



Catalog #29

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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:

- Access Control
- Commercial Hinges
- Door Closers
- Electrified Products
- European Hardware (For international markets only)
- Exit Devices
- Locks
- Residential Hinges
- Roton Continuous Geared Hinges
- Sliding Door Hardware
- Stainless Steel Continuous Hinges
- Thresholds & Weatherstripping
- Trim & Auxiliary

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.

Our Managed Services platform equips our distributors to close more work, more often, for more profit. Managed Services will allow distributors to sell electronic access control without having to develop or maintain additional specialized infrastructure. You become the expert, enhancing your business's financial sustainability by being able to participate in jobs requiring electronic access control.

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 2024 Catalog.

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General Information

TRADE ORGANIZATIONS



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 series numbers. The purpose is to advance the interests of the Builders Hardware Industry in all lawful ways.



In addition to our internal quality processes, Hager Companies participates in the BHMA Certification Program that was developed as a means for producers of builder's hardware to indicate compliance with A156 ANSI standards sponsored by BHMA. Participating manufacturers certify compliance with the standards based on a continuing program of passing the prescribed tests that include cycle, operational, strength, security, and finish test requirements.

Third party testing is performed or witnessed annually by a Nationally Recognized Test Laboratory, such as Intertek Testing Services and Underwriters Laboratories.

Hager Companies participates in the BHMA Certified Products Program for the following product lines and are listed in the BHMA Certified Products Directory available on the BHMA website www.buildershardware.com. The BHMA CPD program requires that 1/4 of the products listed in the directory must be tested on an annual basis, thus ensuring that all products listed are third-party tested at least every four years.

- A156.1 Butt Hinges
- A156.2 Cylindrical Locks
- A156.3 Exit Devices
- A156.4 Door Closers
- A156.12 Interconnected Locks
- A156.13 Mortise Locks
- A156.17 Self Closing Hinges
- A156.18 Materials and Finishes
- A156.21 Thresholds
- A156.22 Gaskets
- A156.26 Continuous Hinges
- A156.36 Auxiliary Locks

In addition to the third-party testing required by the BHMA Certified Program, Hager Companies also performs in-house QC and third-party testing on our products to maintain compliance with the requirements of the following ANSI standards.

- A156.5 Cylinders & Input Devices
- A156.6 Architectural Trim
- A156.7 Template Hinge Dimensions
- A156.8 Overhead Stops
- A156.14 Sliding and Folding Door Hardware
- A156.15 Release Devices
- A156.16 Auxiliary Hardware
- A156.19 Low Energy Doors
- A156.23 Electromagnetic Locks
- A156.25 Electrified Locking Devices
- A156.28 Keying Systems
- A156.31 Electric Strikes



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.



Security Hardware Distributors Association

The Security Hardware Distributors Association (SHDA) was established in 1970, then as the National Locksmith Suppliers Association. Although the name may have changed to reflect changes in the industry, its purpose remains the same: engaging with locksmiths and the security industry to bring better, more innovative products to customers.

SHDA distributors bring tremendous value to their customers. With access to thousands of products and armed with dedicated and experienced service professionals, SHDA distributors serve as one-stop source for technical solutions and ongoing support.

**Security Industry Association**

The Security Industry Association (SIA) is the leading trade association for global security solution providers, with over 1,400 innovative member companies representing thousands of security leaders and experts who shape the future of the security industry.

SIA protects and advances its member' interests by advocating pro-industry policies and legislation at the federal and state levers; creating open industry standards that enable integration, advancing industry professionalism through education and training; opening global market opportunities; and collaborating with other like-minded organizations.

**World Millwork Alliance**

World Millwork Alliance (WMA) is a wholesale distribution association. Our alliance is dedicated to the progression and prosperity of the millwork industry, including the support of a highly skilled workforce. We engage in advocacy efforts on behalf of our member-business, fostering a united millwork trade community that delivers innovative products and services for the benefit of the millwork industry as a whole.

The most successful millwork professionals recognize the need to be united through the WMA millwork association and community. A membership in WMA provides unlimited opportunities to network and learn from our vast reservoir of experienced and knowledgeable members including distributors, manufacturers of products and services, manufacturer reps, and co-operative and group purchasing organization leaders.

General Information

FINISH DESIGNATIONS

BHMA	US Equip / Hager Code	Residential	Description	Base Material
600	USP	P	Primed for painting	Steel
603	2C / H2H	2C	Zinc plated / H2H is thicker mechanical galvanized	Steel
604		2D	Zinc plated and dicromate sealed	Steel
605	US3		Bright brass, clear coated	Brass
606	US4	US4	Satin brass, clear coated	Brass
609	US5	ABA	Satin brass, blackened, satin relieved, clear coated	Brass
610	US7		Satin brass, blackened, bright relieved, clear coated	Brass
611	US9		Bright bronze, clear coated	Brass
612	US10		Satin bronze, clear coated	Brass
613	US10B	10R	Dark oxidized satin bronze, oil rubbed	Brass
618	US14		Bright nickel plated, clear coated	Brass
619	US15	US15	Satin nickel plated, clear coated	Brass
620	US15A	AN	Satin nickel plated, blackened, satin relieved, clear coated	Brass
621	US17A		Nickel plated, blackened, relieved, clear coated	Brass
622	US19	1D	Flat black coated	Brass
623	US20		Light oxidized statuary bronze, clear coated	Brass
624	US20A		Dark oxidized statuary bronze, clear coated	Brass
625	US26	US26	Bright chromium plated over nickel	Brass
626	US26D	US26D	Satin chromium plated over nickel	Brass
627	US27		Satin aluminum, clear coated / uncoated / mill finish	Aluminum
628	US28		Satin aluminum, clear anodized	Aluminum
629	US32	US32	Bright stainless steel	Stainless
630	US32D	US32D	Satin stainless steel	Stainless
631	US19	1D	Flat black coated	Steel
632	US3		Bright brass, clear coated	Steel
633	US4	US4	Satin brass, clear coated	Steel
636	US7		Satin brass, blackened, bright relieved, clear coated	Steel
637	US9		Bright bronze, clear coated	Steel
638	US5	ABA	Satin brass, blackened, satin relieved, clear coated	Steel
639	US10		Satin bronze, clear coated	Steel
640	US10B	10R	Dark oxidized satin bronze, oil rubbed	Steel
641	10A / US11	10A / US11	Antique Bronze, clear coated	Steel
645	US14		Bright nickel plated, clear coated	Steel
646	US15	US15	Satin nickel plated, clear coated	Steel
647	US15A	AN	Satin nickel plated, blackened, satin relieved, clear coated	Steel
648	US17A		Nickel plated, blackened, relieved, clear coated	Steel
649	US20		Light oxidized statuary bronze, clear coated	Steel
650	US20A		Dark oxidized statuary bronze, clear coated	Steel
651	US26	US26	Bright chromium plated over nickel	Steel

General Information

BHMA	US Equiv / Hager Code	Residential	Description	Base Material
652	US26D	US26D	Satin chromium plated over nickel	Steel
663		2CD	Zinc plated with clear chromate seal (2CD has satin polish)	Steel
674	USP	P	Primed for painting	Zinc
676	US19	1D	Flat black coated	Zinc
677	US3		Bright brass, clear coated	Zinc
678	US4	US4	Satin brass, clear coated	Zinc
680	US10		Satin bronze, clear coated	Zinc
681	US26	US26	Bright chromium plated over nickel	Zinc
682	US26D	US26D	Satin chromium plated over nickel	Zinc
688	US4	US4	Satin brass, clear coated	Aluminum
689	LS		Aluminum Paint	Steel / Brass
693	L1		Flat Black Paint	Steel / Brass
694	L3		Medium Bronze Paint	Steel / Brass
695	L2		Dark Bronze Paint	Steel / Brass
708	US9		Bright bronze, clear coated	Aluminum
709	US10		Satin bronze, clear coated	Aluminum
710	US10B	10R	Dark oxidized satin bronze, oil rubbed	Aluminum
711	US19	1D	Flat black coated	Aluminum
712	US26	US26	Bright chromium plated over nickel	Aluminum
713	US26D	US26D	Satin chromium plated over nickel	Aluminum
716	US3		Bright brass, clear coated	Aluminum
721	Aluminum	Aluminum	Aluminum	Aluminum
724	US3		Bright brass, clear coated	Stainless
731	US4	US4	Satin brass, clear coated	Stainless
737	US7		Satin brass, blackened, bright relieved, clear coated	Stainless
740	US9		Bright bronze, clear coated	Stainless
743	US10		Satin bronze, clear coated	Stainless
744	US10B	10R	Dark oxidized satin bronze, oil rubbed	Stainless
746	US14		Bright nickel plated, clear coated	Stainless
749	US15	US15	Satin nickel plated, clear coated	Stainless
752	US5	ABA	Satin brass, blackened, satin relieved, clear coated	Zinc
753	US14		Bright nickel plated, clear coated	Zinc
754	US15	US15	Satin nickel plated, clear coated	Zinc
755	US15A	AN	Satin nickel plated, blackened, satin relieved, clear coated	Zinc

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 and self-latching to be fire rated (Rare exceptions in I-2). 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 or stainless 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.

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 2023 Florida Building Code (8th Edition)

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

Certified Hardware	Assembly Configuration	Door Size	Door Ga. Min.	Design Load	Florida Certification Number (FL#)
2500 Series Lock w/ 3100 or 3200 Deadolt	Single - Out Swing	up to 4-0 x 8-0	18 ga.	`+/- 65 psf 350 ft-lbs Impact	22010.1 / 22010.2 / 22010.3
3400 Series Lock w/ 3100 or 3200 Deadolt	Single - Out Swing	up to 4-0 x 8-0	18 ga.	`+/- 65 psf 350 ft-lbs Impact	22010.4 / 22010.2 / 22010.3
3400 Series Lock w/ 3100 or 3200 Deadolt	Single - Out Swing	up to 4-0 x 8-0	18 ga.	`+/- 65 psf 350 ft-lbs Impact	22010.5 / 22010.2 / 22010.3
3800 Series Grade 1 Mortise	Single - Out Swing	up to 4-0 x 8-0	18 ga.	`+/- 65 psf 350 ft-lbs Impact	22010.6
Miami-Dade NOA No. 23-1117.08					
Verification of Miami-Dade acceptance can be found at www.miamidade.gov/building under the Product Approval section					
2500 Series Lock w/ 3100 or 3200 Deadolt	Single - Out Swing	up to 4-0 x 8-0	16 ga.	`+/- 70 psf 350 ft-lbs Impact	23130.1
3400 Series Lock w/ 3100 or 3200 Deadolt	Double - Out Swing	up to 8-0 x 8-0	16 ga.	`+/- 50 psf 350 ft-lbs Impact	23130.2
3400 Series Lock w/ 3100 or 3200 Deadolt	Single or Double - Out Swing	up to 4-0 x 8-0	16 ga.	`+/- 50 psf 350 ft-lbs Impact	23130.3
	Single - Out Swing	up to 4-0 x 8-0	16 ga.	`+/- 80 psf 350 ft-lbs Impact	23130.4
	Double - Out Swing	up to 8-0 x 8-0	16 ga.	`+/- 50 psf 350 ft-lbs Impact	23130.5
	Single - Out Swing	up to 4-0 x 8-0	16 ga.	`+/- 70 psf 350 ft-lbs Impact	23130.6
3800 Series Grade 1 Mortise	Double - Out Swing	8-0 x 8-0 pair max	16 ga.	`+/- 50 psf 350 ft-lbs Impact	23130.7

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 or having a width of 3' 4" (1016 mm) or more. Any doors on which a closing device is used should be equipped with bearing hinges, regardless of frequency of use.

General Information

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



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.

TABLE OF CONTENTS

General Information	2	Half Surface.....	28
Specialty Hinges	8	Aluminum Entrance.....	30
Electric Hinges	10	Swing Clear	31
Hinge Selector	11	Anchors.....	34
Full Mortise	13	Pivots.....	36
Half Mortise	25	Detention Hardware	40
Full Surface	26	Accessories.....	41

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.

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)

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.

General Information - Selecting a Hinge

Height of Hinge

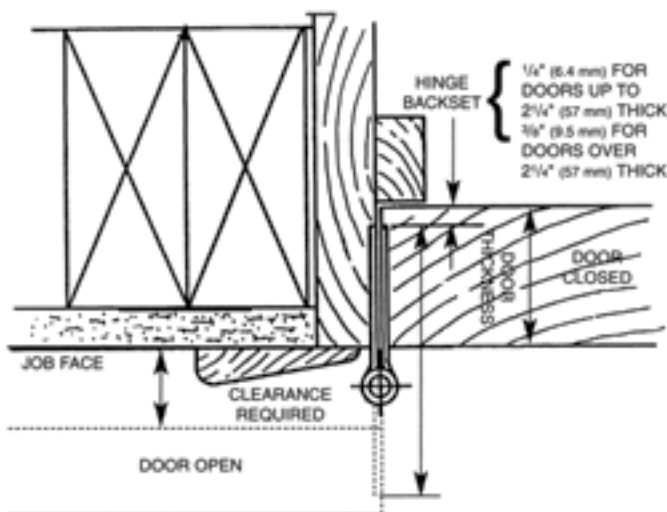
Thickness of Door	Width of Door	Height of Hinge
1-3/8" (35 mm) Door	To 32" (813 mm)	3-1/2" (89 mm)
1-3/8" (35 mm) Door	32" to 36" (813 to 914 mm)	4" (102 mm)
1-3/4" (45 mm) Door	To 36" (914 mm)	4-1/2" (114 mm)
1-3/4" (45 mm) Door	36" to 48" (914 to 1219 mm)	5" (127 mm)
1-3/4" (45 mm) Door	Over 48" (1212 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.



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	Number of Hinges
Up to 60" (1524 mm)	2 Hinges
Over 60" (1524 mm) and not over 90" (2286 mm)	3 Hinges
Over 90" (2286 mm) and not over 120" (3048 mm)	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.

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

General Information - Selecting a Hinge

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.

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-based PLATED hinges**.

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

Hager	Description	Steel	Brass & Bronze	Stainless Steel	HEWI#
L1	Flat Black	693	693	N/A	N/A
DB2	Dark Bronze	690	690	690	N/A
USP	Primed for Painting	600	N/A	N/A	N/A

Powder Coat Finishes

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
4	Satin Brass	633	606	N/A
5	Satin Brass, Oxidized	638	609	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
10D	Black Nickel, Oiled	640	613	N/A
SS	Stainless Steel	N/A	N/A	N/A
14	Bright Nickel	645	618	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

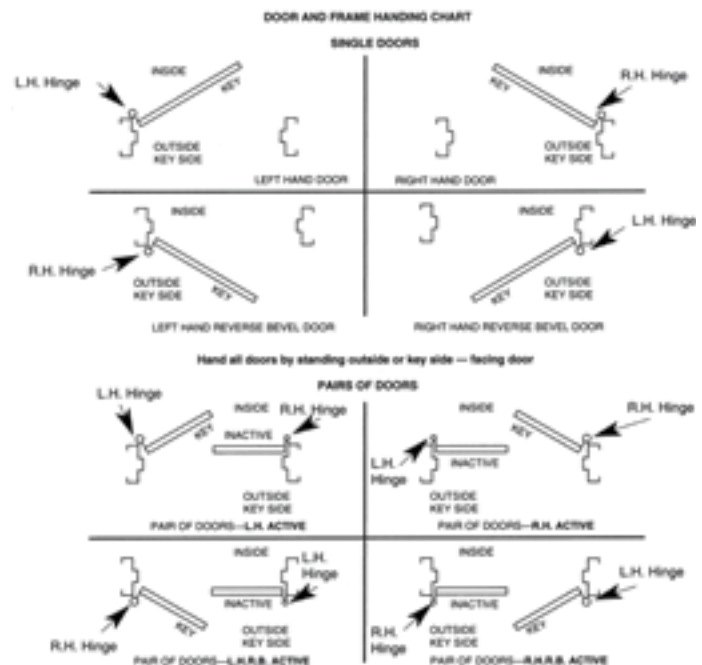
- Hinges must be free swinging without any binding. The use of shims to align hinges, if required, is satisfactory. Steel shims to be used on labeled openings.
- Hinges should be well greased and checked on a regular basis for lubrication. We recommend that hinges used in commercial, high-frequency applications 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).



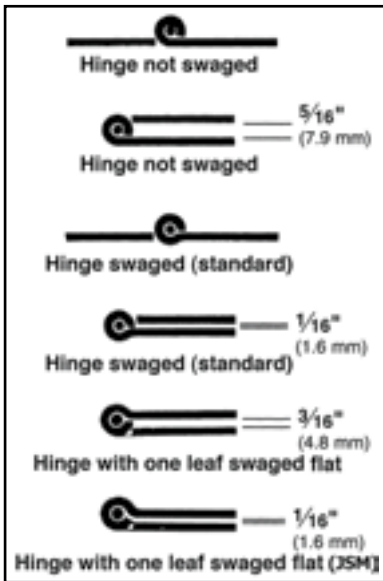
Additional Considerations Determine Pin and Tip Style

- 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.

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

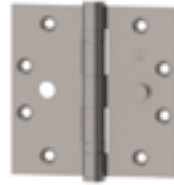
Three additional features that are commonly used are: Non-Removable Pin (NRP), Safety Stud (SH), and Reverse Security Stud (RSS). **These features are intended as deterrents only.**

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



Flat Button Tip
(ET - 3 Knuckle)



Tri-Con Flush Pin



Hospital Tip (HT)



Acorn Tip



Ball Tip



Steeple Tip



Urn Tip

Round Corners

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

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	8"	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 (Feet/ Meters)	Height (Feet/ Meters)	Height (Inches/ Millimeters)	Thickness (Inches/ Millimeters)	
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:

1. 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.
2. 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.
3. 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.
4. 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

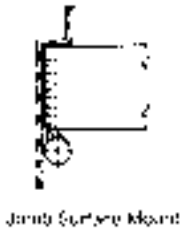
Spring



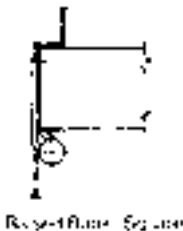
NFPA 80 has restricted the use of architectural grade spring hinges to fire-rated doors of a maximum size of 3'0" x 7'0" (914 mm x 2134 mm). Hager spring hinges have been tested and labeled for up to a 4'0" x 8'0" (1219 mm x 2438 mm) door when a minimum of three springs are used (four spring hinges required for doors 150 lbs. to 180 lbs.). Spring hinges must be used with ball bearing hinges. Do not use plain bearing hinges with spring hinges.

Raised Barrel and Jamb Surface Mount

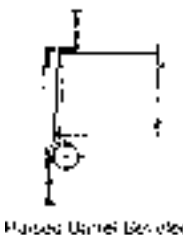
This option is used when the door is set back into the frame. The hinge knuckle is offset to allow it to clear the obstruction of the frame. There are three different types of applications:



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.



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

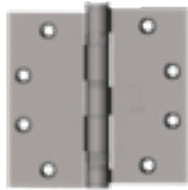
A slip-in hinge, plain bearing or ball bearing, is used with aluminum doors and frames. These hinges are manufactured for low to average frequency and medium weight aluminum doors and frames.

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

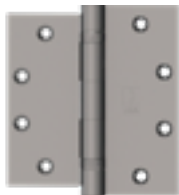
BB1168
Ball Bearing - Heavy Weight

- Four ball bearings
- Steel with steel pin
- For use on heavy weight doors requiring high 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	.134/.180	8	1/2 x 12-24	1-1/4 x 12

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

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	.134/.180	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	.134/.180	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.

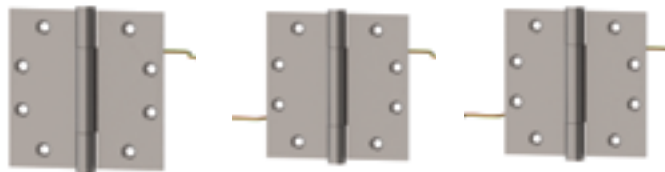
All of the Hager Companies electric hinges have been tested through UL in order that our products can be used on fire-rated or labeled openings.

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. Swing Clear modifications are only available on heavy weight 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.



EMN

ETW

ETM

Concealed Electric Hinge Modification

QUICK CONNECT HARNESS CABLES - available on ETW 4, 8, and 12 wire. Not available with 18 gauge wire.

Connectors installed on one end, pigtails on the other for easy installation in the field.

Part Number	Description
1-479-0007	3" Wire Harness Assembly
1-479-0008	6" Wire Harness Assembly
1-479-0012	12" Wire Harness Assembly
1-479-0026	26" Wire Harness Assembly
1-479-0032	32" Wire Harness Assembly
1-479-0038	38" Wire Harness Assembly
1-479-0044	44" Wire Harness Assembly
1-479-0400	50" Wire Harness Assembly
1-479-1500	15' 12 Wire Harness Assembly

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	AWS/AMS Variable	
Tri-Con Std. Wt. PB, Brass/Stainless Steel	800		
Tri-Con Std. Wt. AB, Steel	AB700	Limited sizes available	
Tri-Con Std. Wt. AB, Brass/Stainless Steel	AB800	Limited sizes available	
Tri-Con Hvy. Wt. AB, Steel	AB750	Limited sizes available	
Tri-Con Hvy. Wt. AB, Brass/Stainless Steel	AB850	Limited sizes available	
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		
4BB, Hvy Wt., Steel	BB1168		BB1138 6 x 1-3/4 only
4BB, Hvy Wt., Brass/Stainless Steel	BB1199		
3K/5K Anchor Hinge Steel, One Prong	AB7505		
3K/5K Anchor Hinge Brass/Stainless Steel One Prong	AB8505		
3K/5K Anchor Hinge Steel, Two Prong, Square Edge Door	AB7506		
3K/5K Anchor Hinge Brass/Stainless Steel, Two Prong/Square Edge Door	AB8506		
3K/5K Anchor Hinge Steel/Two Prong, Beveled Edge Door	AB7508		
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		
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		
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		
3K/5K Swing Clear/Std. Wt., BB Steel/Beveled Edge Door	AB7002/BB1261		
3K/5K Swing Clear/Hvy. Wt., BB Steel/Square Edge Door	AB7501/BB1262		
3K/5K Swing Clear/Hvy. Wt., BB Steel/ Beveled Edge Door	AB7502/BB1263		
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		
Tri-Con Std. Wt. AB, Brass/Stainless Steel		
Tri-Con Hvy. Wt. AB, Steel		
Tri-Con Hvy. Wt. AB, Brass/Stainless Steel		
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		BB2112
4BB, Hvy Wt., Steel	BB2168/BB2169	
4BB, Hvy Wt., Brass/Stainless Steel		
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		
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

THREE KNUCKLE HINGES



700
Plain Bearing - Standard Weight
 Steel with steel pin

800
Plain Bearing - Standard Weight

- Brass with stainless steel pin or stainless steel with stainless steel pin
- 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

Limited sizes available

AB700
Concealed Anti-Friction Bearing - Standard Weight
 Steel with steel pin



AB800 Some sizes & 5/8" radius
Concealed Anti-Friction Bearing - Standard Weight

- Brass with stainless steel pin or stainless steel with stainless steel pin
- Non-rising removable pin with flush pin 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 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

* Not available on 800 or AB800

Full Mortise

THREE KNUCKLE HINGES



WTAB700

Concealed Anti-Friction Bearing - Standard Weight - Wide Throw
Steel with steel pin

WTAB800

Concealed Anti-Friction Bearing - Standard Weight - Wide Throw

- Brass with stainless steel pin or stainless steel with stainless steel pin
- 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.
- Limited sizes available



AB750

Concealed Anti-Friction Bearing - Heavy Weight
Steel with steel pin

AB850

Concealed Anti-Friction Bearing - Heavy Weight

- Brass with stainless steel pin or stainless steel with stainless steel pin
- Non-rising removable pin with flush pin and plug
- For use on heavy weight doors or doors requiring high frequency service
- Limited sizes available

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

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

*Not available on AB700 & AB800

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
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

* Not available on 800 or AB800

THREE KNUCKLE HINGES



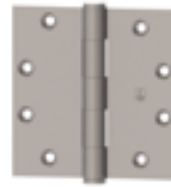
WTAB750
Concealed Anti-Friction Bearing - Heavy Weight - Wide Throw
 Steel with steel pin

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

- Brass with stainless steel pin or stainless steel with stainless steel pin
- 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

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
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.

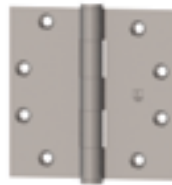
Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2 x 5	89 x 127	0.119	6	1/2 x 10-24	1 x 9
3-1/2 x 6	89 x 152	0.119	6	1/2 x 10-24	1 x 9
4 x 5	102 x 127	0.129	8	1/2 x 12-24	1-1/4 x 12
4 x 6	102 x 152	0.129	8	1/2 x 12-24	1-1/4 x 12
4 x 7	102 x 178	0.129	8	1/2 x 12-24	1-1/4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



CB1199
Concealed Anti-Friction Bearing - Heavy 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
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

FIVE KNUCKLE HINGES



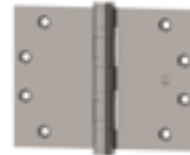
BB1191

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

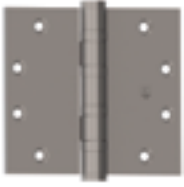
Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
3-1/2 x 3-1/2	89 x 89	0.119	6	1/2 x 10-24	1 x 9
4 x 3-1/2	102 x 89	0.129	8	1/2 x 10-24	1-1/4 x 12
4 x 4	102 x 102	0.129	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134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

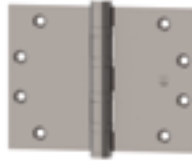
FIVE KNUCKLE HINGES



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

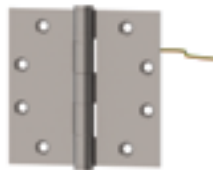
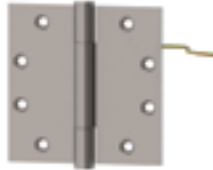
Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 5	114 x 127	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 6	114 x 152	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 7	114 x 178	0.180	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 8	114 x 203	0.180	8	1/2 x 12-24	1-1/4 x 12
5 x 6	127 x 152	0.190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

CONCEALED ELECTRIC MODIFICATIONS

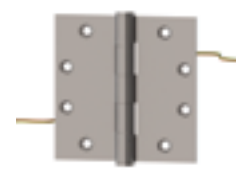
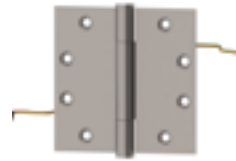
The following concealed electric modifications are available on our architectural grade ball bearing and anti-friction bearing hinges. To order a hinge with concealed electric modification, please add the modification code to the product number (for example, BB1279 EMN).



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)
- Cross-pinning standard and provides NRP function
- 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)

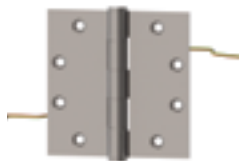


ETM

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)
- Cross-pinning standard and provides NRP function
- 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)

Switch Maximum Electrical Rating
30 VDC @ .500 amps



*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)
- Cross-pinning standard and provides NRP function
- Low voltage electric current transfer capability only
- 4, 8, or 12 continuous electrical conductors
- For 6 wire, use 8
- For 10 wire, use 12

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

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

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

Full Mortise - Concealed Electric



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

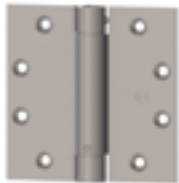
Full Mortise - Spring

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 doors up to 4' 0" x 8' 0" (1219 mm x 2438 mm) doors. 3 springs/one BB/anti-friction bearing for 8' door.
- For use on 1-3/4" (45 mm) thick doors
- UL approved for use on doors 4'0" x 8'0", but Hager does not recommend using spring hinges on doors over 7'0" in favor of hydraulic door closers.
- For maximum versatility use all spring hinges or a combination of spring hinges and ball bearing or anti-friction hinges. Do not use plain bearing hinges. Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges. Full spring tension may not be required on all hinges.
- Doors over 3'0" x 7'0" or over 100 lbs. require three spring hinges. Doors 150-180 lbs. require four spring hinges.

Note: Hager does not recommend using spring hinges on doors over 7'0".



1150

Square Corner

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, 1251, 1252	3-1/2 x 3-1/2	40	1	2
1250, 1251, 1252	3-1/2 x 3-1/2	70	2	1
1250, 1251, 1252	3-1/2 x 3-1/2	90	3	-
For use on 1-3/4" (45 mm) door				
1250, 1251, 1252	4 x 4	60	1	2
1250, 1251, 1252	4 x 4	85	2	1
1250, 1251, 1252	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, 1251, 1252	4-1/2 x 4, 4-1/2 x 4-1/2	70	1	2
1250, 1251, 1252	4-1/2 x 4, 4-1/2 x 4-1/2	115	2	1
1250, 1251, 1252	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

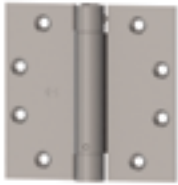
Full Mortise - Spring

REVERSE ACTION - SINGLE ACTING

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

- For use on 1-3/4" (45 mm) thick doors
- UL approved for use on doors 4'0" x 8'0", but Hager does not recommend using spring hinges on doors over 7'0" in favor of hydraulic door closers.
- For maximum versatility use all spring hinges or a combination of spring hinges and ball bearing or anti-friction hinges. Do not use plain bearing hinges. Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges. Full spring tension may not be required on all hinges.
- Doors over 3'0" x 7'0" or over 100 lbs. require three spring hinges. Doors 150-180 lbs. require four spring hinges.

Note: Hager does not recommend using spring hinges on doors over 7'0".



1257
Square Corner
 Steel (ANSI K81071)

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

Size	Recommended Max Door Weight (lbs)	Spring Hinge	Ball Bearing Hinge
For use on 1-3/4" (45 mm) door			
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 use on 1-3/4" (45 mm) thick doors
- UL approved for use on doors 4'0" x 8'0", but Hager does not recommend using spring hinges on doors over 7'0" in favor of hydraulic door closers.
- For maximum versatility use all spring hinges or a combination of spring hinges and ball bearing or anti-friction hinges. Do not use plain bearing hinges. Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges. Full spring tension may not be required on all hinges.
- Doors over 3'0" x 7'0" or over 100 lbs. require three spring hinges. Doors 150-180 lbs. require four spring hinges.

Note: Hager does not recommend using spring hinges on doors over 7'0".



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

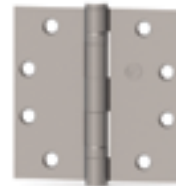
Hinge Size		Gauge of Metal	Hole Count	Screw Size	
Inches	mm			Machine	Wood
4-1/2 x 4	114 x 102	0.134	8	1/2 x 12-24	1-1/4 x 12
4-1/2 x 4-1/2	114 x 114	0.134	8	1/2 x 12-24	1-1/4 x 12



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



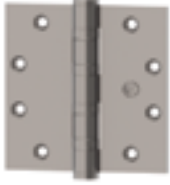
ECRCBB1100
Ball Bearing - Standard Weight

- 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**
- **ECBB1101 available with AWS only**

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) thick doors
- UL approved for use on doors 4'0" x 8'0", but Hager does not recommend using spring hinges on doors over 7'0" in favor of hydraulic door closers.
- For maximum versatility use all spring hinges or a combination of spring hinges and ball bearing or anti-friction hinges. Do not use plain bearing hinges. Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges. Full spring tension may not be required on all hinges.
- Doors over 3'0" x 7'0" or over 100 lbs. require three spring hinges. Doors 150-180 lbs. require four spring hinges.



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	-

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
- Available in limited finishes

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



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

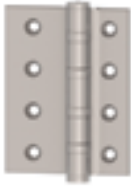
- Steel with steel pin (ANSI A8212)
- Two ball bearings
- Non-rising removable pin with button tip and plug
- Reversible
- Beveled surface leaf
- For use on medium weight hollow metal doors with channel iron frames requiring medium frequency service

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

Full Surface

FIVE KNUCKLE HINGES



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



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

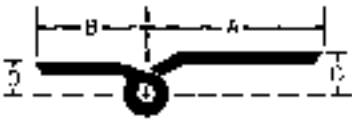
Hinge Size		Door Leaf Width "A"		Jamb Leaf Width "B"		Jamb Leaf Offset "C"		Jamb Leaf Offset "D"	
Inches	mm	Inches	mm	Inches	mm	Inches	mm	Inches	mm
4-1/2	114	2-9/16	65	1-1/2	38	9/16	14	7/16	11
5	127	2-7/8	73	1-1/2	38	9/16	14	7/16	11
6+	152	3-1/4	83	1-1/2	38	5/8	15	1/2	12.5

+ 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.



FIVE KNUCKLE HINGES



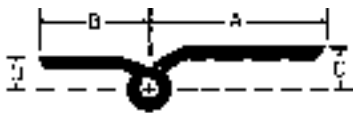
BB2171

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 tip 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
- Wood doors only

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

FIVE KNUCKLE HINGES



1173

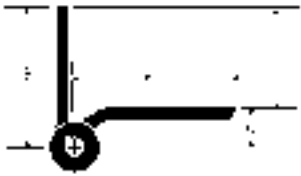
Plain Bearing - Standard Weight

- 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

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



FIVE KNUCKLE HINGES



BB1173

Ball Bearing - Standard Weight

Steel with steel pin (ANSI A8412)

BB2112

Ball Bearing - Standard Weight

- Brass with stainless steel pin (ANSI A2412) or stainless steel with stainless steel pin (ANSI A5412)
- 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.

SPRING HINGES



1253

Single Acting

- Steel (ANSI K81081F)
- Thru-bolts and grommets for wood door applications
- For use on 1-3/4" (45 mm) thick doors
- UL approved for use on doors 4'0" x 8'0", but Hager does not recommend using spring hinges on doors over 7'0" in favor of hydraulic door closers.
- For maximum versatility use all spring hinges or a combination of spring hinges and ball bearing or anti-friction hinges. Do not use plain bearing hinges. Strong wind conditions, drafts, carpeting drag, twisted/misaligned frames, or weatherstripping on doors may require additional spring hinges. Full spring tension may not be required on all hinges.
- Doors over 3'0" x 7'0" or over 100 lbs. require three spring hinges. Doors 150-180 lbs. require four spring hinges.

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		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*	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

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



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

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

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



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

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

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

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

FIVE KNUCKLE HINGES



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
- Use with 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



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	15	1/2 x 12-24	1-1/4 x 12

Pivots

REINFORCING



252

Full Surface

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

253

Full Surface

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

Product	Butt Hinge Width		Projection*		Door Thickness	
	Inches	mm	Inches	mm	Inches	mm
252	4	102	1/2	12.5	1-3/4	45
253	4-1/2	114	3/4	19	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

SINGLE ACTING - STANDARD WEIGHT



Top



Bottom

500 Rack and Pinion

- Conforms to ANSI A2793
- Pivot opens door to 105° maximum
- Non-handed
- Concealed
- Adjustable alignment
- Non-handed
- Sold as a top & bottom set

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)
- Available in US26D only

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

- Conforms to ANSI A2792
- Pivot opens door to 105° maximum
- Non-handed
- Concealed
- Adjustable alignment
- Non-handed
- Sold as a top & bottom set

Designed for:

- 1-3/4" (45 mm) thick door
- Maximum weight not over 180 pounds
- Not to exceed 4' (1.2 m) wide and 8' (2.4 m) high
- Cased opening frame required
- Consult Hager Tech Support for doors other than 1-3/4" (44 mm)
- Available in US26D only

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

- Conforms to ANSI A2792
- Pivot opens door to 105° maximum
- Non-handed
- Concealed
- Adjustable alignment
- Non-handed
- Sold as a top & bottom set

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)
- Available in US26D only

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

*Plastic cinch anchors

HEAVY WEIGHT



615 For Frameless Openings

- Conforms to 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
- Non-handed
- Sold as a top & bottom set

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**
- Conforms to ANSI/BHMA A156.1- A5702
 - For use with square edge doors on hinge side
 - Self Centering, centers door at 30°
 - Open 90° in each direction
 - Available in US26D Only

Surface Application in Masonry Floors



- 512 Head and Floor Pivots**
- Conforms to ANSI/BHMA A156.1 - A5702
 - For use with square edge doors on hinge side
 - Self Centering, centers door at 30°
 - Open 90° in each direction
 - Available in US26D only

- 612 Head and Floor Pivots with Door Release (Set)**
- Conforms to ANSI/BHMA A156.1 - A5702 - A1882
 - Available in US26D Only

Door Release



- 610 Door Release**
- Conforms to ANSI/BHMA A156.1 - A1882
 - Torx screw option is no longer available

Mortise Application in Masonry Floors



- 511 Head and Floor Pivots**
- Conforms to ANSI/BHMA A156.1- A5702
 - For use with square edge doors on hinge side
 - Self Centering, centers door at 30°
 - Open 90° in each direction
 - Available in US26D only

- 611 Head and Floor Pivots with Door Release (Set)**
- Conforms to ANSI/BHMA A156.1 - A1882
 - Available in US26D Only

Item No	Anchor Housing	
	Inches	mm
510	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		610 Face Plate		610 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

DOUBLE LIPPED STRIKE

451
Center Hung Doors
5-3/4" (146mm)



Center Hung

452
Center Hung Doors
6-3/4" (172mm) and specially sized



1/8" (3.2 mm)
Inset Hung

453
1/8" (3.2 mm) Inset Hung Doors
5-3/4" (146mm)

454
1/8" (3.2 mm) Inset Hung Doors
6-3/4" (172mm)

- Brass
- Available in US26D finish only
- Conforms to ANSI/BHMA A156.1 - A1882
- To be used with Hager 510, 511, 512, 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 pivots and door releases

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

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"

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

455
Center Hung Doors
5-3/4" (146mm)



Center Hung

456
Center Hung Doors
6-3/4" (146mm) and specially sized

457
1/8" (3.2 mm) Inset Hung Doors
5-3/4" (146mm)



1/8" (3.2 mm)
Inset Hung

458
1/8" (3.2 mm) Inset Hung Doors
6-3/4" (146mm)

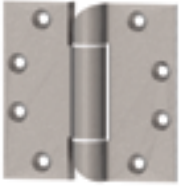
- Brass
- Available in US26D finish only
- Conforms to ANSI/BHMA A156.1- A1882
- Strikes 455, 456, 457, & 458 are Handed
- To be used with Hager 510, 511, and 512 pivots
- Door release allows doors to be opened in both directions without damage to frame
- Standard latchbolt cutout is 1-1/4" x 11/16" (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			
455 (center)	5-3/4 x 2-3/4	146 x 70	0.093	6	1/2 x 8-32 FH
456 (center)	6-3/4 x 2-3/4	171 x 70	0.093	6	1/2 x 8-32 FH
457 (inset)	5-3/4 x 2-3/4	146 x 70	0.093	6	1/2 x 8-32 FH
458 (inset)	6-3/4 x 2-3/4	171 x 70	0.093	6	1/2 x 8-32 FH

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
- 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



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

Made in USA

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



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

Made in USA

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



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



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



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



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

Residential

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.

TABLE OF CONTENTS

General Information	2
Full Mortise - Five Knuckle	3
Full Mortise - Spring	7
Accessories	8

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	N/A	N/A	N/A
2D	Brass Tone Dichromate	N/A	N/A	N/A
2CD	Brushed Zinc Plate	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	Antique Bronze, Lacquered	641/643	614	N/A
10R	Matte Lacquered Dark 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

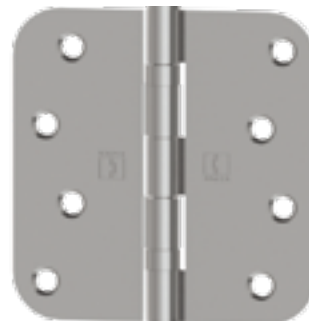
Packing

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

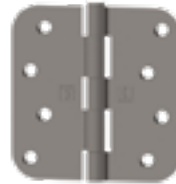
Full Mortise - Five Knuckle



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

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.

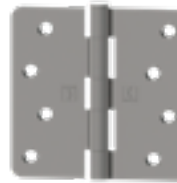


RC1748

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)

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 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

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



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



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



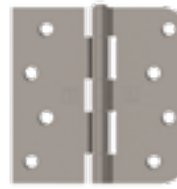
RCBB1841 Ball Bearing

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

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



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

Barn Door Hardware - 9400 Series Barn Door Hardware - e-Conestoga Series

Durable Black Powder-Coated Rail

FEATURES

- | | |
|---------------|---|
| Materials: | Durable powder-coated black steel |
| Available in: | <ul style="list-style-type: none"> • 72" and 96" track lengths • 1-269-8648 - 72" • 1-269-8647 - 96" |



9456 Top Mount Track Kit

FEATURES

- | | |
|------------------|--|
| Materials: | <ul style="list-style-type: none"> • Durable powder-coated black steel • Black steel rail (72" or 96") |
| System Includes: | <ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners |
| Standards: | <ul style="list-style-type: none"> • 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

9457 Face Mount Kit

FEATURES

- | | |
|------------------|--|
| Materials: | <ul style="list-style-type: none"> • Durable powder-coated black steel • Black steel rail (72" or 96") |
| System Includes: | <ul style="list-style-type: none"> • Two carriers • Two stops • Floor guide • Rail mounting brackets and fasteners |
| Standards: | <ul style="list-style-type: none"> • Meets performance requirements of ANSI/BHMA 156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles |



DOOR SPECIFICATIONS

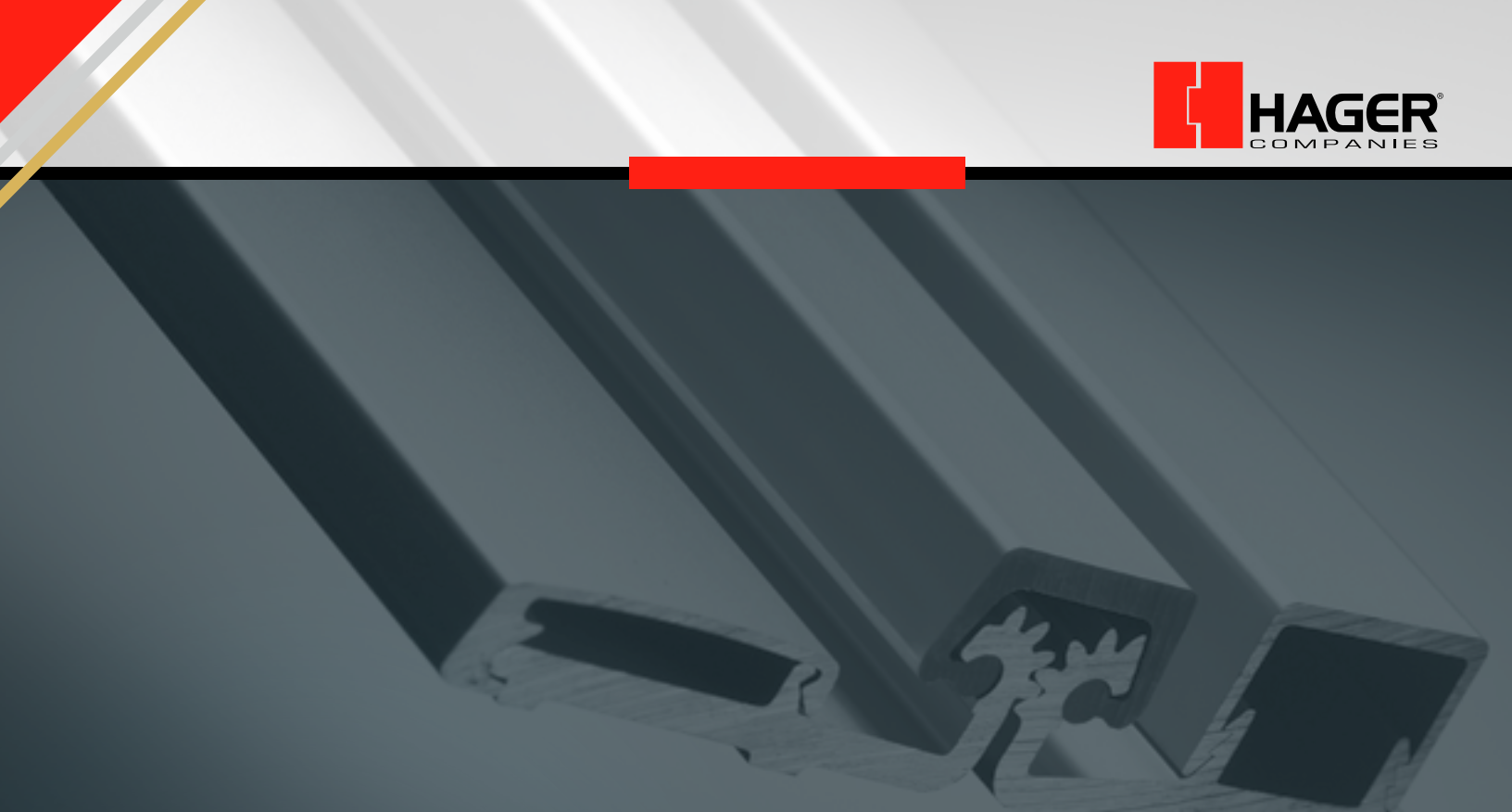
- Door weight up to 250 lbs.
- Wood doors up to 1-3/4" thick

OPTIONAL: 1-269-8646 Flat Rail Soft Close Mechanism

- | | |
|----------|---|
| Details: | <ul style="list-style-type: none"> • Gently guides door to open or closed position • Door weight up to 176 lbs. |
|----------|---|



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Roton®

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.

TABLE OF CONTENTS

Product Information	2	500 Series	16
General Information	6	750 Series	18
Door and Frame Dimensioning	8	780 Series	20
Electric Hinge Modifications	11	1200 Series	36

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), dark bronze, or black exterior anodized coating.

Special Anodizing

Roton® hinges are available in various colors, including 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. Lead time of up to 10-12 weeks may be required.

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.

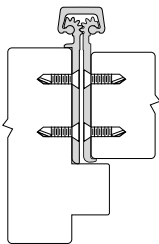
Special Hinges

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.

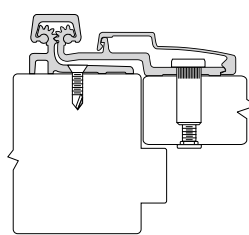
Process for Choosing the Correct Roton® Model

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

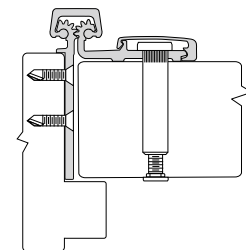
Concealed



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

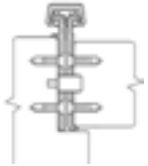
BHMA Certified



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.

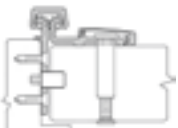
Product Information

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			



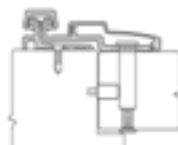
Fully Concealed with Stud

These models are concealed between the frame and the hinge edge of the door. Models available include: 780-041HD, 780-041LL, 780-111, 780-111HD, 780-111LL, 780-112, 780-112HD, 780-112LL, 780-124HD, 780-124LL, 780-22- 780-224HD, 780-224LL, 780-226, 780-226HD, and 780-226LL.



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, and 780-054HD.



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, and 780-210HD.

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.

Rounded Back (RBCC)



Hospital Tip and TIPIT® Compatibility		
Part #	Molded Hospital Tip	TIPIT®
750-134		•
750-138		•
780-045		•
780-046		•
780-053		•
780-054		•
780-057	•	
780-110	•	•
780-111	•	•
780-112	•	•
780-113	•	•
780-124	•	•
780-155		•
780-210	•	•
780-224	•	•
780-226	•	•

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	•	•
780-155	•	•
780-157	•	
780-210	•	•
780-224	•	•
780-226	•	•
1200-600	•	
1200-650	•	

* Round Back (RBCC) is not compatible with Molded Hospital Tip option.

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.

780 Series Concealed Molded Hospital Tip



780 Series Concealed and several Full Surface models including the 780-057, 780-157 & 780-210 can be prepared with a smooth tapered top bearing. This option is ideal for use in hospitals and correctional facilities to help provide a clean and safe environment. For Roton® Ligature-Resistant Opening Solutions see our TIPIT® section below.

TIPIT®



Designed to work with in new and retrofit applications, the TIPIT® was designed with safety in mind. When openings are fitted with the patented TIPIT® in conjunction with our Roton® Continuous Geared Hinge, this combination provides a safe environment while meeting institutional requirements for preventing objects from being hung from the top of the hinge. Available in two models, Concealed and Full Surfaces and two finishes, Gray and Black.

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. 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.

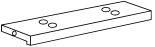
Special Holes

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

Bearing Replacement Kits

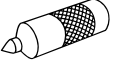
Available in standard or heavy duty and in clear anodized or dark bronze anodized finish for 780 and 1200 Series Roton®.

Marking Jigs



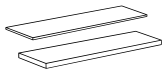
Marking jigs are available to locate the centers of the top end frame screws. These jigs must be ordered at the same time as the hinges to ensure fabrication accuracy.

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



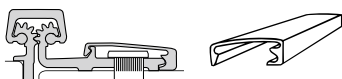
780-210M

Replacement door leaf molding for 780-210, 780-210HD, 780-045HD, 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, and 780-157HD. 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, and 780-157HD. 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, and 780-155HD.

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, and 780-210HD.

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:

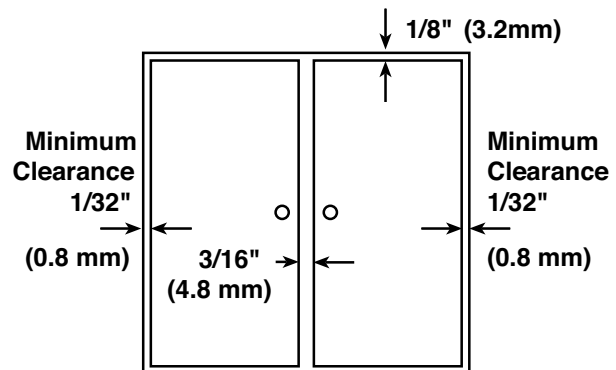
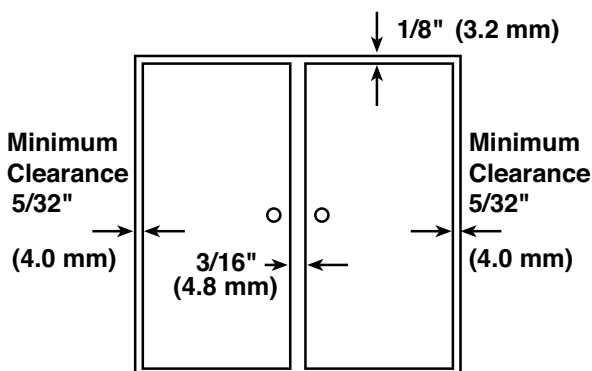
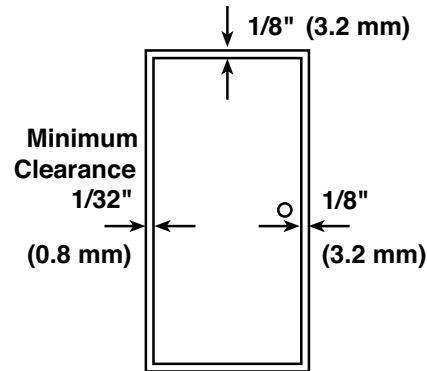
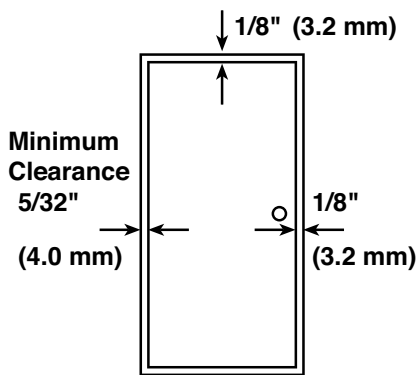
Single Doors (Square and Beveled Edge)

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, and 780-226LL. 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.

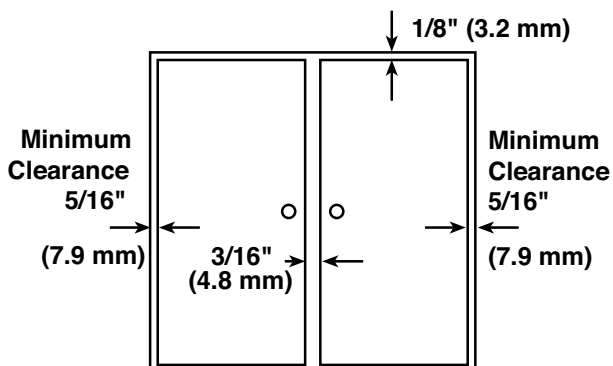
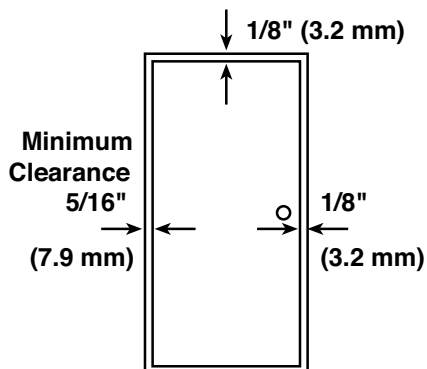
Clearance required as follows:

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

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)

Single Doors (Beveled Edged)

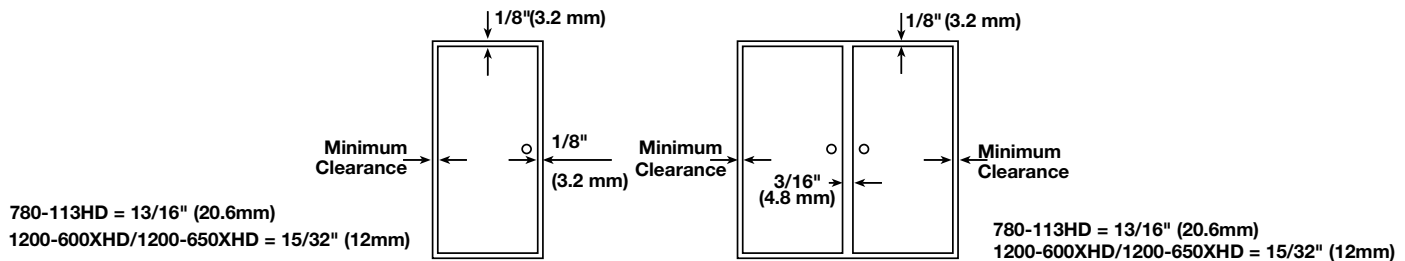
A. Hinge thickness	1/2" (12.7 mm)
B. Additional allowance for frame irregularities	1/32" (0.8 mm)
C. Lockside clearance for single door	1/8" (3.2 mm)
D. Allowance for beveled edge	1/32" (0.8 mm)
Total	11/16" (17.5 mm)

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)

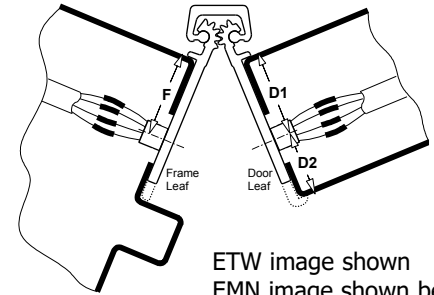


*For fire-rated doors, please refer to door manufacturer's requirement for edge to edge clearance to maintain compliance with NFPA requirements.

Electric Hinge Modifications

Concealed Electric Through-Wire and Monitoring:

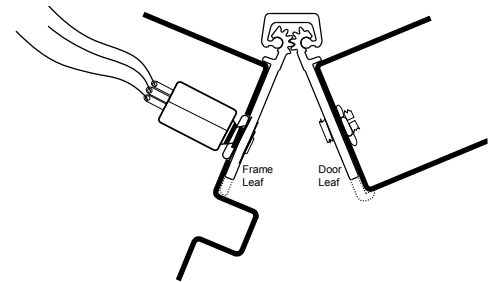
- To order, use symbol "ETM" plus the number of wires required as a suffix, ie: 780-224LL 85" Bronze ETM - 4
- This combines the continuous electric conductors and the miniature switch to provide both power transfer and monitoring
- Four, six, eight or ten continuous electric conductors
- Miniature switch 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



ETW image shown
EMN image shown below

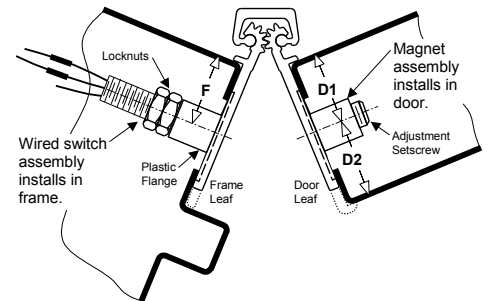
Exposed Electric Switches

- 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



Electric Power Transfer Preparation

2-679-0621 | 2-679-0622 EPT 2 or 2-679-0623 | 2-679-0624 EPT 10

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.



Contact Hager for additional EPT compatibility

2-679-0620

Swing - Clear

- 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.

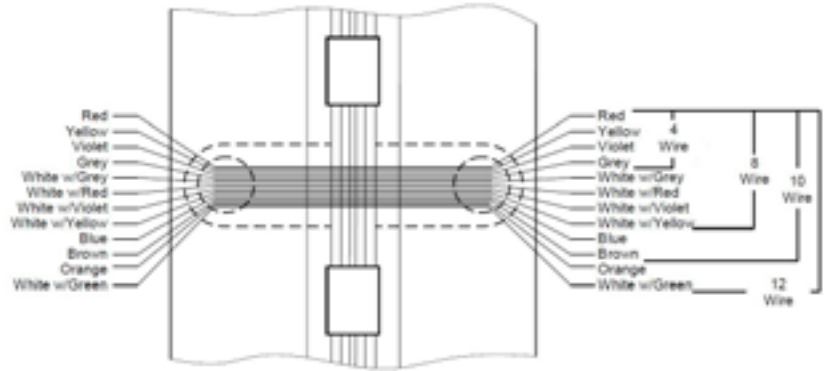


Contact Hager for additional EPT compatibility

Electric Hinge Modifications

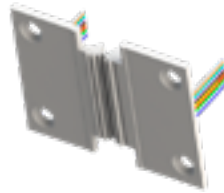
Concealed Electric Through-Wire

- 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, 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: 780-057HD, 780-111HD, 780-112HD, 780-124HD, 780-157HD, 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-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.

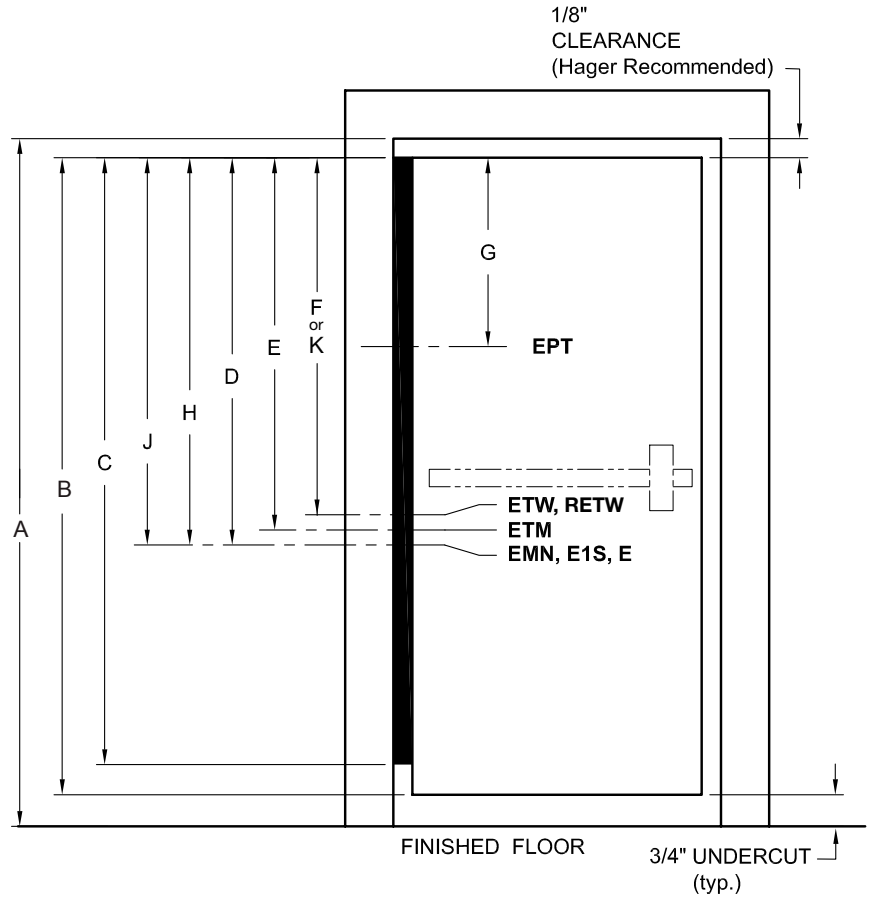
Concealed Electric Through-Wire (ETW)

- Electric Preparation
 - ETW-4
 - ETW-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 be moved. Contact Hager Customer Service for charges.
- Templates regarding location of through-wires available upon request.

Electric Hinge Modifications

ROTON ELECTRICAL 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.

	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	•						
780-057HD				•			•
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	•	•	•	•	•	•	
1200-600	•			•			
1200-650	•			•			

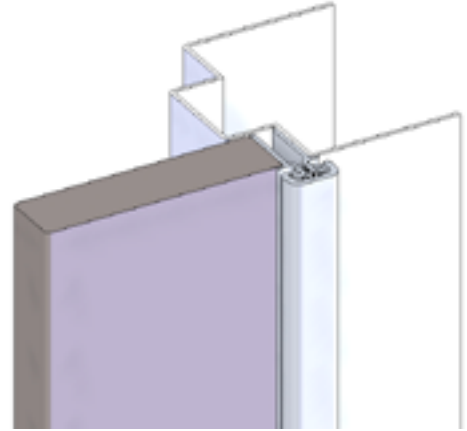
500 Series Light Duty - 500-048 - Light Duty, Concealed Leaf Hinge

SPECIFICATIONS

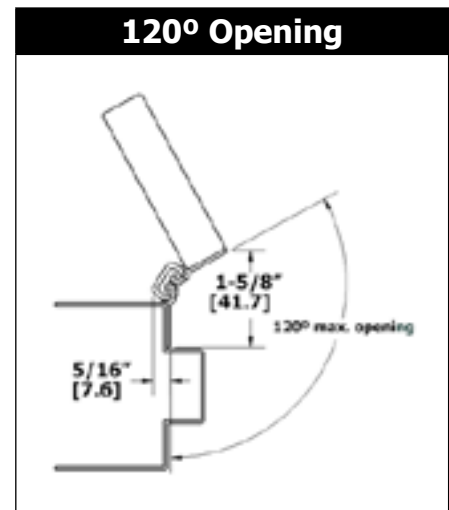
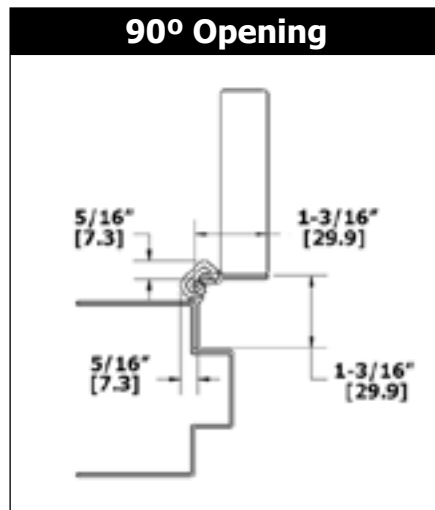
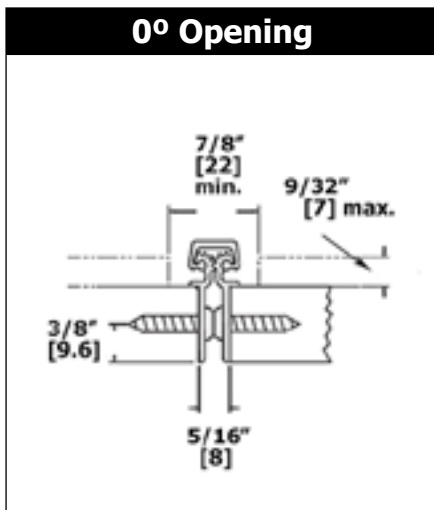
- Material: Aluminum 6063-T6 - 1/16" (1.5 mm) leaf thickness
- Clearance: 5/16" (8 mm)
- Fasteners:
 - Standard: #8-18 x 3/4" Truss Head Phillips tapping AB zinc plated steel.
 - For sheet metal or wood applications.
- Length Options: Standard and custom lengths available

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



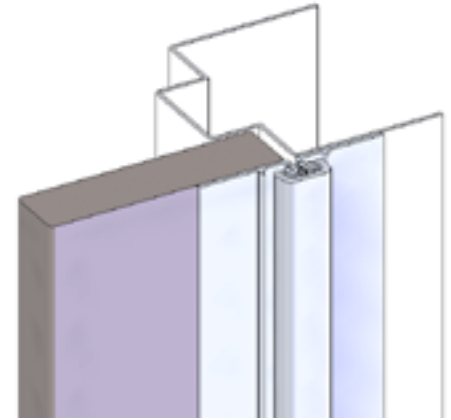
Length		Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
24	610	6	6
36	914	9	9
48	1219	12	12
72	1829	18	18



500 Series Light Duty - 500-220 - Light Duty, Full Service Hinge

SPECIFICATIONS

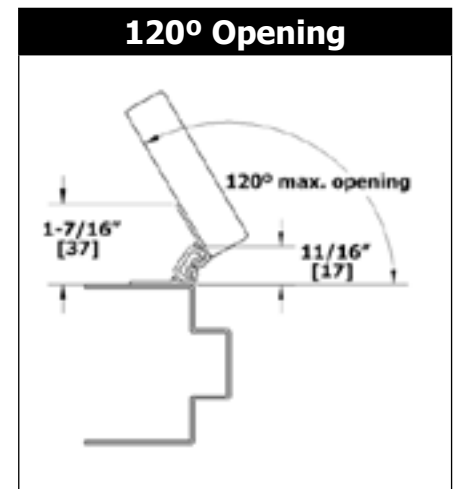
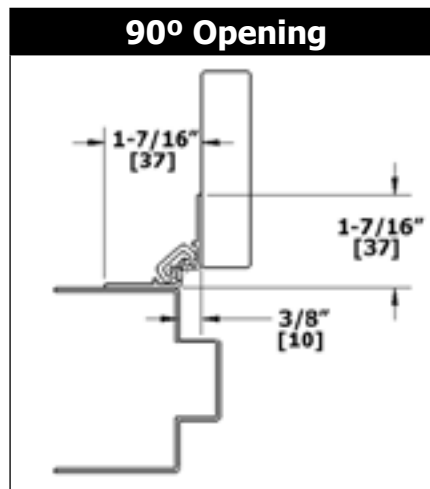
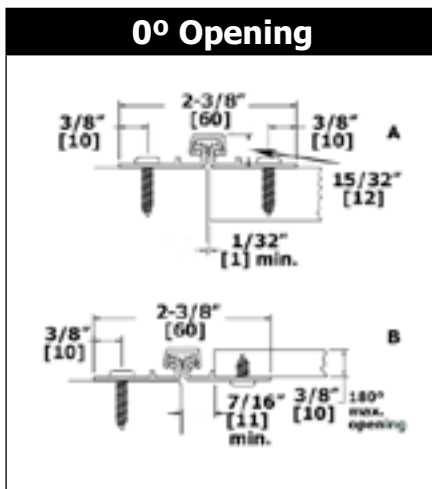
- Material: Aluminum 6063-T6 - 1/16" (1.5 mm) nominal leaf thickness
- Clearance: 1/32" (1 mm) minimum
- Fasteners:
 - Standard: #8-18 x 3/4" Truss Head Phillips tapping AB zinc plated Steel
 - For sheet metal or wood applications
 - Shorter screws required for 90° and 180° openings when applied as shown in "B" (not provided)
 - Shorter screws required for openings past 90° when applied as shown in "C" (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.
- 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

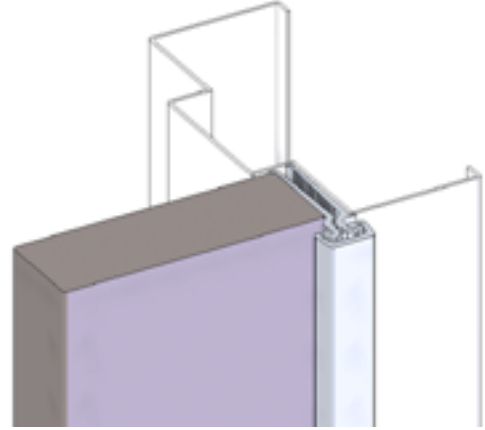
Length		Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
24	610	6	6
36	914	9	9
48	1219	12	12
72	1829	18	18



750 Series Concealed Leaf - 750-134 - Standard Duty

SPECIFICATIONS

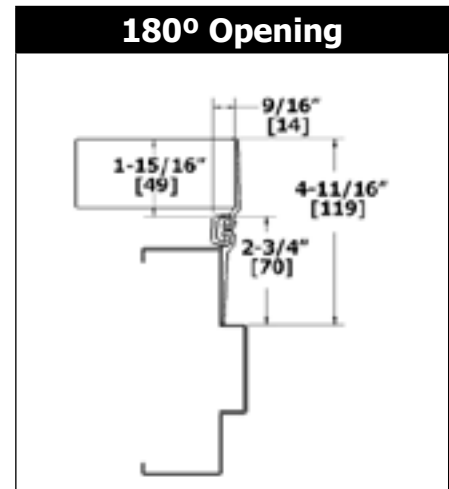
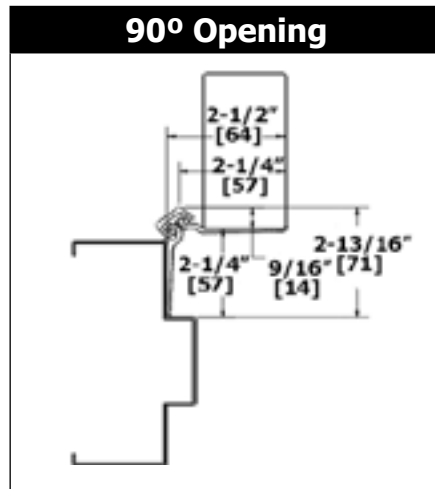
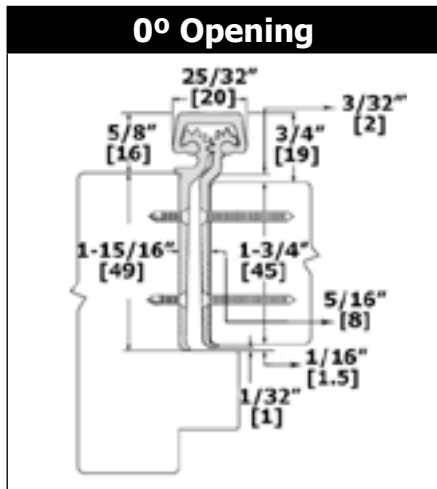
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • Standard: Dril-Kwik® - #12-14 x 1-1/2" Flat Head Sheet Metal Screws • Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws • Additional options available upon request
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

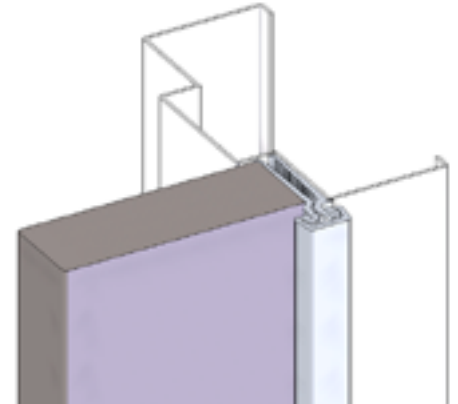
Length		Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	15	15
83	2108	19	19
85	2159	19	19
95	2413	20	20
119	3023	23	23



750 Series Concealed Leaf - 750-138 - Standard Duty

SPECIFICATIONS

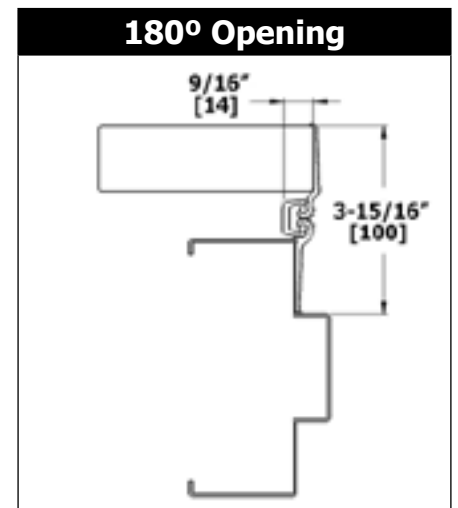
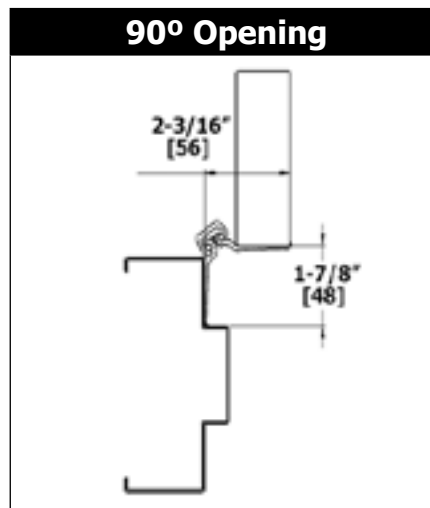
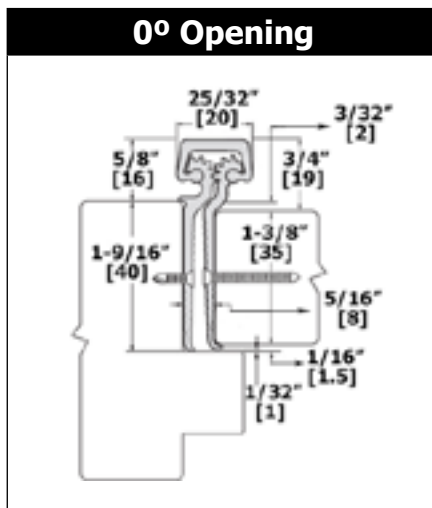
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • Standard: Dril-Kwik® - #12-14 x 1-1/2" Flat Head Sheet Metal Screws • Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws • Additional options available upon request
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

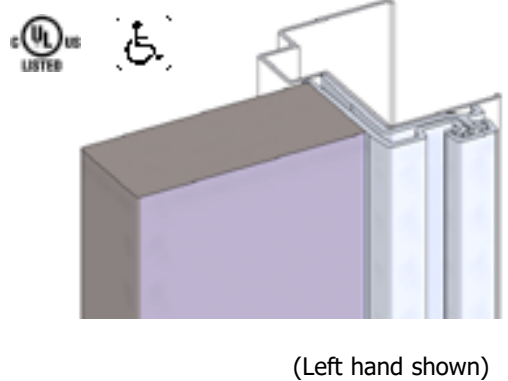
Length		Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	16	16
83	2108	18	18
85	2159	18	18
95	2413	20	20
119	3023	26	26



780 Series Concealed Leaf - 780-041HD | 780-041LL - Heavy Duty or Lead Lined

SPECIFICATIONS

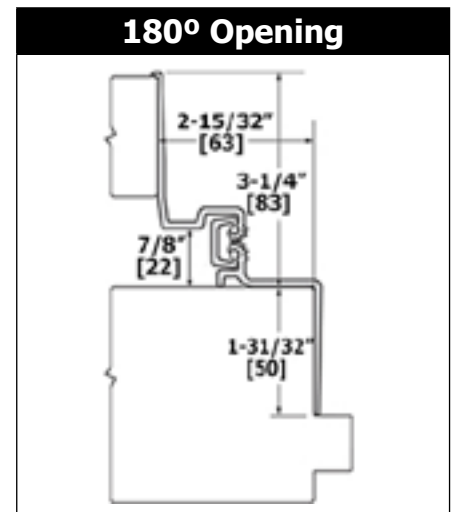
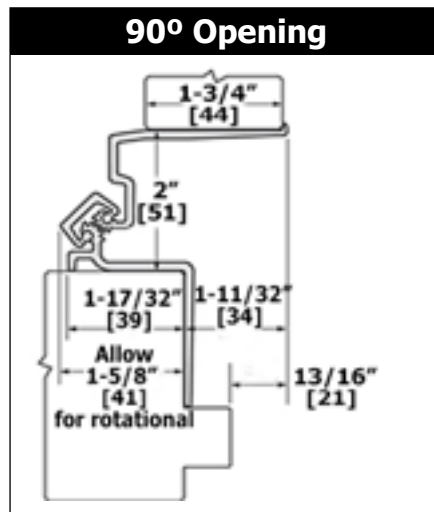
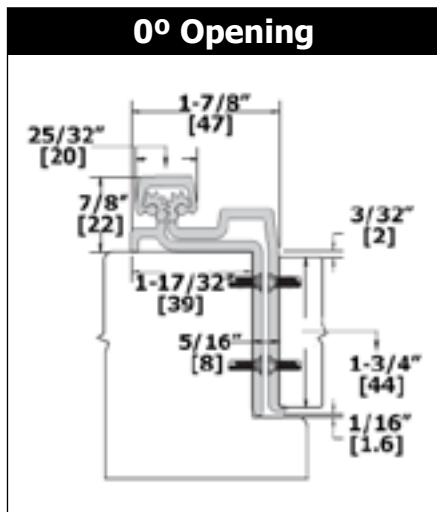
- Material: Aluminum 6063-T6
- Clearance: 5/16" (8 mm) hinge side plus standard lockside clearance
- Fasteners:
 - Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Additional options available upon request
- LL Fasteners:
 - Standard: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws
 - Optional: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Additional options available upon request
- 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



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

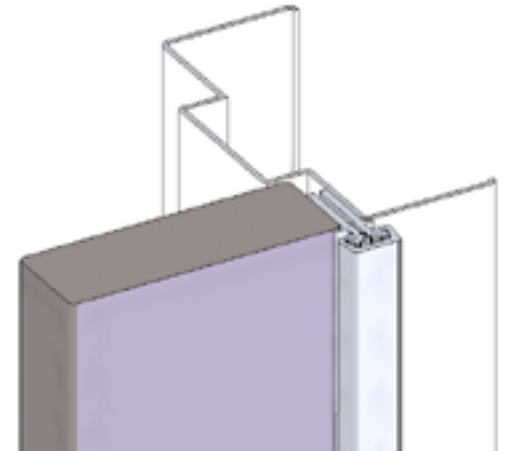
Length		Fastener Count			
Inches	Millimeters	# Per Door		# Per Jamb	
		HD	LL	HD	LL
79	2007	15	32	15	32
83	2108	19	36	19	36
85	2159	19	36	19	36
95	2413	20	42	20	42
119	3023	23	48	23	48



780 Series Concealed Leaf - 780-110HD - Heavy Duty

SPECIFICATIONS

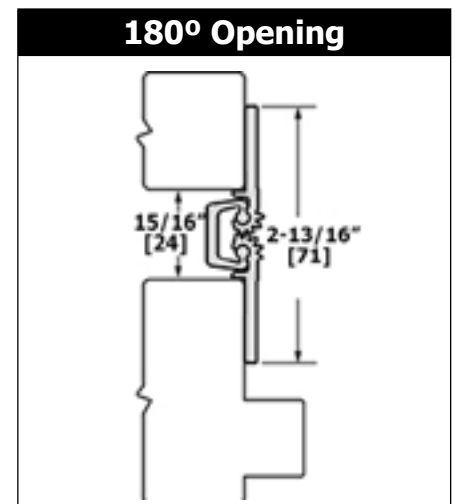
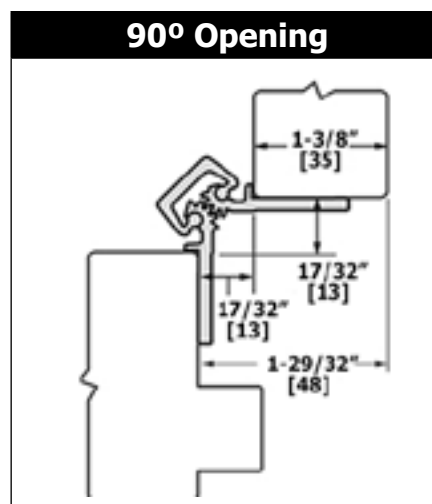
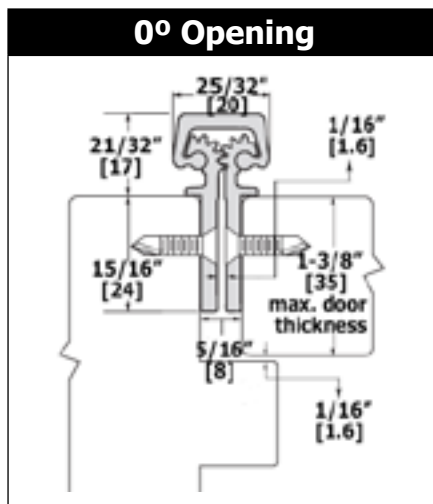
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws • Additional options available upon request
Length Options:	Standard and custom lengths available
Door/Frame 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

