Power Operators

Requirement

- -All Operators To Be Electrically Powered
- -Operators To Be Aluminum (BHMA 689) Finish

Approved Manufacturers

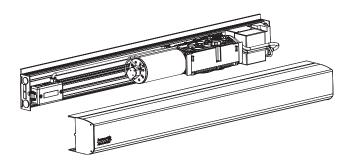
-Besam No Substitution

SW200i^m



Technical Data Sheet

ASSA ABLOY, the global leader in door opening solutions



SW200i Swing Door Operator

The Besam SW200i automatic swing operator is intended for use in exterior or interior entryways, corridors and a variety of applications. The Besam SW200i heavy duty (HD) electro-mechanical operator is suitable for use on large heavy doors, yet adaptable enough to be used in low energy (LE) applications. The product can be either surface mounted or overhead concealed, on either side of the door, for pull or push applications. It is suitable for single doors, double doors and double egress doors fitted with swing clear hinges, offset pivots or center pivots. The operator is connected to the door leaf with a range of different arm systems.

Besam SW200i is designed to offer continuous use, a high degree of safety and maximum performance over the lifetime of your entrance. The Besam SW200i ensures all-around safety and can be equipped with a full range of sensor products providing swing door safety that meets or exceeds ANSI A156.10 standard.

Operator Features and Performance

- Operator: electro-mechanical, non-handed operator, 24 volt, ⁵/₁₆ hp motor
- ANSI Compliance: Field selectable full pedestrian usage (ANSI A156.10) and low energy (ANSI A156.19)
- Door Weight: up to 700 pounds (315 kg) per operator
- Door Size: up to 48" (consult for wider sizes)
- Manual Push Force: adjustable from 5 lbf 15 lbf
- Hold Open Time: adjustable from 1.5 seconds to 30 seconds
- Wind Force Dampening: operator mechanically counteracts to wind forces, slowing down the opening or closing of the door
- Stack Pressure Compensation: operator counteracts to positive stack pressures, negative stack pressures, and sudden changes of stack pressures to maintain consistent door speeds
- Intelligent Trajectory Control: operator knows where the door should be at all times and adjusts torque accordingly. Dynamic braking helps cushion the door during opening to prevent going past 90 degrees, or during closing to prevent slamming.
- Extended Closing Torque (ECT): Besam's exclusive Extended Closing Torque (ECT) functionality provides extra torque in the last 10 degrees of closing, if needed, to close and latch the door. Speed remains constant so the door stays within ANSI standards.



- Latch Retry: if the door does not latch when closing, the SW200i will detect this condition and immediately open the door to 10 degrees and execute two attempts to latch the door.
- On-board timing sequencer
- On-board 12V or 24V transformer
- Low pass filter (i.e. "delay on make")
- Door position relay
- Kill input to close doors immediately
- Self-learning set-up measures inertia and door weight
- Low Power Consumption (300 watts, 2.5 amp (max)



Door Set-ups: Left: Single Below Left: Simultaneous Pair Below Right: Pair Egress



Operation

- Automatic sensor activation (ANSI A156.10)
- Push plate activation (ANSI A156.19 or A156.10)
- Push and go feature allowing door to open automatically when operator senses movement of door (ANSI A156.19)
- Power assist open provides easy to open push forces (ANSI A156.19)
- Internal, push to open, push to close (i.e., ratchet relay) (ANSI A156.19)
- Speed controlled Extended Closing Torque (ECT) to provide power assist close with on-board functionality to automatically adjust torque without increasing speed
- Loss of Power: the operator controls the door closing, preventing slamming of door
- Torque Limiting: if positive air pressure condition is removed, operator compensates accordingly and will not slam



Door Operator Handings

Electric Lock Management

- Lock monitoring prevents operator(s) from opening door(s) until release of electrified lock
- Operator pulls door closed before opening, unjamming electric latch hardware
- Sequenced operation between operators for pairs of doors allowing lock release and astragal coordination
- Electric Lock Output: selectable 12 VDC, maximum 1200 mA / 24 VDC, maximum 600 mA

Sensor Monitoring

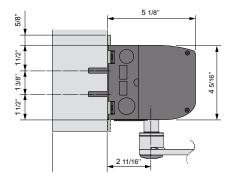
- Monitored Door Mounted Presence Sensors upon detection of sensor failure, the operator will automatically revert to low energy mode
- Blanking Potentiometer: tells sensors on swing side of door when to shut off
- Sensor Recognition learn process
- Torque Cancellation Extended Closing Torque (ECT) is deactivated if signal is received from door mounted presence sensors of a possible obstruction

