

Decombinating Punch

2-639-7530

Capping Punch

2-639-7531

Decombinating Block (Punch Included)

2-639-7532

Manual Capping Block (Punch Included)

140 spacing

2-639-7534

Cap Saver Press

- Recommended for field pinning uncombined SFIC cores
- 140 spacing

2-639-7535

Key Punch

140 spacing

2-639-7536

HPC 1200 Series Code Card

140 spacing



CYLINDER, CORE & KEYING - PINS

Original Manufacturer Nickel Silver Pins (Sold in multiples of 100)		
Part Number	Description	Size
2-639-8188	Top Pin	#2
2-639-8189	Top Pin	#3
2-639-8190	Top Pin	#4
2-639-8191	Top Pin	#5
2-639-8192	Top Pin	#6
2-639-8193	Top Pin	#7
2-639-8194	Top Pin	#8
2-639-8195	Top Pin	#9
2-639-8196	Top Pin	#10
2-639-8197	Top Pin	#11
2-639-8198	Top Pin	#12
2-639-8199	Top Pin	#13
2-639-8200	Top Pin	#14
2-639-8201	Top Pin	#15
2-639-8202	Top Pin	#16
2-639-8203	Top Pin	#17
2-639-8204	Top Pin	#18
2-639-8205	Top Pin	#19
Full Bottom		
2-639-8210	Full Bottom	#0
2-639-8211	Full Bottom	#1
2-639-8212	Full Bottom	#2
2-639-8213	Full Bottom	#3
2-639-8214	Full Bottom	#4
2-639-8215	Full Bottom	#5
2-639-8216	Full Bottom	#6
2-639-8217	Full Bottom	#7
2-639-8218	Full Bottom	#8
2-639-8219	Full Bottom	#9
SFIC Bottom		
2-639-8220	SFIC Bottom	#0
2-639-8221	SFIC Bottom	#1
2-639-8222	SFIC Bottom	#2
2-639-8223	SFIC Bottom	#3
2-639-8224	SFIC Bottom	#4
2-639-8225	SFIC Bottom	#5
2-639-8226	SFIC Bottom	#6
2-639-8227	SFIC Bottom	#7
2-639-8228	SFIC Bottom	#8
2-639-8229	SFIC Bottom	#9



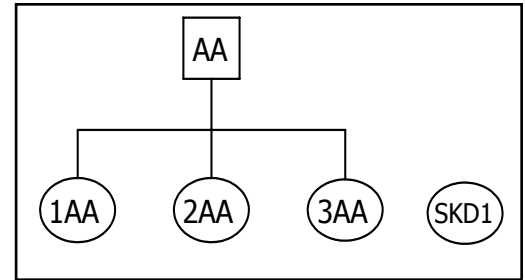


CYLINDER, CORE & KEYING - HOW TO ORDER KEY SYSTEMS

2 LEVEL SYSTEMS

Simple Master Key System

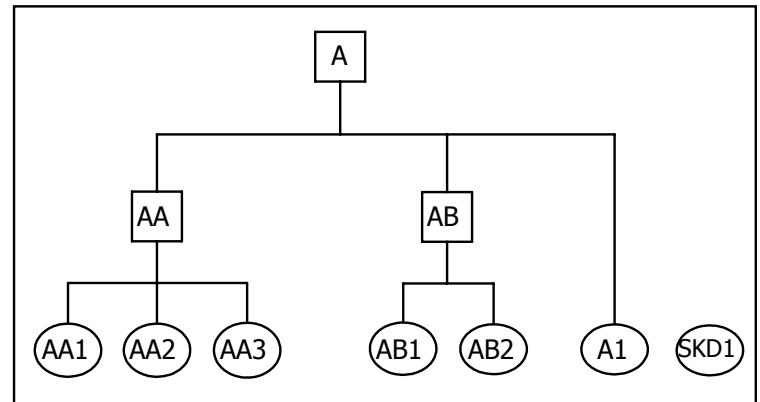
The master key symbol consists to TWO letters, **AA**. The change key numbers are added to the master key letters. The numbers come FIRST for a simple master key system, example: **1AA, 2AA, 3AA, etc.**



3 LEVEL SYSTEMS

Grand Master Key System

The grand master keyset symbol is assigned ONE letter, starting with **A**. The master keyset symbols under this grand are assigned TWO letters, the first of which will be the same as the grand; **AA, AB, AC, etc.** are all masters under the grand **A**. (Caution: **Do not use the letters, I, O, Q or X** because of the possible confusion with the numbers 1 & O. X is reserved for identifying cross keying.) Change key numbers come **AFTER** the letters, example: **AA1, AA2, AA3, etc.**



For master keyset symbols beyond AZ, insert a number between the letters to designate which pass through the alphabet they represent. **A2A** through **A2Z** represent the second pass through the alphabet of masters under the Grand **A**. **A3A** through **A3Z** would be the third pass through the alphabet. Change keys under these masters have the numbers suffixed in the usual way **A2A1, A2A2, A2A3, etc.**

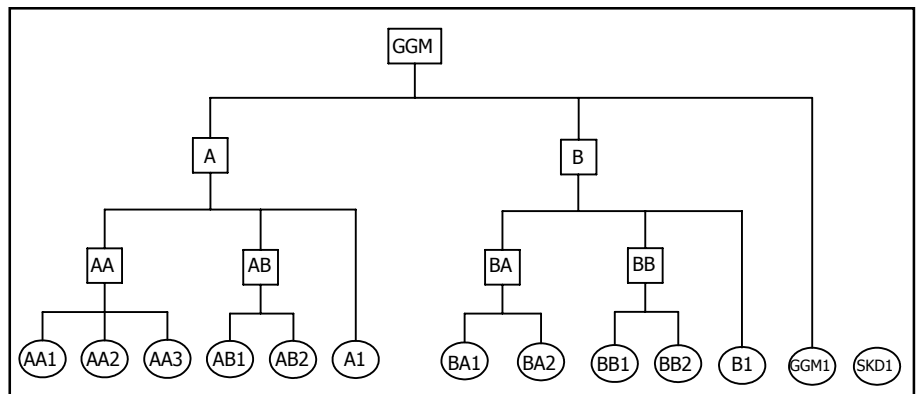
If a cylinder is to be operated by its change key and the GMK only (No master), the change number is added to the GMK symbol. This is illustrated by the keyset symbol **A1** in the schematic shown.

4 LEVEL SYSTEMS

Great Grand Master Key System

The great grand master is assigned the keyset symbol **GGM**. The rest of the symbols are the same as those in a 3 level system.

The grand master keys under the GGM are assigned the keyset symbol of single letters of the alphabet **A, B, C, D, etc.**, starting with **A**. The master keyset symbols under this grand are assigned TWO letters, the first of which will be the same as the grand; **AA, AB, ..., BA, BB, ..., CA, CB, ..., etc.** (Caution: **Do not use the letters, I, O, Q or X** because of the possible confusion with the numbers 1 & O. X is reserved for identifying cross keying.) Change key numbers come **AFTER** the letters, example: **AA1, AA2, AA3, etc.**



For masters beyond AZ, insert a number between the letters to designate which pass through the alphabet they represent. **A2A** through **A2Z** represent the second pass through the alphabet of masters under the Grand **A**. **A3A** through **A3Z** would be the third pass through the alphabet. Change keys under these masters have the numbers suffixed in the usual way **A2A1, A2A2, A2A3, etc.**

If a cylinder is to be operated by its change key and the GGM only (No grandmaster, no master), the change number is added to the GGM keyset symbol. This is illustrated by the keyset symbol **GGM1** in the schematic shown.

CYLINDER, CORE & KEYING - HOW TO ORDER KEY SYSTEMS

SINGLE KEYED DIFFERENT (SKD) (Example: Narcotics Room, Pharmacies)

When requirements are such that no other key operates the cylinder (master, other change keys, etc.) they are referred to as "single keyed different" and given the keyset symbol **SKD**. When more than one SKD is required in a facility, they are numbered **SKD1, SKD2, SKD3, etc.**

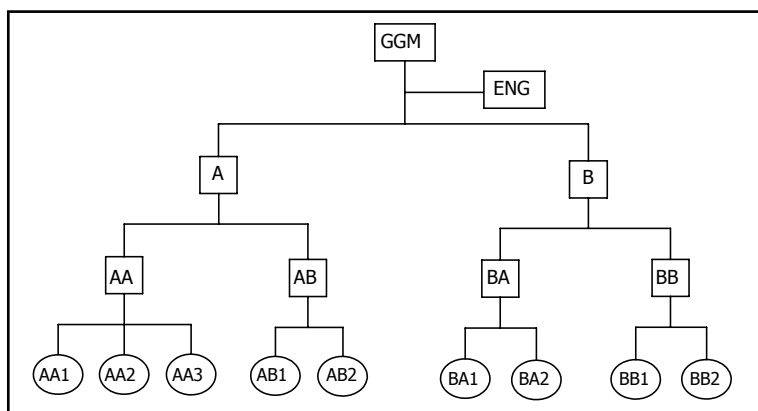
NO MASTER KEY (NMK)

When keying requirements are such that all higher levels of master keys do not operate the cylinder, the suffix **(NMK)** is added to the keyset symbol. For example, **AA1 (NMK)** is operated by the change key **AA1** only. Neither the A grand, nor the **AA** master operate the cylinder. A keyset symbol, **AA (NMK)** indicates the cylinder to be operated by the **AA** master only, the **A** grand does not operate the cylinder.

SELECTIVE MASTER KEYS

It is often useful in large keying systems to issue a high level master key to maintenance personnel which allows access across all master and grand master key boundaries of a keying system.

To designate that a lock be operated by a selective master key, suffix the symbol in parentheses to the standard symbol. Example: **AA1 (ENG)**. This must be added every time the selective key is to operate and left off whenever the selective key is NOT to operate. For instance, you may lay out a system in which key **AA1** is to operate two different offices. Inside one of them is an electrical cabinet which must be accessible to maintenance personnel carrying the **ENG** key. That lock must be specified as **AA1 (ENG)**, while the lock for the other office must be specified as **AA1**.



Selective master key is a convenience feature which decreases the security of the cylinders it operates and limits the expansion and flexibility of the overall keying system. Each selective master key typically eliminates 20-25% of the capacity of the system where it is used, so it should only be specified when absolutely required. It is recommended that no more than one system-wide selective master key be used within the same system.

CROSS KEYING

Like selective master keying, cross keying is a convenience feature and will limit the expansion and flexibility of the overall key system. Whenever two or more different change keys such as **AA1 and AA2** are both required to operate the same cylinder, the cylinder's security is reduced. This is called cross keying. When the cross keying occurs under all the same higher levels (MK, GMK, GGMK), such as **AA1 and AA2**, it is known as controlled cross keying. When you combine keys under different higher levels (MK, GMK, GGMK), such as **AA1 and AB1**, it is known as uncontrolled cross keying, which you NEVER want to do.

Convenience may reduce cylinder security and hinder the overall key system expansion. Cross keying usually imposes limits on the flexibility and expansion of the overall keying system. This is especially true of uncontrolled cross keying. For these reasons, it is strongly recommended to allow personnel to carry more than one key. Cross keying should be discouraged whenever possible. However, when cross keying is required, it is specified as follows, and should be summarized at the beginning of each order. It cannot normally be added later. Each cross keyed set should also be limited to keys which are all under the same higher level master keys. Prefix the keyset symbol with the letter **X** (example: **XAA3**) All keys which are to operate the cylinder are to be listed following the keyset symbol with the phrase "to be operated by" ("TBOB", "OB", "operated by" are also common phrases/abbreviations used. Example: **XAA3**, operated by **AA1, AA2, AA**, and **A**. Note that **X** is a cylinder designation only. The change keyset would be **AA3**.

NOTE: HAGER WILL NOT DO UNCONTROLLED CROSS KEYING DUE TO THE REDUCED SECURITY IT CAUSES.





CYLINDER, CORE & KEYING - HOW TO ORDER KEY SYSTEMS

CONSTRUCTION MASTER KEYING

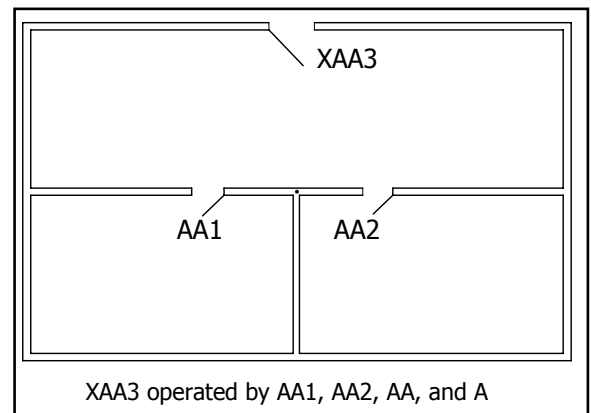
Hager uses the lost ball method for construction keying for conventional cylinders. If you have ordered Small Format Interchangeable Core (SFIC), you will be able to order temporary cores (Blue & Red are stock). Permanent cores will be shipped with permanent keys.

Recommendation:

Use as many keyed alike groups to conserve bitting combinations. Study blueprints and/or master plans for campuses to identify areas where more than one door leads into the same space, and where several different areas are used by the same personnel. These areas should be keyed alike (use the same keyset symbol). This conserves key bitting combinations for future use as well as reduces the need to issue master keys. Remember, key systems are much like a rubber band, it only stretches so far. You can stretch it horizontally to create more master keys, or vertically to create more changes under each master, but there is a finite number of combinations available.

Case #1 (Cross Keying)

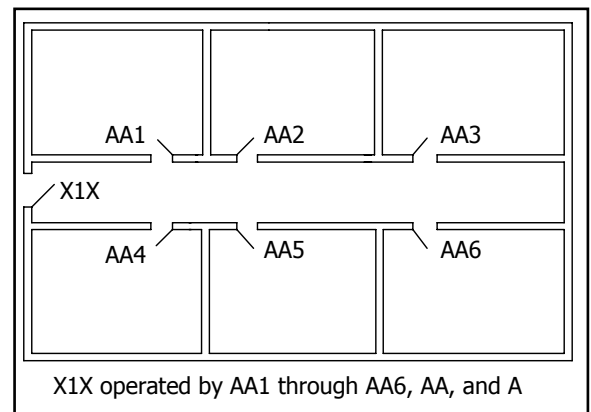
Cylinder requires its own change key. The illustration depicts part of a small medical building where two doctors share a common receptionist. The receptionist gets the **AA3** change key. Each doctor carries a key which operates only one office, but also operates the entrance from the corridor, by cross keying that cylinder to include the following keys to operate it. **XAA3, TBOB** (To Be Operated By) **AA1, AA2, AA and A**.



Case #2

The hall door cylinder does not require its own change key. This illustration depicts a section of a floor in a dormitory. Each student's bedroom change key operates the hall door cylinder. There is no need to construct a change key which operates only the hall door.

In this case, place an **X** at both the beginning and the end of the keyset symbol and a number between them. Example: **X1X, X2X, etc.** Again, always include the "TBOB" (to be operated by) phrase with a complete listing of the keyset symbols to operate the cylinder.





Master Keying Form

Hager order number: _____
 Account number: _____
 Customer: _____
 Customer PO number: _____
 Job name: _____
 Location: _____

Ship Lock to:

Requested ship date: _____

1. System

- New
- Existing

If existing, please attach biting sheet and complete following field:

Original Hager order number: _____

2a. System type

- Conventional keyed 5-pin
- Conventional keyed 6-pin/ includes LFIC
- Conventional keyed 7-pin (H1, H2, H3 Only)
- SFIC keyed 6-pin A2 A4
- SFIC keyed 7-pin A2 A4
- LFIC keyed 6-pin (Schlage C only)

* Hager Keyway available in 7-pin only (Conventional & Interchangeable Core)

2b. Keyways

- Arrow AR1
- Corbin 60
- Corbin 67
- Corbin 77
- Corbin/RW L4
- Hager H1
- H12
- Kwikset KW1
- Weiser E
- Hager H2
- H23
- Sargent LA
- Schlage C
- Hager H3
- H123
- Yale E1R
- Schlage E
- Russwin D1
- Yale GA
- Schlage F
- Best (Specify Keyway) _____

Change keys

- Per core/cylinder
- Per key symbol

Quantity

Special function

- Control
- Maintenance
- Housekeeping
- Mechanical
- Engineering
- Janitorial
- SKD
- Other

Quantity

4a. Key stamping (visual key control)

- None
- Key set symbol
- Door number
- Bitting number
- Do not duplicate (standard with interchangeable core & Hager Keyways)
- Other _____

3. System level AND key quantity

Level	Quantity
<input type="radio"/> GGGMK	
<input type="radio"/> GGMK	
<input type="radio"/> GMK	
<input type="radio"/> MK	
<input type="radio"/> Construction MK (Lost Ball) (Sch/Hag Conv. Only)	
<input type="radio"/> Other	

Please note that visual key control is recommended, otherwise, keys will be tagged with temporary identification.

4b. Cylinder Control

- None
- Concealed
- Visual
- KSS (Key Set Symbol)
- DN (Door Number)
- Other

Please fill out this form completely and fax to 800-782-0149 or email to masterkey@hagerco.com with the document as an attachment.

5. Packing

- Pack keys with lock/ cores
- Pack keys separate from lock/ cores

Ship To: (keys separate)

6. 3998 bitting list

- Yes No

Ship to/ E-mail to:

Marking instructions (labels, packaging, etc.):

7. Future expansion (list future MK symbols, approximate number of change key symbols)

8. Contact Information for questions:

Name _____

Title: _____

Phone: _____

Fax: _____

Email: _____

Signature: _____

Is a signature required for future keying? Yes No

If yes:

Please note that this document will become part of the permanent keying files for this project. If the requirements for this master keying form change, it is the responsibility of the end user/owner to notify their local factory representative or Hager Companies.

9. Additional information/ Special Instructions



One Family. One Brand. One Vision.™

www.hagerco.com

Door Controls



Hager Companies offers a comprehensive line of door control products designed and manufactured to meet a wide range of applications and uses. From humble beginnings in 1849 as a forger of wheel rims and hardware for Conestoga wagons, today Hager offers surface mounted and commercial grade closers, electromagnetic holders and overhead door holders and stops in our door controls product line. Hager door closers provide architects, contractors, and building owners a superior product with proven reliability. That makes them a no-risk choice for virtually any building type. Because these heavy duty, Grade 1 door closers are ideal for schools, hospitals, and other high use environments they have been installed in these locations all over the globe.

With Hager, you get a door closer that's packaged with everything needed for quick installation, regardless of the application. Hager door closers are tri-packed for mounting three ways: parallel arm, regular arm, and top jamb. They are non-handed, packaged with a parallel arm bracket, self-drilling screws and thru-bolts at no extra charge, and adjustable for various door sizes.

Surface door closers are easy to install, with only a few holes for the body and the arm, requiring a minimum amount of preparation of the door and frame.

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GENERAL INFORMATION

Surface door closers are easy to install, with only a few holes for the body, the arm and the bracket, requiring a minimum amount of preparation of the door and frame.

There are a number of factors to consider when choosing how to mount your closer. These factors can be influenced by aesthetics, environment, or application. The main things to consider when defining how to mount a surface door closer include:

- Architectural appearance
- Accessibility to the closer arm
- Space limitations of the frame above the door
- Space limitations on the top rail of the door
- Closer position on the door

There are three basic methods of mounting surface door closers to the door and frame: regular arm, parallel arm, and top jamb mounts. All Hager door closers are supplied standard with a tri-pack for mounting any of the three types of applications. The package includes regular, parallel, and top jamb arm mounts.

Regular Arm

The regular arm application is used when there is ample room on the top rail of the door and you are not concerned about the arm extending out away from the door. The closer body is mounted on the hinge side of the top rail of the door. The forearm is then mounted to the frame face by a mounting shoe. The arm projects at approximately a 90° angle away from the door. The regular arm mount will make the closer more power-efficient than the parallel arm or top jamb mount.

Parallel Arm

The height dimension of the top rail is an important consideration when using this application. The closer body is mounted on the top rail of the push side of the door. The forearm is mounted by a parallel arm bracket to the soffit of the frame. The arm is parallel to the door, which makes it less likely to be damaged and aids in the overall aesthetics. The efficiency of the closer may be reduced by the mounting applications.

Top Jamb

This is the preferred method of mounting a closer if you are faced with a narrow rail on a door. The closer body is mounted to the frame face above the push side of the door. The forearm is then mounted to the top rail of the door. The top jamb mount is more power-efficient than the parallel arm application.

DOOR CLOSER SIZING CHART

Exterior (and Vestibule) Door Width

Minimum Door Width (24")

	24" (610 mm)	30" (762 mm)	36" (914 mm)	42" (1067 mm)	48" (1219 mm)
Regular Arm & Top Jamb	Size 3	Size 4	Size 5	Size 6	
Parallel Arm	Size 3	Size 4	Size 5	-	

Interior Door Width

Minimum Door Width (24")

	24" (610 mm)	30" (762 mm)	34" (865 mm)	38" (965 mm)	48" (1219 mm)	54" (1372 mm)	60" (1524 mm)
Regular Arm & Top Jamb	Size 1	Size 2	Size 3	Size 4	Size 5	Size 6	
Parallel Arm	Size 1	Size 2	Size 3	Size 4	Size 5	-	

GENERAL INFORMATION

Door Handing

Hager Companies' surface door closers are all non-handed, meaning they can be placed on a door so that they will operate a left-opening or a right-opening door. Some of the accessories that can be ordered with these closers are handed and the hand of the door should be specified when ordering a closer with these components.

Closer Sizing

The American National Standards Institute (ANSI) has set the standard for sizing and has ensured that each manufacturer's closers are tested to the same standards. The door closer sizing chart on page 4 shows the closer size required to fit your door size and application.

Meeting ADA Requirements

Doors and doorways that are non-labeled and part of an accessible route shall comply with Section 404 of the ANSI 117.1 standard. Door closers shall be adjusted so that from the open position of 90°, the time required to move the door to an open position of 12° shall be 5 seconds minimum. The maximum force for pushing open or pulling open an interior hinged door (other than a fire door) is five pounds. To maximize hinge life and assist in achieving ADA compliance, Hager recommends the use of anti-friction or ball bearing hinges with our door closer products.

Fire Doors

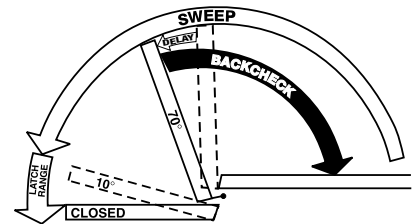
Fire doors shall have the minimum opening force allowable by the appropriate authority having jurisdiction.

Closer Adjustment

All Hager Companies' door closers are equipped with key control valves that allow for easy adjustments while decreasing the chances for tampering.

Sweep and Latching Speeds

Two separate valves control the closing speed of the door. The sweep speed controls the speed of the door from full opening to within approximately 2° to 10° of the closed position. The latching speed valve controls the speed of the door from approximately 2° to 10° to full closing.



Backcheck

Backcheck starts at approximately 70° door opening and slows the door as it opens. This feature is not to be used as a positive stop. An auxiliary stop must be used.

Delayed Action

The delayed action feature is available for the 5100, 5200 and 5300 Series closers. The closing time between 90° and 70° shall be a minimum of 20 seconds, but is adjustable to be even slower.

Adjustable Spring Feature

The 5100, 5200 and 5300 Series closers offer an adjustable spring feature for sizes 1-6. Spring power of the closer can be increased or decreased by turning the power adjustment shaft clockwise.

Use of Door Stops

It is important to use an auxiliary door stop in order to protect the wall, trim, door, and closer. A stop should be used even when a closer with backcheck is used.

How to Select the Proper Closer

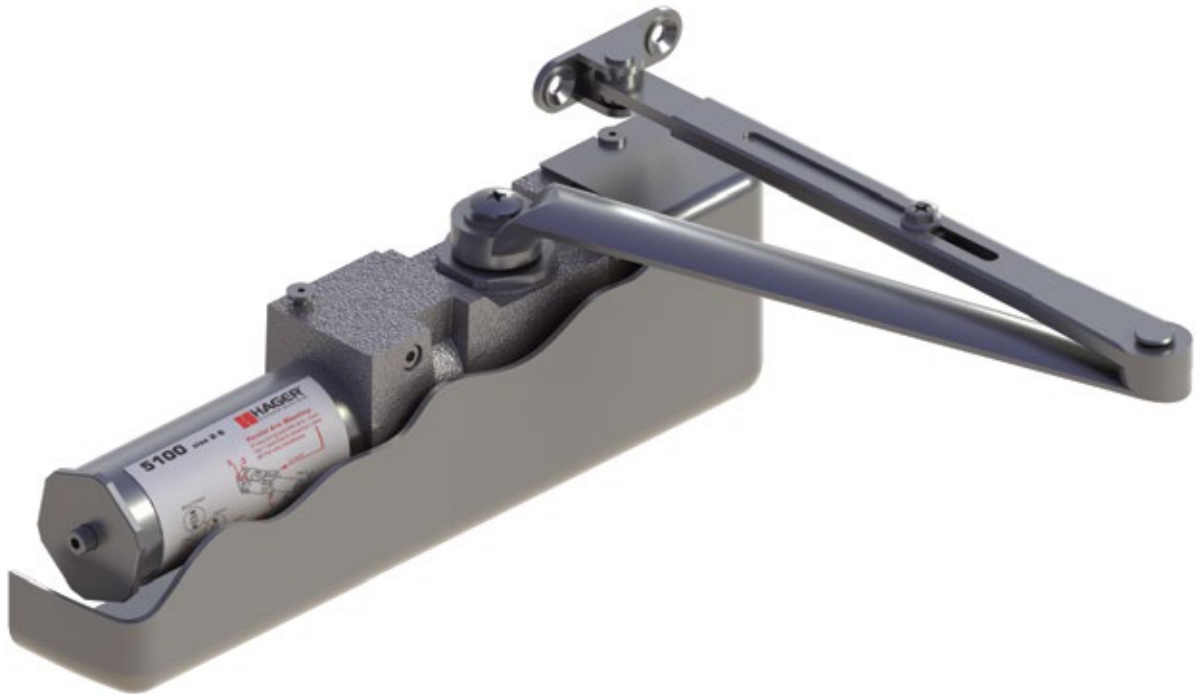
- Size and Weight of Door:** 5100, 5200 and 5300 Series closers are non-sized so that closing force can be adjusted in the field to accommodate various door sizes, weights, and applications.
- Interior Application:** Where possible, the standard regular arm application should be used as it is the most efficient in terms of power and control.
- Exterior Application:** Exterior doors require greater closing forces because of draft and wind conditions. Therefore, where possible, use an extra heavy duty arm for these applications.
- Degree of Opening:** The closer should permit the door to open far enough to allow for easy traffic flow. The selection of the proper arm and position on the door are very important.
- Function:** Closers can be equipped with special arms that can serve many functions such as hold open, positive stop, or hold open stop when necessary.
- Abusive Environment:** Closers can be equipped with extra heavy duty arms that can withstand vandalism and extreme use.

5100 Series

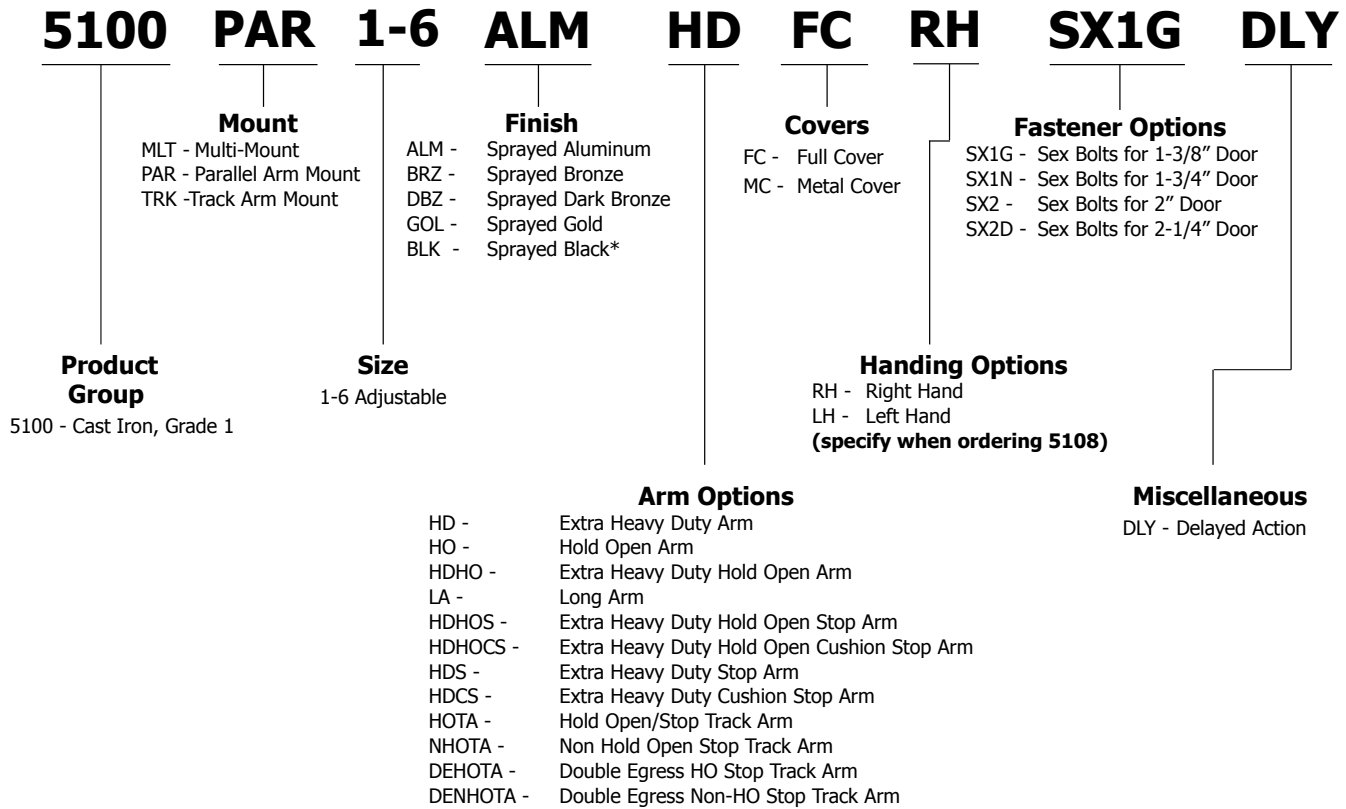


5100 Series Closers are heavy duty door closers constructed of cast iron to be installed on exterior and interior doors that are subject to high use and potential abuse. They are designed and engineered for reliability and superior performance. The commercial applications ideal for these closers include schools, medical facilities, institutions and hospitals as well as office buildings and any entrance door with high foot traffic.

5100 Series Closers have a full rack and pinion operation, with a heat treated steel piston and triple heat treated steel spindle. The closers are non-handed to permit installation on doors of either hand. The sizing is adjustable from size 1 through size 6. These design features make this closer the ideal choice for doors with a maximum weight of 330 lbs.



5100 SERIES - HOW TO ORDER



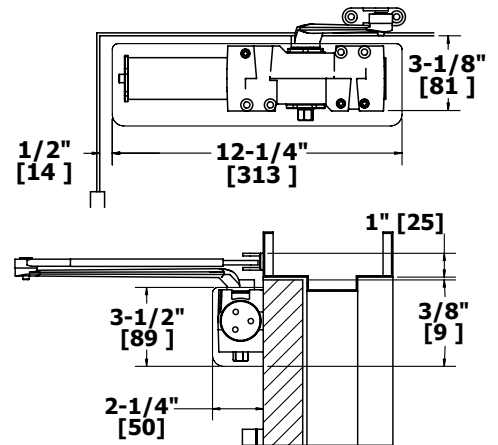
Example of how to order: 5100P14ALMHDHOCS

*Extended lead times for flat black finish and minimum order quantities may apply.

5100 SERIES - APPLICATIONS

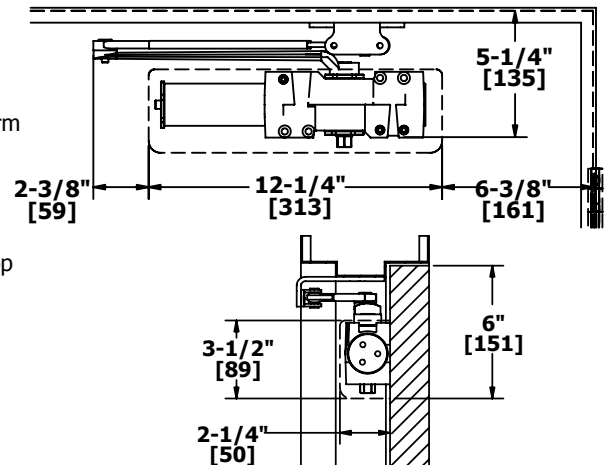
REGULAR ARM MOUNT (PULL SIDE)

Opening:	Templating allows up to 120°
Hold Open:	Hold open points from 90° up to 120° with hold open arm
Frame Face:	1-1/4" (32 mm) minimum
Ceiling Clearance:	1-1/4" (32 mm) minimum
Top Rail:	<ul style="list-style-type: none"> • Less than 3-3/4" (95 mm) requires drop plate, 5109 • Drop plate requires 2" (51 mm) minimum
Top Rail Clearance:	4" (102 mm) from the top of door



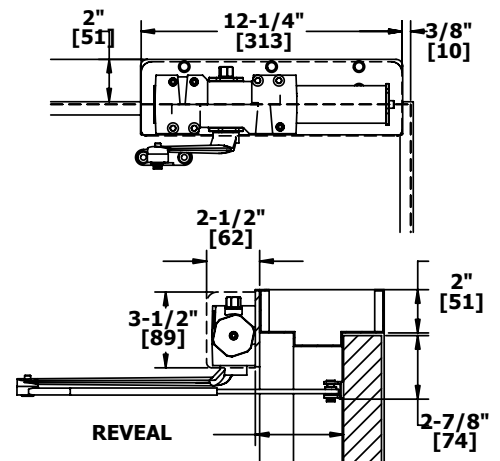
PARALLEL ARM MOUNT (PUSH SIDE)

Opening:	Templating allows up to 180°
Hold Open:	Hold open points from 90° up to 180° with hold open arm
Top Rail:	<ul style="list-style-type: none"> • Standard hollow metal 5/8" frame stop • Less than 5-1/2" (140 mm) from the stop requires drop plate, 5110 • Drop plate requires 2" (51 mm) minimum from the stop
Top Rail Clearance:	6-1/4" (159 mm) from the top of door



TOP JAMB MOUNT (PUSH SIDE)

Opening:	Templating allows up to 120°
Hold Open:	Hold open points 85° up to 120° with hold open arm
Frame Face:	Less than 3-1/2" (89 mm) requires drop plate, 5115
Ceiling Clearance:	Drop plate requires 4" (102 mm) minimum
Top Rail:	Requires 1-3/8" (35 mm) minimum
Top Rail Clearance:	1-1/2" (38 mm) from the top of the door



5100 SERIES - GRADE 1 HEAVY DUTY SURFACE DOOR CLOSER

WARRANTY

Lifetime warranty - 330 lbs. maximum door weight

FEATURES

- Ideal for schools, hospitals, and other high-use environments
- Standard package contains 5101 closer body, 5102 closer cover, 5103 main arm assembly, 5104 standard screw pack, 5909 parallel arm bracket, and 5940 SNB screw pack for 1-3/4" (44 mm) doors

Certification:

- BHMA Certified ANSI A156.4, adjustable sizes 1 to 6
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL listed for up to 3 hours
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated



Covers:

- Full plastic cover - Standard
- Plated metal cover - Optional

Closer Body:

- Cast iron
- The recommended temperature for prolonged use is between -40° F (-42° C) & 150° F (66° C)

Springs:

- One piece seamless steel spring tube
- Double heat treated steel, tempered springs

Valves:

- Adjustable latching and sweep speed valves
- Adjustable backcheck valve - Standard
- Delayed action valve - Optional
- Staked valves - Standard

Handing:

Non-handed

Arms & Brackets:

Tri-Pack: Regular, Parallel Arm, Top Jamb Mount - Standard

SPECIFICATIONS

Door Thickness:

- 1-3/4" (44 mm) - Standard
- 1-3/8" - 2-1/4" (36 mm - 57 mm) thick door - Optional

Fasteners:

- Self-reaming, self-tapping wood and machine screws
- Sex nuts and bolts

Notes:

- Full rack and pinion operation
- Precision machined, heat treated steel piston
- Triple heat treated steel spindle
- Special templates available upon request by contacting Hager Companies Customer Service

FINISHES

- ALM, BLK, BRZ, DBZ, GOL
- Rust inhibiting primer - Standard



5100 SERIES - ARMS



5103

Main Arm

- Non-handed
- Forged steel
- Mounts regular, parallel arm, or top jamb mount
- Add 5909 bracket for parallel arm mount



5106

Extra Heavy Duty Arm

- Non-handed parallel arm
- Forged steel



5107

Hold Open Arm

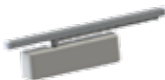
- Non-handed
- Forged steel
- Mounts pull side or top jamb with shallow reveal
- Friction hold open function
- Add 5909 bracket for parallel arm mount



5108

Extra Heavy Duty Hold Open

- Handed parallel arm (specify handing when ordering)
- Forged steel
- Provides friction hold open function
- Adjustable at the shoe
- Not for use on fire rated doors



Track Arm

- Non-handed
- Extruded aluminum track
- Steel arm

Functions:

Non Hold Open Stop Arms

- 2-659-0187 - ALM
- 2-659-0324 - BLK
- 2-659-0188 - BRZ
- 2-659-0189 - DBZ
- 2-659-0190 - GOL

Hold Open Stop Arms

- 2-659-0195 - ALM
- 2-659-0325 - BLK
- 2-659-0196 - BRZ
- 2-659-0197 - DBZ
- 2-659-0198 - GOL



5125

Extra Heavy Duty Stop Arm

- Non-handed parallel arm
- Forged steel
- Auxiliary stop in soffit shoe



5954

Extra Heavy Duty Hold Open Cushion Stop Arm

- Non-handed parallel arm
- Forged steel
- Screw-type hold open function
- Contains 5961 arm and 5950 spring cushion
- Not for use on fire-rated doors



5955

Extra Heavy Duty Cushion Stop Arm

- Non-handed parallel arm
- Forged steel
- Contains 5125 arm and 5950 spring cushion



5961

Extra Heavy Duty Hold Open Stop Arm

- Non-handed parallel arm
- Forged steel
- Auxiliary stop in soffit shoe
- Screw-type hold open function
- Not for use on fire-rated doors

Double Egress Non Hold Open Stop Arms

- 2-659-0203 - ALM
- 2-659-0326 - BLK
- 2-659-0204 - BRZ
- 2-659-0205 - DBZ
- 2-659-0206 - GOL

Double Egress Hold Open Stop Arms

- 2-659-0207 - ALM
- 2-659-0327 - BLK
- 2-659-0208 - BRZ
- 2-659-0209 - DBZ
- 2-659-0210 - GOL

5100 SERIES - ACCESSORIES



5101 Closer Body Only

- Cast iron
- Heat treated steel spindle and piston
- Full rack and pinion operation



5102 Plastic Cover

- Cover projects 2-1/4" (57 mm) from door face
- High impact non-corrosive full cover
- Secured by two machine screws



5109 Drop Plate - Regular Arm Mount

- Required for pull side mount when top rail is less than 3-3/4" (95 mm)
- Plate requires 2" (51 mm) minimum top rail
- Includes screw pack



5110 Drop Plate - Parallel Arm Mount

- Required for parallel arm mount when top rail is less than 5-1/2" (140 mm), measured from the stop to the reveal
- Plate requires 2-1/2" (64 mm) minimum top rail
- Includes screw pack



5111 Extra Heavy Duty Parallel Arm Support Bracket

- For use with stop arms when reveal is less than 3-1/16" (78 mm)
- Provides anchor for fifth screw



5112 Long Rod and Shoe

- Non-handed
- Use for door reveals greater than 3" (76 mm) and up to 5" (127 mm)
- Cast steel
- Use for top jamb application



5113 Blade Stop Spacer

- Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop of aluminum frames
- Includes screw pack



5114 Drop Plate - Low Clearance

- For use when ceiling clearance prevents normal top jamb mounting
- For use when overhead door holder prevents normal top jamb mounting
- Includes screw pack



5115 Drop Plate - Top Jamb Mount

- Plate requires 1-3/4" (44 mm) minimum frame face
- Required for top jamb when frame face is less than 3-1/2" (89 mm)
- For use with plastic cover
- Includes screw pack



5909 Parallel Arm Bracket

- Can be used to convert regular or top jamb arm to parallel arm application
- Includes screw pack



5935 Extra Clearance Parallel Arm Bracket

- Allows for up to 2" (51 mm) of clearance to mount additional hardware such as overhead door stops and holders
- Provides needed clearance not achieved with standard soffit plate
- Includes screw pack



5950 Spring Cushion

- Non-handed
- Mounts to soffit shoe of 5125, 5961, 5906, and 5907 arms
- For use with extra heavy duty hold open and stop arms for abusive applications



5962 Metal Cover

- Cover projects 2-1/4" (56 mm) from door face
- Cast zinc
- Secured by two machine screws



5100 SERIES - SCREW PACKS FOR 5100 SERIES ONLY



5104

Screw Pack - Standard

- Self-drilling wood screws
- Self-drilling machine screws



5940

SNB Screw Pack - Standard

- Sex nuts and bolts for 1-3/4" (44 mm) doors
- Machine screws



5941

SNB Screw Pack - Optional

- Sex nuts and bolts for 1-3/8" (35 mm) doors
- Machine screws



5942

SNB Screw Pack - Optional

- Sex nuts and bolts for 2" (51 mm) doors
- Machine screws



5943

SNB Screw Pack - Optional

- Sex nuts and bolts for 2-1/4" (56 mm) doors
- Machine screws



5946

Tork Security Screw Pack - Optional

- Tamper resistant torx screws with pins
- Sex nuts and bolts for 1-3/4" (44 mm) doors

5200 Series

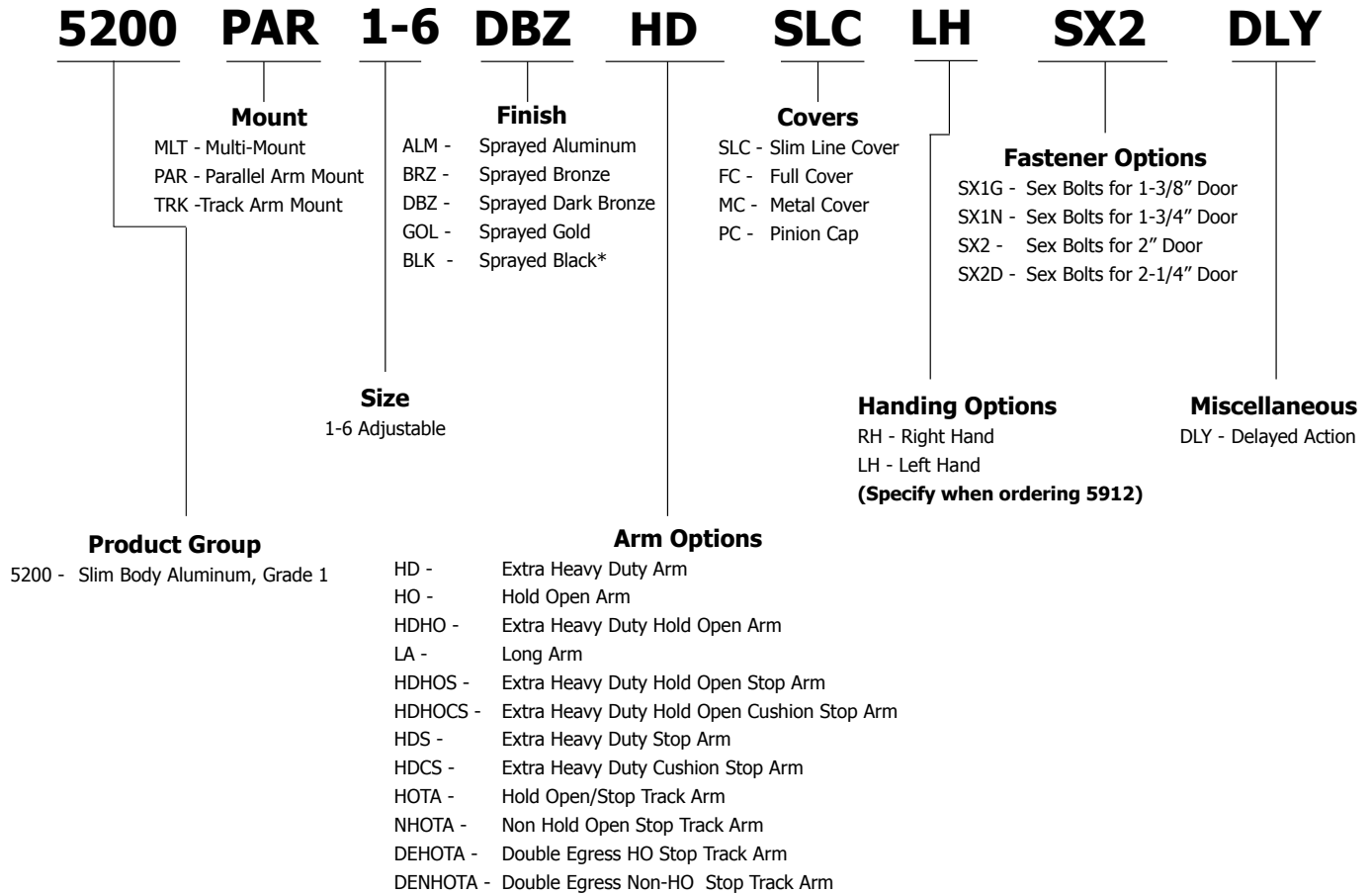


5200 Series Closers are engineered and designed to offer the ideal combination of appearance and reliability. The 5200 Series Closers are constructed of aluminum alloy to be installed on exterior and interior doors. They are designed and engineered for reliability and superior performance. The commercial applications ideal for these closers include schools, medical facilities, institutions and hospitals as well as office buildings and any entrance door with high foot traffic.

5200 Series Closers have a full rack and pinion operation, with a heat treated steel piston and triple heat treated steel spindle. The closers are non-handed to permit installation on doors of either hand. The sizing is adjustable from size 1 through size 6. These design features make this closer the ideal choice for doors with a maximum weight of 250 lbs.



5200 SERIES - HOW TO ORDER



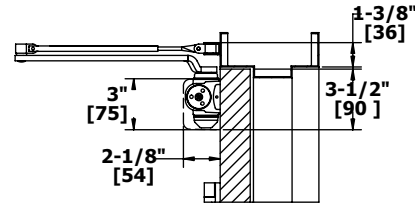
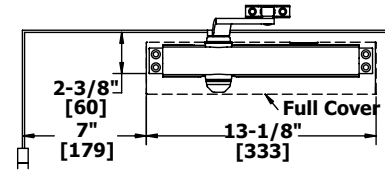
Example of how to order: 5200P25ALMHDHOCS

*Extended lead times for flat black finish and minimum order quantities may apply.

5200 SERIES - APPLICATIONS

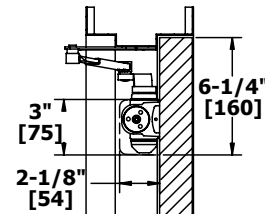
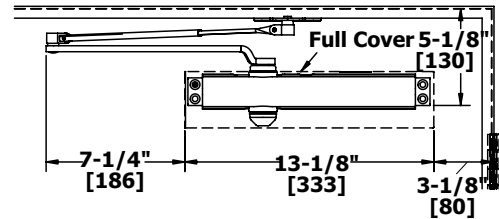
REGULAR ARM MOUNT (PULL SIDE)

Opening:	Templating allows up to 180°
Hold Open:	Hold open points 90° up to 180° with hold open arm
Frame Face:	1-3/8" (35 mm)
Ceiling Clearance:	<ul style="list-style-type: none"> • 1-3/4" (45 mm) minimum • 1-5/8" (41 mm) minimum for hold open arm
Top Rail:	<ul style="list-style-type: none"> • 2-1/2" (64 mm) minimum without drop plate • 1-5/8" (38 mm) minimum with drop plate, 5918
Top Rail Clearance:	3-1/2" (89 mm) minimum



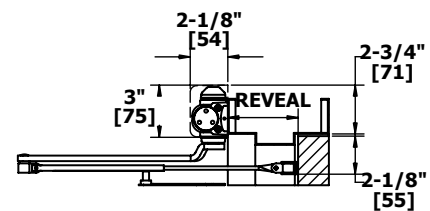
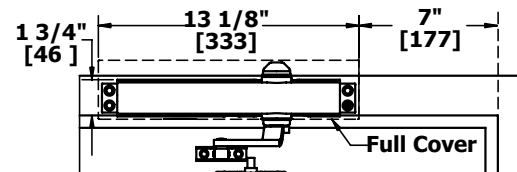
PARALLEL ARM MOUNT (PUSH SIDE)

Opening:	Templating allows up to 180°
Hold Open:	Hold open points 90° up to 180° with hold open
Top Rail:	<ul style="list-style-type: none"> • Standard hollow metal 5/8" frame stop • 5-3/8" (137 mm) minimum
Top Rail Clearance:	6-1/4" (159 mm) minimum



TOP JAMB MOUNT (PUSH SIDE)

Opening:	Templating allows up to 180°
Hold Open:	Hold open points 90° up to 180° with hold open
Frame Face:	<ul style="list-style-type: none"> • 1-7/8" (48 mm) minimum • 1-1/8" (29 mm) minimum with drop plate, 5918
Ceiling Clearance:	<ul style="list-style-type: none"> • 2-3/4" (70 mm) minimum • 1-5/8" (41 mm) minimum with drop plate, 5918
Top Rail:	2" (51 mm) minimum
Top Rail Clearance:	<ul style="list-style-type: none"> • 2-1/4" (57 mm) minimum • 2-1/2" (64 mm) minimum for hold-open • 3-3/8" (86 mm) minimum with drop plate, 5918 • 3-5/8" (92 mm) minimum for hold open with drop plate



5200 SERIES - GRADE 1 HEAVY DUTY SURFACE DOOR CLOSER

WARRANTY

Lifetime warranty - 250 lbs. maximum door weight

FEATURES

- Ideal for schools, hospitals, and other high-use environments
- Standard package contains 5201 closer body, 5202 closer cover, 5203 main arm assembly, 5204 standard screw pack, 5900 parallel arm bracket, and 5902 SNB screw pack for 1-3/4" (44 mm) doors

Certification:

- BHMA Certified ANSI A156.4, adjustable sizes 1 to 6
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL Listed for up to 3 hours
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated

Covers:

- Full plastic cover - Standard
- Full size plated metal cover - Optional

Closer Body:

- Aluminum alloy
- The recommended temperature for prolonged use is between -40° F (-42° C) & 150° F (66° C)

Springs:

Double heat treated steel, tempered springs

Valves:

- Adjustable latching and sweep speed valves
- Adjustable backcheck valve - Standard
- Delayed action valve - Optional
- Staked valves - Standard

Handing:

Non-handed

Arms & Brackets:

- Tri-Pack: Regular, Parallel Arm, and Top Jamb Mount - Standard
- 15% power adjustment in standard arm for regular and top jamb mount



SPECIFICATIONS

Door Thickness:

- 1-3/4" (44 mm) - Standard
- 1-3/8" - 2-1/4" (36 mm - 57 mm) thick door - Optional

Fasteners:

- Self-reaming, self-tapping wood and machine screws
- Sex nuts and bolts

Notes:

- Full rack and pinion operation
- Precision machined, heat treated steel piston
- Triple heat treated steel spindle
- Special templates available upon request by contacting Hager Companies Customer Service

FINISHES

- ALM, BLK, BRZ, DBZ, GOL
- Rust inhibiting primer - Standard

5200 SERIES - ARMS



5203

Main Arm

- Non-handed
- Forged steel
- Mounts regular, parallel arm, or top jamb mount
- Add 5900 bracket for parallel arm mount



5207

Hold Open Arm

- Non-handed
- Forged steel
- Mounts pull side or top jamb with shallow reveal
- Friction hold open function
- Add 5914 bracket for parallel arm mount



5906

Extra Heavy Duty Hold Open Stop Arm

- Non-handed parallel arm
- Forged steel
- Plunger hold open function
- Auxiliary stop in soffit shoe
- For use with 5200 and 5300 Series closers



5907

Extra Heavy Duty Stop Arm

- Non-handed parallel arm
- Forged steel
- Auxiliary stop in soffit shoe
- For use with 5200 and 5300 Series closers



Track Arm

- Non-handed
- Extruded aluminum track
- Steel arm

Functions:

Non Hold Open Stop Arms

- 2-659-0191 - ALM
- 2-659-0328 - BLK
- 2-659-0192 - BRZ
- 2-659-0193 - DBZ
- 2-659-0194 - GOL

Hold Open Stop Arms

- 2-659-0199 - ALM
- 2-659-0329 - BLK
- 2-659-0200 - BRZ
- 2-659-0201 - DBZ
- 2-659-0202 - GOL



5911

Extra Heavy Duty Arm

- Non-handed parallel arm
- Forged steel



5912

Extra Heavy Duty Hold Open

- Handed parallel arm (specify handing when ordering)
- Forged steel
- Provides friction hold open function
- Adjustable at the shoe
- For use with 5200 and 5300 Series closers
- Not for use on fire-rated doors



5956

Extra Heavy Duty Hold Open Cushion Stop Arm

- Non-handed parallel arm
- Forged steel
- Plunger hold open function
- Contains 5906 arm and 5950 spring cushion arm
- For use with 5200 and 5300 Series closers



5957

Extra Heavy Duty Cushion Stop Arm

- Non-handed parallel arm
- Forged steel
- Contains 5907 arm and 5950 spring cushion
- For use with 5200 and 5300 Series closers

Double Egress Non Hold Open Stop Arms

- 2-659-0211 - ALM
- 2-659-0330 - BLK
- 2-659-0212 - BRZ
- 2-659-0213 - DBZ
- 2-659-0214 - GOL

Double Egress Hold Open Stop Arms

- 2-659-0215- ALM
- 2-659-0331 - BLK
- 2-659-0216 - BRZ
- 2-659-0217 - DBZ
- 2-659-0218 - GOL

5200 SERIES - ACCESSORIES



5201 Closer Body Only

- Aluminum alloy
- Heat treated steel spindle and piston
- Full rack and pinion operation



5202 Full Plastic Cover

- Cover projects 2-3/16" (56 mm) from door face
- High impact non-corrosive full cover
- Secured by two machine screws



5900 Parallel Arm Bracket

- Can be used to convert regular or top jamb arms to parallel arm application
- For use with 5200, 5300 and 5400 Series arms



5908 Long Rod and Shoe

- Use for reveals greater than 4" (102 mm) and up to 8" (203 mm)
- Non-handed
- Cast steel
- Use for top jamb application
- For use with 5200, 5300 and 5400 Series arms
- Includes screw pack



5913 Blade Stop Spacer

- Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop of aluminum frames
- For use with 5200, 5300 and 5400 Series arms
- Includes screw pack



5914 Hold Open Parallel Arm Bracket

- Supplied with all standard hold open arms
- For use with 5200, 5300 and 5400 Series arms
- Includes screw pack



5918 Drop Plate - Top Jamb, Narrow Top Rail

- For use with slim line cover
- For use when a narrow top rail prevents mounting directly to door surface
- For use when low ceiling clearance prevents normal top jamb mounting
- Includes screw pack



5919 Pinion Cap

- High-impact, non-corrosive
- Fits over the pinion and extends 9/16" (14 mm)
- For use with slim line cover



5920 Slim Line Plastic Cover

- Cover projects 2-3/16" (56 mm) from the door face
- High-impact non-corrosive slim line cover
- Secured by two machine screws
- Available in plastic only



5921 Drop Plate - Narrow Top Rail

- For use with a full cover
- For use when a narrow top rail prevents mounting directly to door surface
- Includes screw pack



5922 Drop Plate - Top Jamb, Parallel Arm

- For use with slim line cover
- For use when low ceiling clearance prevents normal top jamb mounting; with full cover
- For use when an overhead door holder prevents normal top jamb mounting
- Includes screw pack
- Plate requires 3" (76mm) minimum top rail



5923 Drop Plate - Parallel Arm

- For use with a full cover
- For use with a parallel arm when narrow top rail prevents mounting directly to the door surface
- Includes screw pack
- Plate requires 3" (76mm) minimum top rail.

5200 SERIES - ACCESSORIES

SCREW PACKS



5932

Metal Cover

- Cover projects 2-1/4" (57 mm) from door face
- Cast zinc full cover
- Secured by two machine screws
- Not offered as slim line



5936

Extra Clearance Parallel Arm Bracket

- Allows for up to 2" (51 mm) of clearance to mount additional hardware such as overhead door stops and holders
- Provides needed clearance not achieved with a standard soffit plate



5950

Spring Cushion

- Non-handed
- Mounts to soffit shoe of 5125, 5961, 5906 and 5907 arms
- For use with extra heavy duty hold open and stop arms for abusive applications



5204

Screw Pack - Standard

- Self-drilling wood screws
- Self-drilling machine screws
- For 5200 Series closer



5902

SNB Screw Pack - Standard

- Sex nuts and bolts for 1-3/4" (44 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



5903

SNB Screw Pack - Optional

- Sex nuts and bolts for 1-3/8" (35 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



5904

SNB Screw Pack - Optional

- Sex nuts and bolts for 2" (51 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



5905

SNB Screw Pack - Optional

- Sex nuts and bolts for 2-1/4" (56 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only

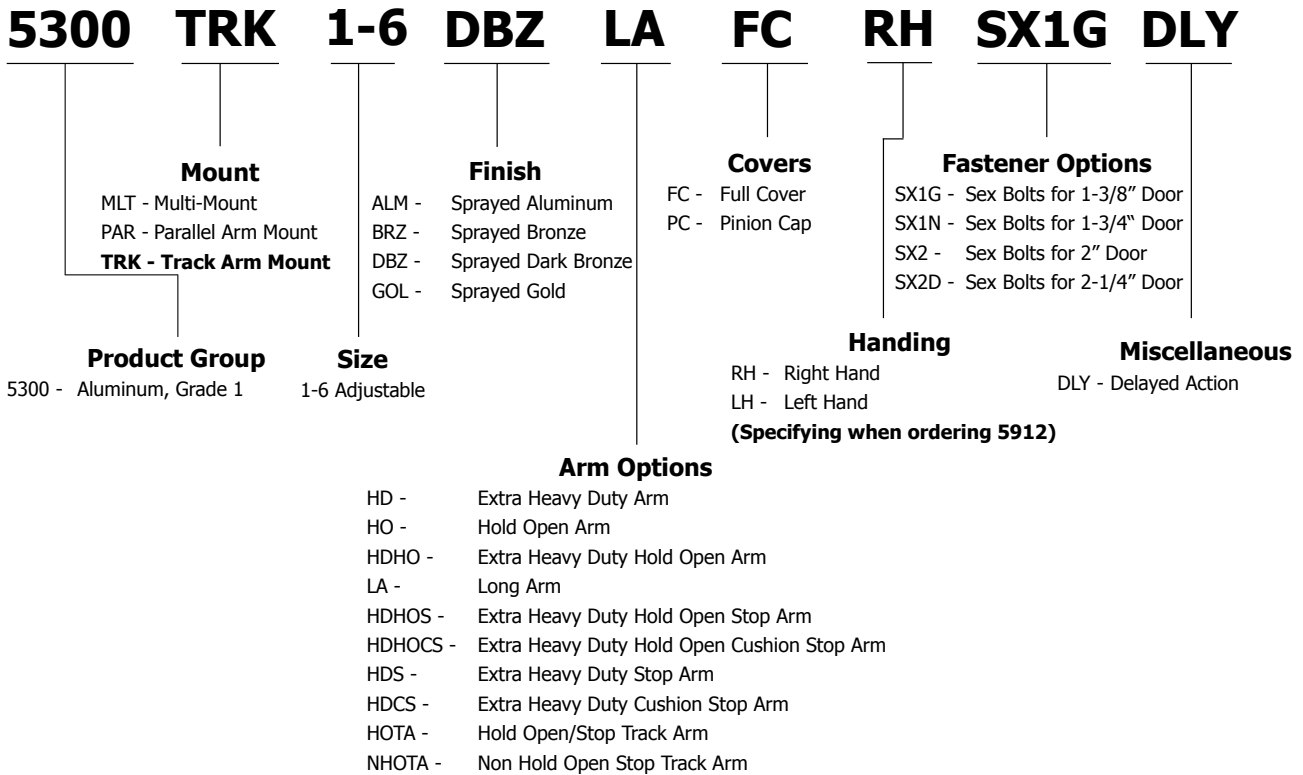
5300 Series



The 5300 Series Closers offer a compact design for a variety of applications. They are constructed of aluminum alloy to withstand the use and abuse you come to expect of Hager Companies Grade 1 products. The 5300 Series closers provide the flexibility needed to meet the many demands of both commercial and institutional applications, including the ADA barrier-free accessibility requirements. The sizing is adjustable from size 1 through size 6. These design features make this closer the ideal choice for doors with a maximum weight of 250 lbs.



5300 SERIES - HOW TO ORDER



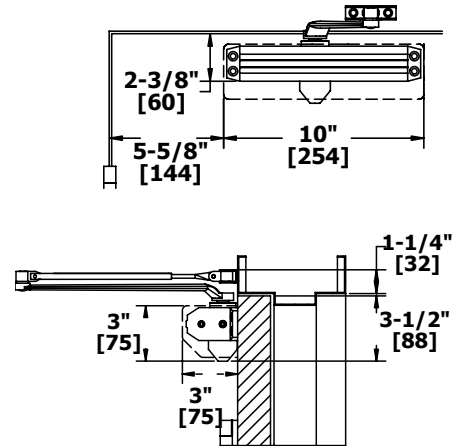
Example of how to order: 5300P14ALMHDHOCS

*Extended lead times for flat black finish and minimum order quantities may apply.

5300 SERIES - APPLICATIONS

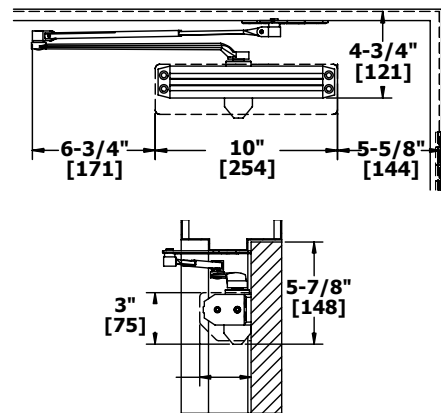
REGULAR ARM MOUNT (PULL SIDE)

Opening:	Templating allows up to 180°
Hold Open:	Hold open points 90° up to 180° with hold open arm
Frame Face:	1-3/8" (35 mm) minimum
Ceiling Clearance:	<ul style="list-style-type: none"> • 1-5/8" (41 mm) minimum • 1-5/8" (41 mm) minimum for hold open arm
Top Rail:	2-1/2" (64 mm) minimum with drop plate, 5915
Top Rail Clearance:	4-1/4" (108 mm) minimum from the top of the door



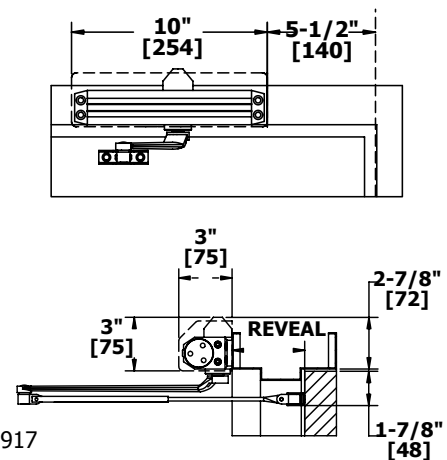
PARALLEL ARM MOUNT (PUSH SIDE)

Opening:	Templating allows up to 180°
Hold Open:	Hold open points 90° up to 180° with hold open
Top Rail:	<ul style="list-style-type: none"> • Standard hollow metal 5/8" frame stop • 4-3/4" (121 mm) minimum • 4" (102 mm) minimum with hold open • 3-1/8" (79 mm) minimum with plate • 2-1/8" (54 mm) minimum with hold open and plate
Top Rail Clearance:	5-3/4" (146 mm) minimum from the top of the door



TOP JAMB MOUNT (PUSH SIDE)

Opening:	Templating allows up to 180°
Hold Open:	Hold open points 90° up to 180° with hold open
Frame Face:	1-3/4" (45 mm) minimum
Ceiling Clearance:	<ul style="list-style-type: none"> • 2-3/4" (70 mm) minimum • 1-3/4" (44 mm) minimum with drop plate, 5918
Top Rail:	1-7/8" (48 mm) minimum
Top Rail Clearance:	<ul style="list-style-type: none"> • 2-1/8" (54 mm) minimum • 2-3/4" (70 mm) minimum with drop plate, 5917 • 2-1/4" (57 mm) minimum for hold open with drop plate, 5917 • 3-5/8" (92 mm) minimum with drop plate, 5915



5300 SERIES - GRADE 1 HEAVY DUTY SURFACE DOOR CLOSER

WARRANTY

Lifetime warranty - 250 lbs. maximum door weight

FEATURES

- Ideal for schools, hospitals, and other high-use environments
- Standard package contains 5301 closer body, 5302 closer cover, 5902 pinion cap, 5303 main arm assembly, 5304 standard screw pack, 5900 parallel arm bracket, and 5902 SNB screw pack for 1-3/4" (44 mm) door

Certification:

- BHMA Certified ANSI A156.4, adjustable sizes 1 to 6
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL Listed for up to 3 hours
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated

Covers:

Full plastic cover and pinion cap - Standard

Closer Body:

- Aluminum alloy
- The recommended temperature for prolonged use is between -40° F (-42° C) & 150° F (66° C)

Springs:

Double heat treated steel, tempered springs

Valves:

- Adjustable latching and sweep speed valves
- Adjustable backcheck valve - Standard
- Delayed action valve - Optional
- Staked valves - Standard

Handing:

Non-handed

Arms & Brackets:

- Tri-Pack: Regular, Parallel Arm, and Top Jamb Mount - Standard
- 15% power adjustment in standard arm for regular and top jamb mount

SPECIFICATIONS

Door Thickness:

- 1-3/4" (44 mm) - Standard
- 1-3/8" - 2-1/4" (36 mm - 57 mm) thick door - Optional

Fasteners:

- Self-reaming, self-tapping wood and machine screws
- Sex nuts and bolts

Notes:

- Full rack and pinion operation
- Precision machined, heat treated steel piston
- Triple heat treated steel spindle
- Special templates available upon request by contacting Hager Companies Customer Service

FINISHES

- ALM, BLK, BRZ, DBZ, GOL
- Rust inhibiting primer - Standard



5300 SERIES - ARMS



5303

Main Arm

- Non-handed
- Forged steel
- Mounts regular, top jamb, or parallel arm mount
- Add 5900 bracket for parallel arm mount



5911

Extra Heavy Duty Arm Assembly

- Non-handed parallel arm
- Forged steel
- For use with 5200 and 5300 Series closers



5307

Hold Open Arm Assembly

- Non-handed
- Forged steel
- Mounts pull side or top jamb with shallow reveal
- Friction hold open
- Add 5914 bracket for parallel arm mount



5912

Extra Heavy Duty Hold Open Arm Assembly

- Handed parallel arm (specify handing when ordering)
- Forged steel
- Provides friction hold open function
- Adjustable at the shoe
- For use with 5200 and 5300 Series closers
- Not for use on fire-rated doors



5906

Extra Heavy Duty Hold Open Stop Arm

- Non-handed parallel arm
- Forged steel
- Plunger hold open function
- Auxiliary stop in soffit shoe
- For use with 5200 and 5300 Series closers
- Not for use on fire-rated doors



5956

Extra Heavy Duty Hold Open Cushion Stop Arm

- Non-handed parallel arm
- Forged steel
- Contains 5906 arm and 5950 spring cushion arm
- Plunger hold open
- For use with 5200 and 5300 Series closers
- Not for use on fire-rated doors



5907

Extra Heavy Duty Stop Arm

- Non-handed parallel arm
- For use in abusive environments
- Auxiliary stop in soffit shoe
- For use with 5200 and 5300 Series closers



5957

Extra Heavy Duty Cushion Stop Arm

- Non-handed parallel arm
- Forged steel
- Contains 5907 arm and 5950 spring cushion
- For use with 5200 and 5300 Series closers



Track Arm

- Non-handed
- Extruded aluminum track
- Steel arm

Functions:

Non Hold Open Stop Arms

- 2-659-0191 - ALM
- 2-659-0328 - BLK
- 2-659-0192 - BRZ
- 2-659-0193 - DBZ
- 2-659-0194 - GOL

Hold Open Stop Arms

- 2-659-0199 - ALM
- 2-659-0329 - BLK
- 2-659-0200 - BRZ
- 2-659-0201 - DBZ
- 2-659-0202 - GOL

5300 SERIES - ACCESSORIES



5301

Closer Body Only

- Aluminum alloy
- Heat treated steel spindle and piston
- Full rack and pinion operation



5302

Full Plastic Cover

- Cover projects 2-3/16" (56 mm) from door face
- High impact non-corrosive full cover - Standard
- Secured by two machine screws
- Available in plastic only



5900

Parallel Arm Bracket

- Used to convert regular or top jamb arms to parallel arm application
- For use with 5300 and 5400 Series closer arms
- Includes screw pack



5901

Pinion Cap

- High-impact, non-corrosive
- Supplied standard in 5300 and 5400 Series closers
- Fits over the pinion and extends 1" (25 mm)



5908

Long Rod and Shoe

- Use for reveals greater than 4" (102 mm) and up to 8" (203 mm)
- Non-handed
- Cast steel
- Use for top jamb application
- For use with 5300 and 5400 Series closer arms



5913

Blade Stop Spacer

- Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop of aluminum frames
- For use with 5300 and 5400 Series closer arms
- Includes screw pack



5936

Extra Clearance Parallel Arm Bracket

- Allows for up to 2" (13 mm) of clearance to mount additional hardware such as overhead door stops and holders
- Provides needed clearance not achieved with a standard soffit plate
- Includes screw pack



5950

Spring Cushion

- Non-handed
- Mounts to soffit shoe of 5125, 5961, 5906 and 5907 arms
- For use with extra heavy duty hold open and stop arms for abusive applications



5914

Hold Open Parallel Arm Bracket

- Supplied with all standard hold open arms
- For use with 5200, 5300, 5400 Series closers only
- Includes screw pack



5915

Drop Plate - Narrow Rail Overhead Holder

- For use when an overhead door holder prevents normal top jamb mounting
- For use when a narrow rail prevents the closer from being mounted directly to the door
- For use with parallel arm and no cover
- For use when low ceiling clearance prevents normal top jamb mounting
- Includes screw pack
- Plate requires 3" (76mm) minimum top rail



5916

Drop Plate - Narrow Rail Parallel Arm

- For use when a narrow rail prevents the closer from being mounted directly to the door
- For use with parallel arm and full plastic cover
- Includes screw pack
- Plate requires 3" (76mm) minimum top rail

5300 SERIES - ACCESSORIES

SCREW PACKS



5917 **Drop Plate - Top Jamb, Low Clearance**

- For use with no cover
- For use when ceiling clearance is between 1-3/4" (44 mm) and 2-5/8" (67 mm)
- For use when an overhead door holder prevents normal top jamb mounting
- Includes screw pack



5304 **Screw Pack - Standard**

- Self-drilling wood screws
- Self-drilling machine screws
- For 5300 Series closer only



5902 **SNB Screw Pack - Standard**

- Sex nuts and bolts for 1-3/4" (44 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



5903 **SNB Screw Pack - Optional**

- Sex nuts and bolts for 1-3/8" (35 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



5904 **SNB Screw Pack - Optional**

- Sex nuts and bolts for 2" (51 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



5905 **SNB Screw Pack - Optional**

- Sex nuts and bolts for 2-1/4" (56 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only

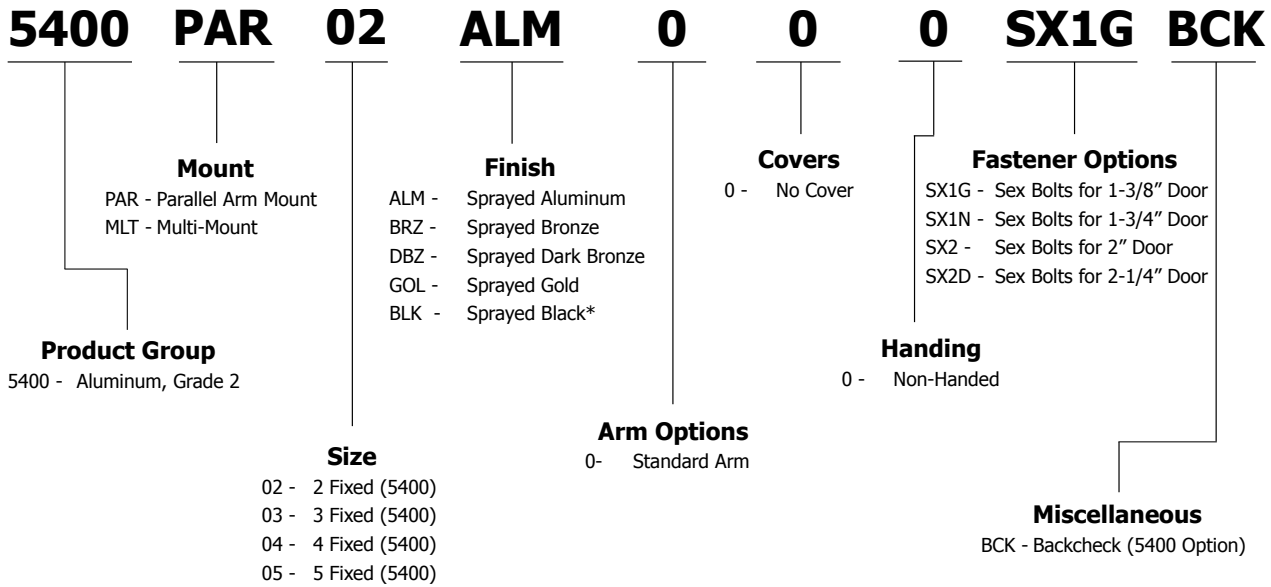
5400 Series



5400 Series Closers are ideal for light duty commercial applications. 5400 Series Closers have a heat treated steel piston and triple heat treated steel spindle. The closers are non-handed to permit installation on doors of either hand. These closers have fixed spring sizes. The maximum door weight for each of these closers is dependent on the size selected. Size 2 - 80 lbs, Size 3 - 135 lbs, Size 4 - 175 lbs and Size 5 - 200 lbs.



5400 SERIES - HOW TO ORDER



Example of how to order: 5400M02ALM0PC

*Extended lead times for flat black finish and minimum order quantities may apply.

**5400 Series closers are sized 2, 3, 4 & 5.
Must know size when placing order.**

DOOR CLOSER SIZING CHART

Exterior (and Vestibule) Door Width

Minimum Door Width (24")

	24" (610 mm)	30" (762 mm)	36" (914 mm)	42" (1067 mm)	48" (1219 mm)
Regular Arm & Top Jamb	Size 3	Size 4	Size 5	-	-
Parallel Arm	Size 3	Size 4	Size 5	-	-

Interior Door Width

Minimum Door Width (24")

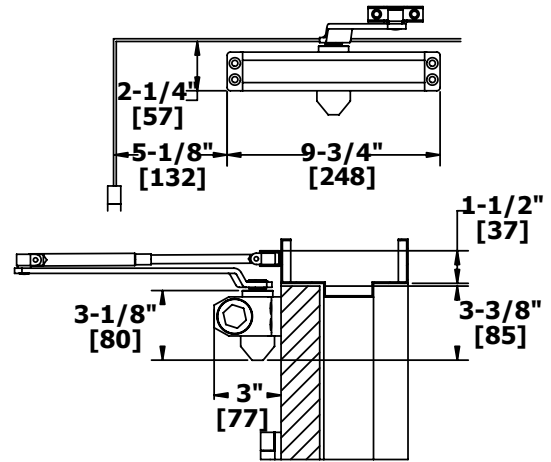
	24" (610 mm)	30" (762 mm)	34" (865 mm)	38" (965 mm)	48" (1219 mm)	54" (1372 mm)	60" (1524 mm)
Regular Arm & Top Jamb	-	Size 2	Size 3	Size 4	Size 5	Size 6	-
Parallel Arm	-	Size 2	Size 3	Size 4	Size 5	-	-



5400 SERIES - APPLICATIONS

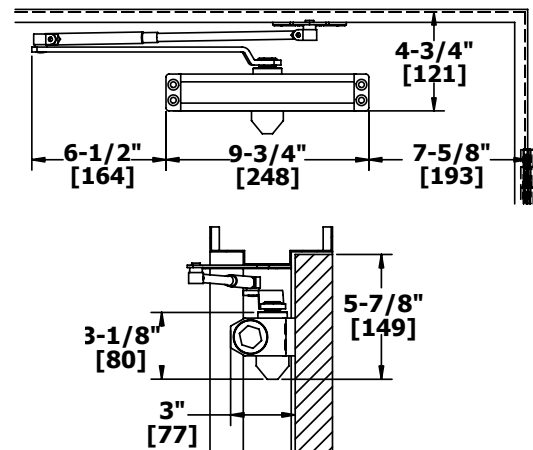
REGULAR ARM MOUNT

Opening:	Templating allows up to 180°
Frame Face:	1-1/2" (38 mm) minimum
Ceiling Clearance:	1-3/4" (44 mm) minimum
Top Rail:	2-1/4" (57 mm) minimum
Top Rail Clearance:	3-1/2" (89 mm) minimum



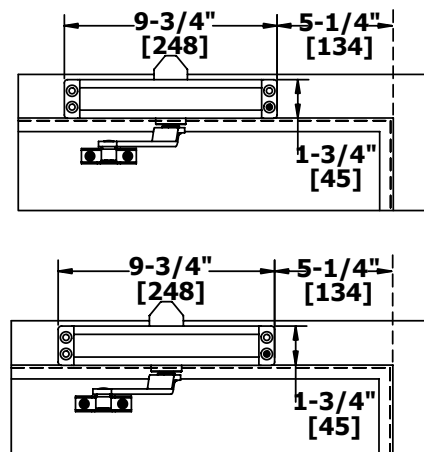
PARALLEL ARM MOUNT

Opening:	Templating allows up to 180°
Top Rail:	<ul style="list-style-type: none"> • 5/8" (16 mm) frame stop • 4-3/4" (121 mm) minimum
Top Rail Clearance:	5-3/4" (146 mm) minimum



TOP JAMB MOUNT

Opening:	Templating allows up to 180°
Frame Face:	1-3/4" (45 mm) minimum
Ceiling Clearance:	2-3/4" (70 mm) minimum
Top Rail:	1-7/8" (48 mm) minimum
Top Rail Clearance:	2-1/8" (54 mm) minimum



5400 SERIES - GRADE 2 STANDARD DUTY SURFACE DOOR CLOSER

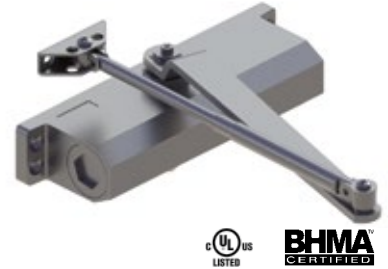
WARRANTY

Five-year warranty - maximum door weight size:

- 2 - 80 lbs
- 3 - 135 lbs
- 4 - 175 lbs
- 5 - 200 lbs

FEATURES

- Ideal for light duty commercial applications
- Standard package contains 5401 closer body, 5901 pinion cap, 5403 main arm assembly, 5404 standard screw pack, 5900 parallel arm bracket, and 5902 SNB screw pack for 1-3/4" (44 mm) door



Certification:

- BHMA Certified ANSI A156.4, Sizes 2, 3, 4, 5 - Must specify
- UL/cUL Listed for up to 3 hours
- UL10C Positive Pressure Rated
- UL10B Neutral Pressure Rated

Covers:

No Cover - Standard

Closer Body:

- Aluminum alloy
- The recommended temperature for prolonged use is between -40° F (-42° C) & 150° F (66° C)

Springs:

Double heat treated steel, tempered springs

Valves:

- Adjustable latching and sweep speed valves
- Adjustable backcheck valve - Optional
- Staked valves - Standard

Handing:

Non-handed

Arms & Brackets:

- Tri-Pack: Regular, Parallel Arm, and Top Jamb Mount - Standard
- 15% power adjustment in standard arm for regular and top jamb mount

SPECIFICATIONS

Door Thickness:

- 1-3/4" (44 mm) - Standard
- 1-3/8" - 2-1/4" (36 mm - 57 mm) thick door - Optional

Fasteners:

- Self-reaming, self-tapping wood and machine screws
- Sex nuts and bolts

Notes:

- Precision machined, heat treated steel piston
- Triple heat treated steel spindle
- Special templates available upon request by contacting Hager Companies Customer Service

FINISHES

- ALM, BLK, BRZ, DBZ, GOL
- Rust inhibiting primer - Standard



5400 SERIES - ARMS & ACCESSORIES

SCREW PACKS



5403

Main Arm

- Non-handed
- Forged steel
- Mounts regular, parallel arm, or top jamb mount
- Add 5900 bracket for parallel arm mount



5401

Closer Body Only

- Aluminum alloy
- Full rack and pinion operation
- Triple heat treated steel spindle
- Sizes 2, 3, 4, and 5 available



5900

Parallel Arm Bracket

- Used to convert regular or top jamb arms to parallel arm application
- Supplied standard closers
- For use with 5200, 5300 and 5400 Series closer arms
- Includes screw pack



5901

Pinion Cap

- High-impact, non-corrosive
- Fits over the pinion and extends 1" (25 mm)
- Supplied standard



5913

Blade Stop Spacer

- Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop of aluminum frames
- For use with 5300 and 5400 Series arms
- Includes screw pack



5404

Screw Pack - Standard

- Self-drilling wood screws
- Self-drilling machine screws
- For 5400 Series closer only



5902

SNB Screw Pack - Standard

- Sex nuts and bolts for 1-3/4" (44 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



5903

SNB Screw Pack - Optional

- Sex nuts and bolts for 1-3/8" (35 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



5904

SNB Screw Pack - Optional

- Sex nuts and bolts for 2" (51 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



5905

SNB Screw Pack - Optional

- Sex nuts and bolts for 2-1/4" (56 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only

Electromagnetic Holders



Hager Companies offers a line of electromagnetic door holders with built-in protection and low residual magnetism so they release easily even in applications meeting ADA requirements with minimal spring force door closers. These features make the electromagnetic holders a great solution for both safety and convenience and are ideal solutions for applications in hotels, hospitals and nursing homes.