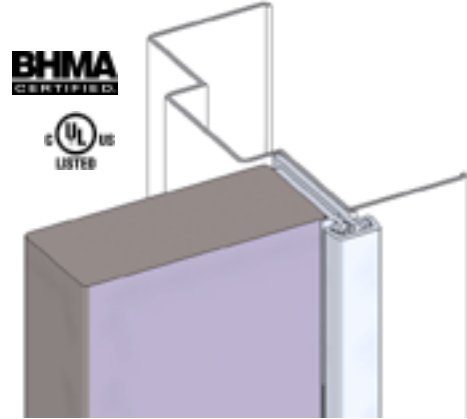
Length		HD Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	16	16
83	2108	18	18
85	2159	18	18
95	2413	20	20
119	3023	26	26



780 Series Concealed Leaf - 780-111 | 780-111HD | 780-111LL - Standard Duty, Heavy Duty or Lead Lined

SPECIFICATIONS

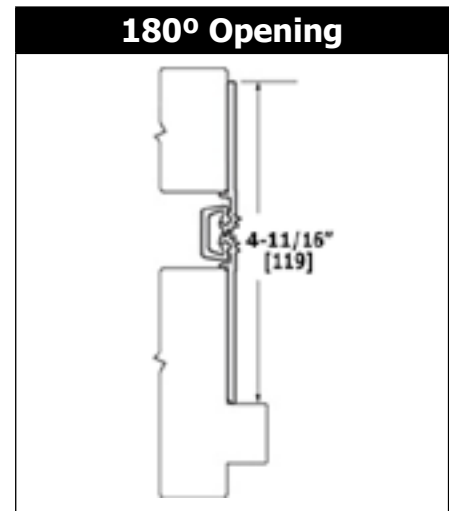
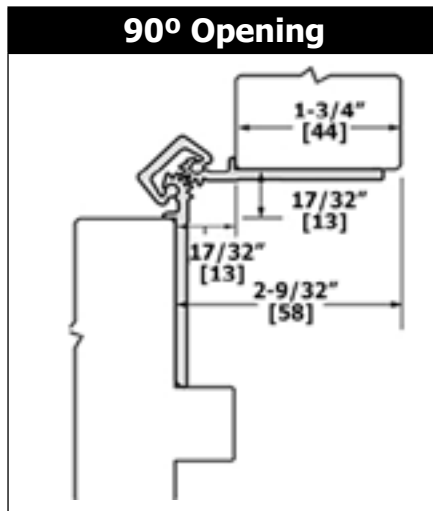
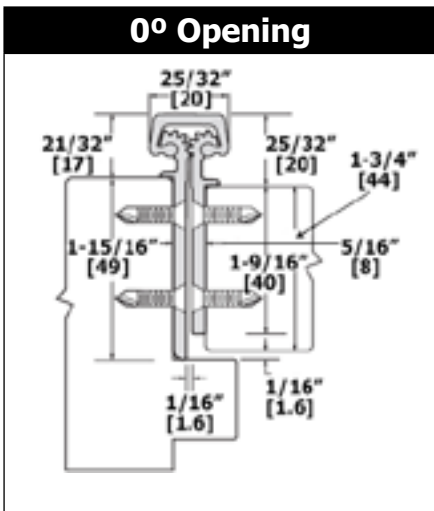
- Material:** Aluminum 6063-T6
- Clearance:** 5/16" (8 mm) hinge side plus standard lockside clearance
- Fasteners:**
- Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Optional: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws
- LL Fasteners:**
- Standard: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws
 - Optional: Dril-Kwik® - #12-24 x 11/16 Flat Head Screws
 - Additional options available upon request
- 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

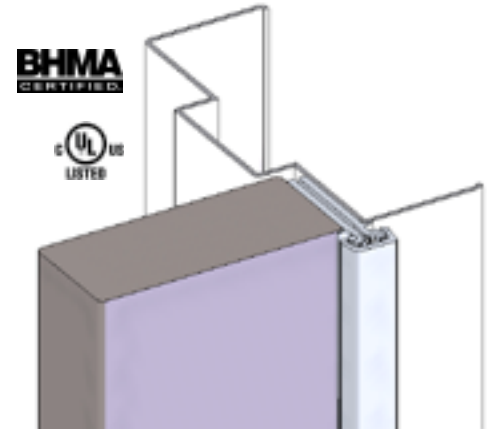
Length		Fastener Count					
Inches	Millimeters	# For Door			# For Jamb		
		SD	HD	LL	SD	HD	LL
79	2007	15	15	32	15	15	32
83	2108	19	19	36	19	19	36
85	2159	19	19	36	19	19	36
95	2413	20	20	42	20	20	42
119	3023	23	23	48	23	23	48



780 Series Concealed Leaf - 780-112 | 780-112HD | 780-112LL - Standard Duty, Heavy Duty or Lead Lined

SPECIFICATIONS

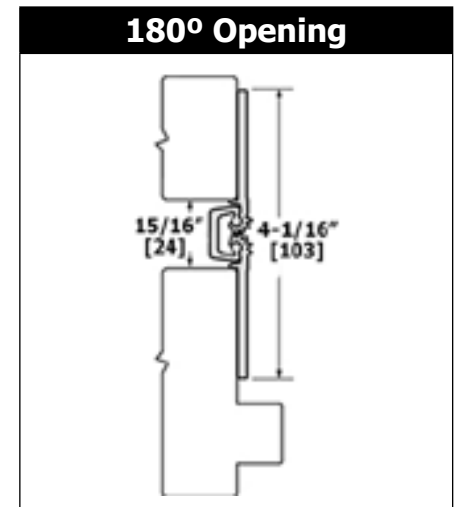
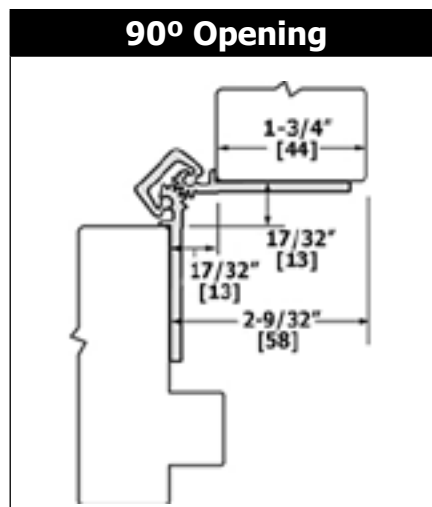
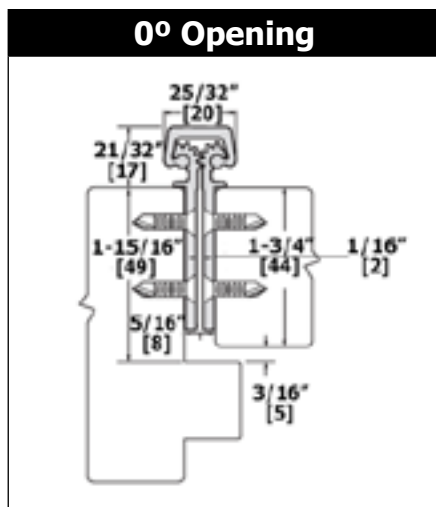
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • Standard: Dril-Kwik® -12-24 x 11/16" Flat Head Screws • Optional: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws • Additional options available upon request
LL Fasteners:	<ul style="list-style-type: none"> • Standard: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws • Optional: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws • Additional options available upon request
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

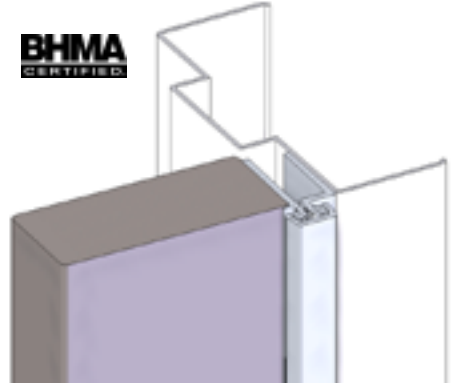
Length		Fastener Count					
Inches	Millimeters	# For Door			# For Jamb		
		SD	HD	LL	SD	HD	LL
79	2007	15	15	32	15	15	32
83	2108	19	19	36	19	19	36
85	2159	19	19	36	19	19	36
95	2413	20	20	42	20	20	42
119	3023	23	23	48	23	23	96



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:**
- Standard: Dril-Kwik® - #12-24 x 11/16 Flat Head Screws
 - Optional: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws
 - Additional options available upon request
- 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

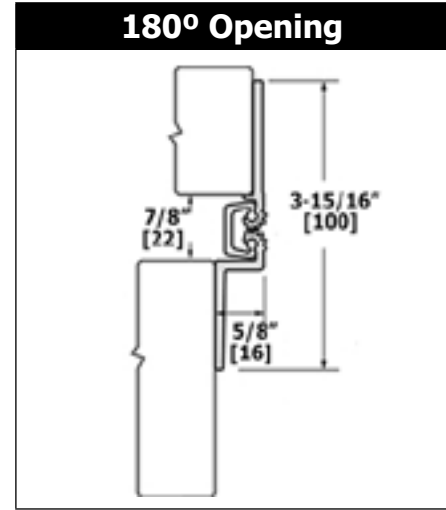
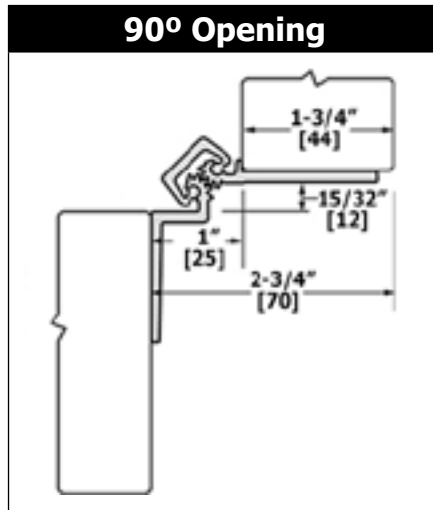
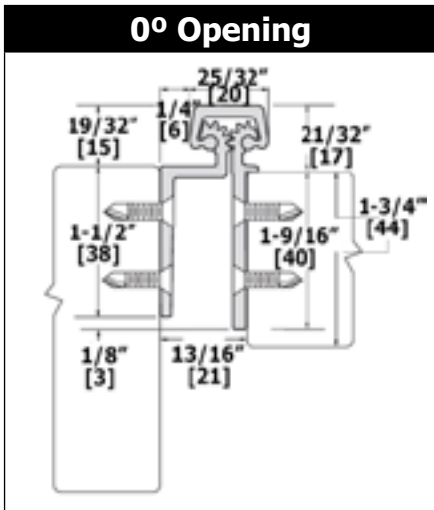


(Left hand shown)

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

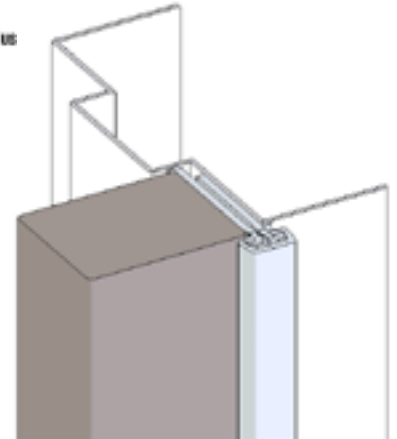
Length		HD Fastener Count	
Inches	Millimeters	# For Door	# For Jamb
79	2007	15	16
83	2108	19	18
85	2159	19	18
95	2413	20	20
119	3023	23	26



780 Series Concealed Leaf - 780-124HD- 780-124LL - Heavy Duty or Lead Lined

SPECIFICATIONS

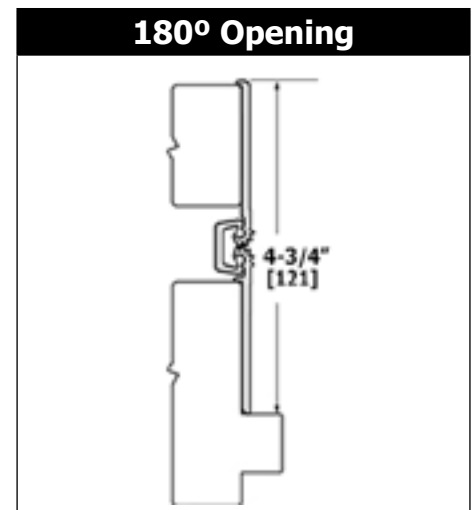
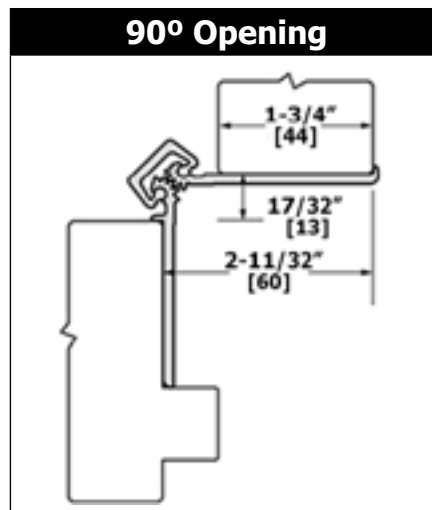
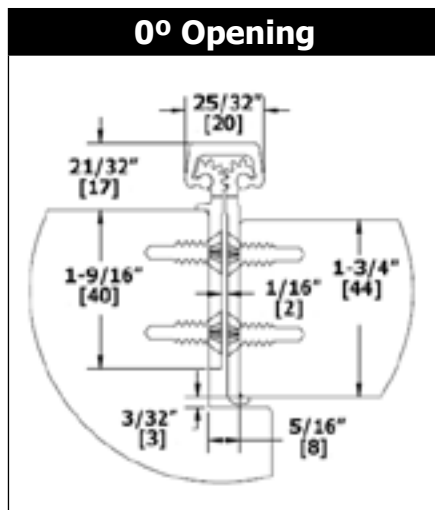
- Material:** Aluminum 6063-T6
- Clearance:** 5/16" (8 mm) hinge side plus standard lockside clearance
- Fasteners:**
- Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Optional: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws
 - Additional options available upon request
- LL Fasteners:**
- Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Additional options available upon request
- 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

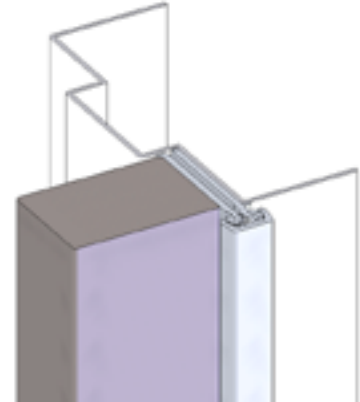
Length		Fastener Count			
Inches	Millimeters	# Per Door		#Per Jamb	
		HD	LL	HD	LL
79	2007	15	32	15	32
83	2108	19	36	19	36
85	2159	19	36	19	36
95	2413	20	42	20	42
119	3023	23	48	23	48



780 Series Concealed Leaf - 780-224 | 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:**
- Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Optional: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws
 - Additional options available upon request
- LL Fasteners:**
- Standard: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws
 - Optional: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Additional options available upon request
- 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

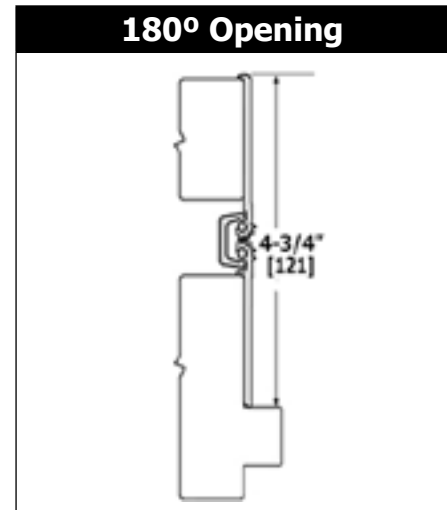
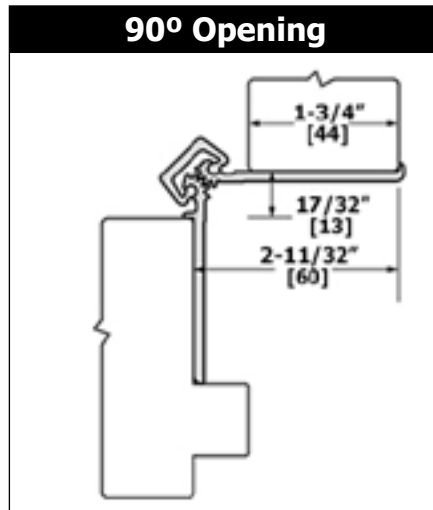
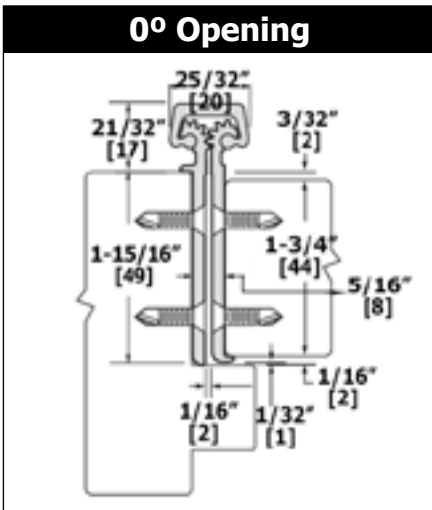


(Left hand shown)

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

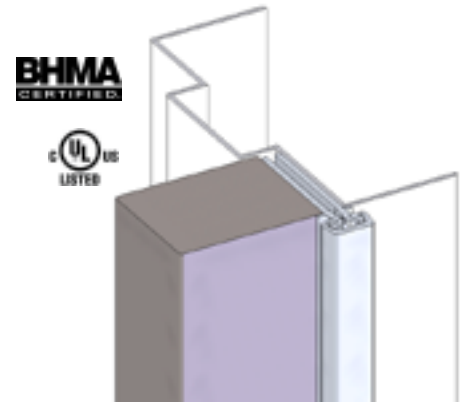
Length		Fastener Count					
Inches	Millimeters	# For Door			# For Jamb		
		SD	HD	LL	SD	HD	LL
79	2007	15	15	32	15	15	32
83	2108	19	19	36	19	19	36
85	2159	19	19	36	19	19	36
95	2413	20	20	42	20	20	42
119	3023	23	23	48	23	23	48



780 Series Concealed Leaf - 780-226HD | 780-226LL - Heavy Duty or Lead Lined

SPECIFICATIONS

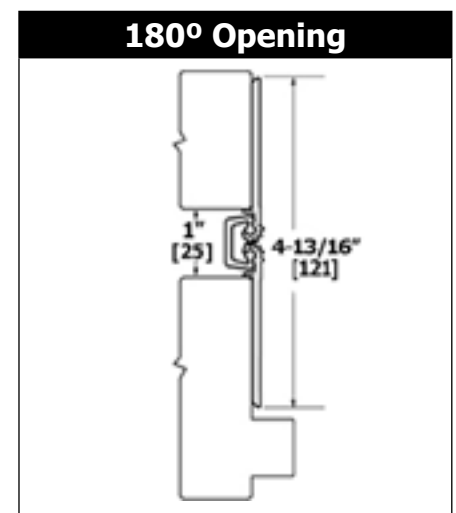
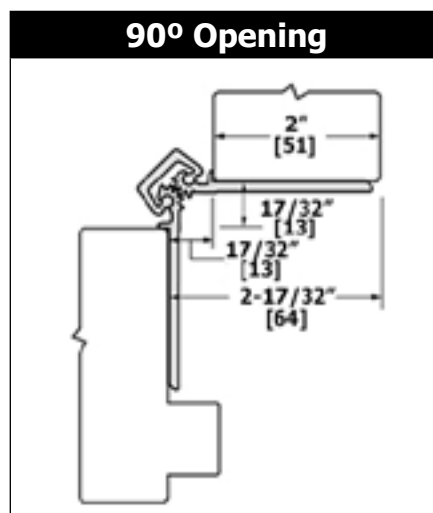
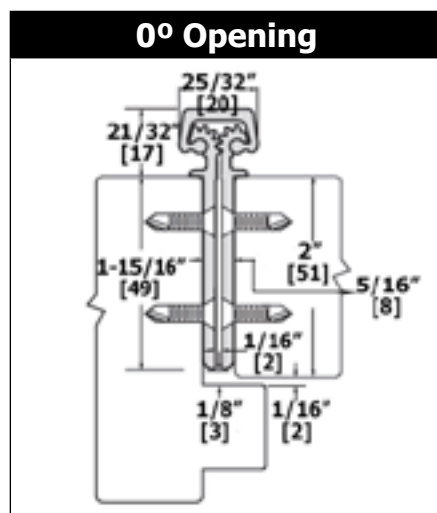
Material:	Aluminum 6063-T6
Clearance:	5/16" (8 mm) hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws • Optional: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws • Additional options available upon request
LL Fasteners:	<ul style="list-style-type: none"> • Standard: 1/2 Dril-Kwik® Screws, 1/2 Wood Screws • Optional: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws • Additional options available upon request
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

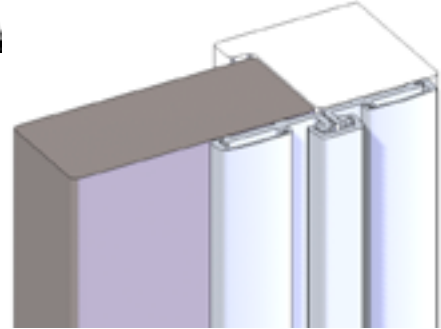
Length		Fastener Count			
Inches	Millimeters	# Per Door		# Per Jamb	
		HD	LL	HD	LL
79	2007	15	32	15	32
83	2108	19	36	19	36
85	2159	19	36	19	36
95	2413	20	42	20	42
119	3023	23	48	23	48



780 Series Full Surface - 780-057HD - Heavy Duty

SPECIFICATIONS

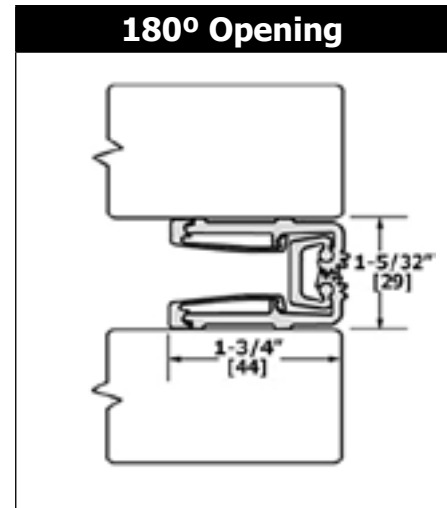
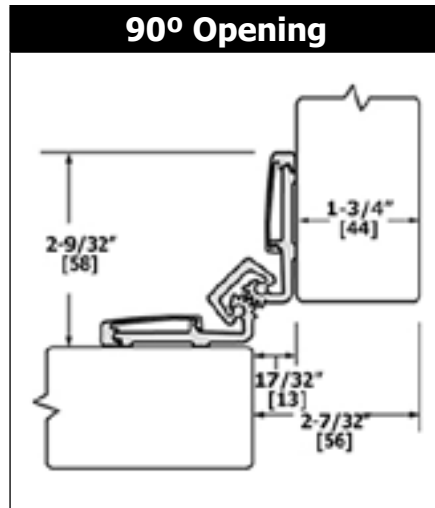
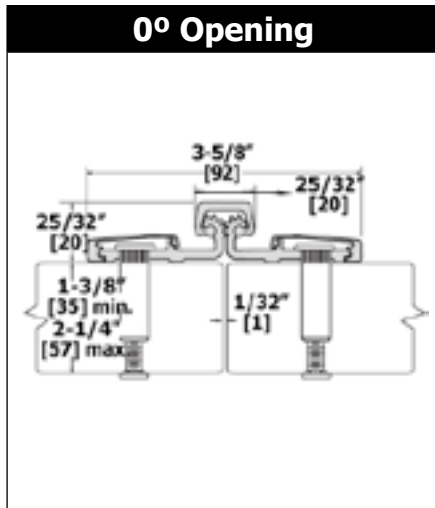
Material:	Aluminum 6063-T6
Clearance:	1/32" (1 mm) minimum recommended between doors
Fasteners:	<ul style="list-style-type: none"> • Standard: 1/4 x 20 x 1-1/4" Sexbolt (fastener + post) • Standard: Dril-Kwik® -#12-24 x 11/16" Pan Head Screws • Additional options available upon request
Length Options:	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

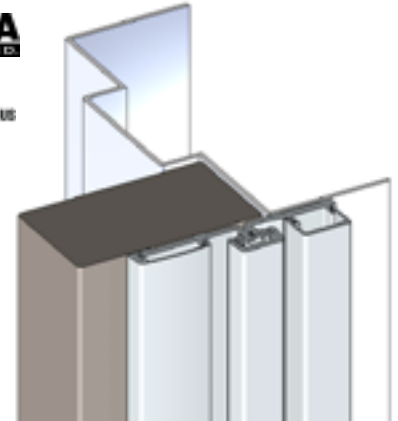
Length		HD Fastener Count	
Inches	Millimeters	# Sex Bolts	# Pan Head
79	2007	16	34
83	2108	16	38
85	2159	16	38
95	2413	20	38
119	3023	24	46



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:**
- Standard: 1/4-20 x 1-1/4" Sexbolt (fastener + post)
 - Standard: Dril-Kwik® - #12-24 x 11/16" Pan Head Screws
 - Additional options available upon request
- 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

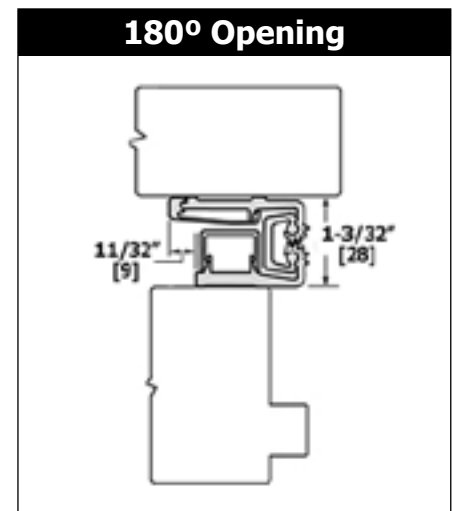
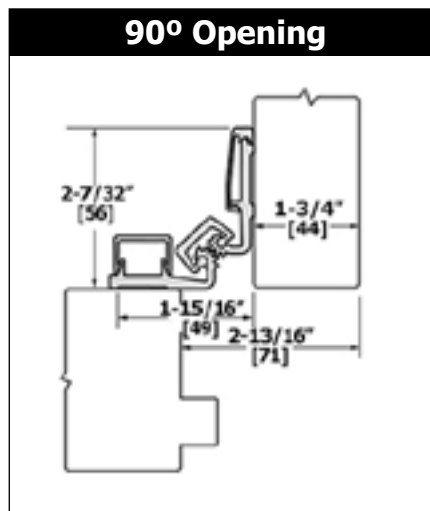
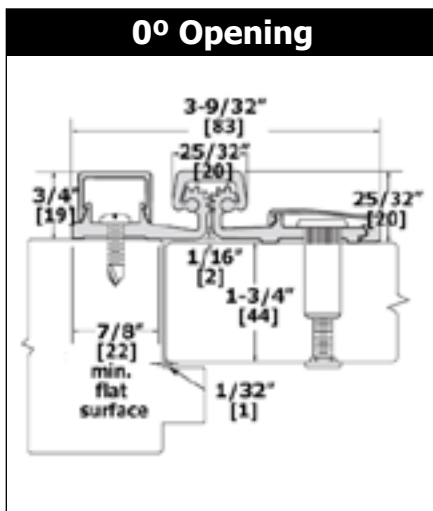


(Left hand shown)

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

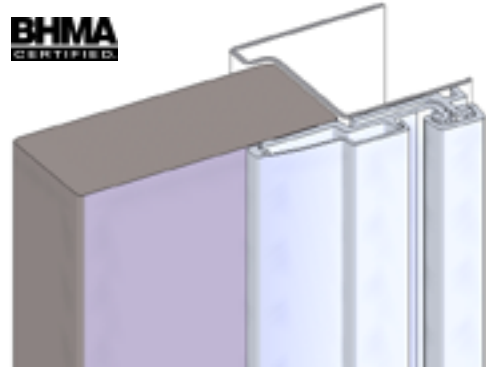
Length		Fastener Count			
Inches	Millimeters	# Sex Bolts		# Pan Head	
		SD	HD	SD	HD
79	2007	8	8	34	34
83	2108	8	8	38	38
85	2159	8	8	38	38
95	2413	10	10	38	38
119	3023	12	12	46	46



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:**
- Standard: 1/4-20 x 1-1/4" Sexbolt (fastener + post)
 - Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Additional options available upon request
- 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

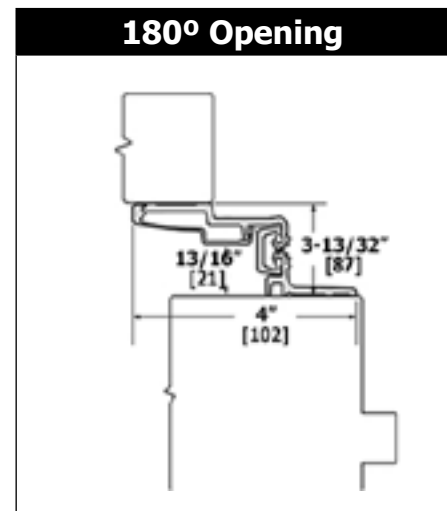
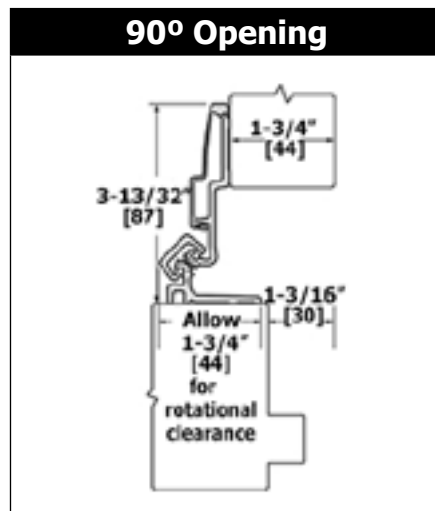
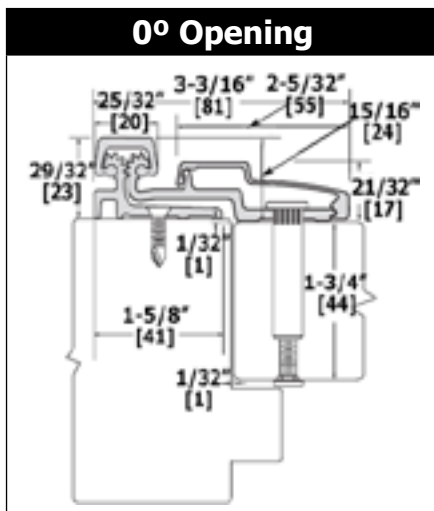


(Left hand shown)

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

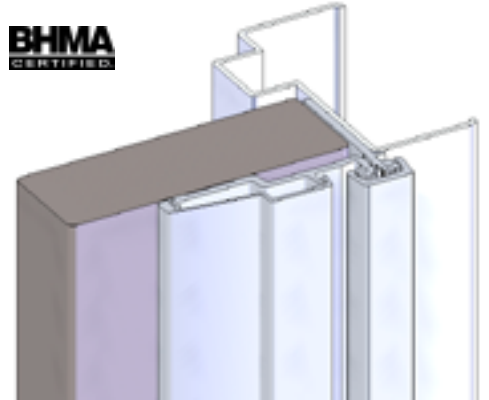
Length		Fastener Count					
Inches	Millimeters	# Sex Bolts		# Pan Head		# For Jamb	
		SD	HD	SD	HD	SD	HD
79	2007	8	8	17	17	17	17
83	2108	8	8	19	19	19	19
85	2159	8	8	19	19	19	19
95	2413	10	10	19	19	19	19
119	3023	12	12	23	23	23	23



780 Series 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:	<ul style="list-style-type: none"> • Standard: 1/4-20 x 1-1/4" Sexbolt (fastener + post) • Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws • Additional options available upon request
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

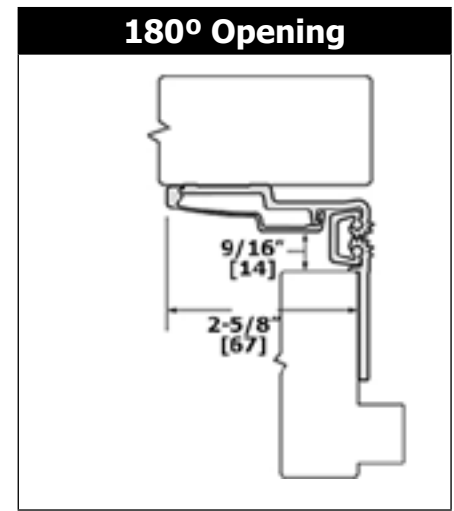
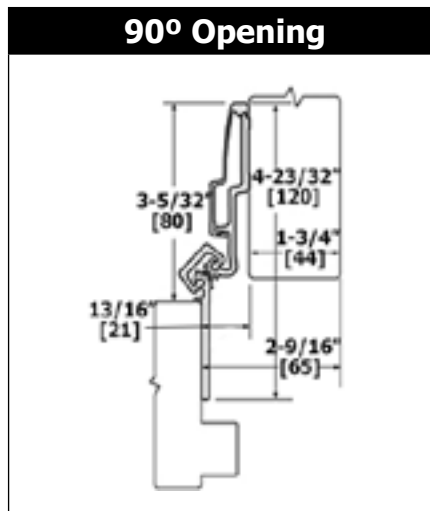
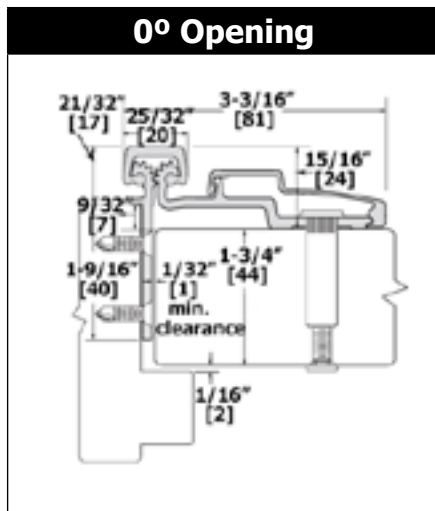


(Left hand shown)

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

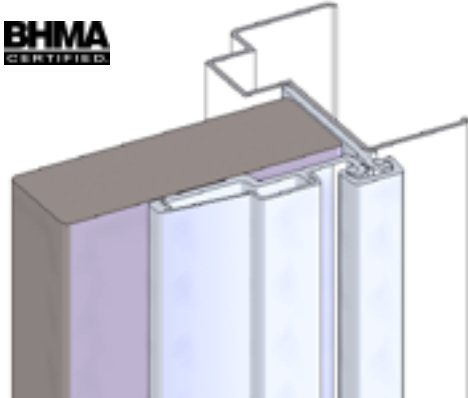
Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	15
83	2108	8	19	19
85	2159	8	19	19
95	2413	10	19	20
119	3023	12	23	23



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:
 - Standard: 1/4-20 x 1-1/4" Sexbolt (fastener + post)
 - Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Additional options available upon request
- 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

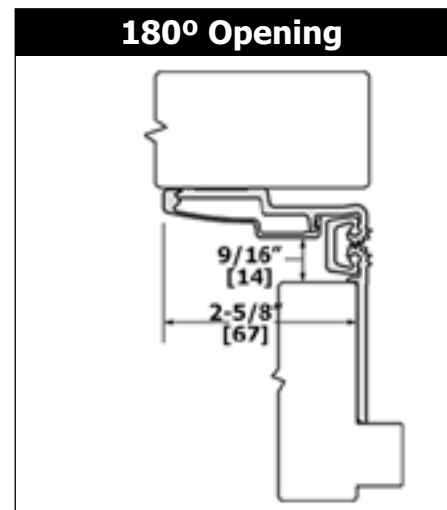
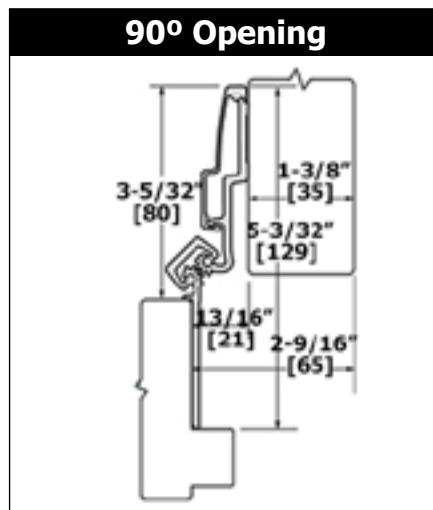
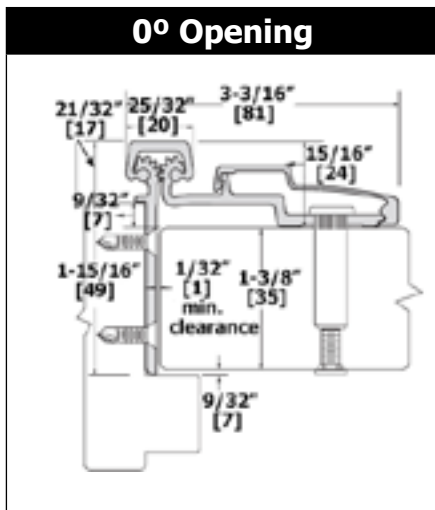


(Left hand shown)

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

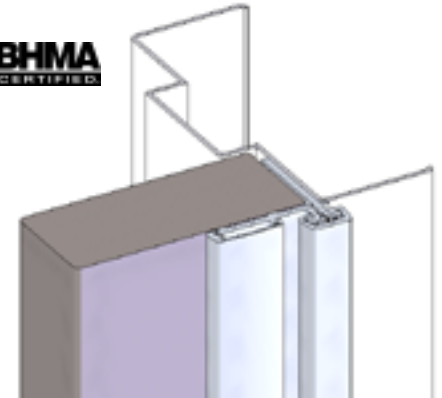
Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	15
83	2108	8	19	19
85	2159	8	19	19
95	2413	10	19	20
119	3023	12	23	23



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:
 - Standard: 1/4-20 x 1-1/4" Sexbolt (fastener + post)
 - Standard: Dril-Kwik® - #12-24 x 11/16" Flat Head Screws
 - Additional options available upon request
- 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

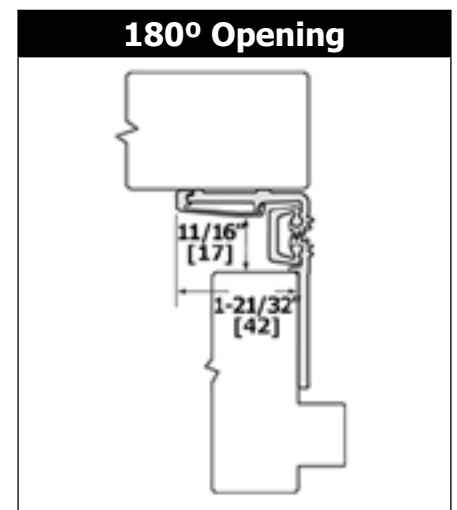
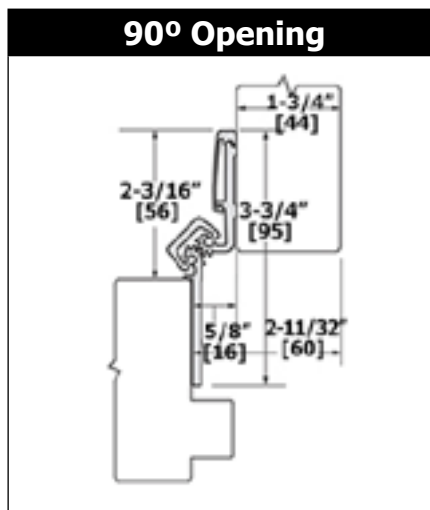
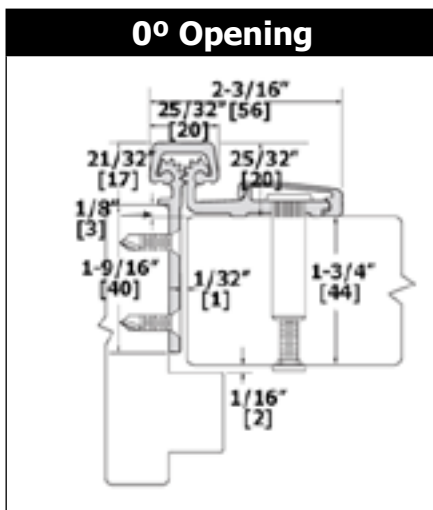


(Left hand shown)

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

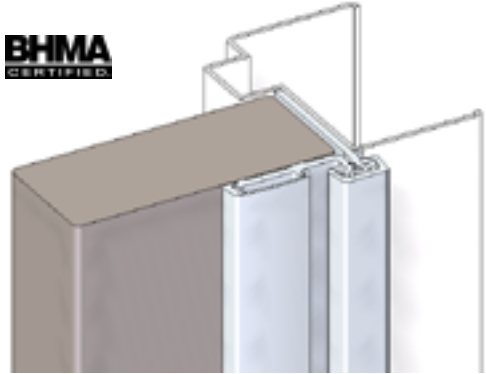
Length		Fastener Count					
Inches	Millimeters	# Sex Bolts		# Pan Head		# For Jamb	
		SD	HD	SD	HD	SD	HD
79	2007	8	8	17	17	15	15
83	2108	8	8	19	19	19	19
85	2159	8	8	19	19	19	19
95	2413	10	10	19	19	20	20
119	3023	12	12	23	23	23	23



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:	<ul style="list-style-type: none"> • Standard: 1/4-20 x 1-1/4" Sexbolt (fastener + post) • Standard: Dril-Kwik®-#12-24 x 11/16" Flat Head Screws • Additional options available upon request
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

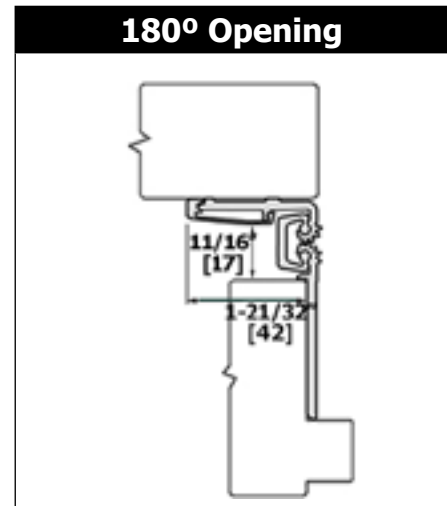
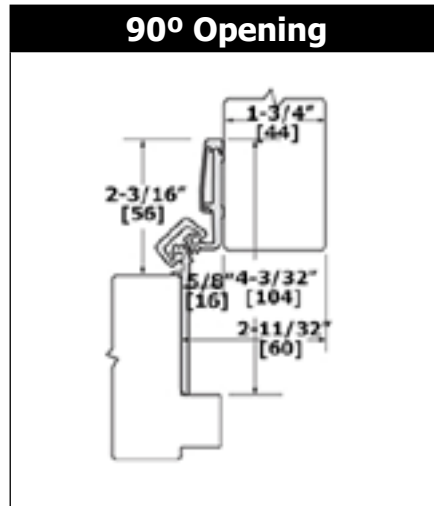
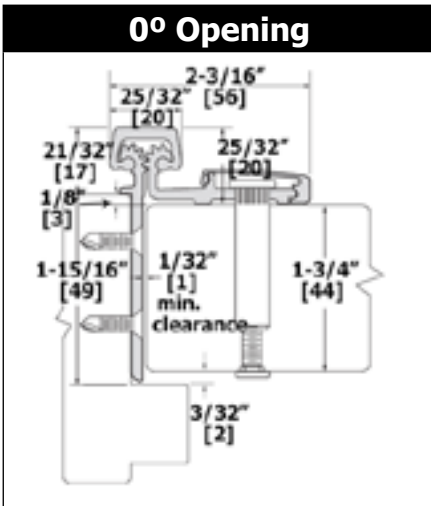


(Left hand shown)

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

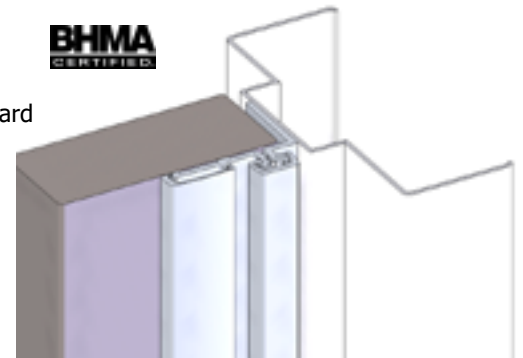
Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	15
83	2108	8	19	19
85	2159	8	19	19
95	2413	10	19	20
119	3023	12	23	23



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:	<ul style="list-style-type: none"> • Standard: 1/4-20 x 1-1/4" Sexbolt (fastener + post) • Standard: Dril-Kwik® -#12-24 x 11/16" Flat Head Screws • Additional options available upon request
Length Options:	Standard and custom lengths available
Door Reinforcement:	None required
Frame Reinforcement:	None required to 200 lbs., heavier weight use 16-gauge channel

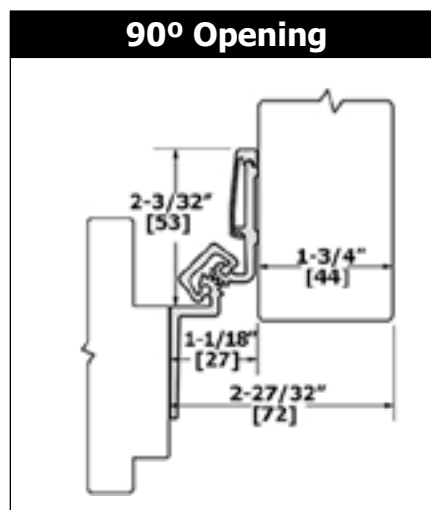
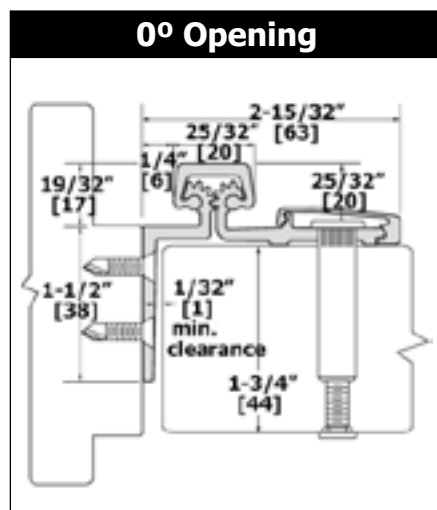


(Left hand shown)

FEATURES

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

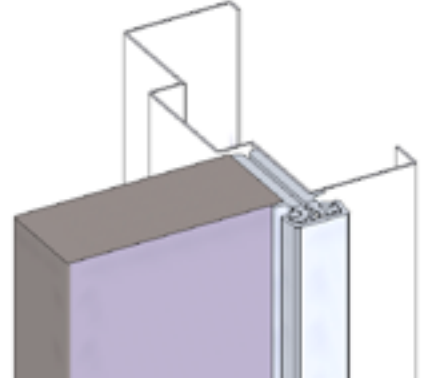
Length		HD Fastener Count		
Inches	Millimeters	# Sex Bolts	# Pan Head	# For Jamb
79	2007	8	17	16
83	2108	8	19	18
85	2159	8	19	18
95	2413	10	19	20
119	3023	12	23	26



1200 Series Extra Heavy Duty - 1200-600XHD - Concealed Leaf Hinge

SPECIFICATIONS

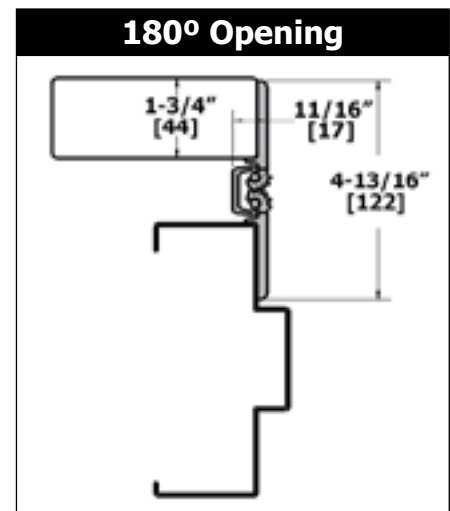
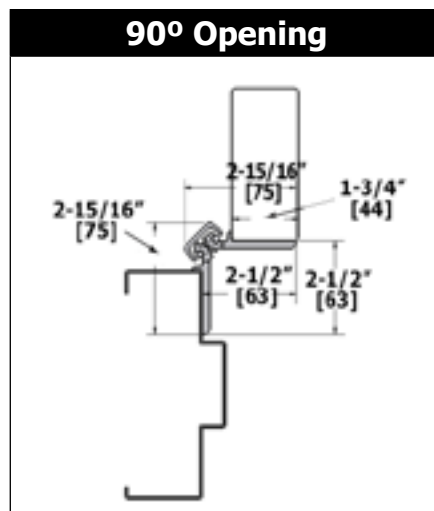
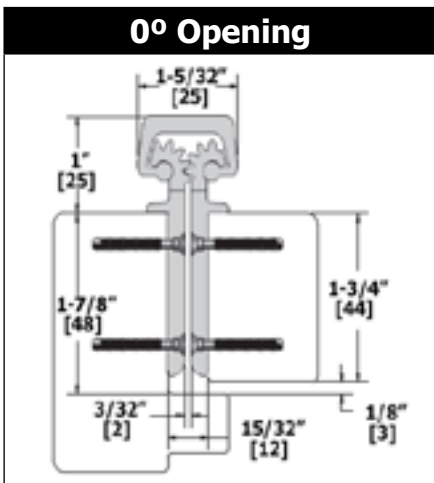
- Material:** Aluminum 6063-T6
- Clearance:** 15/32" (12 mm) hinge side plus standard lockside clearance
- Fasteners:**
- Standard: Dril-Kwik® 1/4-20 x 1" Screws
 - Optional: 1/4-14 x 1-1/2" Wood Screw
 - Additional options available upon request
- Length Options:** Standard and custom lengths available
- 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

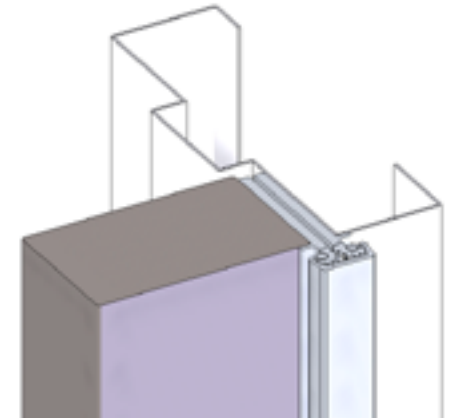
Length		XHD Fastener Count	
Inches	Millimeters	# Per Door	# Per Jamb
79	2007	22	22
83	2108	26	26
85	2159	26	26
95	2413	28	28
119	3023	33	33



1200 Series Extra Heavy Duty - 1200-650XHD - Concealed Leaf Hinge

SPECIFICATIONS

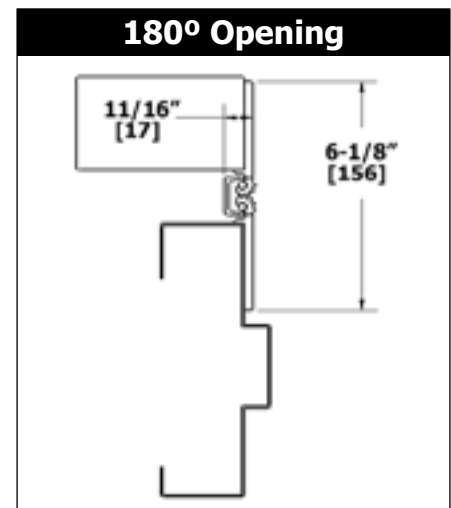
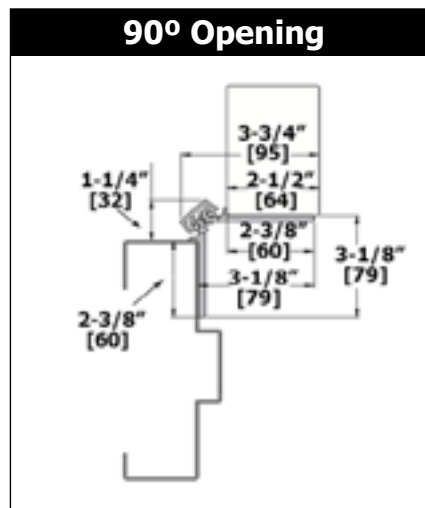
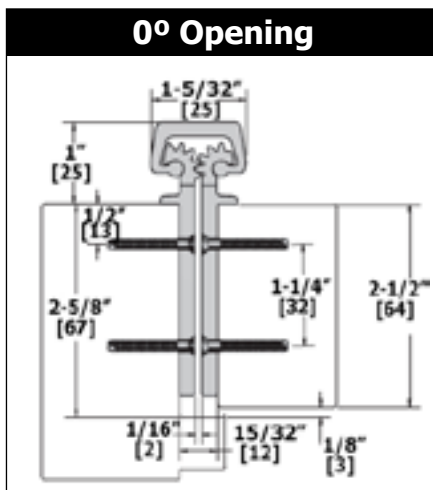
Material:	Aluminum 6063-T6
Clearance:	15/32" (12 mm) hinge side plus standard lockside clearance
Fasteners:	<ul style="list-style-type: none"> • Standard: Dril-Kwik® 1/4-20 x 1" Screws • Optional: 1/4-14 x 1-1/2" Wood Screw • Additional options available upon request
Length Options:	Standard and custom 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



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A close-up photograph of stainless steel continuous hinges, showing the cylindrical rollers and the metal plates they are attached to. The hinges are arranged in a row, and the lighting highlights their metallic texture and the precision of their engineering.

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.

TABLE OF CONTENTS

Benefits and Features	2
Product Information	3
Fasteners	5
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 and Grade 2 for 300 pound doors for the following Series: 790-900, 790-905, 790-915, 790-904, 790-906, 790-903.

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).

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.

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)

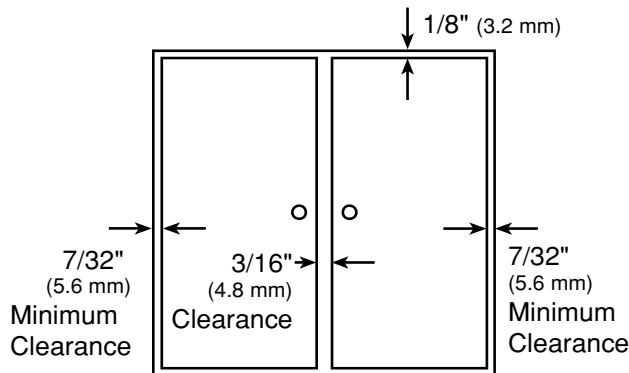
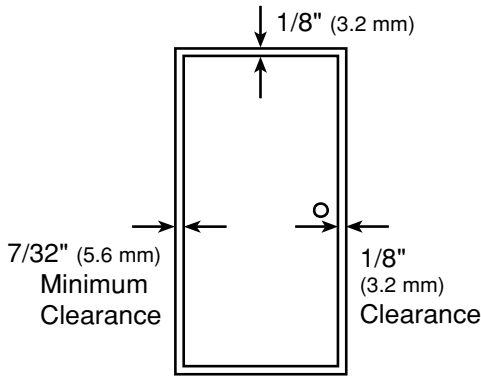
A. Hinge thickness	7/32"	5.6 mm
B. Additional allowance for frame irregularities	1/32"	0.8 mm
C. Lockside clearance for single door	1/8"	3.2 mm
Total	3/8"	9.5 mm

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. Second allowance for frame irregularities	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)

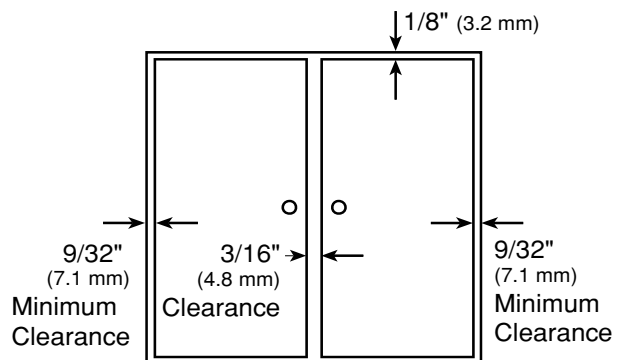
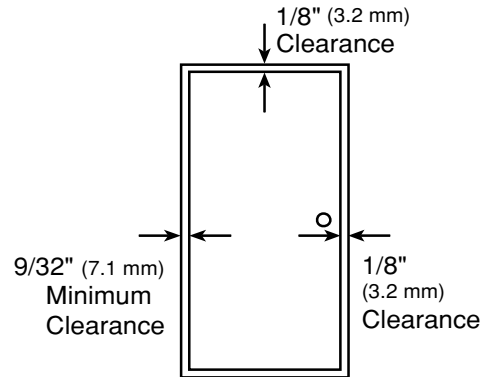
A. Hinge thickness	9/32"	7.1 mm
B. Additional allowance for frame irregularities	1/32"	0.8 mm
C. Lockside clearance for single door	1/8"	3.2 mm
Total	7/16"	11.1 mm

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. Second allowance for frame irregularities	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. Lockside clearance for single door	1/8"	3.2 mm
Total	9/32"	7.2 mm

Pairs of Doors (Square and Beveled Edged)

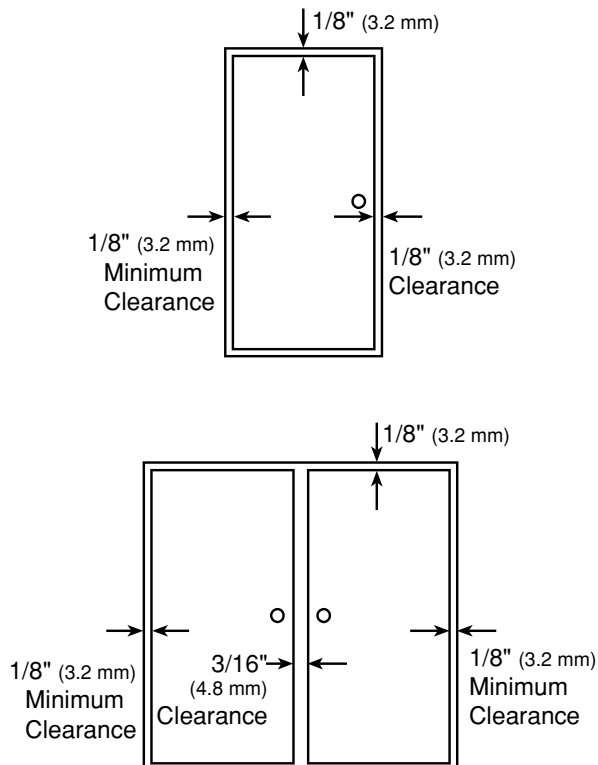
A. Hinge thickness	1/8"	3.2 mm
B. Additional allowance for frame irregularities	1/32"	0.8 mm
C. Clearance between doors (recommended)*	3/16"	4.8 mm
D. Second hinge thickness	1/8"	3.2 mm
E. Second allowance for frame irregularities	1/32"	0.8 mm
Total	1/2"	12.7 mm

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:

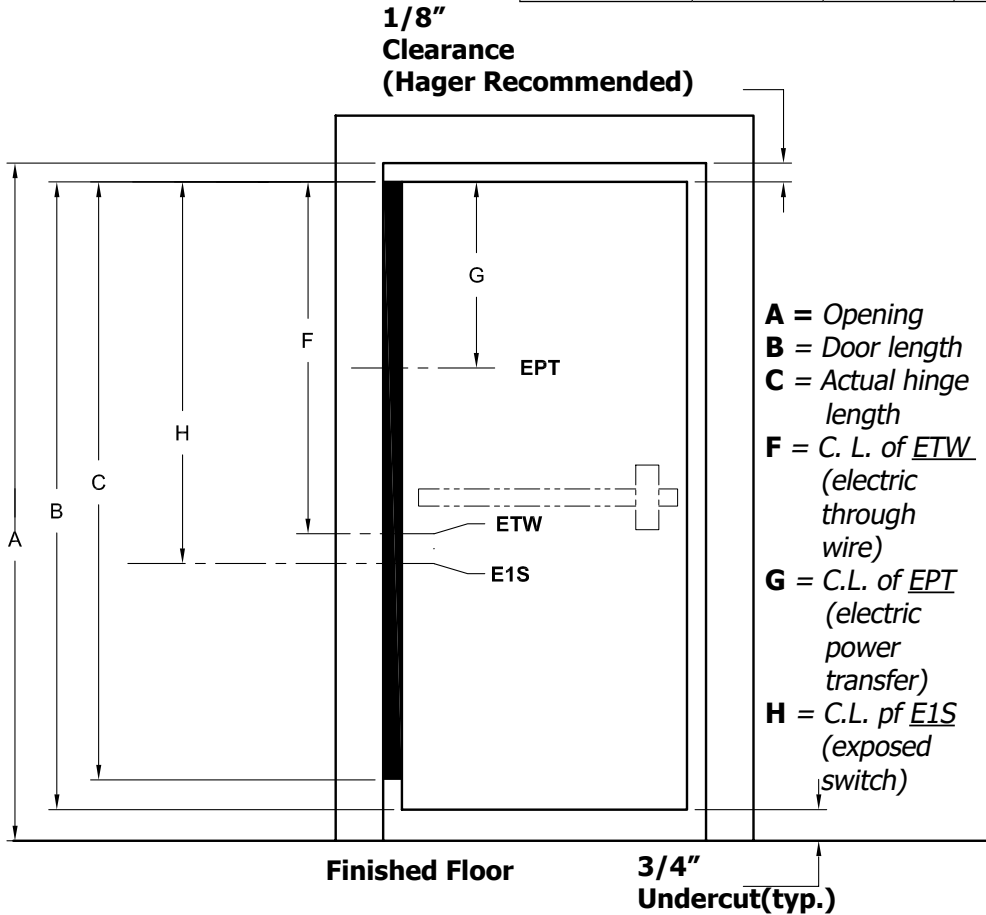
- The hinge edge of the door should not be beveled.
- *For fire-rated doors, please refer to door manufacturer's requirement for edge to edge clearance to maintain compliance with NFPA requirements.



Electric Modifications

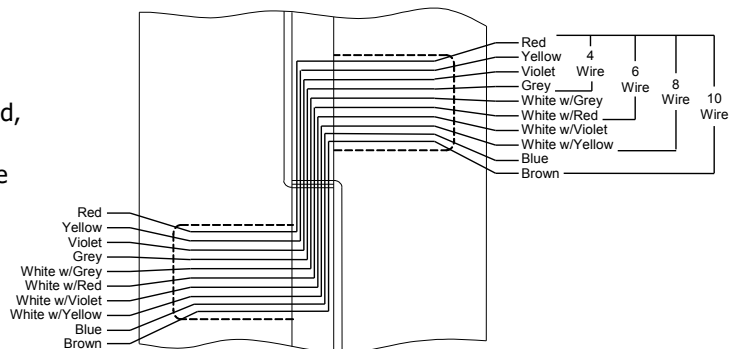
* For ease of ordering, Hager has established standard locations for power transfer cutouts. All standard location dimensions are referenced from the top edge of the door to the centerline of the power transfer cutout. Please specify handing.

	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

Electric Power Transfer Preparation

2-679-0621 | 2-679-0622 EPT 2 or 2-679-0623 | 2-679-0624 EPT 10

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.



Contact Hager for additional EPT compatibility

2-679-0620

Swing - Clear

- 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

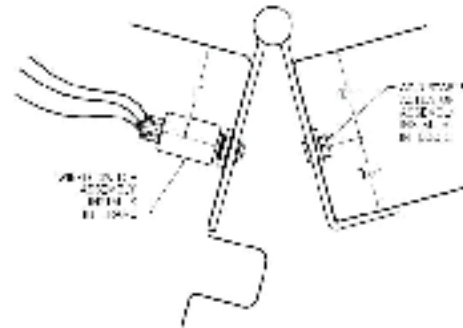
Note: Special Electric Modifications and EPT locations may require additional charges if screw holes have to be moved. Contact Hager Companies Customer Service for charges.



Contact Hager for additional EPT compatibility

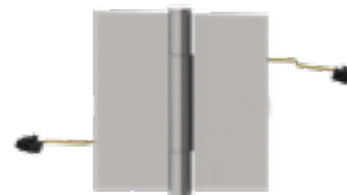
Exposed Electric Switches:

- 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

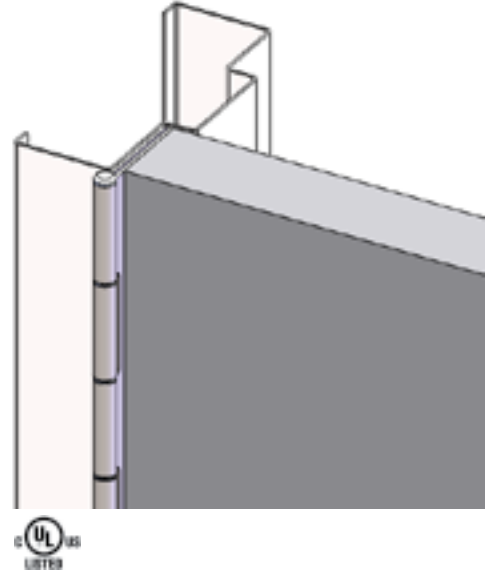
- Serves as a mortar shield.
- Overall dimensions are 9" (229 mm) length with tabs, 7" (178 mm) (inside), 1-3/4" x 1-3/4" (45 mm x 45 mm) inside dimension.
- Galvanized steel 0.040" (1 mm).
- Top and bottom knockouts for standard conduit fittings.



Concealed Leaf - 790-900 - Door of Any Material

SPECIFICATIONS

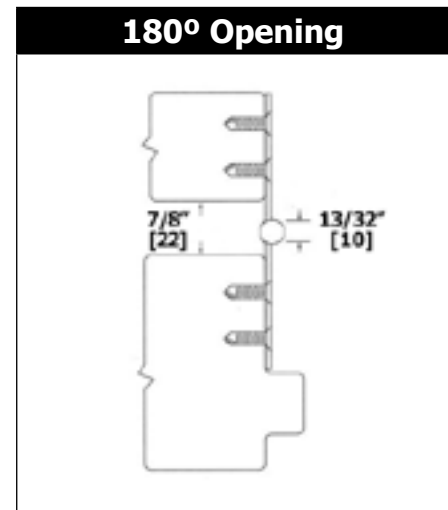
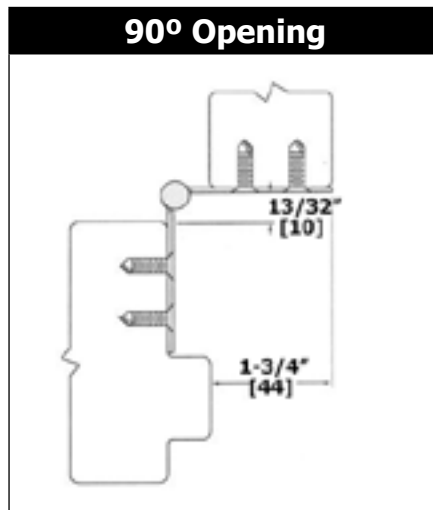
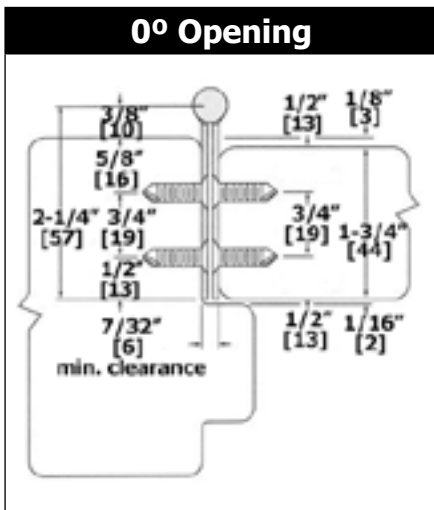
- Material:** 14-gauge 304 stainless steel
- Finish:** US32D Satin
- Clearance:** 7/32" (5.6 mm) hinge side plus standard lockside clearance
- Fasteners:**
- #10-24 x 5/8" S/S Dril-Kwik® (metal frame/door)
 - #10-16 x 1-1/4" S/S Type AB (wood door)
- Length Options:** Standard and custom lengths available
- Door/Frame Reinforcements:**
- 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

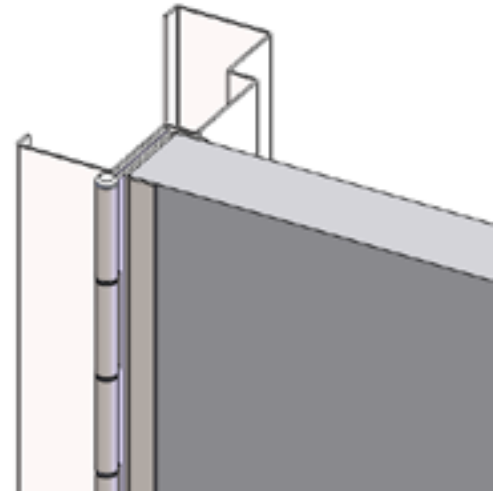
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27



Concealed Leaf - 790-905 - Door of Any Material

SPECIFICATIONS

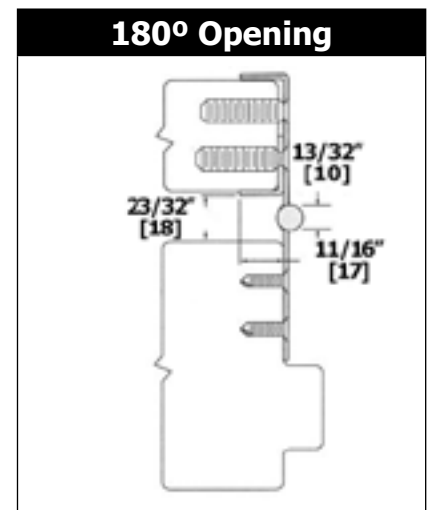
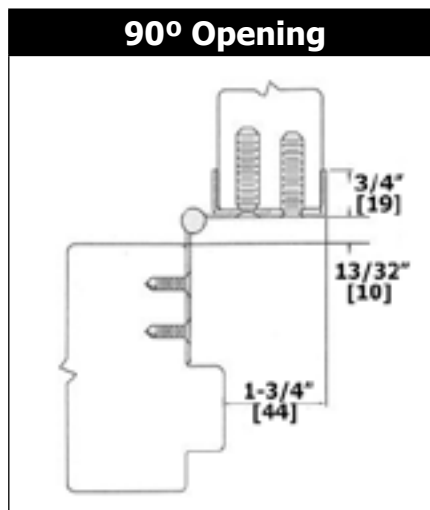
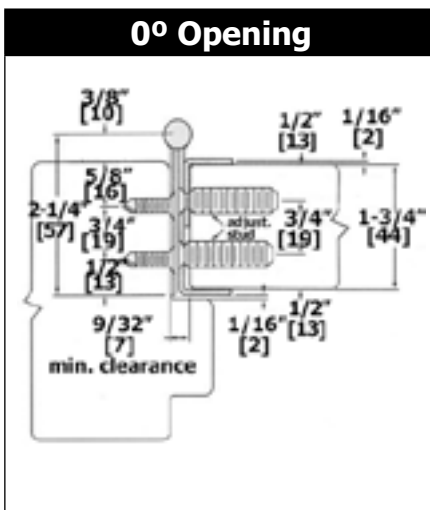
- Material:** 14-gauge 304 stainless steel
- Finish:** US32D Satin
- Clearance:** 9/32" (7.1 mm) minimum hinge side plus standard lockside clearance
- Fasteners:**
- #10-24 x 5/8" S/S Dril-Kwik® (metal frame)
 - #1/4-32 x 3/4" S/S machine screw (used with adjustment stud)
 - #7/16-20 x 1-3/8" S/S adjustment stud (metal/wood door)
- Length Options:** Standard and custom lengths available
- Door/Frame Reinforcements:**
- 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

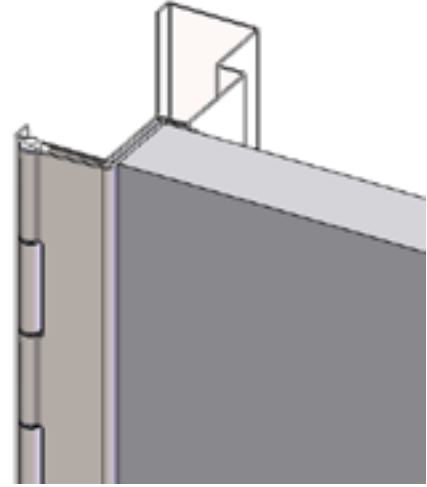
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27



Concealed Leaf - 790-911 - Swing Clear - Door of Any Material

SPECIFICATIONS

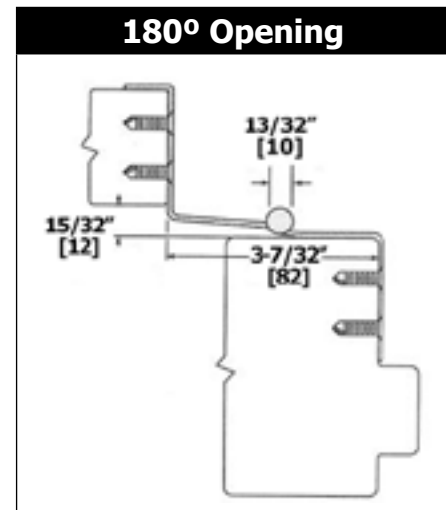
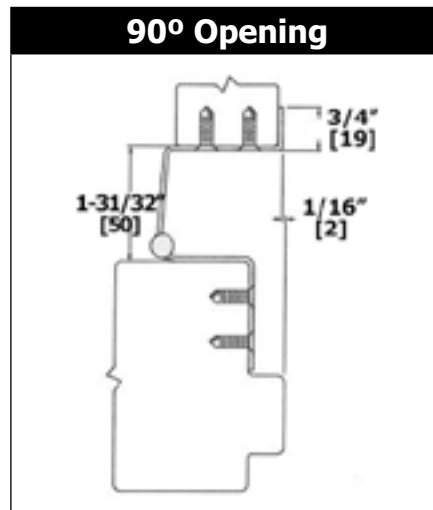
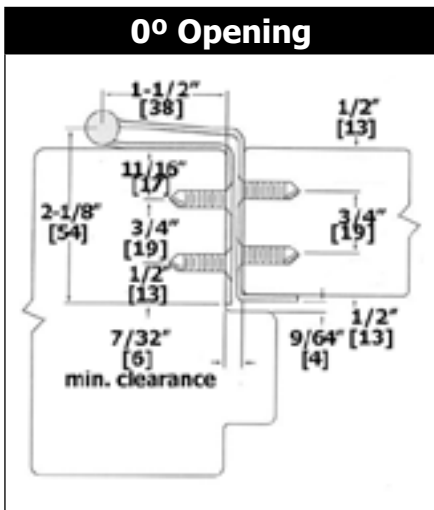
- Material:** 14-gauge 304 stainless steel
- Finish:** US32D Satin
- Clearance:** 7/32" (5.6 mm) hinge side plus standard lockside clearance
- Fasteners:**
- #10-24 x 5/8" S/S Dril-Kwik® (metal frame/door)
 - #10-16 x 1-1/4" S/S Type AB (wood door)
- Length Options:** Standard and custom lengths available
- Door/Frame Reinforcements:**
- 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
- 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

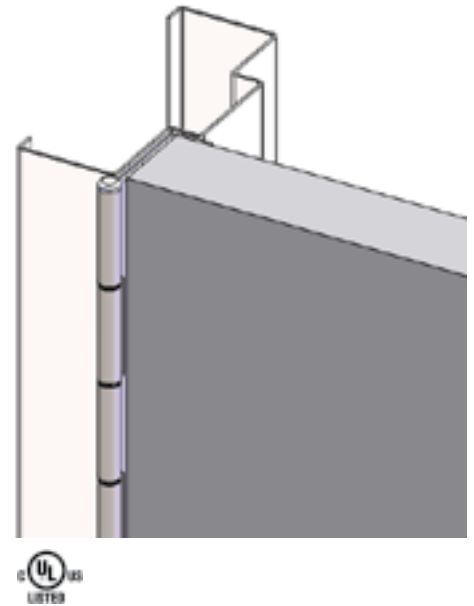
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27



Concealed Leaf - 790-915 - Door of Any Material

SPECIFICATIONS

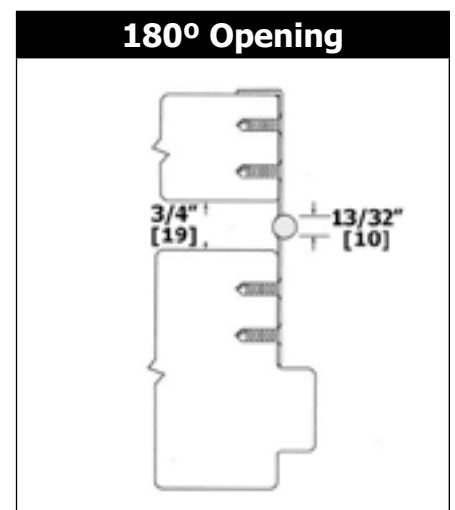
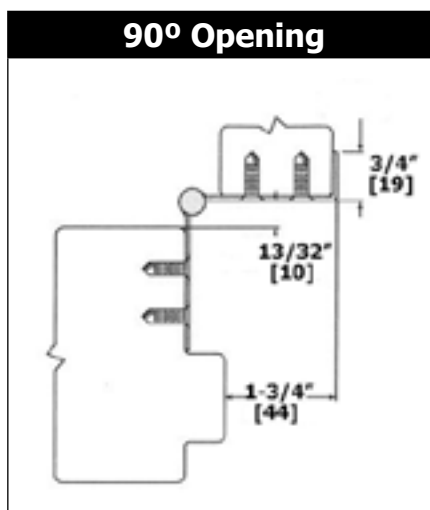
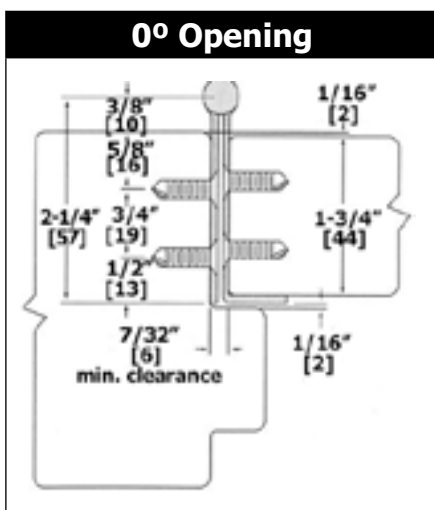
- Material: 14-gauge 304 stainless steel
- Finish: US32D Satin
- Clearance: 7/32" (5.6 mm) plus standard lockside clearance
- Fasteners:
 - #10-24 x 5/8" S/S Dril-Kwik® (metal frame/door)
 - #7/16-20 x 1-1/4" S/S Type AB (wood door)
- Length Options: Standard and custom lengths available
- Door/Frame Reinforcements:
 - 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)

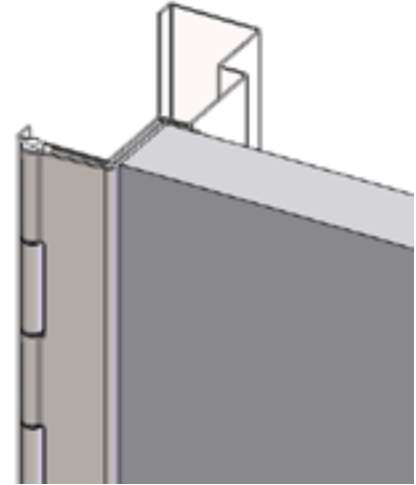
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27



