

*Advanced Door Control Solutions, Inc.*

And

*Colorado Door Control, Inc.*

(A division of Advanced Door Control Solutions, Inc.)

~~~~~  
**PIVOTS – HINGES**  
**THRESHOLDS**  
**WEATHERING**  
~~~~~

Call Us At:

*Advanced Door Control  
Solutions, Inc.*

1-800-473-6781

Fax: 815-872-1445

*Colorado Door Control, Inc.*

1-800-587-2611

Fax: 1-970-587-5409

Website: [www.advdoor-inc.com](http://www.advdoor-inc.com)

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# ***Advanced Door Control Solutions, Inc.***

And

## ***Colorado Door Control, Inc.***

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### **Sales Policy**

#### **Terms**

Net 30 days from date of invoice. Once your account reaches 60 days past the date of invoice, your account will be subject to C.O.D. at our discretion.

New account orders will be shipped C.O.D. or by credit card until credit has been approved. Once approved, customers will be notified and the above terms will then apply.

If we receive your check and it is not honored by our bank or it is returned to us as NSF, your account will be subject to a \$50.00 service fee.

#### **Returned Goods Policy**

Returned products suitable for resale will be credited to your account less a restocking fee of 25% of the product net value. Returned products which are damaged may be assessed further charges. Freight charges for product returns are to be prepaid by the customer. Credit memos must be used towards the account balance unless approved by authorized personnel.

#### **Limited Warranty**

Advanced Door Control Solutions, Inc. and Colorado Door Control, Inc. warrant that their products are free from defects in workmanship and material under normal use and service. This warranty does not cover defects and/or damages due to improper installment, maintenance, storage, shipping and handling, misuse, abuse, accident, acts of God, or unauthorized service.

# ***Advanced Door Control Solutions, Inc.***

And

## ***Colorado Door Control, Inc.***

(A division of Advanced Door Control Solutions, Inc.)

### **Who We Are**

We would like to introduce ourselves here at Advanced Door Control Solutions, Inc. and Colorado Door Control, Inc. and let you know we will be here to provide the most complete information source in the industry. With over 100 years of combined experience in the commercial door hardware business and with connections all over the United States, we have the ability to do whatever it takes to make sure that you're satisfied.

Established February 2008, Advanced Door Control Solutions, Inc. was given life by a vision and determination of Don Nordstrom and sons Tim, Sr., Mark and Dave with Colorado Door Control, Inc. being a division of Advanced Door Control Solutions, Inc.

From the hard to find rebuilt door closers, Advanced Door Control Solutions, Inc. and Colorado Door Control, Inc. will everyday strive to provide the best service and the best quality, all at the best pricing available in the market. Give us a try. We'd love to prove it to you.

# ROTON

## CONTINUOUS GEAR HINGES



**780-224**

**780-224 HD**

**780-224 LL**

### LOAD AND FREQUENCY RATINGS

**STANDARD DUTY** — Medium frequency  $1\frac{3}{4}$ " doors to 200 lbs.

**HEAVY DUTY** — High frequency or heavy medium frequency  $1\frac{3}{4}$ " doors.

### DOOR TYPE

Any Material

### CLEARANCE

$1\frac{1}{32}$ " Leaf Clearance plus standard lockside clearance

### FASTENERS

Thread Forming

### FIRE RATING

Up to  $1\frac{1}{2}$  hours (see additional information in front of catalog)  
(Specify "FF")

### FINISH OPTIONS

All

### LENGTH OPTIONS

Standard and Custom

### DOOR REINFORCEMENT

None to 200 lbs.

Use 16 gauge channel at higher weight

### FRAME REINFORCEMENT

None to 200 lbs.

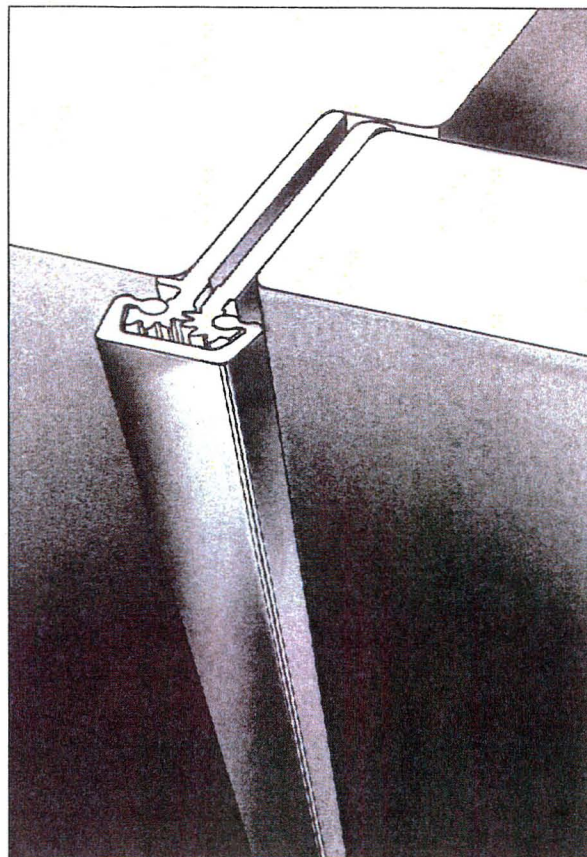
Use 16 gauge channel at higher weight

### SPECIAL FEATURES

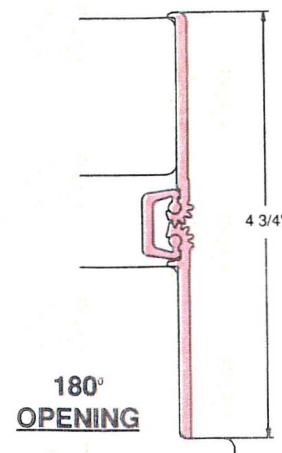
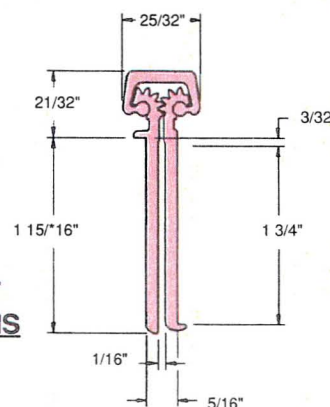
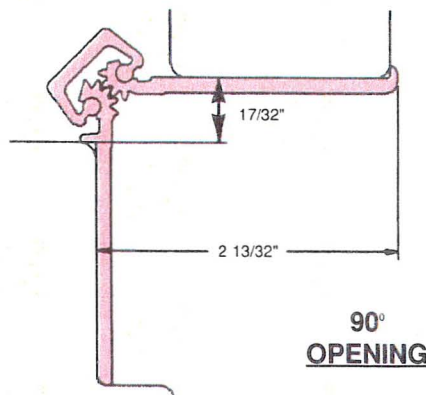
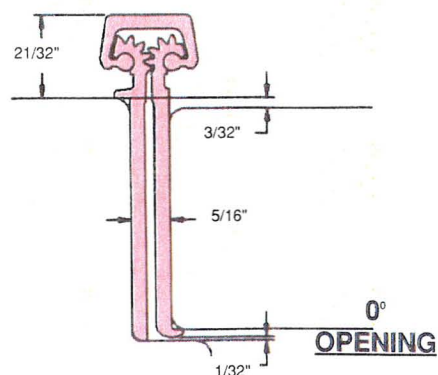
Lead lined model for hospital x-ray doors with double row of screws to straddle head (Specify "LL")

Door edge protection lip

$\frac{3}{32}$ " door inset



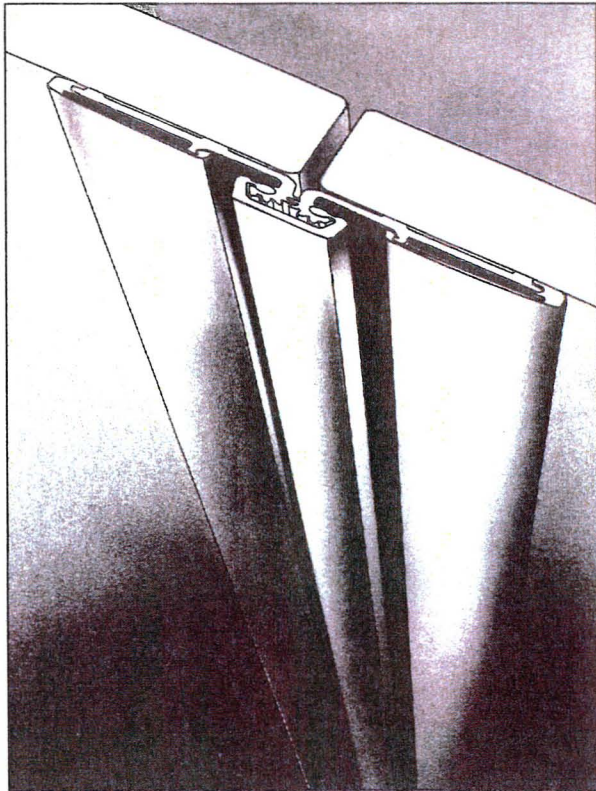
### PRODUCT DIMENSIONS



**"EVERYTHING HINGES ON HAGER"**



# ROTON CONTINUOUS GEAR HINGES



## 780-057 780-057 HD

### LOAD AND FREQUENCY RATINGS

**STANDARD DUTY** — Medium frequency doors to 200 lbs.

**HEAVY DUTY** — High frequency or heavy medium frequency doors.

### DOOR TYPE

Any Material

### CLEARANCE

None required for hinge side

### FASTENERS

Thru Bolts

### FINISH OPTIONS

All

### LENGTH OPTIONS

Standard and Custom

### DOOR REINFORCEMENT

None

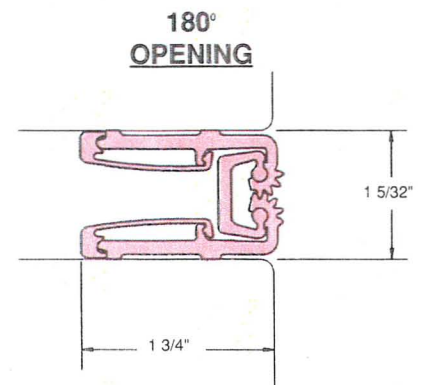
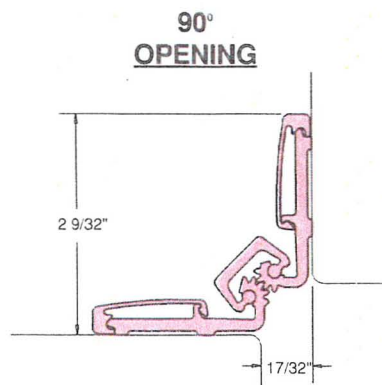
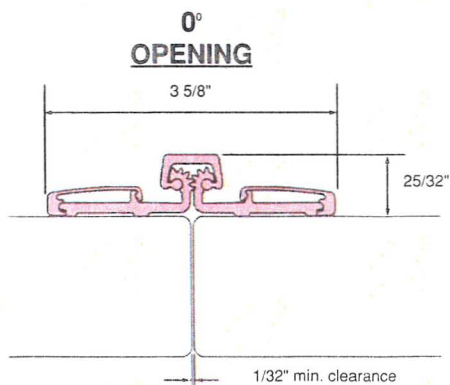
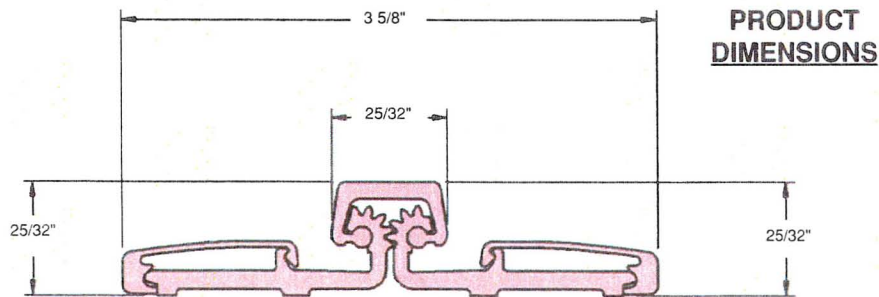
### FRAME REINFORCEMENT

None

### SPECIAL FEATURES

Bifold applications

Security Moldings



**"EVERYTHING HINGES ON HAGER"**



# ROTON CONTINUOUS GEAR HINGES



## 780-157 780-157 HD

### LOAD AND FREQUENCY RATINGS

**STANDARD DUTY** — Medium frequency doors to 200 lbs.

**HEAVY DUTY** — High frequency or heavy medium frequency doors.

### DOOR TYPE

Any Material

### CLEARANCE

None required

### FASTENERS

Drill Quick x Thru Bolts

### FINISH OPTIONS

All

### LENGTH OPTIONS

Standard and Custom

### DOOR REINFORCEMENT

None

### FRAME REINFORCEMENT

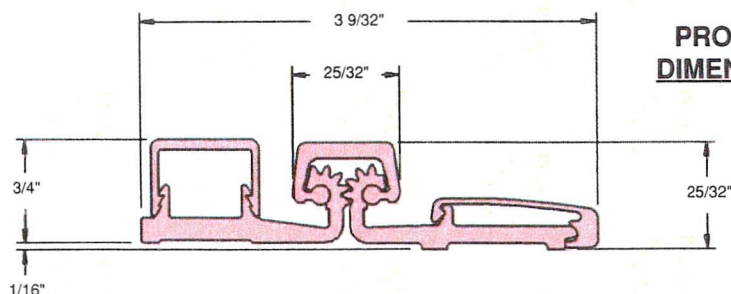
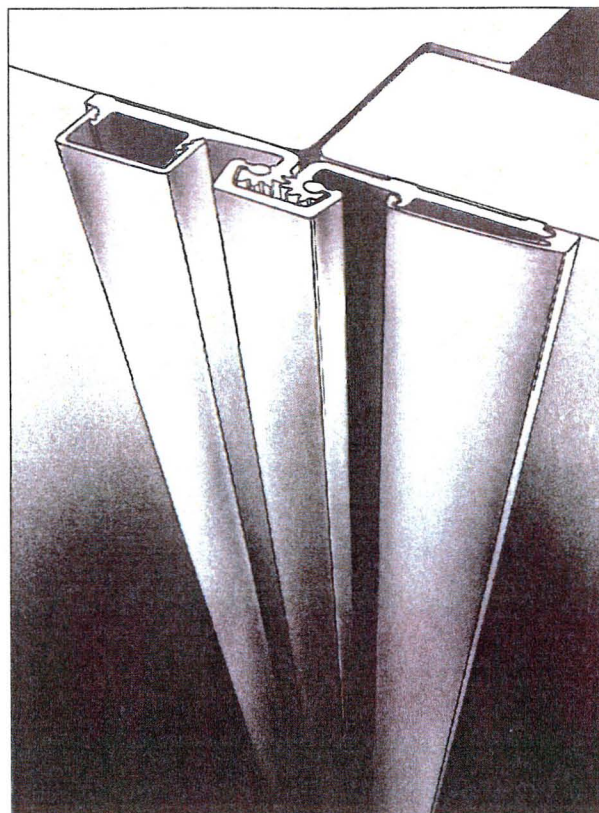
None required to 200 lbs.

Use 16 gauge channel at higher weight

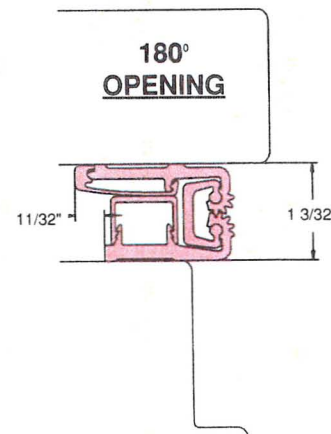
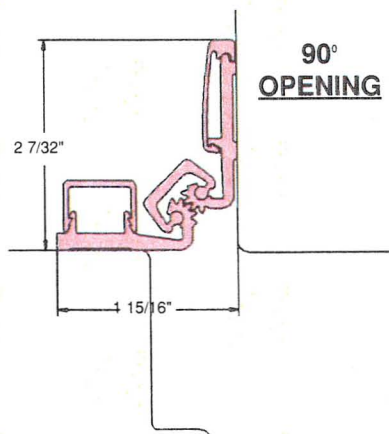
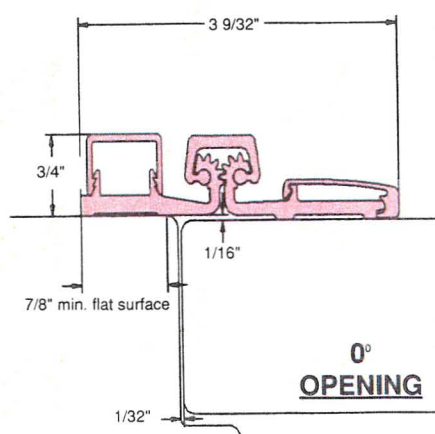
### SPECIAL FEATURES

For surface applications where frame face dimension is limited

Security Molding



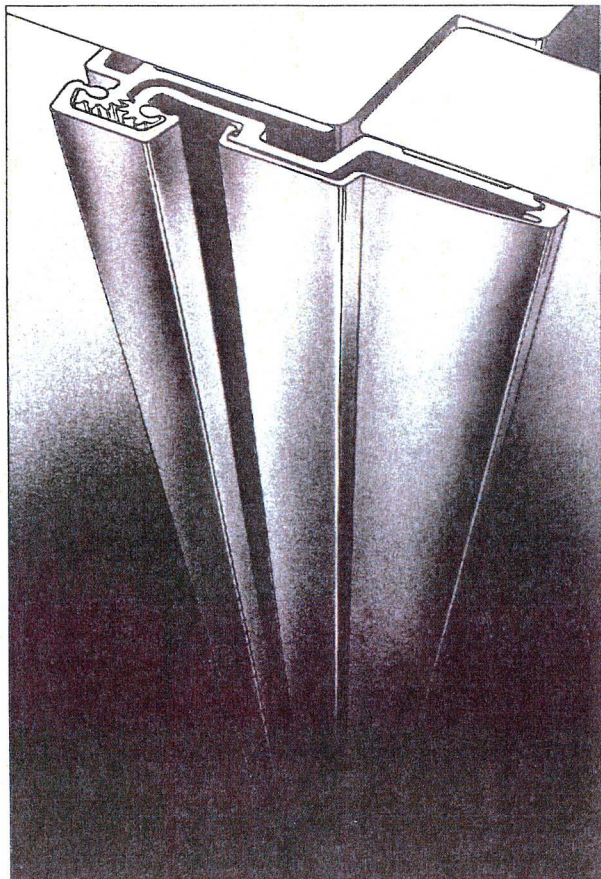
**PRODUCT  
DIMENSIONS**



**"EVERYTHING HINGES ON HAGER"**



# ROTON CONTINUOUS GEAR HINGES



**780-210**

**780-210 HD**

**LOAD AND FREQUENCY RATINGS**

**STANDARD DUTY** — Medium frequency doors to 200 lbs.

**HEAVY DUTY** — High frequency or heavy medium frequency doors.

**DOOR TYPE**

Any Material

**CLEARANCE**

None required

1 5/8" Minimum frame face required plus 3/16" rotational clearance

**FASTENERS**

Thread Forming x Thru Bolts

**FINISH OPTIONS**

All

**LENGTH OPTIONS**

Standard and Custom

**DOOR REINFORCEMENT**

None

**FRAME REINFORCEMENT**

None required to 200 lbs.

Use 16 gauge channel at higher weight

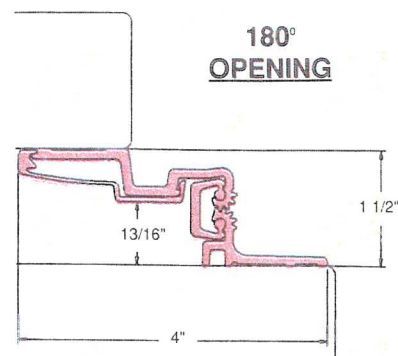
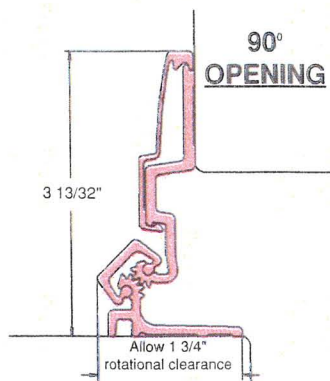
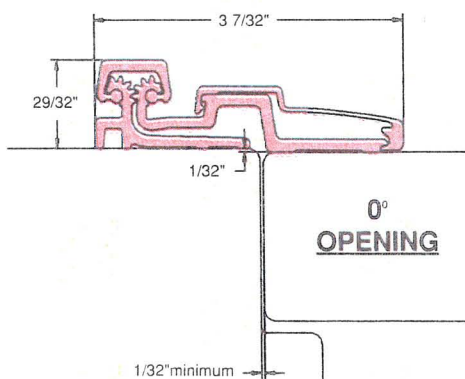
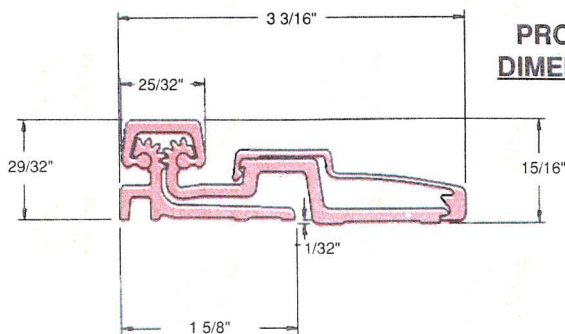
**SPECIAL FEATURES**

"Zero Clearance" required for hinge side

Can be used with any door and frame material

Security Molding

**PRODUCT  
DIMENSIONS**



**"EVERYTHING HINGES ON HAGER"**



# ROTON CONTINUOUS GEAR HINGES



## 780-257 HD

### LOAD AND FREQUENCY RATINGS

**HEAVY DUTY** — High frequency or heavy medium frequency doors.

### DOOR TYPE

Any Material

### CLEARANCE

7/8" to 2 1/4" Mullion width

### FASTENERS

Thread Forming x Thru Bolts

### FINISH OPTIONS

All

### LENGTH OPTIONS

Standard and Custom

### DOOR REINFORCEMENT

None

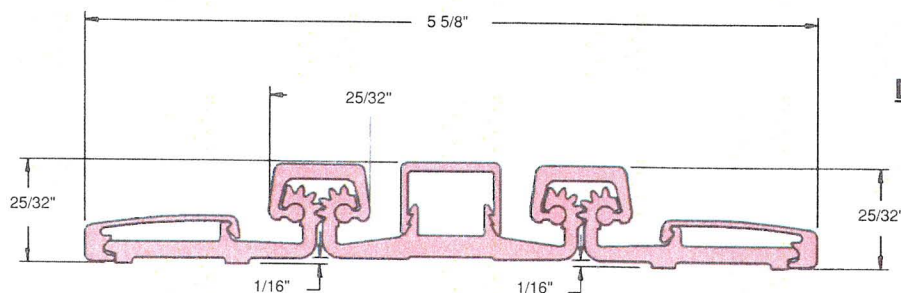
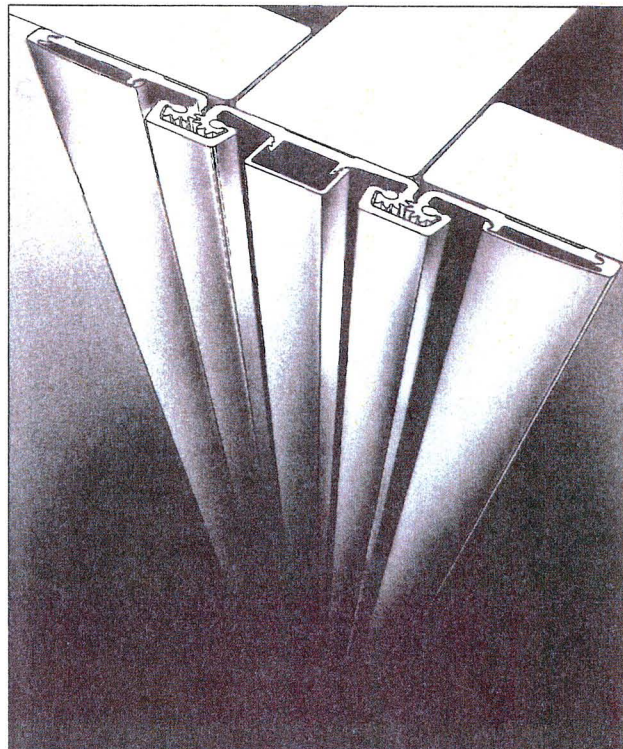
### FRAME REINFORCEMENT

None required to 200 lbs.

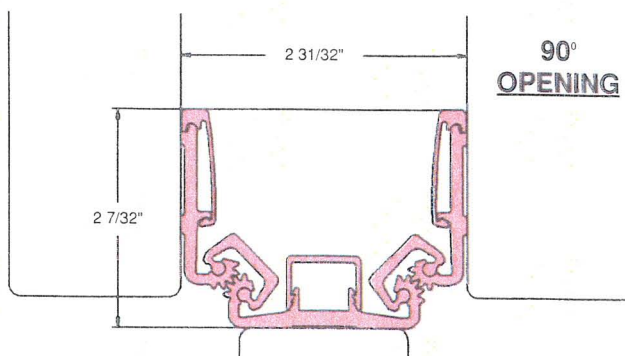
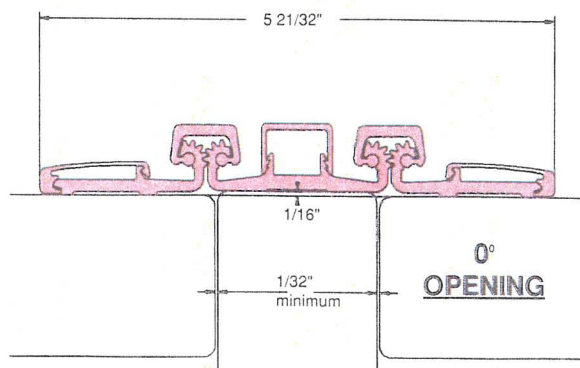
Use 16 gauge channel at higher weight

### SPECIAL FEATURES

Double hinge for hanging two entrance doors from a fixed mullion  
Security Molding

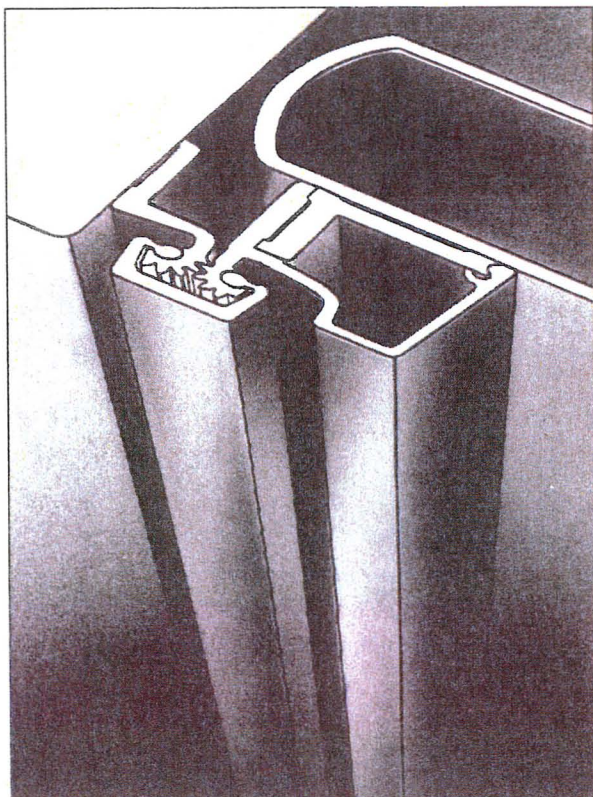


**PRODUCT  
DIMENSIONS**





# ROTON CONTINUOUS GEAR HINGES



## 780-300 HD

### LOAD AND FREQUENCY RATINGS

**HEAVY DUTY** — High frequency or heavy medium frequency center-hung doors

### DOOR TYPE

Any Material

### CLEARANCE

None required

3/4" Minimum inset

### FASTENERS

Self Drilling Pan Head

### FINISH OPTIONS

All

### LENGTH OPTIONS

Standard and Custom

### DOOR REINFORCEMENT

None required to 200 lbs.

Use 16 gauge channel at higher weight

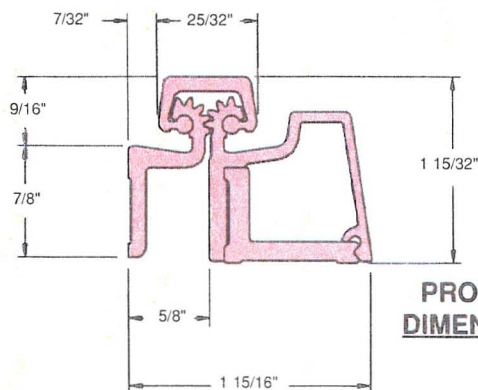
### FRAME REINFORCEMENT

None required to 200 lbs.

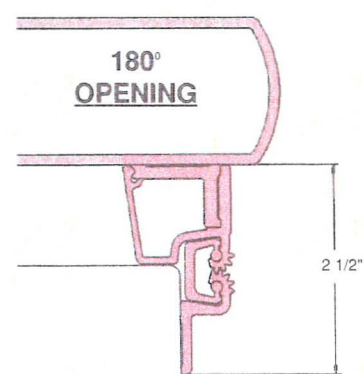
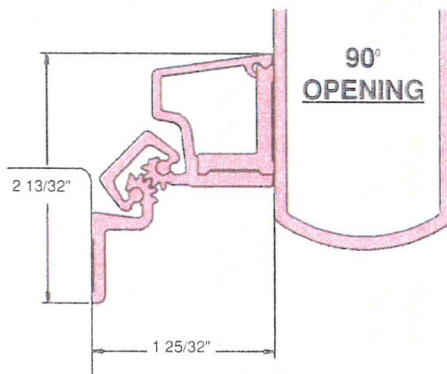
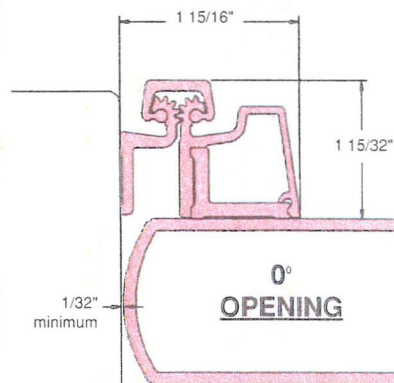
Use 16 gauge channel at higher weight

### SPECIAL FEATURES

For Center-Hung door application



### PRODUCT DIMENSIONS

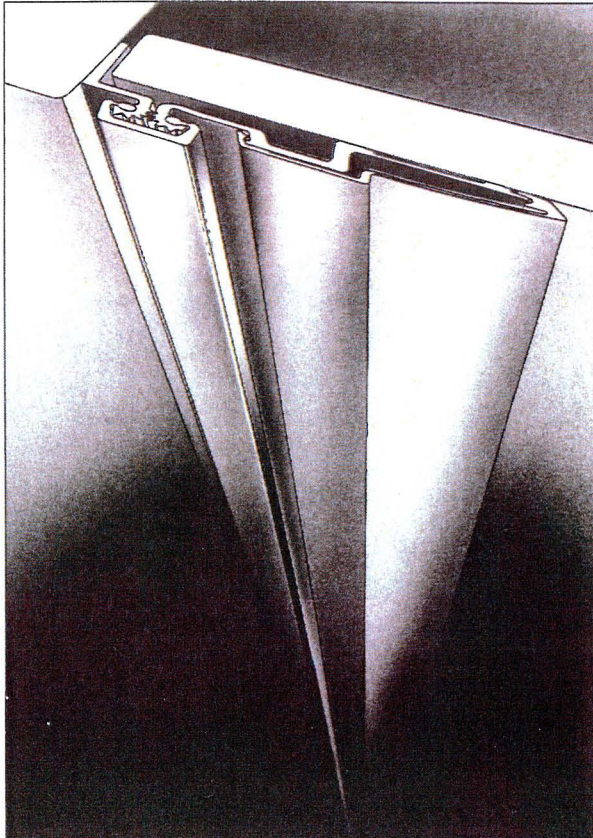


**"EVERYTHING HINGES ON HAGER"**





# ROTON CONTINUOUS GEAR HINGES



**780-213**

**780-213 HD**

**LOAD AND FREQUENCY RATINGS**

**STANDARD DUTY** — Medium frequency doors to 200 lbs.

**HEAVY DUTY** — High frequency or heavy medium frequency doors

**DOOR TYPE**

Any Material

**CLEARANCE**

5/32" frame leaf thickness (1/8" min.) plus standard lockside clearance

**FASTENERS**

Thru Bolts x Thread Forming

**FINISH OPTIONS**

All

**LENGTH OPTIONS**

Standard and Custom

**DOOR REINFORCEMENT**

None

**FRAME REINFORCEMENT**

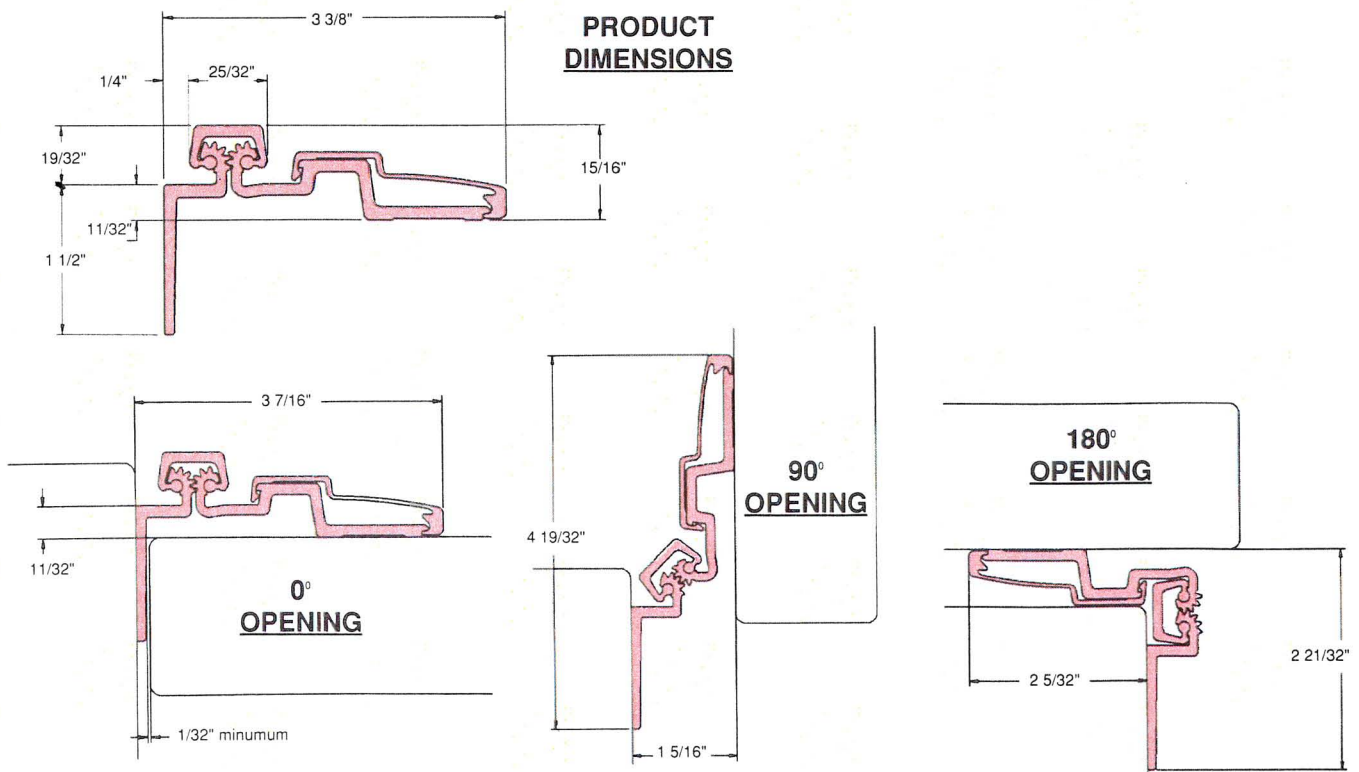
None required to 200 lbs.