Aesthetics

- Aesthetically pleasing, low profile appearance: 4-5/16" (109mm) high by 5-1/8" (130mm) deep
- · Continuous header for full width of door
- Same header/housing as Besam PowerSwing and Besam SW100 for consistent sightlines in your facility
- Finishes: anodized, powder coat, Kynar, clad

Configurations

- Surface Applied
- Overhead Concealed center pivoted or offset pivoted doors
- Overhead Concealed with emergency breakaway
- Side Load
- Bottom Load



Authorities

- UL/CUL approved
- UL Listed Fire Door Operator
- UL10C, UL325, UL991, UL244A, UL1998, UL1310
- IBC and CBC
- ANSI A156.10 / ANSI A156.19
- CAN/CSA-C22.2 NO 223-M91 and CAN/CSA-C22.2 NO 223-M92
- California State Fire Marshall

Sensor Packages

Sensor Packages as follows:

ANSI A156.19

- Activation: push plates per your selection
- Safety devices: not required per ANSI. Optional door mounted presence sensors (DMPS) are available

ANSI A156.10

- Activation: push plates per your selection (motion sensors or push plates)
- Choice of Besam i-Adapt[™] door mounted presence sensor system:
- A202 Besam i-Adapt Premium stand alone, adapted field, door mounted presence sensors (DMPS)
- A102

 Besam i-Adapt Flex overhead presence sensor (OPS) and two door mounted presence sensors (DMPS) per leaf (approach and safety)
- A101 Besam i-Adapt Flex overhead presence sensor (OPS) and one door mounted presence sensors (DMPS) per leaf (safety)
- A100 Besam i-Adapt Flex Knowing Act applications pair egress only – motion sensor approach and safety side for secondary activation per ANSI A156.10

Technical Specifications

recnnical Specification	15	
Operator type	Electro-mechanical	
Door width	36" – 48" (914 – 1219mm)	
Door weight	100 – 700 lb (45 – 315 kg)	
Power supply	120 V AC +10/-15%, 50/60 hz	
Power consumption	Max. 300W	
Auxiliary voltage	24 V DC, max. 700 mA	
Internal control fuse	2 x T 6, 3 AH 250 V	
Electro-mechanical	Selectable: 12V DC, max. I	
locking device	1200 mA / 24 V DC, max. 600 mA	
Door opening	Push: 80 – 110°	
	with reveal 0 – 12" (0 – 305mm)	
	Pull: 80 – 110°	
	with reveal 0 – 5-1/8"" (0 – 130mm)	
	PAS: 80 – 95°	
	(concealed application)	
Opening time (0 – 80°)	Variable between 2 - 12 seconds	
Closing time (90 – 100°)	Variable between 4 – 12 seconds	
Hold open time	1,5-30 seconds	
Ambient temperature	-31° F to 160° F (-35° C to 71° C)	
Relative humidity	Max. 85%	
Drive weight unit	19.8 lb (9 kg)	
(non-condensing)		
This product is to be installed internally or externally		
with suitable weather protection.		
Class of protection	IP 20.	
Complies with: ANSI/BHMA A156.19, ANSI/BHMA A156.10, UL325,		
UL 991, UL 244A, UL 1998, UL 1310, UL 10C, CAN/CSA-C22.2		

NO 223-M91, CAN/CSA-C22.2 NO 247-92 and CA State Fire Marshall

Door Control/Door Protection

Requirements

Kickplates

- -All Kickplates To Be Stainless Steel 16g (.050)
- -All Kickplates To Be 8" High X 2" Less Than Door Width
- -All Doors With Door Closers To Have Kickplates Installed On Push Side Of Door

Stops

- -Use Wall Stops Wherever Possible
- -Use Overhead Stops Where Wall Stops Cannot Be Used

Approved Manufacturers

Trimco
Ives Manufacturing
Glynn-Johnson
Rockwood Manufacturing

Architectural Door Trim

Series 8400 Door Protection Plates

Features:

- Door Protection Plates are fabricated from the finest architectural aluminum, brass, bronze and stainless steel, or 1/8" thick clear acrylic plastic or black or brown high impact polyethylene.
- All aluminum, brass, bronze and stainless steel Door Protection Plates meet ANSI A156.6 requirements for .050" thickness.
- Optional Beveling—For beveling of top and two sides of plates suffix with B3E, and for beveling of four sides suffix with B4E.
- Standard Beveling—Plastic plates are beveled on all four sides.
- Each plate is packaged carefully wrapped in strong kraft paper with #6 x 5/8" oval head, undercut sheet metal screws plated to match, for easy installation on hollow metal, laminate, or wood doors. All plates are packaged in heavy duty corrugated cardboard; larger plates are enclosed in a wooden frame.