Concealed Leaf - 790-926 - Swing Clear - Door of Any Material

SPECIFICATIONS

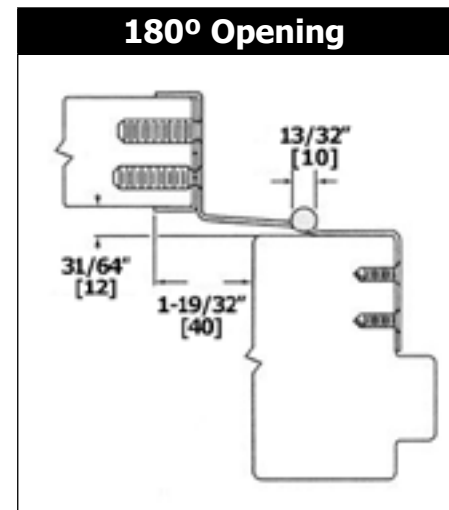
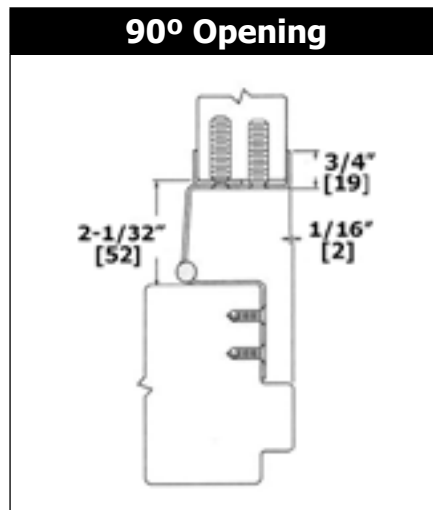
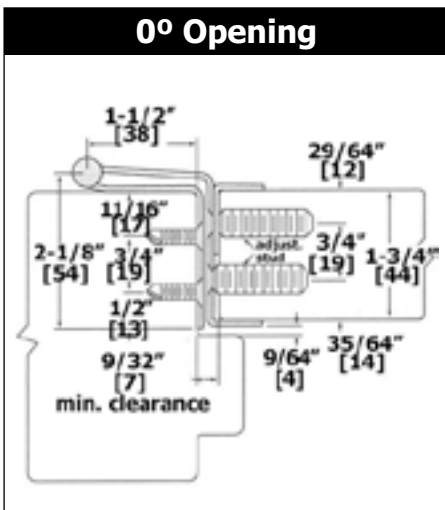
- Material:** 14-gauge 304 stainless steel
- Finish:** US32D Satin
- Clearance:** 9/32" (7.1 mm) minimum hinge side plus standard lockside clearance
- Fasteners:**
- #10-24 x 5/8" S/S DriL-Kwik® (metal frame)
 - #10-32 x 3/4" S/S machine (used with adjustment stud)
 - #7/16-20 x 1-3/8" S/S adjustment stud (metal/wood door)
- Length Options:** Standard and custom lengths available
- Door/Frame Reinforcements:**
- 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
- 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

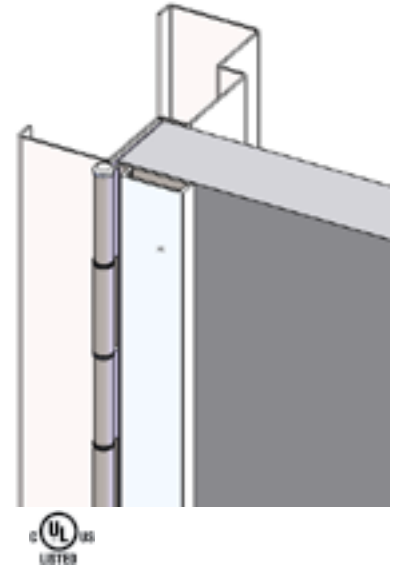
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	19	21	21	23	27



Half Surface - 790-903 - Door of Any Material

SPECIFICATIONS

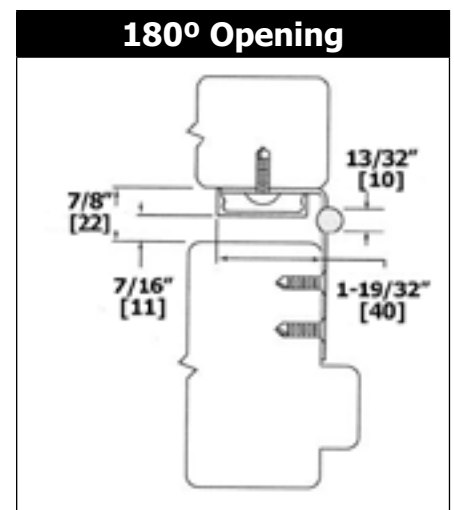
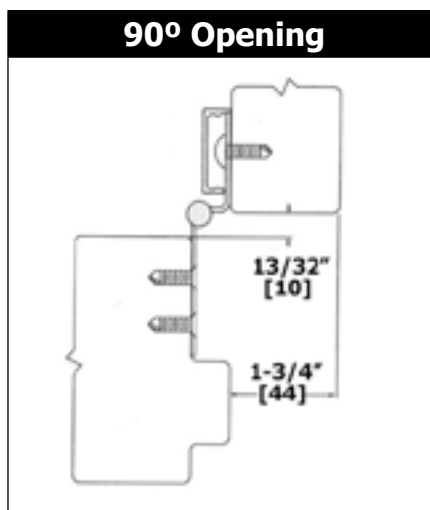
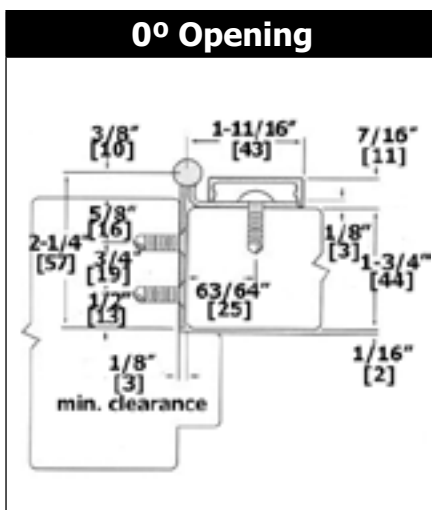
- Material: 14-gauge 304 stainless steel
- Finish: US32D Satin
- Clearance: 1/8" (3.2 mm) minimum hinge side plus standard lockside clearance
- Fasteners:
 - #10-24 x 5/8" S/S Dril-Kwik® (metal frame)
 - #1/4-20 x 3/4" 2C Dril-Kwik® (metal door)
 - #1/4-14 x 1" 2C Type AB (wood door)
- Length Options: 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
- Security molding
- 1/8" (3.2 mm) inset

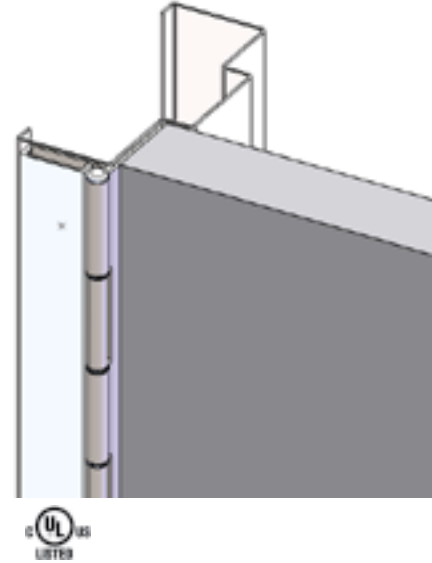
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	13	14	14	15	18
Jamb Screws	19	21	21	23	27



Half Mortise - 790-904 - Door of Any Material

SPECIFICATIONS

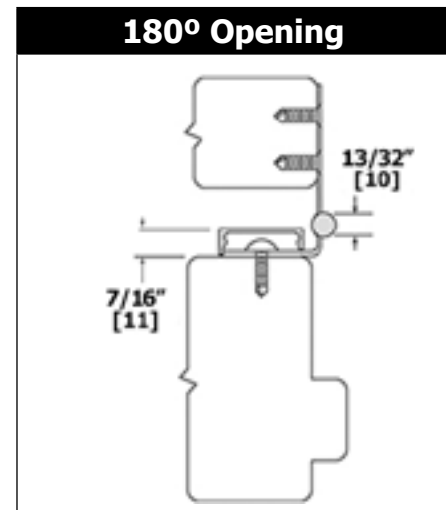
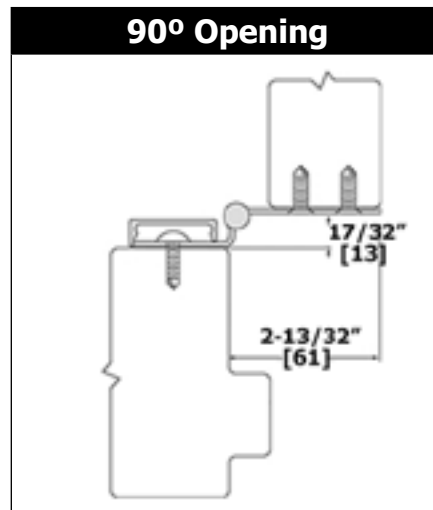
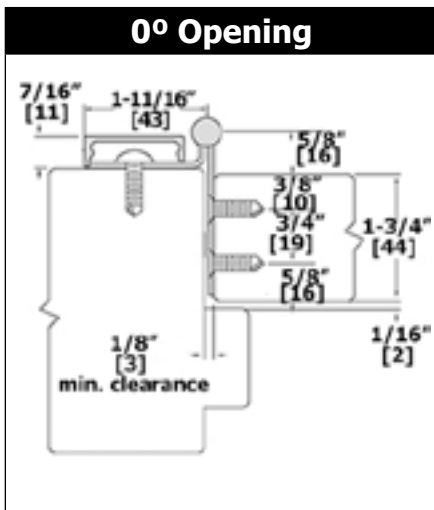
- Material:** 14-gauge 304 stainless steel
- Finish:** US32D Satin
- Clearance:** 1/8" (3.2 mm) hinge side plus standard lockside clearance
- Fasteners:**
- #10-24 x 5/8" S/S Dril-Kwik® (metal door)
 - #1/4-20 x 3/4" 2C Dril-Kwik® (metal frame)
 - #10-16 x 1-1/4" S/S Type AB (wood door)
- Length Options:** Standard and custom lengths available
- Door/Frame Reinforcements:**
- 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

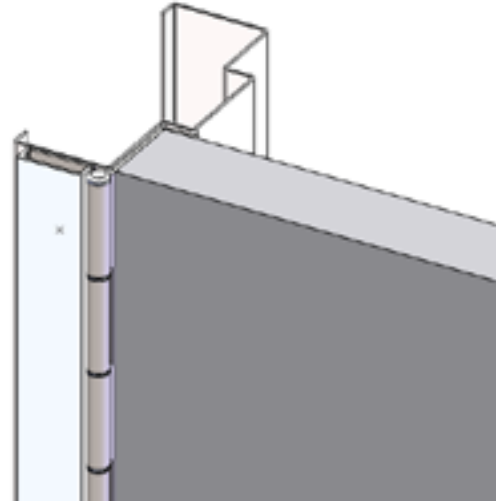
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	13	14	14	15	18



Half Mortise - 790-906 - Door of Any Material

SPECIFICATIONS

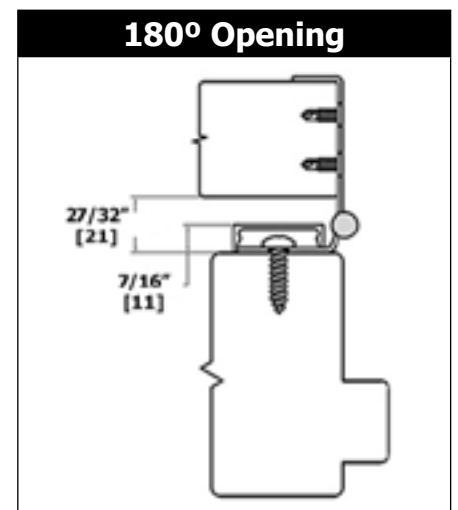
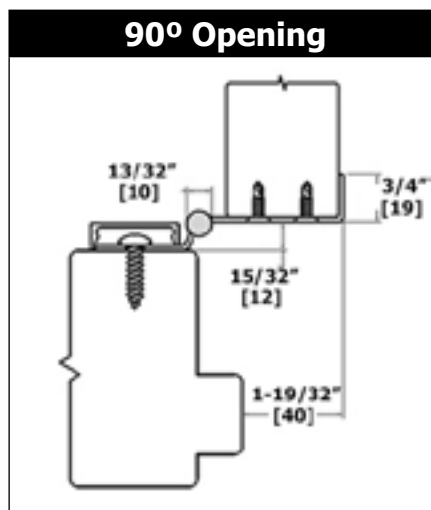
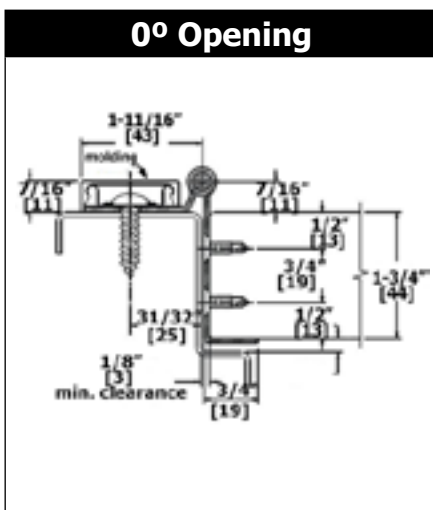
- Material:** 14-gauge 304 stainless steel
- Finish:** US32D Satin
- Clearance:** 1/8" (3.2 mm) minimum hinge side plus standard lockside clearance
- Fasteners:**
- #10-24 x 5/8" S/S Dril-Kwik® (metal door)
 - #1/4-20 x 3/4" 2C Dril-Kwik® (metal door)
 - #1/4-14 x 1" 2C Type AB (wood frame)
- Length Options:** Standard and custom lengths available
- Door/Frame Reinforcements:**
- 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

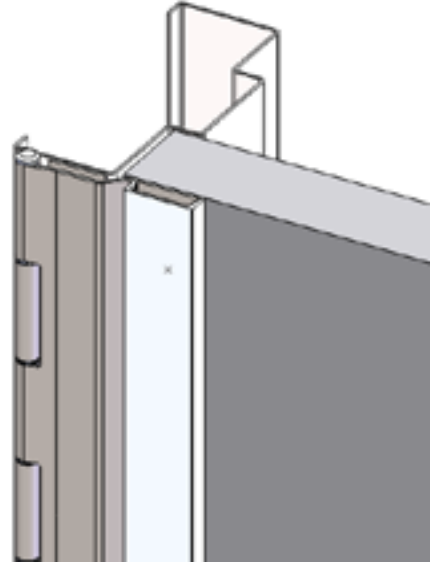
Length (inches)	79"	83"	85"	95"	119"
Length (mm)	2007	2108	2159	2413	3023
Door Screws	19	21	21	23	27
Jamb Screws	13	14	14	15	18



Full Surface - 790-909 - Swing Clear - Door of Any Material

SPECIFICATIONS

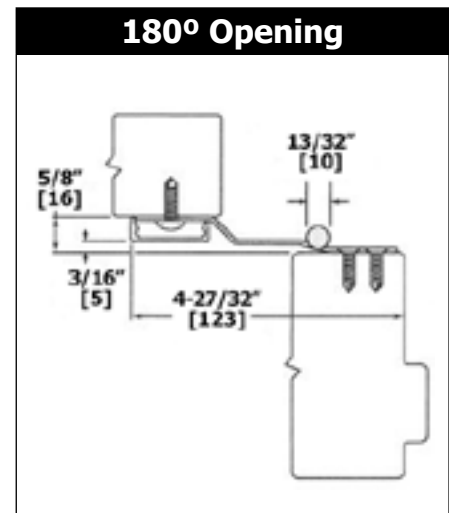
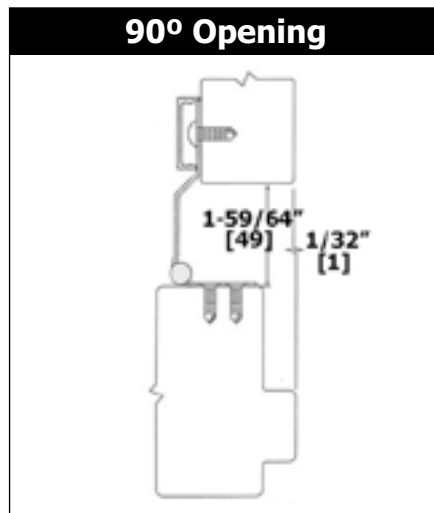
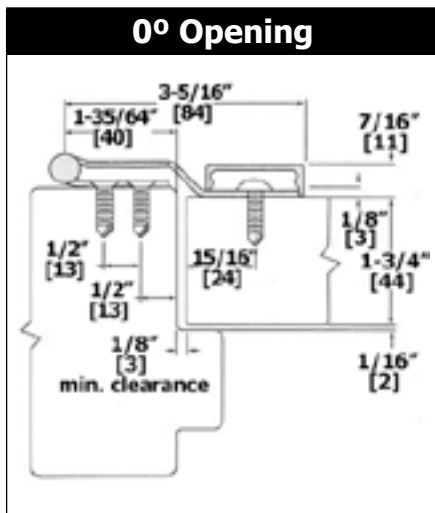
- Material:** 14-gauge 304 stainless steel
- Finish:** US32D Satin
- Clearance:** 1/8" (0.8 mm) minimum recommended hinge side plus standard lockside clearance
- Fasteners:**
- #10-24 x 5/8" S/S Dril-Kwik® (metal frame)
 - #1/4-20 x 3/4" 2C Dril-Kwik® (metal door)
 - #1/4-14 x 1" 2C Type AB (wood door)
- 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
- 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



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-rated hardware and comply with ANSI A117.1 for accessible buildings and facilities. Many models are also Fire-rated and 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.

TABLE OF CONTENTS

4500 Series Heavy Duty Commercial	3	4700 Series Standard Duty	47
Compliance and Certifications	4	Compliance and Certifications	48
General Information	5	General Information	49
Device Profiles	6	Device Profile.....	50
How to Order	7	How to Order.....	51
Devices	8	Devices	52
Dummy Pushpad.....	18	Escutcheon Trim	54
Alarm Kit.....	19	Key-In-Lever Trim.....	56
Electric Modifications	20	Pull Plate Trim	58
Escutcheon Trim for Rim and Vertical Rod Devices	21	Raised Lip Trim	59
Escutcheon Trim for Mortise Device	24	Strikes.....	59
Pull Plate Trim	26	Accessories.....	60
Strikes.....	27	4900 Series Mullions	63
Accessories	28	How to Order.....	64
4600 Series Narrow Heavy Duty Commercial	31	Keyed Removable Mullion	65
Compliance and Certifications	32	Non-Keyed Removable Mullion	66
General Information	33	Strikes	67
Device Profile	34	Stabilizer Kit	67
How to Order.....	35	Accessories	67
Rim Device	36		
Alarm Kit.....	41		
Electric Modifications	42		
Escutcheon Trim	43		
Strikes & Accessories	45		
Accessories.....	45		

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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.



LIFETIME
 HAGER
WARRANTY

4500 Series - Compliance & Certifications

4500 SERIES DEVICES

BHMA Certified ANSI/BHMA
A156.3-2014 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 #17-1219.14

	RIM	SVR	LBR	CVR	CLB	MOR
BHMA Certified ANSI/BHMA A156.3-2014 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 #17-1219.14	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...	---	3 HOUR 8'X10'	3 HOUR 8'X8'	3 HOUR 8'X10'	3 HOUR 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'	---

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

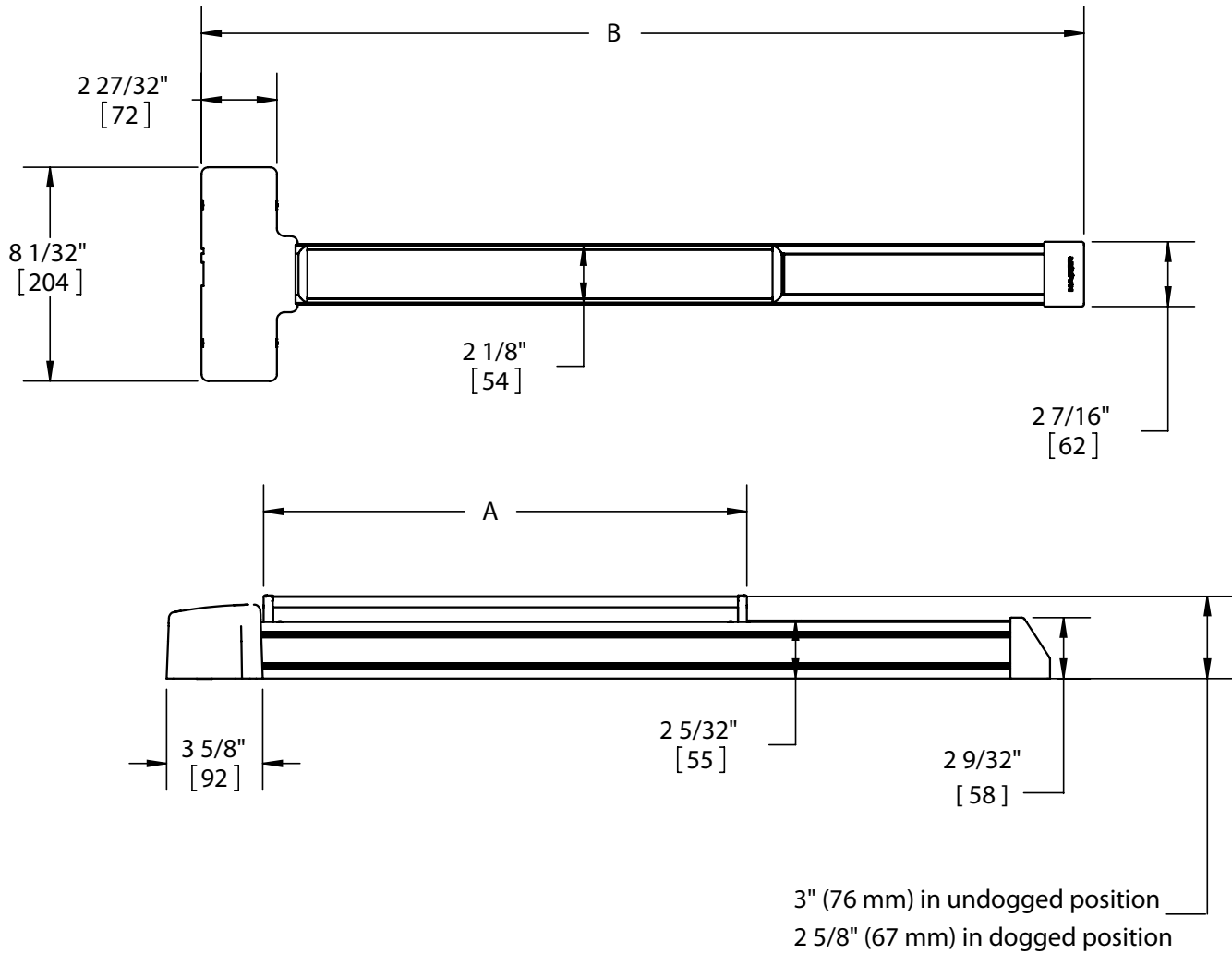
Cylinder dogging or less dogging are available to replace the standard hex key dogging on panic exit devices. For cylinder dogging, specify CD on order or purchase 4926 for retrofit applications. Unit requires 1-1/8" (29mm) - 1-3/8" (35mm) mortise cylinder (part number 3902) with standard cam. For less 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 ELEU	Fail safe/Fail secure	E05/E06

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	FR	36"	US3	1-3/4"	ALK
Product Group	Type	Rating	Door Size*	Finish	Door Thickness	Electric Modifications
500 Series, Grade 1	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)	FR - Fire-Rated 0 - Non-Fire Rated CD - Cylinder Dogging CDW - Cylinder Dogging and Windstorm Rated L - Less Dogging WR - Windstorm Rated FW - Windstorm and Fire-Rated FEC - Flush End Cap	24"* 36" 48" 36" x 84" 36" x 96" 48" x 84" 48" x 96"	US3 US4 US10 US10B US26 US26D US32D BLK	1-5/8" 1-3/4" 2" 2-1/2" 3"	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 DE - Delayed Egress OBDE - Onboarded Delayed Egress LM - Latchbolt Monitor RX - Request to Exit RX2 - Dual Request to Exit RXAI - Request to Exit w/ Authorized Ingress** RXLM - Request to Exit w/ Latchbolt Monitor** MLR - Motor Driven Electric Latch Retraction MLRX - Motor Driven Electric Latch Retraction w/ Request to Exit MLRLM - Motor Driven Electric Latch Retraction w/Latchbolt Monitoring** MLRXLM - Motor Driven Electric Latch Retraction w/Request to Exit & Latchbolt Monitoring** ELEU - Fail Secure/Fail Safe, 12/24 Volt6

4500 SERIES TRIM

45	CE	ARC	RHR	US3	1-3/4"	TW
Product Group	Trim/Function	Lever Style	Handing	Finish	Door Thickness	Options
45 - 4500 Series, Grade 1	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 (E05/E06) 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 MB - Mortise Blank Escutcheon (14) Function 14, always operable MC - Mortise Cylinder Escutcheon (08) Function 08, key locks/unlocks MD - Mortise Dummy Trim (02) Function 02, pull when dogged down MN - Mortise Night Latch (03) Function 03, key retracts latchbolt	ARC - Archer AUG - August WLM - William WTN - Withnell CHA - Charles JHN - Johnston JOS - Joshua WRN - Warren	RHR LHR	US3 US4 US10B US26 US26D US32D (pull plate trim only) BLK	1-5/8" 1-3/4" 2" 2-1/2" 3"	TW - Tactile Warning A- Antimicrobial Coating (US26D and US32D only)

*24" door size available with extended lead times.

**Not available on Mortise Exit Devices.

Notes:

a. For more cylinder information, please refer to Cylinder, Core & Keying in the Locks section of the catalog.

b. If using shim kit, specify total door thickness including shims.

4500 Series - Grade 1 Rim Device

WARRANTY

Lifetime warranty

FEATURES

Certification:

BHMA Certified Grade 1 and meets life safety codes and fire-safety requirements.

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 mortise cylinder with standard cam sold separately. Cylinder Length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.)

End Caps:

- Zinc
- OPTIONAL Flush end cap (Zinc)

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
- 5" (127mm) - minimum stile width required for double doors with a middle rail and a 2" mullion
- All stile widths are measured from door edge.

Notes:

- Recommended for use on appropriately reinforced doors
- Where fire rated rim x rim x mullion is used order 4912 Strike and Hook Kit

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, 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" (914mm) field sizeable to 34" (864mm) door minimum for devices with motorized electric latch retraction
- 36" (914mm) door minimum for devices with alarm kit, delayed egress or onboard delayed egress
- 48" (1219mm) field sizeable to 42" (1067mm) door minimum for devices with alarm kit
- 48" (1219mm) field sizeable to 40" (1016mm) door minimum for devices with motorized electric latch retraction
- 48" (1219mm) door minimum for devices with delayed egress or onboard delayed egress

FUNCTIONS

- RX - Request to Exit (field installation kit 2-649-5001)
- RX2 - Dual Request to Exit
- ALK - Alarm Kit (kit 4940)
- ALM - Alarm Kit with Latch Monitor Switch (2-649-0168)
- ALT - Alarm Kit with Tamper Switch (2-649-1090)
- ALL - Alarm Kit with Latch Monitor and Tamper Switch
- AI - Authorized Ingress
- RXAI - Request to Exit with Authorized Ingress
- LM - Latchbolt Monitor
- 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
- MLRXLM - Motor Driven Electric Latch Retraction w/Request to Exit and Latchbolt Monitoring
- MLRLM - Motor Driven Electric Latch Retraction w/Latchbolt Monitoring
- DE - Delayed Egress (must order wall mount controller 2-679-0630 separately) Onboard
- OBDE - Delayed Egress (requires Mortise Cylinder 3902 1-1/8" - 1 3/8" length, 3978 Cloverleaf or equivalent tailpiece required)

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.

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 mortise cylinder with standard cam sold separately. Cylinder Length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.)

End Caps:

- Zinc
- OPTIONAL Flush end cap (Zinc)

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 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:

- 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 rods 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 door x Rim Device with double door strike
- All stile widths are measured from door edge

Notes:

- 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

- 4500 Series escutcheon trim is offered with variety of lever options
- Pull plate trim (excluding 45PT)
- Vandal resistant
- Rim cylinder x optional pull

FINISHES

- US3, US4, 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.
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 mortise cylinder with standard cam sold separately. Cylinder Length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.)
End Caps:	<ul style="list-style-type: none"> • Zinc • OPTIONAL Flush end cap (Zinc)
Fasteners:	<ul style="list-style-type: none"> • Wood and machine screws • Thru-bolts supplied standard
Latchbolt:	Top - 1/2" (13 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 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:	<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 rod 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 doors x rim device with double door strike • All stile widths are measured from door edge
Notes:	<ul style="list-style-type: none"> • 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 is offered with a variety of lever options
- Pull plate trim (excluding 45PT)
- Vandal resistant
- Rim cylinder x optional pull

FINISHES

- US3, US4, 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" (914mm) field sizeable to 34" (864mm) door minimum for devices with motorized electric latch retraction or delayed egress
- 36" (914mm) door minimum for devices with alarm kit, delayed egress, or onboard delayed egress
- 48" (1219mm) field sizeable to 42" (1067mm) door minimum for devices with alarm kit
- 48" (1219mm) field sizeable to 40" (1016mm) door minimum for devices with motorized electric latch retraction
- 48" (1219mm) door minimum for devices with delayed egress or onboard delayed egress



FUNCTIONS

- RX - Request to Exit (field installation kit 2-649-5001)
- RX2 - Dual Request to Exit
- ALK - Alarm Kit (kit 4940)
- ALM - Alarm Kit with Latch Monitor Switch (2-649-0168)
- ALT - Alarm Kit with Tamper Switch (2-649-1090)
- ALL - Alarm Kit with Latch Monitor and Tamper Switch
- AI - Authorized Ingress
- RXAI - Request to Exit with Authorized Ingress
- LM - Latchbolt Monitor
- 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
- MLRXLM - Motor Driven Electric Latch Retraction w/Request to Exit and Latchbolt Monitoring
- MLRLM - Motor Driven Electric Latch Retraction w/Latchbolt Monitoring
- DE - Delayed Egress (must order wall mount controller 2-679-0630 separately) Onboard
- OBDE - Delayed Egress (requires Mortise Cylinder 3902 1-1/8" - 1 3/8" length, 3978 Cloverleaf or equivalent tailpiece required)

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.
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 mortise cylinder with standard cam sold separately. Cylinder Length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.)
End Caps:	<ul style="list-style-type: none"> • Zinc • OPTIONAL Flush end cap (Zinc)
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 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:	<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 - 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:	<ul style="list-style-type: none"> • 4" (102 mm) minimum stile width required • All stile widths are measured from door edge
Notes:	<ul style="list-style-type: none"> • 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 is offered with a variety of lever options (pp. 22-23)
- Vandal resistant
- Rim cylinder x optional pull

FINISHES

- US3, US4, 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.

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 mortise cylinder with standard cam sold separately. Cylinder Length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.)

End Caps:

- Zinc
- OPTIONAL Flush end cap (Zinc)

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, 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" (914mm) field sizeable to 34" (864mm) door minimum for devices with motorized electric latch retraction
- 36" (914mm) door minimum for devices with electric dogging, alarm kit, delayed egress, or onboard delayed egress
- 48" (1219mm) field sizeable to 42" (1067mm) door minimum for devices with electric dogging or alarm kit
- 48" (1219mm) field sizeable to 40" (1016mm) door minimum for devices with motorized electric latch retraction
- 48" (1219mm) door minimum for devices with delayed egress or onboard 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

- ED - Electric Dogging
- RX - Request to Exit (field installation kit 2-649-5001)
- RX2 - Dual Request to Exit
- EDRX - Electric Dogging with Request to Exit
- ALK - Alarm Kit (kit 4940)
- ALM - Alarm Kit with Latch Monitor Switch (2-649-0168)
- ALT - Alarm Kit with Tamper Switch (2-649-1090)
- ALL - Alarm Kit with Latch Monitor and Tamper Switch
- AI - Authorized Ingress
- RXAI - Request to Exit with Authorized Ingress
- LM - Latchbolt Monitor
- 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
- MLRXLM - Motor Driven Electric Latch Retraction w/Request to Exit and Latchbolt Monitoring
- MLRLM - Motor Driven Electric Latch Retraction w/Latchbolt Monitoring
- DE - Delayed Egress (must order wall mount controller 2-679-0630 separately) Onboard
- OBDE - Delayed Egress (requires Mortise Cylinder 3902 1-1/8" - 1 3/8" length, 3978 Cloverleaf or equivalent tailpiece required)

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.

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 mortise cylinder with standard cam sold separately. Cylinder Length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.)

End Caps:

- Zinc
- OPTIONAL Flush end cap (Zinc)

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. 24) (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, 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" (914mm) field sizeable to 34" (864mm) door minimum for devices with motorized electric latch retraction
- 36" (914mm) door minimum for devices with alarm kit, delayed egress or onboard delayed egress
- 48" (1219mm) field sizeable to 42" (1067mm) door minimum for devices with alarm kit
- 48" (1219mm) field sizeable to 40" (1016mm) door minimum for devices with motorized electric latch retraction
- 48" (1219mm) door minimum for devices with delayed egress or onboard delayed egress

FUNCTIONS

- ELEU - Electrified Mortise Exit Device - provides means of locking/unlocking outside lever trim control remotely
- RX - Request to Exit
- RX2 - Dual Request to Exit
- ALK - Alarm Kit (kit 4940 • ALM - Alarm Kit with Latch Monitor Switch (2-649-0168)
- ALT - Alarm Kit with Tamper Switch (2-649-1090)
- ALL - Alarm Kit with Latch Monitor and Tamper Switch
- 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)
- OBDE - Onboard Delayed Egress (requires Mortise Cylinder 1-1/8" - 1 3/8" length, 3978 Cloverleaf or equivalent tailpiece required)



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:	<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



4500 Series - Electric Modifications

FUNCTION	#	DESCRIPTION
Request to Exit	RX	Used to shunt an alarm, activate an alarm, provide release of magnetic locks, or signal a console.
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. Trim works with both 12V or 24V and is field-selectable between Fail Safe (EL) or Fail Secure (EU).
Authorized Ingress/Key Monitoring	AI	An internal SPDT switch that monitors the operation of the outside trim. 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. 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 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.
Motor Driven Electric Latch Retraction with Request to Exit and Latchbolt Monitoring	MLRXLM	Provides the means of locking or unlocking exit devices remotely using an electric motor along with two internal SPDT switches that monitor the pushbar and latchbolt simultaneously. Recommend Hager 2903 or 2904 Power Supply.
Motor Driven Electric Latch Retraction with Latchbolt Monitoring	MLRLM	Provides the means of locking or unlocking exit devices remotely using an electric motor along with an internal SPDT switch that monitors the latchbolt. Recommend Hager 2903 or 2904 Power Supply.
Electrified Mortise Exit Device	ELEU	Provides the means of locking or unlocking outside lever trim controls remotely. Field selectable between Fail Safe (EL) or Fail Secure (EU). Works with both 12V and 24V.

ELECTRICAL SPECIFICATION/RATINGS AND WIRE REQUIREMENTS

Electrical
Specification/
Ratings:

- RX or LM; 125 VAC (3 AMP current); 30 VDC (2 AMP current)
- 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
- ELEU; 12 or 24V, 250 mA Inrush, 10mA 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 AI, ED, LM, MLR, and RX

POWER SUPPLIES

For power supply options see electrified section.

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, 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)

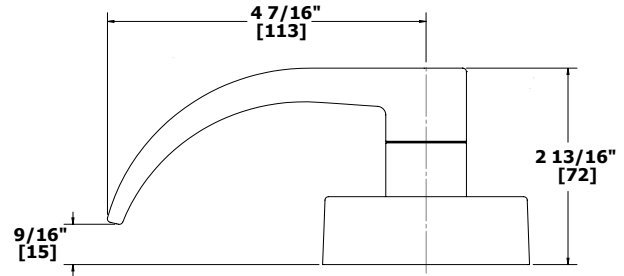
ANSI Function: 45ET ELEU 12/24V - Electric Trim (Fail Safe/Fail Secure)

Cylinder: Requires 3902 mortise cylinder, 1-1/4" with standard cam (sold separately)

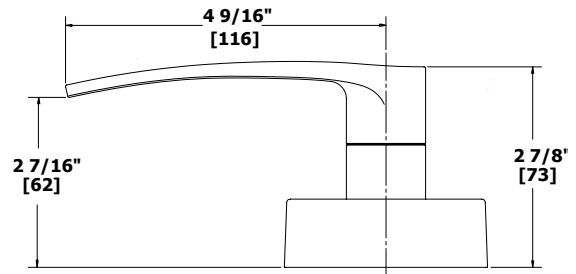
Electrical Specifications and Wire Requirements - See 4500 Series Electric Modifications page 20.

4500 Series - Escutcheon Trim - Lever Options for 4500 Rim & Vertical Rod Devices

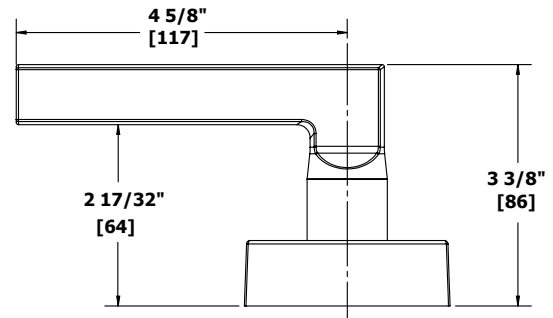
ARCHER LEVER



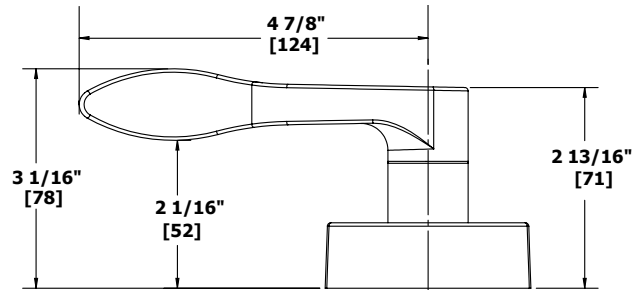
AUGUST LEVER



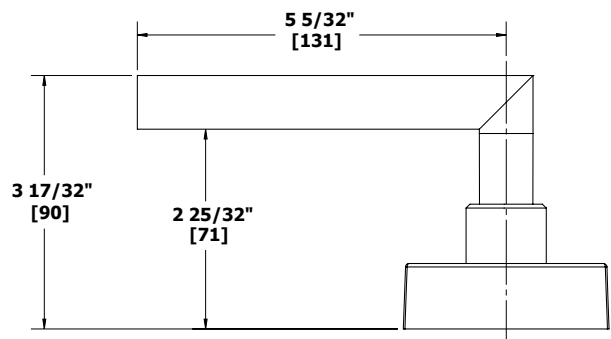
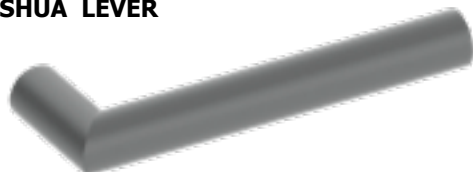
CHARLES LEVER



JOHNSTON LEVER - HANDED

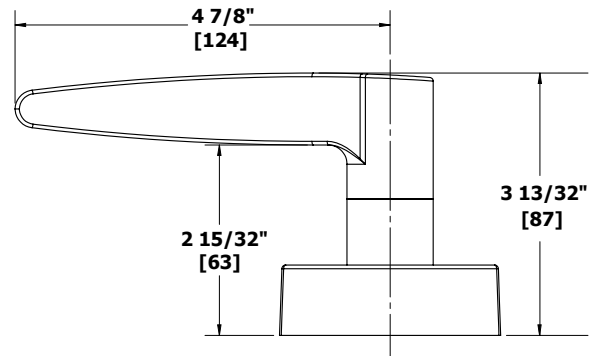


JOSHUA LEVER

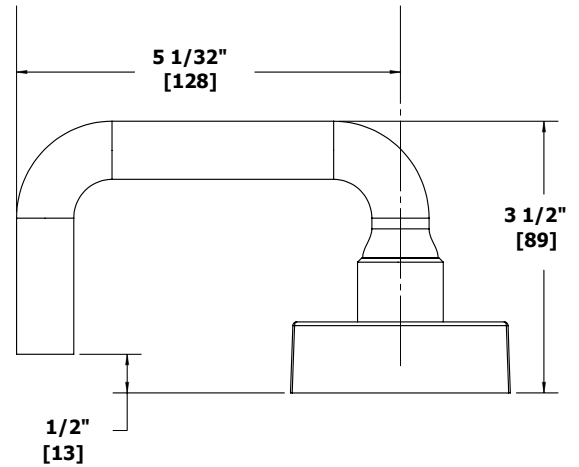


4500 Series - Escutcheon Trim - Lever Options For 4500 Rim & Vertical Rod Devices

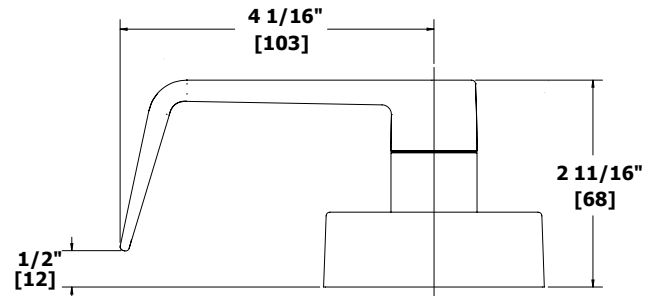
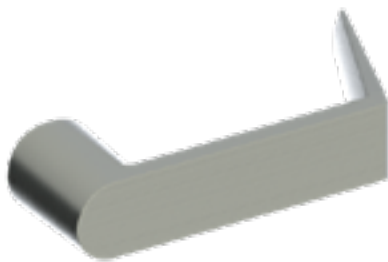
WARREN LEVER - HANDED



WILLIAM LEVER



WITHNELL LEVER



4500 Series - Escutcheon Trim - For 4500 Mortise Device

WARRANTY

- 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, 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



45MN

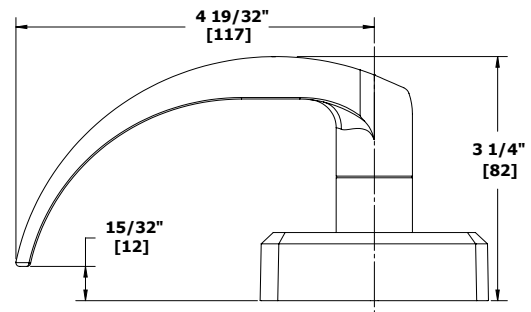
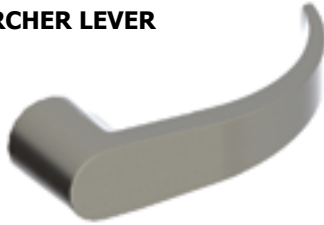
Night Latch - For Use with 4501N Mortise Exit Device

ANSI Function: 03 - Key retracts latchbolt

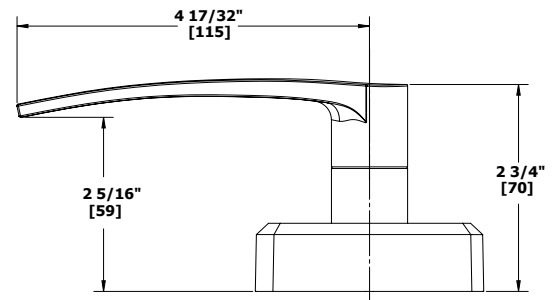
Cylinder: Requires 3902, 1-5/8" mortise cylinder with standard cam (sold separately)

4500 Series - Escutcheon Trim - Lever Options for 4500 Mortise Device

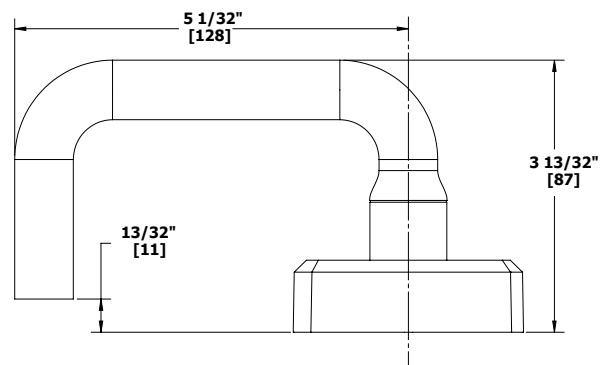
ARCHER LEVER



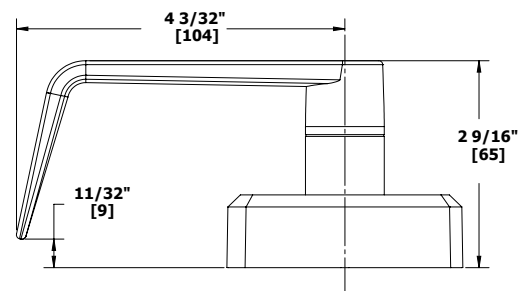
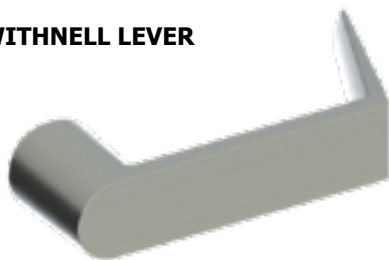
AUGUST LEVER



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:
Finishes:
Notes:

02 - Pull when device is dogged down
US3, US4, US10B, US26, US26D, US32D
• For use with 4500 RIM, SVR, LBR, CLB devices, not for use with CVR
• Anti-Microbial available with US26D, US32D



45PN Night Latch

ANSI Function:
Finishes:
Cylinder:
Notes:

03 - Key retracts latchbolt
US3, US4, US10B, US26, US26D, US32D
Requires 3901 rim cylinder (sold separately)
• Includes retaining cup for 161 door prep
• For use with 4500 RIM, SVR, LBR, CLB devices, not for use with CVR
• Anti-Microbial available with US26D, US32D



45PT Thumb Piece Pull Plate Trim

ANSI Function:
Finishes:
Cylinder:
Notes:

05 - Key locks or unlocks thumbpiece
US32D
Requires 3902 mortise cylinder with standard cam (sold separately)
For use with 4500 Rim exit only, not for use with vertical rod devices



313S Anti Vandal Pull

Certification:
Size:
Projection:
Clearance:
Door Thickness:
Materials:
Finishes:
Fasteners:
Options:
Cylinder:

Meets ANSI A156.6 for J401 Pull and J407 Pull Plate
6-11/32" x 11" (161 mm x 280 mm)
1-7/8" (48 mm)
1-5/8" (41 mm)
1-3/4" - 2" (45 mm - 51 mm)
11 gauge stainless steel
US32D
Thru bolts directly to device
• Cylinder cutout available 1-1/4" (32 mm) dia. standard for exit device, specify handing
Cylinder and cylinder collar must be ordered separately
• 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:
Finishes:
Cylinder:
Notes:

03 - Key retracts latchbolt
US3, US4, US10B, US26, US26D, US32D, BLK
Requires 3901 rim cylinder (sold separately). Long tailpiece standard.
• For use with 4500 RIM, SVR, LBR, CLB devices, not 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



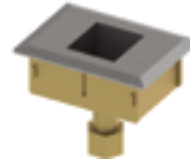
**4924
Bottom Strike**
Included standard with 4500 Series Vertical Rod exit devices; not for fire-rated doors

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, 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 (2-649-0440), US26D (2-649-0441), US32D (2-649-0442)



**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.

Finishes: US10B (2-649-0443), US26D (2-649-0444), US32D (2-649-0445)

4500 Series - Accessories



4926

Cylinder Dogging Conversion Kit

For use with panic-rated 4500 Series devices

Finishes: US3, US4, 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, 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, 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, US10B, US26, US26D, US32D, BLK.

Packaging: One (1) each 45-1/4" (1149 mm) rod, rod guide, 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, 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, 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, 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, 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, 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, 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, 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

END CAPS

For use with all 4500 and 4600 Series exit devices

Finishes: US3, US4, US10B, US26, US26D, US32D, BLK. Anti-microbial available with US26D, US32D

Packaging: One (1) each cap and bracket plus fasteners



Flush

Finishes: US3, US4, US10B, US26, US26D, US32D, BLK. Anti-microbial available with US26D, US32D

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

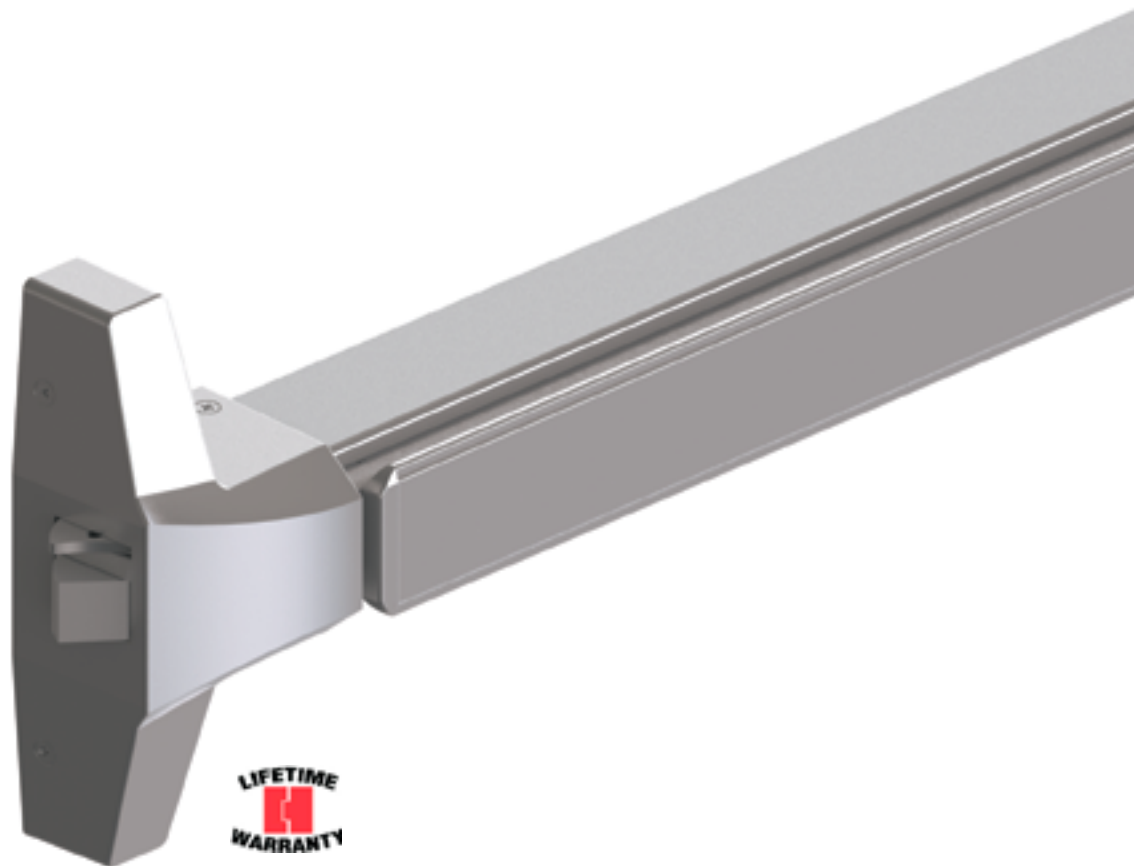
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4600 Series - Narrow Stile Heavy Duty Commercial Application

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. Go to www.hagerco.com for specific warranty conditions.

Hager 4600 Series Exit Devices are BHMA certified Grade 1 and meet Life Safety codes.

Extruded aluminum construction, stainless steel push bar covers, die cast caps and covers, and stainless steel latchbolts provide premium security and performance at value pricing.



4600 Series - Compliance and Certifications

4600 SERIES DEVICES

BHMA Certified ANSI/BHMA
A156.3-2014 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 RIM 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

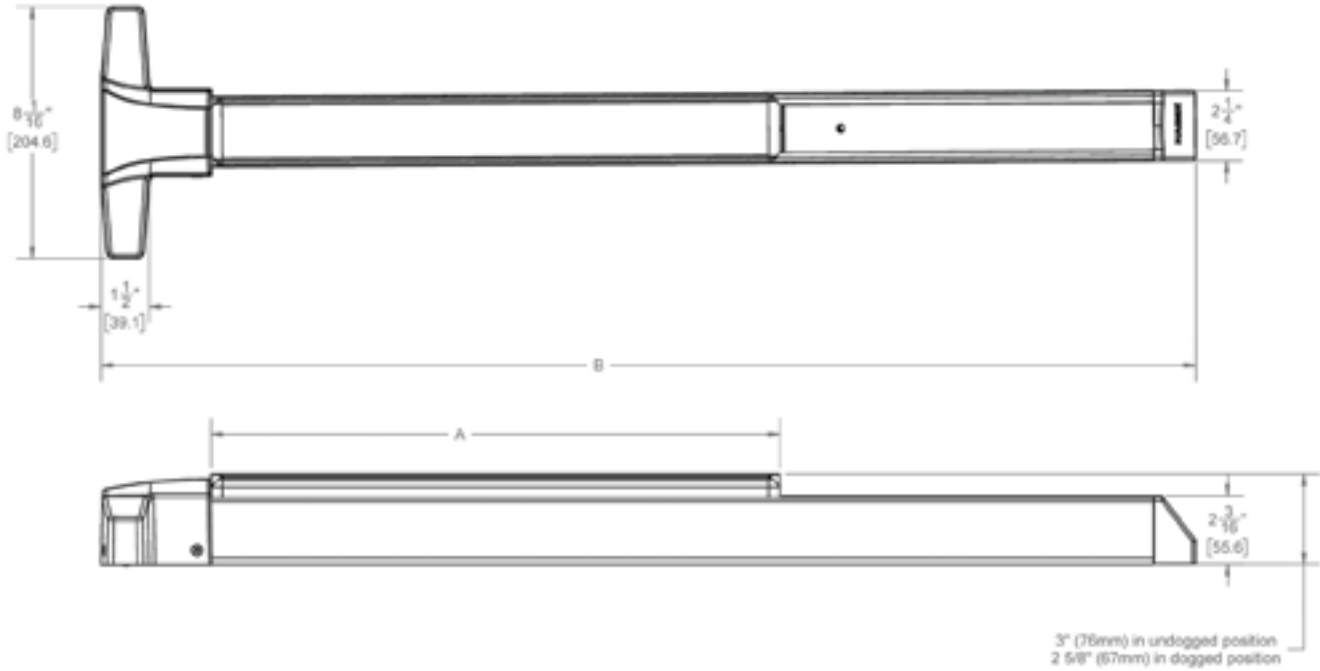
Cylinder dogging or less dogging are available to replace the standard hex key dogging on panic exit devices. For cylinder dogging, specify CD on order or purchase 4925C for 4600 CVR or CLB devices or 4925R for 4600 RIM devices. Unit requires 1-1/8" (29 mm) - 1-3/4" (35mm) mortise cylinder (part number 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.

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

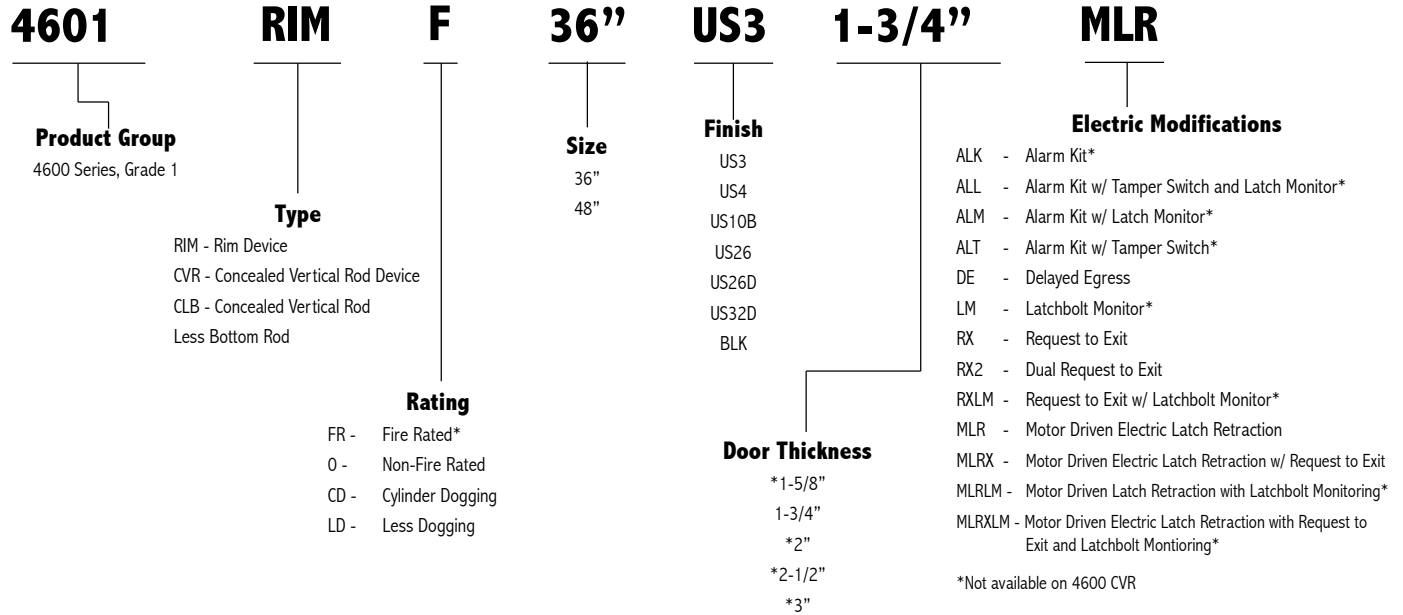
4600 Series - Device Profile



	A	B
4600 RIM - 36"	18 5/32" (461mm)	34 5/8" (879mm)
4600 RIM - 48"	24" (609mm)	46 5/8" (1184mm)
4600 CVR - 36"	18 5/32" (461mm)	35" (889mm)
4600 CVR - 48"	24" (609mm)	47" (1194mm)

4600 Series - How To Order

4600 SERIES EXIT DEVICE



4600 SERIES TRIM



Notes:

1. For more cylinder information, please refer to Cylinder, Core & Keying in the Locks section of the catalog.
2. If using shim kit, specify total door thickness including shims.

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.

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 mortise cylinder with standard cam sold separately. Cylinder Length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.

End Caps:

- Standard Flush End Cap (Zinc)
- Wood and machine screws

Fasteners:

- 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" (914mm) field sizeable to 30" (762mm) panic-rated door and 28" (711mm) fire-rated door for devices with any monitoring switches
- 48" (1219mm) field sizeable to 36" (914mm) panic- or fire-rated door for devices with any monitoring switches
- 36" (914mm) field sizeable to 34" (864mm) door minimum for devices with motorized electric latch retraction
- 36" (914mm) door minimum for devices with electric dogging, alarm kit, or delayed egress
- 48" (1219mm) field sizeable to 42" (1067mm) door minimum for devices with electric dogging or alarm kit
- 48" (1219mm) field sizeable to 40" (1016mm) door minimum for devices with motorized electric latch retraction
- 48" (1219) door minimum for devices with delayed egress

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
- Where fire rated rim x rim x mullion is used order 4912 Strike and Hook Kit

TRIM

- Archer, August, William, Withnell
- Rim cylinder x optional pull

FINISHES

- US10B, US26D and US32D
- US3, US4, US26, and 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" (914mm) field sizeable to 34" (864mm) door minimum for devices with motorized electric latch retraction
- 36" (914mm) door minimum for devices with alarm kit, or delayed egress
- 48" (1219mm) field sizeable to 42" (1067mm) door minimum for devices with alarm kit
- 48" (1219mm) field sizeable to 40" (1016mm) door minimum for devices with motorized electric latch retraction
- 48" (1219mm) door minimum for devices with delayed egress

FUNCTIONS

- RX - Request to Exit (field installation kit 2-649-5001)
- RX2 - Dual Request to Exit
- ALK - Alarm Kit (kit 4941)
- ALM - Alarm Kit with Latch Monitor Switch (2-649-0168)
- ALT - Alarm Kit with Tamper Switch (2-649-1090)
- ALL - Alarm Kit with Latch Monitor and Tamper Switch
- LM - Latchbolt Monitor
- 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
- MLRXLM - Motor Drive Electric Latch Retraction with Request to Exit and Latchbolt Monitoring
- MLRLM - Motor Driven Electric Latch Retraction with Latchbolt Monitoring
- DE - Delayed Egress (must order with wall mount controller 2-679-0630 separately)

4600 Series - Grade 1 Concealed Vertical Rod

WARRANTY

Lifetime warranty

FEATURES

Certification:

BHMA Certified ANSI A156.3 Grade 1-2014
UL305

Covers:

Stainless steel, zinc

Cover Tube:

Aluminum

Dogging:

- Hex key dogging standard
- Cylinder dogging is available - specify CD (3902 with standard cam sold separately. Cylinder Length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.)

End Caps:

- Zinc (Flush end standard)

Fasteners:

- Machine screws
- Thru-bolts

Latchbolt:

- Top - 1/2" (13 mm) throw, stainless steel

Strikes:

- Stainless steel - included standard with panic device
- Mortised into aluminum frame and 1/2" threshold



SPECIFICATIONS

Door Thickness:

1-3/4" (44 mm) - Standard

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) door
- 48" (1219 mm) field sizeable to 36" (914 mm) 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:

- 2-1/8" (54 mm) minimum stile width required
- All stile widths are measured from door edge

Notes:

- Recommended for use on appropriately reinforced doors

TRIM

- Archer, August, William, or Withnell lever with escutcheon

FINISHES

- US26D and US32D, US3, US4, US10B, US26, BLK
- Trim is not available in US32D
- Anti-Microbial available with US26D, US32D

4600 Series - Grade 1 Concealed Vertical Rod - Less Bottom Rod (CLB)

WARRANTY

Lifetime warranty

FEATURES

Certification:	BHMA Certified ANSI A156.3 Grade 1-2014 UL305
Covers:	Stainless steel, zinc
Cover Tube:	Aluminum
Dogging:	<ul style="list-style-type: none"> • Hex key dogging standard • Cylinder dogging is available - specify CD (3902 with standard cam sold separately. Cylinder Length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.)
End Caps:	<ul style="list-style-type: none"> • Zinc (Flush end standard)
Fasteners:	<ul style="list-style-type: none"> • Machine screws • Thru-bolts
Latchbolt:	<ul style="list-style-type: none"> • Top - 1/2" (13 mm) throw, stainless steel
Strikes:	<ul style="list-style-type: none"> • Stainless steel - included standard with panic device • Mortised into aluminum frame and 1/2" 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"> • 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 - 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:	<ul style="list-style-type: none"> • 2-1/8" (54 mm) minimum stile width required • All stile widths are measured from door edge
Notes:	<ul style="list-style-type: none"> • Recommended for use on appropriately reinforced doors

TRIM

- Archer, August, William, or Withnell lever with escutcheon

FINISHES

- US26D and US32D, US3, US4, US10B, US26, BLK
- Trim is not available in US32D
- Anti-Microbial available with US26D, US32D

4600 Series - Grade 1 Narrow Stile CVR/CLB - Electrified

WARRANTY

- One-year on electrified components
- Lifetime on hardware components

FEATURES

Same as 4600 Series CVR/CLB Device

SPECIFICATIONS

Door Width:

- 36" (914 mm) field sizeable to 30" (762 mm) for devices with any monitoring switches.
- 48" (1219 mm) field sizeable to 36" (914 mm) door for devices with any monitoring switches
- 36" (914mm) field sizeable to 34" (864mm) door minimum for devices with motorized electric latch retraction
- 36" (914mm) door minimum for devices with delayed egress
- 48" (1219mm) field sizeable to 40" (1016mm) door minimum for devices with motorized electric latch retraction
- 48" (1219mm) door minimum for devices with delayed egress

FUNCTIONS

- RX - Request to Exit (field installation kit 2-649-5001)
- RX2 - Dual Request to Exit
- 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)

Note: These devices are not available in fire rated versions



4600 Series - 4941 Alarm Kit (RIM Device Only)

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
Request to Exit	RX	Used to shunt an alarm, activate an alarm, provide release of magnetic locks, or signal a console.
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.
Motor Driven Electric Latch Retraction with Request to Exit and Latchbolt Monitoring	MLRXLM*	Provides the means of locking or unlocking exit devices remotely using an electric motor along with two internal SPDT switches that monitor the pushbar and latchbolt simultaneously. Recommend Hager 2903 or 2904 Power Supply.
Motor Driven Electric Latch Retraction with Latchbolt Monitoring	MLRLM*	Provides the means of locking or unlocking exit devices remotely using an electric motor along with an internal SPDT switch that monitors the latchbolt. Recommend Hager 2903 or 2904 Power Supply.

*Not available on the 4600 CVR or CLB.

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)
- 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, LM, MLR, and RX

POWER SUPPLIES

PRODUCT #	DESCRIPTION
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, 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



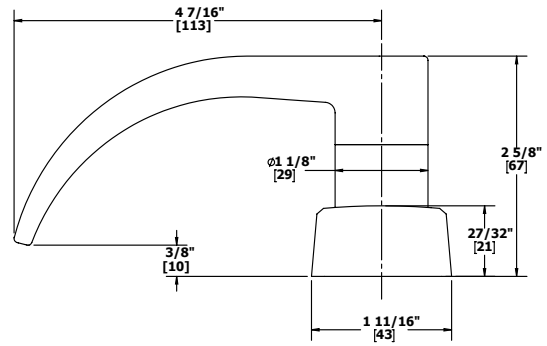
46NL
Night Latch
ANSI Function: 03 - Key retracts latchbolt
Cylinder: Requires 3901 rim cylinder with long tailpiece (sold separately)
Use an extra 1/4" blocking ring with IC core 7-pin cylinders
Notes: Maximum door thickness compatibility is 2-1/2" (38 mm)



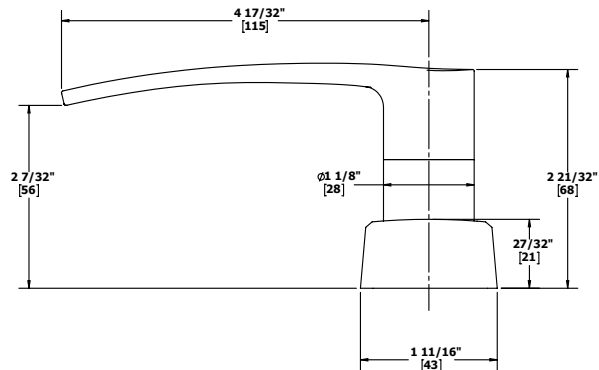
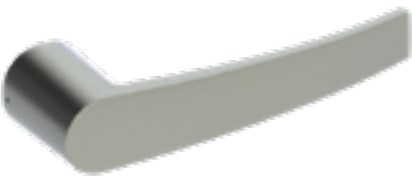
RIM Cylinder by Optional Pull
ANSI Function: 03 - Key retracts latchbolt
Finishes: US3, US4, US10, US10B, US26, US26D, US32D, BLK
Cylinder: Requires 3901 rim cylinder (sold separately). Standard (attached) and long tailpieces in every box.
Notes: • For use with 4600 RIM
• For pull options see Trim & Auxiliary section

4600 Series - Lever Options

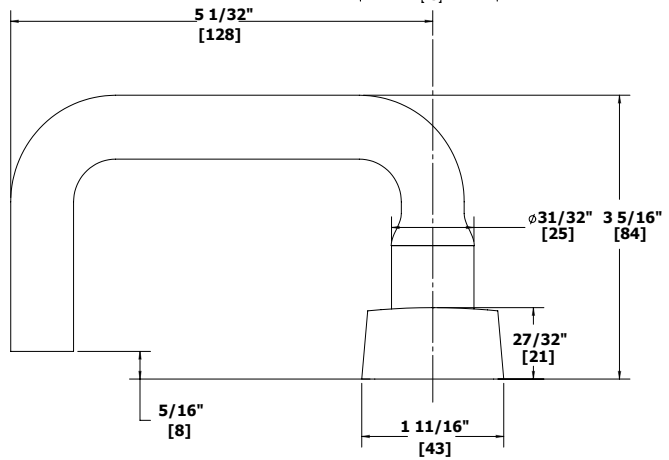
ARCHER LEVER



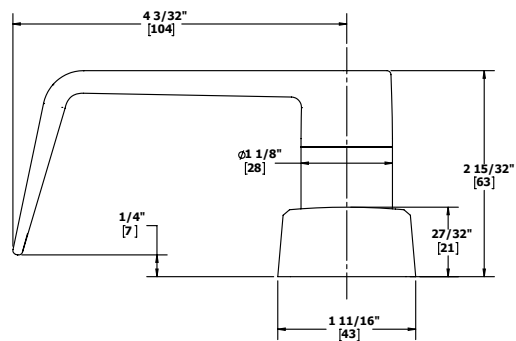
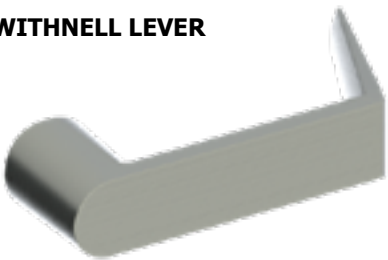
AUGUST LEVER



WILLIAM LEVER



WITHNELL LEVER



4600 Series - Strikes



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

4600 Series - Accessories



4925R Cylinder Dogging Conversion Kit

Finishes: US3, US4, 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



4965R Head Cover

For use with 4600 Series Rim exit device

Finishes: US3, US4, US10B, US26, US26D, US32D, BLK, Anti-Microbial

Packaging: One (1) head cover and four (4) each M4 x 6mm MS

4600 Series - Concealed Vertical Rod Series - Accessories



Standard

END CAPS

For use with all 4500 and 4600 Series exit devices

Finishes: US3, US4, US10B, US26, US26D, US32D, BLK
Anti-microbial available with US26D, US32D

Packaging: One (1) each cap and bracket plus fasteners



Flush

Finishes: US3, US4, US10B, US26, US26D, US32D, BLK
Anti-microbial available with US26D, US32D

Packaging: One (1) each cap and bracket plus fasteners



2-649-0580

Rod Connector Pack

Included standard with 4600 CVR and CLB exit devices



2-649-0581

Top Latch Assembly

Included standard with 4600 CVR and CLB exit devices (screws not included)

Screws are sold as Latch Screw Pack



2-649-0582

Bottom Latch Assembly

Included standard with 4600 CVR and CLB exit devices

Finishes: US3, US4, US10B, US26, US26D, US32D, BLK



2-649-0588

Latch Screw Packs

Included standard with 4600 CVR and CLB exit devices

Finishes: US3, US4, US10B, US26, US26D, US32D, BLK



2-649-0596

Bottom Strike

Included standard with 4600 CVR exit devices



2-649-0597

Chassis Screw Pack

Included standard with 4600 CVR and CLB exit devices



2-649-0598

Top Strike

Included standard with 4600 CVR and CLB exit devices



4925C

Cylinder Dogging Conversion Kit

(For use with 4600 Series CVR and CLB Exit Devices)

Finishes: US3, US4, 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. Cylinder length of 1-1/8" (29mm) - 1-3/8" (35mm) is required.
- Specify 36" (914 mm) or 48" (1219 mm)



4929C

Concealed Rod Replacement Kit

For use with 4500 or 4600 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



4965C

Shim Kit

(For use with 4600 Series CVR and CLB Exit Devices)

Material: Hardened aluminum

Finishes: US26D

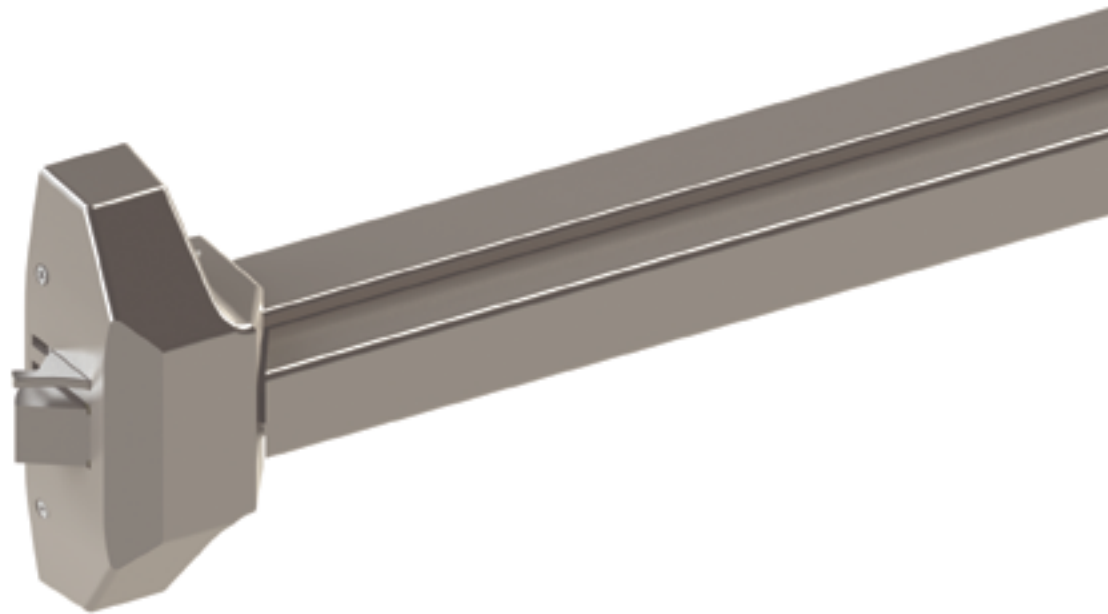
Packaging: One (1) each 46-5/8" (1184 mm) rod, rod connector and appropriate fasteners

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 are BHMA Certified Grade 1 and meet Life Safety Codes and Fire Requirements.

Made with superior materials and with dead locking stainless steel latchbolts, the 4700 Series Exit Devices provide necessary security and performance at economy pricing.



4700 Series - Compliance and Certifications

4700 SERIES

ANSI/BHMA A156.3-2014 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



RIM	SVR
YES	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'

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 has the locking mechanism built inside which reduces door preparation and installation time by requiring few holes in the door.

Shim Kits

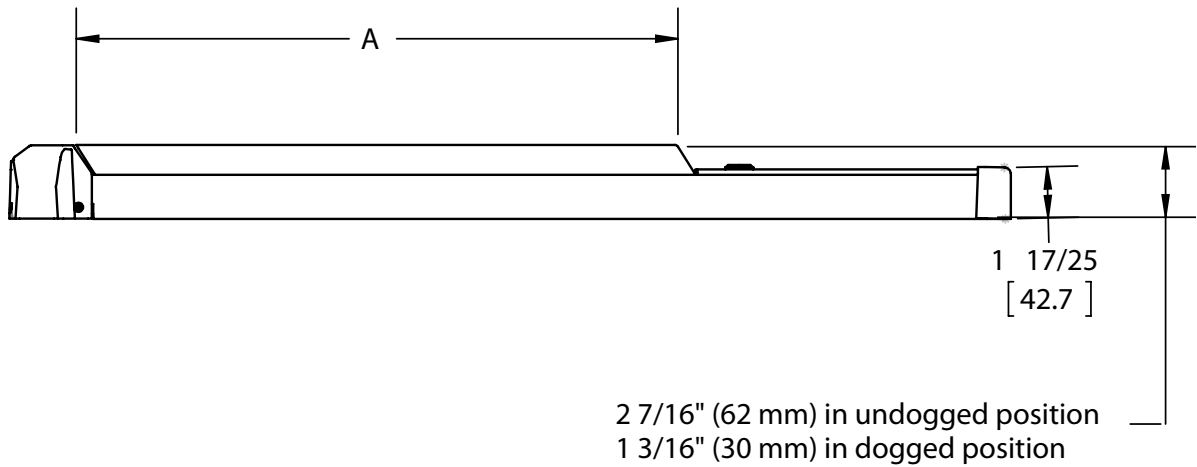
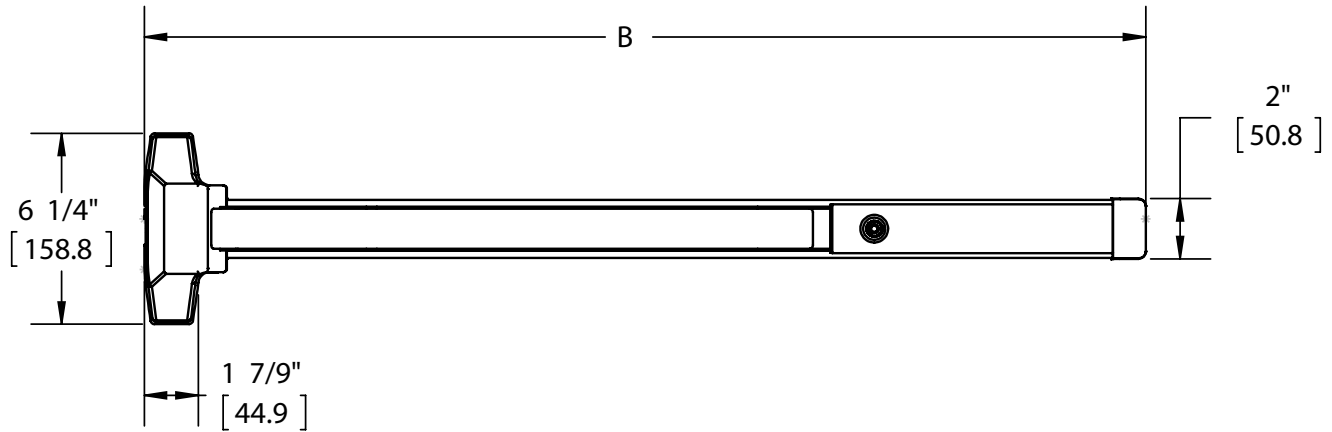
Shim kits are available for devices on doors with glass bead kits or other interfacing moldings. Each kit contains two 1/8" (3.2 mm) shims and the appropriate longer fasteners.