Use 16 gauge channel at higher weight

**SPECIAL FEATURES**

For center-hung doors where large edge radii or finger guards require a long reach.

Security Molding



# 7200 Series Pivot Selection Chart

| Pivot Set    | UL Rating | Top Pivot                    | Bottom Pivot | Bottom Pivot Mounting | Recommended Intermediate Pivot | 3/4" Offset | 1-1/2" Offset | Center Hung | Max Door Weight | Handed |
|--------------|-----------|------------------------------|--------------|-----------------------|--------------------------------|-------------|---------------|-------------|-----------------|--------|
| <b>7212</b>  | None      | 7212-7215-7222-7226-7227 TOP | 7212 BTM     | Jamb Mounted          | 7212-7212V-7222 INT            | Yes         |               |             | 200             | Yes    |
| <b>7212V</b> | None      | 7212V TOP                    | 7212 BTM     | Jamb Mounted          | 7212-7212V-7222 INT            | Yes         |               |             | 200             | Yes    |
| <b>7215</b>  | 20 min    | 7212-7215-7222-7226-7227 TOP | 7215 BTM     | Jamb Mounted          | 7215-7226-7227 INT             | Yes         |               |             | 500             | Yes    |
| <b>7215F</b> | 3 hr      | 7215F-7226F-7227F TOP        | 7215F BTM    | Jamb Mounted          | 7215F-7226F-7227F INT          | Yes         |               |             | 500             | Yes    |
| <b>7222</b>  | None      | 7212-7215-7222-7226-7227 TOP | 7222 BTM     | Floor Mounted         | 7212-7212V-7222 INT            | Yes         |               |             | 200             | Yes    |
| <b>7226</b>  | 20 min    | 7212-7215-7222-7226-7227 TOP | 7226 BTM     | Floor Mounted         | 7215-7226-7227 INT             | Yes         |               |             | 600             | No     |
| <b>7226F</b> | 3 hr      | 7215F-7226F-7227F TOP        | 7226F BTM    | Floor Mounted         | 7215F-7226F-7227F INT          | Yes         |               |             | 600             | No     |
| <b>7227</b>  | 20 min    | 7212-7215-7222-7226-7227 TOP | 7227 BTM     | Mortised Cement Case  | 7215-7226-7227 INT             | Yes         |               |             | 700             | No     |
| <b>7227F</b> | 3 hr      | 7215F-7226F-7227F TOP        | 7227 BTM     | Mortised Cement Case  | 7215F-7226F-7227F INT          | Yes         |               |             | 700             | No     |
| <b>7230F</b> | 3 hr      | 7230F-7237F TOP              | 7230F BTM    | Floor Mounted         | 7230F-7237F INT                | Yes         |               |             | 1000            | No     |
| <b>7237F</b> | 3 hr      | 7230F-7237F TOP              | 7237F BTM    | Mortised Cement Case  | 7230F-7237F INT                | Yes         |               |             | 1750            | No     |
| <b>7244F</b> | 3 hr      | 7244F-7245F TOP              | 7244F BTM    | Floor Mounted         | 7244F-7245F INT                |             | Yes           |             | 400             | No     |
| <b>7245F</b> | 3 hr      | 7244F-7245F TOP              | 7245F BTM    | Mortised Cement Case  | 7244F-7245F INT                |             | Yes           |             | 500             | No     |
| <b>7253</b>  | None      | 7253-7255-7255J-7256 TOP     | 7253 BTM     | Floor Mounted         | None                           |             |               | Yes         | 300             | No     |
| <b>7255</b>  | None      | 7253-7255-7255J-7256 TOP     | 7255 BTM     | Floor Mounted         | None                           |             |               | Yes         | 500             | No     |
| <b>7255J</b> | None      | 7253-7255-7255J-7256 TOP     | 7255J BTM    | Jamb Mounted          | None                           |             |               | Yes         | 500             | No     |
| <b>7256</b>  | None      | 7253-7255-7255J-7256 TOP     | 7256 BTM     | Mortised Cement Case  | None                           |             |               | Yes         | 600             | No     |
| <b>7259</b>  | None      | 7259 TOP                     | 7259 BTM     | Mortised Cement Case  | None                           |             |               | Yes         | 1000            | No     |



# 7200 Series Pivots

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## General Information:

- Complete line of 3/4" offset, 1-1/2" offset, center hung, intermediate and power transfer pivots with all exposed parts made of brass or stainless steel for maximum corrosion resistance.
- High strength brass and stainless steel forgings, and castings for rated and non-rated doors combined with precision bearings for smooth operation.
- Stainless steel machine screws and wood screws standard.
- Positive locking vertical adjustment mechanism allows the installer to precisely position the door and balance the load.
- Last digit in pivot set number reflects the maximum door weight in hundreds of pound, e.g., 7215 = 500 pounds. For sets designated as "heavy duty", add 1,000 pounds, e.g., 7237F HD set = 1700 pounds.
- Pivots for lead lined doors are available, consult factory.
- See page B4 for Pivot Selection Chart.

## Finishes:

| Description   | Finish | BHMA |
|---|--------|------|
| <b>Powder-Coated Finishes (Available on all models)</b>                       |        |      |
| Aluminum  | SP28   | 689  |
| Black   | SPBLK  | 622  |
| Dark Bronze   | SP313  | 695  |
| Brass   | SP4    | 706  |
| Bronze  | SP10   | 691  |
| <b>Plated Finishes (Available on all models except "F—Fire-Rated" models)</b> |        |      |
| Polished Brass  | US3    | 605  |
| Satin Brass   | US4    | 606  |
| Satin Bronze  | US10   | 612  |
| Oil-Rubbed Bronze   | US10B  | 613  |
| Polished Chromium Plated  | US26   | 625  |
| Satin Chromium Plated   | US26D  | 626  |
| <b>Plated Finishes (Available on "F—Fire-Rated" models)</b>                   |        |      |
| Polished Brass on Stainless Steel   | US3    | 632  |
| Plated Satin Bronze on Stainless Steel  | US10   | 639  |
| Polished Stainless Steel  | US32   | 629  |
| Satin Stainless Steel   | US32D  | 630  |

## Optional Finishes:

Consult factory for availability.

Special powder-coated finishes are available.

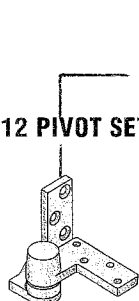


# 7200 Series Pivots - Overview

## 3/4" Offset Pivots - 200 Lb. Doors

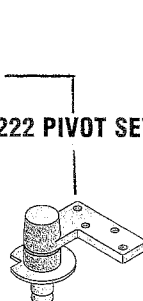
7212-7215-7222-7226-7227 Top Pivot

7212 PIVOT SET



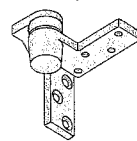
7212  
Bottom Pivot

7222 PIVOT SET

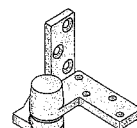


7222  
Bottom Pivot

7212V Top Pivot

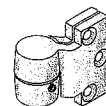


7212V PIVOT SET



7212  
Bottom Pivot

Optional



7212-7212V-7222  
Intermediate Pivot

## 3/4" Offset Pivots - Standard and Fire-Rated - 500 to 700 Lb. Doors

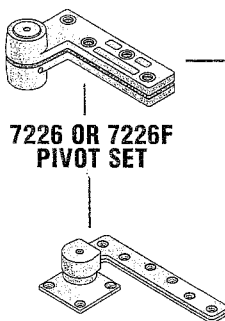
7212-7215-7222-7226-7227 Top Pivot  
7215F-7226F-7227F Top Pivot

7215 OR 7215F  
PIVOT SET



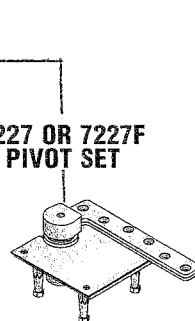
7215 Bottom Pivot  
7215F Bottom Pivot

7226 OR 7226F  
PIVOT SET



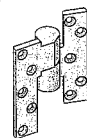
7226-Bottom Pivot  
7226F-Bottom Pivot

7227 OR 7227F  
PIVOT SET

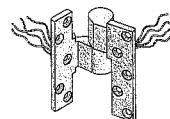


7227-7227F-Bottom Pivot

Optional



7215-7226-7227  
Intermediate Pivot  
7215F-7226F-7227F  
Intermediate Pivot

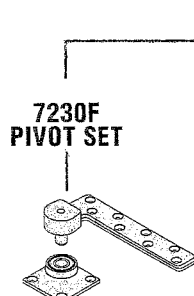


7215-7226-7227PT  
Power Transfer  
Intermediate Pivot

## 3/4" Offset Pivots - Fire-Rated - 1000 to 1750 Lb. Doors

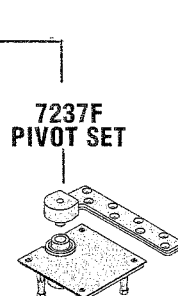
7230F-7237F Top Pivot

7230F  
PIVOT SET



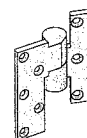
7230F  
Bottom Pivot

7237F  
PIVOT SET



7237F  
Bottom Pivot

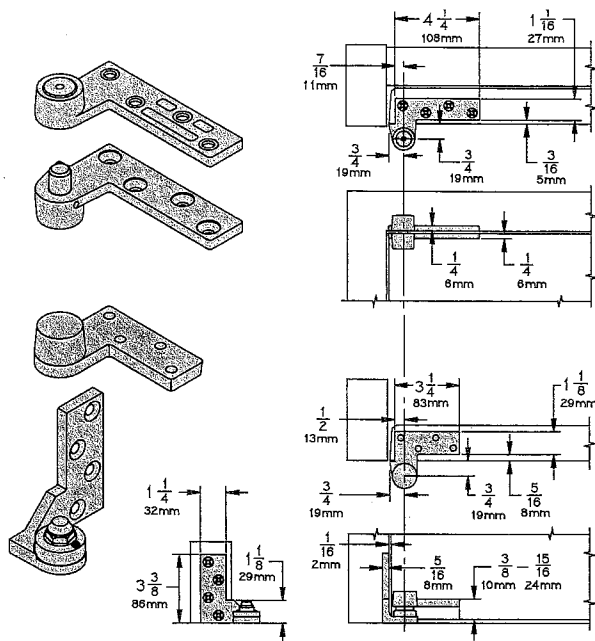
Optional



7230F-7237F  
Intermediate Pivot

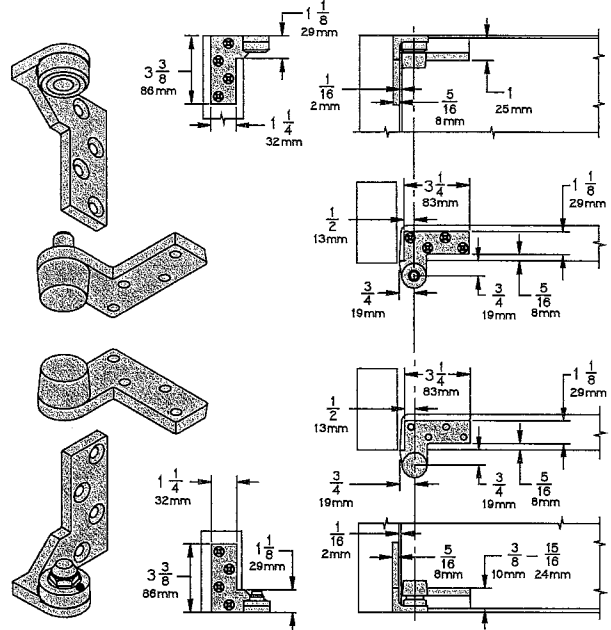


# 7212 & 7212V 3/4" Offset



## 7212 Pivot Set

- Handed 3/4" offset pivot set consisting of a jamb mounted 7212 Bottom Pivot (handed), and a head frame mounted 7212 Top Pivot (non-handed).
- Door Thickness minimum 1-3/4" (44mm), bevel 1/8" (3mm) in 2" (51mm).
- Center Line Offset 3/4" (19mm) from face of door and 3/4" from edge of door.
- Maximum Load 200 pounds (91 kg).
- Vertical Adjustment Range of 3/16" (5mm), which includes a positive locking feature.
- Optional 7212 Intermediate Pivot (handed) carries up to an additional 100 pounds (45.5 kg) load or needed for doors over 7'. See page B14.



## 7212V Pivot Set

- Handed 3/4" offset pivot set consisting of a jamb mounted 7212 Bottom Pivot (handed), and a jamb mounted 7212V Top Pivot (handed).
- Door Thickness minimum 1-3/4" (44mm), bevel 1/8" (3mm) in 2" (51mm).
- Center Line Offset 3/4" (19mm) from face of door and 3/4" from edge of door.
- Maximum Load 200 pounds (91 kg).
- Vertical Adjustment Range of 3/16" (5mm), which includes a positive locking feature.
- Optional 7212 intermediate Pivot (handed) carries up to an additional 100 pounds (45.5 kg) load or needed for doors over 7'. See page B14.

## How to Order:

7212 - - - -

### Mounting Type:

- Blank** Head frame mounted to pivot  
**V** Jamb mounted top pivot

### Pivot Style:

- Blank** Top and bottom set  
**TOP** Top pivot only  
**BTM** Bottom pivot only  
**INT** Intermediate pivot

### Handing:

- LH** Left-hand door  
**RH** Right-hand door

### Finishes:

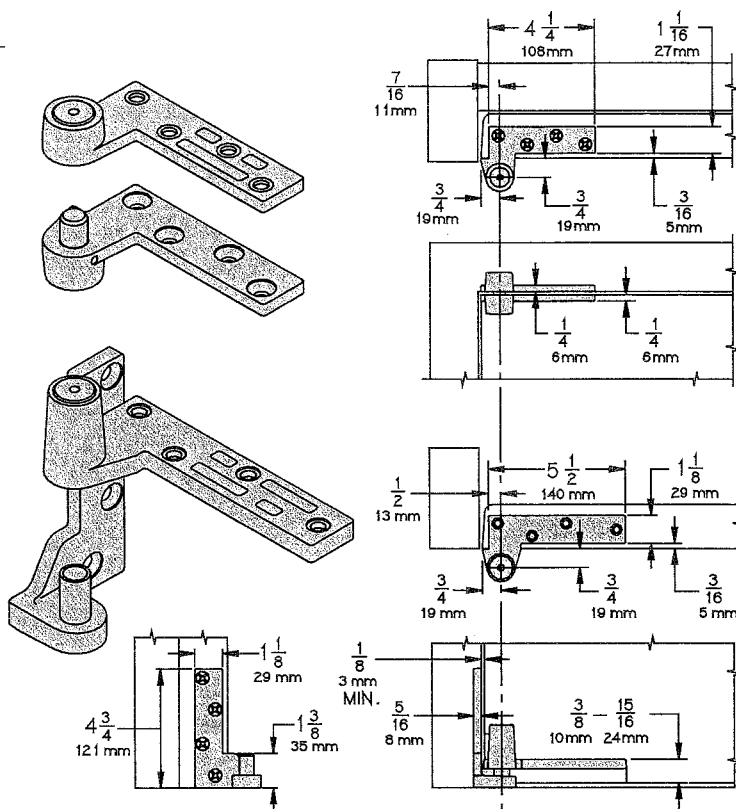
US3, US4, US10, US10B, US26, US26D, SP4, SP10, SP28, SP313, SPBLK



# 7215 & 7215F 3/4" Offset

## 7215 or 7215F Pivot Sets

- Handed 3/4" offset pivot set consisting of a jamb mounted 7215 or 7215F Bottom Pivot (handed) and a head frame mounted 7215 or 7215F Top Pivot, (non-handed).
- Door Thickness minimum 1-3/4" (44mm), bevel 1/8" (3mm) in 2" (51mm).
- Center Line Offset 3/4" (19mm) from face of door and 3/4" from edge of door.
- Maximum Load 500 pounds (227 kg).
- UL Listed  
7215 for 20 minute rated door.  
7215F for 3 hour rated door.
- 7215F meets ANSI/BHMA Grade 1.
- Vertical Adjustment Range of 3/16" (5mm), which includes a positive locking feature.
- Optional Intermediate Pivot  
For 7215 set use 7215 Intermediate Pivot (handed).  
For 7215F set use 7215 Intermediate Pivot (handed).  
Each Intermediate Pivot carries up to an additional 100 pounds (45.5 kg) load or needed for doors over 7'. See page B14.
- Optional 7215 PT Power Transfer Intermediate Pivot (handed). Provides 4 wire transfer with no weight bearing capabilities. See page B20.



## How to Order:

7215 - - -

### Rating:

**Blank** Non-fire-rated  
**F** Fire-rated

### Pivot Style:

**Blank** Top and bottom set  
**TOP** Top pivot only  
**BTM** Bottom pivot only  
**INT** Intermediate pivot only  
**PT INT** Power transfer intermediate pivot only

### Handing:

**LH** Left-hand door  
**RH** Right-hand door

### Finishes:

**Non-Fire-Rated** US3, US4, US10, US10B, US26, US26D, SP4, SP10, SP28, SP313, SPBLK  
**Fire-Rated** US3, US10, US32, US32D, SP4, SP10, SP28, SP313, SPBLK



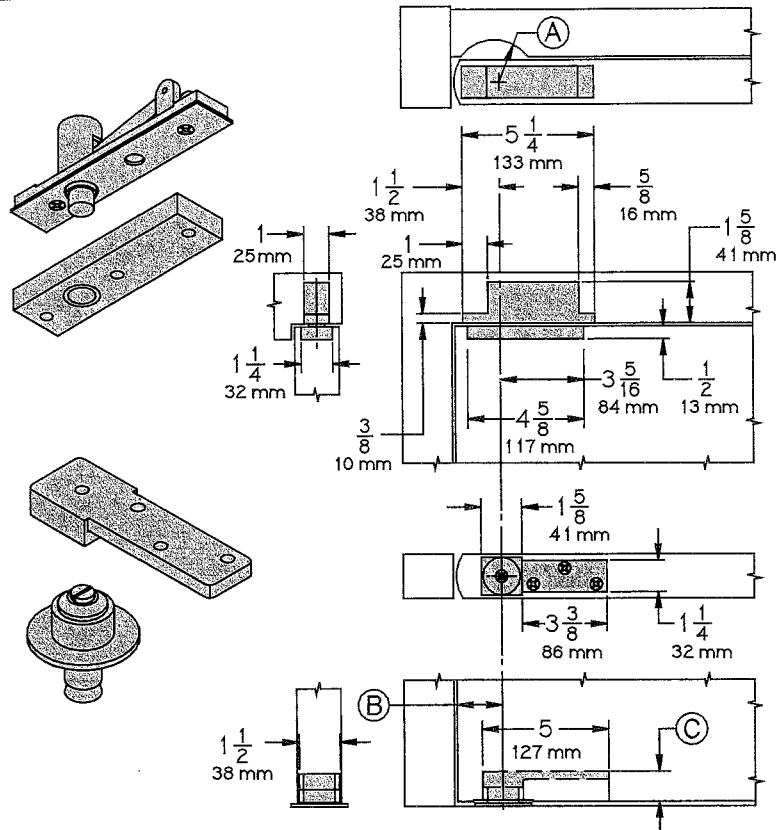
# 7253 Center Hung Pivot Set

## 7253 Pivot Set

- Center hung pivot set consisting of base plate mounted 7253 Bottom Pivot and a head frame mounted 7253 Top Pivot.
- Maximum Load 300 pounds (136 kg).
- Easy Installation Tilt on bearing and bearing pin.
- Door Thickness minimum 1-3/4" (44mm).
- Radius Stop (A) to clear heel edge of door.
- Pivot Distance (B) 1-3/4" (44mm) minimum from jamb to centerline of pivot pin. Radius heel edge of door, 1-5/8" (41mm) minimum recommended.
- Clearance from bottom edge of door to the floor mounting surface is adjustable from 3/16" (5mm) to 3/4" (19mm) by varying the depth of the mortise (C) in the bottom rail of the door, refer to Table D. Over 3/4" (19mm) from the door to floor mounting surface, consult factory.
- Vertical Adjustment based on mortise preparation in bottom rail of the door. Refer to Table D.

**Table D**

| Clearance   | Depth of Mortise |
|-------------|------------------|
| 3/16" (5mm) | 1-3/16" (30mm)   |
| 3/8" (10mm) | 1" (25mm)        |
| 1/2" (13mm) | 7/8" (22mm)      |
| 5/8" (16mm) | 3/4" (19mm)      |
| 3/4" (19mm) | 5/8" (16mm)      |



## How to Order:

7253 - -

### Pivot Style:

- Blank** Top and bottom set  
**TOP** Top pivot only  
**BTM** Bottom pivot only

### Finishes:

US3, US4, US10, US10B, US26, US26D, SP4, SP10, SP28, SP313, SPBLK



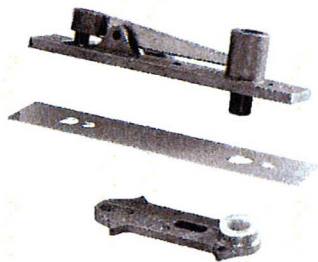




## PIVOTS

### TOP CENTER-HUNG

- Walking beam type pivot assembly
- Completely concealed



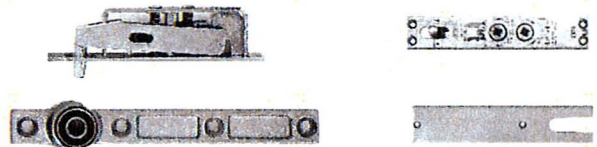
#### No. 20-534

APPLICATION: Aluminum, Wood or Metal Doors and Frames

CAPACITY: Maximum Width = 48" (1219 mm)  
Maximum Weight = 260 Lbs (118 Kg)

FINISH - Cover Plate: DBZ 313  
US28 / 628

- Adjustable to obtain top door clearances of 1/8"-3/4"
- Complete sets include pivot, door arm & finished cover plate



#### No. 20-580

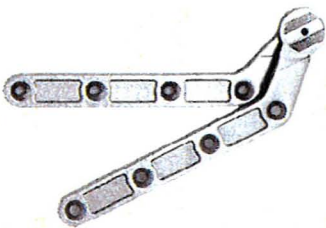
APPLICATION: Aluminum, Wood or Metal Doors and Frames

CAPACITY: Maximum Width = 54" (1372 mm)  
Maximum Weight = 1000 Lbs (450 Kg)

FEATURES: Lateral door adjustment of 1/2" (12 mm)

FINISH - Cover Plate: DBZ 313  
US3 / 605  
US32 / 629  
US32D / 630

### TOP OFFSET



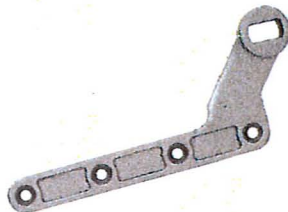
#### No. 20-7065 – 3/4"

APPLICATION: Aluminum, Wood Doors and Frames

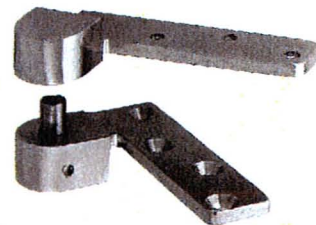
CAPACITY: Maximum Width = 48" (1219 mm)  
Maximum Weight = 260 Lbs (118 Kg)

MATERIAL: Cast Steel

FINISH: DBZ 313  
US3 / 605  
US15 / 646



#### No. 20-7075 – 1-1/2"



#### No. J-110 – 3/4"

APPLICATION: Aluminum, Wood or Metal Doors and Frames

CAPACITY: Maximum Width = 54" (1372 mm)  
Maximum Weight = 1000 Lbs (450 Kg)

FEATURES: Full Mortise - Handed

Available for Flush and 1/8" (3 mm) recessed doors.

FINISH - Cover Plate: US3 / 605  
US10B / 613  
US32 / 629  
US32D / 630



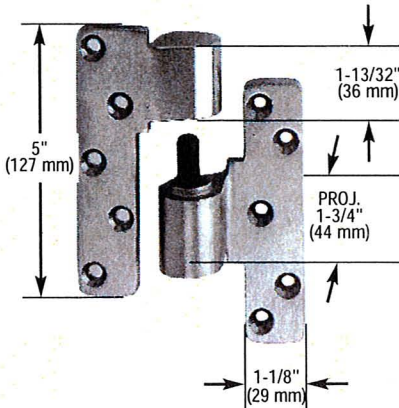


## PIVOTS

### 3/4" OFFSET - INTERMEDIATE

- Matching contemporary design
- 5/8" (16 mm) vertical adjustment

- Full race ball-bearing and oilite bronze bushing
- Fully retractable pin for easy installation



**No. J-190**

APPLICATION: Aluminum or Metal Doors and Frames

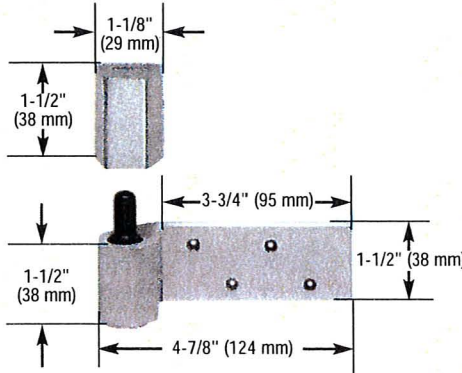
CAPACITY:

190 Aluminum - Max. Wt. = 0,150 Lbs (468 Kg)  
190HD Brass/Bronze - Max. Wt. = 1,000 Lbs (454 Kg)

FEATURES: Full Mortise - Handed

MATERIAL: 190HD = Aluminum  
190HD = Brass or Bronze or Stainless Steel

FINISH: 190 = DBZ 313 190HD = US3 / 605  
US28 / 628 US108 / 613  
US32 / 629  
US32D / 630



**No. J-14**

APPLICATION: Aluminum Doors and Frames

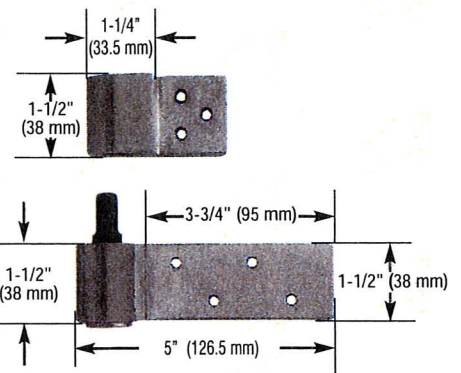
CAPACITY: Maximum Weight = 125 Lbs (57 Kg)

FEATURES: Reversible - Non-Handed  
Jamb Slot-in

MATERIAL: Extruded Aluminum

FINISH: DBZ 313  
US28 / 628

Short leg available



**No. J-69**

APPLICATION: Aluminum Doors and Frames

CAPACITY: Maximum Weight = 250 Lbs. (114 kg)

FEATURES: Reversible  
Jamb Slot-in

MATERIAL: Extruded Aluminum

FINISH: DBZ 313  
US28 / 628

Short leg available

### COMBINATION SET

**No. J-29**

- Combination J-14 intermediate and floor pivot set
- For use with offset overhead concealed closer application

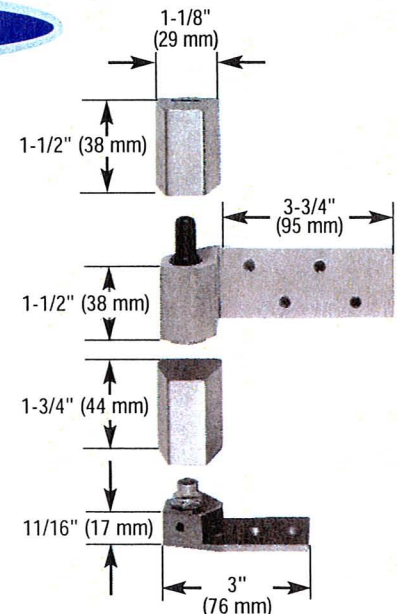
APPLICATION: Aluminum Doors and Frames

CAPACITY: Maximum Weight = 125 Lbs (57 Kg)

FEATURES: Reversible - Non-Handed

MATERIAL: Extruded and Cast Aluminum

FINISH: DBZ 313  
US28 / 628



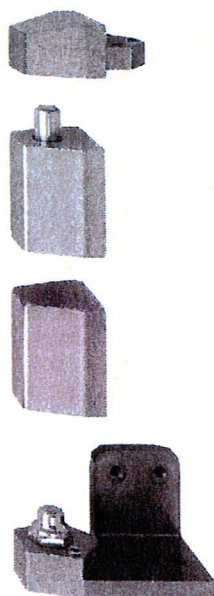


## PIVOTS

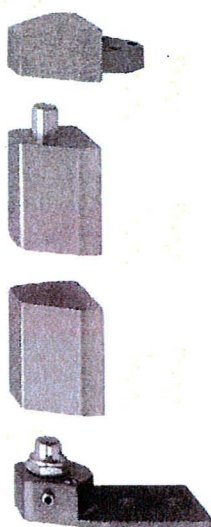
### 3/4" OFFSET - PIVOT SETS

- Suitable for aluminum frames and doors weighing up to 125 lbs. (57 kg)
- Matching contemporary design
- Extruded or Cast Aluminum

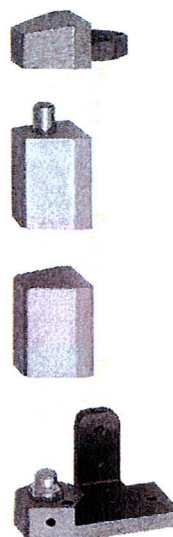
- Full race ball-bearing and oilite bronze bushing
- Fully retractable, spring loaded top pin for easy door installation and adjustment
- 1/8" (3 mm) vertical adjustment