 Use No. 8401 Kickplate Gasket Tape as a buffer between brass kickplates and metal doors to help prevent tarnishing which may result from electrolytic oxidation. One package provides enough double-sided adhesive-backed foam tape for the perimeter of an 8" x 34" plate.



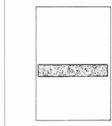
Mop Plates

- Protect the bottom of the pull side of door subject to cleaning and mopping procedures.
- Standard heights are 4" or 6" by 1" less than the door width



Kick Plates

- Protect the bottom of the push side of doors subject to scuffing from foot traffic.
- Recommended for all doors subject to normal use (especially doors using a closer).
- Standard heights are 8", 10" or 12" by door width, with allowance for stop bead.



Stretcher Plates

- Protect doors at specific areas where consistent contact is made by stretchers, service carts or other equipment.
- Usually applied to push side of doors.
- Standard height is 6" or 8" by door width, with allowance for stop bead.
- Specify "B4E" Option for beveled edges.



Armor Plates

- Protect lower half of doors from abuse by hard carts, trucks and rough usage.
- Usually applied to push side of single doors and both sides of double acting doors.
- Standard heights are 36", 40" or 42" by door width, with allowance for stop bead when applicable.

Prod. No.	Plate Description	Size Ranges
8400	Mop Plates	4" to 6" high, 22" to 48" wide
8400	Kick Plates, Stretcher Plates	6" to 8" high, 22" to 48" wide
8400	Kick Plates	8" to 24" high, 22" to 48" wide
8400	Armor Plates	26" to 48" high, 22" to 48" wide



Wall Bumpers

WS406CVX & WS407CVX WS406CCV & WS407CCV

- Constructed in sturdy yet economical wrought base of brass, aluminum or stainless steel construction.
- · Feature concealed tamper-proof mounting.
- Shipped factory preassembled backplate to reduce installation cost.
- · Easy installation by inserting screwdriver through small hole in rubber.
- The WS406CVX unit is designed with a convex rubber bumper, packed with wood screw and plastic anchor.
- The WS406CCV unit is designed with a concave rubber bumper, which avoids damage to locks with projecting buttons, packed with wood screw and plastic anchor.
- The WS407CVX unit is designed with a convex rubber bumper packed with screw and drywall anchor.
- The WS407CCV unit is designed with a concave rubber bumper which avoids damage to locks with projecting buttons and is packed with screw and drywall anchor.
- WS406CVX & WS407CVX meets ANSI/BHMA 156.16 L12201 for brass, L42101 for aluminum and L52101 for stainless steel.
- WS406CCV &WS407CCV meets ANSI/BHMA 156.16 L22251 for brass and L42251for aluminum, and L52251 for stainless steel.
- Finishes: US3, US4, US5, US10, US10B, US26, US26D, US28, US32D.



WS406CVX & WS407CVX



WS406CCV & WS407CCV

Product No.	Mounting Hardware	Base Diameter	Base Thickness	Overall Projection
WS406CVX	Wood screw, plastic anchor	2-1/2"	3/8"	1*
WS406CCV	Wood screw, plastic anchor	2-1/2"	3/8*	1"
WS407CVX	Screw, Drywall Anchor	2-1/2"	3/8"	1"
WS407CCV	Screw, Drywall Anchor	2-1/2"	3/8"	1'



Floor Stops - Dome

FS438 Dome Stop

- . For doors with threshold or undercut doors.
- Heavy-Duty Cast Dome Stops constructed of brass, bronze or aluminum.
- · Gray, non-marring rubber bumper.
- Packed with wood screw and plastic anchor, specify Tampin (TPN) or lead expansion shield (LS), if required.
- Meets ANSI/BHMA 156.6, L12141 for brass or bronze, L32141 for aluminum.
- Finishes: US3, US4, US5, US10, US10B, US26, US26D, US28.