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 (*specify handing when ordering)	05

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

<p>4701</p> <hr/> <p>Product Group 4700 Series, Standard Duty</p>	<p>RIM</p> <hr/> <p>Type RIM - Rim Device SVR - Surface Vertical Rod</p>	<p>FR</p> <hr/> <p>Rating F - Fire Rated 0 - Non-Fire Rated</p>	<p>36"</p> <hr/> <p>Size 36" 48" 36" x 84" 36" x 96" 48" x 84" 48" x 96"</p>	<p>US3</p> <hr/> <p>Finish US3 US32D ALM DBZ BLK</p>	<p>2"</p> <hr/> <p>Door Thickness 1-5/8" 1-3/4" 2" 2-1/4"</p>
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4700 SERIES TRIM

<p>47</p> <hr/> <p>Product Group 47 - 4700 Series, Standard Duty</p>	<p>CE</p> <hr/> <p>Trim/Function CE - Cylinder Escutcheon Function 08, key locks/unlocks BE - Blank Escutcheon Function 14, always operable NL - Night Latch Function 03, key retracts latchbolt DT - Dummy Trim Function 02, pull when dogged down KD - Key in Lever - Dummy Trim Function 02, entrance by trim when actuating bar is locked down KE - Key in Lever - Entrance Function 08, entrance by trim (key locks or unlocks trim) KN - Key in Lever - Night Latch Function 03, entrance by trim when latch bolt is released by key; removable when locked KP - Key in Lever - Passage Function 14, entrance by trim when latch bolt is released by lever; always active; no cylinder PD - Pull Plate Dummy Trim Function 02, pull when dogged down PN - Pull Plate Night Latch Function 03, key retracts latchbolt RD - Raised Lip Pull - Dummy Trim Function 02, pull when dogged down RN - Raised Lip Pull - Night Latch Function 03, key retracts latches BT - Thumbpiece Pull Plate, Passage Function 15, entrance by trim when latch is released by thumbpiece. Thumbpiece is always active, no cylinder PT - Thumbpiece Pull Plate, Entrance Function 05, entrance by thumbpiece. Key locks or unlocks thumb piece</p>	<p>RH</p> <hr/> <p>Handing RH - Right Handed / LHR LH - Left Handed / RHR</p>	<p>ARC</p> <hr/> <p>Lever Style ARC - Archer AUG - August WTN - Withnell APL - Apollo knob</p>	<p>US3</p> <hr/> <p>Finish US3 US32D ALM DBZ BLK</p>	<p>2"</p> <hr/> <p>Door Thickness 1-5/8" 1-3/4" 2" 2-1/4"</p>	<p>TW</p> <hr/> <p>Options TW - Tactile Warning A - Antimicrobial Coating</p>
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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:	BHMA Certified Grade 1 (2014 Standard) and meets Life Safety Codes and Fire Requirements
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 devices • Solid stainless steel - included standard with fire-rated device • 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 • 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 • Where fire rated rim x rim x mullion is used order 4916 Strike and Hook Kit

TRIM

- 4700 Series escutcheon trim for rim device is available with a variety of lever options
- 4700 Series key-in-trim is available with a variety of lever options plus a knob option
- Pull plate trim
- Raised lip pull
- Rim cylinder x optional pull

FINISHES

US3, US32D, ALM, DBZ, BLK

4700 Series - Standard Duty Surface Vertical Rod Device

WARRANTY

Five-year warranty

FEATURES

Certification:

BHMA Certified Grade 1 (2014 Standard) and meets Life Safety Codes and Fire Requirements

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:

- Wood and machine screws
- Thru-bolts supplied standard

Latchbolt:

- 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:

- 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:

- 36" (914 mm) field sizeable to 30" (762 mm) door
- 48" (1219 mm) field sizeable to 36" (914 mm) door

Projection:

- 2-7/16" (62 mm) in undogged position
- 1-3/16" (30 mm) in dogged position

Vertical Rods:

- 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:

- 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:

- 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 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, BLK

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, BLK



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



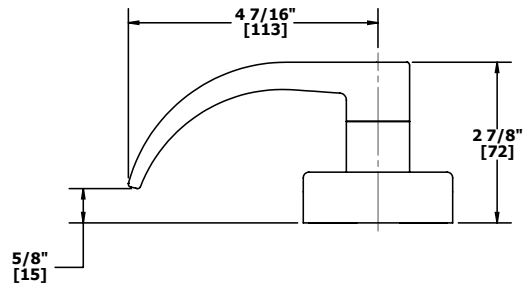
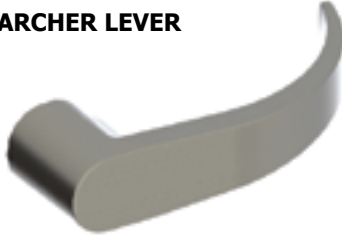
47NL

Night Latch

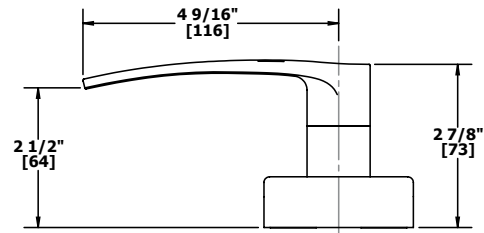
ANSI Function: 03 - Key retracts latchbolt
Cylinder: Requires 1-1/4" or 1-3/8" long 3902 mortise cylinder with standard cam (sold separately)

4700 Series - Escutcheon Trim - Lever Options

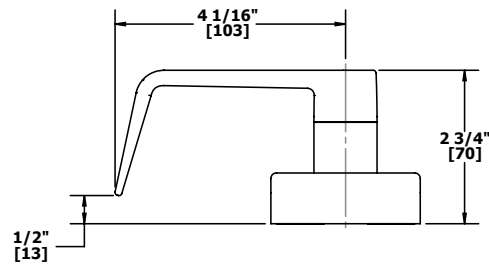
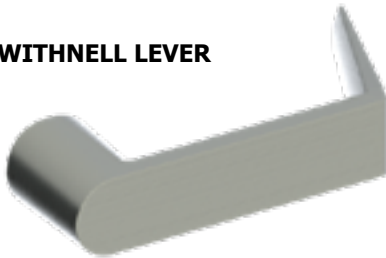
ARCHER LEVER



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, BLK



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



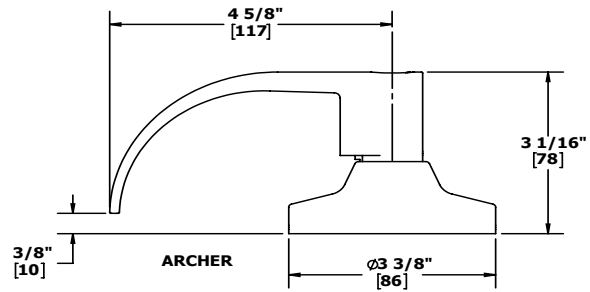
47KP

Key-in-Lever Passage

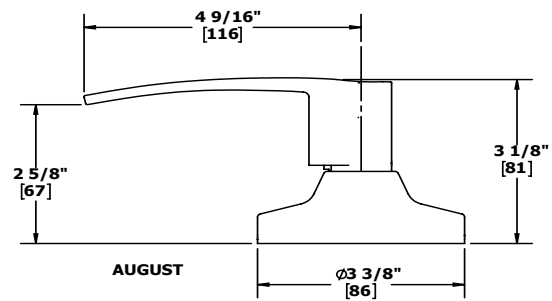
ANSI Function: 14 - Entrance by trim when latchbolt is released by lever; always active, no cylinder

4700 Series - Key-In_Lever Trim - Lever and Knob Options

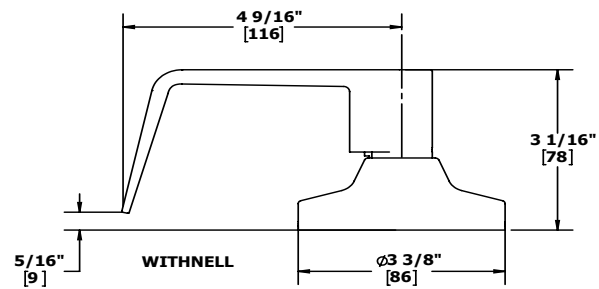
ARCHER LEVER



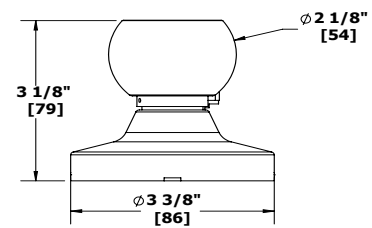
AUGUST LEVER



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, BLK
- 47BT and 47PT - US32D, BLK



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



4910
Strike
 Included standard with 4700 Series
 Panic- Rated RIM exit device
 Finishes: US32D



4910-F
Strike
 Included standard with 4700 Series
 Fire- Rated RIM exit device
 Finishes: US32D



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, DBZ, US3, US32D



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.

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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

U

F

84"

USP

Type

- X - Keyed Removable Mullion
- U - Non-Keyed Removable Mullion

Fire Rating

- F - Fire Rated
- 0 - Non-Fire Rated

Size

- 84"
- 96"
- 10' (120")

Finish

- USP

Product Group

4900 Series, Mullions

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 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) 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 - 1-1/2" FHMS (bottom bracket) • Four (4) 5/16" - 18 masonry anchors (bottom bracket) • Two (2) 1/4" - 20 x 1-1/4" FPHMS (top fitting) • Two (2) 1/4" - 20 thru bolts (top fitting) • Two (2) #10 - 24 x 3/8" FHPMS (top fitting) • Fire-rated device - 5/16" - 18 x 1-1/4" FHMS
Shims:	<ul style="list-style-type: none"> • Two (2) each 1/2" (13 mm) and 5/8" (16 mm) spacers included (top) • Two (2) 3/32 (2.4 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"> • Latching head allows the mullion to be removed in seconds • Mullion can be locked in place without the use of a key

FINISHES | USP - grey primer only

4900X

Mullion Set

Certification:	Panic-rated
Opening Height:	84" (2134 mm), 96" (2438 mm), 120" (3048 mm)
Material:	11 gauge steel tube



4900XF

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:	<ul style="list-style-type: none"> • 2" x 3" (51 mm x 76 mm) – 11 gauge steel tube • Mullion easily removed by loosening top and bottom screws
Fasteners:	<ul style="list-style-type: none"> • 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,
Shims:	<ul style="list-style-type: none"> • Two (2) each 1/2" (13 mm) and 5/8" (16 mm) spacers included (top) • Two (2) 1/16" (1.6 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

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



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



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



4953
Mullion Stabilizer Kit
 Finishes: US32D
 Notes: For use with mullion and exit devices for added security

4900X - 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.

4900 Series - 4900T - Accessories



4903
Top/Bottom Bracket Set
 Certification: Non-fire-rated
 Function: Keyed removable
 Materials: Steel
 Cylinder: Rim cylinder, 3901, sold separately



4903XF
Fire-Rated Top/Bottom Bracket Set
 Certification: Fire-rated
 Function: Keyed removable
 Materials: Steel
 Cylinder: Rim cylinder, 3901, sold separately

4900 Series - 4900 U 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 up to 96"
(2438 mm)
Function: Non-keyed removable
Opening Height: 84" (2134 mm),
96" (2438 mm),
120" (3048 mm)
Finishes: USP grey primer
Materials: Steel



Locks

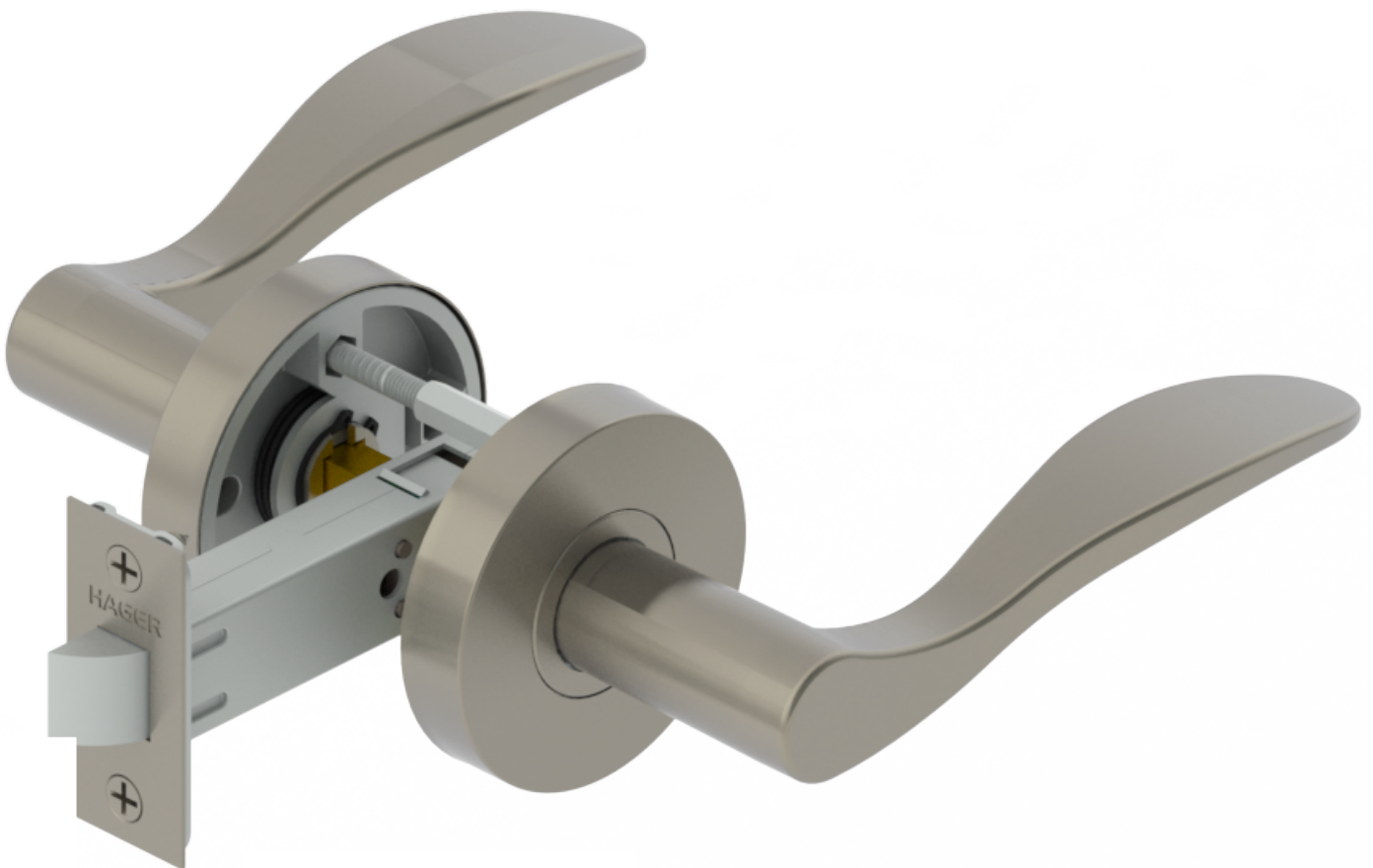
Hager Companies offers a wide range of Grade 1 and Grade 2 products to meet almost any application and specification requirements. Hager locks are manufactured to the highest quality standards and extensively tested to ANSI standards and BHMA certification requirements. In addition, all leversets comply with ADA requirements outlined in ANSI A117.1.

TABLE OF CONTENTS

2300 Series Tubular	3
2500 Series Cylindrical	9
3100 Series Deadlock	17
3200 Series Deadlock	21
3300 Series Tubular	25
3400 Series Cylindrical	29
3500 Series Cylindrical	39
3600 Series Tubular	47
3700 Series Interconnected	53
3800 Series Mortise	59
Cylinder, Core & Keying	75

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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

Product Group

23 - Tubular, DECO

2³/₄"

Backset

- 2-3/4" (70 mm)
- 2-3/8" (60 mm)

US15

Finish

- US15
- US26
- US26D
- BLK

US26D

****Interior Finish**

(if different)

CHA

Lever Style

- CHA - Charles Lever
- *JHN - Johnston Lever
- JOS - Joshua Lever
- *WRN - Warren Lever

—





Strike

- ASA - ASA
- TEE - TEE
- FLRC and FULL (Default)
- SQ & RD FULL LIP (Default)

* Handing required for Johnston and Warren levers when specifying single dummy function.

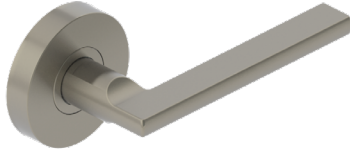
** Contact factory for lead time and availability before ordering

2300 SERIES FUNCTION CHART

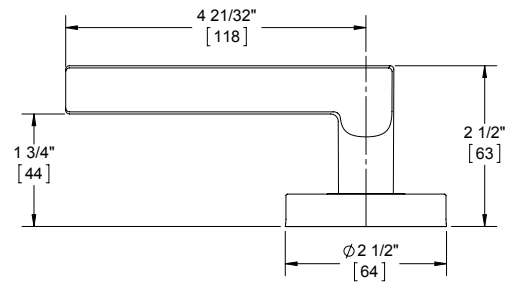
Function	Function No.	Function Description	ANSI No.
Non-Keyed			
	10	Latchbolt operated by lever from either side at all times.	-
	17	Pull one side, no mechanical operation.	-
	27	Pull both sides, no mechanical operation (back to back).	-
	40	Latchbolt operated by lever from either side. Outside lever is locked by push button and unlocked by emergency release outside or operating inside lever.	-

2300 Series - Lever Options

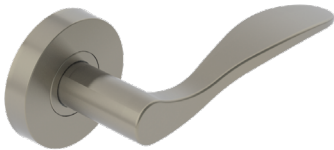
CHARLES LEVER



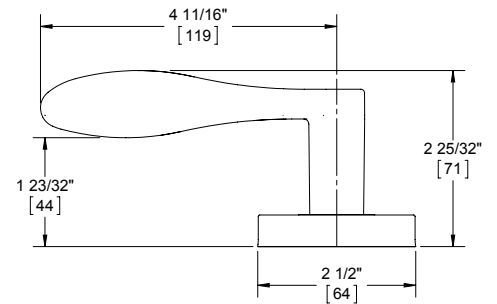
Finishes: US15, BLK, US26, US26D



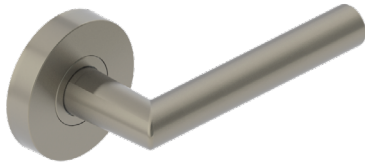
JOHNSTON LEVER



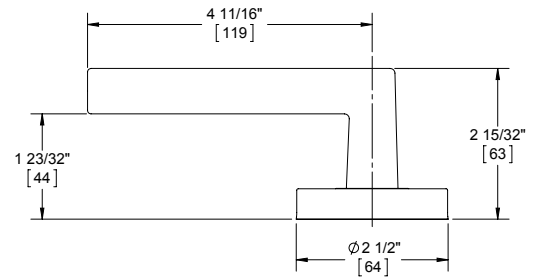
Finishes: BLK, US26D



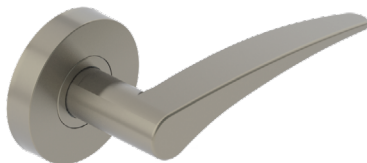
JOSHUA LEVER



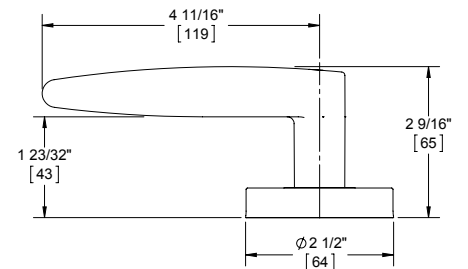
Finishes: US15, BLK, US26, US26D



WARREN LEVER



Finishes: BLK, US26D



2300 Series -Deco Tubular - Light Duty Residential - Multi Family

WARRANTY

Five-year warranty

FEATURES

- ADA Compliant
- No exposed mounting screws
- Lockset installs in 160/161 prep with use of included alignment block

Lever Options:

Charles, Johnston, Joshua, Louis, and Warren

Options:

Split finish (Contact Customer Service for availability)

SPECIFICATIONS

Exposed Trim:

- Levers: Solid cast zinc
- Rose: Stainless steel

Door Thickness:

1-3/8" - 1-3/4" (35 mm - 45 mm)

Rose Diameter:

2-1/2" (63.5 mm)

Backset:

- 2-3/4" (70 mm) - Standard
- 2-3/8" (60 mm) - Optional

Latchbolt:

- 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:

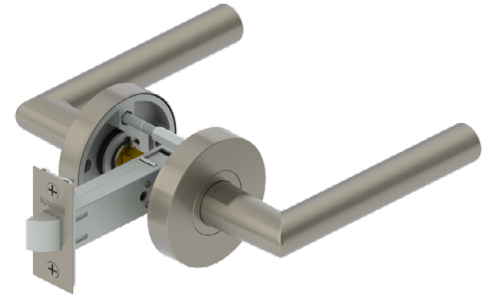
Non-handed (except for Johnston and Warren, 17 Functions)

Functions:

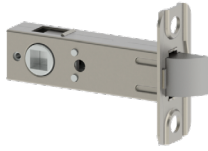
10 Passage, 17 Dummy, 27 Double Dummy, 40 Privacy

FINISHES

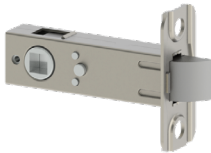
US15, US26, US26D, BLK



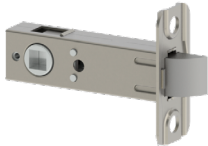
2300 Series - Latchbolts



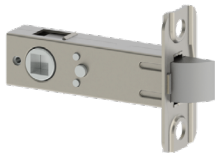
- 2-639-7607**
2-3/4" Backset Passage Spring Latch
- Square and round corner standard
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate
 - For use with passage function



- 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

2300 Series - Additional Strikes



- 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

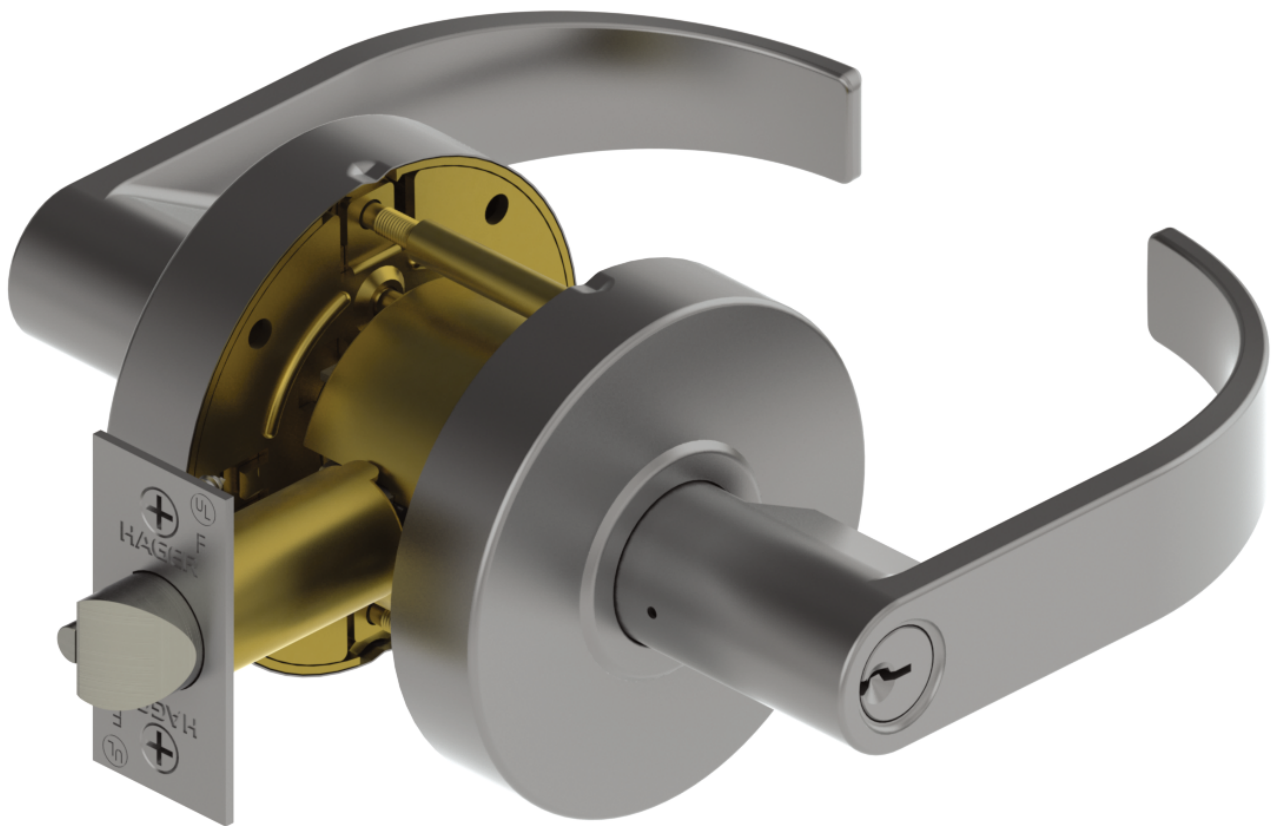


- 3959**
Faceplate Adapter
- Converts 1" (25 mm) to 1-1/8" (28 mm) width

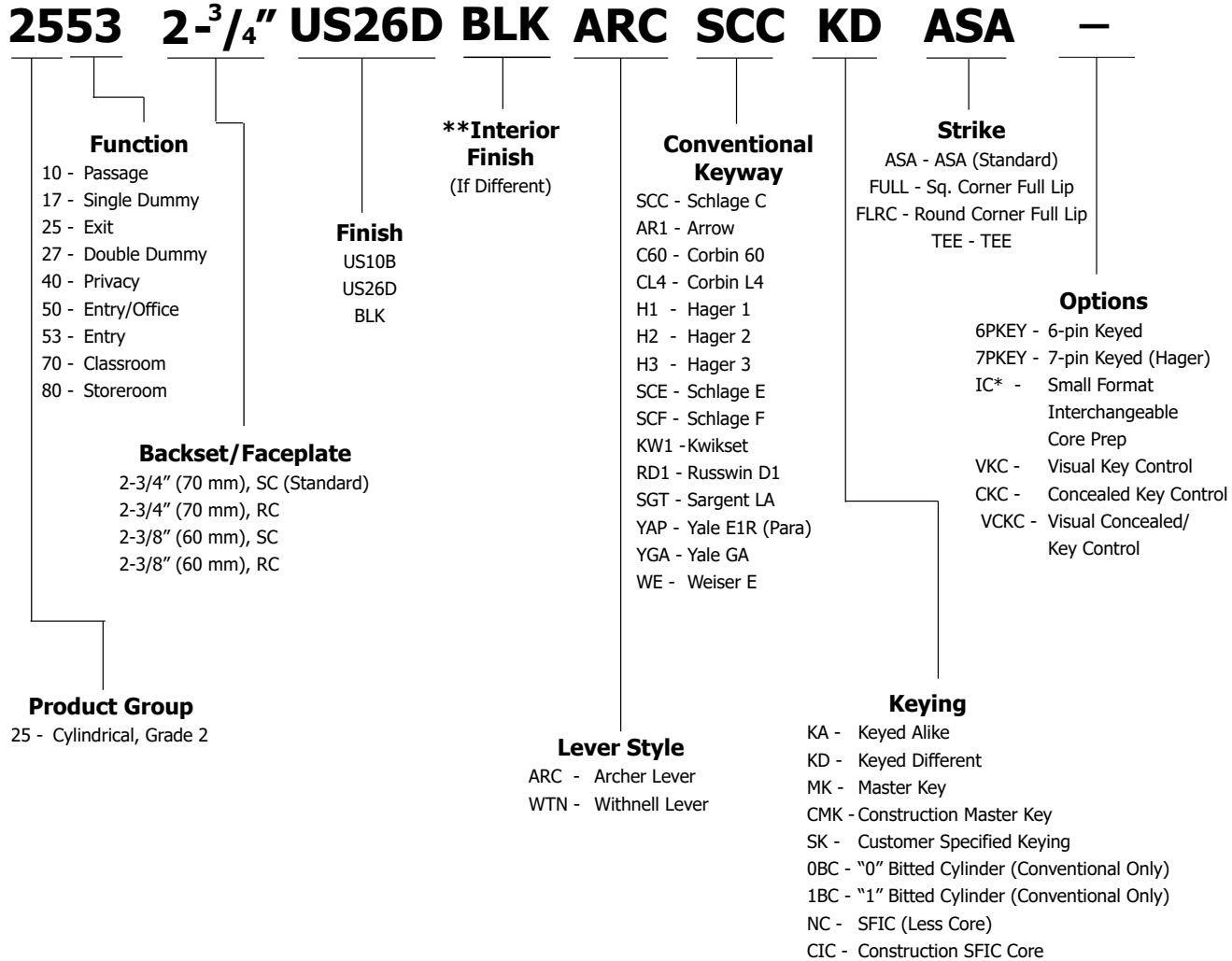
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2500 Series

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 90 or www.hagerco.com).
 2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 75).
 3. Interchangeable construction core will be included with the lockset if "CIC" is specified in keying section. Customer must specify BLUE or RED color.

* Small format interchangeable core sold separately. Available in Best Keyways (A Standard), or Hager Keyways (optional).

Ordering example (less SFIC core): 2553 2-3/4" US26D WTN NC IC
Ordering example (const. core included): 2553 2-3/4" US26D WTN CIC ASA IC7 BLU

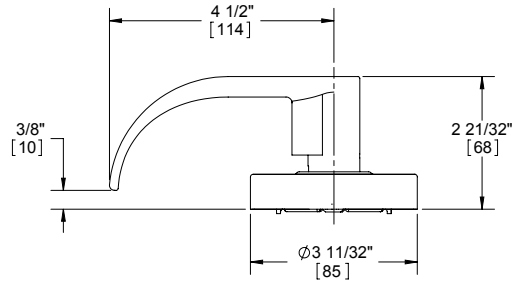
** Contact factory for lead time and availability before ordering

2500 Series - Function Chart

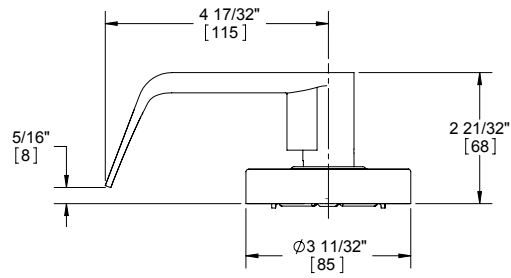
Function	Function No.	Function Description	ANSI No.	
Non-Keyed				
	Passage	10	Latchbolt operated by lever from either side at all times.	F75
	Dummy - Single	17	Pull one side, no mechanical operation.	-
	Exit	25	Blank plate outside (13/16" [31 mm] projection). Inside lever is always unlocked.	F111
	Dummy - 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



2500 Series - Grade 2 Cylindrical - Standard Duty Commercial

WARRANTY

Five year warranty

FEATURES

- No exposed mounting screws
- Non-handed
- Conventional cylinder and small format interchangeable core option available

Applications:

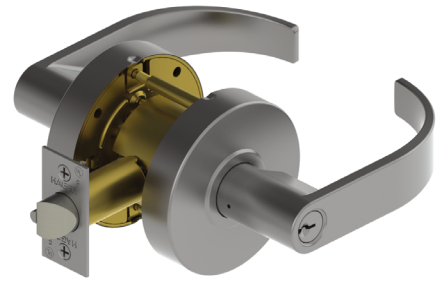
- Standard duty commercial
- Standard door prep - 2-1/8" (54 mm) diameter (bore)
- Latch hole - 1" (25.4 mm) diameter (cross bore)

Certifications:

- 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

Lever Options:

Archer, Withnell levers



SPECIFICATIONS

Exposed Trim:

- Wrought brass, bronze, and stainless steel
- Lever is zinc based, plated to match BHMA symbols

Rose Diameter:

3-11/32" (85 mm)

Lock Chassis:

- 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:

- 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).
- Zero bit cylinders will be 6 pin keyed – standard
- 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:

- 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 and 25 function only

Strike:

- 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 Double 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

US10B, US26D, BLK

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

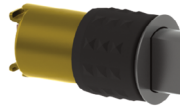
Dead Latches



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

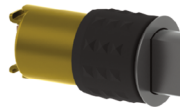
3950
2-3/8" (60 mm) Backset
Dead Latch
 • Square and round corner available
 • 1" x 2-1/4" (25 mm x 57 mm) faceplate

Optional Drive-In Spring Latches



3922
2-3/4" (70 mm) Backset
Passage Spring Latch

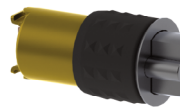
3925
2-3/8" (60 mm) Backset
Passage Spring Latch



3923
2-3/4" (70 mm) Backset
Privacy Spring Latch

3926
2-3/8" (60 mm) Backset
Privacy Spring Latch

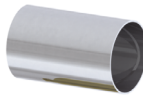
Optional Drive-In Dead Latches



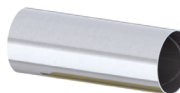
3924
2-3/4" (70 mm) Backset
Dead Latch

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



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)



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

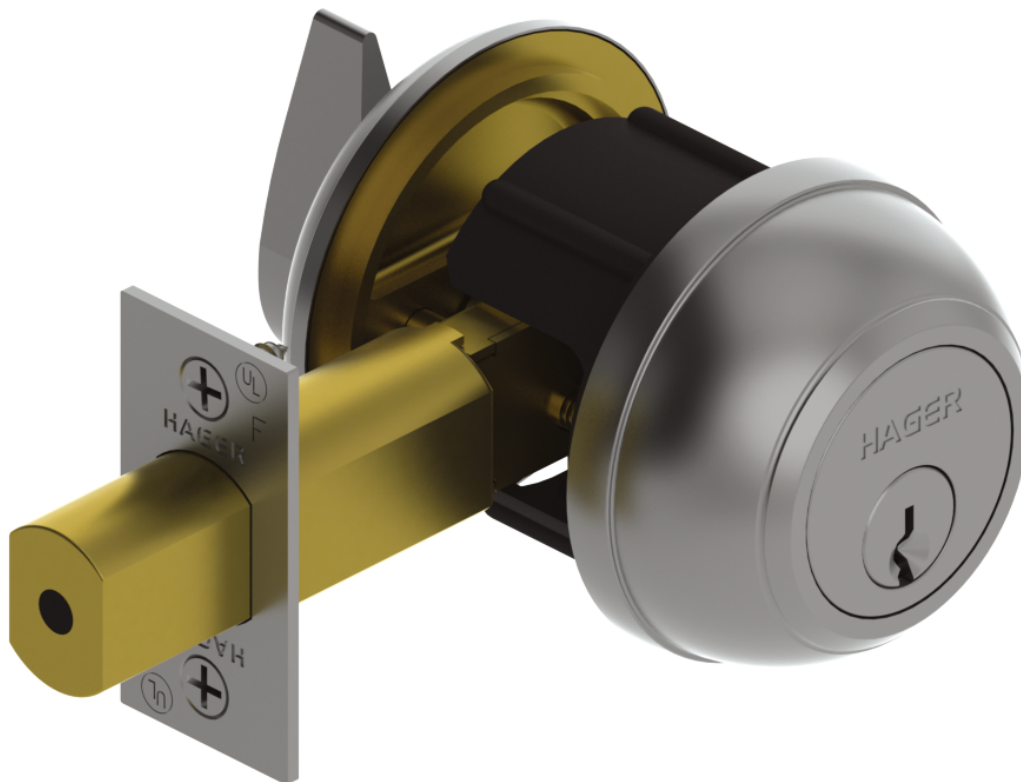
2500 Series - Accessories



3911
Thru-Bolt Jig

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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 - -

Function
 14 - Double Cylinder
 15 - Single Cylinder
 18 - Classroom

Product Group
 31 - Deadlock, Grade 1

Finish
 US3
 US4
 US10B
 US26
 US26D

Backset/Faceplate
 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

****Interior Finish**
 (If Different)

Conventional Keyway

SCC - Schlage C
 AR1 - Arrow
 C60 - Corbin 60
 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

Keying

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
 NC - SFIC (Less Core)
 CIC - Construction SFIC Core

Options

6PKEY - 6-pin Keyed
 7PKEY - 7-pin Keyed (Hager)
 IC* - Small Format Interchangeable Core Housing (NC)
 VKC - Visual Key Control
 CKC - Concealed Key Control
 VCKC - Visual/Concealed Key Control

Strike

-- No Lip (Std)
 ASA - ASA Strike

Notes:

1. If masterkeyed, include completed master key form with order (available on page 90 or www.hagerco.com).
2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 75).

* Small format interchangeable core sold separately. Available in Best Keyways (A Standard), or Hager Keyways (optional).

Ordering example (less SFIC core): 3114 2-3/4" US26D NC IC

Ordering example (const. core included): 3114 2-3/4" US26D CIC IC7 BLU

** Contact factory for lead time and availability before ordering

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

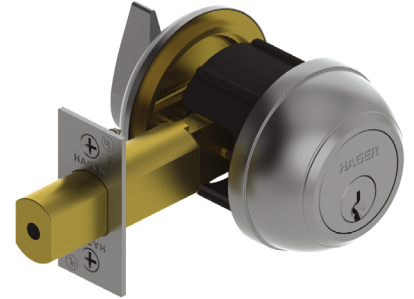
- Non-handed
- Conventional cylinder or Small Format Interchangeable Core option available

Certifications:

- BHMA Certified ANSI A156.36 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
- ADA - Thumbturn

Options:

- Split finish (Contact Customer Service for availability)
- Additional deadbolts and strikes available



SPECIFICATIONS

Standard Door Prep:

- 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:

- 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)
- Zero bit cylinders will be 6 pin keyed – standard
- Small Format Interchangeable Core option available
- SFIC uncombined or combined, brass 6- or 7-pin cores sold separately

Door Thickness:

- 1-3/4" - 2" (45 mm - 51 mm) - Standard
- 2" - 2-1/4" (57 mm) available for conventional cylinder - Must specify

Backset:

- 2-3/4" (70 mm) - Standard
- 2-3/8" (60 mm) - Optional

Latchbolt:

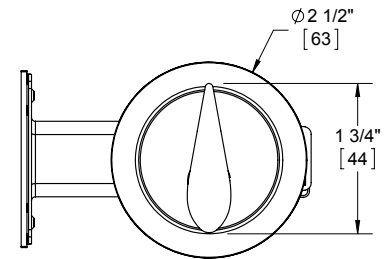
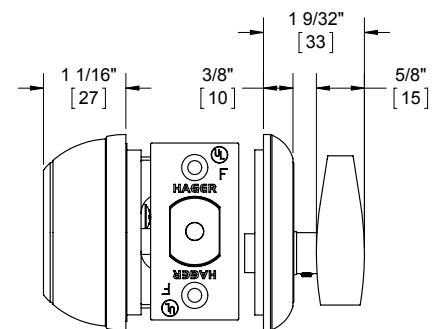
- 1" (25 mm) Throw - Brass with concealed hardened steel roller to prevent sawing or cutting
- 1-1/8" x 2-1/4" (29 mm x 57 mm) Square Corner Faceplate

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:

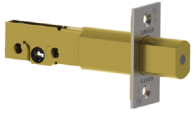
14 Double Cylinder, 15 Cylinder x Thumbturn, 18 Classroom



FINISHES

US3, US4, US10B, US26, US26D

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



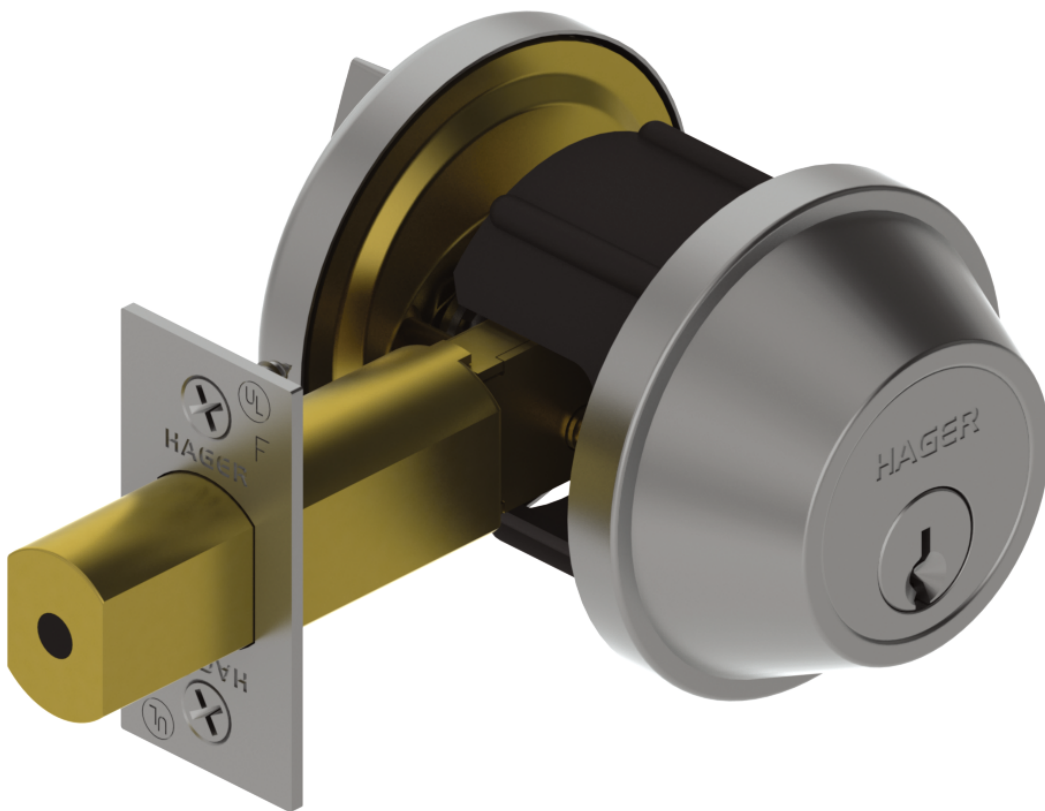
3929
ASA Deadbolt Strike - Optional
1-1/4" x 4-7/8" (32 mm x 124 mm)



3930
Strike Plate - Standard
• 1-1/8" x 2-3/4" (29 mm x 70 mm)
• Dust box included

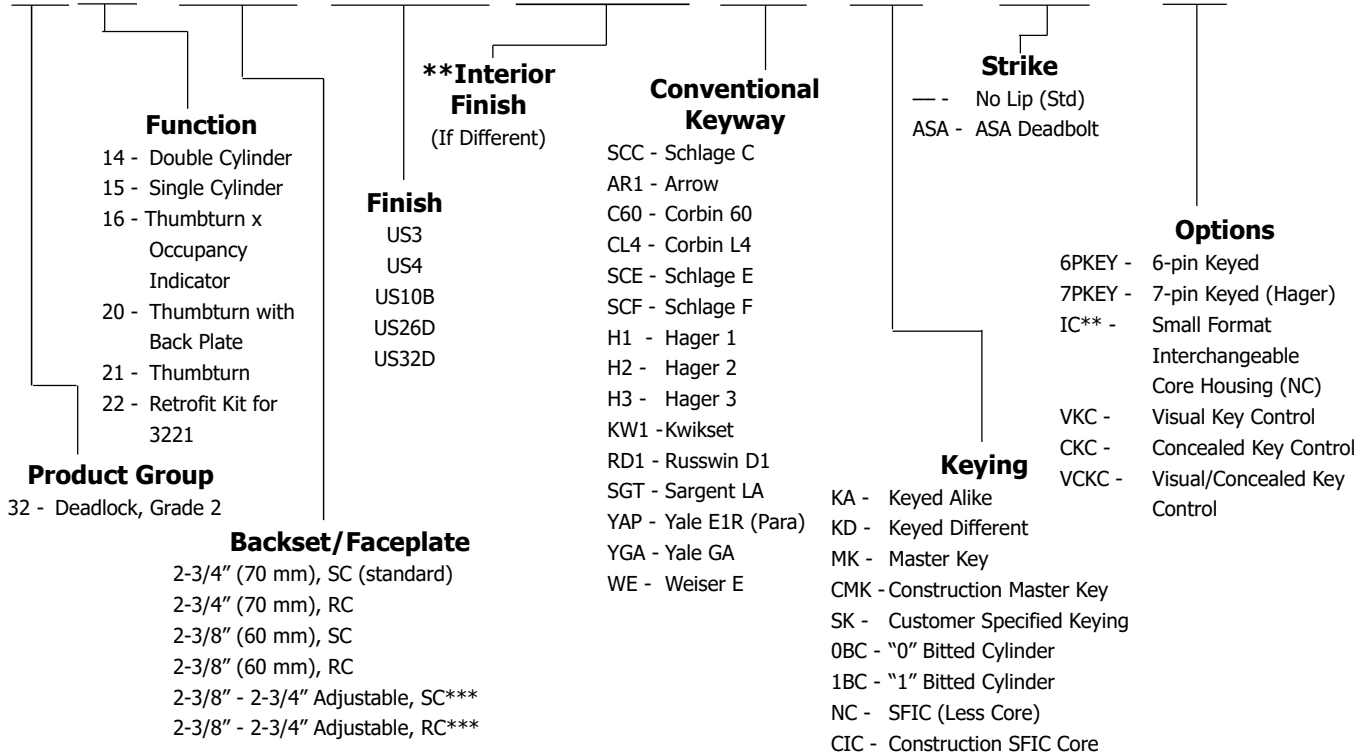
3200 Series

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 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 US10B SCC KD - -



Notes:

1. If masterkeyed, include completed master key form sheet with order (available on page 90 or www.hagerco.com).
2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 75).

* Small format interchangeable core sold separately. Available in Best Keyways (A Standard), or Hager Keyways (optional).

Ordering example (Less SFIC core): 3214 2-3/4" US26D NC IC

Ordering example (Const. core included): 3214 2-3/4" US26D CIC IC7 BLU

** Contact factory for lead time and availability before ordering

*** Adjustable backset deadbolts supplied with 3220 and 3221.

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

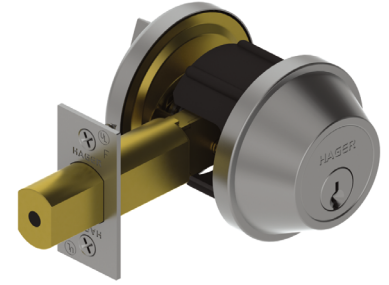
- Non-handed
- Conventional cylinder or Small Format Interchangeable Core option available

Certifications:

- BHMA Certified ANSI A156.36 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
 - ADA - Thumbturn

Options:

- Split finish (Contact Customer Service for availability)
- 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)
- Zero bit cylinders will be 6 pin keyed - standard
- 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:

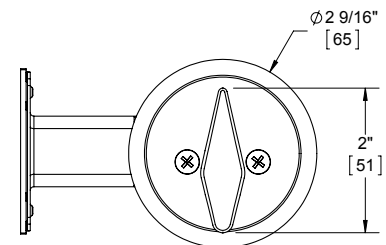
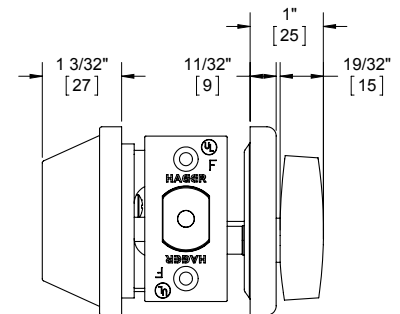
14 Double Cylinder, 15 Cylinder x Thumbturn, 16 Thumbturn x Occupancy Indicator, 20 Thumbturn w/ Blank Plate, 21 Thumbturn Only

Notes:

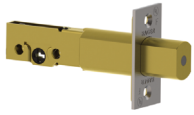
3222 retrofit kit available for use with 21 function

FINISHES

US3, US4, US10B, US26D, US32D



3200 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 US32D

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 US32D



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 US32D

3200 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

Hager's 3300 Series Grade 3 tubular leverset is field reversible, with a thru-bolt design for ease of installation. This field reversible lock is designed with thru-bolts to make installation quick and simple. The 3300 Series is offered in three functions — Passage, Privacy, and Single Dummy — with four lever designs — Archer, August, Johnston and Withnell — to provide the perfect solution for suiting with other Grade 1 and Grade 2 products provided by Hager. Vertical markets that may benefit are assisted living facilities as well as multi-family.



3300 Series - How To Order

3353

FUNCTION

- 10 – Passage
- 17 – Single Dummy
- 40 – Privacy

PRODUCT GROUP

33 – Tubular, Grade 3

ADJ

BACKSET

2-3/8" to 2-3/4" Adjustable
SQ and RD corner Faceplate Std

US26D

FINISH

- US15
- US26D
- BLK

AUG




LEVER STYLE

- ARC - Archer
- AUG - August
- *JHN - Johnston
- WTN - Withnell

Notes:

1. 3317 Johnston lever is handed. All others are non-handed

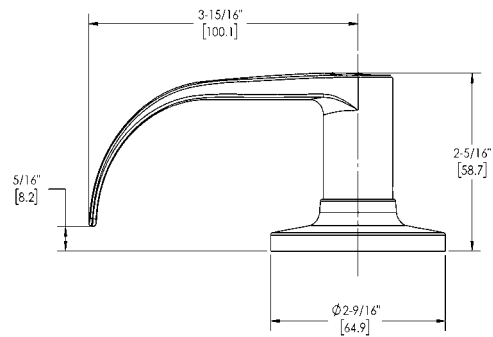
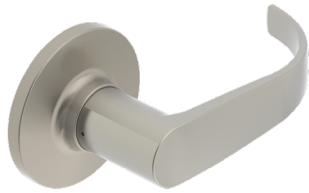
3300 SERIES FUNCTION CHART

Function	Function No.	Function Description	
Non-Keyed			
	Passage*	10	Latchbolt operated by lever from either side at all times.
	Dummy - Single	17	Pull one side, no mechanical operation.
	Privacy	40	Latchbolt operated by lever from either side. Outside lever is locked and unlocked by turn button inside and can also be unlocked by emergency coin turn release outside. Closing door does not release turn button.

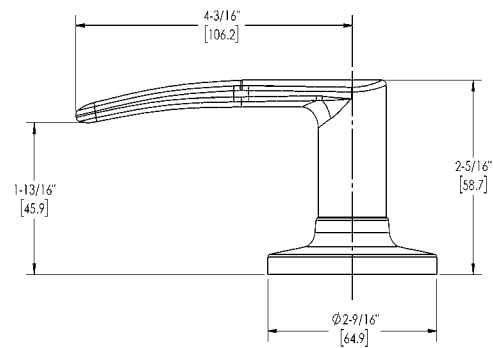
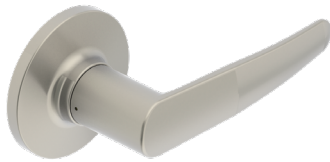
* Passage function meets ADA requirements

3300 Series - Lever Options

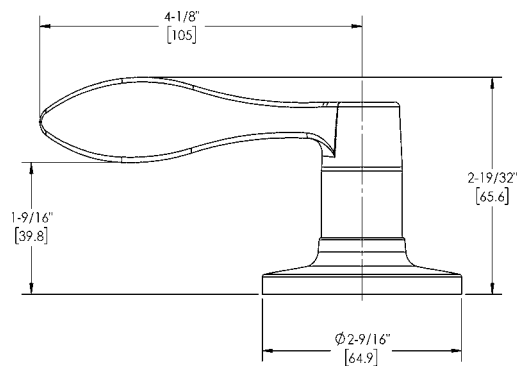
ARCHER LEVER



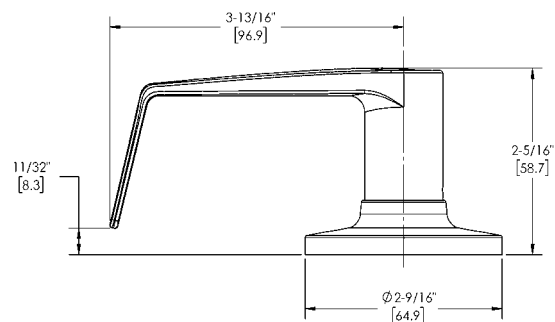
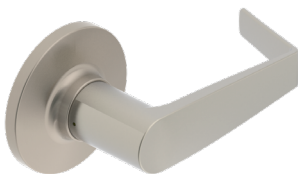
AUGUST LEVER



JOHNSTON LEVER



WITHNELL LEVER



3300 SERIES - Grade 3 Tubular Leverset

FEATURES

- Field reversible (exception of 3317 Johnston)
- Thru-bolt design for ease of installation
- Standard 4-way latch provides versatility for most retrofit applications

Applications

- Multi-Family
- Assisted Living Facilities
- Hospitality

Certifications:

- Meets BHMA ANSI 156.2, Grade 3 test standards
- ADA compliant ANSI A117.1 Accessibility Code

Lever Options:

Archer, August, Johnston, Withnell



SPECIFICATIONS

Standard Door Prep:

- 2-1/8" (54 mm) diameter (bore)
- Latch hole: 1" (25 mm) diameter (cross bore)

Door Handing:

- Non-handed, except for the Johnston Single Dummy

Exposed Trim:

- Levers: Solid Cast Zinc
- Rose: Brass

Rose Diameter:

2-9/16" (65 mm)

Door Thickness:

- 1-3/8" - 1-3/4" (35 mm - 45 mm)

Backset:

- 1" x 2-1/4" (25mm x 57mm) Faceplate
- 2-3/8" to 2-3/4" (60mm to 70mm) adjustable
- 4-Way design (Square corner & Round corner faceplate provided)

Strikes:

- Round Corner Full Lip Standard
- Square Corner Full Lip and Tee Strike available separately

Functions:

Passage, Privacy, Single Dummy

Packaging:

Box packed

Warranty:

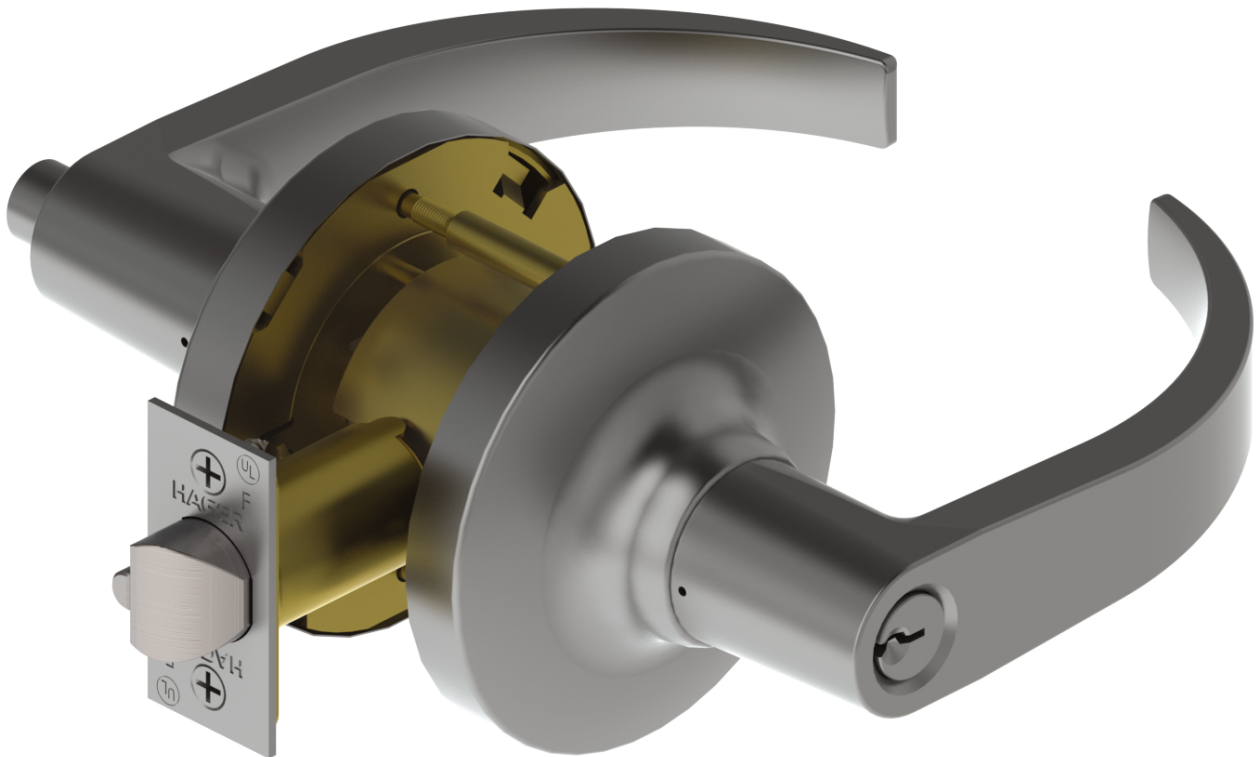
One year

FINISHES

US15, US26D, BLK

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 —

<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>Finish</p> <ul style="list-style-type: none"> US3 US4 US10B US26 US26D BLK 	<p>Interior Finish (If Different)</p>	<p>Conventional Keyway</p> <ul style="list-style-type: none"> SCC - Schlage C AR1 - Arrow C60 - Corbin 60 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 	<p>Strike</p> <ul style="list-style-type: none"> ASA - ASA (Standard) FULL - SQ Corner Full Lip FLRC - RD Corner Full Lip TEE - TEE 	<p>Options</p> <ul style="list-style-type: none"> TW - Tactile Warning LL - Leadlined ELEU - Fail Safe/Secure 12/24 RX - Request to Exit ELEURX - Fail Safe/Secure 12/24 with RX 6PKEY - 6-pin Keyed 7PKEY - 7-pin Keyed (Hager Only) IC* - Small Format Interchangeable Core Prep LFIC** - Large Format Interchangeable Core Prep ANTI - Antimicrobial Coating (26D only) VKC - Visual Key Control CKC - Concealed Key Control VCKC - Visual/Concealed Key Control
<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>Lever Style</p> <ul style="list-style-type: none"> 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 CIC - Construction IC Core NC - SFIC (Less Core) LF - LFIC (Less Core) 			
<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 90 or www.hagerco.com).
2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 75).
3. Interchangeable construction core will be included with the lockset if "CIC" is specified in keying section. Customer must specify BLUE or RED color. BLACK is standard color for LFIC construction core.

* 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 (Lock Less Core) : 3453 2-3/4" US26D WTN NC ASA IC
: 3453 2-3/4" US26D WTN LF ASA LFIC

Ordering example (Const Core Included) : 3453 2-3/4" US26D WTN CIC ASA IC7 BLU
: 3453 2-3/4" US26D WTN CIC ASA LFIC BLK

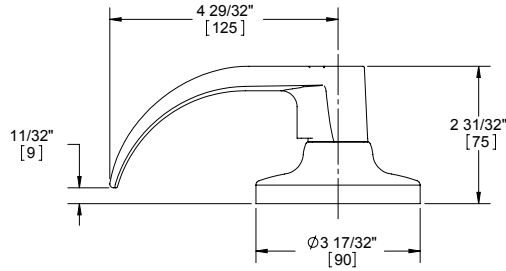
3400 Series - Function Chart

	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
	Institution	82	Deadlocking latchbolt operated by key from either side. Both levers are locked at all times.	F87
	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

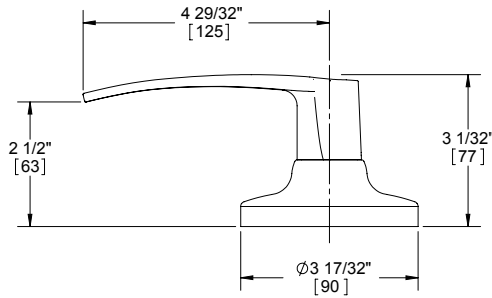
Notes: *Intruder Classroom includes locking direction indicator stamped on the inside rose standard.

3400 Series - Lever Options

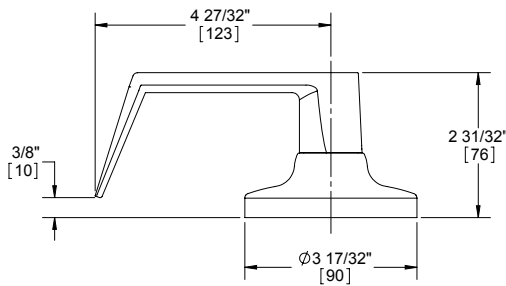
ARCHER LEVER



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

- 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:

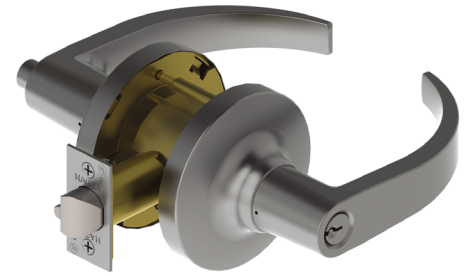
- BHMA Certified ANSI A156.2 Series 4000 Grade 1
- ADA Compliant ANSI A117.1 Accessibility Code
- ANSI A250.13 Severe Windstorm Resistant Component
- UL/cUL Listed for all functions up to 3 hours for "A" label doors
- UL10C Positive Pressure Rated

Lever Options:

Archer, August, Withnell levers

Options:

- Lead lined
- Tactile warning
- 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:

- Levers: Cast zinc
- Rose: Wrought brass or stainless steel

Rose Diameter:

3-17/32" (90 mm) levers

Lock Chassis:

- Heavy gauge steel, zinc dichromated for corrosion resistance
- Free wheeling
- Thru-bolt mounting

Keys:

Two operating keys supplied per lock

Cylinders/Cores:

- 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)
- Zero bit cylinders will be 6 pin keyed - standard
- 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:

• 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
- 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, 80 Storeroom, 95 Intruder Classroom

FINISHES

- US3, US4, US10B, US26, US26D, BLK

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
- Motorized locking and unlocking allows for lower power consumption



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:
- 3480ELEU - 12-24V AC/DC (250mA MAX in rush and 10mA MAX holding)
 - 3480RX - 125 VAC (3A) - 30VDC (2A)

FINISHES

US3, US4, US10B, US26, US26D, BLK

Function	Function No.	Function Description
Storeroom - Fail Safe/Fail Secure 12V/24V	3480ELEU	Outside lever continuously locked (EL) or unlocked (EU) by 12 or 24V. Latchbolt retracted by key outside or lever inside. Auxiliary latch deadlocks latchbolt when door is closed. Inside always free for immediate egress.
Storeroom - Request to Exit	RX	Single switch (SPDT) mounted inside the spring cage monitors inside lever rotation to send a signal for a variety of applications: Shunt an alarm, sound an alarm, release an electromagnetic lock or signal a console.

Note: Quick connect option is available. Locks will have molex connector attached to allow rapid installation of locks when used with Hager harness cable. See price book for details.

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

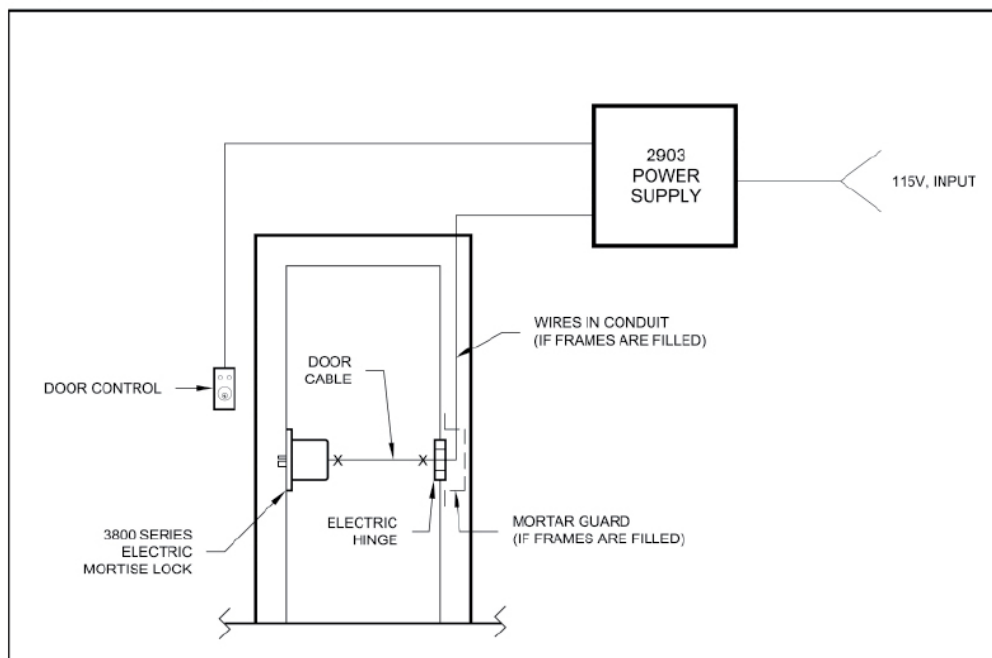
2908 Power Supply Includes:

- 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



2903

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

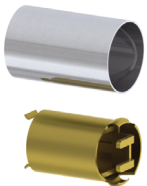
3945
2-3/8" (60 mm) Backset
Passage Spring Latch
 • Square and round corner available
 • 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate



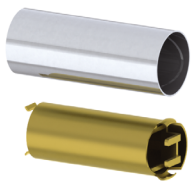
3964
2-3/4" (70 mm) Backset
Privacy Spring Latch - Standard
 • Square and round corner available
 • 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

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

Backset Extension Links

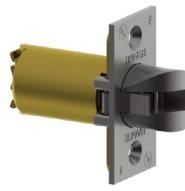


3916
3-3/4" (95 mm) Backset
Extension Link
 Must use with 2-3/8" (60 mm) backset latch to achieve 3-3/4" total backset

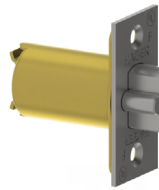


3936
5" (127 mm) Backset
Extension Link
 Must use with 2-3/4" (70 mm) backset latch to achieve 5" total backset

Dead Latches

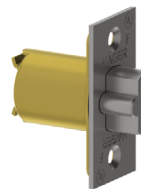


3932
2-3/4" (70 mm) Backset
Dead Latch
 • 3/4" (18 mm) throw
 • Square corner only
 • For use on fire rated pairs of doors
 • 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate



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



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

Notes: All Grade 1 latchbolts supplied with 1-1/8" (29 mm) x 2-1/4" (57 mm) faceplates.

3400 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

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

3400 Series - Accessories



3911

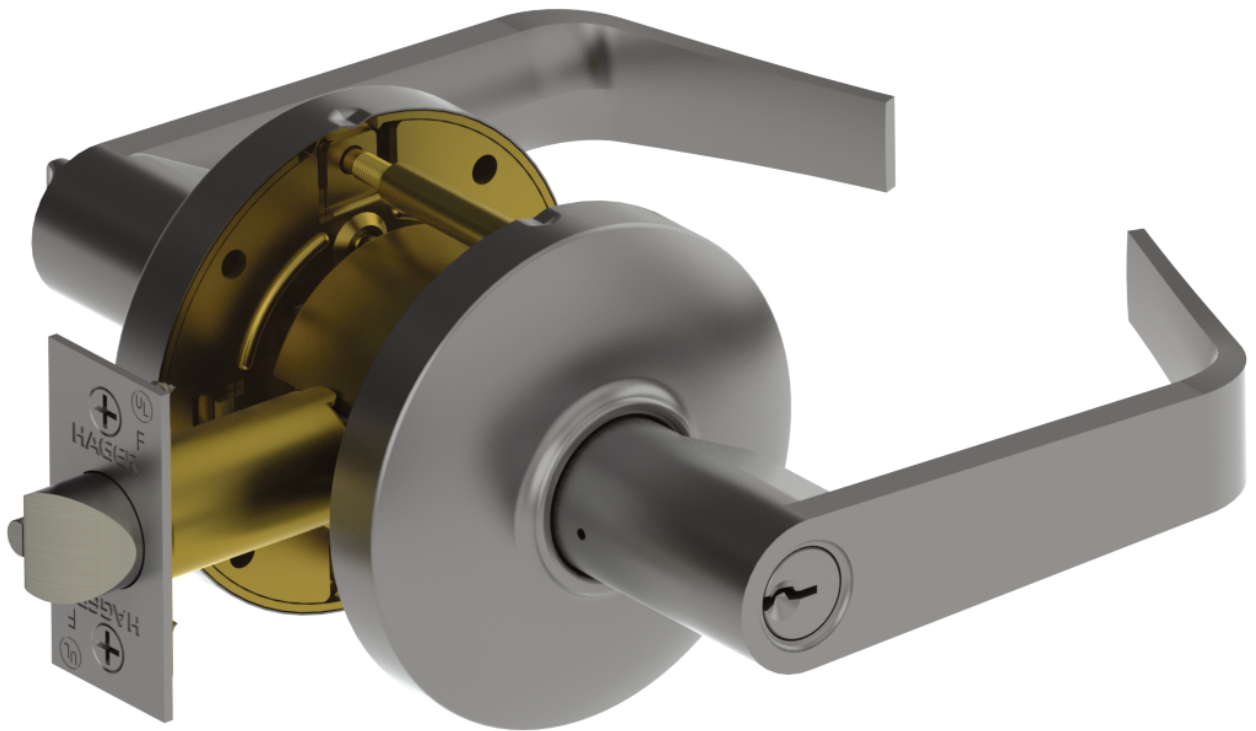
Thru-Bolt Jig

For lever set only

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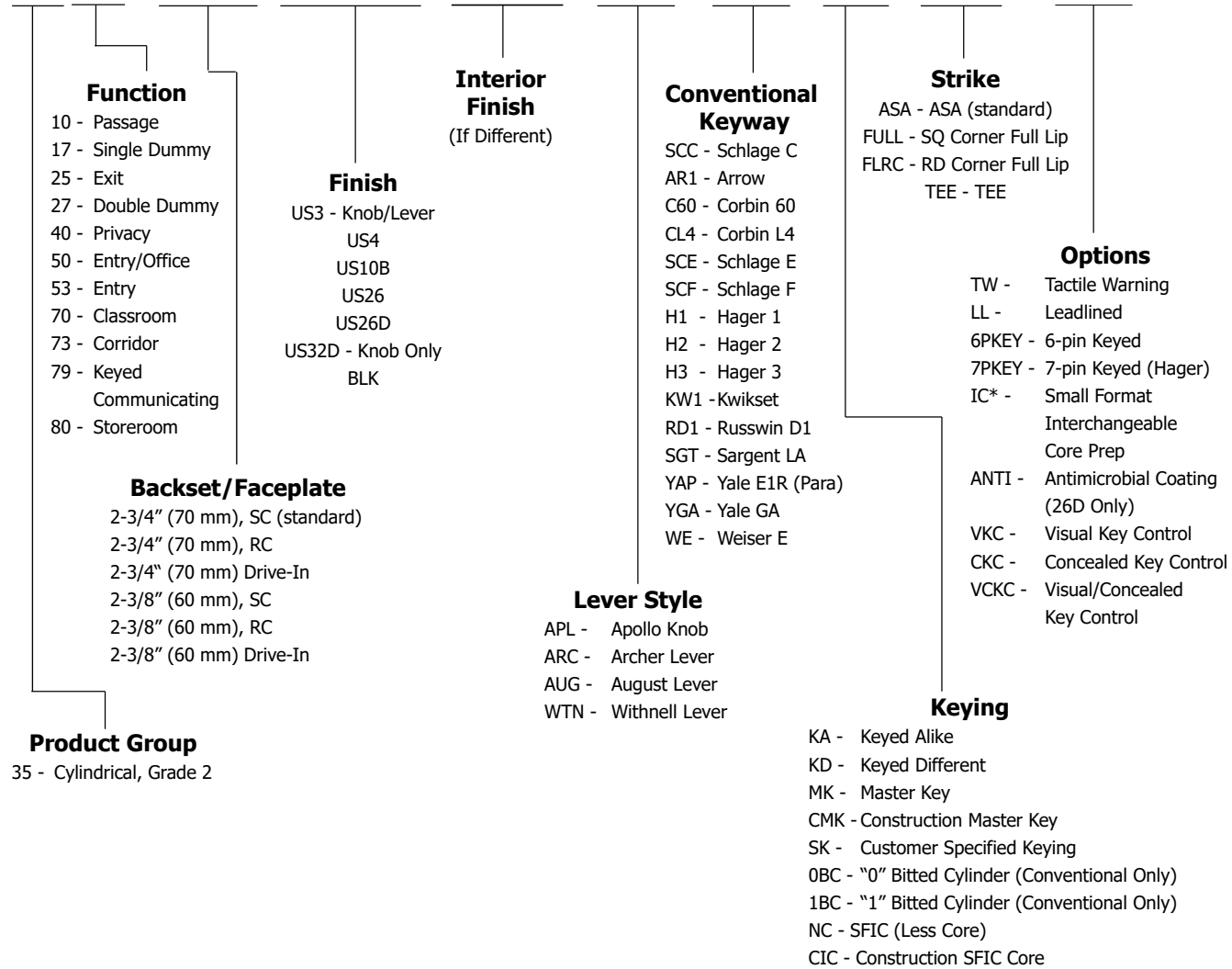
3500 Series

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 —














- Notes:
1. If masterkeyed, include completed master key form with order (available on page 90 or www.hagerco.com).
 2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 75).
 3. Interchangeable construction core will be included with the lockset if "CIC" is specified in keying section. Customer must specify BLUE or RED color.

* Small format interchangeable core sold separately. Available in Best Keyways (A Standard) or Hager Keyways (optional).

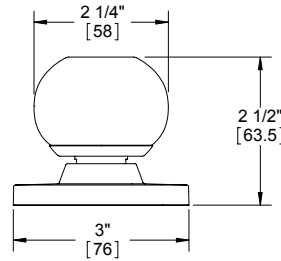
Ordering example (Lock Less Core): 3553 2-3/4" US26D WTN NC ASA IC
Ordering example (Const Core Included): 3553 2-3/4" US26D WTN CIC ASA IC7 BLU

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
	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

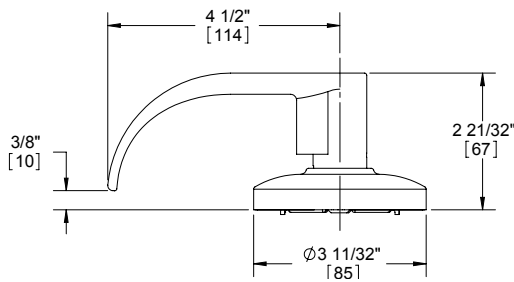
3500 Series - Lever Options

APOLLO KNOB

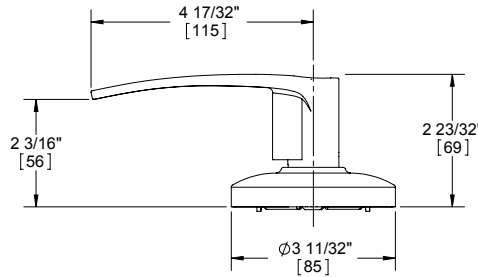


SFIC not available in US3 finish

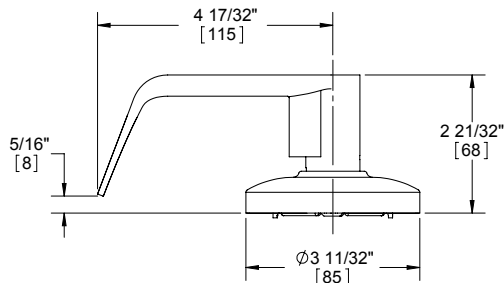
ARCHER LEVER



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:

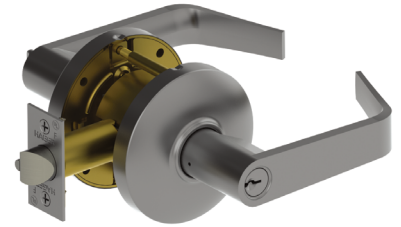
- BHMA Certified ANSI A156.2 Series 4000 Grade 2
- ADA Compliant ANSI A117.1 Accessibility Code (levers only)
- ANSI A250.13 Severe Windstorm Resistant Component
- UL/cUL Listed for all functions up to 3 hours for "A" label single doors
- UL10C Positive Pressure Rated

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)
- Zero bit cylinders will be 6 pin keyed - standard
- 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" (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
- Square corner faceplate standard, round corner available
- 3/4" (18 mm) latch available

Strike:

3935 ASA 1-1/4" x 4-7/8" (32 mm x 124 mm) strike - Standard

Functions:

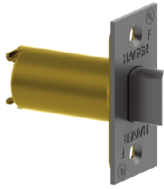
10 Passage, 17 Dummy, 25 Exit (only), 27 Double Dummy (levers only), 40 Privacy, 50 Entry/Office, 53 Entry, 70 Classroom, 73 Corridor (levers only), 79 Keyed Communicating (levers only), 80 Storeroom (Notes: Blank plate projection is 13/16" for function 25)

FINISHES

- US3, US4, US10B, US26, US26D, BLK (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

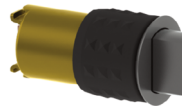
3950
2-3/8" (60 mm) Backset
Dead Latch
 • Square and round corner available
 • 1" x 2-1/4" (25 mm x 57 mm) faceplate
 • For use with all keyed functions other than corridor



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

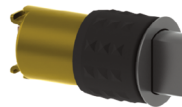
3994
2-3/8" (60 mm) Backset
Dead Latch - Corridor Function Only
 • Square and round corner available
 • 1" x 2-1/4" (25 mm x 57 mm) faceplate

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



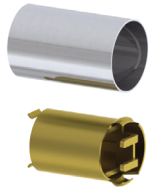
3996
2-3/8" (60 mm) Backset
Dead Latch - Corridor Function Only

3997
2-3/4" (70 mm) Backset
Dead Latch - Corridor Function Only

3500 Series - Latchbolts

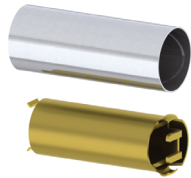
3500 Series - Strikes

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

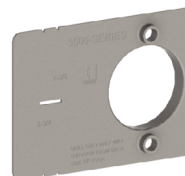
3500 SERIES ACCESSORIES



3959

Faceplate Adapter

Converts 1" (25 mm) to 1-1/8" (28 mm) width



3912

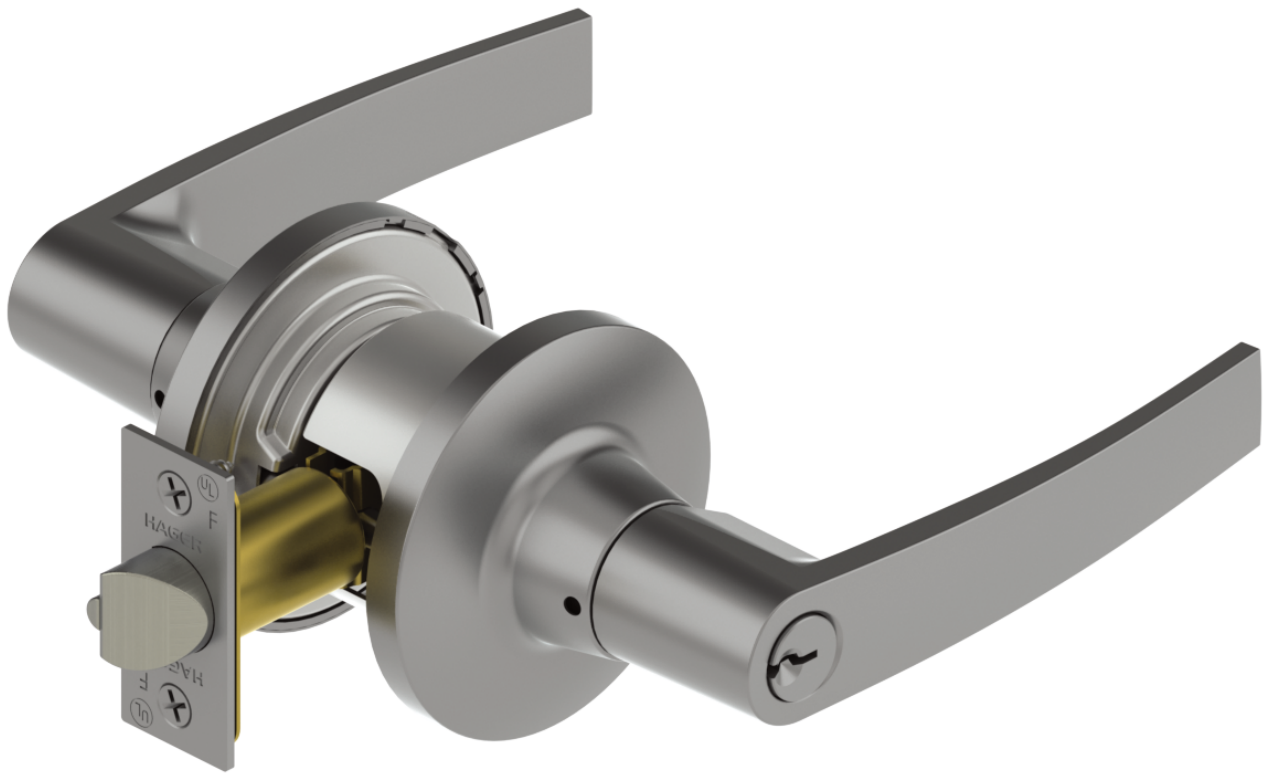
Thru-Bolt Jig

For 3500 Series lever set only

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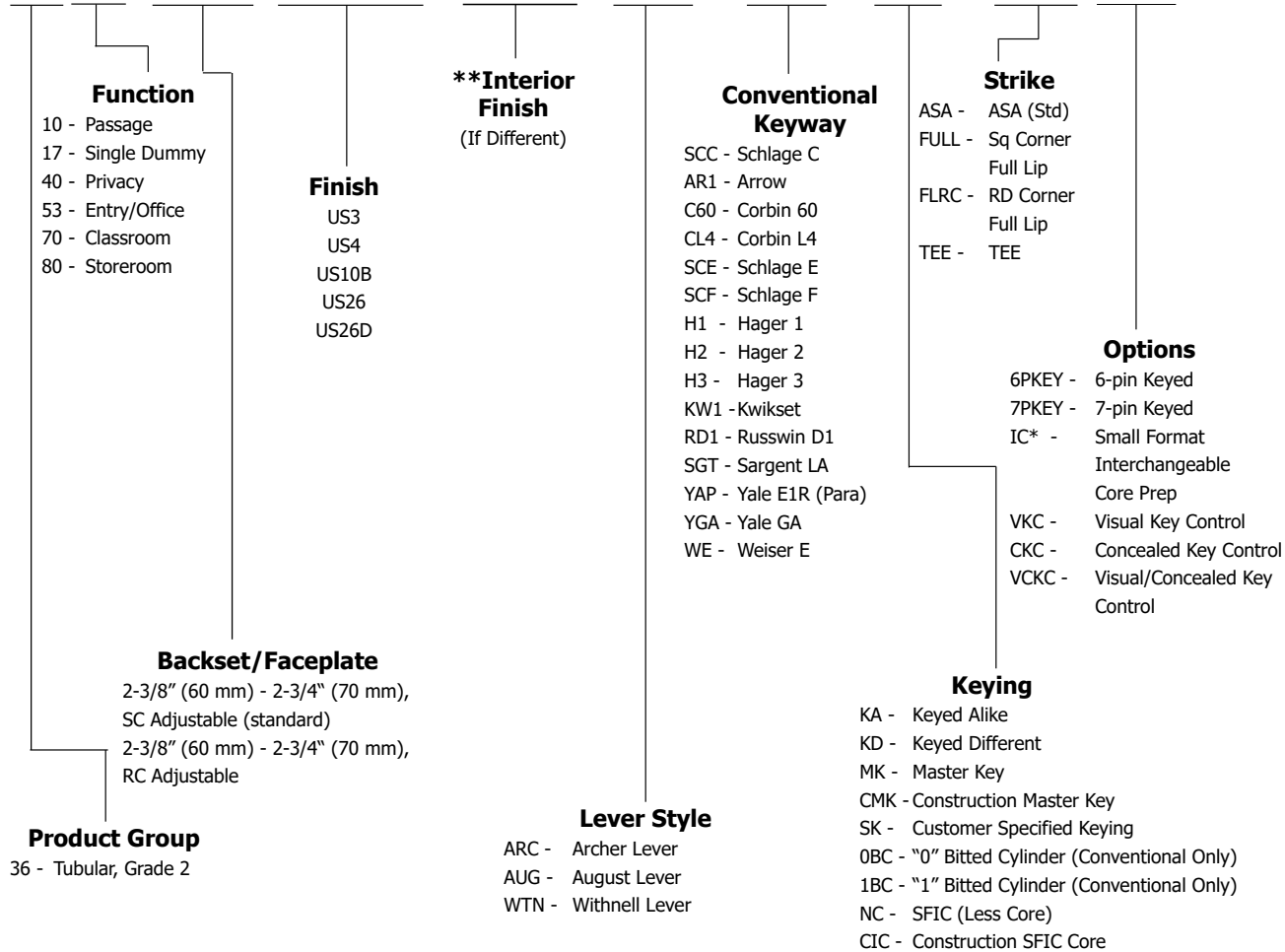
3600 Series

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

3653 ADJ US26D US26 ARC SCC KD ASA -



Notes:

1. If masterkeyed, include completed master key form with order (available on page 90 or www.hagerco.com).
2. For additional keying information, please refer to cylinder, core, and keying section of catalog (page 75).