Hager electromagnetic holders are designed for virtually any remote door release application and are ideal for holding doors open until released by a fire alarm or switching device. When deactivated the electromagnetic holders help to control the spread of fire and smoke by the simultaneous release of doors from an open to a closed position. The electromagnetic holders can be utilized independently or with the smoke detector systems.

The electromagnetic holders include a door mounted armature and a floor or wall mounted electromagnet. The features of this hardware include: dual voltage capability, very low current draw for energy efficiency, silent operation and an adjustable catch plate.



ELECTROMAGNETIC DOOR HOLDERS - PERFORMANCE DATA

MODEL	VOLTAGE	DC/mA	AC/mA	TERMINALS	LB.	KG.
1224	12V	40	38	C&L	30	13.6
	24V	40	36	C&H	30	13.6
24120	24V	20	19	C&L	40	18.1
	120V		20	C&H	35	15.8
24220	24V	20	19	C&L	20	9.0
	220V		15	C&H	22	9.8

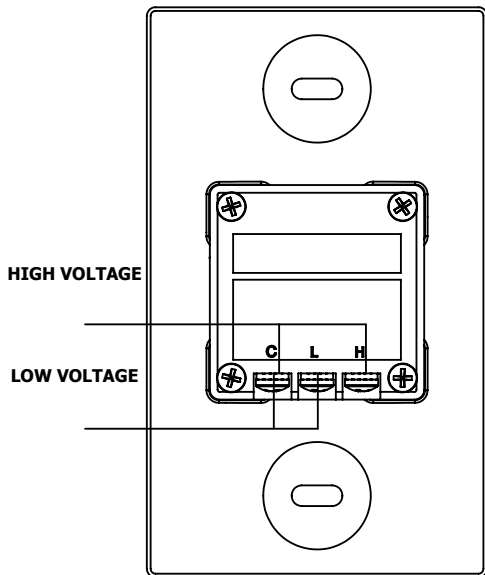
MODEL	VOLTAGE	DC/mA	AC/mA	TERMINALS	LB.	KG.
1224	24V	85	81	C&L	75	34.0
24120	120V		100	C&L	110	49.8

***High Holding Force/Special Applications:**

To obtain the performance values in the above table, apply high listed voltage to low voltage terminals (C&L).

NOTE: This configuration can only be applied to models 1224 and 24120.

DUAL VOLTAGE (REAR VIEW SHOWN)



EXTENSION ROD/ADJUSTABLE EXTENSION ROD

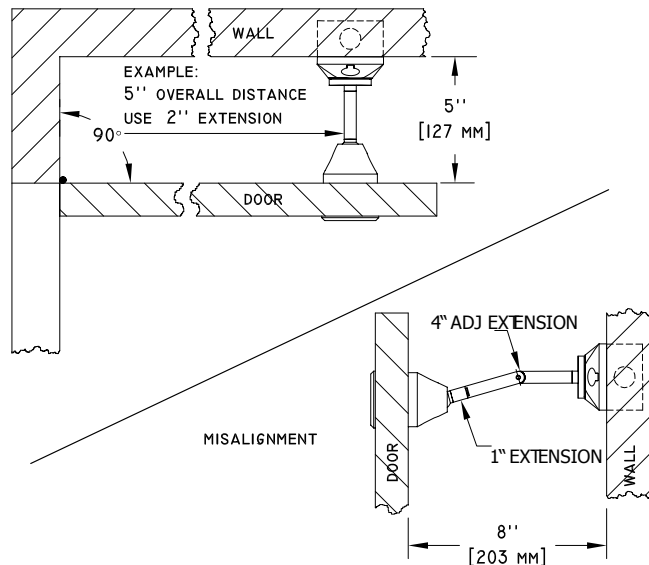
To calculate extension rod length needed, use the formula below based on style holder being used.

Flush mount: Measure distance from door to wall when held at desired opening. Subtract 3" (76 mm) to obtain extension rod length needed.

Recessed mount: Measure distance from door to wall when held at desired opening. Subtract 2-3/8" (60 mm) to obtain extension rod length needed.

Surface mount: Measure distance from door to wall when held at desired opening. Subtract 4-5/8" (117 mm) to obtain extension rod length needed.

See example below using flush mount.





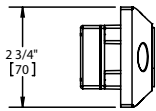
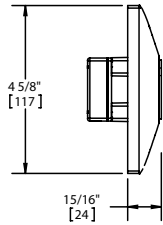
ELECTROMAGNETIC DOOR HOLDERS - GRADE 1 HEAVY DUTY COMMERCIAL

WARRANTY	One-year warranty
FEATURES	<ul style="list-style-type: none"> • Ideal for hospitals, hotels, schools, and other commercial buildings • Designed for use with self-closing fire and smoke barrier doors • Low current draw • Fail safe: when electrical current is interrupted, doors release to close automatically
Certification:	<ul style="list-style-type: none"> • UL/ULC listed • Meets ANSI 156.15 for C00011 • California State Fire Marshall listed (CSFM) • City of New York MEA approved • Factory Mutual
Body:	Zinc alloy
Voltages:	Standard dual voltage AC or DC inputs of 12 & 24V, 24 & 120V, 24 & 220V models
Holding Force:	Typical holding force of 25-40 pounds; performance value can be increased to 110 pounds on special applications
Mount:	Single or double coil floor, surface, flush, and recessed mount
SPECIFICATIONS	
Total Projection:	<ul style="list-style-type: none"> • Recessed mount: 2-11/32" (60 mm) • Flush mount: 3-1/16" (78 mm) • Surface mount: 4-5/8" (117 mm) • Floor mount (single door): 5" (127 mm) • Floor mount (double door): 9-5/8" (244 mm)
Fasteners:	Hardware package, mounting bracket
Notes:	<ul style="list-style-type: none"> • Optional aluminum extension and misalignment rods available • Drill fixture available • Replacement armature disc and armature plate assemblies available • Adhesive template included
FINISHES	US3, LS, L2

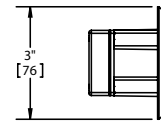
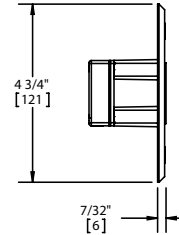


ELECTROMAGNETIC DOOR HOLDERS - 380 SERIES HOLDERS

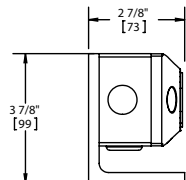
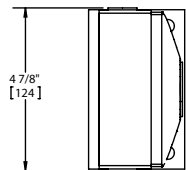
380F
Flush Mount



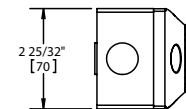
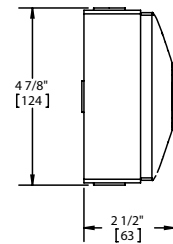
380R
Recessed Mount



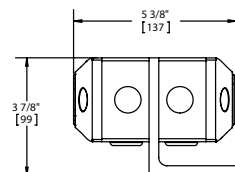
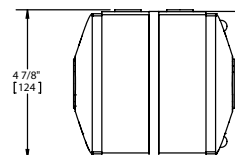
380G
Floor Mount (Single Door)



380S
Surface Mount



380H
Floor Mount (Double Door)





ELECTROMAGNETIC DOOR HOLDERS - ACCESSORIES



381A
Adjustable Extension Rod
Available extension lengths 1-1/2"
(38 mm), 2" (51 mm), 4" (102 mm)



381E
Extension Rod
Available extension lengths 1/2"
(13 mm), 1" (25 mm), 1-1/2"
(38 mm), 2" (51 mm), 3" (76 mm),
4" (102 mm)



381B
Surface Back Box
2-25/32" x 4-7/8" x 1-1/2"
(71 mm x 124 mm x 38 mm)
Supplied with 380G, 380H, 380S



381H
Mounting Hardware Package
Includes screws, nuts, concrete anchors,
and drill bit



381C
Armature Plate
Replacement for the 381S armature
plate assembly



381S
Armature Plate Assembly
Swivel design allows armature plate to
move in all directions to assist with slight
misalignment issues



381D
Drilling Fixture
Attach to the door for quick and accurate
hole locations



381W
Extension Wrenches
Used to tighten extension rods to catch
plate assembly

Overhead Door Holders & Stops



Because Hager Companies is committed to providing our customers with a full line of door hardware, we offer both a heavy duty and standard duty option in our overhead door holders and stops product line. They are mounted at the top of the door to eliminate tripping hazards and vandalism that are typical of floor or wall mounted stops. The purpose of the overhead door holders is to absorb the abusive shock with a heavy duty spring. They evenly distribute the load and impact along the entire track of the unit. Overhead door holders and stops are compatible with a variety of door closers and are ideal for meeting the demands of high traffic areas.

Hager Companies overhead door holders and stops have been engineered and designed to meet the requirements of many door applications. The streamlined channel design along with the adjustment arm accommodates various door sizes and applications. The adjustable arms simplify the selection by combining door width ranges into only two sizes of overhead door holders and stops. This feature makes installation simple and minimally impacts a customer's inventory.



OVERHEAD DOOR HOLDERS AND STOPS - METHODS OF INSTALLATION

Concealed Mounted

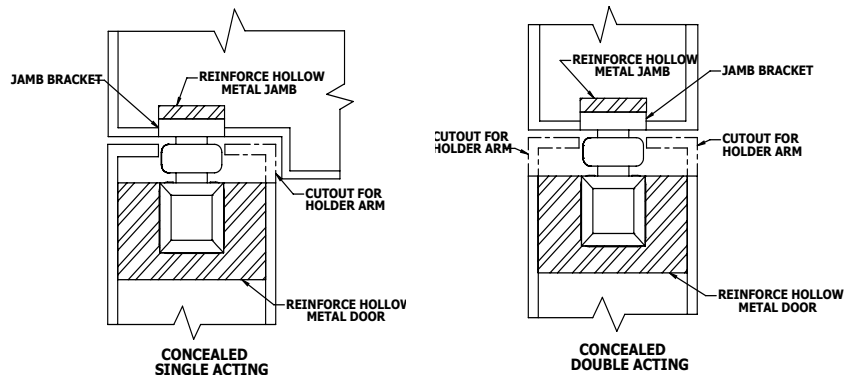
The installation of concealed overhead door holders and stops requires that the jamb bracket be mortised flush with the bottom of the jamb. The arm and channel must be mortised into the door so the arm is flush with the top of the door. Concealing the overhead door holders and stops in the top of the door creates a more attractive architectural look.

Single Acting Door

A cutout made for the arm on the stop side of the single acting door.

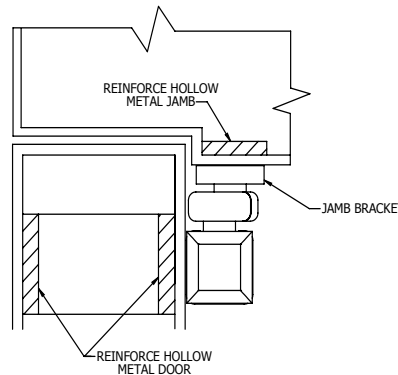
Double Acting Door

Double acting doors require a cutout for the arm on both sides of the door.



Surface Mounted

Surface mounted overhead door holder and stop installation requires the jamb bracket be surface mounted on the stop of the frame. The channel is also surface mounted on the face of the door. Hollow metal doors and jambs must be reinforced to provide necessary strength for the holder specified.



Door and Frame Reinforcement

Hollow metal frames must be properly reinforced with 3/16" (5 mm) thick plates/channels that are at least 12" (305 mm) long. Hollow metal doors must be properly reinforced with 3/16" (5 mm) plates that are at least 2-1/2" (64 mm) wide over the length of the device. Templates and installation instructions are available online at www.hagerco.com.

Selecting Degree of Hold Open or Stop

Overhead door holders and stops are designed to function effectively from 85° to 110°. The recommended minimum degree of hold open would be set at 95° to put the door lever, pull, and panic hardware beyond the flow of traffic.

When selecting the degree of hold open for doors opening against a wall or back to back, there is approximately 5° to 7° of spring engagement beyond the hold open or initial stop point, this is the dead stop.


For dead stop templating, the degree of opening should be set 5° to 7° less than the point of required dead stop to accommodate the full compression of the shock absorber.



OVERHEAD DOOR HOLDERS AND STOPS - HOW TO ORDER

Selection Steps:

1. Determine the required grade needed

Function	Description
16 - Stop Only	Shock absorbing spring stops the door 
17 - Hold Open	Select hold open with easy to adjust tension - may be turned on or off, and includes the stop function
15 - Friction	Multi-point friction hold open adjustable for resistance to door movement

2. Determine the required function
3. Determine if a surface or concealed mount is required
4. Finally select one of two sizes to fit the opening

7000 Series: Grade 1- Heavy Duty Overhead Holders and Stops

Available Functions

- Stop
- Hold Open
- Friction

Mounting Types

- Concealed
- Surface

Size Options

- Size 1 - 24" to 40"
- Size 2 - 41" to 55"



6000 Series: Grade 2- Standard Duty Overhead Holders and Stops

Available Functions

- Stop
- Hold Open
- Friction

Mounting Types

- Concealed
- Surface

Size Options

- Size 1 - 18" to 33" (Concealed Mounted) 20" to 33" (Surface Mounted)
- Size 2 - 33" to 51"



Note: It is recommended to utilize overhead door holders and stops on doors furnished with door closers, they are not intended to stop the door and should not be expected to perform the functions of a door stop.

OVERHEAD DOOR HOLDERS AND STOPS - HOW TO ORDER

60

15

CON

SZ1

US32D

SX1G

Component Type

- 15 - Friction
- 16 - Stop Only
- 17 - Hold Open

Size

- SZ1 - Size 1
- SZ2 - Size 2

Fastener Options

- SX1G - Sexbolts for 1-3/8" (mm) door
- SX1N - Sexbolts for 1-3/4" (mm) door
- SX2 - Sexbolts for 2" (mm) door
- SX2D - Sexbolts for 2-1/4" (mm) door

Mount

- CON - Concealed
- SRF - Surface

Product Group

- 60 - Standard Duty Overhead Door Holders and Stops
- 70 - Heavy Duty Overhead Door Holders and Stops

Finish

- US3 - Bright Brass
- US10B - Satin Bronze
- US32D - Satin Stainless

Functions

16 - Stop Only

- Concealed Mounted: ANSI CO1541
- Surface Mounted: ANSI CO2541

The stop only function provides a reliable method of door control. A shock absorbing spring stops the door. It is UL Listed for fire-rated components.

UL Classification

The **stop-only** models are classified by Underwriters Laboratories (UL) as Miscellaneous Fire Door Accessories. This classification applies to the use on either hollow metal fire doors or wood fire doors of any rating. The accessories have been investigated to determine that when properly installed with accordance to the manufacturer's instructions, they do not adversely affect the fire-rating of the fire door or fire door frames.

17 - Hold Open

- Concealed Mounted: ANSI CO1511
- Surface Mounted: ANSI CO2511

The hold open function provides a selective hold open function with easy to adjust tension. It may be turned on or off and includes the stop only function. It is not for use on fire-rated openings.

15 - Friction

- Concealed Mounted: ANSI CO4531
- Surface Mounted: ANSI CO5531

The multi-point friction hold open function mechanism is adjustable for resistance to door movement. It is not for use on fire-rated openings.





OVERHEAD DOOR HOLDERS AND STOPS - 6000 SERIES GRADE 2 STANDARD DUTY

WARRANTY	Five-year warranty
FEATURES	<ul style="list-style-type: none"> • Standard screw pack • For use on exterior and interior doors • Ideal for office buildings and other standard duty commercial applications
Certification:	<ul style="list-style-type: none"> • BHMA Certified ANSI A156.8 • UL/cUL Listed for up to 3 hours (stop only) • UL10C Positive Pressure Rated (stop only) • UL10B Neutral Pressure Rated (stop only)
Materials:	<ul style="list-style-type: none"> • Steel • Stainless steel
Mounting Style:	<ul style="list-style-type: none"> • Concealed • Surface
Doors:	<ul style="list-style-type: none"> • Single acting doors for concealed and surface mounted • Double acting doors for concealed mounted only
Functions:	<ul style="list-style-type: none"> • Stop Only • Hold Open • Friction
Handing:	Non-handed
Openings:	Degree of opening is fully adjustable and can be adapted to changing needs between 85° to 110°



SPECIFICATIONS

Door Thickness:	<ul style="list-style-type: none"> • 1-3/4" (44 mm) thick door - Standard • 1- 3/8"- 2-1/4" (36-57 mm) thick door - Optional
Fasteners:	Standard screw packet included for wood or metal door and frame applications
Notes:	<ul style="list-style-type: none"> • Adjustable arms provide easy installation • Slide track design • Adjustable in the field • Heavy shock absorber spring provides 5° to 7° compression before deadstop • Special templating upon request

FINISHES	<ul style="list-style-type: none"> • US10B and US3 (For steel) • US32D (For stainless steel)
-----------------	--

SIZE SELECTION

Door Sizes	
Size	Door Width
6000 SZ1	18"- 33" (Concealed Mounted) 20"- 33" (Surface Mounted)
6000 SZ2	33"- 51"

OVERHEAD DOOR HOLDERS AND STOPS - 6000 SERIES

ACCESSORIES



2-659-0101 | 2-659-0102 | 2-659-0103

Surface Mounted End Cap and Spring Replacement Kit

- Channel end caps
- Replacement spring
- 2-659-0101 is US26D, 2-659-0102 is US10B, 2-659-0103 is US3



2-659-0104
Concealed Mounted End Cap and Spring Replacement Kit

- Channel end caps
- Replacement spring



2-659-0105
Hold Open Replacement Kit

- Hold open assembly



2-659-0106
Friction Replacement Kit

- Friction assembly

SCREWPACKS



2-659-0098 | 2-659-0099 | 2-659-0100

Screwpack - Standard

- Machine screws
- Wood screws
- Sex nuts and bolts for 1-3/4" (44 mm)
- Arm sets screws
- Allen wrench
- 2-659-0098 is US26D, 2-659-0099 is US10B, 2-659-0100 is US3



2-659-0107 | 2-659-0108 | 2-659-0109

SNB Screw Pack - Optional

- Sex nuts and bolts for 1-3/8" (35 mm) doors
- Machine screws
- For use with surface mounted overhead door holders and stops
- 2-659-0107 is US26D, 2-659-0108 is US10B, 2-659-0109 is US3



2-659-0110 | 2-659-0111 | 2-659-0112

SNB Screw Pack - Optional

- Sex nuts and bolts for 2" (51 mm) doors
- Machine screws
- For use with surface mounted overhead door holders and stops
- 2-659-0110 is US26D, 2-659-0111 is US10B, 2-659-0112 is US3



2-659-0113 | 2-659-0114 | 2-659-0115

SNB Screw Pack - Optional

- Sex nuts and bolts for 2-1/4" (57 mm) doors
- Machine screws
- For use with surface mounted overhead door holders and stops
- 2-659-0113 is US26D, 2-659-0114 is US10B, 2-659-0115 is US3



OVERHEAD DOOR HOLDERS AND STOPS - 7000 SERIES GRADE 1 HEAVY DUTY

WARRANTY	Five-year warranty
FEATURES	<ul style="list-style-type: none"> • Standard screw pack • For use on exterior and interior doors • Ideal for hospitals, schools, and other high traffic environments
Certification:	<ul style="list-style-type: none"> • BHMA Certified ANSI A156.8 • UL/cUL Listed for up to 3 hours (stop only) • UL10C Positive Pressure Rated (stop only) • UL10B Neutral Pressure Rated (stop only)
Materials:	<ul style="list-style-type: none"> • Steel • Stainless steel
Mounting Style:	<ul style="list-style-type: none"> • Concealed • Surface
Doors:	<ul style="list-style-type: none"> • Single acting doors for concealed and surface mounted • Double acting doors for concealed mounted only
Functions:	<ul style="list-style-type: none"> • Stop Only • Hold Open • Friction
Handing:	Non-handed
Openings:	Degree of opening is fully adjustable and can be adapted to changing needs between 85° to 110°



SPECIFICATIONS

Door Thickness:	<ul style="list-style-type: none"> • 1-3/4" (44 mm) thick door - Standard • 1- 3/8"- 2-1/4" (36-57 mm) thick door - Optional
Fasteners:	Standard screw packet included for wood or metal door and frame applications
Notes:	<ul style="list-style-type: none"> • Adjustable arms provide easy installation • Slide track design • Adjustable in the field • Heavy shock absorber spring provides 5° to 7° compression before deadstop • Special templating upon request

FINISHES

- US10B and US3 (For steel)
- US32D (For stainless steel)

SIZE SELECTION

Door Sizes	
Size	Door Width
7000 SZ1	24"- 40"
7000 SZ2	41"- 55"

OVERHEAD DOOR HOLDERS AND STOPS - 7000 SERIES

ACCESSORIES



- 2-659-0119 | 2-659-0120 | 2-659-0121**
Surface Mounted End Cap and Spring Replacement Kit
- Channel end caps
 - Replacement spring
 - 2-659-0119 is US26D, 2-659-0120 is US10B, 2-659-0121 is US3



- 2-659-0122**
Concealed Mounted End Cap and Spring Replacement Kit
- Channel end caps
 - Replacement spring



- 2-659-0123**
Hold Open Replacement Kit
- Hold open assembly



- 2-659-0124**
Friction Replacement Kit
- Friction assembly

SCREWPACKS



- 2-659-0116 | 2-659-0117 | 2-659-0118**
Screwpack - Standard
- Machine screws
 - Wood screws
 - Sex nuts and bolts for 1-3/4" (44 mm)
 - Arm set screws
 - Allen wrench
 - 2-659-0116 is US26D, 2-659-0117 is US10B, 2-659-0118 is US3



- 2-659-0125 | 2-659-0126 | 2-659-0127**
SNB Screw Pack - Optional
- Sex nuts and bolts for 1-3/8" (35 mm) doors
 - Machine screws
 - For use with surface mounted overhead door holders and stops
 - 2-659-0125 is US26D, 2-659-0126 is US10B, 2-659-0127 is US3



- 2-659-0128 | 2-659-0129 | 2-659-0130**
SNB Screw Pack - Optional
- Sex nuts and bolts for 2" (51 mm) doors
 - Machine screws
 - For use with surface mounted overhead door holders and stops
 - 2-659-0128 is US26D, 2-659-0129 is US10B, 2-659-0130 is US3



- 2-659-0131 | 2-659-0132 | 2-659-0133**
SNB Screw Pack - Optional
- Sex nuts and bolts for 2-1/4" (57 mm) doors
 - Machine screws
 - For use with surface mounted overhead door holders and stops
 - 2-659-0132 is US10B, 2-659-0133 is US3



One Family. One Brand. One Vision.™

www.hagerco.com

Electrified Solutions



Hager Companies offers a range of electrified door hardware to help you meet customer expectations while also meeting building codes and ensuring life safety. Hager's complete electrified solutions are proven designs with versatile applications and simplified installation.

Hager's line of electric strikes fit any application. All of our strikes have compact designs, are non-handed, and can be field selectable to fail safe or fail secure configurations allowing for universal installations and simpler inventory management.

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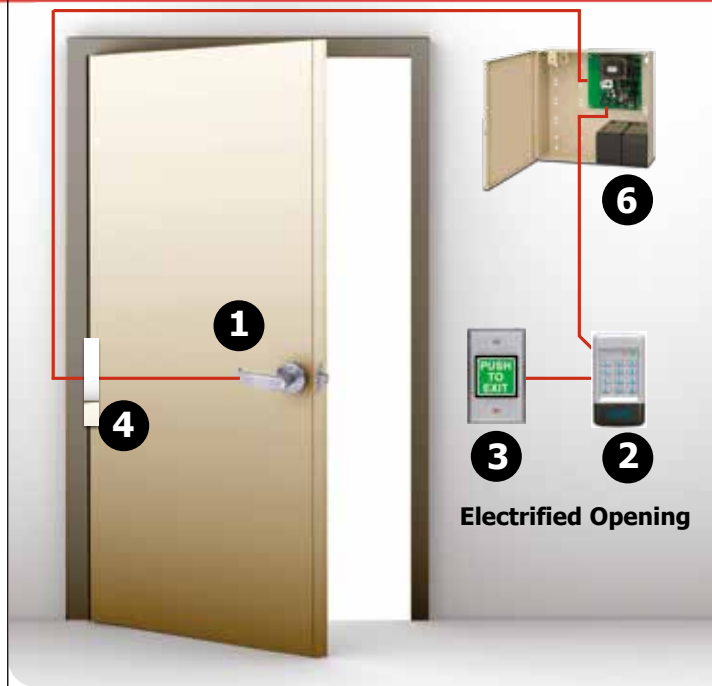
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COMPONENT SELECTION

1 Locking Devices (Pages 5-21)

- Electric Strike
- Delayed Egress
- Electrified Lockset
- Exit Device
- Frame Actuator Lockset
- Magnetic Lock



2 Access Controls (Pages 23-27)

- Standalone or Network
- Keyswitch
 - Digital Keypad
 - Card Reader



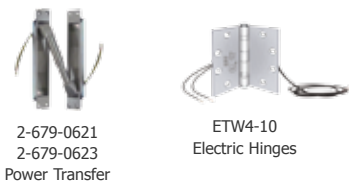
3 Egress Devices (Pages 29-36)

- Exit Switch
- PIR Egress Sensor
- Exit Sense Bar
- Emergency Door Release



4 Electric Power Transfer Devices (Pages 37-38)

- Required With Locksets & Exit Devices
- Electric Power Hinge
 - Power Transfer Loop
 - Concealed Power Transfer
 - Electrified Roton



5 Door Position Sensors (Pages 39-40)



6 Power Supply & Door Controllers (Pages 41-49)

- 2901**
Power Supply
• Designed to operate exit devices equipped with electric latch retraction (ELR)
- 2902**
Power Supply
• Designed to operate exit devices equipped with electric latch retraction with day/night mode feature (ELR)
- 2903**
Power Supply
• Provides power for Fail Safe or Fail Secure locking devices
• 24 V output; 2 AMP capacity
• Filtered/regulated

- 2904**
Power Supply
• Provides power and control for openings with an electrified locking device and automatic door operator
• 24 V output; 2 AMP capacity
• Filtered/regulated

- 2908**
Power Supply
• Modular
• Provides power for Fail Safe or Fail Secure locking devices
• 12/24 V output;
• 1 AMP capacity
• Filtered/regulated



- 2909**
Power Supply
• Modular
• Provides power for Fail Safe or Fail Secure locking devices
• 12/24 V output; 2 AMP capacity
• Filtered/regulated

Locking Devices



Hager offers a comprehensive product line of electronic locking devices ranging from strikes, delayed egress systems, and magnetic locks.

Electric door strikes allows for a range of functionality for any access control system. Ranging from an exterior door such as an employee entrance or an interior door such as a stairwell, Hager's electric strikes have a variety of universal features as well as factory configurations to accommodate a range of locksets, doors, frames, applications, and building codes.

Delayed egress systems are ideal for security, safety, and loss prevention applications. Many of Hager's delayed egress systems are installed in public facilities such as airports to control pedestrian traffic. Other Hager units are installed in brick and mortar retail stores to prevent theft while other installations include assisted living facilities to protect patients and childcare facilities to protect children.

Typically used on exit doors, when unauthorized egress is initiated when in the locked mode. The system delays egress through the door for 15 or 30 seconds (where approved). Meanwhile, the person exiting must wait while personnel or security respond. The door unlocks after 15 seconds has elapsed, permitting egress. A signal from the fire life safety system will release the lock for uninhibited egress in an emergency. Typical installations include airports, convention halls, wholesale stores, retail stores, long term care, drug and alcohol rehab, psychiatric care, infant nurseries, museums, art galleries, warehouses, and technological facilities.

Hager's magnetic locks are designed to be used on interior doors, perimeter exit doors, and entrances that require fail safe emergency release. Hager's magnetic locks have no moving parts and provides positive and instantaneous release, whether caused by a signal from the fire command center, remote control or access control.





LOCKING DEVICES - 2925 ELECTRIC STRIKE

MODELS
2925

4-7/8" (124 mm) faceplate for aluminum, wood, and hollow metal frames

WARRANTY

One-year warranty

APPLICATION

- Cylindrical locksets with up to 5/8" (15mm) throw latch bolts
- Access controlled ingress for fail secure or fail safe openings (field selectable)
- Economy option provides great performance and value

Latch:

1/2" (13 mm) [5/8" (16 mm) with 1/8" (3 mm) door gap]

FEATURES

Components:

- Quick and easy installation with low profile 1-1/4" (32 mm) backset
- All stainless steel parts with durable diecast body for corrosion resistance
- Compact low profile design with internally mounted solenoid and factory supplied mounting tabs
- Non-handed (reversible)
- Latch status output (standard)



ELECTRICAL SPECIFICATIONS

Input:

Current/Voltage 200/100 mA @ 12/24VDC (Field selectable)

Monitoring:

Latch Status (Std) SPDT, DRY 3A @ 30VDC

MECHANICAL SPECIFICATIONS

Dimensions: 1-1/4" (32 mm) W x 4-7/8" (124 mm) H x 1-1/4" (32 mm) D

ACCESSORIES

BUZZ

- Part no. 2-679-0028
- Plug-In Buzzer 12/24VDC
- Indicates fail secure strike is energized and unlocked

RECT

- Part no. 2-679-0029
- Converts AC to DC
- Wire leads

FINISHES

US32D





LOCKING DEVICES - 2928 MULTI-APPLICATION ELECTRIC STRIKE

MODELS

2928-SC
2928-RC
2928-6R
2928-7R

- 4-7/8" (124 mm) x 1-1/4" (32 mm) square corner faceplate
- 4-7/8" (124 mm) x 1-1/4" (32 mm) radius corner faceplate
- 6-7/8" (175 mm) x 1-1/4" (32 mm) radius corner faceplate
- 7-15/16" (202 mm) x 1-7/16" (36 mm) radius corner faceplate

WARRANTY

One-year warranty

APPLICATION

- Cylindrical and mortise locksets with up to 3/4" (19 mm) throw latch bolts with 1/8" door gap
- Access controlled ingress for fail secure or fail safe openings (field selectable)
- Field selectable voltage - 12/24V, AC/DC
- Ideal for medium traffic openings

Latch:

- 1/2" (13 mm)
- 5/8" (16 mm) with 1/8" (3 mm) door gap
- 3/4" (19 mm)

FEATURES

Components:

- Quick and easy installation with low profile 1-3/16" backset
- Latch position status (standard)
- Keeper locked/unlocked status (standard)
- Keeper open/closed and status (optional)
- Compact low profile design with internally mounted solenoid and factory supplied mounting tabs
- Non-handed (reversible)
- 1/4" (6 mm) horizontal alignment adjustment
- All stainless steel parts with durable diecast body for corrosion resistance
- Fewer moving parts for maximum life
- Stainless steel is standard with square corner faceplates
- Aluminum standard with radius corner faceplate
- Plug in tail connectors

Certification:

- ANSI A156.31, Grade 2

OPTIONS

KOC:

Keeper/open closed status

ELECTRICAL SPECIFICATIONS

Inputs:

Current/Voltage

- 200/100 mA @ 12/24VDC
- 140/70 mA @ 12/24VAC

Monitoring:

Latch Status (Std.)

SPDT, Dry 3 A @ 30VDC

Keeper Locked

Status (Std.)

SPDT, Dry 3 A @ 30VDC

Keeper Open

Status (Opt.)

SPDT, Dry 3 A @ 30VDC

MECHANICAL SPECIFICATIONS

Dimensions:

1-1/4" (32 mm) W x 4-7/8" (124 mm) H x 1-3/16" (30 mm) D

ACCESSORIES

BUZZ

- Part no. 2-679-0028
- Plug-In Buzzer 12/24VDC
- Indicates fail secure strike is energized and unlocked

FINISHES

- US32D (2928-SC only)
- ALM (standard with 2928-RC, 2928-6R, 2928-7R)





LOCKING DEVICES - 2930 UNIVERSAL APPLICATION ELECTRIC STRIKE

MODELS

2930-CYL
2930-MOR
2930-MDB

- For use with Grade 1 cylindrical locksets
- For use with Hager mortise locks
- For use with Hager mortise locks with deadbolt

WARRANTY

One-year warranty

APPLICATION

- Heavy duty electric strike
- Designed for installation in hollow metal frames with Grade 1 cylindrical and mortise locksets with up to 3/4" (19 mm) throw latch bolts and 1" deadbolts (25 mm)
- Designed for new construction and retrofit applications
- Field selectable fail safe or fail secure (default setting) with no disassembly
- For use on fire-rated and non fire-rated doors
- *Fail safe is not permitted on fire-rated doors*

FEATURES

Components:

- Retrofits existing ANSI 4-7/8" (124 mm) strike prep - no centerline relocation
- Fail secure standard; field reversible to fail safe (no disassembly)
- Up to 3/4" (919 mm) latch bolt and 1" (25 mm) deadbolt
- Non-handed (reversible)
- 1/8" (3 mm) horizontal alignment adjustment
- Factory tested 2,500 lbs.
- Exceeded 1,000,000 cycles
- UL tested 1,500 lbs.
- 70 ft-lb dynamic strength
- Internally mounted solenoid, no heat in keeper
- Tamper resistant
- All stainless steel parts with durable diecast body for corrosion resistance
- Plug in tail connectors

Certification:

- ANSI A156.31 compliant, Grade 1
- UL - 1034 Burglary Resistant (interior use application)
- BP - 10254
- IL10C.3H Fire-Rated, 4' x 8' door
- NFPA 252
- CAN 4-5104 (Fail Secure Only)



ELECTRICAL & MECHANICAL SPECIFICATIONS

Input:

Current/Voltage 600/300 mA @ 12/24V DC

Monitoring:

LBM (Opt.) SPDT, Dry 5 A @ 30V DC
 DSM (Opt.) SPDT, Dry 5 A @ 30V DC
 DBM (Opt.) SPDT, Dry 5 A @ 30V DC (Handed)

ACCESSORIES

BUZZ

- Part no. 2-679-0028
- Plug-In Buzzer 12/24 VDC
- Indicates fail secure strike is energized and unlocked

RECT

- Part no. 2-679-0029
- Converts AC to DC
- Wire leads

FINISHES

US4, US10, US10B, US26,
US26D, US32D (standard)

OPTIONS

LBM

- Latch Bolt Monitor
- Door closed/latched or open/unlatched status
- Access control anti-tailgate/timer reset signal

DSM

- Door Secure Monitor (DSM)
- Door secure and unlocked monitoring
- Mantraps, interlocks, airlocks

DBM

- Deadbolt Monitoring (DBM - Handed)
- Signals deadbolt projected or retracted
- Occupied signal rooms/bathrooms
- Manual lockout of access control by deadbolt

NOTES

Fire-Rated:

Not approved for fail safe operation on fire-rated doors

Handing:

- CYL, MOR with monitoring are non-handed
- DBM with monitoring is handed



LOCKING DEVICES - ON BOARD DELAYED EGRESS

MODELS

4501 OBDE/
4601 OBDE

On Board Delayed Egress Exit Device

WARRANTY

One-year warranty

APPLICATION

- Control pedestrian traffic
 - Airport & Public Facility Security and Safety
 - Loss Prevention
- Wandering Patient and Infant Protection (Compatible with Hugs® and other patient tracking systems)
- Intended for single or double doors that require panic hardware

FEATURES

Components

- 15 (or optional 30) second egress delay
- 1 or 2 second nuisance delay
- Built-in function keypad provides alarm and lock reset, 1 to 30 second bypass, sustained bypass, and additional key switch
- Control inputs include 1 to 30 second request-to-exit and access bypass with anti-tailgate and alarm reset
- Field selectable trigger modes from exit device (N/O or N/C)
- Field selectable automatic or manual power up after emergency release or power loss

Built-In

Annunciation:

- Armed mode
- Nuisance mode
- Irreversible egress mode
- Release mode
- Digital countdown display
- Field selectable voice notification or tone
- Field selectable male voice with security message or female voice with safety message

Monitoring

Outputs:

- Armed status
- Egress initiation status
- Released status

Power Up Modes:

Field selectable automatic or manual power up after emergency release or power loss

Code Compliance:

- Use of manual power up complies with California Building Code (OSHPD) requirements
- International Fire Code (IFC) 1008.1.8.6 Delayed Egress Locks
- International Building Code (IBC) 1008.1.8.6 Delayed Egress Locks
- NFPA 101, Life Safety Code 7.2.1.6.1 Delayed Egress Lock
- NFPA 1 Uniform Fire Code
- California Building Code (CBC) 1008.1.8.6 Special Egress Control Devices

Note:

- Requires 3902 Mortise Cylinder, sold separately (Conventional Core Only, 1-1/8" length recommended)



ELECTRICAL SPECIFICATIONS

Inputs:

Voltage Input:

- Single 430mA @ 24VDC
- Tandem 680mA @ 24CVDC

Reset Input:

N/O, Dry input

REX Input:

N/C, Dry input

Trigger:

N/C, Dry input





LOCKING DEVICES - ON BOARD DELAYED EGRESS

Monitoring

Outputs: Alarm relay - 1 amp @ 30VDC SPDT, Dry
Door security relay - 1 amp @30VDC SPDT, Dry

MONITORING

Alarm Output: SPDT Dry, 1A @ 30 VDC, Dry

Locked Output: SPDT Dry, 1A @ 30 VDC, Dry

CONTROL

INPUTS:

- Field selectable 1-30 second request to exit with anti-tailgate and door prep alarm
- Bypass
- Reset
- Remote trigger (for pairs of doors)
- BPS (required for door forced, prop and anti-tailgate)

FINISHES

- US3
- US4
- US10
- US10B
- US26
- US26D
- US32D





LOCKING DEVICES - DELAYED EGRESS

MODELS

4501 DE/4601 DE Delayed Egress Exit Device
 2-679-0630 Delayed Egress Wall Mount Controller
 - *Must be ordered separately*



WARRANTY

One-year warranty

APPLICATION

- Control pedestrian traffic
 - *Airport & Public Facility Security and Safety*
 - *Loss Prevention*
- Wandering Patient and Infant Protection (Compatible with Hugs® and other patient tracking systems)
- Intended for single or double doors that require panic hardware

FEATURES

Components:

- Alternating 85 db tone and voice message (75 db @ 3 feet)
 - *Voice and digital display provides informative annunciation for people without prior knowledge, including the blind and hearing impaired*
 - *Voice provides warning or safety message, countdown and time of door release*
 - *Digital countdown display indicated if the door was opened after lock release*
- 15 or 30 second egress delay
- 1 or 2 second nuisance delay
- Built-in function keypad provides alarm and lock reset, 1 to 30 second bypass, sustained bypass, and additional key switch
- Control inputs include 1 to 30 second request-to-exit and access bypass with anti-tailgate and alarm reset
- Field selectable trigger modes from exit device (N/O or N/C)
- Field selectable automatic or manual power up after emergency release or power loss

Built-In

Annunciation:

- Armed mode
- Nuisance mode
- Irreversible egress mode
- Release mode
- Digital countdown display
- Field selectable voice notification or tone
- Field selectable male voice with security message or female voice with safety message

Monitoring

Outputs:

- Armed status
- Egress initiation status
- Released status

Power Up Modes:

Field selectable automatic or manual power up after emergency release or power loss

Code Compliance:

- Use of manual power up complies with California Building Code (OSHPD) requirements
- International Fire Code (IFC) 1008.1.8.6 Delayed Egress Locks
- International Building Code (IBC) 1008.1.8.6 Delayed Egress Locks
- NFPA 101, Life Safety Code 7.2.1.6.1 Delayed Egress Lock
- NFPA 1 Uniform Fire Code
- California Building Code (CBC) 1008.1.8.6 Special Egress Control Devices

ELECTRICAL SPECIFICATIONS

Inputs:

Voltage Input:

- Single 430mA @ 24VDC
- Tandem 680mA @ 24CVDC

Reset Input:

N/O, Dry input

REX Input:

N/C, Dry input

Trigger:

N/C, Dry input





LOCKING DEVICES - DELAYED EGRESS

Monitoring
Outputs: Alarm output - 1 amp @ 30VDC SPDT, Dry
Locked output - 1 amp @30VDC SPDT, Dry

MONITORING

Alarm Output: SPDT Dry, 1A @ 30 VDC, Dry

Locked Output: SPDT Dry, 1A @ 30 VDC, Dry

MECHANICAL SPECIFICATIONS

Controller

Dimensions: 6-1/2" (165 mm) W x 4-1/2" (114 mm) H x 1-1/2" (38 mm) D

Controller

Mounting: Recessed or Surface Mount

ACCESSORIES

2-679-0641 3-gang interior surface mount box

2-679-0642 Shroud for surface mount box

FINISHES

Controller:

- Aluminum anodized (standard)
- Dark Bronze anodized
- Black anodized

NOTES

- SVR exits must include rod covers
- Door position switch (DPS) is recommended for higher security. Contact Hager Tech Support for additional information.





LOCKING DEVICES - 2958 INTEGRATED DELAYED EGRESS LOCK

MODELS

2958

Single magnetic lock with 1650 lbs. holding force (748 kg)

2958T

Tandem magnetic lock with 1650 lbs. holding force (748 kg)

WARRANTY

One-year warranty

APPLICATION

- Control pedestrian traffic
 - Airport & Public Facility Security and Safety
 - Loss Prevention
- Wandering Patient and Infant Protection (Compatible with Hugs® and other patient tracking systems)
- Intended for single doors with latching or non-latching hardware
- Tandem model intended for use with pairs of doors with latching or non-latching hardware where activating the lock unlocks both doors



FEATURES

Components:

- Field selectable voice and tone or tone only (75 db @ 3 feet)
 - Voice and digital display provides informative annunciation for people without prior knowledge, including the blind and hearing impaired
 - Voice provides warning or safety message, countdown and time of door release
 - Digital countdown display indicated if the door was opened after lock release
- Choice of 15 second exit and 1 second nuisance delay or field selectable 15 or 30 second exit delay and 1 or 2 second nuisance delay
- Field selectable security or safety message
- Field selectable activation
- Field selectable automatic or manual relock upon power up after emergency release
- Integrated 3 position key switch
 - Provides lock and alarm reset Manual power up sustained bypass, time bypass, adjustment for 1, 15, 20 or 30 seconds
- Field selectable door prop alarm
 - Alarm sounds when the door has been left open after selected bypass time has elapsed
- Anti-tailgate feature
- Alternating 85db tone and voice message

Control Inputs:

- Remote access control and REX input, field adjustable for 1, 15, 20, or 30 seconds
- Remote reset input
- Manual power-up input
- Emergency release input
- Anti-tailgate input

Monitoring

Outputs:

- Door secure and unlocked output
- Delayed egress activation alarm output

Certifications:

ANSI certified, ANSI Grade 1

Code Compliance:

- International Building Code (IBC) 1008.1.8.6 Delayed Egress Locks
- International Fire Code (IFC) 1008.1.8.6 Delayed Egress Locks
- NFPA 101, Life Safety Code 7.2.1.6.1 Delayed Egress Lock
- California Building Code (CBC) 1008.1.8.6 Special Egress Control Devices
- BOCA, National Building Code 1017.4.1.2 Special Locking Arrangements
- Chicago Building Code 10 (13-160-269) Electromagnetic Locking Devices
 - Certificate of approval available



LOCKING DEVICES - 2958 INTEGRATED DELAYED EGRESS LOCK

OPTIONS

DPS	Door Position Switch
MBS	Magnetic Bond Sensor
ATS	Anti-Tamper Switch

RESET & CONTROL

PS	Built-in reset push switch, available with NFPA (NA) only
NS	Less key switch or push switch

Input Voltage: Auto Sensing 12 to 24VDC

Current:
2958 830mA @ 12VDC
450mA @ 24VDC

2958T 1500mA @ 12VDC
850mA @ 24VDC

Reset Input: N/O, Dry input
REX Input: N/O, Dry input
Trigger Input: N/O, Dry input
Fire Alarm Input: N/O, Dry input

MONITORING

Alarm Output: SPDT Dry, 1A @ 30VDC

Lock Secure
Unlocked: SPDT Dry, 1A @ 30VDC

Door Position
Switch: SPDT Dry, 250mA @ 30VDC

Magnetic Bond
Sensor: SPDT Dry, 250 mA @ 30VDC

Anti-Tamper
Switch: SPDT Dry, 1A @ 30VDC

MECHANICAL SPECIFICATIONS

Dimensions: 2958	11" (279 mm) W x 2-3/4" (70 mm) H x 2-5/8" (67 mm) D
2958T Master	11" (279 mm) W x 2-3/4" (70 mm) H x 2-5/8" (67 mm) D
2958T Slave	11" (279 mm) W x 2-3/4" (70 mm) H x 2-5/8" (67 mm) D
Armature	7-3/8" (187 mm) W x 2-3/8" (60 mm) H x 9/16" (14 mm) D

FINISHES

ALM	Aluminum anodized (standard)
DBZ	Dark bronze anodized
BLK	Black anodized

NOTES

Local Approval: All installations must be approved by the Authority Having Jurisdiction (AHJ)



LOCKING DEVICES - 2941 MAGNETIC LOCK

WARRANTY | One-year warranty

MODELS
2941 | 600 lbs. holding force (272 kg)

APPLICATION | For interior door traffic control where physical attack is not a concern

FEATURES

Components:

- Designed for system integrators, distributors, installers, and building owners presently using low cost import or private label brand access control hardware
- Interlocking quick mount assembly
- Provides superior, less obtrusive appearance compared to stainless steel epoxy sealed magnetic locks
- Full monitoring is standard
- Door status, lock status and bi-color LED included
- Adjustable mounting bracket with choice of self-drilling and tapping mounting screws or machine screws
- Wire access chamber with terminal block
- Printed circuit board with voltage and current spike protection
- Instant release anti-residual magnetism circuit



Certification: | ANSI/BHMA A156.23 Grade 1, Compliant

ELECTRICAL SPECIFICATIONS

Input:

Current/Voltage: | 500mA/250mA @ 12/24VDC (field selectable)

MONITORING

Lock Status: | SPDT, Dry 2mA @ 30VDC

Door Status: | SPDT, Dry 500mA @ 30VDC

ACCESSORIES

- 2-679-0101 | Top Jamb Kit
- 2-679-0103 | Glass Armature Mounting Kit
- 2-679-0106 | Angle Bracket (cut to fit 2941)
- 2-679-0107 | Stop Filler Plate (field cut for 2941)
- 2-679-0108 | Stop Filler Plate (field cut for 2941)

MECHANICAL SPECIFICATIONS

Lock Dimensions: | 9-7/8" (251 mm) W x 2" (51 mm) H x 1" (25 mm) D

Armature
Dimensions: | 7-5/16" (186 mm) W x 1-1/2" (38 mm) H x 1/2" (13 mm) D

FINISHES | Aluminum anodized



LOCKING DEVICES - 2942 MAGNETIC LOCK

MODELS

2942 | 1200 lbs. holding force (545 kg)

WARRANTY

One-year warranty

APPLICATION

For perimeter and interior door security and access control

FEATURES

Components:

- Designed for system integrators, distributors, installers, and building owners presently using low cost import or private label brand access control hardware
- Interlocking quick mount assembly
- Provides superior, less obtrusive appearance compared to stainless steel epoxy sealed magnetic locks
- Full monitoring is standard
- Door status, lock status and bi-color LED included
- Adjustable mounting bracket with choice of self-drilling and tapping mounting screws or machine screws
- Wire access chamber with terminal block
- Printed circuit board with voltage and current spike protection
- Instant release anti-residual magnetism circuit



Certification:

ANSI/BHMA A156.23 Grade 1, Compliant

ELECTRICAL SPECIFICATIONS

Input:

Current/Voltage: 500mA/250mA @ 12/24VDC (field selectable)

MONITORING

Lock Status: SPDT, Dry 2mA @ 30VDC

Door Status: SPDT, Dry 500mA @ 30VDC

ACCESSORIES

2-679-0100 | Top Jamb Kit
 2-679-0102 | Glass Armature Mounting Kit
 2-679-0106 | Angle Bracket
 2-679-0107 | Stop Filler Plate
 2-679-0108 | Stop Filler Plate

MECHANICAL SPECIFICATIONS

Lock Dimensions: 10-1/2" (267 mm) W x 2-7/8" (73 mm) H x 1-5/8" (41 mm) D

Armature Dimensions: 7-5/16" (186 mm) W x 2-3/8" (60 mm) H x 1/2" (13 mm) D

FINISHES

Aluminum anodized





LOCKING DEVICES - 2941 AND 2942 ACCESSORIES

TOP JAMB MOUNTING KITS FOR INSWING DOORS



2-679-0100

Top jamb kit for use with 2942

2-679-0101

Top jamb kit for use with 2941

GLASS DOOR ARMATURE MOUNTING KITS



2-679-0102

Glass door kit for use with 2942

2-679-0103

Glass door kit for use with 2941

ANGLE BRACKETS



Used for the extension of a narrow frame header mounting surface, the bracket provides additional surface area for proper lock mounting.

2-679-0106

Angle bracket for use with 2942

cut for use with 2941

10-1/2" (l) x 1-1/2" (h) x 3/4" (d)

[266 (l) x 12 (h) x 19 (d) mm]



TOP FILLER PLATES

Used where the frame stop does not provide enough mounting surface area for proper lock mounting.

2-679-0107

Stop filler plate for use with 2942

Cut for use with 2941

1/2" (h) x 10-1/2" (l) x 3/4" (d)

[12 (h) x 266 (l) x 19 (d) mm]

2-679-0108

Stop filler plate for use with 2942

Cut for use with 2941

3/4" (h) x 10-1/2" (l) x 3/4" (d)

[19 (h) x 266 (l) x 19 (d) mm]



LOCKING DEVICES - 2950 MAGNETIC LOCK

MODELS

2951	Single magnetic lock with 1650 lbs. holding force (748 kg)
2952	Double magnetic lock with 1650 lbs. holding force (748 kg)
2953	Single magnetic lock with 1200 lbs. holding force (545 kg)
2954	Double magnetic lock with 1200 lbs. holding force (545 kg)

WARRANTY

Lifetime warranty

APPLICATION

For perimeter and interior door security and access control

FEATURES

Components:

- Modular design
- Modular upgrade kits
- Field upgradeable without removal
- Uniform design and installation
- Identical housing, template, and accessories
- Quick mount assembly
- Compatible with any access control system
- Secure wiring and mounting screws with interlocking mounting plate

Certification:

ANSI/BHMA A156.23 Grade 1 Compliant

OPTIONS

Time	Built-in field adjustments 0-30 seconds re-lock delay
DPS	Door Position Switch indicates door open and door closed
ATS	Anti Tamper Switch indicates access cover removal
MBS	Magnetic Board Sensor indicates locked and unlocked, low holding power, tampering and obstruction between armature and magnetic core



ELECTRICAL SPECIFICATIONS

Input:

Current/Voltage:

2951	Auto Sensing 670mA/350mA @ 12/24 VDC
2952	Auto Sensing 1.34A /700mA @ 12/24VDC
2953	Auto Sensing 250mA/125mA @ 12/24VDC
2954	Auto Sensing 500mA/250mA @ 12/24VDC

MONITORING

Time	SPDT, Dry 20mA @ 30VDC
DPS	SPDT, Dry 20mA @ 30VDC
ATS	SPDT, Dry 20mA @ 30VDC
MBS	SPDT, Dry 20mA @ 30VDC

ACCESSORIES

2-679-0109	Timer Input Module
2-679-0110	Door Position Sensor
2-679-0111	Magnetic Bond Sensor
2-679-0112	Anti-Tamper Switch

MECHANICAL SPECIFICATIONS

2951 & 2953 Dimensions:	11" (279 mm) W x 2-3/4" (70 mm) H x 1-9/16" (40 mm) D
2952 & 2954 Dimensions:	22" (559 mm) W x 2-3/4" (70 mm) H x 1-9/16" (40 mm) D

FINISHES

ALM	Aluminum anodized (standard)
DBZ	Dark bronze anodized

MOUNTING KITS

- Top Jamb Kit
- Glass Door Kit
- Universal Header Bracket
- Spacer Bracket
- Armature Mounting Plate with and without Sensor Door Coordinator Lock Mounting Kit
- Filler Plates
- Angle Brackets
- See Mounting Kits Reference File for complete list of all mounting kits and part number





LOCKING DEVICES - 2950 SERIES ACCESSORIES

MODULAR KITS

2-679-0109

Timer Input Module
Built-in field adjustable 0-30 seconds re-lock delay

2-679-0110

Door Position Sensor
Indicates door open and door closed

2-679-0111

Magnetic Bond Sensor
Indicates locked and unlocked, low holding power, tampering and obstruction between armature and magnetic core

2-679-0112

Anti-Tamper Switch
Indicates access cover removal.

TOP JAMB MOUNTING KITS FOR INSWING DOORS



2-679-0120

Top jamb kit for use with 2951 and 2953
ALM

2-679-0121

Top jamb kit for use with 2951 and 2953
DBZ

2-679-0130

Top jamb kit for use with 2952 and 2954
ALM

2-679-0131

Top jamb kit for use with 2952 and 2954
DBZ

GLASS DOOR ARMATURE MOUNTING KITS



2-679-0160

Glass door kit for use with 2951 and 2953
ALM

2-679-0161

Glass door kit for use with 2951 and 2953
DBZ

Note: For 2952 and 2954, order two (2) glass door armature mounting kits.

UNIVERSAL HEADER BRACKET



Used in lieu of angle brackets, a universal header bracket provides a faster mounting solution, saving time and labor costs. Reduce potential for missized and misaligned mounting

holes, broken taps, removal of broken taps. Combined with interlocking easy mount assembly, save up to a half day's labor with the installation of 12 locks.

- Solid 1" (25 mm) bar provides higher security and superior aesthetics
- Machined wire chase provides concealed and secure wiring
- Multiple pre-drilled and tapped mounting holes to accommodate the use of several different locks on either 4" (102 mm) or 4-1/2" (114 mm) aluminum frames

2-679-0180

For use with 2951 and 2953
1 x 1 x 11 in (25 x 25 x 279 mm)
ALM

2-679-0181

For use with 2951 and 2953
1 x 1 x 11 in (25 x 25 x 279 mm)
DBZ

2-679-0190

For use with 2952 and 2954
1 x 1 x 22 in (25 x 25 x 559 mm)
ALM

2-679-0191

For use with 2952 and 2954
1 x 1 x 22 in (25 x 25 x 559 mm)
DBZ



LOCKING DEVICES - 2950 SERIES ACCESSORIES

SPACER BRACKETS



Aluminum frames with blade stop - lowers magnetic lock below blade stop. Concrete filled hollow metal frames - provides multiple points for concealed wire entry.

- Pre-drilled and tapped specifically for 2951 and 2952 magnetic locks
- Machined wire chase provides multiple points for concealed wire entry from concrete filled frames
- ALM (aluminum) finish

2-679-0200

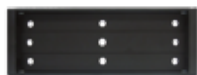
Bracket for 2951 and 2953
1/2 x 1-1/2 x 11 in (13 x 38 x 279 mm)

2-679-0201

Bracket for 2952 and 2954
1/2 x 1-1/2 x 22 in (13 x 38 x 559 mm)

ARMATURE MOUNTING PLATE

Armature mounting plates provide a solution for mounting magnetic locks to the top rail of aluminum, glass, wood, and hollow metal doors that do not permit the use of thru bolts.



2-679-0204

Armature mounting plate

2-679-0205

Armature mounting plate with sensor

Note: For 2952 and 2954, order two (2) armature mounting plates.

FILLER PLATES

Filler plates are for extension of the stop to provide a proper mounting surface on the underside of the header. Available in Aluminum (ALM) or Dark Bronze (DBZ) finish. Contact Hager Tech Support for part numbers for additional finishes (including BRZ, BLK, US3, US4, US26, and US26D).



For 11" (279 mm) Single Magnetic Lock Models (2951/2953)

2-679-0281

ALM
1/8 x 1-1/4 in (3 x 32 mm)

2-679-0283

DBZ
1/8 x 1-1/4 in (3 x 32 mm)

2-679-0291

ALM
1/4 x 1-1/4 in (6 x 32 mm)

2-679-0293

DBZ
1/4 x 1-1/4 in (6 x 32 mm)

2-679-0311

ALM
1/2 x 1-1/4 in (13 x 32 mm)

2-679-0313

DBZ
1/2 x 1-1/4 in (13 x 32 mm)

2-679-0321

ALM
5/8 x 1-1/4 in (16 x 32 mm)

2-679-0323

DBZ
5/8 x 1-1/4 in (16 x 32 mm)

For 22" (559 mm) Double Magnetic Lock Models (2952/2954)

2-679-0381

ALM
1/8 x 1-1/4 in (3 x 32 mm)

2-679-0383

DBZ
1/8 x 1-1/4 in (3 x 32 mm)

2-679-0391

ALM
1/4 x 1-1/4 in (6 x 32 mm)

2-679-0393

DBZ
1/4 x 1-1/4 in (6 x 32 mm)

2-679-0411

ALM
1/2 x 1-1/4 in (13 x 32 mm)

2-679-0413

DBZ
1/2 x 1-1/4 in (13 x 32 mm)

2-679-0421

ALM
5/8 x 1-1/4 in (16 x 32 mm)

2-679-0423

DBZ
5/8 x 1-1/4 in (16 x 32 mm)





LOCKING DEVICES - 2950 SERIES ACCESSORIES



ANGLE BRACKETS

Angle brackets are used as extensions on shallow door frames to provide adequate mounting surface. Available in Aluminum (ALM) or Dark Bronze

(DBZ) finish. Contact Hager Tech Support for part numbers for additional finishes (including BRZ, BLK, US3, US4, US26, and US26D).

For 11" (279 mm) Single Magnetic Lock Models (2951/2953)

2-679-0491

ALM

1-1/2 x 1-1/2 in (38 x 38 mm)

2-679-0493

DBZ

1-1/2 x 1-1/2 in (38 x 38 mm)

2-679-0501

ALM

2 x 1-1/2 in (51 x 38 mm)

2-679-0503

DBZ

2 x 1-1/2 in (51 x 38 mm)

For 22" (mm) Double Magnetic Lock Models (2952/2954)

2-679-0571

ALM

1-1/2 x 1-1/2 in (38 x 38 mm)

2-679-0573

DBZ

1-1/2 x 1-1/2 in (38 x 38 mm)

2-679-0581

ALM

2 x 1-1/2 in (51 x 38 mm)

2-679-0583

DBZ

2 x 1-1/2 in (51 x 38 mm)



DOOR COORDINATOR LOCK MOUNTING KITS

2-679-0210

Door coordinator lock mounting kit for use with 2951 and 2953

ALM

2-679-0220

Door coordinator lock mounting kit for use with 2952 and 2954

DBZ



LOCKING DEVICES - 2961 SERIES MAGNETIC SHEAR LOCK

MODELS

2961

Single magnetic shear lock with 2000 lbs. holding force (907 kg)

WARRANTY

One-year warranty

APPLICATION

For commercial grade hollow metal and wood doors and frames and Herculite doors with top rails

FEATURES

- Concealed, high security, Fail Safe locking mechanism
- Incorporates floating armature assembly and special alloy steel locking tabs on both lock and armature assemblies
- May be adjusted both vertically and laterally to compensate for wide door gaps and warped or misaligned doors

Components:

- 2,000 lbs (907 kg) holding force without current inrush or high operating temperature
- 8" x 1-1/2" (203 mm x 38 mm) lock
- Integrated electronics
- 1-5/8" (41 mm) depth for 1-3/4" - 2" (44 mm - 51 mm) frames
- Armature supplied with lock (specify type required - ITC, FTC, or HTC)
- Door static sensor ensures door is at rest and aligned, before the magnet is permitted to energize (eliminates the potential for lock misalignment)
- Lateral adjustment of shear tabs to compensate for warped or misaligned doors, permitting accurate locking
- Vertical adjustment of both the armature and the adjustable delay relock sensor compensates for wide door gaps
- Unique floating action for easy armature lift when the magnet is energized and provides ability to overcome wide door gaps
- Alloy shear tabs ensure continued high holding force
- No profiling of the soft armature steel that may be prone to wear and reduced holding force
- Advanced electronic circuitry that incorporates door static, positioning and timed relock sensor and automatic voltage sensing for 12/24 VDC input
- Noise dampeners reduce the noise associated with locking and unlocking



OPTIONS

MBS

- Bond sensor indicates proper armature contact or reduced holding power due to improper armature contact or tampering
- SPDT 0.25 amp

DPS

- Door position switch indicates door open or closed
- SPDT 0.25 amp maximum

HTR

Herculite top rail armature adjustment bracket for leading edge adjustments

ELECTRICAL SPECIFICATIONS

Input:

Voltage:

Auto Sensing 650/350 mA @ 12/24 VDC

MONITORING

DPS

SPDT, Dry 20mA @ 30VDC

MBS

SPDT, Dry 20mA @ 30VDC

ACCESSORIES

2-679-0600

Wood door reinforcement box (sold separately)

ARMATURES

ITC Armature

Standard mounting armature kit for aluminum and hollow metal doors with 7/8" to 1-1/8" deep top channels, wood doors, and factory prepared hollow metal flush edge doors

FTC Armature

Mounting kit for field prepared horizontal mounting in hollow metal doors with flush edge

HTC Armature

Mounting kit for 1-15/16" deep Herculite channels

MECHANICAL SPECIFICATIONS

Lock Dimensions: 8" (203 mm) W x 1-1/2" (38 mm) H x 1-5/8" (41 mm) D

Armature Dimensions:

8" (203 mm) W x 1-1/2" (38 mm) H x 7/8" (48 mm) D

FINISHES

ALM

Aluminum anodized (standard)





LOCKING DEVICES - 2965 MAGNETIC SHEAR LOCK

MODELS

2965

Single magnetic shear lock with 2700 lbs. holding force (1225 kg)

WARRANTY

One-year warranty

APPLICATION

For commercial grade hollow metal and wood doors and frames and Herculite doors with top rails

FEATURES

- Concealed, high security, Fail Safe locking mechanism
- Incorporates floating armature assembly and special alloy steel locking tabs on both lock and armature assemblies
- May be adjusted both vertically and laterally to compensate for wide door gaps and warped or misaligned doors



Components:

- 2,700 lbs (1225 kg) holding force without current inrush or high operating temperature
- 10-7/16" x 1-1/2" (265 mm x 38 mm) lock
- Integrated electronics
- 1-5/8" (41 mm) depth for 1-3/4" - 2" (44 mm - 51 mm) frames
- Armature supplied with lock (specify type required - ITC, FTC, or HTC)
- Door static sensor ensures door is at rest and aligned, before the magnet is permitted to energize (eliminates the potential for lock misalignment)
- Lateral adjustment of shear tabs to compensate for warped or misaligned doors, permitting accurate locking
- Vertical adjustment of both the armature and the adjustable delay relock sensor compensates for wide door gaps
- Unique floating action for easy armature lift when the magnet is energized and provides ability to overcome wide door gaps
- Alloy shear tabs ensure continued high holding force
- No profiling of the soft armature steel that may be prone to wear and reduced holding force
- Advanced electronic circuitry that incorporates door static, positioning and timed relock sensor and automatic voltage sensing for 12/24 VDC input
- Noise dampeners reduce the noise associated with locking and unlocking

OPTIONS

MBS

- Bond sensor indicates proper armature contact or reduced holding power due to improper armature contact or tampering
- SPDT 0.25 amp

DPS

- Door position switch indicates door open or closed
- SPDT 0.25 amp maximum

HTR

Herculite top rail armature adjustment bracket for leading edge adjustments

ELECTRICAL SPECIFICATIONS

Input:

Voltage: Auto Sensing 800/400 mA @ 12/24 VDC

MONITORING

MBS

SPDT, Dry 250mA @ 30VDC

DPS

SPDT, Dry 250mA @ 30VDC

ACCESSORIES

2-679-0601

Wood door reinforcement box (sold separately)

ARMATURES

ITC Armature

Standard mounting armature kit for aluminum and hollow metal doors with 7/8" to 1-1/8" deep top channels, wood doors, and factory prepared hollow metal flush edge doors

FTC Armature

Mounting kit for field prepared horizontal mounting in hollow metal doors with flush edge

HTC Armature

Mounting kit for 1-15/16" deep Herculite channels

MECHANICAL SPECIFICATIONS

Lock Dimensions: 10-7/16" (265 mm) W x 1-1/2" (38 mm) H x 1-5/8" (41 mm) D

Armature

Dimensions: 11" (279 mm) W x 1-1/2" (38 mm) H x 7/8" (48 mm) D

FINISHES

ALM

Aluminum anodized (standard)

Access Controls



As the demand for access controls continue to grow, Hager Companies offers proven, reliable, and innovative solutions. While access control keypad devices are fairly definitive, customer requirements and building codes can vary. Hager Companies keypad product line offers solutions for these differing demands and requirements.

Key switches are ideal for a range of electrified openings such as an auditorium or gate operation that you might find near a hotel pool. With many different types of applications, key switches are an economical and viable devices in many installations.

Hager's line of heavy duty keypads has an array of ideal installations. The 2915 is perfect for secure areas such as a records archive room or server room. The 2916 and 2916P are ideal for outdoor installations such as college dormitories, apartment buildings, remote buildings, and office buildings.

Hager Companies provides proven and reliable products for the ever growing access control market. For more information, please visit the Hager Companies website at www.hagerco.com





ACCESS CONTROLS - 29KS KEY SWITCH

MODELS

29KS | Key switch

WARRANTY

One-year warranty

APPLICATION

- Access control
- Automatic gate operation
- Alarm shunt
- Alarm reset
- Machine operation

FEATURES

- Provides an economical method of providing authorized control for a variety of applications
- Choice of several contact configurations ensures compatibility with virtually any system
- Compatible with U.S. standard 1.125" and 1.25" mortise key cylinders and interchangeable core cylinders (not included)
- Compatibility with a new or existing facility mechanical key system is maintained
- Standard switch assemblies are single gang box mounted

Components:

- Single gang, wall mounted, recessed key cylinder
- Tamper resistant, recessed cylinder
- Tamper resistant spanner screws
- Heavy duty all steel assembly
- 20 gauge stainless steel faceplate
- Large actuator for positive and consistent activation
- Compatible with 1.125" or 1.25" mortise cylinder (non included)

Functions:

ASD | Alternate Action (on/off) SPDT
 MSD | Momentary SPDT
 ADD | Alternate Action (on/off) DPDT
 MDD | Momentary DPDT

ELECTRICAL SPECIFICATIONS

Voltage: | • 6 amp @ 30 VDC
 | • 7", 22 gauge wire leads

OPTIONS

LEDG | One (1) green LED
 LEDR | One (1) red LED
 2LED | One (1) green and one (1) red LED

CYLINDER

3902 | 1-1/8" recommended (order separately)
 3978 | Cam required (order separately)

MECHANICAL SPECIFICATIONS

Dimensions: | 2-7/8" (73 mm) W x 4-1/2" (114 mm) H x 20 Gauge (0.912 mm)

FINISHES

US32D

NOTES

- Single switch assembly requires cloverleaf cam
- Dual switch assembly requires standard cam





ACCESS CONTROLS - 2915 HEAVY DUTY KEYPAD

MODELS

2915 | Heavy Duty Keypad

WARRANTY

One-year warranty

APPLICATION

- Single gang indoor keypad
- Designed to control access of a single entry point for facilities with up to 500 users
- Each user assigned a personal identification number (PIN)

FEATURES

Components:

- Blue backlit, moisture-resistant keypad
- 3/32" (2 mm) thick stainless steel faceplate
- 1/4" (6 mm) wall extrusion depth
- 500 users, 4-6 digit PIN codes
- 4 outputs, 2 relay and 2 solid status outputs timed or latching (on/off)
- Assign entry PINs to relays 1 and/or 2
- LED status: access, lockout
- Tactile audible key press, select volume
- Timed anti-passback
- Keypad tamper lockout
- Code activated timed entry PIN disable
- Request-to-exit/Enter input, egress keypad input
- Choice of door sense/relay inhibit input functions (forced entry, door ajar, inhibit relay 1 or 2, auto relock when door closes)
- Choice of 2 solid status output functions (alarm shunt, forced entry, door ajar, tamper lockout, keypad active)



ELECTRICAL SPECIFICATIONS

Inputs:

Voltage: | Auto Sensing 12 to 24 VAC/DC

Current: | 30mA typical, 150 mA maximum

Operating Temperature: | -20° to 130°F (-30° to 54°C)

Operating Humidity: | 5 - 95% (non-condensing)

OUTPUTS

Relay 1 | Form "C", 5 amps @ 28VDC

Relay 2 |

- Form "C", 2 amps @ 28VDC
- Switch to common outputs 3 & 4, 100 mA @ 30VDC

MECHANICAL SPECIFICATIONS

Dimensions: | 3" (76 mm) W x 4-3/4" (121 mm) H x 1-1/2" (38 mm) D

FINISHES | US3, US4, US10B, US26, US32D



ACCESS CONTROLS

MODELS

2916 Heavy Duty Keypad
2916P Heavy Duty Keypad

WARRANTY

One-year warranty

APPLICATION

- Surface mount indoor/outdoor keypad
- Designed to control access of a single entry point for facilities with up to 500 users
- Each user assigned a personal identification number (PIN)

FEATURES

Components:

- Heavy cast vandal resistant housing
- Heavy cast metal blue backlit keys
- 500 users, 4-6 digit PIN codes
- 4 outputs, 2 relay and 2 solid status outputs timed or latching (on/off)
- Assign entry PINs to relays 1 and/or 2
- LED status: access, lockout
- Tactile audible key press, select volume
- Timed anti-passback
- Keypad tamper lockout
- Code activated timed entry PIN disable
- Request-to-exit/Enter input, egress keypad input
- Choice of door sense/relay inhibit input functions (forced entry, door ajar, inhibit relay 1 or 2, auto relock when door closes)



ELECTRICAL SPECIFICATIONS

Inputs:

Voltage: Auto Sensing 12 to 24VAC/DC

Current: 30mA typical, 150mA maximum

Operating Temperature: -20° to 130°F (-30° to 54°C)

Operating Humidity: 5 - 95% (non-condensing)

OUTPUTS

Relay 1 Form "C", 5 amps @ 28VDC
Relay 2 Form "C", 2 amps @ 28VDC
Switch to common outputs 3 & 4, 100mA @ 30VDC

MECHANICAL SPECIFICATIONS

Dimensions: 3" (76 mm) W x 5-3/4" (146 mm) H x 1-7/16" (37 mm) D

ACCESSORIES

2-679-0669 Protective Shroud

FINISHES

US32D





ACCESS CONTROLS - 2-679-0708 UNDER DESK PUSH SWITCH

MODELS

2-679-0708 | Under Desk Switch

WARRANTY

| One-year warranty

APPLICATION

| Enables the remote control of doors equipped with electric locks and access controls

FEATURES

Components: | Mounts to the underside of a desk for remote door control

ELECTRICAL SPECIFICATIONS

| Momentary push switch

MECHANICAL SPECIFICATIONS

Dimensions: | 1" (25 mm) W x 2-1/4" (57 mm) H x 2-1/2" (63 mm) D



Egress Devices



Just as important as access controls are egress controls. With fail secure openings, egress controls send a signal to unlock the locking device. With low energy automatic operators, knowing acts are needed to send signals to the power operator. These are all essential functions to an electrified opening. Hager Companies provides a wide range of egress controls that will satisfy your customers while being easy to install.





EGRESS DEVICES - 2972 EXIT SWITCH

MODELS

2972-M	Momentary SPDT Exit Switch
2972-T	Integrated electric timer (adjustable 1-60 seconds) exit switch

WARRANTY

One-year warranty

APPLICATION

- 2" (50 mm) illuminated switch button for easy activation
- High impact resistant material stands up to abuse
- "Push to Exit" sign complies with NFPA requirements
- Blue illuminate button designed for access and egress applications for the disabled

OPTIONS

LEDG	One (1) green LED
LEDR	One (1) red LED
2LED	One (1) green and one (1) red LED
BLU	Disabled access button

ELECTRICAL SPECIFICATIONS

2972M	SPDT, 5A @ 30 VDC
2972T	SPDT, 2A @ 12/24VDC
Wire Leads	6" (152 mm) - 20 gauge

MECHANICAL SPECIFICATIONS

1 Gang

Dimensions: 2-7/8" (73 mm) W x 4-1/2" (114 mm) H

FINISHES

US32D





EGRESS DEVICES - 2973 CODE COMPLIANT EXIT SWITCH

MODELS

2973 | Code Compliant Exit Switch with integrated timer (fixed 30 seconds)

WARRANTY

One-year warranty

APPLICATION

- Code compliant manual releasing devices and sensors
- Switch and sensor used together comply with manual releasing device and sensor device requirements for access controlled egress doors

Certification:

- 2006 IBC 1008.1.3.4
- 2012 IBC 1008.1.9.8
- NFPA 7.2.1.6.2
- IFC 1008.1.3.4
- California Fire Code

OPTIONS

LEDG | One (1) green LED
 LEDR | One (1) red LED
 2LED | One (1) green and one (1) red LED

ELECTRICAL SPECIFICATIONS

Output: | SPDT, 5A @ 30 VDC
 Wire Leads | 6" (152 mm) - 20 gauge

MECHANICAL SPECIFICATIONS

Dimensions: | 1 Gang
 2-7/8" (73 mm) W x 4-1/2" (114 mm) H

FINISHES

US32D





EGRESS DEVICES - PIR EGRESS SENSOR

MODELS

2-679-0611

White PIR egress sensor

2-679-0612

Black PIR egress sensor

WARRANTY

One-year warranty

APPLICATION

- Access control system unit
- Unlocks doors automatically when persons approaching door are detected
- Complies with national fire and building code requirements for access controlled egress doors
- Code compliant Fail Safe mode releases locks when power to PIR sensor is interrupted

Certification:

UL Listed 294

ELECTRICAL SPECIFICATIONS

Input: 12 or 24 VAC/DC @ 26 mA max

Output: 2 SPDT dry, 2 amp @ 30VDC

Operating Temperature: -20° to 120°F (-30° to 49°C)

MECHANICAL SPECIFICATIONS

Dimensions: 1-1/2" (38 mm) W x 6-1/4" (159 mm) H x 1-1/2 (38 mm) D





EGRESS DEVICES - 2977 PIEZOELECTRIC EXIT SWITCH

MODELS

2977 | Stainless Steel Piezoelectric Request-to-Exit Switch

WARRANTY

One-year warranty

APPLICATION

- Designed for indoor, outdoor, commercial, and industrial egress applications
- Ideal for harsh or high traffic conditions

FEATURES

Components:

- Vandal and weather resistant
 - 3/32" (2 mm) stainless steel vandal resistant faceplate
- No moving parts
- Selectable bi-color illumination status (Relay OFF - red or green) (Relay ON - red or green)
- Adjustable timer output, 1-30 seconds
- Superior performance in virtually any environment
- Can be used to control an automatic door, electromechanical lock, strike, or magnetic lock
- May be tied into the remote bypass (request-to-exit) input of an access control system
- Can be used to shunt an alarm system to allow egress from a secure area



ELECTRICAL SPECIFICATIONS

Input:	12/24 AC/DC
Current:	Idle - 30 mA Active - 150 mA
Output:	SPDT dry contact, 3 amp @ 30 VDC
Operating Temperature:	-40° to 160°F (-40° to 71°C)
Relay:	<ul style="list-style-type: none"> • 100,000 cycles @ 3 A 30 VDC life expectancy • 200,000 cycles @ 1.5 A 30 VDC life expectancy

MECHANICAL SPECIFICATIONS

Button Switch:	1 billion cycle life expectancy
Dimensions:	3" (76 mm) W x 4-3/4" (121 mm) H

FINISHES

US32D



EGRESS DEVICES - 2978 TOUCHLESS EXIT SWITCH

MODELS

2978 Touchless Exit Switch

WARRANTY

One-year warranty

APPLICATION

- Designed to control electric locks/strikes, magnetic locks, or automatic door operators
- No touch wave-to-exit switch
- Active with wave of the hand
- For sanitary entry/exit applications

FEATURES

Components:

- Bi-color status illumination
- Quick connect screwless terminal block for easy installation
- No moving parts
- Uses infrared sensor technology

ELECTRICAL SPECIFICATIONS

Current:

- 30 mA standby; 70 mA Active @ 12 VDC
- 15 mA standby; 35 mA Active @ 24 VDC

Output: DPDT, 3 amp dry contact

Activation Time: 1 second or as long as sensor is triggered

LED Color: Standby - red; Active - green

Range: 4" (10 cm)

MECHANICAL SPECIFICATIONS

Dimensions: 2-3/4" (70 mm) W x 4-1/2" (114 mm) H

FINISHES

US32D





EGRESS DEVICES - 4801 NON-LATCHING PRESSURE SENSE PUSH BAR

MODELS

4801

The Sure Exit is a non-latching, heavy duty, request-to-exit push bar that will activate the 2958 & 2958T when slight pressure is applied to the bar.



WARRANTY

One-year warranty

FEATURES

Components:

- Magnetic lock release
- Access control request-to-exit
- Delayed egress trigger
- Alarm shunt
- CCTV or alarm activation
- Tri-Failsafe
 - a third redundant micro switch is automatically activated to release the door if both sensors or electronics fail
- No moving parts, quick, and quiet operation
- Human touch not required
- Sensor calibration not required
- Field installed green sign with 1" letters
- Heavy duty construction
- Narrow, low profile
- Two outputs
 - two dry contacts for lock release, request-to-exit, alarm shunt, alarm activation, CCTV activation
- Armored power loop
 - 18" flex stainless conduit

ELECTRICAL SPECIFICATIONS

Voltage Input:	12/24 VDC \pm 10% - no field adjustment
Current Input:	20 mA @ rest, 115 mA active
Output:	Two, SPDT Dry, 3 Amp @ 28 VDC
Operating Temperature:	0° to 150° F (-18° to 66° C)

MECHANICAL SPECIFICATIONS

Activation Force:	<ul style="list-style-type: none"> • 5 lbs. (2.2 kg) • Field adjustable up to 15 lbs. (6.8 kg)
Dimensions:	2-3/8" (60 mm) W x 36" (914 mm) H x 1-7/8" (48 mm) D

OPTIONS

- 42" (1,067 mm) wide doors
- 48" (1,219 mm) wide doors

FINISHES

ALM	Aluminum anodized
BLK	Black anodized

NOTES

Length: Bars may be field cut



EGRESS DEVICES - 2-679-0650 EMERGENCY DOOR RELEASE

MODELS

2-679-0650

Break glass emergency door release 3V-28 VDC, 18 mA with siren (blue)

WARRANTY

One-year warranty

APPLICATION

- Breakable glass emergency door release with siren
- Ideal for immediate unlocking of doors that are equipped with fail safe electric locks and may influence approval of an electronic lock system
- Built-in alarm may be used as a local door annunciator

FEATURES

Components:

- Remote monitoring
- CCTV activation or alarm activation
- Single gang box mounted
- Two replacement glass plates included

ELECTRICAL SPECIFICATIONS

Output: DPDT dry contact, 10 amp @ 28VDC

MECHANICAL SPECIFICATIONS

Dimensions: 5-1/2" (140 mm) W x 3-1/2" (90 mm) H x 1-3/8" (35 mm) D



Electric Power Transfer Devices



Electrified cylindrical locks, mortise locks, and exit devices all require power provided to them. The most effective way to do this is to run power through the middle of the door. With Hager, you can select the hinge type that you need and that your customer wants and know that all of those products can be electrified. Stay with the proven name in hinges – Hager. Since 1849, Hager has been manufacturing hinges in the U.S. and as we continue to build on our rich history, we will continue to bring our customers reliability, value, and peace of mind. Whether you need electrified conventional hinges, electrified geared Roton hinges, concealed power transfers or a transfer loop, knowing that you chose Hager as your preferred hinge brand will prove to be a wise decision.