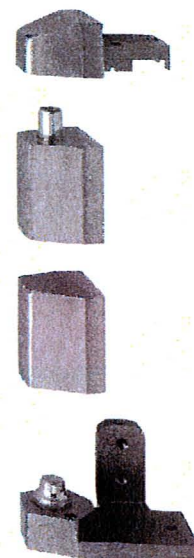
**Set No. J-25**  
**Set No. J-26**



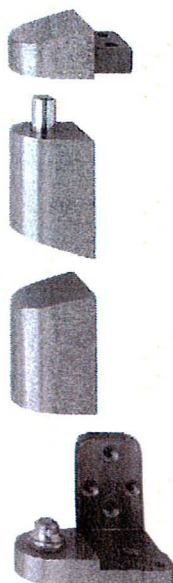
**Set No. J-27**  
**Set No. J-28**



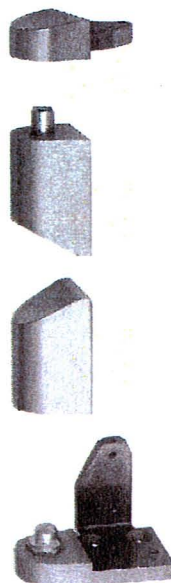
**Set No. J-30**  
**Set No. J-31**



**Set No. J-43**



**Set No. J-34**



**Set No. J-40**

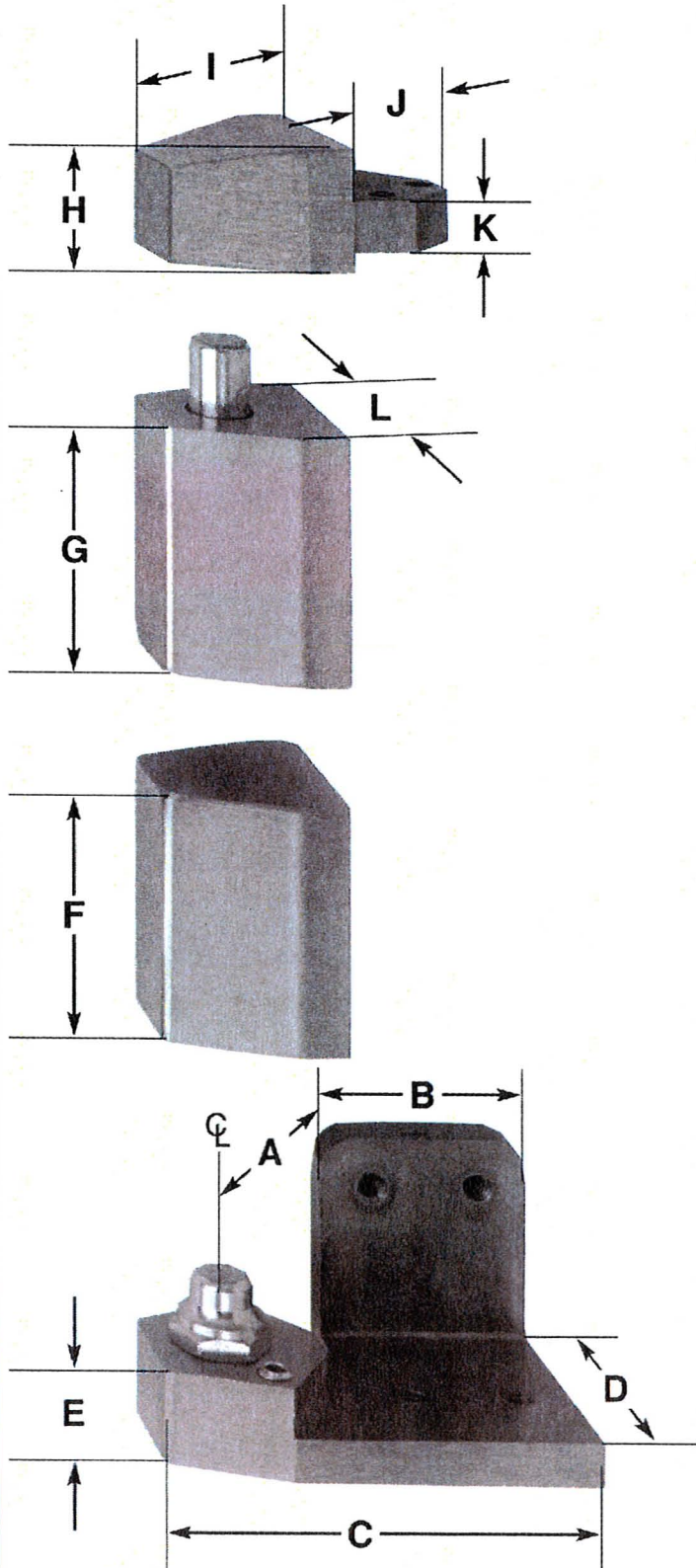


**Set No. 41**



## PIVOTS

### 3/4" OFFSET - PIVOT SETS



| Set # | Hand   | Application        | A           | B           | C           | D             | E            | F & G       | H           | I            | J           | K          | L           |
|-------|--------|--------------------|-------------|-------------|-------------|---------------|--------------|-------------|-------------|--------------|-------------|------------|-------------|
| J-25  | R or L | Flush w/frame face | 1" (25)     | 1 1/2" (38) | 3" (76)     | 1 29/32" (48) | 1 1/16" (17) | 1 3/4" (44) | 7/8" (22)   | 1 1/4" (32)  | 29/32" (23) | 3/8" (10)  | 1 3/8" (35) |
| J-26  | R or L | Recessed 1/8"      | 1" (25)     | 1 1/2" (38) | 3" (76)     | 1 29/32" (48) | 1 1/16" (17) | 1 3/4" (44) | 7/8" (22)   | 1 1/4" (32)  | 29/32" (23) | 3/8" (10)  | 1 3/8" (35) |
| J-27  | NH     | Flush w/frame face | NA          | NA          | 3" (76)     | 1 5/8" (41)   | 1 1/16" (17) | 1 3/4" (44) | 7/8" (22)   | 1 1/4" (32)  | 29/32" (23) | 3/8" (10)  | 1 3/8" (35) |
| J-28  | NH     | Recessed 1/8"      | NA          | NA          | 3" (76)     | 1 5/8" (41)   | 1 1/16" (17) | 1 3/4" (44) | 7/8" (22)   | 1 1/4" (32)  | 29/32" (23) | 3/8" (10)  | 1 3/8" (35) |
| J-30  | R or L | Flush w/frame face | 1" (25)     | 7/8" (22)   | 3" (76)     | 1 7/8" (48)   | 1 1/16" (17) | 1 3/4" (44) | 7/8" (22)   | 1 1/4" (32)  | 29/32" (23) | 3/8" (10)  | 1 3/8" (35) |
| J-31  | R or L | Recessed 1/8"      | 1" (25)     | 7/8" (22)   | 3" (76)     | 1 7/8" (48)   | 1 1/16" (17) | 1 3/4" (44) | 7/8" (22)   | 1 1/4" (32)  | 29/32" (23) | 3/8" (10)  | 1 3/8" (35) |
| J-34  | R or L | Flush w/frame face | 7/8" (22)   | 13/16" (30) | 2 3/4" (70) | 1 15/16" (49) | 1/2" (13)    | 2 1/4" (57) | 15/16" (24) | 1 3/8" (35)  | 3/4" (19)   | 7/16" (11) | 1 3/8" (35) |
| J-40  | R or L | Recessed 1/8"      | 29/32" (23) | 13/16" (30) | 3" (76)     | 1 15/16" (49) | 1/2" (13)    | 2 1/4" (57) | 3/4" (19)   | 1 1/4" (32)  | 15/16" (33) | 3/8" (10)  | 1 3/8" (35) |
| J-41  | R or L | Recessed 3/32"     | 7/8" (22)   | 13/16" (30) | 2 3/4" (70) | 1 15/16" (49) | 1/2" (13)    | 2 3/4" (55) | 1 1/8" (29) | 1 1/4" (32)  | 15/16" (33) | 7/16" (11) | 1 3/8" (35) |
| J-43  | R or L | Flush w/frame face | 1" (25)     | 7/8" (22)   | 3" (76)     | 1 7/8" (48)   | 1 1/16" (17) | 1 3/4" (44) | 1" (25)     | 1 9/32" (33) | 15/16" (33) | 3/8" (10)  | 1 3/8" (35) |

(mm)



## PIVOTS

### PIVOT SETS

**For 1-3/4" Aluminum Doors weighing not more than 125 lbs. (57 kg)**



**213** Walking beam  
Top Pivot



**673A** Top Door Arm  
w/nylon bushing

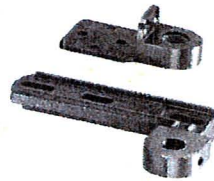


**676** Bottom Door Arm  
w/Ball Bearing Race



**678** Floor Portion  
w/Steel Pin

**670M - Center-Hung**



**691** Top Header Portion  
w/nylon bushing



**684** Offset Arm



**685** Pivot Pin



**684** Offset Arm



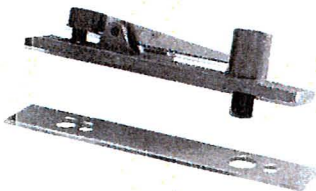
**686** Bearing Holder  
w/Ball Bearing Race



**678** Floor Portion  
w/Steel Pin

**689 - Offset (non-handed)**

**For 1-3/4" Wood or Hollow Metal Doors weighing not more than 125 lbs. (57 kg)**



**213K** Walking Beam Top  
Pivot w/cover plate



**653A** Top Door Arm  
w/nylon bushing



**676** Bottom Door Arm  
w/Ball Bearing Race



**678** Floor Portion  
w/Steel Pin

**650M - Center-Hung**



**691** Top Header Portion  
w/nylon bushing



**694** Offset Arm



**685** Pivot Pin



**694** Offset Arm




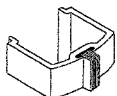
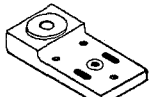
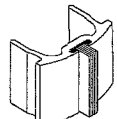
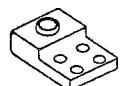
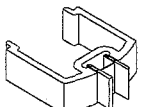
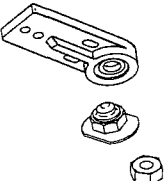
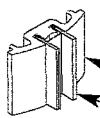
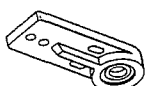

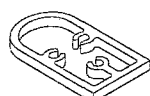
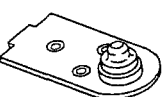
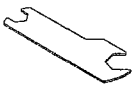
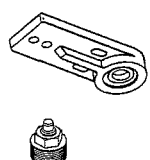

**686** Bearing Holder  
w/Ball Bearing Race



**678** Floor Portion  
w/Steel Pin

**690 - Offset (non-handed)**






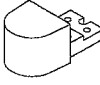
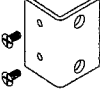





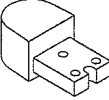
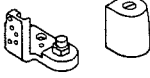
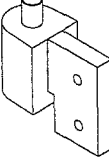
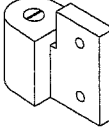
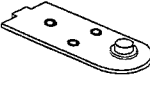
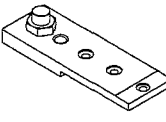
# CENTER PIVOTS

|  |        |  |                  |
|--|--------|--|------------------|
|  <p><b>WALKING BEAM TOP PIVOT</b><br/>Frame Portion.<br/>Price Includes:<br/>Top Pivot, Finishing Plate, and Screws.</p>  | 037648 |  <p><b>WEATHERED FILLER DRESS CAP</b><br/>for 190 Door.<br/>Price Includes:<br/>Filler Cap Assembly, Mounting Clip,<br/>and Screw.</p>                             | 038352           |
|  <p><b>ADJUSTABLE TOP CENTER PIVOT PKG.</b><br/>Door Portion for 190 Door.<br/>Price Includes:<br/>Top Center Pivot, and Screws.</p>  | 037942 |  <p><b>WEATHERED FILLER DRESS CAP</b><br/>for PRE-1993 190 Door.<br/>Price Includes:<br/>Filler Cap Assembly, Mounting Clip,<br/>and Screw.</p>                    | 048291           |
|  <p><b>TOP CENTER PIVOT PACKAGE</b><br/>Door Portion for 350/500 Door.<br/>Price Includes:<br/>Top Center Pivot, and Screws.</p>  | 037823 |  <p><b>WEATHERED FILLER DRESS CAP</b><br/>for 350/500 Doors.<br/>Price Includes:<br/>Filler Cap Assembly and Screw.</p>  | 038353           |
|  <p><b>BOTTOM CENTER PIVOT</b><br/>Door &amp; Frame Portion<br/>for use with Threshold.<br/>Price Includes:<br/>Door Portion Assembly, Frame Portion<br/>Assembly, and Screws.</p>      | 050350 |  <p><b>WEATHERED FILLER DRESS CAP</b><br/>for PRE-1993 350/500 Doors.<br/>Note: Parts are ordered individually.</p> <p>048383 Filler Cap<br/>048382 Weathering</p> | 048383<br>048382 |
|  <p><b>BOTTOM CENTER PIVOT</b><br/>Door Portion for use with Threshold.<br/>Price Includes:<br/>Door Portion Assembly, and Screws.</p>  | 050351 | <p><b>0.188" THICK BOTTOM PIVOT SHIM.</b><br/>Price Includes: Shim.</p> <p><b>0.250" THICK BOTTOM PIVOT SHIM.</b><br/>Price Includes: Shim.</p>  | 047602<br>047603 |
|  <p><b>BOTTOM CENTER PIVOT</b><br/>Frame Portion for use with Threshold.<br/>Price Includes:<br/>Frame Portion Assembly, and Lock Nut.</p>  | 050360 |  <p><b>0.312" THICK BOTTOM PIVOT SHIM.</b><br/>Price Includes: Shim.</p> <p><b>0.500" THICK BOTTOM PIVOT SHIM.</b><br/>Price Includes: Shim.</p>                 | 047604<br>047605 |
|  <p><b>BOTTOM CENTER PIVOT ASSEMBLY</b><br/>Frame Portion for use w/o Threshold.<br/>Price Includes:<br/>Pivot Ass'y, Plastic Anchor, Pivot Shim,<br/>and Screws.</p>                 | 050370 |  <p><b>WRENCH</b><br/>for Concealed Closer Floor Pivot.<br/>Price Includes:<br/>Wrench.</p>  | 047956           |
|  <p><b>BOTTOM CENTER PIVOT</b><br/>REPLACEMENT PKG.<br/>Price Includes:<br/>Door Portion and Frame Portion.</p>   | 050355 |  |                  |
|  <p><b>REPLACEMENT PIN ASSEMBLY</b> for<br/>Bottom Center Pivot Frame Portion<br/>to Convert PRE-1994 Pivot to New<br/>Door.<br/>Price Includes:<br/>Pivot Pin and Pivot Pin Cap.</p> | 050375 |  |                  |

# INTERMEDIATE OFFSET PIVOTS

|  |  |                          |  |   |               |
|--|--|--------------------------|--|---|---------------|
|  | <p><b>KAWNEER STANDARD INTERMEDIATE OFFSET PIVOT PACKAGE.</b><br/> <i>Price Includes:</i><br/>           Door Portion Pivot, Frame Portion Pivot, Reinforcement Plate, Plug Cap, and Screws.</p> | <p>050331</p>            |  | <p><b>HOLE PLUG</b><br/>           for Intermediate Pivot with Tuffline® Door.<br/> <i>Price Includes:</i><br/>           Hole Plug.<br/>           (Package Quantity is 10 each)</p> | <p>118404</p> |
|  | <p><b>INTERMEDIATE PIVOT Door Portion.</b><br/> <i>Price Includes:</i><br/>           Intermediate Pivot Door Portion.</p>   | <p>050305</p>            |  | <p><b>INTERMEDIATE PIVOT Frame Portion for Tuffline® Door.</b><br/> <i>Price Includes:</i><br/>           Frame Portion Intermediate Pivot.</p>                                       | <p>118403</p> |
|  | <p><b>INTERMEDIATE PIVOT Frame Portion.</b><br/> <i>Price Includes:</i><br/>           Intermediate Pivot Frame Portion.</p>   | <p>050309</p>            |  | <p><b>INTERMEDIATE PIVOT Door Portion for Tuffline® Door.</b><br/> <i>Price Includes:</i><br/>           Door Portion Pivot.</p>  | <p>118405</p> |
|  | <p><b>RIXSON M-19 or IVES INTERMEDIATE OFFSET PIVOT.</b><br/> <i>Price Includes:</i><br/>           Intermediate Pivot and Screws.</p>   | <p>037233<br/>(R.H.)</p> |  | <p><b>INTERMEDIATE OFFSET PIVOT SET (L.H.) for Entara® Door.</b><br/> <i>Price Includes:</i><br/>           Intermediate Pivot and Screws.</p>  | <p>105162</p> |
|  | <p><b>RIXSON M-19 or IVES INTERMEDIATE OFFSET PIVOT.</b><br/> <i>Price Includes:</i><br/>           Intermediate Pivot and Screws.</p>   | <p>037234<br/>(L.H.)</p> |  | <p><b>INTERMEDIATE OFFSET PIVOT SET (R.H.) for Entara® Door.</b><br/> <i>Price Includes:</i><br/>           Intermediate Pivot and Screws.</p>  | <p>105163</p> |
|  | <p><b>FRAME REINFORCEMENT for KAWNEER STANDARD INTERMEDIATE PIVOT</b><br/> <i>Price Includes:</i><br/>           Frame Reinforcement.</p>  | <p>200483</p>            |  | <p><b>SHIM for RIXSON or IVES Intermediate Pivot for 350 Heavy Wall Door.</b><br/> <i>Price Includes:</i><br/>           Shim.</p>  | <p>652262</p> |
|  | <p><b>DOOR REINFORCING for Rixson M-19 or IVES Intermediate Pivot.</b><br/> <i>Price Includes:</i><br/>           Reinforcing Plate.</p>   | <p>047141</p>            |  | <p><b>R.H. ELECTRIC TRANSFER PIVOT</b><br/> <i>Price Includes:</i><br/>           Door and Frame Portion Pivots with Wiring Harness.</p>  | <p>050392</p> |
|  | <p><b>FRAME REINFORCING for Rixson M-19 or IVES Intermediate Pivot.</b><br/> <i>Price Includes:</i><br/>           Frame Reinforcement.</p>  | <p>047814</p>            |  | <p><b>L.H. ELECTRIC TRANSFER PIVOT</b><br/> <i>Price Includes:</i><br/>           Door and Frame Portion Pivots with Wiring Harness.</p>  | <p>050393</p> |
|  | <p><b>REINFORCING SCREW for K-Std. Pivot in Rixson or Ives Reinforcing.</b><br/> <i>Price Includes:</i><br/>           Screw.</p>  | <p>028848</p>            |  |   |               |

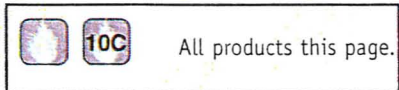
# OFFSET PIVOTS

|   |   |        |  |   |        |
|---|---|--------|--|---|--------|
|    | <b>TOP PIVOT Frame Portion.</b><br>Price Includes:<br>Top Pivot Frame Portion<br>and Screws.  | 050321 |    | <b>R.H. BOTTOM PIVOT<br/>Frame Portion for use with Threshold.</b><br>Price Includes:<br>Bottom Frame Portion and Screws.     | 050324 |
|    | <b>TOP PIVOT Door Portion.</b><br>Price Includes:<br>Top Pivot Door Portion, Reinforcing Plate<br>and Screws.   | 050320 |    | <b>L.H. BOTTOM PIVOT<br/>Frame Portion for use with Threshold.</b><br>Price Includes:<br>Bottom Frame Portion and Screws.     | 050325 |
|    | <b>TOP OFFSET PIVOT PACKAGE.</b><br>Price Includes:<br>Top Pivot Door and Frame Portion,<br>Reinforcing Plate, and Screws.  | 050322 |    | <b>TOP PIVOT Frame Portion for SAM II.</b><br>Price Includes:<br>Top Pivot Frame Portion.<br><i>*Use with Pre 1998 doors.</i> | 041927 |
|    | <b>TOP DOOR PIVOT RETRO FIT PACKAGE</b><br>Price Includes:<br>Reinforcing Plate, Attachment Screws<br>and Installation Instructions<br><br><i>*Use with 050320, or 050322<br/>for Pre 1989 doors.</i> | 050319 |   | <b>0.188" THICK BOTTOM PIVOT SHIM.</b><br>Price Includes: Shim.   | 047602 |
|   |   |        |   | <b>0.250" THICK BOTTOM PIVOT SHIM.</b><br>Price Includes: Shim.   | 047603 |
|   |   |        |   | <b>0.312" THICK BOTTOM PIVOT SHIM.</b><br>Price Includes: Shim.   | 047604 |
|   |   |        |   | <b>0.500" THICK BOTTOM PIVOT SHIM.</b><br>Price Includes: Shim.   | 047605 |
|  | <b>BOTTOM PIVOT Door Portion.</b><br>Price Includes:<br>Bottom Pivot Door Portion,<br>Reinforcing Plate, and Screws.  | 050323 |  | <b>TOP PIVOT<br/>Frame Portion for Tuffline® Door.</b><br>Price Includes:<br>Top Pivot Frame Portion.                         | 118400 |
|  | <b>R.H. BOTTOM PIVOT<br/>Door and Frame Portion for use with<br/>Threshold.</b><br>Price Includes:<br>Bottom Pivot Door & Frame Portion,<br>Reinforcing Plate, and Screws.                            | 050326 |  | <b>TOP PIVOT<br/>Door Portion for Tuffline® Door.</b><br>Price Includes:<br>Top Pivot Door Portion.                           | 118401 |
|   | <b>L.H. BOTTOM PIVOT<br/>Door and Frame Portion for use with<br/>Threshold.</b><br>Price Includes:<br>Bottom Pivot Door & Frame Portion,<br>Reinforcing Plate, and Screws.                            | 050327 |  | <b>BOTTOM PIVOT<br/>Door Portion for Tuffline® Door.</b><br>Price Includes:<br>Bottom Pivot Door Portion.                     | 118409 |
|  | <b>BOTTOM PIVOT<br/>Frame Portion for use without<br/>Threshold.</b><br>Price Includes:<br>Bottom Pivot Frame Portion, Screws and<br>Anchors.   | 035506 |  | <b>BOTTOM PIVOT<br/>Frame Portion for Tuffline® Door.</b><br>Price Includes:<br>Bottom Pivot Frame Portion.                   | 118411 |

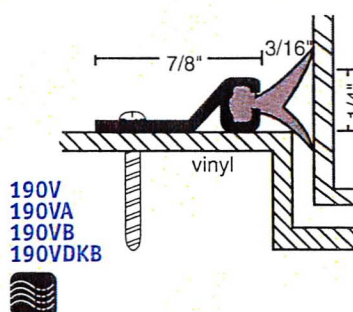
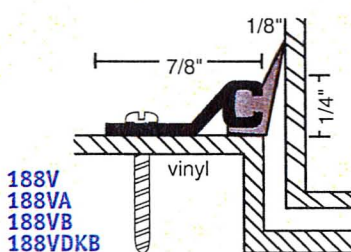
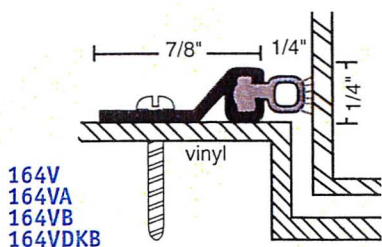
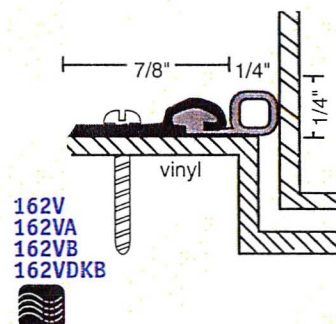
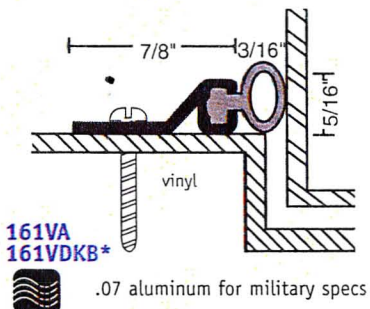
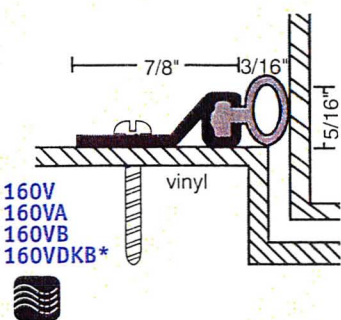
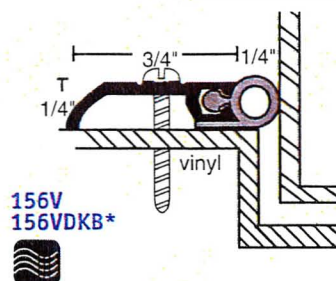
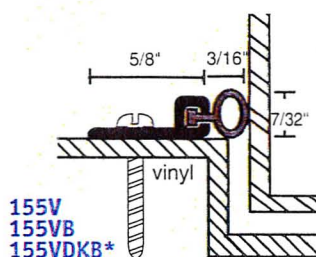
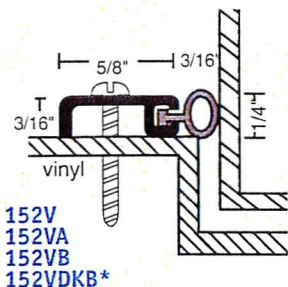


## Vinyl Seals

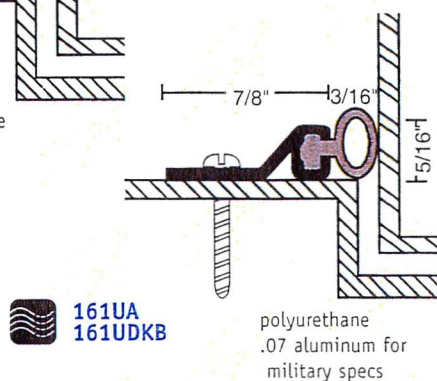
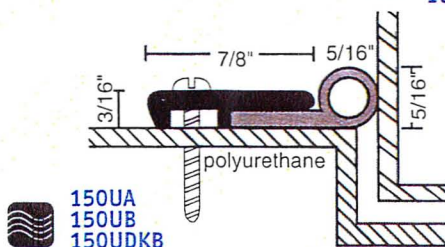
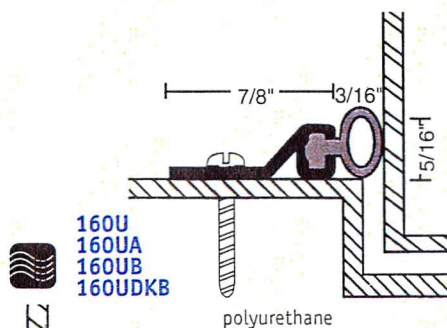
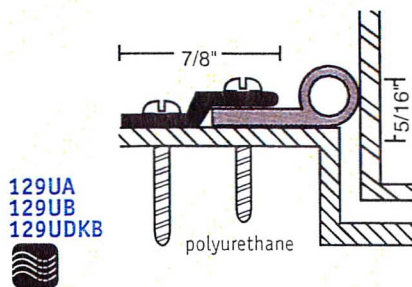
#6 x 3/4" Stainless Steel Sheet Metal Screws furnished. Screw holes slotted for adjustment.



A - clear  
B - gold  
DKB - dark bronze  
Vinyl is gray  
(exception: \*vinyl is black)  
polyurethane is black



## Polyurethane Seals







# National Guard Products, Inc.

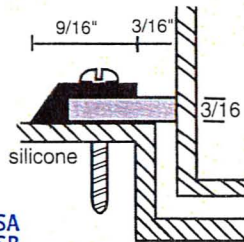
PROTECTION, INSIDE OUT

## Perimeter Seals - Silicone

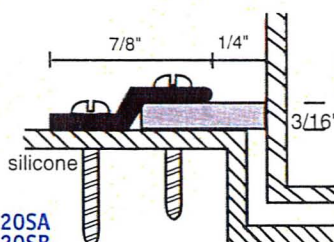


All products this page.

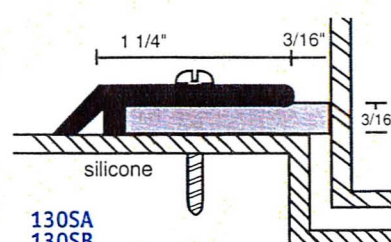
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Screw holes slotted for adjustment.



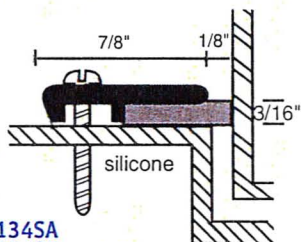
110SA  
110SB  
110SDKB



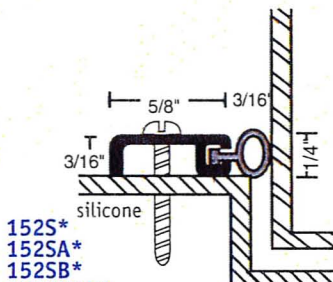
120SA  
120SB  
120SDKB



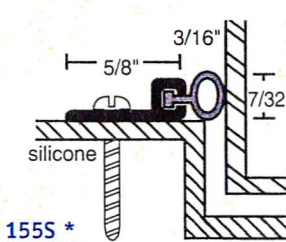
130SA  
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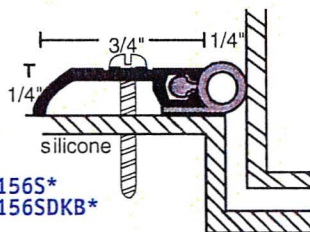
134SA  
134SB  
134SDKB



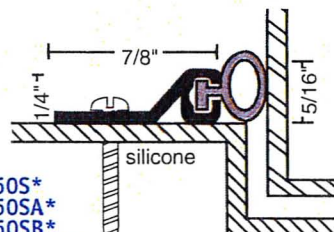
152S\*  
152SA\*  
152SB\*  
152SDKB\*



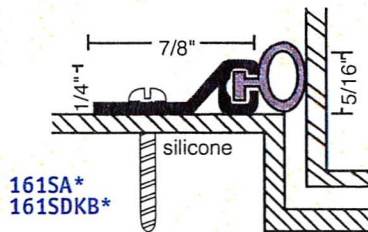
155S\*  
155SB\*  
155SDKB\*



156S\*  
156SDKB\*

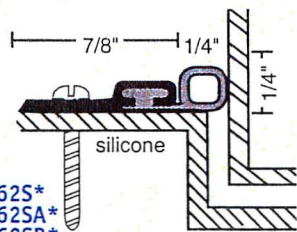


160S\*  
160SA\*  
160SB\*  
160SDKB\*

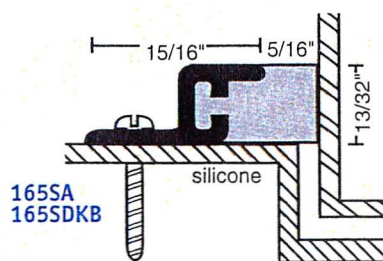


161SA\*  
161SDKB\*

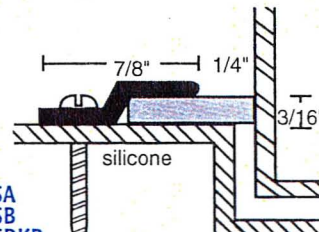
.07 aluminum for military specs



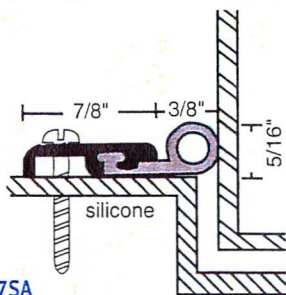
162S\*  
162SA\*  
162SB\*  
162SDKB\*



165SA  
165SDKB



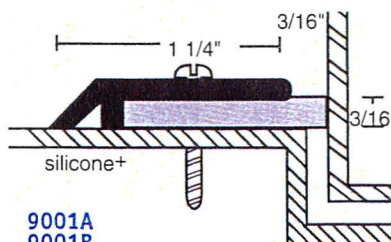
127SA  
127SB  
127SDKB



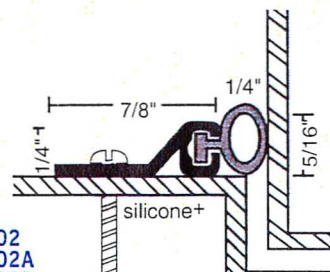
137SA  
137SB  
137SDKB

A - clear  
B - gold  
DKB - dark bronze  
silicone is gray  
(exception: \*silicone is black)

**SILICONE PLUS-** Specially formulated to withstand greater temperature extremes while providing maximum protection against air infiltration. Silicone Plus gasket material is tan.