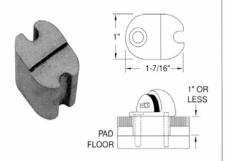
Product No.	Overall Height	Base Height	Base Diameter
FS438	1*	9/16"	1-3/4" x 2" Oval



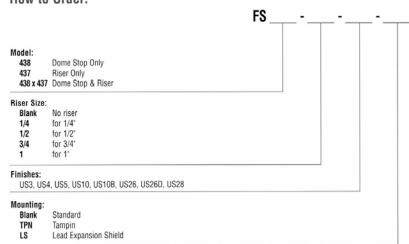
FS437 Riser

- · Extruded aluminum, mill finish.
- . For conversion of FS438 Dome Stop to carpet installation.
- Packed with wood screws, lead shield and stud.
 Specify Tampin (TPN) if required.
- Available in 1/4", 1/2", 3/4" and 1" height.

Product No.	Size	
FS437	1" x 1-7/16" Oval	



How to Order:

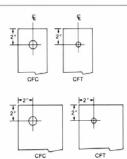




Architectural Door Trim

8200 Series Push Plates and 8300 Series Pull Plates

- Made from the finest architectural aluminum, brass, bronze and stainless steel.
- For Push Plate sizes other than listed, contact our Customer Service Department or your local sales representative.
- All aluminum, brass, bronze and stainless steel Push Plates meet ANSI A156.6 requirements for .050" thickness.
- Each Push Plate is packaged individually wrapped with mounting screws.
- For special mounting methods other than standard, see page C10.



Push and Pull Plates Cut for Cylinder or Thumbturns

- All plates may be ordered with cutout for cylinder or thumbturn. Standard cutouts are positioned 2" from top of plate and centered on plates up to 4" wide or 2" from edge on plates over 4" wide. Specify hand of door when ordering cutout for plates wider than 4".
- Standard size for cylinder cutouts is 1-1/4" diameter and for thumbturn cutout is 3/8" diameter.
- When ordering, add suffix CFC for cut for cylinder, and CFT for cut for thumbturn to product number.



8200 Push Plate 8300 Pull Plate (less pull)

Available Sizes	
3" x 12"	
3.5" x 15"	
4" x 16"	
6" x 16"	

8" x 16"

Model:

Hole Spacing: (for Pull Plate only)

Pull Plate, less pull

5 for 5-1/-

6 for 6', 8 for 8', 0 for 10"

Finishes:

300

US3, US4, US5 (3 x 12, 3-1/2 x 15 only), US10, US10B, US26, US26D, US28, US32D

Size

3 x 12, 3-1/2 x 15, 4 x 16, 6 x 16, 8 x 16

Options: (specify handing for plates over 4" wide)

Blank No cutout
CFC Cylinder cutout
CTC Thumbturn cutout

Mounting Type: Blank Standard

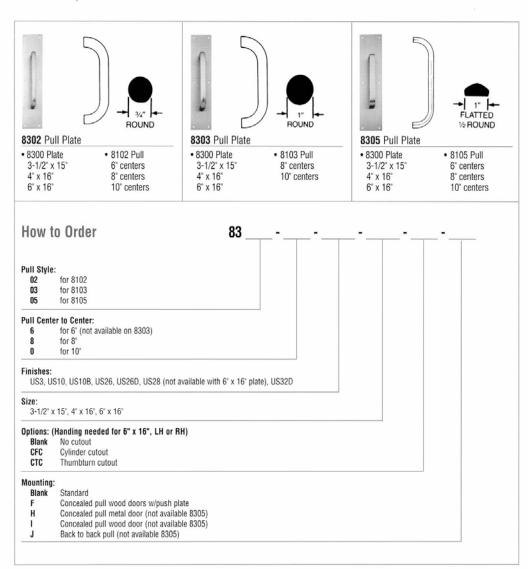
G Concealed pull (Pull Plate Only)



Architectural Door Trim

8300 Series Pull Plates

- Made from the finest architectural aluminum, brass, bronze and stainless steel.
- For Pull Plate sizes other than listed, contact our Customer Service Department or your local sales representative.
- All aluminum, brass, bronze and stainless steel Pull Plates meet ANSI A156.6 requirements for .050" thickness.
- Each Pull Plate is packaged individually wrapped with mounting screws.
- Pulls are centered on plates up to 4" wide and offset 2" from edge of plates wider than 4".
- For special mounting methods other than standard, see pages C10 and C11.