ELECTRIC POWER TRANSFER DEVICES - HEAVY DUTY



2-679-0620 Concealed Mortise Mount Power Transfer Loop

- Frame mortised steel dust box with flexible steel loop and chrome finish
- Recommended for use with hollow metal frames
- UL Listed
- 11-1/2 (h) x 1 (w) x 3/4 in (d)
(292 (h) x 25 (w) x 19 (d) mm)

- Provides a concealed and secure means of transferring electric lock and exit device power and signal wires from the frame to the door
- Completely concealed when the door is closed
- Ideal for heavy traffic and applications requiring higher security to inhibit tampering and abuse

MODELS

2 conductor

Two (2) 18 ga. wires, 5 amp @ 12/24 V AC/DC

2-679-0621

Aluminum powder coat (US28 equivalent)

2-679-0622

Dark brown powder coat (US10B equivalent)

10 conductor

Ten (10) 24 ga. wires, 1 amp @ 12/24 V AC/DC

2-679-0623

Aluminum powder coat (US28 equivalent)

2-679-0624

Dark brown powder coat (US10B equivalent)

FEATURES

- Power control, input for electric locks and exit devices, locked, latched, mantrap, forced entry, open status signal wiring
- Mortise door and frame installation
- PTM is completely concealed when the door is closed
- All metal design with stainless steel tubular wire transfer and heavy cast housing with steel back boxes provide weather and tamper resistance when door is open or closed
- Fasteners for wood, steel, and aluminum doors and frames included
- UL Listed Miscellaneous Fire Door Accessories
- UL 10C Listed for up to 3-hours on fire-rated doors and frames
- Classified according to Uniform Building Code (UBC) Standard 7-2, Fire Test of Door Assemblies (1997)



COMPATIBLE OPENINGS

- 1-3/4" (44 mm) thick doors
- 0-180° opening swing with up to 3/4" (19 mm) offset pivots
- 0-180° opening swing with up to 5" wide butt hinges
- 0-130° opening swing with up to 5-1/2" (140 mm) wide butt hinges
- 0-130° opening swing with up to 6" (152 mm) wide butt hinges
- Not compatible with center hung doors, swing clear hinges, pocket pivots, butt hinges larger than 6" (152 mm), and 1-1/2" (38 mm) offset pivots

DIMENSIONS

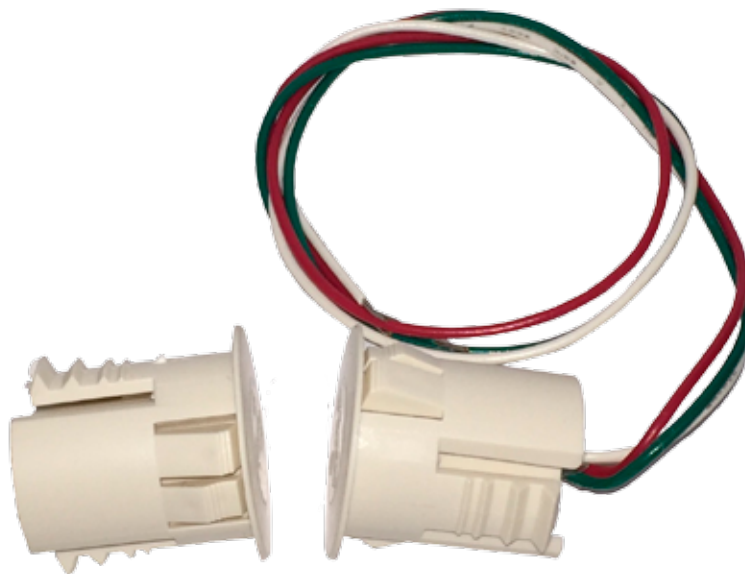
9" (h) x 1-1/4" (w) x 1-5/8" (d)
229 mm (h) x 32 mm (w) x 41 mm (d)



Door Position Sensors



Monitoring the position of the door is crucial security. Hager Companies offers a mortise style door position sensor for new installations. We also offer a drill-in style to make retrofitting an opening quick and easy.





DOOR POSITION SENSORS

MODELS

2-679-0625 | Concealed Magnetic Contact Switch

WARRANTY

One-year warranty

APPLICATION

Installed in the mortise of a hollow metal or aluminum frame and wood, hollow metal or aluminum door

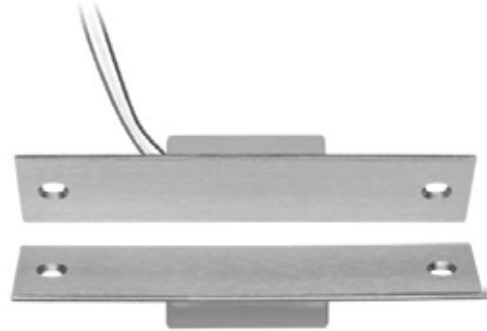
ELECTRICAL SPECIFICATIONS

Contact: | SPDT, 50mA @ 30 VDC

MECHANICAL SPECIFICATIONS

Gap: | 0.125" (3 mm)

Faceplate: | • 4.875" (h) x 1.25" (w) x 0.125" (d)
• 123.83 mm (h) x 31.75 mm (w) x 3.18 mm (d)



MODELS

2-679-0626 | Magnetic Switch

WARRANTY

One-year warranty

APPLICATION

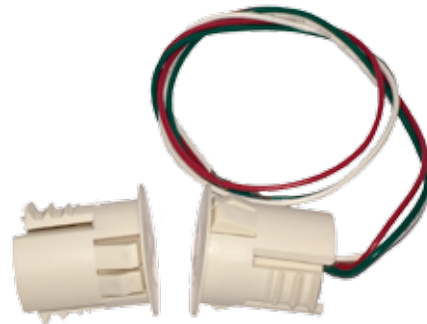
- Ideal for door status monitoring
- Easily installed in hollow metal and aluminum doors and frames

ELECTRICAL SPECIFICATIONS

Contact: | SPDT, 50mA @ 30 VDC

MECHANICAL SPECIFICATIONS

Gap: | 0.5" (12.7 mm)



Power Supply & Door Controllers



The functionality of power supplies differ based on the electrified components and their intended use. In order to have an optimized and properly operational electrified opening, the power supply should fit the opening, not the other way around. Hager offers different power supply solutions for different types of openings.

The 2901 and 2902 are specifically designed to operate electric latch retraction exit devices.

The 2903 is designed to optimize the functionality of Fail Safe or Fail Secure locking devices that interface with the building's alarm controls, card readers, keypads, and other access control systems.

The 2904 is designed to optimize openings that include a locking device and automatic door operator.

The 2908 and 2909 are modular designs that provide functionality for any type of opening whether it is an electric latch retraction exit device, locking devices that interface with other access controls, door operators with sequencing locking devices, or combination of all of those or just something completely different.





POWER SUPPLY & DOOR CONTROLLERS - 2909

MODELS

2909 | 2A Modular Access Control Power Supply

WARRANTY

| One-year warranty

APPLICATION

- Modular design allows customization of each power supply
- Regulated modular access control power supply
- Equipped with a high performance transformer and highly reliable electronic components
- Filtering and output voltage regulation provide protection and ensure the longevity of all system components

FEATURES

Components:

- Output filtering stabilizes the DC output voltage and eliminates AC line noise
- Regulator maintains output voltage at 12 or 24 VDC regardless of load changes and battery charging
- Fire alarm input that provides simultaneous release of all Fail Safe/Fail Secure locks and door holders in case of an emergency
 - *Provides simultaneous release of all Fail Safe/Fail Secure locks and door holder in case of emergency*
- Circuit breaker protected AC input voltage - secondary output is PTC protected
- LED status indicators separate PTC protected charging output
- Optional dual 12 VDC or 24 VDC outputs



ELECTRICAL SPECIFICATIONS

Input: • 800mA @ 115 VAC, 50/60Hz
• 230 VAC optional

Output: • 12/24 VDC, 2A
- *field selectable*
• Class 2

Battery Charger: 13.5/27 VDC, 500 mA

LED INDICATORS

Amber: AC and DC voltages are OK
Green: No DC output
Red: No AC input, powered by batteries

MECHANICAL SPECIFICATIONS

Dimensions: • 4" (102 mm) W x 12" (305 mm) H x 12" (305 mm) D
• 12 gauge steel

NOTES

ELR • Not suitable for use with solenoid actuated Electric Latch Retraction (ELR) exit devices
• Suitable for motor driven ELR exit devices





POWER SUPPLY & DOOR CONTROLLERS - 2908

MODELS

2908 | 1A Modular Access Control Power Supply

WARRANTY

One-year warranty

APPLICATION

- Modular design allows customization of each power supply
- Regulated modular access control power supply
- Equipped with a high performance transformer and highly reliable electronic components
- Filtering and output voltage regulation provide protection and ensure the longevity of all system components

FEATURES

Components:

- Fire alarm input
 - Provides simultaneous release of all Fail Safe/Fail Secure locks and door holder in case of emergency
- Circuit breaker protected AC input voltage - secondary output and battery backup status
- Separate PTC protected charging output
- Optional dual 12 VDC or 24 VDC outputs
- Standard California compliant manual release



ELECTRICAL SPECIFICATIONS

Input:

- 600mA @ 115 VAC, 50/60Hz
- 230 VAC optional

Output:

- 12/24 VDC, 1A
- Field selectable

Battery Charger: 13.5/27 VDC, 500 mA

MECHANICAL SPECIFICATIONS

Dimensions:

- 4" (102 mm) W x 12" (305 mm) H x 12" (305 mm) D
- 12 gauge steel

ACCESSORIES

2-679-0661

- 5 Amp hour battery backup
 - Uses a separate, protected output for charging - includes a low battery disconnect that protects the battery from potential damage during extended battery powered situations
 - When multiple batteries are used, install in parallel to increase current, or install in series to increase voltage. For more information, please contact Hager Tech Support.

2-679-0662

- 12 VDC Output Regulator Module
 - Enables dual 12V and 24V output

2-679-0664

- Universal Relay Module
 - Multiple field selectable operational modes for up to two door stations

NOTES

ELR

- Not suitable for use with solenoid actuated Electric Latch Retraction (ELR) exit devices
- Suitable for motor driven ELR exit devices



POWER SUPPLY & DOOR CONTROLLERS - 2908 & 2909 MODULES

MODELS

2-679-0661 | 5 Amp hour battery backup

WARRANTY

One-year warranty

APPLICATION

Allows continued operation of your access controlled opening upon power failure

MODELS

2-679-0662 | 12 VDC Output Regulator Module

WARRANTY

One-year warranty

APPLICATION

Allows for dual voltage output applications where openings require a 12VDC and 24VDC

ELECTRICAL SPECIFICATIONS

Input: | 24 VDC

Output: | 500A @12 VDC

MODELS

2-679-0664 | Universal Relay Module

WARRANTY

One-year warranty

APPLICATION

- Conventional Relay (CR)
- Dual Conventional Relay (2x CR)
- Time Delay Relay (TD) (1-60sec)
- Dual Time Delay Relay (2x TD) (1-60sec)
- Latching Relay (LR) - Separate Latch and Release Inputs
- Dual Latching Relay (2x LR) Pulse on Pulse off
- Time Delay x Latching Relay
- Interlock A (Air Lock)
- Interlock B (2 Modules Required)

ELECTRICAL SPECIFICATIONS

Input: | 120/175mA @ 12/24 VDC

Output: | 2 each field selectable wet or dry

Wet | 120/175mA@ 12/24 VDC

Dry | SPDT, Dry 10A @ 30 VDC

MODELS

2-679-0703 | Electric Latch Retraction Sequencer Module

WARRANTY

One-year warranty

APPLICATION

Allow for sequencing of electrified hardware on openings with Auto Operator

ELECTRICAL SPECIFICATIONS

Input: | 12 VDC or 24 VDC (+/- 10%) - 140 mA max

Exit & Operator
Contacts: | N/C or N/O, field selectable 10 AMP @ 30 VDC (Resistive)

Access Control
Inputs: | N/O Dry Contact





POWER SUPPLY & DOOR CONTROLLERS - 2908 & 2909 MODULES

MODELS

2-679-0704 | Access Control Module

WARRANTY

One-year warranty

APPLICATION

Installer friendly relay board used to control and monitor openings

ELECTRICAL SPECIFICATIONS

Input:

- 75mA@ 12/24 VDC
- 3 - N/C Normally Closed Inputs
- 3 - N/O Normally Open Inputs

Output:

- 5 Amp (Resistive) fail safe lock output
 - 5 Amp (Resistive) fail secure lock output
 - Lock status: SPDT (Form C) dry contact
-

MODELS

2-679-0705 | 16 Amp Power Boost Module

WARRANTY

One-year warranty

APPLICATION

Used for electric latch retraction exit devices that require 24 VDC with 16 amp inrush

ELECTRICAL SPECIFICATIONS

Input:

- 85mA @ 24 VDC
- Dry N/O trigger input ONLY

Output:

- 16A surge
- 1A continuous

Note:

Works with Hager 2909 Power Supply

MODELS

2-679-0706 | Power Supply Monitor Module

WARRANTY

One-year warranty

APPLICATION

Provides outputs to monitor Hager 2909 power supply status and A/C power and DC output/battery status

ELECTRICAL SPECIFICATIONS

- 2 SPDT 1 amp relay outputs
- On/off status

Note:

Works with Hager 2909 Power Supply ONLY



POWER SUPPLY & DOOR CONTROLLERS - 2904

MODELS

2904 | MLR & Auto Operator Access Control Power Supply

WARRANTY

One-year warranty

APPLICATION

Provides power and control for openings with an electrified locking device and automatic door operator

FEATURES

Components:

- Filtered and regulated 24 VDC output
- 2A load capacity
- Class 2 rated outputs
- Overload, over voltage, and short circuit protection
- Automatically accepts 120 or 240 VAC input
- Built in fail safe or fail secure locking device controller
- Built in dry contact output for automatic door operator input
- Auxiliary 24 VDC constant voltage output (1 amp max output)
- Separate input for activation switch on entry and exit side of opening
- Fire alarm input
- Adjustable time delay



ELECTRICAL SPECIFICATIONS

Input: | 900mA @ 120 VAC, 60Hz
600mA @ 240 VAC, 50/60Hz

Output: | 24 VDC, 2A

MECHANICAL SPECIFICATIONS

Dimensions: | 4-1/4" (108 mm) W x 10-1/4" (260 mm) H x 10-1/4" (260 mm) D

NOTES

- ELR |
- Not suitable for use with solenoid actuated Electric Latch Retraction (ELR) exit devices
 - Suitable for motor driven ELR exit devices





POWER SUPPLY & DOOR CONTROLLERS - 2903

MODELS

2903 | Access Control & Locking Device Power Supply

WARRANTY

One-year warranty

APPLICATION

For use with Fail Safe and Fail Secure locking devices that interface with building alarm controls, card readers, keypads, and other door controls

FEATURES

Components:

- Filtered and regulated 24 VDC output
- 2A load capacity
- Class 2 rated outputs
- Overload, over voltage, and short circuit protection
- Automatically accepts 120 or 240 VAC input
- Built in fail safe or fail secure locking device controller
- Surge suppression on fail safe and fail secure outputs
- Interface relay isolates locking device outputs from control switch
- Adjustable time delay



ELECTRICAL SPECIFICATIONS

Input:

- 900mA @ 120 VAC, 60Hz
- 600mA @ 240 VAC, 50/60Hz

Output:

24 VDC, 2A

MECHANICAL SPECIFICATIONS

Dimensions:

4-1/4" (108 mm) W x 10-1/4" (260 mm) H x 10-1/4" (260 mm) D

NOTES

ELR

- Not suitable for use with solenoid actuated Electric Latch Retraction (ELR) exit devices
- Suitable for motor driven ELR exit devices



POWER SUPPLY & DOOR CONTROLLERS - 2902

MODELS

2902 | Electric Latch Retraction Controller & Power Supply with Day/Night Mode

WARRANTY

One-year warranty

APPLICATION

For use with Hager's 4500 Series Electric Latch Retraction (ELR) exit devices in a day/night mode of operation

FEATURES

Components:

- Auxiliary 12 and 24 VDC outputs
- Built-in dry contact output for automatic door operator input
- Adjustable time delay
- Fire alarm input
- Operator day/night mode of operation

ELECTRICAL SPECIFICATIONS

Input: | 750mA @ 120 VAC; 60Hz

Output: |

- 250mA @ 12.6-16.5 VDC; Unregulated & Unfiltered
- 250mA @ 26.7-28.0 VDC; Unregulated & Unfiltered

MECHANICAL SPECIFICATIONS

Dimensions: | 4-1/4" (108 mm) W x 10-1/4" (260 mm) H x 10-1/4" (260 mm) D





POWER SUPPLY & DOOR CONTROLLERS - 2901

MODELS

2901 | Electric Latch Retraction Controller & Power Supply

WARRANTY

One-Year Warranty

APPLICATION

For use with Hager's 4500 Series Electric Latch Retraction (ELR) exit devices

FEATURES

Components:

- Auxiliary 12 and 24 VDC outputs
- Built-in- dry contact output for automatic door operator input
- Adjustable time delay
- Fire alarm input
- Single or dual system latch retraction



ELECTRICAL SPECIFICATIONS

Input: | 750mA @ 120 VAC; 60Hz

Output: |

- 250mA @ 12.6-16.5 VDC; Unregulated & Unfiltered
- 250mA @ 26.7-28.0 VDC; Unregulated & Unfiltered

MECHANICAL SPECIFICATIONS

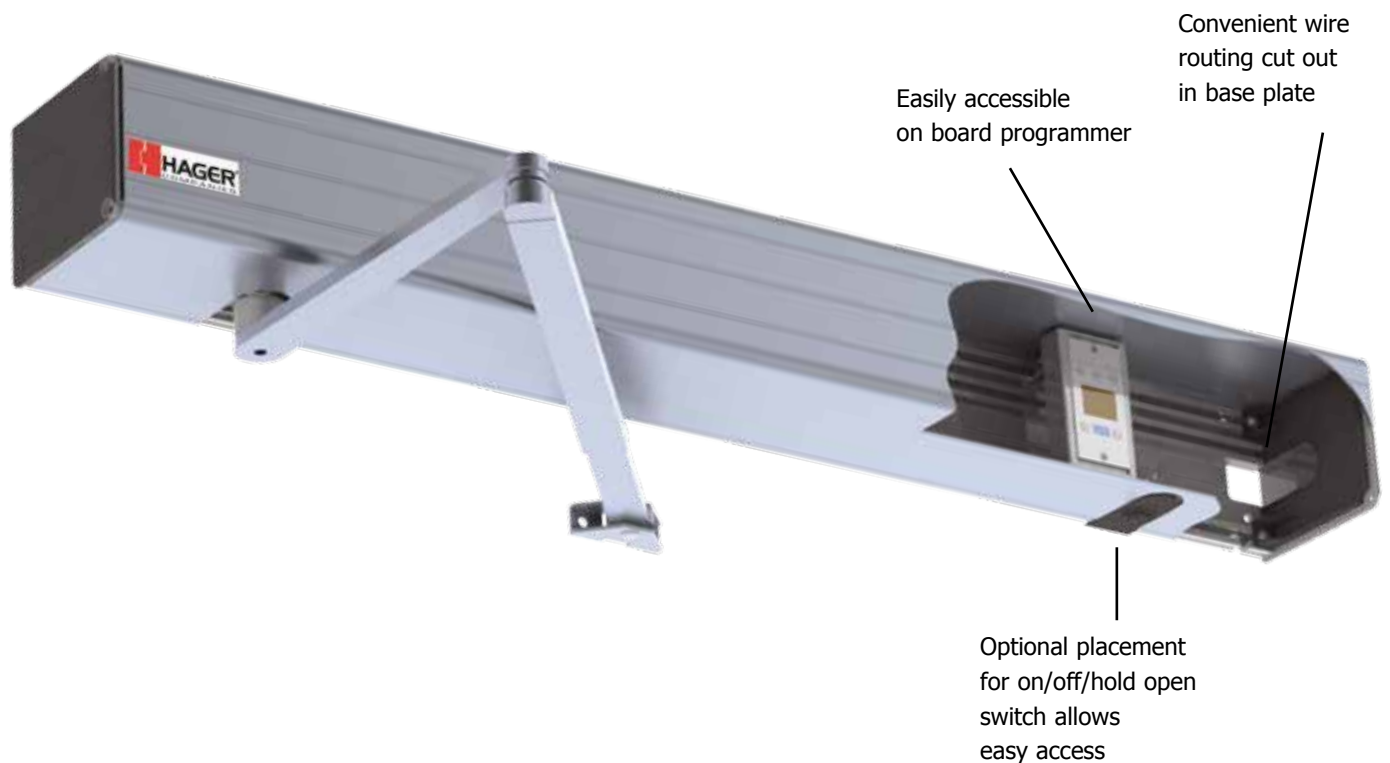
Dimensions: | 4-1/4" (108 mm) W x 10-1/4" (260 mm) H x 10-1/4" (260 mm) D

8400 Series Low Energy Power Operator



As more and more buildings are becoming ADA compliant, more options need to be made available. Hager's low energy operators allow you to do just that without a long list of part numbers to keep track of. Instead, Hager's low energy operators are customizable so that you can meet your customer's requirements and expectations each and every time.

The 8400 Series is Hager's premium low energy operator that reduces installation costs by being designed in a unique way that allows for one person installation and each unit includes an on-board programmer so that the installer programs one unit and then uses a flash drive to set up the other units in the same way with the same functionality.





LOW ENERGY POWER OPERATOR COMPONENT SELECTION

1 Low Energy Power Operators

8400 Series - (Pages 54-61)

Premium Low Energy Power Operator

- Single Operator
- Paired Operator
- Double Egress Operator
- Single Operator Paired with Mechanical Closer
- Mechanical Closer

8200 Series - (Pages 67-69)

Economy Low Energy Power Operator

- Single Operator
- Double Egress Operator



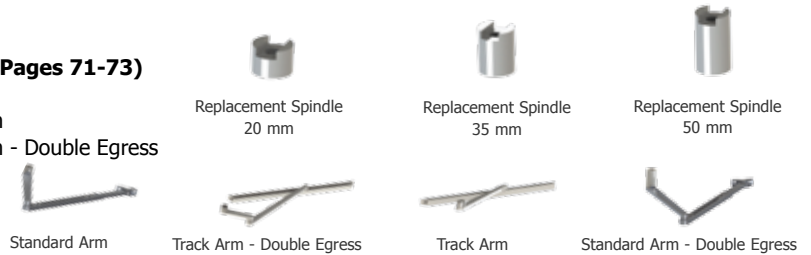
2 Parts & Accessories

8400 Series - (Pages 63-65)

- Track Arm
- Standard Arm
- Standard Arm - Double Egress
- Track Arm - Double Egress
- Replacement Spindle

8200 Series (Pages 71-73)

- Standard Arm
- Standard Arm - Double Egress
- Track Arms



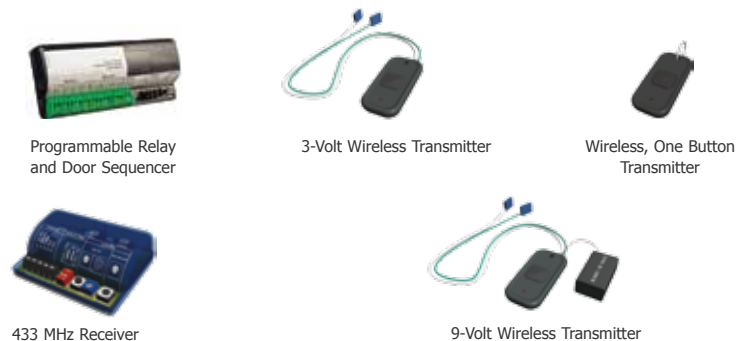
3 Actuators (Pages 75-84)

- 4.5" Square Actuator
- 6" Square Actuator
- 4.5" Round Actuator
- 6" Round Actuator
- 1.5" x 4.75" Jamb Actuator
- 36" Low Profile Actuator
- 4.75" Vestibule Actuator
- Bollard Posts



4 Accessories (Pages 85-87)

- 433 MHz Receiver
- 3-Volt Wireless Transmitter
- 9-Volt Wireless Transmitter
- Wireless, One Button Transmitter
- Programmable Relay and Door Sequencer

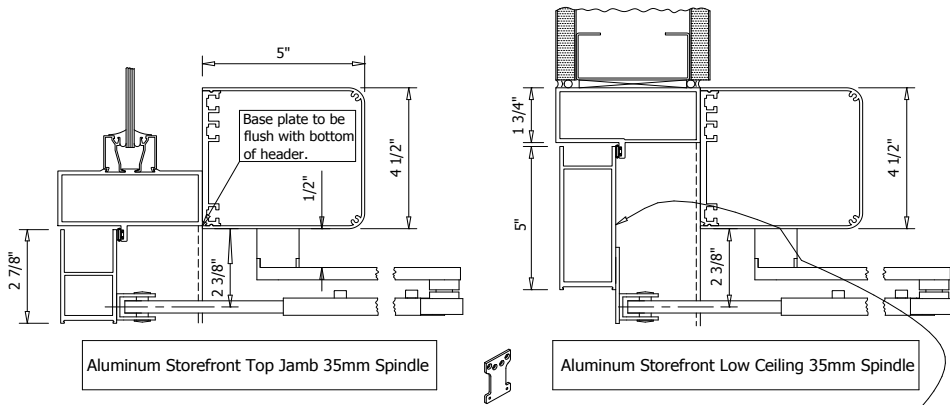


8400 SERIES LOW ENERGY POWER OPERATOR - STANDARD APPLICATIONS

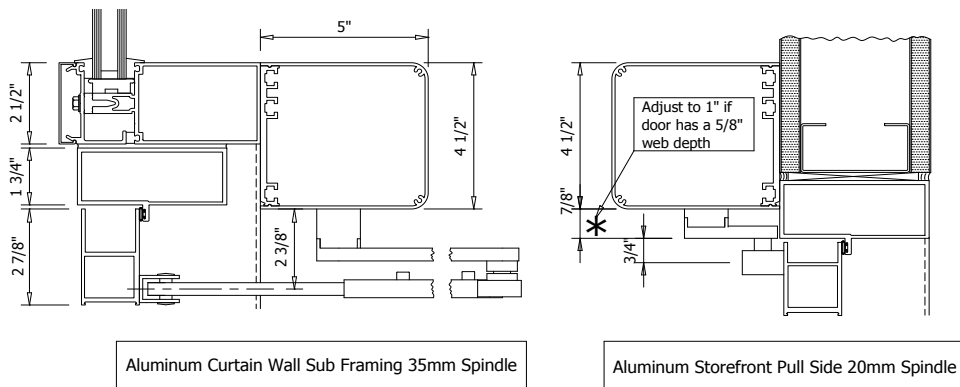
Hager Companies 8400 Series Low Energy Power Operator meets ANSI/BHMA A156.19 standards for power assist and low energy operators and is designed to meet the requirements of door openings that occasionally have the need for an automatic opening. These devices can be used on single and double doors including double egress applications. This door opening solution provides a consistent closing and opening of the door, which is especially beneficial in situations that require compliance with the Americans with Disabilities Act (ADA). The use of Hager's Low Energy Power Operator provides easy access for not only people with disabilities, but also allows for manual operation of the door when necessary.

The 8400 Series is designed for ease of installation, allowing it to be installed by a single person. It also provides a quiet, smooth operation preventing any unwanted noise in the opening and surrounding area. The use of a digital display makes programming the operator uncomplicated and provides a resourceful tool for maintaining the device and assessing its status.

In addition to the Low Energy Power Operator, Hager offers a full range of actuators to be used in conjunction with the operator. The switches available for activation of the operator come in a variety of sizes and options, including wireless and hard wired. Hager also offers an option that exceeds the California Building Code, Section 1117B.6 by providing a push plate that meets height, reach range, and operation requirements for those with disabilities.

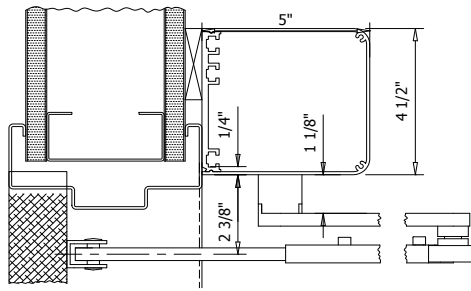


Note: Optional arm shoe drop plate is available for applications with a top rail less than 5". See page 9 for additional information.

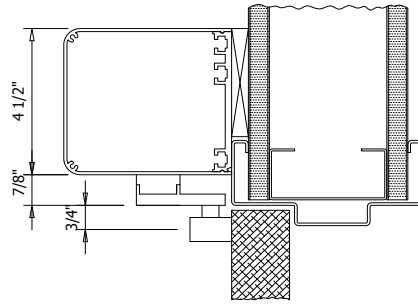




8400 SERIES LOW ENERGY POWER OPERATOR - STANDARD APPLICATIONS

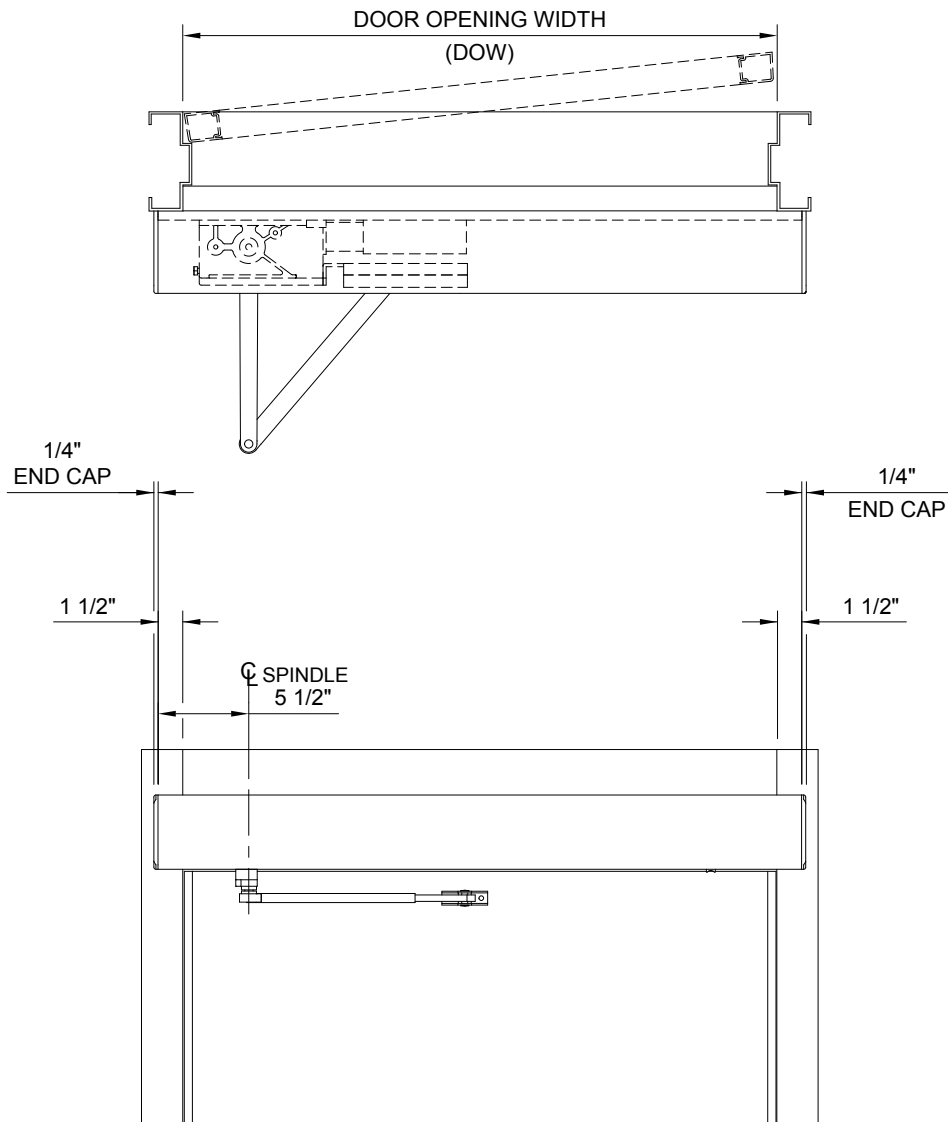


Hollow Metal Top Jamb Push 35mm Spindle



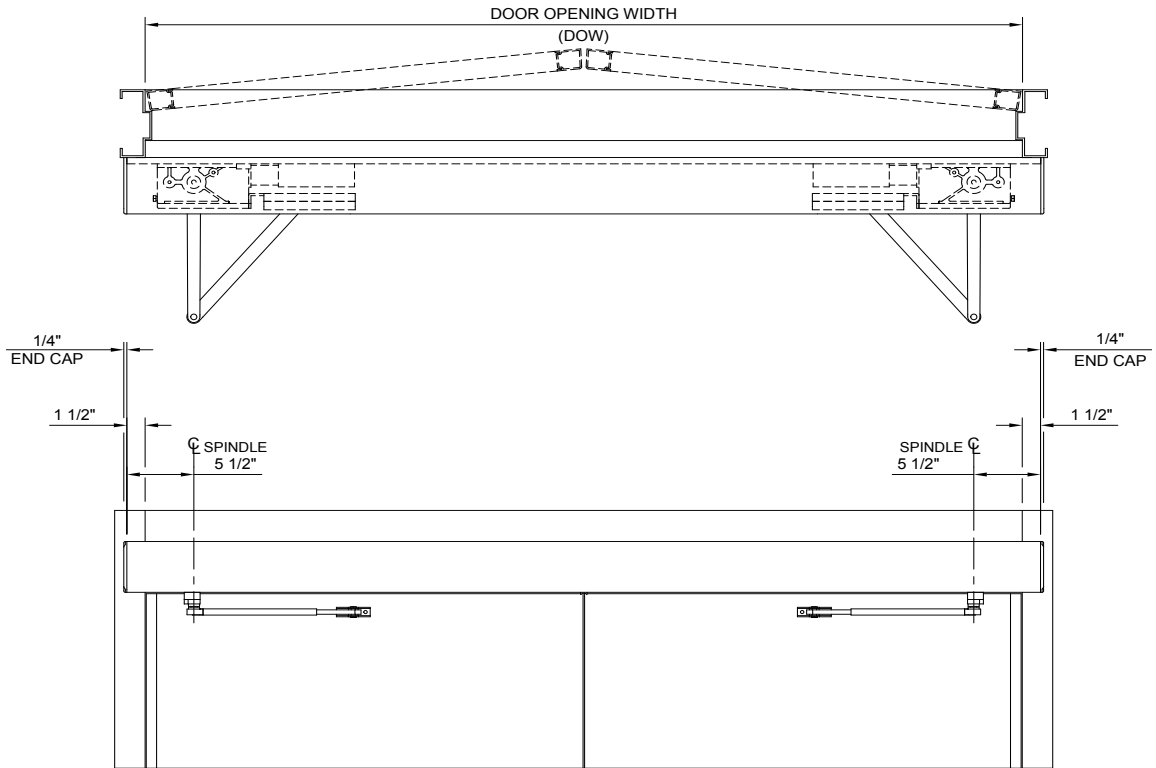
Hollow Metal Pull Side 20mm Spindle

SINGLE OPERATOR

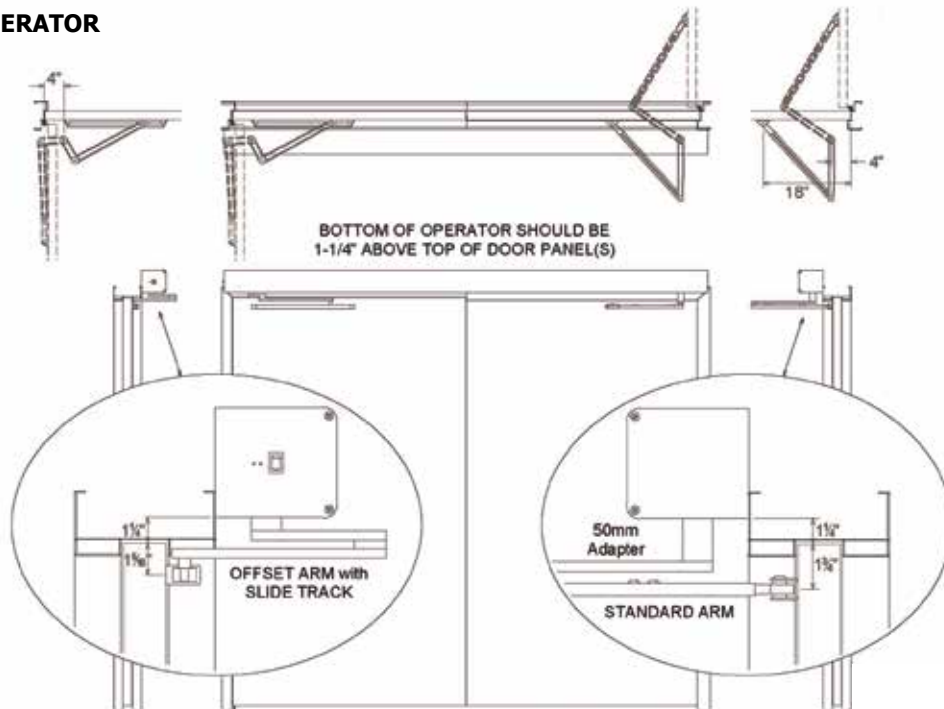


8400 SERIES LOW ENERGY POWER OPERATOR - STANDARD APPLICATIONS

PAIRED OPERATOR



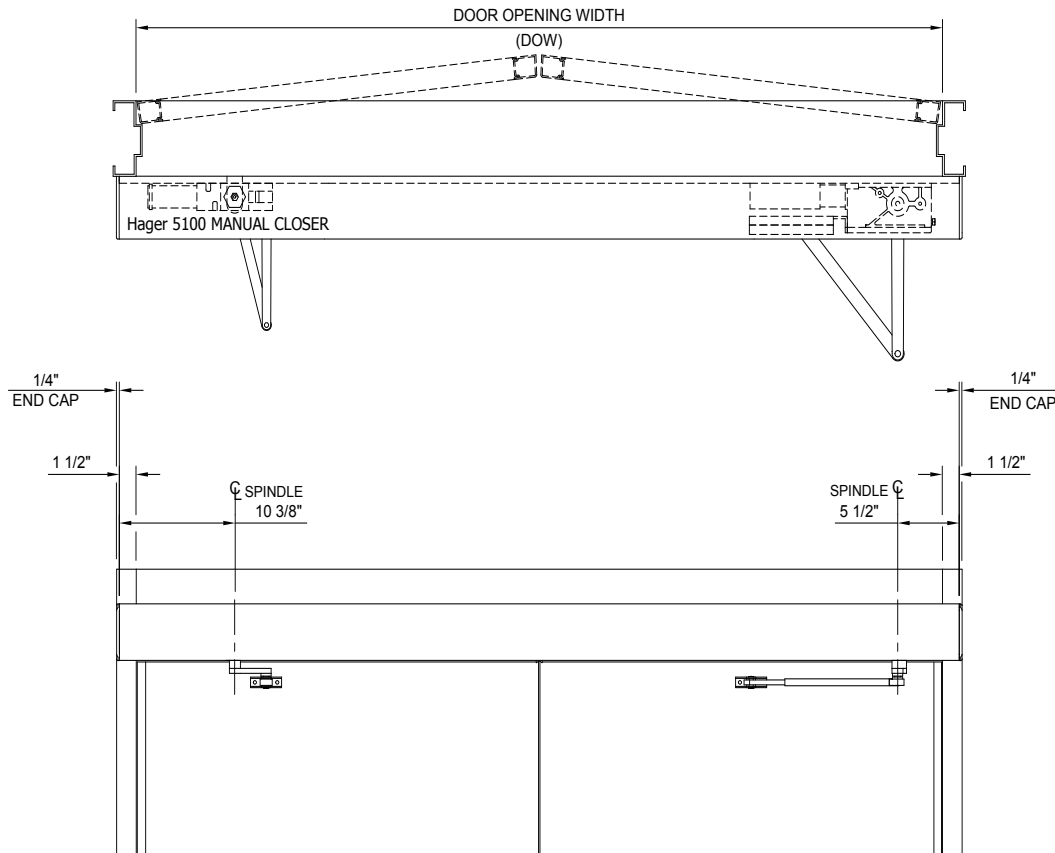
DOUBLE EGRESS OPERATOR



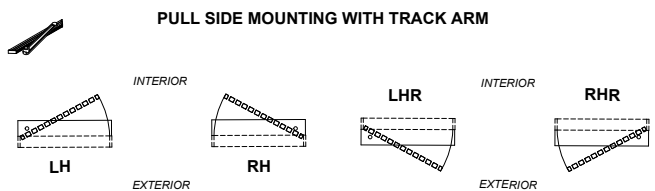
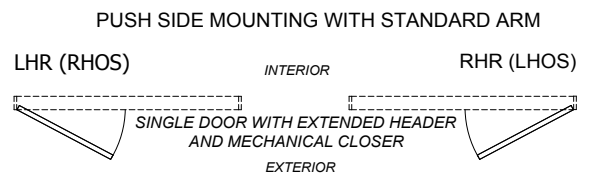
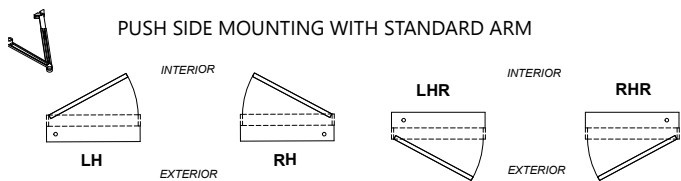


8400 SERIES LOW ENERGY POWER OPERATOR - STANDARD APPLICATIONS

SINGLE OPERATOR PAIRED WITH MECHANICAL CLOSER

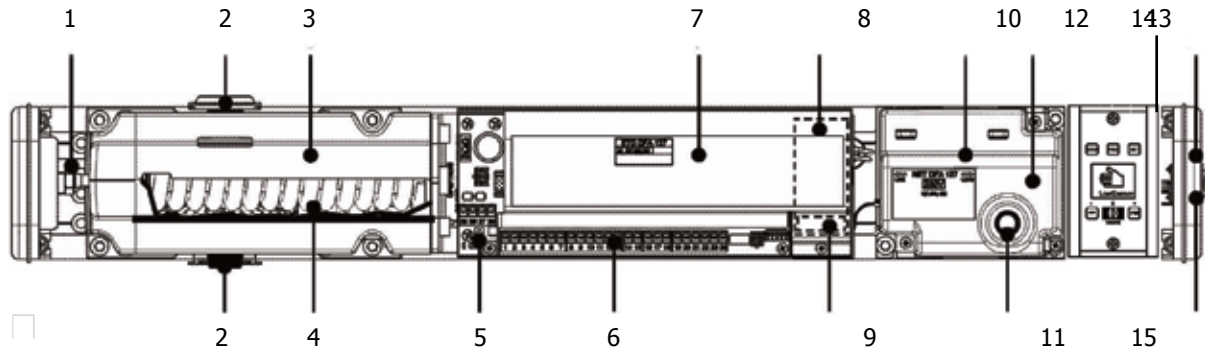


OPERATOR HANDING IDENTIFICATION



Note: Specify leaf to receive operator.

8400 SERIES LOW ENERGY POWER OPERATOR - PARTS AND ASSEMBLY DETAILS



1. Adjusting screw for spring tension
2. Output shafts for arms & stop
3. Drive unit
4. Closing spring
5. Multifunction push button/control
6. Terminal blocks for I/O
7. Microprocessor control

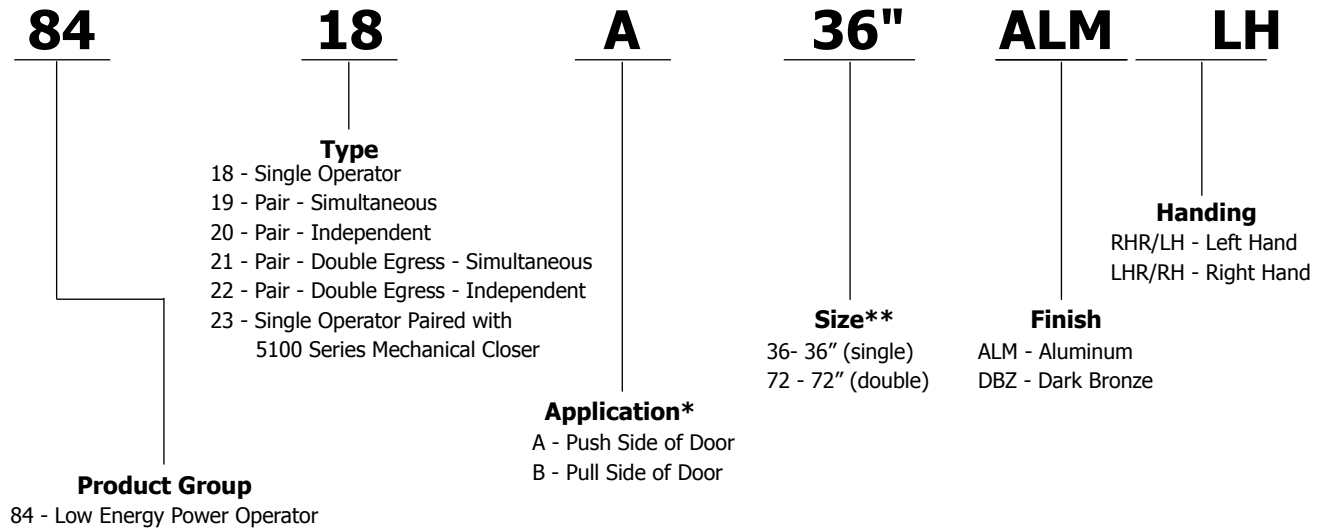
8. Motor drive circuit board
9. Slide switch S1 (rotating direction)
10. Power supply
11. Fuse (2.0A, 5 x 20mm, Slo-Blo)
12. Power supply circuit board
13. Onboard programmer
14. On/Off/Open rocker switch
15. Status LED and reset push button





8400 SERIES LOW ENERGY POWER OPERATOR - HOW TO ORDER

8400 SERIES




*** Note: Push side of door comes with standard arm. Pull side of door comes with track arm.**

**** Additional sizes available. See page 7 for additional information.**

*** Note: Standard arm (push side, 0" - 4.1875" reveal) included.**

8400 SERIES LOW ENERGY POWER OPERATOR

MODELS

8418	Single Operator (handed)	
8419	Simultaneous Pair (2 units, 1 controller, doors operate at the same time) For use with Hager mortise locks with deadbolt	
8420	Independent Pair (2 units, 2 controller, doors operate independently from each other)	
8421	Double Egress Simultaneous Pair (2 units, 1 controller, doors swing in opposite directions at same time)	
8422	Double Egress Independent Pair (2 units, 2 controller, doors swing in opposite directions at different times)	
8423	Single operator paired with 5100 Series closer for inactive door (handed)	

WARRANTY

Two-year warranty

APPLICATION

- For use on fire-rated and non-fire-rated outswing or inswing doors
- Built-in adjustable door stop for protection against wind or abusive environments
- Operates as a manual closer with or without power

FEATURES

Application Features:

- Single person installation
- Pre-drilled mounting holes for ease of installation
- Three Operating Modes (On/Off/Hold Open)
- Designed for single doors from 36" to 48" (914 mm to 1,219 mm)
- Designed for double doors from 60" to 96" (1,524 mm to 2,438 mm)
- On-board power supply

Operational Functionality:

- Built-in adjustable door stop for protection against wind or abusive environments
- Interfaces with electric door hardware
- Operates as a mechanical closer if power is disconnected
- Obstacle recognition upon opening and closing
- Blow open function for smoke ventilation

Programmable Functionality:

- Boost on Close (selectable On/Off)
- Power Assist Close
- Power Boost Close - motor assist under wind and stack pressure
- Motor Hold Close
- Power Open and Hold - for smoke evacuation
- Adjustable Opening Force Limitation
- Adjustable Opening and Closing Speeds
- Adjustable Opening Angle
- Adjustable Hold Open Time for Door Activators (1 sec to continuous)
- Sequential Operation (push to open/push to close operation)
- Built-In Stop - Manual swing to 180°/ Power swing to 100°
- Fire Alarm input shunts swing activations until FACP is manually reset
- Internal LCD display
- Memory is flash upgradeable

Certification:

- ANSI A156.19 compliant
- UL/cUL Listed for up to 3-hours
- UL10C Listed for Positive Pressure Rating
- ADA compliant





8400 SERIES LOW ENERGY POWER OPERATOR

ELECTRICAL SPECIFICATIONS

Power Requirements:	115 VAC 60 HZ
Current Draw:	3A
Auxiliary Output Voltage:	500mA @ 24 VDC
Fuse Type:	2.0A, 5 x 20mm, Slo-Blo
Electric Lock Relay Type:	Form "C" SPDT
Lock Relay Rating:	5.0A @ 28 VDC
Operating Temperature:	-40° to 140° F (-40° to 160° C) ambient operating temperature in all climatic conditions

MECHANICAL SPECIFICATIONS

Dimensions:	5" H x 4-1/2" W x door width +3" L (127 mm x 114 mm)
Reveal:	Up to 12" standard
Spring Adjustment:	5 lbs to 20 lbs closing force
Max Degree of Swing:	180°
On/Off/Hold Open Switch:	Standard
Swing Direction:	Inswing/Outswing
Adjustable Swing Degree:	80° to 180°

FINISHES

ALM	Aluminum anodized (standard)
DBZ	Dark bronze anodized

NOTES

Must specify push or pull side mount
Specify handing

8400 Series Parts & Accessories



In this section, you can find the various arms and spindles for the 8400 Series operator.



2-659-0151 | 2-659-0152

Track Arm

- 20 mm spindle
- For use on pull side of the door
- 2-659-0151 is ALM, 2-659-0152 is DBZ



2-659-0153 | 2-659-0154

Standard Arm

- 35 mm spindle
- For use on push side of the door
- 2-659-0153 is ALM, 2-659-0154 is DBZ



2-659-0220 | 2-659-0221

Standard Arm - Double Egress

- 50 mm spindle
- For use on push side of the door
- 2-659-0220 is ALM, 2-659-0221 is DBZ



2-659-0222 | 2-659-0223

Track Arm - Double Egress

- 20 mm spindle
- Offset adaptor
- For use on pull side of the door
- 2-659-0222 is ALM, 2-659-0223 is DBZ



2-659-0224 | 2-659-0225

Replacement Spindle

- 20 mm
- For use with delayed egress or track arm assembly
- 2-659-0224 is ALM, 2-659-0225 is DBZ



2-659-0226 | 2-659-0227

Replacement Spindle

- 35 mm
- For use with standard single and standard pair applications
- 2-659-0226 is ALM, 2-659-0227 is DBZ



2-659-0228 | 2-659-0229

Replacement Spindle

- 50 mm
- For use with push side standard arm - double egress only
- 2-659-0228 is ALM, 2-659-0229 is DBZ





ACCESSORIES



2-659-0230 | 2-659-0231 **Drop Plate**

- For use with low ceiling clearance
- 2-659-0230 is ALM, 2-659-0231 is DBZ



2-659-0236 **Power Supply**

- On-board replacement
- Power requirements: 115 VAC 60 Hz
- Output Voltage: 24 VDC 500mA



2-659-0232 | 2-659-0233 **Cover for Single Operator**

- 36" length - contact Hager Tech Support for special sizes
- Powder coated
- Anodized aluminum
- 2-659-0232 is ALM, 2-659-0233 is DBZ



2-659-0234 | 2-659-0235 **Cover for Dual Operators**

- 72" length - contact Hager Tech Support for special sizes or 8423 cover
- Powder coated
- Anodized aluminum
- 2-659-0234 is ALM, 2-659-0235 is DBZ

Note: For additional replacement parts contact Hager Tech Support.

8200 Series Low Energy Power Operator



The 8200 Series is Hager's economy low energy power operator. The modular platform allows installers to order the features they need.





8200 SERIES LOW ENERGY POWER OPERATOR - HOW TO ORDER

8200 SERIES

82

Product Group

82 - Economy Low Energy Power Operator

18

Type

18 - Single Operator
19 - Simultaneous Pair
22 - Double Egress Simultaneous Pair

0

Default

31"

Size

31- 31.5"
51 - 51.5"

ALM

Finish

ALM - Aluminum
DBZ - Dark Bronze





8200 SERIES LOW ENERGY POWER OPERATOR

MODELS

8218	Single Operator
8219	Simultaneous Pair
8221	Double Egress Simultaneous Pair



WARRANTY

One-year warranty

APPLICATION

- For use on interior and exterior non-fire-rated outswing or inswing doors with butt hinges, offset pivots and center pivots
- On-board provisions for door status, battery backup and additional modules

FEATURES

Application Features:

- Operates as a manual closer with or without power
- Non-Handed
- Three Operating Modes (On/Off/Hold Open)
- Designed for doors up to 48" wide (1219 mm)
- Designed for doors up to 275 lbs. (125 Kg)

Operational Functionality:

- Power Open Spring Close
- 1/4+ HP DC Motor
- Motor Protection Circuit - interrupts motor when there is an obstruction during opening

Certification:

- ANSI A156.19 compliant
- ANSI/UL 325 listed for both United States and Canada
- ADA compliant

Optional Programming and Features:

- *Modular design allows for additional optional modules to be installed to fit any application*
- *Control over electrified door hardware including electric strikes, magnetic lock or motorized latch retraction (MLR)*
- *Sequencing of multiple doors in vestibule applications*
- *Programming changes to extend Hold Open Times, Push and Go, Boost to Close and more*
- *- See 8200 Accessories for additional information*

ELECTRICAL SPECIFICATIONS

Power Supply: On-board 24VDC output for accessories

Operating Temperature:

+5° to 125° F (-15° to 50° C) ambient operating temperature in all climatic conditions

MECHANICAL SPECIFICATIONS

Dimensions:

- Single: 4-9/16" H x 5" W x 31-1/2" L (116 mm x 127 mm x 800 mm)
- Pair: 4-9/16" H x 5" W x 75-1/2" L (116 mm x 127 mm x 1816 mm)

Standard Header Lengths:

- Single: 31.5" (800 mm)
- Single: 39.5" (1003 mm)
- Pair: 75.5" (1918 mm) up to 101.5" (2578 mm)
- Custom sizes up to 101.5" (2578 mm) available

Reveal:

- 0"-9.75" outswing
- 0"-6" Inswing

Opening Angles - Outswing:

Adjustable (0-110 degrees)

Opening Angles - Inswing:

Adjustable (0-110 degrees); Deep Reveal Arm Maximum (90 degrees)

FINISHES

ALM
DBZ

Aluminum anodized (standard)
Dark bronze anodized



8200 Series Parts & Accessories



In this section, you can find the various arms and spindles for the 8200 Series operator.



8200 SERIES PARTS & ACCESSORIES - MODULES

- 2-659-0275
- Exterior Door Module (EDM) for 8200 Auto Operator
 - Provides On-Board 1.5A @ 24VDC Output for an Electric Strike, Magnetic Lock or Motorized Latch Retraction (MLR) Exit Device with (0.2 – 4.0s) delay
 - Requires iMotion programmer (2-659-0280)
 - Allows for daylight operation



2-659-0275

- 2-659-0276
- Multiple Door Module (MDM-B) for 8200 Auto Operator
 - Allows for operation of double leaved doors

Programmer:
2-659-0277

Programming Interface Module (PIM) for 8200 Auto Operator



2-659-0277

2-659-0280

iMotion Programmer w/ 6' Cord

Battery Backup:
2-659-0278

Battery Backup with Interface Cable for 8200 Auto Operator
Note: 33" minimum header length on singles, and 36" for pairs

2-659-0279

Battery Backup Extension Harness for 8200 Auto Operator



2-659-0280

- Programmable
Functionality:
- Push and Pull (selectable On/Off)
 - Power Assist Close
 - Power Boost Close - motor assist under wind and stack pressure
 - Motor Hold Close
 - Power Open and Hold - for smoke evacuation
 - Adjustable Opening Force Limitation
 - Adjustable Opening and Closing Speeds
 - Adjustable Opening Angle
 - Adjustable Hold Open Time for Door Activators (0 - 60 sec.)
 - Sequential Operation (push to open/push to close operation)
 - Built-In Safety Circuit w/ Stall/Carpet/Safety Slow/Reactivation
 - Stall: when door is in motion, most commonly used with pull side door mounted sensor, the door stops before contact is made.
 - Carpet: used with an over head presence sensor, keeps a closed door closed and an open door open
 - Safety slow: used with a door mounted sensor on pull side, opens the door very slow



8200 SERIES PARTS & ACCESSORIES

Arm & Assemblies

- 2-659-0287 Push Side Arm Door Assembly (0 - 4.1875" reveal) CLR (standard arm)
- 2-659-0288 Push Side Arm Door Assembly (0 - 4.1875" reveal) BLK (standard arm)
- 2-659-0289 Push Side Arm Door Assembly (4.125 - 9.875" reveal) CLR
- 2-659-0290 Push Side Arm Door Assembly (4.125 - 9.875" reveal) BLK
- 2-659-0291 Double Egress Push Side Arm Door Assembly (0 - 4.1875" reveal) CLR (standard arm)
- 2-659-0292 Double Egress Push Side Arm Door Assembly (0 - 4.1875" reveal) BLK (standard arm)
- 2-659-0293 Double Egress Push Side Arm Door Assembly (4.125 - 9.875" reveal) CLR
- 2-659-0294 Double Egress Push Side Arm Door Assembly (4.125 - 9.875" reveal) BLK
- 2-659-0295 Pull Side Door Arm and Slide Track (0" reveal) CLR
- 2-659-0296 Pull Side Door Arm and Slide Track (0" reveal) BLK
- 2-659-0297 RH Pull Side Deep Reveal Arm and Track (0 - 6" reveal) CLR
- 2-659-0298 RH Pull Side Deep Reveal Arm and Track (0 - 6" reveal) BLK
- 2-659-0299 LH Pull Side Deep Reveal Arm and Track (0 - 6" reveal) CLR
- 2-659-0300 LH Pull Side Deep Reveal Arm and Track (0 - 6" reveal) BLK

Drive Shaft Arms

- 2-659-0283 2.65" Drive Shaft Arm (double egress/deep reveal)
- 2-659-0284 3.22" Drive Shaft Arm (standard in & out)
- 2-659-0285 3.94" Drive Shaft Arm (special applications)
- 2-659-0286 4.84" Drive Shaft Arm (double egress out)
- 2-659-0319 Drive Shaft Arm Removal Tool

Actuators



Actuators are what allow the “knowing act” of a low energy operator. Hager offers various styles and types of actuators that will appeal to every installation. The typical 4.5” and 6” square or round actuators are available along with Hager’s line of jamb operators. For more unique installations or installations with wheelchair traffic, refer to the low profile actuators that can be activated in a 36” range from ground up.



LOW ENERGY POWER OPERATOR ACTUATORS - TOUCHLESS ACTUATORS

MODELS

2-659-0303	6" round with text & handicap logo
2-659-0304	6" round with handicap logo only
2-659-0307	6" round with text only
2-659-0305	4.75" square with text & handicap logo
2-659-0306	4.75" square with handicap logo only
2.659-0308	4.75" square with text only

WARRANTY

One-year warranty

APPLICATION

- For use with ADA low energy power operators
- Employs capacitance technology simliar to smart devices to operate low energy doors
- Ideal installations include medical facilities, assisted living facilities, offices, clean rooms, and schools

FEATURES

- Touchless design reduces the spread of bacteria and germs
- LED illumination increases plate visibility
- Stainless steel faceplate provides durability while also reducing visible deterioration caused by abrasive cleaning agents
- Beveled edges
- Various design options
- Adjustable detection zone
- Audible alert (selectable On/Off)

Certification: NEMA rated

SPECIFICATIONS

Finish:	US32D with text and/or blue logo
Faceplate:	16 gauge, 304 stainless steel
Backplate:	Illuminated Mounting Ring
Input:	30 mA @ 12 to 24 VAC/VDC
Operating Temperature:	-20° to 120°F (-30° to 49°C)
Fasteners:	6-32 x 3/4" mounting screws





LOW ENERGY POWER OPERATOR ACTUATORS - 4.5" SQUARE ACTUATOR

MODELS

2-659-0172	4.5" square with text & handicap logo
2-659-0173	4.5" square with handicap logo only

WARRANTY

One-year warranty

APPLICATION

- For use with ADA low energy power operators
- Ideal installations include medical facilities, assisted living facilities, offices, clean rooms, and schools

FEATURES

- Hard wired (standard) with wireless option
- Embossed graphics ensures durability
- Stainless steel faceplate provides durability while also reducing visible deterioration caused by abrasive cleaning agents
- Beveled edges

Note: for wireless version, must order receiver and transmitter separately

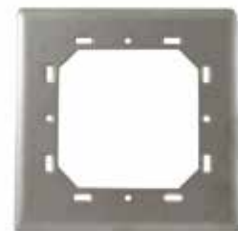
Certification: NEMA rated

SPECIFICATIONS

Finish:	US32D with text and/or blue logo
Faceplate:	16 gauge, 304 stainless steel
Backplate:	1/8" thick aluminum
Cherry Switch:	Single-pole, 15A/COM/NO/NC contacts
Operating Temperature:	-20° to 120°F (-30° to 49°C)
Fasteners:	6 - 3/2" x 1" and 8 - 3/2" x 1" Allen head mounting screws

OPTIONS

2-659-0174	<p>Surface Mount Box for 4.5" Square Actuator</p> <ul style="list-style-type: none"> • Provides adequate space for wireless transmitters • Simplified installation for applications with space limitations • Black finish
2-659-0241	<p>Universal Backplate</p> <ul style="list-style-type: none"> • For use when mounting actuator to bollard post • Stainless steel finish



LOW ENERGY POWER OPERATOR ACTUATORS - 6" SQUARE ACTUATOR

MODELS

2-659-0169 6" square with text & handicap logo
2-659-0170 6" square with handicap logo only

WARRANTY

One-year warranty

APPLICATION

- For use with ADA low energy power operators
- Ideal installations include medical facilities, assisted living facilities, offices, clean rooms, and schools

FEATURES

- Hard wired (standard) with wireless option
- Embossed graphics ensures durability
- Stainless steel faceplate provides durability while also reducing visible deterioration caused by abrasive cleaning agents
- Beveled edges

Note: for wireless version, must order receiver and transmitter separately

Certification:

NEMA rated

SPECIFICATIONS

Finish: US32D with text and/or blue logo
Faceplate: 16 gauge, 304 stainless steel
Backplate: 1/8" thick aluminum
Cherry Switch: Single-pole, 15A/COM/NO/NC contacts
Operating Temperature: -20° to 120°F (-30° to 49°C)
Fasteners: 6-32 x 1" and 8-32 x 1" Allen head mounting screws

OPTIONS

2-659-0171 Surface Mount Box for 6" Square Actuator

- Provides adequate space for wireless transmitters
- Simplified installation for applications with space limitations
- Black finish





LOW ENERGY POWER OPERATOR ACTUATORS - 4.5" ROUND ACTUATOR

MODELS

2-659-0165 4.5" round with text & handicap logo
 2-659-0166 4.5" round with handicap logo only

WARRANTY

One-year warranty

APPLICATION

- For use with ADA low energy power operators
- Ideal installations include medical facilities, assisted living facilities, offices, clean rooms, and schools

FEATURES

- Hard wired (standard) with wireless option
- Embossed graphics ensures durability
- Stainless steel faceplate provides durability while also reducing visible deterioration caused by abrasive cleaning agents
- Beveled edges

Note: for wireless version, must order receiver and transmitter separately

Certification:

NEMA rated

SPECIFICATIONS

Finish: US32D with text and/or blue logo

Faceplate: 16 gauge, 304 stainless steel

Backplate: 1/8" thick aluminum

Cherry Switch: Single-pole, 15A/COM/NO/NC contacts

Operating Temperature: -20° to 120°F (-30° to 49°C)

Fasteners: 6-32 x 1" and 8-32 x 1" Allen head mounting screws

OPTIONS

2-659-0167 Surface Mount Box for 4.5" Round Actuator

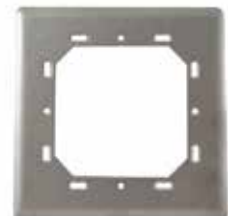
- Provides adequate space for wireless transmitters
- Simplified installation for applications with space limitations
- Black finish

2-659-0168 Weather Ring for 4.5" Round Actuator

- Provides protection against moisture and weather elements

2-659-0241 Universal Backplate

- For use when mounting actuator to bollard post
- Stainless steel finish



LOW ENERGY POWER OPERATOR ACTUATORS - 6" ROUND ACTUATOR

MODELS

- 2-659-0161 6" round with text & handicap logo
- 2-659-0162 6" round with handicap logo only

WARRANTY

One-year warranty

APPLICATION

- For use with ADA low energy power operators
- Ideal installations include medical facilities, assisted living facilities, offices, clean rooms, and schools

FEATURES

- Hard wired (standard) with wireless option
- Embossed graphics ensures durability
- Stainless steel faceplate provides durability while also reducing visible deterioration caused by abrasive cleaning agents
- Beveled edges

Note: for wireless version, must order receiver and transmitter separately

Certification: NEMA rated

SPECIFICATIONS

- Finish: US32D with text and/or blue logo
- Faceplate: 16 gauge, 304 stainless steel
- Backplate: 1/8" thick aluminum
- Cherry Switch: Single-pole, 15A/COM/NO/NC contacts
- Operating Temperature: -20° to 120°F (-30° to 49°C)
- Fasteners: 6-32 x 1" and 8-32 x 1" Allen head mounting screws

OPTIONS

- 2-659-0163 Surface Mount Box for 6" Round Actuator
 - Provides adequate space for wireless transmitters
 - Simplified installation for applications with space limitations
 - Black finish
- 2-659-0164 Weather Ring for 6" Round Actuator
 - Provides protection against moisture and weather elements





LOW ENERGY POWER OPERATOR ACTUATORS - 1.5" x 4.75" JAMB ACTUATOR

MODELS

2-659-0175
2-659-0176

Push to Open text and handicap logo
Handicap logo only

WARRANTY

One-year warranty

FEATURES

- Hard wired (standard) with wireless option
- Embossed graphics ensures durability
- Stainless steel faceplate provides durability while also reducing visible deterioration caused by abrasive cleaning agents
- Beveled edges

Note: for wireless version, must order receiver and transmitter separately

Certification:

- NEMA rated

SPECIFICATIONS

Finish:

US32D with text and/or blue logo

Faceplate:

16 gauge, 304 stainless steel

Backplate:

1/8" thick aluminum

Cherry Switch:

Single-pole, 15A/COM/NO/NC contacts

Operating Temperature:

-20° to 120°F (-30° to 49°C)

Fasteners:

6-32 x 1" and 8-32 x 1" Allen head mounting screws

OPTIONS

2-659-0177

Surface Mount Box for 1.5" x 4.75" Jamb Actuator

- Provides adequate space for wireless transmitters
- Simplified installation for applications with space limitations
- Black finish



LOW ENERGY POWER OPERATOR ACTUATORS - 36" LOW PROFILE ACTUATOR**MODELS**

2-659-0178 Push to Open text and handicap logo - Wireless
2-659-0179 Push to Open text and handicap logo - Hard wired

WARRANTY

One-year warranty

APPLICATION

- For use with ADA low energy power operators
- Ideal installations include medical facilities, assisted living facilities, offices, clean rooms, and schools

FEATURES

- Mounts to any flat surface
- Embossed graphics ensures durability
- Stainless steel faceplate provides durability while also reducing visible deterioration caused by abrasive cleaning agents
- Weather resistant
- Beveled edges
- 36" x 36" activation area and low profile 1" depth
- Four separate switches to allow activation from any angle
- Exceeds California Building Code, Section 1117B.6

Certification: NEMA Rated

SPECIFICATIONS

Finish: US32D with text and/or blue logo

Faceplate: 16 gauge, 304 stainless steel

Backplate: 1/8" thick aluminum

Transmitter
Frequencies: 433 MHz

Dimensions: 6" (152 mm) W x 36" (990 mm) H x 1 (25 mm) D

Fasteners: Due to various mounting types, no fasteners are supplied with the actuator





LOW ENERGY POWER OPERATOR ACTUATORS - 4.75" VESTIBULE ACTUATOR

MODEL

2-659-0242 | Push to Open text and logo

WARRANTY

One-year warranty

APPLICATION

- For use with ADA low energy power operators
- Ideal installations include medical facilities, assisted living facilities, offices, clean rooms, and schools

FEATURES

- Hard wired (standard) with wireless option
- Embossed graphics ensures durability
- 304 grade stainless steel finish - scratch resistant
- Interfaces with 2-659-0187 Programmable Relay and Door Sequencer for automatic sequencing applications
- Conserves energy and provides entrapment protection
- Beveled edges



SPECIFICATIONS

Finish: US32D with blue text and logo

Faceplate: 16 gauge, 304 stainless steel

Base Material: 1/8" thick aluminum

Cherry Switch: Single-pole, 15A, COM/NO/NC contacts

Compatible Wireless Frequencies: 433 MHz

Fasteners: 6 - 32" x 1", 8 - 32" x 1" stainless steel

OPTIONS

- 2-659-0243 | Surface Mount Box for 4.75" Vestibule Actuator
- Provides adequate space for wireless transmitters
 - Simplified installation for applications with space limitations
 - Black finish





LOW ENERGY POWER OPERATOR ACTUATORS - BOLLARD POST

MODELS

2-659-0180
2-659-0181
2-659-0182

Black Powder Coat
Bronze Powder Coat
Silver Powder Coat

WARRANTY

One-year warranty

FEATURES

- For use with Hager's 4.5" square (2-659-0172 | 2-659-0173) and 4.5" round (2-659-0165 | 2-659-0166) actuators
- Can be mounted on existing or newly poured concrete
- UV resistant plastic cap allows for wireless transmissions

SPECIFICATIONS

Material:	Carbon steel
Mounting Bracket:	Stainless steel
Dimensions:	41.5" H x 6.25" W x 4.25" D (with cap attached)
Weight:	35 lbs.
Fasteners:	Screws, expansion anchors, washers and nuts
Note:	Push plates not included - must order separately



Accessories



Accessories can make any ordinary installation unique. Hager offers different wireless transmitters and receivers that are commonly used in executive installations or other high automated installations.



ACCESSORIES



433 MHz Transmitters and Receiver



2-659-0237 RELAY BOARD

- 24VDC
- Current draw: 40mA
- Contact rating : 5amp/220 VAC or 28VDC DPDT contacts

- Universally compatible with any type of automatic door application
- Used for wireless activation or sequencing of doors
- Receiver can be programmed with up to 100 transmitters
- Activation of transmitter utilizes a rolling code providing a protected signal

MODELS



2-659-0183 433MHz Receiver



2-659-0185 9-Volt Wireless Transmitter (Hardwired to Hager Actuators)



2-659-0184 3-Volt Hard Wireless Transmitter (Hardwired to Hager Actuators)



2-659-0186 Wireless, One Button Transmitter

FEATURES

- Transmitters can be programmed to multiple receivers
- Optional delay - no delay programming
- Toggle or pulse mode selectable by DIP switch
- Red LED on receiver verifies transmission and delivers troubleshooting assistance
- Red LED on transmitter ensures transmission and battery life
- Wire leads plug into terminals on Hager actuators - 2-659-0184 and 2-659-0185

SPECIFICATIONS

Frequency:	433 MHz
Input Voltage:	12 to 24 VAC/VDC
Radio Control Type:	Digital
Emitted Radio Power:	-28.7dBm (transmitter)
Number of Transmitters per Receiver:	100 maximum transmitters
LED Functions:	Red = Relay Activity Blue = Receiver / Transmitter Learn
Dimensions:	Receiver - 2.75" x 2.125" x 1.0" Transmitter - 2.75" x 1.375" x 0.6"
Certifications:	CE, FCC, IC





ACCESSORIES



2-659-0240

Programmable Relay and Door Sequencer

- Provides a single solution for a variety of applications
- Three relays; two 3-AMP and one 1-AMP
- Built-in surge suppression eliminates the need for external components when installing electric locking devices
- Capable of door timing and advanced relay sequencing

FUNCTIONS

FUNCTION	SUBJECT	MOST COMMON APPLICATIONS
10 (MC10)	Simple Timer	Time delay relay
11 (MC11)	Ratchet / Latching	Push to open / Push to close
21 (LE21)	Inhibitor with Door Position Input	Automatic swing door with push plate, approach side SuperScan is inhibited when door is closed
22 (LE22)	2 relay Sequence Inhibitor with Door Position Input	Automatic swing door with push plate, approach side SuperScan and Electric Strike. SuperScan is inhibited when door is closed
25 (MC25)	2 Relay Sequence	Automatic swing door with a push plate and electric locking devices
28 (MC28)	2 Relay Sequence with Door Position Input	Automatic swing door with a push plate and electric locking devices with a door position switch to prevent the delay from running during a recycle
29 (MC29)	Relay 1 Deactivation Timer	Automatic swing door or sliding door with an electric locking device and door position switch to prevent lock from reengaging before door closes completely
35 (MC35)	3 Relay Sequence	Two door vestibule with automatic swing doors and single electric locking device
50 (M50)	Interlock Timer with Door Position Inputs	Interlock module that will only allow one door to open at a time and can be used with any automatic or manual door
55 (M55)	Interlock Ratchet with Door Position Inputs	Interlock module that will only allow one door to open at a time with a ratchet / latching function and can be used with any automatic or manual door
65 (M65)	2-Way, 2 Relay Sequence	Two door vestibule sequencing with automatic swing doors traveling in either direction
75 (MC75)	2 Relay Sequence	Automatic swing door with a push plate and electric locking devices

SPECIFICATIONS

Supply Voltage	12 to 24 VAC / DC
Power Consumption	30 to 130 mA; DRY Output
Temperature Range	-15° to 150°F
Dimensions	5.2" x 2.2" x 1.0"
Housing Material	Gray ABS Plastic
Input Specification	1 to 4; DRY Contact
WET Input	5 to 24 VAC / DC
Contact Rating DRY	Relay #1 3A @24VAC / 30VDC Relay #2 3A @24VAC / 30VDC Relay #3 1A @24VAC / 30VDC
Contact Rating WET	Relay #1 1A

Note: Functions 10, 11, 50, 55 and 65 are NOT compatible with the WET input.



One Family. One Brand. One Vision.™

www.hagerco.com

Trim & Auxiliary



At Hager Companies, we know all about the importance of adding the finishing touches to your building projects. That's why we're proud to offer more than 200 different trim & auxiliary door hardware products in a variety of designs, sizes, and finishes that not only look great, but also provide long-lasting wear in any application. Whatever you need, from pulls to push plates, protection plates to door edgings, wall and floor stops to flush bolts, coordinators, signage, and much more - Hager trim & auxiliary products give you great looks and proven durability.

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GENERAL INFORMATION

MANUFACTURING OPTIONS

Hager Companies can deliver custom door pulls made to your specifications, or choose from our collection of pull designs. Hager's comprehensive selection of door pull hardware includes standard push/pull bars or multiple push bar combinations with center-to-centers made to order.

PUSH/PULL PLATE DETAILS

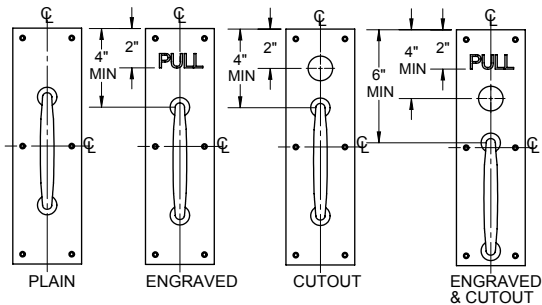
Standard Grip Positions

Pulls are centered vertically or lowered when necessary to meet minimum top spacing requirement. Be certain the pull selected will fit on specified plate under these conditions.

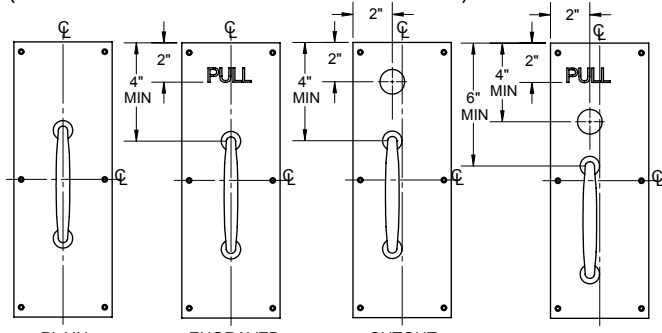
Special Pull Positions

Where pairs of doors are involved and active leaf pull plate is lettered or has a cutout, order pull plate for inactive leaf Grip To Align (WOC). This will ensure horizontal alignment of pull on both plates. Always furnish complete details when ordering non-standard pull positions.

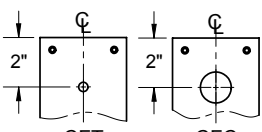
PULL PLATES UP TO 4" WIDE



PULL PLATES OVER 4" WIDE (HANDING REQUIRED WITH CUTOUTS)



Cut Outs



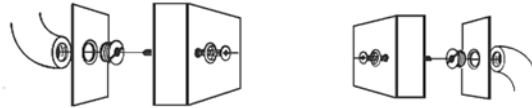
Standard cutout sizes: Cut for Cylinder (CFC) – 1 1/4" (32 mm) diameter; Cut for Thumbturn (CFT) – 3/8" (10 mm) diameter.

All plates may be ordered with cutout option by adding the appropriate suffix (i.e., 30S-CFC).

Standard cutouts are positioned 2" (51 mm) from top of plate where this option has been ordered. Cutouts are centered

on plates up to 4" (102 mm) wide or 2" (51 mm) from edge of plates over 4" (102 mm) wide. The latter are handed with cutouts. Furnish hand of door when ordering. Provide complete details for all non-standard cutouts.

Flush Back Mounting



Pull plates using #3, 4, or 10 pull types can be furnished with a flush back (no projections). Specify code FB, (i.e., 33E-FB). Note: Use thru bolts supplied with mountings for best security.

Back To Back Mounting

Many pulls may be ordered back to back (BTB) and availability will be noted on each particular product page (refer to product page). Specify the correct part number and center-to-center unless already specified.

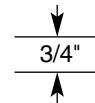
Handicap Option

Pulls that must meet the 2-1/2" (64 mm) clearance for ADA requirements are available. Must specify part number with prefix "H" (i.e., H2E). Please refer to each individual part number for availability.

Engraving

Typical engraved lettering is in Helvetica style and colored black. On push or pull plates, standard position is horizontal on a line 2" (51 mm) from top of plate.

PUSH PULL





GENERAL INFORMATION

Fasteners

Illustrated below are various types of fasteners that can be furnished by Hager Companies. Please specify type of fastening desired. All types of fastening cannot be used with all items of hardware. If specified method is not possible, we reserve the right to furnish whatever type we feel is best suited for the installation. When used with tempered glass doors, specify thickness of glass and hole diameter. Fasteners are standard for 1-3/4" doors. Other door thicknesses are optional.



Sex bolt and machine screws
(various sizes)



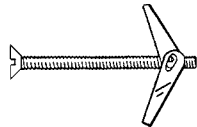
Lead anchor
(used with floor stops in masonry applications)



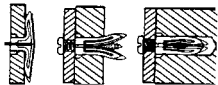
Plastic anchor and full threaded screw
(used in drywall or masonry applications)



Lag screw and shield



Toggle bolt
(ideal for drywall applications)



Plastic toggle anchor
(used with wall stops in drywall applications)



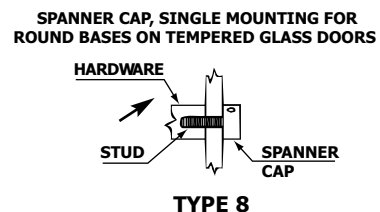
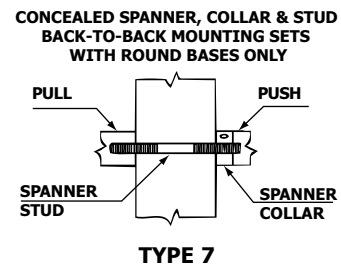
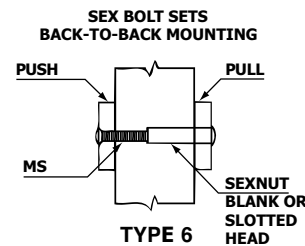
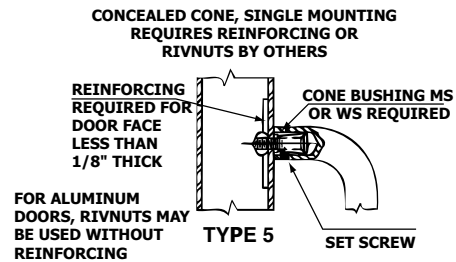
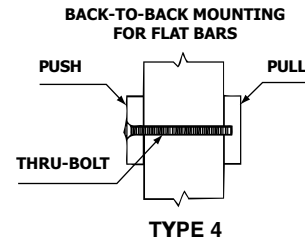
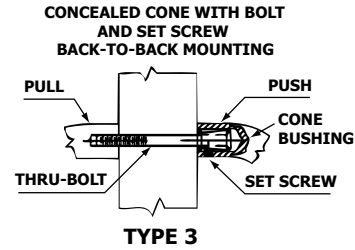
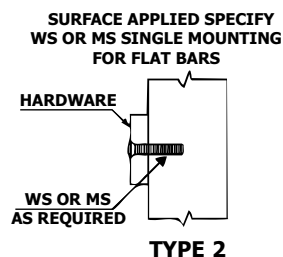
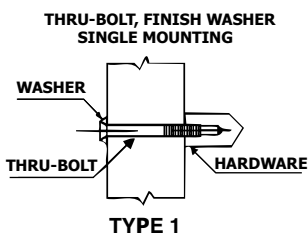
Thru-bolt and finish washer
(flat or oval head; size as required)



Spanner head machine screws
(various sizes furnished at extra charge)



Security torx head machine screws
(various sizes furnished at extra charge)



GENERAL INFORMATION

METAL FINISH SYMBOLS

US & Hager	Description	Base Material	BHMA Symbol
2C	Zinc Plated Steel	Steel	603
3	Bright Brass	Brass	605
4	Satin Brass	Brass	606
5	Satin Brass, Oxidized	Brass/Bronze	609
9	Bright Bronze	Brass/Bronze	611
10	Satin Bronze	Brass/Bronze	612
10B	Antique Bronze, Oiled	Brass/Bronze	613
10R	Matte Lacquer Antique Bronze	Brass/Bronze	-
15	Satin Nickel	Brass/Bronze	619
15A	Satin Nickel Oxidized	Brass/Bronze	620
19	Flat Black Coated	Brass	622
26	Bright Chromium Plated	Brass/Bronze	625
26D	Satin Chromium Plated	Brass/Bronze	626
28	Satin Anodized Aluminum	Aluminum	628
32	Stainless Steel Metal, Bright	300 Series	629
32D	Stainless Steel Metal, Satin	300 Series	630
L2	Duro	-	-
PC	Clear Plastic	-	-
PK	Plastic Laminate - Black	-	-
CO	Plastic Laminate - Chocolate	-	-
PG	Plastic Laminate - Grey	-	-
S1	Sprayed Aluminum	Cast Iron	-
S2	Sprayed Brass	Cast Iron	-
S3	Sprayed Bronze	Cast Iron	-

Note: For any finish not listed in this catalog, or explained above, availability on request.

ANTIMICROBIAL PROTECTION

Hager Companies' full line of US32D stainless steel door pulls, push bars, push plates, and pull plates are available with AgION antimicrobial protection.