9001A  
9001B  
9001DKB



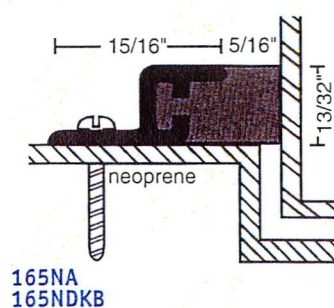
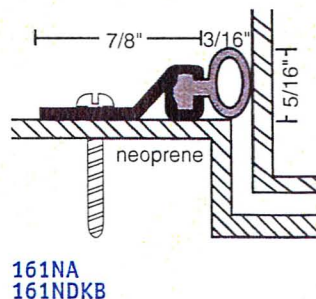
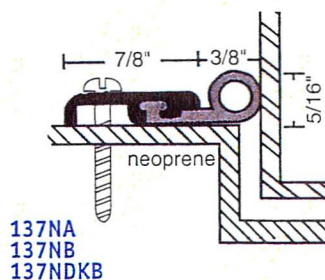
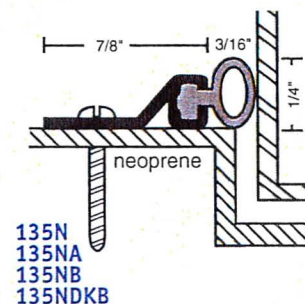
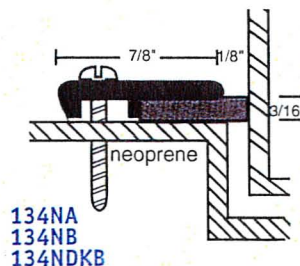
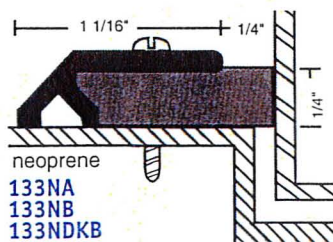
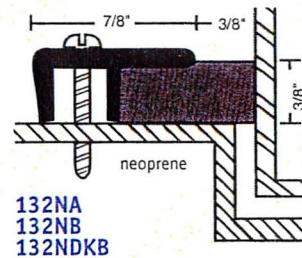
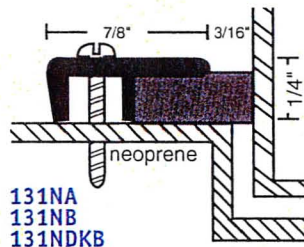
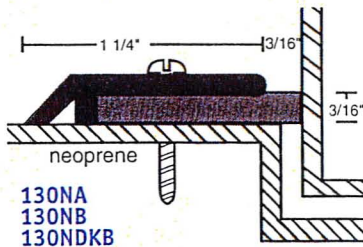
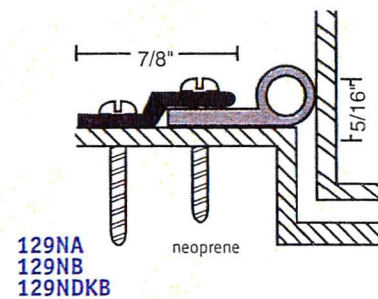
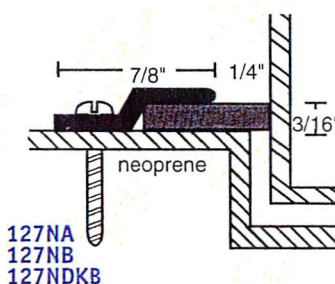
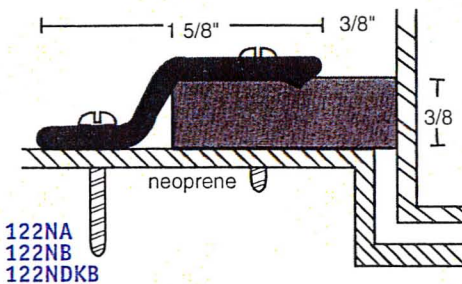
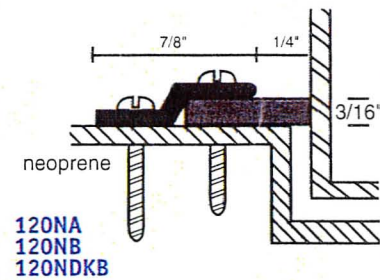
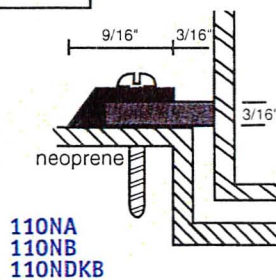
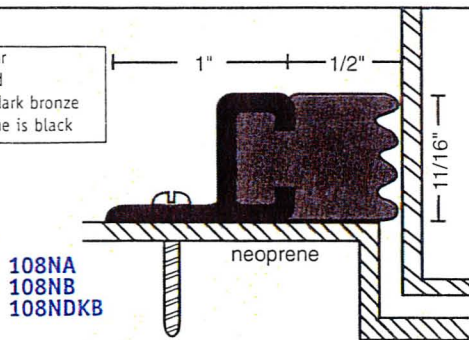
9002A  
9002B  
9002DKB





#6 x 3/4" Stainless Steel Sheet Metal Screws furnished.  
Screw holes slotted for adjustment.

A - clear  
B - gold  
DKB - dark bronze  
neoprene is black



.07 aluminum for military specs





# National Guard Products, Inc.

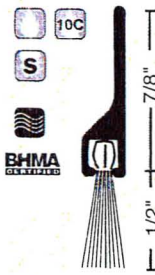
PROTECTION, INSIDE OUT

## Wild Hair® - Nylon Brush Seals

C627A  
C627B  
C627DKB



600  
600A  
600B  
600DKB



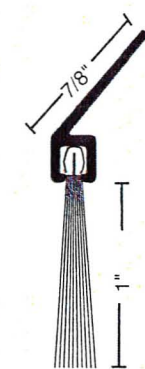
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601A  
601B  
601DKB



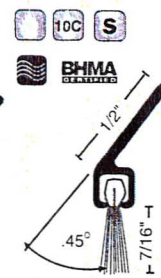
602A  
602DKB



603A  
603DKB

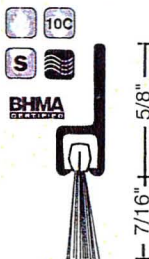


A617A



#6 x 3/4" Stainless Steel Sheet Metal Screws furnished. Screw holes slotted for adjustment.

A605A  
A605B  
A605DKB



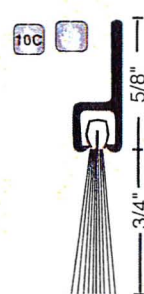
B606A  
B606B  
B606DKB



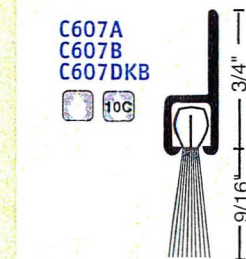
OV633A  
OV633B  
OV633DKB



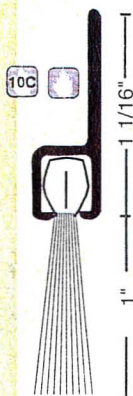
OV634A  
OV634B  
OV634DKB



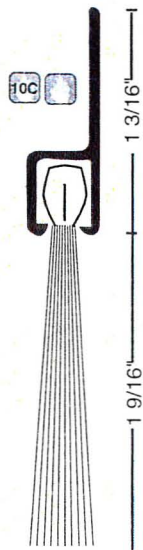
C607A  
C607B  
C607DKB



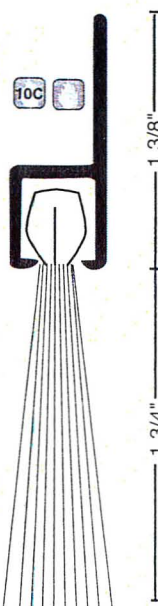
D608A  
D608B  
D608DKB



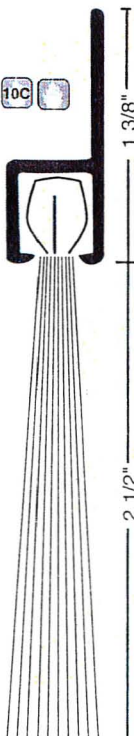
E609A  
E609B  
E609DKB



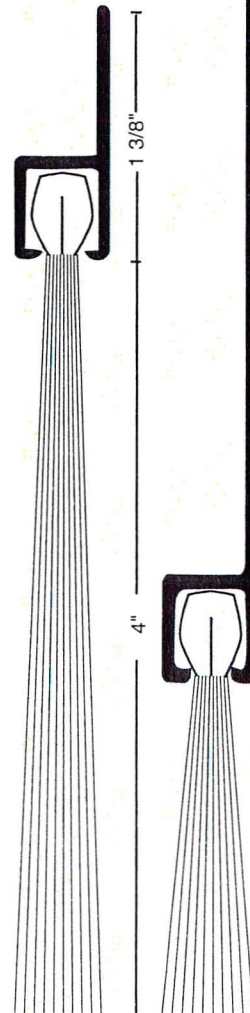
G610A  
G610B  
G610DKB



H612A  
H612B  
H612DKB



I-615A  
I-615B  
I-615DKB



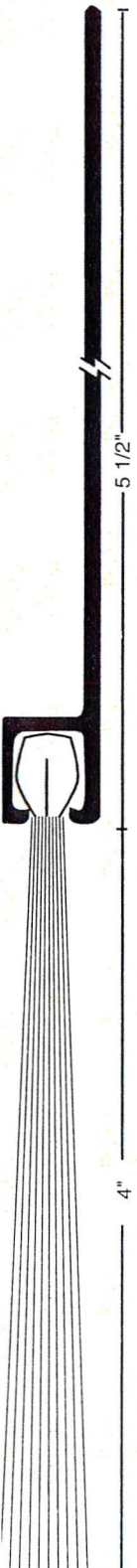
G611A  
G611DKB



H614A  
H614DKB



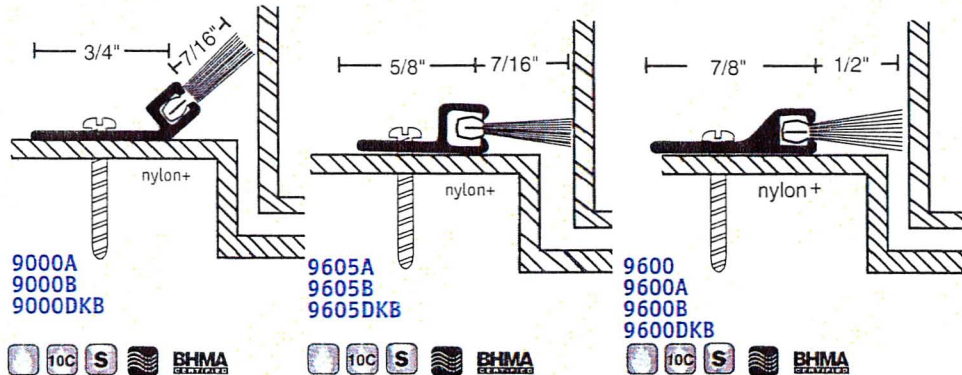
I-616A  
I-616DKB



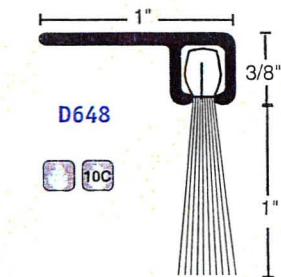
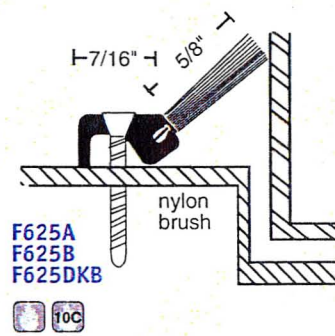
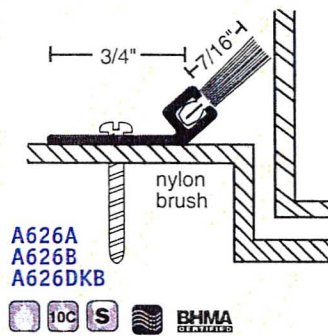
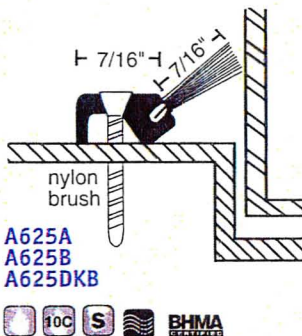


## Nylon Brush Plus -

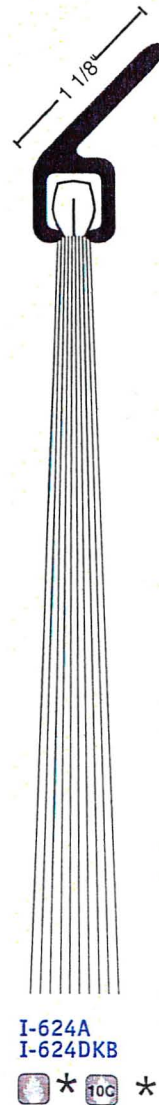
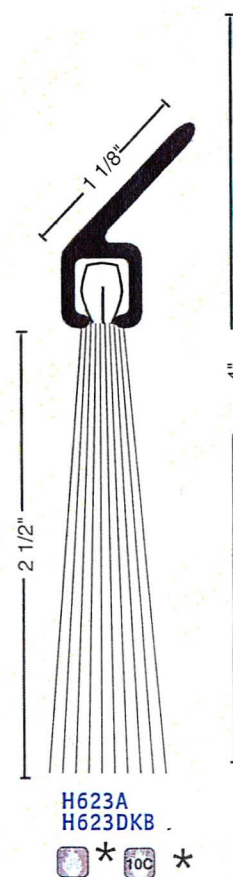
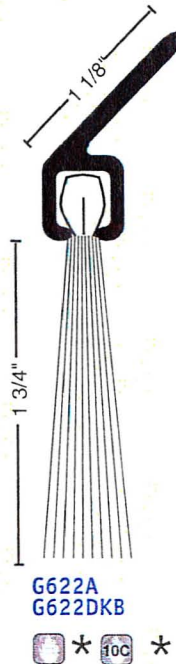
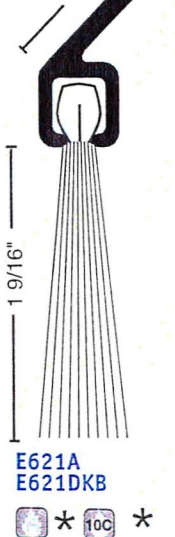
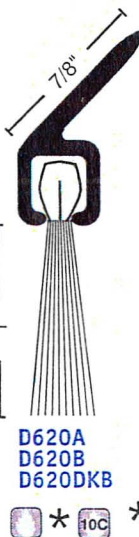
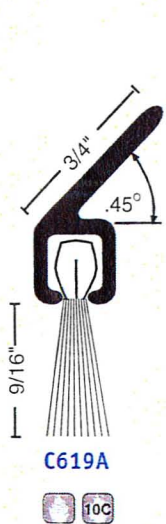
Specially formulated to withstand greater temperature extremes while providing maximum protection against air infiltration. Color of nylon brush plus is Tan.



#6 x 3/4" Stainless Steel Sheet Metal Screws furnished. Screw holes slotted for adjustment.



A - clear with gray brush  
B - gold with black brush  
DKB - dark bronze with black brush  
no suffix - mill with gray brush



\*up to 3 hours metal doors, 1 hour wood doors.

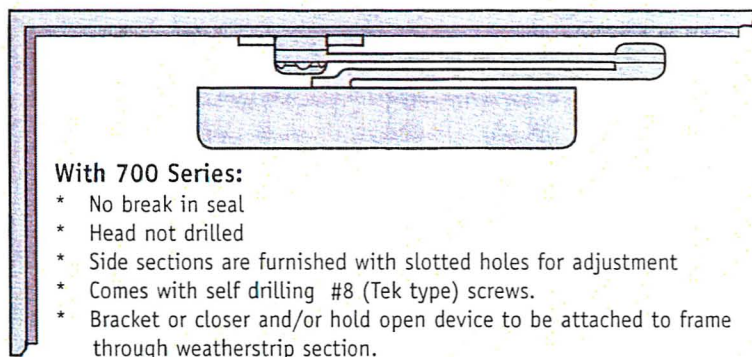




# National Guard Products, Inc.

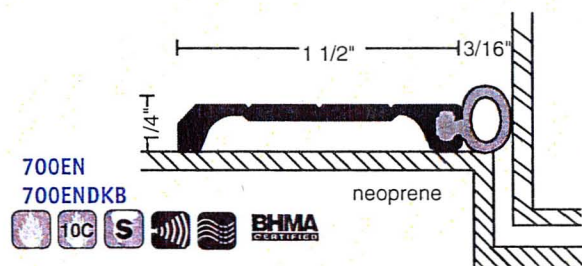
PROTECTION, INSIDE OUT

## Perimeter Seal for use with Parallel Arm Closers



### With 700 Series:

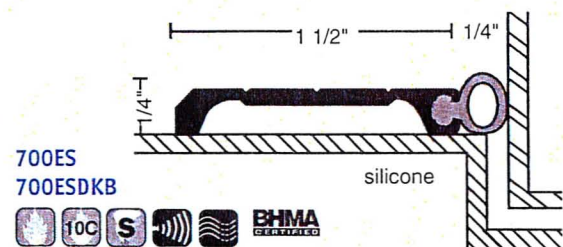
- \* No break in seal
- \* Head not drilled
- \* Side sections are furnished with slotted holes for adjustment
- \* Comes with self drilling #8 (Tek type) screws.
- \* Bracket or closer and/or hold open device to be attached to frame through weatherstrip section.



700EN  
700ENDKB



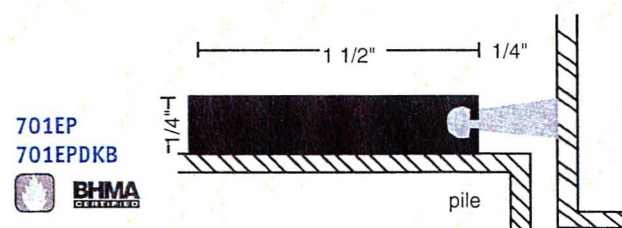
neoprene



700ES  
700ESDKB



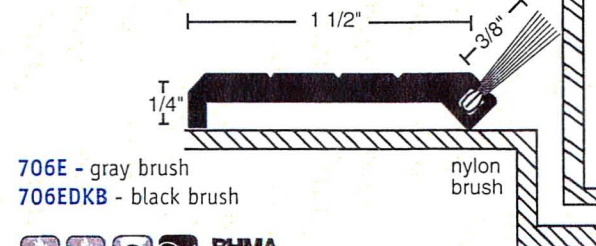
silicone



701EP  
701EPDKB



pile



706E - gray brush  
706EDKB - black brush



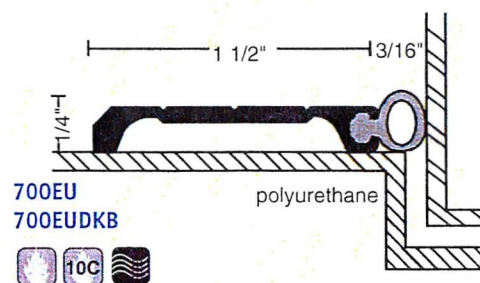
nylon  
brush



9700E  
9700EDKB



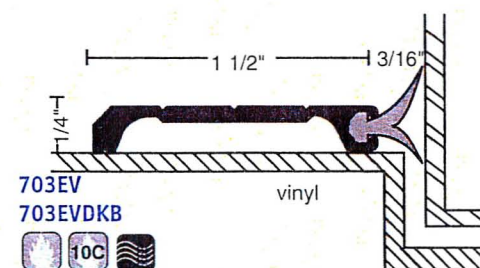
silicone+



700EU  
700EUDKB



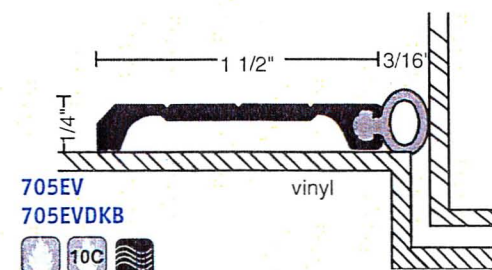
polyurethane



703EV  
703EVDKB



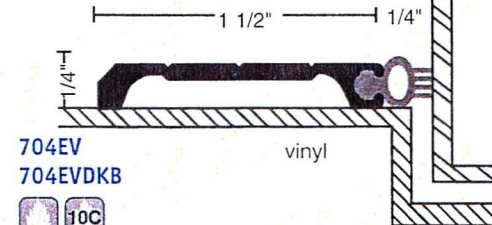
vinyl



705EV  
705EVDKB



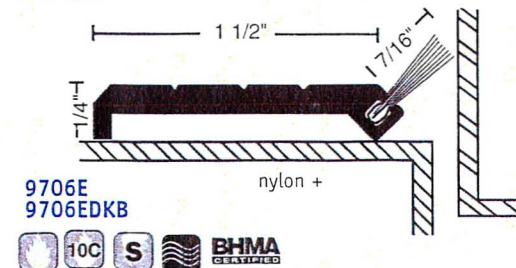
vinyl



704EV  
704EVDKB



vinyl



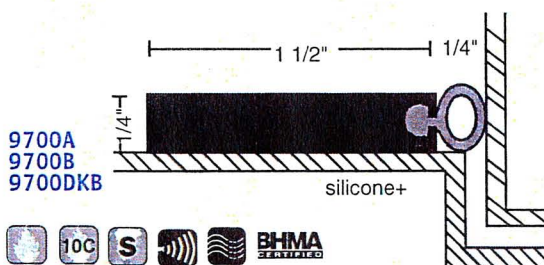
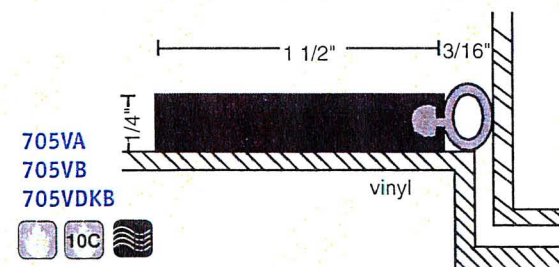
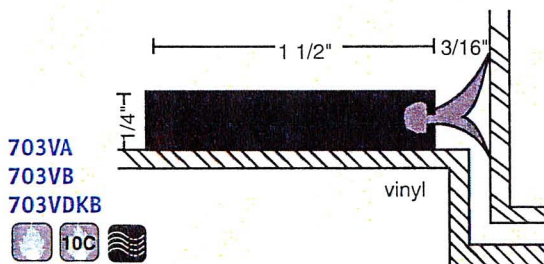
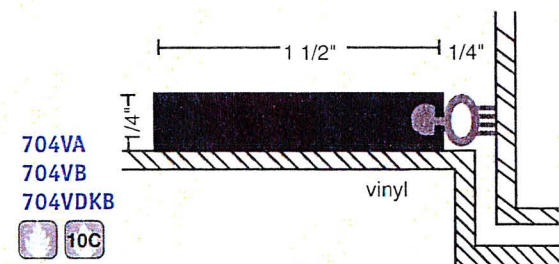
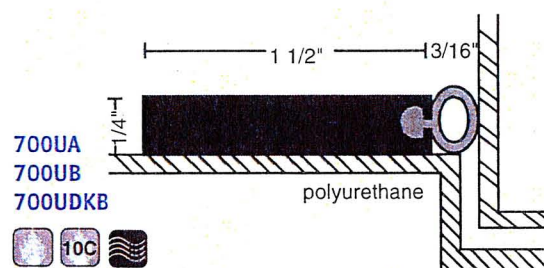
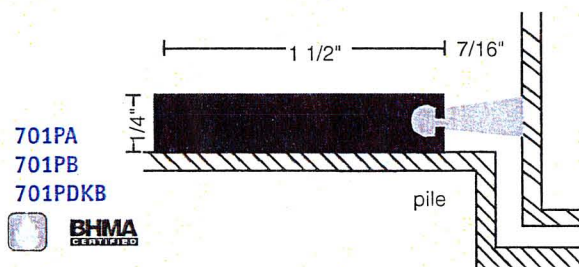
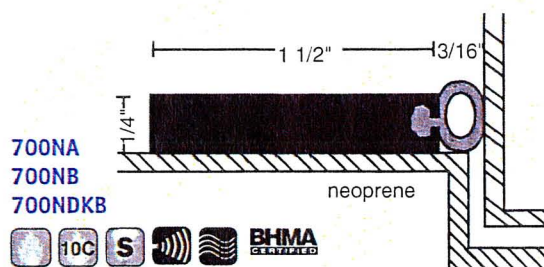
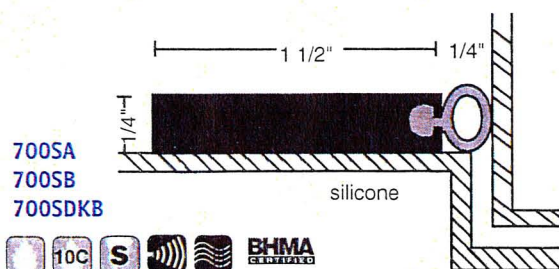
9706E  
9706EDKB



nylon +



\* May be cut to fit narrow frame stops for additional charge.

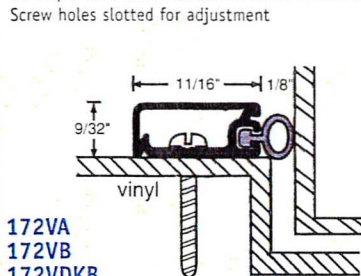


A - clear  
B - gold  
DKB - dark bronze  
vinyl & pile are gray  
neoprene, silicone, & polyurethane are black,  
nylon+, silicone+ are tan

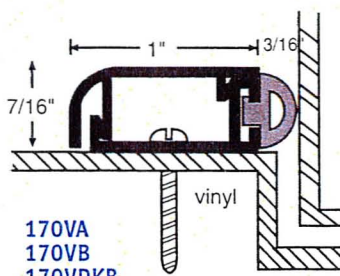
Perimeter Seal for use with Parallel Arm Closers



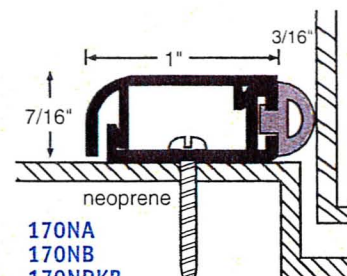
#6 x 3/4" Stainless Steel Sheet Metal Screws furnished.  
Screw holes slotted for adjustment



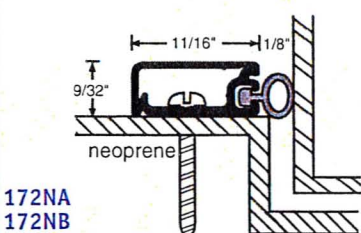
172VA  
172VB  
172VDKB



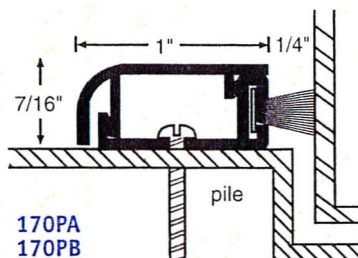
170VA  
170VB  
170VDKB



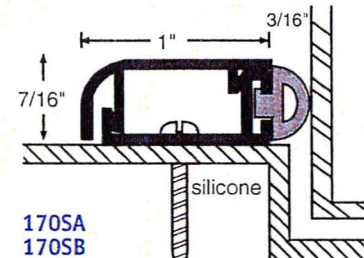
170NA  
170NB  
170NDKB



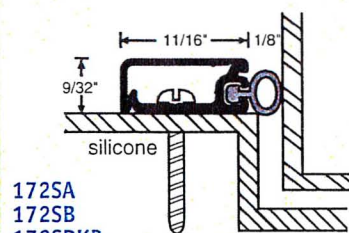
172NA  
172NB  
172NDKB



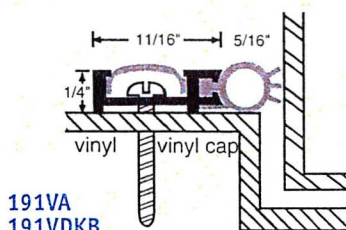
170PA  
170PB  
170PDKB



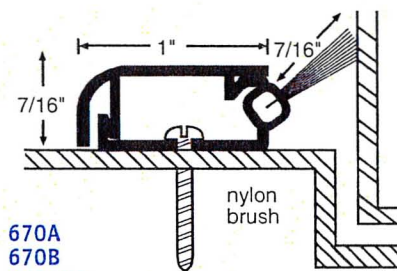
170SA  
170SB  
170SDKB



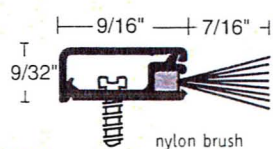
172SA  
172SB  
172SDKB



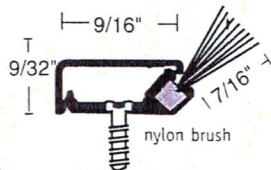
191VA  
191VDKB



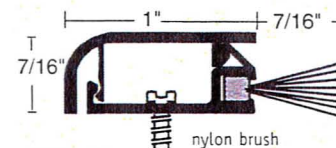
670A  
670B  
670DKB



672A  
672B  
672DKB



676A  
676B  
676DKB



675A  
675B  
675DKB



A - clear  
B - gold  
DKB - dark bronze  
vinyl and pile are gray  
neoprene, silicone are black  
nylon brush is gray with clear anodized metal;  
black with gold and DKB metal

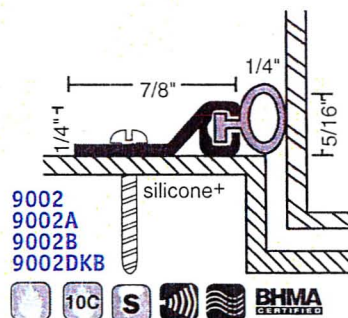
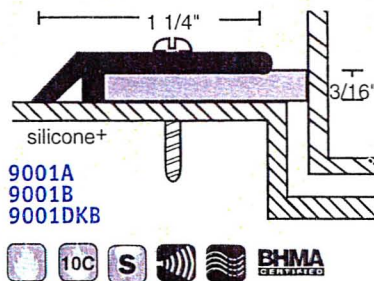
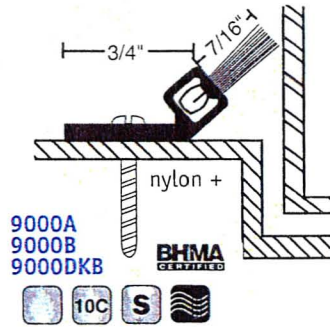
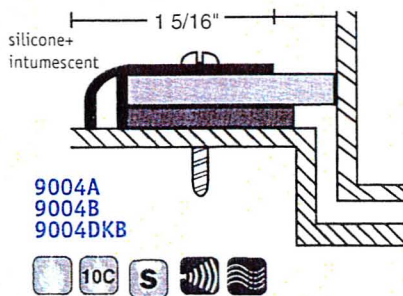


## Allseal® Gasketing

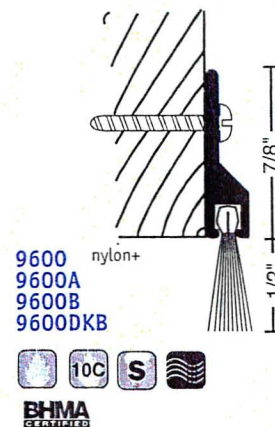
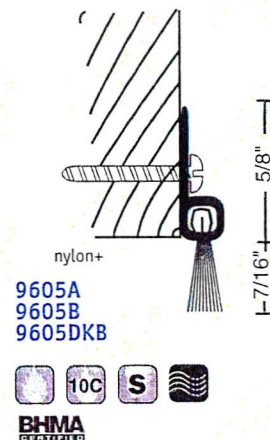
Specially formulated to withstand greater temperature extremes while providing maximum protection against air infiltration. Color of Allseal gasket material is Tan.