* Small format interchangeable core sold separately. Available in Best Keyways (A Standard) or Hager Keyways (optional).

Ordering example (Less SFIC Core): 3653 ADJ US26D WTN NC ASA IC

Ordering example (Const. Core Included): 3653 ADJ US26D WTN CIC ASA IC7 BLU

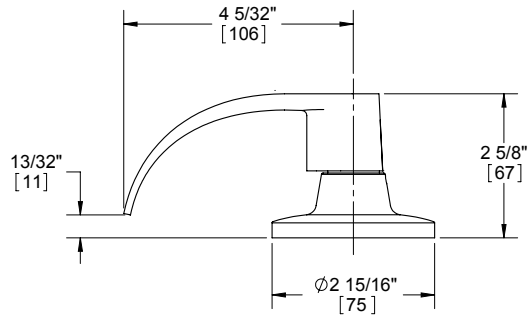
** Contact factory for lead time and availability before ordering

3600 Series - Function Chart

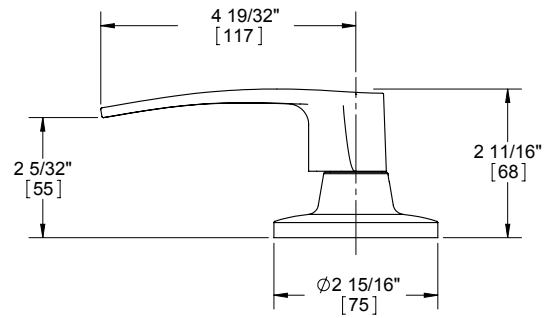
Function	Function No.	Function Description	ANSI No.	
Non-Keyed				
	Passage	10	Latchbolt operated by lever from either side at all times.	F75
	Dummy - Single	17	Pull one side, no mechanical operation.	-
	Privacy	40	Latchbolt operated by lever from either side. Outside lever is locked by push button inside 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	Outside lever locked at all times unless unlocked temporarily by key. Inside lever is always unlocked.	F86

3600 Series - Lever Options

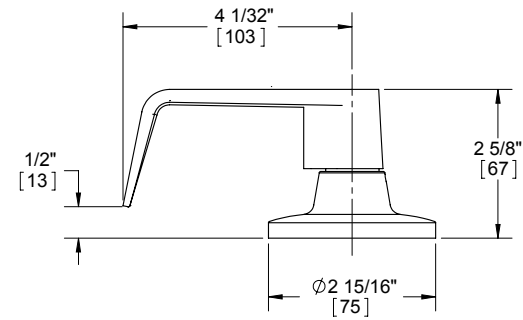
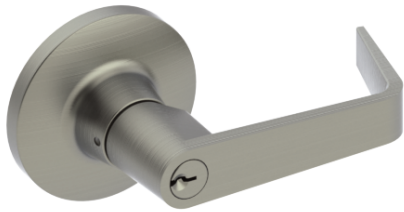
ARCHER LEVER



AUGUST LEVER



WITHNELL LEVER



3600 Series - Grade 2 Tubular

WARRANTY

Five-year warranty

FEATURES

- Heavy duty residential - medium duty commercial
- No exposed mounting screws
- Non-handed
- Conventional cylinder or Small Format Interchangeable Core option available

Certifications:

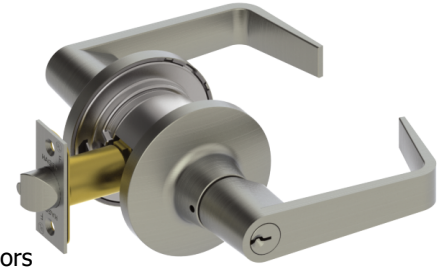
- BHMA Certified ANSI A156.2 Series 4000 Grade 2
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL Listed for all functions up to 3 hours for "A" label single doors
- UL10C Positive Pressure Rated

Lever Options:

Archer, August, Withnell levers

Options:

- Split finish (Contact Customer Service for availability)



SPECIFICATIONS

Standard Door Prep:

- 2-1/8" (54 mm) diameter (bore)
- Latch hole: 1" (25 mm) diameter (cross bore)

Exposed Trim:

- 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:

- 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)
- Zero bit cylinders will be 6 pin keyed – standard
- 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:

- Adjustable 2-3/8" - 2-3/4" (60 mm - 70 mm)
- Preset at factory for 2-3/8" (60 mm)

Latchbolt:

- 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

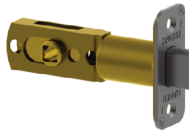
US3, US4, US10B, US26, US26D

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

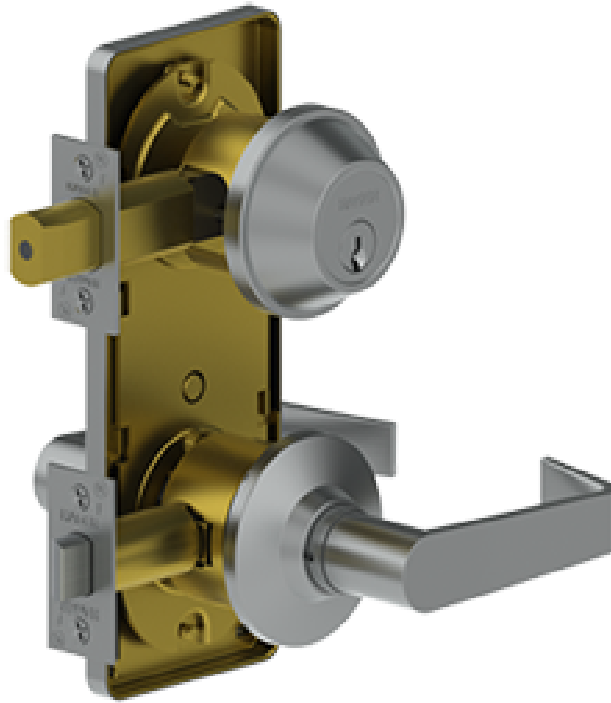


- 3958**
Full Lip Strike with Round Corner
- 1-5/8" x 2-1/4" (41 mm x 57 mm)
 - 1/4" radius



- 3959**
Faceplate Adapter
- Converts 1" (25 mm) to 1-1/8" (28 mm) width
 - Supplied standard with 3600 Series

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

3710 2-3/4" US26D US26 ARC SCC KD TEE -

<p>Function</p> <p>10 - Entry/Single Locking</p> <p>53 - Entry/Double Locking</p> <p>96 - Single Locking Privacy w/Occupancy Indicator</p> <p>Product Group</p> <p>37 - Interconnected, Grade 2</p>	<p>Finish</p> <p>US3</p> <p>US4</p> <p>US10B</p> <p>US26</p> <p>US26D</p>	<p>**Interior Finish</p> <p>(If Different)</p> <p>Lever Style</p> <p>ARC - Archer Lever</p> <p>AUG - August Lever</p> <p>WTN - Withnell Lever</p>	<p>Conventional Keyway</p> <p>SCC - Schlage C</p> <p>AR1 - Arrow</p> <p>C60 - Corbin 60</p> <p>CL4 - Corbin L4</p> <p>SCE - Schlage E</p> <p>SCF - Schlage F</p> <p>H1 - Hager 1</p> <p>H2 - Hager 2</p> <p>H3 - Hager 3</p> <p>KW1 - Kwikset</p> <p>RD1 - Russwin D1</p> <p>SGT - Sargent LA</p> <p>YAP - Yale E1R (Para)</p> <p>YGA - Yale GA</p> <p>WE - Weiser E</p>	<p>Strike</p> <p>TEE - TEE Strike (Std)</p> <p>FULL - Sq Corner Full Lip</p> <p>FLRC - RD Corner Full Lip</p> <p>Options</p> <p>6PKEY - 6-pin Keyed</p> <p>7PKEY - 7-pin Keyed (Hager)</p> <p>IC* - Small Format Interchangeable Core Prep</p> <p>VKC - Visual Key Control</p> <p>CKC - Concealed Key Control</p> <p>VCKC - Visual/Concealed Key Control</p> <p>Keying</p> <p>KA - Keyed Alike</p> <p>KD - Keyed Different</p> <p>MK - Master Key</p> <p>CMK - Construction Master Key</p> <p>SK - Customer Specified Keying</p> <p>0BC - "0" Bitted Cylinder (Conventional Only)</p> <p>1BC - "1" Bitted Cylinder (Conventional Only)</p> <p>NC - SFIC (Less Core)</p> <p>CIC - Construction SFIC Core</p>
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Backset/Faceplate

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

- Notes:
1. If masterkeyed, include completed master key form with order (available on page 90 or www.hagerco.com).
 2. For additional keying information, please refer to Cylinder, Core & Keying section of catalog (page 75).

* Small format interchangeable core sold separately. Available in Best Keyways (A Standard) or Hager Keyways (optional).

Ordering example (Less SFIC Core): 3710 2-3/4" US26D WTN NC TEE IC

Ordering example (const. core included): 3710 2-3/4" US26D WTN CIC TEE IC7 BLU

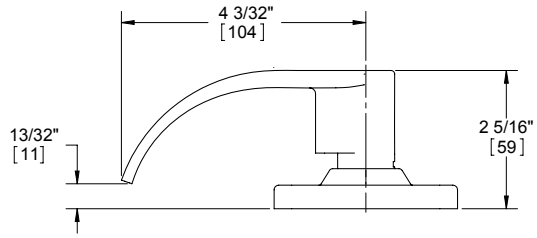
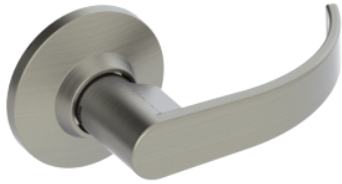
** Contact factory for lead time and availability before ordering

3700 SERIES FUNCTION CHART

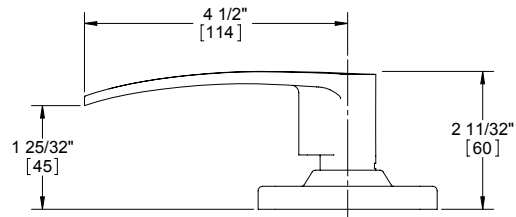
Function	Function No.	Function Description	ANSI No.
Interconnected			
	10	Deadbolt thrown or retracted by key outside or by inside thumbturn. Bolt automatically deadlocks when fully thrown. Latchbolt retracted by lever from either side. Inside lever retracts deadbolt and latchbolt simultaneously for immediate exit.	F95
	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
	96	Deadbolt thrown or retracted by thumbturn inside or retracted by emergency key outside. Bolt automatically deadlocks when fully thrown. Rotating thumbturn changes visual message on outside from "Vacant" to "In Use". Latchbolt retracted from either side. Inside lever retracts deadbolt and latchbolt simultaneously for immediate exit.	

3700 Series - Lever Options

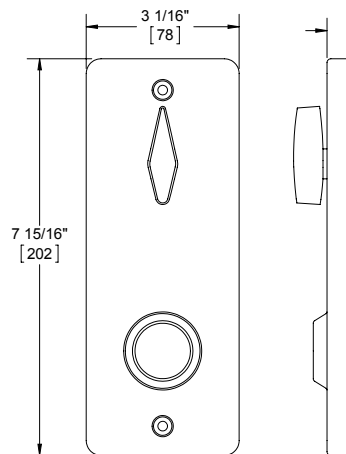
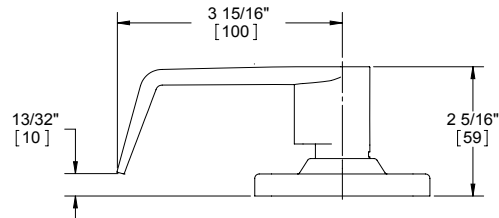
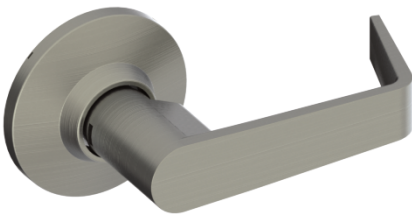
ARCHER LEVER



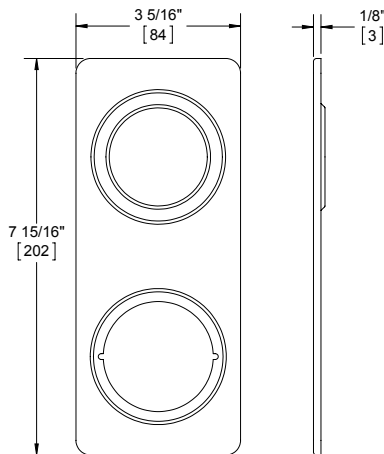
AUGUST LEVER



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:

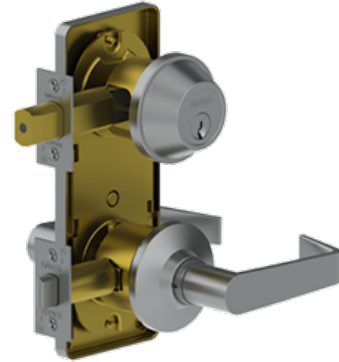
- BHMA Certified ANSI A156.12 Grade 2
- ADA Compliant ANSI A117.1 Accessibility Code
- UL/cUL Listed for all functions up to 3 hours for "A" label single doors
- UL10C Positive Pressure Rated

Lever Options:

Archer, August, Withnell levers

Options:

- Split finish (Contact Customer Service for availability)



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)

FINISHES

US3, US4, US10B, US26, US26D

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)
- Zero bit cylinders will be 6 pin keyed - standard
- 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
- 96 Single Locking Privacy w/indicator

3700 Series - Latchbolts

Spring Latches

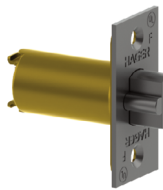


- 3947**
2-3/4" (70 mm) Backset
Passage Spring Latch
- Square and round corner available
 - 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate



- 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

Dead Latches

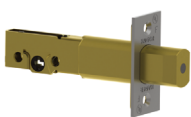


- 3948**
2-3/4" (70 mm) Backset
Dead Latch - Standard
- Square and round corner available
 - 1-1/8" x 2-1/4" (29 mm x 57 mm) faceplate

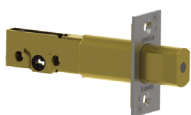


- 3950**
2-3/8" (60 mm) Backset
Dead Latch
- Square and round corner available
 - 1" x 2-1/4" (25 mm x 57 mm) faceplate

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

3700 Series - Strikes



- 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

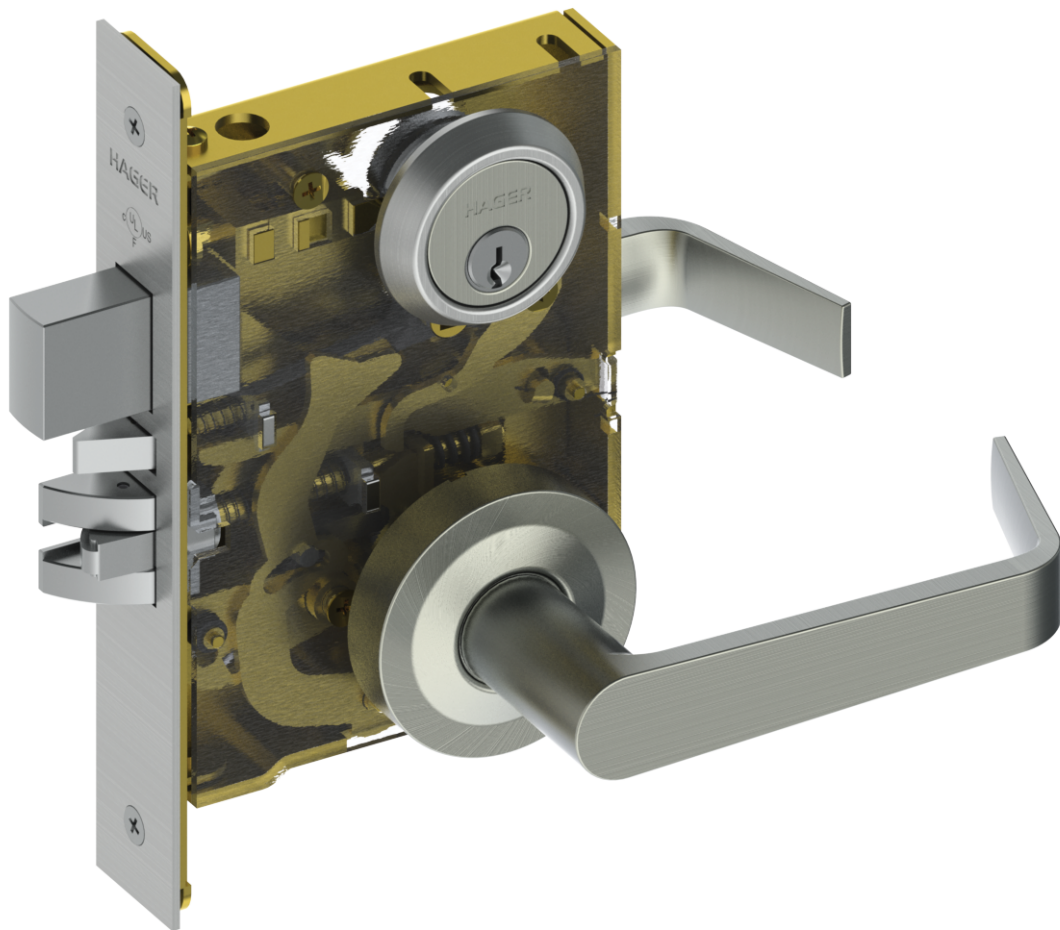


- 3959**
Faceplate Adapter
 Converts 1" (25 mm) to 1-1/8" (28 mm) width

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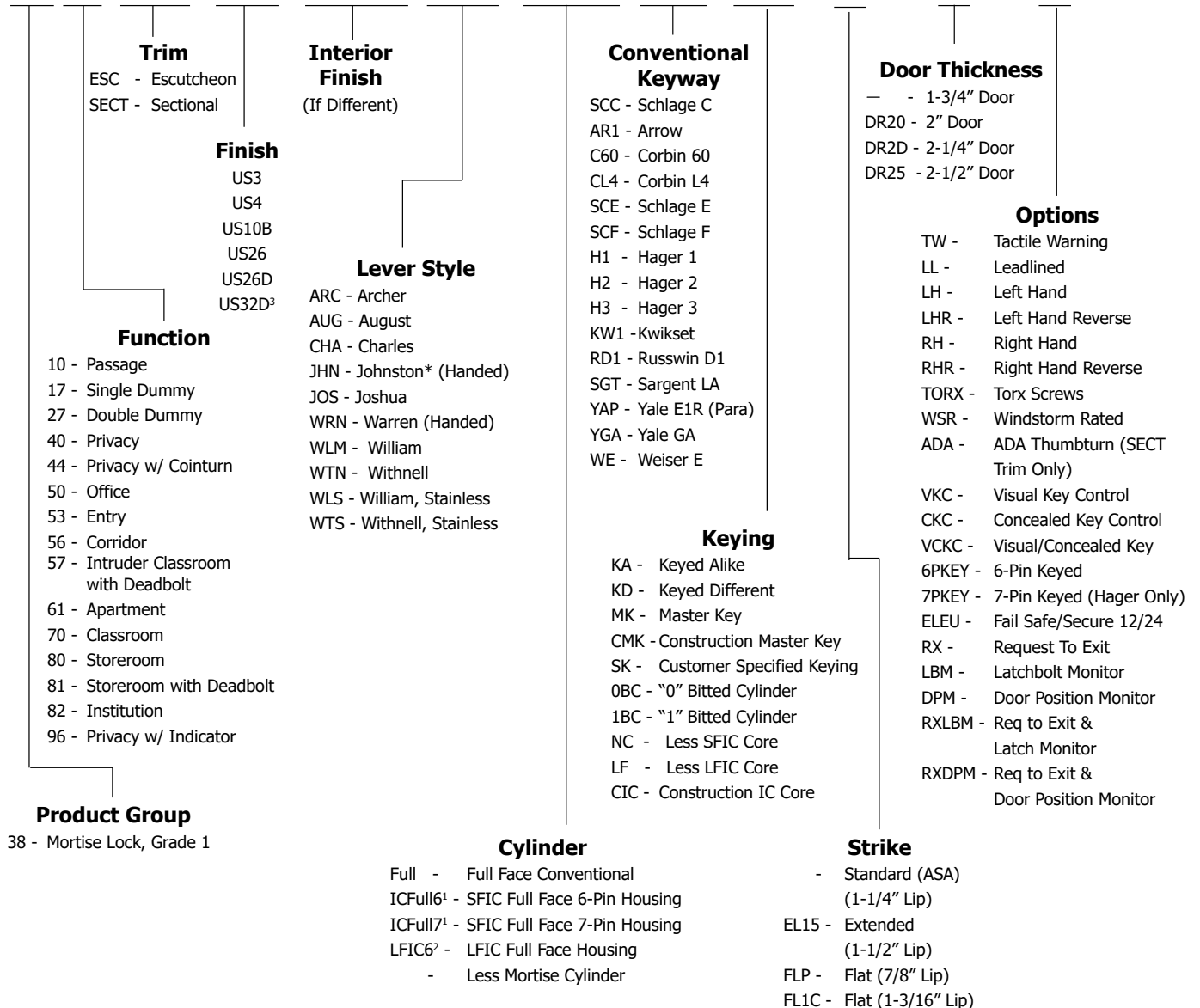
3800 Series

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 Full SCC KD



Notes:

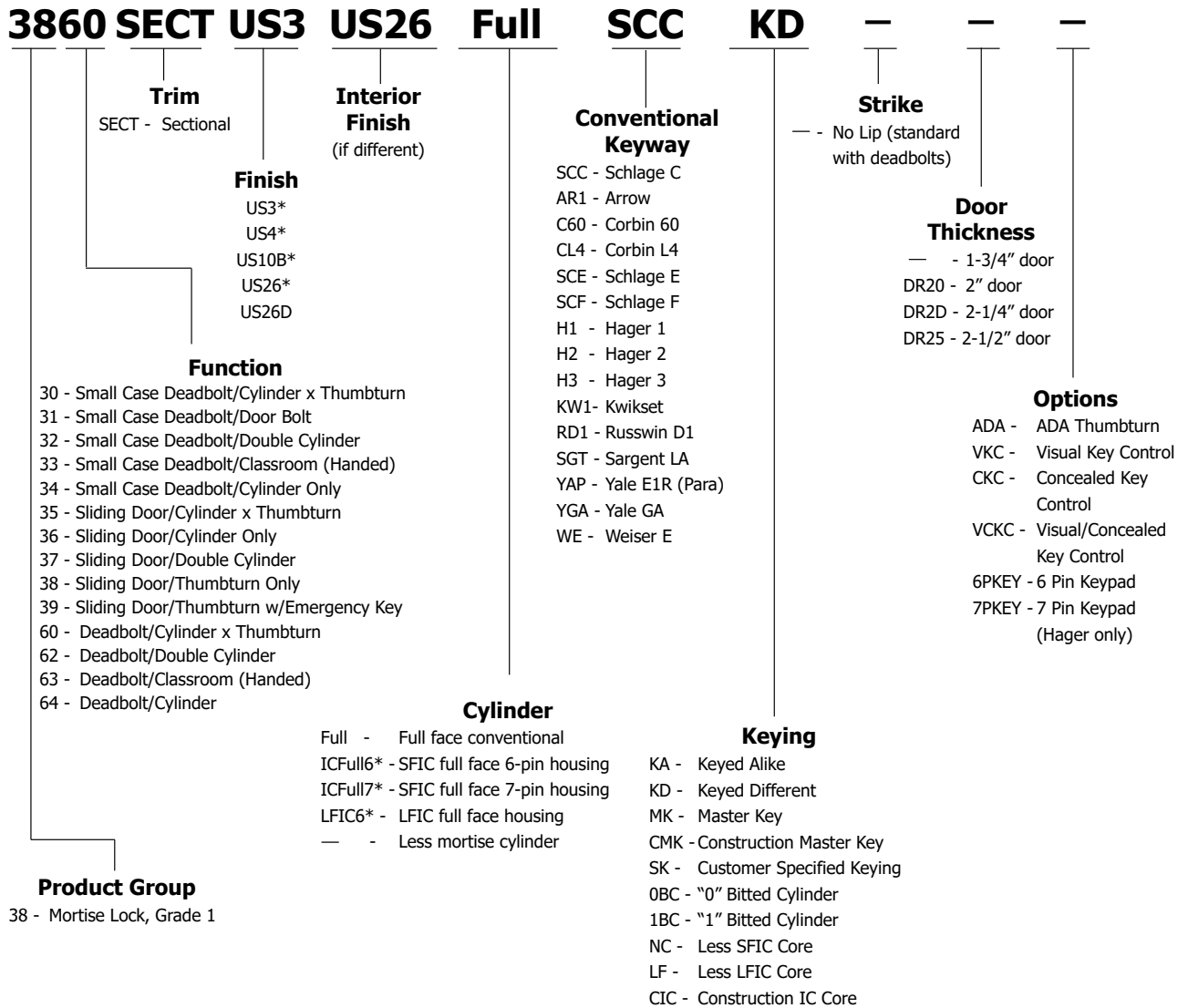
- Finishes other than US10B, US26D and US32D will be subject to extended lead times.
 - If masterkeyed, include completed master key form with order (available on page 90 or www.hagerco.com).
 - For additional keying information, refer to cylinder, core, and keying section of catalog (page 75).
 - Quick Connect option available on 3800 Series Electrified Sectional and Escutcheon models (EL, EU, RX, DPM, and LM).
- Ordering example: 3880 SECT US26D WTN FULL SCC KD ELEUQC**

¹ Small format interchangeable core sold separately. Available in Best Keyways (A Standard), Hager Keyways (optional).
² Large format interchangeable core sold separately. Available in Schlage C Keyway only.

- Ordering example (Less IC Core):**
- 3850 ESC 26D WTN ICFULL6 NC
 - 3850 ESC 26D WTN LFIC6 LF
- Ordering example (const. core included):**
- 3850 ESC 26D WTN ICFULL7 CIC BLU
 - 3850 ESC 26D WTN LFIC6 CIC BLK

³ 32D look on a cast zinc lever; for a true 32D, specify stainless steel levers WLS, or WTS.

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 90 or www.hagerco.com).
- For additional keying information, refer to cylinder, core, and keying section of catalog (page 75).

* 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 (Less IC Core):

- 3860 SECT 26D ICFULL6 NC
- 3860 SECT 26D LFC6 LF




Ordering example (const. core included):

- 3860 SECT 26D ICFULL7 CIC BLU
- 3860 SECT 26D LFC6 CIC BLK











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	Latch bolt retracted by lever from either side except when outside lever is locked by inside thumbturn. Operating inside lever, closing door or operating outside emergency release unlocks outside lever. The outside indicator will display VACANT while unlocked or OCCUPIED while locked. The emergency release is accessed by removing the emergency button and using the furnished emergency key to unlock the unit.	-
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

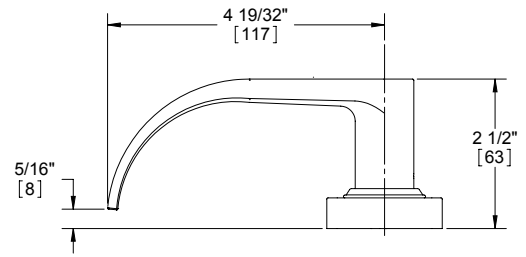
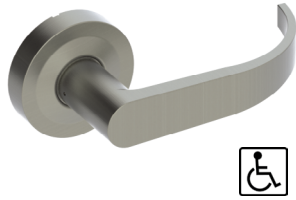
Function	Function No.	Function Description	ANSI No.	
	Cylinder x Thumbturn (Small Case)	30	Deadbolt operated by key from outside and by thumbturn from inside.	E06071
	Door Bolt (Small Case)	31	Deadbolt operated by thumbturn from one side only. No trim on other side.	E06181
	Double Cylinder (Small Case)	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 (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

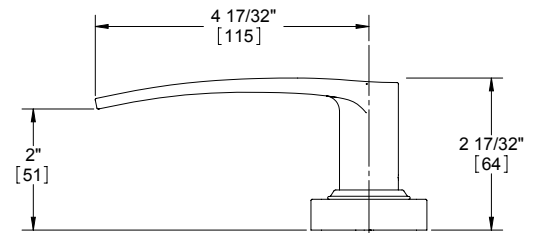
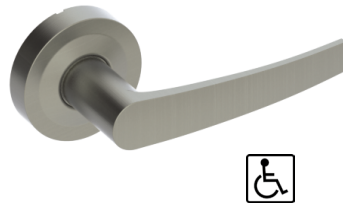
Function	Function No.	Function Description	ANSI No.
 Cylinder x Thumbturn (Full Case)	60	Deadbolt thrown or retracted by key outside or thumbturn inside.	F17
 Double Cylinder (Full Case)	62	Deadbolt operated by key from either side.	F16
 Classroom (Full Case)	63	Deadbolt thrown or retracted by key from 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 - Standard Lever Options

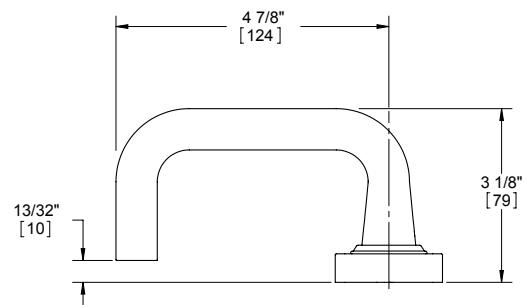
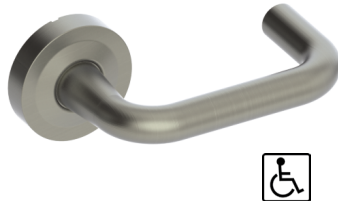
ARCHER LEVER



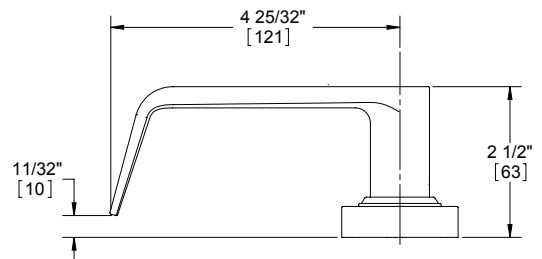
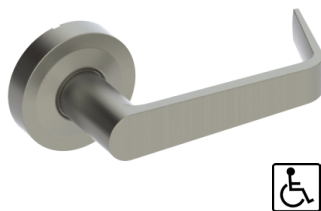
AUGUST LEVER



WILLIAM LEVER



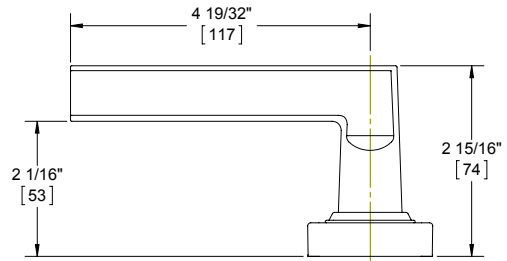
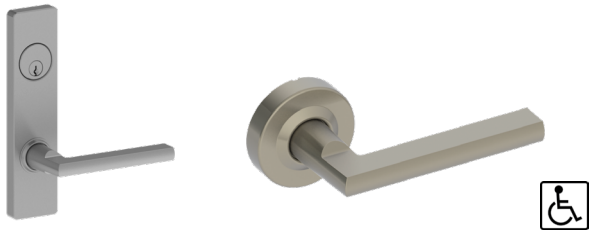
WITHNELL LEVER



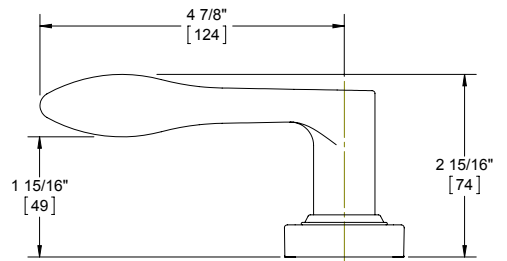
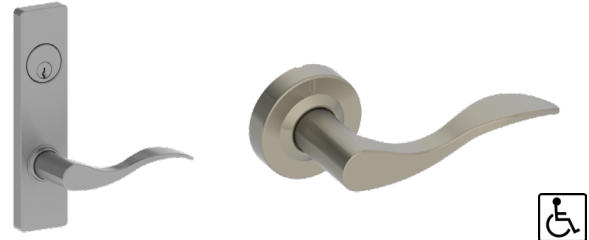
Optional tactile warning available on all lever styles (only outside lever will include raised surfaces unless otherwise specified).

3800 Series - Decorative Lever Options

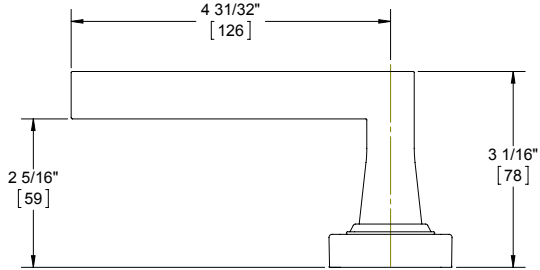
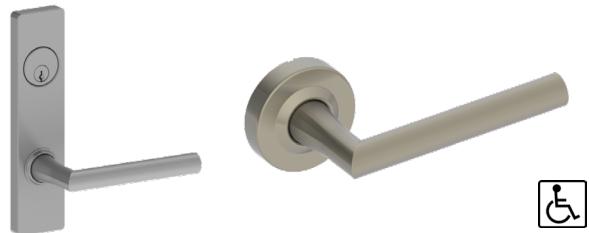
CHARLES LEVER



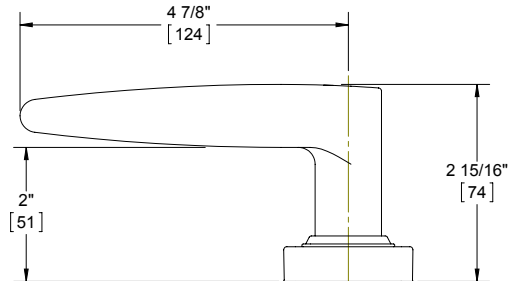
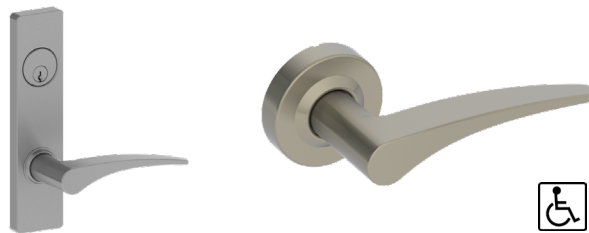
JOHNSTON LEVER



JOSHUA LEVER



WARREN LEVER



3800 Series - Grade 1 Mortise (Escutcheon) - Heavy Duty

WARRANTY FEATURES

Lifetime warranty

- 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
- A250.13 Severe Windstorm Resistant (only available in **53 and 81** Functions)

Lever Options:

Archer, August, Charles, Johnston (handed), Joshua, Warren (handed), William, Withnell levers

Options:

- Tactile warning
- Lead lining
- Split finish
- 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
- Stainless steel levers - Optional for Withnell (WTS), William (WLS) only

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
- Zero bit cylinders will be 6 pin keyed - standard
- 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 cylinder uses 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), 1-1/4" (32 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, US10B, US26, US26D, US32D
- US3, US4, and US26 may be subject to extended lead times
- *Withnell, and William are the only lever options available in both zinc and stainless steel. For stainless steel reference Withnell (WTS) or William (WLS) at the time of order.

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:

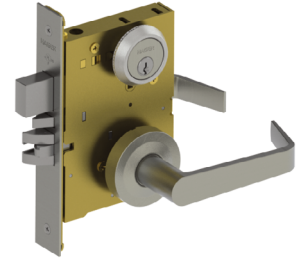
- BHMA Certified ANSI A156.13 Series 1000 Grade 1 Operational and Security
- ADA Compliant ANSI A117.1 Accessibility Code
- A250.13 Severe Windstorm Resistant (only available in **53 and 81** Functions)
- UL/cUL Listed for all functions up to 3 hours for "A" label doors
- UL10C Positive Pressure Rated

Lever Options:

Archer, August, Charles, Johnston (handed), Joshua, Warren (handed), William, Withnell levers

Options:

- Tactile warning
- Lead lining
- Split finish
- Factory handing available if specified
- ADA Style Thumbturn



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
- Stainless steel levers - Optional for Withnell (WTS), William (WLS) only

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 Cylinder uses 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), 1-1/4" (32 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, US10B, US26, US26D, US32D
 - US3, US4, and US26 may be subject to extended lead time
- *Withnell and William are the only lever options available in both zinc and stainless steel. For stainless steel reference Withnell (WTS) or William (WLS) at the time of order.

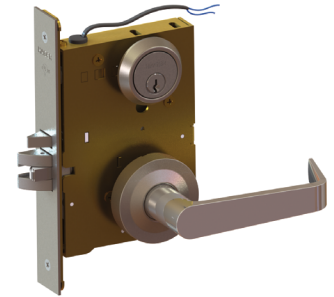
3800 Series - Electrified - Grade 1 Mortise - Heavy Duty

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
- Motorized locking and unlocking allows for low power consumption



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:

- 3880ELEU - 12-24V AC/DC (250mA MAX in rush and 10mA MAX holding)
- 3880RX - 125 VAC (3A) - 30VDC (2A)
- 3880LM - 125VAC (3A) - 30VDC (2A)
- 3880DPM - 28VDC (.3A)

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, US10B, US26, US26D, US32D
- US3, US4, and US26 may be subject to extended lead time

Function	Function No.	Function Description
Storeroom - Fail Safe/Fail Secure 12V/24V	3880ELEU	Outside lever continuously locked (EL) or unlocked (EU) by 12 or 24V. Latchbolt retracted by key outside or lever inside. Auxiliary latch deadlocks latchbolt when door is closed. Inside always free for immediate egress.
Institution - Fail Safe/Fail Secure 12V/24V	3882ELEU	Both levers continuously locked (EL) or unlocked (EU) by 12 or 24V. Latchbolt retracted by key inside or outside. Auxiliary latch deadlocks latchbolt when door is closed.
Request to Exit	RX	Single switch (SPDT) mounted inside the lock body monitors inside lever rotation to send a signal for a variety of applications: Shunt an alarm, sound an alarm, release an electromagnetic lock or signal a console. Available on 3810, 3850, 3870, 3880, 3881, or 3880ELEU..
Latchbolt Monitor	LM	Single switch (SPDT) mounted inside lockset monitors the full extension of the latchbolt. Available on 3880, 3882, or in conjunction with 3880ELEU or 3882ELEU.
Door Position Monitor	DPM	Single switch (SPDT Reed Magnetic Switch) mounted inside the lock monitors whether the door is fully closed. Available on 3880, 3882, or in conjunction with 3880ELEU or 3882ELEU.

Note: Quick connect option is available. Locks will have moxex connector attached to allow rapid installation of locks when used with Hager harness cable. See price book for details.

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

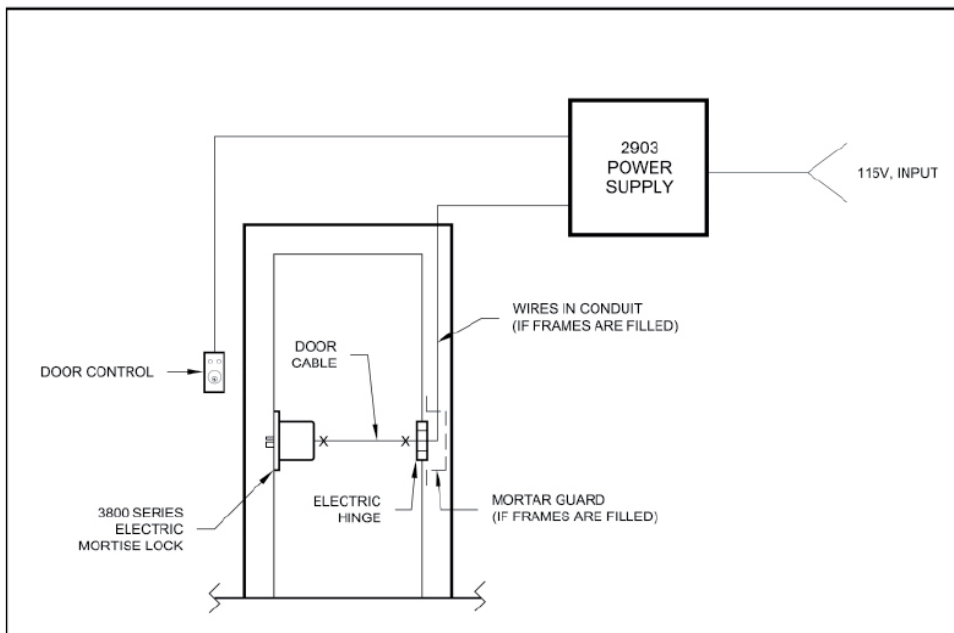
2908 Power Supply Includes:

- 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



2903

3800 Series - Strikes



3985

Standard Lip Strike

- Square corner
- 1-1/4" x 4-7/8" x 1-1/4" lip
(32 mm x 124 mm x 32 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 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)

3800 Series - MORTISE CYLINDERS



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

Options:

- ADA Style Thumbturn

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) - 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:

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, US10B, US26, US26D
- US3, US4, 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:

- ADA Compliant ANSI A117.1 Accessibility Code

Options:

- ADA Style Thumbturn

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:	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

- Heavy duty commercial, industrial, institutional
- Non-handed
- Conventional mortise cylinder, Small Format Interchangeable Core or Large Format Interchangeable Core option available
- ADA Style Thumbturn

Certifications:

- 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	US26D

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



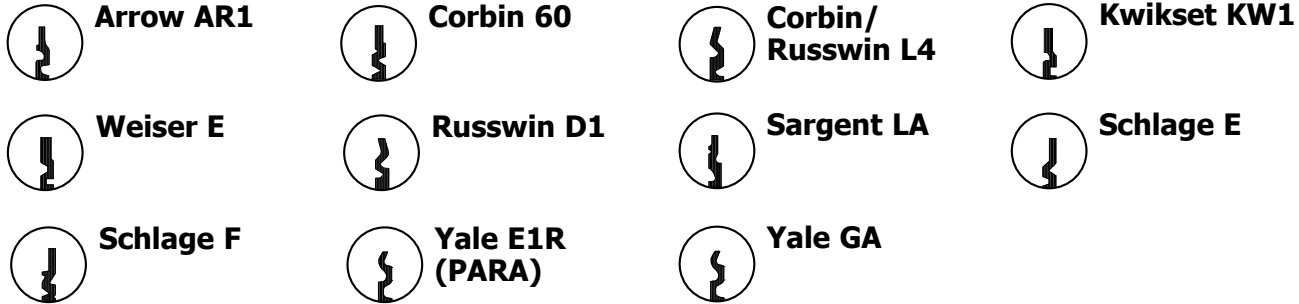
Cylinder, Core & Keying - Conventional Cylinders

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 and 1 Bitted cylinders provided 6 pin only
- 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, sent by email
- All optional keyways below may not be immediately available. Contact customer service for more information on a particular keyway.

Optional Keyways (Conventional Cylinders)

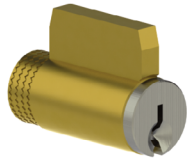


Keys

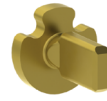


Cylinder, Core & Keying - Conventional Cylinders

Cylinders



3960
Key-in Lever/Deadlock Cylinder
 Includes two operating keys
 Specify keyway, tailpiece, and how keyed
 Note: Cylinder instructions and ordering guide available on www.hagerco.com

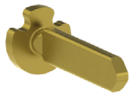


2-639-7008
Tailpiece 9
 Pack of 10 tailpieces for use with 3653L, 3670L and 3680L



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



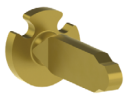
2-639-7087
Tailpiece Z
 Pack of 10 tailpieces for use with 3570L and 3573L



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



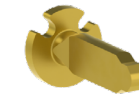
2-639-7002
Tailpiece 3
 Pack of 10 tailpieces for use with 3453K, 3480K, 3550L, 3553L, 3553K, 3579L, 3580L, 3580K, 3753L, 2550L, 2553L



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

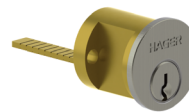


2-639-7322
Tailpiece V
 Pack of 10 tailpieces for use with 2570L



2-639-7005
Tailpiece 6
 Pack of 10 tailpieces for use with 3114DB and 3214DB exterior cylinders

Rim Cylinder Housing

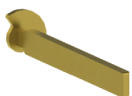


3901
Rim Cylinder

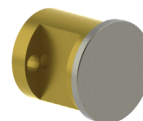
- Conventional cylinder supplied drilled 6-pin, keyed 5-pin standard
- Furnished with trim ring, mounting plate, and break off screws
- Long tail piece standard
- Supplied with two operating keys



2-639-7006
Tailpiece 7
 Pack of 10 tailpieces for use with 3114DB and 3214DB interior cylinders



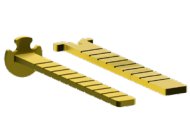
2-639-7007
Tailpiece 8
 Pack of 10 tailpieces for use with 3115DB, 3118DB, 3215DB, 3710DB, 3753DB



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)



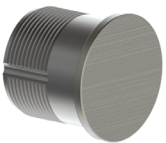
2-649-0137
Retaining Cup
 Can be used with 45PN, 47PN, and 47RN

Mortise Cylinder Housing



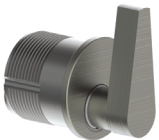
3902
Mortise Cylinder

- 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/Russwin/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 Keys



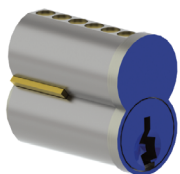
3983
SFIC Key Blank
Best Keyways used with 6-pin and 7-pin cores



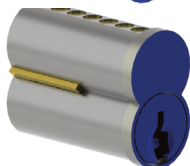
3984
SFIC Cut Key
Best Keyways used with 6-pin and 7-pin cores

SFIC Construction 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 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: Customer must specify the number of control keys required at the time of order.

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

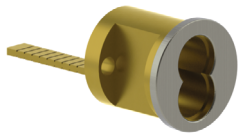
Pack of 10 tailpieces for use with 3114/3214 SFIC deadbolt (6-pin/7-pin combo)



2-639-7095

Pack of 10 tailpieces for use with 3115/3118/3215 and 3710/3753 SFIC deadbolt (6-pin/7-pin combo)

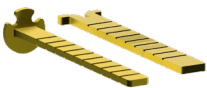
SFIC Rim Cylinder Housing



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

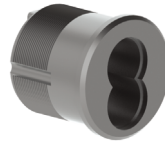
Extra Long Breakoff Screws
2-3/8" (60 mm)



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

Corbin/Best Cloverleaf Cam



2-639-7085

Schlage "L" Cam

For use with Hager mortise locks (all functions)



2-639-7086

Sargent/Yale Cam

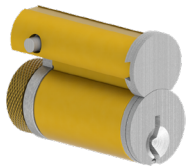
Cylinder, Core & Keying - Large Format Interchangeable Core

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)
- Temporary construction cores available upon request
- 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

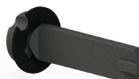
LFIC Tailpieces



2-639-7645
 50, 53 and 80 functions only



2-639-7646
 70 function only



2-639-7647
 73 and 95 functions only

LFIC 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 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 Rim Cylinder Accessories



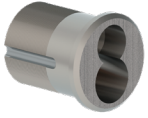
2-639-7578
Breakoff Tailpiece Assy
 2-3/8" (60 mm)



2-300-0175
Breakoff Screws
 2-1/8" (54 mm)

Cylinder, Core & Keying - Large Format Interchangeable Core

LFIC Mortise Cylinder Housing



3902

Mortise Cylinder

- 2-639-7570 standard cam;
2-639-7571 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/Best Cloverleaf Cam



2-639-7574
Sargent/Yale Cam

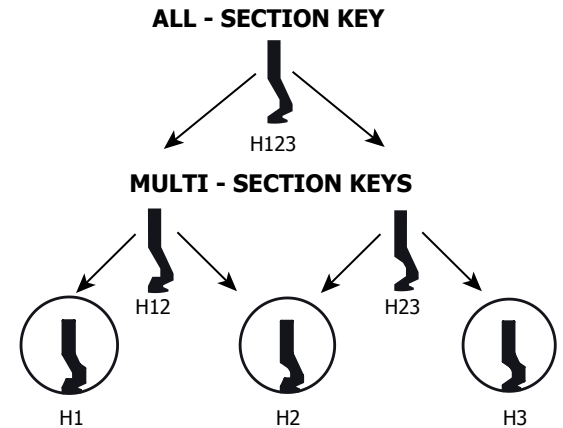
Cylinder, Core & Keying - Conventional Cylinders - Hager Keyway- (7-Pin Only)

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

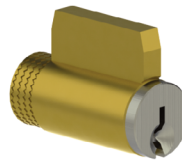
- Notes:
- Keys are cut bow to tip
 - Must purchase capping block/press and key punch due to 140 pin spacing



Hager Keyway (Conventional Cylinders)



Cylinders



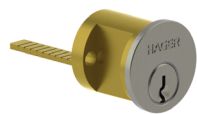
3906

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, sent by email
- * 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

Combined Core 7-Pin

- Includes two change keys
- Finishes include US4 or US26D
- 140 Pin spacing



3909

Uncombined Core 7-Pin

- Includes two key blanks
- Finishes include US4 or US26D
- 140 Pin spacing

SFIC Keys

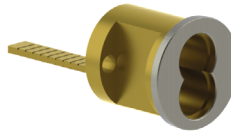


3907

SFIC Key Blank

Hager keyways (H1, H2, H3, H12, H23, H123)

SFIC Rim Cylinder Housing

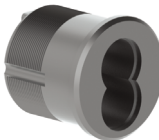


3901

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"**



3908

SFIC Cut Key

- Hager keyways (H1, H2, H3, H12, H23, H123)
- Specify keying required (masterkey, construction masterkey, control key)

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

2-639-7535**Key Punch**

140 spacing

2-639-7536**HPC 1200 Series Code Card**

140 spacing

Cylinder, Core & Keying - Pins

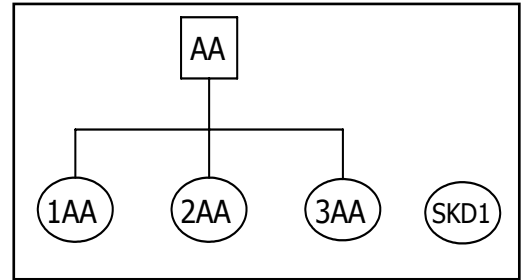
Original Manufacturer Nickel Silver Pins (Sold in multiples of 100)		
Part Number	Description	Size
2-639-8188	Top Pin	#2
2-639-8189	Top Pin	#3
2-639-8190	Top Pin	#4
2-639-8191	Top Pin	#5
2-639-8192	Top Pin	#6
2-639-8193	Top Pin	#7
2-639-8194	Top Pin	#8
2-639-8195	Top Pin	#9
2-639-8196	Top Pin	#10
2-639-8197	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
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
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

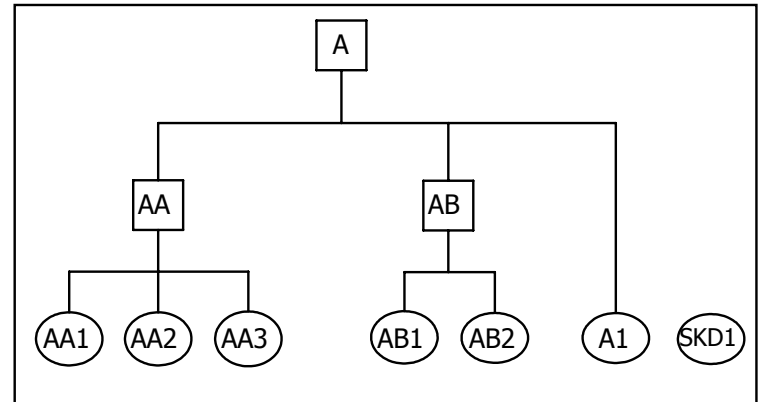
The master key symbol consists to TWO letters, **AA**. The change key numbers are added to the master key letters. The numbers come **FIRST** for a simple master key system, example: **1AA, 2AA, 3AA, etc.**



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.**

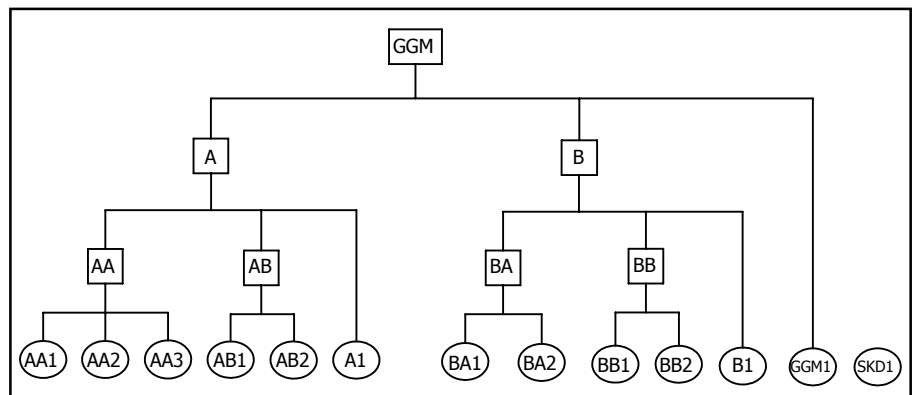
If a cylinder is to be operated by its change key and the GMK only (No master), the change number is added to the GMK symbol. This is illustrated by the keyset symbol **A1** in the schematic shown.

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.**

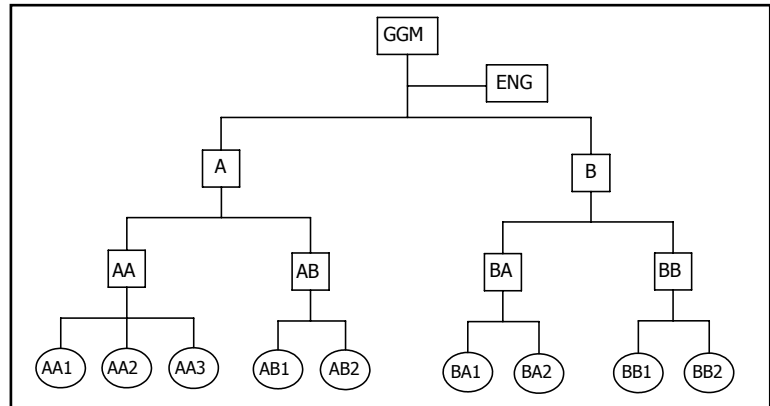
NO MASTER KEY (NMK)

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, GG MK), such as **AA1** and **AA2**, it is known as controlled cross keying. When you combine keys under different higher levels (MK, GMK, GG MK), 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

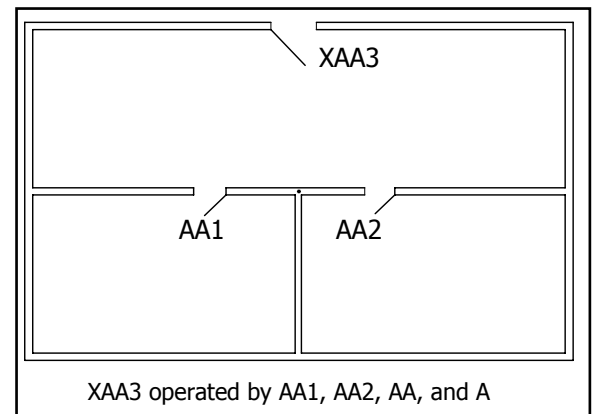
Hager uses the lost ball method for construction keying for conventional cylinders. If you have ordered Small Format Interchangeable Core (SFIC), you will be able to order temporary cores (Blue & Red are stock). Permanent cores will be shipped with permanent keys.

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 system are much like a rubber band, it only stretches so far. You can stretch is 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)

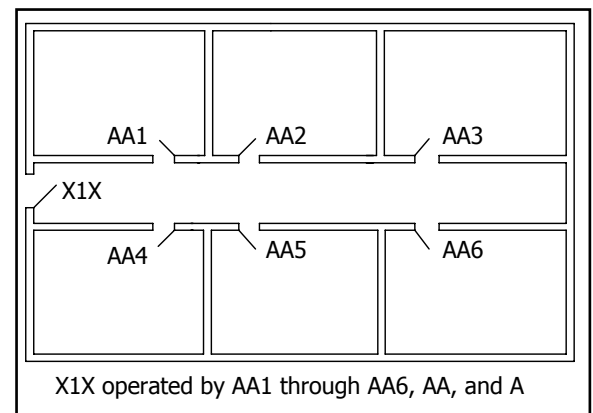
Cylinder requires its own change key. The illustration depicts part of a small medical building where two doctors share a common receptionist. The receptionist gets the **AA3** change key. Each doctor carries a key which operates only one office, but also operates the entrance from the corridor, by cross 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: _____

Please fill out this form and either (1) 'Print (Ctrl+P) and fax' to 800-782-0149 with your Purchase order or (2) Click 'Save As' and save as Master Key Form - your company name to any location you wish-then email to masterkey@hagerco.com & orders@hagerco.com with the document and your Purchase Order as an attachment

Ship Lock to:

1. System

- New Existing

Requested ship date: _____

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 (Standard)
- Conventional keyed 7-pin (H1, H2, H3 Only)
- Interchangeable core keyed 6- pin (Best Keyway)
- Interchangeable core keyed 7- pin (Best or Hager Keyway)

* Hager Keyway available in 7-pin only (Conventional & Interchangeable Core)

Change keys

Quantity

- Per core/cylinder (2ea per lock are included)
- Per key symbol

Special function

Quantity

- Control
- Maintenance
- Housekeeping
- Mechanical
- Engineering
- Janitorial
- SKD
- Other

2b. Keyways

- Arrow AR1
- Corbin 60
- Hager H1
- Kwikset KW1
- Corbin/RW L4
- Hager H2
- Sargent LA
- Weiser E
- Hager H3
- Yale E1R
- Schlage C
- Russwin D1
- Schlage E
- Schlage F
- Yale GA
- Best (Specify Keyway) _____

4a. Key stamping (visual key control)

- None
- Key set symbol
- Door number
- Bitting number
- Do not duplicate (standard with interchangeable core & Hager Keyways)
- Other _____

Please note that visual key control is recommended, otherwise, keys will be tagged with temporary identification.

3. System level AND key quantity

Level	Quantity
<input type="radio"/> GGGMK	<input style="width: 60px; height: 15px;" type="text"/>
<input type="radio"/> GGMK	<input style="width: 60px; height: 15px;" type="text"/>
<input type="radio"/> GMK	<input style="width: 60px; height: 15px;" type="text"/>
<input type="radio"/> MK	<input style="width: 60px; height: 15px;" type="text"/>
<input type="radio"/> Construction MK (Lost Ball) (Sch/Hag Conv. Only)	<input style="width: 60px; height: 15px;" type="text"/>
<input type="radio"/> Other	<input style="width: 60px; height: 15px;" type="text"/>

4b. Cylinder Stamping (Concealed Key Control - Additional Charges Apply)

- None
- KSS (Key Set Symbol)
- Concealed
- DN (Door Number)
- Visual
- Other

5. Packing

- Pack keys with lock/ cores
- Pack keys separate from lock/ cores

Ship To: (keys separate)

6. 3998 bitting list

- Yes No

Bitting lists are sent digitally/ E-mail to:

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

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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.

TABLE OF CONTENTS

General Information	2	5400 Series	29
5100 Series	5	How to Order	30
How to Order	6	Applications	31
Applications	7	Grade 2 Standard Surface Door Closer	32
Grade 1 Heavy Duty Surface Door Closer	8	Arms	33
Arms	9	Accessories	33
Accessories	10	Electromagnetic Holders	35
5200 Series	13	Performance Data	36
How to Order	14	Grade 1 Heavy Duty Commercial	37
Applications	15	Accessories	39
Grade 1 Heavy Duty Surface Door Closer	16	Overhead Door Holders and Stops	41
Arms	17	Methods of Installation	42
Accessories	18	How to Order	43
5300 Series	21	6000 Series Grade 2 Standard Duty	45
How to Order	22	6000 Series Accessories	46
Applications	23	7000 Series Grade 1 Heavy Duty	47
Grade 1 Heavy Duty Surface Door Closer	24	7000 Series Accessories	48
Arms	25		
Accessories	26		

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 on 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 all necessary for mounting any of the three types of applications.

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 this mounting application.

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 2 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

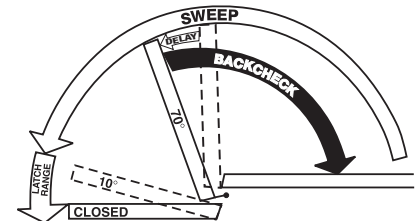
Fire doors shall have the minimum opening force allowable by the appropriate authority having jurisdiction.

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.

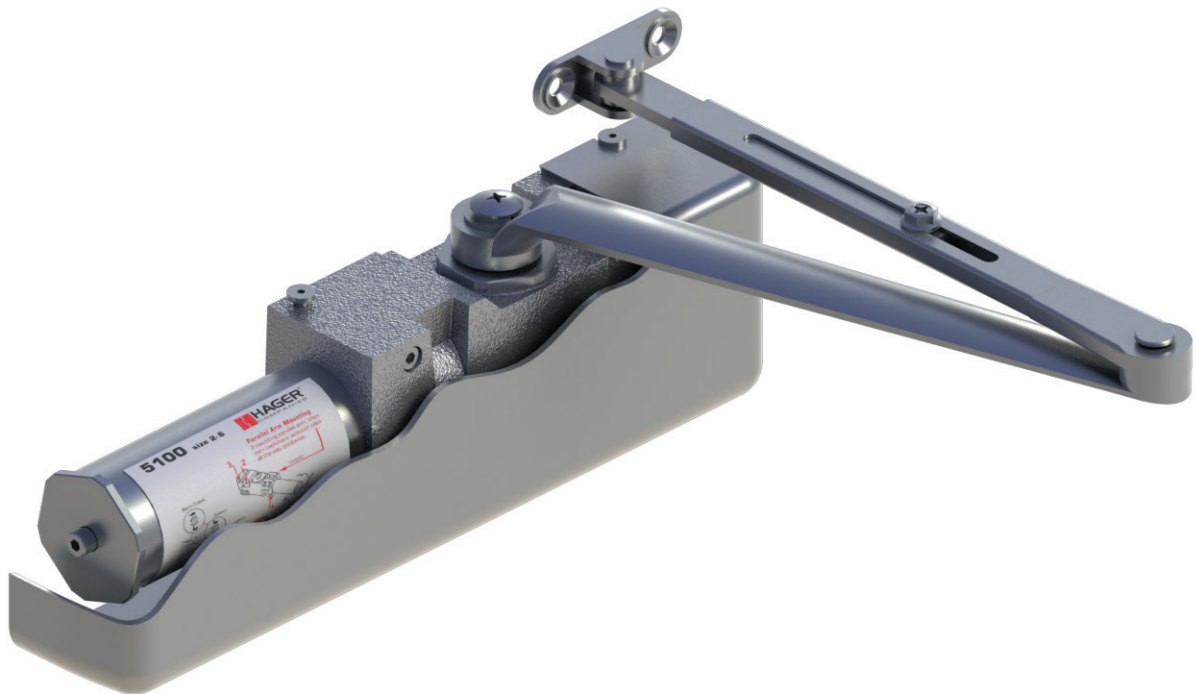
How to Select the Proper Closer

- 1. 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.
- 2. Interior Application:** Where possible, the standard regular arm application should be used as it is the most efficient in terms of power and control.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. Abusive Environment:** Closers can be equipped with extra heavy duty arms that can withstand vandalism and extreme use.

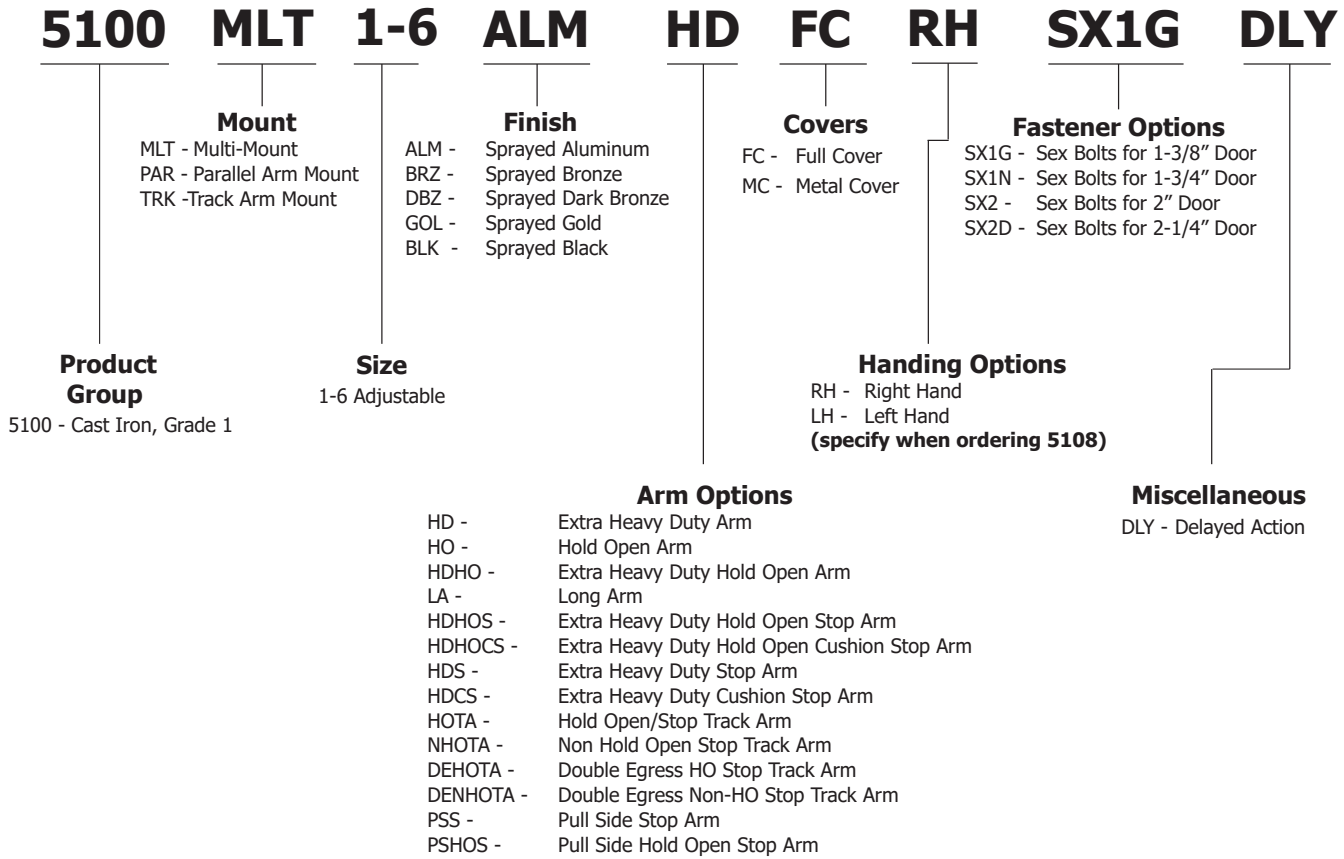
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5100 Series Closers are heavy duty door closers constructed of cast iron to be installed on exterior and interior doors that are subject to high use and potential abuse. They are designed and engineered for reliability and superior performance. The 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



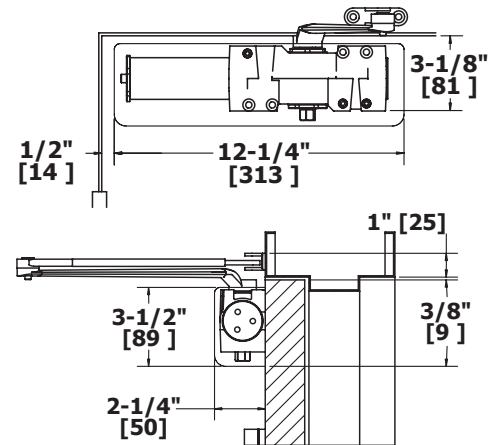
Example of how to order: 5100P16ALMHDHOCS

Note: Certain arm/finish combinations may require a minimum order quantity at extended lead times.

5100 Series - Applications

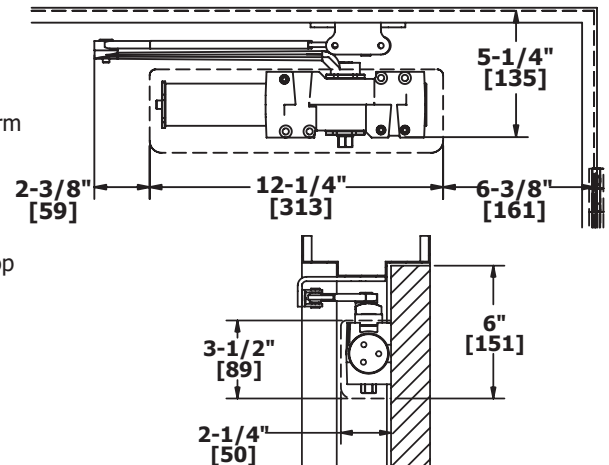
REGULAR ARM MOUNT (PULL SIDE)

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



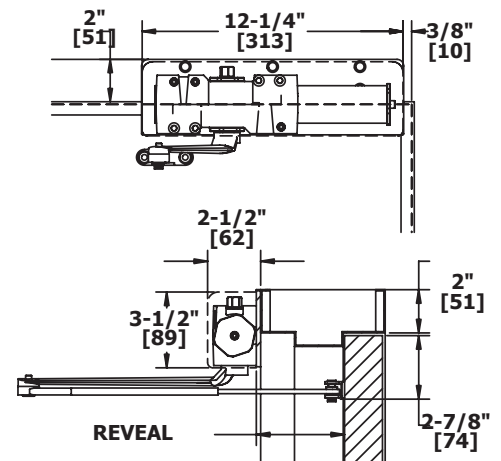
PARALLEL ARM MOUNT (PUSH SIDE)

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 (limited finishes)

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:

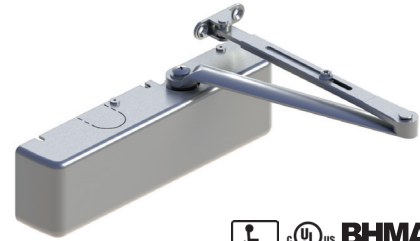
- Adjustable latching and sweep speed valves
- Adjustable backcheck valve - Standard
- Delayed action valve - Optional
- Staked valves - Standard

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
- Not for use on fire-rated doors



5108

Extra Heavy Duty Hold Open

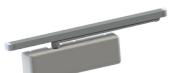
- Handed parallel arm (specify handing when ordering)
- Forged steel
- Provides friction hold open function
- Adjustable at the shoe
- Not for use on fire rated doors



5123

Pull Side Stop Arm

- Non-handed
- Cold rolled steel
- Rubber stop



Track Arm

- Non-handed
- Extruded aluminum track
- Steel arm

Functions:

Non Hold Open Stop Arms

- 2-659-0145 - ALM
- 2-659-0324 - BLK
- 2-659-0144 - BRZ
- 2-659-0143 - DBZ
- 2-659-0142 - GOL

Hold Open Stop Arms

- 2-659-0195 - ALM
- 2-659-0325 - BLK
- 2-659-0136 - BRZ
- 2-659-0135 - DBZ
- 2-659-0134 - GOL



5124

Pull Side Stop Hold Open Arm

- Non-handed
- Cold rolled steel
- Rubber stop
- Not for use on fire-rated doors



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

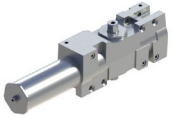
Double Egress Non Hold Open Stop Arms

- 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

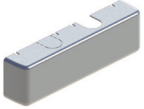
5100 Series - Accessories



5101

Closer Body Only

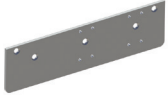
- Cast iron
- Heat treated steel spindle and piston
- Full rack and pinion operation



5102

Plastic Cover

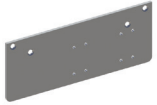
- Cover projects 2-1/4" (57 mm) from door face
- High impact non-corrosive full cover
- Secured by two machine screws



5109

Drop Plate - Regular Arm Mount

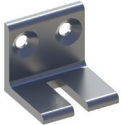
- Required for pull side mount when top rail is less than 3-3/4" (95 mm)
- Plate requires 2" (51 mm) minimum top rail
- Includes screw pack



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

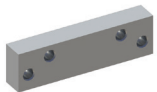
- For use with stop arms when reveal is 2-3/16" (55.6 mm) or less
- Provides anchor for fifth screw



5112

Long Rod and Shoe

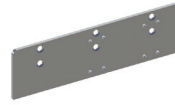
- Non-handed
- Use for door reveals greater than 3" (76 mm) and up to 5" (127 mm)
- Cast steel
- Use for top jamb application



5113

Blade Stop Spacer

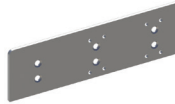
- Required to lower parallel arm shoe to clear 1/2" (13 mm) blade stop of aluminum frames
- Includes screw pack



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

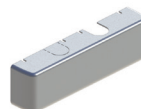
- Allows for up to 2" (51 mm) of clearance to mount additional hardware such as overhead door stops and holders
- Provides needed clearance not achieved with standard soffit plate
- Includes screw pack



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

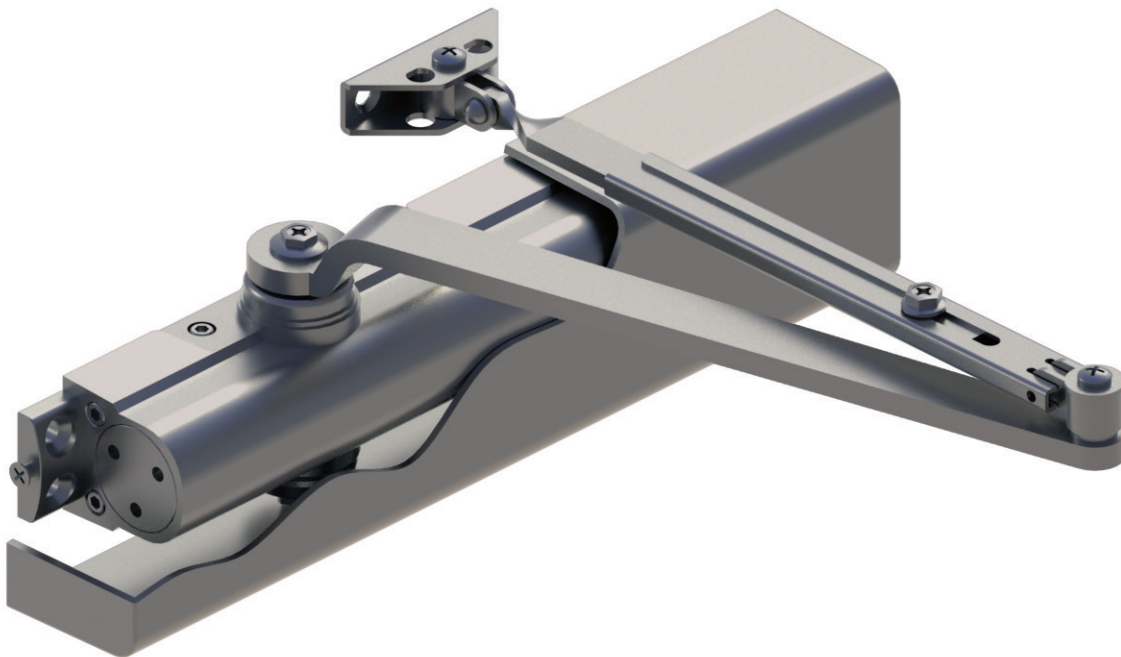
Tork Security Screw Pack - Optional

- Tamper resistant torx screws with pins
- Sex nuts and bolts for 1-3/4" (44 mm) doors

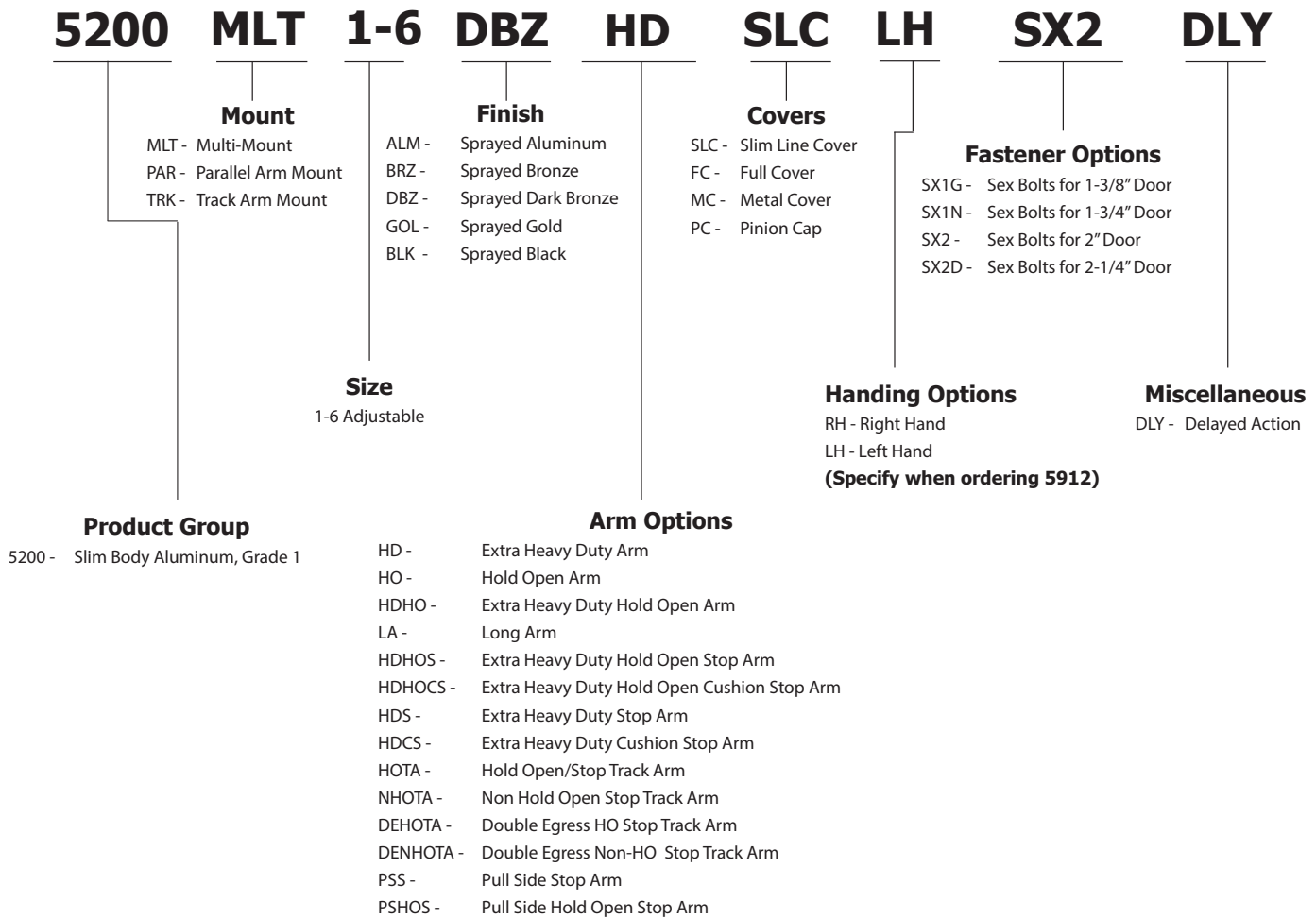
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5200 Series Closers are engineered and designed to offer the ideal combination of appearance and reliability. The 5200 Series Closers are constructed of aluminum alloy to be installed on exterior and interior doors. They are designed and engineered 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



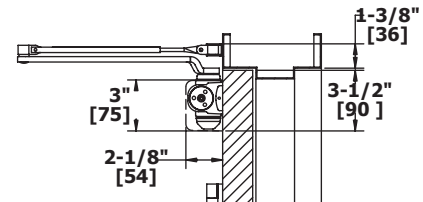
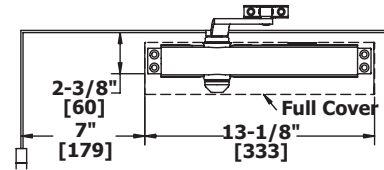
Example of how to order: 5200P16ALMHDHOCS

Note: Certain arm/finish combinations may require a minimum order quantity at extended lead times.