Hager uses a powder coat process to apply the antimicrobial treated coating to guarantee durability and protection. Antimicrobial resistance on products is affected by moisture in the air. Silver ions interact with humidity and are released creating a cleaner surface. The suppression of bacteria, mold and fungi is as easy as adding antimicrobial treated coating to your Hager products.

Antimicrobial Vital Stats

- US32D stainless steel
- EPA registered
- NSF approved
- FDA listed for food contact
- Designate your product with: MV3 for Trim & Auxiliary





PULLS



1

Modified Half Round Wrought Door Pull

- Certification: Meets ANSI A156.6 for J401 Pulls
 Base: 1/2" x 1" (13 mm x 25 mm)
 Projection: 2" (51 mm)
 Clearance: 1-1/2" (38 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Handicap:
 - 2-1/2" (64 mm) clearance available on special orders
 - Add prefix "H" to number (i.e., H1E)
 Options:
 - May be combined with a plate to make a pull plate
 - Other centers on special order
 Notes:
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
 - Not suitable for back to back mounting

CTC Length	1E	1G	1J	1L
Inches	6	8	10	12
Millimeters	152	203	254	305



2

Rectangular Wrought Door Pull

- Certification: Meets ANSI A156.6 for J401 Pulls
 Base: 3/8" x 1-1/4" (10 mm x 32 mm)
 Projection: 2" (51 mm)
 Clearance: 1-5/8" (41 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Handicap:
 - 2-1/2" (64 mm) clearance available on special orders
 - Add prefix "H" to number (i.e., H2E)
 Options:
 - May be combined with a plate to make a pull plate
 - Other centers on special order
 Notes:
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
 - Not suitable for back to back mounting

CTC Length	2E	2G	2J	2L
Inches	6	8	10	12
Millimeters	152	203	254	305



3

Round Wrought Door Pull

- Certification: Meets ANSI A156.6 for J401 Pulls
 Base Diameter: 3/4" (19 mm)
 Projection: 2-1/4" (57 mm)
 Clearance: 1-1/2" (38 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Handicap:
 - 2-1/2" (64 mm) clearance available on special orders
 - Add prefix "H" to number (i.e., H3E)
 Notes:
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
 - May be combined with a plate to make a pull plate
 - Other centers on special order
 - If ordered with tempered glass, specify glass thickness and hole size
 - Back to back - see model 13

CTC Length	3E	3G	3J	3L
Inches	6	8	10	12
Millimeters	152	203	254	305



PULLS



4 Round Wrought Door Pull

Certification: Meets ANSI A156.6 for J401 Pulls
 Base Diameter: 1" (25 mm)
 Projection: 2-3/4" (70 mm)
 Clearance: 1-3/4" (45 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Handicap:

Notes:

- 2-1/2" (64 mm) clearance available on special orders
- Add prefix "H" to number (i.e., H4E)
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
- May be combined with a plate to make a pull plate
- Other centers on special order
- If ordered with tempered glass, specify glass thickness and hole size
- Back to back - see model 13

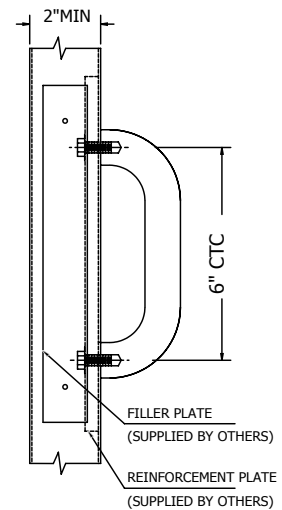
CTC Length	4G	4H	4J	4L
Inches	8	9	10	12
Millimeters	203	229	254	305



P4E Security Pull

Certification: Meets ANSI A156.6 for J401 Pulls
 Base: 1" (25 mm) diameter
 Projection: 2-1/4" (57 mm)
 Clearance: 1-1/4" (32 mm)
 CTC Length: 6" (152 mm)
 Material: Stainless steel
 Finish: US32D
 Fasteners: Two (2) 3/8-16 x 1-1/4" "NYLOC" hex head cap screws
 Notes:

- For metal doors
- Requires reinforcing plate with an access plate and Torx screws for door edge



T4E Security Pull

Certification: Meets ANSI A156.6 for J401 Pulls
 Base: 1" (25 mm) diameter
 Projection: 2-1/4" (57 mm)
 Clearance: 1-1/4" (32 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 CTC Length: 6" (152 mm)
 Material: Stainless steel
 Finish: US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FTXMS with finish washers





PULLS



5D

Round Wrought Door Pull

- Certification: Meets ANSI A156.6 for J401 Pulls
 Base Diameter: 5/8" (16 mm)
 Projection: 2-1/8" (54 mm)
 Clearance: 1-1/2" (38 mm)
 CTC Length: 5-1/2" (140 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Handicap:
 - 2-1/2" (64 mm) clearance available on special orders
 - Add prefix "H" to number (i.e., H5D)
 Notes:
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
 - May be combined with a plate to make a pull plate
 - If ordered with tempered glass, specify glass thickness and hole size
 - Not suitable for back to back mounting



5N

Cast Pull

- Certification: Meets ANSI A156.6 for J401 Pulls
 O/A Height: 6-1/8" (156 mm)
 Base: 5/8" x 1-3/16" (16 mm x 30 mm)
 Projection: 2" (51 mm)
 Clearance: 1-1/2" (38 mm)
 CTC Length: 5-1/2" (140 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Options: May be combined with a plate to make a pull plate
 Notes: Not suitable for back to back mounting



6N

Cast Pull

- Certification: Meets ANSI A156.6 for J401 Pulls
 O/A Height: 6-1/2" (165 mm)
 Base Diameter: 1" (25 mm)
 Projection: 1-7/8" (48 mm)
 Clearance: 1-3/8" (35 mm)
 CTC Length: 5-1/2" (140 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Options: May be combined with a plate to make a pull plate
 Notes: Not suitable for back to back mounting



PULLS



7N

Cast Pull

Certification: Meets ANSI A156.6 for J401 Pulls
 O/A Height: 7-1/2" (190 mm)
 Base Diameter: 2" (51 mm)
 Projection: 1-7/8" (48 mm)
 Clearance: 1-3/8" (35 mm)
 CTC Length: 5-1/2" (140 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze
 Finishes: US3, US4, US10, US10B, US26, US26D, US28
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Options: May be combined with a plate to make a pull plate
 Notes: Not suitable for back to back mounting



8N

Cast Pull

Certification: Meets ANSI A156.6 for J401 Pulls
 O/A Height: 7-1/2" (190 mm)
 Base Diameter: 2" (51 mm)
 Projection: 1-7/8" (48 mm)
 Clearance: 1-3/8" (35 mm)
 CTC Length: 5-1/2" (140 mm)
 Materials: Aluminum, brass, bronze
 Finishes: US3, US4, US10, US10B, US26, US26D, US28
 Fasteners: Six (6) #8 x 1" OPHWS
 Notes: Not suitable for back to back mounting



P8N

Cast Pull

Certification: Meets ANSI A156.6 for J401 Pulls
 O/A Height: 8 - 3/4" (222 mm)
 Base: 1-1/2" x 1-5/8" (38 mm x 41 mm)
 Projection: 2-1/4" (57 mm)
 Clearance: 1-9/16" (40 mm)
 CTC Length: 7-3/4" (197 mm)
 Materials: Brass
 Finishes: US4, US26D
 Fasteners: Two (2) 3/8-16 x 3/4" FPHMS
 Options: Security Torx screws available
 Notes: Not suitable for back to back mounting





PULLS



9

Oval Wrought Door Pull

- Certification: Meets ANSI A156.6 for J401 Pulls
 Base: 1/2" x 3/4" (13 mm x 19 mm)
 Projection: 2" (51 mm)
 Clearance: 1-1/2" (38 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US32, US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Handicap:
 - 2-1/2" (64 mm) clearance available on special orders
 - Add prefix "H" to number (i.e., H9E)
 Options:
 - May be combined with a plate to make a pull plate
 - Other centers on special order
 Notes:
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
 - Not suitable for back to back mounting

CTC Length	9E	9G	9J	9L
Inches	6	8	10	12
Millimeters	152	203	254	305



10

Round Pull

- Certification: Meets ANSI A156.6 for J401 Pulls
 Base Diameter: 1-1/4" (32 mm)
 Projection: 3" (76 mm)
 Clearance: 1-3/4" (45 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 5/16-18 FPHMS with finish washers
 Handicap:
 - 2-1/2" (64 mm) clearance available on special orders
 - Add prefix "H" to number (i.e., H10L)
 Options:
 - May be combined with a plate to make a pull plate
 - Other centers on special order
 - If ordered with tempered glass, specify glass thickness and hole size
 Notes:
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
 - Back to back - see model 20

CTC Length	10L	10Q
Inches	12	18
Millimeters	305	457



11

Round Offset Pull

- Certification: Meets ANSI A156.6 for J402 Pulls
 Base Diameter: 3/4" (19 mm)
 Projection: 2-1/2" (64 mm)
 Offset: 2-1/2" (64 mm); 90° Standard
 Clearance: 1-3/4" (45 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 5/16-18 x 2-1/4" FPHMS with finish washers
 Handicap:
 - 2-1/2" (64 mm) clearance available on special orders
 - Add prefix "H" to number (i.e., H11E)
 Options:
 - For 45° offset, add prefix "X" to number (i.e., X11E)
 - Other centers available on special orders
 - If ordered with tempered glass, specify glass thickness and hole size
 Notes:
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
 - Back to back - see model 21

CTC Length	11E	11G	11J	11L
Inches	6	8	10	12
Millimeters	152	203	254	305



PULLS



12
Round Offset Pull

Certification: Meets ANSI A156.6 for J402 Pulls
 Base Diameter: 1" (25 mm)
 Projection: 2-3/4" (70 mm)
 Offset: 3" (76 mm); 90° Standard
 Clearance: 1-3/4" (45 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 5/16-18 x 2-1/4" FPHMS with finish washers
 Handicap:

- 2-1/2" (64 mm) clearance available on special orders
- Add prefix "H" to number (i.e., H12G)
- For 45° offset, add prefix "X" to number (i.e., X12G)
- Other centers available on special orders
- If ordered with tempered glass, specify glass thickness and hole size

 Options:

- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

 Notes:

CTC Length	12G	12J	12L
Inches	8	10	12
Millimeters	203	254	305



13
Round Wrought Door Push/Pull Set

Certification: Meets ANSI A156.6 for J401 Pulls
 Base Diameter: 3/4" (19 mm)
 Projection: 2-1/4" (57 mm)
 Clearance: 1-1/2" (38 mm)
 Door Thickness: 1-3/4" (45 mm) - 2-1/8" (54 mm) Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Notes:

- Type 7 mounting - Standard
- Consists of two (2) pulls back to back
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
- Supplied with two (2) 1/4" dia. threaded studs, spanner collar, and spanner wrench

CTC Length	13E	13G	13J	13L
Inches	6	8	10	12
Millimeters	152	203	254	305



14
Round Wrought Door Push/Pull Set

Certification: Meets ANSI A156.6 for J401 Pulls
 Base Diameter: 1" (25 mm)
 Projection: 2-3/4" (70 mm)
 Clearance: 1-3/4" (45 mm)
 Door Thickness: 1-3/4" (45 mm) - 2-1/8" (54 mm) Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Notes:

- Type 7 mounting - Standard
- Consists of two (2) pulls back to back
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
- Supplied with two (2) 1/4" dia. threaded studs, spanner collar, and spanner wrench

CTC Length	14G	14H	14J	14L
Inches	8	9	10	12
Millimeters	203	229	254	305





PULLS



19N

Cast Pull

Certification: Meets ANSI A156.6 for J401 Pulls
 O/A Height: 9" (229 mm)
 Base Diameter: 1-1/2" (38 mm)
 Projection: 3-1/8" (79 mm)
 CTC Length: 6-3/16" (132 mm)
 Materials: Brass
 Finishes: US3, US10, US10B, US26, US26D
 Fasteners: Four (4) #8 x 1" OPHWS
 Notes: Suitable for back to back mounting with sex nuts by special quotation
 Clearance: 1-11/16" (43 mm)



20

Round Push/Pull Set

Certification: Meets ANSI A156.6 for J401 Pulls
 Base Diameter: 1-1/4" (32 mm)
 Projection: 3" (76 mm)
 Clearance: 1-3/4" (45 mm)
 Door Thickness: 1-3/4" (45 mm) - 2-1/8" (54 mm) Standard
 Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Notes:

CTC Length	20L	20Q
Inches	12	18
Millimeters	305	457

- Type 7 mounting - Standard
- Consists of two (2) pulls back to back
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
- Supplied with two (2) 5/16" dia. threaded studs, spanner collar, and spanner wrench



20N

Cast Pull

Certification: Meets ANSI A156.6 for J401 Pulls
 O/A Height: 9" (229 mm)
 Base Diameter: 1-1/2" (38 mm)
 Projection: 3-1/8" (79 mm)
 CTC Length: 5-7/32" (132.5 mm)
 Door Thickness: 1-3/4" - Standard
 Material: Brass
 Finishes: US3, US10, US10B, US26, US26D
 Fasteners: Two (2) 1/4 - 20 x 2-3/16" undercut FPHMS with finish washers
 Clearance: 1-11/16" (43 mm)



21

Round Offset Push/Pull Set

Certification: Meets ANSI A156.6 for J402 Pulls
 Base Diameter: 3/4" (19 mm)
 Projection: 2-1/2" (64 mm)
 Clearance: 1-3/4" (45 mm)
 Offset: 2-1/2" (64); 90° - Standard
 Door Thickness: 1-3/4" (45 mm) - 2-1/8" (54 mm) Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Notes:

CTC Length	21E	21G	21J	21L
Inches	6	8	10	12
Millimeters	152	203	254	305

- Type 7 mounting - Standard
- Consists of two (2) pulls back to back
- Available with 45 degree offset
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
- Supplied with two (2) 1/4" dia. threaded studs, spanner collar, and spanner wrench



PULLS



22

Round Offset Push/Pull Set

Certification: Meets ANSI A156.6 for J402 Pulls
 Base Diameter: 1" (25 mm)
 Projection: 2-3/4" (70 mm)
 Clearance: 1-3/4" (45 mm)
 Door Thickness: 1-3/4" (45 mm) - 2-1/18" (54 mm) Standard
 Offset: 3" (76 mm); 90° standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Notes:

- Type 7 mounting - Standard
- Consists of two (2) pulls back to back
- Available with 45 degree offset
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
- Supplied with two (2) 1/4" dia. threaded studs, spanner collar, and spanner wrench

CTC Length	22G	22J	22L
Inches	8	10	12
Millimeters	203	254	305



23Q

Round Offset Pull

Certification: Meets ANSI A156.6 for J402 Offset Pulls
 Base Diameter: 1-1/4" (32 mm)
 Projection: 3" (76 mm)
 Clearance: 1-3/4" (45 mm)
 Offset: 3-3/4" (96 mm); 90° Standard
 Door Thickness: 1-3/4" (45 mm) - Standard
 CTC Length: 18" (457 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: 5/16-18 x 2-1/4" FPHMS with finish washers
 Handicap:

- 2-1/2" (64 mm) clearance available on special orders
- Add prefix "H" to number (i.e., H23Q)

Options: For 45° offset, substitute "X" for first digit (i.e., X23Q)
 Notes:

- If ordered with tempered glass, specify glass thickness and hole size
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



24Q

Round Offset Push/Pull Set

Certification: Meets ANSI A156.6 for J402 Offset Pulls
 Base Diameter: 1-1/4" (32 mm)
 Projection: 3" (76 mm)
 Clearance: 1-3/4" (45 mm)
 Offset: 3-3/4" (95 mm); 90° standard
 Door Thickness: 1-3/4" (45 mm) - 2-1/18" (54 mm) Standard
 CTC Length: 18" (457 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Notes:

- Type 7 mounting - Standard
- Consists of two (2) pulls back to back
- Available with 45 degree offset
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
- Supplied with two (2) 5/16" dia. threaded studs, spanner collar, and spanner wrench





PULLS



910P | 910B

Offset Mounting Vertical Pull

Pull Diameter: 1-1/4" (32 mm)
 O/A Length: 36" (914 mm), 72" (1829 mm)
 CTC Lengths: 20" (508 mm), 56" (1422 mm)
 Materials: Aluminum, brass, bronze, stainless steel tubing
 Finishes: US3, US4, US10, US10B, US15A, US26, US26D, US28, US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers
 Notes:

- 910B is same as 910P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

Clearance: 1-1/2" (38 mm)
 Projection: 2-3/4" (70 mm)
 Offset: 1-5/8" (41 mm)



915P | 915B

Straight Mounting Vertical Pull

Pull Diameter: 1-1/4" (32 mm)
 O/A Length: 36" (914 mm), 72" (1829 mm)
 CTC Lengths: 20" (508 mm), 56" (1422 mm)
 Materials: Aluminum, brass, bronze, stainless steel tubing
 Finishes: US3, US4, US10, US10B, US15A, US26, US26D, US28, US32D
 Fasteners: Two (2) 3/8-16 FPHMS w/ finish washers
 Notes:

- 915B is same as 915P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

36" and 20"
 Clearance: 2" (51 mm)
 Projection: 3-1/4" (83 mm)

72" and 56"
 Clearance: 1-1/2" (38 mm)
 Projection: 2-3/4" (70 mm)



PULLS



920P | 920B

C-Shaped Pull

- Base Diameter: 1" (25 mm)
Clearance: 1-3/4" (45 mm)
Projection: 2-1/4" (57 mm)
CTC Length: 8-1/2" (217 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US15A, US26, US26D, US28, US32D
Fasteners: Two (2) 3/8-16 FPHMS with finish washers
Notes:
 - 920B is pair of 920P with fasteners for back to back mounting
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



921P | 921B

C-Shaped Pull

- Clearance: 1-1/2" (38 mm)
Offset: 8-1/2" (216 mm)
Projection: 2-1/8" (54 mm)
CTC Length: 17-1/2" (446 mm)
Materials: Brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US15A, US26, US26D, US32D
Fasteners: Two (2) 3/8-16 FPHMS with finish washers
Notes:
 - 921B is pair of 921P with fasteners for back to back mounting
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



922P | 922B

C-Shaped Pull - Continuous

- Pull Diameter: 1" (25 mm)
Projection: 2-1/2" (64 mm)
CTC Lengths: 10" (254 mm), 12" (305 mm)
Clearance: 1-1/2" (38 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US15A, US26, US26D, US28, US32D
Fasteners: Two (2) 3/8-16 FPHMS with finish washers
Notes:
 - 922B is pair of 922P with fasteners for back to back mounting
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



923P | 923B

C-Shaped Pull - Flanged

- Pull Diameter: 1" (25 mm)
Projection: 2-3/4" (70 mm)
CTC Lengths: 10" (254 mm), 12" (305 mm)
Clearance: 1-3/4" (44 mm)
Base Diameter: 3/4" (19 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US15A, US26, US26D, US28, US32D
Fasteners: Two (2) 3/8-16 FPHMS with finish washers
Notes:
 - 923B is pair of 923P with fasteners for back to back mounting
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability





PULLS



924P | 924B C-Shaped Pull

Projection: 2-1/2" (64 mm)
 CTC Length: 14" (356 mm)
 Clearance: 1-1/2" (38 mm)
 Offset: 6-1/2" (165 mm)
 Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10B, US15A, US26, US26D, US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers
 Notes:

- 924B is pair of 924P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



925P | 925B C-Shaped Pull

Pull Diameter: 1-1/4" (32 mm)
 CTC Lengths: 6-1/2" (165 mm), 8-1/2" (217 mm), 12-1/2" (318 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10B, US15A, US26, US26D, US28, US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers
 Notes:

- 925B is pair of 925P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



926P | 926B Curved Pull

Base Diameter: 1-1/4" (32 mm)
 Projection: 3" (76 mm)
 Clearance: 1-13/16" (46 mm)
 Offset: 5-9/32" (134 mm)
 Pull Diameter: 1-3/16" (30 mm)
 CTC Length: 12" (305 mm)
 Materials: Brass, bronze
 Finishes: US3, US4, US10, US10B
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers
 Notes:

- 926B is pair of 926P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



930P | 930B 90° Pull

Projection: 3" (76 mm)
 Clearance: 1-3/4" (45 mm)
 CTC Lengths: 14-5/32" - 16-31/32" (360 mm - 431 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10B, US15A, US26, US26D, US28, US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers
 Notes:

- 930B is pair of 930P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



PULLS



932P | 932B

S-Shaped Pull

- Projection: 3" (76 mm)
- Clearance: 2" (51 mm)
- Pull Diameter: 1" (25 mm)
- Fasteners: Two (2) 3/8-16 FPHMS w/ finish washers
- CTC Length: 30" (762 mm)
- Materials: Aluminum, brass, bronze, stainless steel
- Finishes: US3, US4, US10B, US15A, US26, US26D, US28, US32D
- Fasteners: Two (2) 3/8-16 FPHMS with finish washers
- Notes:
 - 932B is pair of 932P with fasteners for back to back mounting
 - Specify handing when ordering
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



933P | 933B

Colonial Style Pull

- Projection: 2-3/16" (56 mm)
- Clearance: 1-3/16" (30 mm)
- Pull Diameter: 1" (25 mm)
- Base Diameter: 15/16" (24 mm)
- CTC Length: 6" (152 mm)
- Materials: Brass and bronze
- Finishes: US3, US4, US10B, US26
- Fasteners: Two (2) 3/8-16 FPHMS with finish washers
- Notes: 933B is pair of 933P with fasteners for back to back mounting



934P | 934B

Offset Pull

- Projection: 3-1/8" (80 mm)
- Clearance: 1-7/8" (48 mm)
- Pull Diameter: 1-1/4" (32 mm)
- Base Diameter: 1" (25 mm)
- CTC Lengths: 12" (305 mm), 16" (406 mm), 18" (457 mm)
- Materials: Aluminum, brass, bronze, stainless steel
- Finishes: US3, US4, US10B, US15A, US26, US26D, US28, US32D
- Fasteners: Two (2) 3/8-16 FPHMS with finish washers
- Notes: 934B is pair of 934P with fasteners for back to back mounting



960P | 960B

Square Tip Pull

- O/A Height: 16" (406 mm)
- Base Diameter: 1-1/4" (32 mm)
- Pull Diameter: 1" (25 mm)
- Clearance: 1-3/4" (45 mm)
- Projection: 3-1/4" (83 mm)
- CTC Length: 12" (305 mm)
- Materials: Brass, bronze
- Finishes: US3, US4, US10B, US15A, US26, US26D
- Fasteners: Two (2) 3/8-16 FPHMS w/ finish washers
- Notes:
 - 960B is pair of 960P with fasteners for back to back mounting
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability





PULLS



961P | 961B

Steeple Tip Pull

O/A Height:	16-5/16" (414 mm)
Base Diameter:	2" (51 mm)
Pull Diameter:	1" (25 mm)
Clearance:	1-3/4" (45 mm)
Projection:	3" (76 mm)
CTC Length:	12" (305 mm)
Materials:	Brass, bronze
Finishes:	US3, US4, US10B, US15A, US26, US26D
Fasteners:	Two (2) 3/8-16 FPHMS with finish washers
Notes:	<ul style="list-style-type: none"> • 961B is pair of 961P with fasteners for back to back mounting • For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



962P

Acorn Tip Pull

O/A Height:	16-5/16" (414 mm)
Base Diameter:	2" (51 mm)
Pull Diameter:	1" (25 mm)
Projection:	3" (76 mm)
Clearance:	1-7/8" (48 mm)
CTC Length:	12" (305 mm)
Materials:	Brass, bronze
Finishes:	US3, US4, US10B, US15A, US26, US26D
Fasteners:	Two (2) 3/8-16 FPHMS with finish washers
Notes:	For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



963P

Acorn Pull - Offset

O/A Height:	16-5/16" (414 mm)
Pull Diameter:	1" (25 mm)
Projection:	2-3/4" (70 mm)
CTC Lengths:	12" (304 mm), 16" (406 mm), 18" (457 mm), 24" (610 mm), 30" (762 mm)
Materials:	Cast brass, bronze
Finishes:	US3, US4, US10B, US15A, US26, US26D
Fasteners:	Two (2) 3/8-16 FPHMS with finish washers
Notes:	For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



967P

Curved Pull

O/A Height:	20-1/2" (520 mm)
Projection:	5-9/16" (141 mm)
Clearance:	3-9/16" (90 mm)
CTC Length:	16" (406 mm)
Materials:	Brass, bronze
Finishes:	US3, US4, US10B, US15A, US26, US26D
Fasteners:	Two (2) 3/8-16 FPHMS with finish washers
Notes:	For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



PULLS



970P

Custom Push/Pull Set

Base Diameter: 1" (25 mm)
 Pull Projection: 3" (76 mm)
 Pull Clearance: 2" (51 mm)
 CTC Length: 13-1/4" (337 mm)
 Push Projection: 2-3/4" (70 mm)
 Push Clearance: 1-3/4" (45 mm)
 CTC Length: 34" (864 mm) or to suit door dimension
 Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US15A, US26, US26D, US32D
 Fasteners: 3/8 x 16 Type 3 mounting, concealed cone with 3/8 x 16 Type 2 thru bolts and finish washer

Notes:

- Pull or push bar can be ordered separately by quotation only
- Push bar radius can be custom made so the radius points in the downward direction
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



974P | 974B

Door Pull

Projection: 2-1/2" (64 mm)
 CTC Length: 12" (304 mm), 18" (457 mm), 24" (610 mm), 30" (762 mm), 36" (914 mm), 48" (1219 mm)

Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10B, US26, US26D, US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers

Notes:

- 974B is pair of 974P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



975P | 975B

Vertical Pull

Projection: 2-3/4" (70 mm)
 O/A Length: 36" (914 mm), 72" (1829 mm)
 CTC Length: 20" (508 mm), 56" (1422 mm)
 Pull Diameter: 1" (25 mm)

Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US15A, US26, US26D, US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers

Notes:

- 975B is pair of 975P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability





PULLS



976P | 976B

Door Pull - Offset

O/A Height: 29-1/2" (750 mm)
 Base Diameter: 1-1/4" (32 mm)
 Pull Diameter: 1-1/4" (32 mm)
 Projection: 5-3/8" (137 mm)
 Clearance: 4-1/8" (105 mm)
 Offset: 1-3/4" (45 mm)
 CTC Length: 19-13/16" (503 mm)
 Materials: Stainless steel
 Finish: US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers
 Notes:

- 976B is pair of 976P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



980P | 980B

Segment Shape - Straight

CTC Length: 9" (229 mm), 12" (305 mm), 18" (457 mm), 24" (610 mm)
 Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10B, US15A, US26, US26D, US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers
 Notes:

- 980B is pair of 980P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



981P | 981B

Segment Shape - Offset

Projection: 2-3/8" (60 mm)
 CTC Length: 9" (229 mm), 12" (305 mm), 18" (457 mm), 24" (610 mm)
 Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10B, US15A, US26, US26D, US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers
 Notes:

- 981B is pair of 981P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



982P | 982B

Straight Pull

Base Diameter: 1-5/16" (33 mm)
 Projection: 3-1/8" (79 mm)
 Clearance: 1-13/16" (46 mm)
 CTC Length: 20" (508 mm)
 Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10B, US15A, US26, US26D, US32D
 Fasteners: Two (2) 3/8-16 FPHMS with finish washers
 Notes:

- 982B is pair of 982P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



PULLS



983P | 983B

Curved Pull

- O/A Height: 21-1/4" (540 mm)
- Base Diameter: 1-1/4" (32 mm)
- Projection: 3-1/8" (79 mm)
- Clearance: 1-7/8" (48 mm)
- CTC Length: 20" (508 mm)
- Materials: Brass, bronze, stainless steel
- Finishes: US3, US4, US10B, US15A, US26, US26D, US32D
- Fasteners: Two (2) 3/8-16 FPHMS with finish washers
- Notes:
 - 983B is pair of 983P with fasteners for back to back mounting
 - Specify handing when ordering
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



984P | 984B

Curved Pull

- Projection: 3" (76 mm)
- CTC Lengths: 12" (305 mm), 20" (508 mm)
- Materials: Brass, bronze, stainless steel
- Finishes: US3, US4, US10B, US15A, US26, US32, US32D
- Fasteners: Two (2) 3/8-16 FPHMS with finish washers
- Notes:
 - 984B is pair of 984P with fasteners for back to back mounting
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



985P | 985B

Curved Pull

- O/A Height: 14" (356 mm)
- Base Diameter: 2" (51 mm)
- Projection: 3" (76 mm)
- Clearance: 1-9/16" (40 mm)
- Offset: 1-5/8" (41 mm)
- CTC Length: 12" (305 mm)
- Materials: Brass, bronze, stainless steel
- Finishes: US3, US4, US10B, US15A, US26, US26D, US32D
- Fasteners: Two (2) 3/8-16 FPHMS with finish washers
- Notes:
 - 985B is pair of 985P with fasteners for back to back mounting
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



986P | 986B

Curved Pull

- O/A Height: 22" (559 mm)
- Pull Diameter: 1-1/4" (32 mm)
- Base Diameter: 2" (51 mm)
- Projection: 3-7/8" (99 mm)
- Clearance: 2-5/8" (67 mm)
- Offset: 3" (76 mm)
- CTC Length: 20" (508 mm)
- Materials: Brass, bronze, stainless steel
- Finishes: US3, US4, US10B, US15A, US26, US26D, US32
- Fasteners: Two (2) 3/8-16 FPHMS with finish washers
- Notes:
 - 986B is pair of 986P with fasteners for back to back mounting
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability





PULLS



987P | 987B Double Curved Pull

Base Diameter: 1-1/4" (32 mm)

Projection: 3" (76 mm)

Clearance: 2" (51 mm)

CTC Length: 20" (508 mm)

Materials: Brass, bronze, stainless steel

Finishes: US3, US4, US10B, US15A, US26, US26D, US32D

Fasteners: Two (2) 3/8-16 FPHMS with finish washers

Notes:

- 987B is pair of 987P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



988P | 988B Offset Pull

Projection: 3" (76 mm)

CTC Length: 24" (610 mm)

Materials: Brass, bronze, stainless steel

Finishes: US3, US26, US32D

Fasteners: Two (2) 3/8-16 FPHMS with finish washers

Notes:

- 988B is pair of 988P with fasteners for back to back mounting
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



990P | 990B 18° Pull

Pull Diameter: 1" (25 mm)

Projection: 2-3/4" (70 mm)

Clearance: 1-3/4" (45 mm)

CTC Length: 24" (610 mm)

Materials: Brass, bronze, stainless steel

Finishes: US3, US4, US10B, US15A, US26, US26D, US32D

Fasteners: Two (2) 3/8-16 FPHMS with finish washers

Notes:

- 990B is pair of 990P with fasteners for back to back mounting
- Specify handing when ordering
- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

FLUSH CUP PULLS



15C

Heavy Duty Flush Cup Pull

Certification: Meets ANSI A156.6 for J403 Pulls
 Description: Cup welded to face plate
 Face: 3-1/2" x 5" (89 mm x 127 mm)
 Projection: 1/8" (3.2 mm)
 Opening: 1-3/4" x 3-1/16" (44 mm x 78 mm)
 Cup Clearance: 3/4" (19 mm)
 Materials: Stainless steel
 Finishes: US32D
 Fasteners: Four (4) #6 x 5/8" OPHWS



15N

Flush Cup Pull

Certification: Meets ANSI A156.6 for J403 Pulls
 Description: Cup welded to face plate
 Face: 3-1/2" x 5" (89 mm x 127 mm)
 Projection: 1/8" (3.2 mm)
 Opening: 1-3/4" x 3-1/16" (44 mm x 78 mm)
 Cup Clearance: 3/4" (19 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32D
 Fasteners: Four (4) #6 x 5/8" OPHWS



15P

Heavy Duty Security Flush Cup Pull

Certification: Meets ANSI A156.6 for J403 Pulls
 Description: Cup welded to face plate and welded studs for security torx thru-bolt mounting
 Face: 3-1/2" x 5" (89 mm x 127 mm)
 Projection: 1/8" (3.2 mm)
 Opening: 1-3/4" x 3-1/16" (44 mm x 78 mm)
 Cup Clearance: 3/4" (19 mm)
 Materials: Stainless steel
 Finishes: US32D
 Fasteners: Two (2) 6-32 x 1-1/2" FPHMS (Security Torx)
 Notes: For use on 1-3/4" (44 mm) doors



15S

Light Duty Flush Cup Pull

Certification: Meets ANSI A156.6 for J403 Pulls
 Description: Concealed mounting by screws within the recessed cup (similar to 16N or 17N)
 Face: 3-1/2" x 5" (89 mm x 127 mm)
 Projection: 1/8" (3.2 mm)
 Opening: 1-3/4" x 3-1/16" (44 mm x 78 mm)
 Cup Clearance: 3/4" (19 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32D
 Fasteners: Two (2) #6 x 5/8" PPHWS
 Notes: Fasteners concealed in cup





FLUSH CUP PULLS



16N

Light Duty Flush Cup Pull

Certification: Meets ANSI A156.6 for J403 Pulls
 Face: 1-15/16" x 3" (49 mm x 76 mm)
 Projection: 1/16" (1.5 mm)
 Opening: 27/32" x 2-3/8" (22 mm x 60 mm)
 Cup Clearance: 5/8" (16 mm)
 Materials: Brass
 Finishes: US3, US4, US10, US10B, US26, US26D
 Fasteners: Two (2) #8 x 3/4" OPHWS
 Notes: Fasteners concealed in cup



16R

Finger Pull Plate

Certification: Meets ANSI A156.6 for combination J301 Pull Plate and J403 Pulls
 Face: 4" x 16" (102 mm x 406 mm)
 Projection: .050" (1.3 mm)
 Opening: 1-3/4" x 3-1/16" (44 x 78 mm)
 Cup Clearance: 13/16" (21 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Ten (10) #6 x 5/8" OPHWS



17N

Light Duty Flush Cup Pull

Certification: Meets ANSI A156.6 for J403 Pulls
 Face: 2-1/2" x 3-31/32" (64 mm x 101 mm)
 Projection: 3/32" (2.4 mm)
 Opening: 1-11/32" x 3-13/32" (34 mm x 87 mm)
 Cup Clearance: 5/8" (16 mm)
 Materials: Brass
 Finishes: US3, US4, US10, US10B, US26, US26D
 Fasteners: Two (2) #8 x 13/16" OPHWS
 Notes: Fasteners concealed in cup



25B

Security Flush Pull Set

Certification: Meets ANSI A156.6 for J403 Pulls
 Face: 3-1/2" x 5" (89 mm x 127 mm)
 Opening: 1-3/4" x 3-1/16" (45 mm x 78 mm)
 Projection: 3/16" (5 mm)
 Cup Clearance: 3/4" (19 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Stainless steel
 Finishes: US32D
 Fasteners: Two (2) 6-32 x 1-1/2" FPHMS (Security Torx)
 Notes: Security pull thru-bolted to a 15P pull

FLUSH CUP PULLS



25C

Heavy Duty Flush Pull Set

Certification: Meets ANSI A156.6 for J403 Pulls
 Face: 3-1/2" x 5" (89 mm x 127 mm)
 Opening: 1-3/4" x 3-1/16" (45 mm x 78 mm)
 Projection: 1/8" (3 mm)
 Cup Clearance: 3/4" (19 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Stainless steel
 Finishes: US32D
 Fasteners: Two (2) 6-32 OPHMS sex nuts and bolts
 Notes: Consists of two (2) 15C pulls mounted back to back



25N

Flush Pull Set

Certification: Meets ANSI A156.6 for J403 Pulls
 Face: 3-1/2" x 5" (89 mm x 127 mm)
 Opening: 1-3/4" x 3-1/16" (45 mm x 78 mm)
 Projection: 1/8" (3 mm)
 Cup clearance: 3/4" (19 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32D
 Fasteners: Two (2) 6-32 OPHMS sex nuts and bolts
 Notes: Consists of two (2) 15N pulls mounted back to back



25P

Security Finger Push/Pull Plate Set

Certification: Meets ANSI A156.6 for combination J301 Push Plate and J403 Flush Pull
 Face: 4" x 16" (102 mm x 406 mm)
 Projection: 1/8" (3.2 mm)
 Opening: 1-3/4" x 3-1/16" (44 mm x 78 mm)
 Cup Clearance: 13/16" (21 mm)
 Materials: Stainless steel
 Finishes: US32D
 Fasteners: Six (6) 8-32 x 3/4" FPHMS (Security Torx) with sex nuts and bolts
 Notes: Consists of a 15 pull cup welded to a 100T push plate (Mounted in back to back fashion)



26N

Security Finger Pull

Certification: Meets ANSI A156.6 for J403 Pulls
 Face: 4" x 5" (102 mm x 127 mm)
 Projection: 1/8" (3.2 mm)
 Opening: 1-5/8" x 3" (41 mm x 76 mm)
 Cup Clearance: 13/16" (21 mm)
 Materials: Brass, stainless steel
 Finishes: US4, US26D, US32D
 Fasteners: Four (4) 1/4-20 x 3/4" Undercut FPHMS (Security Torx)
 Notes: Cup welded to face





FLUSH CUP PULLS



27N

Security Flush Cup Pull

Certification: Meets ANSI A156.6 for J403 Pulls
Face: 5" x 5" (127 mm x 127 mm)
Projection: 3/8" (9.5 mm)
Opening: 3" x 3-1/2" (76 mm x 89 mm)
Cup Clearance: 7/8" (22 mm)
Materials: Stainless steel
Finishes: US32D
Fasteners: Four (4) 10-24 FPHMS (Security Torx) sex nuts and bolts (compatible with 1-3/4" doors only)
Notes:

- ADA Compliant
- Not available for back to back mounting



27P

Security Flush Cup Pull

Certification: Meets ANSI A156.6 for J403 Pulls
Face: 5" x 5" (127 mm x 127 mm)
Projection: 3/8" (9.5 mm)
Opening: 3" x 3-1/2" (76 mm x 89 mm)
Cup Clearance: 7/8" (22 mm)
Materials: Stainless steel
Finishes: US32D
Fasteners: Four (4) 1/4-20 x 3/4" Undercut FPHMS (Security Torx)
Notes:

- ADA Compliant
- Not available for back to back mounting

PULL PLATES



30, 40, 50 Series

Pull Plate

Gauge: 0.050" (1.3 mm)
 Certification: Meets ANSI A156.6 for J405 Pull Plate



80, 90, 100 Series

Pull Plate

Gauge: 0.125" (3.2 mm)
 Certification: Meets ANSI A156.6 for J407 Pull Plate



A30, A40, A50 Series

Pull Plate

Gauge: 0.062" (1.6 mm)
 Certification: Meets ANSI A156.6 for J405 Pull Plate

Materials:
 Standard Sizes:

Aluminum, brass, bronze, stainless steel
 3" x 12" (76 mm x 305 mm), 3-1/2" x 15" (89 mm x 381 mm), 4" x 16" (102 mm x 406 mm), 6" x 16" (152 mm x 406 mm)*, 8" x 16" (203 mm x 406 mm)* - *(size not available for 50 and A50 Series)

Fasteners:
 Finishes:

Six (6) #6 x 5/8 OPH tapping screws
 US3, US4, US10, US10B, US26, US26D, US28, US32, US32D and diamond tread – available for the A30 in US26 only

Notes:

- For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability
- Plate only - does not include pull

How To Order:

- 1) Identify plate (ex: 30 Series)
- 2) Add pull (ex.: 3G)
- 3) Add to order (ex: 33G)

Pull Plate Chart									
Pull	30, 40, 50 Series			A30, A40, A50 Series			80, 90, 100 Series		
	Square Corner	Radius Corner	Rounded Corner	Square Corner	Radius Corner	Rounded Corner	Square Corner	Radius Corner	Rounded Bevel
Pull Plate Part Number									
1E	31E	41E	51E	A31E	A41E	A51E	81E	91E	101E
1G	31G	41G	51G	A31G	A41G	A51G	81G	91G	101G
1J	31J	41J	51J	A31J	A41J	A51J	81J	91J	101J
1L	31L	41L	51L	A31L	A41L	A51L	81L	91L	101L
2E	32E	42E	52E	A32E	A42E	A52E	82E	92E	102E
2G	32G	42G	52G	A32G	A42G	A52G	82G	92G	102G
2J	32J	42J	52J	A32J	A42J	A52J	82J	92J	102J
2L	32L	42L	52L	A32L	A42L	A52L	82L	92L	102L
3E	33E	43E	53E	A33E	A43E	A53E	83E	93E	103E
3G	33G	43G	53G	A33G	A43G	A53G	83G	93G	103G
3J	33J	43J	53J	A33J	A43J	A53J	83J	93J	103J
3L	33L	43L	53L	A33L	A43L	A53L	83L	93L	103L
4G	34G	44G	54G	A34G	A44G	A54G	84G	94G	104G
4J	34J	44J	54J	A34J	A44J	A54J	84J	94J	104J
4L	34L	44L	54L	A34L	A44L	A54L	84L	94L	104L
5D	35D	45D	55D	A35D	A45D	A55D	85D	95D	105D
5N	35N	45N	55N	A35N	A45N	A55N	85N	95N	105N
6N	36N	46N	56N	A36N	A46N	A56N	86N	96N	106N
9E	39E	49E	59E	A39E	A49E	A59E	89E	99E	109E
9G	39G	49G	59G	A39G	A49G	A59G	89G	99G	109G
9J	39J	49J	59J	A39J	A49J	A59J	89J	99J	109J
9L	39L	49L	59L	A39L	A49L	A59L	89L	99L	109L





PULL PLATES



313L

Antivandal Trim with Latchguard

- Certification: Meets ANSI A156.6 for J401 Pull and ANSI A156.6 for J407 Pull Plate
 Size: 7-13/32" x 11" (188 mm x 280 mm)
 Height: 11" (280 mm)
 Projection: 1-7/8" (48 mm)
 Clearance: 1-5/8" (41 mm)
 Door Thickness: 1-3/4" – 2" (45 mm - 51 mm)
 Materials: 11 gauge stainless steel
 Finishes: US32D
 Fasteners: 1/4-20 FPHMS with finish washers - Standard
 Options:

Notes:

- Cylinder cutout available - 1-1/4" (32 mm) diameter standard for exit device use and 1-1/2" (38 mm) diameter standard for mortise lock use
- Plastisol grip available
- For use with most mortise locks on out-swinging doors
- For use with many exit devices (thru bolts directly to device)
- Cylinders must be ordered separately
- When mounting trim to a Hager exit device, cylinder collar (2-649-0137) must be purchased to ensure proper installation (see instructions for more detail)
- When mounting trim to a Hager exit device, a 7/16" (11 mm) tall cylinder collar must be purchased when using a 1-1/4" - 1-3/8" (32 mm - 35 mm) long rim cylinder (see instructions for more detail)



313S

Antivandal Trim

- Certification: Meets ANSI A156.6 for J401 Pull and ANSI A156.6 for J407 Pull Plate
 Size: 6-11/32" x 11" (161 mm x 280 mm)
 Height: 11" (280 mm)
 Projection: 1-7/8" (48 mm)
 Clearance: 1-5/8" (41 mm)
 Door Thickness: 1-3/4" – 2" (45 mm - 51 mm)
 Materials: 11 gauge stainless steel
 Finishes: US32D
 Fasteners: 1/4-20 FPHMS with finish washers - Standard
 Options:

Notes:

- Cylinder cutout available - 1-1/4" (32 mm) diameter standard for exit device use and 1-1/2" (38 mm) diameter standard for mortise lock use
- Plastisol grip available
- For use with most mortise locks on in-swinging and out-swinging doors
- For use with many exit devices (thru bolts directly to device)
- Cylinders must be ordered separately
- When mounting trim to a Hager exit device, cylinder collar (2-649-0137) must be purchased to ensure proper installation (see instructions for more detail)
- When mounting trim to a Hager exit device, a 7/16" (11 mm) tall cylinder collar must be purchased when using a 1-1/4" - 1-3/8" (32 mm - 35 mm) long rim cylinder (see instructions for more detail)

PUSH PLATES



30S | A30S

Square Corner - Beveled Push Plate

Certification: Meets ANSI A156.6 for J301 Push Plate
 Gauge: • 30S - 0.050" (1.3 mm)
 • A30S - 0.062" (1.6 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC) or engraved "PUSH"
 Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

Available in Sizes					
Inches	3 x 12	3-1/2 x 15	4 x 16	6 x 16	8 x 16
Millimeters	76 x 305	89 x 38	102 x 406	152 x 406	203 x 406



40R | A40R

Radius Corner - Non-Beveled Push Plate

Certification: Meets ANSI A156.6 for J301 Push Plate
 Gauge: • 40R - 0.050" (1.3 mm)
 • A40R - 0.062" (1.6 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC) or engraved "PUSH"
 Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

Available in Sizes					
Inches	3 x 12	3-1/2 x 15	4 x 16	6 x 16	8 x 16
Millimeters	76 x 305	89 x 38	102 x 406	152 x 406	203 x 406



50T | A50T

Round Corner - Non-Beveled Push Plate

Certification: Meets ANSI A156.6 for J301 Push Plate
 Gauge: • 50T - 0.050" (1.3 mm)
 • A50T - 0.062" (1.6 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC) or engraved "PUSH"
 Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

Available in Sizes			
Inches	3 x 12	3-1/2 x 15	4 x 16
Millimeters	76 x 305	89 x 38	102 x 406



PUSH PLATES



60S

Square Corner - Beveled Push Plate

Certification: Meets ANSI A156.6 for J304 Push Plate
Gauge: 0.125" (3.2 mm)
Materials: Plastic laminate
Finishes: PG - Grey, PK - Black, CO - Brown
Fasteners: Six (6) #6 x 5/8" OPH tapping screws
Options: May be ordered cut for cylinder (CFC) or engraved "PUSH"
Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

Available in Sizes					
Inches	3 x 12	3-1/2 x 15	4 x 16	6 x 16	8 x 16
Millimeters	76 x 305	89 x 38	102 x 406	152 x 406	203 x 406



70S

Square Corner - Beveled Push Plate

Certification: Meets ANSI A156.6 for J304 Push Plate
Gauge: 0.125" (3.2 mm)
Materials: Clear plastic laminate
Finishes: PC - Clear
Fasteners: Six (6) #6 x 5/8" OPH tapping screws
Options: May be ordered cut for cylinder (CFC) or engraved "PUSH"
Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

Available in Sizes					
Inches	3 x 12	3-1/2 x 15	4 x 16	6 x 16	8 x 16
Millimeters	76 x 305	89 x 38	102 x 406	152 x 406	203 x 406



80S

Square Corner - Beveled Push Plate

Certification: Meets ANSI A156.6 for J304 Push Plate
Gauge: 0.125" (3.2 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
Fasteners: Six (6) #6 x 5/8" OPH tapping screws
Options: May be ordered cut for cylinder (CFC) or engraved "PUSH"
Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

Available in Sizes					
Inches	3 x 12	3-1/2 x 15	4 x 16	6 x 16	8 x 16
Millimeters	76 x 305	89 x 38	102 x 406	152 x 406	203 x 406

PUSH PLATES



90R

Radius Corner - Non-Beveled Push Plate

Certification: Meets ANSI A156.6 for J304 Push Plate
Gauge: 0.125" (3.2 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
Fasteners: Six (6) #6 x 5/8" OPH tapping screws
Options: May be ordered cut for cylinder (CFC) or engraved "PUSH"
Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

Available in Sizes					
Inches	3 x 12	3-1/2 x 15	4 x 16	6 x 16	8 x 16
Millimeters	76 x 305	89 x 38	102 x 406	152 x 406	203 x 406



100T

Square Corner - Rounded Bevel Top and Bottom Push Plate

Certification: Meets ANSI A156.6 for J304 Push Plate
Gauge: 0.125" (3.2 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
Fasteners: Six (6) #6 x 5/8" OPH tapping screws
Options: May be ordered cut for cylinder (CFC) or engraved "PUSH"
Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

Available in Sizes					
Inches	3 x 12	3-1/2 x 15	4 x 16	6 x 16	8 x 16
Millimeters	76 x 305	89 x 38	102 x 406	152 x 406	203 x 406



110S

Half Circle Push Plate

Certification: Meets ANSI A156.6 for J301 Push Plate
Plate: 8" x 16" (203 mm x 406 mm)
Gauge: 0.050" (1.3 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10B, US26, US26D, US28, US32, US32D
Fasteners: Six (6) #6 x 5/8" OPH tapping screws
Options: May be ordered cut for cylinder (CFC) or engraved "PUSH"
Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability





PUSH PLATES



120L

Pull Plate with Lip - Non-Beveled

- Certification: Meets ANSI A156.6 for J303 Plate
 Plate: 3-1/2" x 16" (89 mm x 406 mm)
 Lip Projection: 1-1/8" (29 mm)
 Gauge: 0.125" (3.2 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options:
 - Other sizes available, please specify
 - May be ordered cut for cylinder (CFC) or engraved
 Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



121L

Cylinder Pull - Beveled

- Plate: 2" x 3-3/4" (51 mm x 95 mm)
 Lip Projection: 1-1/8" (29 mm)
 Cylinder Cutout: 1-1/4" (32 mm) diameter
 Gauge: 0.125" (3.2 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Attached by lock cylinder
 Notes:
 - 1/4"-20 x 3/8" stud installed on reverse side to eliminate twisting
 - For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability



122L

Security Pull/Push Plate Set - Beveled

- Certification: Meets ANSI A156.6 for combination J304 Push Plate and J303 Flush Pull
 Push Plate: 4" x 16" (102 mm x 406 mm)
 Pull Plate: 4" x 9-1/4" (102 mm x 235 mm)
 Lip Projection: 2-1/8" (54 mm)
 Gauge: 0.125" (3.2 mm)
 Materials: Stainless steel
 Finishes: US32D
 Fasteners: Four (4) 8-32 FPHMS (Security Torx) sex nuts and bolts
 Two (2) 8-32 x 1/2" FPHMS (Security Torx)
 Notes: For sizes or finishes not listed in this catalog, contact Hager Customer Service for availability

PUSH BARS



125S **Bent Push Bar**

Certification: Meets ANSI A156.6 for J501 Push Bar
Bar Size: 3/8" x 1-1/4" (10 mm x 32 mm)
Projection: 2-1/8" (54 mm)
Base Plate: 1" x 3" (25 mm x 76 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US28, US32, US32D
Fasteners: Two (2) #8 x 3/4" FPH tapping screws and one (1) 1/4 - 20 OPHMS
Options: May be ordered with thru bolts in place of surface screws



126S **Push Bar**

Certification: Meets ANSI A156.6 for J501 Push Bar
Bar Size: 3/8" x 1-1/4" (10 mm x 32 mm)
Projection: 2-1/8" (54 mm)
Base Plate: 1" x 3" (25 mm x 76 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US28, US32, US32D
Fasteners: Four (4) #8 x 3/4" FPH tapping screws
Options: May be ordered with thru bolts in place of surface screws



127S **Push Bar**

Certification: Meets ANSI A156.6 for J501 Push Bar
Bar Size: 3/8" x 1-1/4" (10 mm x 32 mm)
Projection: 3/4" (19 mm)
Base Plate: 1-1/4" x 1-1/4" (32 mm x 32 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US28, US32, US32D
Fasteners: Two (2) 1/4-20 FPHMS
Options: May be ordered with thru bolts in place of surface screws



128P **Wide Push Bar**

Certification: Meets ANSI A156.6 for J501 Push Bar
Bar Size: 3/8" x 3" (10 mm x 76 mm)
Projection: 2-1/8" (54 mm)
Base Plate: 1-1/2" x 4-1/2" (38 mm x 114 mm)
Materials: Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
Fasteners: Eight (8) #8 x 3/4" FPH tapping screws





PUSH BARS



128S **Wide Push Bar**

Certification: Meets ANSI A156.6 for J501 Push Bar
 Bar Size: 3/8" x 3" (10 mm x 76 mm)
 Projection: 2" (51 mm)
 Base Plate: 1-1/2" x 4-1/2" (38 mm x 114 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 1/4 - 20 x 2-1/4" FPHMS with finish washers
 Notes: 128S is same as 128P, but without base plates



129P **Wide Push Bar**

Certification: Meets ANSI A156.6 for J501 Push Bar
 Bar Size: 3/8" x 3" (10 mm x 76 mm)
 Projection: 3/4" (19 mm)
 Base Plate: 1" x 3" (25 mm x 76 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 x 1-1/4" FPHMS
 Options:

- May be ordered with thru bolts in place of surface screws
- #14 Flat head wood screws available on special order



130S **Round Push Bar**

Certification: Meets ANSI A156.6 for J501 Push Bar
 Bar Stock: 1" (25 mm)
 Projection: 2-1/2" (64 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 x 20 x 2-1/4" FPHMS with finish washers
 Options: May be ordered with Type 5 concealed mountings at extra charge



131S **Round Push Bar**

Certification: Meets ANSI A156.6 for J501 Push Bar
 Bar Stock: 1" (25 mm)
 Projection: 2-5/8" (67 mm)
 Base Diameter: 2" (51 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers
 Options: May be ordered with Type 5 concealed mountings at extra charge

PUSH BARS



133S

Round Push Bar

Certification: Meets ANSI A156.6 for J501 Push Bar
 Bar Stock: 3/4" (19 mm)
 Projection: 2-1/4" (57 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 1/4 - 20 x 2-1/4" FPHMS with finish washers



134S

Round Push Bar

Certification: Meets ANSI A156.6 for J501 Push Bar
 Bar Stock: 3/4" (19 mm)
 Projection: 2-3/8" (60 mm)
 Base Diameter: 1-1/4" (32 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 1/4 - 20 x 2-1/4" FPHMS with finish washers
 Options: May be ordered with Type 5 concealed mountings at extra charge



136S

Round Push Bar

Certification: Meets ANSI A156.6 for J501 Push Bar
 Bar Stock: 1-1/4" (32 mm)
 Projection: 3" (76 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 5/16 - 18 x 2-1/4" FPHMS with finish washers
 Options: May be ordered with Type 5 concealed mountings at extra charge



137S

Round Push Bar

Certification: Meets ANSI A156.6 for J501 Push Bar
 Bar Stock: 1-1/4" (32 mm)
 Projection: 3-1/8" (79 mm)
 Base Diameter: 2" (51 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 5/16 - 18 x 2-1/4" FPHMS with finish washers
 Options: May be ordered with Type 5 concealed mountings at extra charge



PUSH & PULL BAR SETS



138P **Round Push/Pull Set**

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 1" (25 mm)
 Projection: 2-1/2" (64 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 Type 3 concealed cone



139P **Round Push/Pull Set**

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 3/4" (19 mm)
 Projection: 2-1/4" (60 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 1/4-20 Type 3 concealed cone



140P **Round Push/Pull Set**

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 1-1/4" (32 mm)
 Projection: 3" (76 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Fasteners: Two (2) 5/16-18 Type 3 concealed cone



150D | 150V | 150B **Round Push/Pull Set***

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 3/4" (19 mm)
 Projection: 2-1/4" (57 mm)
 Pull CTC: 8" (203 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D

*
D = Standard Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 1/4-20 Type 1 connections for other ends of push bar and pull.
V = Fully Concealed Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 1/4-20 Type 5 connections for ends of push bar and pull.
B = Tempered Glass Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 1/4-20 Type 8 connections for ends of push bar and pull plus gaskets that separate metal parts from glass.

PUSH & PULL BAR SETS



151D | 151V | 151B

Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 3/4" (19 mm)
 Projection: 2-1/4" (57 mm)
 Pull CTC: 10" (254 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D



152D | 152V | 152B

Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 3/4" (19 mm)
 Projection: 2-1/4" (57 mm)
 Pull CTC: 12" (305 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D



153D | 153V | 153B

Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 1" (25 mm)
 Projection: 2-1/2" (64 mm)
 Pull CTC: 10" (254 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D



154D | 154V | 154B

Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 1" (25 mm)
 Projection: 2-1/2" (64 mm)
 Pull CTC: 12" (305 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D

*

D = Standard Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 1/4-20 Type 1 connections for other ends of push bar and pull.

V = Fully Concealed Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 1/4-20 Type 5 connections for ends of push bar and pull.

B = Tempered Glass Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 1/4-20 Type 8 connections for ends of push bar and pull plus gaskets that separate metal parts from glass.





PUSH & PULL BAR SETS



155D | 155V | 155B Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 1" (25 mm)
 Projection: 2-1/2" (64 mm)
 Pull CTC: 18" (457 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D



156D | 156V | 156B Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J505 Bar Sets
 Bar Stock: 3/4" (19 mm) diameter
 Pull Bar Projection: 2-1/2" (64 mm)
 Push Bar Projection: 2-1/4" (57 mm)
 Pull CTC: 8" (203 mm)
 Offset: 2-1/2" (64 mm), 90° Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Options: For 45° offset pull, add prefix "X" (i.e., X156D) to number
 Notes: Non-reversible; specify handing



157D | 157V | 157B Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J505 Bar Sets
 Bar Stock: 3/4" (19 mm) diameter
 Pull Bar Projection: 2-1/2" (64 mm)
 Push Bar Projection: 2-1/4" (57 mm)
 Pull CTC: 10" (254 mm)
 Offset: 2-1/2" (64 mm), 90° Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Options: For 45° offset pull, add prefix "X" (i.e., X157D) to number
 Notes: Non-reversible; specify handing



158D | 158V | 158B Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J505 Bar Sets
 Bar Stock: 3/4" (19 mm) diameter
 Pull Bar Projection: 2-1/2" (64 mm)
 Push Bar Projection: 2-1/4" (57 mm)
 Pull CTC: 12" (305 mm)
 Offset: 2-1/2" (64 mm), 90° Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Options: For 45° offset pull, add prefix "X" (i.e., X158D) to number
 Notes: Non-reversible; specify handing

*

D = Standard Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 5/16-18 Type 1 connections for other ends of push bar and pull.

V = Fully Concealed Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 5/16-18 Type 5 connections for ends of push bar and pull.

B = Tempered Glass Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 5/16-18 Type 8 connections for ends of push bar and pull plus gaskets that separate metal parts from glass.

PUSH & PULL BAR SETS



159D | 159V | 159B

Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J505 Bar Sets
 Bar Stock: 1" (25 mm)
 Projection: 2-1/2" (64 mm)
 Pull CTC: 10" (254 mm)
 Offset: 3" (76 mm), 90° Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Options: For 45° offset pull, add prefix "X" to number (i.e., X159D)
 Notes: Non-reversible; specify handing



160D | 160V | 160B

Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J505 Bar Sets
 Bar Stock: 1" (25 mm)
 Projection: 2-1/2" (64 mm)
 Pull CTC: 12" (305 mm)
 Offset: 3" (76 mm), 90° Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Options: For 45° offset pull, add prefix "X" to number (i.e., X160D)
 Notes: Non-reversible; specify handing



161D | 161V | 161B

Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J505 Bar Sets
 Bar Stock: 1" (25 mm)
 Projection: 2-1/2" (64 mm)
 Pull CTC: 18" (457 mm)
 Offset: 3" (76 mm), 90° Standard
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Options: For 45° offset pull, add prefix "X" to number (i.e., X161D)
 Notes: Non-reversible; specify handing



164D | 164V | 164B

Round Push/Pull Set*

Certification: Meets ANSI A156.6 for J504 Bar Sets
 Bar Stock: 1-1/4" (32 mm)
 Projection: 3" (76 mm)
 Pull CTC: 12" (305 mm)
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D

*

D = Standard Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 5/16-18 Type 1 connections for other ends of push bar and pull.

V = Fully Concealed Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 5/16-18 Type 5 connections for ends of push bar and pull.

B = Tempered Glass Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 5/16-18 Type 8 connections for ends of push bar and pull plus gaskets that separate metal parts from glass.





PUSH & PULL BAR SETS



165D | 165V | 165B

Round Push/Pull Set*

Certification:	Meets ANSI A156.6 for J504 Bar Sets
Bar Stock:	1-1/4" (32 mm)
Projection:	3" (76 mm)
Pull CTC:	18" (457 mm)
Materials:	Aluminum, brass, bronze, stainless steel
Finishes:	US3, US4, US10, US10B, US28, US32, US32D



167D | 167V | 167B

Round Push/Pull Set*

Certification:	Meets ANSI A156.6 for J505 Bar Sets
Bar Stock:	1-1/4" (32 mm)
Projection:	3" (76 mm)
Pull CTC:	18" (457 mm)
Offset:	3-3/4" (96 mm), 90° Standard
Materials:	Aluminum, brass, bronze, stainless steel
Finishes:	US3, US4, US10, US10B, US28, US32, US32D
Notes:	Non-reversible; specify handing



170D

Push/Pull Set

Certification:	Meets ANSI A156.6 for J502 Bar Sets
Bar Stock:	3/8" x 1-1/4" (10 mm x 32 mm)
Pull Bar Projection:	2-1/2" (64 mm)
Push Bar Projection:	3/4" (19 mm)
Base:	1-1/4" x 1-1/4" (32 x 32 mm)
Horizontal Spacing CTC:	8" (203 mm)
Materials:	Aluminum, brass, bronze, stainless steel
Finishes:	US3, US4, US10, US10B, US28, US32, US32D
Notes:	<ul style="list-style-type: none"> • Bars are mounted back to back with 1/4"-20 thru bolt type 4 mounting • Non-reversible; specify handing

*

D = Standard Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 5/16-18 Type 1 connections for other ends of push bar and pull.

V = Fully Concealed Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 5/16-18 Type 5 connections for ends of push bar and pull.

B = Tempered Glass Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 5/16-18 Type 8 connections for ends of push bar and pull plus gaskets that separate metal parts from glass.

All push bar units are made to order. Specify CTC lengths, fastening method unless standard, and type of door (WO, HM, AL, etc.).

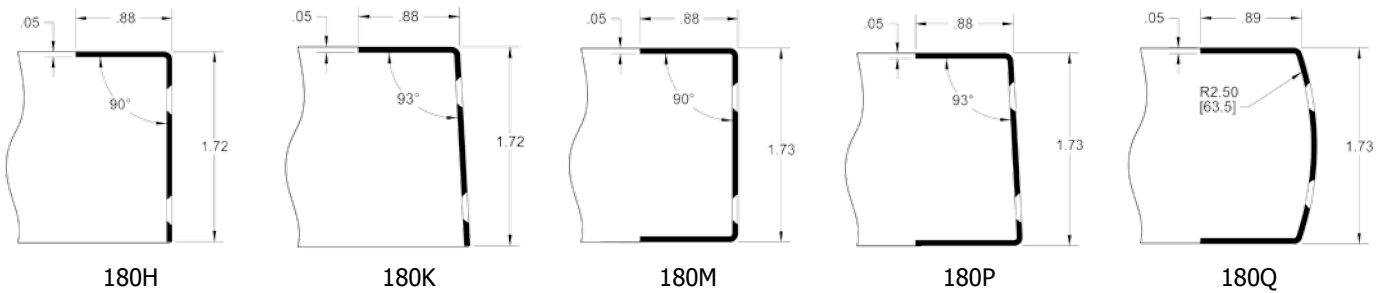


DOOR EDGINGS & CORNER GUARDS

180H | 180K | 180M | 180P | 180Q

Mortise Door Edging

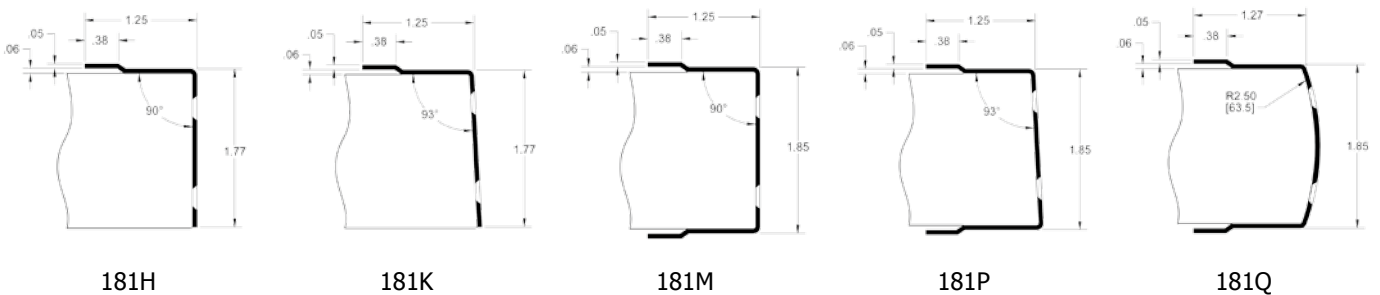
- Certification: Meets ANSI A156.6 Door Edging Type J201 through J212
 Standard Length: 36" – 42" (914 mm – 1067 mm)
 Materials: Aluminum, stainless steel
 Gauge: 0.045" - 0.050" (1.1 mm - 1.3 mm)
 Finishes: US28, US32D
 Fasteners: #6 x 3/4" FPH tapping screws
 Options:
 - Other lengths by quotation
 - Hinge cutout available
 - Latch cutout available
 - UL rated edging available
 Order:
 - Provide actual rather than typical door thickness
 - Provide item #, size and finish (i.e., 180H - 40"-32D)
 Notes:
 - Cutout will hand edging; specify handing information
 - Standard edge guards are made for 1-3/4" +0, -1/32" thick doors



181H | 181K | 181M | 181P | 181Q

Overlap Door Edging

- Certification: Meets ANSI A156.6 Door Edging Type J201 through J212
 Standard Length: 36" – 42" (914 mm – 1067 mm)
 Materials: Aluminum, stainless steel
 Gauge: 0.045" - 0.050" (1.1 mm - 1.3 mm)
 Finishes: US28, US32D
 Fasteners: #6 x 3/4" FPH tapping screws
 Options:
 - Other lengths by quotation
 - Hinge cutout available
 - Latch cutout available
 - UL rated edging available
 Order:
 - Provide actual rather than typical door thickness
 - Provide item #, size and finish (i.e., 181H - 40"-32D)
 Notes:
 - Cutout will hand edging; specify handing information
 - Standard edge guards are made for 1-3/4" +0, -1/32" thick doors



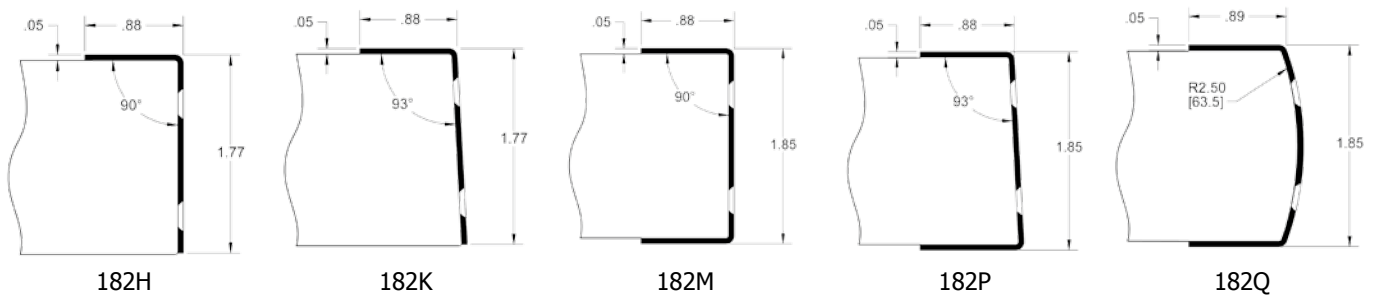


DOOR EDGINGS & CORNER GUARDS

182H | 182K | 182M | 182P | 182Q

Non-Mortise Door Edging

- Certification: Meets ANSI A156.6 Door Edging Type J201 through J212
- Standard Length: 36" – 42" (914 mm – 1067 mm)
- Materials: Aluminum, stainless steel
- Gauge: 0.045" - 0.050" (1.1 mm - 1.3 mm)
- Finishes: US28, US32D
- Fasteners: #6 x 3/4" FPH tapping screws
- Options:
- Other lengths by quotation
 - Hinge cutout available
 - Latch cutout available
 - UL rated edging available
- Order:
- Provide actual rather than typical door thickness
 - Provide item #, size and finish (i.e., 182H - 40"-32D)
- Notes:
- Cutout will hand edging; specify handing information
 - Standard edge guards are made for 1-3/4" +0, -1/32" thick doors



185G

Corner Guard

- Certification: Meets ANSI A156.6 for J210
- Size: 3" x 3" x 40" (76 mm x 76 mm x 1016 mm)
- Gauge: 0.050" (1.3 mm)
- Materials: Aluminum, stainless steel
- Finishes: US28, US32D
- Fasteners: #6 x 5/8" FPHSMS self drilling screws
- Options: Mounting with double-stick tape instead of screws
- Notes:
- 90° bend standard
 - Other lengths by quotation

DOOR PROTECTION PLATES



Door Protection Plates

The metal door protection plates below meet ANSI A156.6 for J101 Metal Armor Plate, J102 Metal Kickplate, and J103 Metal Mop Plate. The plastic door protection plates below meet ANSI A156.6 for J105 Plastic Armor Plate, J106 Plastic Kickplate, and J107 Plastic Mop Plate. Options for all plates include countersunk holes, UL armor plate stamped, self-adhesive tape, spanner head screws, torx head screws, round corners, wrap around side and bottom return, and 0.125" (3.2 mm) material. All plates below are supplied standard with #6 x 5/8" truss head screws (unless specified otherwise). They are available in mop plate, kick plate, stretcher plate, and armor plate sizes.

- Mop Plate:** Protects the bottom of the pull side of doors subject to cleaning and mopping procedures.
Kick Plate: Protects the bottom of the push side of doors subject to scuffing from foot traffic.
Stretcher Plate: Protects doors in specific areas where constant contact is made by stretchers, service carts, or other equipment.
Armor Plate: Protects lower half of doors from abuse by carts, trucks, and rough usage.

NFPA 80 STANDARD 6.4.5.1/6.4.5.2 /6.4.5.3 Protection Plates

- Factory installed protection plates shall be installed in accordance with the listing of the door.
- Field installed protection plate shall be labeled and installed in accordance with their listing.
- Labeling is not required where the top of the protection plate is not more than 16" (406 mm) above the bottom of the door.

190S

Thickness: 0.050" (1.3 mm)
 U.S. Gauge: 18
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D
 Bevel: 4 edges
 Options: UL Listed for US32 and US32D*

198S

Thickness: 0.038" (0.8 mm)
 U.S. Gauge: 20
 Materials: Stainless steel
 Finishes: US32D
 Options: UL Listed*

199B

Thickness: 0.038" (0.8 mm)
 U.S. Gauge: 20
 Materials: Aluminum
 Finishes: Bright gold anodized
 Fasteners: #6 x 5/8" TPH Tapping Screws

204S

Thickness: 0.125" (3.2 mm)
 Materials: Clear plastic
 Bevel: 4 edges

214S

Thickness: 0.125" (3.2 mm)
 Materials: Plastic laminate
 Bevel: 4 edges
 Colors: Black, Brown, Grey
 Notes: Other colors are available and will be subject to minimum order quantities; priced on application

220S

Thickness: 0.062" (1.6 mm)
 U.S. Gauge: 16
 Materials: Aluminum, brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US28, US32, US32D, (Diamond tread available in .063" polished aluminum only)
 Bevel: 4 edges

225S

Thickness: 0.060" (1.9 mm)
 Materials: Kydex®
 Colors: CBO - Calcutta Black, KGO - Beige, KHO - Chocolate
 Notes: Other colors are available and will be subject to minimum order quantities; priced on application
 Options: UL Listed*

*Must specify UL stamp. UL labeling not required when top of plate is less than 16" above the bottom of the door. Screw fasteners only.