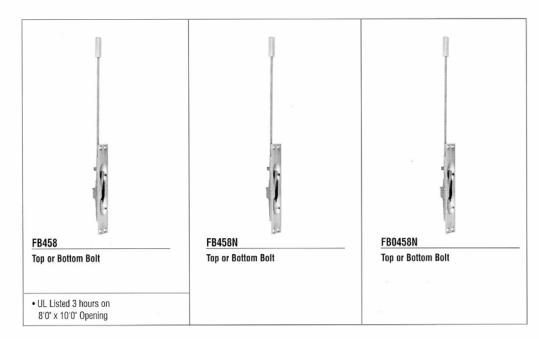


Manual Flush Bolts - Metal Doors

FB458, FB458N and FB0458N Series for Metal Doors

- When the active door is opened, the lever can be moved to the 'up'
 position, retracting the bolt and allowing the inactive leaf to be
 opened. When the inactive leaf is closed, the lever can be moved to
 the 'down' position, projecting the bolt into the strike and securely
 locking the inactive leaf.
- Simplified installation in metal frames. Round bolt head requires only a punched hole. Use of strike optional. Special design of guide and flat sided bolt tip to prevent bolt rotation.
- . FB458 UL Listed for Fire Doors.
- FB458N and FB0458N not UL Listed for Fire Doors.
- . FB0458N features 1/4" radius corners on body.
- · Non-handed

- Finishes FB458: US3, US4, US10, US10B, US26, US26D.
 FB458N and FB0458: US3, US10B, US26, US26D.
- . Bolt tip is 1/2" diameter.
- . Bolts have 3/4" throw with a bolt backset of 3/4".
- Standard Rod Length is 12", which is measured from the center of the flush bolt body to the bolt tip.
- Meets ANSI/BHMA A156.16, L04251.
- Optional Dust Proof Strikes—DP1 or DP2, prevents dirt build-up assuring full engagement of bottom bolt.
- . Optional Rod Lengths available for FB458: 6", 9", 18" and 24".
- Optional Rod Lengths available for FB458N and FB0458N: 6", 9", 18", 24", 30", 36" and 48".



Dimensions:

Body Size: 1" Wide x 6-3/4" Long x 1-1/8" Deep Guide Size: 1" Wide x 2" Long x 5/64" Thick Strike Size: 15/16" Wide x 2-1/4" Long x 5/64" Thick

Rod: 1/4-20 Threaded Rod



Manual Flush Bolts - Wood Doors

FB358 Series for Wood Doors

- When the active door is opened, the lever can be moved to the 'up' position, retracting the bolt and allowing the inactive leaf to be opened. When the inactive leaf is closed, the lever can be moved to the 'down' position, projecting the bolt into the strike and securely locking the inactive leaf.
- Reduces installation costs; requires only simple router mortise at top and bottom corners of doors.
- Door strength and rigidity maintained by tying door faces to reinforcing extensions on guide with machine screws and bearing washers.
- · UL Listed for Fire Doors
- · Non-handed
- Finishes: US3, US4, US10, US10B, US26, US26D.
- . Bolts have 3/4" throw with a 7/8" vertical adjustment.
- Meets ANSI/BHMA A156.16, L04261.
- Optional Dust Proof Strikes—DP1 or DP2, prevents dirt build-up assuring full engagement of bottom bolt.
- · Not available for rabbeted door installations.



Dimensions:

Body Size: 1" Wide x 6-3/4" Long x 1-3/8" Deep Guide Size: 1" Wide x 2-1/2" Long x 5/64" Thick Strike Size: 15/16" Wide x 2-1/4" Long x 5/64" Thick