5200 Series - Applications

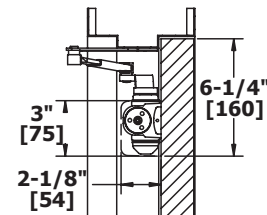
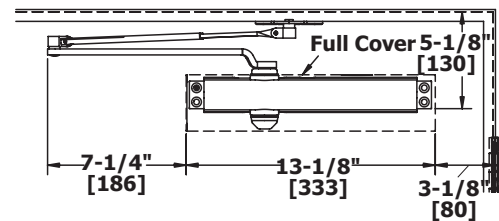
REGULAR ARM MOUNT (PULL SIDE)

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



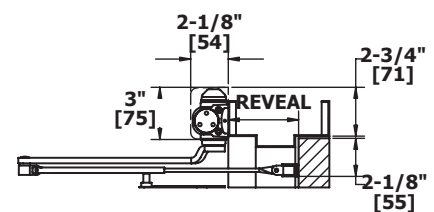
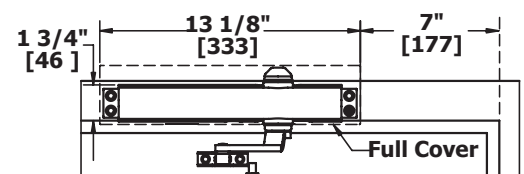
PARALLEL ARM MOUNT (PUSH SIDE)

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:

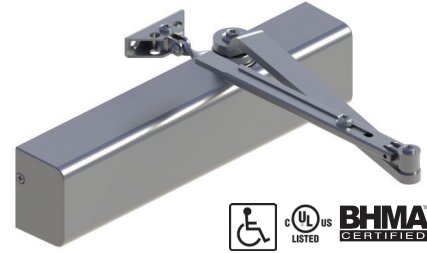
- Adjustable latching and sweep speed valves
- Adjustable backcheck valve - Standard
- Delayed action valve - Optional
- Staked valves - Standard

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



5910

Hold Open Arm

- Non-handed
- Forged steel
- Mounts pull side or top jamb with shallow reveal
- Friction hold open function
- Add 5914 Rev1 bracket for parallel arm mount
- 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



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



5911

Extra Heavy Duty Arm

- Non-handed parallel arm
- Forged steel

Functions:

Non Hold Open Stop Arms

- 2-659-0141 - ALM
- 2-659-0328 - BLK
- 2-659-0140 - BRZ
- 2-659-0139 - DBZ
- 2-659-0138 - GOL

Hold Open Stop Arms

- 2-659-0350 - ALM
- 2-659-0329 - BLK
- 2-659-0351 - BRZ
- 2-659-0352 - DBZ
- 2-659-0353 - GOL



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



5926

Pull Side Stop Arm

- Non-handed
- Forged steel
- Rubber Stop



5927

Pull Side Hold Open Stop Arm

- Non-handed
- Forged steel
- Rubber Stop
- 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
- Not for use on fire-rated doors



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

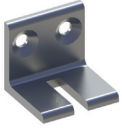
Double Egress Non Hold Open Stop Arms

- 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



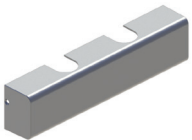
5111 Extra Heavy Duty Parallel Arm Support Bracket

- For use with stop arms when reveal is 2-3/16" (55.6 mm) or less
- Provides anchor for fifth screw



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



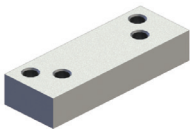
5900 Parallel Arm Bracket

- Can be used to convert regular or top jamb arms to parallel arm application
- For use with 5200 and 5300 Series arms



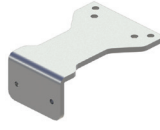
5908 Long Rod and Shoe

- 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 and 5300 Series arms
- Includes screw pack



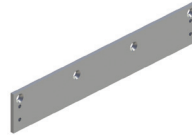
5913 Blade Stop Spacer

- 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



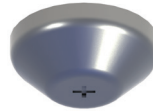
5914 Hold Open Parallel Arm Bracket

- Supplied with all standard hold open arms
- For use with 5200 and 5300 Series arms
- Includes screw pack



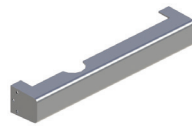
5918 Drop Plate - Top Jamb, Narrow Top Rail

- 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



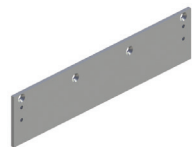
5919 Pinion Cap

- High-impact, non-corrosive
- Fits over the pinion and extends 9/16" (14 mm)
- For use with slim line cover



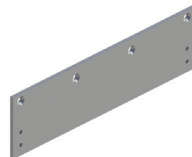
5920 Slim Line Plastic Cover

- 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

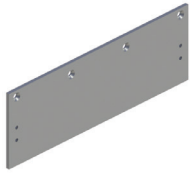
- For use with a full cover
- For use when a narrow top rail prevents mounting directly to door surface
- Includes screw pack



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

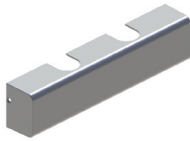
5200 Series - Accessories



5923

Drop Plate - Parallel Arm

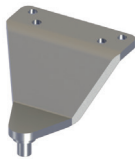
- For use with a full cover
- For use with a parallel arm when narrow top rail prevents mounting directly to the door surface
- Includes screw pack
- Plate requires 3" (76mm) minimum top rail.



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

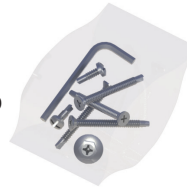


5950

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

5200 Series - Screw Packs



5204

Screw Pack - Standard

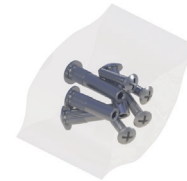
- Self-drilling wood screws
- Self-drilling machine screws
- For 5200 Series closer



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

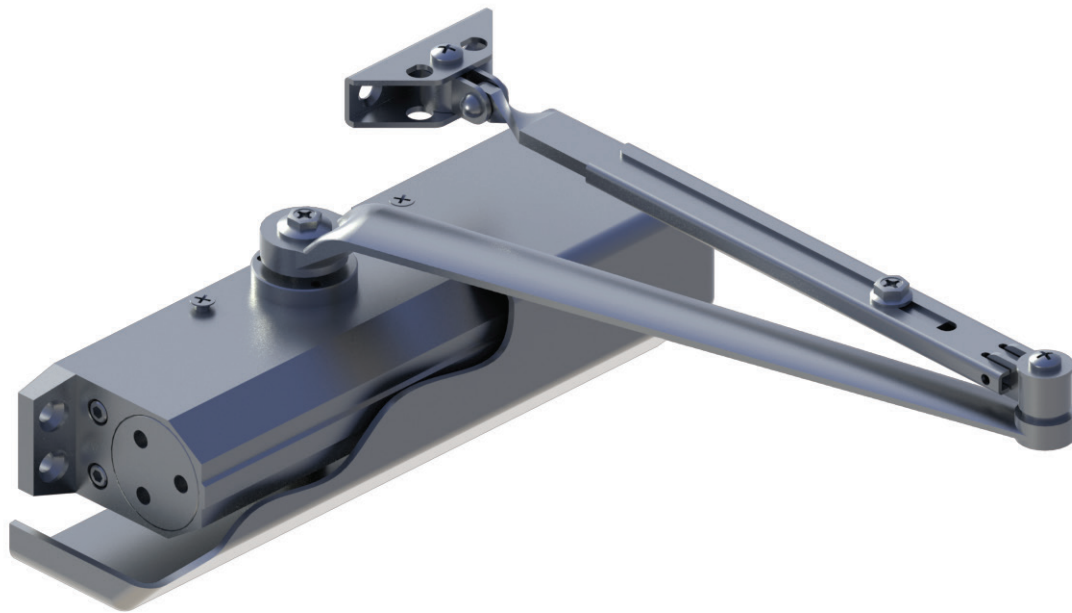
SNB Screw Pack - Optional

- Sex nuts and bolts for 2-1/4" (56 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only

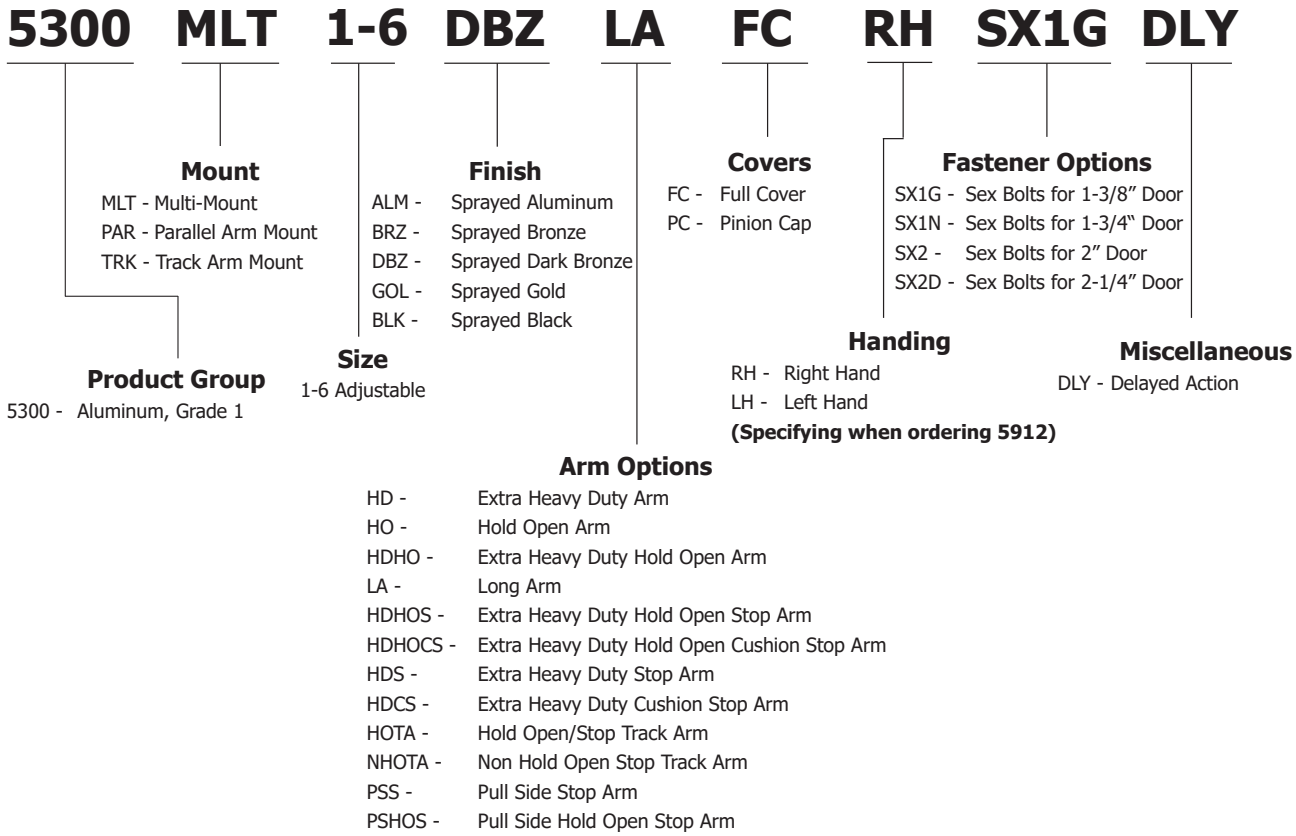
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5300 Series

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



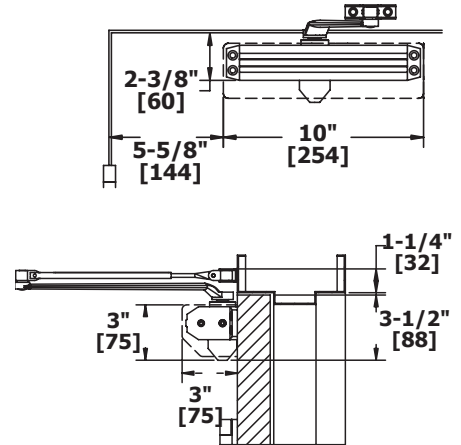
Example of how to order: 5300P16ALMHDHOCS

Note: Certain arm/finish combinations may require a minimum order quantity at extended lead times.

5300 Series - Applications

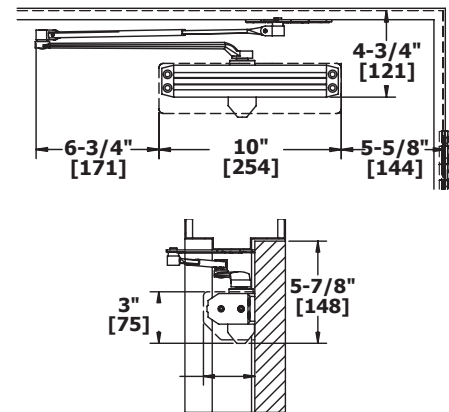
REGULAR ARM MOUNT (PULL SIDE)

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



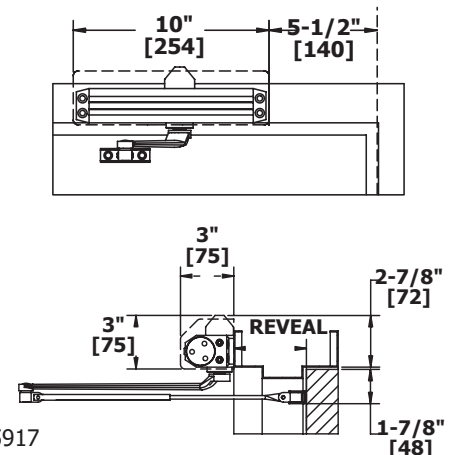
PARALLEL ARM MOUNT (PUSH SIDE)

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:

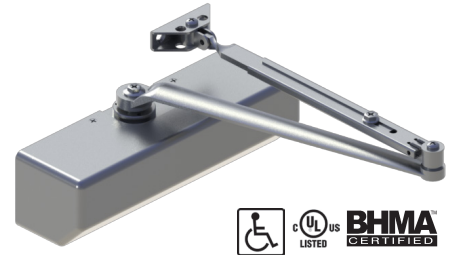
- Self-reaming, self-tapping wood and machine screws
- Sex nuts and bolts

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



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



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



5910

Hold Open Arm

- Non-handed
- Forged steel
- Mounts pull side or top jamb with shallow reveal
- Friction hold open function
- Add 5914 Rev1 bracket for parallel arm mount
- Not for use on a fire-rated door



Track Arm

- Non-handed
- Extruded aluminum track
- Steel arm



5911

Extra Heavy Duty Arm Assembly

- Non-handed parallel arm
- Forged steel
- For use with 5200 and 5300 Series closers



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



5926

Pull Side Stop Arm

- Non-handed
- Forged steel
- Rubber Stop



5927

Pull Side Hold Open Stop Arm

- Non-handed
- Forged steel
- Rubber Stop
- 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



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

Functions:

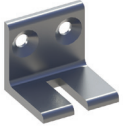
Non Hold Open Stop Arms

- 2-659-0141 - ALM
- 2-659-0328 - BLK
- 2-659-0140 - BRZ
- 2-659-0139 - DBZ
- 2-659-0138 - GOL

Hold Open Stop Arms

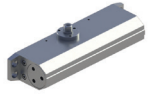
- 2-659-0350 - ALM
- 2-659-0329 - BLK
- 2-659-0351 - BRZ
- 2-659-0352 - DBZ
- 2-659-0353 - GOL

5300 Series - Accessories



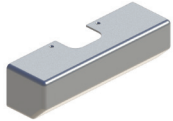
5111 Extra Heavy Duty Parallel Arm Support Bracket

- For use with stop arms when reveal is 2-3/16" (55.6 mm) or less
- Provides anchor for fifth screw



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



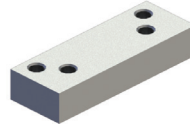
5901 Pinion Cap

- 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 5200 and 5300 Series closer 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 5300 and 5400 Series closer arms
- Includes screw pack



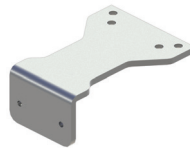
5936 Extra Clearance Parallel Arm Bracket

- 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 and 5300 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

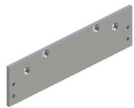
5300 Series - Accessories



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



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

5300 Series - Screw Packs



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

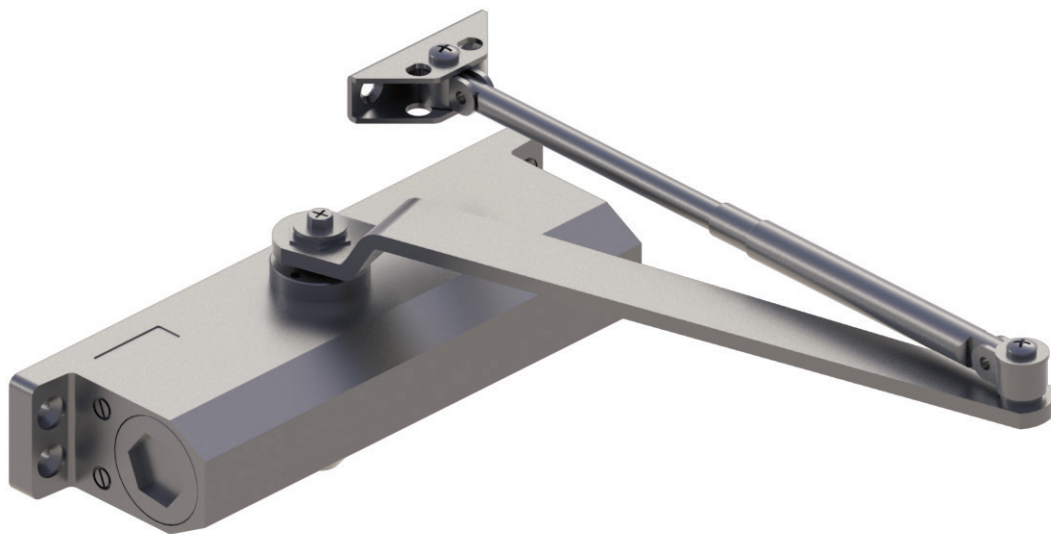
SNB Screw Pack - Optional

- Sex nuts and bolts for 2-1/4" (56 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only

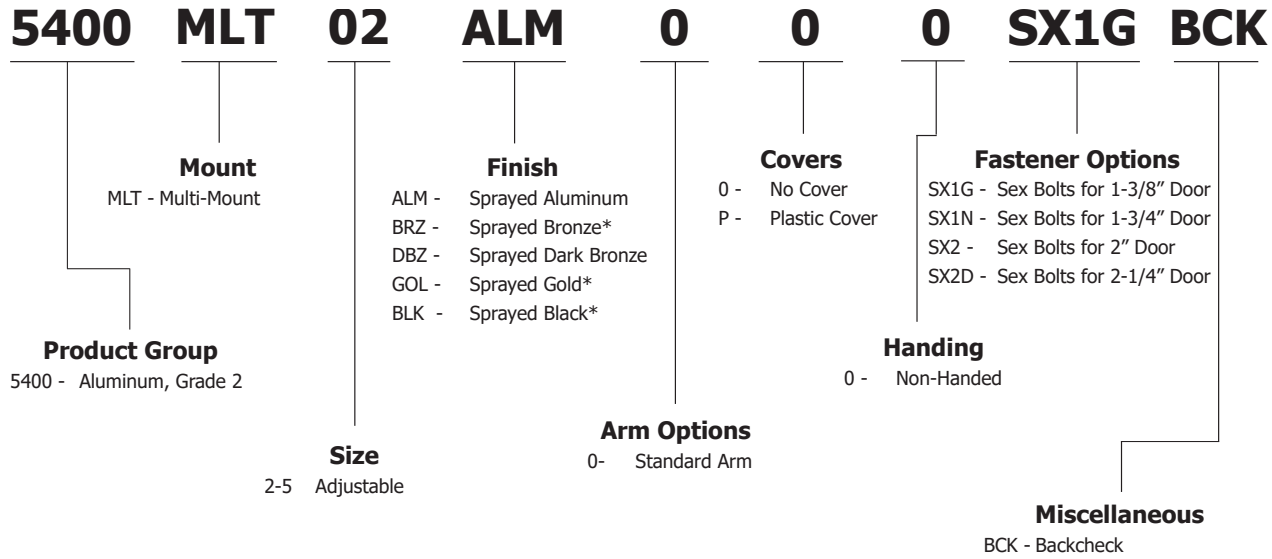
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5400 Series

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. The sizing is adjustable from size 2 through size 5. The design features make this closer the ideal choice for doors with a maximum weight of 200 lbs.



5400 Series - How To Order



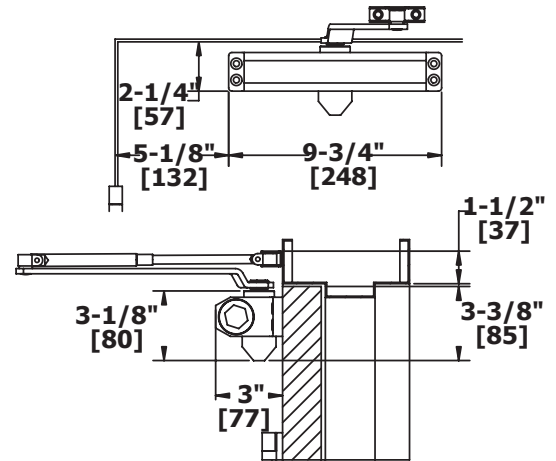
Example of how to order: 5400M25ALM0P

*Extended lead times for BRZ, GOL, and BLK finishes and minimum order quantities may apply.

5400 Series - Applications

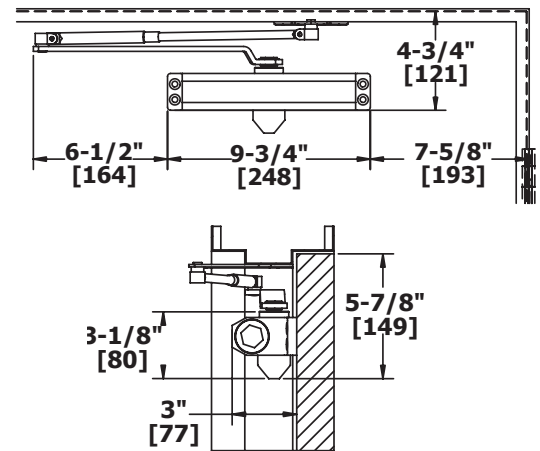
REGULAR ARM MOUNT

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



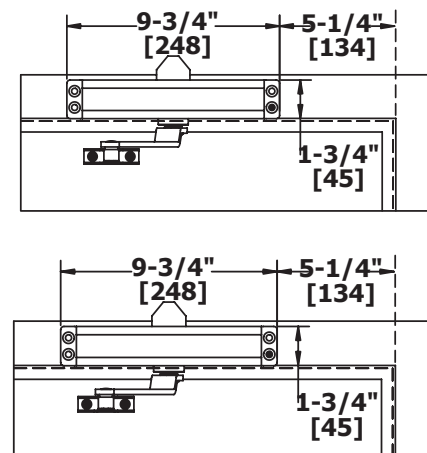
PARALLEL ARM MOUNT

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 200 lb. door weight

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, adjustable sizes 2-5
- 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:

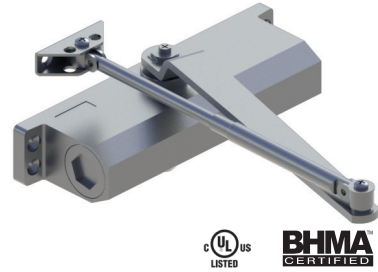
- Adjustable latching and sweep speed valves
- Adjustable backcheck valve - Optional
- Staked valves - Standard

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

* Extended lead times and MOQs may apply.

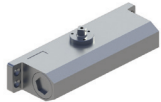
5400 Series - Arms & Accessories



5403

Main Arm

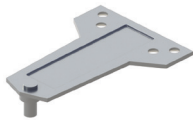
- Non-handed
- Forged steel
- Mounts regular, parallel arm, or top jamb mount
- Add 5900 bracket for parallel arm mount



5401

Closer Body Only

- Aluminum alloy
- Full rack and pinion operation
- Triple heat treated steel spindle



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



5924

Pinion Cap

- High-impact, non-corrosive
- Fits over the pinion
- 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

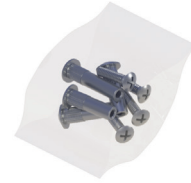
5400 Series - Screw Packs



5404

Screw Pack - Standard

- Self-drilling wood screws
- Self-drilling machine screws
- For 5400 Series closer only



5902

SNB Screw Pack - Standard

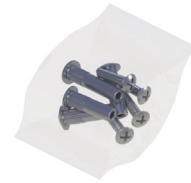
- Sex nuts and bolts for 1-3/4" (44 mm) doors
- Machine screws
- For use with 5200, 5300, 5400 Series closers only



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

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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

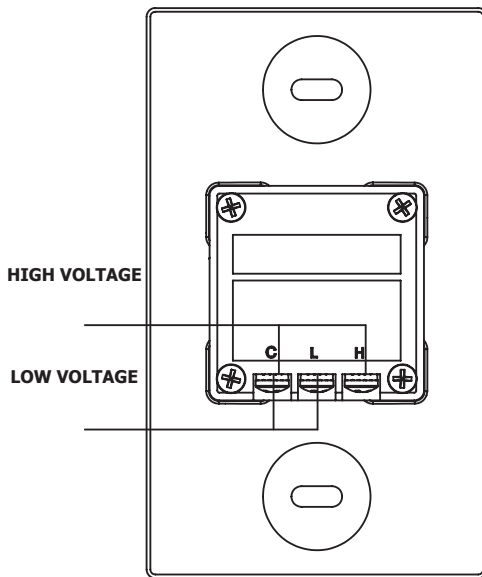
MODEL	VOLTAGE	DC/mA	AC/mA	TERMINALS	LB.	KG.
1224	24V	85	81	C&L	75	34.0
24120	120V		100	C&L	110	49.8

***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

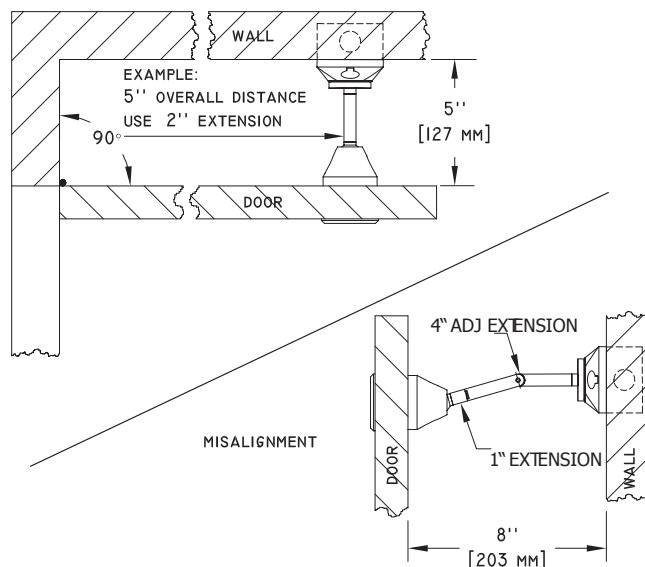
To calculate extension rod length needed, use the formula below based on style holder being used.

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

- 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/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:

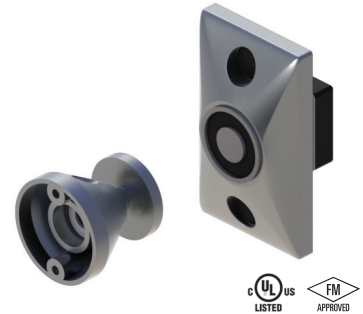
Standard dual voltage AC or DC inputs of 12 & 24V, 24 & 120V, 24 & 220V models

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:

- 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

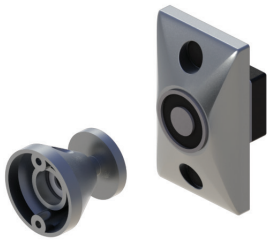
Notes:

- Optional aluminum extension and misalignment rods available
- Replacement armature disc and armature plate assemblies available
- Adhesive template included

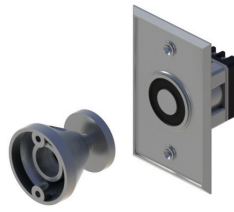
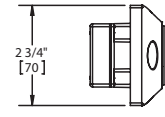
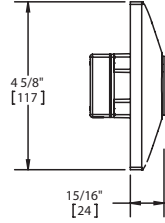
FINISHES

US3, LS, L2

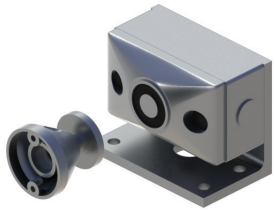
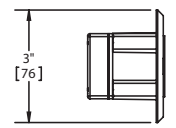
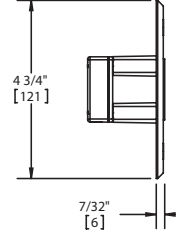
Electromagnetic Door Holders - 380 Series Holders



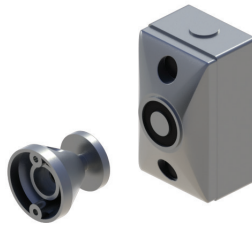
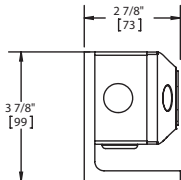
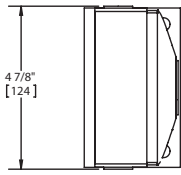
380F
Flush Mount



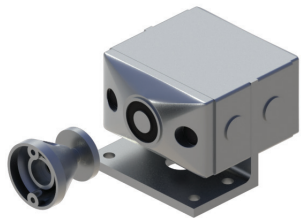
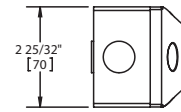
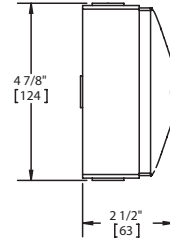
380R
Recessed Mount



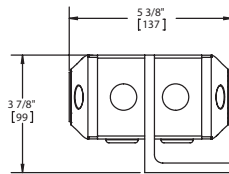
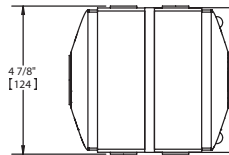
380G
Floor Mount (Single Door)



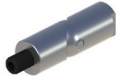
380S
Surface Mount



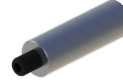
380H
Floor Mount (Double Door)



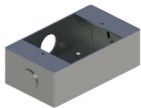
Electromagnetic Door Holders - Accessories



381A
Adjustable Extension Rod
Available extension lengths 1-1/2"
(38 mm), 2" (51 mm), 4" (102 mm)



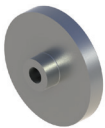
381E
Extension Rod
Available extension lengths 1/2"
(13 mm), 1" (25 mm), 1-1/2"
(38 mm), 2" (51 mm), 3" (76 mm),
4" (102 mm)



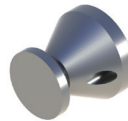
381B
Surface Back Box
2-25/32" x 4-7/8" x 1-1/2"
(71 mm x 124 mm x 38 mm)
Supplied with 380G, 380H, 380S



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



381W
Extension Wrenches
Used to tighten extension rods to catch
plate assembly

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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.



Overhead Door Holders & Stops - Methods of Installation

Concealed Mounted

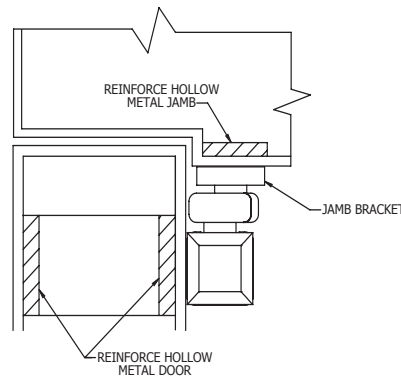
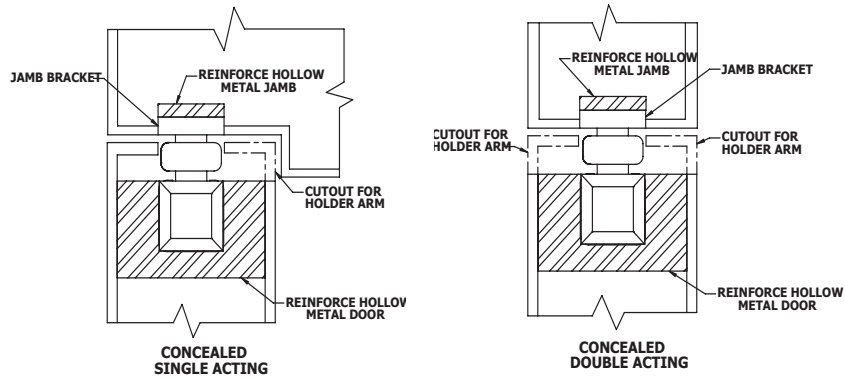
The installation of concealed overhead door holders and stops requires that the jamb bracket be mortised flush with the bottom of the jamb. The arm and channel must be mortised into the door so the arm is flush with the top of the door. Concealing the overhead door holders and stops in the top of the 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 & 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 (Door Frame Opening)

Concealed

- Size 3 27" to less than 30"
- Size 4 30" to less than 36"
- Size 5 36" to less than 40"
- Size 6 40" to less than 44"
- Size 7 44" to 52"

Surface

- Size 1 24" to less than 41"
- Size 2 41" to 55"

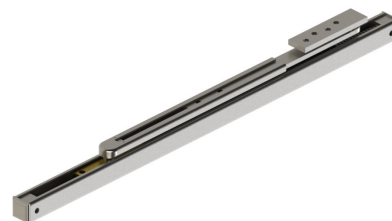
6000 Series: Grade 2- Standard Duty Overhead Holders and Stops

Available Functions

- Stop
- Hold Open
- Friction

Mounting Types

- Concealed
- Surface



Size Options (Door Frame Opening)

- 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 be the sole means of stopping the door and should not be expected to perform the functions of a door stop.

Overhead Door Holders & Stops - How To Order

60

15

CON

SZ1

US32D

SX1G

Component Type

- 15 - Friction
- 16 - Stop Only
- 17 - Hold Open

Mount

- CON - Concealed
- SRF - Surface

Size

- SZ1 - Size 1
- SZ2 - Size 2

Fastener Options

- SX1G - Sexbolts for 1-3/8" door
- SX1N - Sexbolts for 1-3/4" door
- SX2 - Sexbolts for 2" door
- SX2D - Sexbolts for 2-1/4" door

Product Group

- 60 - Standard Duty Overhead Door Holders and Stops
- 70 - Heavy Duty Overhead Door Holders and Stops

Finish

- 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 & Stops - 6000 Series Grade 2 Standard Duty

WARRANTY

Five-year warranty

FEATURES

- Standard screw pack
- For use on exterior and interior doors
- Ideal for office buildings and other standard duty commercial applications

Certification:

- 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:

- Steel
- Stainless steel

Mounting Style:

- Concealed
- Surface

Doors:

- Single acting doors for concealed and surface mounted
- Double acting doors for concealed mounted only

Functions:

- 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:

- 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:

- 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

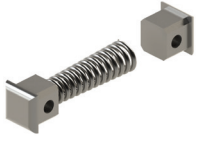
- US10B
- US32D (For stainless steel)

SIZE SELECTION

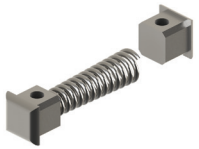
Door Sizes	
Size	Door Width
6000 SZ1	18"- 33" (Concealed Mounted) 20"- 33" (Surface Mounted)
6000 SZ2	33"- 51"

Overhead Door Holders & Stops - 6000 Series

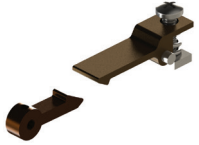
ACCESSORIES



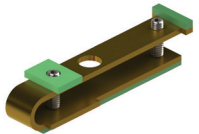
- 2-659-0101 | 2-659-0102**
Surface Mounted End Cap and Spring Replacement Kit
- Channel end caps
 - Replacement spring
 - 2-659-0101 is US26D, 2-659-0102 is US10B



- 2-659-0104**
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**
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



- 2-659-0107 | 2-659-0108**
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



- 2-659-0110 | 2-659-0111**
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



- 2-659-0113 | 2-659-0114**
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

Overhead Door Holders & Stops - 7000 Series Grade 1 Heavy Duty

WARRANTY

Five-year warranty

FEATURES

- Standard screw pack
- For use on exterior and interior doors
- Ideal for hospitals, schools, and other high traffic environments

Certification:

- 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:

- Steel
- Stainless steel

Mounting Style:

- Concealed
- Surface

Doors:

- Single acting doors for concealed and surface mounted
- Double acting doors for concealed mounted only

Functions:

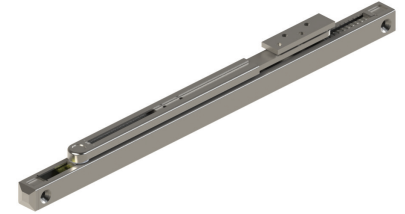
- Stop Only
- Hold Open
- Friction

Handing:

Non-handed

Openings:

Degree of opening is fully adjustable and can be adapted to changing needs between 85° to 110°



SPECIFICATIONS

Door Thickness:

- 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:

- 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 (For steel)
- US32D (For stainless steel)

SIZE SELECTION

Size Options (Door Frame Opening)

Concealed

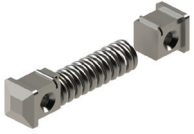
- Size 3 27" to less than 30"
- Size 4 30" to less than 36"
- Size 5 36" to less than 40"
- Size 6 40" to less than 44"
- Size 7 44" to 52"

Surface

- Size 1 24" to less than 41"
- Size 2 41" to 55"

Overhead Door Holders & Stops - 7000 Series

ACCESSORIES



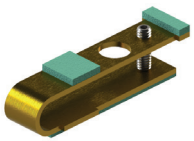
- 2-659-0119 | 2-659-0120**
Surface Mounted End Cap and Spring Replacement Kit
- Channel end caps
 - Replacement spring
 - 2-659-0119 is US26D, 2-659-0120 is US10B



- 2-659-0122**
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**
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



- 2-659-0125 | 2-659-0126**
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



- 2-659-0128 | 2-659-0129**
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



- 2-659-0131 | 2-659-0132**
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
 - 2-659-0131 is 32D
 - 2-659-0132 is US10B

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.

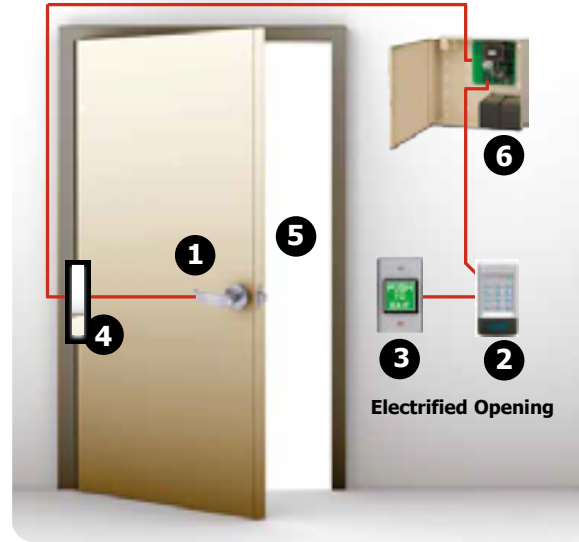
Please visit hagerco.com/products-portal/electrified-hardware for the most recent updates.

TABLE OF CONTENTS

Component Selection.....	2	2978 Touchless Exit Switch	26
Locking Devices.....	3	4801 Non-Latching Pressure Sense Push Bar	27
Electric Strikes	4	Restroom Controls.....	28
Delayed Egress	7	Electric Power Transfer Devices	31
Magnetic Locks	11	Door Position Sensors.....	33
Access Controls	17	Power Supply & Door Controllers.....	35
Switches.....	18	Low Energy Power Operators.....	43
Door Prop Alarm	20	Component Selection.....	44
Egress Devices.....	21	8400 Series.....	45
2972/2972 IET Exit Switch	22	8300 Series.....	49
2973 Code Compliant Exit Switch	23	Actuators.....	55
2-679-0611/12 PIR Egress Sensor	24		
2977 Piezoelectric Exit Switch	25		

1 Locking Devices (Pages 5-25)

- Electric Strike
- Exit Device
- Delayed Egress
- Frame Actuator Lockset
- Electrified Lockset
- Magnetic Lock



2 Access Controls (Pages 25-30)

- Standalone or Network
- Keyswitch
 - Digital Keypad
 - Card Reader



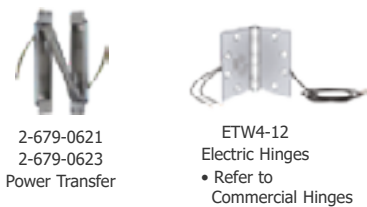
3 Egress Devices (Pages 31-40)

- Exit Switch
- PIR Egress Sensor
- Exit Sense Bar
- Emergency Door Release



4 Electric Power Transfer Devices (Pages 41-42)

- Required With Locksets & Exit Devices
- Electric Power Hinge
 - Power Transfer Loop
 - Concealed Power Transfer
 - Electrified Roton



5 Door Position Sensors (Pages 43-44)



6 Power Supply & Door Controllers (Pages 45-53)

- 2903**
Power Supply
- Provides power for Fail Safe or Fail Secure locking devices
 - 24 V output; 2 AMP capacity
 - Filtered/regulated

- 2908-1A PSU**
Power Supply
- Modular
 - Provides power for Fail Safe or Fail Secure locking devices
 - 12/24 V output; 1 AMP capacity
 - Filtered/regulated

- 2910-4A PSU**
Power Supply
- Provides power and control for openings with an electrified locking device and automatic door operator
 - 12/24 V output; 1 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

- 2909-2A PSU**
Power Supply
- Modular
 - Provides power for Fail Safe or Fail Secure locking devices
 - 12/24 V output; 2 AMP capacity
 - Filtered/regulated

- 2911-6A PSU**
Power Supply
- Provides power and control for openings with an electrified locking device and automatic door operator
 - 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 allow 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. 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.

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

MODEL

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)

Certifications

- ANSI/BHMA A156.31, Grade 2

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



MODEL

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
- UL 1034 - Burglary Resistant Electric Locking Mechanisms (interior use applications)

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



MODEL

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.)
DSM (Opt.)
DBM (Opt.)

SPDT, Dry 5 A @ 30V DC
SPDT, Dry 5 A @ 30V DC
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

LBM

- 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

Recommendation

Hager recommends using a power regulator with the 2930 Series strikes.

Locking Devices – On Board Delayed Egress

MODEL
4501 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 second egress delay
- 1 or 2 second nuisance delay
- Built-in function keyswitch 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)
- Exit Device cannot be cut down once the OnBoard Delayed Egress modification has been made to the device

ELECTRICAL & MECHANICAL SPECIFICATIONS

Inputs:

Voltage Input:

- Single 540mA @ 24VDC
- Tandem 790mA @ 24VDC

Reset Input:

N/O, Dry input

REX Input:

N/C, Dry input

Trigger:

N/C, Dry input

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

*Cover is ALM only

Locking Devices – Delayed Egress

MODELS

4501 DE/4601 DE
2-679-0630

WARRANTY

APPLICATION

FEATURES

Components:

Built-In
Annunciation:

Monitoring
Outputs:

Power Up Modes:

Code Compliance:

ELECTRICAL SPECIFICATIONS

Inputs:

Voltage Input:

Reset Input:

REX Input:

Trigger:

Monitoring

Outputs:

MONITORING

Alarm Output:

Locked Output:

Delayed Egress Exit Device
Delayed Egress Wall Mount Controller
- *Must be ordered separately*

One-year warranty

- 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
- 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

- 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

- Armed status
- Egress initiation status
- Released status

Field selectable automatic or manual power up after emergency release or power loss

- 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



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

2-679-0642

FINISHES

Controller:

- Aluminum anodized (standard)
- Dark Bronze anodized
- Black anodized

- SVR exits must include rod covers
- Door position switch (DPS) is recommended for higher security. Contact Hager Tech Support for additional information.

NOTES

Locking Devices – 2958 Integrated Delayed Egress Lock

MODELS

2958
2958T

WARRANTY

APPLICATION

FEATURES

Components:

Single magnetic lock with 1650 lbs. holding force (748 kg)
Tandem magnetic lock with 1650 lbs. holding force (748 kg)

One-year warranty

- 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



- 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:

- UL 294 Access Control System Units
- UL 10B Fire Tests of Door Assemblies
- UL 10C Positive Pressure Fire Tests of Door Assemblies
- ULC-S104 Standard Method for Fire Tests of Door Assemblies
- ULC-S533 Egress Door Securing and Releasing Devices
- NFPA 101 Life Safety Code Special Locking Arrangements
- NFPA 1-UFC Uniform Fire Code
- UBC Uniform Building Code Standard 7-2 Fire Test of Door Assemblies (1997)
- IBC International Building Code Delayed Egress Locks
- IFC International Fire Code Delayed Egress Locks
- SBC Standard Building Code
- CBC, California Building Code Special Egress Control Devices
- BOCA National Building Code Special Locking Arrangements
- Chicago Building Code Electro-Magnetic Locking Devices
- CSFM Listed 3774-0324:0103

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)
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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
- 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

MECHANICAL SPECIFICATIONS

Lock Dimensions:

9-7/8" (251 mm) W x 1-7/8" (47.63 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

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
- 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 @ 30VD

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 – 2950 Magnetic Lock

MODELS

2951
2952
2953
2954

Single magnetic lock with 1650 lbs. holding force (748 kg)
Double magnetic lock with 1650 lbs. holding force (748 kg)
Single magnetic lock with 1200 lbs. holding force (545 kg)
Double magnetic lock with 1200 lbs. holding force (545 kg)



WARRANTY

1-year 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
DPS
ATS
MBS

Built-in field adjustments 0-30 seconds re-lock delay
Door Position Switch indicates door open and door closed
Anti Tamper Switch indicates access cover removal
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

MONITORING

Time
DPS
ATS
MBS

SPDT, Dry 20mA @ 30VDC
SPDT, Dry 20mA @ 30VDC
SPDT, Dry 20mA @ 30VDC
SPDT, Dry 20mA @ 30VDC

ACCESSORIES

2-679-0109
2-679-0110
2-679-0111
2-679-0112

Timer Input Module
Door Position Sensor
Magnetic Bond Sensor
Anti-Tamper Switch

MOUNTING KITS - ordered separately

- 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

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

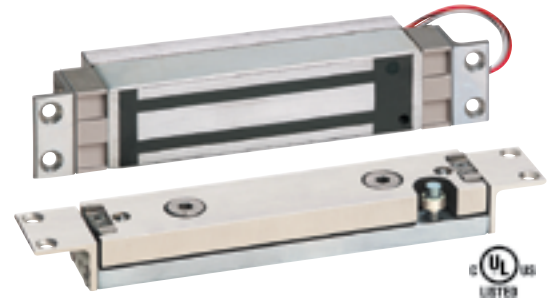
ALM
DBZ

Aluminum anodized (standard)
Dark bronze anodized

Locking Devices – 2950 Series Accessories

Category	Part Number	Application	Notes	Used With	Ordering Instructions
Modular Kits	2-679-0109	Timer Input Model	Built-In field adjustable 0-30 seconds re-lock delay	2950 Series	2952/2954: use (2)
	2-679-0110	Door Position Sensor	Indicates door open and door closed	2950 Series	
	2-679-0111	Magnetic Bond Sensor	Indicates locked/unlocked, low holding power, tampering and obstruction between armature and magnetic core	2950 Series	
	2-679-0112	Anti-Tamper Switch	Indicates access cover removal	2950 Series	
Mounting Kits	2-679-0120	Top Jamb for Inswing Doors		2951 & 2953	
	2-679-0130	Top Jamb for Inswing Doors		2952 & 2954	
	2-679-0160	Armature for Glass Doors		2951& 2953	2951/2953: use (1)
				2952 & 2954	2952/2954: use (2)
	2-679-0210	Door Coordinator Lock		2951& 2953	
	2-679-0220	Door Coordinator Lock		2952 & 2954	
Header Brackets	2-679-0180	Universal	1" x 1" x 11"	2951& 2953	
	2-679-0190	Universal	1" x 1" x 22"	2952 & 2954	
	2-679-0191	Universal	1" x 1" x 22"	2952 & 2954	
Spacer Brackets	2-679-0200	Aluminum frames with blade stop	1/2" x 1-1/2" x 11"	2951& 2953	
	2-679-0201	Aluminum frames with blade stop	1/2" x 1-1/2" x 11"	2952 & 2954	
Armature Mounting	2-679-0204	Armature mounting plate	Top rail of aluminum, glass, wood, and hollow metal doors without thru bolts	2950 Series	2952/2954: use (2)
	2-679-0205	Armature mounting plate w/sensor		2950 Series	2952/2954: use (2)
Filler Plates	2-679-0281	Stop extension to provide proper mounting surface on the underside of the header	ALM: 1/8" x 1-1/4"	2951& 2953	
	2-679-0283		DBZ: 1/8" x 1-1/4"	2951& 2953	
	2-679-0291		ALM: 1/4" x 1-1/4"	2951& 2953	
	2-679-0293		DBZ: 1/4" x 1-1/4"	2951& 2953	
	2-679-0311		ALM: 1/2" x 1-1/4"	2951& 2953	
	2-679-0313		DBZ: 1/2" x 1-1/4"	2951& 2953	
	2-679-0321		ALM: 5/8" x 1-1/4"	2951& 2953	
	2-679-0323		DBZ: 5/8" x 1-1/4"	2951& 2953	
	2-679-0381		ALM: 1/8" x 1-1/4"	2952 & 2954	
	2-679-0383		DBZ: 1/8" x 1-1/4"	2952 & 2954	
	2-679-0391		ALM: 1/4" x 1-1/4"	2952 & 2954	
	2-679-0393		DBZ: 1/4" x 1-1/4"	2952 & 2954	
	2-679-0411		ALM: 1/2" x 1-1/4"	2952 & 2954	
	2-679-0413		DBZ: 1/2" x 1-1/4"	2952 & 2954	
2-679-0421		ALM: 5/8" x 1-1/4"	2952 & 2954		
2-679-0423		DBZ: 5/8" x 1-1/4"	2952 & 2954		
Angle Brackets	2-679-0491	Extensions used on shallow door frames to provide adequate mounting surface	ALM: 1-1/2" x 1-1/2"	2951& 2953	
	2-679-0493		DBZ: 1-1/2" x 1-1/2"	2951& 2953	
	2-679-0501		ALM: 2" x 1-1/2"	2951& 2953	
	2-679-0503		DBZ: 2" x 1-1/2"	2951& 2953	
	2-679-0571		ALM: 1-1/2" x 1-1/2"	2952 & 2954	
	2-679-0573		DBZ: 1-1/2" x 1-1/2"	2952 & 2954	
	2-679-0581		ALM: 2" x 1-1/2"	2952 & 2954	
	2-679-0583		DBZ: 2" x 1-1/2"	2952 & 2954	

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 Series Magnetic Shear Lock

MODELS

2965

Single magnetic shear lock with 2700 lbs. holding force (1225 kg)

WARRANTY

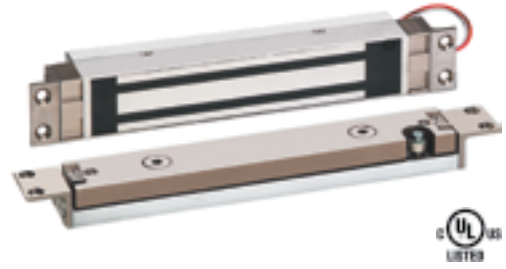
One-year warranty

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)

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



29EA-M



29EA-K



29EA-N

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 - 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



Access Controls - Door Prop Alarm

29EA
Door Prop Alarm
 Key Switches

DESCRIPTION

- Provides audible alarm when a door is accessed or left open
- Installs in single gang or double gang enclosures
- Compatible with U.S. standard 1.125" and 1.25" mortise key cylinders and interchangeable core cylinders (Sold Separately)

FUNCTIONS

- N - No Key Switch
- M - Mortise Cylinder Switch (Sold Separately)
- K - Key Switch



FEATURES

- Audible sirens with adjustable timer settings
- Bypass status indicator light
- Vandal-resistant aluminum construction with security screws
- Optional key switch or mortise cylinder
- Adjustable Timed Delay
- Exit Alarm on Door Opening
- Automatic or Manual Alarm Reset
- Output Relays
- Integral Bi-color LED Status Indicator
- Compact Universal Mounting
- 85dB Piezo Buzzer Alarm

ELECTRICAL SPECIFICATIONS

Inputs:	
Voltage:	12 or 24 VDC
Trigger Input:	Dry, N/O or N/C (Selectable by on board jumper), Door Contact (Sold Separately)
Remote Reset/ Bypass Input:	Dry, N/O or N/C. Reset by momentarily shorting the input when alarmed. Bypass by shorting & holding the input when secure.
OUTPUTS	
Alarm Output:	Form C, 2A @ 30VDC max
Auxiliary Output:	Form C, 2A @ 30VDC max. Follows Door Contact input, or Alarm output (fieldselectable)
LED Indicators:	Green - Normal Operation Red - Alarm Activated
CYLINDER	3902 - 1-1/8" recommended (order separately) HS4 - HN02 NEO Mortise Cylinder

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
2972-T

Momentary SPDT Exit Switch
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
2-679-0612

White PIR egress sensor
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:

- 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 ±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
---------	-----------------------

Restroom Controls

MODELS

2-659-0368

KIT CONTENTS

2-659-0240

Supply Voltage
Power Consumption
Temperature Range
Dimensions Housing
Material Input
Specification WET
Input Contact
Rating DRY

Contact Rating WET

2-659-0369

Max Current
Max Power
Electrical Config.
Loop Type
Max Gap Distance

2-659-0370

Switch
Max Current
Max Power Electrical
Config. High Volt
Bulb Low Volt Bulb

Mounting
Dimensions

2-659-0371

Voltage
Indicator
Material
Certifications

BUILDING CODES

For single occupancy normally locked/unlocked restrooms

- 2-659-0240 Programmable Relay
- 2-659-0369 DPS Switch
- 2-659-0370 Push to Lock Switch
- 2-659-0371 Single Gang Occupied When Lit indicator with buzzer

Programmable Relay
12 to 24V AC/DC
30 to 130 MA; DRY Output
-15 degrees to 150 degrees F
5.2" x 2.2" x 1.0"
Clear ABS Plastic
1 to 4; DRY Contact
5 to 24V AC/DC
Relay #1: 3A @ 24 VAC/30VDC
Relay #2: 3A @ 24 VAC/30VDC
Relay #3: 1A @ 24 VAC/30VDC
1A

DSP Switch
0.25A @ 30 VAC/DC
3.0W
SPDT
Open or Close
2"

Push to Lock Switch
SPST
10A @ 125/250 FAC
373W
SPDT
15-24V AC/DC @ 0.06A
12-14V AC/DC @ 0.19A
Single Gang
2-19/25" (W) x 4-13/25" (H) x 3/4" (D)

Occupied When Lit Indicator
12-24V AC/DC +/-10%
Audible Buzzer (selectable On/Off) and visual LED
Stainless Steel
FCC

Ontario Regulation 368/13 Compliant



Restroom Controls

2-659-0372 Emergency Kit

KIT DESCRIPTION

For single occupancy restrooms where someone may require emergency assistance

KIT CONTENTS

- 2-659-0373 Assistance Required Light
- 2-659-0374 Push for Assistance button
- Emergency signage

2-659-0373

Material
Lamp Voltage Rating
Sounder Voltage Rating
Sounder Current Rating
Bulb Type
Sounder & Lamp Terminal
Dimensions:

Assistance Required Light
Stainless Steel and Polycarbonate
28V AC/DC

16-24V AC/DC

15 mA

Miniature Bayonet Type (#313)

Two Pigtail Wires (each)

- Single Gang Faceplate 2-3/4" (W) x 4-1/2" (H)
- White Lens 2-1/4" (W) x 4" (H) x 3-1/8" (D)

2-659-03744

Voltage
Material
Indication
Button
Accessory
Certifications

Push for Assistance Button
12-24V AC/DC +/-10%
Stainless Steel and Polycarbonate
Audible Buzzer (selectable On/Off and visual LED)
E-Stop button (push on/pull off)
Rubber Weather Gasket
FCC

EMERGENCY SIGNAGE

Material
Dimensions
Language

Polystyrene
12" (W) x 5-1/2" (H)
Double Sided (English and French)

BUILDING CODES

Ontario regulation 368-13 Compliant



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Electric Power Transfer Devices

Electrified cylindrical locks, mortise locks, and exit devices all require power provided to them. Depending on the application, Hager offers power transfers and ETW Hinges to pass the power source through the door to the device. (See Commercial Hinges for ETW information.)



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
- QC not available

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

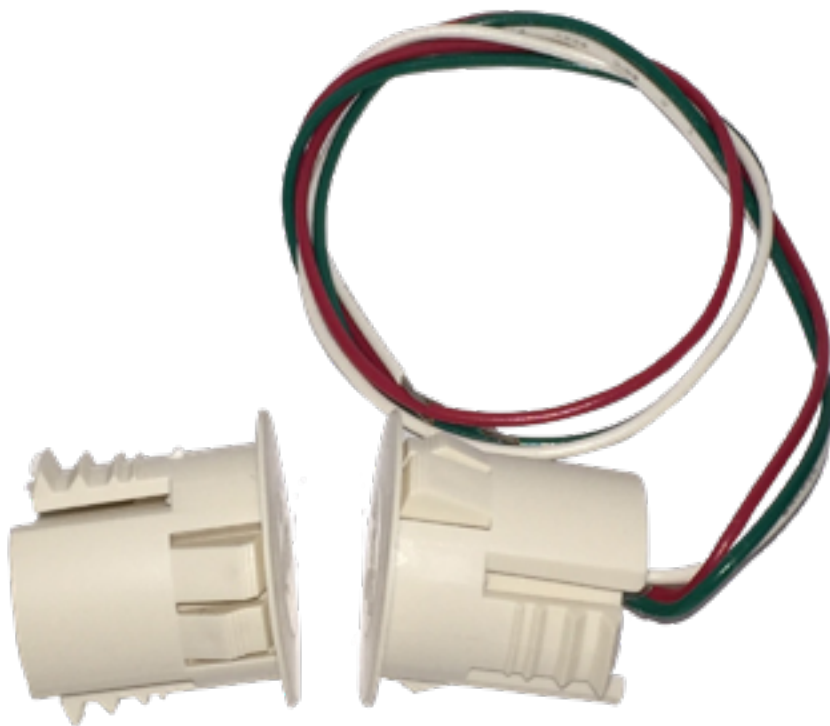
- 1-3/4" (44 mm) thick doors
- 0-180° opening swing with up to 3/4" (19 mm) offset pivots
- 0-180° opening swing with up to 5" wide butt hinges
- 0-130° opening swing with up to 5-1/2" (140 mm) wide butt hinges
- 0-130° opening swing with up to 6" (152 mm) wide butt hinges
- Not compatible with center 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 multiple sensor types that provide monitoring solutions for both new construction and retrofit.



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

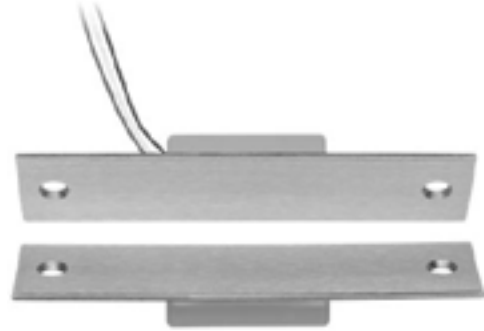
Contact: | SPDT, 50mA @ 30 VDC

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

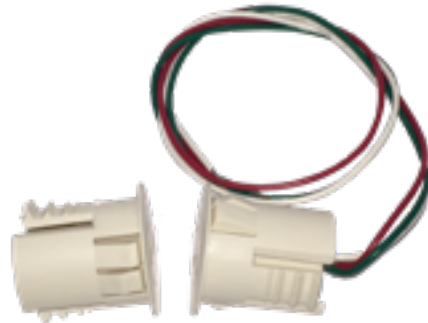
- Ideal for door status monitoring
- Easily installed in hollow metal and aluminum doors and frames

ELECTRICAL SPECIFICATIONS

Contact: | SPDT, 50mA @ 30 VDC

MECHANICAL SPECIFICATIONS

Gap: | 0.5" (12.7 mm)



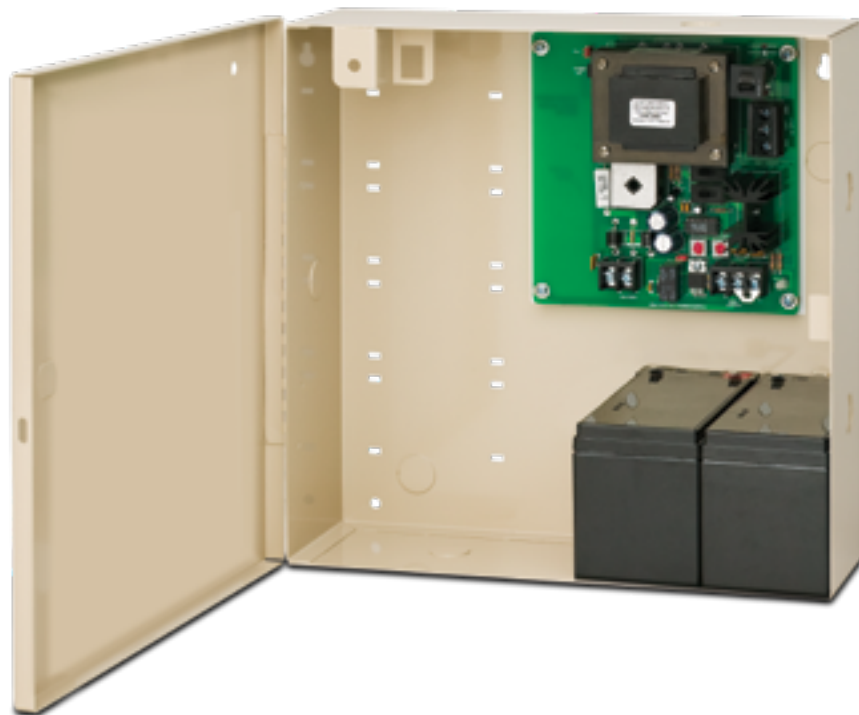
Power Supply & Door Controllers

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 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, 2909, 2910, and 2911 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 - 2911

MODELS

2911

WARRANTY

6A Modular Power Supply

One-year warranty

DESCRIPTION

- Modular design allows customization of each power supply
- Equipped with a high performance transformer and highly reliable electronic components
- Filtering and output voltage regulation provides protection and ensures 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
- Field selectable output that provides 12 VDC or 24 VDC
- 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
- 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:

- 12" x 12" x 4", 18 GA (305 x 305 x 102 mm)
- 20 gauge steel

ACCESSORIES

ELR

- 2-679-0661 - 5 Amp hour battery backup
- 2-679-0662 - 12 VDC output regulator module
- 2-679-0664 - Universal Relay Module
- 2-679-0703 - Sequencer Module
- 2-679-0704 - Access Control Module
- 2-679-0706 - Power Supply Monitor Module

Power Supply & Door Controllers - 2910

MODELS

2910

4A Modular Power Supply

WARRANTY

One-year warranty

DESCRIPTION

- Modular design allows customization of each power supply
- Equipped with a high performance transformer and highly reliable electronic components
- Filtering and output voltage regulation provides protection and ensures 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
- Field selectable output that provides 12 VDC or 24 VDC
- 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
- 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:

- 12" x 12" x 4", 18 GA (305 x 305 x 102 mm)
- 20 gauge steel

ACCESSORIES

ELR

- 2-679-0661 - 5 Amp hour battery backup
- 2-679-0662 - 12 VDC output regulator module
- 2-679-0664 - Universal Relay Module
- 2-679-0703 - Sequencer Module
- 2-679-0704 - Access Control Module
- 2-679-0706 - Power Supply Monitor Module

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

- 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

- 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

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)

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

MODELS

2-679-0704

Access Control Module

WARRANTY

One-year warranty

APPLICATION

Installer friendly relay board used to control and monitor openings

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

Power Supply & Door Controllers - 2904

MODELS

2904

MLR & Auto Operator Access Control Power Supply

WARRANTY

One-year warranty

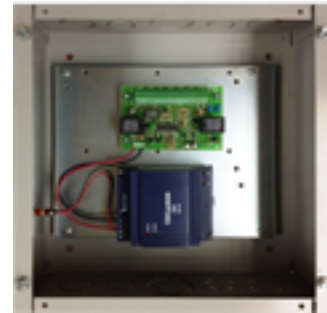
APPLICATION

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

- Suitable for motor driven ELR exit devices

Power Supply & Door Controllers - 2903

MODELS

2903

Access Control & Locking Device Power Supply

WARRANTY

One-year warranty

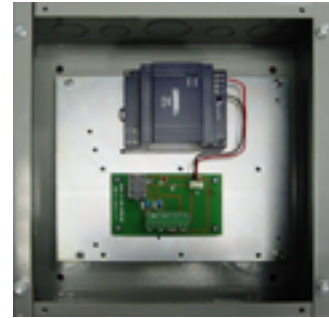
APPLICATION

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

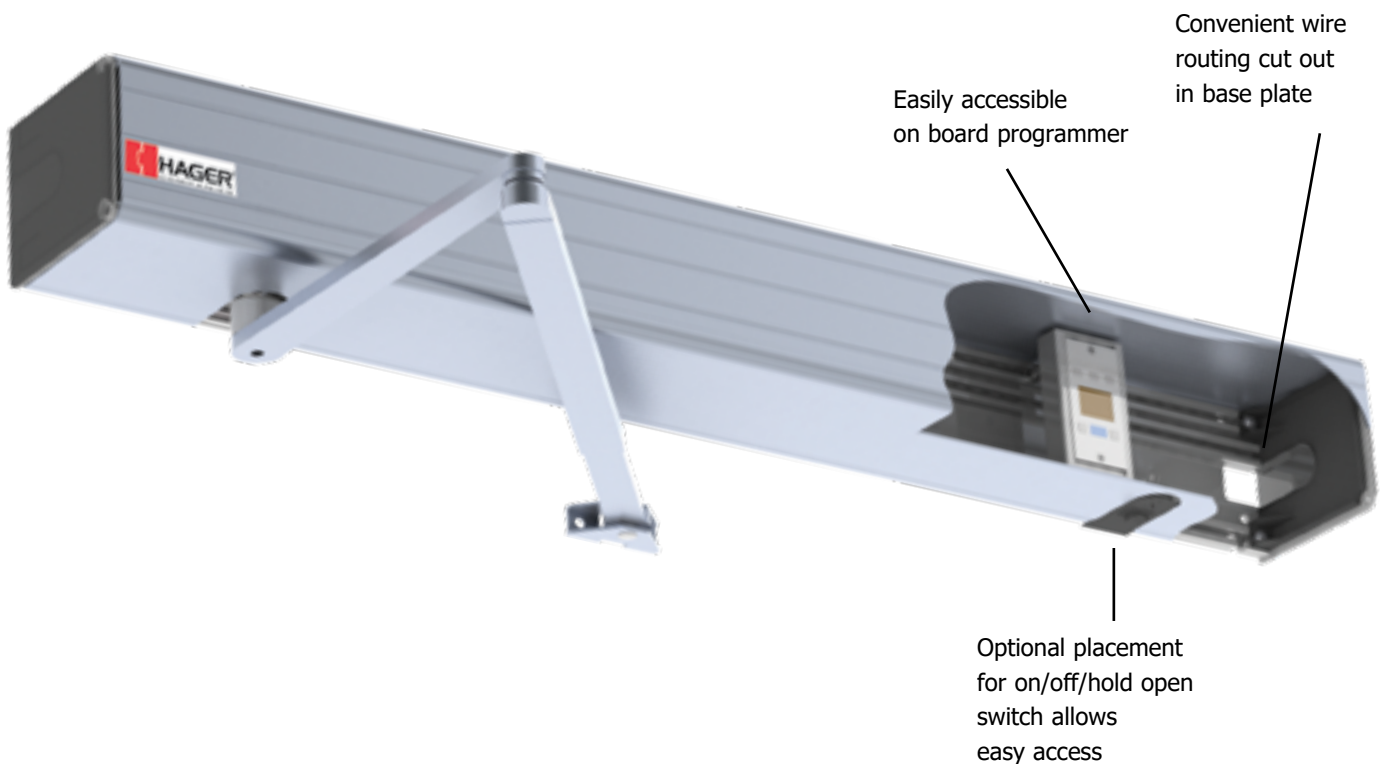
NOTES

- Suitable for motor driven ELR exit devices

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 56-63)

Premium Low Energy Power Operator

- Single Operator
- Paired Operator
- Double Egress Operator
- Single Operator Paired with Mechanical Closer

8300 Series - (Pages 69-72)

- Low Energy Power Operator
- Single Operator
- Double Egress Operator



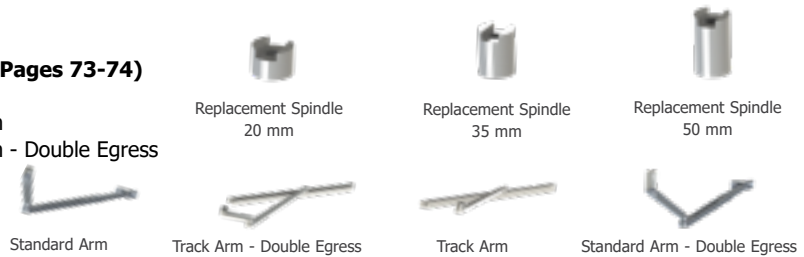
2 Parts & Accessories

8400 Series - (Pages 65-67)

- Track Arm
- Standard Arm
- Standard Arm - Double Egress
- Track Arm - Double Egress
- Replacement Spindle

8300 Series (Pages 73-74)

- Standard Arm
- Standard Arm - Double Egress
- Track Arms



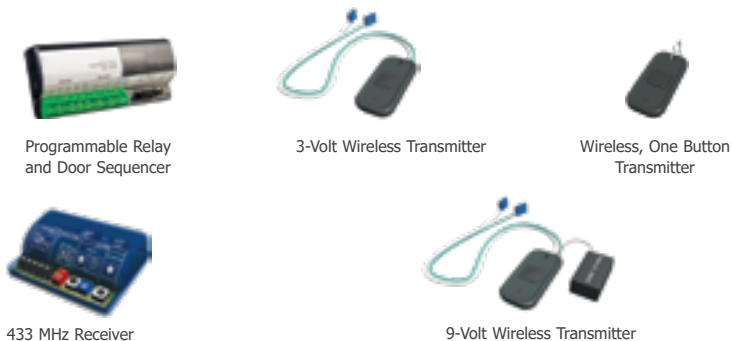
3 Actuators (Pages 75-84)

- 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



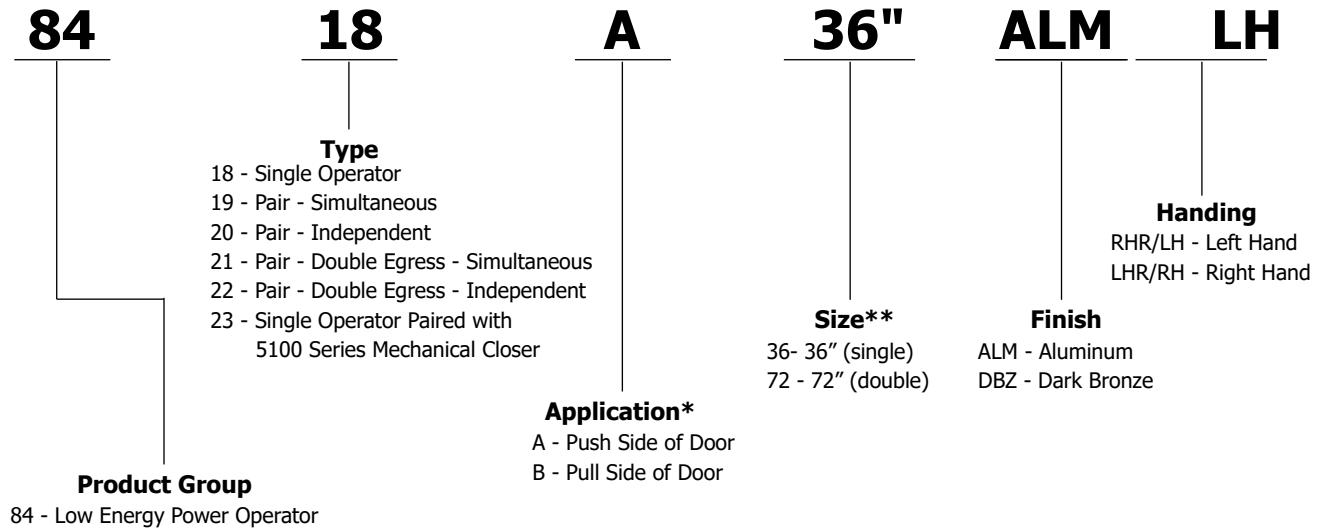
4 Accessories (Pages 85-87)

- 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 - 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.**

* **Note: All operator orders must be accompanied with the appropriate order form located on the products' product portal page under "Related Files."**

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

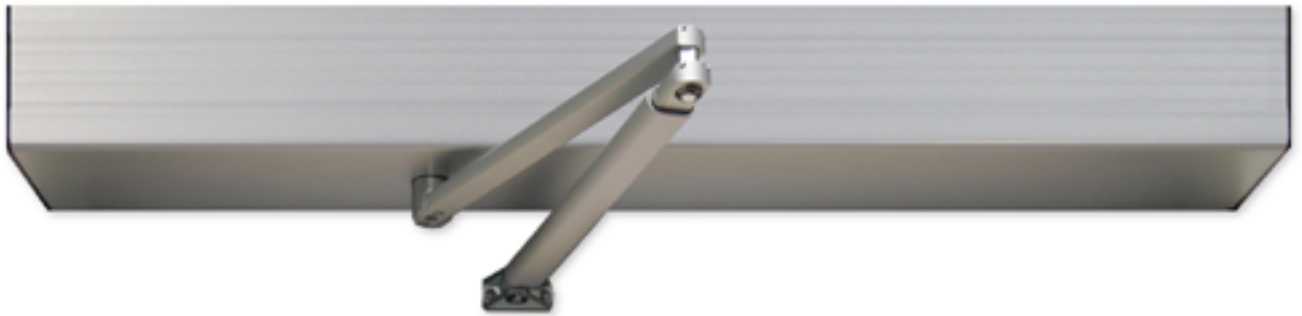
Must specify push or pull side mount
Specify handing

Accessories

Category	Part Number	Type	Installation	Spindle	Finish
Arms	2-659-0151	Track Arm	Pull Side of Door	20mm	ALM
	2-659-0152	Track Arm	Pull Side of Door	20mm	DBZ
	2-659-0153	Standard Arm	Push Side of Door	35mm	ALM
	2-659-0154	Standard Arm	Push Side of Door	35mm	DBZ
Double Egress Arms	2-659-0220	Standard Arm	Push Side of Door	50mm	ALM
	2-659-0221	Standard Arm	Push Side of Door	50mm	DBZ
	2-659-0222	Track Arm	Pull Side of Door	20mm	ALM
	2-659-0223	Track Arm	Pull Side of Door	20mm	DBZ
Replacement Spindles	2-659-0224	Replacement	Used with Track Arm	20mm	ALM
	2-659-0225	Replacement	Used with Track Arm	20mm	DBZ
	2-659-0226	Replacement	Used with standard single and pair applications	35mm	ALM
	2-659-0227	Replacement	Used with standard single and pair applications	35mm	DBZ
	2-659-0228	Replacement	Used with Push Side Standard Arm - Double Egress Only)	50mm	ALM
	2-659-0229	Replacement	Used with Push Side Standard Arm - Double Egress Only)	50mm	DBZ
Miscellaneous	2-659-0230	Drop Plate	Use with Low Ceiling Clearance		ALM
	2-659-0231	Drop Plate	Use with Low Ceiling Clearance		DBZ
	2-659-0232	Cover	36" Cover		ALM
	2-659-0233	Cover	36" Cover		DBZ
	2-659-0234	Cover	72" Cover		ALM
	2-659-0235	Cover	72" Cover		DBZ
	2-659-0236	Power Supply	Onboard, 115VAC @ 60 Hz input, 24VDC 500mA output		N/A

8300 Series Low Energy Power Operator

The 8300 Series is Hager's most versatile low energy power operator. The 8300 was designed for easy installation and programming, along with quiet operations and features that make it an ideal choice for ADA openings.