WALL STOPS & HOLDERS



230W Convex Wall Stop

- Certification: Meets ANSI A156.16 for L02101
 Diameter: 2-15/32" (63 mm)
 Projection: 1-3/32" (28 mm)
 Materials: Cast brass, bronze with grey rubber bumper
 Finishes: US3, US4, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: One (1) #10 x 1-1/2" PPHWS with plastic and toggle anchor.
 Notes:
 - Concealed tamper proof mounting
 - Easy installation by inserting screwdriver through small hole in bumper
 - Specify 230T for machine screw and toggle nut screwpack (10 pk)



232W | BL232W Convex Wall Stop

- Certification: Meets ANSI A156.16 for L02101
 Diameter: 2-7/16" (62 mm)
 Projection: 1" (25 mm)
 Materials: Wrought brass, bronze, stainless steel with grey rubber bumper
 Finishes: US3, US4, US5, US9, US10, US10B, US15, US15A, US19, US26, US26D, US32, US32D
 Fasteners: One (1) #10 x 1-1/2" PPHWS with plastic and toggle anchor
 Notes:
 - Concealed tamper proof mounting
 - Easy installation by inserting screwdriver through small hole in bumper
 - Specify 230T for machine screw and toggle nut screwpack (10 pk)
 - BL232W is 232W case quantity 50



234W Concave Wall Stop

- Certification: Meets ANSI A156.16 for L02251
 Diameter: 2-15/32" (63 mm)
 Projection: 1-3/32" (28 mm)
 Materials: Cast brass, bronze with grey rubber bumper
 Finishes: US3, US4, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: One (1) #10 x 1-1/2" PPHWS w/ plastic and toggle anchor
 Notes:
 - Easy installation by inserting screwdriver through small hole in rubber bumper
 - Concealed tamper proof mounting
 - Concave rubber bumper prevents damage to locksets with projecting buttons
 - Specify 230T for machine screw and toggle nut screwpack (10 pk)



236W | BL236W Concave Wall Stop

- Certification: Meets ANSI A156.16 for L02251
 Diameter: 2-7/16" (75 mm)
 Projection: 1" (25 mm)
 Materials: Wrought brass, bronze, stainless steel with grey rubber bumper
 Finishes: US3, US4, US5, US9, US10, US10B, US15, US15A, US19, US26, US26D, US32, US32D
 Fasteners: One (1) #10 x 1-1/2" PPHWS w/ plastic and toggle anchor
 Notes:
 - Easy installation by inserting screwdriver through small hole in rubber bumper
 - Concealed tamper proof mounting
 - Concave rubber bumper prevents damage to locksets with projecting buttons
 - Specify 230T for machine screw and toggle nut screwpack (10 Pk)
 - BL236W is 236W case quantity 50

WALL STOPS & HOLDERS



250W

Convex Wall Stop

Diameter: 1" (25 mm)
 Projection: 9/16" (14 mm)
 Materials: Cast brass
 Finishes: US3, US4, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: One (1) #6 x 3/4" screw with plastic anchor and one (1) 0.052 diameter nail
 Notes:

- Concealed mounting screw prevents vandalism
- For use on drywall
- Compact design



251W

Concave Wall Stop

Diameter: 1-7/8" (48 mm)
 Projection: 25/32" (20 mm)
 Materials: Adhesive backed rubber bumper
 Finish: Grey only
 Notes:

- Concave bumper prevents damage to locksets with projecting buttons
- For areas where concealed mounting is not required
- Adhesive backing for use on clean smooth flat surfaces only



254S

Wall Stop & Holder

Certification: Meets ANSI A156.16 for L01341
 Base Diameter: 2-11/32" (60 mm)
 Base Projection: 3-1/2" (89 mm)
 Engaged Projection: 5-19/32" (142 mm)
 Keeper: 1" x 2" (25 mm x 51 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US4, US10, US10B, US15, US26, US26D
 Fasteners: Five (5) #10 x 1" FPHWS, and three (3) plastic anchors
 Notes:

- For use on drywall
- Manual holder ideal for interior and exterior applications
- Unit functions as a stop, but can serve as a "Hold Open" when hook is manually engaged
- Ideal for use with locksets with a projection of 3-5/16" (84 mm) or less



254W

Wall Stop & Holder

Certification: Meets ANSI A156.16 for L01351
 Base Diameter: 2-11/32" (60 mm)
 Base Projection: 3-1/2" (89 mm)
 Engaged Projection: 5-19/32" (142 mm)
 Keeper: 1" x 2" (25 mm x 51 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US4, US10, US10B, US15, US26, US26D
 Fasteners: Three (3) #10 x 1" FPH tapping screw, one (1) plastic anchor, one (1) 5/16-18 x 2-1/2" threaded stud, and one (1) 5/16-18 lead anchor
 Notes:

- For use on concrete walls
- Manual holder ideal for interior and exterior applications
- Unit functions as a stop, but can serve as a "Hold Open" when hook is manually engaged
- Ideal for use with locksets with a projection of 3-5/16" (84 mm) or less



WALL STOPS & HOLDERS



255S

Wall Stop

- Certification: Meets ANSI A156.16 for L02011
 Base Diameter: 2-11/32" (60 mm)
 Projection: 3-11/16" (94 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US4, US10, US10B, US15, US26, US26D
 Fasteners: Three (3) #10 x 1" OPHWS and three (3) plastic anchors
 Notes:
 - For use on drywall
 - Ideal for interior and exterior applications
 - Heavy duty - for use in high traffic areas
 - Ideal for use with locksets with a projection of 3" (76 mm) or less



255W

Wall Stop

- Certification: Meets ANSI A156.16 for L02021
 Base Diameter: 2-11/32" (60 mm)
 Projection: 3-11/16" (94 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US4, US10, US10B, US15, US26, US26D
 Fasteners: One (1) #10 x 1" OPHWS, one (1) plastic anchor, one (1) 5/16-18 lead anchor, one (1) 5/16-18 x 2-1/2" threaded stud, one (1) 5/16-18 x 2-1/2" combo threaded stud
 Notes:
 - For use on concrete walls
 - Ideal for interior and exterior applications
 - Heavy duty - for use in high traffic areas
 - Ideal for use with locksets with a projection of 3" (76 mm) or less



256S

Manual Wall Stop & Holder

- Certification: Meets ANSI A156.16 for L01341
 Base Diameter: 2-1/4" (57 mm)
 Base Projection: 3-3/4" (95 mm)
 Engaged Projection: 5-11/16" (145 mm)
 Keeper: 25/32" x 1-1/2" (20 mm x 38 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US10, US10B, US15, US26, US26D
 Fasteners: Three (3) #10 x 1" OPHWS and three (3) plastic anchors
 Notes:
 - For use on drywall
 - Ideal for interior and exterior applications
 - Heavy duty - for use in high traffic areas
 - Unit functions as a stop, but can serve as a "Hold Open" when hook is manually engaged
 - Ideal for use with locksets with a projection of 3" (76 mm) or less

WALL STOPS & HOLDERS



256W

Manual Wall Stop & Holder

Certification: Meets ANSI A156.16 for L01351
Base Diameter: 2-1/4" (57 mm)
Base Projection: 3-3/4" (95 mm)
Engaged Projection: 5-11/16" (145 mm)
Keeper: 25/32" x 1-1/2" (20 mm x 38 mm)
Materials: Cast brass with black rubber bumper
Finishes: US3, US10, US10B, US15, US26, US26D
Fasteners: One (1) #10 x 1" OPHWS, one (1) plastic anchor, one (1) 5/16-18 lead anchor, one (1) 5/16-18 x 2-1/2" threaded stud, and one (1) 5/16-18 x 2-1/2" combo threaded stud

- Notes:**
- For use on concrete walls
 - Ideal for interior and exterior applications
 - Heavy duty - for use in high traffic areas
 - Unit functions as a stop, but can serve as a "Hold Open" when hook is manually engaged
 - Ideal for use with locksets with a projection of 3" (76 mm) or less



260W

Angled Wall Stop

Certification: Meets ANSI A156.16 for L02201
Base: 2-3/16"x 2-15/16" (56 mm x 75 mm)
Projection: 3-21/32" (93 mm)
Materials: Cast brass with black rubber bumper
Finishes: US26D
Fasteners: Three (3) #14 x 1-1/2" FPHWS, three (3) 1/4-20 x 3/4" FPHMS, three (3) plastic anchors, and three (3) 1/4-20 lead anchors

- Notes:**
- For use with drywall or concrete walls
 - Sloping design resists vandalism
 - Ideal for use with locksets with a projection of 3" (76 mm) or less



324W

Light Duty Wall Bumper

Certification: Meets ANSI A156.16 for L02031
Base Diameter: 1-1/4" (32 mm)
Projection: 3-1/4" (83 mm)
Tip Diameter: 5/8" (16 mm)
Materials: Cast brass, bronze with white rubber tip
Finishes: US3, US4, US5, US10, US10B, US15, US15A, US19, US26, US26D
Fastener: #10 x 7/8" wood thread

- Notes:**
- Replaceable rubber tip available
 - Hex shape near the tip allows usage of a wrench for easier installation



WALL STOPS & HOLDERS



326W

Automatic Wall Stop & Holder

Certification: Meets ANSI A156.16 for L01293
 Holder Base: 2-13/32" x 2-25/32" (61 mm x 71 mm)
 Holder Projection: 2-5/16" (59 mm)
 Engaged Projection: 3-5/8" (92 mm)
 Strike Base: 1" x 2-1/16" (25 mm x 52 mm)
 Strike Projection: 2" (51 mm)
 Keeper: 1" x 2" (25 mm x 51 mm)
 Materials: Cast brass
 Finishes: US3, US10, US10B, US26, US26D
 Fasteners: Five (5) #10 x 1" OPHWS, three (3) 10-24 x 1-1/4" FPHMS, and three (3) plastic anchors

Notes:

- For use with wood or metal doors
- Holder is mounted on the door
- Roller is spring loaded to seat on strike - heavy duty rubber pad dampens sound and shock
- Ideal for use with locksets with a projection of 3" (76 mm) or less



327W

Automatic Wall Stop & Holder

Certification: Meets ANSI A156.16 for L11291
 Holder Base: 3-1/16" x 3-1/2" (78 mm x 89 mm)
 Holder Projection: 1-15/16" (49 mm)
 Engaged Projection: 3-1/2" (89 mm)
 Strike Diameter: 2-3/8" (60 mm)
 Strike Projection: 3-1/16" (78 mm)
 Materials: Cast brass
 Finishes: US3, US4, US10, US10B, US26, US26D
 Fasteners: Three (3) #14 x 1-1/2" FPHWS, three (3) 1/4-20 x 3/4" FPHMS, four (4) 12-24 x 1" TPHMS, four (4) #12 x 1" TPHWS, and three (3) 1/4-20 lead anchors

Notes:

- For use with wood or metal doors
- For use with drywall or concrete walls
- Roller is spring loaded to seat on strike - heavy duty rubber pad dampens sound and shock
- Strike is adjustable 45° left or right
- Holder has vertical adjustment once mounted on the door
- Ideal for use with locksets with a projection of 3" (76 mm) or less
- For doors up to 500 lbs

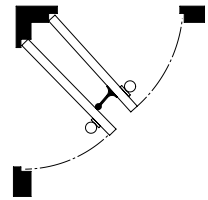


ROLLER STOPS



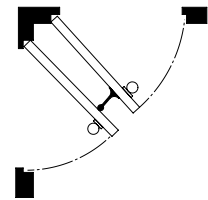
271W Roller Bumper

- Certification: Meets ANSI A156.16 for L02193
 Base Diameter: 2" (51 mm)
 Projection: 4-1/2" (114 mm)
 Materials: Cast brass with grey rubber roller
 Finishes: US3, US10, US10B, US26, US26D
 Fasteners: Three (3) #10 x 1" FPHWS and three (3) plastic anchors
 Notes:
 - For use when two doors swing into each other at right angles (back to back)
 - Prevents damage to the door and door hardware



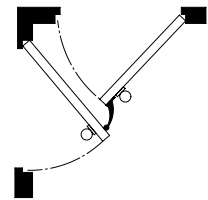
272W Roller Bumper

- Certification: Meets ANSI A156.16 for L02193
 Base Diameter: 2" (51 mm)
 Projection: 6-1/4" (159 mm)
 Materials: Cast brass with grey rubber roller
 Finishes: US3, US10, US10B, US26, US26D
 Fasteners: Three (3) #10 x 1" FPHWS, and three (3) plastic anchors
 Notes:
 - For use when two doors swing into each other at right angles (back to back)
 - Prevents damage to the door and door hardware



273W Curved Roller Bumper

- Certification: Meets ANSI A156.16 for L12213
 Projection: 2-21/32" (67 mm)
 Materials: Cast brass with grey rubber roller
 Finishes: US3, US4, US10, US10B, US26, US26D
 Fasteners: Three (3) #10 x 1" FPHWS and three (3) plastic anchors
 Notes:
 - Used when two doors swing into each other at odd angles
 - Prevents damage to the door and door hardware





FLOOR STOPS & HOLDERS



241F | BL241F

Dome Stop - Low

- Certification: Meets ANSI A156.16 for L02142
 Base Diameter: 1-11/16" (43 mm)
 Base Thickness: 1/8" (3.2 mm)
 Overall Height: 1" (25 mm)
 Materials: Cast brass with grey rubber bumper
 Finishes: US3, US4, US5, US9, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: One (1) #14 x 1-1/2" FPHWS, one (1) 1/4-20 x 3/4" FPHMS, one (1) 1/4-20 lead anchor, and one (1) plastic anchor
- Notes:
- To be used independently or in conjunction with 246B
 - For use when no threshold is used (door not undercut)
 - For use with wood or concrete floors
 - BL241F is 241F case quantity 50



242F

Dome Stop - Universal

- Certification: Meets ANSI A156.16 for L02162
 Base Diameter: 1-11/16" (43 mm)
 Base Thickness: 7/32" (5.5 mm)
 Overall Height: 1-5/8 (41 mm)
 Materials: Brass with grey rubber bumper
 Finishes: US3, US4, US10B, US15, US26, US26D
 Fasteners: One (1) #14 x 1-1/2" FPHWS, one (1) 1/4-20 x 3/4" FPHMS, one (1) 1/4-20 lead anchor, and one (1) plastic anchor
- Notes: For use with wood or concrete floors



243F | BL243F

Dome Stop - High

- Certification: Meets ANSI A156.16 for L02162
 Base Diameter: 1-11/16" (43 mm)
 Base Thickness: 7/16" (11 mm)
 Overall Height: 1-9/32" (33 mm)
 Materials: Cast brass with grey rubber bumper
 Finishes: US3, US4, US5, US9, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: One (1) #14 x 1-1/2" FPHWS, one (1) 1/4-20 x 1-1/4" FPHMS, one (1) 1/4-20 lead anchor, and one (1) plastic anchor
- Notes:
- For use with thresholds or undercut doors
 - For use with wood or concrete floors
 - BL243F is 243F case quantity 50



244F

Cast Floor Stop

- Certification: Meets ANSI A156.16 for L02141
 Base: 1-3/4" x 4" (45 mm x 102 mm)
 Base Thickness: 5/32" (4 mm)
 Overall Height: 1" (25 mm)
 Materials: Cast brass with grey rubber bumper
 Finishes: US3, US4, US10, US10B, US26, US26D
 Fasteners: Two (2) #14 x 1-1/2" FPHWS, two (2) 1/4-20 x 3/4" FPHMS, two (2) 1/4-20 lead anchor, and two (2) plastic anchor
- Notes:
- Heavy duty - for use in high traffic areas
 - For use when no thresholds are used (door not undercut)
 - For use with wood or concrete floors



FLOOR STOPS & HOLDERS



245F

Cast Floor Stop

Certification: Meets ANSI A156.16 for L02161
 Base: 1-3/4" x 4" (45 mm x 102 mm)
 Base Thickness: 1/2" (13 mm)
 Overall Height: 1-5/16" (33 mm)
 Materials: Cast brass with grey rubber bumper
 Finishes: US3, US4, US10, US10B, US26, US26D
 Fasteners: Two (2) #14 x 1-1/2" FPHWS, two (2) 1/4-20 x 1-1/4" FPHMS, two (2) 1/4-20 lead anchor, and two (2) plastic anchor

Notes:

- Heavy duty - for use in high traffic areas
- For use with thresholds and undercut doors
- For use on wood or concrete floors



246B

Dome Stop Riser Plate

Diameter: 1-3/4" (45 mm)
 Thickness: 3/8" (10 mm)
 Fasteners: One (1) 1/4-20 x 1" FPHMS
 Materials: Cast brass
 Finishes: US3, US4, US10, US10B, US15, US15A, US19, US26, US26D
 Notes: For use with 241F on undercut doors, doors with thresholds, and carpeted flooring



248F

Modern Style Universal Stop

Base Diameter: 1-7/16" (37 mm)
 Height: 1-1/2" (38 mm)
 Materials: Brass with black rubber bumper
 Finishes: US26, US26D
 Fasteners: One (1) #12 x 1-1/4" FPHWS, one (1) plastic anchor, one (1) 1/4-20 x 1" FPHMS, and one (1) 1/4-20 lead anchor



248G

Modern Style Universal Stop

Base Diameter: 1-7/16" (37 mm)
 Height: 1-1/2" (38 mm)
 Materials: Brass with grey rubber bumper
 Finishes: US26D
 Fasteners: One (1) #12 x 1-1/4" FPHWS with plastic anchor and one (1) 1/4-20 x 1" FPHMS with lead anchor



249F

L-Shaped Floor Stop

Base: 1" x 2-1/2" x 7/32" thick (25 mm x 64 mm x 6 mm)
 Base Thickness: 1/4" (6 mm)
 Overall Height: 2-5/8" (67 mm)
 Stop face: Resilient black rubber
 Materials: Steel
 Fasteners: Two (2) #14 x 1-1/2" FPHWS and two (2) plastic anchors
 Notes: 1-1/2" (38 mm) max door to floor clearance





FLOOR STOPS & HOLDERS



252F

Floor Stop

- Certification: Meets ANSI A156.16 for L02131
 Base: 1-9/16" x 2-1/2" (40 mm x 64 mm)
 Overall Height: 2-11/16" (68 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: One (1) #14 x 1-1/2" FPHWS, one (1) 1/4-20 x 3/4" FPHMS, one (1) 5/16-18 lead anchor, one (1) 1/4-20 lead anchor, one (1) plastic anchor, one (1) 5/16-18 x 2-1/2" threaded stud, and one (1) 5/16-18 x 2-1/2" combo threaded stud
- Notes:
- Heavy duty - for use in high traffic areas
 - For use on wood or concrete floors
 - 2" (51 mm) max door to floor clearance



257F

Floor Stop

- Certification: Meets ANSI A156.16 for L02131
 Base: 1-9/16" x 2-15/32" (40 mm x 63 mm)
 Overall Height: 2" (51 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: One (1) #14 x 1-1/2" FPHWS, one (1) 1/4-20 x 3/4" FPHMS, one (1) 5/16-18 lead anchor, one (1) 1/4-20 lead anchors, one (1) plastic anchor, one (1) 5/16-18 x 2-1/2" threaded stud, and one (1) 5/16-18 x 2-1/2" combo threaded stud
- Notes:
- 1-3/8" (35 mm) max door to floor clearance
 - Heavy duty - for use in high traffic areas
 - For use on wood or concrete floors



258F

Floor Stop and Holder

- Certification: Meets ANSI A156.16 for L01371
 Base: 1-9/16" x 2-15/32" (40 mm x 63 mm)
 Height: 3" (76 mm)
 Keeper: 1" x 2" (25 mm x 51 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US10, US10B, US15, US26, US26D
 Fasteners: Two (2) #10 x 1" FPHWS, one (1) 1/4-20 x 3/4" FPHMS, one (1) 5/16-18 lead anchor, one (1) 1/4-20 lead anchors, and one (1) 5/16-18 x 2-1/2" threaded stud
- Notes:
- 1-3/8" (35 mm) max door to floor clearance
 - Heavy duty - for use in high traffic areas
 - For use on concrete floors
 - Manual holder ideal for interior and exterior applications
 - Unit functions as a stop, but can serve as a "Hold Open" when hook is manually engaged



FLOOR STOPS & HOLDERS



259F

Tri Base Floor Stop

- Certification: Meets ANSI A156.16 for L02121
Base: 2-1/2" wide x 1-9/16" deep (64 mm x 40 mm)
Overall Height: 1-11/16" (43 mm)
Material: Cast brass with grey rubber bumper
Finishes: US3, US4, US10, US10B, US26, US26D
Fasteners: Three (3) #10 x 1-1/4" FPHWS, three (3) plastic anchors, three (3) 10-32 x 3/4" FPHMS, and three (3) 10-32 lead anchor
- Notes:
- 1/2" (13 mm) max door to floor clearance
 - Heavy duty - for use in high traffic areas
 - For use on wood or concrete floors



259H

Tri Base Floor Stop - Tall

- Certification: Meets ANSI A156.16 for L02121
Base: 2-1/2" wide x 1-9/16" deep (64 mm x 40 mm)
Overall Height: 2-1/4" (57 mm)
Materials: Cast brass with grey rubber bumper
Finishes: US3, US4, US10, US10B, US26, US26D
Fasteners: Three (3) #10 x 1-1/4" FPHWS, three (3) plastic anchor, three (3) 10-32 x 3/4" FPHMS, and three (3) 10-32 lead anchors
- Notes:
- 1" (25 mm) max door to floor clearance
 - Heavy duty - for use in high traffic areas
 - For use on wood or concrete floors



267F

Cast Floor Stop

- Certification: Meets ANSI A156.16 for L02131
Base Diameter: 2-1/4" (57 mm)
Overall Height: 3-1/8" (80 mm)
Materials: Cast brass with black rubber bumper
Finishes: US3, US10, US10B, US15, US15A, US19, US26, US26D
Fasteners: One (1) #10 x 1" OPHWS, one (1) plastic anchor, one (1) 5/16-18 lead anchor, one (1) 5/16-18 x 2-1/2" threaded stud, and one (1) 5/16-18 x 2-1/2" combo threaded stud
- Notes:
- 2-3/8" (60 mm) max door to floor clearance
 - Heavy duty - for use in high traffic areas
 - For use on concrete floors



267S

Cast Floor Stop

- Certification: Meets ANSI A156.16 for L02121
Base Diameter: 2-1/4" (57 mm)
Overall Height: 3-1/8" (80 mm)
Materials: Cast brass with black rubber bumper
Finishes: US3, US10, US10B, US15, US15A, US19, US26, US26D
Fasteners: Three (3) #10 x 1" OPHWS and three (3) plastic anchors
- Notes:
- 2-3/8" (60 mm) max door to floor clearance
 - Heavy duty - for use in high traffic areas
 - For use on wood floors





FLOOR STOPS & HOLDERS



268F

Cast Floor Stop and Holder

- Certification: Meets ANSI A156.16 for L01371
 Base Diameter: 2-1/4" (57 mm)
 Height: 3-19/32" (91 mm)
 Keeper: 25/32" x 1-1/2" (20 mm x 38 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: Three (3) #10 x 1" OPHWS, one (1) plastic anchor, one (1) 5/16-18 lead anchor, and one (1) 5/16-18 x 2-1/2" threaded stud
- Notes:
- 2-1/2" (64 mm) max door to floor clearance
 - Heavy duty - for use in high traffic areas
 - For use on concrete floors
 - Manual holder ideal for interior and exterior applications
 - Unit functions as a stop, but can serve as a "Hold Open" when hook is manually engaged



268S

Cast Floor Stop and Holder

- Certification: Meets ANSI A156.16 for L01361
 Base Diameter: 2-1/4" (57 mm)
 Height: 3-19/32" (91 mm)
 Keeper: 25/32" x 1-1/2" (20 mm x 38 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: Five (5) #10 x 1" OPHWS and three (3) plastic anchors
- Notes:
- 2-1/2" (64 mm) max door to floor clearance
 - Heavy duty - for use in high traffic areas
 - For use on wood floors
 - Manual holder ideal for interior and exterior applications
 - Unit functions as a stop, but can serve as a "Hold Open" when hook is manually engaged



269F

Heavy Duty Floor Stop

- Certification: Exceeds the criteria set forth for a 300-pound impact test (Report #91-04-01646)
 Bumper Diameter: 2" (51 mm)
 Bumper Height: 1-1/2" (38 mm)
 Steel Bolt: 5/8 - 11 x 2-1/2" thread
 Materials: Black rubber (fire-resistant)
- Notes:
- Designed for high vandalism areas
 - Ideal for prisons where floor stops are required
 - Grouted in concrete to eliminate exposed screws

FLOOR STOPS & HOLDERS



269T Heavy Duty Floor Stop

Certification:	Exceeds the criteria set forth for a 300-pound impact test (Report #91-04-01646)
Bumper Diameter:	2" (51 mm)
Bumper Height:	3-1/2" (89 mm)
Steel Bolt:	5/8 – 11 x 2-1/2" thread
Materials:	Black rubber (fire-resistant)
Notes:	<ul style="list-style-type: none"> • Designed for high vandalism areas • Ideal for prisons where floor stops are required • Grouted in concrete to eliminate exposed screws



326F Automatic Floor Stop and Holder

Certification:	Meets ANSI A156.16 for L01301
Holder Projection:	1-15/16" (49 mm)
Holder Base:	3-1/16" x 3-1/2" (78 mm x 89 mm)
Floor Strike:	2" x 4-3/32" (51 mm x 104 mm)
Strike Height:	1-1/4" (32 mm)
Max Door to Floor Clearance:	1/2" (13 mm) or less
Materials:	Cast brass
Finishes:	US3, US10, US10B, US26, US26D
Fasteners:	Three (3) #14 x 1-1/2" FPHWS, three (3) 1/4-20 x 3/4" FPHMS, three (3) 1/4-20 lead anchors, four (4) 12-24 x 1" TPHMS, and four (4) #12 x 1" TPHWS
Notes:	<ul style="list-style-type: none"> • For use on wood or metal doors and wood or concrete floors • Ideal for heavy traffic situations that require frequent hold open • Firm pull releases holding mechanism • Holder has vertical adjustment once mounted on the door



327F Automatic Floor Stop and Holder

Certification:	Meets ANSI A156.16 for L01301
Holder Projection:	1-15/16" (49 mm)
Holder Base:	3-1/16" x 3-1/2" (78 mm x 89 mm)
Floor Strike:	2-3/16" x 4-1/8" (56 mm x 105 mm)
Strike Height:	1-3/4" (44 mm)
Max Door to Floor Clearance:	9/16" to 1-1/16" (14 mm to 27 mm)
Materials:	Cast brass
Finishes:	US3, US10, US10B, US26, US26D
Fasteners:	Three (3) #14 x 1-1/2" FPHWS, three (3) 1/4-20 x 3/4" FPHMS, three (3) 1/4-20 lead anchors, four (4) 12-24 x 1" TPHMS, and four (4) #12 x 1" TPHWS
Notes:	<ul style="list-style-type: none"> • For use on wood or metal doors and wood or concrete floors • Ideal for heavy traffic situations that require frequent hold open • Firm pull releases holding mechanism • Holder has vertical adjustment once mounted on the door



FLOOR STOPS & HOLDERS



328F

Automatic Floor Stop and Holder

Certification: Meets ANSI A156.16 for L01301
 Holder Projection: 1-15/16" (49 mm)
 Holder Base: 3-1/16" x 3-1/2" (78 mm x 89 mm)
 Floor Strike: 2-3/16" x 4-1/8" (56 mm x 105 mm)
 Strike Height: 2-1/4" (57 mm)
 Max Door to Floor Clearance: 1-1/8" to 1-9/16" (29 mm to 40 mm)
 Materials: Cast brass
 Finishes: US3, US10, US10B, US26, US26D
 Fasteners: Three (3) #14 x 1-1/2" FPHWS, three (3) 1/4-20 x 3/4" FPHMS, three (3) 1/4-20 lead anchors, four (4) 12-24 x 1" TPHMS, and four (4) #12 x 1" TPHWS

- Notes:
- For use on wood or metal doors and wood or concrete floors
 - Ideal for heavy traffic situations that require frequent hold open
 - Firm pull releases holding mechanism
 - Holder has vertical adjustment once mounted on the door



329F

Automatic Floor Stop and Holder

Certification: Meets ANSI A156.16 for L01301
 Holder Projection: 1-15/16" (49 mm)
 Holder Base: 3-1/16" x 3-1/2" (78 mm x 89 mm)
 Floor Strike: 2-3/16" x 4-1/8" (56 mm x 105 mm)
 Strike Height: 2-3/4" (70 mm)
 Max Door to Floor Clearance: 1-5/8" to 2-1/16" (41 mm to 52 mm)
 Materials: Cast brass
 Finishes: US3, US10, US10B, US26, US26D
 Fasteners: Three (3) #14 x 1-1/2" FPHWS, three (3) 1/4-20 x 3/4" FPHMS, three (3) 1/4-20 lead anchors, four (4) 12-24 x 1" TPHMS, and four (4) #12 x 1" TPHWS

- Notes:
- For use on wood or metal doors and wood or concrete floors
 - Ideal for heavy traffic situations that require frequent hold open
 - Firm pull releases holding mechanism
 - Holder has vertical adjustment once mounted on the door



KICK DOWN DOOR STOPS



270C

Kick Down Door Holder

- Certification: Meets ANSI A156.16 for L71382
 Base: 1-7/16" x 2-1/8" (37 mm x 54 mm)
 Arm: 3-13/16" (97 mm)
 Materials: Cast iron with rubber tip
 Finishes: S1 - Sprayed Aluminum, S2 - Sprayed Brass, S3 - Sprayed Bronze
 Fasteners: Four (4) #6 x 3/4" OPH tapping screws
 Notes:
 - Provides simple hold and release with a touch of the foot
 - 2-1/4" (57 mm) max door to floor clearance



270D

Kick Down Door Holder

- Certification: Meets ANSI A156.16 for L01381
 Base: 1-19/32" x 1-25/32" (41 mm x 45 mm)
 Arm: 3-1/2" (89 mm)
 Materials: Cast brass with rubber tip
 Finishes: US3, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: Three (3) #6 x 3/4" OPHWS
 Notes:
 - Provides simple hold and release with a touch of the foot
 - 2-1/4" (57 mm) max door to floor clearance



270R

Replacement Rubber Tip

- Materials: Rubber
 Notes:
 - For use with 270D and 271D
 - Sold in packs of 10



270CR

Replacement Rubber Tip

- Materials: Rubber
 Notes:
 - For use with 270C
 - Sold in packs of 6



271D

Kick Down Door Holder

- Certification: Meets ANSI A156.16 for L01381
 Base: 1-19/32" x 1-25/32" (41 mm x 45 mm)
 Arm: 4-7/16" (87 mm)
 Materials: Cast brass with rubber tip
 Finishes: US3, US10, US10B, US26, US26D
 Fasteners: Three (3) #6 x 3/4" OPHWS
 Notes:
 - Provides simple hold and release with a touch of the foot
 - 3-1/4" (83 mm) max door to floor clearance





SURFACE BOLTS



275D | 276D

Surface Bolt

Certification: Meets ANSI A156.16 for L04161
 Overall Projection: 1-3/8" (35 mm)
 Overall Width: 2-1/32" (52 mm)
 Bar: 3/4" x 1/4" (19 mm x 6 mm) thick
 Length: 275D - 8" (203 mm)
 276D - 12" (305 mm)
 Throw: 1" (25 mm)
 Materials: Steel
 Finishes: US3, US10, US10B, US26D
 Fasteners: Eight (8) #10 x 1-1/4" FPHWS and eight (8) 10-24 x 1" undercut FPHMS

Notes:

- Mortise bottom strike and universal top strike included
- Strong tension springs prevent creep
- UL listed for use on inactive leaf of a pair of 3-HR labeled fire doors



278D

Surface Bolt

Bolt Length: 6" (152 mm)
 Bolt Width: 7/16" (11 mm)
 Bolt Throw: 31/32" (25 mm)
 Base Width: 19/32" (15 mm)
 Knob Diameter: 1/2" (13 mm)
 Projection: 3/4" (19 mm)
 Materials: Brass
 Finishes: US3, US10B, US26D
 Fasteners: Four (4) #5 x 5/8" FPHWS

Notes:

- Mortise and universal strikes included
- Concealed screw design enhances appearance and security
- Permanent stop prevents bolt disengagement from track



279D

Surface Bolt

Length: 4" (102 mm)
 Width: 1-11/16" (43 mm)
 Throw: 3/8" (10 mm)
 Half Round Bolt Size: 5/8" (16 mm)
 Projection: 1-1/4" (32 mm)
 Knob Diameter: 29/32" (23 mm)
 Materials: Brass
 Finishes: US3, US10, US10B, US26D
 Fasteners: Twelve (12) #6 x 3/4" FPHWS

Notes: Mortise and universal strikes included

FLUSH BOLTS & COORDINATING DEVICES



280X Dust Proof Strike

- Certification: Meets ANSI A156.16 for L04021
- Face Plate: 1-7/16" x 2-29/32" x 1/8" depth (37 mm x 74 mm x 3 mm)
- Barrel Diameter: 1" (25 mm)
- Barrel Depth: 2-3/16" (56 mm)
- Plunger Diameter: 3/4" (19 mm)
- Materials: Brass
- Finishes: US3, US4, US9, US10, US10B, US15, US15A, US19, US26, US26D
- Fasteners: Two (2) #8 x 1" FPHWS, two (2) plastic anchors, and spanner wrench
- Notes:
 - Packed unassembled with plate, strike, fasteners, and spanner wrench
 - May be used with carpet or threshold application by omitting face plate
 - Designed for use with the bottom bolt of a flushbolt set
 - Spring loaded plunger returns to floor or threshold level anytime flushbolt is retracted, eliminating the need to clean out the bottom strike



281D Slide Flush Bolt

- Certification: Meets ANSI A156.16 for L04201
- Faceplate: 3/4" x 6" (19 mm x 153 mm)
- Bolt Diameter: 1/2" (13 mm)
- Bolt Throw: 1" (25 mm)
- Bolt Backset: 7/16" (11 mm)
- Strike: 7/8" x 1-3/4" (22 mm x 45 mm)
- Materials: Brass, bronze faceplate with steel components
- Finishes: US3, US4, US5, US10, US10B, US15, US15A, US19, US26, US26D
- Fasteners: Four (4) #6 x 3/4" FPHWS
- Notes: Double action spring design provides automatic holding of bolt in projected or retracted position



282D Manual Flush Bolt

- Certification:
 - Fits ANSI A115 door and frame prep
 - Meets ANSI A156.16 for L14251
- Face Plate: 1" x 6-3/4" (25 mm x 172 mm)
- Bolt Head: 1/2" (13 mm) square
- Bolt Throw: 3/4" (19 mm)
- Standard Rod Length: 12" (305 mm) (center of face to corner of door)
- Bolt Backset: 3/4" (19 mm)
- Mortise Strike: 15/16" x 2-1/4" (24 mm x 57 mm)
- Materials: Brass faceplate with steel components
- Finishes: US3, US4, US5, US9, US10, US10B, US15, US15A, US19, US26, US26D
- Fasteners: Eight (8) #8 x 3/4" combo screws; eight (8) #8 x 1-1/2" combo screws
- Notes:
 - For use on hollow metal/fire-rated doors
 - Non-handed
 - Bolt head rods are adjustable
 - Sold in increments of two
 - 3 hour fire rating for metal doors up to 4 feet wide by 10 feet tall
 - 282S strike plate bag and 282P bolt head available
 - Specify 282R for optional rod length of 18" (457 mm), 25" (635 mm), or 30" (762 mm) (bolt head not included)





FLUSH BOLTS & COORDINATING DEVICES



283D

Manual Flush Bolt

- Certification: Meets ANSI A156.16 for L14261
 Face Plate: 1" x 6-25/32" (25 mm x 172 mm)
 Bolt Head: 1/2" (13 mm) square
 Bolt Throw: 3/4" (19 mm)
 Bolt Backset: 3/4" (19 mm)
 Mortise Strike: 15/16" x 2-1/4" (24 mm x 57 mm)
 Materials: Brass faceplate with steel components
 Finishes: US3, US4, US5, US9, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: Eight (8) #8 x 3/4" combo screws
 Notes:
 - For use on wood composite/ fire-rated doors
 - Non-handed
 - Bolt head rods are adjustable
 - 1-1/2 hour fire rating for wood doors up to 4 feet wide by 10 feet tall



291D

Automatic Flush Bolt Set for Wood Covered Composite Doors

- Certification: B, C, D, and E Label
 ANSI A156.3 Type #25
 Face Plate: 1" x 8-1/2" (25 mm x 216 mm)
 Bolt Head: 1/2" (13 mm) square
 Bolt Throw: 3/4" (19 mm)
 Bolt Backset: 3/4" (19 mm)
 Mortise Strike: 15/16" x 2-1/4" (24 mm x 57 mm)
 Materials: Stainless steel and brass with steel components
 Finishes: US3, US4, US10, US10B, US15, US32, US32D
 Fasteners: Six (6) #8 x 1" combo screws, three (3) #10 x 1" SMS, and two (2) plastic anchors
 Notes:
 - Thermal lock automatically locks inactive door under high fire/heat conditions
 - 280X dust proof strikes are recommended for use with these sets
 - Used in pairs at top and bottom of inactive door
 - Fully automatic – bolts retract when active door is opened; bolts extend when active door is closed
 - Non-handed
 - Bolt head rods are adjustable
 - 1-1/2 hour fire rating for wood doors up to 4 feet wide by 9 feet tall

FLUSH BOLTS & COORDINATING DEVICES

292D

Automatic Flush Bolt Set for Metal Doors

Certification: A, B, C, D, and E Label
ANSI A156.3 Type #25

Face Plate: 1" x 6-3/4" (27 mm x 172 mm)

Bolt Head: 1/2" (13 mm) square

Bolt Throw: 3/4" (19 mm)

Bolt Backset: 3/4" (19 mm)

Mortise Strike: 15/16" x 2-1/4" (24 mm x 57 mm)

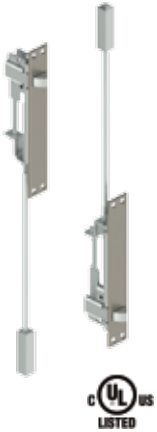
Materials: Stainless steel and brass with steel components

Finishes: US3, US4, US10, US10B, US15, US32, US32D

Fasteners: Ten (10) #8 x 1" combo screws

Notes:

- Thermal lock automatically locks inactive door under high fire/heat conditions
- 280X dust proof strikes are recommended for use with these sets
- Used in pairs at top and bottom of inactive door
- Fully automatic – bolts retract when active door is opened; bolts extend when active door is closed
- Non-handed
- Bolt head rods are adjustable
- 3-hour fire rating for metal doors up to 4 feet wide by 9 feet tall



293D

Constant-Latching Flush Bolt Set for Inactive Metal Doors

Certification: A, B, C, D, and E Label
ANSI A156.3 Type #27

Face Plate: 1" x 6-3/4" (25 mm x 172 mm)

Bolt Head: 1/2" (13 mm) square

Bolt Throw: 3/4" (19 mm)

Bolt Backset: 3/4" (19 mm)

T- Strike: 1-1/8" x 2-3/4" (28 mm x 70 mm)

Materials: Stainless steel and brass with steel components

Finishes: US3, US4, US10, US10B, US15, US32, US32D

Fasteners: Eight (8) #8 x 1" combo screws

Notes:

- Thermal lock automatically locks inactive door under high fire/heat conditions
- 280X dust proof strikes are recommended for use with these sets
- Consists of one 292S and one 293S for two point latching
- Inactive door remains latched until the active door is opened, releasing the automatic bottom bolt - Top bolt can be manually released by pressing plunger - Inactive door will relatch automatically when closed
- Non-handed
- Bolt head rods are adjustable
- 3-hour fire rating for metal doors up to 4 feet wide by 9 feet tall





FLUSH BOLTS & COORDINATING DEVICES



294D

Constant-Latching Flush Bolt Set for Inactive Wood Covered Composite Doors

- Certification: B, C, D, and E Label
ANSI A156.3 Type #27
- Face Plate: 1" x 8-1/2" (25 mm x 216 mm)
- Bolt Head: 1/2" (13 mm) square
- Bolt Throw: 3/4" (19 mm)
- Bolt Backset: 3/4" (19 mm)
- T- Strike: 1-1/8" x 2-3/4" (28 mm x 70 mm)
- Materials: Stainless steel and brass with steel components
- Finishes: US3, US4, US10, US10B, US15, US32, US32D
- Fasteners: Four (4) #8 x 1" combo screws, three (3) #10 x 1" SMS, and two (2) plastic anchors
- Notes:
 - Thermal lock automatically locks inactive door under high fire/heat conditions
 - 280X dust proof strikes are recommended for use with these sets
 - May be used on doors 4 ft. wide and 9 ft. high
 - Consists of one 291S and one 294S for two point latching
 - Inactive door remains latched until the active door is opened, releasing the automatic bottom bolt - Top bolt can be manually released - Inactive door will relatch automatically when closed
 - Non-handed
 - Bolt head rods are adjustable
 - 1-1/2 hour fire rating for wood doors up to 4 feet wide by 9 feet tall



295M

Automatic Flush Bolt Set with Fire Bolt for Metal Doors

- Certification: ANSI/BHMA 156.3 Type #25
- Face Plate: 1" x 6-3/4" (25 mm x 172 mm)
- Bolt Head: 1/2" (13 mm) square
- Bolt Throw: 3/4" (19 mm)
- Bolt Backset: 3/4" (19 mm)
- Mortise Strike: 15/16" x 2-1/4" (24 mm x 57 mm)
- Materials: Stainless steel and brass with steel components
- Finishes: US3, US4, US10, US10B, US15, US32, US32D
- Fasteners: Ten (10) #8 x 1" combo screws
- Notes:
 - Fire bolt is activated at 230° Fahrenheit projecting into active door locking leaves together - This combination eliminates the bottom flushbolt and eliminates floor preparation
 - Fully automatic – Bolt retracts when active door is opened - Bolt extends when active door is closed
 - Non-handed
 - Bolt head rods are adjustable
 - 3-hour fire rating for metal doors up to 4 feet wide by 9 feet tall



FLUSH BOLTS & COORDINATING DEVICES



295W

Automatic Flush Bolt Set with Fire Bolt for Wood Doors

- Certification: ANSI/BHMA 156.3 Type #25
Face Plate: 1" x 8-1/2" (25 mm x 216 mm)
Bolt Head: 1/2" (13 mm) square
Bolt Throw: 3/4" (19 mm)
Bolt Backset: 3/4" (19 mm)
Mortise Strike: 15/16" x 2-1/4" (24 mm x 57 mm)
Materials: Stainless steel and brass with steel components
Finishes: US3, US4, US10, US10B, US15, US32, US32D
Fasteners: Six (6) #8 x 1" combo screws, three (3) #10 x 1" SMS, and two (2) plastic anchors
- Notes:
- Fire bolt is activated at 230° Fahrenheit projecting into active door locking leaves together - This combination eliminates the bottom flushbolt and eliminates floor preparation
 - Fully automatic – Bolt retracts when active door is opened - Bolt extends when active door is closed
 - Non-handed
 - Bolt head rods are adjustable
 - 20-min fire rating for wood doors up to 4 feet wide by 9 feet tall



296W

Automatic Flush Bolt Set for Wood Doors

- Certification: ANSI/BHMA 156.3 Type #25
Face Plate: 1-1/8" x 2-1/4" (29 mm x 57 mm)
Bolt Head: 1/2" (13 mm) diameter
Bolt Throw: 3/4" (19 mm)
Bolt Backset: 1-1/2" (39 mm)
Materials: Stainless steel and brass with steel components
Finishes: US3, US4, US10, US10B, US15, US32, US32D
Fasteners: Four (4) #8 x 1" SMS, two (2) #8 x 3/4" combo screws, two (2) plastic anchors
- Strike: 1-1/8" x 2-1/4" (29 mm x 57 mm)
- Notes:
- Non-handed
 - ADA compliant
 - Ideal for wood veneer doors
 - Only two (2) 1-1/8" diameter holes needed for easier door preparation
 - Opening active door retracts top and bottom bolts
 - Smaller profile adds stability to the door
 - 1-1/2 hour fire rating for doors up to 4 feet wide by 9 feet tall



FLUSH BOLTS & COORDINATING DEVICES



297C Carry Bar

Certification:
Projection:
Base:
Materials:
Finishes:
Fasteners:
Notes:

ANSI/BHMA A156.3 Type #27

25/32" (20 mm)

1-3/4" x 2-1/4" (45 mm x 57 mm)

Brass and stainless steel

USP, US3, US10, US10B, US15, US32, US32D

Two (2) 12-24 x 3/4" PPHMS w/ sex nuts

- Used when it is possible for the inactive door to be opened before the active door
- For use on pairs of doors with astragals
- For use in conjunction with a 297D or 298D coordinator
- Prevents damage to the doors and other hardware
- Carry bar is not required when the inactive door is equipped with automatic or self-latching flushbolts
- Non-handed



297D Coordinating Device

Certification:
Base:
Maximum Astragal Overlap:
Stop Height:
Materials:
Finishes:
Fasteners:



Notes:

ANSI/BHMA A156.3 Type #21A

1-5/8" x 5/8" (41 mm x 16 mm)

1" (25 mm)

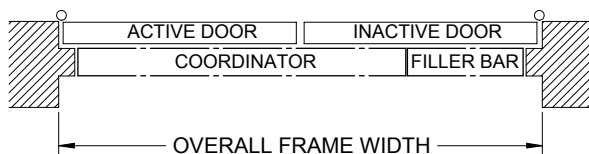
5/8" (16 mm)

Steel

Black Prime Coat

Seven (7) 12-24 x 1-1/4" TPHMS and four (4) #8 x 1" FPH combo screws

- For use with overall frame widths 60" (1524 mm), 72" (1829 mm), or 96" (2438 mm), consult Hager Customer Service if overall frame width is different than our stock sizes
- Coordinating device is 52" (1321 mm) long for all stock sizes 60" (1524 mm), 72" (1829 mm), or 96" (2438 mm)
- Filler bar is cut to length by factory to match customers overall frame width
- Non-handed
- Designed for use on pairs of doors when one door needs to close before the other
- Active door lever, located nearest to the active stop, holds the active door open until the trigger mechanism is released by the closing of the inactive leaf
- Coordinator may not span the entire length of stop, 297F filler bar may be needed to fill up the extra space
- Compatible with flushbolts
- Optional mounting brackets 297M and 297N may be used when mounting other soffit applied hardware
- For use with active door widths 30" (762 mm) – 48" (1219 mm)
- If active and inactive doors are unequal in length, consult Hager Customer Service for proper sizing
- Do not use spring hinges with coordinating device



FLUSH BOLTS & COORDINATING DEVICES



297F

Filler Bar

Stop Height: 5/8" (16 mm)
 Material: Steel
 Finishes: Black prime coat
 Length: 18-5/8" (473 mm) (for jamb opening widths 52" – 72");
 42-5/8" (1082 mm) (for jamb opening widths 73" – 96")
 Notes: For use with 297D coordinator



297M

Mounting Bracket

Jamb Depth: 4-3/4" (121 mm)
 Stop Height: 5/8" (16 mm)
 Material: Aluminum
 Finishes: Black prime coat
 Fasteners: Four (4) 12-24 x 2" FPHMS and four (4) 1/4-20 x 1/2" FPHMS
 Notes:

- For use with 297D coordinator
- For soffit width 1-3/8" (35 mm) - 2-3/8" (60 mm)
- Allows soffit mounted hardware to be properly installed without damaging the coordinator, such as a parallel arm closer or a non-fire-rated surface vertical rod strike



297N

Mounting Bracket

Stop Height: 5/8" (16 mm)
 Material: Aluminum
 Finishes: Black prime coat
 Fasteners: Four (4) 12-24 x 2" FPHMS and four (4) 1/4-20 x 1/2" FPHMS
 Notes:

- For use with 297D coordinator
- For soffit width 3" (76 mm) or greater
- Allows soffit mounted hardware to be properly installed without damaging the coordinator, such as a parallel arm closer or a non-fire-rated surface vertical rod strike



298D

Gravity Coordinator

Certification: ANSI A156.3 Type #21B
 Base: 5-1/2" x 1-1/8" (140 mm x 29 mm)
 Projection: 7" (178 mm)
 Rail Height: 2-1/2" (64 mm) min
 Materials: Cast brass with rubber roller and nylon cam roller
 Finishes: US3, US10, US10B, US26D
 Fasteners: Two (2) #12 x 1" OPHWS, two (2) #6 x 3/4" FPHWS, two (2) #8 x 3/4" TPHWS, and one (1) #6 x 3/4" FPHWS
 Notes:

- Non-handed
- Recommended for use with flush top metal doors only
- Use automatic flush bolts only
- Use 297D if using self latching flush bolts
- Gravity arm and door bracket are adjustable on the job for ease of installation
- For use on pairs of doors with astragal on active door up to 4' (1219 mm) wide or with astragal on inactive door up to 3'-4" (1016 mm) wide or with astragal on both doors up to 2'-10" (864 mm) wide
- Maximum astragal overlap - 7/8" (22 mm)
- Do not use spring hinges with coordinating device



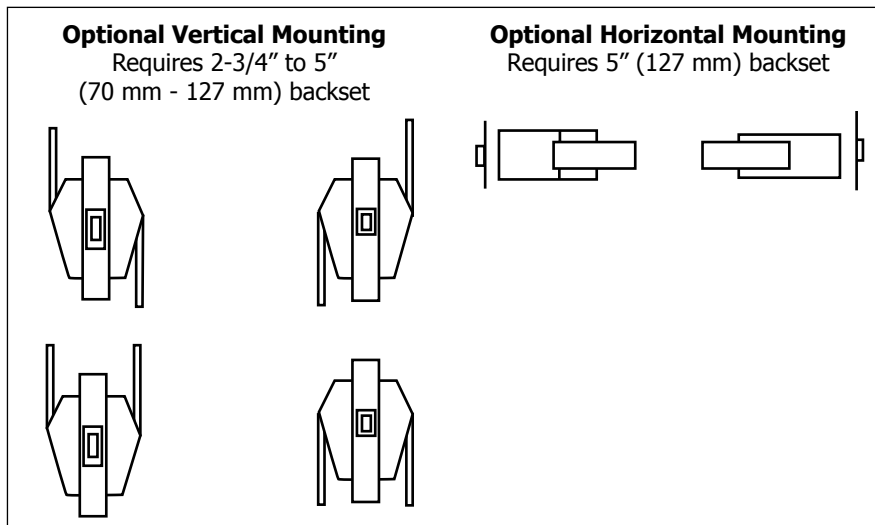


LATCHES & PROTECTION PLATES



311H | 311L Push/Pull Latch

- Certification: ANSI A156.2 Closest Equivalent (Bored Latch - Series 4000 - Grade 2)
- Push & Pull Levers: 1-15/16" x 4-1/2" (49 mm x 114 mm)
- Escutcheons: 3-1/16" x 5" (78 mm x 127 mm)
- Projection: 2-5/8" (67 mm)
- Bolt Throw: 1/2" (13 mm)
- Bolt Diameter: 3/4" (19 mm)
- Backset:
 - 2-3/4" (70 mm) - Standard
 - 5" (127 mm) - Optional
- Strike (TEE) - standard: 1-1/8" x 2-3/4" (29 mm x 70 mm)
- Strike (ASA) - standard: 1-1/4" x 4-7/8" (32 mm x 124 mm)
- Door thickness: 1-3/4" (45 mm)
- Materials: Zinc and stainless steel
- Finishes: US26, US26D, US32, US32D
- Notes:
 - Non-handed
 - Engraving is optional
 - 311L is same as 311H but for use on lead lined doors



318D Roller Latch with Tee Strike

- Certification: Meets ANSI A156.16 for E09091
- Roller Faceplate: 1" x 3-3/8" (25 mm x 86 mm)
- Strike: 1-1/8" x 2-3/4" (29 mm x 70 mm)
- Strike Gauge: 0.171" (4.3 mm)
- Materials: Brass
- Finishes: US3, US4, US10, US10B, US15, US15A, US19, US26, US26D
- Fasteners: Two (2) #10 x 1-1/2" FPHWS, two (2) #8 x 1" FPHWS, and two (2) 8-32 x 3/4" FPHMS
- Notes:
 - Adjustable spring tension with nylon roller
 - Projection of roller is easily adjusted using screws on faceplate
 - Max projection of the roller is 3/8" (9.5 mm) allowing for variance in door and frame clearance

LATCHES & PROTECTION PLATES



318S

Roller Latch with Stop

- Certification: Meets ANSI A156.16 for E0911
 Roller Faceplate: 1-7/16" wide x 4-7/16" high x 11/16" angle (37 mm x 111 mm x 18 mm)
 Strike: 1-1/8" x 2-1/4" (29 mm x 57 mm)
 Strike Gauge: 0.171" (4.3 mm)
 Materials: Brass
 Finishes: US3, US4, US10, US10B, US15, US26, US26D
 Fasteners: Two (2) #10 x 1-1/2" FPHWS and two (2) 8-32 x 3/4" FPHMS
- Notes:
- Adjustable spring tension with nylon roller
 - Projection of roller is easily adjusted using screws on faceplate
 - Max projection of the roller is 3/8" (9.5 mm) allowing for variance in door and frame clearance



320R

Roller Catch with Tee Strike

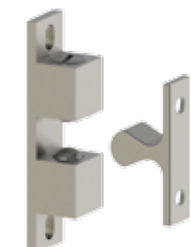
- Certification: Meets ANSI A156.16 for E0910
 Roller Faceplate: 1-1/8" x 2-1/4" (29 mm x 57 mm)
 Strike: 1-1/4" x 2-3/4" x 1/16" thick (32 mm x 70 mm x 1.5 mm)
 Materials: Brass
 Finishes: US3, US4, US10, US10B, US15, US26, US26D
 Fasteners: Four (4) #8 x 1" FPHWS
- Notes:
- Adjustable spring tension with nylon roller
 - Projection of roller is adjusted by turning knurled knob on back of the latch
 - Max projection of the roller is 7/16" (11 mm) allowing for variance in door and frame clearance
 - For use with wood door and frame



321R

Adjustable Ball Catch with Strike

- Roller Faceplate: 1" x 2-1/8" (25 mm x 54 mm)
 Strike: 1-1/2" x 2-1/8" (38 mm x 54 mm)
 Strike Gauge: 0.050" (1.3 mm)
 Materials: Brass with steel ball
 Finishes: US3, US4, US10, US10B, US15, US15A, US19, US26D
 Fasteners: Four (4) #6 FPHWS
- Notes:
- Adjustable threaded barrel compensates for various door clearances
 - Adjustable spring tension
 - For use with wood door and frame



323S

Three-Way Ball Catch

- Certification: Meets ANSI/BHMA 156.9.B13302
 Body: 1/2" W x 2-3/16" H x 1/2" D
 Strike:
 - 3/8" W x 1-3/8" H x 5/8" D
 - Plate type strike
 Materials: Brass with steel balls
 Finish: US26D
- Notes:
- Adjustable spring tension is easily adjusted to suit field conditions
 - Body can be surface applied or mortised





LATCHES & PROTECTION PLATES



340D

Latch Protection Plate

- Size: 3" x 11" (76 mm x 279 mm)
 Materials: 12 gauge steel, stainless steel
 Finishes: US2C, US32D
 Fasteners: Two (2) 5/16-20 x 1-1/2" carriage bolts with sex nuts
 Notes:
 - For use with 1-3/4" (45 mm) doors
 - Non-handed
 - Frame pin prevents prying of door
 - For use with most mortise locks
 - For use with cylindrical locksets with a 3-3/4" (95 mm) backset or greater



341C

Latch Protection Plate with Lock Cut Out (no frame pins)

- Size: 3" x 11" (76 mm x 279 mm)
 Materials: 12 gauge steel, stainless steel
 Finishes: US32D
 Fasteners: Two (2) 5/16-20 x 1-1/2" carriage bolts with sex nuts
 Notes:
 - For use with 1-3/4" (45 mm) doors
 - Non-handed
 - For use with cylindrical locksets with a 2-3/4" (70 mm) backset



341D

Latch Protection Plate with Lock Cut Out

- Size: 3" x 11" (76 mm x 279 mm)
 Materials: 12 gauge steel, stainless steel
 Finishes: US2C, US32D
 Fasteners: Two (2) 5/16-20 x 1-1/2" carriage bolts with sex nuts
 Notes:
 - For use with 1-3/4" (45 mm) doors
 - Non-handed
 - Frame pin prevents prying of door
 - For use with cylindrical locksets with a 2-3/4" (70 mm) backset



342D

Latch Protection Plate with Escutcheon Cut Out

- Size: 3" x 11" (76 mm x 279 mm)
 Materials: 12 gauge steel, stainless steel
 Finishes: US2C, US32D
 Fasteners: Two (2) 5/16-20 x 1-1/2" carriage bolts with sex nuts
 Notes:
 - For use with 1-3/4" (45 mm) doors
 - Non-handed
 - For use with cylindrical and mortise locks with a 2-3/4" (70 mm) backset



345D

Latch Protection Plate

- Size: 1-5/8" x 10" (41 mm x 254 mm)
 Materials: 12 gauge steel, stainless steel
 Finishes: US2C, US32D
 Fasteners: Two (2) 5/16-20 x 1-1/2" carriage bolts with sex nuts
 Notes:
 - For use with 1-3/4" (45 mm) doors
 - Non-handed
 - For use with cylindrical and mortise locks



LATCHES & PROTECTION PLATES



1442

Roller Latch with Full Lip Strike

- Certification: Meets ANSI A156.16 for E09091
Roller Faceplate: 1" x 3-3/8" (25 mm x 86 mm)
Strike: 1-11/16" x 2-1/4" (43 mm x 57 mm)
Strike Gauge: 5/32" (4 mm)
Materials: Brass
Finishes: US3, US4, US10, US10B, US15, US15A, US19, US26, US26D
Fasteners: Two (2) #10 x 1-1/2" FPHWS, two (2) #8 x 1" FPHWS, and two (2) 8-32 x 3/4" FPHMS
Options: Non-ferrous available with extended lead time
Notes:
 - Adjustable spring tension with nylon roller
 - Projection of roller is easily adjusted using screws on faceplate
 - Max projection of the roller is 3/8" (9.5 mm) allowing for variance in door and frame clearance



1443

Roller Latch with ASA Strike

- Certification: Meets ANSI A156.16 for E09101
Roller Faceplate: 1" x 3-3/8" (25 mm x 86 mm)
Strike: 1-1/4" x 4-7/8" (32 mm x 124 mm)
Strike Gauge: 0.090" (2.3 mm)
Materials: Brass
Finishes: US3, US4, US10, US10B, US15, US15A, US19, US26, US26D
Fasteners: Two (2) #10 x 1-1/2" FPHWS, two (2) #12 x 3/4" FPHWS, and two (2) 12-24 x 1/2" FPHMS
Notes:
 - Adjustable spring tension with nylon roller
 - Projection of roller is easily adjusted using screws on faceplate
 - Max projection of the roller is 3/8" (9.5 mm) allowing for variance in door and frame clearance





COAT HOOKS



901P
Coat Hook - Short Single
 Diameter: 1" (25 mm)
 Projection: 1-1/4" (32 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: #14 x 1-1/4" wood thread
 Notes: Concealed mounting



937P
Coat Hook
 Projections:

- 3-3/4" (95 mm) top hook
- 2-1/2" (63 mm) bottom hook

 Materials: Brass
 Finishes: US3, US26D



902P
Coat Hook - Long Single
 Diameter: 1" (25 mm)
 Projection: 2-1/2" (63 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: #14 x 1-1/4" wood thread
 Notes: Concealed mounting



940P
Coat Hook - Double
 Overall Height: 4-11/16" (119 mm)
 Top Projection: 3-15/16" (100 mm)
 Bottom Projection: 2-1/8" (54 mm)
 Material Thickness: 1/4" (6 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: Two (2) #10 x 1" FPHWS



903P
Coat Hook - Long Double
 Diameter: 1" (25 mm)
 Projection: 2-1/2" (63 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: #14 x 1-1/4" wood thread
 Notes: Concealed mounting



941P
Coat Hook - Single
 Overall Height: 2-5/16" (59 mm)
 Projection: 2-1/8" (54 mm)
 Material Thickness: 1/4" (6 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: Two (2) #10 x 1" FPHWS



936P
Coat Hook Single Angled
 Base Diameter: 1-15/16" (49 mm)
 Hook Diameter: 11/16" (17 mm)
 Projection: 3-5/16" (84 mm)
 Materials: Brass
 Finishes: US3, US26D
 Notes: Concealed mounting



COAT HOOKS



945P
Double Coat Hook - Surface Mounting
 Overall Height: 5-1/2" (140 mm)
 Projection: 3-5/16" (84 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: Four (4) #10 x 1" FPHWS w/ anchors



952P
Coat Hook - Single
 O/A Height: 2-13/16" (71 mm)
 Projection: 2-7/32" (56 mm)
 Materials: Brass
 Finishes: US3, US26D
 Notes: Concealed mounting



946P
Double Coat Hook - Concealed Mounting
 Overall Height: 5-1/2" (140 mm)
 Projection: 3-11/16" (94 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: Two (2) #10 x 1" FPHWS w/ anchors
 Notes: Concealed mounting



956P
Double Coat Hook - Angled
 Overall Height: 5-11/16" (144 mm)
 Projection: 3-23/32" (95 mm)
 Materials: Brass
 Finishes: US3, US26D
 Notes: Concealed mounting



951P
Coat Hook - Double
 O/A Height: 5-3/4" (146 mm)
 Projection: 2-3/4" (70 mm)
 Materials: Brass
 Finishes: US3, US26D
 Notes: Concealed mounting



957P
Coat Hook
 Projection: 1-3/4" (45 mm)
 Base Diameter: 3/4" (19 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: One (1) #10 x 1" wood thread
 Notes: Concealed mounting



PULLS - CLOSET/ POCKET/ SLIDING DOOR



22N

Concealed Edge Pull

Certification: Meets ANSI A156.14 for D2801
 Size: 31/32" x 4-1/4" x 3/8" thick (25 mm x 108 mm x 9.5 mm)
 Lever Extension: 2-19/32" (66 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: Two (2) #6 x 3/4" FPHWS



330D

Pocket Door Latch

Certification: Meets ANSI A156.14 for D0821
 Size: 2-3/4" x 2-1/2" (70 mm x 64 mm)
 Extension of Finger Piece: 1-3/8" (35 mm)
 Materials: Brass
 Finishes: US3, US5, US10B, US15A, US19, US26, US26D
 Fasteners: Two (2) #6 x 5/8" OPHWS
 Notes: For use with 1-3/8" - 1-3/4" (35 mm - 45 mm) door



330L

Pocket Door Privacy Latch

Certification: Meets ANSI A156.14 for D0831
 Size: 2-3/4" x 2-1/2" (70 mm x 64 mm)
 Extension of Finger Piece: 1-3/8" (35 mm)
 Strike Size: 1" x 2-1/4" (25 mm x 57 mm)
 Materials: Brass
 Finishes: US3, US5, US10B, US15, US15A, US19, US26, US26D
 Fasteners: Two (2) #6 x 5/8" OPHWS and two (2) #6 x 3/4" FPHWS
 Notes: For use with 1-3/8" (35 mm) door



330M

Pocket Door Privacy Latch

Certification: Meets ANSI A156.14 for D0831
 Size: 2-3/4" x 2-1/2" (70 mm x 64 mm)
 Extension of Finger Piece: 1-3/8" (35 mm)
 Strike Size: 1" x 2-1/4" (25 mm x 57 mm)
 Materials: Brass
 Finishes: US3, US5, US10B, US15, US15A, US19, US26, US26D
 Fasteners: Two (2) #6 x 5/8" OPHWS and two (2) #6 x 3/4" FPHWS
 Notes: For use with 1-3/4" (45 mm) door



2610

Flush Cup Finger Pull

Overall Diameter: 31/32" (24.5 mm)
 Finger Pull Diameter: 3/4" (19 mm)
 Pull Clearance: 5/16" (8 mm)
 Projection: 1/32" (.8 mm)
 Materials: Solid brass
 Finishes: US3, US4, US5, US10A, US15, US15A, US26, US26D, ABA
 Notes:

- For use on bi-fold, by-pass or pocket applications
- Built-in prong design eliminates the need for screws or brads

PULLS - CLOSET/POCKET/SLIDING DOOR



2620

Flush Cup Pull

Overall Diameter: 2-1/16" (52 mm)
 Finger Pull Diameter: 1-11/16" (43 mm)
 Pull Clearance: 11/32" (8.7 mm)
 Projection: 5/64" (2 mm)
 Materials: Solid brass
 Finishes: US3, US4, US5, US10A, US15, US15A, US26, US26D, ABA
 Notes:

- For use on bi-fold, by-pass or pocket applications
- Built-in prong design eliminates the need for screws or brads



2630

Flush Cup Pull

Overall Diameter: 2-7/16" (62 mm)
 Finger Pull Diameter: 2-1/16" (52 mm)
 Pull Clearance: 11/32" (8.7 mm)
 Projection: 3/32" (2.4 mm)
 Materials: Solid brass
 Finishes: US3, US4, US5, US10A, US15, US15A, US26, US26D, ABA
 Notes:

- For use on bi-fold, by-pass or pocket applications
- Built-in prong design eliminates the need for screws or brads



2640

Oblong Flush Pull

Size: 1-5/16" x 2-3/4" (33 mm x 70 mm)
 Cup Clearance: 5/16" (8 mm)
 Materials: Solid brass
 Finishes: US3, US4, US5, US10A, US15, US15A, US26, US26D, ABA
 Fasteners: Two (2) #6 x 5/8" OPHWS
 Notes: For use on bi-fold, by-pass or pocket applications



9558

Wood Knob

Diameter: 1-1/2" (38 mm)
 Materials: Solid wood
 Notes:

- For use on bi-fold applications
- Will accept paint or stain



9566

Knob

Diameter: 1-1/4" (32 mm)
 Projection: 1" (25 mm)
 Materials: Die Cast Zinc
 Finishes: US3, US4, US5, US10A, US10B, US15, US15A, US26, US26D
 Fasteners: One (1) 8-32 x 1-3/4" PPHMS and one (1) 8-32 x 2" PPHMS
 Notes: For use on bi-fold applications on doors 3/4" (19 mm) to 1-3/8" (35 mm) thick





PULLS - CLOSET/POCKET/SLIDING DOOR



9567

Rose

- Base Diameter: 1-3/4" (45 mm)
 Projection: 15/32" (12 mm)
 Materials: Die cast zinc
 Finishes: US3, US4, US5, US10A, US10B, US15, US15A, US26, US26D
 Fasteners: One (1) 8-32 x 1-3/4" PPHMS and one (1) 8-32 x 2" PPHMS
 Notes:
 - For use on bi-fold applications on doors 3/4" (19 mm) to 1-3/8" (35 mm) thick
 - For use with 9566 knob



9865

Flush Cup Pull

- Overall Diameter: 1-31/32" (50 mm)
 Finger Pull Diameter: 1-19/32" (40 mm)
 Pull Clearance: 11/32" (8.7 mm)
 Projection: 5/64" (2 mm)
 Materials: Tan color ABS plastic
 Notes:
 - For use on bi-fold, by-pass or pocket applications
 - Built-in prong design eliminates the need for screws or brads



9882

Pocket Door Edge Pull

- Face Plate Size: 3/4" x 3 - 7/8" (19 mm x 98 mm)
 Finger Pull Extends: 3/4" (19 mm)
 Materials: Solid brass
 Finishes: US3, US4, US10, US10B, US26, US26D
 Fasteners: Two (2) #6 x 5/8" FPHWS
 Notes:
 - Ideal for narrow and standard door thicknesses
 - Automatic spring return



9884

Pocket Door Edge Pull

- Faceplate: 21/32" x 3-1/2" (16.5 mm x 89 mm)
 Finger Pull Extends: 1-1/16" (27 mm)
 Materials: Die cast zinc
 Finishes: US3
 Fasteners: Two (2) #6 x 5/8" FPHWS
 Notes: Ideal for narrow and standard door thicknesses

FILLER PLATES



336A
Door Edge Filler Plate - 161 Prep
 Size: 1-1/8" x 2-1/4"
 (29 mm x 57 mm)
 Thickness: 0.134" (3.4 mm)
 Materials: Primed steel



336G
Door Edge Filler Plate - Square
 Size: 1-3/4" x 5"
 (38 mm x 127 mm)
 Thickness: 0.134" (3.4 mm)
 Materials: Primed steel



336B
Door Edge Filler Plate - 86 Prep
 Size: 1-1/4" x 8"
 (32 mm x 203 mm)
 Thickness: 0.180" (4.5 mm)
 Materials: Primed steel



336H
Door Edge Filler Plate - Beveled
 Size: 1-1/2" x 5"
 (38 mm x 127 mm)
 Thickness: 0.134" (3.4 mm)
 Materials: Primed steel
 Notes: For handed doors



336C
Door Face Filler Plate
 Size: 1-3/4" (45 mm)
 diameter
 Thickness: 0.055" (1.4 mm)
 Materials: Primed steel



336J
Flush Bolt Strike Filler Plate - Frame
 Size: 15/16" x 2-1/4"
 (24 mm x 57 mm)
 Thickness: 0.083" (2.1 mm)
 Materials: Primed steel



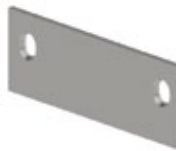
336D
Door Face Filler Plate
 Size: 2-5/8" (67 mm)
 diameter
 Thickness: 0.055" (1.4 mm)
 Materials: Primed steel



336K
Flush Bolt Filler Plate - Door
 Size: 1" x 6-3/4"
 (25 mm x 172 mm)
 Thickness: 0.134" (3.4 mm)
 Materials: Primed steel



336E
Door Edge Filler Plate - Square
 Size: 1-3/4" x 4-1/2"
 (45 mm x 114 mm)
 Thickness: 0.134" (3.4 mm)
 Materials: Primed steel



336L
Hinge Filler Plate - Frame
 Size: 1-5/8" x 4-1/2"
 (41 mm x 114 mm)
 Thickness: 0.134" (3.4 mm)
 Materials: Primed steel



336F
Door Edge Filler Plate - Bevel
 Size: 1-1/2" x 4-1/2"
 (38 mm x 114 mm)
 Thickness: 0.134" (3.4 mm)
 Materials: Primed steel
 Notes: For handed doors



FILLER PLATES



336M
Hinge Filler Plate - Frame
 Size: 1-5/8" x 5"
 (41 mm x 127 mm)
 Thickness: 0.134" (3.4 mm)
 Materials: Primed steel



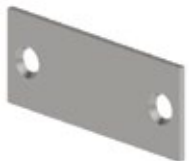
337A
Template Hinge Shim
 Size: 1-7/16" x 4-1/2"
 (37 mm x 114 mm)
 Thickness: 0.028" (0.7 mm)
 Materials: Primed steel



336N
Latch Adapter Filler Plate - 86 to 161 Edge Prep
 Size: 1-1/4" x 8"
 (32 mm x 203 mm)
 Thickness: 0.238" (6 mm)
 Materials: Primed steel



337B
Template Hinge Shim
 Size: 1-7/16" x 4-1/2"
 (37 mm x 114 mm)
 Thickness: 0.065" (1.7 mm)
 Materials: Primed steel



336P
Deadlock Strike Filler Plate - Frame
 Size: 1-1/8" x 2-3/4"
 (29 mm x 70 mm)
 Thickness: 0.083" (2.1 mm)
 Materials: Primed steel



337C
Template Hinge Shim
 Size: 1-7/16" x 5"
 (37 mm x 127 mm)
 Thickness: 0.028" (0.7 mm)
 Materials: Primed steel



336Q
ASA Strike Filler Plate - Frame
 Size: 1-1/4" x 4-7/8"
 (32 mm x 124 mm)
 Thickness: 0.093" (2.4 mm)
 Materials: Primed steel



337D
Template Hinge Shim
 Size: 1-7/16" x 5"
 (37 mm x 127 mm)
 Thickness: 0.065" (1.7 mm)
 Materials: Primed steel



336R
Cylindrical Lock Strike Filler Plate - Frame
 Size: 1-1/8" x 2-3/4"
 (29 mm x 70 mm)
 Thickness: 0.083" (2.1 mm)
 Materials: Primed steel



SIGNAGE

PUSH

PULL

350H | 350L

Engraved Plastic Sign - Push (350H) and Pull (350L)

- Certification: Meets ANSI A156.16 L03201
 Materials: 0.125" (3.2 mm) thick plastic
 Lettering: 3/4" (19 mm) Helvetica
 Size: 2" x 4" (51 mm x 102 mm)
 Fasteners: Double-sided pressure sensitive tape or screws (specify)
 Colors:
 - Brown (W1) with white lettering
 - Black (W2) with white lettering
 - Blue (W3) with white lettering
 - Silver (B1) with black lettering
 - Gold (B2) with black lettering
 Notes: Signs are individually packed in a poly bag

MEN

WOMEN

350M | 350W

Engraved Plastic Sign - Men (350M) and Women (350W)

- Certification: Meets ANSI A156.16 L03201
 Materials: 0.125" (3.2 mm) thick plastic
 Lettering: 3/4" (19 mm) Helvetica
 Size: 2" x 5" (51 mm x 127 mm)
 Fasteners: Double-sided pressure sensitive tape or screws (specify)
 Colors:
 - Brown (W1) with white lettering
 - Black (W2) with white lettering
 - Blue (W3) with white lettering
 - Silver (B1) with black lettering
 - Gold (B2) with black lettering
 Notes: Signs are individually packed in a poly bag

635

350R

Engraved Plastic Sign - Number

- Certification: Meets ANSI A156.16 L03201
 Materials: 0.125" (3.2 mm) thick plastic
 Lettering: 3/4" (19 mm) Helvetica
 Size: 2" x 4" (51 mm x 102 mm)
 Fasteners: Double-sided pressure sensitive tape or screws (specify)
 Colors:
 - Brown (W1) with white lettering
 - Black (W2) with white lettering
 - Blue (W3) with white lettering
 - Silver (B1) with black lettering
 Notes:
 - Signs are individually packed in a poly bag
 - Please note numbers to be engraved when ordering

PUSH

PULL

351H | 351L

Engraved Plastic Sign - Push (351H) and Pull (351L)

- Certification: Meets ANSI A156.16 L03201
 Materials: 0.125" (3.2 mm) thick plastic
 Lettering: 3/4" (19 mm) Helvetica
 Size: 1" x 4-1/2" (25 mm x 114 mm)
 Fasteners: Double-sided pressure sensitive tape or screws (specify)
 Colors:
 - Brown (W1) with white lettering
 - Black (W2) with white lettering
 - Blue (W3) with white lettering
 - Silver (B1) with black lettering
 - Gold (B2) with black lettering
 Notes: Signs are individually packed in a poly bag





SIGNAGE



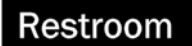
352M | 352W

Engraved Plastic Sign - Men (352M) and Women (352W)

Certification: Meets ANSI A156.16 L03201
Materials: 0.125" (3.2 mm) thick plastic
Lettering: 3/4" (19 mm) Helvetica
Size: 352M - 2-1/2" x 6" (64 mm x 152 mm)
 352W - 2-1/2" x 7" (64 mm x 178 mm)
Fasteners: Double-sided pressure sensitive tape or screws (specify)
Colors:

- Brown (W1) with white lettering
- Black (W2) with white lettering
- Blue (W3) with white lettering
- Silver (B1) with black lettering
- Gold (B2) with black lettering

Notes: Signs are individually packed in a poly bag



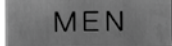
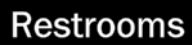
354A | 354B

Engraved Plastic Sign - Restroom(s)

Certification: Meets ANSI A156.16 L03201
Materials: 0.125" (3.2 mm) thick plastic
Lettering: 3/4" (19 mm) Helvetica
Size: 2" x 6" (51 mm x 127 mm)
Fasteners: Double-sided pressure sensitive tape or screws (specify)
Colors:

- Black (W2) with white lettering
- Blue (W3) with white lettering

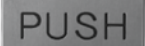
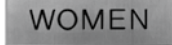
Notes: Signs are individually packed in a poly bag



360M | 360W

Engraved Metal Sign - Men (360M) and Women (360W)

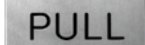
Certification: Meets ANSI A156.16 L03201
Materials: 0.050" (1.3 mm) thick metal
Lettering: 3/4" (19 mm) Helvetica black filled
Size: 2" x 6" (51 mm x 152 mm)
Fasteners: Double-sided pressure sensitive tape or screws (specify)
Finishes: US3, US28, US32D
Notes: Signs are individually packed in a poly bag



361H | 361L

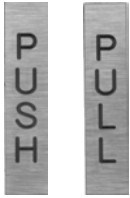
Engraved Metal Sign - Push (361H) and Pull (361L)

Certification: Meets ANSI A156.16 L03201
Materials: 0.050" (1.3 mm) thick metal
Lettering: 3/4" (19 mm) Helvetica black filled
Size: 2" x 4" (51 mm x 102 mm)
Fasteners: Double-sided pressure sensitive tape or screws (specify)
Finishes: US3, US10B, US28, US32D
Notes: Signs are individually packed in a poly bag





SIGNAGE



362H | 362L
Engraved Metal Sign - Push (362H) and Pull (362L)

Certification: Meets ANSI A156.16 L03201
Materials: 0.050" (1.3 mm) thick metal
Lettering: 3/4" (19 mm) Helvetica black filled
Size: 1" x 4-1/2" (25 mm x 114 mm)
Fasteners: Double-sided pressure sensitive tape or screws (specify)
Finishes: US3, US10B, US28, US32D
Notes: Signs are individually packed in a poly bag



364M | 364S
Plastic International Handicap Symbol

Certification: Meets ANSI A156.16 L03201
Materials: 0.0625" (1.6 mm) thick plastic raised HANDICAP symbol
Size: 364M - 4" x 4" (102 mm x 102 mm)
364S - 3" x 3" (76 mm x 76 mm)
Fasteners: Double-sided pressure sensitive tape standard or screws (specify)
Colors: Blue (W3) with raised white symbol
Notes: Signs are individually packed in a poly bag



364N
Engraved International No Smoking Symbol

Certification: Meets ANSI A156.16 L03201
Materials: 0.125" (3.2 mm) thick plastic
Size: 6" x 6" (152 mm x 152 mm)
Fasteners: Pressure sensitive tape standard or screws (specify)
Colors: Red (W4) with raised white symbol
Notes: Signs are individually packed in a poly bag



364L
Plastic International Handicap Symbol

Certification: Meets ANSI A156.16 L03201
Materials: 0.125" (3.2 mm) thick plastic 1/32" (0.8 mm) raised HANDICAP symbol
Size: 6" x 6" (152 mm x 152 mm)
Fasteners: Double-sided pressure sensitive tape standard or screws (specify)
Colors:

- Brown (W4) with raised white symbol
- Black (W2) with raised white symbol
- Blue (W3) with raised white symbol

Notes: Signs are individually packed in a poly bag



365M | 365W
ADA Tactile Signage - Men (365M) and Women (365W)

Certification: Meets ANSI A156.16 L03201
Materials: 0.125" (3.2 mm) thick plastic
Size: 6" x 8" (152 mm x 203 mm)
Fasteners: Double-sided pressure sensitive tape
Colors:

- Brown (W1) with raised white symbol
- Black (W2) with raised white symbol
- Blue (W3) with raised white symbol

Notes:

- Signs are individually packed in a poly bag
- Grade 2 Braille Translation conforming to section 4.30 requirements





SIGNAGE

325

366R ADA Tactile Signage - Room Number

- Certification: Meets ANSI A156.16 L03201
 Materials: 0.125" (3.2 mm) thick plastic
 Size: 2-1/2" x 5" (64 mm x 127 mm)
 Fasteners: Double-sided pressure sensitive tape
 Colors:
 - Brown (W1) with raised white lettering
 - Black (W2) with raised white lettering
 - Blue (W3) with raised white lettering
 Notes:
 - Signs are individually packed in a poly bag
 - Grade 2 Braille Translation conforming to section 4.30 requirements
 - Please note numbers to be engraved when ordering



366S ADA Tactile Signage - Stairs

- Certification: Meets ANSI A156.16 L03201
 Materials: 0.125" (3.2 mm) thick plastic
 Size: 6" x 8" (152 mm x 203 mm)
 Fasteners: Double-sided pressure sensitive tape
 Colors:
 - Brown (W1) with white symbol and lettering
 - Black (W2) with white symbol and lettering
 - Blue (W3) with white symbol and lettering
 Notes:
 - Signs are individually packed in a poly bag
 - Grade 2 Braille Translation conforming to section 4.30 requirements



368E ADA Tactile Signage - Exit

- Certification: Meets ANSI A156.16 L03201
 Materials: 0.125" (3.2 mm) thick plastic
 Size: 6" x 8" (152 mm x 203 mm)
 Fasteners: Double-sided pressure sensitive tape
 Colors:
 - Brown (W1) with white symbol and lettering
 - Black (W2) with white symbol and lettering
 - Blue (W3) with white symbol and lettering
 Notes:
 - Signs are individually packed in a poly bag
 - Grade 2 Braille Translation conforming to section 4.30 requirements



368M | 368W ADA Tactile Signage - Men (365M) and Women (365W) with Handicap

- Certification: Meets ANSI A156.16 L03201
 Materials: 0.125" (3.2 mm) thick plastic
 Size: 6" x 8" (152 mm x 203 mm)
 Fasteners: Double-sided pressure sensitive tape
 Colors:
 - Brown (W1) with white symbol and lettering
 - Black (W2) with white symbol and lettering
 - Blue (W3) with white symbol and lettering
 Notes:
 - Signs are individually packed in a poly bag
 - Grade 2 Braille Translation conforming to section 4.30 requirements





SIGNAGE



368U

ADA Tactile Signage - Unisex

- Certification: Meets ANSI A156.16 L03201
- Materials: 0.125" (3.2 mm) thick plastic
- Size: 8" x 8" (203 mm x 203 mm)
- Fasteners: Double-sided pressure sensitive tape
- Colors:
 - Brown (W1) with white symbol and lettering
 - Black (W2) with white symbol and lettering
 - Blue (W3) with white symbol and lettering
- Notes:
 - Signs are individually packed in a poly bag
 - Grade 2 Braille Translation conforming to section 4.30 requirements



369L | 369R

ADA Tactile Signage - Access Left (369L) and Access Right (369R)

- Certification: Meets ANSI A156.16 L03201
- Materials: 0.125" (3.2 mm) thick plastic
- Size: 6" x 8" (152 mm x 203 mm)
- Fasteners: Double-sided pressure sensitive tape
- Colors:
 - Brown (W1) with white symbol and lettering
 - Black (W2) with white symbol and lettering
 - Blue (W3) with white symbol and lettering
- Notes:
 - Signs are individually packed in a poly bag
 - Grade 2 Braille Translation conforming to section 4.30 requirements



370U | 370W | 370M

ADA Tactile Signage - Restroom, Men, and Women

- Certification: Meets ANSI A156.16 L03201
- Materials: 9/16" (14.3 mm) plastic
- Size:
 - 370U - 12" (305 mm) diameter
 - 370W - 12" (305 mm) diameter
 - 370M - 10-1/2" (267 mm) side
- Fasteners: Double-sided pressure sensitive tape
- Color: Blue (W3) with white raised symbol and lettering
- Notes:
 - Signs are individually packed in a poly bag
 - Grade 2 Braille Translation conforming to section 4.30 requirements





MISCELLANEOUS



274B

Door Guard Protection Plate

- Size: 1-1/8" x 1" x 1/2" (28.5 mm x 25 mm x 12.5 mm)
 Materials: Brass
 Finishes: US3, US4, US10, US10B, US15, US26, US26D
 Notes:
 - Used when additional protective plate is required for frame application
 - Mounted with double-sided tape
 - To be used with the 274D



274C

Shim for Door Guard

- Size:
 - 1-1/16" X 1-5/8" (27 mm X 41 mm)
 - 1-1/8" x 1-1/16" (29 mm x 27 mm)
 Thickness: 3/32" (2.3 mm)
 Materials: Black rubber
 Notes: To be used with the 274D



274D

Door Guard

- Certification: Meets ANSI A156.16 for L13041
 Arm Length: 4-1/2" (114 mm)
 Materials: Brass
 Finishes: US3, US4, US10, US10B, US15, US26, US26D
 Fasteners: Three (3) #6 x 1-1/2" OPHWS, four (4) #6 x 3/4" OPHWS, and seven (7) 6-32 x 12" OPHMS
 Notes:
 - Permits door to be slightly opened to allow viewing
 - Hinged bar allows the door guard to be positioned 180 degrees away from the door when not in use
 - Includes door guard protective plate 274B



277D

Door Guard

- Certification:
 - Meets NFPA 80 5.2.13.3
 - Meets NFPA 80 5.2.4.2(9)
 - ADA Compliant Arm
 Size:
 - Base: 2-5/8" H x 1-9/16" W
 - Projection: 2-3/16"
 Materials: Cast zinc
 Finishes: US3, US4, US10B, US15, US26, US26D
 Fasteners:
 - Three (3) #12 x 1- 3/4" FPHSMS
 - Three (3) 12-24 machine screws



300D

Chain Door Check

- Certification: Meets ANSI A156.16 for L02231
 Lengths:
 - 25-1/2" (648 mm) recommended for use with 36" (914 mm) wide door
 - 30-1/2" (775 mm) recommended for use with 42" (1067 mm) wide door
 Base Plate: 1-1/2" x 1-1/2" (38 mm x 38 mm)
 Materials:
 - Cast zinc base
 - Galvanized steel chain
 - EDPM rubber cover
 Finish: US26D
 Fasteners: Ten (10) #8 x 1" FPHSMS
 Notes:
 - Tear resistant grey vinyl cover
 - Can be ordered through door mounting with grommet nut sets at extra charge
 - 440 pound load strength
 - Designed for full size exterior doors



MISCELLANEOUS



301D **Residential Stop**

- Certification: Meets ANSI A156.16 for L02223
Materials: Wrought steel with rubber bumpers
Finishes: 2C, US3
Notes:
- Works with 1/4" (6 mm) and 5/16" (8 mm) hinge pins
 - For use where standard door stops are not desirable
 - Positive slip proof design
 - Adjustable from 70 degrees to 100 degrees
 - Must purchase an NRP hinge for use with this pinstop



303W **Handrail Bracket**

- Certification: Meets ANSI A156.16 for L03061
Base Diameter: 3-5/32" (80 mm)
Base to Center of Rail: 2-3/4" (70 mm)
Materials: Brass
Finishes: US3, US4, US10, US10B, US15A, US19, US26, US26D
Fasteners: Three (3) #10 x 1-1/4" FPHWS, three (3) plastic anchors, three (3) 10-24 x 13/16" FPHMS, and three (3) 10-24 lead anchors



305D **Wire Pull**

- Certification: Meets ANSI A156.9 for B02011
Diameter of Rod: 5/16" (7.9 mm)
Projection: 1-9/32" (32.5 mm)
CTC Lengths: 3" (76 mm), 3-1/2" (89 mm), 4" (102 mm)
Materials: Brass
Finishes: US3, US4, US10, US10B, US26, US26D
Fasteners: Two (2) 8-32 x 1" TPHMS



307D **Door Silencer**

- Certification: Meets ANSI A156.16 for L03011
Diameter: 1/2" (13 mm)
Projection: 1/8" (3 mm)
Materials: Rubber
Notes:
- For use with metal frames
 - Proper installation eliminates door rattle and provides constant tension for door latches or locks



308D **Door Silencer**

- Certification: Meets ANSI A156.16 for L0302
Projection: 9/64" (3.5 mm)
Base: 3/8" x 3/4" (9.5 mm x 19 mm)
Length: 3/4" (19 mm)
Materials: Rubber
Notes:
- For use with wood frames
 - Eliminates door rattle when door is latched
 - Proper installation eliminates door rattle and provides constant tension for door latches or locks





MISCELLANEOUS



310C Conversion Kit

- Filler Plate: 1-1-8" x 3-3/8" (29 mm x 86 mm)
 Strike: 1-11/16" x 2-1/4" (43 mm x 57 mm)
 Materials: Brass
 Finishes: US10B, US26D
 Notes:
 - Packed with filler plate, strike and fasteners
 - Change door from Roller Latch to Push/Pull Latch



322V Wrought Door Knocker with Viewer (115°)

- Certification: Meets ANSI A156.16 for L03163
 Size: 2-3/16" x 3-1/4" (56 mm x 83 mm)
 Materials: Brass
 Finishes: US3, US4, US10, US26D
 Fasteners: Three (3) #6 x 3/4" TPHSMS
 Engraving: Available up to four characters
 Notes: Requires 1/2" (13 mm) hole for viewer



334V Door Knocker with Viewer (115°)

- Certification: Meets ANSI A156.16 for L03163
 Size: 3-9/16" x 6-3/4" (90.5 mm x 171.5 mm)
 Materials: Solid Cast Brass
 Finishes: US3, US4, US10, US10B, US26, US26D
 Fasteners:
 - Two (2) #8 finish washers
 - Two (2) 7-32 x 1-7/8" OHMS for 1-5/8" doors
 - Two (2) 7-32 x 2" OHMS for 1-3/4" doors
 Engraving: Available up to four characters



1755 115° Door Viewer

- Certification: Meets ANSI A156.16 for L03223
 Materials: Brass
 Finishes: US3, US4, US5, US10A, US15, US15A, US26, US26D
 Door Thickness: 1-3/8" - 2-1/8" thick, adjustable
 Notes:
 - For doors up to 2-1/8" (54 mm) thick, adjustable
 - Requires 1/2" (13 mm) hole for viewer
 - Tamper resistant
 - 90 minute fire-rated
 - One-way viewer



MISCELLANEOUS



1756 185° Door Viewer

- Certification: Meets ANSI A156.16 for L03223
 Materials: Brass
 Finishes: US3, US4, US5, US10A, US15, US15A, US26, US26D
 Notes:
 - For doors up to 2-1/8" (54 mm) thick, adjustable
 - Requires 9/16" (14 mm) hole for viewer
 - Tamper resistant
 - 90 minute fire-rated
 - One-way viewer



1758 115° Door Viewer with Privacy Flap

- Certification: Meets ANSI A156.16 for L03223
 Materials: Brass
 Finishes: US3, US10A, US26, US26D
 Notes:
 - Requires 1/2" (13 mm) hole for viewer
 - For doors 1-3/8" (35 mm) to 2-1/8" (54 mm) thick, adjustable
 - Tamper resistant
 - 90 minute fire-rated
 - One-way viewer
 - Flap diameter - 3/4"



1759 185° Door Viewer with Privacy Flap

- Certification: Meets ANSI A156.16 for L03223
 Materials: Brass
 Finishes: US3, US10A, US26, US26D
 Notes:
 - Requires 9/16" (14 mm) hole for viewer
 - For doors 1-3/8" (35 mm) to 2-1/8" (54 mm) thick, adjustable
 - Tamper resistant
 - 90 minute fire-rated
 - One-way viewer
 - Flap diameter - 3/4"



1765 Privacy Flap for Use with Hager 115° Door Viewer (1755)

- Materials: Brass
 Finishes: US3, US10A, US26, US26D
 Notes: Flap diameter - 3/4"



1766 Privacy Flap for Use with Hager 185° Door Viewer (1756)

- Materials: Brass
 Finishes: US3, US10A, US26, US26D
 Notes: Flap diameter - 3/4"





RESIDENTIAL



208

Kick Down Door Stop

- Base: 1-5/8" x 1-7/8" (41 mm x 48 mm)
 Arm: 3-7/8" (98 mm)
 Materials: Aluminum alloy
 Finishes: US3, US4, US5, US10A, US15A, US15, US26, US26D, ABA
 Fasteners: Three (3) #6 x 3/4" FPHWS
 Notes:
 - Poly bag (1 each) with screws
 - Provides simple hold and release with a touch of the foot
 - 3" (76 mm) max door to floor clearance



209

Floor Door Stop

- Height: 1-1/4" (32 mm)
 Base Diameter: 1-3/32" (28 mm)
 Tip Diameter: 19/32" (15 mm)
 Materials: Zinc alloy
 Finishes: US3, US4, US5, US10A, US15A, US15, US26, US26D, ABA
 Fasteners: One (1) #8 x 2" FPHWS
 Notes:
 - Non-marking white tip
 - 3/8" (9.5 mm) max door to floor clearance



210

Rigid Door Stop

- Projection: 3" (76 mm)
 Tip Diameter: 11/16" (17.5 mm)
 Base Diameter: 1" (25 mm)
 Materials: Zinc alloy
 Finishes: US3, US26, AN
 Fasteners: #8 x 5/8" thread
 Notes: Bumper made of rubber