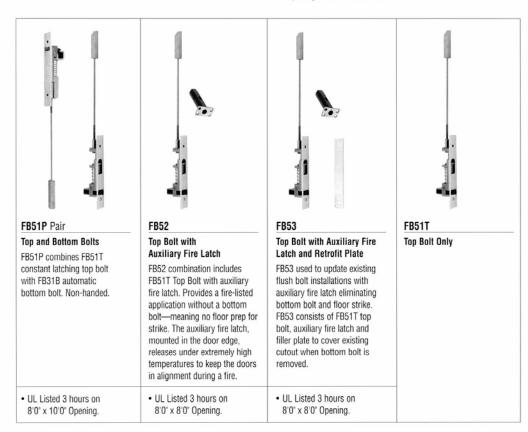


Constant Latching Flush Bolts - Metal Doors

FB50 Series for Metal Doors

- Constant Latching—inactive door remains latched until
 the active door is opened, releasing the automatic bottom
 bolt and then the top bolt can be manually released.
 Inactive door will relatch automatically.
- · Low Actuation Forces
- · UL Listed for Fire Doors.
- Fits standard ANSI A115.4 Door and Frame Preparations.
- · Non-handed
- Models with Auxiliary Fire Latch Eliminates the Bottom bolt and is UL Listed for Fire Doors.

- Finishes: US3, US4, US10, US10B, US32, US32D.
- · Finished Cover Plates permit finish changes in stock or at job site.
- . Bolts have 3/4" throw with a 7/8" vertical adjustment.
- . Meets ANSI A156.3 Type 27.
- Standard Rod Length is 12", which is measured from the center of the flush bolt body to the bolt tip.
- Optional Dust Proof Strikes—DP1 or DP2, prevents dirt build-up assuring full engagement of bottom bolt.
- Optional rod lengths available for non-fire rated openings—18", 24", 36" and 48".



Dimensions:

Body Size: 1" Wide \times 6-3/4" Long \times 2" Deep Guide Size: 1" Wide \times 1-27/32" Long \times 11/16" High \times 3/32" Thick Strike Size: 15/16" Wide \times 2-1/4" Long \times 1/16" Thick Rub Plate Size: 1-1/4" Wide \times 1-11/16" Long \times 3/64" Thick Auxiliary Fire Latch Size: 1" Wide \times 1-3/4" Long \times 3-1/4" Deep



Constant Latching Flush Bolts - Wood Doors

FB60 Series for Wood Doors

- Constant Latching—inactive door remains latched until the active door is opened, releasing the automatic bottom bolt and then the top bolt can be manually released. Inactive door will relatch automatically.
- · Low Actuation Forces
- · UL Listed for Fire Doors
- · Non-handed

- Models with Auxiliary Fire Latch eliminates the Bottom bolt and is UL Listed for Fire Doors.
- Finishes: US3, US4, US10, US10B, US32, US32D.
- · Finished Cover Plates permit finish changes in stock or at job site.
- · Bolts have 3/4" throw with a 7/8" vertical adjustment.
- . Meets ANSI A156.3 Type 27.
- Optional Dust Proof Strikes—DP1 or DP2, prevents dirt build-up assuring full engagement of bottom bolt.



Dimensions:

Body Size: 1" Wide \times 8-1/2" Long \times 2" Deep Guide Size: 1" Wide \times 6" Long \times 1/8" Thick

Strike Size: 15/16" Wide x 2-1/4" Long x 1/16" Thick Rub Plate Size: 1-1/4" Wide x 1-11/16" Long x 3/64" Thick Auxiliary Fire Latch Size: 1" Wide x 1-3/4" Long x 3-1/4" Deep



Coordinators - Bar Coordinators and Filler Bars

COR Series Bar Coordinators



- The COR Series Coordinators are designed for use on pairs of doors when one door needs to close before the other.
- All COR units function easily. The 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.
- All COR units are equipped with an override feature which allows the active door to close under extreme pressure.
- . All COR units are compatible with Flush Bolts.
- The COR Series is available in five sizes for variable door opening widths.
- The COR Series does not cover the entire length of the stop, so a filler bar can be provided to maintain architecturally clean lines.
- COR Series Coordinator Channels and fillers are made of aluminum and are normally furnished in a US28 finish. Anodized finishes to match other plated finishes: US3, US10, US10B, US26D, and 315AN (Black).
- Meets ANSI/BHMA A156.3, Type 21A.
- · UL Listed for installation on labeled frame.
- Optional Filler Bars: FL20, FL32 and FL44, available to maintain clean line.
- Optional Mounting Brackets available: MB1, MB2, MB1F, MB2F, MB3F, MB1V, MB2, and MB3V for other stop applied hardware.