8300 Series Low Energy Power Operator - How To Order

8300 SERIES

83

Product Group

83 - Low Energy Power Operator

18

Model

- 18 - Single Operator
- 19 - Simultaneous Pair
- 21 - Double Egress Simultaneous Pair

A

Arm

- A - Push
- B - Pull

36"

Length

- 36" - Single
- 42" - Single
- 44" - Single
- 48" - Single
- 72" - Double
- 84" - Double
- 88" - Double
- 96" - Double

Note: actual size is 3" additional width

ALM

Finish

- ALM - Aluminum
- DBZ - Dark Bronze (arms are BLK)

Specials are available:

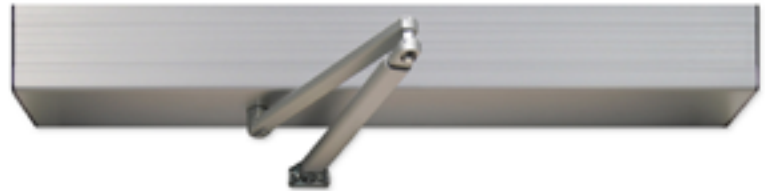
- BLK
- Wood Grain

*** Note: All operator orders must be accompanied with the appropriate order form located on the products' product portal page under "Related Files."**

8300 Series Low Energy Power Operator

MODELS

8318	Single Operator
8319	Simultaneous Pair/Independent Pair
8321	Double Egress Simultaneous Pair



WARRANTY

Two-year warranty

APPLICATION

- For use on interior and exterior fire-rated outswing or inswing doors

FEATURES

Application Features:

- Non-Handed
- Three Operating Modes (On/Off/Hold Open). 8319: switch is shared between both doors on independent configurations.
- Designed for doors up to 48" wide (1219 mm) single, 96" wide (2438 mm) double
- Designed for doors up to 350 lbs. (125 Kg)

Operational Functionality:

- Power Open Spring Close
- Microprocessor controlled for ultra-flat reactions

Certification:

- ANSI A156.19 compliant
- Complies with all U.S. and Canadian ADA requirements for low energy operators
- Appropriate door signage included with each operator
- ANSI/UL 325 listed for both United States and Canada
- ADA compliant
- UL/cUL Listed for up to 3-hours
- UL10C Listed for Positive Pressure Rating

ELECTRICAL SPECIFICATIONS

Power Requirements:	115 VAC 60 HZ
Current Draw:	0.4 A to 1.2 A (Max)
Onboard Power Supply:	24 VDC 1 A
Electric Lock Relay Type:	Form "C" SPDT
Lock Relay Rating:	5.0A @ 28 VDC
Fused Protection:	3.5A Fuse

8300 Series Low Energy Power Operator

MECHANICAL SPECIFICATIONS

Dimensions:	<ul style="list-style-type: none">• 5" h x 4-1/2"d x Door Opening Width + 3"
Reveal:	<ul style="list-style-type: none">• Push Arm: 9-3/4"• Pull Arm: 0"• Double Egress Arm: 4"• Extended Push Arm: 19"
Opening Force:	<ul style="list-style-type: none">• < 15 lbs. - Exceeds all ADA Requirements
Closing Force:	<ul style="list-style-type: none">• > 8 lbs
Max Degree of Swing:	<ul style="list-style-type: none">• Powered - 180° (push), 140° (pull); Mechanical - 180°
On/Off/Hold Open Switch:	<ul style="list-style-type: none">• Standard
On/Off Power Switch:	<ul style="list-style-type: none">• Standard
Swing Direction:	<ul style="list-style-type: none">• Inswing/Outswing
Operating Temperature:	<ul style="list-style-type: none">• -4°F to +131 °F
Enclosure Protection:	<ul style="list-style-type: none">• NEMA 3R (IP23) Protection against spray water (i.e. rainstorm)

OPERATING PARAMETERS

Adjustable Opening/Closing Speeds:	<ul style="list-style-type: none">• Yes, Exceeds all ADA Requirements
Adjustable Swing Degree:	<ul style="list-style-type: none">• 80° to 140°
Adjustable Latch Check Speed:	<ul style="list-style-type: none">• Yes
Built-in-Stop:	<ul style="list-style-type: none">• Manual swing to 180° / Power swing to 140° (pull), 180° (push)
Hold Open Time:	<ul style="list-style-type: none">• 5 Second Minimum (per ADA)
Fire Alarm Input:	<ul style="list-style-type: none">• FA input shunts swing activations until FACP is manually reset
Obstruction Stop:	<ul style="list-style-type: none">• Unit will stop cycle if an obstacle is detected in the swing path
Auto Reverse:	<ul style="list-style-type: none">• If the unit detects an obstacle, the door will travel in the opposite path
Push to Start ("Push 'n Go")	<ul style="list-style-type: none">• Yes* Safety Sensors required

FINISHES

ALM	Aluminum anodized (standard)
DBZ	Dark Bronze anodized (ships with Black (BLK) arms)

8300 Series Parts & Accessories

2-679-0901	8300 - 20MM REPLACEMENT SPINDLE
2-679-0902	8300 - 35MM REPLACEMENT SPINDLE
2-679-0903	8300 - 50MM REPLACEMENT SPINDLE
2-679-0904	8300 - 80MM REPLACEMENT SPINDLE
2-679-0896	8300 - STANDARD ARM W/ 35MM SPINDLE (PUSH) ALM
2-679-0897	8300 - STANDARD ARM W/ 35MM SPINDLE (PUSH) BLK
2-679-0898	8300 - TRACK ARM W/ 20MM SPINDLE (PULL) ALM
2-679-0899	8300 - TRACK ARM W/ 20MM SPINDLE (PULL) BLK
2-679-0900	8300 - DBL EGRESS ARM W/ 20MM SPINDLE (PULL) ALM
2-679-0905	8300 - STANDARD ARM EXTENTION ALM
2-679-0906	8300 - STANDARD ARM EXTENTION BLK
2-679-0907	8300 - KP EVO PROGRAMMING DEVICE

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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, including hardwired, wireless, and kinetic. Hardwired (or wired) actuators functionality is not hindered by interferences that a physical barrier may present. Wireless actuators eliminate the need for wiring and kinetic actuators harness power during the physical activation of the actuator, creating the required power to wirelessly transmit the command signal.



Actuators - How To Order

8200 SERIES

82

28

00H

00

03EXT

Model

- 28 - Push Activation ADA Switch
- 29 - Touchless Activation ADA Switch

Design

- 00** - Wheelchair Logo | "Push To Open"
- 01** - Wheelchair Logo | No Text
- 02** - No Logo | "Push To Open"
- 03** - Wheelchair Logo + Hand Logo | "Wave To Open"
- 04** - Wheelchair Logo + Hand Logo | No Text
- 05** - Hand Logo | "Wave To Open"
- 06** - Accessibility Logo | "Push To Open"
- 07** - Accessibility Logo | No Text

Product Group
82 - Actuators

Power Type, Size & Shape















- 00H** - Hardwired | 6.0" Round
- 01H** - Hardwired | 4.5" Round
- 02H** - Hardwired | 4.5" Square
- 03H** - Hardwired | Narrow
- 04H** - Hardwired | 36" Tall (Low Profile)
- 05H** - Hardwired | Vestibule
- 04W** - Wireless | 36" Tall (Low Profile)
- 01K** - Kinetic | 4.5" Round
- 02K** - Kinetic | 4.5" Square
- 03K** - Kinetic | Narrow
- 04K** - Kinetic | 36" Tall (Low Profile)
- 05K** - Kinetic | Vestibule

Wireless availability: Hardwired actuators can be converted to wireless by ordering 82TX RF Transmitter (100205151) and 82RX RF Receiver (100205152)












Additional Options

- 03EXT** - Wheelchair Logo + Hand Logo | "Wave To Open" | Exterior Rated
- 04EXT** - Wheelchair Logo + Hand Logo | No Text | Exterior Rated
- 05EXT** - Hand Logo | "Wave To Open" | Exterior Rated
- 03LR** - Wheelchair Logo + Hand Logo | "Wave To Open" | Light Ring
- 04LR** - Wheelchair Logo + Hand Logo | No Text | Light Ring
- 05LR** - Hand Logo | "Wave To Open" | Light Ring

Actuators - Part Numbers

		Wired	Wireless	Kinetic	Touchless	Touchless Light Ring	
		Exterior Rated				Interior Only	
6" Round		8228-00H	Order 82TX transmitter and 82RX receiver	8228-00K		8229-00H	
	/00	8228-00H/00	Order 82TX transmitter and 82RX receiver	8228-00K/00			
	/01	8228-00H/01	Order 82TX transmitter and 82RX receiver	8228-00K/01			
	/03LR					8229-00H/03LR	
	/04LR					8229-00H/04LR	
	/05LR					8229-00H/05LR	
	/06	8228-00H/06	Order 82TX transmitter and 82RX receiver	8228-00K/06			
	/07	8228-00H/07	Order 82TX transmitter and 82RX receiver	8228-00K/07			
4.5" Round		8228-01H		8228-01K		8229-01H	
	/00	8228-01H/00	Order 82TX transmitter and 82RX receiver	8228-01K/00			
	/01	8228-01H/01	Order 82TX transmitter and 82RX receiver	8228-01K/01			
	/03LR					8229-01H/03LR	
	/04LR					8229-01H/04LR	
	/05LR					8229-01H/05LR	
	/06	8228-02H/06	Order 82TX transmitter and 82RX receiver	8228-02K/06			
	/07	8228-02H/07	Order 82TX transmitter and 82RX receiver	8228-02K/07			

Actuators - Part Numbers

		Wired	Wireless	Kinetic	Touchless	Touchless Light Ring
		Exterior Rated				Interior Only
4.5" Square		8228-02H		8228-02K		8229-00H
	/00	8228-02H/00	Order 82TX transmitter and 82RX receiver	8228-02K/00		
	/01	8228-02H/01	Order 82TX transmitter and 82RX receiver	8228-02K/01		
	/03LR or /03EXT				8229-02H/03EXT	8229-02H/03LR
	/04LR or /04EXT				8229-02H/04EXT	8229-02H/04LR
	/05LR or /05EXT				8229-02H/05EXT	8229-02H/05LR
	/06	8228-02H/06	Order 82TX transmitter and 82RX receiver	8228-02K/06		
	/07	8228-02H/07	Order 82TX transmitter and 82RX receiver	8228-02K/07		
Narrow		8228-03H		8228-03K		
	/02	8228-03H/02	Order 82TX transmitter and 82RX receiver	8228-03K/02		
	/01	8228-03H/01	Order 82TX transmitter and 82RX receiver	8228-03K/01		
Low Profile		8228-04H		8228-04K		
	/00	8228-04H/00	8228-04W/00	8228-04K/00		
Vestibule		8228-05H		8228-05K		
	/06	8228-05H/00	Order 82TX transmitter and 82RX receiver	8228-05K/00		

any combination can be ordered but if the part number is not populated, there may be extended lead times.

Actuator Switches

APPLICATION

Hardwired is ideal for facilities where the activation switch is being replaced
OR

Battery powered is ideal for new installation in an existing facility

- For use with ADA low energy power operators
- Including medical facilities, assisted living facilities, offices, clean rooms, schools, and buildings with public access.

INSTALLATION

- Order 82TX transmitter (100205151) and 82RX receiver (100205152)
(Note: Low profile may be ordered with the transmitter and receiver included by ordering 8228-04_W/XX)

ENVIRONMENTAL

Interior
Exterior

OPERATING TEMPERATURE

-4°F to 122°F

USAGE FREQUENCY

High

CERTIFICATIONS

- NEMA rated

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
- One year

WARRANTY

MATERIAL

18-gauge stainless steel, brass available
low profile switches: 16-gauge stainless steel

- Finish: US32D with blue graphics



	6" Round	4.5" Round	4.5" Square	Narrow	Low Profile	Vestibule
Voltage	12/24V AC/DC	12/24V AC/DC	12/24V AC/DC	12/24V AC/DC	12/24V AC/DC	12/24V AC/DC
Contact Type	SPDT Form 'C'	SPDT Form 'C'	SPDT Form 'C'	SPDT Form 'C'	SPDT Form 'C'	SPDT Form 'C'
Contract Rating	15A @ 30VDC	15A @ 30VDC	15A @ 30VDC	3A @ 30VDC	15A @ 30VDC	3A @ 30VDC
Switch Type	Momentary	Momentary	Momentary	Momentary	Momentary	Momentary
DPDT Switch	Optional	Optional	Optional	Optional	Optional	Optional

Kinetic Actuator Switches

APPLICATION

- Ideal for any existing facility needed to meet ADA public access requirements
- Kinetic switches generate power when the plate is pushed, removing the need for wires or batteries to transmit the signal to the receiver.
- For use with ADA low energy power operators
- Including medical facilities, assisted living facilities, offices, clean rooms, schools, and buildings with public access.
- Ideal for new installation in an existing facility.

INSTALLATION

Pushing the activation plate generates the needed power to send the wireless signal

ENVIRONMENTAL

Interior
Exterior

OPERATING TEMPERATURE

-4°F to 122°F

CERTIFICATIONS

- NEMA rated

FEATURES

- Embossed graphics ensures durability
- Stainless steel faceplate provides durability while also reducing visible deterioration caused by abrasive cleaning agents
- Beveled edges

WARRANTY

- One year

USAGE FREQUENCY

High

MATERIAL

- 18-gauge stainless steel, brass available low profile switches: 16-gauge stainless steel
- Finish: US32D with blue graphics



	6" Round	4.5" Round	4.5" Square	Narrow	Low Profile	Vestibule
Voltage	12/24V AC/DC	12/24V AC/DC	12/24V AC/DC	12/24V AC/DC	12/24V AC/DC	12/24V AC/DC
Contact Type	SPDT Form 'C'	SPDT Form 'C'	SPDT Form 'C'	SPDT Form 'C'	SPDT Form 'C'	SPDT Form 'C'
Contract Rating	15A @ 30VDC	15A @ 30VDC	15A @ 30VDC	3A @ 30VDC	15A @ 30VDC	15A @ 30VDC
Switch Type	Momentary	Momentary	Momentary	Momentary	Momentary	Momentary
DPDT Switch	Optional	Optional	Optional	Optional	Optional	Optional

Touchless Actuator Switches

APPLICATION

- Ideal for any facility where spreading germs is a concern (i.e., healthcare, K-12)
- For use with ADA low energy power operators
- Including medical facilities, assisted living facilities, offices, clean rooms, schools, and buildings with public access.

INSTALLATION

- Uses infra-red sensors to detect the knowing act
- Infra-red technology is not impacted by direct sunlight

ENVIRONMENTAL

Interior (includes light ring)
Exterior (does not include light ring)

OPERATING TEMPERATURE

Alkaline: 32°F to 122°F
Lithium: -40°F to 122°F

CERTIFICATIONS

- NEMA rated

FEATURES

- Embossed graphics ensures durability
- Stainless steel faceplate provides durability while also reducing visible deterioration caused by abrasive cleaning agents
- Beveled edges

WARRANTY

- One year

USAGE FREQUENCY

High

MATERIAL

- 18-gauge stainless steel, brass available
- Finish: US32D with black graphics
(note – these are black graphics where the other units are blue graphics)



	6" Round	4.5" Round	4.5" Square
Voltage	12/24V AC/DC	12/24V AC/DC	12/24V AC/DC
Contact Type	SPDT Form 'C'	SPDT Form 'C'	SPDT Form 'C'
Contact Rating	15A @ 30VDC	15A @ 30VDC	15A @ 30VDC
Switch Type	Momentary	Momentary	Momentary
DPDT Switch	Optional	Optional	Optional
Exterior			8229-02H/03EXT
			8229-02H/04EXT
			8229-02H/05EXT
Interior	8229-00H/03LR	8229-01H/03LR	8229-01H/03LR
	8229-00H/04LR	8229-01H/04LR	8229-01H/04LR
	8229-00H/05LR	8229-01H/05LR	8229-01H/05LR

Actuators - Mounting Boxes

	Hager Item No.
6" Round	
Surface (black)	100205137
Surface (32D)	100205138
42" Bollard (aluminum)	100205140
42" Bollard (dark bronze)	100205141
Surface Mount, Extra Deep	100205149 Use with wireless transmitter
Single Gang Electrical Box	compatible
Double Gang, 4" x 4" Electrical Box	compatible
Touchless, Surface	100205149
4.5" Round	
Surface (black)	100205142
Surface (32D)	100205143
4.5" Square	
Surface	100205148
42" Bollard (aluminum)	100205140
42" Bollard (dark bronze)	100205141
Single Gang Electrical Box	compatible
Double Gang, 4" x 4" Electrical Box	compatible
Touchless, Surface	100205148
Narrow	
Surface, Narrow	100205145
Surface, Offset	100205154
1-3/4" Framing	template incl.
Low Profile	
Surface (grey powder coat)	100205146
Surface (black)	100205147
Vestibule	
Surface, Vestibule	100205144
Double Gang, 4" x 4" Electrical Box	compatible



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. For sizes or finishes not listed in this catalog, please contact Hager customer service for availability.

TABLE OF CONTENTS

General Information	2	Floor Stops & Holders	42
Pulls	5	Kick Down Door Stops	49
Flush Cup Pulls	16	Surface Bolts.....	50
Pull Plates	20	Flush Bolts & Coordinating Devices	51
Push Plates	22	Latches & Protection Plates.....	58
Push Bars	26	Coat Hooks	62
Push & Pull Bar Sets	28	Pulls - Closet/Pocket/Sliding Door	64
Door Edgings & Corner Guards	33	Filler Plates	67
Door Protection Plates	35	Signage	69
Wall Stops & Holders	36	Miscellaneous.....	73
Roller Stops	41	Residential.....	78

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

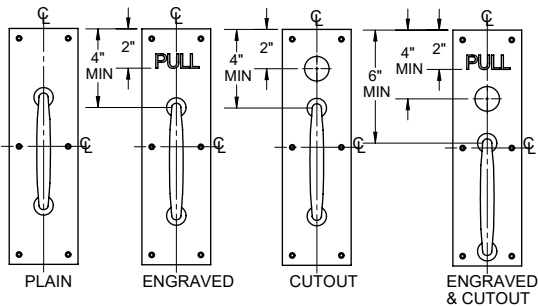
Standard Grip Positions

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.

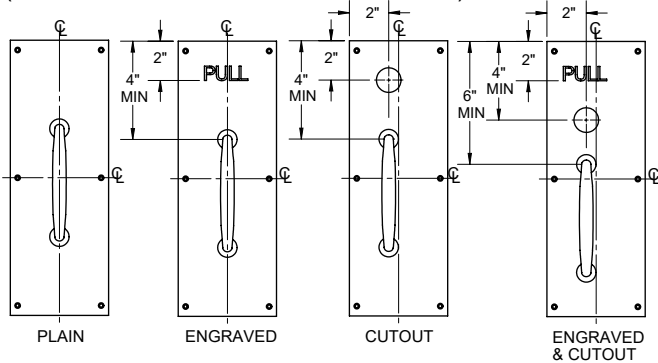
Special Pull Positions

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

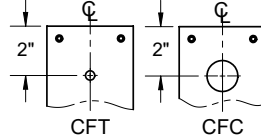


PULL PLATES OVER 4" WIDE (HANDING REQUIRED WITH CUTOUTS)



Cut Outs

Standard cutout sizes: Cut for Cylinder (CFC) – 1 1/4" (32 mm) diameter; Cut for Thumbturn (CFT) – 3/8" (10mm) 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. On push or pull plates, standard position is horizontal on a line 2" (51 mm) from top of plate. (US32 & US32D only)



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)



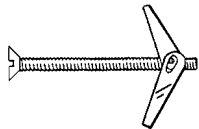
Lead anchor
(used with floor stops in masonry applications)



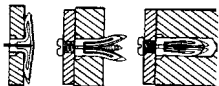
Plastic anchor and full threaded screw
(used in drywall or masonry applications)



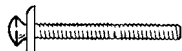
Lag screw and shield



Toggle bolt
(ideal for drywall applications)



Plastic toggle anchor
(used with wall stops in drywall applications)



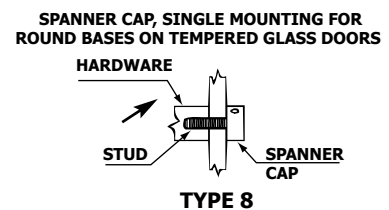
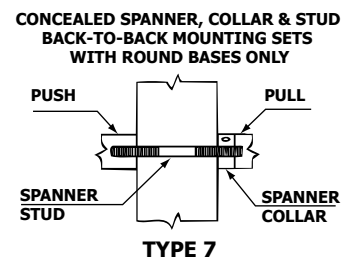
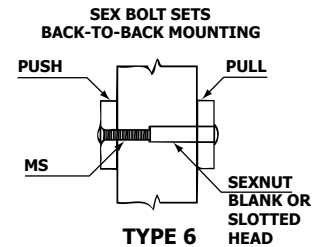
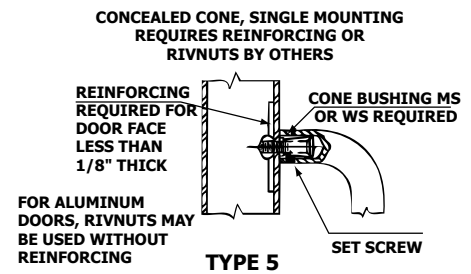
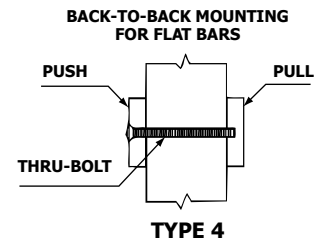
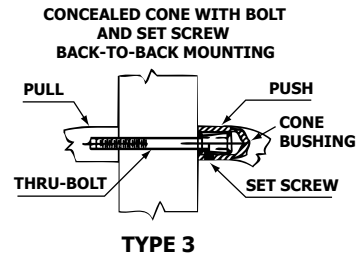
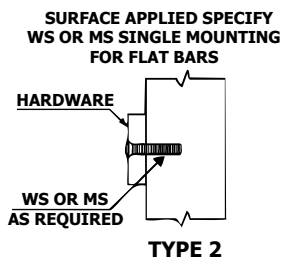
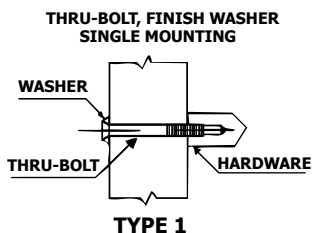
Thru-bolt and finish washer
(flat or oval head; size as required)



Spanner head machine screws
(various sizes furnished at extra charge)



Security torx head machine screws
(various sizes furnished at extra charge)



General Information

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	Any	-
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	-
DBZ	Painted	Any	695

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 Axalta PFC609S9A 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. Designate your product with: MV3 for Trim & Auxiliary.



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, DBZ, US19, US26, US26D, US28, US32, US32D
Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers

CTC Length	1E	1G	1J	1L
Inches	6	8	10	12
Millimeters	152	203	254	305

- 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:**
- Not suitable for back to back mounting



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, DBZ, US19, US26, US26D, US28, US32, US32D
Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers

CTC Length	2E	2G	12J	2L
Inches	6	8	10	12
Millimeters	152	203	254	305

- Handicap:**
- 2-5/8" (63.5 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:**
- Not suitable for back to back mounting



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) 1-3/4" (45 mm) - Standard
Door Thickness: 1-3/4" (45 mm)
Materials: Standard Aluminum, brass, bronze, stainless steel
Finishes: US3, US4, US10, DBZ, US19, US26, US26D, US28, US32, US32D
Fasteners: Two (2) 1/4-20 x 2-1/4" FPHMS with finish washers

CTC Length	3E	3G	3J	3L
Inches	6	8	10	12
Millimeters	152	203	254	305

- Handicap:**
- 2-1/2" (64 mm) clearance available on special orders
 - Add prefix "H" to number (i.e., H3E)
- Notes:**
- 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

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, DBZ, US19, 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., H4E)
- Notes:
- 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 14

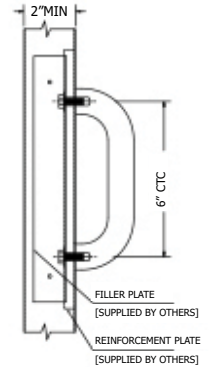
CTC Length	4E	4G	4H	4J	4L
Inches	6	8	9	10	12
Millimeters	152	203	229	254	305



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 Diameter: 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



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: Brass, bronze, stainless steel
 Finishes: US3, US4, US10, DBZ, US19, 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., H5D)
- Notes:
- 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
 Base Diameter: 6-1/8" (155.6 mm)
 Projection: 5/8" x 1-3/16" (16 mm x 30 mm)
 Clearance: 1-15/16" (49.2 mm)
 CTC Length: 1-7/16" (36.5 mm)
 Door Thickness: 5-1/2" (139.7 mm)
 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel

Finishes: US3, US4, US10, DBZ, US19, 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
 Base Diameter: 6-1/2" (165.1 mm)
 Projection: 1" (25 mm)
 Clearance: 1-7/8" (47.6 mm)
 CTC Length: 1-3/8" (34.9 mm)
 Door Thickness: 5-1/2" (139.7 mm)
 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze, stainless steel

Finishes: US3, US4, US10, DBZ, US19, 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



**7N
Cast Pull**

Certification: Meets ANSI A156.6 for J401 Pulls
 O/A Height: 7-1/2" (190.5 mm)
 Base Diameter: 2" (51 mm)
 Projection: 1-7/8" (47.6 mm)
 Clearance: 1-3/8" (34.9 mm)
 CTC Length: 5-1/2" (139.7 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Aluminum, brass, bronze

Finishes: US3, US4, US10, US19, 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" (190.5 mm)
 Base Diameter: 2" (51 mm)
 Projection: 1-7/8" (47.6 mm)
 Clearance: 1-3/8" (34.9 mm)
 CTC Length: 5-1/2" (139.7 mm)
 Materials: Aluminum, brass, bronze

Finishes: US3, US4, US10, US19, US26, US26D, US28
 Fasteners: Six (6) #8 x 1" OPHWS
 Notes: Not suitable for back to back mounting

Pulls



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



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, DBZ, US19, 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: • 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, DBZ, US19, 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: • 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, DBZ, US19, 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: • Back to back - see model 21

CTC Length	11E	11G	11J	11L
Inches	6	8	10	12
Millimeters	152	203	254	305

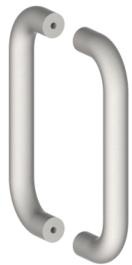


12 Round Offset Pull

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, DBZ, US19, US26, US26D, US28, US32, US32D
 Fasteners: Two (2) 5/16-18 x 2-1/4" FPHMS with finish washers

CTC Length	12G	12J	12L
Inches	8	10	12
Millimeters	203	254	305

- Handicap: • 2-1/2" (64 mm) clearance available on special orders
- Options: • 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

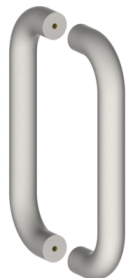


13 Round Wrought Door Push/Pull Set

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, DBZ, US19, US26, US26D, US28, US32, US32D

CTC Length	13E	13G	13J	13L
Inches	6	8	10	12
Millimeters	152	203	254	305

- Notes: • Type 7 mounting - Standard
 • Consists of two (2) pulls back to back
 • Supplied with two (2) 1/4" dia. threaded studs, spanner collar, and spanner wrench



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, DBZ, US19, US26, US26D, US28, US32, US32D

CTC Length	14E	14G	14J	14L
Inches	6	8	10	12
Millimeters	152	203	254	305

- Notes: • Type 7 mounting - Standard
 • Consists of two (2) pulls back to back
 • Supplied with two (2) 1/4" dia. threaded studs, spanner collar, and spanner wrench

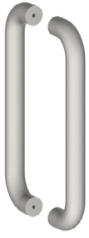


19N Cast Pull

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, DBZ, 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)

Pulls



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, DBZ, US26, US26D, US28, US32, US32D

Notes:

- Type 7 mounting - Standard
- Consists of two (2) pulls back to back
- Supplied with two (2) 5/16" dia. threaded studs, spanner collar, and spanner wrench

CTC Length	20L	20Q
Inches	12	18
Millimeters	305	457



20N Cast Pull

Certification: Meets ANSI A156.6 for J401 Pulls
 Q/A Height: 8-3/4" (222 mm)
 Base Diameter: 1-1/2" (38 mm)
 Projection: 3-1/4" (83 mm)
 CTC Length: 5-7/32" (132.5 mm)
 Door Thickness: 1-3/4" - Standard

Materials:

Bronze

Finishes:

US3, US10, 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, DBZ, US26, US26D, US28, US32, US32D

Notes:

- Type 7 mounting - Standard
- Consists of two (2) pulls back to back
- Available with 45 degree offset
- Supplied with two (2) 1/4" dia. threaded studs, spanner collar, and spanner wrench

CTC Length	21E	21G	21J	21L
Inches	6	8	10	12
Millimeters	152	203	254	305



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, DBZ, US26, US26D, US28, US32, US32D

Notes:

- Type 7 mounting - Standard
- Consists of two (2) pulls back to back
- Available with 45 degree offset
- 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	Fasteners:	5/16-18 x 2-1/4" FPHMS with finish washers
Base Diameter:	1-1/4" (32 mm)	Handicap:	<ul style="list-style-type: none"> • 2-1/2" (64 mm) clearance available on special orders • Add prefix "H" to number (i.e., H23Q)
Projection:	3" (76 mm)	Options:	For 45° offset, substitute "X" for first digit (i.e., X23Q)
Clearance:	1-3/4" (45 mm)	Notes:	<ul style="list-style-type: none"> • If ordered with tempered glass, specify glass thickness and hole size • Back to back - see model 20
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, DBZ, US26, US26D, US28, US32, US32D		



24Q Round Offset Push/Pull Set

Certification:	Meets ANSI A156.6 for J402 Offset Pulls	Finishes:	US3, US4, US10, DBZ, US26, US26D, US28, US32, US32D
Base Diameter:	1-1/4" (32 mm)	Notes:	<ul style="list-style-type: none"> • Type 7 mounting - Standard • Consists of two (2) pulls back to back • Available with 45 degree offset • Supplied with two (2) 5/16" dia. threaded studs, spanner collar, and spanner wrench
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		



190L Foot Pull

Projection:	3" (76.2 mm)	Fasteners:	Three (3) #12 screws x 1.5" FPHSW
Door Thickness:	1-3/4" Standard		Three (3) #12-24 sex nuts with 1-9/16" barrel for 1-3/4" door
Material:	Stainless Steel, Steel		Three (3) #12-24 x 1.0" FPHMS
Finish:	US10B, US32D, BLK		



910P | 910B Offset Mounting Vertical Pull

Pull Diameter:	1-1/4" (32 mm)	Notes:	<ul style="list-style-type: none"> • 910B is same as 910P with fasteners for back to back mounting
O/A Length:	36" (914 mm), 72" (1829 mm)	Clearance:	1-1/2" (38 mm)
CTC Lengths:	20" (508 mm), 56" (1422 mm)	Projection:	2-3/4" (70 mm)
Materials:	Aluminum, brass, bronze, 316 stainless steel tubing	Offset:	1-5/8" (41 mm)
Finishes:	US3, US4, US10, US10B, US15A, US26, US26D, US28, US32D		
Fasteners:	Two (2) 3/8-16 FPHMS with finish washers		

Pulls



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,
 316 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
 36" and 20"
 Clearance: 1-1/2" (38 mm)
 Projection: 2-3/4" (70 mm)
 72" and 56"
 Clearance: 1-1/2" (38 mm)
 Projection: 2-3/4" (70 mm)



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



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



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



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



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



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



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



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

Pulls



**962P
Acorn Tip Pull**

Q/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



**963P
Acorn Pull Offset**

Q/A Height: 16-5/16" (414 mm)
 Pull Diameter: 1" (25 mm)
 Projection: 2-3/4" (70 mm)
 CTC Length: 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



**967P
Curved Pull**

Q/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

**970P
Custom Push/Pull Set**

Base Diameter: 1" (25 mm)
 Pull Projection: 3" (76 mm)
 Pull Clearance: 2" (51 mm)
 CTC Length: 16-1/4" (412.75 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

Fasteners: 3/8 x 16 Type 3 mounting, concealed cone with 3/8 x 16 Type 2 thru bolts and finish washer; Type 1, thru-bolt, finish washer mount for free ends
 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

Materials: Brass, bronze, stainless steel
 Finishes: US3, US4, US10, US10B, US15A, US26, US26D, US32D



**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: 2.50" (63.5 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



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



980P | 980B
Segment Shape - Straight

Projection: 2-1/2" (63.55 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: • 980B is pair of 980P with fasteners for back to back mounting



981P | 981B
Segment Shape - Offset

Projection: 2-5/16" (58.7 mm)
 CTC Length: 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



983P | 983B
Curved Pull

Q/A Height: 21-1/4" (540 mm)
 Base Diameter: 1-1/4" (32 mm)
 Projection: 3-9/16" (90.5 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



984P | 984B
Curved Pull

Projection: 3" (76 mm)
 CTC Length: 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

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, DBZ, US19, 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, DBZ, US19, US26, US26D, US28, US32D
 Fasteners: Two (2) #6 x 5/8" PPHWS
 Notes: Fasteners concealed in cup



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, DBZ, US19, 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, US10B, DBZ, US19, 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, DBZ, US19, US26, US26D
 Fasteners: Two (2) #8 x 13/16" OPHWS
 Notes: Fasteners concealed in cup



25B
Security Flush Pull Set

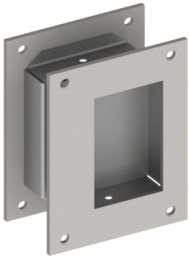
Certification: Meets ANSI A156.6 for J403 Pulls
 Face: 3-1/2" x 5" (89 mm x 127 mm)
 Opening: 1-3/4" x 3-1/16" (45 mm x 78 mm)
 Projection: 3/16" (5 mm)
 Cup Clearance: 3/4" (19 mm)
 Door Thickness: 1-3/4" (45 mm) - Standard
 Materials: Stainless steel
 Finishes: US32D
 Fasteners: Two (2) 6-32 x 1-1/2" 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, DBZ, US19, 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



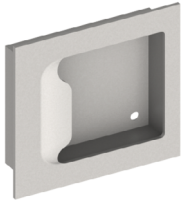
25P **Security Finger Push/Pull Plate Set**

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

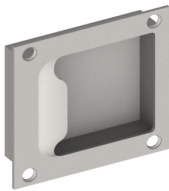


27N **Security Flush Cup Pull**

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
- Metal and wood doors



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 1/2" Undercut FTSMS (Security Torx)

Notes:

- ADA Compliant
- Not available for back to back mounting
- Metal doors only

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: Aluminum, brass, bronze, stainless steel
 Standard Sizes: 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: Six (6) #6 x 5/8 OPH tapping screws
 Finishes: US3, US4, US10, DBZ, US19, US26, US26D, US28, US32, US32D and diamond tread – available for the A30 in US26 only

Notes: • Not all finishes available in all sizes

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 Corner
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



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:
 - 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 availableNotes:
 - 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:
 - 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 availableNotes:
 - 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 (A30S only), DBZ, US19, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC)

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 - 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 (A40R only), DBZ, US19, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC)

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 - 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 (A50T only), DBZ, US19, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC)

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



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)

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)

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, DBZ, US19, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC)

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, DBZ, US19, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC)

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, DBZ, US19, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC)

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 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, stainless steel
 Finishes: US3, US4, DBZ, US19, US26, US26D, US28, US32, US32D
 Fasteners: Six (6) #6 x 5/8" OPH tapping screws
 Options: May be ordered cut for cylinder (CFC)



120L

Pull Plate with Lip - Non-Beveled Plate

Certification: Meets ANSI A156.6 for J303 Plate
 Plate: 3-1/2" x 16" (89 mm x 406 mm)
 Lip Projection: Aluminum, brass, bronze, stainless steel
 Gauge: 1-1/8" (29 mm)
 Materials: 0.125" (3.2 mm)
 Finishes: US3, US4, US10, DBZ, US19, 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)



121L

Cylinder Pull - Beveled Plate

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, DBZ, US19, 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



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)

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, DBZ, US19, 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, DBZ, US19, 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, DBZ, US19, 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, DBZ, US19, US26, US26D, US28, US32, US32D
 Fasteners: Eight (8) #8 x 3/4" FPH tapping screws



**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, DBZ, US19, 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, DBZ, US19, 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, DBZ, US19, 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

Push & Pull Bar Sets



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 US3,
 US4, US10, DBZ, US19, US28, US32, US32D
 Finishes:



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 US3,
 US4, US10, DBZ, US19, US28, US32, US32D
 Finishes:



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, DBZ, US19, 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



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, DBZ, US19, 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, DBZ, US19, US28, US32, US32D



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, DBZ, US19, 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



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, DBZ, US19, US28, US32, US32D
Options:	F or 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, DBZ, US19, US28, US32, US32D
Options:	F or 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, DBZ, US19, US28, US32, US32D
Options:	F or 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) 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



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, DBZ, US19, 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, DBZ, US19, 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, DBZ, US19, US28, US32, US32D
 Options: For 45° offset pull, add prefix "X" to number (i.e., X161D)
 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) 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



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, DBZ, US19, US28, US32, US32D



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, DBZ, US19, 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:	Notes 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, DBZ, US19, US28, US32, US32D
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) 1/4-20 Type 1 connections for other ends of push bar and pull.

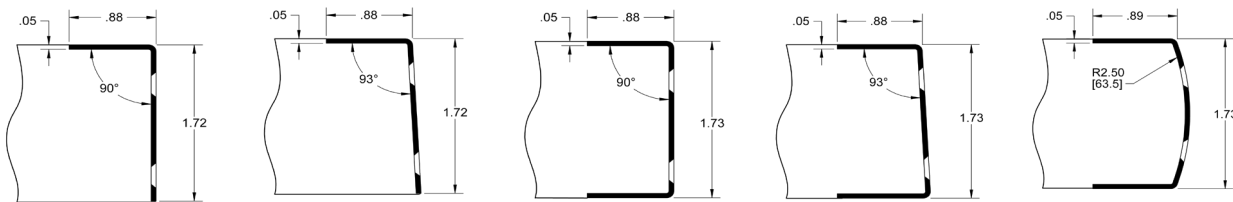
V = Fully Concealed Fastening - One (1) 3/8-16 Type 7 spanner collar connection between push bar and pull plus two (2) 1/4-20 Type 5 connections for ends of push bar and pull.

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.

Door Edgings & Corner Guards

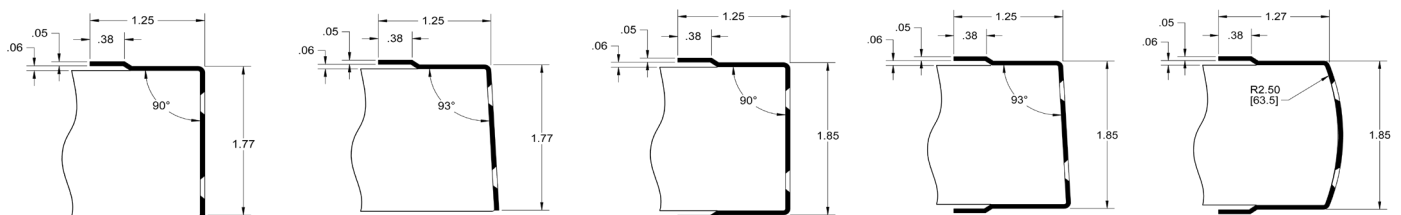
180H | 180K | 180M | 180P | 180Q Mortise Door Edging

- 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

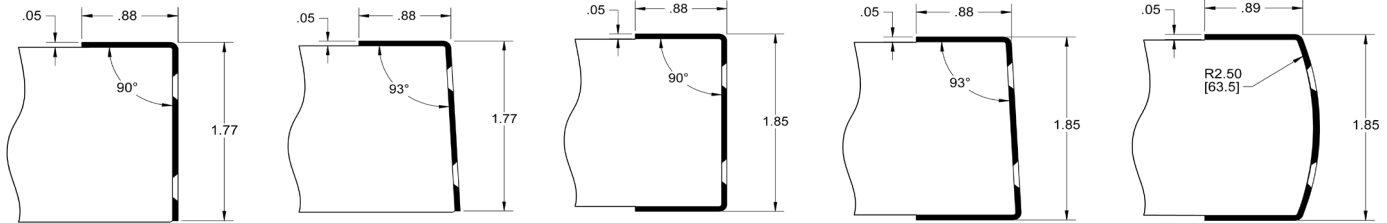
- Certification: Meets ANSI A156.6 Door Edging Type J201 through J212
 Standard Length: 36" – 42" (914 mm – 1067 mm)
 Materials: Aluminum, stainless steel
 Gauge: 0.045" - 0.050" (1.1 mm - 1.3 mm)
 Finishes: US28, US32D
 Fasteners: #6 x 3/4" FPH tapping screws
 Options:
 - Other lengths by quotation
 - 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 3/4" 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, stainless steel
 Finishes: US31, US41, US9, DBZ, US19, US28, US32, US32D
 Bevel: 4 edges
 Options: UL Listed for US19, US32, US32D & DBZ*
 Round Corner - 196R

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: US31, US41, US9, US10, DBZ, US19, US28, 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. Maximum size 48" high by 46" wide.

¹ US3 and US4 are unavailable above 24" tall on products 190S & 220S

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, US10B, US15, 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 **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, 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)



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 **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)

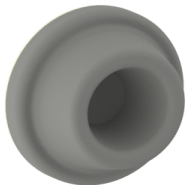
Wall Stops & Holders



250W

Convex Wall Stop

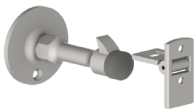
- Diameter: 1" (25 mm)
 Projection: 9/16" (14 mm)
 Materials: Cast brass
 Finishes: US3, US4, US10B, US15, US15A, US19, US26, US26D
 Fasteners: One (1) #6 x 3/4" screw with plastic anchor and one (1) 0.052 diameter nail
 Notes:
 - Concealed mounting screw prevents vandalism
 - For use on drywall
 - Compact design



251W

Concave Wall Stop

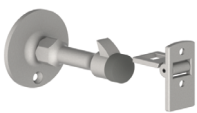
- Diameter: 1-7/8" (48 mm)
 Projection: 25/32" (20 mm)
 Materials: Adhesive backed rubber bumper
 Finish: Grey only
 Notes:
 - Concave bumper prevents damage to locksets with projecting buttons
 - For areas where concealed mounting is not required
 - Adhesive backing for use on clean smooth flat surfaces 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: US10B, 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

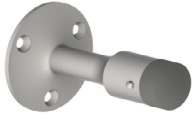


254W

Wall Stop & Holder

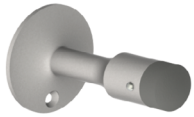
- Certification: Meets ANSI A156.16 for L01351
 Base Diameter: 2-11/32" (60 mm)
 Base Projection: 3-1/2" (89 mm)
 Engaged Projection: 5-19/32" (142 mm)
 Keeper: 1" x 2" (25 mm x 51 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US10B, US26D
 Fasteners: Three (3) #10 x 1" FPH tapping screw, 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, 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

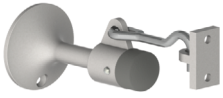
- Certification: Meets ANSI A156.16 for L02021
 Base Diameter: 2-11/32" (60 mm)
 Projection: 3-11/16" (94 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US4, US10, US10B, US15, US26, US26D
 Fasteners: One (1) #10 x 1" OPHWS, one (1) plastic anchor, one (1) 5/16-18 lead anchor, one (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

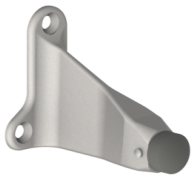
- Certification: Meets ANSI A156.16 for L01341
 Base Diameter: 2-1/4" (57 mm)
 Base Projection: 3-3/4" (95 mm)
 Engaged Projection: 5-11/16" (145 mm)
 Keeper: 25/32" x 1-1/2" (20 mm x 38 mm)
 Materials: Cast brass with black rubber bumper
 Finishes: US3, US10, US10B, US26D
 Fasteners: Three (3) #10 x 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, 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 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

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: 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



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, 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:

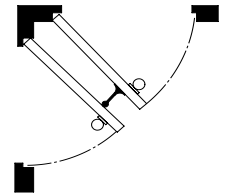
- For use with wood or metal doors
- For use with drywall or concrete walls
- Roller is spring loaded to seat on strike - heavy duty rubber pad dampens sound and shock
- Strike is adjustable 45° left or right



**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: US10, US10B, US26, US26D
 Fasteners: Three (3) #10 x 1" FPHWS and three (3) plastic anchors
 Notes:

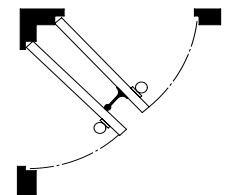
- For use when two doors swing into each other at right angles (back to back)
- Prevents damage to the door and door hardware
- Ideal for use with locksets with a projection of 3" (76 mm) or less



**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: US10B, US26, US26D
 Fasteners: Three (3) #10 x 1" FPHWS, and three (3) plastic anchors
 Notes:

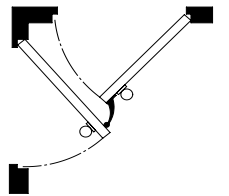
- For use when two doors swing into each other at right angles (back to back)
- Prevents damage to the door and door hardware



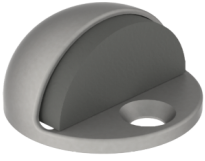
**273W
Curved Roller Bumper**

Certification: Meets ANSI A156.16 for L12213
 Projection: 2-21/32" (67 mm)
 Materials: Cast brass with grey rubber roller
 Finishes: US10B, 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



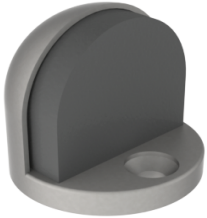
241F

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, 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
- Ideal for use with locksets with a projection of 3" (76 mm) or less



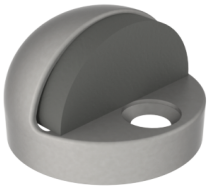
242F

Dome Stop - Universal

Certification: Meets ANSI A156.16 for L02142
 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, 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:

- For use with wood or concrete floors
- Does not work with 246B riser plate



243F

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
- To be used independently or with 246B



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: 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

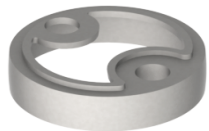
Floor Stops & Holders



245F Cast Floor Stop

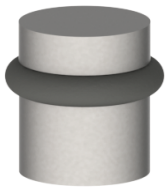
Certification: Meets ANSI A156.16 for L02161
Base: 1-3/4" x 4" (45 mm x 102 mm)
Base Thickness: 1/2" (13 mm)
Overall Height: 1-5/16" (33 mm)
Materials: Cast brass with grey rubber bumper
Finishes: US3, US4, US10, US10B, US26, US26D
Fasteners: Two (2) #14 x 1-1/2" FPHWS, two (2) 1/4-20 x 1-1/4" FPHMS, 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, US19, US26, US26D
Notes: For use with 241F and 243F on undercut doors, doors with thresholds, and carpeted flooring



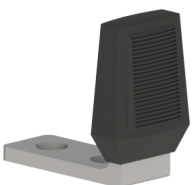
248F Modern Style Universal Stop

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, 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

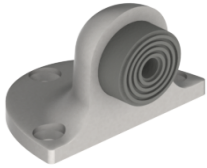


258F Floor Stop and Holder

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: 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



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: US10B, 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: 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, 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, 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, US10B, US15, 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, 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, US10B, 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, US10B, 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



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, 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

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, US10B, US15, US19, US26, US26D Three
 Fasteners: (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



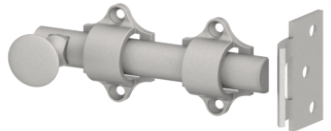
275D | 276D Surface Bolt

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, US10B, US26D
Fasteners:	Eight (8) #10 x 1-1/4" FPHWS and eight (8) 10-24 x 1" undercut FPHMS
Notes:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • 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:	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 L04251

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
- Priced as each and 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), 24" (610 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, US10, US10B, US15, 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 Label
 ANSI A156.3 Type #25
 Face Plate: 1" x 8-1/2" (25.5 mm x 216 mm)
 Bolt Head: 1/2" (12.5 mm) square
 Bolt Throw: 3/4" (19 mm)
 Bolt Backset: 3/4" (19.5 mm)
 Mortise Strike: 15/16" x 2-1/4" (24.5 mm x 56.8 mm)
 Materials: Stainless steel and brass with steel components
 Finishes: US10B, US32D

- 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 8 feet tall
 - To only be used with un-beveled doors



292D

Automatic Flush Bolt Set for Metal Doors

Certification: ANSI A156.3 Type #25
 Face Plate: 1" x 6-3/4" (25.6 mm x 171.8 mm)
 Bolt Head: 1/2" (12.5 mm) square
 Bolt Throw: 3/4" (19 mm)
 Bolt Backset: 3/4" (19.5 mm)
 Mortise Strike: 15/16" x 2-1/4" (24.5 mm x 56.8 mm)
 Materials: Stainless steel and brass with steel components
 Finishes: US10B, US32D

- Notes:
- Contains two 292 flush bolts
 - 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 8 feet tall
 - To only be used with un-beveled doors

Flush Bolts & Coordinating Devices



293D

Self-Latching and Automatic Flush Bolts for Inactive Metal Doors

Certification: ANSI A156.3 Type #25 and ANSI A156.16 Type #27

Face Plate: 1" x 6-3/4" (25.6 mm x 171.8 mm)

Bolt Head: 1/2" (12.5 mm) square

Bolt Throw: 3/4" (19 mm)

Bolt Backset: 3/4" (19.5 mm)

T- Strike: 1-1/8" x 2-3/4" (28.6 mm x 70 mm)

Materials: Stainless steel with steel components

Finishes: US10B, US32D

Notes:

- Contains 1 ea 292S and 1 ea 293S
- 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 8 feet tall
- To only be used with un-beveled doors

Flush Bolts & Coordinating Devices



294D

Self-Latching and Automatic Flush Bolts for Inactive Wood Covered Composite Doors

Certification:

B Label

ANSI A156.3 Type #25 and ANSI A156.16 Type #27

Face Plate:

1" x 8-1/2" (25.5 mm x 216 mm)

Bolt Head:

1/2" (12.5 mm) square

Bolt Throw:

3/4" (19 mm)

Bolt Backset:

3/4" (19.5 mm)

T- Strike:

1-1/8" x 2-3/4" (28.6 mm x 70 mm)

Materials:

Stainless steel with steel components

Finishes:

US10B, US32D

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 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 by pressing plunger- 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 8 feet tall
- To only be used with un-beveled doors



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" (25.6 mm x 171.8 mm)

Bolt Head:

1/2" (12.5 mm) square

Bolt Throw:

3/4" (19 mm)

Bolt Backset:

3/4" (19 mm)

Mortise Strike:

15/16" x 2-1/4" (24.5 mm x 56.8 mm)

Materials:

Stainless steel with steel components

Finishes:

US10B, US32D

Notes:

- Fire bolt is activated at 428°F (220°C), projecting into active door, locking leaves together - This combination eliminates the bottom flush bolt 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 8 feet tall
- To only be used with un-beveled doors

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" (25.5 mm x 216 mm)
 Bolt Head: 1/2" (12.5 mm) square
 Bolt Throw: 3/4" (19 mm)
 Bolt Backset: 3/4" (19.5 mm)
 Mortise Strike: 15/16" x 2-1/4" (24.5 mm x 56.8 mm)
 Materials: Stainless steel with steel components
 Finishes: US10B, US32D

Notes:

- Fire bolt is activated at 428°F (220°C), projecting into active door, locking leaves together - This combination eliminates the bottom flush bolt 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 8 feet tall
- To only be used with un-beveled doors



296D

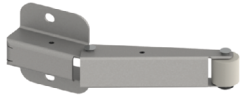
Universal Automatic Flush Bolt Set for Metal & Wood Doors

Certification: ANSI/BHMA 156.3 Type #25
 Face Plate: 1-3/32" x 2-1/4" (28 mm x 57 mm)
 Bolt Head: 1/2" (12.7 mm) diameter
 Bolt Throw: 3/4" (19 mm)
 Bolt Backset: 1-1/2" (38.2 mm)
 Materials: Stainless steel with steel components
 Finishes: US10B, US32D
 Strike: 1-3/32 x 2-1/4" (28 mm x 57 mm)

Notes:

- Non-handed
- ADA compliant
- Ideal for wood veneer doors
- Only two (2) 1-5/32" diameter holes needed for easier door preparation
- Opening active door retracts top and bottom bolts
- Smaller profile adds stability to the door
- 296D consists of two 296S flush bolts
- 396S top flush bolt can be paired with 2-649-0166 bottom fire bolt for both wood and metal doors.
- To only be used with un-beveled doors

Flush Bolts & Coordinating Devices



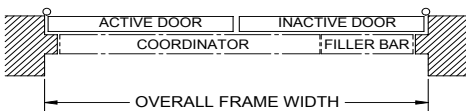
297C Carry-Open Bar Doors

- Projection: 13/16" (21 mm)
 Base: 1-3/4" x 2-7/32" (44.7 mm x 56.1 mm)
 Materials: Steel and Stainless Steel
 Finishes: US10B, US32D
 Fasteners: Two (2) 1/4"-20 x 3/4" PPHM w/ Sex Bolts
 Notes:
- 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-Open Bar is not needed when the inactive door is equipped with automatic or self-latching flush bolts
 - Non-handed



297D Coordinating Device

- Projection: ANSI/BHMA A156.3 Type #21A
 Base: 1-5/8" x 5/8" (41 mm x 16 mm)
 Maximum Astragal Overlap: 1" (25 mm)
 Stop Height: 5/8" (16 mm)
 Materials: Steel
 Finishes: Black Powder Coat
 Notes:
- For use with total opening widths 60" (1524 mm), 72" (1829 mm), or 96" (2438 mm), consult Hager Customer Service if total opening 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 total opening 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 flush bolts
 - Optional mounting brackets 297M or 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



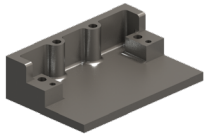
Flush Bolts & Coordinating Devices



297F Filler Bar

Stop Height: 5/8" (16 mm)
 Material: Steel
 Finishes: Black Powder Coat
 Length: 18-5/8" (473 mm) (for total opening widths 54" – 72");
 42-5/8" (1083 mm) (for total opening widths 73" – 96")
 For use with 297D coordinator
 Notes:

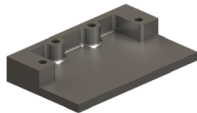
- Non-handed



297M Mounting Bracket

Stop Height: 5/8" (16 mm)
 Material: Aluminum
 Finishes: Black Powder Coat
 Notes:

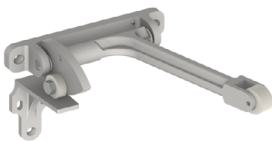
- For use with 297D coordinator
- For all soffit width 7/8" (22mm) - 2-1/4" (57mm)
- Allows soffit mounted hardware to be properly installed without damaging the coordinator, such as a parallel arm closer or a nonfire-rated surface vertical rod strike



297N Mounting Bracket

Stop Height: 5/8" (16 mm)
 Material: Aluminum
 Finishes: Black Powder Coat
 Notes:

- For use with 297D coordinator
- For all soffit width greater than 2-1/4" (57mm)
- Allows soffit mounted hardware to be properly installed without damaging the coordinator, such as a parallel arm closer or a nonfire-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 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

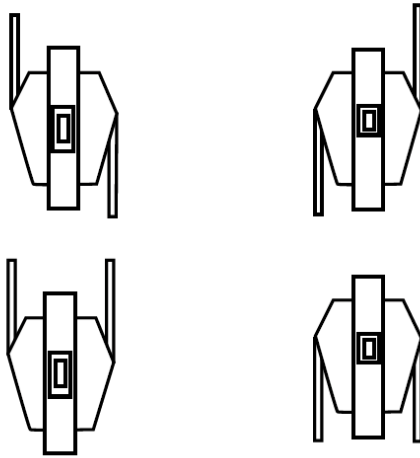
Finishes: US26, US26D, US32, US32D

Notes:

- Non-handed
- Engraving is optional

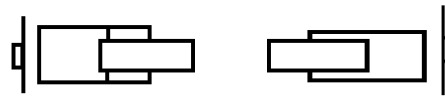
Optional Vertical Mounting

Requires 2-3/4" to 5" (70 mm - 127 mm) backset



Optional Horizontal Mounting

Requires 5" (127 mm) backset



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, 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

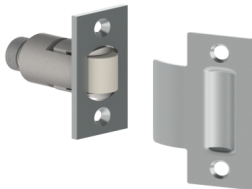
Latches & Protection Plates



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:

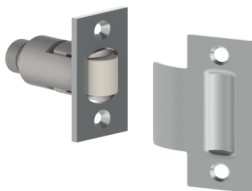
- Adjustable spring tension with nylon roller
- Projection of roller is easily adjusted using screws on faceplate
- Max projection of the roller is 3/8" (9.5 mm) allowing for variance in door and frame clearance



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, US10, US10B, US15, US19, 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



340C

Latch Protection Plate

- 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 most mortise locks
 - For use with cylindrical locksets with a 3-3/4" (95 mm) backset or greater



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

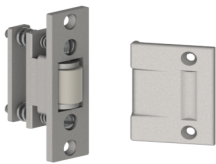
- Size: 3" x 11" (76 mm x 279 mm)
 Materials: 12 gauge steel, stainless steel
 Finishes: US2C, US32D
 Fasteners: Two (2) 5/16-20 x 1-1/2" carriage bolts with sex nuts
 Notes:
 - For use with 1-3/4" (45 mm) doors
 - Non-handed
 - For use with cylindrical and mortise locks with a 2-3/4" (70 mm) backset

Latches & Protection Plates



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 with standard (not extended lip) strikes



1442 Roller Latch with Full Lip Strike

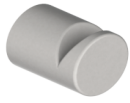
- Certification: Meets ANSI A156.16 for E09091
 Roller Faceplate: 1" x 3-3/8" (25 mm x 86 mm)
 Strike: 1-11/16" x 2-1/4" (43 mm x 57 mm)
 Strike Gauge: 5/32" (4 mm)
 Materials: Brass
 Finishes: US3, US4, US10, US10B, US15, US15A, US19, US26, US26D
 Fasteners: Two (2) #10 x 1-1/2" FPHWS, two (2) #8 x 1" FPHWS, and two (2) 8-32 x 3/4" FPHMS
 Options: Non-ferrous available with extended lead time and 500 piece MOQ
 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
 - For use with 1-3/8" doors only



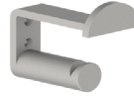
1443 Roller Latch with ASA Strike

- 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, 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



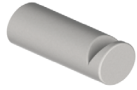
901P
Coat Hook - Short Single
 Diameter: 1" (25 mm)
 Projection: 1-1/4" (32 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: #14 x 1-1/4" wood thread
 Notes: Concealed mounting



937P
Coat Hook
 Projections:

- 3-3/4" (95 mm) top hook
- 2-1/2" (63 mm) bottom hook

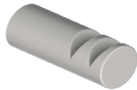
 Materials: Brass
 Finishes: US3, US26D



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



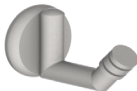
940P
Coat Hook - Double
 Overall Height: 4-11/16" (119 mm)
 Top Projection: 3-15/16" (100 mm)
 Bottom Projection: 2-1/8" (54 mm)
 Material Thickness: 1/4" (6 mm)
 Materials: Brass
 Finishes: US3, US26D
 Fasteners: Two (2) #10 x 1" FPHWS



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: 1-15/16" (49 mm)
 Projection: 2-1/4" (57 mm)
 Materials: US3, US26D
 Finishes: Brass
 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



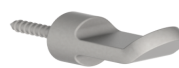
956P
Double Coat Hook - Angled

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:	<ul style="list-style-type: none"> • 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: US10A, US15, US26D
 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, US10B, US26, US26D
 Fasteners: Two (2) #6 x 5/8" FPHWS
 Notes:

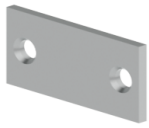
- Ideal for narrow and standard door thicknesses
- Automatic spring return



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



336C
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: 0.2" (5.1 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



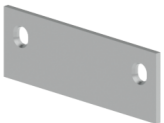
336J
Flush Bolt Strike Filler Plate - Frame
 Size: 15/16" x 2-1/4"
 (24 mm x 57 mm)
 Thickness: 0.083" (2.1 mm)
 Materials: Primed steel



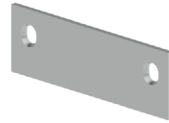
336D
Door Face Filler Plate
 Size: 2-5/8" (67 mm)
 diameter
 Thickness: 0.055" (1.4 mm)
 Materials: Primed steel



336K
Flush Bolt Filler Plate - Door
 Size: 1" x 6-3/4"
 (25 mm x 172 mm)
 Thickness: 0.093" (2.9 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



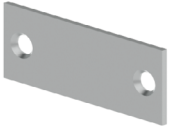
337A
Template Hinge Shim
 Size: 1-7/16" x 4-1/2"
 (37 mm x 114 mm)
 Thickness: 0.028" (0.7 mm)
 Materials: Primed steel



336N
Latch Adapter Filler Plate - 86 to 161 Edge Prep
 Size: 1-1/4" x 8"
 (32 mm x 203 mm)
 Thickness: 0.230" (5.8 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: 0.093" (2.4 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

PUSH

350H | 350L

Engraved Plastic Sign - Push (350H) and Pull (350L)

PULL

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

350M | 350W

Engraved Plastic Sign - Men (350M) and Women (350W)

WOMEN

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

Signs



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



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



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 lettered 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

Signs



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



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

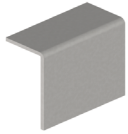


370U | 370W | 370M

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





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, US19, US26, US26D
 Fasteners:

- Three (3) #12 x 1- 3/4" FPHSMS
- Three (3) 12-24 machine screws

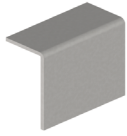
 Notes: Release tool 277R sold separately



277F
Privacy Door Guard Bracket

Materials: Cold rolled steel
 Finish: Primer Gray
 Fasteners: Five (5) 12-24 FPH Self-tapping. (Balance of three (3) fasteners supplied with the 277D)
 Notes: For use with the decorative snap-on frames using Hager 277D Privacy Door Guard

Miscellaneous



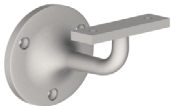
300D Chain Door Check

Certification:	Meets ANSI A156.16 for L02231
Lengths:	<ul style="list-style-type: none">• 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:	<ul style="list-style-type: none">• Cast zinc base• Galvanized steel chain• EDPM rubber cover
Finish:	US26D
Fasteners:	Ten (10) #8 x 1" FPHSMS
Notes:	<ul style="list-style-type: none">• 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



301D Residential Stop

Certification:	Meets ANSI A156.16 for L02223
Materials:	Wrought steel with rubber bumpers
Finishes:	26D, US3
Notes:	<ul style="list-style-type: none">• 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 a non-NRP hinge for use with this pinstop



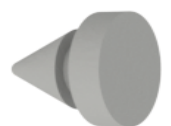
303W Handrail Bracket

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:	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)
Base Diameter:	3-5/32" (80 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, 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:	<ul style="list-style-type: none">• For use with metal frames• Proper installation eliminates door rattle and provides constant tension for door latches or locks



**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
- Viewer is UL Listed



**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: US26D
 Fasteners: Three (3) #6 x 3/4" TPHSMS
 Engraving: Available up to four characters
 Notes:

- Requires 1/2" (13 mm) hole for viewer
- Viewer is UL Listed



**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
 Notes:

- Requires 1/2" (13mm) hole for viewer
- Viewer is UL Listed



**1755
115° Door Viewer**

Certification: Meets ANSI A156.16 for L032233
 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



**1756
185° Door Viewer**

Certification: Meets ANSI A156.16 for L03223
 Materials: Brass
 Finishes: US3, US4, US5, US10A, US15, US15A, US19, 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



Miscellaneous



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, US26, US26D
 Notes: Flap diameter - 3/4"



1766

Privacy Flap for Use with Hager 185° Door Viewer (1756)

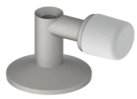
- Materials: Brass
 Finishes: US3, US10A, US26, US26D
 Notes: Flap diameter - 3/4"



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: 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, US19, 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, US19, US26, US26D, ABA
Notes:	<ul style="list-style-type: none"> • 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, US10A, US15A, US15, US26, US26D, ABA
Fasteners:	Seven (7) #6 x 3/4" FPHWS
Notes:	<ul style="list-style-type: none"> • Provides extra security from inside door • Limits door opening when latch is thrown • Poly bag (1 each) with screws



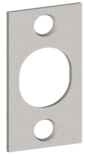
1413 Flush Bolt

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:	<ul style="list-style-type: none"> • 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, 10R, US15, US26D
Fasteners:	Four (4) #6 x 3/4" FPHWS
Notes:	<ul style="list-style-type: none"> • Poly bag (1 each) with strikeplate and screws • Rounded corners



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 pr



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, US10R, US15, US26, US26D, ABA
 Notes: Single route for quick and simple door prep

Residential



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



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

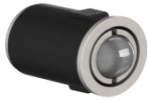
- Strike: 1-3/8" x 2-1/4" (35 mm x 57 mm)
 Faceplate: 1" (25 mm) diameter
 Hole Diameter: 15/16" (24 mm)
 Hole Depth: 1-1/4" (32 mm)
 Materials: Zinc housing, brass strike, plated steel ball
 Finishes: US3, US4, US5, US10A, US10R, US15A, US15, US26, US26D
 Fasteners: Two (2) #6 FPHWS
 Notes:
 - Designed 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



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



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

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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.

TABLE OF CONTENTS

General Information	2	Abrasive Cast Aluminum	16
Thresholds		Floor Closer	17
Saddle.....	6	Cover Plate and Vinyl Thresholds.....	18
Thermal Barrier Saddle.....	8	Weatherstripping	
Half Saddle	9	Overhead Drip Guards	19
Elevator and Bumper Strips.....	10	Press-On Gasketing	20
Residential.....	10	Door Bottoms.....	22
Carpet and Bumpers.....	11	Automatic Door Bottoms.....	24
ADA Ramps	12	Door Bottom Sweeps.....	25
Floor Plate Assembly	12	Adjustable Jamb Weatherstripping.....	27
Panic.....	14	Jamb Weatherstripping	28
Thermal Barrier Panic	15	Astragals/Meeting Stiles.....	31
Interlocking	16		

General Information

PRODUCT PRESENTATION

Dimensions on 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
- Tack weld one line of threshold
- Pan for water return of threshold

MATERIALS & FINISHES

Metals

All aluminum extrusions are of alloy 6063-T5.

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

BLA - black anodized aluminum

32D - stainless steel (non-extruded)

GLD - gold anodized aluminum

CLR - clear anodized aluminum

WHP - white paint on aluminum

USP - prime coat

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

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 48" (1219.2 mm) and under. Anodized thresholds are fabricated in standard sizes with 1/4" (6.35 mm) extra on thresholds 48" (1219.2 mm) and under. Thresholds over 48" (1219.2 mm) are supplied with 1" (25 mm) extra length for fitting. Anodized thresholds over 48" (1219.2 mm) are fabricated in standard sizes with 3/4" (19.05 mm) extra length for fitting. Exact lengths are available upon request (specify CTEL). All thresholds to be ordered in 4" increments.

Example: 891S V 36 x 84 MIL

<u>Item #</u>	<u>Gasketing</u>	<u>Size</u>	<u>Finish</u>
516S	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" (1216 mm x 2438 mm)	OOO - gasket only

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
- #10-24 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

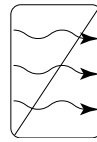
CERTIFICATIONS



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.

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 & ASTM: E413.

STC Rating Static Door	STC Rating Operable Door	Perimeter Seal	Door Bottom	Corner Pad	Threshold
49	41	737 & 866S	743S	709	417S
49	37	738 & 737	743S	709	417S
44	40	726	743S		520S
42	40	738 & 737	774S	709	417S
42	40	737 & 866S	774S	709	417S
41	39	726(2)	743S		520S
36	35	738 & 737	774S	709	417S
36	35	726 & 736	774S	709	417S



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.

General Information



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.

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 lifesafety; 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	Pairs	724, 729	721, 726, 736, 737	719, 720, 722, 734
			Hollow Metal	Pairs	—	721, 726, 736, 737	—
			Wood Composite	Singles	724, 729	721, 726, 736, 737	719, 720, 722, 734
			Hollow Metal	Singles	—	721, 726, 736, 737	—



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	Pairs	—	721, 726, 736, 737	—
			Hollow Metal	Singles	—	721, 726, 736, 737	—



1 Hr.	*1 Hour (B Label) 60 Minutes	Doors that divide occupancies in a building (building less than 4 stories tall)	Wood	Pairs	724, 729	721, 726, 736, 737	719, 720, 722, 734
			Wood	Singles	724, 729	721, 726, 736, 737	719, 720, 722, 734

*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	Pairs	—	721, 726, 736, 737	—
			Hollow Metal	Singles	—	721, 726, 736, 737	—



1 Hr.	3/4 Hour (C Label) 45 Minute	Openings in walls or partitions between rooms and corridors	Wood Composite	Pairs	724, 729	721, 726, 736, 737	719, 720, 722, 734
			Wood Composite	Singles	724, 729	721, 726, 736, 737	719, 720, 722, 734



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	Pairs	724, 729	721, 726, 736, 737	719, 720, 722, 734
			Wood/Particle Core	Singles	724, 729	721, 726, 736, 737	719, 720, 722, 734

*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.

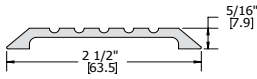
Thresholds - Saddle

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

- 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

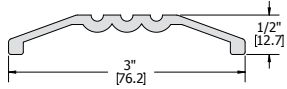
401S



Finishes: MIL, DBA, BLA, GLD

Certifications:

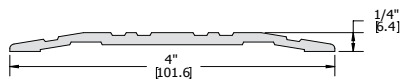
401S



Finishes: MIL, DBA, BLA, GLD

Certifications:

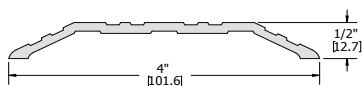
403S



Finishes: MIL, DBA, BLA, GLD

Certifications:

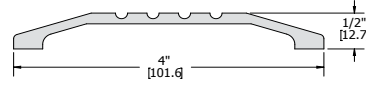
404S



Finishes: MIL, DBA, BLA, GLD

Certifications:

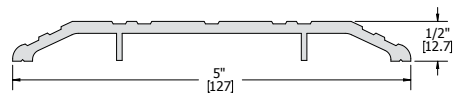
410S



Finishes: MIL, DBA, BLA, GLD

Certifications:

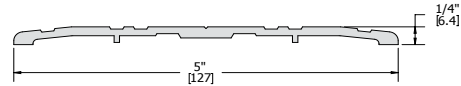
412S



Finishes: MIL, DBA, BLA, GLD

Certifications:

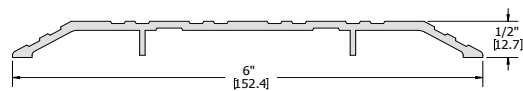
413S



Finishes: MIL, DBA, BLA, GLD, US32D

Certifications:

415S

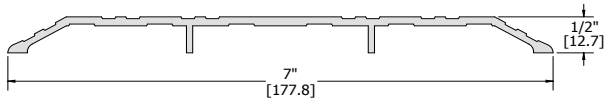


Finishes: MIL, DBA, BLA, GLD

Certifications:

Thresholds - Saddle

416S

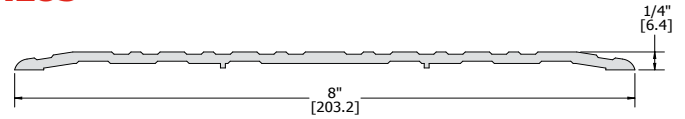


Finishes:
Certifications:

MIL, DBA, BLA, GLD



428S

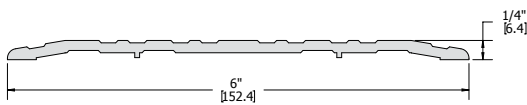


Finishes:
Certifications:

MIL, DBA, BLA, GLD



417S

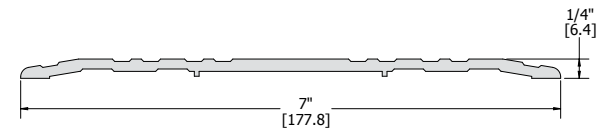


Finishes:
Certifications:

MIL, DBA, BLA, GLD



430S

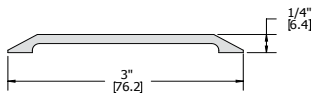


Finishes:
Certifications:

MIL, DBA, BLA, GLD



418S

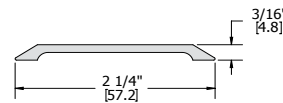


Finishes:
Certifications:

MIL, DBA, BLA, GLD



436S

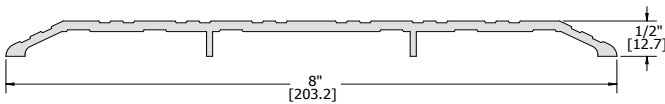


Finishes:
Certifications:

MIL, DBA, BLA, GLD



426S

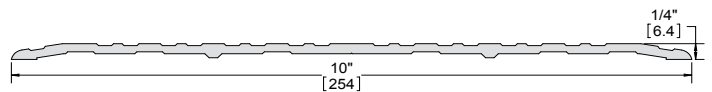


Finishes:
Certifications:

MIL, DBA, BLA, GLD



448S

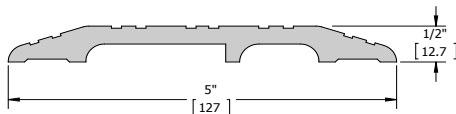


Finishes:
Certifications:

MIL, DBA, BLA



427S

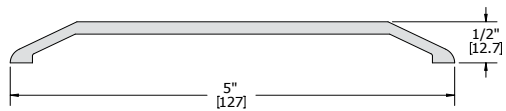


Finishes:
Certifications:

MIL, DBA, BLA



492S



Finishes:
Certifications:

MIL, DBA, BLA, GLD



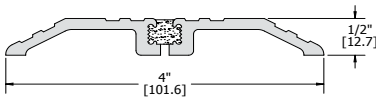
Thresholds - Thermal Barrier Saddle

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

- Notes:
- MIL finish thresholds are supplied with zinc plated screws
 - Color anodized thresholds are supplied with screws plated to match

420S

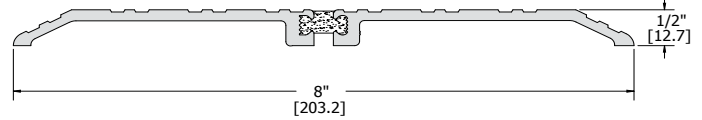


Finishes: MIL, DBA, BLA, GLD

Certifications:



424S

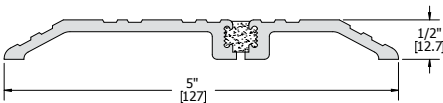


Finishes: MIL, DBA, BLA, GLD

Certifications:



421S

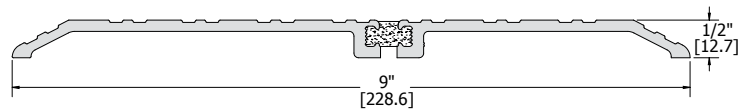


Finishes: MIL, DBA, BLA, GLD

Certifications:

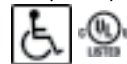


451S

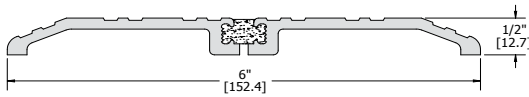


Finishes: MIL, DBA, BLA, GLD

Certifications:



422S

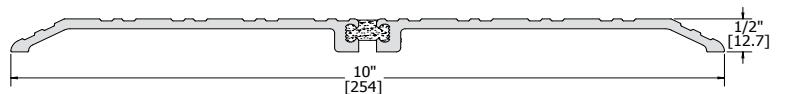


Finishes: MIL, DBA, BLA, GLD

Certifications:

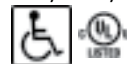


452S

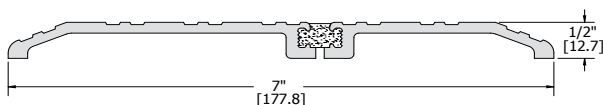


Finishes: MIL, DBA, BLA, GLD

Certifications:



423S



Finishes: MIL, DBA, BLA, GLD

Certifications:

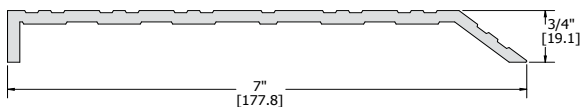


Thresholds - Half Saddle

Fasteners: #10 x 1-1/2" sheet metal screws, other screw types and anchors available upon request

- Notes:
- MIL finish thresholds are supplied with zinc plated screws
 - Color anodized thresholds are supplied with screws plated to match

406S

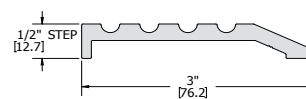


Finishes: MIL, DBA, BLA, GLD

Certifications:



433S

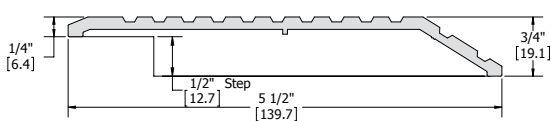


Finishes: MIL, DBA, BLA, GLD

Certifications:



407S

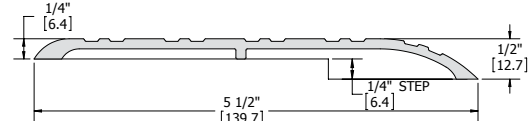


Finishes: MIL, DBA, BLA, GLD

Certifications:



438S

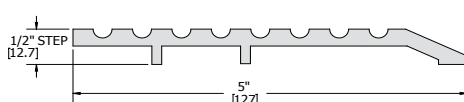


Finishes: MIL, DBA, BLA, GLD

Certifications:



431S

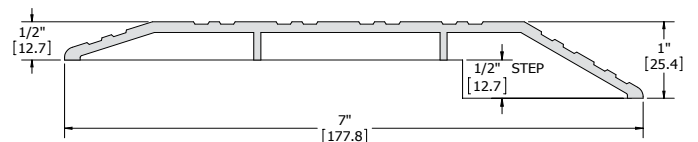


Finishes: MIL, DBA, BLA, GLD

Certifications:



572S

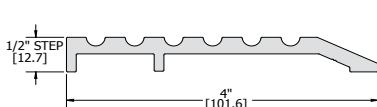


Finishes: MIL, DBA, BLA, GLD

Certifications:



432S



Finishes: MIL, DBA, BLA, GLD

Certifications:



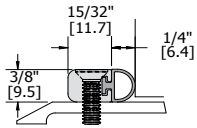
Thresholds - Elevator and Bumper Strips

Thresholds - Residential

Use in conjunction with a threshold

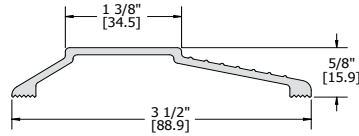
Fasteners: #10 - 24 x 5/8" flat head self-tapping screws to attach bumper strip directly to an existing threshold

481S



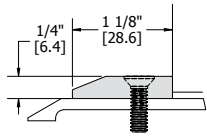
Finishes: MIL, DBA, BLA, GLD
 Insert: V, N, S, W
 Certifications:

408S



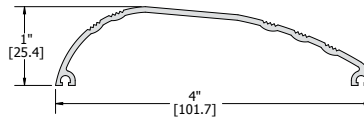
Finishes: MIL, DBA, BLA, GLD
 Certifications:

484S



Finishes: MIL, DBA, BLA, GLD
 Certifications:

419S



Finishes: MIL, DBA, BLA, GLD
 Certifications:

Thresholds - Carpet

Thresholds - Bumper

Fasteners: #10 x 1-1/2" sheet metal screws, other screw types and anchors available upon request

- Notes:
- MIL finish thresholds are supplied with zinc plated screws
 - Color anodized thresholds are supplied with screws plated to match

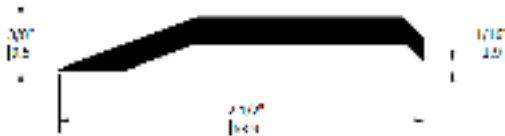
503S



Finishes: MIL, DBA, BLA, GLD
 Certifications:



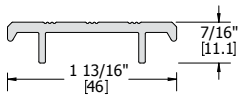
504S



Finishes: MIL, DBA, BLA, GLD
 Certifications:



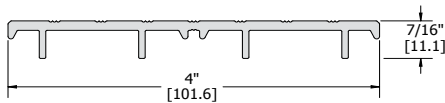
505S



Finishes: MIL, DBA, BLA, GLD
 Certifications:



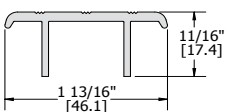
506S



Finishes: MIL, DBA, BLA, GLD
 Certifications:



508S



Finishes: MIL, DBA, BLA, GLD
 Certifications:

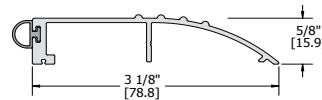


For use with outswinging doors to seal out the elements

Fasteners: #10 x 1-1/2" sheet metal screws, other screw types and anchors available upon request

- Notes:
- MIL finish thresholds are supplied with zinc plated screws
 - Color anodized thresholds are supplied with screws plated to match

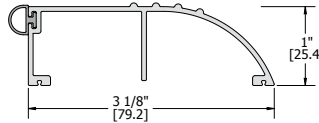
434S



Finishes: MIL, DBA, BLA, GLD
 Insert: V, N, S, W
 Certifications:



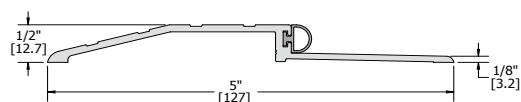
435S



Finishes: MIL, DBA, BLA, GLD
 Insert: V, N, S, W
 Certifications:



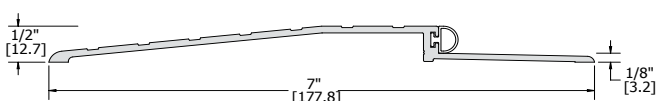
477S



Finishes: MIL, DBA, BLA, GLD
 Insert: V, N, S, W
 Certifications:



478S



Finishes: MIL, DBA, BLA, GLD
 Insert: V, N, S, W
 Certifications:

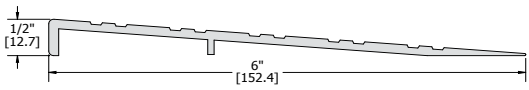


Thresholds - ADA Ramps

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
- Notes:
 - MIL finish thresholds are supplied with zinc plated screws
 - Color anodized thresholds are supplied with screws plated to match

442S

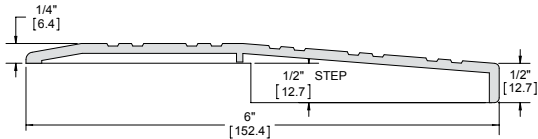


Finishes: MIL, DBA, BLA, GLD

Certifications:



443S

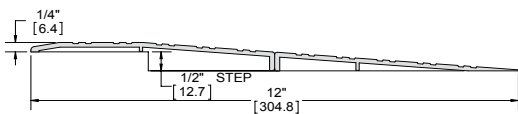


Finishes: MIL, DBA, BLA, GLD

Certifications:



444S



Finishes: MIL, DBA, BLA, GLD

Certifications:

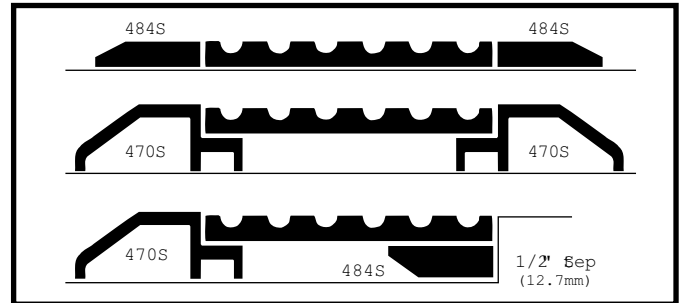


Thresholds - Floor Plate Assembly

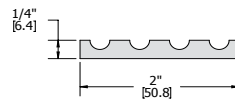
Floor plate components for modular threshold system. Used primarily for extra wide door frames or to cover expansion joints or floor joists

- Fasteners: Plates and plate supports are furnished without holes and fasteners unless specified
- Notes:
 - Beveled Edges are available
 - Plates may be used fluted or smooth side up

Typical Applications



440S

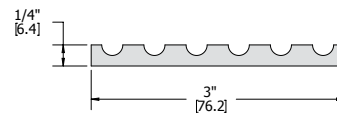


Finishes: MIL, DBA, BLA, GLD

Certifications:



445S

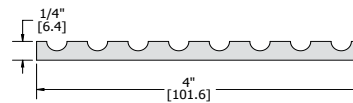


Finishes: MIL, DBA, BLA, GLD

Certifications:



450S



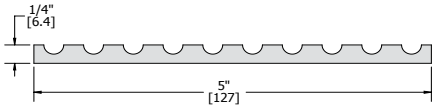
Finishes: MIL, DBA, BLA, GLD

Certifications:



Thresholds - Floor Plate Assembly

455S

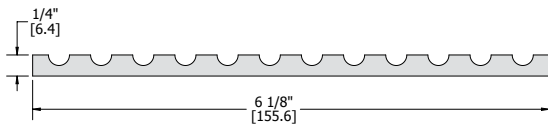


Finishes: MIL, DBA, BLA, GLD

Certifications:



460S

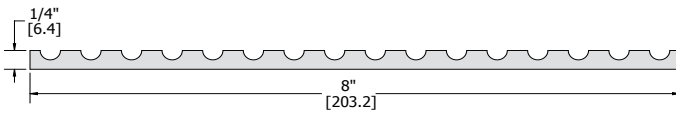


Finishes: MIL, DBA, BLA, GLD

Certifications:



465S

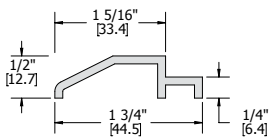


Finishes: MIL, DBA, BLA, GLD

Certifications:



470S

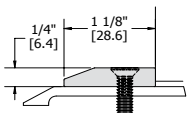


Finishes: MIL, DBA, BLA, GLD

Certifications:



484S



Finishes: MIL, DBA, BLA, GLD

Certifications:

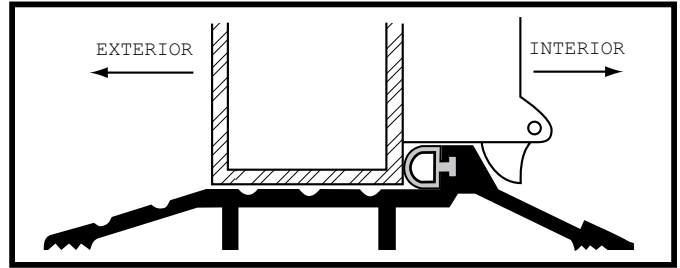


Thresholds - Panic

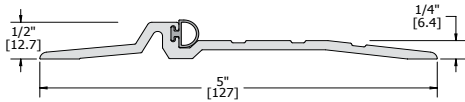
Use in conjunction with surface applied vertical rod exit device of the Americans With Disabilities Act

- Fasteners: #10 x 1-1/2" flat head sheet metal screws, other screw types and anchors available upon request
- 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



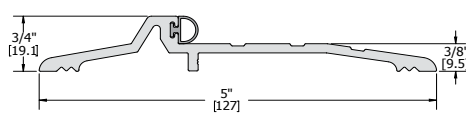
520S



- Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 3/8"



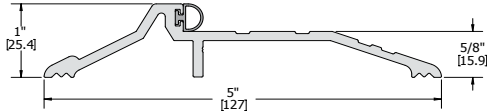
552S



- Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 1/2"



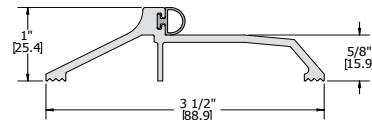
532S



- Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 3/4"



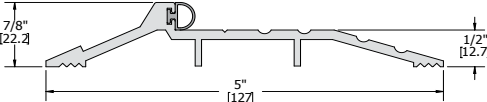
560S



- Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 3/4"



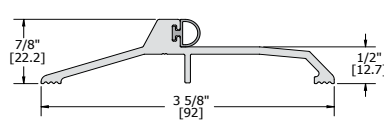
541S



- Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 5/8"



565S



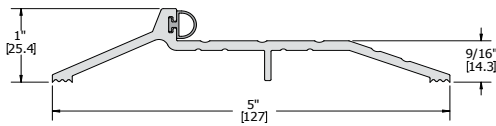
- Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 5/8"



Thresholds - Panic

Thresholds - Thermal Barrier Panic

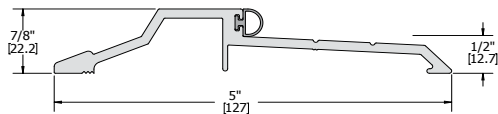
575S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 11/16"
 Certifications:



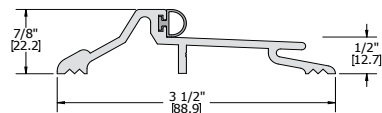
580S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 5/8"
 Certifications:



599S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Door Undercut: Allow 5/8"
 Certifications:

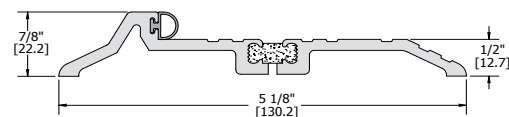


Threshold for latching panic devices that have a thermal barrier permanently bonded in place to effectively block the transfer of heat or cold. Use in conjunction with surface applied vertical rod and latching exit/panic devices. Threshold has a thermal barrier permanently bonded in place to effectively block the transfer of heat or cold.