### Perimeter Seals

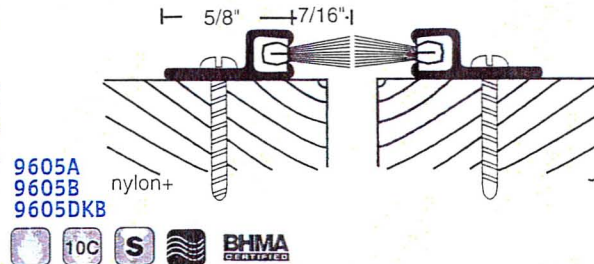
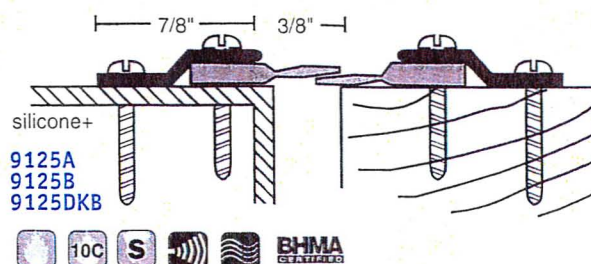
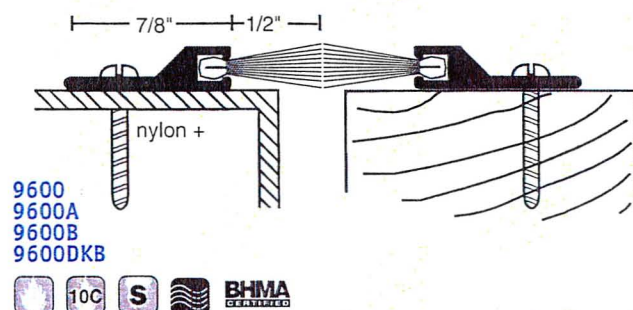
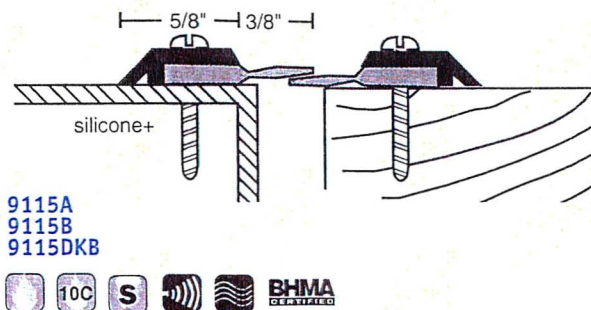
#6 x 3/4" Stainless Steel Sheet Metal Screws furnished.



### Perimeter Seals or Sweeps



### Astragal Seals







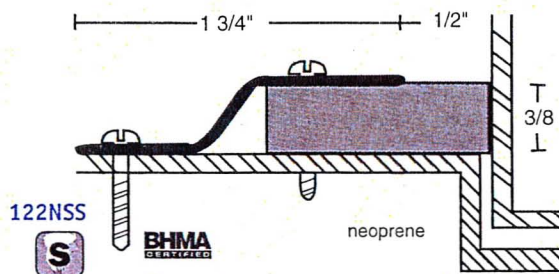
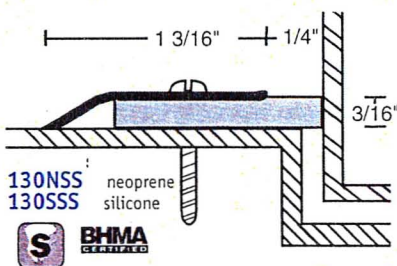
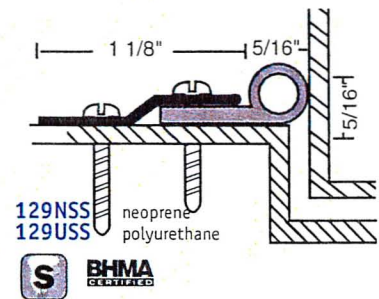
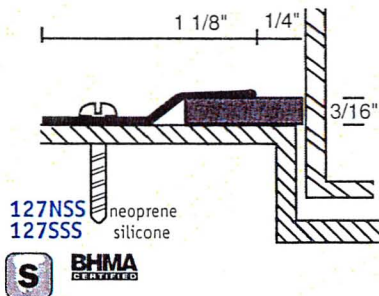
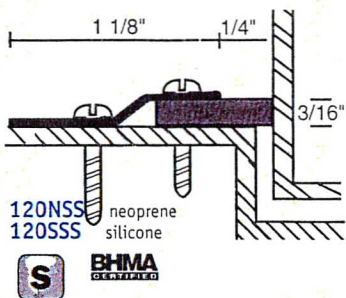
# National Guard Products, Inc.

PROTECTION, INSIDE OUT

## Stainless Steel Perimeter Seals

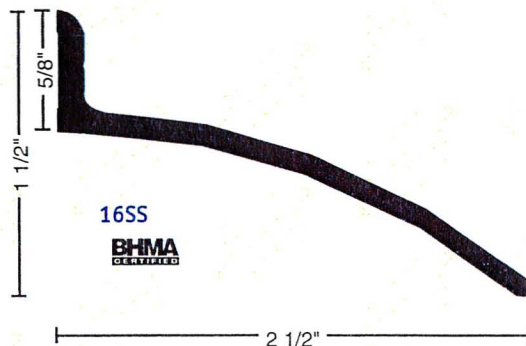
### Stainless Steel Perimeter Seals

All items this section.

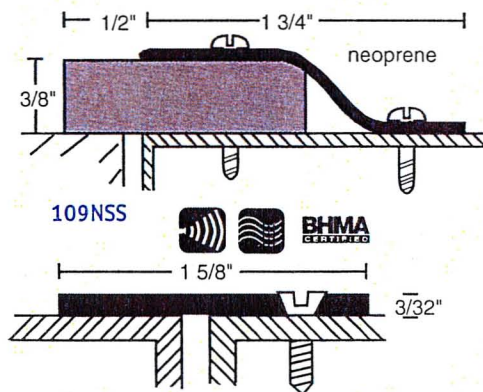


#6 X 3/4 stainless steel SMS furnished. Screw holes slotted for adjustment.

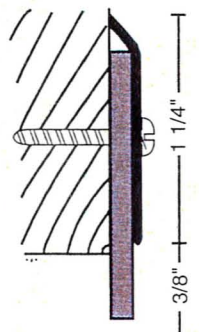
### Stainless Steel Drip Strip



### Stainless Steel Astragal Seals



### Stainless Steel Door Sweep

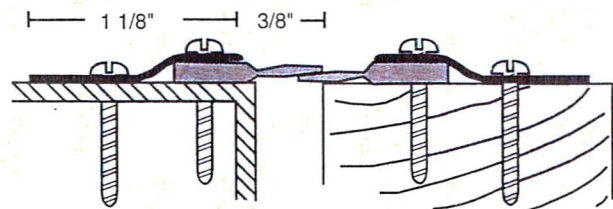


200NSS neoprene  
200USS polyurethane  
200SSS silicone  
BHMA CERTIFIED



OK for use on 'S' label doors.

139SS Available lead lined - suffix "LD"  
#10 x 3/4" SMS furnished  
BHMA CERTIFIED



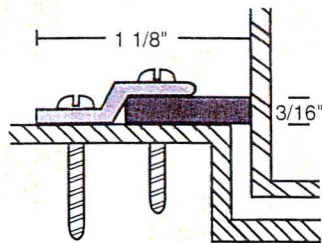
#304 stainless steel mill finish #2B standard.

Available: Polished, (US32, 629) suffix - "POL" or  
Brushed #4 finish, (US32D, 630) suffix - "Brushed"  
neoprene is black  
silicone is gray  
polyurethane is black

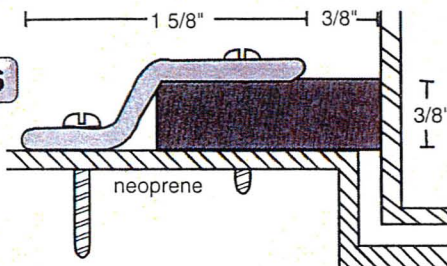


## Perimeter Seals

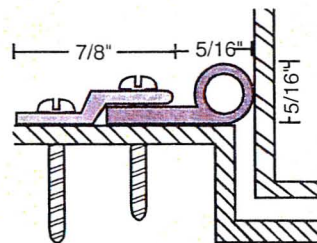
120NBR neoprene  
120SBR silicone



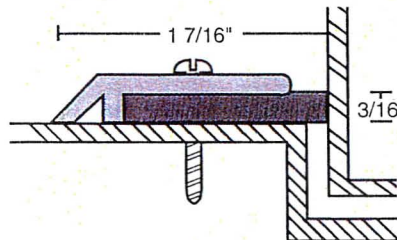
122NBR



129NBR neoprene



129UBR polyurethane

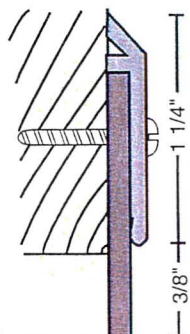


130NBR neoprene

130SBR silicone



## Door Sweep



200NBR neoprene

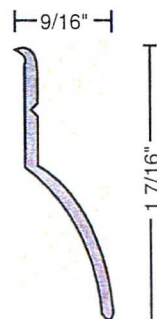
200SBR silicone

200UBR polyurethane



OK for use on 'S' label doors

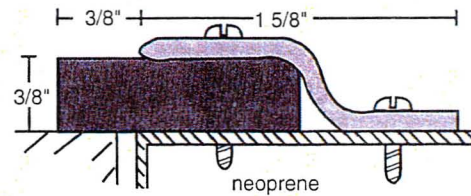
## Drip Strip



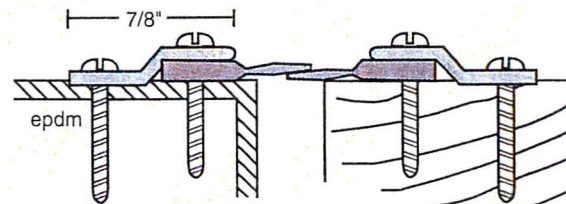
17BR BHMA CERTIFIED

neoprene & polyurethane are black  
silicone & EPDM are gray

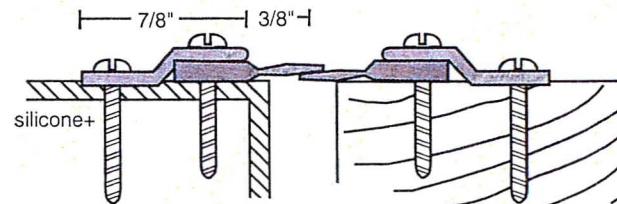
## Astragal Seals



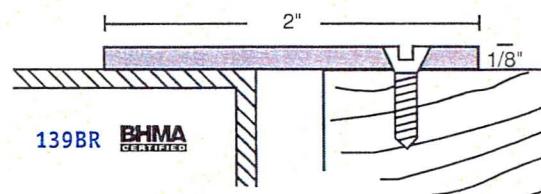
109NBR



125NBR



9125BR



139BR BHMA CERTIFIED

Available lead lined - suffix "LD"

Extruded architectural bronze, mill finish (standard) is a light gold-en color similar to US4. Also available polished or oil rubbed.





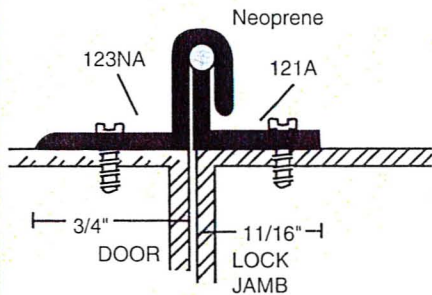
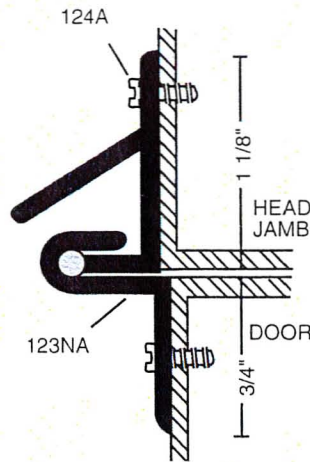
# National Guard Products, Inc.

PROTECTION, INSIDE OUT

## Perimeter Seals - Interlocking/Magnetic - Bronze Weatherstrip

### Interlocking Seals

123NA x 124A  
123NB x 124B  
123NDKB x 124DKB



123NA x 121A

Not for hinge jamb application  
Maximum length 96"



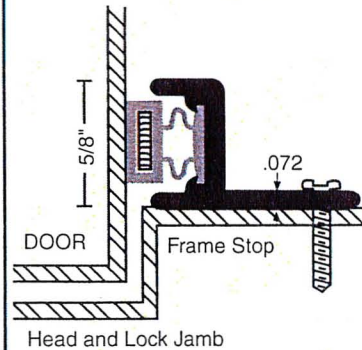
A - natural satin  
B - gold  
DKB - dark bronze

### Magnetic Seals

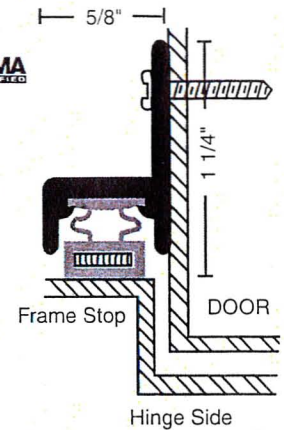
159MA  
159MB  
159MDKB



magnet encased in gray vinyl

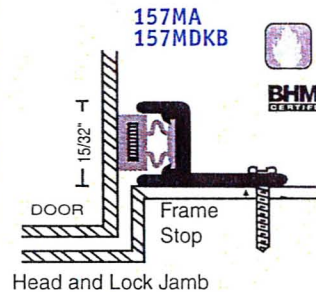


Head and Lock Jamb

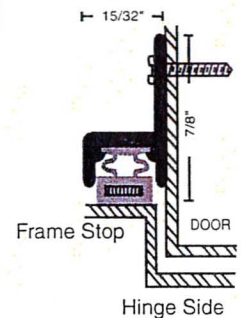


Hinge Side

#6 x 3/4" Stainless steel SMS furnished. Screw holes slotted for adjustment.  
Maximum length 144"



Head and Lock Jamb



Hinge Side

magnet encased in brown vinyl

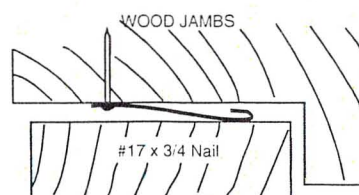
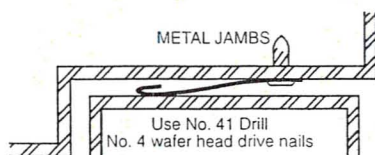
### Spring Bronze Weatherstrip

Spring Bronze .009"

Plain spring Bronze - 100' rolls  
Fasteners not included unless specified.



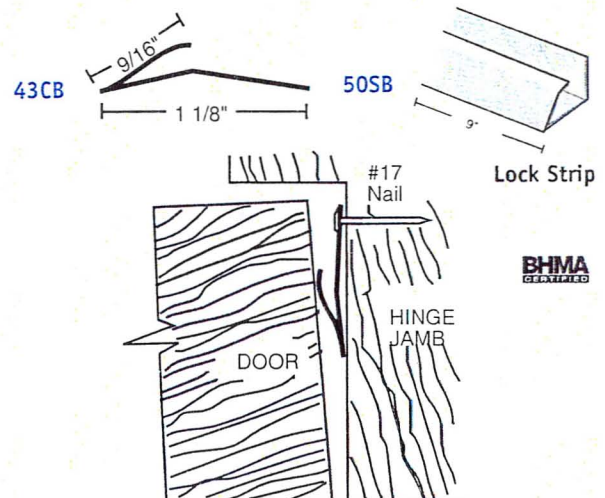
| Cat. No. | Width  |
|----------|--------|
| 43SB     | 1 1/8" |
| 44SB     | 1 1/4" |
| 45SB     | 1 3/8" |



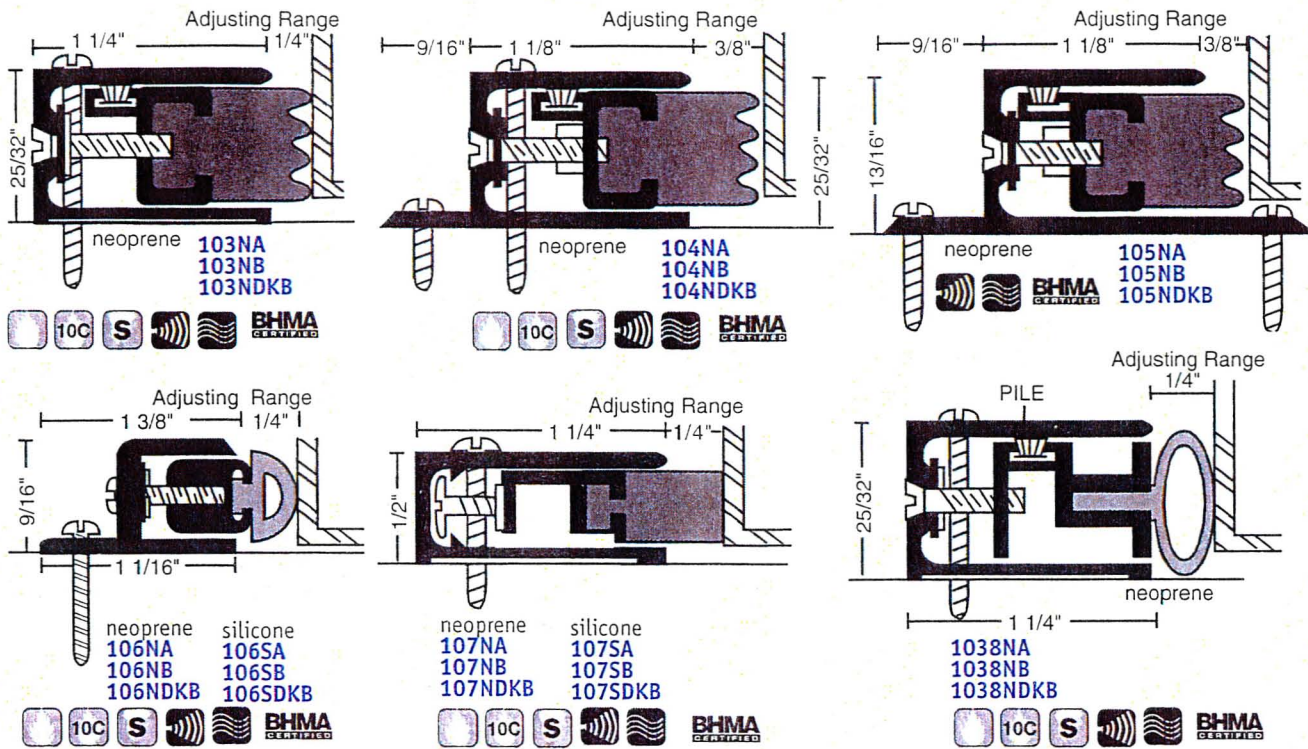
### Cushion Bronze Weatherstrip

Cushion material will not coil. Specify lengths required (36", 48", 72" 86", and 96"). All other lengths on special order. Nails not included. Normal installation requires 3/4 lb. of nails per 100 ft. of weatherstrip. Bronze .006 nails available in 1 lb. bags. Wafer head pilot point drive nails make excellent applications for metal jambs, normal installation requires 6 per foot. Install using #41 drill bit.

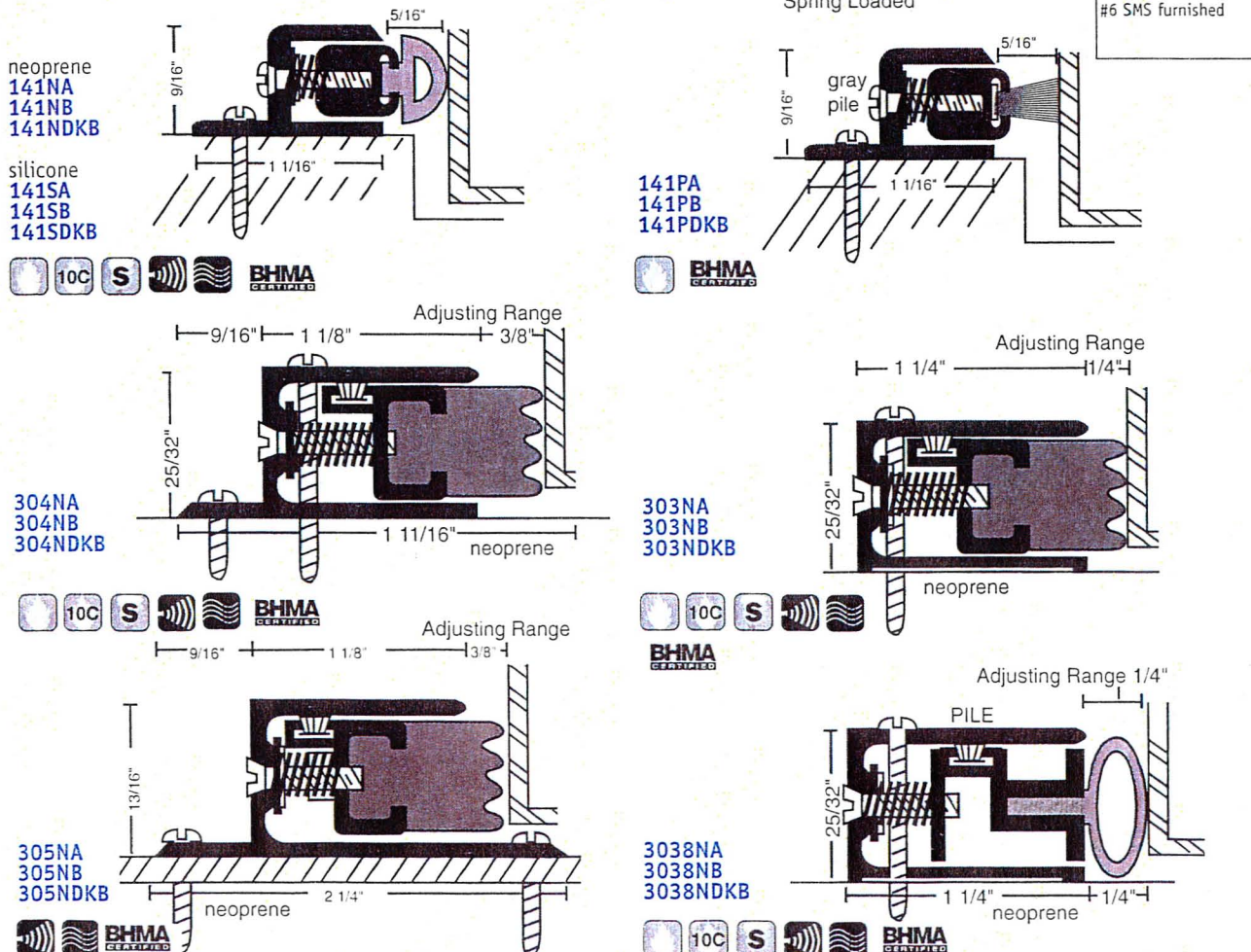
Available with Fast Attach Tape- Specify x "FATT"





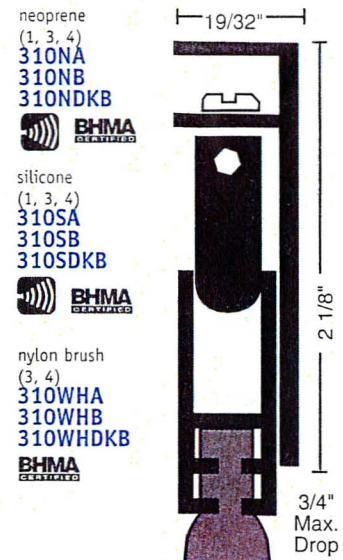


## Spring Adjustable Perimeter Seals





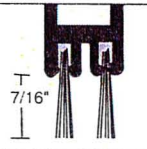
Use with a threshold for maximum sealing capability. Nylon brush recommended for carpet applications where no threshold is provided.



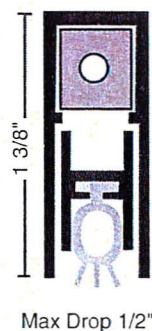
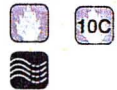
## Slimline

Endurance Tested  
to 5 Million Cycles

Drop Bar with  
Nylon Brush -  
Use suffix "WH"

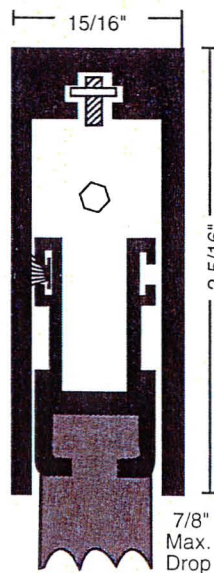


All products  
this page:  
OK for use on  
'S' labeled doors



silicone (5)  
780SA  
780SDKB  
BHMA  
vinyl (5)  
780VA  
780VDKB

Will work half mortised  
on swing or sliding  
doors! Available 24" to  
96" in length



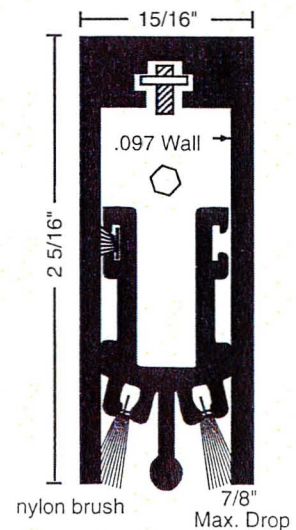
HEAVY DUTY

neoprene  
(1, 2, 5)  
420NA  
420NB  
420NDBK



HEAVY DUTY

neoprene  
(2, 5)  
520NA  
520NB  
520NDBK



HEAVY DUTY

(5)  
680A  
680B  
680DKB



1. Available with lead insert for radiation shield - specify "lead lining".
2. For half mortise applications specify HM item number prior to finish (ie: 420NHMDKB).
3. Door Bottom is handed. Right hand supplied as standard unless specified. Field reversible.
4. End caps available - please specify
5. End Caps furnished standard.

Always specify the exact net length of your Automatic Door bottom, whenever possible. Automatic Door Bottoms 32" and larger may be cut up to 4" in the field, 24" to 32" may be cut 2", under 24" should not be cut in the field. Minimum length 12", maximum length 60" (except 780)





## National Guard Products, Inc.

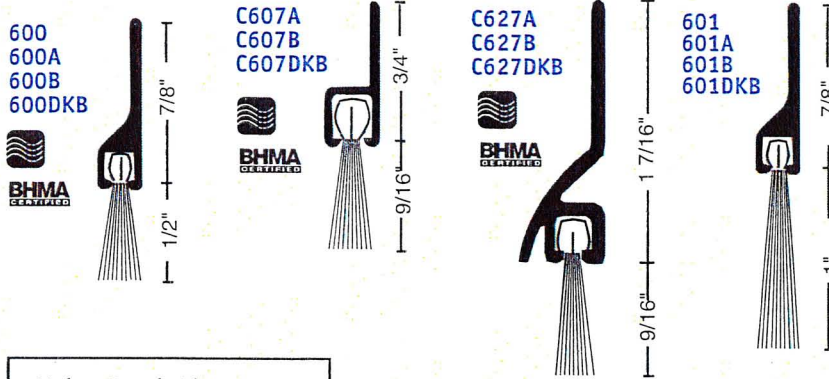
PROTECTION, INSIDE OUT

#6 x 3/4" Stainless Steel Sheet Metal Screws furnished.  
Screw holes are slotted for adjustment.

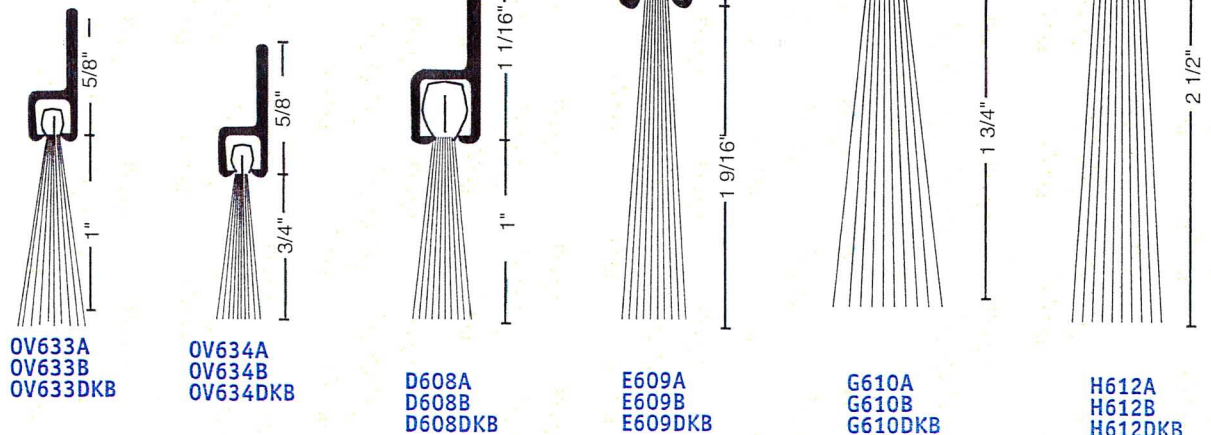
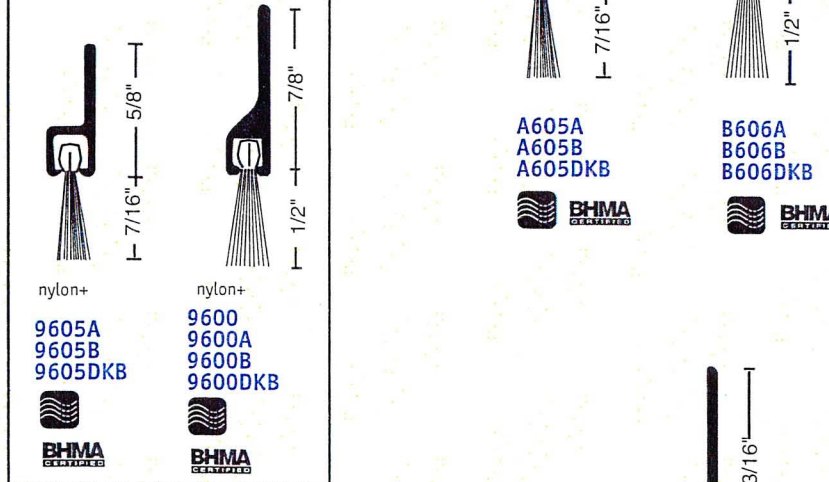
All products  
this page:  
OK for use on  
'S' label doors.



A - clear with gray brush  
B - gold with black brush  
DKB - dark bronze with black brush



**Nylon Brush Plus -**  
Specially formulated to  
withstand greater tempera-  
ture extremes while pro-  
viding maximum protec-  
tion against air infiltra-  
tion. Nylon Brush Plus  
color is Tan.



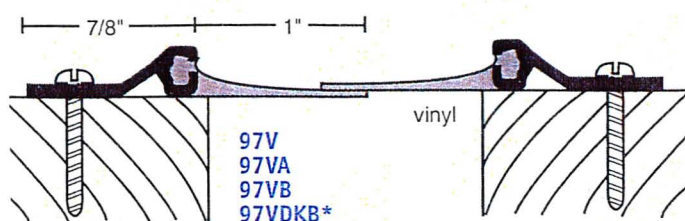
## Astragal/Meeting Stile Gasketing

Fire-rated Astragal Seals cannot replace any astragal required on the door to maintain its fire label. The gap at the latch between fire labeled doors must not exceed 1/8".

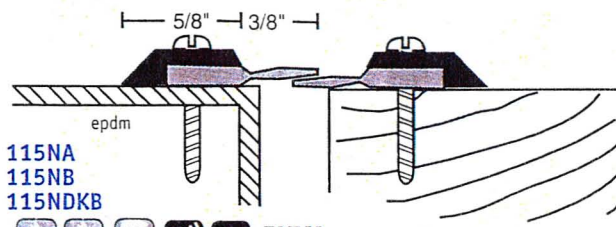
#6 x 3/4" Stainless Steel Sheet Metal Screws furnished.  
Screw holes are slotted for adjustment.

A - clear  
B - gold  
DKB - dark bronze

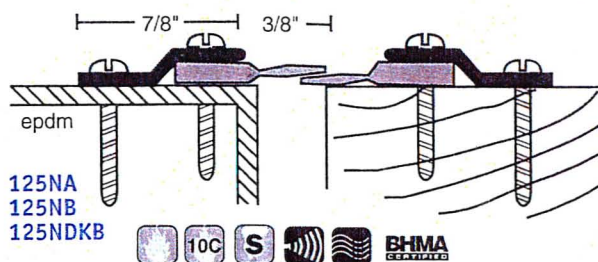
epdm, pile, silicone, vinyl are gray  
\*exception vinyl is black  
neoprene is black



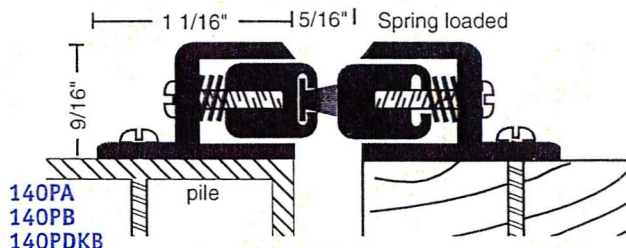
Order as **set** to receive two pieces



Order as **set** to receive two pieces

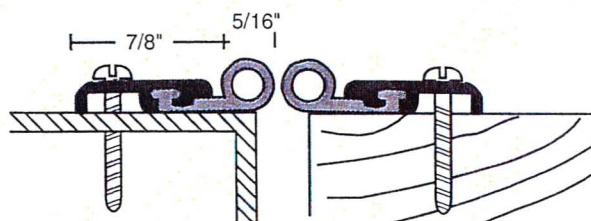


Order as **set** to receive two pieces



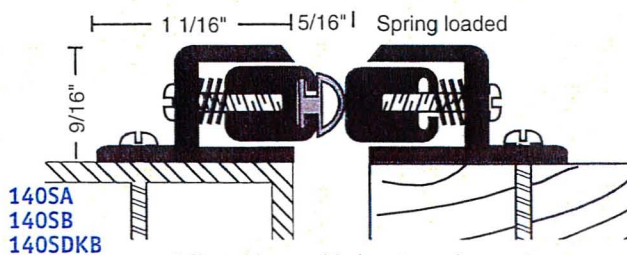
Adjustable provided as two piece **set**

\*up to 3 hrs. metal doors, 20 mins. wood doors



Order as **set** to receive two pieces

silicone  
137SA  
137SB  
137SDKB



Adjustable provided as two piece **set**







# National Guard Products, Inc.

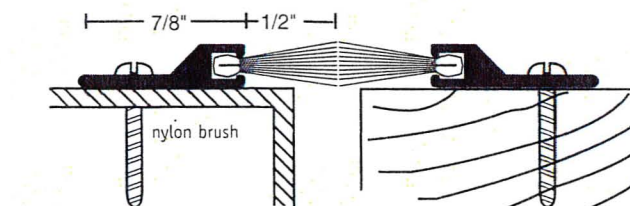
PROTECTION, INSIDE OUT

## Surface Mounted Astragal Sets

### Surface Mounted Astragal Sets

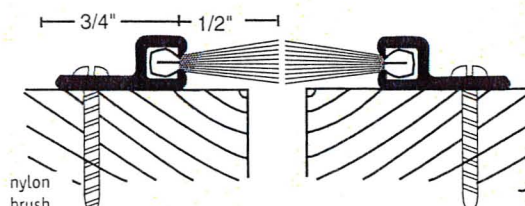
#6 x 3/4" stainless steel SMS furnished.  
Screw holes are slotted for adjustment.