211

Flexible Door Stop

- Projection: 3-1/8" (79 mm)
 Tip Diameter: 9/16" (14 mm)
 Base Diameter: 1" (25 mm)
 Materials: Steel
 Finishes: US3, US4, US5, US10A, US10R, US15A, US15, US26, US26D, ABA
 Fasteners: One (1) #8 x 3/4" PPHWS
 Notes:
 - Bumper made of rubber
 - Flexible spring



RESIDENTIAL



212

Hinge Pin Door Bumper

- Materials: Zinc alloy base
 Finishes: US3, US4, US5, US10A, US10R, US15A, US15, US26, US26D, ABA
 Notes:
 - Non-marking white plastic tip
 - For use where standard door stops are not desirable
 - For use with narrow trim
 - Adjustable from 80 degrees to 120 degrees
 - For use with residential hinges
 - Works with 1/4" (6 mm) hinge pins



1412

Door Guard

- Arm Length: 4 (102 mm)
 Materials: Zinc alloy base
 Finishes: U3, US4, US5, US10A, US15A, US15, US26, US26D, ABA
 Fasteners: Seven (7) #6 x 3/4" FPHWS
 Notes:
 - Provides extra security from inside door
 - Limits door opening when latch is thrown
 - Poly bag (1 each) with screws



1413

Flush Bolt

- Faceplate: 3/4" x 6" (19 mm x 181 mm)
 Strike: 7/8" x 1-3/4" (22 mm x 45 mm)
 Bolt Diameter: 1/2" (13 mm)
 Bolt Throw: 15/16" (24 mm)
 Bolt Backset: 7/16" (11 mm)
 Materials: Brass faceplate with steel components
 Finishes: US3, US4, US5, 10A, 10R, US15A, US15, US26D, ABA, AN
 Fasteners: Four (4) #6 x 3/4" FPHWS
 Notes:
 - Poly bag (1 each) with strikeplate and screws
 - Square corners



1414

Flush Bolt

- Faceplate: 3/4" x 6" (19 mm x 181 mm)
 Strike: 7/8" x 1-3/4" (22 mm x 45 mm)
 Bolt Diameter: 1/2" (12.7 mm)
 Bolt Throw: 15/16" (24 mm)
 Bolt Backset: 7/16" (11 mm)
 Materials: Brass faceplate with steel components
 Finishes: US3, US4, US5, 10A, 10R, US15A, US15, US26, US26D, ABA, AN
 Fasteners: Four (4) #6 x 3/4" FPHWS
 Notes:
 - Poly bag (1 each) with strikeplate and screws
 - Rounded corners





RESIDENTIAL



1415 Strike Plate

- Size: 7/8" x 1-3/4" (22 mm x 45 mm)
 Finishes: US3, US10A, US15A, US15, US26D
 Fasteners: Two (2) #6 x 3/4" FPHWS
 Notes:
 - For use with 1413 and 1414 Flush Bolts
 - Packed (1 each) with Poly bag and screws



1416 Single Route Flush Bolt

- Faceplate: 3/4" x 7-1/8" (19 mm x 181 mm)
 Strike: 21/32" x 1-1/2" (17 mm x 38 mm)
 Bolt Diameter: 5/16" (8 mm)
 Bolt Throw: 7/8" (22 mm)
 Bolt Backset: 3/8" (9.5 mm)
 Materials: Brass faceplate with steel components
 Finishes: US3, US4, US5, US10A, US10R, US15A, US15, US26, US26D, ABA
 Fasteners: Two (2) #8 x 1-1/2" FPHWS and two (2) #6 x 3/4" FPHWS
 Notes:
 - Poly bag (1 each) with strikeplate and screws
 - Rounded corners
 - Single route for quick and simple door prep



1418 Flush Bolt with Extension Rod

- Faceplate: 23/32" x 7-3/8" (18 mm x 187 mm)
 Strike: 5/8" x 1-1/2" (16 mm x 38 mm)
 Bolt Diameter: 5/16" (8 mm)
 Bolt Throw: 3/4" (19 mm)
 Bolt Backset: 3/8" (9.5 mm)
 Extension Rod Length: 16" (406 mm)
 Materials: Brass faceplate with steel components
 Finishes: US3, US4, US5, US10A, US10R, US15A, US15, US26, US26D, ABA
 Fasteners: Two (2) #8 x 1-1/2" FPHWS and two (2) #6 x 3/4" FPHWS
 Notes:
 - Poly bag (1 each) with strikeplate and screws
 - Rounded corners
 - Single route for quick and simple door prep



1419 Flush Bolt with Extension Rod

- Faceplate: 3/4" x 7-1/8" (19 mm x 181 mm)
 Strike: 5/8" x 1-1/2" (16 mm x 38 mm)
 Bolt Diameter: 5/16" (8 mm)
 Bolt throw: 3/4" (19 mm)
 Bolt Backset: 5/16" (8 mm)
 Materials: Brass faceplate with steel components
 Fasteners: Two (2) #8 x 1-1/2" FPHWS and two (2) #6 x 3/4" FPHWS
 Finishes: US3, US4, US10A, US10R, US15, US26, US26D, ABA, AN
 Notes: Single route for quick and simple door prep



1439 | BL6439

Magnetic Catch - Light Weight

- Catch: 1-1/16" x 2" (27 mm x 51 mm)
 Strike: 7/8" x 1" (22 mm x 25 mm)
 Materials: Tan plastic case
 Fasteners: Two (2) #6 x 1/2" TPHWS and one (1) #4 x 1/2" FPHWS
 Notes:
 - Poly bag (1 each) with screws
 - Double-sided magnet, self-aligning, 6 lb. pull
 - Self aligning magnet insures maximum pull
 - BL6439 is Builder's Pack Poly bag (1 each) with screws



**1445
Roller Latch**

- Hole Diameter: 13/16" (21 mm)
 Hole Depth: 1-1/8" (29 mm)
 Materials: Zinc alloy base
 Finishes: US3, US4, US5, US10A, US10R, US15A, US15, US26, US26D, ABA
 Fasteners: Two (2) #4 x 3/4" FPHWS
 Notes:
 - Poly bag (1 each) with screws
 - Designed for use on cabinets and lightweight doors
 - Not intended for heavy weight applications



**1446
Light Weight Ball Catch**

- Faceplate: 1" x 2-1/4" (25 mm x 57 mm)
 Strike: 1-3/8" x 2-1/4" (35 mm x 57 mm)
 Hole Diameter: 1" (25 mm)
 Hole Depth: 1-1/4" (32 mm)
 Materials: Steel housing, brass strike, plated steel ball
 Finishes: US3, US4, US5, US10A, US10R, US15A, US15, US26, US26D
 Fasteners: Four (4) #6 FPHWS
 Notes:
 - Designed for use on cabinets and light weight doors
 - Not intended for heavy weight applications
 - Ball adjusts in and out for various door and frame clearances
 - Poly bag (1 each) with steel screws



**1447
Light Weight Ball Catch**

- Strike: 1-3/8" x 2-1/4" (35 mm x 57 mm)
 Faceplate: 1" (25 mm) diameter
 Hole Diameter: 15/16" (24 mm)
 Hole Depth: 1-1/4" (32 mm)
 Materials: Zinc housing, brass strike, plated steel ball
 Finishes: US3, US4, US5, US10A, US10R, US15A, US15, US26, US26D
 Fasteners: Two (2) #6 FPHWS
 Notes:
 - Designed for use on cabinets and light weight doors
 - Not intended for heavy weight applications
 - Ball adjusts in and out for various door and frame clearances
 - Poly bag (1 each) with steel screws





RESIDENTIAL



1448 Strike Plate

Size: 1-3/8" x 2-1/4" (35 mm x 57 mm)
 Material: Brass
 Finishes: US3, US4, US5, US10A, US10R, US15A, US15, US26, US26D, ABA
 Fasteners: Two (2) #6 FPHWS
 Notes: For use with 1446 and 1447 ball catches



1449 Drive In Ball Catch

Faceplate: 1" (25 mm) diameter
 Hole Diameter: 15/16" (24 mm)
 Hole Depth: 1-1/4" (32 mm)
 Materials: Zinc housing, plated steel ball
 Finishes: US4
 Packaging: 100 per box
 Notes:

- Ball catch designed for use on cabinets and light weight doors
- Not intended for heavyweight applications
- Ball adjusts in and out for various door and frame clearances



BL6793 Pole Sockets

Outside Diameter: 2-7/16" (62 mm)
 Materials: Steel
 Notes:

- For poles up to 1-3/8" (35 mm) diameter
- Flange design prevents accidental knock out of pole
- Poly bag (2 each) with screws



BL6794 Pole Sockets

Outside Diameter: 2-3/16" (56 mm)
 Materials: Plastic
 Notes:

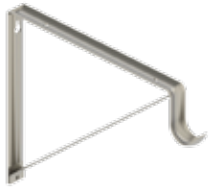
- For poles up to 1-3/8" (35 mm) diameter
- Poly bag (2 each) with screws



1795 Closet Rod

Pole Diameter: 1" (25 mm)
 Available Lengths: 18" - 30"
 30" - 48"
 48" - 72"
 72" - 96"
 96" - 150"
 Materials: Steel with bright zinc finish
 Finishes: White enamel
 Fasteners: Six (6) #8 x 1" TPH tapping screws
 Notes:

- Quick mount end
- High strength lock seam tubing
- Poly bag (1 each) with screws

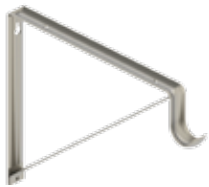


1797

Shelf Bracket with 2-1/2" Drop

Materials: Steel ANSI B04051
 Finishes: White Enamel
 Fasteners: Two (2) #8 x 5/8" PPH tapping screws and two (2) #10 x 1-1/2" PPH tapping screws

- Notes:
- For shelf and rod support
 - Heavy gauge steel construction embossed for added strength
 - Holds 1-3/8" (35 mm) diameter rod
 - Supports 12" (305 mm) shelf
 - Bulk with screws
 - 150 lbs. load rating

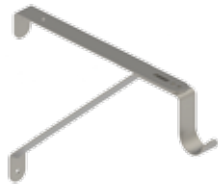


1798

Shelf Bracket with 3" Drop

Materials: Steel ANSI B04051
 Finishes: White Enamel
 Fasteners: Two (2) #8 x 5/8" PPH tapping screws and two (2) #10 x 1-1/2" PPH tapping screws

- Notes:
- For shelf and rod support
 - Heavy gauge steel construction embossed for added strength
 - Holds 1-3/8" (35 mm) diameter rod
 - Supports 12" (305 mm) shelf
 - Bulk with screws
 - 150 lbs. load rating



1799

Shelf Bracket - Adjustable

Materials: Steel ANSI B04051
 Finishes: White Enamel
 Fasteners: Two (2) #8 x 3/4" PPH tapping screws and two (2) #10 x 1-1/2" PPH tapping screws

- Notes:
- Adjustable shelf and rod support
 - Heavy gauge steel construction embossed for added strength
 - Holds 1-3/8" (35 mm) diameter rod
 - Supports 12" (305 mm) shelf
 - 3/4" (19 mm) adjustability
 - Bulk with screws



1801

Shelf Bracket

Materials: Steel ANSI B04051
 Finishes: White enamel
 Fasteners: Two (2) #8 x 5/8" PPH tapping screws and two (2) #10 x 1-1/2" PPH tapping screws

- Notes:
- Less rod support
 - Heavy gauge steel construction embossed for added strength
 - Supports 12" (305 mm) shelf
 - Bulk with screws





RESIDENTIAL



6601

Handrail Bracket

Projection: 3-1/4" (82.5 mm)
Base to Center of Rail: 2-3/4" (70 mm)
Materials: Cast aluminum
Finishes: US3, US4, US5, US10A, US10R, US15, US15A, US26, US26D, ABA
Fasteners: Three (3) #8 x 1-1/2" OPHWS and two (2) #8 x 3/4" OPHWS
Notes: Poly bag (1 each) with wood screws and rail bracket



BL6610

Coat and Hat Hook

Upper Projection: 2-13/16" (71 mm)
Lower Projection: 1-5/16" (33 mm)
Material: Cast steel
Finishes: US3, US4, US5, US10A, US15A, US15, US26, US26D, ABA
Fasteners: Two (2) #6 x 3/4" FPHWS
Notes:

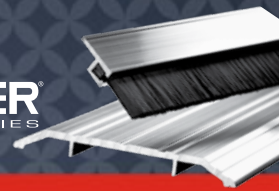
- Poly bag (1 each) with screws
- Builder's pack



One Family. One Brand. One Vision.™

www.hagerco.com

Thresholds & Weatherstripping



Hager Companies offers a complete line of thresholds & weatherstripping products for virtually any type of door application. What's more, each meets or exceeds ANSI-grade quality, durability, and performance levels. For enhanced levels of safety and security, we also offer intumescent products for positive pressure solutions, including edge sealing and smoke control systems. All of which make Hager threshold, weatherstripping, and door bottom products an excellent choice for standard or custom applications in schools, hospitals, office buildings, and more.

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GENERAL INFORMATION

PRODUCT PRESENTATION

Dimensions on bronze and stainless steel extrusions may differ slightly than those detailed. Questions regarding any dimensions should be directed to Hager Companies Customer Service.

Drawings or illustrations used in the catalog are subject to change without notice. Questions on any dimensions should be obtained by contacting Hager Companies Customer Service.

FABRICATION OPTIONS

- Bevel one edge of threshold
- Rip one edge width of threshold
- L-notch both ends of threshold
- U-notch both ends of threshold
- Miter single one end of threshold
- Miter single both ends of threshold
- Miter double one end of threshold
- Miter double both ends of threshold
- Tack weld one line of threshold
- Pan for water return of threshold
- Sure Step Non-Slip Abrasive Coating – A rugged, durable coating that can be applied to all Hager Companies' metal thresholds. Ideal for thresholds being used in wet, oily or corrosive environments.

MATERIALS & FINISHES

Metals

All aluminum extrusions are of alloy 6063-T5. All bronze extrusions are of alloy CDA385 brass specified as Architectural Bronze in the industry.

For stock finishes, refer to the code listed below each individual item throughout the catalog. Please inquire for the availability on nonstock finishes.

- MIL** - mill finish aluminum
- CAL** - cast aluminum
- GYP** - primed steel grey
- DBA** - dark bronze anodized aluminum
- SCA** - Hager Sure Step on aluminum
- 32D** - stainless steel (non-extruded)
- GLD** - gold anodized aluminum
- CLR** - clear anodized aluminum
- LBA** - light bronze anodized aluminum
- SCB** - Hager Sure Step on bronze
- WHP** - white paint on aluminum
- USP** - prime coat

Notes: Threshold profiles shown refer to aluminum material only, dimensions may vary for mill finish bronze thresholds.

Gaskets

Gasketing is available in a wide variety of materials. Vinyl is an economical choice and remains flexible down to -40°F (-40°C). EPDM gasketing is supplied both as a solid (dense) and as a closed cell sponge with a tough outer skin. It remains flexible down to -50°F (-49°C). Silicone gasketing provides the best resistance to cold by remaining flexible down to -70°F (-57°C). Refer to the price book for a list of available replacement gaskets. Gasketing codes are listed below.

- B** - nylon brush
- F** - vinyl with fins
- N** - neoprene
- S** - silicone
- V** - vinyl
- W** - pile (thread may be removed to allow expansion)

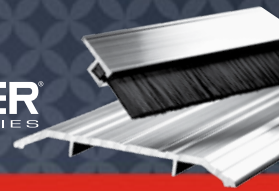
ORDERING INFORMATION

When ordering, please specify by product number, length, quantity, finish and fasteners required. Thresholds & weatherstripping are fabricated in standard sizes with 1/2" (12.7 mm) extra on thresholds 50" (1270 mm) and under. Thresholds over 50" (1270 mm) are supplied with 1" (25 mm) extra length for fitting. Exact lengths are available upon request (specify CTEL).

Example: **891S V 36 x 84 MIL**

<u>Item #</u>	<u>Gasketing</u>	<u>Size</u>	<u>Finish</u>
515S	W-pile	36" (914 mm)	MIL - mill finish aluminum
599S	V-vinyl	48" (1219 mm)	DBA - dark bronze anodized aluminum
750S	S-silicone	36" (914 mm)	32D - matte stainless steel
870S	N-neoprene	36" x 84" (914 mm x 2133 mm)	CLR - clear anodized aluminum
882S	B-nylon Brush	48" x 96" (1219 mm x 2438 mm)	OOO - gasket only
881S	N-neoprene	48" x 84" (914 mm x 2133 mm)	MIB - mill finish bronze





GENERAL INFORMATION

FASTENERS

Standard

All products are furnished with appropriate fasteners as listed, except where noted. Most thresholds are furnished with mounting holes and #10 x 1-1/2" flat head sheet metal screws. Most weatherstripping products are furnished with slotted holes and #6 x 5/8" pan head sheet metal screws.

Optional

Thresholds

- #10 wood screws and plastic anchors
- #10 wood screws and lead anchors
- #10 machine screws and lead anchors
- #10 stainless steel wood screws
- #10 stainless steel wood screws and plastic anchors
- #10 stainless steel wood and lead anchors
- 1/4-20 stainless steel machine screws and lead anchors
- 1/4-20 machine screws and lead anchors
- 1/4-20 x 2" flat head sleeve anchor
- #10 torx sheet metal screws
- #10 stainless steel torx wood screws
- #10-24 x 1-1/2" stainless steel torx machine screw with lead anchor
- #10-stainless steel spanner head wood screw with lead anchor
- Cast-on anchors (cast products only)
- Tap-con type (1/4" x 1-3/4")

Weatherstripping

- #6 x 5/8" pan-head stainless steel screws
- #6 x 5/8" self-drilling (TEK) screws (Steel-zinc plated)
- #6 x 5/8" pan-head torx sheet metal screws
- #6 x 5/8" stainless steel self-drilling (TEK) screws
- 1/4 - 20 x 1-1/4" sex bolts
- Two-way self-adhesive tape

GENERAL INSTALLATION INSTRUCTIONS FOR PRESS-ON PRODUCTS:

- Product returnable within first 6 months after purchase date
- Installation should take place after construction has been completed, and final cleaning has taken place
- The frame should be cleaned; isopropyl alcohol is recommended
- Not recommended for unsealed or porous applications
- Do not store these products in extreme heat/cold or for prolonged periods of time

CERTIFICATIONS



Handicap Accessibility

Products denoted by this symbol are designed for applications where handicap accessibility is specified. These products are no greater than 1/2" (12.7 mm) in height and have no more than 1/4" (6.3 mm) vertical rise or with slope proportions no greater than 1:2 slope. Offset floor conditions greater than 1/2" (12.7 mm) require a 1:12 slope.



Air Infiltration

Products denoted by this symbol have been tested with air/smoke infiltration, all within the (0.500 cfm/sq. ft. for double doors and .300 cfm for single doors) maximum allowable leakage at a pressure of a 25 mph wind (1.56 psf). The tests were conducted in accordance with ASTM test procedures and meet ASTM: E283-91.



Sound Tested

Products denoted by this symbol have been sound tested and received the appropriate STC rating. The tests were conducted in accordance with ASTM test procedures and meet ASTM: E90-90 & ASTM: E413-87.

STC Rating Static Door	STC Rating Operable Door	Perimeter Seal	Automatic Door Bottom	Threshold
44	40	726	743S	520S
41	39	726 (2)	743S	520S



BHMA Certified

BHMA Certification Program was developed as a means for manufacturers of builders hardware to indicate compliance with American National Standards sponsored by BHMA. Participating manufacturers certify compliance with the standards based on a continuing program of passing the prescribed tests.



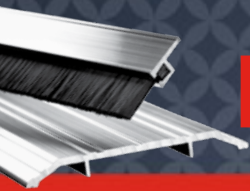
Underwriter's Laboratories

Products denoted by this symbol are classified and labeled by Underwriter's Laboratories, Inc.® as gasket material for use on listed steel frames and/or classified swinging type fire doors of the hollow metal or steel covered composite type rated up to 3 hours, or wood core fire doors rated up to 1-1/2 hours. Test results show these products do not adversely affect the fire resistance of the door or frame according to its UL rating. All products are regularly checked under a labeling and listing service. The clearance between the door and the frame and between the meeting edges of doors swinging in pairs shall be 1/8" ± 1/16" (3.18 mm ± 1.59 mm) for steel doors and shall not exceed 1/8" (3.2 mm) for wood doors.

- UL 10C (Positive Pressure) complies with IBC, NFPA 80 and NFPA 252 for hollow metal fire doors rated up to 3 hours and wood fire doors rated up to 90 minutes.
- UL 10B complies with NFPA 80 and NFPA 252 for hollow metal fire doors rated up to 3 hours and wood fire doors rated up to 90 minutes.

Notes: Ratings on some items may vary and are noted on the individual products. For a more complete look at classifications on individual products, please visit www.ul.com/database and reference R13647.





GENERAL INFORMATION

THE INTERNATIONAL BUILDING CODE (IBC)

The International Building Code (IBC) requires swinging fire doors to be tested in accordance with ANSI/UL 10C or NFPA 252, with the neutral pressure level established at 40 inches or less above the sill. This causes "positive pressure" forces against the door assembly above 40 inches.

The result is hot gases and smoke leak out between the door and frame above this level, posing a serious threat to life-safety; and on wood doors rapidly deteriorating the integrity of the door edges, requiring either a built-in or supplemental "edge sealing system" to pass the test.

Fire door assemblies in corridors and smoke barrier walls are required to be smoke and draft control assemblies tested in accordance with UL1784 allowing a maximum air leakage of 3 cubic feet per minute per square foot of door opening at ambient temperature (75°F) and elevated temperature (400°F). These assemblies require the letter "S" on the fire rating label of the door indicating compliance "when listed or labeled gasketing is also installed."

Fire doors are classified based upon their construction and edge sealing system requirements. Fire-rated gasketing is classified as follows:

Category G - Edge-sealing system

Category H - Smoke and draft control gasketing

Category J - Gaskets other than category G or H

Fire Test - Category G

Gaskets that are edge-sealing systems. Category "G" - edge-sealing systems are for use with fire doors requiring an edge seal to meet positive pressure code requirements. These systems are surface-applied to either the perimeter of the door frame or meeting edges of door pairs. Category "G" gaskets are usually intumescent material; this material will swell many times its original size during a fire and help contain the spread of fire by sealing the edges of the door.

Fire Test - Category J

Products that are positive pressure tested to determine that they do not contribute to flaming during a fire; they do not provide an edge-sealing system. Examples are gaskets used for sound, draft control or automatic door bottoms.

Smoke and Draft Control Test - Category H

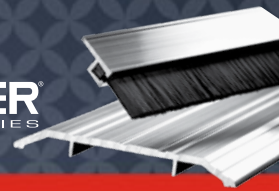


This is a separate second test that does not involve fire. All gaskets being tested for smoke must initially be fire tested under the requirements of UL 10C and receive a category "G" or "J" rating before being smoke tested.

Below are some key phrases that indicate positive pressure requirements:

- IBC 2003 (and later) - International Building Code
- UL 10-C - Positive Pressure Fire Test
- ASTM E-2074-00 - Fire Test of Door Assemblies
- Shall meet positive pressure requirements
- Intumescent seals - imply positive pressure

The www.iccsafe.org web site of the International Code Council (ICC) has a map of code adoption by state. This site is frequently updated and by clicking on a state, you can see what codes they have adopted.



GENERAL INFORMATION

New and existing fire doors are classified/labeled by one of the following designation systems:

-  Hourly rating designation
  Alphabetical letter designation
  A combination of both

Common Applications for Hager Positive Pressure Edge Sealing & Smoke Seal Systems



Wall Rating	Door and Frame Rating	Door Application and Use	Door Types		Fire Doors Edge Sealing System	Smoke Doors "S" Label Smoke Seal	Fire & Smoke Doors Combination Seal
4 Hr.	3 Hour (A Label) 180 Minute	Openings in fire walls and walls that divide a single building into fire areas	Hollow Metal Hollow Metal	Pairs Singles	— —	721, 726, 736, 737 721, 726, 736, 737	— —



2 Hr.	1 1/2 Hour (B Label) 90 minute	Openings to stairwells and elevator shafts; vertical communication or egress through a building, including 2-hr. rated partitions providing horizontal fire separations	Wood Composite Hollow Metal Wood Composite Hollow Metal	Pairs Pairs Singles Singles	724, 729 — 724, 729 —	721, 726, 736, 737 721, 726, 736, 737 721, 726, 736, 737 721, 726, 736, 737	719, 720, 722, 734 — 719, 720, 722, 734 —
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2 Hr.	1 1/2 Hour (D Label) 90 minute	Opening where there is a chance of severe fire exposure from the exterior of the building	Hollow Metal Hollow Metal	Pairs Singles	— —	721, 726, 736, 737 721, 726, 736, 737	— —
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1 Hr.	*1 Hour (B Label) 60 Minutes	Doors that divide occupancies in a building (building less than 4 stories tall)	Wood Wood	Pairs Singles	724, 729 724, 729	721, 726, 736, 737 721, 726, 736, 737	719, 720, 722, 734 719, 720, 722, 734
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*Currently rating only applies to wood doors.



1 Hr.	3/4 Hour (E Label) 45 Minute	Opening in an exterior wall with the potential to be exposed to moderate to light fire from the outside of the building	Hollow Metal Hollow Metal	Pairs Singles	— —	721, 726, 736, 737 721, 726, 736, 737	— —
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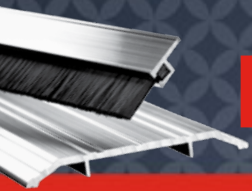


1 Hr.	3/4 Hour (C Label) 45 Minute	Openings in walls or partitions between rooms and corridors	Wood Composite Wood Composite	Pairs Singles	724, 729 724, 729	721, 726, 736, 737 721, 726, 736, 737	719, 720, 722, 734 719, 720, 722, 734
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1 Hr.	*1/3 Hour 20 Minute	Openings in corridors where smoke and draft control is required *Does not have letter designation	Wood/Particle Core Wood/Particle Core	Pairs Singles	724, 729 724, 729	721, 726, 736, 737 721, 726, 736, 737	719, 720, 722, 734 719, 720, 722, 734
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*All of the labels listed above have the capability of being both fire and smoke barrier openings. However, not all openings require a smoke label. Openings requiring smoke labels are detailed either by the fire authority having jurisdiction, local code, NFPA 101 or NFPA 5000.



THRESHOLDS - SADDLE

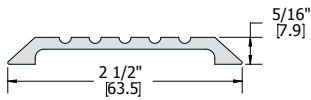
To effectively seal out the elements, use in conjunction with a door bottom, sweep, shoe, or bumper strip.

Fasteners: #10 x 1-1/2" sheet metal screws, other screw types and anchors available upon request

Options: Available with Sure Step Non-Slip Abrasive Coating

- Notes:
- MIL finish thresholds are supplied with zinc plated screws
 - Color anodized thresholds are supplied with screws plated to match
 - Stainless steel thresholds are supplied with stainless steel screws

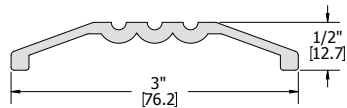
401S



Finishes: MIL, DBA, GLD

Certifications: **BHMA CERTIFIED**

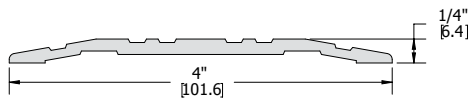
402S



Finishes: MIL, DBA, GLD

Certifications: **BHMA CERTIFIED**

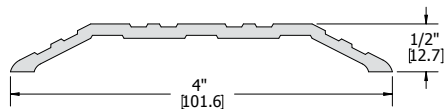
403S



Finishes: MIL, DBA, GLD, US32D

Certifications: **BHMA CERTIFIED**

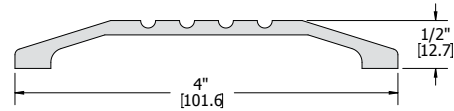
404S



Finishes: MIL, DBA, GLD, US32D

Certifications: **BHMA CERTIFIED**

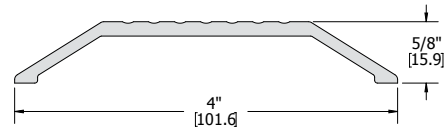
410S



Finishes: MIL, DBA, GLD, MIB

Certifications: **BHMA CERTIFIED**

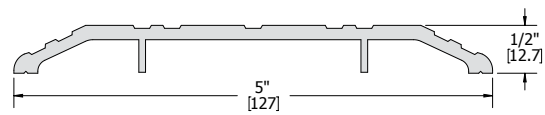
411S



Finishes: MIL, DBA, GLD

Certifications: **UL LISTED**

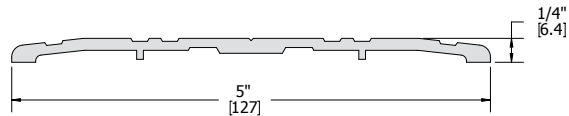
412S



Finishes: MIL, DBA, GLD, US32D, MIB

Certifications: **BHMA CERTIFIED**

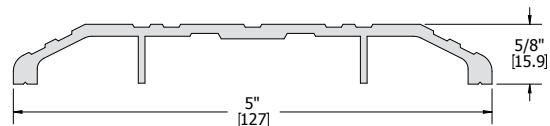
413S



Finishes: MIL, DBA, GLD, US32D

Certifications: **BHMA CERTIFIED**

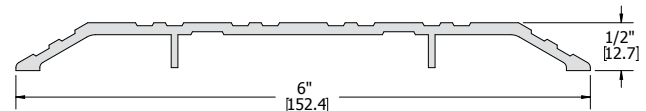
414S



Finishes: MIL, DBA, GLD

Certifications: **BHMA CERTIFIED**

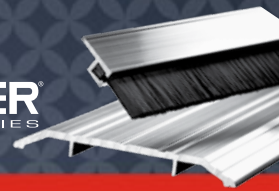
415S



Finishes: MIL, DBA, GLD

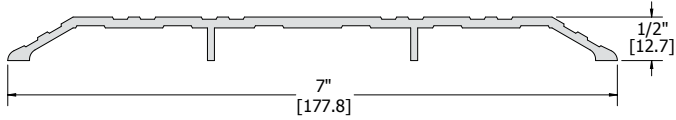
Certifications: **BHMA CERTIFIED**





THRESHOLDS - SADDLE

416S



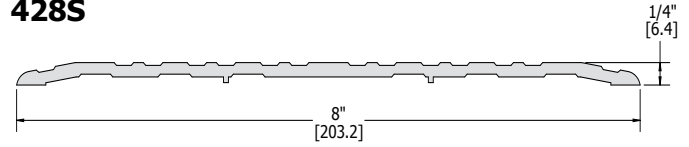
Finishes:

MIL, DBA, GLD

Certifications:



428S



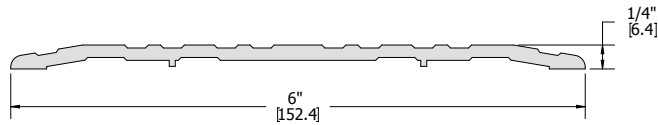
Finishes:

MIL, DBA, GLD

Certifications:



417S



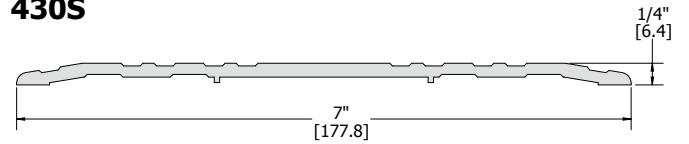
Finishes:

MIL, DBA, GLD

Certifications:



430S



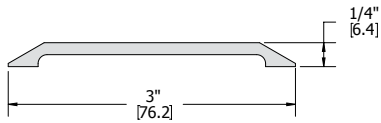
Finishes:

MIL, DBA, GLD

Certifications:



418S



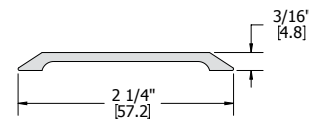
Finishes:

MIL, DBA, GLD

Certifications:



436S



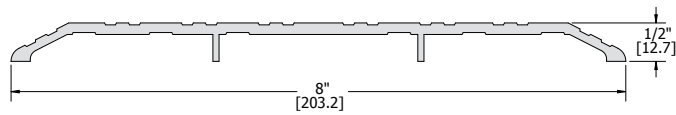
Finishes:

MIL, DBA, GLD

Certifications:



426S



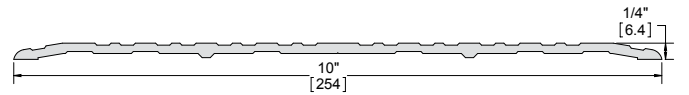
Finishes:

MIL, DBA, GLD

Certifications:



448S



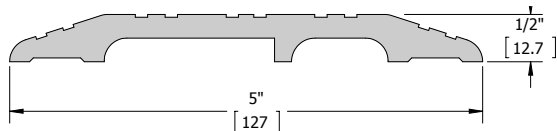
Finishes:

MIL, DBA

Certifications:



427S



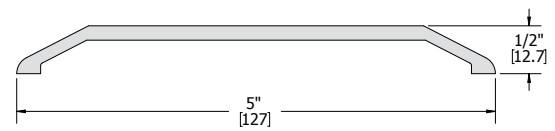
Finishes:

MIL, DBA

Certifications:



492S

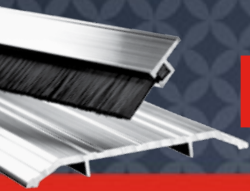


Finishes:

MIL, DBA, GLD

Certifications:





THRESHOLDS - THERMAL BARRIER SADDLE

High strength thermal barrier is permanently bonded in place to block the transfer of heat or cold. To provide a seal, use in conjunction with a door bottom, sweep, shoe or bumper strip.

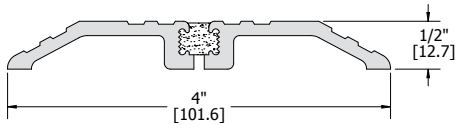
Fasteners: #10 x 1-1/2" sheet metal screws, other screw types and anchors available upon request

Options: Available with Sure Step non-slip abrasive coating

Notes:

- MIL finish thresholds are supplied with zinc plated screws
- Color anodized thresholds are supplied with screws plated to match

420S

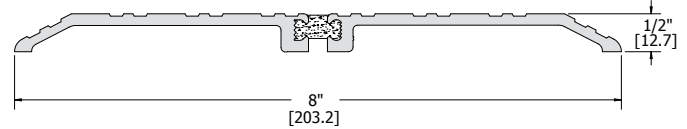


Finishes: MIL, DBA, GLD

Certifications:



424S

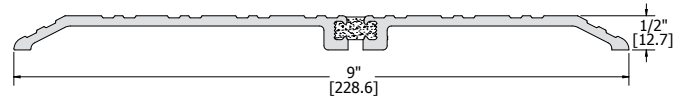


Finishes: MIL, DBA, GLD

Certifications:



451S

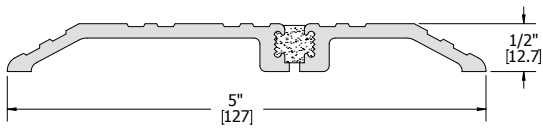


Finishes: MIL, DBA, GLD

Certifications:



421S

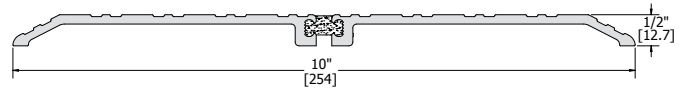


Finishes: MIL, DBA, GLD

Certifications:



452S

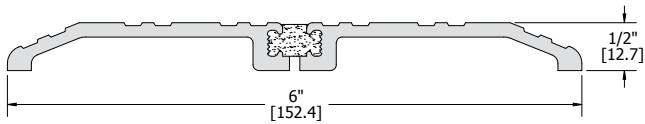


Finishes: MIL, DBA, GLD

Certifications:



422S

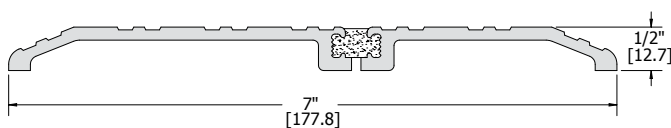


Finishes: MIL, DBA, GLD

Certifications:



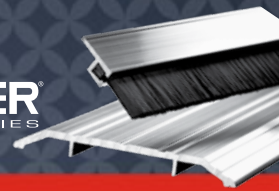
423S



Finishes: MIL, DBA, GLD

Certifications:





THRESHOLDS - HALF SADDLE

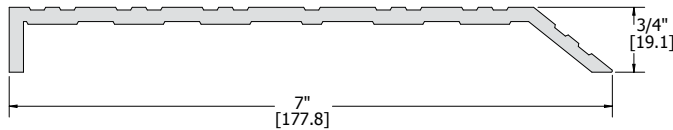
Fasteners: #10 x 1-1/2" sheet metal screws, other screw types and anchors available upon request

Options: Available with Sure Step non-slip abrasive coating

Notes:

- MIL finish thresholds are supplied with zinc plated screws
- Color anodized thresholds are supplied with screws plated to match

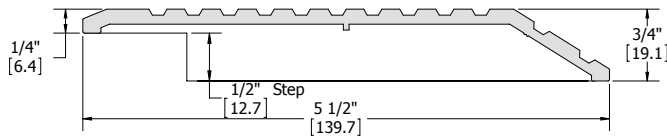
406S



Finishes: MIL, DBA, GLD

Certifications: 

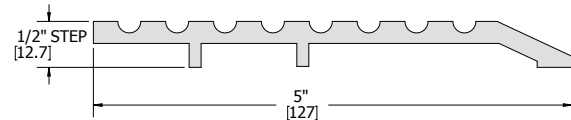
407S






Finishes: MIL, DBA, GLD

Certifications: 

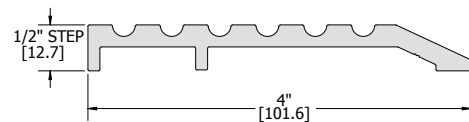
431S






Finishes: MIL, DBA, GLD, MIB

Certifications:   

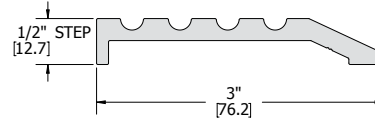
432S



Finishes: MIL, DBA, GLD

Certifications:   

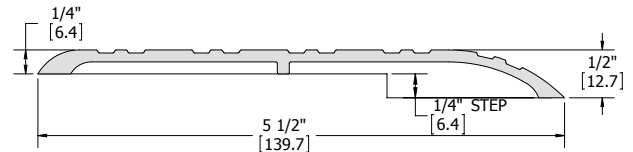
433S






Finishes: MIL, DBA, GLD

Certifications:   

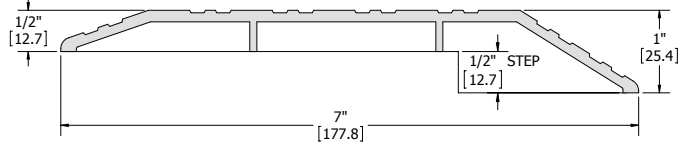
438S



Finishes: MIL, DBA

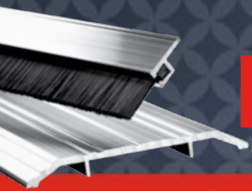
Certifications:   

572S



Finishes: MIL, DBA, GLD

Certifications: 

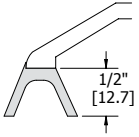


THRESHOLDS - ELEVATOR AND BUMPER STRIPS

Use in conjunction with a threshold

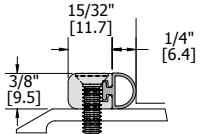
Fasteners: #10 - 24 x 5/8" flat head self-tapping screws to attach bumper strip directly to an existing threshold

480S



Finishes: MIL, DBA

481S

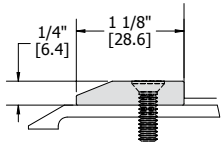


Finishes: MIL, DBA, GLD
 Insert: V, N, S, W

Certifications:



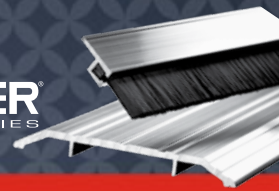
484S



Finishes: MIL, DBA, GLD

Certifications:

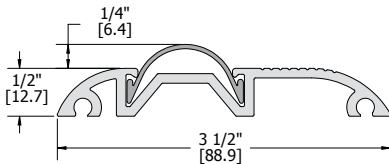




THRESHOLDS - RESIDENTIAL

All thresholds appearing in this column are available with Sure Step Non-Slip Abrasive Coating.

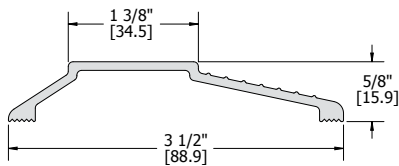
400S



Finishes: MIL, DBA, GLD
 Insert: V
 Certifications: 

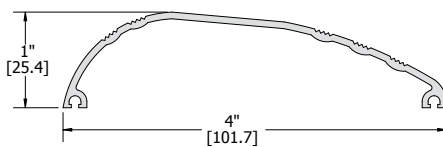
Notes: Vinyl gasket eliminates the need for door shoe or sweeps

408S



Finishes: MIL, DBA, GLD
 Certifications: 

419S



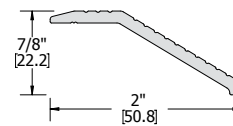
Finishes: MIL, DBA, GLD
 Certifications: 

THRESHOLDS - CARPET

Fasteners: #10 x 1-1/2" sheet metal screws, other screw types and anchors available upon request
 Options: Available with Sure Step non-slip abrasive coating
 Notes:

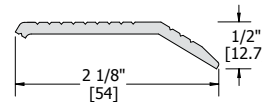
- MIL finish thresholds are supplied with zinc plated screws
- Color anodized thresholds are supplied with screws plated to match

503S



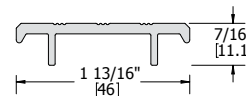
Finishes: MIL, DBA, GLD
 Certifications: 



504S



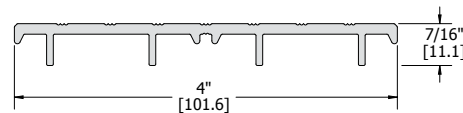
Finishes: MIL, DBA, GLD
 Certifications: 



505S



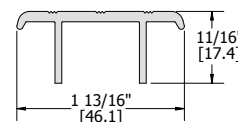
Finishes: MIL, DBA, GLD
 Certifications:  

506S

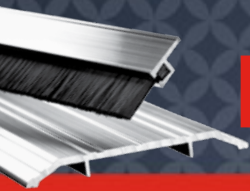


Finishes: MIL, DBA, GLD
 Certifications:  

508S



Finishes: MIL, DBA, GLD
 Certifications: 

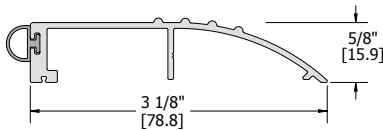


THRESHOLDS - BUMPER

For use with outswinging doors to seal out the elements
 Fasteners: #10 x 1-1/2" sheet metal screws, other screw types and anchors available upon request
 Options: Available with Sure Step non-slip abrasive coating
 Notes:

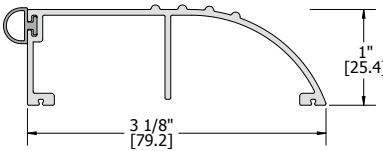
- MIL finish thresholds are supplied with zinc plated screws
- Color anodized thresholds are supplied with screws plated to match

434S



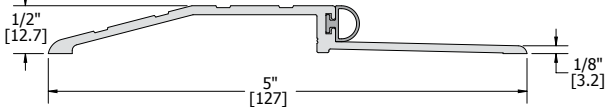
Finishes: MIL, DBA, GLD
 Insert: V, N, S, W
 Certifications:

435S



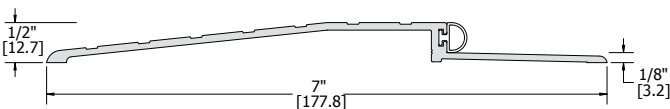
Finishes: MIL, DBA, GLD
 Insert: V, N, S, W
 Certifications:

477S



Finishes: MIL, DBA, GLD
 Insert: V, N, S, W
 Certifications:

478S



Finishes: MIL, DBA, GLD
 Insert: V, N, S, W
 Certifications:

THRESHOLDS - ADA RAMP

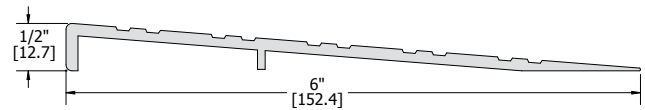
Ramp threshold that provides a 1:12 slope to meet the requirements of the Americans With Disabilities Act

Order: To create a ramp that is a combination of the 442S and 443S, order 444S

Fasteners: #10 x 1-1/2" Flat head wood screws
 Options: Available with Sure Step non-slip abrasive coating
 Notes:

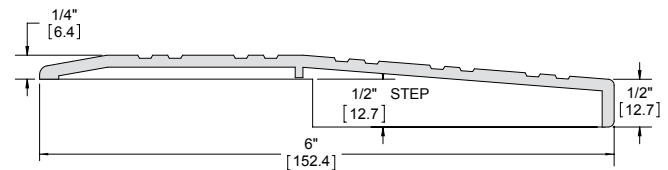
- MIL finish thresholds are supplied with zinc plated screws
- Color anodized thresholds are supplied with screws plated to match

442S



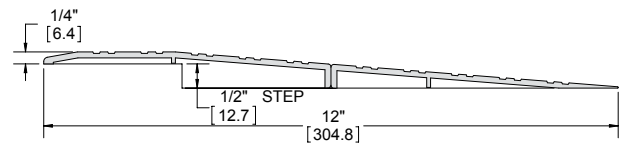
Finishes: MIL, DBA, GLD
 Certifications:

443S



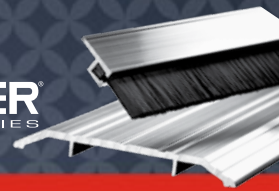
Finishes: MIL, DBA, GLD
 Certifications:

444S



Finishes: MIL, DBA, GLD
 Certifications:





THRESHOLDS - FLOOR PLATE ASSEMBLY

Floor plate components for modular threshold system. Used primarily for extra wide door frames or to cover expansion joints or floor joists

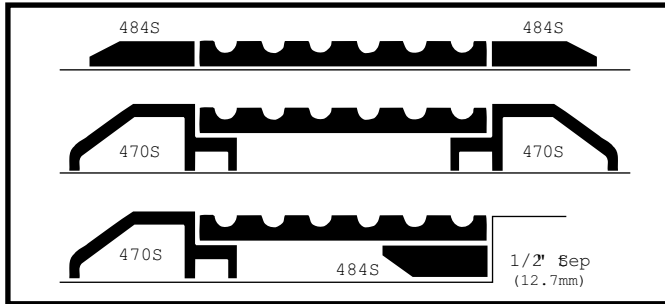
Fasteners: Plates and plate supports are furnished without holes and fasteners unless specified

Options:

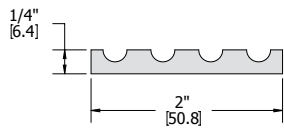
- Available with Sure Step non-slip abrasive coating
- Beveled Edges are available

Notes: Plates may be used fluted or smooth side up

Typical Applications



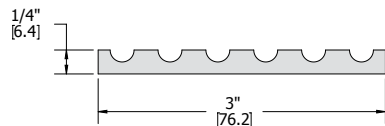
440S



Finishes: MIL, DBA, GLD

Certifications: 

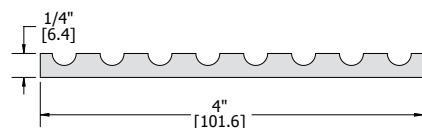
445S



Finishes: MIL, DBA, GLD

Certifications: 

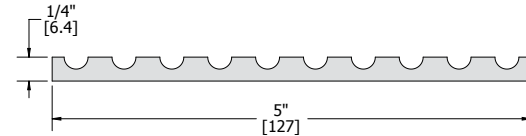
450S



Finishes: MIL, DBA, GLD

Certifications: 

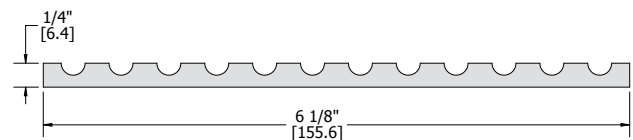
455S



Finishes: MIL, DBA, GLD

Certifications: 

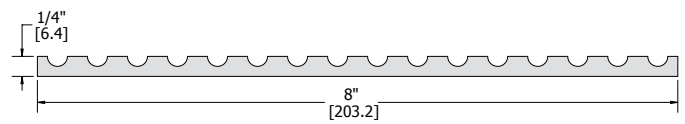
460S



Finishes: MIL, DBA, GLD

Certifications: 

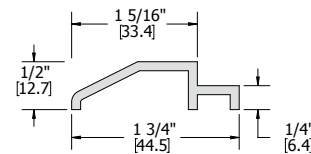
465S



Finishes: MIL, DBA, GLD

Certifications: 

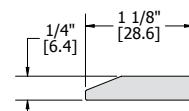
470S



Finishes: MIL, DBA, GLD

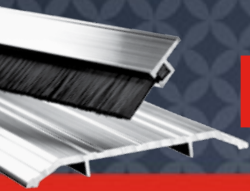
Certifications: 

484S



Finishes: MIL, DBA, GLD

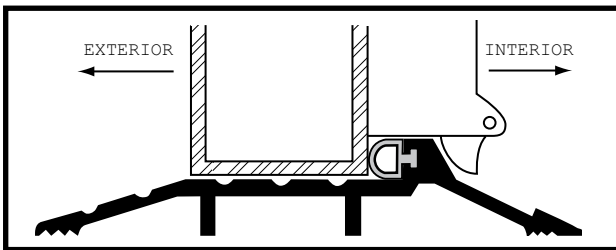
Certifications: 



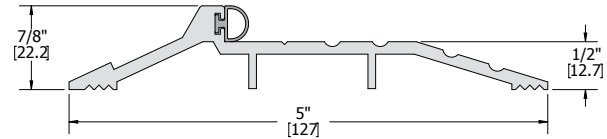
THRESHOLDS - PANIC

- Use in conjunction with surface applied vertical rod exit device
- Fasteners: #10 x 1-1/2" flat head sheet metal screws, other screw types and anchors available upon request
- Options: Available with Sure Step non-slip abrasive coating
- Notes:
 - MIL finish thresholds are supplied with zinc plated screws
 - Color anodized thresholds are supplied with screws plated to match
 - Special under cuts may be required

Typical Applications

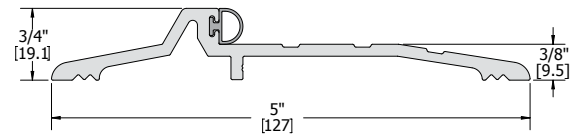


541S



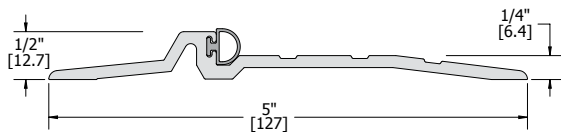
- Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 5/8"
 Certifications:

552S



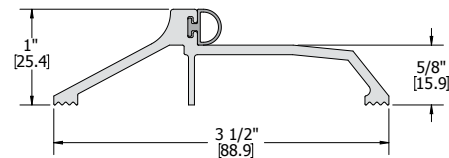
- Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 1/2"
 Certifications:

520S



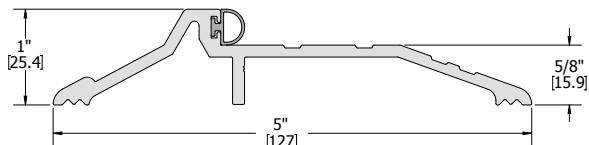
- Finishes: MIL, DBA, GLD, MIB
 Inserts: V, N, S, W
 Door Undercut: Allow 3/8"
 Certifications:

560S



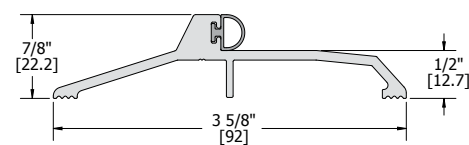
- Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 3/4"
 Certifications:

532S



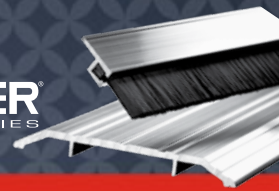
- Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 3/4"
 Certifications:

565S



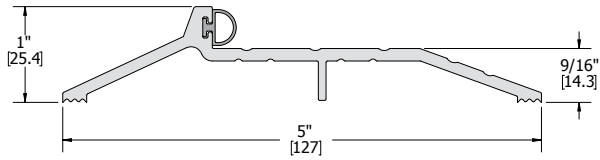
- Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 5/8"
 Certifications:





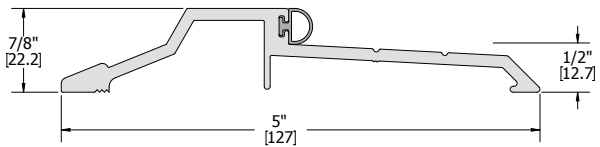
THRESHOLDS - PANIC

575S



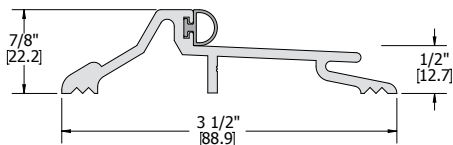
Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 11/16"
 Certifications:  


580S



Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 5/8"
 Certifications:  

599S



Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 5/8"
 Certifications:  

THRESHOLDS - THERMAL BARRIER PANIC

Threshold for latching panic devices that have a thermal barrier permanently bonded in place to effectively block the transfer of heat or cold. Use in conjunction with surface applied vertical rod exit device.

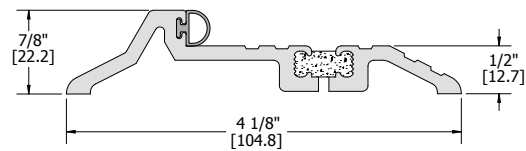
Fasteners: #10 x 1-1/2" Flat head sheet metal screws, other screw types and anchors available upon request

Options: Available with Sure Step non-slip abrasive coating

Notes:

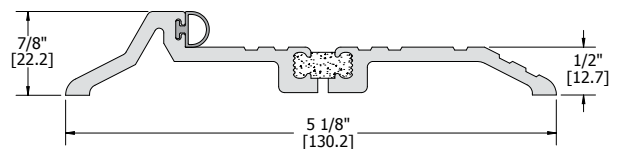
- MIL finish thresholds are supplied with zinc plated screws
- Color anodized thresholds are supplied with screws plated to match

515S



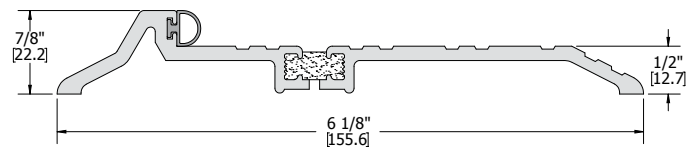
Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Certifications: 


516S



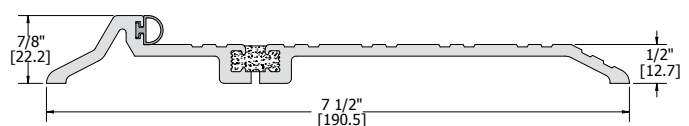
Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Certifications: 

517S

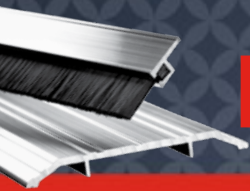


Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Certifications: 

518S



Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Certifications: 



THRESHOLDS - INTERLOCKING

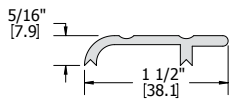
Threshold interlocks with hook on the bottom of the door for a superior seal against wind and rain

Fasteners: #10 x 1-1/2" Flat head sheet metal screws, other screw types and anchors available upon request

Options: Available with Sure Step non-slip abrasive coating

- Notes:
- MIL finish thresholds are supplied with zinc plated screws
 - Color anodized thresholds are supplied with screws plated to match
 - Thresholds are supplied with the 701S J-Hook
 - Metal doors must have flush bottom for proper J-hook installation

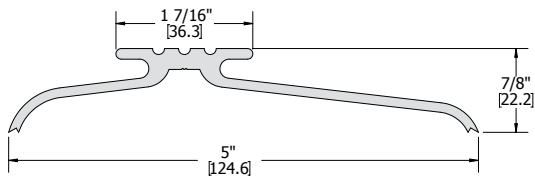
600S



Finishes: MIL, DBA, GLD

Certifications:

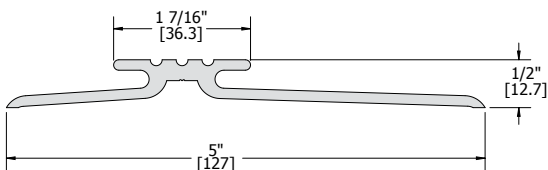
603S



Finishes: MIL, DBA

Certifications:

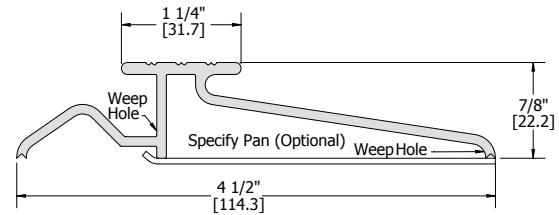
604S



Finishes: MIL, DBA

Certifications:

608S



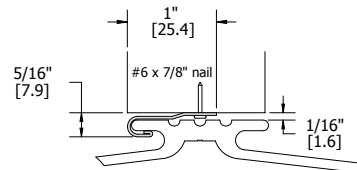
Finishes: MIL, DBA, GLD (612S only)

Certifications:

- Notes:
- Water return feature designed to catch water and return it to the outside through weep holes
 - Optional pan keeps water from coming in contact with the floor

Order: Specify "with pan" when ordering

701S

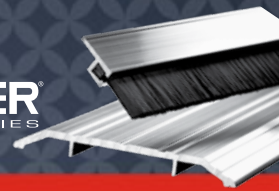


Finishes: MIL
Fasteners: #6 x 7/8" nail

Certifications:

- Notes:
- J-Hook interlocks with threshold to seal against wind and rain





THRESHOLDS- ABRASIVE CAST ALUMINUM

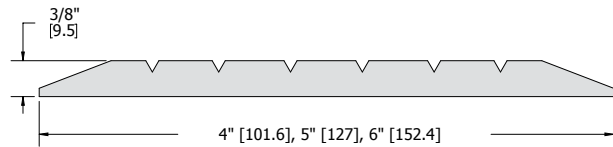
A heavy duty aluminum threshold with silicon carbide granules integrally cast into the surface. Ideal for high traffic areas where maximum durability is required. The abrasive, skid resistant surface works well under wet, dry or oily conditions.

Fasteners: #1/4" flat head zinc plated sheet metal screws with lead anchor

Options: Cast-on anchors available upon request

- Notes:
- Furnished with countersunk holes
 - Cut with a reinforced abrasive plain surface disk, 1/8" thick, either aluminum oxide or silicon carbide
 - Maximum length available is 8 feet, not available for floor closers
 - Available in 4", 5" and 6" widths

626S



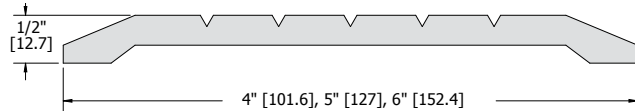
Finishes:

CAL

Certifications:



627S

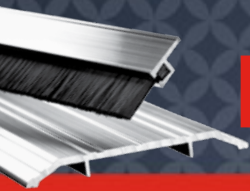


Finishes:

CAL

Certifications:





THRESHOLDS - FLOOR CLOSER

Used with floor closers either center or offset hung, single/double door application

Fasteners: #10 x 1-1/2" flat head sheet metal screws, other screw types and anchors available upon request

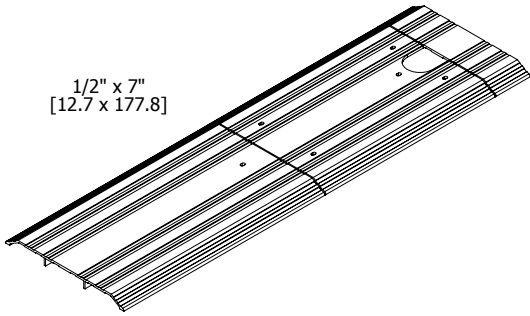
Options: Available with Sure Step non-slip abrasive coating
Order: Specify closer manufacturer, offset, closer model number, thickness of door, width of door opening and handing

Notes:

- MIL finish thresholds are supplied with zinc plated screws
- Color anodized thresholds are supplied with screws plated to match

651S - Center Hung

1/2" x 7"
[12.7 x 177.8]



Finishes:
Certifications:

MIL, DBA

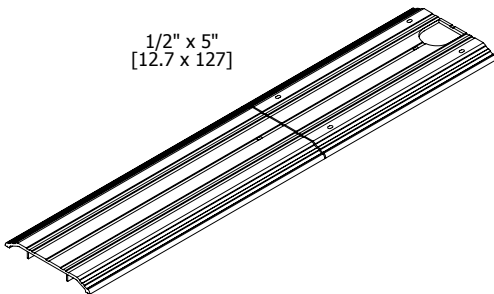


Notes:

- Center hung
- Without mitered ends

652S - Center Hung

1/2" x 5"
[12.7 x 127]



Finishes:
Certifications:

MIL, DBA

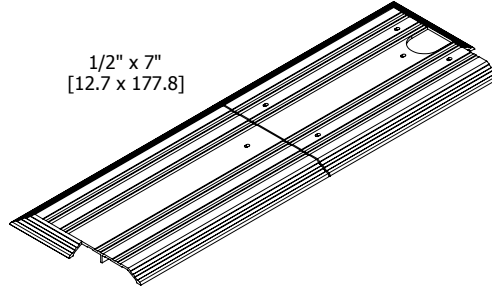


Notes:

- Center hung
- Without mitered ends

653S - Offset Hung

1/2" x 7"
[12.7 x 177.8]



Finishes:
Certifications:

MIL, DBA

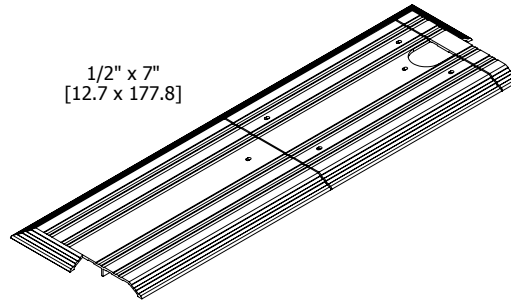


Notes:

- Offset hung
- With mitered ends

654S - Center Hung

1/2" x 7"
[12.7 x 177.8]



Finishes:
Certifications:

MIL, DBA

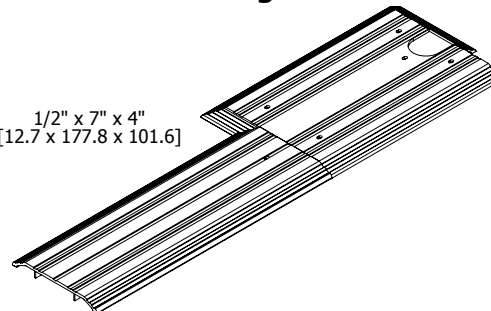


Notes:

- Center hung
- With mitered ends

655S - Offset Hung

1/2" x 7" x 4"
[12.7 x 177.8 x 101.6]



Finishes:
Certifications:

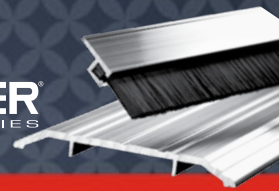
MIL, DBA



Notes:

- Offset hung
- With mitered ends





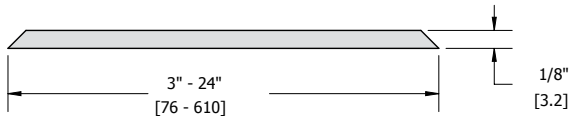
THRESHOLDS - COVER PLATES

Cover Plates are used primarily to cover expansion joints and for situations requiring extra width or strength. Manufactured from solid cold rolled aluminum for extra durability.

Fasteners: Furnished without holes and fasteners unless specified

Notes: • Available to 96" in length
 • Furnished with both edges beveled

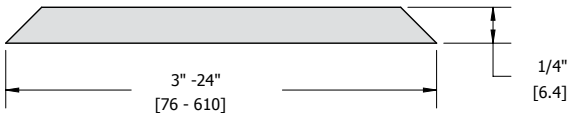
676S



Finishes:
 Certifications:

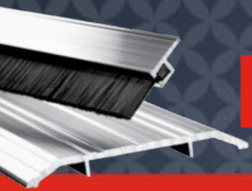


677S



Finishes:
 Certifications:

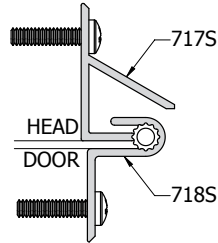
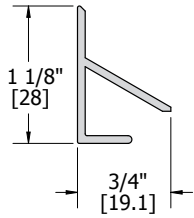




WEATHERSTRIPPING - INTERLOCKING/OVERHEAD DRIP GUARDS

Fasteners: #6 x 5/8" pan head sheet metal screws

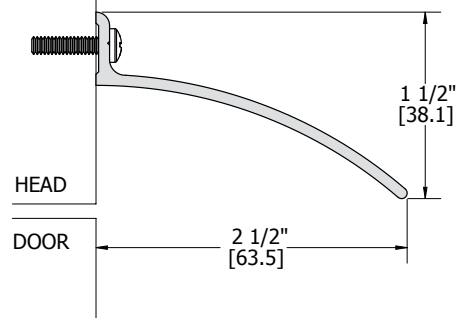
717S



Finishes:
Certifications:

MIL, DBA

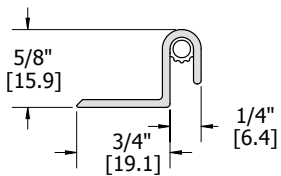
810S



Finishes:
Certifications:

MIL, DBA, GLD

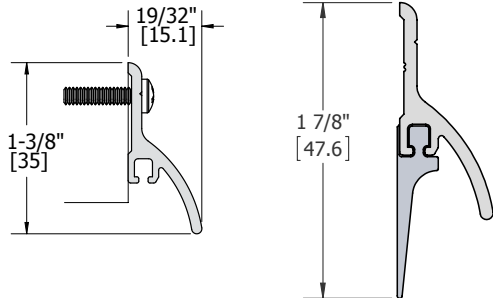
718S



Finishes:
Inserts:
Certifications:

MIL, DBA, GLD
 V

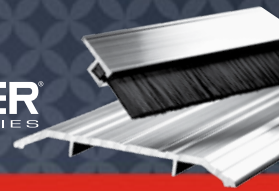
770S



Finishes:
Inserts:
Category:
Certifications:

MIL, DBA, GLD
 B, V, or without insert
 H, J (with insert)

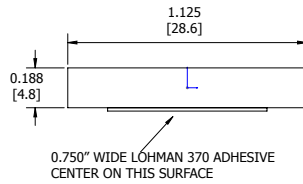




WEATHERSTRIPPING - PRESS-ON GASKETING

Adhesive Mullion Seal

710S



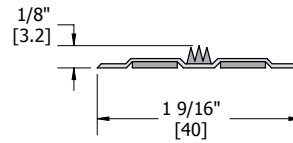
Finishes:
Category:
Certifications:

Black
H&J



Notes:
• Sponge Neoprene

734



Finishes: Charcoal, Brown, Tan
White

Category: H, G, J

Certifications:



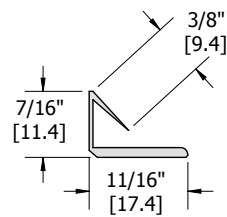
Notes:

- Intumescent material
- Thermoplastic Elastomer (TPE) material

Combination Edge-Sealing System with Smoke Control

Field applied edge-sealing system gaskets with integrated smoke fin. Add to the frame of a B, C or 1/3 hour labeled fire door.

719



Finishes: Charcoal, Brown, Gray, Tan,
White

Category: H, G, J

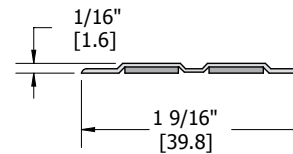
Certifications:



Notes:

- Requires 1/8" clearance
- Not recommended for door frames with 1/2" stop or less
- Recommend 3/16" backset - door side hinge
- Intumescent material
- Thermoplastic Elastomer (TPE) material

724



Finishes:

Category:

Certifications:

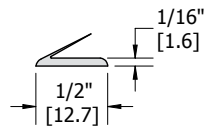
Charcoal, Brown, Gray, Tan, White
G



Notes:

- Intumescent material
- Thermoplastic Elastomer (TPE) material

720



Finishes: Charcoal, Brown, Gray, Tan,
White

Category: H, G, J

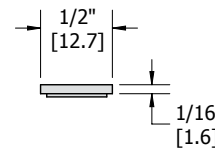
Certifications:



Notes:

- Thin design for doors and frames with tight tolerances
- Intumescent material
- Thermoplastic Elastomer (TPE) material

729



Finishes:

Category:

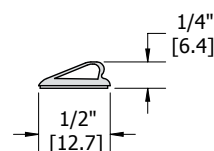
Certifications:



Notes:

- Intumescent material
- Thermoplastic Elastomer (TPE) material

722



Finishes: Charcoal, Brown, Tan, White

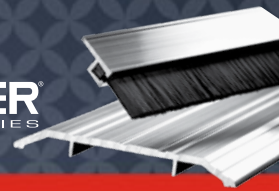
Category: H, G, J

Certifications:



Notes:

- Requires 1/8" clearance.
- Recommend 3/16" backset - door side hinge
- Intumescent material
- Thermoplastic Elastomer (TPE) material



WEATHERSTRIPPING - DOOR BOTTOMS

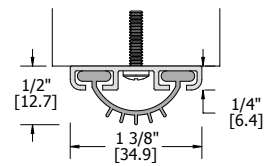
Provides a seal against weather. For best results, use in conjunction with a threshold.

Fasteners: #6 x 5/8" pan head sheet metal screws

Notes:

- Lengths up to 48" are supplied 1/2" over their stated size to allow for fitting
- Lengths over 48" are supplied 1" over size
- "Cut to exact length," may be specified
- Constructed of strong extruded 6063-T5 aluminum

774S



Finishes: MIL, DBA

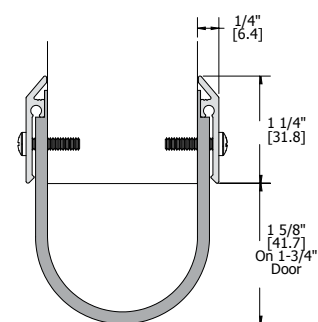
Inserts: V, N

Category: H, J

Certifications:



776S



Finishes: CLR, DBA, GLD

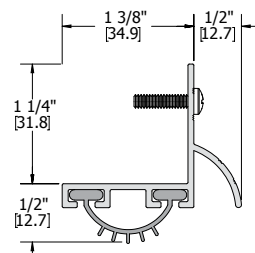
Inserts: N

Category: H, J

Certifications:



777S



Finishes: MIL, DBA, GLD

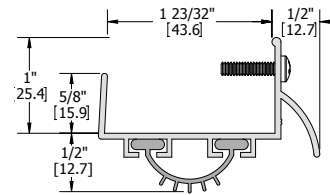
Inserts: V, N

Category: H, J

Certifications:



778S



Finishes: MIL, DBA, GLD

Inserts: V, N

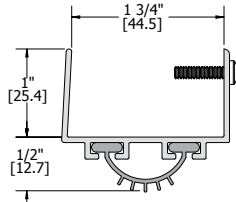
Category: H, J



Certifications:



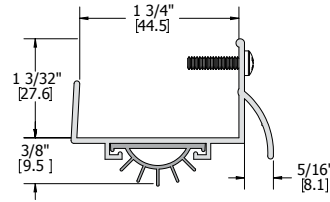
WEATHERSTRIPPING - DOOR BOTTOMS


779S



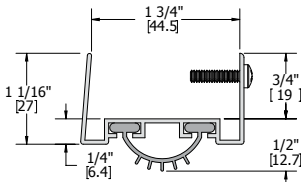
Finishes: MIL, DBA, GLD
 Inserts: V, N
 Category: H, J
 Certifications:  



783S



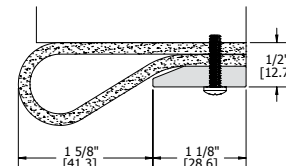
Finishes: MIL, DBA, GLD
 Inserts: V
 Category: J
 Certifications: 



780S



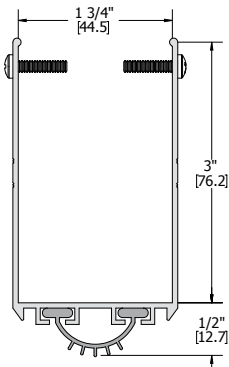
Finishes: MIL, DBA, GLD
 Inserts: V, N
 Category: H, J
 Certifications:  



787S



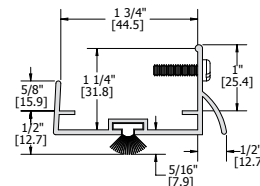
Finishes: MIL
 Inserts: N
 Category: H, J
 Certifications:  



782S

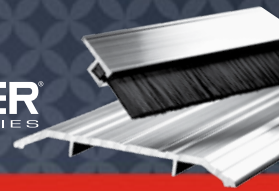


Finishes: MIL, DBA, GLD
 Inserts: V, N
 Category: H, J
 Certifications:  

789S



Finishes: MIL, DBA, GLD
 Inserts: W
 Category: H, J
 Certifications:  



WEATHERSTRIPPING - AUTOMATIC DOOR BOTTOMS

Provides an outstanding seal against drafts, light, smoke and sound. For best results, use in conjunction with a threshold. When door fully closes, the gasket extends downward to provide a seal. Gasket retracts when door is opened.