Coordinator Number	Length of Channel	For Opening Widths
COR32	32"	34" - 52"
COR42	42"	52" - 72"
COR52	52"	62" - 92"
COR60	60"	70" - 108"
COR72	72"	84" - 132"

Dimensions: 1-5/8" Wide x 5/8" Deep x Ordered Length

FL Series Filler Bars

- The FL Filler Bars are available in three sizes for variable frame openings.
- FL Filler Bars are made of aluminum and are normally furnished in a US28 finish. Anodized finishes to match other plated finishes: US3, US10, US10B, US26D, and 315AN (Black).
- FL Filler Bars are field sized to frame opening.

Filler Bar Number	Length	
FL20	20*	
FL32	32"	
FL44	44"	

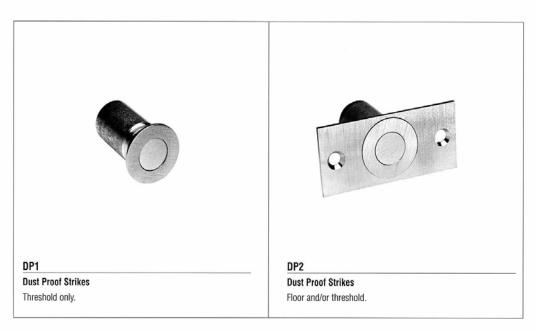
Dimensions: 1-5/8" Wide x 5/8" Deep x Ordered Length



Dust Proof Strikes

DP1 and DP2 Dust Proof Strikes

- . Designed for use with the bottom bolt of all flush bolts.
- Spring-loaded plunger returns to floor or threshold level anytime flush bolt is retracted, eliminating need to clean standard floor strikes.
- Meets ANSI/BHMA 156.16, L14011
- Finishes: US3, US4, US10, US10B, US26, US26D.



Dimensions:

DP1 Face Plate: 1-7/16" Diameter

DP2 Face Plate: 1-5/8" Wide x 3-1/2" Long x 1/8" Thick DP1 and DP2 Body: 1-3/16" Diameter x 1-7/8" Deep



90 Series Surface Overhead Door Holders/Stops



90 Series Heavy-Duty

Glynn-Johnson 90 series holders and stops are the most rugged models available for heavy-duty applications. The channel is surface-mounted to the door, most often with sex bolts, and the jamb bracket is surface mounted to the jamb, requiring minimal door and frame preparation.

These versatile units can be used in conjunction with most surface-applied door closers. The provided templates allow for variable mounting positions, ranging from 85° to 110° Hold-Open/Stop angle. These templates are designed for installation in almost all types of doors, including doors with conventional but-type hinges or specialty hinges.

Four Models:

- 90H Series Hold-Open Model
- · 90S Series Stop-Only Model
- 90F Series Friction Hold-Open Model
- 90SE Series Special Stop-Only Model

Five Sizes:

- · Simple
- · Standardized
- · Each model is available in five sizes

Three Options:

- J—Angle Jamb Bracket
- · SHIM-Blade Stop Shim Kits
- SOC—Pin-in-Socket Security Screw Package

Unmatched Convenience:

- · Non-Handed
- · Improved Compatibility with Door Closers
- · Single-Acting Doors
- Interior/Exterior Applications
- Durable
- · Easy to Install
- · Improved Corrosion Resistance
- Function Conversion Kits Available

Materials and Finishes:

In 300 series Stainless Steel, Brass and Steel substrates, these models are available in the largest selection of finishes in the industry. Stainless Steel models offer the highest resistance to corrosion. Available in the following finishes:

Finish	Description
US3	Polished Brass
US4	Satin Brass
US10	Satin Bronze
US10B	Oil Rubbed Bronze
US32	Polished Stainless Steel
US32D	Satin Stainless Steel
SP4	Powder Coat Brass
SP10	Powder Coat Bronze
SP28	Powder Coat Aluminum
SP313	Powder Coat Dark Bronze
SPBLK	Powder Coat Black
652	Chrome-like Coating

Models

Glynn-Johnson 90 series door holders and stops provide long-lasting protection for doors, frames and hardware. All models incorporate a heavy-duty channel/slide-arm design and offset jamb bracket. This unique design allows for simple field modification of functions, should user requirements change.