Fasteners: #10 x 1-1/2" Flat head sheet metal screws, other screw types and anchors available upon request

- Notes:
- MIL finish thresholds are supplied with zinc plated screws
 - Color anodized thresholds are supplied with screws plated to match

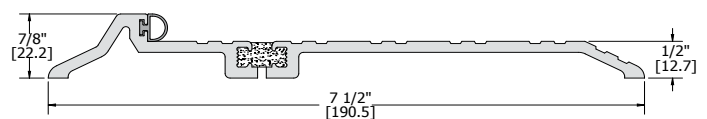
516S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Certifications:



518S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Certifications:



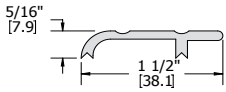
Thresholds - Interlocking

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

- 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

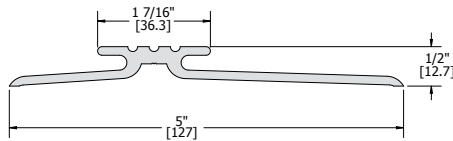


Finishes: MIL, DBA, BLA, GLD

Certifications:



604S

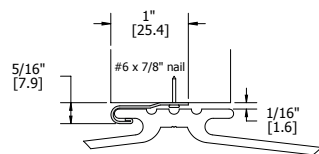


Finishes: MIL, DBA, BLA

Certifications:



701S



Finishes: MIL, BLA

Fasteners: #6 x 7/8" nail

Certifications:



- Notes:
- J-Hook interlocks with threshold to seal against wind and rain

Thresholds - Abrasive Cast Aluminum

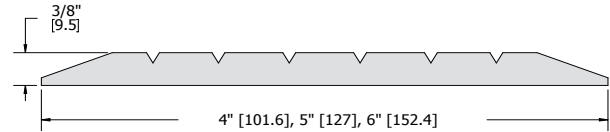
A heavy duty aluminum threshold with silicon carbide granules integrally cast into the surface. Ideal for high traffic areas where maximum durability is required. The abrasive, skid resistant surface works well under wet, dry or oily conditions.

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

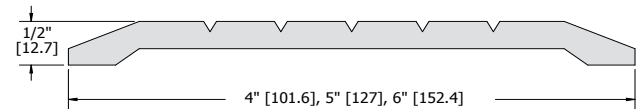


Finishes: CAL, BLA

Certifications:



627S



Finishes: CAL, BLA

Certifications:



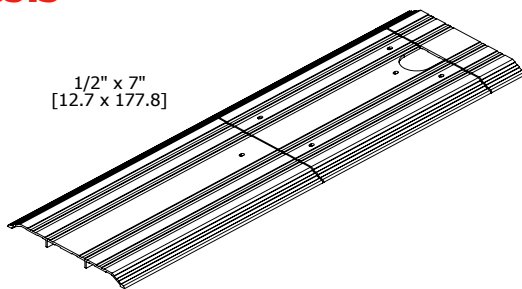
Thresholds - Floor Closer

Used with floor closers on center or offset hung door applications.

Fasteners: #10 x 1-1/2" Flat head sheet metal screws, other screw types and anchors available upon request

- 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

651S



Finishes:
Certifications:

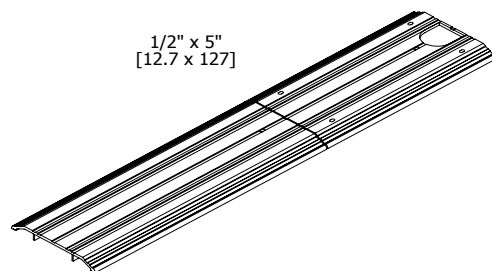
MIL, DBA, BLA



Notes:

- Center hung
- Without mitered ends

652S



Finishes:
Certifications:

MIL, DBA, BLA



Notes:

- Center hung
- Without mitered ends

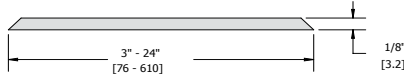
Thresholds - Cover Plates and Vinyl Thresholds

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

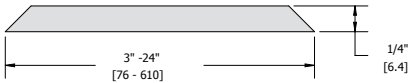


Finishes: MIL, BLA

Certifications:



677S



Finishes: MIL, BLA

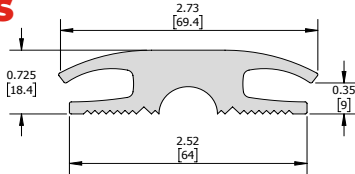
Certifications:



Vinyl Thresholds

Transition between different floor types.

900S



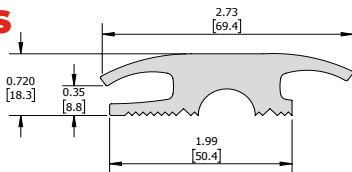
Finishes: Black

Certifications:



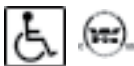
Notes: Transition between carpet to carpet applications

901S



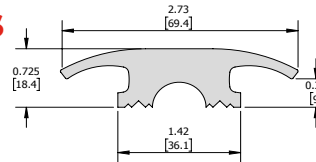
Finishes: Black

Certifications:



Notes: Transition between carpet to tile applications

902S



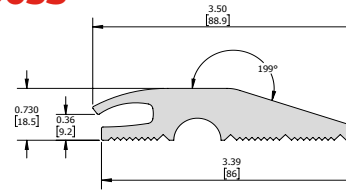
Finishes: Black

Certifications:



Notes: Transition between tile to tile applications

903S



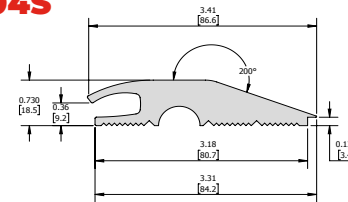
Finishes: Black

Certifications:



Notes: Transition to carpet

904S



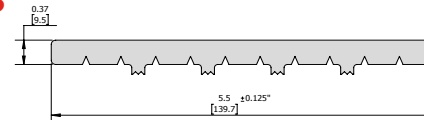
Finishes: Black

Certifications:



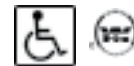
Notes: Transition between carpet to tile applications

905S



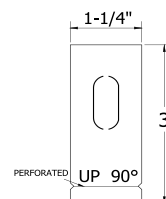
Finishes: Black

Certifications:



Notes: Transition between communicating door frames

709S



Finishes: Black

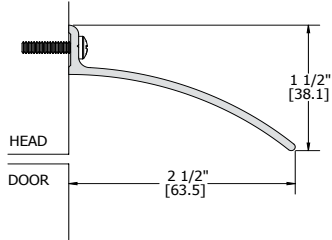
Certifications:



Weatherstripping - Overhead Drip Guards

Fasteners: #6 x 5/8" pan head sheet metal screws

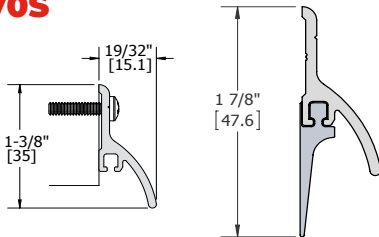
810S



Finishes: MIL, DBA, BLA, GLD
 Certifications:



770S



Finishes: MIL, DBA, BLA, GLD
 Inserts: B, V, or without insert
 Category: H, J (with insert)
 Certifications:



Weatherstripping - Press On Gasketing

Adhesive Mullion Seal

710S

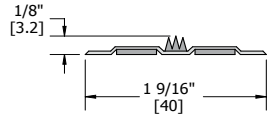


Finishes: Black
 Category: H&J
 Certifications:



Notes:
 • Sponge, Neoprene

734



Finishes: Charcoal, Brown
 Category: H, G, J
 Certifications:

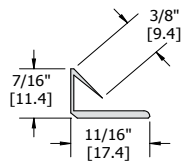


Notes:
 • Intumescent material
 • Thermoplastic Elastomer (TPE) material

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
 Category: H, G, J
 Certifications:

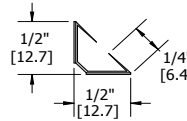


Notes:
 • Requires 1/8" clearance
 • Not recommended for door frames with 1/2" stop or less
 • Recommend 3/16" backset - door side hinge
 • Intumescent material
 • Thermoplastic Elastomer (TPE) material

Edge-Sealing Systems

Field applied edge-sealing system gaskets. Add to the frame of a B, C or 1/3-hour labeled fire doors to comply with positive pressure requirements.

721

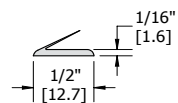


Finishes: Charcoal, Brown, Gray, White
 Category: H, J
 Certifications:



Notes:
 Thermoplastic Elastomer (TPE) material

720

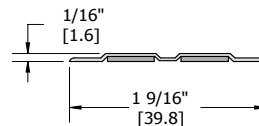


Finishes: Charcoal, Brown, White
 Category: H, G, J
 Certifications:



Notes:
 • Thin design for doors and frames with tight tolerances
 • Intumescent material
 • Thermoplastic Elastomer (TPE) material

724

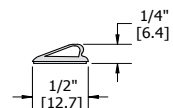


Finishes: Charcoal, Brown
 Category: G
 Certifications:



Notes:
 • Intumescent material
 • Thermoplastic Elastomer (TPE) material

722

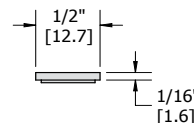


Finishes: Charcoal, Brown
 Category: H, G, J
 Certifications:



Notes:
 • Requires 1/8" clearance.
 • Recommend 3/16" backset - door side hinge
 • Intumescent material
 • Thermoplastic Elastomer (TPE) material

729



Finishes: Charcoal, Brown, White
 Category: G
 Certifications:



Notes:
 • Intumescent material
 • Thermoplastic Elastomer (TPE) material

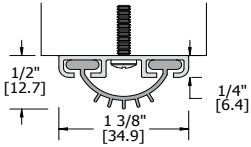
Weatherstripping - Door Bottoms

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

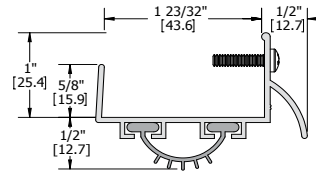
774S



Finishes: MIL, DBA, BLA
 Inserts: V, N
 Category: H, J
 Certifications:



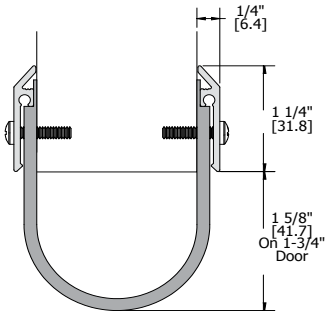
778S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N
 Category: H, J
 Certifications:



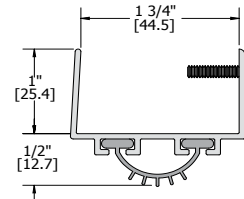
776S



Finishes: CLR, DBA, BLA, GLD
 Inserts: N
 Category: H, J
 Certifications:



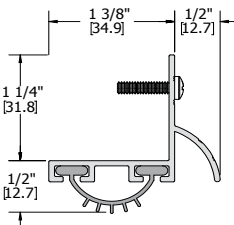
779S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N
 Category: H, J
 Certifications:



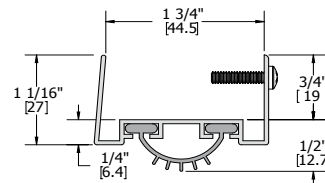
777S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N
 Category: H, J
 Certifications:



780S

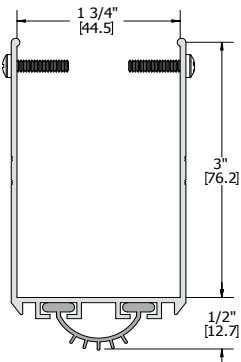


Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N
 Category: H, J
 Certifications:



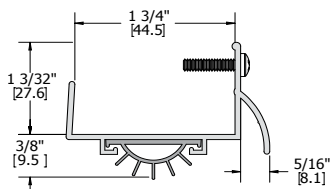
Weatherstripping - Door Bottoms

782S



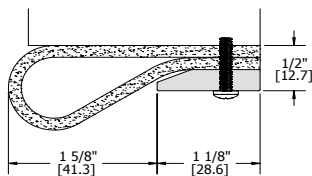
Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N
 Category: H, J
 Certifications:

783S



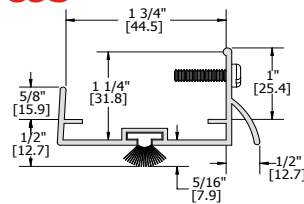
Finishes: MIL, DBA, BLA, GLD
 Inserts: V
 Category: J
 Certifications:

787S



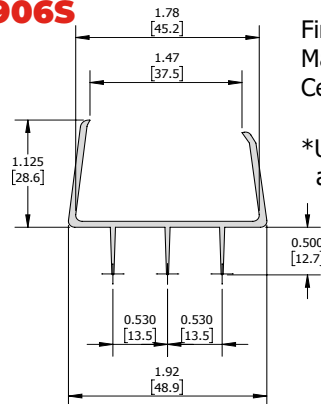
Finishes: MIL, BLA
 Inserts: V
 Category: H, J
 Certifications:

789S



Finishes: MIL, DBA, BLA, GLD
 Inserts: W
 Category: H, J
 Certifications:

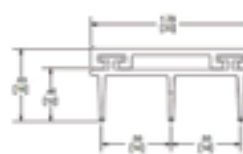
906S



Finishes: Brown
 Material: PVC
 Certifications:

*Unnotched & Notched profiles available

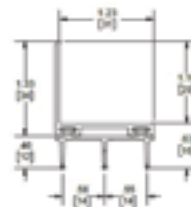
907S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V
 Certifications:

*Unnotched & Notched profiles available

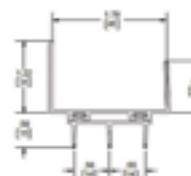
908S



Finishes: MIL, DBA, BLA, GLD, CLR
 Inserts: V
 Certifications:

*Unnotched & Notched profiles available

909S



Finishes: MIL, DBA, BLA, GLD, CLR
 Inserts: V
 Certifications:

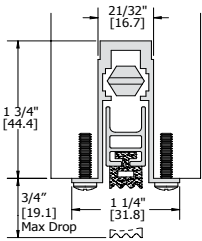
*Unnotched & Notched profiles available

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.
 - Furnished with end cover and strike plates
 - DBA/GLD end caps available on MIL or CLR devices (Not available on 742S)

730S - Mortise

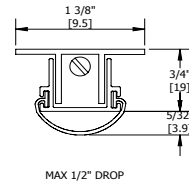


Finishes: MIL, BLA
Inserts: N, S
Category: H, J
Certifications:



Notes: Available order lengths: 12" to 60". Lengths 16"-29" may be trimmed for fitting (2" maximum). Lengths 30"-60" may be trimmed for fitting (5" maximum).

742S - Mortise

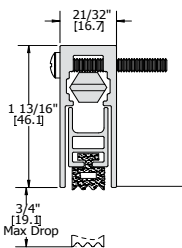


Finishes: MIL, BLA
Inserts: V
Category: J
Certifications:



Notes: For use on hollow metal door. Available order lengths: 24" to 60". 24" cannot be trimmed. 36" to 48" can be trimmed up to 3". All other sizes can be trimmed up to 1".

740S - Surface

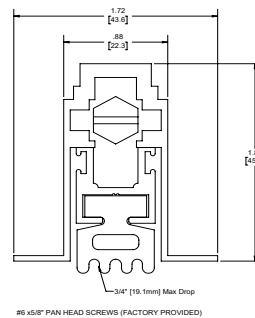


Finishes: DBA, BLA, GLD, CLR
Inserts: N, S
Category: H, J
Certifications:



Notes: Available order lengths: 12" to 60". Lengths 16"-29" may be trimmed for fitting (2" maximum). Lengths 30"-60" may be trimmed for fitting (5" maximum).

743S - Mortise

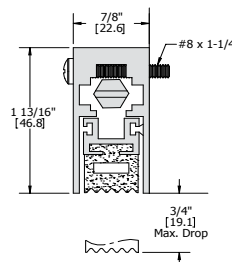


Finishes: MIL, BLA
Inserts: N
Category: H, J
Certifications:



Notes: Available order lengths: 12" to 60". Lengths 16"-29" may be trimmed for fitting (2" maximum). Lengths 30"-60" may be trimmed for fitting (5" maximum).

747S - Surface



Finishes: CLR, DBA, BLA, GLD
Inserts: N
Category: H, J
Certifications:



Notes: Available order lengths: 12" to 60". Lengths 16"-29" may be trimmed for fitting (2" maximum). Lengths 30"-60" may be trimmed for fitting (5" maximum).

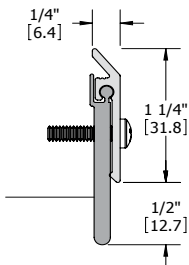
Weatherstripping - Door Bottom Sweeps

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



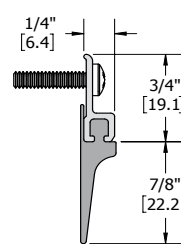
Finishes: DBA, BLA, GLD, CLR, US32D

Inserts: N, S
Category: H, J

Certifications:



756S



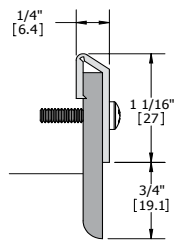
Finishes: MIL, DBA, BLA, GLD

Inserts: V
Category: H, J

Certifications:



752S



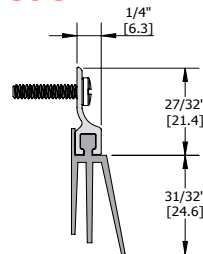
Finishes: MIL, DBA, BLA, GLD

Inserts: V
Category: H, J

Certifications:



759S



Finishes: MIL, DBA, BLA, GLD

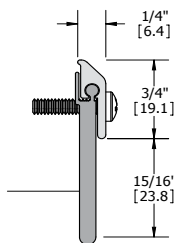
Inserts: V
Category: H, J

Certifications:



#6 x 5/8" PAN HEAD SHEET METAL SCREWS (FACTORY PROVIDED)

753S



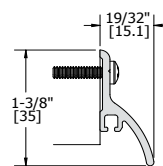
Finishes: MIL, DBA, BLA, GLD

Inserts: N
Category: H, J

Certifications:



770S



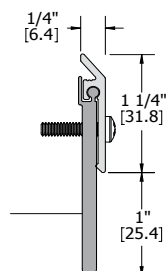
Finishes: MIL, DBA, BLA, GLD

Inserts: B, V
Category: H, J

Certifications:



754S



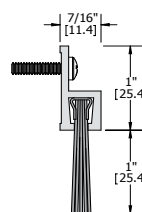
Finishes: DBA, GLD, BLA, CLR

Inserts: N
Category: H, J

Certifications:



801S



Finishes: MIL, DBA, BLA, GLD

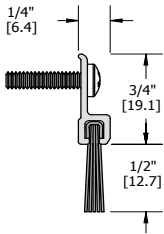
Inserts: B
Category: H, J

Certifications:



Weatherstripping - Door Bottom Sweeps

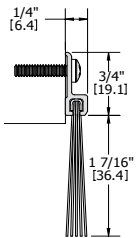
802S



Finishes: MIL, DBA, BLA, GLD
 Inserts: B
 Category: H, J
 Certifications:



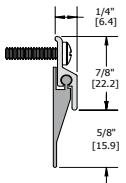
806S



Finishes: MIL, DBA, BLA, GLD
 Inserts: B
 Category: H, J
 Certifications:



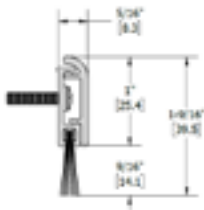
872S



Finishes: DBA, GLD, BLA, CLR
 Inserts: N
 Category: H, J
 Certifications:



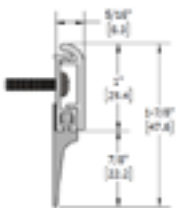
882S



Finishes: DBA, GLD, BLA, CLR
 Inserts: B
 Category: H, J
 Certifications:



884S



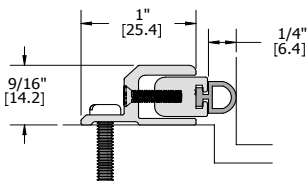
Finishes: DBA, GLD, BLA, CLR
 Inserts: V
 Category: H, J
 Certifications:



Weatherstripping - Adjustable 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

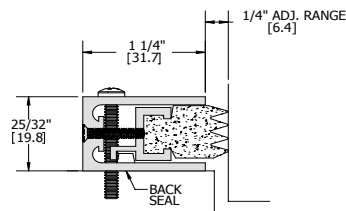
860S



Finishes: MIL, DBA, BLA, GLD
 Inserts: V, N, S, W
 Category: H, J
 Certifications:



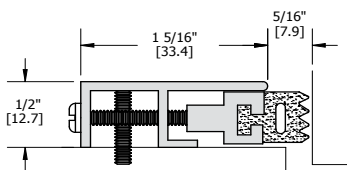
865S



Finishes: MIL, DBA, BLA, GLD
 Inserts: N
 Category: H, J
 Certifications:



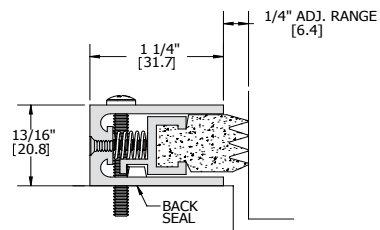
864S



Finishes: DBA, GLD, BLA, CLR
 Inserts: N
 Category: H, J
 Certifications:



866S



Finishes: MIL, DBA, BLA
 Inserts: N
 Category: H, J
 Certifications:



Weatherstripping - Jamb Weatherstripping

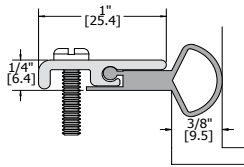
Fasteners: 8-32 x 1" pan head phillips machine screws
8-18 x 1" undercut flat head phillips sheet metal screws

- 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

<p>785S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: N Category: H, J Certifications: </p>	<p>808S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: B Category: H, J Certifications: </p>
<p>800S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: B Category: H, J Certifications: BHMA CERTIFIED</p>	<p>859S</p>	<p>Finishes: MIL, DBA, BLA Category: H, J Certifications: Notes: Magnetic</p>
<p>802S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: B Category: H, J Certifications: BHMA CERTIFIED</p>	<p>861S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: N Category: H, J Certifications: BHMA CERTIFIED</p>
<p>803S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: B Category: H, J Certifications: </p>	<p>862S</p>	<p>Finishes: DBA, GLD, BLA, CLR Inserts: N Category: H, J Certifications: BHMA CERTIFIED</p>

Weatherstripping - Jamb Weatherstripping

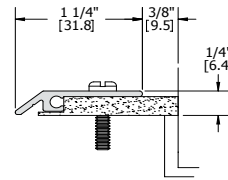
863S



Finishes: DBA, BLA, GLD, CLR
 Inserts: N
 Category: H, J
 Certifications:



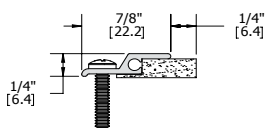
875S



Finishes: DBA, BLA, GLD, CLR
 Inserts: N, S
 Category: H, J
 Certifications:



870S

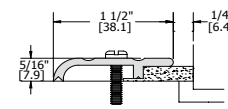


Finishes: DBA, BLA, GLD, CLR
 Inserts: N
 Category: H, J
 Certifications:



Notes: Adjustable

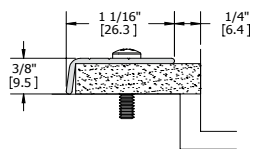
877S



Finishes: MIL, DBA, BLA, GLD
 Inserts: N
 Category: H, J
 Certifications:



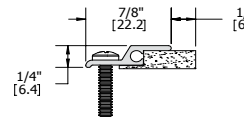
871S



Finishes: MIL, BLA, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:



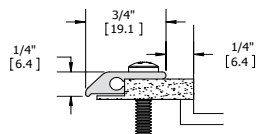
878S



Finishes: DBA, BLA, GLD, CLR
 Inserts: N
 Category: H, J
 Certifications:



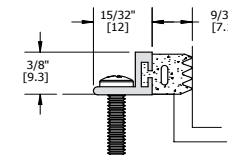
873S



Finishes: MIL, BLA, DBA, GLD
 Inserts: N
 Category: H, J
 Certifications:



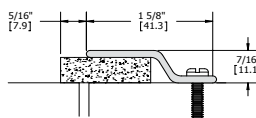
880S



Finishes: MIL, DBA, BLA, GLD
 Inserts: N
 Category: H, J
 Certifications:



874S



Finishes: MIL, DBA, BLA, GLD, US32D
 Inserts: N
 Category: H, J
 Certifications:



Weatherstripping - Jamb Weatherstripping

<p>882S</p>	<p>Finishes: DBA, BLA, GLD, CLR Inserts: B Category: H, J Certifications: </p>	<p>891S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: V, N, S Category: H, J Certifications: </p>
<p>883S</p>	<p>Finishes: DBA, BLA, GLD, CLR Inserts: B Category: H, J Certifications: </p>	<p>892S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: N Category: H, J Certifications: </p>
<p>881S</p>	<p>Finishes: MIL, BLA, DBA, GLD Inserts: V, N, S, W Category: H, J Certifications: </p>	<p>893S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: W Category: J Certifications: </p>
<p>885S</p>	<p>Finishes: DBA, BLA, GLD, CLR Inserts: V, N, S, W Category: H, J Certifications: </p>	<p>896S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: V, N, S Category: H, J Certifications: </p>
<p>890S</p>	<p>Finishes: MIL, DBA, BLA, GLD Inserts: V, N, S Category: H, J Certifications: </p>		

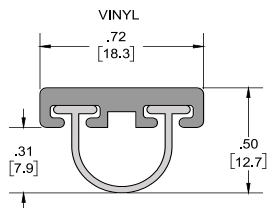
Weatherstripping - Astragals/Meeting Stiles

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

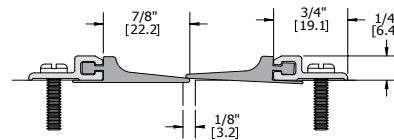
772S



- Finishes: MIL, DBA, BLA, GLD
 Inserts: N, W
 Category: H, J
 Certifications:



756S

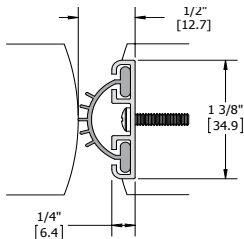


- Finishes: MIL, DBA, BLA, GLD
 Inserts: V
 Category: H, J
 Certifications:



Notes: Order two (2) for a set

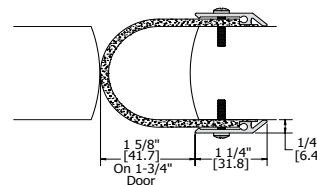
774S



- Finishes: MIL, DBA, BLA
 Inserts: V, N
 Category: H, J
 Certifications:



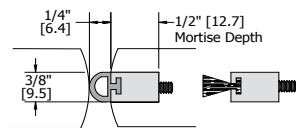
776S



- Finishes: DBA, BLA, GLD, CLR
 Inserts: N
 Category: H 1
 Certifications:



771S

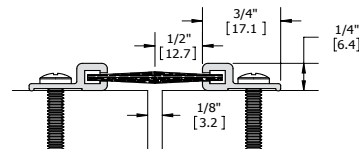


- Finishes: MIL, DBA, BLA
 Inserts: V, W, N, S
 Category: H, J
 Certifications:



Notes: Order two (2) for a set

802S



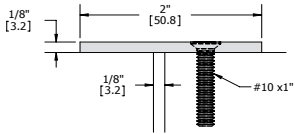
- Finishes: DBA, BLA, GLD, CLR
 Inserts: B
 Category: H, J
 Certifications:



Notes: Order two (2) for a set

Weatherstripping - Astragals/Meeting Stiles

835S

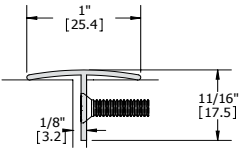


Finishes: MIL, DBA, BLA, GLD, US32D, USP
 Category: J
 Certifications:

Notes:

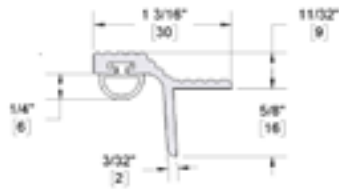
- Maximum length = 10 feet
- Available with thrubolts

836S



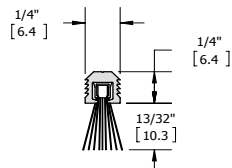
Finishes: MIL, DBA, BLA, GLD
 Category: H, J
 Certifications:

837S



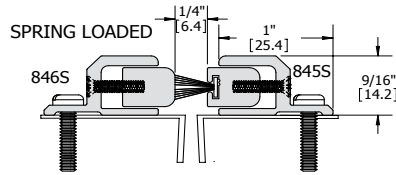
Finishes: MIL, DBA, BLA, GLD
 Inserts: W, V, N, S
 Category: H, J
 Certifications:

839S



Finishes: MIL, BLA
 Inserts: W
 Category: J
 Certifications:

845S | 846S

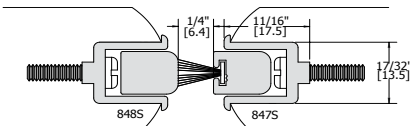


Finishes: MIL, DBA, BLA, GLD
 Inserts: W
 Category: J
 Certifications:

Notes:

- Adjustable
- Order two (2) for a set

847S | 848S

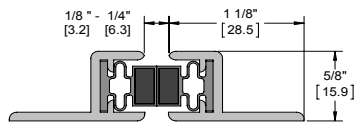


Finishes: MIL, DBA, BLA, GLD
 Inserts: W
 Category: J
 Certifications:

Notes:

- Adjustable
- Spring Loaded
- Mortise Depth 21/32"

849S

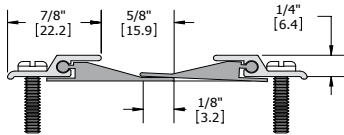


Finishes: MIL, DBA, BLA
 Notes:

- Magnetic
- 96" maximum door height
- Designed for use on 80" to 96" doors only
- Sets shorter than 80" may not work properly

Weatherstripping - Astragals/Meeting Stiles

872S

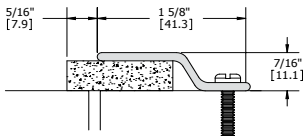


Finishes: DBA, BLA, GLD, CLR
 Inserts: N
 Category: H, J
 Certifications:



Notes: • Order two (2) for a set

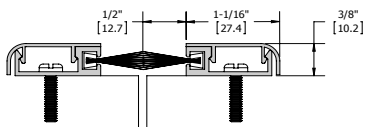
874S



Finishes: MIL, DBA, BLA, GLD, US32D
 Inserts: N
 Category: H, J
 Certifications:



882S



Finishes: DBA, BLA, GLD, CLR
 Inserts: B
 Category: H, J
 Certifications:



Notes: Order two (2) for a set

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Sliding Door Hardware

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, complete sets and accessories. Just as beneficial, every Hager sliding door hardware product is designed and manufactured to support a broadrange 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.

TABLE OF CONTENTS

Table of Contents		Wall-Mount Hardware	14
General Information	3	9710HD.....	14
By-Pass	5	Barn Door Hardware	15
9613RS Packaged By-Pass Sets.....	5	9400 Series	15
9614RS Packaged Sets	6	e-Conestoga Barn Door Hardware Series	17
9611CS & HD Packaged Sets	7	Optional Components	19
Bi-Fold	9		
9570 Bi-Fold	9		
Pocket Door Kits	10		
9878CS & HD Packaged Sets	10		
9628CS 9629CS 9630CS 9631CS	11		
9850HD & 9852HD.....	12		
Pocket Door Components	13		

In our effort to streamline our SDH offering and make it easier to do business with Hager, we have enhanced quality and performance and significantly reduced leads times. As part of this new consolidated line, and for your convenience, we have created a quick cross-reference guide to highlight the changes.

	CONSOLIDATED SERIES	NEW PART NUMBER
BI-FOLD SET	9570, 9860, 9861, 9890, 9891	9570RC
BY-PASS SET	9675, 9676, 9611, 9110	9611CS
	9673, 9674	9611CS (Add optional 9622 fascia) ¹
	9885	9611HD (Add optional 9622 fascia) ²
	9130, 9612, 9875	9611HD
	9514, 9583	9613RS
	9614, 9683	9614RS
WALL MOUNT SET	9710	9710HD
POCKET DOOR SETS	9678, 9110	9878CS
	9878, 9130, 9901	9878HD

PLEASE READ - The components between new and previous versions are NON-INTERCHANGEABLE

Note 1: The 9611CS (150 LBS.) Bypass Set with the optional 9622 Fascia becomes the equivalent to previous version 9673 and 9674. The components between new and previous versions are non-interchangeable.

Note 2: The 9611HD (250 LBS.) Bypass Set with the optional 9622 Fascia becomes the equivalent to previous version 9885. The components between new and previous versions are non-interchangeable.

General Information

Maximum Weight Per Door	Packaged Sets	Description	Hanger / Roller / Parts Bag	Track
By-Pass				
60#	9613RS-48	9613 BY-PASS RS 48" (1219 mm) MIL (non-fascia) - By-pass set for two 24" doors	9625	9623
60#	9613RS-60	9613 BY-PASS RS 60 (1524 mm) MIL (non-fascia)- By-pass set for two 30" doors	9625	9623
60#	9613RS-72	9613 BY-PASS RS 72" (1829 mm)MIL (non-fascia)- By-pass set for two 36" doors	9625	9623
60#	9613RS-96	9613 BY-PASS RS 96" (2438 mm)MIL (non-fascia) - By-pass set for two 48" doors	9625	9623
60#	9614RS-48	9614 BY-PASS RS 48" (1219 mm) MIL (fascia) - By-pass set for two 24" doors	9625	9624
60#	9614RS-60	9614 BY-PASS RS 60 (1524 mm) MIL (fascia)- By-pass set for two 30" doors	9625	9624
60#	9614RS-72	9614 BY-PASS RS 72" (1829 mm)MIL (fascia)- By-pass set for two 36" doors	9625	9624
60#	9614RS-96	9614 BY-PASS RS 96" (2438 mm)MIL (fascia) - By-pass set for two 48" doors	9625	9624
150#	9611CS-48	9611 BY-PASS CS 48" (1219 mm) MIL, 150 lbs. per door, Door thickness from 1-3/8" or 1-3/4" - By-pass set for two 24" doors	9805	9303HD
150#	9611CS-60	9611 BY-PASS CS 60" (1524 mm) MIL, 150 lbs. per door, Door thickness from 1-3/8" or 1-3/4" - By-pass set for two 30" doors	9805	9303HD
150#	9611CS-72	9611 BY-PASS CS 72" (1829 mm) MIL, 150 lbs. per door, Door thickness from 1-3/8" or 1-3/4" - By-pass set for two 36" doors	9805	9303HD
150#	9611CS-96	9611 BY-PASS CS 96" (2438 mm) MIL, 150 lbs. per door, Door thickness from 1-3/8" or 1-3/4"- By-pass set for two 48" doors	9805	9303HD
250#	9611HD-48	9611 BY-PASS HD 48" (1219 mm) MIL, 250 lbs. per door, Door thickness from 1-3/8" or 1-3/4"- By-pass set for two 24" doors	9806	9303HD
250#	9611HD-60	9611 BY-PASS HD 60" (1524 mm) MIL, 250 lbs. per door, Door thickness from 1-3/8" or 1-3/4"- By-pass set for two 30" doors	9806	9303HD
250#	9611HD-72	9611 BY-PASS HD 72" (1829 mm)MIL, 250 lbs. per door, Door thickness from 1-3/8" or 1-3/4", -By-pass set for two 36" doors	9806	9303HD
250#	9611HD-96	9611 BY-PASS HD 96" (2438 mm) MIL, 250 lbs. per door, Door thickness from 1-3/8" or 1-3/4", - By-pass set for two 48" doors	9806	9303HD
Bi-Fold				
125#	9570RC-36	9570 BI-FOLD RC 36" (914 mm) MIL - Bi-fold set for two 18" doors	9805	9303HD
125#	9570RC-48	9570 BI-FOLD RC 48" (1219 mm) MIL 4PNL - Bi-fold set for four 12" doors	9805	9303HD
125#	9570RC-60	9570 BI-FOLD RC 60" (1524 mm) MIL 4PNL - Bi-fold set for four 15" doors	9805	9303HD
125#	9570RC-72	9570 BI-FOLD RC 72" (1829 mm)MIL 4PNL - Bi-fold set for four 18" doors	9805	9303HD
125#	9570RC-96	9570 BI-FOLD RC 96" (2438 mm) MIL 4PNL - Bi-fold set for four 24" doors	9805	9303HD
Pocket Door Sets (Framing Not Included)				
150#	9878CS-72	Aluminum box track & hardware for 1-1/8" & 1-3/4" thick doors - 72" (1829 mm)	9805	9303HD
150#	9878CS-96	Aluminum box track & hardware for 1-1/8" & 1-3/4" thick doors- 96" (2438 mm)	9805	9303HD
250#	9878HD-72	Heavy duty Aluminum box track & hardware for 1-1/8" thick doors and up- 72" (1829 mm)	9806	9303HD
250#	9878HD-96	Heavy duty Aluminum box track & hardware for 1-1/8" thick doors and up- 96" (2438 mm)	9806	9303HD
Pocket Door Framed Kits				
150#	9628CS	9628CS, 108", 150 lbs, Commercial Pocket Door Kit, 2 x 4	9805	9303HD
150#	9629CS	9629CS, 96", 150 lbs, Commercial Pocket Door Kit, 2 x 4	9805	9303HD
150#	9630CS	9630CS, 84", 150 lbs, Commercial Pocket Door Kit, 2 x 4	9805	9303HD
150#	9631CS	9631CS, 80", 150 lbs, Commercial Pocket Door Kit, 2 x 4	9805	9303HD
250#	9850HD-96	9850HD, 96", 250 lbs, Heavy Duty Pocket Door Kit, 2 x 4	9806	9303HD
250#	9850-102	9850HD, 102", 250 LB, 2x4, HEAVY DUTY POCKET KIT	9806	9303HD
250#	9852HD-80	9852HD, 80", 250 LB, 2X6, HEAVY DUTY POCKET KIT	9806	9303HD
250#	9852HD-84	9852HD, 84", 250 lbs, 2x6, Heavy Duty Pocket Door Kit	9806	9303HD

General Information

Maximum Weight Per Door	Packaged Sets	Description	Hanger / Roller / Parts Bag	Track
Wall Mount Sets				
250#	9710HD-72	9710 WL MNT HD 72" Clear	9806	9703HD
250#	9710HD-96	9710 WL MNT HD 96" Clear	9806	9703HD
250#	9710HD-144	9710 WL MNT HD 144" Clear	9806	9703HD
250#	9710HD-72	9710 WL MNT HD 72" Black	9806	9703HD
250#	9710HD-96	9710 WL MNT HD 96" Black	9806	9703HD
250#	9710HD-144	9710 WL MNT HD 144" Black	9806	9703HD
9400 Series Barn Door				
250#	9432-78	9432 TOP MOUNT STICK 2m (78-3/4") SS ROUND RAIL	1-269-8672	N/A
250#	9432-96	9432 TOP MOUNT STICK 2m (96-3/4") SS ROUND RAIL	1-269-8672	N/A
250#	9436-78	9436 FACE MNT STRAP STICK 2m (78-3/4") SS RD RAIL	1-269-8672	N/A
250#	9436-96	9436 FACE MNT STRAP STICK 2m (96-3/4") SS RD RAIL	1-269-8672	N/A
e-Conestoga Barn Door				
250#	9456-72	9456 Flat Track Steel Black Top Mnt 72" Track Kit	1-269-8652	1-269-8658
250#	9456-96	9456 Flat Track Steel Black Top Mnt 96" Track Kit	1-269-8652	1-269-8660
250#	9457-72	9457 Flat Track Steel Black Face Mnt 72" Track Kit	1-269-8659	1-269-8658
250#	9457-96	9457 Flat Track Steel Black Face Mnt 96" Track Kit	1-269-8659	1-269-8660

By-Pass - 9613RS (Non-Fascia) Packaged Sets

PRODUCT INFORMATION

- Door weight up to 60 lbs. per door with single wheel hanger
- Door thickness 1-3/8"
- Track is extruded aluminum with "V" shaped rails

SYSTEM INCLUDES (9625 PARTS BAG)

- Aluminum track (No fascia)
- (4) 1-wheel hangers
- (2) Flush cup pulls (2-1/8" ID)
- (1) Floor channel door guide
- Parts bag

APPLICATIONS

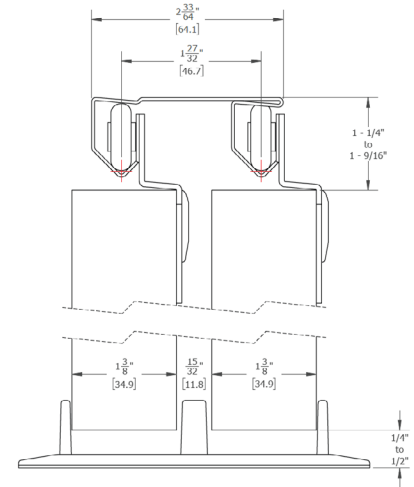
- Commercial, Healthcare, Hospitality, Office, Residential

AVAILABLE LENGTHS

- 48", 60", 72", 96"

CERTIFICATIONS

- Meets performance requirements ANSI/BHMA A156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles
- Type D02411-60



Note: 9613RS replaces 9514 & 9583 - The components between new and previous versions are NON-INTERCHANGEABLE

Part Number	Description
9613RS-48	9613 BY-PASS RS 48" (1219 mm) MIL (non-fascia) - By-pass set for two 24" doors
9613RS-60	9613 BY-PASS RS 60 (1524 mm) MIL (non-fascia)- By-pass set for two 30" doors
9613RS-72	9613 BY-PASS RS 72" (1829 mm)MIL (non-fascia)- By-pass set for two 36" doors
9613RS-96*	9613 BY-PASS RS 96" (2438 mm)MIL (non-fascia) - By-pass set for two 48" doors

9613RS (Non-Fascia) Replacement Components

Part Number	Description
9623-96	Replacement track for 9613RS (Non-Fascia)
9625	Replacement 2-dr Parts Bag for 9613RS and 9614RS, Includes: (4 each 1/2" offset single hangers, adjustable floor guide and 2 each SN 2-1/8" pulls and all required hardware)

*Note: Expandable to additional doors (i.e. 3-4 door configuration) The purchase of Parts Bag 9625 is required for each door.

By-Pass - 9614RS (Fascia) Packaged Sets

PRODUCT INFORMATION

- Aluminum track with fascia
- Door weight up to 60 lbs. per door with single wheel hanger
- Door thickness 1-3/8"
- Track is extruded aluminum with "V" shaped rails

SYSTEM INCLUDES (9625 PARTS BAG)

- Aluminum track (Fascia)
- (4) 1-wheel hangers
- (2) Flush cup pulls (2-1/8" ID)
- (1) Floor channel door guide
- Parts bag

APPLICATIONS

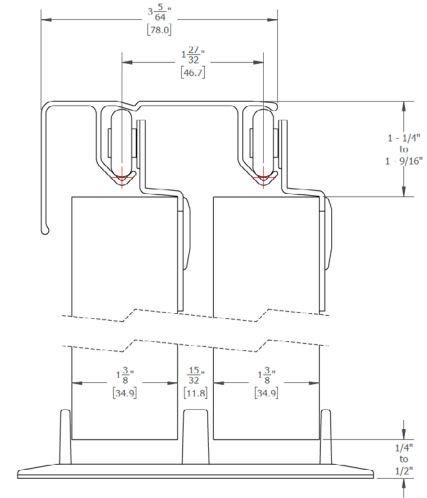
- Commercial, Healthcare, Hospitality, Office, Residential

AVAILABLE LENGTHS

- 48", 60", 72", 96"

CERTIFICATIONS

- Meets performance requirements ANSI/BHMA A156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles
- Type D02411-60



Note: 9614RS replaces 9514 & 9583 - The components between new and previous versions are NON-INTERCHANGEABLE

Part Number	Description
9614RS-48	9614 BY-PASS RS 48" (1219 mm) MIL (fascia) - By-pass set for two 24" doors
9614RS-60	9614 BY-PASS RS 60 (1524 mm) MIL (fascia)- By-pass set for two 30" doors
9614RS-72	9614 BY-PASS RS 72" (1829 mm) MIL (fascia)- By-pass set for two 36" doors
9614RS-96*	9614 BY-PASS RS 96" (2438 mm) MIL (fascia) - By-pass set for two 48" doors

9614RS (Fascia) Replacement Components

Part Number	Description
9624-96	Replacement track for 9614RS (Fascia)
9625	Replacement 2-dr Parts Bag for 9613RS and 9614RS, Includes: (4 each 1/2" offset single hangers, adjustable floor guide and 2 each SN 2-1/8" pulls and all required hardware)

*Note: Expandable to additional doors (i.e. 3-4 door configuration) The purchase of Parts Bag 9625 is required for each door.

By-Pass - 9611CS Packaged Sets

PRODUCT INFORMATION

- Door weight up to 150 lbs. per door
- Door thickness 1-3/8" or 1-3/4"
- Quick-release hangers allow for easy door hanging and removal
- Optional soft-close (1-269-8651) for doors up to 150 lbs.

SYSTEM INCLUDES (9621CS PARTS BAG)

- (2) 9303HD Aluminum track
- (4) 9805 1-wheel hangers
- (2) Flush cup pulls (2-1/8" ID)
- (1) Floor channel door guide
- Parts bag

APPLICATIONS

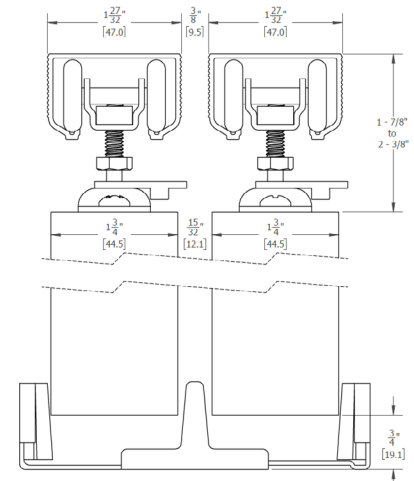
- Commercial, Healthcare, Hospitality, Office, Residential

AVAILABLE LENGTHS

- 48", 60", 72", 96"

CERTIFICATIONS

- Meets performance requirements ANSI/BHMA A156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles
- Type D02411-60



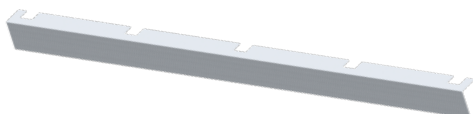
Part Number	Description
Note: 9611CS replaces 9675, 9676, 9611, 9110 - The components between new and previous versions are NON-INTERCHANGEABLE	
9611CS-48	9611 BY-PASS RS 48" (1219 mm) MIL (fascia) - By-pass set for two 24" doors
9611CS-60	9611 BY-PASS CS 60" (1524 mm) MIL, 150 lbs. per door, Door thickness from 1-3/8" or 1-3/4" - By-pass set for two 30" doors
9611CS-72	9611 BY-PASS CS 72" (1829 mm) MIL, 150 lbs. per door, Door thickness from 1-3/8" or 1-3/4" - By-pass set for two 36" doors
9611CS-96	9611 BY-PASS CS 96" (2438 mm)MIL (fascia) - By-pass set for two 48" doors

9611CS Replacement Components

Part Number	Description
9303HD-72	9303HD 72" MIL - Replacement Track
9303HD-96	9303HD 96" MIL - Replacement Track
9303HD-144	9303HD 144" MIL - Replacement Track
9621-CS	Replacement 2-dr (Parts Bag) set for 9611CS, Includes: (Qty. 4-wheel hanger for 150 LB, 1-3/8 to 1-3/4" floor guide, 2 each SN 2-1/8" pulls and all required hardware)

9622 Optional (2-11/16", 68.3mm) Grooved Fascia for 9611CS and 9611HD

Part Number	Description
Note 1: The 9611CS (150 LBS.) Bypass Set with the optional 9622 Fascia becomes the equivalent to previous version 9673 and 9674. The components between new and previous versions are non-interchangeable.	
9622-48	'L' Shaped Aluminum Fascia for 9611CS & 9611HD, 48" - All tracks have pre-punched mounting slots for ease of installation
9622-60	'L' Shaped Aluminum Fascia for 9611CS & 9611HD, 60" - All tracks have pre-punched mounting slots for ease of installation
9622-72	'L' Shaped Aluminum Fascia for 9611CS & 9611HD, 72" - All tracks have pre-punched mounting slots for ease of installation
9622-96	'L' Shaped Aluminum Fascia for 9611CS & 9611HD, 96" - All tracks have pre-punched mounting slots for ease of installation



By-Pass - 9611HD Packaged Sets

PRODUCT INFORMATION

- Door weight up to 250 lbs. per door
- Door thickness 1-3/8" or 1-3/4"
- Quick-release hangers allow for easy door hanging and removal

SYSTEM INCLUDES (9621HD PARTS BAG)

- (2) 9303HD Aluminum track
- (4) 9805 1-wheel hangers
- (2) Flush cup pulls (2-1/8" ID)
- (1) Floor channel door guide
- 9621

APPLICATIONS

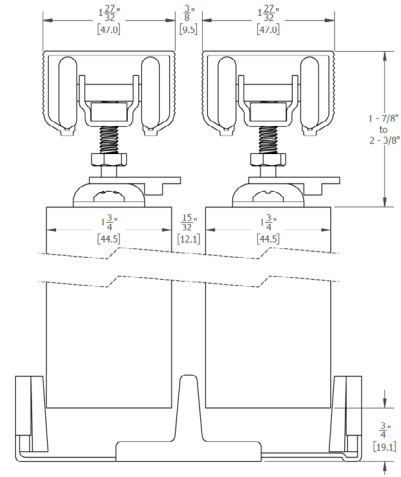
- Commercial, Healthcare, Hospitality, Office, Residential

AVAILABLE LENGTHS

- 48", 60", 72", 96"

CERTIFICATIONS

- Meets performance requirements ANSI/BHMA A156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles
- Type D02411-60



Part Number Description

Note: 9611HD replaces - 9130, 9612, 9875 The components between new and previous versions are NON-INTERCHANGEABLE

9611HD-48	9611 BY-PASS HD 48" (1219 mm) MIL, 250 lbs. per door, Door thickness from 1-3/8" or 1-3/4"- By-pass set for two 24" doors
9611HD-60	9611 BY-PASS HD 60" (1524 mm) MIL, 250 lbs. per door, Door thickness from 1-3/8" or 1-3/4"- By-pass set for two 30" doors
9611HD-72	9611 BY-PASS HD 72" (1829 mm)MIL, 250 lbs. per door, Door thickness from 1-3/8" or 1-3/4", -By-pass set for two 36" doors
9611HD-96	9611 BY-PASS HD 96" (2438 mm) MIL, 250 lbs. per door, Door thickness from 1-3/8" or 1-3/4", - By-pass set for two 48" doors

9611HD Replacement Components

Part Number	Description
9303HD-72	9303HD 72" MIL - Replacement Track
9303HD-96	9303HD 96" MIL - Replacement Track
9303HD-144	9303HD 144" MIL - Replacement Track
9621-HD	Replacement 2-dr (Parts Bag) set for 9611HD, Includes: (Qty. 4-wheel hanger for 250 LB, 1-3/8 to 1-3/4" floor guide, 2 each SN 2-1/8" pulls and all required hardware)

9622 Optional (2-11/16", 68.3mm) Grooved Fascia for 9611CS and 9611HD

Part Number Description

Note: The 9611HD (250 LB) bypass set with the optional 9622 fascia becomes the equivalent to previous version 9885. The components between new and previous versions are NON-INTERCHANGEABLE

9622-48	'L' Shaped with pre-punched mounting slots - Aluminum Fascia for 9611CS & 9611HD, 48"
9622-60	'L' Shaped with pre-punched mounting slots - Aluminum Fascia for 9611CS & 9611HD, 60"
9622-72	'L' Shaped with pre-punched mounting slots - Aluminum Fascia for 9611CS & 9611HD, 72"
9622-96	'L' Shaped with pre-punched mounting slots - Aluminum Fascia for 9611CS & 9611HD, 96"



Simple to Install, Built to Last

The better engineered your Bi-Fold door hardware is, the smoother the operation of your doors will be — over the lifetime of the installation. Smart Homeowners, Contractors, and Architects insist on Hager’s sliding hardware sets and components to ensure trouble-free installation and reliable performance

PRODUCT INFORMATION

- Door weight up to 125 lbs. per panel pair
- Door thickness from 1-1/8" - 1-3/4"
- Track is extruded aluminum jump-proof style with "V" shaped rails

SYSTEM INCLUDES (9581 PARTS BAG)

- 9303HD Aluminum track
- 9805 wheel hangers
- Parts bag

APPLICATIONS

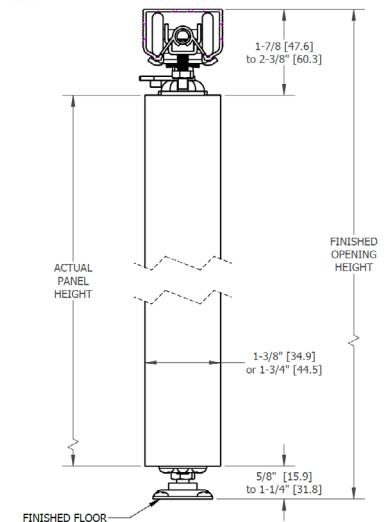
- Commercial, Healthcare, Hospitality, Office, Residential

AVAILABLE LENGTHS

- 48", 60", 72", 96"

CERTIFICATIONS

- Meets performance requirements ANSI/BHMA A156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles
- Type D02411-60



Part Number	Description
Note: 9570RC replaces 9570, 9860, 9861, 9890, 9891 - The components between new and previous versions are NON-INTERCHANGEABLE	
9570RC-36	9570 BI-FOLD RC 36" (914 mm) MIL - Bi-fold set for two 18" doors
9570RC-48	9570 BI-FOLD RC 48" (1219 mm) MIL 4PNL - Bi-fold set for four 12" doors
9750RC-60	9570 BI-FOLD RC 60" (1524 mm) MIL 4PNL - Bi-fold set for four 15" doors
9570RC-72	9570 BI-FOLD RC 72" (1829 mm)MIL 4PNL - Bi-fold set for four 18" doors
9570RC-96	9570 BI-FOLD RC 96" (2438 mm) MIL 4PNL - Bi-fold set for four 24" doors

9570RC Replacement Components

Part Number	Description
9303HD-72	9303HD 72" MIL - Replacement Track
9303HD-96	9303HD 96" MIL - Replacement Track
9303HD-144	9303HD 144" MIL - Replacement Track
9581	Parts Bag Pivot set includes the lead 4-wheel roller, top pivot pin and track bracket, bottom pivot bracket and pins, wood knob, one aligner and all required hardware

Pocket Door - 9878CS & 9878HD Pocket Door Kits (Framing Not Included)

Pocket door aka “doors that vanish”— Hager Companies offers 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 six to sixteen feet. Aluminum tracks support doors up to 250 lbs. and are designed for simple installation and durable performance. Hager’s 4-wheel hanger design provides an ultra-smooth gliding movement.

Part Number	Description	Part Number	Description
9878CS:	Features / Specifications	9878HD	Features / Specifications
	• Door weight up to 150 lbs		• Door weight up to 250 lbs
	• Door thickness from 1-1/8" - 1-3/4"		• Door thickness from 1-1/8" - 1-3/4"
	• Track is extruded aluminum jump-proof style with "V" shaped rails		• Track is extruded aluminum jump-proof style with "V" shaped rails
	• Available in lengths: 72" & 96"		• Available in lengths: 72" & 96"
	• Conforms to ANSI A156.14		• Conforms to ANSI A156.14
	• Type: D8681, D8711		*• Type: D8681, D8711
	• Optional soft-close (1-269-8651) for doors up to 150 lbs		
	System Includes		System Includes
	• 9803HD Track		• 9803HD Track
	• (2)- 9805 hanger		• (2)- 9806 hanger
	• Guides		• Guides
	• Bumper		• Bumper
Part Number	Description		
Note: 9878CS replaces 9678 / 9878HD replaces 9878 - The components between new and previous versions are NON-INTERCHANGEABLE			
9878CS-72	Pocket Door Set - 6' (1829 mm) for 3'0" (914 mm) door - 150 lbs.		
9878CS-96	Pocket Door Set - 8' (2438 mm) for 4'0" (1219 mm) door - 150 lbs.		
9878HD-72	Pocket Door Set - 6' (1829 mm) for 3'0" (914 mm) door - 250 lbs		
9878HD-96	Pocket Door Set - 8' (2438 mm) for 4'0" (1219 mm) door - 250 lbs.		

Pocket -9600 Comm. Series Pocket Door Frame Kits -9628CS |9629CSCS |9630CS |9631CS

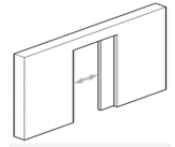
FEATURES

- Commercial Series Pocket Door Kit
- Meets performance requirements of ANSI/BHMA A156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles in operation
- Type: S02311-150
- ADA Compliant



SPECIFICATIONS

- V-groove jump proof aluminum 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 1-3/4" (19 mm x 44 mm) width relative to length, steel encased for rigidity and to prevent fastener penetration into the pocket
- Header Assembly attaches to rough studs at both ends - split studs nail to Header Assembly - no connections to rough header
- 2 pair of split studs with wood inserts
- See chart below for appropriate kit



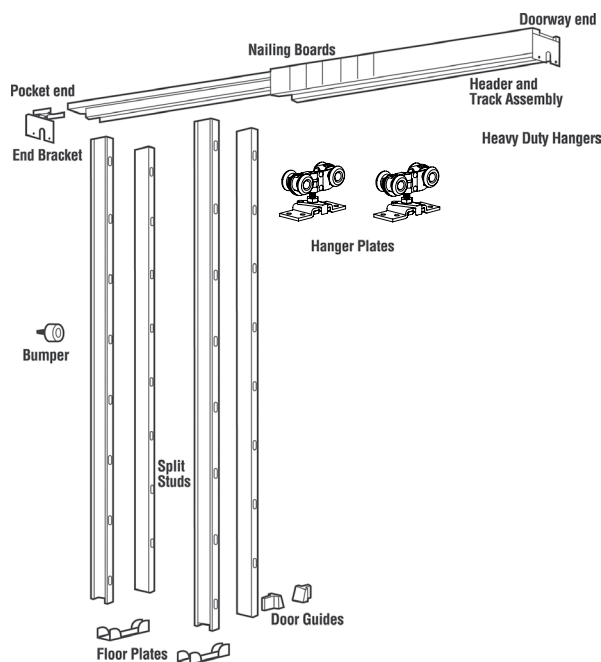
Part #	Max Door Weight	Door Thickness*	Door Width	Door Height	Hanger Bearings
9628CS	150 lbs (68 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	9'0" (2743 mm)	9805
9629CS	150 lbs (68 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	8'0" (2438 mm)	9805
9630CS	150 lbs (68 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	7'0" (2134 mm)	9805
9631CS	150 lbs (57 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	6'8" (2032 mm)	9805

For doors in excess of 150 lbs, we recommend the use of our 9850HD or 9852HD Pocket Door kits

Installation Notes: For bi-parting doors, use Hager Mullion Converging Kit 9639CS (sold separately). Use of Soft Close mechanism exceeds ADA 5 lb. of opening force threshold.



Joins two pocket door frames to make one large doorway. Rough opening width changes to door width multiplied by four.




Optional Soft Close mechanism (1-269-8651) available - Sold Separately

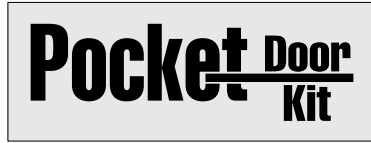
Contents

Quantity	Description
1	2"x4" Header assembly
2	Pair of split studs
2	Rollers - 150 lbs
2	Hanger Plates
1	Rubber Bumper
1	Pair of floor guides
1	Hanger wrench
2	Floor plates
1	Doorway end bracket
1	Pocket end bracket

Pocket -9800 Heavy-Duty Pocket Door Frame Kits -9850HD for 2" X 4" Walls |9852HD for 2" X 6" Walls

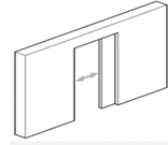
FEATURES

- Heavy-Duty Series Pocket Door Kit
- Meets performance requirements of ANSI/BHMA A156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles in operation
- Type: D01311-250
- ADA Compliant 



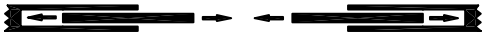
SPECIFICATIONS

- 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. (113 kg)
- Pre-assembled header assembly goes up quickly
- Heavy-Duty, V-groove, jump-proof aluminum track
- Real wood split studs, size 3/4" x 1-3/4" (19 mm x 44 mm) width relative to length, steel encased for rigidity and to prevent fastener penetration into the pocket
- Header Assembly attaches to rough studs at both ends - split studs nail to Header Assembly - no connections to rough header
- 3 Pairs of split studs with wood inserts for 9850HD
- 2 Pairs of split studs with wood inserts for 9852HD
- See chart below for appropriate kit

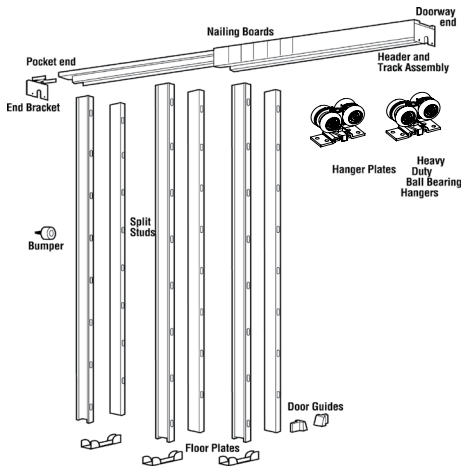


Part #	Max Door Weight	Door Thickness*	Door Width	Door Height	Hanger Bearings
9850HD-96	250 lbs (57 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	4'0" (1219 mm)	8'0" (2438 mm)	9806 Ball Bearing
9850HD-102	250 lbs (113 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	4'0" (1219 mm)	8'6" (2591 mm)	9806 Ball Bearing
9852HD for 2' X 6' Walls					
9852HD-80	250 lbs (113 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	6'8" (2032 mm)	9806 Ball Bearing
9852HD-84	250 lbs (113 kg)	1-3/8" - 1-3/4" (35 mm - 44 mm)	3'0" (914 mm)	7'0" (2134 mm)	9806 Ball Bearing

Installation Notes: For bi-parting doors, use Hager Mullion Converging Kit 9639CS (sold separately). Use of Soft Close mechanism exceeds ADA 5 lb. of opening force threshold.



Joins two pocket door frames to make one large doorway. Rough opening width changes to door width multiplied by four.



9850HD Contents

Quantity	Description
1	2" x 4" Header assembly
3	Pairs of split studs
2	Rollers - 250 lbs
2	Hanger Plates
1	Rubber Bumper
1	Pair of floor guides
1	Hanger wrench
3	Floor plates for 1-3/8" thick doors
3	Floor plates for 1-3/4" thick doors
6	Shims
1	Doorway end bracket
1	Pocket end bracket

9852HD Contents

Quantity	Description
1	2" x 6" Header assembly
3	Pairs of split studs
2	Rollers - 250 lbs
2	Hanger Plates
1	Rubber Bumper
1	Pair of floor guides
1	Hanger wrench
2	4" Floor Plates
1	Doorway end bracket
1	Pocket end bracket

Optional Soft Close mechanism (1-269-8651) available - Sold Separately

Pocket - 9600 Commercial Series & 9800 Heavy-Duty Pocket Door Framed Kits Replacements / Components



1-269-8651
Soft Close Mechanism

- Gently guides door to an open or closed position
- Door weight up to 150 lbs (68 kg)



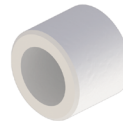
9805
4-Wheel Hanger

- For doors up to 150 lbs (68 kg)

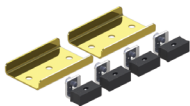


9806
4-Wheel Ball Bearing Series Hanger

- For doors up to 250 lbs. (113 kg)

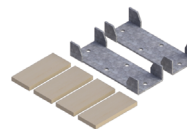


9881CS
Rubber Bumper



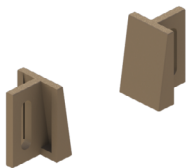
9639CS
Mullion Converging Kit

- Joins two frames in the middle of the doorway
- For joining 9628CS, 9629CS, 9630CS, 9631CS
- 9850HD and 9852HD pocket door kits



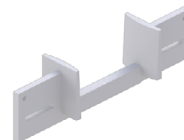
9634CS
1-3/4" Pocket Door Adapter Kit

- 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 clearance between door and jamb



9883CS
Two Piece Pocket Door Guide

- Two pieces per door required



9889CS
Non-Adjustable Floor Guide

- Notes: For 1-3/8" (35 mm) doors

Wall-Mount Hardware - 9710HD

Hager Companies' wall-mount sliding door hardware is designed to blend seamlessly with any interior décor — from a contemporary uptown loft, to a more traditional environment. This architecturally-focused design delivers a clean, finished look to any interior doorway or room divider (from two to six foot openings) while providing maximum space utilization. Hager's 9710HD Wall-Mount system is available in clear anodized and black finishes. Quiet four-wheel ball bearing carriers support doors up to 250 lbs. Hardware supports one- and two-door applications.

PRODUCT INFORMATION

- Door weight up to 250 lbs.
- Door thickness from 1-1/8" - 1-3/4"
- Finishes: Available in clear anodized & black (DBZ no longer available)

SYSTEM INCLUDES

- 9303HD Aluminum track
- 9806 wheel hangers
- Parts bag
- Fascia
- End Caps

APPLICATIONS

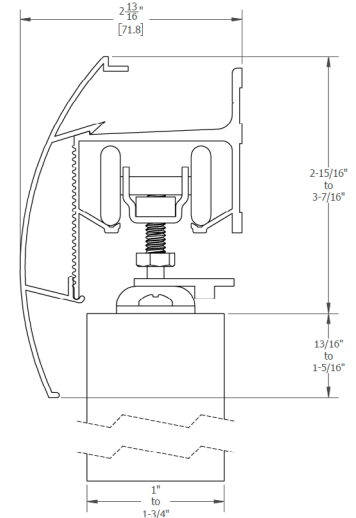
- Commercial, Healthcare, Hospitality, Office, Residential

AVAILABLE LENGTHS

- 72", 96", 144"

CERTIFICATIONS

- Meets performance requirements ANSI/BHMA A156.14 (Grade 1) for sliding doors by exceeding 100,000 cycles
- Type D02411-60
- Door thickness from 1-1/8" - 1-3/4"
- Finishes: Available in clear anodized & black



Part Number	Description
Note: 9710HD replaces 9710. Also, black replaces DBZ - which is no longer available - The components between new and previous versions are NON-INTERCHANGEABLE	
9710HD-72 CLR	9710HD-72 CLR Packaged Sets for heavy duty single doors and bi-parting doors up to 250 lbs. (113kg)
9710HD-96 CLR	9710HD-96 CLR Packaged Sets for heavy duty single doors and bi-parting doors up to 250 lbs. (113kg)
9710HD-144 CLR	9710HD-144 CLR Packaged Sets for heavy duty single doors and bi-parting doors up to 250 lbs. (113kg)
9710HD-72 BLA	9710HD-72 BLA Packaged Sets for heavy duty single doors and bi-parting doors up to 250 lbs. (113kg)
9710HD-96 BLA	9710HD-96 BLA Packaged Sets for heavy duty single doors and bi-parting doors up to 250 lbs. (113kg)
9710HD-144 BLA	9710HD-144 BLA Packaged Sets for heavy duty single doors and bi-parting doors up to 250 lbs. (113kg)

Part Number	Description
Note: 9710HD Wall-Mount Replacement Parts - Description - The components between new and previous versions are NON-INTERCHANGEABLE	
9703HD-72	9703HD WL MNT HD 72" MIL (Track)
9703HD-96	9703HD WL MNT HD 96" MIL (Track)
9704-72 CLR	9704 WL MNT 72" CLR (Fascia)
9704-72 BLA	9704 WL MNT 72" BLA (Fascia)
9704-96 CLR	9704 WL MNT 96" CLR (Fascia)
9704-96 BLA	9704 WL MNT 96" BLA (Fascia)
9705 CLR	9705 WL MNT PLASTIC CLR (2- pk Ploybag End Cap)
9705 BLA	9705 WL MNT PLASTIC BLACK (2-Pack Poly Bag End Cap)
1-159-0003	1-159-0003 Center Stop Bumpers
1-569-0004	1-569-0004 Wall-Mount Adjustable Fin Guide

9400 Barn Door Hardware

Hager Companies 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.

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



Hager Part Number	Description
Stainless Steel 78" Kits	
Top Mount	
9432-78	Top Mount Stick 2m (78-3/4") SS Round Rail
Face Mount	
9436-78	Face mount Strap Stick 2m (78-3/4") SS Round Rail
Stainless Steel 96" Kits	
Top Mount	
9432-96	Top Mount Stick 2m (96-3/4") SS Round Rail
Face Mount	
9436-96	Face mount Strap Stick 2m (96-3/4") SS Round Rail
Accessories	
1-269-8665	Tool set for 05WG; 06WG; 07WG (Round Rail)
1-269-8666	Tool set for 01W; 02W (Round Rail)
1-269-8667	End Cap
1-269-8668	Guide for Wooded Door
1-269-8669	Door Stop
1-269-8670	Guide for Glass Door
1-269-8671	Top Mount Stick Sliding Door Roller for Wood, SS304 Satin
1-269-8672	Top Mount Dual Wheel Sliding Door Roller for Wood, SS304 Satin
1-269-8673	Top Mount Spoke Wheel Sliding Door Roller for Wood, SS304 Satin
1-269-8674	Strap Stick Sliding Door Roller for Wood and Glass, SS304 Satin
1-269-8675	Strap Dual Wheel Sliding Door Roller for Wood and Glass, SS304 Satin
1-269-8676	Strap Triangle Sliding Door Roller for Wood and Glass, SS304 Satin
1-269-8677	Flat Rail Stick Sliding Door Carrier for Wood SS304 Satin
1-269-8678	Flat Rail Door Stopper Left, SS304 Satin
1-269-8679	Flat Rail Door Stopper Right, SS304 Satin
1-269-8680	Flat Rail Anti Jump
1-269-8663	Round Rail Connector SS304 Satin Nickel
1-269-8664	Flat Rail Connector SS304 Satin Nickel

Barn Door Hardware - 9400 Series

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
 - 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



OPTIONAL: 1-269-8650 Spring-Loaded Cushion Stop

- Details:
- Description: Spring loaded cushion stop
 - Finish/material: 32D
 - Door thickness: Up to 1-3/4" wood door
 - Gently absorbs the hanger and cushions the landing of the door



Barn Door Hardware - e-Conestoga Series

Hager Companies' eConestoga flat track sliding door hardware is a decorative sliding door system with a rustic look and feel. Ideal for multi-family units, hotels, and office spaces, Hager's eConestoga flat track sliding door hardware system is available with two styles of door hangers to complement the décor

FEATURES

- Durable powder-coated black steel
- Meets performance requirements of ANSI/BHMA 156.14
- (Grade 1) for sliding doors by exceeding 100,000 cycles

SPECIFICATIONS

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

Hager Part Number	Description
72" Kits	
Top Mount	
9456-72	
Face Mount	
9436-78	
96" Kits	
Top Mount	
9457-72	
Face Mount	
9457-96	
Accessories	
9456-72	Flat Rail Steel Black Top Mount 72" Track Kit Includes Track
9456-96	Flat Rail Steel Black Top Mount 96" Track Kit Includes Track
9457-72	9457-72 Flat Rail Steel Black 3" Hook 72" Track Kit Includes Track
9457-96	9457-72 Flat Rail Steel Black 3" Hook 72" Track Kit Includes Track
1-269-8649	Flat Rail Track Connector
1-269-8648	72" Rail Only
1-269-8647	Door Stop
1-269-8646	Flat Rail Soft Close Add On
1-269-8652	9456 e-Conestoga - Top Mount Hanger Parts Bag
1-269-8653	e-Conestoga Left and Right End Stop
1-269-8654	e-Conestoga Track Support
1-269-8655	e-Conestoga Floor Guide (One Piece)
1-269-8656	e-Conestoga Anti-Jump Pin
1-269-8657	e-Conestoga Floor Guide (Two Piece)
1-269-8658	e-Conestoga 72" Track
1-269-8659	9457 e-Conestoga - Face Mount Hanger
1-269-8660	e-Conestoga 96" Track

Barn Door Hardware - e-Conestoga Series

Durable Black Powder-Coated Rail

FEATURES

- Materials: Durable powder-coated black steel
- Available in:
- 72" and 96" track lengths
 - 1-269-8648 - 72"
 - 1-269-8647 - 96"



9456 Top Mount Track Kit

FEATURES

- Materials:
- Durable powder-coated black steel
 - Black steel rail (72" or 96")
- System Includes:
- 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

9457 Face Mount Kit

FEATURES

- Materials:
- Durable powder-coated black steel
 - Black steel rail (72" or 96")
- System Includes:
- 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

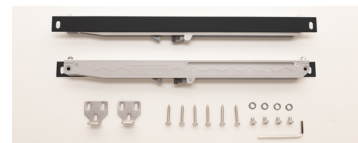


DOOR SPECIFICATIONS

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

OPTIONAL: 1-269-8646 Flat Rail Soft Close Mechanism

- Details:
- Gently guides door to open or closed position
 - Door weight up to 176 lbs.



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



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



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



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.

Optional Components



9558

Wood Knob

Diameter: 1-1/2" (38 mm)
Materials: Solid wood



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



9458

Barn Door Privacy Lock

- Non-handed
- ADA Compliant thumb turn for commercial applications
- 2-1/4" or 3-1/2" backset options (see specifications for corresponding wall thickness)
- Drive in bolt casing diameter: 1" (25mm)
- Lock bolt: 1/2" (13mm) diameter, stainless Steel material
- Lock bolt has 1" projection allowing up to 1/2" door to wall gap
- Extra spacer ring accommodates up to 3/4" gap between barn door and wall
- 1-1/4" diameter spring-loaded dust proof strike provides ample space to receive 1/2" bolt, allows easy locking from privacy side. Strike mounted in barn door for standard door
- Available in 32D, 10B, and Black



9459

Surface Jamb Barn Door Lock

- ADA 1-9/16" Thumb Lever
- Available in 32D or Black



1-159-0003

Bumper Stop

- For use with 9303HD Track