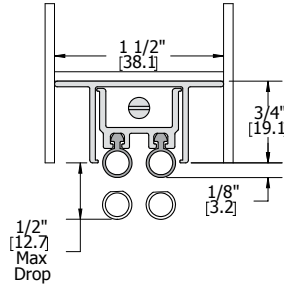
Fasteners:

- #8 x 1-1/4" pan head sheet metal screws furnished with surface mount types
- #6 x 5/8" Pan head sheet metal screws furnished with mortise types

Notes:

- Furnished exact length as stated. May be trimmed for fitting (2" maximum).
- Furnished with end cover and strike plates
- DBA/GLD end caps available on MIL or CLR devices (Not available on 742S)

742S - Mortise



Finishes:
Inserts:
Category:
Certifications:

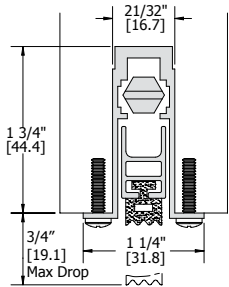
MIL
N, V
J



Notes:

For use on hollow metal door

730S - Mortise

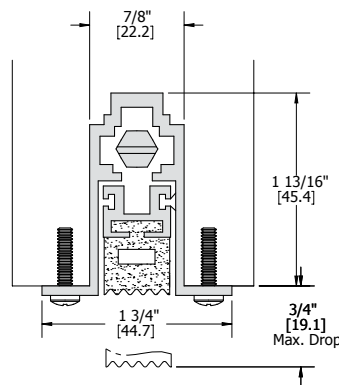


Finishes:
Inserts:
Category:
Certifications:

MIL
N, S
H, J



743S - Mortise

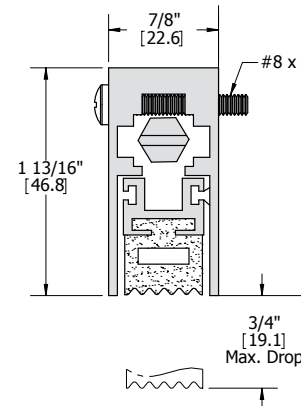


Finishes:
Inserts:
Category:
Certifications:

MIL
N
H, J



747S - Surface

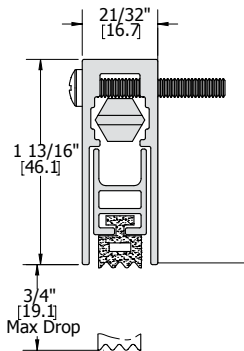


Finishes:
Inserts:
Category:
Certifications:

CLR, DBA, GLD
N
H, J



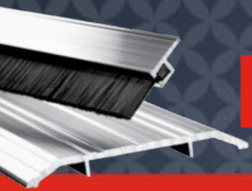
740S - Surface



Finishes:
Inserts:
Category:
Certifications:

DBA, GLD, CLR
N, S
H, J



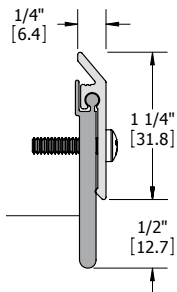


WEATHERSTRIPPING - DOOR BOTTOM SWEEPS

Typically door bottom sweeps are used on the exterior of an outswing door
 Fasteners: #6 x 5/8" pan head sheet metal screws furnished with mortise types

- Notes:
- MIL finish weatherstripping is supplied with zinc plated screws
 - Color anodized weatherstripping is supplied with screws plated to match
 - Stainless steel weatherstripping is supplied with stainless steel screws

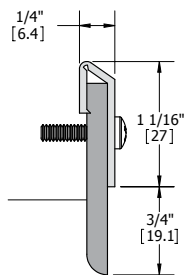
750S



Finishes: DBA, GLD, CLR, US32D
 Inserts: N, S
 Category: H, J
 Certifications:



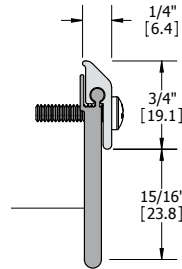
752S



Finishes: MIL, DBA, GLD
 Inserts: V
 Category: H, J
 Certifications:



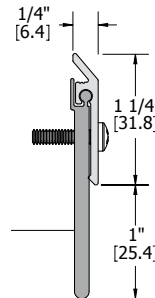
753S



Finishes: MIL, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:



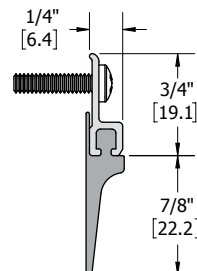
754S



Finishes: DBA, GLD, CLR
 Inserts: N
 Category: H, J
 Certifications:

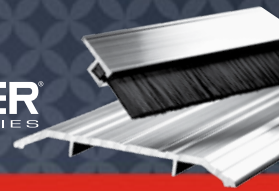


756S



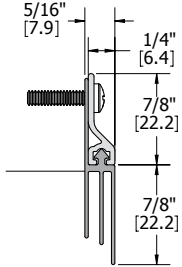
Finishes: MIL, DBA, GLD
 Inserts: V
 Category: H, J
 Certifications:







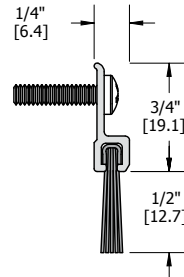
WEATHERSTRIPPING - DOOR BOTTOM SWEEPS




759S



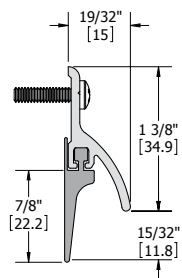
Finishes: MIL, DBA, GLD
 Inserts: V
 Category: H, J
 Certifications:  



802S



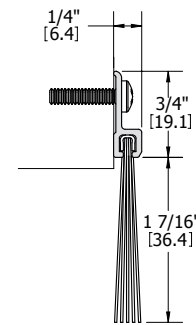
Finishes: MIL, DBA, GLD
 Inserts: B
 Category: H, J
 Certifications:   


770S



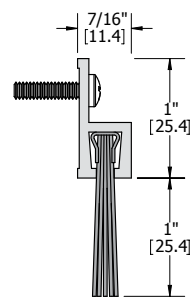
Finishes: MIL, DBA, GLD
 Inserts: B, V
 Category: H, J
 Certifications:  


806S



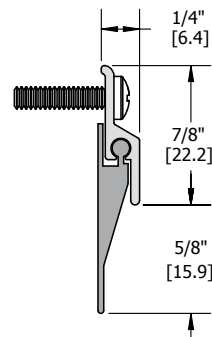
Finishes: MIL, DBA, GLD
 Inserts: B
 Category: H, J
 Certifications: 



801S



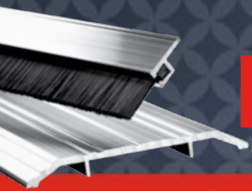
Finishes: MIL, DBA, GLD
 Inserts: B
 Category: H, J
 Certifications: 

872S



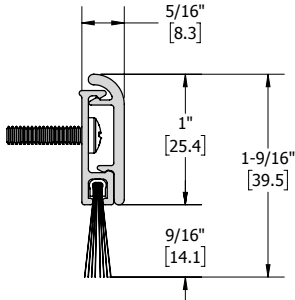
Finishes: DBA, GLD, CLR, US32D*
 Inserts: N
 Category: H, J
 Certifications:  

*US32D will be supplied with grey Neoprene as opposed to the standard black



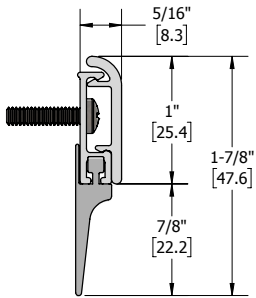
WEATHERSTRIPPING - DOOR BOTTOM SWEEPS

882S



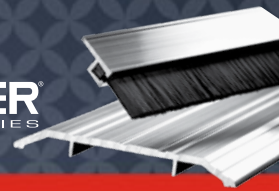
Finishes: DBA, GLD, CLR
Inserts: B
Category: H, J
Certifications:

884S



Finishes: DBA, GLD, CLR
Inserts: V
Category: H, J
Certifications:

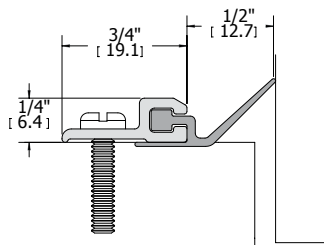




WEATHERSTRIPPING - JAMB WEATHERSTRIPPING

- Fasteners: #6 x 5/8" pan head sheet metal screws
- Notes:
- MIL finish weatherstripping is supplied with zinc plated screws
 - Color anodized weatherstripping is supplied with screws plated to match
 - Stainless steel weatherstripping is supplied with stainless steel screws

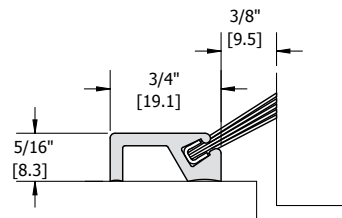
785S



- Finishes: MIL, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:



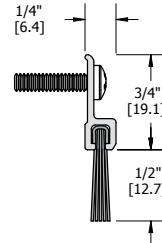
800S



- Finishes: MIL, DBA, GLD
 Inserts: B
 Category: H, J
 Certifications:



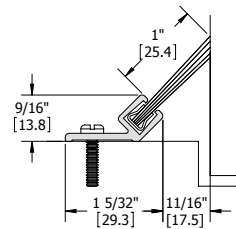
802S



- Finishes: MIL, DBA, GLD
 Inserts: B
 Category: H, J
 Certifications:



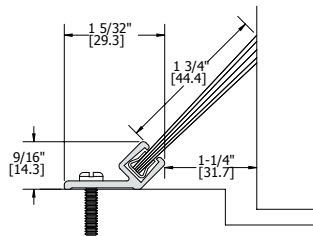
803S



- Finishes: MIL, DBA, GLD
 Inserts: B
 Category: H, J
 Certifications:

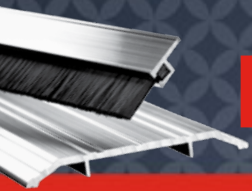


808S



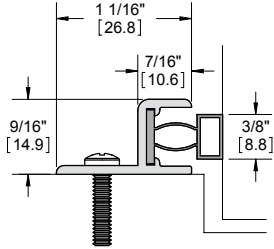
- Finishes: MIL, DBA, GLD
 Inserts: B
 Category: H, J
 Certifications:






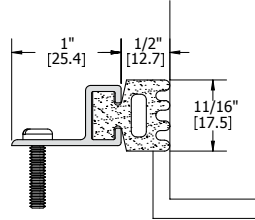
WEATHERSTRIPPING - JAMB WEATHERSTRIPPING




859S



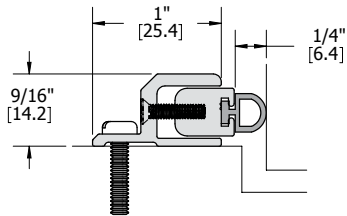
Finishes: MIL, DBA, GLD
 Category: H, J
 Certifications:  
 Notes: Magnetic




861S



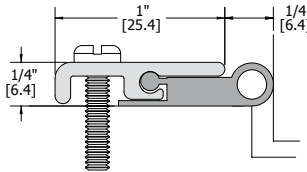
Finishes: MIL, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:   




860S



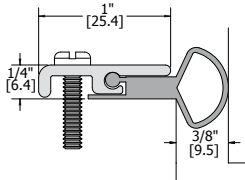
Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Category: H, J
 Certifications:   
 Notes: Adjustable




862S



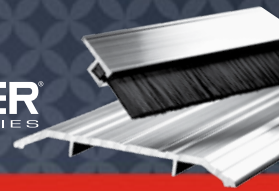
Finishes: DBA, GLD, CLR
 Inserts: N
 Category: H, J
 Certifications:   

863S



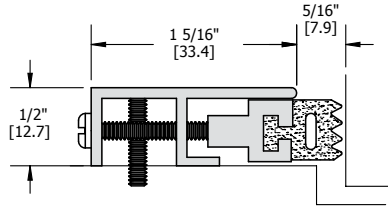
Finishes: DBA, GLD, CLR
 Inserts: N
 Category: H, J
 Certifications:   







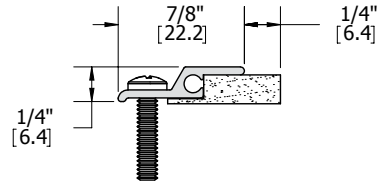
WEATHERSTRIPPING - JAMB WEATHERSTRIPPING




864S



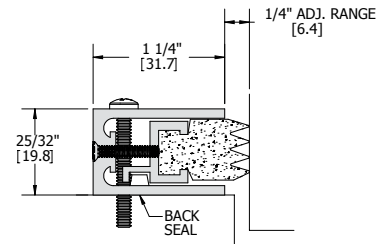
Finishes: DBA, GLD, CLR
 Inserts: N
 Category: H, J
 Certifications:  
 Notes: Adjustable



870S



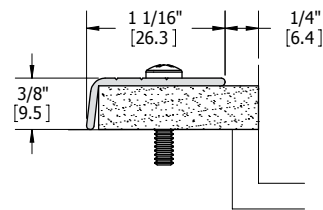
Finishes: DBA, GLD, CLR, US32D
 Inserts: N
 Category: H, J
 Certifications:   
 Notes: Adjustable



865S



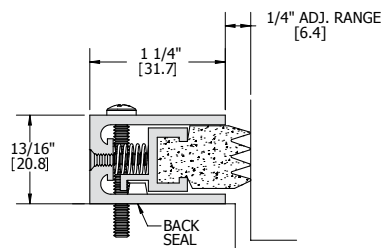
Finishes: MIL, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:  
 Notes: Adjustable



871S



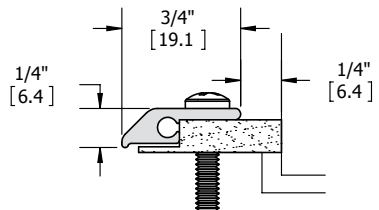
Finishes: MIL, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:  




866S

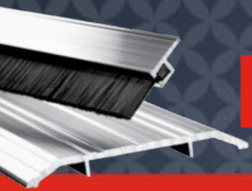


Finishes: MIL, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:  
 Notes: Spring adjustable

873S

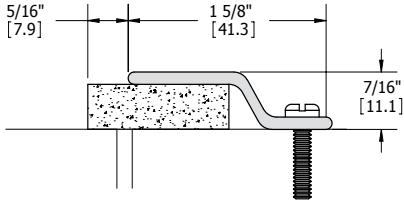


Finishes: MIL, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:   



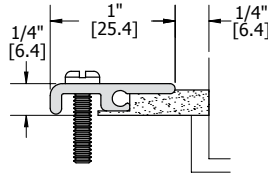
WEATHERSTRIPPING - JAMB WEATHERSTRIPPING

874S



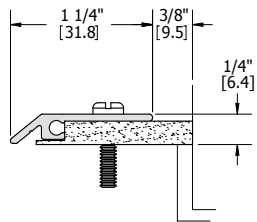
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 Inserts: N
 Category: H, J
 Certifications:

878S



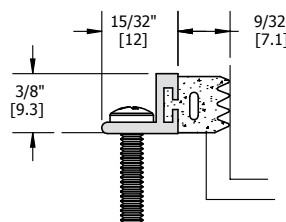
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875S



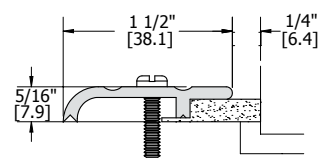
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 Certifications:

880S



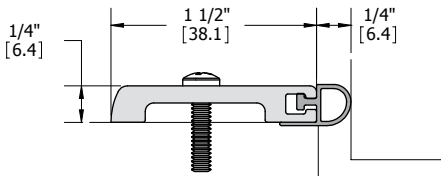
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877S

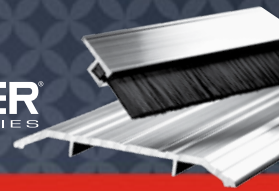


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881S

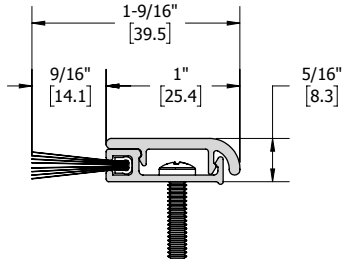



Finishes: MIL, DBA, GLD
 Inserts: V, N, S, W
 Category: H, J
 Certifications:



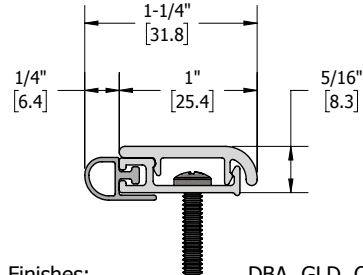
WEATHERSTRIPPING - JAMB WEATHERSTRIPPING

882S





Finishes: DBA, GLD, CLR
 Inserts: B
 Category: H, J
 Certifications:  

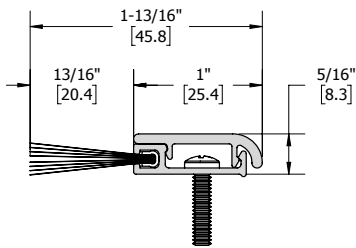
885S





Insert "F" Shown Above

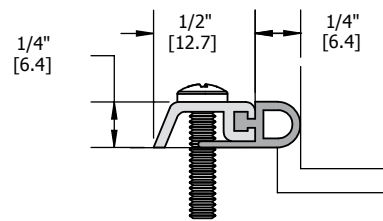
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883S

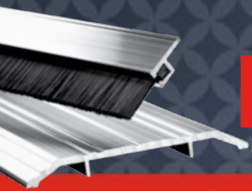


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 Certifications:  

890S

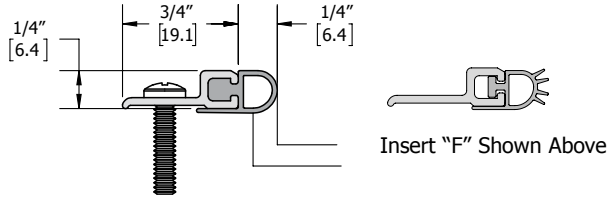


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 Category: H, J
 Certifications:   



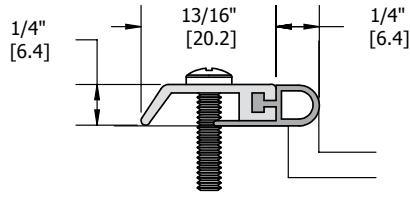
WEATHERSTRIPPING - JAMB WEATHERSTRIPPING

891S



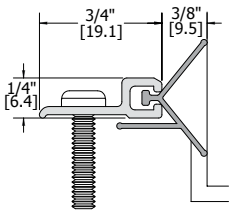
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 Certifications:

896S



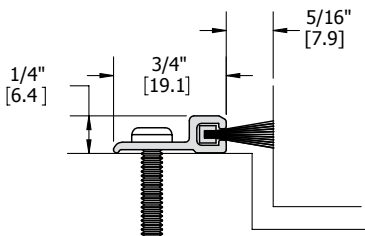
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 Certifications:

892S

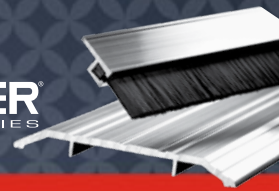


Finishes: MIL, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:

893S



Finishes: MIL, DBA, GLD
 Inserts: W
 Category: J
 Certifications:



WEATHERSTRIPPING - ASTRAGALS/MEETING STILES

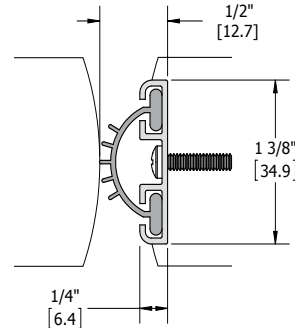
Fire labeled Astragals & Meeting Stiles should only be mounted on pairs of doors with a gap that meets NFPA 80 2-3.1.7 (1/8" +/- 1/16" for steel doors and not exceeding 1/8" for wood doors)

Fasteners: #6 x 5/8" Pan head sheet metal screws

Notes:

- MIL finish weatherstripping is supplied with zinc plated screws
- Color anodized weatherstripping is supplied with screws plated to match
- Stainless steel weatherstripping is supplied with stainless steel screws

774S



Finishes:

MIL, DBA

Inserts:

V, N

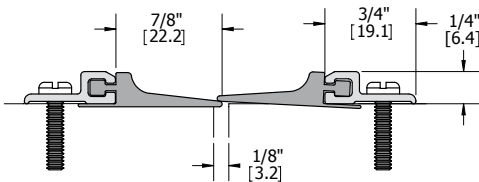
Category:

H, J

Certifications:



756S



Finishes:

MIL, DBA, GLD

Inserts:

V

Category:

H, J

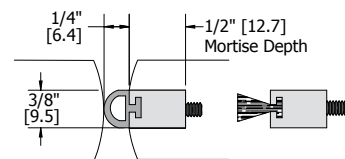
Certifications:



Notes:

Order two (2) for a set

771S



Finishes:

MIL, DBA

Inserts:

V, W, N, S

Category:

J

Certifications:

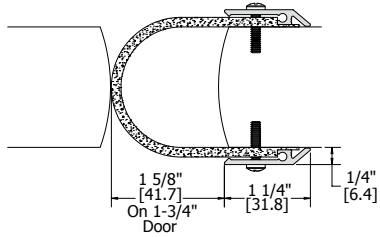


Notes:

Order two (2) for a set

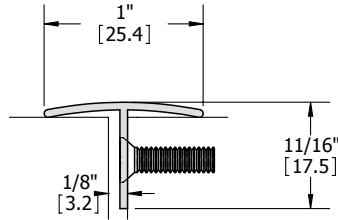
WEATHERSTRIPPING - ASTRAGALS/MEETING STILES

776S



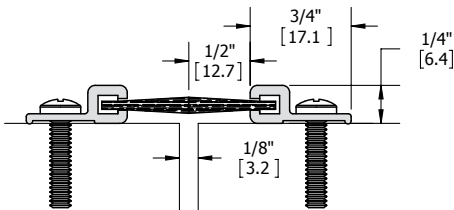
Finishes: DBA, GLD, CLR
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 Category: H, J
 Certifications:  



836S



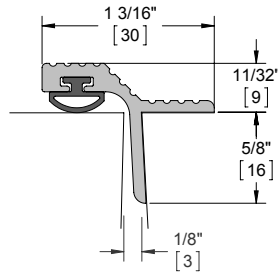
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 Category: H, J
 Certifications: 


802S



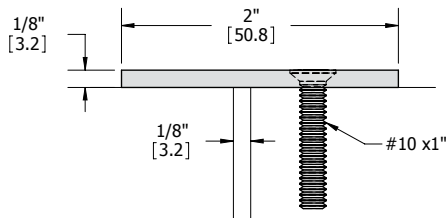
Finishes: MIL, DBA, GLD
 Inserts: B
 Category: H, J
 Certifications:  
 Notes: Order two (2) for a set

837S



Finishes: MIL, DBA, GLD
 Inserts: W, V, N, S
 Category: H, J
 Certifications:  

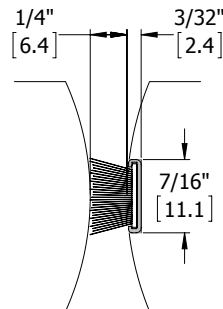
835S




Finishes: MIL, DBA, GLD, US32D, USP
 Category: J
 Certifications:  
 Notes:

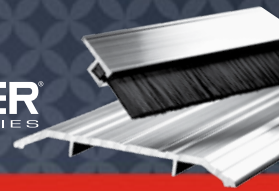
- Maximum length = 10 feet
- Available with thrubolts

838S



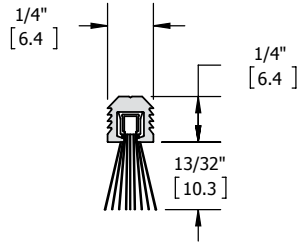
Finishes: MIL
 Inserts: W
 Category: J
 Certifications: 






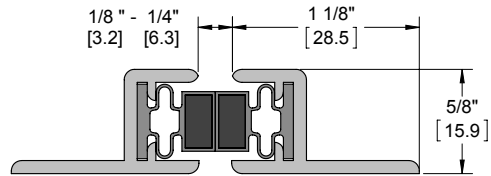
WEATHERSTRIPPING - ASTRAGALS/MEETING STILES

839S



Finishes: MIL
 Inserts: W
 Category: J
 Certifications: 

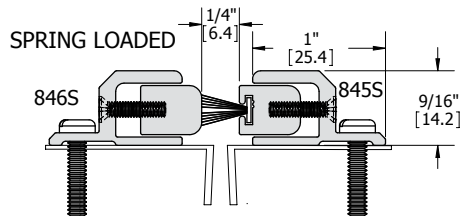
849S




Finishes: MIL, DBA, GLD
 Notes:

- Magnetic
- 96" maximum door height
- Designed for use on 80" to 96" doors only
- Sets shorter than 80" may not work properly

845S | 846S

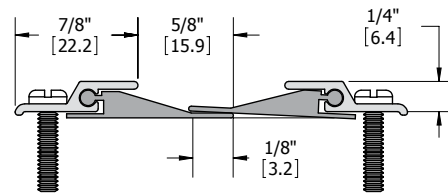



Finishes: MIL, DBA, GLD
 Inserts: W
 Category: J
 Certifications: 

Notes:

- Adjustable
- Order two (2) for a set

872S

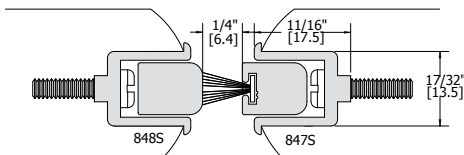



Finishes: DBA, GLD, CLR, US32D
 Inserts: N
 Category: H, J
 Certifications: 

Notes:

- Order two (2) for a set

847S | 848S



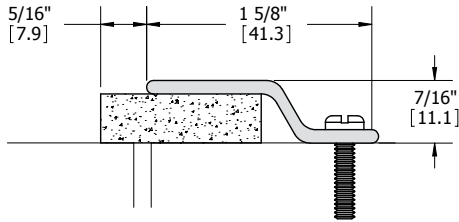
Finishes: MIL, DBA, GLD
 Inserts: W
 Category: J
 Certifications: 



Notes:

- Adjustable
- Spring loaded
- Mortise depth = 21/32"

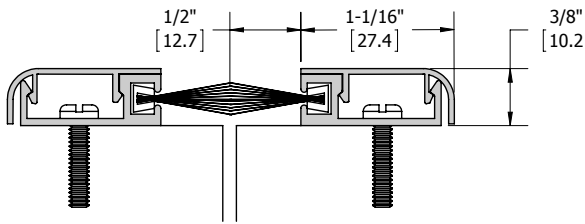
WEATHERSTRIPPING - ASTRAGALS/MEETING STILES



874S



Finishes: MIL, DBA, GLD, US32D
 Inserts: N
 Category: H, J
 Certifications:  

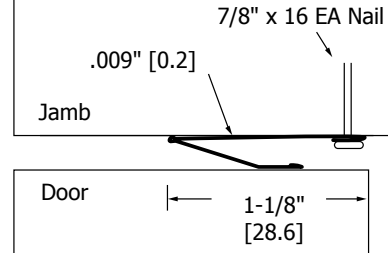
882S



Finishes: DBA, GLD, CLR
 Inserts: B
 Category: H, J
 Certifications:  
 Notes: Order two (2) for a set

Spring Bronze

822S



Notes:

- "V" or cushion bronze weatherstrip, for wood or metal doors
- Supplied with fasteners, specify wood or metal application
- Fasteners should be 3" on center



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Sliding Door

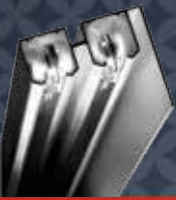


Hager Companies offers a full line of high quality, durable sliding door hardware that is the perfect choice for any by-pass, bi-fold, interior wall-mount, decorative barn door and pocket door application your project requires. With Hager’s sliding door hardware, you can choose from hundreds of fully tested products, including jump proof box tracks, self-aligning wheel systems, complete sets and accessories. Just as beneficial, every Hager sliding door hardware product is designed and manufactured to support a broad range of size and weight requirements, and is specified by some of the world’s most demanding architects, designers and builders – meeting or exceeding ANSI requirements.

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GENERAL INFORMATION

Pg #	Max Wgt Per Door	Pkgd Sets	Track	Parts Bag	Description
By-Pass					
4-5	60#	9514	9810	9814	Aluminum track & hardware for 3/4" & 1-3/8" thick doors.
4-5	60#	9583	9810	9400/9401 hangers	Aluminum track & hardware for 3/4" & 1-3/8" thick doors, for 3 doors.
6-7	60#	9614	9820	9540	Aluminum track with grooved fascia & hardware for 1-3/8" thick doors.
6-7	60#	9683	9820	9401 hangers	Aluminum track with grooved fascia & hardware for 1-3/8" thick doors.
8-9	125#	9673	9603	9679	Heavy duty aluminum box track with grooved fascia & hardware for 1-3/8" & 1-3/4" thick doors.
10-14	125#	9675	9602	9679	Heavy duty aluminum box track & hardware for 1-3/8" & 1-3/4" thick doors.
14-15	150#	9611	9821	9892	Aluminum double box track & hardware for 1-3/8" & 1-3/4" thick doors.
8-9	150#	9674	9603	9680	Heavy duty aluminum box track with grooved fascia & hardware for 1-3/8" & 1-3/4" thick doors.
10-11	150#	9676	9602	9680	Heavy duty aluminum box track & hardware for 1-3/8" & 1-3/4" thick doors.
12-13	175#	9110	9101	9109	Heavy duty aluminum I-beam track and hardware for 1" thick doors and up. *Must order 2 per by pass.*
14-15	250#	9612	9821	9893	Aluminum double box track & hardware for 1-3/8" & 1-3/4" thick doors.
16-17	250#	9875	9801	9827 hangers	Heavy duty aluminum double track & hardware for 1-3/8" and 1-3/4" thick doors.
18-19	250#	9885	9803	9827 hangers	Heavy duty aluminum double track with smooth fascia & hardware for 1-3/8" & 1-3/4" thick doors.
18-19	250#	9886	9803	9827 hangers	Heavy duty aluminum double track with smooth fascia & hardware for 1-3/8" & 1-3/4" thick doors.
30-31	275#	9130	9101	9129	Heavy duty aluminum I-beam track and hardware for 1" thick doors and up. *Must order 2 per by pass.*
Bi-Fold Sets					
22-23	50#	9570	9601	9569	Aluminum track & hardware for 1-1/8" & 1-3/4" thick doors.
24-25	125#	9860/9850	9821	9894	Heavy duty aluminum box track & hardware for 1-3/8" & 1-3/4" thick doors.
24-25	125#	9861	9821	9894	Heavy duty aluminum box track & hardware for 1-3/8" & 1-3/4" thick doors.
26-27	125#	9890/9891	9801	9827 & 9828	Heavy duty aluminum double track & hardware for 1-1/8" and 1-3/4" thick doors.
Pocket Door Sets					
32-33	125#	9678	9601	9632	Heavy duty aluminum box track & hardware for 1-3/8" & 1-3/4" thick doors.
34-35	150#	9678	9101	9633	Heavy duty aluminum box track & hardware for 1-3/8" & 1-3/4" thick doors.
30-31	175#	9110	9101	9109	Heavy duty aluminum I-beam track & hardware for 1" thick doors and up.
34-35	250#	9878	9801	9742	Heavy duty aluminum double track & hardware for 1-3/8" and 1-3/4" thick doors.
36-37	250#	9901	9821	9895	Extra heavy duty aluminum box track & hardware for 1-3/8" & 1-3/4" thick doors.
30-31	275#	9130	9101	9129	Heavy duty aluminum I-beam track & hardware for 1" thick doors and up.
Pocket Door Frame Kits			All Pocket Door Framed Kits for 1-3/8" Thick Doors		
38	125#	9631	9601	9605 hangers	Pocket door packaged sets for 3'0" wide 6'8" high door
38	150#	9628	9601	9606 hangers	Pocket door packaged sets for 3'0" wide 7'0" high door
38	150#	9629	9601	9606 hangers	Pocket door packaged sets for 3'0" wide 8'0" high door
38	150#	9630	9601	9606 hangers	Pocket door packaged sets for 3'0" wide 9'0" high door
39	250#	9850	9801	9827 hangers	Pocket door packaged sets for 4'0" wide 8'0" high door
39	250#	9850	9801	9827 hangers	Pocket door packaged sets for 4'0" wide 8'6" high door
Wall Mount Sets					
44-46	250#	9710	9703	9711	Heavy duty aluminum track & hardware for 1" & 1-3/4" thick doors.



By-Pass



Hager offers a full-range of trouble-free, sturdy and quiet motion by-pass Sliding Door Hardware sets. Featuring heavy-duty aluminum tracks and a selection of decor complementing fascia designs, Hager's by-pass components and door hardware sets can be ordered for 2-, 3- and 4-door configurations to fit rough openings from 4 ft to 8 ft wide.

Hager's Sliding Door Hardware sets are built to last and simple to install. They support doors from 50 lb to 275 lb capacity and offer an ideal space-saving solution for closets, pantries, room-dividing doors, etc.

By-pass door hardware is available in kits, track, or individual components.



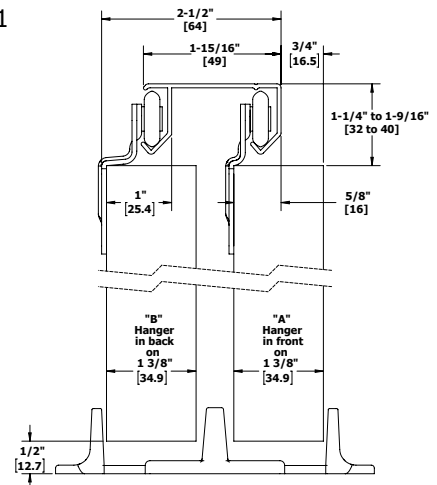
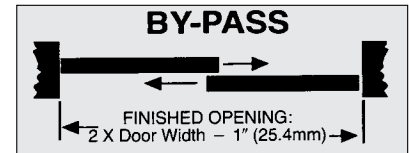
BY-PASS - 9514 & 9583 PACKAGED BY-PASS SETS

FEATURES

- Aluminum track with and hardware
- Conforms to ANSI A156.14
- Type: D8742

SPECIFICATIONS

- For 3/4" - 1-3/8" (19 mm - 35 mm) thick doors
- Up to 60 lbs (27 kg) per door with single wheel hangers 9400 or 9401
- Up to 75 lbs (34 kg) per door with twin wheel hangers 9202 or 9203, sold separately
- Track is extruded aluminum jump-proof style with "V" shaped rails
- Hangers have 7/8" (22 mm) diameter wheels



Interchanges with Stanley 40-3230, 40-3240, 40-3260, BP60/BP75-02 and Cox 12-200 Series.

Part Number	Description
9514 Packaged Set (for two doors)	Includes one (1) 9810 track and one (1) 9814 parts bag
9514-48	By-Pass Set - For two 24" (610 mm) doors
9514-60	By-Pass Set - For two 30" (762 mm) doors
9514-72	By-Pass Set - For two 36" (914 mm) doors
9514-96	By-Pass Set - For two 48" (1219 mm) doors
9583 Packaged Set (for three doors)	Includes one (1) 9810 track, two (2) 9400 hangers, four (4) 9401 hangers, two (2) 9353 guides, and three (3) 2610 pulls
9583-96	By-Pass Set - For three 32" (813 mm) doors

Use the chart below to select the correct hanger offset combination for your application.

Side Mount Selection Chart				
Door Thickness	3/4" (19 mm)	1" (25.4 mm)	1-1/8" (29 mm)	1-3/8" (35 mm)
Front Hanger	B	B	A or B	A
Rear Hanger	A	A	Same as front	B
Door Gap	3/4"	1/2"	11/16"	9/16"
			Notes:	
	Item #	Description	Hanger is stamped "A" or "B" for easy identification	
Hanger A	9200	Single wheel hanger-offset A	For consideration for 9514, 9583, 9614, 9683, 9844 and 9845 By Pass packaged sets.	
Hanger B	9201	Single wheel hanger-offset B		
Hanger B*	9202	Twin wheel hanger-offset B		
Hanger A*	9203	Twin wheel hanger-offset A		
Hanger A	9400	Micro cam hanger-offset A		
Hanger B	9401	Micro cam hanger-offset B		
			Hanger mount selection example:	
			Door thickness: 1-1/8" Door weight: 60 lbs	
			Select single, twin or micro cam hanger	
			Front hanger: 9400 Rear hanger: 9400	

* For use with doors 60 -75 lbs., sold separately



BY-PASS - 9514 & 9583 PACKAGED SET COMPONENTS



9810

Aluminum Track

Materials: Extruded aluminum
 Gauge: 0.050" (1.3 mm) thick
 Track: 1" x 2" (25 mm x 51 mm)
 Lengths: 48" (1219 mm) to 144" (3658 mm)

Notes:

- For doors up to 75 lbs (34 kg)
- One piece track



9353

Adjustable Door Guide

Materials: High density polyethylene
 Notes:

- Adjustable guide from 3/4" (19 mm) to 1-3/8" (35 mm)
- Included with 9841 parts bag



9814

Parts Bag

Includes two (2) 9400 hangers, two (2) 9401 hangers, two (2) 2610-US3 pulls, and one (1) 9353 guide



9841

Optional Parts Bag

• Includes four (4) 9401 hangers, two (2) 9865 pulls, one (1) 9351 guide
 • For use with 1" - 1-1/8" thick doors



9400* | 9401**

Micro Adjust Hanger

Materials: Zinc plated steel with molded Celcon wheels
 Gauge: 0.075" (2 mm)
 Wheel: 7/8" (22 mm) diameter
 Notes:

- Side mounted with precise cam adjustment
- For use on doors weighting up to 60 lbs (27 kg)
- For use with 9810, 9820, and 9840 track
- Hanger is stamped "A" or "B" for easy identification

* 9400 is A offset of 3/8" (9.5 mm)
 ** 9401 is B offset of 11/16" (17.5 mm)



9865

Flush Cup Pull

Overall Diameter: 1-31/32" (50 mm)
 Finger Pull Diameter: 1-19/32" (41 mm)
 Depth: 11/32" (9 mm)
 Projection: 5/64" (2 mm)
 Materials: Tan color ABS plastic

Notes:

- Built-in prong design eliminates the need for screws or brads



9351

Guide

Materials: High density polyethylene
 Guide: 4-9/16" x 1" x 11-3/16" (116 mm x 25 mm x 46 mm)

Notes:

- One piece fixed guide for 1-3/8" (35 mm) doors
- Included with 9841 parts bag



2610

Flush Cup Finger Pull

Overall Diameter: 31/32" (25 mm)
 Finger Pull Diameter: 3/4" (19 mm)
 Depth: 5/16" (8 mm)
 Projection: 1/32" (.8 mm)
 Materials: Solid brass
 Finishes: US3, US4, US5, US10A, US15, US15A, US26, US26D, ABA

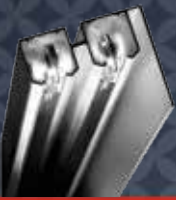
Notes:

- Built-in prong design eliminates the need for screws or brads

Optional Components

9200 9201	Hanger
9202 9203	Hanger
2630	Pull
9909	Adjustable Guide
9354	3/4" Riser
9815	Bumper Stop
9880	Door Stop

For optional components see pages 59-63



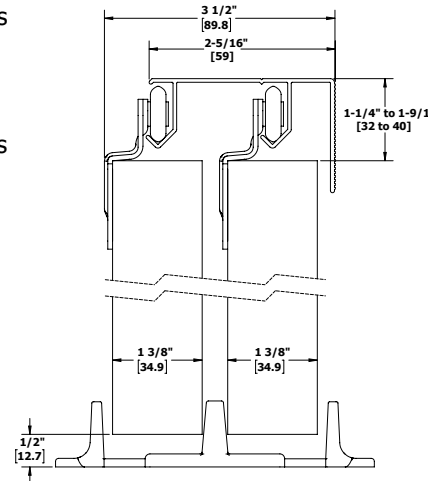
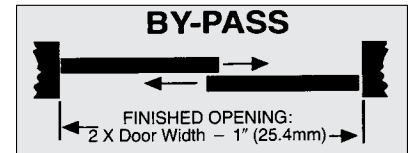
BY-PASS - 9614 & 9683 PACKAGED SETS

FEATURES

- Aluminum track with 1-3/4" (44 mm) fascia and hardware
- Conforms to ANSI A156.14
- Type: D8742

SPECIFICATIONS

- For doors up to 1-3/8" (35 mm) thick
- Up to 60 lbs (27 kg) per door with single wheel 9201 or 9401 hangers
- Up to 75 lbs (34 kg) per door with twin wheel 9202 hangers
- Track is extruded aluminum jump-proof style with integral 1-3/4" (44 mm) fascia
- Hangers have one or two side mounted 7/8" (22 mm) diameter wheels
- Uses all B offset hangers
- Grooved fascia, ideal for painting



Interchanges with Stanley 8139 track, BP75-06, 8400 Series sets, 40-3340 and Cox 12-400 Series.

Part Number	Description
9614 Packaged Set (for two doors)	Includes one (1) 9820 track and one (1) 9540 parts bag: (4) 9401 hangers, two (2) 2610-US3 pulls, one (1) 9351 floor guide
9614-48	By-Pass Set - For two 24" (610 mm) door hangers, two (2) 2610 - US3
9614-60	By-Pass Set - For two 30" (762 mm) door pulls, one (1) 9351 floor guide
9614-72	By-Pass Set - For two 36" (914 mm) doors
9683 Series Set (for three doors)	Includes one (1) 9820 track and six (6) 9401 hangers, two (2) 9351 guides, and three (3) 2610 pulls
9683-96	By-Pass Set - For three 32" (813 mm) doors

Use the chart below to select the correct hanger offset combination for your application.

Side Mount Selection Chart				
Door Thickness	3/4" (19 mm)	1" (25.4 mm)	1-1/8" (29 mm)	1-3/8" (35 mm)
Front Hanger	B	B	A or B	A
Rear Hanger	A	A	Same as front	B
Door Gap	3/4"	1/2"	11/16"	9/16"
	Item #	Description	Notes:	
Hanger A	9200	Single wheel hanger-offset A	Hanger is stamped "A" or "B" for easy identification	
Hanger B	9201	Single wheel hanger-offset B	For consideration for 9514, 9583, 9614, 9683, 9844 and 9845 By-Pass packaged sets.	
Hanger B	9202	Twin wheel hanger-offset B	Hanger mount selection example:	
Hanger A	9203	Twin wheel hanger-offset A	Door thickness: 1-1/8" Door weight: 60 lbs	
Hanger A	9400	Micro cam hanger-offset A	Select single, twin or micro cam hanger	
Hanger B	9401	Micro cam hanger-offset B	Front hanger: 9400 Rear hanger: 9400	



BY-PASS - 9614 & 9683 TRACK COMPONENTS



9820 Aluminum Track with 1-3/4\" data-bbox="214 159 433 204"/>

Materials: Extruded aluminum
 Gauge: 0.050" (1.3 mm)
 Track: 1-3/4" x 3" (44 mm x 76 mm)
 Lengths: 48" (1219 mm) to 144" (3658 mm)

- Notes:
- For doors up to 75 lbs (34 kg)
 - For use on doors up to 1-3/8" (35 mm)
 - For use with 7/8" (22 mm) diameter hanger wheels
 - One piece track with built-in grooved fascia



9351 Guide

Materials: High density polyethylene
 Guide: 4-9/16" x 1" x 11-3/16" (116 mm x 25 mm x 46 mm)
 Notes: One piece fixed guide for 1-3/8" (35 mm) doors

Optional Part Bags



9544 Parts Bag

Includes four (4) 9202 hangers, two (2) 2630-US3 pulls, and one (1) 9351 guide



9540 Parts Bag

Includes four (4) 9401 hangers, two (2) 2610-US3 pulls, and one (1) 9351 guide



9841 Parts Bag

Includes four (4) 9401 hangers, two (2) 9865 pulls, and one (1) 9351 guide



9401 "B" Offset Hanger Micro Adjust Hanger

Materials: Zinc plated steel with molded Celcon wheels
 Gauge: 0.075" (2 mm)
 Wheel: 7/8" (22 mm) diameter
 Notes:

- Side mounted with precise cam adjustment
- For use on doors weighting up to 60 lbs (27 kg)
- For use with 9810, 9820, and 9840 track



9842 Parts Bag

Includes four (4) 9401 hangers, two (2) 2630-US3 pulls, and one (1) 9351 guide



9843 Parts Bag

Includes four (4) 9202 hangers, two (2) 9865 pulls, and one (1) 9351 guide



2610 Flush Cup Finger Pull

Overall Diameter: 31/32" (25 mm)
 Finger Pull Diameter: 3/4" (19 mm)
 Depth: 5/16" (8 mm)
 Projection: 1/32" (.8 mm)
 Materials: Solid brass
 Finishes: US3
 Notes: Built-in prong design eliminates the need for screws or brads

Optional Components

9200 9201	Hanger
9202 9203	Hanger
2630	Pull
9865	Pull
9909	Adjustable Guide
9353	Adjustable Guide
9354	3/4" Riser
9815	Bumper Stop
9880	Door Stop

For optional components see pages 59-63



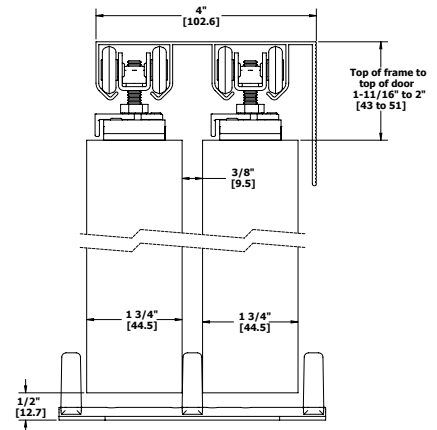
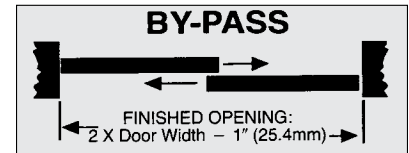
BY-PASS - 9673 & 9674 PACKAGED SETS

FEATURES

- Heavy duty aluminum track with 2-5/8" (66 mm) Built-In Grooved Fascia and Hardware
- Conforms to ANSI A156.14
- Type: D8751, D8752

SPECIFICATIONS

- For doors 1-3/8" - 1-3/4" (35 mm - 44 mm) thick
- 9673 packaged sets for up to 125 lbs (57 kg) per door
- 9674 packaged sets for up to 150 lbs (68 kg) per door
- Track is extruded aluminum jump-proof style with "V" shaped rails and integral 2-5/8" (66 mm) fascia
- Hangers have four (4) 7/8" (22 mm) diameter wheels
- Integral 2-5/8" grooved fascia
- Grooved fascia, ideal for painting



Interchanges with Stanley S1700F Series/BP150F; Johnson 134F/138F; and Lawrence F581 track, HDF520 Series sets.

Part Number	Description
9673 Packaged Set	Includes one (1) 9603 track and one (1) 9679 parts bag: four (4) 9605 hangers, four (4) 9610 plates, and one (1) 9909 guide For doors up to 125 lbs (57 kg)
9673-48	By-Pass Set - For two 24" (610 mm) doors
9673-60	By-Pass Set - For two 30" (762 mm) doors
9673-72	By-Pass Set - For two 36" (914 mm) doors
9673-96	By-Pass Set - For two 48" (1219 mm) doors
9674 Series Set	Includes one (1) 9603 Packaged Set track and one (1) 9680 parts bag: four (4) 9606 hangers, four (4) 9610 plates, and one (1) 9909 guide For doors up to 150 lbs (68 kg)
9674-48	By-Pass Set - For two 24" (610 mm) door
9674-60	By-Pass Set - For two 30" (762 mm) door
9674-72	By-Pass Set - For two 36" (914 mm) door
9674-96	By-Pass Set - For two 48" (1219 mm) door



BY-PASS - 9673 & 9674 TRACK COMPONENTS



9603

Heavy Duty Aluminum Double Box Track

Materials: Extruded aluminum
 Gauge: 0.050" (1.3 mm)
 Track: 1-1/16" x 4" (27 mm x 102 mm)
 Lengths: 48" (1219 mm) to 144" (3658 mm)

- Notes:
- Grooved fascia for painting
 - Jump proof double twin channel design
 - One piece track with built-in grooved fascia



9909

Adjustable Guide

Materials: Steel with bright zinc finish
 Posts: Molded Celcon/Nylon
 Gauge: 0.060" (1.5 mm)
 Guide: 4-7/8" x 1-5/8" x 1-3/16" (124 mm x 41 mm x 30 mm)

- Notes: For doors 3/4" to 1-3/4" (19 mm to 44 mm) thick and up to 275 lbs (125 kg)



9679

Parts Bag

For 125 lbs (57 kg) per door - Includes four (4) 9606 ball bearing hangers with quick release top mount plate, four (4) 9610 plates, and one (1) 9909 guide



9680

Parts Bag

For 150 lbs (68 kg) doors - Includes four (4) 9606 ball bearing hangers, four (4) 9610 plates, and one (1) 9909 guide

Note: Up to 125 lbs (57 kg) per door



9605

4-Wheel Hanger

For 125 lbs (57 kg) doors

Materials: Steel with brass-tone dichromate finish

Wheel: 7/8" (22 mm) diameter

- Notes:
- Wheels are self aligning to allow consistent contact with track
 - Pre-lubricated Celcon wheels
 - Up to 125 lbs (57 kg) per door
 - Use in conjunction with 9601, 9602 or 9603 track



9606

4-Wheel Ball Bearing Hanger

For 150 lbs (68 kg) doors

Materials: Steel with brass-tone dichromate finish

Wheel: 7/8" (22 mm) diameter

- Notes:
- Wheels are self aligning to allow consistent contact with track
 - Pre-lubricated Celcon wheels mounted on steel ball bearing shafts
 - For doors up to 150 lbs (68 kg)
 - Used in conjunction with 9607, 9608 or 9610 top door plate and 9599, 9601 or 9602 track



9610

Replacement Top Mount Plate

Materials: Bright zinc plated steel

Gauge: 1/8" (3 mm)

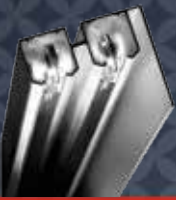
Size: 1-3/8" (35 mm) x 2-13/16" (72 mm)

- Notes: Replacement for four wheel hangers 9605, 9606, 9575, 9824, 9825 and 9827

Optional Components

2610	Pull
2630	Pull
9865	Pull
9610	Top Mount Plate
9351	Adjustable Guide
9353	Adjustable Guide
9354	3/4" Riser
9815	Bumper Stop
9880	Door Stop

For optional components see pages 59-63



BY-PASS - 9675 & 9676 PACKAGED SETS

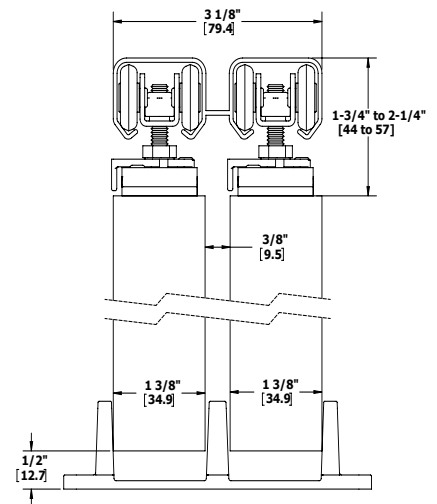
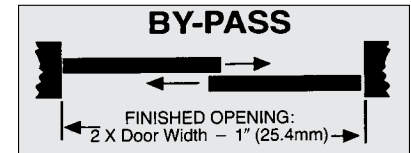
FEATURES

- Heavy duty aluminum double box track and hardware
- Conforms to ANSI A156.14
- Type: D8731, D8741, D8751

SPECIFICATIONS

- For doors 1-3/8" - 1-3/4" (35 mm - 44 mm) thick
- Up to 100 lbs (45 kg) with 9572 hangers
- 9675 packaged sets for up to 125 lbs (57 kg) per door
- 9676 packaged sets for up to 150 lbs (68 kg) per door
- Track is extruded aluminum jump-proof style with "V" shaped rails
- Hangers have four (4) 7/8" (22 mm) diameter wheels

Part Number	Description
9675 Packaged Set Includes one (1) 9602 track and one (1) 9679 parts bag: four (4) 9605 hangers, four (4) 9609 plates, and one (1) 9909 guide For doors up to 125 lbs (57 kg) per door	
9675-48	By-Pass Set - For two 24" (610 mm) doors
9675-60	By-Pass Set - For two 30" (762 mm) doors
9675-72	By-Pass Set - For two 36" (914 mm) doors
9675-96	By-Pass Set - For two 48" (1219 mm) doors
9676 Packaged Set Includes one (1) 9602 track and one (1) 9680 parts bag: four (4) 9606 hangers, four (4) 9609 plates, and one (1) 9909 guide For doors up to 150 lbs (68 kg) per door	
9676-48	By-Pass Set - For two 24" (610 mm) door
9676-60	By-Pass Set - For two 30" (762 mm) door
9676-72	By-Pass Set - For two 36" (914 mm) door
9676-96	By-Pass Set - For two 48" (1219 mm) door



Interchanges with Stanley 1755, 40-3664, 40-3855/BP150; Johnson 134F/138F; Grant 7000 Series, Cox 15-220 Series; and Lawrence 581 track, HD520 hardware.





BY-PASS - 9675 & 9676 TRACK COMPONENTS



9602 Heavy Duty Aluminum Double Box Track

Materials: Extruded aluminum
 Gauge: 0.050" (1.3 mm) thick
 Track: 1-1/16" x 3-1/8"
 (27 mm x 79 mm)
 Lengths: 46" (1168 mm) to 142"
 (3607 mm)
 Notes: Jump proof double twin
 channel design



9909 Adjustable Guide

Materials: Steel with bright zinc finish
 Posts: Molded Celcon/Nylon
 Gauge: 0.060" (1.5 mm)
 Guide: 4-7/8" x 1-5/8" x 1-3/16"
 (124 mm x 41 mm x 30 mm)
 Notes: For doors 3/4" to 1-3/4"
 (19 mm to 44 mm) thick and
 up to 275 lbs (125 kg)



9679 Parts Bag

Includes four (4) 9605 hangers with quick
 release top mount plate, and one (1)
 9909 guide
 Note: Up to 125 lbs (57 kg) per door



9680 Parts Bag

For 150 lbs (68 kg) doors - Includes four
 (4) 9606 ball bearing hangers, four (4)
 9610 plates, and one (1) 9909 guide
 Note: Up to 125 lbs (57 kg) per door



9605 4-Wheel Hanger

For 125 lbs (57 kg) doors
 Materials: Steel with brass-tone
 dichromate finish
 Wheel: 7/8" (22 mm) diameter
 Notes:

- Wheels are self aligning to
 allow consistent contact
 with track
- Pre-lubricated Celcon wheels
- Up to 125 lbs (57 kg) per door
- Use in conjunction with
 9601, 9602 or 9603 track



9606 4-Wheel Ball Bearing Hanger

For 150 lbs (68 kg) doors
 Materials: Steel with brass-tone
 dichromate finish
 Wheel: 7/8" (22 mm) diameter
 Notes:

- Wheels are self aligning to
 allow consistent contact
 with track
- Pre-lubricated Celcon
 wheels mounted on steel
 ball bearing shafts
- For doors up to 150 lbs (68 kg)
- Used in conjunction with
 9607, 9608 or 9610 top
 door plate and 9599, 9601
 or 9602 track



9610 Replacement Top Mount Plate

Materials: Bright zinc plated steel
 Gauge: 1/8" (3 mm)
 Size: 1-3/8" (35 mm) x 2-13/16"
 (72 mm)
 Notes: Replacement for four
 wheel hangers 9605, 9606,
 9575, 9824, 9825 and 9827

Optional Components

9709	Fascia
2610	Pull
2630	Pull
9865	Pull
9610	Top Mount Plate
9351	Adjustable Guide
9353	Adjustable Guide
9354	3/4" Riser
9815	Bumper Stop
9880	Door Stop

For optional components see pages 59-63



BY-PASS - 9110 & 9130 PACKAGED SETS

FEATURES

- Heavy duty aluminum I-beam track and hardware
- Conforms to ANSI A156.14/Type: D8731

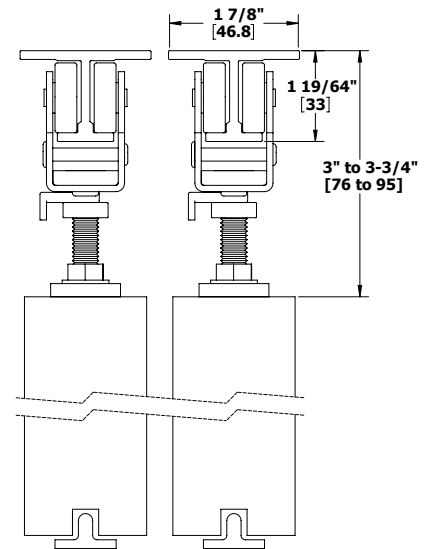
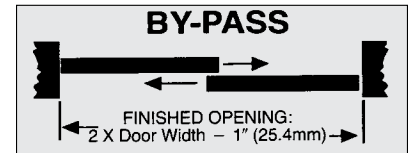
SPECIFICATIONS

- For doors 1" - 1-3/4" (25 mm - 45 mm) thick
- 9110 Series for doors weighing up to 175 lbs (79.5 kg) per door
- 9130 Series for doors weighing up to 275 lbs (124.7 kg) per door
- Track is extruded aluminum jump-proof style with "I" shaped rails
- Hangers have 1" (25 mm) diameter wheels with steel ball bearings
- Order two sets per opening per by pass

Part Number	Description
9110 Series Set	
Includes one (1) 9101 track and one (1) 9109 parts bag: two (2) 9102 hangers, and one (1) 9115 floor guide	
For doors up to 175 lbs (79.5 kg) per door	
9110-60	5' (1524 mm) By-Pass Set - For one 2'6" (762 mm) door
9110-72	6' (1839 mm) By-Pass Set - For one 3'0" (914 mm) door
9110-84	7' (2134 mm) By-Pass Set - For one 3'6" (1067 mm) door
9110-96	8' (2438 mm) By-Pass Set - For one 4'0" (1219 mm) door
9110-120	10' (3048 mm) By-Pass Set - For one 5'0" (1529 mm) door
9110-144	12' (3658 mm) By-Pass Set - For one 6'0" (1829 mm) door
9130 Series Set	
Includes one (1) 9101 track and one (1) 9129 parts bag: two (2) 9105 hangers, and one (1) 9115 floor guide	
For doors up to 275 lbs (125 kg)	
9130-60	5' (1524 mm) By-Pass Set - For one 2'6" (762 mm) door
9130-72	6' (1839 mm) By-Pass Set - For one 3'0" (914 mm) door
9130-84	7' (2134 mm) By-Pass Set - For one 3'6" (1067 mm) door
9130-96	8' (2438 mm) By-Pass Set - For one 4'0" (1219 mm) door
9130-120	10' (3048 mm) By-Pass Set - For one 5'0" (1529 mm) door
9130-132	11' (3353 mm) By-Pass Set - For one 5'6" (1676 mm) door
9130-144	12' (3658 mm) By-Pass Set - For one 6'0" (1829 mm) door

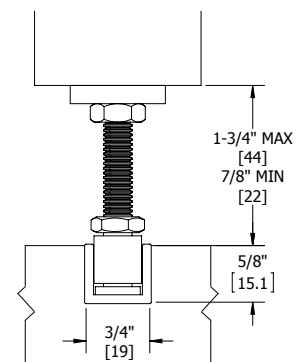
TRACKS - Two sets required for by-pass opening - 0.125" (3 mm) thick aluminum

Part Number	Description
Tracks for use with 9110 Series and 9130 Series	
9101-72	72" (1829 mm) Aluminum I-Beam Track
9101-84	84" (2134 mm) Aluminum I-Beam Track
9101-96	96" (2438 mm) Aluminum I-Beam Track
9101-120	120" (3048 mm) Aluminum I-Beam Track
9101-144	144" (3658 mm) Aluminum I-Beam Track
9101-192	192" (4877 mm) Aluminum I-Beam Track



Interchanges with Grant 1210/1230 Series

Optional Bottom Track
9121 - 9122



Installation note: Clearance between door bottom and top of 9122 track must be 7/8" (22 mm) minimum to 1-3/4" (44 mm) maximum.





BY-PASS - 9110 & 9130 TRACK COMPONENTS



9101

I Beam Track

Materials: Extruded aluminum
 Gauge: 0.125" (3 mm)
 Lengths: 72" (1829 mm) to 192" (4877 mm)
 Notes: Mounting holes are prepunched for ease of installation



9129

Parts Bag

Includes two (2) 9105 4-wheel hangers and one (1) 9115 floor guide



9109

Parts Bag

Includes two (2) 9102 2-wheel hangers and one (1) 9115 floor guide



9105

4 Wheel Hanger

Materials: Zinc plated steel
 Wheels: Nylon with steel ball bearings
 Hanger: 4" x 2" x 1-3/4" (102 mm x 51 x 45 mm)
 Bolt: 3/8" x 2-5/16" (10 mm x 59 mm)
 Top Plate: 1" x 3-1/2" x 3/16" (25.4 mm x 89 mm x 5 mm)
 Notes:

- Use with 9101 track, with doors weighing up to 275 lbs (125 kg)
- Four wheel hanger is self-aligning to allow consistent contact with track



9102

2 Wheel Hanger

Materials: Zinc plated steel
 Wheels: Nylon with steel ball bearings
 Hanger: 1-13/16" x 2" x 1-1/8" (46 mm x 51 mm x 29 mm)
 Bolt: 3/8" x 2-5/16" (10 mm x 59 mm) (Bolt not same as 9105)
 Top Plate: 1" x 3-1/2" x 3/16" (25 mm x 89 mm x 5 mm)
 Notes: Use with 9101 track, with doors weighing up to 175 lbs (79 kg)



9115

Bottom Door Guide

Materials: Die cast zinc aluminum alloy
 Guide: 7/8" x 3/4" x 3" (22 mm x 19 mm x 76 mm)
 Notes: Door bottom prep requires 1/4" (6 mm) wide kerf and 9/16" (14 mm) depth

Optional Components

9111	Fixed Bottom Door Guide
9113	Door Stop
9114	Bottom Guide Rail
9121	Bottom Door Guide
9122	Bottom Guide Channel
9909	Adjustable Guide

For optional components see pages 59-63



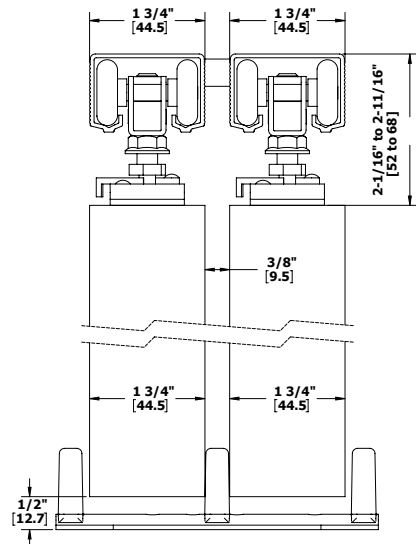
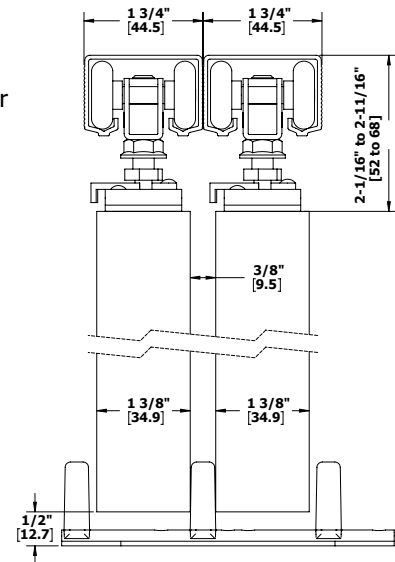
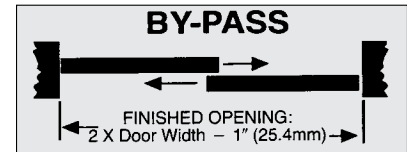
BY-PASS - 9611 & 9612 PACKAGED SETS

FEATURES

- Heavy duty aluminum box double track and hardware
- Conforms to ANSI A156.14
- Type: D8731, D8751

SPECIFICATIONS

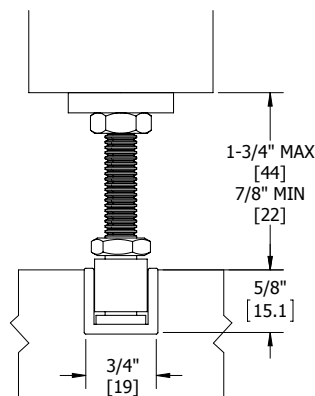
- For doors 1-3/8" (35 mm) thick doors (top figure) - no spacer kit required
- For doors 1-3/4" (45 mm) thick with tracks spaced 3/8" (10 mm) apart using 9573 (bottom figure)
- 9611 Packaged Sets for doors weighing up to 150 lbs (68 kg) per door
- 9612 Packaged Sets for doors weighing up to 250 lbs (113 kg) per door
- Quick release hangers allow easy door hanging and removal
- Hangers have 1" (25 mm) diameter wheels
- Universal extruded aluminum track interchanges with Stanley and Johnson hangers and track



Part Number	Description
9611 Packaged Set	
Includes two (2) 9821 tracks and one (1) 9892 parts bag: four (4) 9824 hangers, one (1) 9909 guide, and one (1) 9573 spacer For doors up to 150 lbs (68 kg) per door	
9611-60	By-Pass Set - For two 30" (762 mm) doors
9611-72	By-Pass Set - For two 36" (914 mm) doors
9611-96	By-Pass Set - For two 48" (1219 mm) doors
9612 Series Set	
Includes two (2) 9821 tracks and one (1) 9893 parts bag: four (4) 9825 hangers, one (1) 9909 guide, and one (1) 9573 spacer For doors up to 250 lbs (113 kg) per door	
9612-60	By-Pass Set - For two 30" (762 mm) door
9612-72	By-Pass Set - For two 36" (914 mm) door
9612-96	By-Pass Set - For two 48" (1219 mm) door

Optional Bottom Track
9121 - 9122

Installation note: Clearance between door bottom and top of 9122 track must be 7/8" (22 mm) minimum to 1-3/4" (44 mm) maximum.



Interchanges with Stanley 125/250 Series and Johnson 100 Series





BY-PASS - 9611 & 9612 TRACK COMPONENTS



9821

Aluminum Box Track

- Materials: Extruded aluminum
 Gauge: 0.06" (2 mm) thick
 Track: 1-5/8" x 1-1/16"
 (41 mm x 27 mm)
 Lengths: 59" (1499 mm) to 144"
 (3658 mm)
 Notes:
 - Jump proof twin channel design
 - Two-piece required for by-pass



9573

Celcon Plastic Spacer Kit

- Materials: Celcon plastic
 Notes:
 - Includes screws
 - Properly spaces two single tracks for 1-3/4" (44 mm) doors



9892

Parts Bag

- Includes four (4) 9824 4-wheel hangers with quick release top mount plate, one (1) 9909 guide, and one (1) 9573 spacer kit
 Note: Up to 150 lbs (68 kg) per door



9893

Parts Bag

- Includes four (4) 9825 4-wheel ball bearing hangers with quick release top mount plate, one (1) 9909 guide, and one (1) 9573 spacer kit
 Note: Up to 250 lbs per door



9824

4 Wheel Hanger with Quick Release Top Mount Plate

- Materials: Zinc plated steel
 Wheels: Self aligning to allow consistent contact with track
 Wheel: 1" (25 mm) diameter
 Notes:
 - Pre-lubricated Celcon wheels
 - Up to 150 lbs (68kg) per door
 - For use with 9821 track
 - Quick release feature allows easy door hanging and removal



9825

4 Wheel Ball Bearing Hanger with Quick Release Top Mount Plate

- Materials: Zinc plated steel
 Wheels: Self aligning to allow consistent contact with track with steel ball bearings
 Wheel: 1" (25 mm) diameter
 Notes:
 - Pre-lubricated Celcon wheels
 - Up to 250 lbs (113 kg) per door
 - For use with 9821 track
 - Quick release feature allows easy door hanging and removal



9909

Adjustable Guide

- Materials: Steel with bright zinc finish
 Posts: Molded Celcon/Nylon
 Gauge: 0.060" (1.5 mm)
 Guide: 4-7/8" x 1-5/8" x 1-3/16"
 (124 mm x 41 mm x 30 mm)
 Notes: For doors 3/4" to 1-3/4"
 (19 mm to 44 mm) thick and up to 275 lbs (125 kg)

Optional Components

9709	Fascia
2610	Pull
2630	Pull
9865	Pull
9121	Bottom Door Guide
9122	Bottom Guide Channel
9351	Adjustable Guide
9353	Adjustable Guide
9354	3/4" Riser
9815	Bumper Stop
9880	Door Stop

For optional components see pages 59-63



BY-PASS - 9875 PACKAGED SETS

FEATURES

- Heavy duty aluminum box double track and hardware
- Conforms to ANSI A156.14
- Type: D8731, D8751

SPECIFICATIONS

- For doors 1-3/8" - 1-3/4" (35 mm - 44 mm) thick (top figure)
- For doors 1-3/4" (44 mm) thick, tracks are spaced 3/8" (10 mm) apart using 9574 (bottom figure)
- Up to 250 lbs (113 kg) per panel
- Track is extruded aluminum jump-proof style with "V" shaped rails
- Hangers have four (4) 1-1/4" (32 mm) diameter wheels

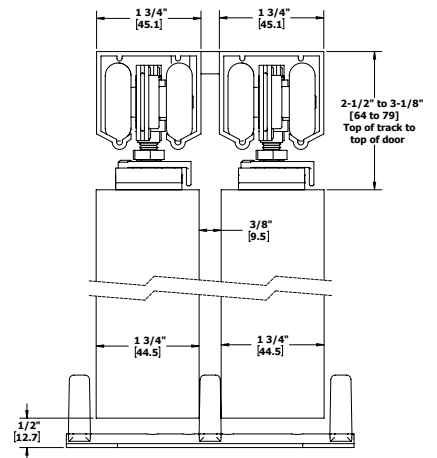
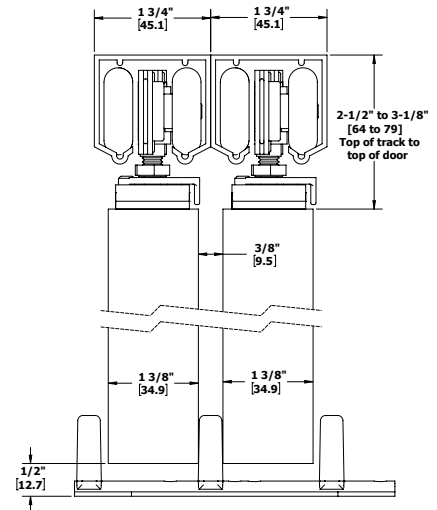
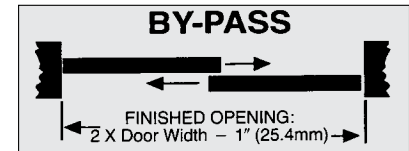
Part Number	Description
9875 Series Set - Packaged set for doors up to 1-3/4" (44 mm) thick Includes two (2) 9801 tracks, four (4) 9827 hangers, one (1) 9574 spacer, and one (1) 9909 guide	
9875-48	By-Pass Set - 4' (1219 mm) opening for two doors
9875-60	By-Pass Set - 5' (1524 mm) opening for two doors
9875-72	By-Pass Set - 6' (1829 mm) opening for two doors
9875-96	By-Pass Set - 8' (2438 mm) opening for two doors

TRACKS - 0.075" (1.9 mm) thick aluminum

Part Number	Description
Tracks for use with 9875 Series	
9801-72	72" (1829 mm) Aluminum Box Track
9801-96	96" (2438 mm) Aluminum Box Track
9801-120	120" (3048 mm) Aluminum Box Track
9801-144	144" (3658 mm) Aluminum Box Track
9801-192	192" (4877 mm) Aluminum Box Track

FASCIA - 2-3/4" (70 mm) high with 5/8" (16 mm) lip

Part Number	Description
9809-72	72" (1829 mm) 3-7/8" (98 mm) Aluminum Fascia
9809-96	96" (2438 mm) 3-7/8" (98 mm) Aluminum Fascia



Interchanges with Stanley 57/58.





BY-PASS - 9875 TRACK COMPONENTS



9801

Heavy Duty Aluminum Box Track

- Material: Extruded aluminum
 Gauge: 0.075" (1.9 mm)
 Track: 1-5/8" x 1-3/4"
 (41 mm x 44 mm)
 Lengths: 72" (1829 mm) to 192"
 (4877 mm)
 Notes:
 - For doors up to 250 lbs (113 kg)
 - Jump proof twin channel design



9909

Adjustable Guide

- Materials: Steel with bright zinc
 Posts: Molded Celcon/Nylon
 Gauge: 0.060" (1.5 mm)
 Guide: 4-7/8" x 1-5/8" x 1-3/16"
 (124 mm x 41 mm x 30 mm)
 Notes: For doors 3/4" to 1-3/4"
 (19 to 44 mm) thick and
 up to 275 lbs (125 kg)



9809

Aluminum Fascia

- Materials: Extruded aluminum
 Gauge: 0.072" (1.8 mm)
 Lip: 1-3/4" (44 mm)
 Fascia: 3-7/8" (98 mm)
 Lengths: 72" (1829 mm) and
 96" (2438 mm) lengths
 Notes:
 - Grooved fascia for painting
 - Pre-punched holes for easy installation



9574

Track Spacer Kit

- Materials: Celcon plastic
 Notes:
 - Includes screws
 - Properly spaces two single tracks for 1-3/4" (44 mm) doors
 - For use with 9801 track



9827

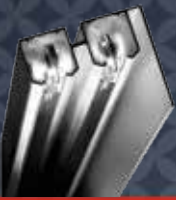
Four Wheel Ball Bearing Hanger

- Materials: Zinc plated steel
 Wheels: Self aligning to allow consistent contact with track
 Wheel: 1-1/4" (32 mm) diameter
 Notes:
 - For doors up to 250 lbs (113 kg)
 - Pre-lubricated Celcon wheels on steel shafts with steel ball bearings
 - Ball bearing axles
 - For use with 9801 Track

Optional Components

- | | |
|------|-----------------------------|
| 330D | Pocket Door Latch |
| 330L | Pocket Door Privacy Latch |
| 330M | Pocket Door Privacy Latch |
| 2630 | Flush Cup Pull |
| 9881 | Bumper |
| 9883 | Two Piece Pocket Door Guide |
| 9884 | Pocket Door Edge Pull |
| 9815 | Bumper Stop |
| 9884 | Pocket Edge Pull |
| 9889 | Non-Adjustable Floor Guide |

For optional components see pages 59-63



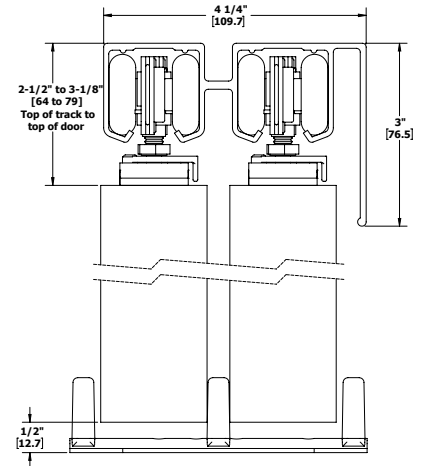
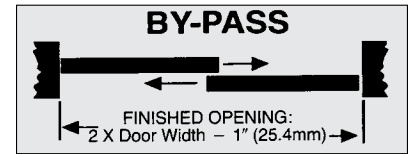
BY-PASS - 9885 & 9886 PACKAGED SETS

FEATURES

- Heavy duty aluminum double box track with 3-1/2" (89 mm) smooth fascia and hardware
- Conforms to ANSI A156.14
- Type: D8731, D8751

SPECIFICATIONS

- For doors 1-3/8" - 1-3/4" (35 mm - 44 mm) thick
- Up to 250 lbs (113 kg) per door
- Track is extruded aluminum jump-proof style with "V" shaped rails and integral 3-1/2" (88 mm) fascia
- Integral 3-1/2" (88 mm) smooth fascia
- Smooth fascia mount to be accompanied by decorative trim
- Hangers have four (4) 1-1/4" (32 mm) diameter wheels
- Smooth finish fascia



Part Number	Description
9885 Packaged Set for two doors up to 250 lbs. (117 kg.) each Includes one (1) 9803 track, four (4) 9827 hangers, one (1) 9909 guide, and one (1) 9880 bumper stop	
9885-48	By-Pass Set - 4' (1219 mm) opening for two doors
9885-60	By-Pass Set - 5' (1524 mm) opening for two doors
9885-72	By-Pass Set - 6' (1829 mm) opening for two doors
9885-96	By-Pass Set - 8' (2438 mm) opening for two doors
9886 Packaged Set for four doors up to 250 lbs. (113 kg.) each Includes eight (8) 9827 hangers, and one (1) 9880 door stop, and two (2) 9909 guide	
9886-96	By-Pass Set - 8' (2438 mm) opening for four doors

TRACKS - 0.06" (1.5 mm) thick aluminum

Part Number	Description
Tracks for use with 9800 Series	
9821-59	59" (1499 mm) Heavy Duty Aluminum Box Track
9821-71	71" (1803 mm) Heavy Duty Aluminum Box Track
9821-96	96" (2438 mm) Heavy Duty Aluminum Box Track
9821-144	144" (3658 mm) Heavy Duty Aluminum Box Track





BY-PASS - 9885 & 9886 TRACK COMPONENTS



9803 Heavy Duty Aluminum Double Box Track with 3-1/2" (89 mm) Smooth Fascia

Materials: Extruded aluminum
Gauge: 0.075" (1.9 mm) thick
Track: 3-1/2" x 4-1/2"
(89 mm x 114 mm)
Lengths: 48" (1219 mm) to 144"
(3658 mm)

- Notes:
- Up to 250 lbs (113 kg) per door
 - Jump proof twin channel design
 - One piece track with built-in smooth fascia
 - Smooth fascia meant to be accompanied by decorative trim
 - Hager does not offer decorative trim



9909 Adjustable Guide

Materials: Steel with bright zinc
Posts: Molded Celcon/Nylon
Gauge: 0.060" (1.5 mm)
Guide: 4-7/8" x 1-5/8" x 1-3/16"
(124 mm x 41 mm x 30 mm)
Notes: For doors 3/4" to 1-3/4"
(19 mm to 44 mm) thick and
up to 275 lbs (125 kg)



9827 Four Wheel Ball Bearing Hanger

Materials: Zinc plated steel
Wheels: Self aligning to allow
consistent contact with track
Wheel: 1-1/4" (32 mm) diameter
Notes:

- For doors up to 250 lbs (113 kg)
- Pre-lubricated Celcon wheels on steel shafts with steel ball bearings
- Ball bearing axles
- For use with 9801 track



9880 Door Stop

Materials: Zinc plated steel and rubber
Gauge: 0.090" (2.3 mm)
Stop: 1-1/4" x 1-1/4" x 7/8"
(32 mm x 32 mm x 22 mm)
Notes:

- For doors up to 175 lbs (79 kg)
- Keeps rear door pull exposed
- Mounts on door
- Not included in sets

Optional Components

2610	Pull
2630	Pull
9865	Pull
9351	Adjustable Guide
9353	Adjustable Guide
9354	3/4" Riser
9815	Bumper Stop
9880	Door Stop
9268	By-Pass Door Keyed Lock
9900	Rev. Side Mount Bracket

For optional components see pages 59-63

Bi-Fold



Hager Companies Bi-Fold (by-fold) door hardware is, the smoother the operation of your doors will be—over the lifetime of the installation. Contractors, specification writers and architects insist on Hager's hardware sets and components to ensure trouble-free installation and reliable performance.

Hager offers a wide range of classic Bi-Fold door hardware sets featuring heavy-duty aluminum tracks in 2- and 4-door configurations. Our tracks accommodate rough openings from three to eight feet and support doors up to 125 lbs.



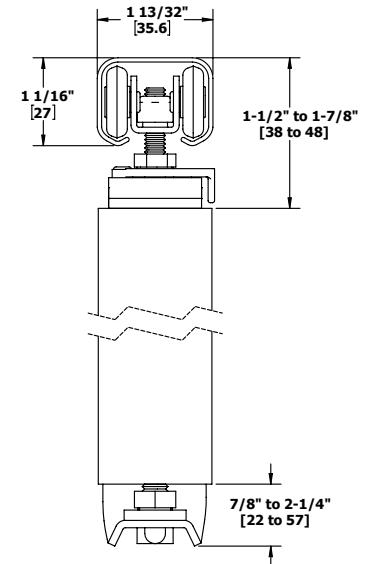
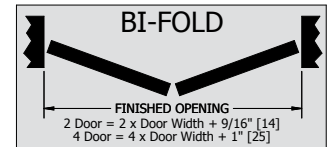
BI-FOLD - 9570 TRACK

FEATURES

- Standard duty aluminum box track and hardware
- Conforms to ANSI A156.14
- Type: D8621, D8642, D8652, D8662

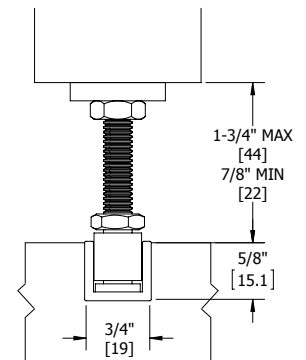
SPECIFICATIONS

- For doors 1-1/8" (28.6 mm - 44 mm) to 1-3/4" (44 mm) thick
- Up to 50 lbs (57 kg) per panel bi-fold
- Up to 30 lbs (34 kg) per panel multi-fold
- Track is extruded aluminum jump-proof style with "V" shaped rails
- Hangers have four 7/8" (22 mm) diameter wheels
- Top and bottom pivots are heavy duty with solid brass bottom socket assembly for smooth, long lasting operation
- Note: Loose pin full mortise hinges 1741/1279 are recommended – not included (3 required for 9162, 6 required for 9164)



Part Number	Description
9570 Series Set - For two doors Includes one (1) 9601 track and one (1) 9571 parts bag	
9570-36	Bi-Fold Set - 3' (914 mm) opening for two 18" (457 mm) doors
9570 Series Set - For four doors Includes one (1) 9601 track and two (2) 9571 parts bag	
9570-48	Bi-Fold Set - 4' (1219 mm) opening for four 12" (305 mm) doors
9570-60	Bi-Fold Set - 5' (1524 mm) opening for four 15" (381 mm) doors
9570-72	Bi-Fold Set - 6' (1829 mm) opening for four 18" (457 mm) doors
9570-96	Bi-Fold Set - 8' (2438 mm) opening for four 24" (610 mm) doors

Optional Bottom Track
9121 - 9122



Installation note: Clearance between door bottom and top of 9122 track must be 7/8" (22 mm) minimum to 1-3/4" (44 mm) maximum.

TRACKS - 0.050" (1.3 mm) thick aluminum

Part Number	Description
Tracks for use with 9570 Series	
9601-35	35" (889 mm) Aluminum Box Track
9601-47	47" (1194 mm) Aluminum Box Track
9601-59	59" (1499 mm) Aluminum Box Track
9601-63	63" (1600 mm) Aluminum Box Track
9601-71	71" (1803 mm) Aluminum Box Track
9601-96	96" (2438 mm) Aluminum Box Track
9601-120	120" (3048 mm) Aluminum Box Track
9601-144	144" (3658 mm) Aluminum Box Track



BI-FOLD - 9570 TRACK COMPONENTS



9601

Aluminum Box Track

- Materials: Extruded aluminum
 Gauge: 0.050" (1.3 mm)
 Track: 1-1/16" x 1-3/8"
 (27 mm x 35 mm)
 Lengths: 35" (889 mm) to 144"
 (2657 mm)
 Notes:
 - Refer to series pages for weight capacities
 - Jump proof twin channel design



9559

Aligner

- Materials: Steel with brass-tone dichromate finish
 Notes:
 - Keeps lead doors aligned when closed
 - Use one on each lead door



9571

Parts Bag

- Includes one (1) 9572 hanger, one (1) 9618 pivot set, one (1) 9559 aligner, one (1) 9558 knob, and one (1) 9815 bumper stop



9815

Bumper Stop

- Materials: Zinc plated steel and rubber
 Notes:
 - Fits all Hager track styles except 9101
 - Screws onto track
 - Included in bi-fold sets 9570 and 9890



9572

Four Wheel Hanger with Top Mount Plate

- Materials: Steel with brass-tone dichromate finish
 Wheel: 7/8" (22 mm) diameter
 Notes:
 - Wheels are self aligning to allow consistent contact with track
 - Pre-lubricated Celcon wheels
 - Includes wrench
 - For use on doors weighing up to 100 lbs (45 kg) each
 - For use with 9601, 9602, and 9603 track



Optional Part Bags

9569

Parts Bag

- Includes one (1) 9572 hanger, one (1) 9618 pivot set, one (1) 9559 aligner, one (1) 9558 knob, one (1) 9815 bumper stop, and three (3) 9220 hinges



9618

Pivot Set

- Materials: Zinc plated steel
 Notes:
 - For doors up to 50 lbs (23 kg)
 - Thumb wheel vertical adjustment
 - Top and bottom pivots require 3/8" (10 mm) diameter holes
 - For use with 9601



9220

Bi-Fold Door Hinge

- Materials: Steel with dichromate zinc finish
 Hinge: 3" x 1" (76 mm x 25 mm) hole
 Hole Locations: 1/2" (13 mm) from the center lines of holes to center of barrel
 Notes: Non-mortise and easy to install



9558

Wood Knob

- Diameter: 1-1/2" (38 mm)
 Materials: Solid wood
 Notes: Will accept paint or stain

Optional Components

- 9121 Adj. Bottom Door Guide
 9122 Bottom Guide Channel

For optional components see pages 59-63



BI-FOLD - 9860 & 9861 BI-FOLD SETS

FEATURES

- Heavy duty aluminum box track and hardware
- Conforms to ANSI A156.14
- Type: D8621, D8641, D8651, D8661

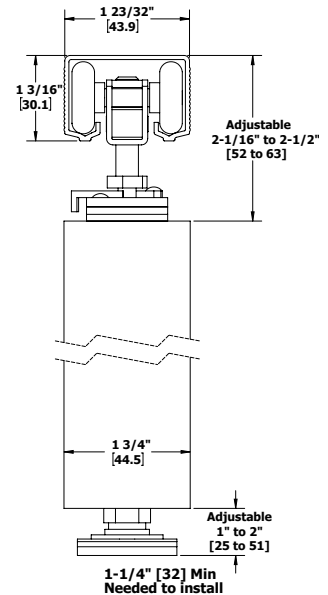
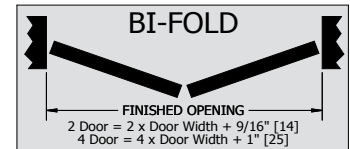
SPECIFICATIONS

- For doors 1-3/8" - 1-3/4" (35 mm - 44 mm) thick
- Up to 125 lbs (57 kg) per panel bi-fold
- Up to 75 lbs (34 kg) per panel multi-fold
- Quick release hangers allow easy door hanging and removal
- Universal extruded aluminum track interchanges with Stanley & Johnson track and hangers
- Hangers have 1" (25 mm) diameter wheels

Part Number	Description
9860 Bi-Fold Set - For two doors Includes one (1) 9821 track, one (1) 9894 parts bag, and three (3) 1741 3.5" x 3.5" US2D hinges	
9860-30	Bi-Fold Set - 30" (762 mm) opening for two doors
9860-36	Bi-Fold Set - 36" (914 mm) opening for two doors
9860-48	Bi-Fold Set - 48" (1219 mm) opening for two doors
9861 Bi-Fold Set - For four doors Includes one (1) 9821 track, two (2) 9894 parts bags, and six (6) 1741 3.5" x 3.5" US2D hinges	
9861-48	Bi-Fold Set - 48" (1219 mm) opening for four doors
9861-60	Bi-Fold Set - 60" (1524 mm) opening for four doors
9861-72	Bi-Fold Set - 72" (1829 mm) opening for four doors
9861-96	Bi-Fold Set - 96" (2438 mm) opening for four doors

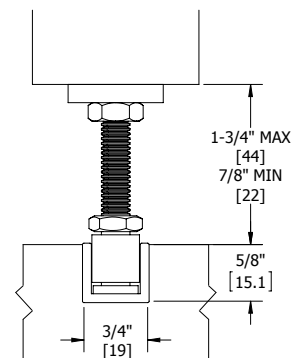
TRACKS - 0.06" (1.5 mm) thick aluminum

Part Number	Description
Tracks for use with 9800 Series	
9821-59	59" (1499 mm) Heavy Duty Aluminum Box Track
9821-71	71" (1803 mm) Heavy Duty Aluminum Box Track
9821-96	96" (2438 mm) Heavy Duty Aluminum Box Track
9821-144	144" (3658 mm) Heavy Duty Aluminum Box Track



Interchanges with Stanley 125/250 Series and Johnson 100 Series.

Optional Bottom Track 9121 - 9122



Installation note: Clearance between door bottom and top of 9122 track must be 7/8" (22 mm) minimum to 1-3/4" (44 mm) maximum.