90H Series Hold-Open

(Suffix H) Hold-Open models provide a convenient method of holding the door open at a predetermined position for short or long periods of time, permitting an unobstructed traffic flow through the opening. The Hold-Open function can easily be turned on or off by simply rotating the serrated knob on the bottom of the channel. This knob engages the Hold-Open mechanism, allowing the door to be held open at a predetermined position ranging from 85° to 110°. When the knob is flipped over, it acts as a stop and shock absorber.

The tension on the Hold-Open mechanism can be adjusted using a phillips screwdriver to offset air currents or other exterior conditions. The Hold-Open tension adjustment is located on the top of the slider in the channel.

90S Series Stop-Only

(Suffix S) When the Hold-Open function is not a requirement, Stop-Only models provide a reliable method of door control. Stop-Only models provide the same shock-absorbing capability as Hold-Open models. The Stop-Only model may be used on fire door.

90F Series Friction Hold-Open

(Suffix F) Friction Hold-Open models are ideal for patient room doors, wardrobe and closet doors or similar applications where multiple Hold-Open positions are desired. The friction tension can be adjusted through the top of the channel using an allen wrench. The friction tension adjustment is located on the top of the slider in the channel

450 Series Surface Overhead Door Holders/Stops



450 Series Medium-Duty

Glynn-Johnson provides the most complete line of overhead holders and stops, offering solutions for the most demanding door control problems. These surface-mounted holders and stops offer the widest variety of functions, materials and finishes to fit all medium- to light-duty applications.

Glynn-Johnson 450 scries holders and stops provide reliable and versatile surface-mounted overhead door control for all medium to light-duty applications. The visible components are available in a wide variety of architectural finishes to complement any design. The 450 series holders and stops are designed for installation in virtually all types of doors and frames including doors with conventional butt hinges, offset pivots, continuous hinges, swing clear hinges and many other specialty hinges. The templates provided allow for variable mounting positions, ranging from 85° - 110° of opening.

Four Models:

- 450H Series Hold-Open Model
- 450S Series Stop-Only Model
- 450F Series Friction Hold-Open Model
- · 450SE Series Special Stop-Only Model

Five Sizes:

- · Simple
- · Standardized
- · Each model is available in five sizes

Three Options:

- · J-Angle Jamb Bracket
- · SHIM-Blade Stop Shim Kit
- · SOC-Pin-in-Socket Security Screw Package

Unmatched Convenience:

- · Non-Handed
- · Improved Compatibility with Door Closers
- · Improved Jamb Bracket Design
- Single Acting Doors
- · Interior Applications
- · Durable
- · Easy to Install
- · Improved Corrosion Resistance

Materials and Finishes:

In Brass, 300 series stainless steel or steel, these models offer the broadest range of finishes in the industry to complement any design. Brass and Stainless Steel offer the highest resistance to corrosion, while all these base materials are suitable for normal interior use

<u>Finish</u>	Description
US3	Polished Brass
US4	Satin Brass
US10	Satin Bronze
US10B	Oil Rubbed Bronze
US32	Polished Stainless Steel
US32D	Satin Stainless Steel
SP4	Powder Coast Brass
SP10	Powder Coat Bronze
SP28	Powder Coat Aluminum
SP313	Powder Coat Dark Bronze
SPBLK	Powder Coat Black
652	Chrome-like Coating

Models

Glynn-Johnson 450 series holders and stops are designed for medium to light-duty applications. They're ideal for openings that are subject to normal activity, providing protection for the door, frame, hinges and surrounding walls or obstructions.

Designed for improved compatibility with most door closers, all models incorporate popular channel/slide arm design and offset jamb brackets. The improved design makes it easier to change functions in the field, should user requirements change.

450H Series Hold-Open

(Suffix H) These models conveniently hold doors open at a predetermined position, permitting unobstructed traffic flow.

These models feature an adjustable automatic Hold-Open that is activated when the door is opened to a preset angle. The Hold-Open tension can be adjusted using an allen wrench through the end of the slider located in the channel at the top of the door. Each meets the 250,000 test cycles required for Grade 1 classification.

450\$ Series Stop-Only

(Suffix S) When the Hold-Open function is not required, the Stop-Only function provides the same effective door control without keeping the door held open. The Stop-Only model may be used on fire doors.

450F Series Friction Hold-Open

(Suffix F) Friction Hold-Open models provide an alternative holding method ideal for patient room doors, wardrobe or closet doors, or similar applications where multiple Hold-Open positions are desired. The friction tension can be adjusted using an allen wrench on the slider located in the channel at the top of the door.