A - clear  
B - gold  
DKB - dark bronze  
Brush is gray with mill finish  
and clear anodized metal;  
black with gold and DKB  
metal



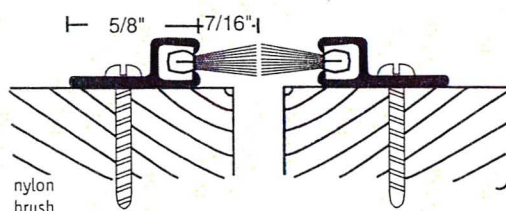
600  
600A  
600B  
600DKB

Order as **set** to receive two pieces



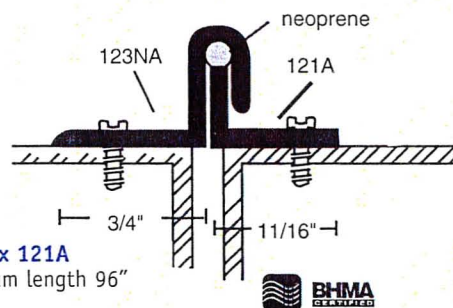
B606A  
B606B  
B606DKB

Order as **set** to receive two pieces

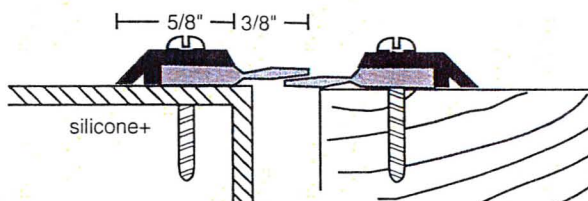


A605A  
A605B  
A605DKB

Order as **set** to receive two pieces

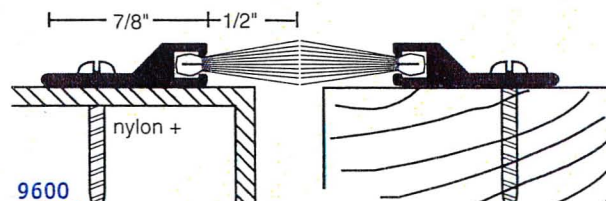


123NA x 121A  
Maximum length 96"



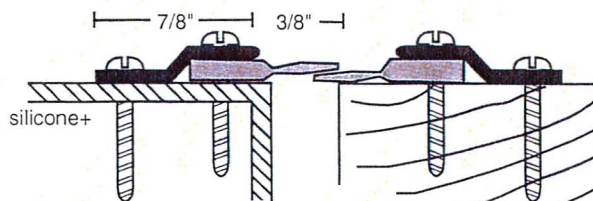
9115A  
9115B  
9115DKB

Order as **set** to receive two pieces  
Silicone + gasket material is tan



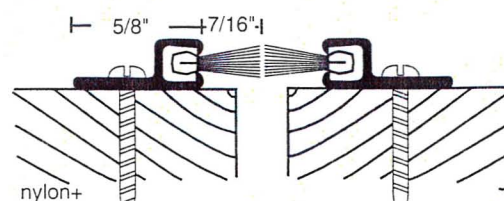
9600  
9600A  
9600B  
9600DKB

Order as **set** to receive two pieces  
Nylon brush + color is tan



9125A  
9125B  
9125DKB

Order as **set** to receive two pieces  
Silicone + gasket material is tan



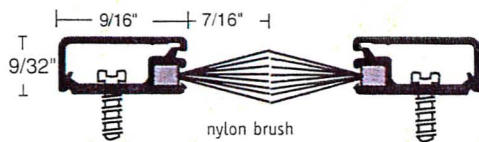
9605A  
9605B  
9605DKB

Order as **set** to receive two pieces  
Nylon brush + color is tan

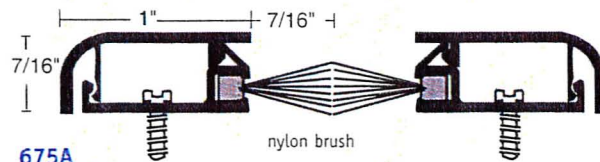




## Concealed Fastener Astragal Sets



**672A**  
**672B**  
**672DKB**  
Order as **set** to receive two pieces

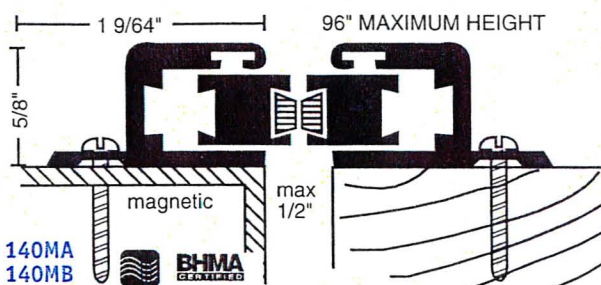


**675A**  
**675B**  
**675DKB**  
Order as **set** to receive two pieces



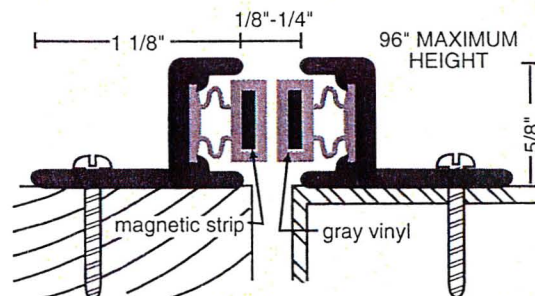
## Magnetic Astragals

#6 x 3/4" stainless steel SMS furnished. Screw holes are slotted for adjustment (except 140M).

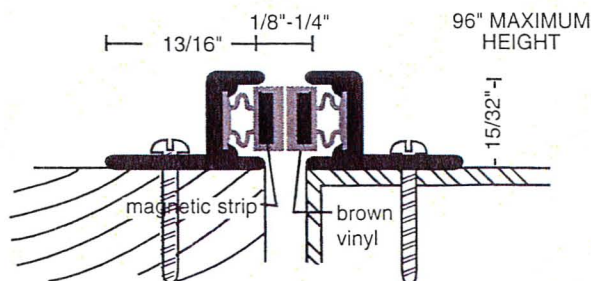


**140MA**  
**140MB**  
**140MDKB**  
Order as **set** to receive two pieces

\*Engineered for use on 80" to 96" Doors **only**.



**149MA**  
**149MB**  
**149MDKB**  
Order as **set** to receive two pieces

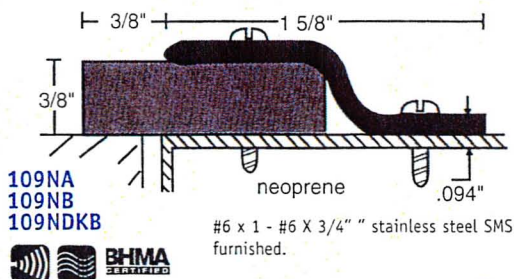


**189MA**  
**189MDKB**  
Order as **set** to receive two pieces

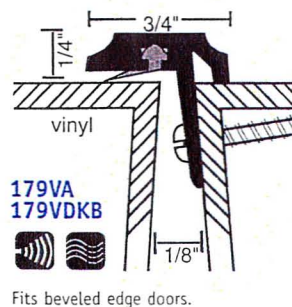
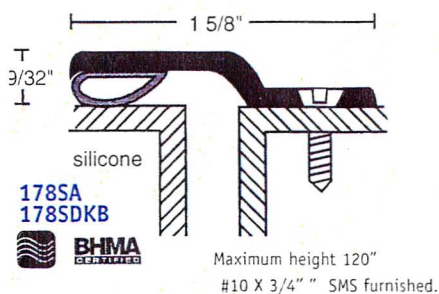
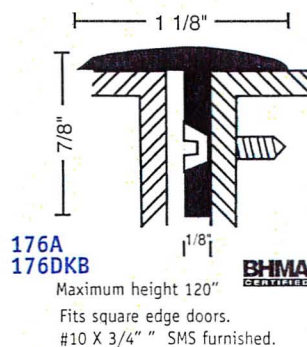
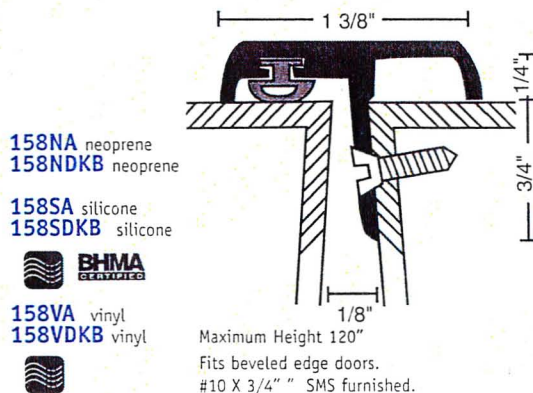
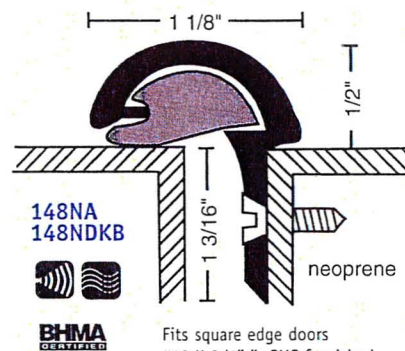
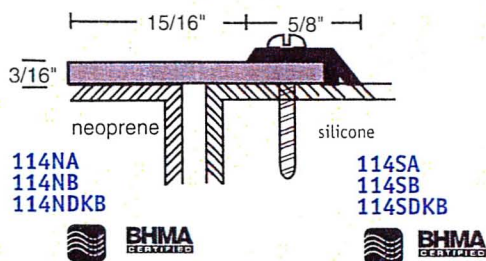


## Astragal/Meeting Stile Gasketing

A - clear  
B - gold  
DKB - dark bronze  
vinyl, pile are gray  
neoprene, silicone are black

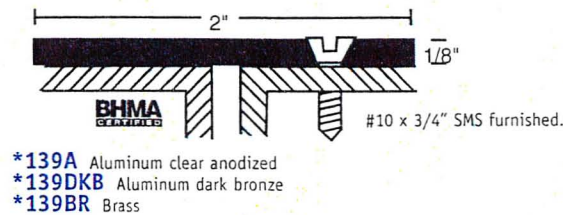
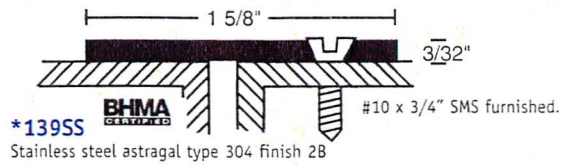


#6 X 3/4" " stainless steel SMS furnished.  
Screw holes are slotted for adjustment.

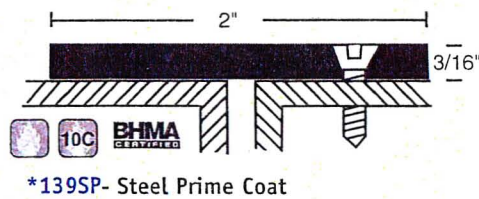




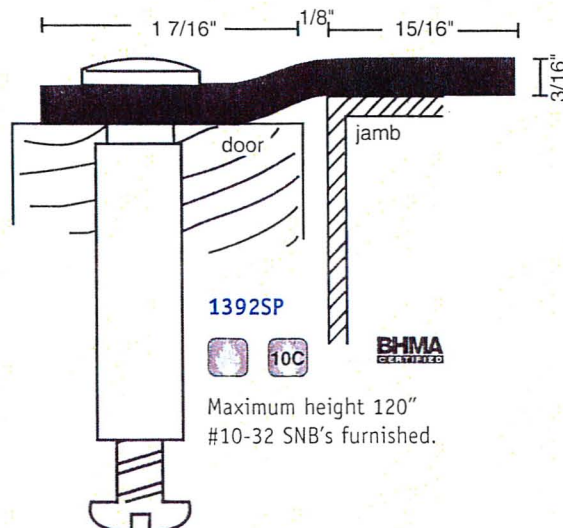
## Solid Metal Astragal Seals



\*Available lead-lined suffix - "LD". Also available with SNB's



## Steel Security Astragal

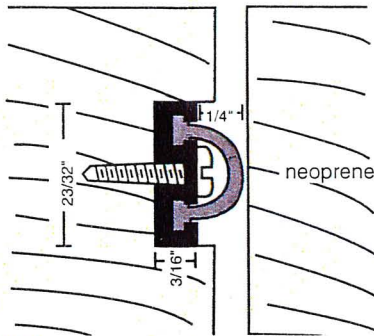




# National Guard Products, Inc.

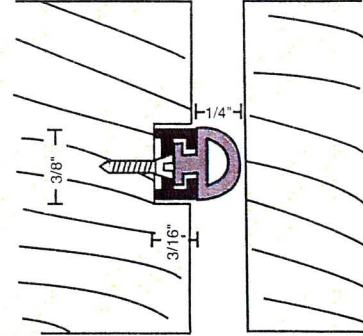
PROTECTION, INSIDE OUT

## Astragals - Mortised



**116N**  
**116NDKB**

Mortise dimensions 3/4" wide x desired depth.  
#6 X 3/4" SMS furnished.

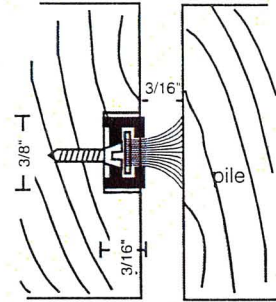


**136N** neoprene  
**136NDKB**

Mortise dimensions 7/16" wide x desired depth.  
#2 SMS furnished.

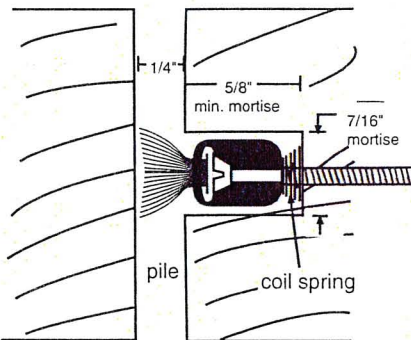


**136S** silicone  
**136SDBK**



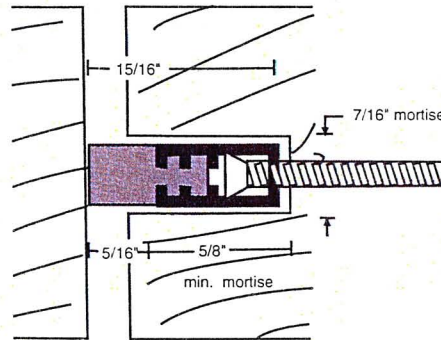
**136P**  
**136PDKB**

Mortise dimensions 7/16" wide x desired depth.  
#2 SMS furnished.



**143PA**  
**143PB**  
**143PDKB**

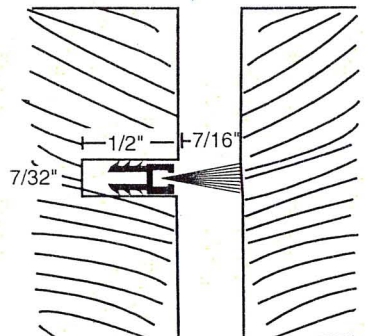
#6 SMS furnished.



**147N** neoprene



#4 x 1" SMS furnished.



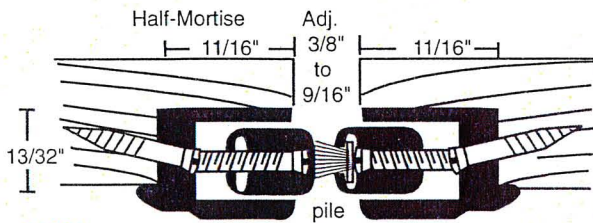
Mortise dimensions 7/32" x 1/2"

**A635**



nylon brush

Order as set to receive two pieces  
Maximum length 108"

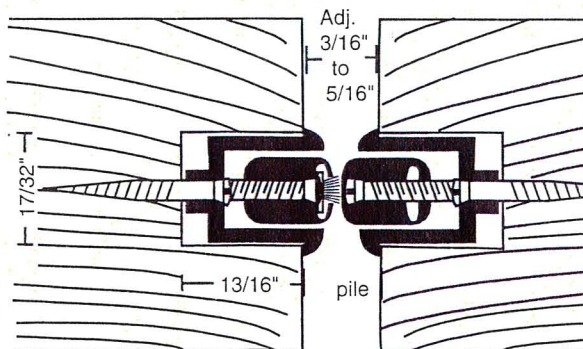


**142PA**  
**142PB**

Spring Loaded



Adjustable - Mortise dimensions 13/32" wide x 11/16".  
Order as set to receive two pieces



**144PA**  
**144PB**  
**144PDKB**

Mortise dimensions 17/32" wide x 13/16".  
#8 x 3/4" SMS furnished  
Order as set to receive two pieces



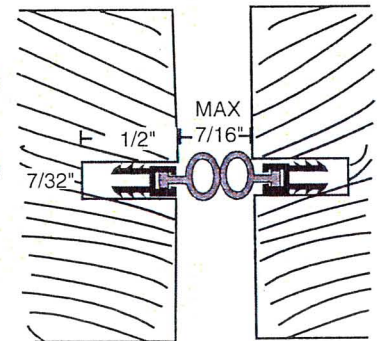
**151N** neoprene



**151S** silicone



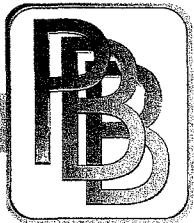
**151V** vinyl



Mortise dimensions 7/32" wide x 1/2"  
Order as set to receive two pieces  
Maximum length 108"

nylon brush, pile, vinyl  
are gray  
neoprene and silicone  
are black





## GENERAL INFORMATION

### APPLICATION DETERMINES KIND OF HINGE

Use Three Hinges To A Door - Use Anti-Friction Bearing Hinges On Doors Equipped With Closers

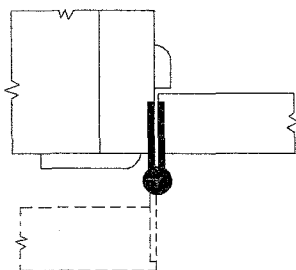
#### TO SELECT THE PROPER HINGE

#### THE FOLLOWING FACTORS SHOULD BE CONSIDERED

- The material of the door and frame determine method of application, i.e. mortised, surface mounted, half surface mounted, or half mortised.
- The size, thickness and weight of the door - Wider doors, put more strain on hinges, so taller hinges should be used. Thicker doors require wider hinges. Heavy doors require taller, heavier gauge, narrower hinges.
- Clearance of the trim when a door swings 180° effects the width of the hinge.
- The frequency of use and the abuse the door will be subjected to effect hinge choice ... heavy duty ball bearing, average ball bearing or non-ball bearing hinges. It also effects the need for additional hardware such as closers, panic devices, etc.

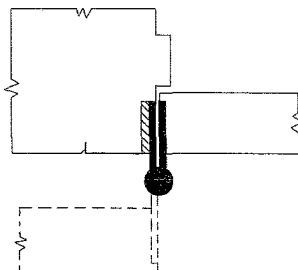
#### FULL MORTISE

Wood Doors, Wood Frame



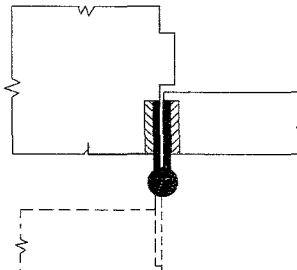
#### FULL MORTISE

Wood Doors, Hollow Metal Frame



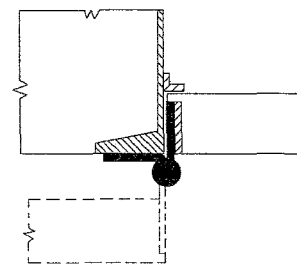
#### FULL MORTISE

Hollow Metal Doors, Hollow Metal Frame



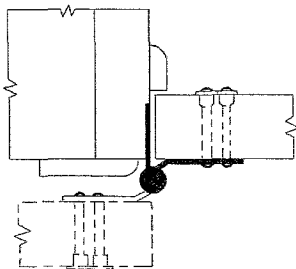
#### HALF MORTISE

Hollow Metal Doors, Channel Iron Frame



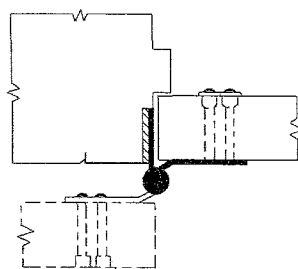
#### HALF SURFACE

Wood Doors, Wood Frame



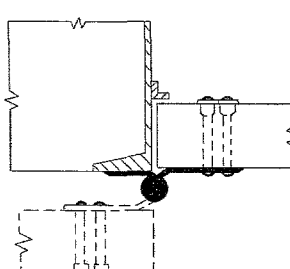
#### HALF SURFACE

Mineral Core Doors, Hollow Metal Frame



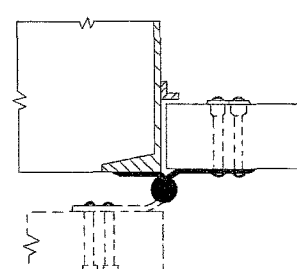
#### FULL SURFACE

Mineral Core Doors, Channel Iron Frame



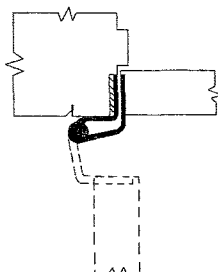
#### FULL SURFACE

Hollow Metal Doors, Channel Iron Frame



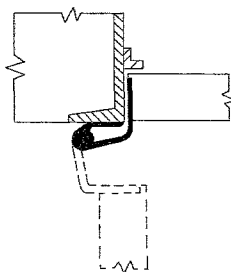
#### "SWING CLEAR" FULL MORTISE

Wood Doors, Hollow Metal Frame



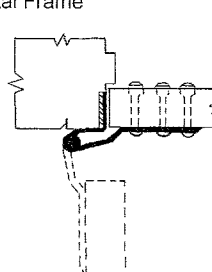
#### "SWING CLEAR" HALF MORTISE

Wood Doors, Channel Iron Frame



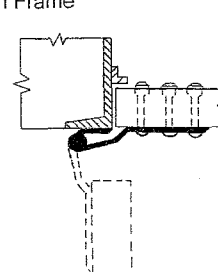
#### "SWING CLEAR" HALF SURFACE

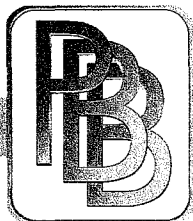
Mineral Core Doors, Hollow Metal Frame



#### "SWING CLEAR" FULL SURFACE

Mineral Core Doors, Channel Iron Frame





## GENERAL INFORMATION

### HOW TO SELECT THE PROPER WEIGHT AND BEARING STRUCTURE

There are three groups of hinges:

- Standard Weight - Plain Bearing
- Standard Weight - Ball Bearing
- Heavy Weight - Ball Bearing

To determine the weight and structure of the hinge you must consider:

1. Frequency of use
2. Weight of door
3. Weight of door hardware

Ball bearing hinges should always be used on doors where door closers are applied and in all fire rated openings. Heavy weight ball bearing hinges should be used on heavy doors and high frequency use doors.

### HOW TO DETERMINE THE FREQUENCY OF USE

Frequency Of Use General Guidelines

| TYPE OF BUILDING/USE                 | EXPECTED DAILY | FREQUENCY YEARLY |
|--------------------------------------|----------------|------------------|
| <b>HIGH FREQUENCY</b>                |                |                  |
| Large Department Store Entrance      | 5,000          | 1,825,000        |
| Large Office Building Entrance       | 4,000          | 1,460,000        |
| Hospital Corridor and Surgical Doors | 5,000          | 1,825,000        |
| School Entrance                      | 1,250          | 356,250          |
| Office Stairwell                     | 500            | 182,500          |
| <b>MEDIUM FREQUENCY</b>              |                |                  |
| Hospital Consultation Rooms          | 100            | 36,500           |
| School Corridor                      | 100            | 36,500           |
| Office Building Corridor             | 80             | 29,200           |
| Storage Room                         | 50             | 18,250           |
| <b>LOW FREQUENCY</b>                 |                |                  |
| Residential Entrance                 | 30             | 10,950           |
| Residential Interior                 | 20             | 7,300            |

### HOW TO DETERMINE THE DOOR WEIGHT

Estimated Door Weights in Pounds Per Sq. Foot

| COMMERCIAL FLUSH WOOD DOOR WEIGHTS            |        |        |     |        |        |
|---|--------|--------|-----|--------|--------|
| Estimated Door Weights in Pounds Per Sq. Foot |        |        |     |        |        |
| DOOR THICKNESS:                               | 1-3/8" | 1-3/4" | 2"  | 2-1/4" | 2-1/2" |
| DOOR MATERIAL:                                |        |        |     |        |        |
| 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    |
| Res. Hollow Core                              | 1.7    | 2.5    | -   | -      | -      |
| Inst. Hollow Core                             | -      | 3.2    | -   | -      | -      |
| Staved Core                                   | 3.3    | 4.2    | -   | 5.4    | -      |
| Particle Board Core                           | 4.0    | 5.0    | -   | -      | -      |
| Mineral Core                                  | -      | 4.0    | -   | -      | -      |
| Acoustic Core                                 | -      | 8.3    | -   | 10.6   | -      |
| 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    | 10.2   | -   | -      | -      |
| 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   | -   | -      | -      |

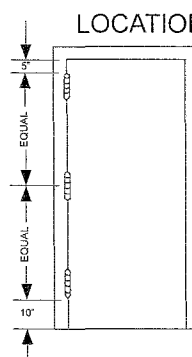
The above table represents relative weights of most common doors and is intended to be a guide or approximation.

### HOW TO SELECT THE PROPER HINGE SIZE

1. Door Height
2. Door Weight
3. Door Width
4. Door Thickness
5. Trim Dimension Required

First find the height of hinge. **The following chart is only an example.** Job situation will vary.

| THICKNESS OF DOOR IN INCHES | WIDTH OF DOOR IN INCHES | HEIGHT OF HINGE IN INCHES |
|-----------------------------|-------------------------|---------------------------|
| 1-3/8" Door                 | To 32"                  | 3-1/2"                    |
| 1-3/8" Door                 | 32" to 36"              | 4"                        |
| 1-3/4" Door                 | To 36"                  | 4-1/2"                    |
| 1-3/4" Door                 | 36" to 48"              | 5"                        |
| 1-3/4" Door                 | Over 48"                | 6"                        |
| 2", 2-1/4", 2-1/2" Door     | To 42"                  | 5" Heavy Weight           |
| 2", 2-1/4", 2-1/2" Door     | Over 42"                | 6" Heavy Weight           |



### LOCATION OF HINGES ON DOORS

Top hinge 5" from jamb rabbet to top edge of barrel.

Bottom hinge 10" from bottom edge of barrel to finished floor.

Third hinge centered between top and bottom hinges.

The above is U.S. Standards procedure.

\* Certain western states use as standard 7" from top and 11" from the bottom.

### HOW TO DETERMINE THE NUMBER OF HINGES PER DOOR

As a general rule you will want to use 1 hinge per every 30" of door or fraction thereof.

Referring to door height:

Doors up to 60" - 2 hinges, doors over 60" but not over 90" - 3 hinges, doors over 90" but not over 120" - 4 hinges.

### HOW TO DETERMINE THE HINGE WIDTH

You need:

1. Door Thickness
2. Backset
3. Clearance required

**Wood Door x Wood Frame:** The door would be flush with the casing or face of the frame

**Wood or Metal Door x Hollow Metal Frame:** The door inset would be 1/8".

**Doors up to 2-1/4" Thick:** The hinge is set back 1/4" from the back face of the door.

**Doors over 2-1/4" Thick:** The hinge is set back 3/8" from the back face of the door.

Once these dimensions are known you can apply the following formula:

Take the door thickness, minus the backset, times two, plus the clearance required. If the size is not standard move up to the next larger hinge width.

The first dimension of a full Mortise hinge is the hinge height. The second dimension is the hinge width when both leaves are in the open position. It may be necessary to extend the width of the hinge to clear trim or wall conditions.



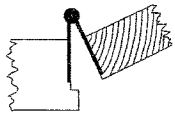


## GENERAL INFORMATION

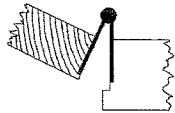
### HAND OF DOORS

All doors are handed - right or left. The following illustration indicated clearly this "handling" as it is understood within the hardware industry.

#### REGULAR DOORS OPENING IN

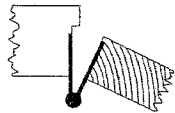


**OUTSIDE**  
Left hand door  
takes  
left hand hinges

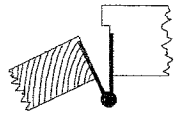


**OUTSIDE**  
Right hand door  
takes  
right hand hinges

#### REVERSED DOORS OPENING OUT Including Bookcase, Closet and Cupboard Doors

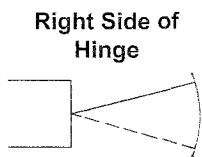


**OUTSIDE**  
Left hand reverse door  
takes  
right hand hinges

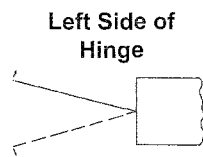


**OUTSIDE**  
Right hand reverse door  
takes  
left hand hinges

#### DOUBLE ACTING



**OUTSIDE**  
Left hand door  
takes  
left hand hinges



Outside

**OUTSIDE**  
Left hand door  
takes  
left hand hinges

(Hand of door is determined from outside)

When standing on outside of door and hinges are on the right, it is right hand. When hinges are on the left, it is left hand.

A double acting door opens from you and toward you, therefore is not called reverse like a single acting door. When specifying two finishes on the same hinge, stand in the doorway facing the jamb to determine the right or left side.

### TEMPLATE HINGES

All PBB template hinges are made to close tolerances and conform to the American National Standard Institutes (ANSI) specifications wherever applicable.

Template hinges will exactly fit the cutout and screw hole location in hollow metal doors and hollow metal frames made to similar template.

Each hinge is carefully inspected and held within close commercial tolerances.

We recommend the use of blueprint templates, which are available on all sizes, when physical sample of a template hinge is not required. These are drawings which show actual measurements, gauge of metal, location, and size. (Note: Some template drawings are not to scale).

Use of physical samples to make cutouts on metal doors or frames is not recommended.

### HINGE SWAGING

Swaging is the slight offset in the hinge leaves which permits them to close to parallel position as the door closes.

All hinges for full mortise application are swaged. Normal swaging on standard and heavy gauge hinges provides a clearance of 1/16" when leaves are parallel. Full mortise wide throw hinges have a clearance of 3/32".



**HINGE OPENED**



**HINGE CLOSED**

Hinges for full surface application are not swaged. Blank hinges are for full surface welded application and are always furnished "flat back" unless otherwise specified.



**HINGE OPENED**



**HINGE CLOSED**

When only one leaf is swaged, the non-swaged leaf is approximately 1/16" shorter. *Exception-on template hinges for metal door and metal frame application both leaves must be the same width, so specify: "Leaves must be equal."* These hinges also require right or left specification.

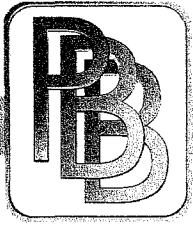


#### HINGE WITH ONE LEAF SWAGED

When only one leaf is swaged, the non-swaged leaf is approximately 3/32" shorter. *Exception-on template hinges for metal door and metal frame application both leaves must be the same width, so specify: "Leaves must be equal."* These hinges are handed requiring right or left specification.