BI-FOLD - 9860 & 9861 TRACK COMPONENTS



9821 Aluminum Box Track

Materials: Extruded aluminum
 Gauge: 0.06" (1.55 mm)
 Track: 1-5/8" x 1-1/16"
 (41 x 27 mm)
 Lengths: 59" (1499 mm) to 144" (3658 mm)
 Notes:

- For doors up to 250 lbs (113 kg)
- Jump proof twin channel design



9828 Bi-Fold Pivot Set

Materials: Zinc plated steel
 Notes:

- For doors up to 125 lbs (57 kg)
- Track pivot bearing mounts up inside track - no track cutting required
- Bottom pivot socket has ball bearing raceway
- Top and bottom pivots require 1/2" (13 mm) diameter and 1-3/4" (44 mm) deep holes
- For use with 9801 and 9821 track



9894 Parts Bag

Includes one (1) 9825 4-wheel ball bearing hanger with quick release top mount plate, one (1) 9559 aligner, one (1) 9828 bi-fold pivot set with one (1) 9815 bumper stop



9815 Bumper Stop

Materials: Zinc plated steel and rubber
 Notes:

- Fits all Hager track styles except 9101
- Screws onto track
- Included in bi-fold sets 9570 and 9890



9825 Four Wheel Ball Bearing Quick Release Hanger

Materials: Zinc plated steel
 Wheels: Self aligning to allow consistent contact with track
 Wheel: 1" (25 mm) diameter
 Notes:

- For doors up to 125 lbs (57 kg) for bi-fold applications
- Pre-lubricated Celcon wheels
- For use with 9821 track
- Quick release feature allows easy door hanging and removal



9559 Aligner

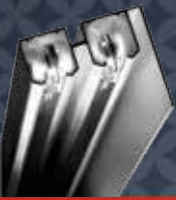
Materials: Steel with brass-tone dichromate finish
 Notes:

- Keeps lead doors aligned when closed
- Use one on each lead door

Optional Components

1741	Full Mortise Hinge
9220	Bi-Fold Hinge
9121	Adj. Bottom Door Guide
9122	Bottom Guide Channel
9558	Wood Knob

For optional components see pages 59-63



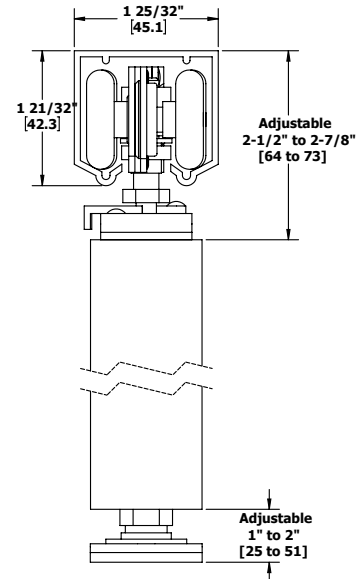
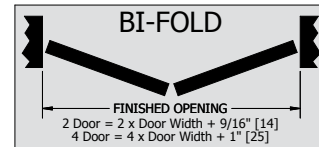
BI-FOLD - 9890 & 9891 PACKAGED SETS

FEATURES

- Heavy duty aluminum box track and hardware
- Conforms to ANSI A156.14
- Type: D8621, D8641, D8651, D8661

SPECIFICATIONS

- For doors 1-1/8" - 1-3/4" (29 mm - 44 mm) thick
- Quick release hanger allows easy door hanging and removal
- Up to 125 lbs (57 kg) per panel bi-fold
- Up to 75 lbs (34 kg) per panel multi-fold
- Track is extruded aluminum jump-proof style with "V" shaped rails
- Hangers have four 1-1/4" (32 mm) diameter wheels
- Top and bottom pivots are heavy duty with ball bearing bottom socket assembly for smooth, long lasting operation
- Note: 9890 Series requires 1741 loose pin hinges – included

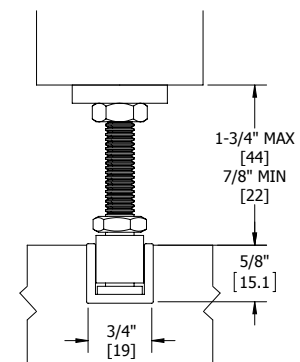


Part Number	Description
9890 Series Set - For two doors Includes one (1) 9801 track, one (1) 9827 hanger, one (1) 9828 pivot, and three (3) 1741 3.5" x 3.5" US2D hinges	
9890-30	Bi-Fold Set - 30" (762 mm) opening for two doors
9890-36	Bi-Fold Set - 36" (914 mm) opening for two doors
9890-48	Bi-Fold Set - 48" (1219 mm) opening for two doors
9891 Series Set - For four doors Includes one (1) 9801 track, one (1) 9827 hanger, one (1) 9828 pivot, and six (6) 1741 3.5" x 3.5" US2D hinges	
9891-48	Bi-Fold Set - 48" (1219 mm) opening for four doors
9891-60	Bi-Fold Set - 60" (1524 mm) opening for four doors
9891-72	Bi-Fold Set - 72" (1829 mm) opening for four doors
9891-96	Bi-Fold Set - 96" (2438 mm) opening for four doors

TRACKS - 0.075" (1.9 mm) thick aluminum

Part Number	Description
Tracks for use with 9890 Series	
9801-72	72" (1829 mm) Aluminum Box Track
9801-96	96" (2438 mm) Aluminum Box Track
9801-120	120" (3048 mm) Aluminum Box Track
9801-144	144" (3658 mm) Aluminum Box Track
9801-192	192" (4877 mm) Aluminum Box Track

Optional Bottom Track 9121 - 9122



Installation note: Clearance between door bottom and top of 9122 track must be 7/8" (22 mm) minimum to 1-3/4" (44 mm) maximum.





BI-FOLD - 9890 & 9891 TRACK COMPONENTS



9801

Heavy Duty Aluminum Box Track

- Materials: Extruded aluminum
 Gauge: 0.075" (1.9 mm)
 Track: 1-5/8" x 1-3/4"
 (41 mm x 44 mm)
 Lengths: 72" (1829 mm) to 192"
 (4877 mm)
 Notes:
 - For doors up to 250 lbs (113 kg)
 - Jump proof twin channel design



9828

Bi-Fold Pivot Set

- Materials: Zinc plated steel
 Notes:
 - For doors up to 125 lbs (57 kg)
 - Track pivot bearing mounts up inside track - no track cutting required
 - Bottom pivot socket has ball bearing raceway
 - Top and bottom pivots require 1/2" (13 mm) diameter and 1-3/4" (44 mm) deep holes
 - For use with 9801 and 9821 track



1741

Full Mortise, Five Knuckle, Plain Bearing Hinge

- Steel with steel pin (ANSI A5134)
- Reversible
- Square corners
- Removable pin
- 3-1/2" x 3-1/2" (89 mm x 89 mm)
- US2D



9559

Aligner

- Materials: Steel with brass-tone dichromate finish
 Notes:
 - Keeps lead doors aligned when closed
 - Use one on each lead door



9827

Four Wheel Ball Bearing Quick Release Hanger

- Materials: Zinc plated steel
 Wheels: Self aligning to allow consistent contact with track
 Wheel: 1-1/4" (32 mm) diameter
 Notes:
 - For doors up to 125 lbs (57 kg)
 - Pre-lubricated Celcon wheels
 - Ball bearing axles
 - For doors up to 250 lbs (113 kg) for by-pass and pocket applications
 - For use with 9801 track
 - Quick release feature allows easy door hanging and removal



9815

Bumper Stop

- Materials: Zinc plated steel and rubber
 Notes:
 - Fits all Hager track styles except 9101
 - Screws onto track
 - Included in bi-fold sets 9570 and 9890

Optional Components

- | | |
|------|------------------------|
| 9121 | Adj. Bottom Door Guide |
| 9122 | Bottom Guide Channel |
| 9566 | Knob |
| 9567 | Rose |
| 9558 | Wood Knob |

For optional components see pages 59-63

Pocket Door Kits



Pocket door aka “doors that vanish”— Hager Companies offer innovative design options for saving space and complementing classic and contemporary decors.

Hager’s pocket-door hardware is ideal for single and bi-parting pocket-door configurations in rough openings from two to four feet.

Steel or aluminum tracks support doors up to 250 lbs. and are designed for simple installation and durable performance. Hager’s 4-wheel spring carrier design provides an ultra-smooth gliding movement.

Pocket door hardware is available in kits (by opening length) or individual components.

Pocket frame kits include all the framing and hardware components to make installing pocket doors easy. KV offers frame kit solutions for traditional 2 x 4 framing, as well as 2 x 6 framing applications.





POCKET - 9110 & 9130 PACKAGED SETS

FEATURES

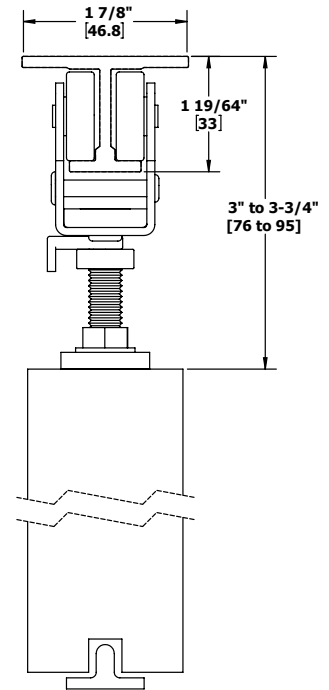
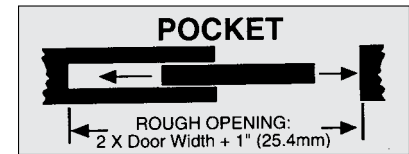
- Extra heavy duty aluminum I-beam track and hardware
- Conforms to ANSI A156.14
- Type: D8681, D8711

SPECIFICATIONS

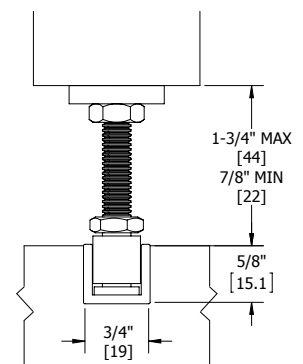
- For doors 1" - 1-3/4" (25 mm - 44 mm) thick doors
- 9110 Packaged Sets up to 175 lbs (80 kg) per door
- 9130 Packaged Sets up to 275 lbs (125 kg) per door
- Track is extruded aluminum jump-proof style with "I" beam track
- Hangers have 1" (25 mm) diameter wheels

Part Number	Description
9110 Packaged Set Includes one (1) 9101 track and one (1) 9109 parts bag: two (2) 9102 hangers, and one (1) 9115 floor guide	
9110-60	Pocket Door Set - 5' (1524 mm) for 2'6" (762 mm) door
9110-72	Pocket Door Set - 6' (1829 mm) for 3'0" (914 mm) door
9110-84	Pocket Door Set - 7' (2134 mm) for 3'6" (1067 mm) door
9110-96	Pocket Door Set - 8' (2438 mm) for 4'0" (1219 mm) door
9110-120	Pocket Door Set - 10' (3048 mm) for 5'0" (1524 mm) door
9110-144	Pocket Door Set - 12' (3658 mm) for 6'0" (1829 mm) door
9130 Packaged Set Includes one (1) 9101 track and one (1) 9129 parts bag: two (2) 9105 hangers, and one (1) 9115 floor guide	
9130-60	Pocket Door Set - 5' (1524 mm) for 2'6" (762 mm) door
9130-72	Pocket Door Set - 6' (1829 mm) for 3'0" (914 mm) door
9130-84	Pocket Door Set - 7' (2134 mm) for 3'6" (1067 mm) door
9130-96	Pocket Door Set - 8' (2438 mm) for 4'0" (1219 mm) door
9130-120	Pocket Door Set - 10' (3048 mm) for 5'0" (1524 mm) door
9130-132	Pocket Door Set - 11' (3353 mm) for 5'6" (1676 mm) door
9130-144	Pocket Door Set - 12' (3658 mm) for 6'0" (1829 mm) door

Part Number	Description
Tracks for use with 9110 Series and 9130 Series	
9101-72	72" (1829 mm) Aluminum I-Beam Track
9101-84	84" (2134 mm) Aluminum I-Beam Track
9101-96	96" (2438 mm) Aluminum I-Beam Track
9101-120	120" (3048 mm) Aluminum I-Beam Track
9101-144	144" (3658 mm) Aluminum I-Beam Track
9101-192	192" (4877 mm) Aluminum I-Beam Track



Optional Bottom Track
9121 - 9122



Installation note: Clearance between door bottom and top of 9122 track must be 7/8" (22 mm) minimum to 1-3/4" (44 mm) maximum.





POCKET - 9110 & 9130 TRACK COMPONENTS



9101

Aluminum I-Beam Track

Materials: Extruded aluminum
 Gauge: 0.125" (3 mm) thick
 Lengths: 72" (1829 mm) to 192" (4877 mm)

- Notes:
- Mounting holes are pre-punched for ease of installation
 - Requires two sets for by-pass opening



3835

Small Case Deadlock

See page 63 for details



9109

Parts Bag

Includes two (2) 9102 2-wheel hangers and one (1) 9115 floor guide

Note: Up to 175 lbs (79 kg) per door



9129

Parts Bag

Includes two (2) 9105 2-wheel hangers and one (1) 9115 floor guide

Note: Up to 275 lbs (125 kg) per door



9102

2 Wheel Hanger

Materials: Zinc plated steel
 Wheels:

- Nylon with Steel Ball Bearings
- Two self-aligning wheel hangers allow consistent contact with track

 Hanger: 1-3/16" x 2" x 1-1/8" (46 mm x 51 mm x 29 mm)
 Bolt: 3/8" x 2-5/16" (10 mm x 59 mm) (Bolt not same as 9105)
 Top Plate: 1" x 3-1/2" x 3/16" (25 mm x 89 mm x 5 mm)
 Notes:

- Use with 9101 track
- Up to 175 lbs (79 kg) per door



9105

4 Wheel Hanger

Materials: Zinc plated steel
 Wheels: Nylon with steel ball bearings
 Hanger:

- 4" x 2" x 1-3/4" (102 mm x 51 mm x 45 mm)
- Up to 275 lbs (125 kg) per door

 Bolt: 3/8" x 2-5/16" (10 mm x 59 mm)
 Top Plate: 1" x 3-1/2" x 3/16" (25 mm x 89 mm x 5 mm)
 Notes:

- Use with 9101 track, with doors weighing up to 275 lbs (125 kg)
- Four self-aligning wheel hangers allow consistent contact with track



9115

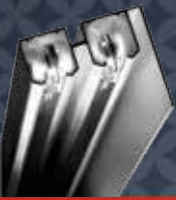
Bottom Door Guide

Materials: Die cast zinc aluminum alloy
 Guide: 7/8" x 3/4" x 3" (22 mm x 19 mm x 76 mm)
 Notes: Door bottom prep requires 1/4" (6 mm) wide kerf and 9/16" (14 mm) depth

Optional Components

9111	Fixed Bottom Guide
9113	Stop
9114	Bottom Guide Rail
9884	Pocket Door Edge Pull

For optional components see pages 59-63



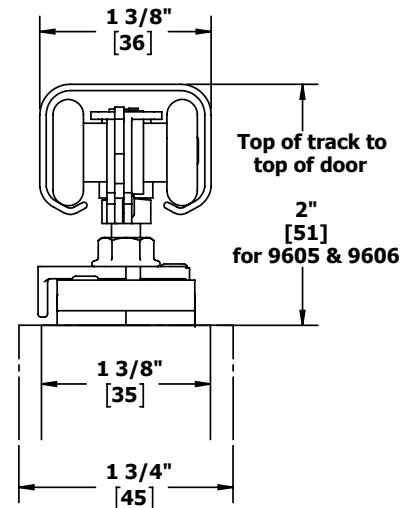
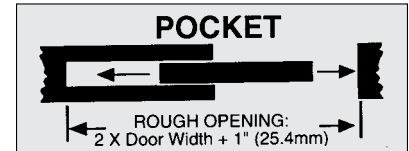
POCKET - 9678 POCKET DOOR SET

FEATURES

- Heavy duty aluminum box track and hardware
- Conforms to ANSI A156.14
- Type: D8681, D8711

SPECIFICATIONS

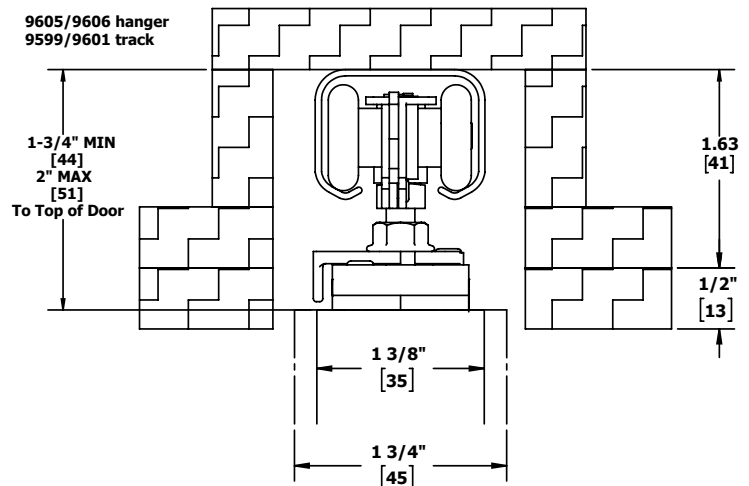
- For doors 1-1/8" - 1-3/4" (29 mm - 44 mm) thick
- Up to 125 lbs (57 kg) per door with 9605 hangers
- Up to 150 lbs (68 kg) per door with 9606 hangers
- Track is extruded aluminum jump-proof style with "V" shaped rails
- Hangers have four 7/8" (22 mm) diameter wheels for 9605 and wheels mounted on ball bearing shafts for 9606



Part Number	Description
9678	Pocket Door Set for 125 lb. doors
Includes one (1) 9601 track and one (1) 9632 parts bag: two (2) 9605 hangers, two (2) 9883 guides, and one (1) 9881 bumper	
9678-72	Pocket Door Set - 6' (1829 mm) for 3'0" (914 mm) door
9678-96	Pocket Door Set - 8' (2438 mm) for 4'0" (1219 mm) door

TRACKS - 0.05" (1.3 mm) thick aluminum

Part Number	Description
Tracks for use with 9601 Series	
9601-35	35" (889 mm) Aluminum Box Track
9601-47	47" (1194 mm) Aluminum Box Track
9601-55	55" (1397 mm) Aluminum Box Track
9601-59	59" (1499 mm) Aluminum Box Track
9601-63	63" (1600 mm) Aluminum Box Track
9601-71	71" (1803 mm) Aluminum Box Track
9601-96	96" (2438 mm) Aluminum Box Track
9601-120	120" (3048 mm) Aluminum Box Track
9601-144	144" (3658 mm) Aluminum Box Track





POCKET - 9678 TRACK COMPONENTS



9601

Aluminum Box Track

- Materials: Extruded aluminum
 Gauge: 0.050" (1.3 mm)
 Track: 1-1/16" x 1-3/8"
 (27 mm x 35 mm)
 Lengths: 35" (889 mm) to 144"
 (3657 mm)
 Notes:
- Refer to series pages for weight capacities
 - Jump proof twin channel design



3835

Small Case Deadlock

See page 63 for details



9632

Parts Bag

Includes two (2) 9605 hangers, two (2) 9883 guides, and one (1) 9881 bumper



Optional Part Bags

9633

Parts Bag

Includes two (2) 9606 hangers, two (2) 9883 guides, and one (1) 9881 bumper
 * For doors weighing up to 150 lbs. (68 kg)



9605

4-Wheel Hanger

- Materials: Steel with brass-tone dichromate finish
 Wheel: 7/8" (22 mm) diameter
 Notes:
- Up to 125 lbs (57 kg) per door
 - Self-aligning to allow consistent contact with track
 - Pre-lubricated Celcon wheels mounted on steel ball bearing shafts
 - Can be used on pivot set
 - Use in conjunction with 9601 or 9602 track



9606

4-Wheel Ball Bearing Hanger

- Materials: Steel with brass-tone dichromate finish
 Wheel: 7/8" (22 mm) diameter
 Notes:
- Up to 150 lbs (68 kg) per door
 - Self-aligning to allow consistent contact with track
 - Pre-lubricated Celcon wheels mounted on steel ball bearing shafts
 - Used in conjunction with 9607, 9608 or 9610 top door plate and 9599, 9601 or 9602 track



9883

Two Piece Pocket Door Guide

- Materials: Polyethylene
 Guide: 1-3/16" x 3/4" x 1-1/8"
 (21 mm x 19 mm x 29 mm)
 Notes:
- Two pieces per door required
 - Screws to jamb to guide door and prevent rubbing



9881

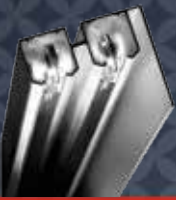
Bumper

- Materials: Rubber
 Stop: 1/2" diameter x 3/8" deep
 (13 mm x 10 mm)
 Notes: With screws

Optional Components

330D	Pocket Door Latch
330L	Pocket Door Privacy Latch
330M	Pocket Door Privacy Latch
2630	Flush Cup Pull
9884	Pocket Door Edge Pull
9815	Bumper Stop
9889	Non-Adjustable Floor Guide

For optional components see pages 59-63



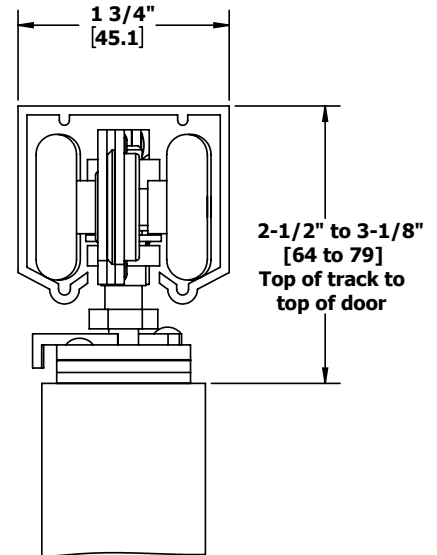
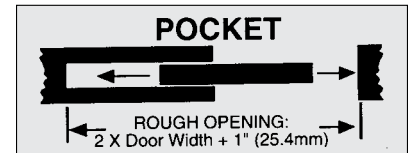
POCKET - 9878 PACKAGED SETS

FEATURES

- Extra heavy duty aluminum box track and hardware
- Conforms to ANSI A156.14
- Type: D8681, D8711

SPECIFICATIONS

- For doors 1-3/8" - 1-3/4" (35 mm - 44 mm) thick
- Up to 250 lbs (113 kg) per door
- Track is extruded aluminum jump-proof style with "V" shaped rails
- Hangers have four 1-1/4" (32 mm) diameter wheels



Interchanges with Stanley 57/58.

Part Number	Description
9878 Series Set	Includes one (1) 9801 track and one (1) 9742 parts bag
9878-72	Pocket Door Set - 6' (1829 mm) for 3'0" (914 mm) door
9878-96	Pocket Door Set - 8' (2438 mm) for 4'0" (1219 mm) door

TRACKS - 0.075" (1.9 mm) thick aluminum

Part Number	Description
Tracks for use with 9801 Series	
9801-72	72" (1829 mm) Aluminum Box Track
9801-96	96" (2438 mm) Aluminum Box Track
9801-120	120" (3048 mm) Aluminum Box Track
9801-144	144" (3658 mm) Aluminum Box Track
9801-192	192" (4877 mm) Aluminum Box Track





POCKET - 9878 TRACK COMPONENTS



9801

Extra Heavy Duty Box Track

- Materials: Extruded aluminum
 Gauge: 0.075" (1.9 mm)
 Track: 1-5/8" x 1-3/4"
 (41 mm x 44 mm)
 Lengths: 72" (1829 mm) to 192"
 (4877 mm)
 Notes:
 - For doors up to 250 lbs (113 kg)
 - Jump proof twin channel design



3835

Small Case Deadlock

- Thumbturn: Meet ADA Requirements, "No pinch," "No grasp."
 Lock Case: Heavy wrought steel with zinc dichromate finish - 4-5/16" x 3-9/16" x 1" (110 mm x 90 mm x 25 mm)
 Armor Front: 1-1/4" x 5-5/8" x 7/32" (32 mm x 143 mm x 5 mm)
 Keys: Two operating keys supplied per lock
 Cylinder:
 - Brass - keyed different - C keyway - Standard
 - Other keying options, including keyed 6-pin, available from factory
 - SFIC uncombined or combined, brass 6- or 7-pin sold separately
 - Drilled 6-pin, keyed 5-pin - Standard
 - Small Format Interchangeable Core housing available
 - Schlage "L" cam - Standard
 Door Thickness:
 - 1-3/8" - 2-1/2" (35mm-64mm) - steel door
 - 1-3/4" - 2-1/2" (45mm-64mm)- wood door
 - Must specify door thickness if greater than 1-3/4" (45mm)
 Backset: 2-3/4" (70 mm) only
 Deadbolt:
 - 1" (25 mm) throw - stainless steel
 Strike:
 - 1 1/8" wide x 3 1/2" (29mm x 89mm) NO LIP
 Finishes: US26D
 Functions: 35-Cylinder x Thumbturn, 36-Single Cylinder, 37-Double Cylinder, 38-Thumbturn Only, 39-Thumbturn w/ Emergency Key



9742

Parts Bag

- Includes two (2) 9827 hangers, two (2) 9883 guides, and one (1) 9881 bumper



9827

Four Wheel Ball Bearing Hanger

- Materials: Zinc plated steel
 Wheels: Self aligning to allow consistent contact with track
 Wheel: 1-1/4" (32 mm) diameter
 Notes:
 - For doors up to 75 lbs (34 kg)
 - Pre-lubricated Celcon wheels on steel shafts with steel ball bearings
 - Ball bearing axles
 - For use with 9801 track



9881

Bumper

- Materials: Rubber
 Stop: 1/2" diameter x 3/8" deep (13 mm x 10 mm)
 Notes: With screws



9883

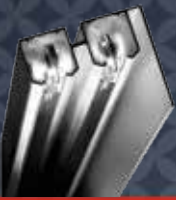
Two Piece Pocket Door Guide

- Materials: Polyethylene
 Guide: 1-3/16" x 3/4" x 1-1/8" (21 mm x 19 mm x 29 mm)
 Notes:
 - Two pieces per door required
 - Screws to jamb to guide door and prevent rubbing

Optional Components

- | | |
|------|----------------------------|
| 330D | Pocket Door Latch |
| 330L | Pocket Door Privacy Latch |
| 330M | Pocket Door Privacy Latch |
| 2630 | Flush Cup Pull |
| 9884 | Pocket Door Edge Pull |
| 9815 | Bumper Stop |
| 9884 | Pocket Door Edge Pull |
| 9889 | Non-Adjustable Floor Guide |

For optional components see pages 59-63



POCKET - 9901 SERIES

FEATURES

- Extra heavy duty aluminum box track and hardware
- Conforms to ANSI A156.14
- Type: D8681

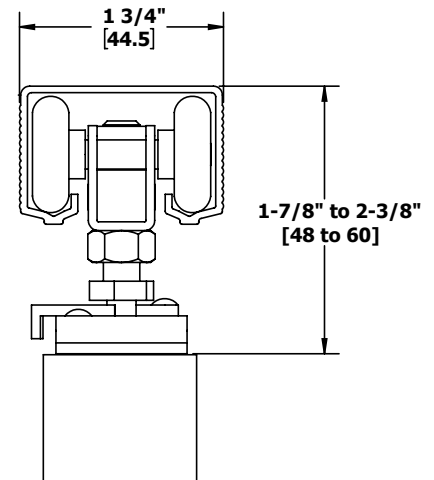
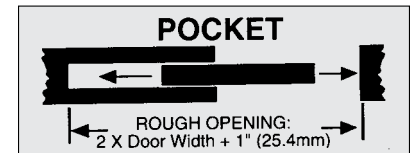
SPECIFICATIONS

- For doors 1-3/8" - 1-3/4" (35 mm - 44 mm) thick
- Up to 250 lbs (113 kg) per door
- Quick release hangers allow easy door hanging and removal
- Hangers interchange with Stanley & Johnson track and hangers
- Universal extruded aluminum track interchanges with Stanley & Johnson track and hangers
- Hangers have 1" (25 mm) diameter ball bearing wheels

Part Number	Description
9901 Series Set	Includes one (1) 9821 track and one (1) 9895 parts bag: two (2) 9825 hangers, two (2) 9883 guides, and one (1) 9881 bumper
9901-72	Pocket Door Set - 6' (1829 mm) for 3'0" (914 mm) door
9901-96	Pocket Door Set - 8' (2438 mm) for 4'0" (1219 mm) door

TRACKS - 0.06" (1.5 mm) thick aluminum

Part Number	Description
Tracks for use with 9901 Series	
9821-59	59" (1499 mm) Aluminum Box Track
9821-71	71" (1803 mm) Aluminum Box Track
9821-96	96" (2438 mm) Aluminum Box Track
9821-144	144" (3658 mm) Aluminum Box Track



Interchanges with Stanley 125/250 Series and Johnson 100 Series.



POCKET - 9901 SERIES TRACK COMPONENTS



9821

Aluminum Box Track

- Materials: Extruded aluminum
 Gauge: 0.06" (1.55 mm)
 Track: 1-5/8" x 1-1/16"
 (41 mm x 27 mm)
 Lengths: 59" (1499 mm) to 144"
 (3658 mm)
 Notes:
 - For doors up to 250 lbs (113 kg)
 - Jump proof twin channel design



3835

Small Case Deadlock

- Thumbturn: Meet ADA Requirements, "No pinch," No grasp."
 Lock Case: Heavy wrought steel with zinc dichromate finish - 4-5/16" x 3-9/16" x 1" (110 mm x 90 mm x 25 mm)
 Armor Front: 1-1/4" x 5-5/8" x 7/32" (32 mm x 143 mm x 5 mm)
 Keys: Two operating keys supplied per lock
 Cylinder:
 - Brass - keyed different - C keyway - Standard
 - Other keying options, including keyed 6-pin, available from factory
 - SFIC uncombined or combined, brass 6- or 7-pin sold separately
 - Drilled 6-pin, keyed 5-pin - Standard
 - Small Format Interchangeable Core housing available
 - Schlage "L" cam - Standard
 Door Thickness:
 - 1-3/8" - 2-1/2" (35mm-64mm) - steel door
 - 1-3/4" - 2-1/2" (45mm-64mm)- wood door
 - Must specify door thickness if greater than 1-3/4" (45mm)
 Backset: 2-3/4" (70 mm) only
 Deadbolt: 1" (25 mm) throw - stainless steel
 Strike: 1 1/8" wide x 3 1/2" (29mm x 89mm) NO LIP
 Finishes: US26D
 Functions: 35-Cylinder x Thumbturn, 36-Single Cylinder, 37-Double Cylinder, 38-Thumbturn Only, 39-Thumbturn w/ Emergency Key



9895

Parts Bag

- Includes two (2) 9825 4-wheel ball bearing hangers with quick release top plate, two (2) 9883 guides, and one (1) 9881 bumper



9825

4 Wheel Ball Bearing Hanger with Quick Release Top Mount Plate

- Materials: Zinc plated steel
 Wheels: Self aligning to allow consistent contact with track
 Wheel: 1" (25 mm) diameter
 Notes:
 - Pre-lubricated Celcon wheels
 - Up to 250 lbs (113 kg) doors
 - For use with 9821 track
 - Quick release feature allows easy door hanging and removal



9883

Two Piece Pocket Door Guide

- Materials: Polyethylene
 Guide: 1-3/16" x 3/4" x 1-1/8"
 (21 mm x 19 mm x 29 mm)
 Notes:
 - Two pieces per door required
 - Screws to jamb to guide door and prevent rubbing



9881

Bumper

- Materials: Rubber
 Stop: 1/2" diameter x 3/8" deep
 (13 mm x 10 mm)
 Notes: With screws

Optional Components

- | | |
|------|----------------------------|
| 330D | Pocket Door Latch |
| 330L | Pocket Door Privacy Latch |
| 330M | Pocket Door Privacy Latch |
| 2630 | Flush Cup Pull |
| 9559 | Aligner |
| 9815 | Bumper Stop |
| 9884 | Pocket Door Edge Pull |
| 9889 | Non-Adjustable Floor Guide |

For optional components see pages 59-63



POCKET - 9628 | 9629 | 9630 | 9631

FEATURES

- Heavy duty pocket door kit
- Conform to ANSI A156.14
- Type: D8671, D8701

SPECIFICATIONS

- Jump proof track and rollers
- Pre-assembled header assembly goes up quickly
- Easy door installation and removal for painting and repair
- Real wood split studs, size 3/4" x 1-5/8" (19 mm x 26 mm) length relative to height, steel encased for rigidity and to prevent fastener penetration into the pocket
- Track header unit attaches to rough framing at both ends - split studs nail or screw to track header - no connections to rough header
- 2 pair of split studs with wood inserts
- See chart below for appropriate kit

Pocket Door Kit

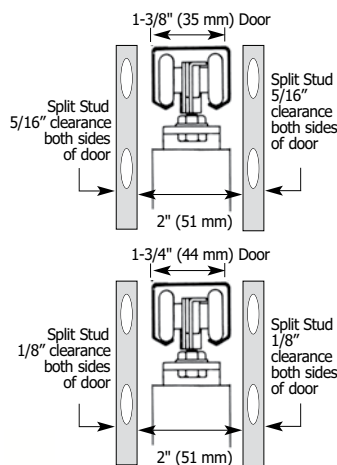
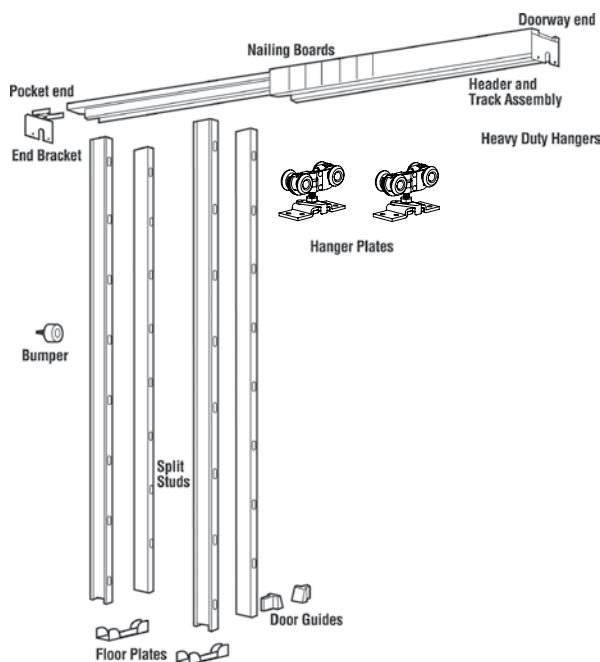
Part #	Max Door Weight	Door Thickness*	Door Width	Door Height	Hanger Bearings
9628	150 lbs (68 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	9'0" (2743 mm)	9606 Steel Ball
9629	150 lbs (68 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	8'0" (2438 mm)	9606 Steel Ball
9630	150 lbs (68 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	7'0" (2134 mm)	9606 Steel Ball
9631	125 lbs (57 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	6'8" (2032 mm)	9605 Molded Celcon

* 9634 adapter kit is recommended for 1-3/4" (45 mm) doors (sold separately).

Installation Note: For bi-parting doors, use Hager double pocket door kit 9639 (sold separately).



Joins two pocket door frames to make one large doorway. Rough opening width changes to door width multiplied by four.



Note: 9634 adapter kit (sold separately) recommended for doors 1-3/4" (45 mm) thick.

Contents

Quantity	Description
1	Header assembly
2	Pair of split studs
2	Heavy duty hangers
2	Door hanger plates
1	Bumper
1	Pair of door guides
1	Adjusting wrench
2	Floor plates
1	Doorway end bracket
1	Pocket end bracket





POCKET - 9850

FEATURES

- Heavy duty pocket door kit
- Conform to ANSI A156.14
- Type: D8671, D8701

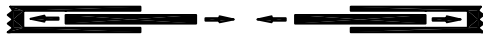
Pocket Door Kit

SPECIFICATIONS

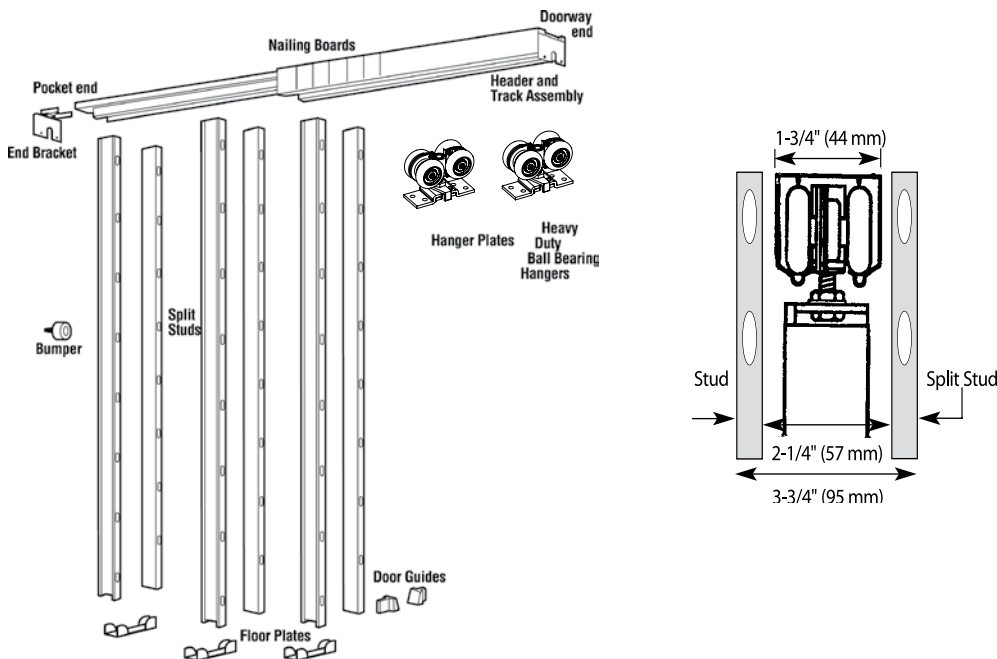
- For doors 1-3/8" - 1-3/4" (35 mm - 44 mm) thick, up to 4'0" (1219 mm) wide and 8'0" (2438 mm) or 8'6" (2591 mm) high, weighing up to 250 lbs (112 kg)
- Jump proof track and rollers
- 9801 heavy duty aluminum box track
- Pre-assembled header assembly goes up quickly
- Easy door installation and removal for painting and repair
- Real wood split studs, size 3/4" x 1-5/8" (19 mm x 26 mm) length relative to height, steel encased for rigidity and to prevent fastener penetration into the pocket
- Track header unit attaches to rough framing at both ends - split studs nail or screw to track header - no connections to rough header
- 3 pair of split studs with wood inserts

Part #	Max Door Weight	Door Thickness*	Door Width	Door Height	Hanger Bearings
9850	250 lbs (57 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	4'0" (1219 mm)	8'0" (2438 mm)	9829 Steel Ball

Installation Note: For bi-parting doors, use Hager double pocket door kit 9639 (sold separately).

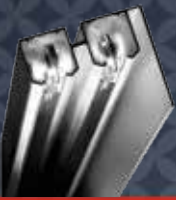


Joins two pocket door frames to make one large doorway. Rough opening width changes to door width multiplied by four.



Contents

Quantity	Description
1	Header assembly
3	Pair of split studs
2	Heavy duty hangers
2	Door hanger plates
1	Bumper
1	Pair of door guides
1	Adjusting wrench
3	Floor plates
1	Doorway end bracket
1	Pocket end bracket



POCKET - POCKET DOOR KIT COMPONENTS



330D

Pocket Door Latch

Certification: Meets ANSI A156.14 for D0821.1

Size: 2-3/4" x 2-1/2"
(70 mm x 64 mm)

Finger Piece: 1-3/8" (35 mm) extension

Materials: Brass

Finishes: US3, US5, US10B, US15, US15A, US19, US26, US26D

Fasteners: Two (2) #6 x 5/8" OPHWS; (2) #6 x 3/4" FPHWS

Notes: For use with 1-3/8" to 1-3/4" (35 mm to 45 mm) door



330L

Pocket Door Privacy Latch

Size: 2-3/4" x 2-1/2"
(70 mm x 64 mm)

Finger Piece: 1-3/8" (35 mm) extension

Strike Size: 1" x 2-1/4" (25 mm x 57 mm)

Materials: Brass

Finishes: US3, US5, US10B, US15, US15A, US19, US26, US26D

Fasteners: Two (2) #6 x 5/8" OPHWS; (2) #6 x 3/4" FPHWS

Notes: For use with 1-3/8" door



330M

Pocket Door Privacy Latch

Certifications: Meets ANSI A156.14 for D0831

Size: 2-3/4" x 2-1/2"
(70 mm x 64 mm)

Finger Piece: 1-3/8" (35 mm) extension

Strike Size: 1" x 2-1/4" (25 mm x 57 mm)

Materials: Brass

Finishes: US3, US5, US10B, US15, US15A, US19, US26, US26D

Fasteners: Two (2) #6 x 5/8" OPHWS; (2) #6 x 3/4" FPHWS

Notes: For use with 1-3/4" door



2610

Flush Cup Finger Pull

Overall Diameter: 31/32" (25 mm)

Finger Pull: 3/4" (19 mm) diameter

Depth: 5/16" (8 mm)

Projection: 1/32" (.8 mm)

Materials: Solid brass

Finishes: US3, US4, US5, US10A, US15, US15A, US26, US26D, ABA

Notes: Built-in prong design eliminates the need for screws or brads.



2630

Flush Cup Pull

Overall Diameter: 2-7/16" (62 mm)

Finger Pull: 2-1/16" (52 mm) diameter

Depth: 11/32" (9 mm)

Projection: 3/32" (2 mm)

Materials: Solid brass

Finishes: US3, US4, US5, US10A, US15, US15A, US26, US26D, ABA

Notes: Built-in prong design eliminates the need for screws or brads.



9605

4-Wheel Hanger

Materials: Steel with brass-tone dichromate finish

Wheel: 7/8" (22 mm) diameter

Notes:

- For doors up to 125 lbs (57 kg)
- Wheels are self aligning to allow consistent contact with track
- Pre-lubricated Celcon wheels mounted on steel ball bearing shafts
- Can be used on pivot set
- Use in conjunction with 9601 or 9602 track





POCKET - POCKET DOOR KIT COMPONENTS



9606 4-Wheel Ball Bearing Hanger with Top Mount Plate

- Materials: Steel with brass-tone dichromate finish
- Wheels: 7/8" (22 mm) diameter
- Notes:
- Self aligning to allow consistent contact with track
 - Pre-lubricated Celcon wheels mounted on steel ball bearing shafts
 - Up to 150 lbs (68 kg) per door
 - Use with 9601, 9602, or 9603 track



3835 Small Case Deadlock

- Thumbturn: Meet ADA Requirements, "No pinch," No grasp."
- Lock Case: Heavy wrought steel with zinc dichromate finish - 4-5/16" x 3-9/16" x 1" (110 mm x 90 mm x 25 mm)
- Armor Front: 1-1/4" x 5-5/8" x 7/32" (32 mm x 143 mm x 5 mm)
- Keys: Two operating keys supplied per lock
- Cylinder:
- Brass - keyed different - C keyway - Standard
 - Other keying options, including keyed 6-pin, available from factory
 - SFIC uncombined or combined, brass 6- or 7-pin sold separately
 - Drilled 6-pin, keyed 5-pin - Standard
 - Small Format Interchangeable Core housing available
 - Schlage "L" cam - Standard
- Door Thickness:
- 1-3/8" - 2-1/2" (35mm-64mm) - steel door
 - 1-3/4" - 2-1/2" (45mm-64mm)- wood door
 - Must specify door thickness if greater than 1-3/4" (45mm)
- Backset: 2-3/4" (70 mm) only
- Deadbolt:
- 1" (25 mm) throw - stainless steel
- Strike:
- 1 1/8" wide x 3 1/2" (29mm x 89mm) NO LIP
- Finishes: US26D
- Functions: 35-Cylinder x Thumbturn, 36-Single Cylinder, 37-Double Cylinder, 38-Thumbturn Only, 39-Thumbturn w/ Emergency Key



9632 Parts Bag

- Includes:
- Two (2) 9605 hangers
 - Two (2) 9883 guides
 - One (1) 9881 bumper



9633 Parts Bag

- Includes:
- Two (2) 9606 hangers
 - Two (2) 9883 guides
 - One (1) 9881 bumper



9827 Four Wheel Ball Bearing Hanger

- Materials: Zinc plated steel
- Wheels: Self aligning to allow consistent contact with track
- Wheel: 1-1/4" (32 mm) diameter
- Notes:
- For doors up to 75 lbs (34 kg)
 - Pre-lubricated Celcon wheels on steel shafts with steel ball bearings
 - Ball bearing axles
 - For use with 9801 track

Optional Components

- | | |
|------|------------------------------|
| 9610 | Replacement Top Mount Plate |
| 9634 | Pocket Door Adaptor Kit |
| 9639 | Dbl. Pocket Door Adapter Kit |
| 9865 | Flush Cup Pull |
| 9881 | Bumper |
| 9883 | Two Piece Pocket Door Guide |
| 9884 | Pocket Door Edge Pull |
| 9889 | Non-Adjustable Floor Guide |
| 9262 | Pocket Door Keyed Lock |
| 9877 | Door Guide |

For optional components see pages 59-63

Wall-Mount Hardware



Architecturally designed wall-mount system for commercial or residential spaces

Hager Companies wall-mount sliding door hardware is designed to blend seamlessly with any interior décor — from a contemporary uptown loft, to any more traditional environment. This architecturally focused design delivers a clean, finished look to any interior doorway or room divider (from two to six opening feet) while providing maximum space utilization.

Hager's 9710 Wall-Mount system is available in clear anodized and dark bronze finishes. Quiet four-wheel ball bearing carriers support doors up to 250 lbs. Hardware supports one- and two-door applications.

Wall-mount door hardware is available in kits (by track length) or individual components.





WALL MOUNT - 9710

FEATURES

- Heavy duty aluminum box track and hardware
- Conforms to ANSI BHMA A156.14-2007
- Grade 1, D8011, D8681, D8691
- Grade 2, D8012, D8692
- Bi-parting Grade 1, D8711
- Grade 2, D8721

SPECIFICATIONS

- For doors 1" - 1-3/4" (25 mm - 45 mm) thick
- Up to 250 lbs (113 kg) per door
- Track is extruded aluminum jump-proof style
- Hangers have four 1-1/4" (32 mm) diameter wheels

Part Number	Description	Stock#
9710 Packaged Set		
Includes one (1) 9703 track, one (1) 9704 anodized fascia, one (1) 9705 end caps and one (1) 9711 parts bags.		
9710-60	Wall Mount Packaged Set- Aluminum 5' (1524mm) for 1 Door	160955
9710-72	Wall Mount Packaged Set- Aluminum 5' (1524mm) for 1 Door	160958
9710-96	Wall Mount Packaged Set- Aluminum 8' (1219mm) for 1 Door	160959
9710-144	Wall Mount Packaged Set- Aluminum 12' (1829mm) for 1 Door	160991

Part Number	Description	Stock#
9710 Packaged Set		
Includes one (1) 9703 track, one (1) 9704 anodized fascia, one (1) 9705 end caps and one (1) 9711 parts bags.		
9710-60	Wall Mount Packaged Set- Dark Bronze 5' (1524mm) for 1 Door	160961
9710-72	Wall Mount Packaged Set- Dark Bronze 5' (1524mm) for 1 Door	160962
9710-96	Wall Mount Packaged Set- Dark Bronze 8' (1219mm) for 1 Door	160963
9710-144	Wall Mount Packaged Set- Dark Bronze 12' (1829mm) for 1 Door	160989

TRACKS One track required for each Wall Mount opening-.125 (3.2 mm) thick aluminum

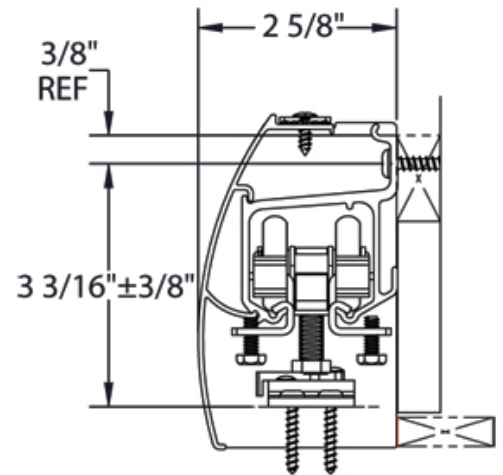
Part Number	Description	Stock#
9703 Wall Mount Etched Aluminum Finish Tracks for use with 9710 Series		
9703-60	Wall Mount Track- Aluminum 5' (1524mm) for 1 Door	160984
9703-72	Wall Mount Track- Aluminum 6' (1839 mm) for 1 Door	160985
9703-96	Wall Mount Track- Aluminum 8' (1219mm) for 1 Door	160986
9703-144	Wall Mount Track- Aluminum 12' (1829mm) for 1 Door	160988

9703 Wall Mount Dark Bronze Finish Tracks for use with 9710 Series		
9703-60	Wall Mount Track- Dark Bronze 5' (1524mm) for 1 Door	160993
9703-72	Wall Mount Track- Dark Bronze 6' (1839 mm) for 1 Door	160994
9703-96	Wall Mount Track- Dark Bronze 8' (1219mm) for 1 Door	160995
9703-144	Wall Mount Track- Dark Bronze 12' (1829mm) for 1 Door	160996

WALL MOUNT



9827 Hanger



Interchanges with Stanley 57/58.



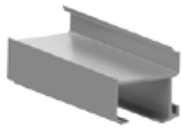


WALL MOUNT - 9710

FASCIA One anodized fascia required for each Wall Mount opening-.825 (2.1 mm) thick aluminum

Part Number	Description	Stock#
9704 Wall Mount Anodized Aluminum Finish Fascia for use with 9710 Series		
9704-60	Wall Mount Fascia- Anodized Aluminum 5' (1524mm) for 1 Door	160984
9704-72	Wall Mount Fascia- Anodized Aluminum 6' (1839 mm) for 1 Door	160985
9704-96	Wall Mount Fascia- Anodized Aluminum 8' (1219mm) for 1 Door	160986
9704-144	Wall Mount Fascia- Anodized Aluminum 12' (1829mm) for 1 Door	160988

9704 Wall Mount Anodized Dark Bronze finish Fascia for use with 9710 Series		
9704-60	Wall Mount Fascia- Anodized Dark Bronze 5' (1524mm) for 1 Door	160993
9704-72	Wall Mount Fascia- Anodized Dark Bronze 6' (1839 mm) for 1 Door	160994
9704-96	Wall Mount Fascia- Anodized Dark Bronze 8' (1219mm) for 1 Door	160995
9704-144	Wall Mount Fascia- Anodized Dark Bronze 12' (1829mm) for 1 Door	160996



9703

Extra Heavy Duty Box Track

Materials: Extruded aluminum
 Gauge: .125 (3.2 mm) thick
 Lengths: 60" (1524 mm) to 144" (1829 mm)

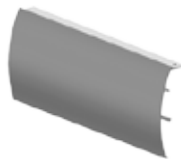
- Notes:
- For doors up to 250 lbs (113 kg)
 - Jump proof track with twin channel design



9705

End Cap Sets

- Materials: Anodized aluminum
 Notes:
- Concealed fasteners provide a finished look
 - One each left and right end cap and hardware



9704

Smooth Anodized Fascia

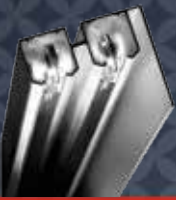
Materials: Anodized aluminum
 Gauge: .0620 (1.6 mm)
 Fascia: 4 3/8" (111 mm)
 Lengths: 60" (1524 mm) to 144" (1829 mm)



9711

Parts Bag

Includes: Two (2) each 9827 four wheel ball bearing hanger and quick release top mount plate, One (1) each 9115 bottom door guide, and four (4) each 9815 bumper stop



WALL MOUNT - 9710 COMPONENTS



9827

Four Wheel Ball Bearing Hanger

- Materials: Zinc plated steel
- Wheels: Self aligning to allow consistent contact with track
- Wheel: 1-1/4" (32 mm) diameter
- Notes:
- For doors up to 250 lbs (113 kg)
 - Pre-lubricated Celcon wheels on steel shafts with steel ball bearings
 - Ball bearing axles
 - For use with 9703 and 9801 track



9115

Bottom Door Guide

- Materials: Die cast zinc aluminum alloy
- Guide: 7/8" x 3/4" x 3" (22 mm x 19 mm x 76 mm)
- Notes: Door bottom prep requires 1/4" (6 mm) wide kerf and 9/16" (14 mm) depth



9815

Bumper Stop

- Materials: Zinc plated steel and rubber
- Notes:
- Fits all Hager track styles except 9101
 - Screws onto track
 - Included in 9710 wall mount sets
 - Included in bi-fold sets 9570 and 9890

Optional Components

9610	Replacement Top Mount Plate
330D	Pocket Door Latch
330L	Pocket Door Privacy Latch
330M	Pocket Door Privacy Latch
9884	Pocket Door Edge Pull

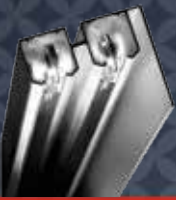
For optional components see pages 59-63

Barn Door Hardware



Hager Companies introduces our new premium Stainless Steel Sliding Barn Door Hardware System with versatile options for glass or wood doors. A seamless fit for commercial or residential applications, the Stainless Steel Sliding Barn Door Hardware System offers seven styles of door hangers complimenting any décor.





9400 SERIES BARN DOOR HARDWARE

FEATURES

- 304 stainless steel track and hangers nylon coated rollers
- Conforms to ANSI BHMA A156.14-2007
- Grade 1 for sliding doors by exceeding 100,000 cycles in operation

SPECIFICATIONS

- Door weight up to 250 lbs
- Wood doors 1-3/4" thick - top-mount hangers
- Door bottom 3/8" undercut
- Glass doors 3/8" to 1/2" thick - face-mount hangers

SLIDING BARN DOOR



Stock Number	Hager Part Number	Description
Stainless Steel 78" Kits		
Top Mount		
183635	9432-78	Top Mount Stick 2m (78-3/4") SS Round Rail
183637	9433-78	Top Mount Dual Wheel 2m (78-3/4") SS Round Rail
183683	9462-78	Flat Rail Stick Strap SS 6' Flat track
183641	9435-78	Top Mount Spoke Wheel 2m (78-3/4") SS Round Rail
Face Mount		
183643	9436-78	Face mount Strap Stick 2m (78-3/4") SS Round Rail
183646	9437-78	Face mount Strap Dual Wheel 2m (78-3/4") SS Round Rail
183650	9438-78	Face mount Strap Triangle 2m (78-3/4") SS Round Rail
Stainless Steel 96" Kits - Subject to Extended Lead Times		
Top Mount		
183636	9432-96	Top Mount Stick 2m (96-3/4") SS Round Rail
183638	9433-96	Top Mount Dual Wheel 2m (96-3/4") SS Round Rail
183640	9462-96	Flat Rail Stick Strap SS 8' Flat track
183642	9435-96	Top Mount Spoke Wheel 2m (96-3/4") SS Round Rail
Face Mount		
183644	9436-96	Face mount Strap Stick 2m (96-3/4") SS Round Rail
183647	9437-96	Face mount Strap Dual Wheel 2m (96-3/4") SS Round Rail
183651	9438-96	Face mount Strap Triangle 2m (96-3/4") SS Round Rail
Accessories		
183156	1-269-8665	Tool set for 05WG; 06WG; 07WG (Round Rail)
183163	1-269-8666	Tool set for 01W; 02W (Round Rail)
183164	1-269-8667	End Cap
183165	1-269-8668	Guide for Wooded Door
183166	1-269-8669	Door Stop
183167	1-269-8670	Guide for Glass Door
183168	1-269-8671	Top Mount Stick Sliding Door Roller for Wood, SS304 Satin
183170	1-269-8672	Top Mount Dual Wheel Sliding Door Roller for Wood, SS304 Satin
183171	1-269-8673	Top Mount Spoke Wheel Sliding Door Roller for Wood, SS304 Satin
183172	1-269-8674	Strap Stick Sliding Door Roller for Wood and Glass, SS304 Satin
183173	1-269-8675	Strap Dual Wheel Sliding Door Roller for Wood and Glass, SS304 Satin
183176	1-269-8676	Strap Triangle Sliding Door Roller for Wood and Glass, SS304 Satin
183179	1-269-8677	Flat Rail Stick Sliding Door Carrier for Wood SS304 Satin
183180	1-269-8678	Flat Rail Door Stopper Left, SS304 Satin
183181	1-269-8679	Flat Rail Door Stopper Right, SS304 Satin
183182	1-269-8680	Flat Rail Anti Jump
181901	1-269-8663	Round Rail Connector SS304 Satin Nickel
181902	1-269-8664	Flat Rail Connector SS304 Satin Nickel





9400 SERIES BARN DOOR HARDWARE

9432 PACKAGED SETS

Top Mount Stick 2m SS Round Rail

FEATURES

Materials: 304 stainless steel track and hangers with nylon coated rollers

- System Includes:
- Stainless steel track (78" or 96") with two end caps - available in round or flat rail
 - Hangers with wall brackets
 - One door bottom guide
 - Two track stops
 - Mounting and installation hardware

Standards: Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors 1-3/4" thick (top-mount hangers)
- Door bottom 3/8" undercut



9433 PACKAGED SETS

Dual Wheel 2m SS Round Rail

FEATURES

Materials: 304 stainless steel track and hangers with nylon coated rollers

- System Includes:
- Stainless steel track (78" or 96") with two end caps - available in round or flat rail
 - Hangers with wall brackets
 - One door bottom guide
 - Two track stops
 - Mounting and installation hardware

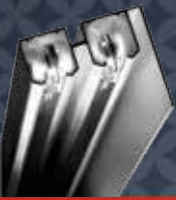
Standards: Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors 1-3/4" thick (top-mount hangers)
- Door bottom 3/8" undercut





9400 SERIES BARN DOOR HARDWARE

9435 PACKAGED SETS

Top Mount Spoke Wheel 2m SS Round Rail

FEATURES

- Materials: 304 stainless steel track and hangers with nylon coated rollers
- System Includes:
- Stainless steel track (78" or 96") with two end caps - available in round or flat rail
 - Hangers with wall brackets
 - One door bottom guide
 - Two track stops
 - Mounting and installation hardware
- Standards: Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors 1-3/4" thick (top-mount hangers)
- Door bottom 3/8" undercut

9436 PACKAGED SETS

Face Mount Stick 2m SS Round Rail

FEATURES

- Materials: 304 stainless steel track and hangers with nylon coated rollers
- System Includes:
- Stainless steel track (78" or 96") with two end caps - available in round or flat rail
 - Hangers with wall brackets
 - One door bottom guide
 - Two track stops
 - Mounting and installation hardware
- Standards: Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors 1-1/4" - 1-3/4" thick
- Door bottom 3/8" undercut
- Glass doors 3/8" to 1/2" thick





9400 SERIES BARN DOOR HARDWARE

9437 PACKAGED SETS

Face Mount Dual Wheel 2m SS Round Rail

FEATURES

Materials:	304 stainless steel track and hangers with nylon coated rollers
System Includes:	<ul style="list-style-type: none"> • Stainless steel track (78" or 96") with two end caps - available in round or flat rail • Hangers with wall brackets • One door bottom guide • Two track stops • Mounting and installation hardware
Standards:	Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors 1-1/4" - 1-3/4" thick
- Door bottom 3/8" undercut
- Glass doors 3/8" to 1/2" thick



9438 PACKAGED SETS

Face Mount Triangle 2m SS Round Rail

FEATURES

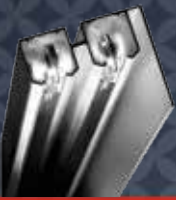
Materials:	304 stainless steel track and hangers with nylon coated rollers
System Includes:	<ul style="list-style-type: none"> • Stainless steel track (78" or 96") with two end caps - available in round or flat rail • Hangers with wall brackets • One door bottom guide • Two track stops • Mounting and installation hardware
Standards:	Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors 1-1/4" - 1-3/4" thick
- Door bottom 3/8" undercut
- Glass doors 3/8" to 1/2" thick





9400 SERIES BARN DOOR HARDWARE

9462 PACKAGED SET

Flat Stick Strap 2m SS Round Rail

FEATURES

- Materials: 304 stainless steel track and hangers with nylon coated rollers
- System Includes:
- Stainless steel track (72" or 96") with two end caps - available in round or flat rail
 - Hangers with wall brackets
 - One door bottom guide
 - Two track stops
 - Mounting and installation hardware
- Standards: Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles

DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors 1-3/8" thick
- Door bottom 3/8" undercut





9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES

FEATURES

- Durable powder-coated black rail and Conestoga Style, Barn Door Hangers
- Conforms to ANSI BHMA A156.14-2007
- Grade 1 for sliding doors by exceeding 100,000 cycles in operation

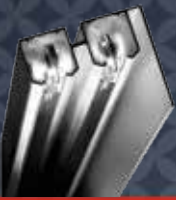
SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick

SLIDING BARN DOOR



Stock Number	Hager Part Number	Description
Conestoga Barn Door		
Rail Only		
186242	9450-48	48" Black Powder Coated, Flat Rail
186243	9450-72	72" Black Powder Coated, Flat Rail
186251	9450-96	96" Black Powder Coated, Flat Rail
Hanger Kits Less Rail, All Kits Include two carriers, stops, floor guide and rail mounting brackets and fasteners		
188467	9452	3" Black Powder Coated Hook Carrier Kit Less Rail
188468	9453	5" Black Powder Coated Hook Carrier Kit Less Rail
188469	9454	3" Black Powder Coated Strap Carrier Kit Less Rail
188470	9455	3" Black Powder Coated Top Mount Carrier Kit Less Rail
Optional Components		
Privacy Latch and Pull		
186296	1-269-8693	Sliding Door Privacy Latch & Strike Plate
186299	1-269-8694	4" x 1-3/4" x 7/16" Flush Pull
Accessories		
186289	1-269-8689	Bracket Kit: Includes 1 Wall Mount Bracket with Fastener
186290	1-269-8690	Stop Kit: Includes 2 End Stops with Fasteners
186292	1-269-8691	Splice Kit: Includes Splice Components and Fasteners for Joint Rails



9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES - HOW TO ORDER

IMPORTANT:

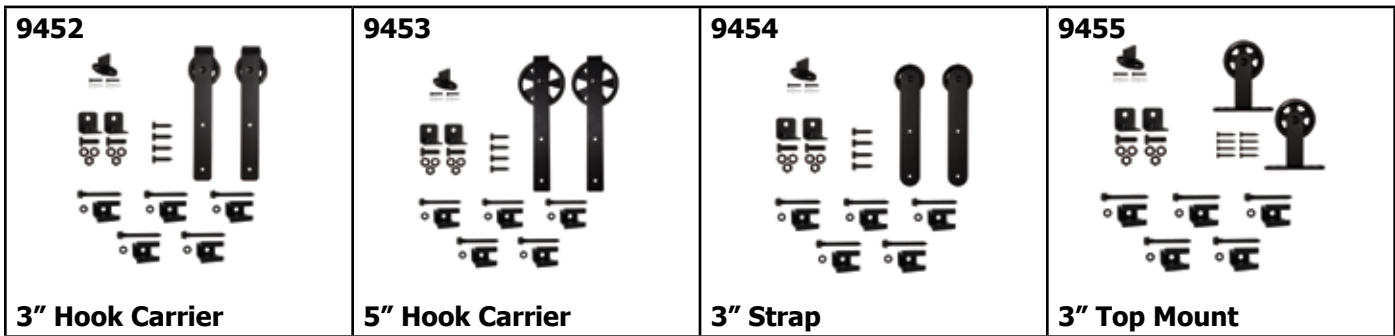
- 1.Track is ordered separately from hardware kit.
- 2.Track and Carrier Hardware are shipped in separate cartons.

Example:

Single Door Solution:

- 1) **9450 Track:** Specify length (48", 72" or 96").
- 2) **Carrier Hardware Kit:** Specify style – Includes all mounting hardware

- 9450 - 48
- 9450 - 72
- 9450 - 96

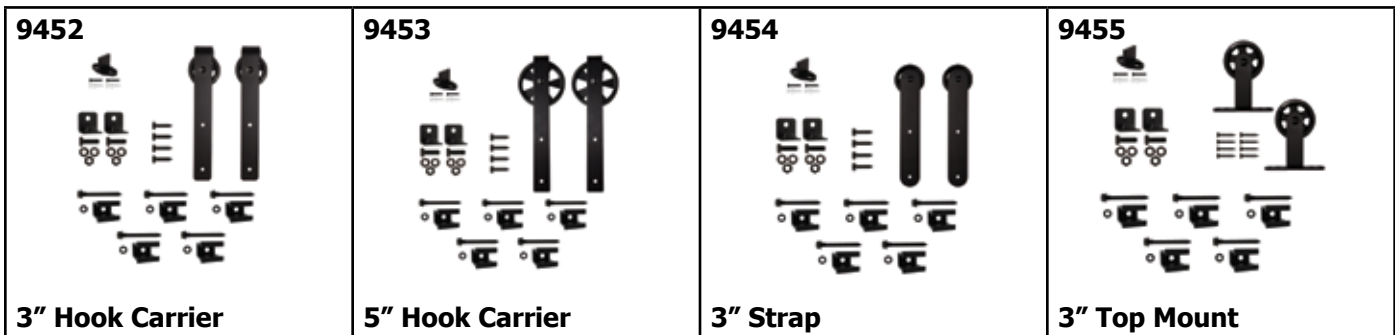


Bi-Part Door Solution:

If using two doors that are 3' wide, order a 6' track per door, for a total of 12'. This allows the doors to clear the door opening when in the open position. Order one carrier hardware kit per door and one Splice Kit.

To Order:

- 1) **9450 Track:** Specify quantity and length.
- 2) **Carrier Hardware Kit:** Specify quantity and carrier style. Example: Order 2 of part number 9453, 5" hook carrier style – Includes all mounting hardware.



- 3) **Splice Kit:** Order 1 of part number 1-269-8691 Flat Rail Splice Kit.





9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES

9450 Durable Black Powder-Coated Rail

FEATURES

Materials:	Durable powder-coated black aluminum
Available in:	48", 72" and 96" lengths



9452 3" Hook Carrier (Rail Not Included)

FEATURES

Materials:	Durable powder-coated black aluminum
System Includes:	<ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners
Standards:	Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



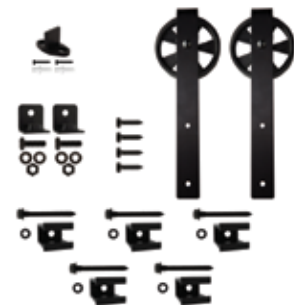
DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick

9453 5" Hook Carrier (Rail Not Included)

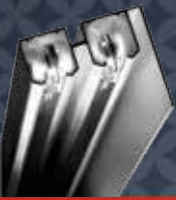
FEATURES

Materials:	Durable powder-coated black aluminum
System Includes:	<ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners
Standards:	Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles



DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick



9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES

9454 3" Strap Carrier (Rail Not Included)

FEATURES

- | | |
|------------------|--|
| Materials: | Durable powder-coated black aluminum |
| System Includes: | <ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners |
| Standards: | Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles |

DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick



9455 3" Top Mount Carrier (Rail Not Included)

FEATURES

- | | |
|------------------|--|
| Materials: | Durable powder-coated black aluminum |
| System Includes: | <ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners |
| Standards: | Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles |

DOOR SPECIFICATIONS

- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick





9400 SERIES BARN DOOR HARDWARE - CONESTOGA SERIES - OPTIONAL COMPONENTS



1-269-8689
Bracket Kit



1-269-8693
Privacy Latch



1-269-8690
Stop Kit



1-269-8694
Flush Pull



1-269-8691
Splice Kit

Optional Components



330D

Pocket Door Latch

Certification: Meets ANSI A156.14 for D0821.1
Size: 2-3/4" x 2-1/2"
(70 mm x 64 mm)
Finger Piece: 1-3/8" (35 mm)
extension
Materials: Brass
Finishes: US3, US5, US10B,
US15, US15A, US19,
US26, US26D
Fasteners: Two (2) #6 x 5/8"
OPHWS; (2) #6 x 3/4"
FPHWS
Notes: For use with 1-3/8" to
1-3/4" (35 mm to
45 mm) door



1741

Full Mortise, Five Knuckle, Plain Bearing Hinge

- Steel with steel pin (ANSI A5134)
- Reversible
- Square corners
- Removable pin
- 3.5" x 3.5"
- US2D



2610

Flush Cup Finger Pull

Overall Diameter: 31/32" (25 mm)
Finger Pull Diameter: 3/4" (19 mm)
Depth: 5/16" (8 mm)
Projection: 1/32" (.8 mm)
Materials: Solid brass
Finishes: US3, US4, US5,
US10A, US15,
US15A, US26,
US26D, ABA

Notes:

Built-in prong design eliminates the need for screws or brads



330L

Pocket Door Privacy Latch

Size: 2-3/4" x 2-1/2"
(70 mm x 64 mm)
Finger Piece: 1-3/8" (35 mm)
extension
Strike Size: 1" x 2-1/4" (25 mm x
57 mm)
Materials: Brass
Finishes: US3, US5, US10B,
US15, US15A, US19,
US26, US26D
Fasteners: Two (2) #6 x 5/8"
OPHWS; (2) #6 x 3/4"
FPHWS
Notes: For use with 1-3/8" door



2630

Flush Cup Pull

Overall Diameter: 2-7/16" (62 mm)
Finger Pull: 2-1/16" (52 mm)
diameter
Depth: 11/32" (9 mm)
Projection: 3/32" (2 mm)
Materials: Solid brass
Finishes: US3, US4, US5, US10A,
US15, US15A, US26,
US26D, ABA

Notes:

Built-in prong design eliminates the need for screws or brads.



330M

Pocket Door Privacy Latch

Certifications: Meets ANSI A156.14 for D0831
Size: 2-3/4" x 2-1/2"
(70 mm x 64 mm)
Finger Piece: 1-3/8" (35 mm)
extension
Strike Size: 1" x 2-1/4" (25 mm x
57 mm)
Materials: Brass
Finishes: US3, US5, US10B,
US15, US15A, US19,
US26, US26D
Fasteners: Two (2) #6 x 5/8"
OPHWS; (2) #6 x 3/4"
FPHWS
Notes: For use with 1-3/4" door



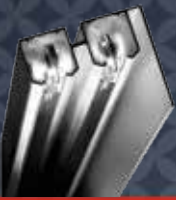
9111

Fixed Bottom Door Guide

Materials: Zinc plated steel with
bronze roller
Guide: 2" x 3/4" x 3/32"
(51 mm x 19 mm x 2.4 mm)
Roller: 1-7/32" x 1/2"
(14 mm x 13 mm)

Notes:

- Door mortising is not required
- Use with 9122 guide channel



OPTIONAL COMPONENTS



9113

Stop

Materials: Zinc plated steel and rubber
 Stop: 1-5/8" x 1-1/2" x 5/8" x
 1-3/4" (41 mm x 38 mm x
 16 mm x 45 mm)

Notes: Use with 9105 hanger



9169

Top Pivot Assembly

Materials: Zinc plated steel
 Top Pivot: 1" x 3-1/2" x 1-7/16"
 (25 mm x 89 mm x 37 mm)

Notes: Inserts into 9155 top pivot
 clamp assembly



9114

Bottom Guide Rail

Materials: Aluminum
 Guide: 7/8" x 1/2" (22 mm x 13 mm)
 Lengths: 72" (1829 mm)
 96" (2438 mm)
 144" (3658 mm)

Notes:

- Door bottom prep requires 1/4" (6 mm) wide kerf and 9/16" (14 mm) depth
- Pre-punched for use with flat head screws



9200* | 9201**

Single Wheel Hanger

Materials: Zinc plated steel with
 molded Celcon wheels

Gauge: 0.075" (2 mm)

Wheel: 7/8" (22 mm) diameter

Notes:

- For use on doors weighing up to 60 lbs (27 kg)
- For use with 9810, 9820, and 9840 track
- Side mounted with slot adjust offset
- Hanger is stamped "A" or "B" for easy identification

 * 9200 is A offset of 3/8" (9.5 mm)
 ** 9201 is B offset of 11/16" (17.5 mm)



9121

Adjustable Bottom Door Guide

Materials: Zinc plated steel with bronze roller
 Guide: 1" x 3-1/2" x 3/16"
 (25 mm x 89 mm x 5 mm)

Post: 2-1/2" x 5/16" (64 mm x 8 mm)

Notes: Use with 9122 guide channel



9202* | 9203**

Two Wheel Hanger

Materials: Zinc plated steel with
 molded Celcon wheels

Gauge: 0.075" (2 mm)

Wheel: 7/8" (22 mm) diameter

Notes:

- For use on doors weighing up to 75 lbs (34 kg)
- For use with 9810, 9820, and 9840 track
- Side mounted with slot adjust offset
- Hanger is stamped "A" or "B" for easy identification

 * 9202 is B offset of 11/16" (17.5 mm)
 ** 9203 is A offset of 3/8" (9.5 mm)



9122

Bottom Guide Channel

Materials: Extruded aluminum
 Gauge: 0.093 (2.4 mm)
 Lengths: 48" (1219 mm) to 192"
 (4877 mm)

Channel: 5/8" x 3/4"
 (16 mm x 19 mm)

Notes:

- Screws not provided
- Mortised into floor or surface mounted



9220

Bi-Fold Door Hinge

Materials: Steel with bright zinc finish
 Hinge: 3" x 1" (76 mm x 25 mm)
 hole

Hole Locations: 1/2" (13 mm) from the
 center lines of holes to
 center of barrel

Notes: Non-mortise and easy
 to install





OPTIONAL COMPONENTS



9262

Pocket Door Keyed Lock

- Materials: Steel
- Notes:
- For doors 1-3/8" (35 mm) to 1-3/4" (44 mm) thick
 - Lock cylinder fits in one 1" (25 mm) hole
 - Available keyed alike



9264

Keyed Lock

- Materials: Steel
- Notes:
- Lock cylinder fits 1" (25 mm) hole
 - Available keyed alike



9351

Guide

- Materials: High density polyethylene
- Guide: 4-9/16" x 1" x 11-3/16" (116 mm x 25 mm x 46 mm)
- Notes: One piece fixed guide for 1-3/8" (35 mm) doors



9353

Adjustable Door Guide

- Materials: High density polyethylene
- Notes: Adjustable guide from 3/4" (19 mm) to 1-3/8" (35 mm)



9354

3/4" (19 mm) Riser

- Materials: Steel with bright zinc finish
- Rise: 3/4" (19 mm)
- Notes: For mounting 9351 and 9353 floor guides over carpeting



9558

Wood Knob

- Diameter: 1-1/2" (38 mm)
- Materials: Solid wood
- Notes: Will accept paint or stain



9559

Aligner

- Materials: Steel with brass-tone dichromate finish
- Notes:
- Keeps lead doors aligned when closed
 - Use one on each lead door



9572

4-Wheel Hanger and Door Bracket

- For 100 lbs (45 kg) doors
- Materials: Steel with bright zinc
- Wheel: 7/8" (22 mm) diameter
- Notes:
- Wheels are self aligning to allow consistent contact with track
 - Pre-lubricated Celcon wheels
 - Includes wrench
 - For use on doors weighing up to 100 lbs (45 kg) per door
 - For use with 9601, 9602, and 9603 track



9575

Parts Bag

- Includes four (4) 9572 hangers with quick release top mount plate, one (1) 9909 guide
- Note: Up to 125 lbs (57 kg) per door



9605

4-Wheel Hanger with Top Mount Plate

- Materials: Steel with brass-tone dichromate finish
- Wheels: 7/8" (22 mm) diameter
- Notes:
- Self aligning to allow consistent contact with track
 - Pre-lubricated Celcon wheels mounted on steel ball bearing shafts
 - Can be used on pivot set
 - Up to 125 lbs (57 kg) per door
 - Use in conjunction with 9601, 9602, or 9603 track



9606

4-Wheel Ball Bearing Hanger with Top Mount Plate

- Materials: Steel with brass-tone dichromate finish
- Wheels: 7/8" (22 mm) diameter
- Notes:
- Self aligning to allow consistent contact with track
 - Pre-lubricated Celcon wheels mounted on steel ball bearing shafts
 - Up to 150 lbs (68 kg) per door
 - Use with 9601, 9602, or 9603 track

OPTIONAL COMPONENTS



9610

Replacement Top Mount Plate

Materials: Bright zinc plated steel
 Gauge: 1/8" (3 mm)
 Size: 1-3/8" (35 mm) x 2-13/16" (72 mm)

Notes:

- Replacement for four wheel hangers 9605, 9606, 9575, 9824, 9825 and 9827



9634

Pocket Door Adapter Kit

Materials: Galvanized steel and wood shims

Clearance: 1/8" (3 mm) on each side of a 1-3/4" (44 mm) door

Notes:

- Used with 1-3/4" (44 mm) doors by allowing additional clearance between door and jamb
- Includes wider floor plates and shims for spacing split studs for an additional 3/16" (4.8 mm) on each side of a 1-3/4" (44 mm) door



9639

Double Pocket Door Adapter Kit

Materials: Zinc plated steel and rubber bumper stops

Notes:

- Joins two frames in the middle of the doorway
- For joining 9629, 9630, 9631 or 9850 pocket door kits
- Fits both KD and Built Up frames
- Lag bolt for attaching to rough header
- Bumpers included to stop doors in center of doorway



9680

Parts Bag

Includes four (4) 9606 ball bearing hangers and one (1) 9909 guide
 Note: Up to 150 lbs (68 kg) per door



9709

Aluminum Fascia

Materials: Extruded aluminum
 Gauge: 0.062" (1.6 mm)
 Lip: 5/8" (16 mm)
 Fascia: 2-3/4" (70 mm)
 Lengths: 48" (1219 mm) to 144" (3658 mm)

Notes:

- **Grooved fascia for painting**
- Pre-punched holes for easy installation



9815

Bumper Stop

Materials: Zinc plated steel and rubber

Notes:

- Fits all Hager track styles except 9101
- Screws onto track
- Included in bi-fold sets 9570 and 9890



9865

Flush Cup Pull

Overall Diameter: 1-31/32" (50 mm)
 Finger Pull Diameter: 1-19/32" (41 mm)
 Depth: 11/32" (9 mm)
 Projection: 5/64" (2 mm)
 Materials: Tan color ABS plastic

Notes:

- Built-in prong design eliminates the need for screws or brads



9877

Door Guide

Materials: Plastic

Notes:

- For doors 1-3/8" (35 mm) to 1-3/4" (44 mm) thick
- Two pieces required per door



9880

Door Stop

Materials: Zinc plated steel and rubber
 Gauge: 0.090" (2.3 mm)
 Stop: 1-1/4" x 1-1/4" x 7/8" (32 mm x 32 mm x 22 mm)

Notes:

- For doors up to 175 lbs (79 kg)
- Keeps rear door pull exposed
- Mounts on door
- Not included in sets



OPTIONAL COMPONENTS



9881 Bumper

Materials: Rubber
 Stop: 1/2" diameter x 3/8" deep
 (13 mm x 10 mm)
 Notes: With screws



9928

Reversible Side Mount Bracket

Materials: Steel with bright zinc
 Posts: Molded Celcon/Nylon
 Gauge: 0.060" (1.5 mm)
 Guide: 4-7/8" x 1-5/8" x 1-3/16"
 (124 mm x 41 mm x 30 mm)
 Size: For 3/4" to 1-3/4"
 (19 mm to 44 mm) doors
 Notes:

- Mounts at ends of track and every foot



9883

Two Piece Pocket Door Guide

Materials: Polyethylene
 Guide: 1-3/16" x 3/4" x 1-1/8"
 (21 mm x 19 mm x 29 mm)
 Notes:

- Two pieces per door required
- Screws to jamb to guide door and prevent rubbing



3835

Small Case Deadlock

Thumbturn: Meet ADA Requirements, "No pinch," No grasp."
 Lock Case: Heavy wrought steel with zinc dichromate finish - 4-5/16" x 3-9/16" x 1" (110 mm x 90 mm x 25 mm)
 Armor Front: 1-1/4" x 5-5/8" x 7/32" (32 mm x 143 mm x 5 mm)
 Keys: Two operating keys supplied per lock
 Cylinder:

- Brass - keyed different - C keyway - Standard
- Other keying options, including keyed 6-pin, available from factory
- SFIC uncombined or combined, brass 6- or 7-pin sold separately
- Drilled 6-pin, keyed 5-pin - Standard
- Small Format Interchangeable Core housing available
- Schlage "L" cam - Standard

 Door Thickness:

- 1-3/8" - 2-1/2" (35 mm-64 mm) - steel door
- 1-3/4" - 2-1/2" (45 mm-64 mm)- wood door
- Must specify door thickness if greater than 1-3/4" (45 mm)

 Backset: 2-3/4" (70 mm) only
 Deadbolt: 1" (25 mm) throw - stainless steel
 Strike:

- 1 1/8" wide x 3 1/2" (29 mm x 89 mm) NO LIP

 Finishes: US26D
 Functions: 35-Cylinder x Thumbturn, 36-Single Cylinder, 37-Double Cylinder, 38-Thumbturn Only, 39-Thumbturn w/ Emergency Key



9884

Pocket Door Edge Pull

Finger Pull Extends: 1-1/16" (27 mm)
 Faceplate: 21/32" x 3-1/2" (17 mm x 89 mm)
 Materials: Die cast zinc
 Finishes: US3
 Fasteners: Two (2) #6 x 5/8" FPHWS
 Notes: Ideal for narrow and standard door thicknesses.



9889

Non-Adjustable Floor Guide

Materials: Polyethylene
 Guide: 2-3/8" x 2-1/2" x 7/8"
 (60 mm x 64 mm x 22 mm)
 Notes: For 1-3/8" (35 mm) doors



9909

Adjustable Guide

Materials: Steel with bright zinc
 Posts: Molded Celcon/Nylon
 Gauge: 0.060" (2 mm)
 Guide: 4-7/8" x 1-5/8" x 1-3/16"
 (124 mm x 41 mm x 30 mm)
 Notes: For doors 3/4" to 1-3/4" (19 mm to 44 mm) thick with steel base, celcon, and nylon posts



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