#### HINGE WITH ONE LEAF SWAGED FLAT



## FULL MORTISE TEMPLATE BALL BEARING

### STANDARD WEIGHT

3 1/2" x 3 1/2" 4" x 4"

**BB81 (ANSI A8112)**

Steel-Polished and Plated or Bonderized and Prime Coated for Painting.

**BB21 (ANSI A2112)**

Brass-Polished and Plated

**BB51 (ANSI A5112)**

Stainless Steel-Polished and Satin Finish

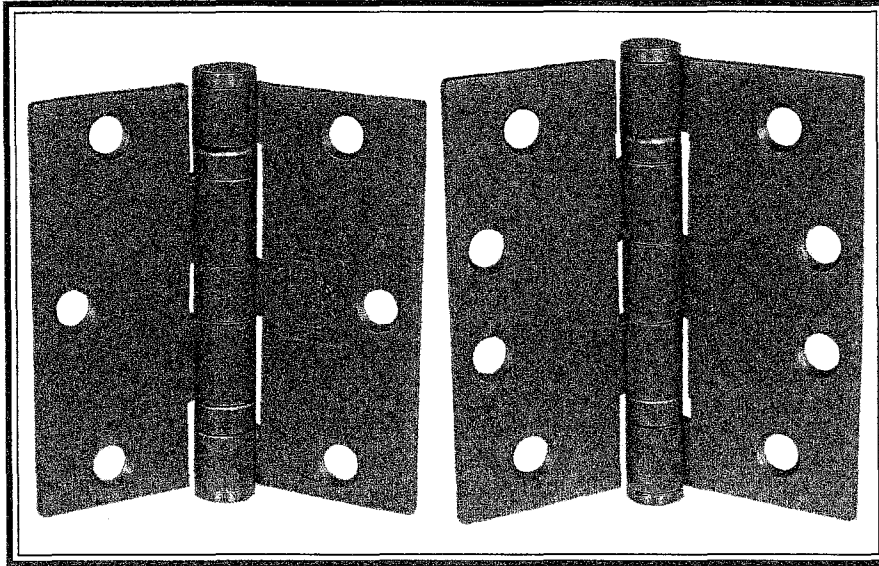
- For use on medium weight doors or doors requiring average frequency service.

- Ball bearing hinges must be used on doors in conjunction with door closers and on all fire rated openings.

- For hospital type, add HT to suffix of part number.

- 3-1/2, 4" available in square, 5/8", 1/4" Radius Round Corners.

- All hinges are ANSI template.



**GENERAL PRODUCT INFORMATION:** PBB, Inc. template hinges are manufactured to close tolerances and meet all specifications and requirements set by the American National Standards Institute (ANSI).

**HINGE SWAGING:** A standard swaging of our standard weight full mortise hinge when closed to parallel position provides a 1/16" clearance between leaves.

#### MATERIAL GAUGE:

.123 ± .005 for 3-1/2" x 3-1/2"

.130 ± .005 for 4" x 4"

#### OTHER SPECIFICATIONS:

Height of hinge:

3.50 + .000  
- .015 for 3-1/2" x 3-1/2"

4.00 + .000  
- .015 for 4" x 4"

Width:

3.50 ± .015 for 3-1/2" x 3-1/2"

4.00 ± .015 for 4" x 4"

Template screw hole locations for all 3-1/2 x 3-1/2 Full Mortise Template butts are punched to Commercial Standard CS9-65.

#### 3-1/2" STANDARD SCREW SIZE

FHMS - 10-24 x 1/2"

FHWS - 10 x 1"

#### 4" STANDARD SCREW SIZE

FHMS - 12-24 x 1/2"

FHWS - 12 x 1-1/4"

#### PACKAGING INFORMATION:

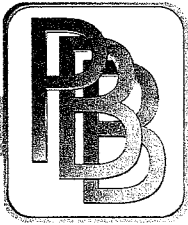
One hinge per plastic bag, 3 hinges and 1 screw pack per unit carton.

16 unit carton or 48 hinges per master shipping carton.

1 screw pack includes all machine screws (24), and 1/2 wood screws (12). ATMS & AWS also available.

For 3-1/2 x 3-1/2, 1 screw pack includes (18) machine screws and (18) wood screws.

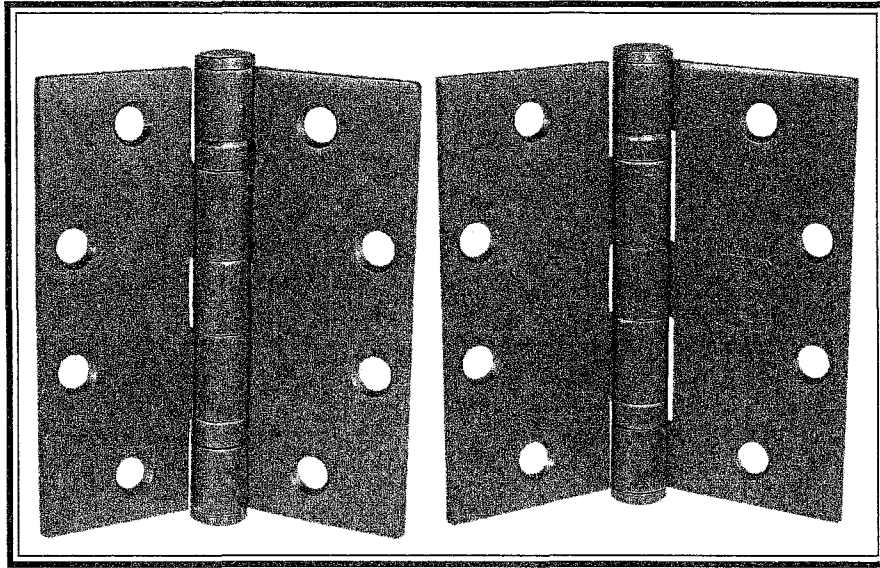




## FULL MORTISE TEMPLATE BALL BEARING

### STANDARD WEIGHT

4 1/2" x 4" 4 1/2" x 4 1/2"



**BB81** (ANSI A8112)

Steel-Polished and Plated or Bonderized and Prime Coated for Painting.

**BB21** (ANSI A2112)

Brass-Polished and Plated

**BB51** (ANSI A5112)

Stainless Steel-Polished and Satin Finish

•For use on medium weight doors or doors requiring average frequency service.

•Ball bearing hinges must be used on doors in conjunction with door closers and on all fire rated openings.

•For hospital type, add HT to suffix of part number.

•All hinges are ANSI template.

**GENERAL PRODUCT INFORMATION:** PBB, Inc. template hinges are manufactured to close tolerances and meet all specifications and requirements set by the American National Standards Institute (ANSI).

**HINGE SWAGING:** A standard swaging of our standard weight full mortise hinge when closed to parallel position provides a 1/16" clearance between leaves.

### OTHER SPECIFICATIONS:

|                  |             |                     |
|------------------|-------------|---------------------|
| Height of hinge: | + .000      |                     |
|                  | 4.50 - .015 | for 4-1/2" x 4"     |
| Width:           | + .000      |                     |
|                  | 4.50 - .015 | for 4 1/2" x 4-1/2" |
|                  | 4.00 ± .015 | for 4-1/2" x 4"     |
|                  | 4.50 ± .015 | for 4-1/2" x 4-1/2" |

### MATERIAL GAUGE:

.134 ± .005 for 4-1/2" x 4"

.134 ± .005 for 4-1/2" x 4-1/2"

### 4-1/2" STANDARD SCREW SIZE

FHMS - 12-24 x 1/2"

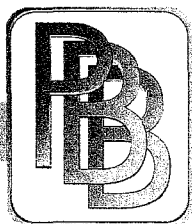
FHWS - 12 x 1-1/4"

### PACKAGING INFORMATION:

One hinge per plastic bag, 3 hinges and 1 screw pack per unit carton.

16 unit carton or 48 hinges per master shipping carton.

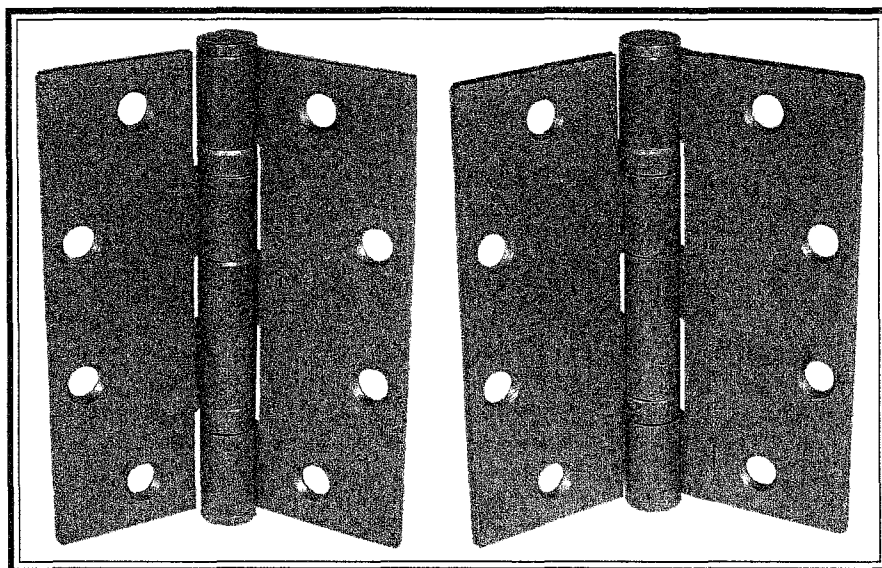
1 screw pack includes all machine screws (24), and 1/2 wood screws (12). ATMS & AWS also available.



## FULL MORTISE TEMPLATE BALL BEARING

### STANDARD WEIGHT

5" x 4" 5" x 4 1/2" 5" x 5"



**BB81** (ANSI A8112)

**Steel** - Polished and Plated or Bonderized and Prime Coated for Painting.

**BB21** (ANSI A2112)

**Brass**-Polished and Plated

**BB51** (ANSI A5112)

**Stainless Steel**-Polished and Satin Finish

•For use on medium weight doors or doors requiring average frequency service.

•Ball bearing hinges must be used on doors in conjunction with door closers and on all fire rated openings.

•For hospital type, add HT to suffix of part number.

•All hinges are ANSI template.

**GENERAL PRODUCT INFORMATION:** PBB, Inc. template hinges are manufactured to close tolerances and meet all specifications and requirements set by the American National Standards Institute (ANSI).

**HINGE SWAGING:** A standard swaging of our standard weight full mortise hinge when closed to parallel position provides a 1/16" clearance between leaves.

#### MATERIAL GAUGE:

.146 ± .005 for 5" x 4"  
.146 ± .005 for 5" x 4-1/2"  
.146 ± .005 for 5" x 5"

#### OTHER SPECIFICATIONS:

Height of hinge:

5.00 + .000  
- .015 for 5" x 4"

5.00 + .000  
- .015 for 5" x 4-1/2"

5.00 + .000  
- .015 for 5" x 5"

Width:

4.00 ± .015 for 5" x 4"

4.50 ± .015 for 5" x 4-1/2"

5.00 ± .015 for 5" x 5"

#### 5" STANDARD SCREW SIZE

FHMS - 12-24 x 1/2"

FHWS - 12 x 1-1/4"

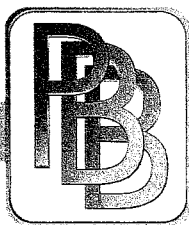
#### PACKAGING INFORMATION:

One hinge per plastic bag, 3 hinges and 1 screw pack per unit carton.

12 unit carton or 36 hinges per master shipping carton.

1 screw pack includes all machine screws (24), and 1/2 wood screws (12). ATMS & AWS also available.

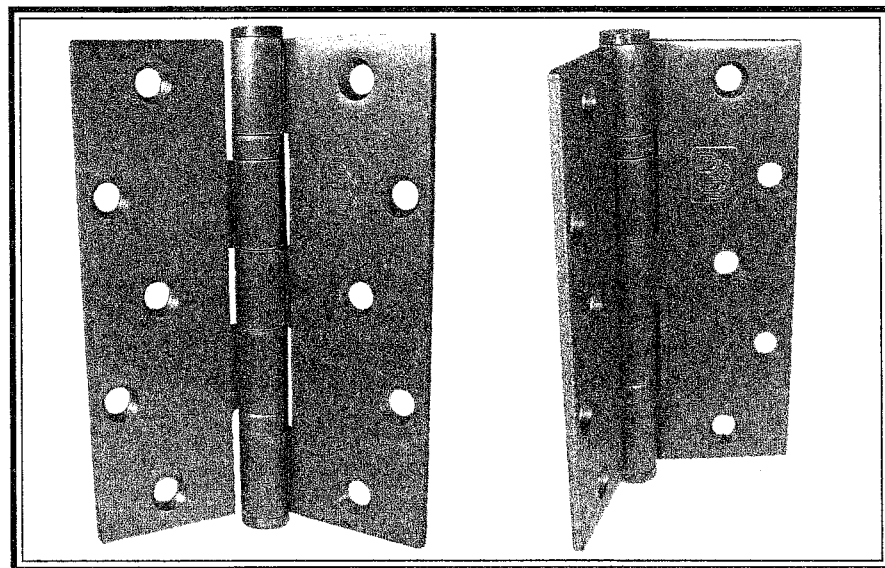




## FULL MORTISE TEMPLATE BALL BEARING

### STANDARD WEIGHT

6" x 4 1/2" 6" x 5" 6" x 6"



**BB81 (ANSI A8112)**

**Steel**-Polished and Plated or Prime Coated for Painting.

**BB21 (ANSI A2112)**

**Brass**-Polished and Plated or Prime Coated for Painting

**BB51 (ANSI A5112)**

**Stainless Steel**-Polished and Satin Finish

•For use on medium weight doors or doors requiring average frequency service.

•Ball bearing hinges must be used on doors in conjunction with door closers and on all fire rated openings.

•For hospital type, add HT to suffix of part number.

•All hinges are ANSI template.

**GENERAL PRODUCT INFORMATION:** PBB, Inc. template hinges are manufactured to close tolerances and meet all specifications and requirements set by the American National Standards Institute (ANSI).

**HINGE SWAGING:** A standard swaging of our standard weight full mortise hinge when closed to parallel position provides a 1/16" clearance between leaves.

#### MATERIAL GAUGE:

.160 ± .005 for 6" x 4-1/2"

.160 ± .005 for 6" x 5"

.160 ± .005 for 6" x 6"

#### OTHER SPECIFICATIONS:

Height of hinge:

6.00 + .000  
- .015 for 6" x 4-1/2"

6.00 + .000  
- .015 for 6" x 5"

6.00 + .000  
- .015 for 6" x 6"

Width:

4.50 ± .015 for 6" x 4-1/2"

5.00 ± .015 for 6" x 5"

6.00 ± .015 for 6" x 6"

#### 6" STANDARD SCREW SIZE

FHMS - 1/4-20 x 1/2"

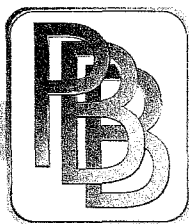
FHWS - 14 x 1-1/2"

#### PACKAGING INFORMATION:

One hinge per plastic bag, 3 hinges and 1 screw pack per unit carton.

8 unit carton or 24 hinges per master shipping carton.

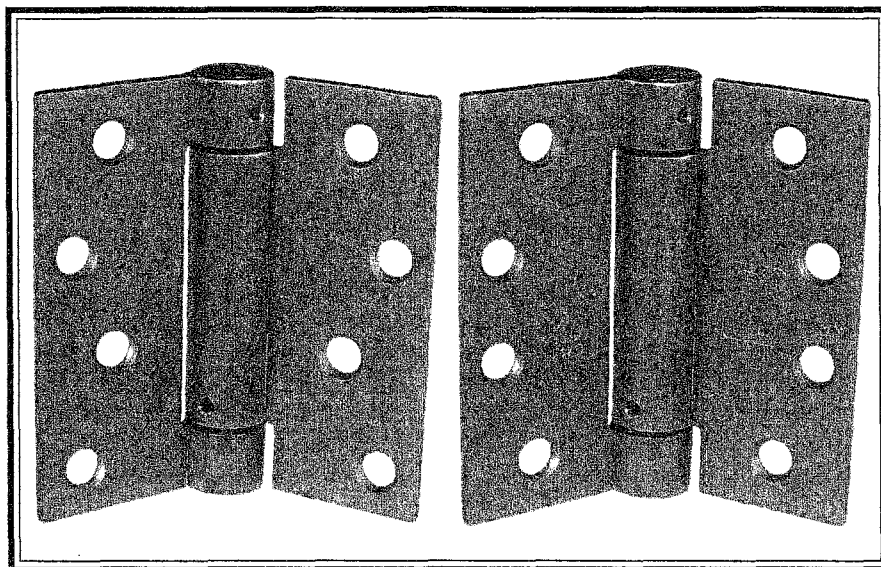
1 screw pack with all machine screws (30), and 1 screw pack with 1/2 wood screws (15). ATMS & AWS also available.



# FULL MORTISE U.L. LISTED SPRING HINGE

## STANDARD WEIGHT

### 4" x 4"



**SP81 (ANSI K8107)**

Steel-Polished and Plated or Bonderized and Prime Coated for Painting.

**SP51 (ANSI K5107)**

Stainless Steel-Polished and Satin Finish

•Spring hinge door closer Model K8107 passed a 250,000 cycle UL test in accordance with Underwriters Laboratories for door closers, with or without integral smoke detectors.

•All hinges are ANSI template. 4" available in square and in 1/4" & 5/8" radius round corners.



**GENERAL PRODUCT INFORMATION:** PBB, Inc. template hinges are manufactured to close tolerances and meet all specifications and requirements set by the American National Standards Institute (ANSI).

### OTHER SPECIFICATIONS:

Height of hinge:

4.00 + .000  
- .015

Width:

4.00 ± .015

**HINGE SWAGING:** A standard swaging of our standard weight full mortise hinge when closed to parallel position provides a 1/16" clearance between leaves.

### Maximum Door Size

For labeled doors 3' x 7' the maximum door size is based on the limits set forth by NFPA Standard #80. Labeled doors require Ball Bearing hinges.

| SERIES                              | SIZE    | RECOMMENDED MAX DOOR WEIGHT (LBS.) | SPRING HINGE | BUTT HINGE |
|-------------------------------------|---------|------------------------------------|--------------|------------|
| FOR USE ON 1 3/4" DOOR, 1 3/8" DOOR |         |                                    |              |            |
| SP81                                | 4" x 4" | 60                                 | 1            | 2          |
|                                     |         | 85                                 | 2            | 1          |
|                                     |         | 110                                | 3            | -          |

For non-labeled doors 4'0" wide 4" x 4" Spring hinges are not recommended. For non-labeled doors over 7'6" in height, use an additional hinge for each additional 30" of height or fraction thereof.

### NOTES:

1. For complete warranty protection use all spring hinges or a combination of spring hinges and ball bearing hinges. Do not use plain bearing hinges as this voids all factory warranties.
2. Use of gasket for smoke or sound protection, wind condition or unbalanced air pressure may prevent door from latching. Additional closing power would be required. See installation instruction sheet.

**MATERIAL GAUGE:** .130 ± .005

| 4" STANDARD SCREW SIZE |
|------------------------|
| FHMS - 12-24 x 1/2"    |
| FHWS - 12 x 1-1/4"     |

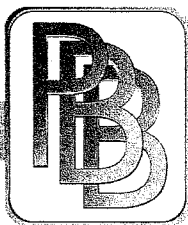
### PACKAGING INFORMATION:

One hinge per plastic bag, 3 hinges and 1 screw pack per unit carton.

16 unit carton or 48 hinges per master shipping carton.

1 screw pack includes all machine screws (24), and 1/2 wood screws (12). ATMS & AWS also available.

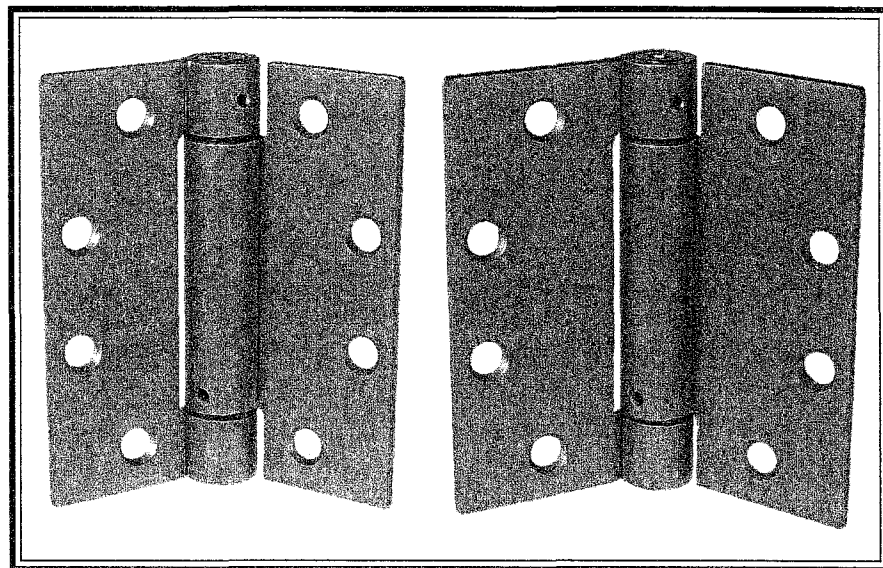




## FULL MORTISE U.L. LISTED SPRING HINGE

### STANDARD WEIGHT

4 1/2" x 4" 4 1/2" x 4 1/2"



**SP81 (ANSI K8107)**

Steel-Polished and Plated or Bonderized and Prime Coated for Painting.

**SP51 (ANSI K5107)**

Stainless Steel-Polished and Satin Finish

•Spring hinge door closer Model K8107/ K5107 passed a 1,000,000 cycle UL test in accordance with Underwriters Laboratories for door closers, with or without integral smoke detectors.

•Both models comply and meet ANSI/BHMA specifications for ANSI/BHMA A156.17 Grade 1 and bear U.L.'s listing mark.

•All hinges are ANSI template.



**GENERAL PRODUCT INFORMATION:** PBB, Inc. template hinges are manufactured to close tolerances and meet all specifications and requirements set by the American National Standards Institute (ANSI).

**HINGE SWAGING:** A standard swaging of our standard weight full mortise hinge when closed to parallel position provides a 1/16" clearance between leaves.

### OTHER SPECIFICATIONS:

Height of hinge:

4.50 + .000 for 4-1/2" x 4"  
- .015

Width:

4.50 + .000 for 4-1/2" x 4-1/2"  
- .015

4.00 ± .015 for 4-1/2" x 4"

4.50 ± .015 for 4-1/2" x 4-1/2"

| SERIES                 | SIZE                       | RECOMMENDED MAX DOOR WEIGHT (LBS.) | SPRING HINGE | BUTT HINGE |
|------------------------|----------------------------|------------------------------------|--------------|------------|
| FOR USE ON 1 3/4" DOOR |                            |                                    |              |            |
| SP81                   | 4 1/2"x4"<br>4 1/2"x4 1/2" | 70                                 | 1            | 2          |
|                        |                            | 100                                | 2            | 1          |
|                        |                            | 150                                | 3            | -          |

### MATERIAL GAUGE:

.134 ± .005 for 4-1/2" x 4"

.134 ± .005 for 4-1/2" x 4-1/2"

| 4-1/2" STANDARD SCREW SIZE |
|----------------------------|
| FHMS - 12-24 x 1/2"        |
| FHWS - 12 x 1-1/4"         |

### Maximum Door Size

For labeled doors 3' x 7' the maximum door size is based on the limits set forth by NFPA Standard #80. Labeled doors require Ball Bearing hinges.

For non-labeled doors 4'0" wide 4" x 4" Spring hinges are not recommended. For non-labeled doors over 7'6" in height, use an additional hinge for each additional 30" of height or fraction thereof.

### NOTES:

1. For complete warranty protection use all spring hinges or a combination of spring hinges and ball bearing hinges. Do not use plain bearing hinges as this voids all factory warranties.

2. Use of gasket for smoke or sound protection, wind condition or unbalanced air pressure may prevent door from latching. Additional closing power would be required. See installation instruction sheet.

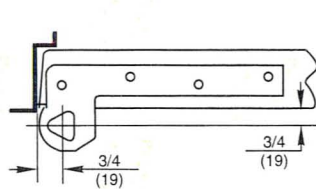
### PACKAGING INFORMATION:

One hinge per plastic bag, 3 hinges and 1 screw pack per unit carton.

16 unit carton or 48 hinges per master shipping carton.

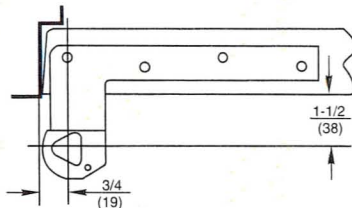
1 screw pack includes all machine screws (24), and 1/2 wood screws (12). ATMS & AWS also available.

### 1. OFFSET VS. CENTER HUNG APPLICATION



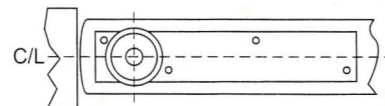
#### 3/4" Offset

Pivot point located 3/4" from the heel edge of the door and 3/4" from face of door.



#### 1-1/2" Offset

Pivot point located 3/4" from the heel edge of the door and 1-1/2" from face of door.



#### Center Hung

Pivot point centered in thickness of door.

### 2. SIZE OF DOOR (WIDTH, HEIGHT, THICKNESS)

| DOOR MATERIAL           | DOOR THICKNESS                      |        |       |        |        |
|-------------------------|-------------------------------------|--------|-------|--------|--------|
|                         | 1-3/8"                              | 1-3/4" | 2"    | 2-1/4" | 2-1/2" |
| Aluminum                | Weight-per-square-foot (in pounds): |        |       |        |        |
| Ash                     | 4-1/2                               | 5-1/4  | 6     | 6-3/4  | 7-1/2  |
| Birch                   | 3-3/4                               | 4-1/2  | 5     | 5-3/4  | 6-1/4  |
| Hollow Metal            | 6-1/2                               | 6-1/2  |       | 6-1/2  |        |
| Oak                     | 6                                   | 7      | 8     | 9      | 10     |
| Pine                    | 3                                   | 3-1/2  | 4     | 4-1/4  | 5      |
| LEAD LINING             | LEAD THICKNESS                      |        |       |        |        |
|                         | 1/64"                               | 1/16"  | 1/8"  | 1/4"   |        |
|                         | Weight-per-square-foot (in pounds): |        |       |        |        |
|                         | 1                                   | 3-3/4  | 7-1/2 | 13-3/4 |        |
| TEMPERED GLASS          | GLASS THICKNESS                     |        |       |        |        |
|                         |                                     | 3/8"   | 1/2"  | 3/4"   |        |
|                         | Weight-per-square-foot (in pounds): |        |       |        |        |
|                         |                                     | 5      | 8     | 9-3/4  |        |
| MARBLE/GRANITE CLADDING | THICKNESS                           |        |       |        |        |
|                         | Weight-per-square-foot (in pounds): |        |       |        |        |
|                         |                                     |        |       | * 3/4" |        |
|                         |                                     |        |       | 10-1/2 |        |

Example: A two-inch-thick birch door has a square foot weight of five pounds. If the door has standard dimensions of 3'(width) x 7'(height), this equals 21 square feet. So, 5 pounds x 21 square feet = 105 pounds total weight.

\*Consult factory for sizes greater than 3/4"

### 3. EXPECTED FREQUENCY OF DOOR OPERATION

| APPLICATION                     | DAILY | YEARLY    |         |
|---------------------------------|-------|-----------|---------|
| Large department store entrance | 5,000 | 1,500,000 | HIGH    |
| Large office building entrance  | 4,000 | 1,200,000 |         |
| Theater entrance                | 1,000 | 450,000   |         |
| School entrance                 | 1,250 | 225,000   |         |
| School restroom door            | 1,250 | 225,000   |         |
| Store or bank entrance          | 500   | 150,000   |         |
| Office building restroom door   | 400   | 118,000   |         |
| School corridor door            | 80    | 15,000    | AVERAGE |
| Office building corridor door   | 75    | 22,000    |         |
| Store restroom door             | 60    | 18,000    |         |
| Residential entrance door       | 40    | 15,000    |         |
| Residential restroom door       | 25    | 9,000     | LOW     |
| Residential hallway door        | 10    | 3,600     |         |
| Residential closet door         | 6     | 2,200     |         |



## FEATURES/SPECIFICATION

Rixson® pivots and pivot sets are recommended for high-traffic interior or exterior doors, or any door where appearance is an important consideration. They are especially useful for extra-heavy or lead-lined doors.

### AESTHETICS

- Offset or center hung pivot sets are more attractive than alternative door hanging devices.
- Full floor-to-ceiling concealment is offered for center hung doors providing almost unlimited design flexibility.
- Extended spindles available to raise door above finished floor for complete concealment.
- Specification of heavy panels for door face with standard offset pivot preparation is available.
- Doors up to 1,750 pounds are accommodated, allowing all standard and heavy doors in a building to be hung by same hanging means.

### EXCLUSIVE RIXSON FEATURES

- Many special layouts are available for unique applications.
- Shim packages to accommodate building settling
- Heavyweight pivots have extra thrust bearing to eliminate door and frame wear.

### PERFORMANCE

- Full weight of door is borne by floor pivot, providing long pivot life and trouble-free operation.
- Screws are in shear in pivot-set installations and are less likely to pull out from tension—eliminates sagging doors.
- Vertical adjustment provides for field modifications to suit conditions.

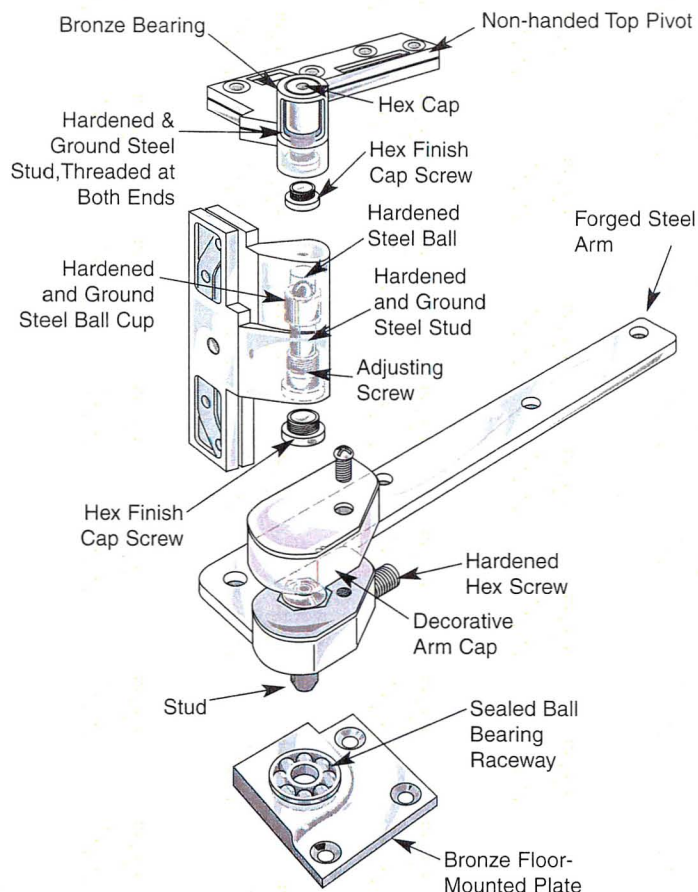
### SAFETY & SECURITY

- Models are available for labeled fire and lead-lined doors.
- Doors cannot be removed by vandals.
- Virtually concealed, pivots are not abuse or vandal prone.
- All offset pivots shall be UL10C compliant.

### ECONOMY

- Pivots provide longer life and more trouble-free operation than other door hanging means.
- Door and frame life is lengthened.

### 147 Pivot Set with M19 Intermediate Pivot



### SUGGESTED SPECIFICATION

All pivots and/or pivot sets shall be the product of one manufacturer. Sets as noted in hardware groups shall be matching in design for both labeled fire doors, lead-lined doors and regular doors. Pivots for 20-minute fire doors shall be non-ferrous and match the finish of adjacent hardware. All pivot sets are required to meet ANSI grade one standard as listed in ANSI 156.4. Caps shall be hex type to increase security.



### MODEL 117-1/4

#### Application

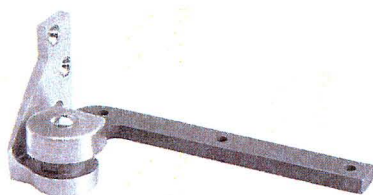
Interior Doors

Weight to 250 lbs.\*

Door Width up to 3'6"(1067mm)

Handed

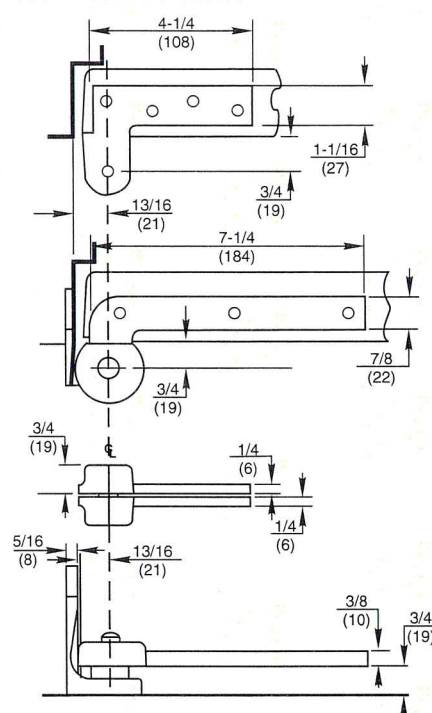
BHMA/ANSI NO: C07172



#### Product Description & Features

- Standard top pivot 180 included
- 119 (order separately); see page 131
- Bottom pivot mortised into side jamb
- Doors over 60"(1524mm) require the use of one intermediate pivot. Every additional 30"(762mm) of door height warrants another intermediate pivot
- 3/4"(19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Weight of door borne by floor
- Furnished with wood and machine screws
- Extended spindles available in 1/2"(13mm) increments up to 2"(51mm)
- Not available for fire-rated doors
- Doors will swing 180°, trim permitting

#### Technical Information



\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

### MODEL 117

#### Application

Interior Doors

Weight to 300 lbs.\*

Door Width up to 3'6"(1067mm)

Handed

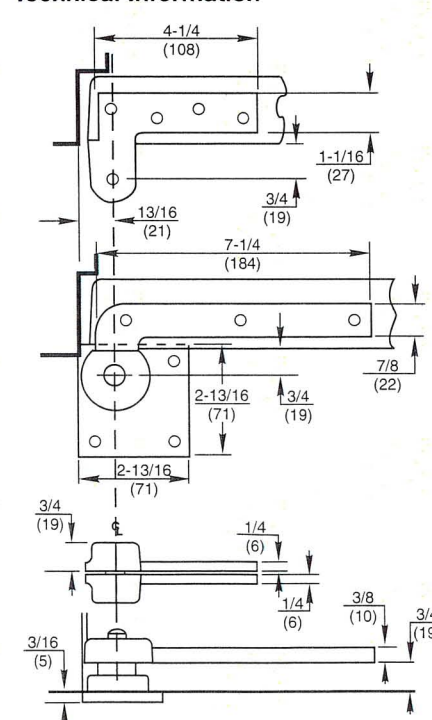
BHMA/ANSI NO: C07162/C07202



#### Product Description & Features

- Standard top pivot 180 included
- 119 (order separately); see page 131
- Bottom pivot mortised into floor
- Available for fire door assemblies up to three hours—specify F117. Intermediate pivot required by UL. Specify FM19, (order separately), see page 131
- For 20-minute label suffix -20
- Doors over 60"(1524mm) require the use of one intermediate pivot. Every additional 30"(762mm) of door height warrants another intermediate pivot
- 3/4"(19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Furnished with wood and machine screws
- Extended spindles available in 1/2"(13mm) increments up to 2"(51mm)
- Doors will swing 180°, trim permitting

#### Technical Information



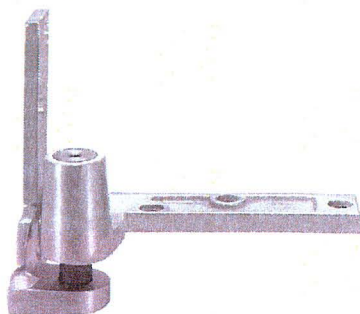
\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

### MODEL 195

#### Application

Exterior or Interior Doors  
Weight to 450 lbs.\*  
Door Width up to 4'0" (1219mm)  
Handed

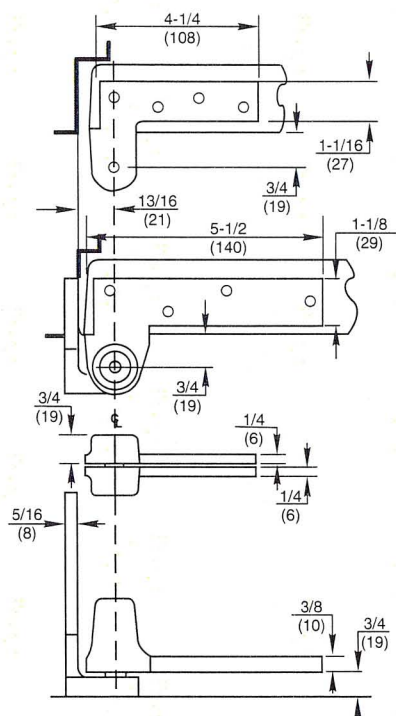
BHMA/ANSI NO: C07131



#### Product Description & Features

- Standard top pivot 180 included
- M19 (order separately), see page 131
- Bottom pivot mortised into side jamb
- Pivot set can be vertically adjusted up to 3/16" (5mm) after installation
- Doors over 60" (1524mm) require the use of one intermediate pivot. Every additional 30" (762mm) of door height warrants another intermediate pivot
- Not available for fire-rated doors
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Weight of door is borne by floor portion
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm)
- Doors will swing 180°, trim permitting

#### Technical Information



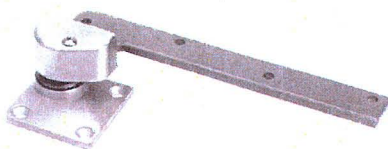
\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

### MODEL 147

#### Application

Exterior or Interior Doors  
Weight to 600 lbs.\*  
Exterior Door Width up to 3'0" (914mm)  
Interior Door Width up to 3'6" (1067mm)  
Handed

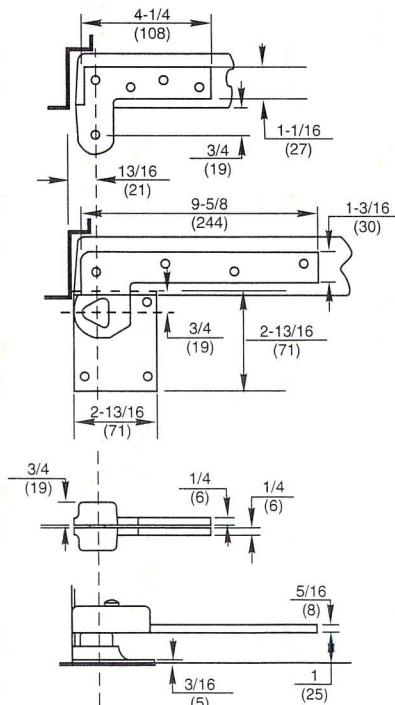
BHMA/ANSI NO: C07162



#### Product Description & Features

- Standard top pivot 180 included
- M19 (order separately), see page 131
- Bottom pivot mounts directly to floor
- Uses same arm and cap as 27 floor closer
- Available for fire door assemblies up to three hours (ferrous material)—specify F147. Intermediate pivot required by UL. Specify FM19 (order separately), see page 131
- For 20-minute label suffix -20
- Non-ferrous base metal
- Doors over 60" (1524mm) require the use of one intermediate pivot. Every additional 30" (762mm) of door height warrants another intermediate pivot
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm)
- Doors will swing 180°, trim permitting

#### Technical Information



\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots



### MODEL H147

#### Application

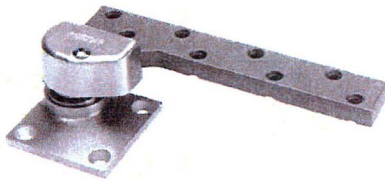
Exterior or Interior Doors

Weight to 800 lbs.

Door Width up to 3'6" (1067mm)

Handed

BHMA/ANSI NO: C07162 (modified)

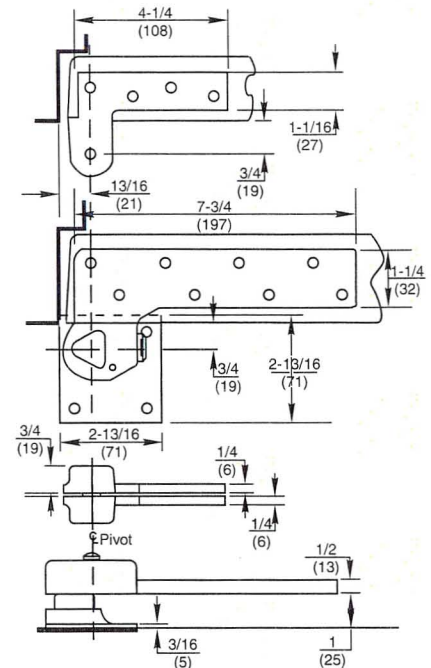


\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

#### Product Description & Features

- Standard top pivot H180 included
- M190 (order separately), see page 131
- Bottom pivot mounts directly to floor
- Available for fire door assemblies up to three hours for 1-3/4" (44mm) doors only –specify FH147. Intermediate pivot required by UL. Specify FM19 (order separately), see page 131
- For 20-minute label suffix –20
- Designed to accommodate narrow dense doors where traffic is moderate
- Bottom pivot features roller bearing for greater load capacity
- Doors over 60" (1524mm) require the use of one intermediate pivot. Every additional 30" (762mm) of door height warrants another intermediate pivot
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm)
- Doors will swing 180°, trim permitting

#### Technical Information



### MODEL L147

#### Application

Exterior or Interior Doors

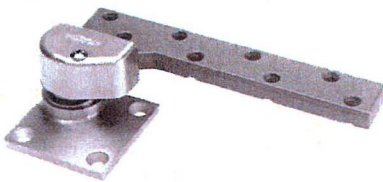
Lead-Lined/Heavy/High Traffic Doors

Weight to 1000 lbs.

Door Width up to 3'6" (1067mm)

Handed

BHMA/ANSI NO: C07162

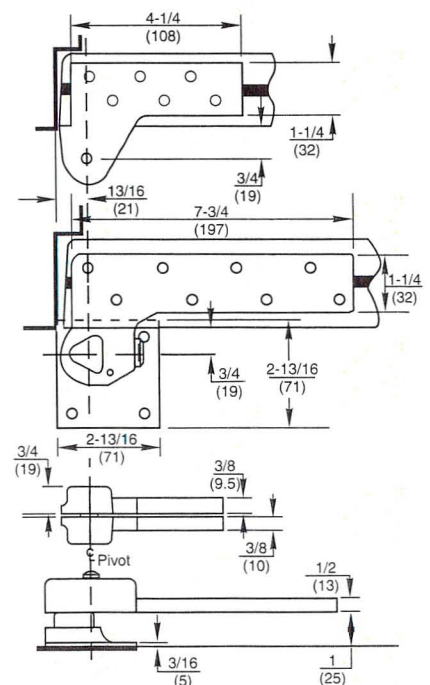


\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

#### Product Description & Features

- Standard top pivot L180 included
- ML19 (order separately), see page 132
- Bottom pivot mounts directly to floor
- Designed for lead-lined doors with lead in center of door
- Screw holes in top pivot and bottom arm designed to straddle lead lining
- Available for fire door assemblies up to three hours for 1-3/4" (44mm) doors only (ferrous material)–specify FL147. Intermediate pivot required by UL. Specify FML19 (order separately), see page 132
- For 20-minute label suffix –20
- Available to accommodate lead in door thicknesses 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (64mm), or 3" (76mm) –specify when ordering
- Non-ferrous base metal
- Doors over 60" (1524mm) require the use of one intermediate pivot. Every additional 30" (762mm) of door height warrants another intermediate pivot
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm)
- Doors will swing 180°, trim permitting

#### Technical Information



1-3/4 door shown

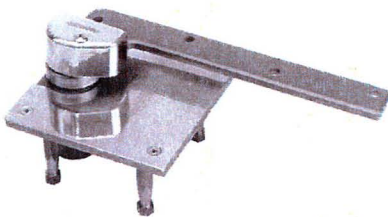


### MODEL 117-1/2

#### Application

Exterior or Interior Doors  
Weight to 650 lbs.\*  
Door Width up to 4'0" (1219mm)  
Handed

BHMA/ANSI NO: C07121

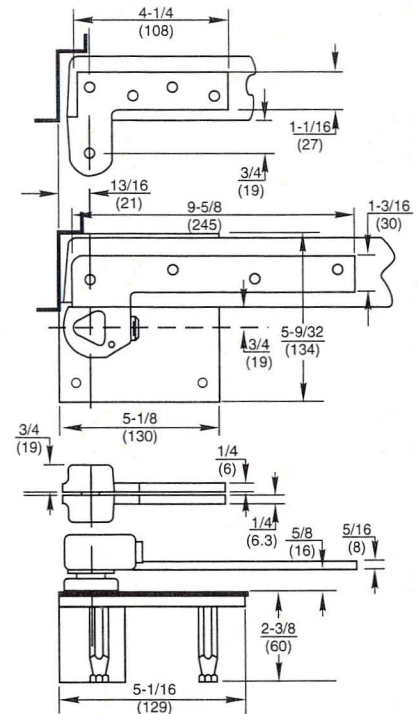


#### Product Description & Features

- Standard top pivot 180 included
- M19 (order separately), see page 131
- Bottom pivot mortised into floor
- Available for fire door assemblies up to three hours (ferrous material)—specify F117-1/2. Intermediate pivot required by UL. Specify FM19 (order separately), see page 131
- For 20-minute label suffix -20
- Non-ferrous base metal
- Doors over 60" (1524mm) require the use of one intermediate pivot. Every additional 30" (762mm) of door height warrants another intermediate pivot
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm)
- Doors will swing 180°, trim permitting

\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

#### Technical Information

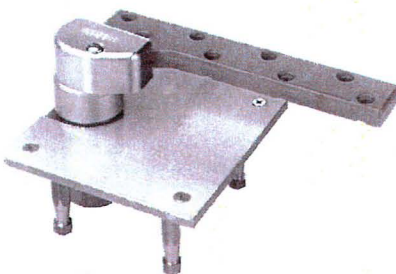


### MODEL L117

#### Application

Exterior or Interior Doors  
Lead-Lined/Heavy/High Traffic Doors  
Weight to 1,750 lbs.\*  
Door Width up to 4'0" (1219mm)  
Handed

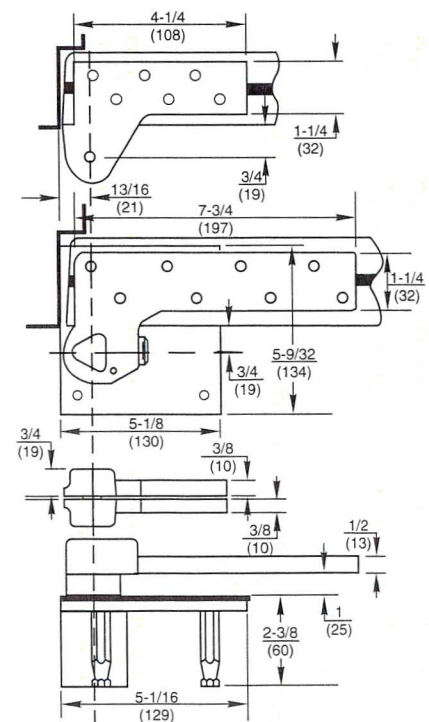
BHMA/ANSI NO: C07111



#### Product Description & Features

- Standard top pivot L180 included
- ML19 (order separately), see page 132
- Bottom pivot mortised into floor
- Designed for lead-lined doors with lead in center of door
- Screw holes in top pivot and bottom arm designed to straddle lead lining
- Available for fire door assemblies up to three hours for 1-3/4" (44mm) doors only—specify FL117. Intermediate pivot required by UL. Specify FML19 (order separately), see page 132
- For 20-minute label suffix -20
- Available to accommodate lead in door thicknesses 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (64mm), or 3" (76mm) — specify when ordering
- Doors over 60" (1524mm) require the use of one intermediate pivot. Every additional 30" (762mm) of door height warrants another intermediate pivot
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" (3mm) in 2"
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm)
- Doors will swing 180°, trim permitting

#### Technical Information



Pivot for 1-3/4 door shown

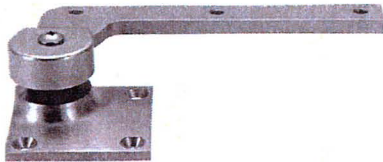
\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

### MODEL 117 X 1-1/2"

#### Application

Interior Doors  
Weight to 150 lbs.\*  
Door Width up to 3'6" (1067mm)  
Handed

BHMA/ANSI NO: C07162

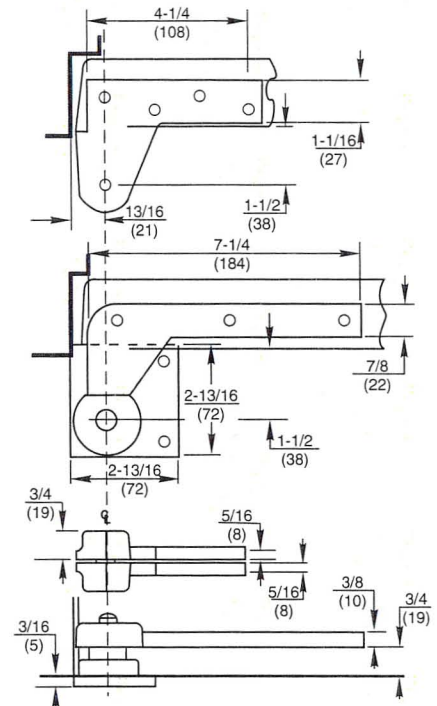


\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

#### Product Description & Features

- Standard top pivot 180x1-1/2" included
- Intermediate pivot required: M19x1-1/2" (order separately), see page 132
- Bottom pivot mortised into floor
- Available for fire door assemblies up to three hours—specify F117x1-1/2" Intermediate pivot required by UL. Specify FM19x1-1/2" (order separately) see page 132
- For 20-minute label suffix -20
- Doors over 60" (1524mm) require the use of one intermediate pivot. Every additional 30" (762mm) of door height warrants another intermediate pivot
- 1-1/2" (38mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm)
- Doors will swing 180°, trim permitting

#### Technical Information



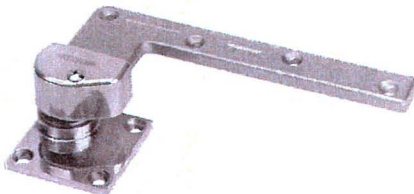
Pivots & Pivot Sets

### MODEL 147 X 1-1/2"

#### Application

Exterior or Interior Doors  
Weight to 350 lbs.  
Exterior door width up to 3'0" (914mm)  
Interior door width up to 3'6" (1067mm)  
Handed

BHMA/ANSI NO: C07162

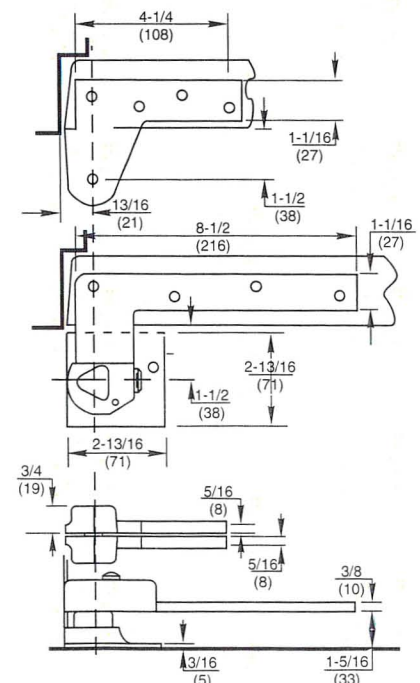


\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

#### Product Description & Features

- Standard top pivot 180x1-1/2" included
- Intermediate pivot required: M19x1-1/2" (order separately), see page 132
- Bottom pivot mounts directly to floor
- Uses same arm and cap as 27 floor closer
- Available for fire door assemblies up to three hours—specify F147x1-1/2" Intermediate pivot required by UL. Specify FM19x1-1/2" (order separately), see page 132
- For 20-minute label suffix -20
- Doors over 60" (1524mm) require the use of one intermediate pivot. Every additional 30" (762mm) of door height warrants another intermediate pivot
- 1-1/2" (38mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Furnished with wood and machine screws
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm)
- Doors will swing 180°, trim permitting

#### Technical Information



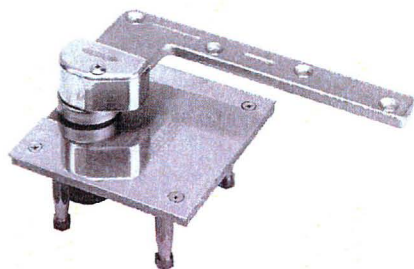


### MODEL 117-1/2 x 1-1/2"

#### Application

Exterior or Interior Doors  
Weight to 450 lbs.\*  
Door Width up to 4'0"(1219mm)  
Handed

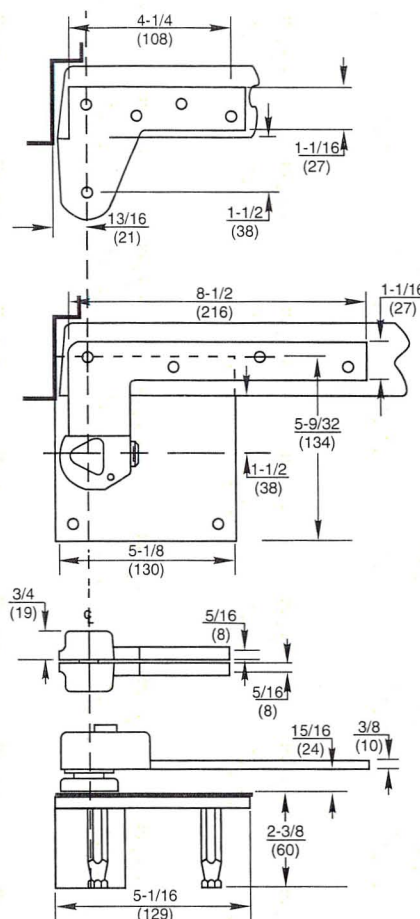
BHMA/ANSI NO: C07121 (modified)



#### Product Description & Features

- Standard top pivot 180x1-1/2" included
- M19x1-1/2"(order separately), see page 132
- Bottom pivot mortised into floor
- Available for fire door assemblies up to three hours—specify F117-1/2 x 1-1/2"
- Intermediate pivot required by UL
- Specify FM19 x 1-1/2"(order separately), see page 132
- For 20-minute label suffix -20
- Doors over 60"(1524mm) require the use of one intermediate pivot. Every additional 30"(762mm) of door height warrants another intermediate pivot
- 1-1/2"(38mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8"(3mm) in 2"(51mm)
- Furnished with wood and machine screws
- Extended spindles available in 1/2"(13mm) increments up to 2"(51mm)
- Doors will swing 180°, trim permitting

#### Technical Information



\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

### SPECIAL LAYOUT 438

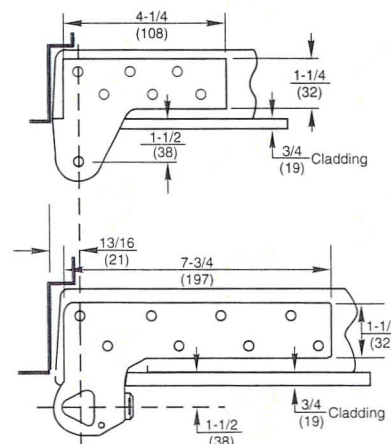
#### Application

Exterior or Interior Doors  
Weight to 500 lbs.\*  
Door Width up to 4'0"(1219mm)  
Handed

#### Product Description & Features

- For use on doors with 3/4" cladding
- For cladding greater than 3/4", contact technical support
- Available with L147, L117 pivot sets
- Specify ML19 x SPLO 438 (order separately)

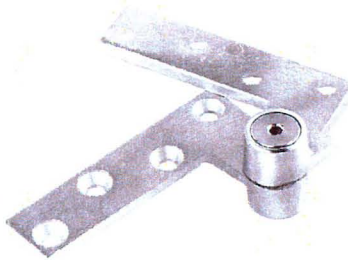
#### Technical Information



\* Door size & weight guidelines are determined using the appropriate number of intermediate pivots

### MODEL 180

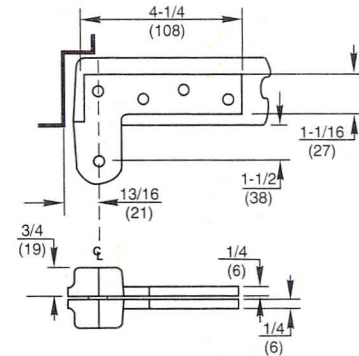
**Application**  
Full Mortise  
Non-handed



#### Product Description & Features

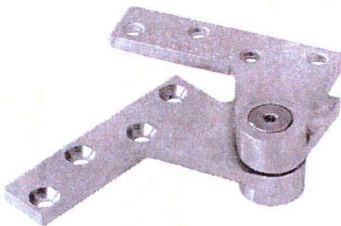
- Standard top pivot for most offset pivot sets and floor closers
- Available for fire door assemblies (ferrous material)—specify F180
- For 20-minute label suffix -20
- Oil-impregnated sintered bronze bearing
- Non-ferrous base metal
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only
- Furnished with wood and machine screws

#### Technical Information



### MODEL 180 x 1-1/2"

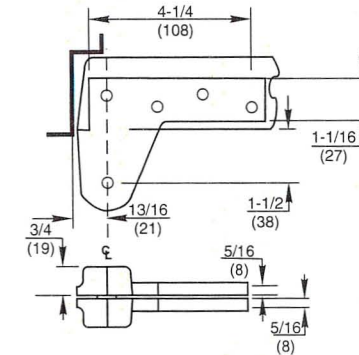
**Application**  
Full Mortise  
Non-handed



#### Product Description & Features

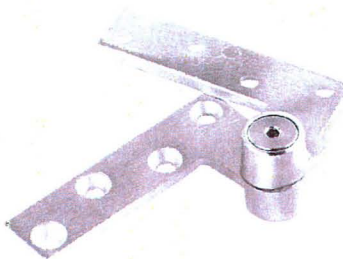
- Standard top pivot for most 1-1/2" offset pivot sets and floor closers
- Available for fire door assemblies (ferrous material)—specify F180-1-1/2" offset
- For 20-minute label suffix -20
- Oil-impregnated sintered bronze bearing
- Non-ferrous base metal
- 1-1/2" (38mm) offset (measured from centerline of pivot to face of door)
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only
- Furnished with wood and machine screws

#### Technical Information



### MODEL H180

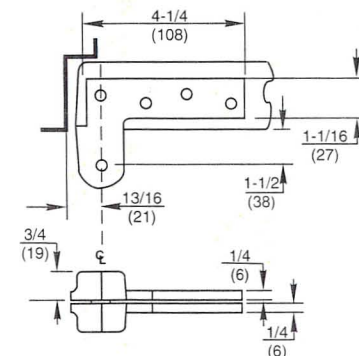
**Application**  
Full Mortise, Heavy-Duty  
Non-handed



#### Product Description & Features

- Standard top pivot for heavy-duty offset pivot sets
- Available for fire door assemblies (ferrous material)—specify FH180
- For 20-minute label suffix -20
- Heavy-duty needle bearings are standard
- Non-ferrous base metal
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only
- Furnished with wood and machine screws

#### Technical Information

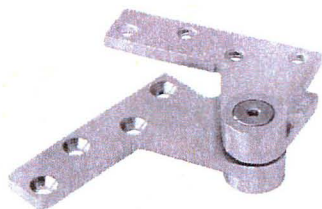




### MODEL H180 x 1-1/2"

#### Application

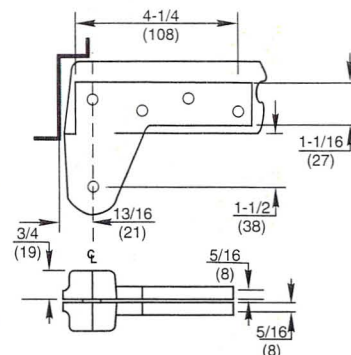
Full Mortise, Heavy-Duty  
Non-handed



#### Product Description & Features

- Standard top pivot for heavy-duty 1-1/2" offset pivot sets
- Available for fire door assemblies (ferrous material)—specify FH180 x 1-1/2"
- For 20-minute label suffix -20
- Needle bearings are standard
- Non-ferrous base metal
- 1-1/2" (38mm) offset (measured from centerline of pivot to face of door)
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only
- Furnished with wood and machine screws

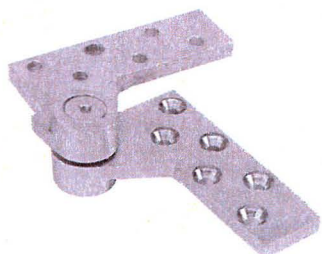
#### Technical Information



### MODEL L180

#### Application

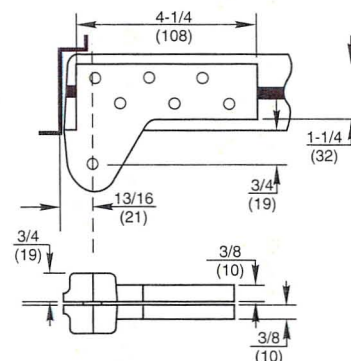
Lead-Lined/Heavy/High Traffic Doors  
Full Mortise  
Non-handed



#### Product Description & Features

- Standard top pivot for L147, L117 pivots, L27 and L25 floor closers
- Screw holes designed to straddle lead in the middle of the door
- Available to accommodate door thicknesses: 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (64mm), or 3" (76mm)—specify when ordering
- Available for fire door assemblies for 1-3/4" (19mm) doors only (ferrous material). Specify FL180
- For 20-minute label suffix -20
- Non-ferrous base material
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only
- Furnished with wood and machine screws

#### Technical Information

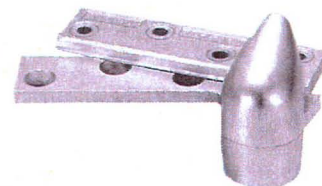


1-3/4 door shown

### MODEL FA180

#### Application

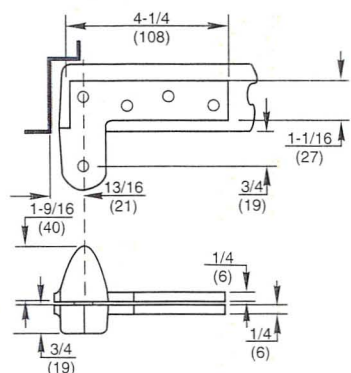
Asylum Design  
Full Mortise  
Handed



#### Product Description & Features

- Standard top pivot for SEC27 and SEC25
- Optional top pivot for institutional use or installations where flat surfaces are objectionable
- Ferrous base metal
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only
- Furnished with Torx® screws

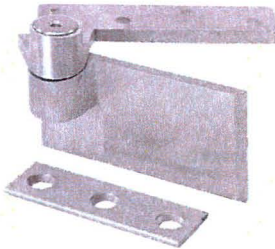
#### Technical Information



### MODEL 280

**Application**  
Half Surface  
Handed

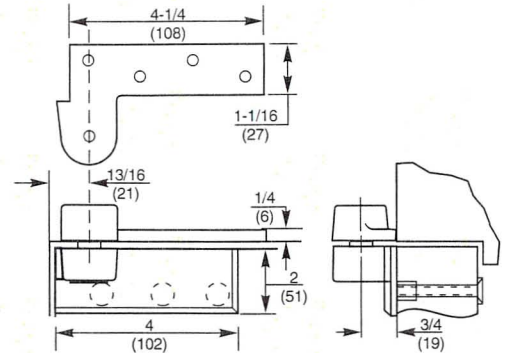
BHMA/ANSI NO: C07501



#### Product Description & Features

- Optional top pivot where door portion cannot be mortised
- Available for fire door assemblies (ferrous material)—specify F280
- Non-ferrous base metal
- 3/4"(19mm) offset (measured from centerline of pivot to face of door)
- Contact factory if door is not flush
- Available with longer than standard pivot pins. Increments are 1/4"(6mm), 1/2"(13mm), 3/4"(19mm) only
- Furnished with wood and machine screws

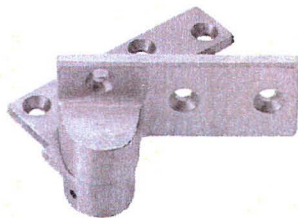
#### Technical Information



### MODEL 380

**Application**  
Half Mortise  
Handed

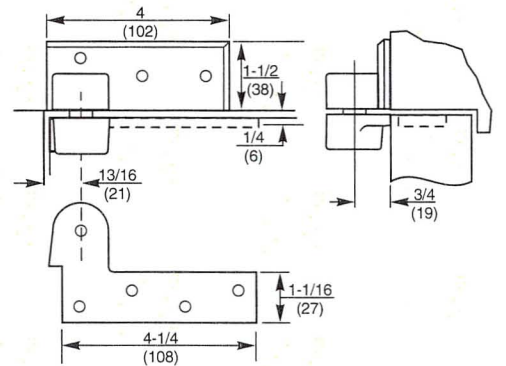
BHMA/ANSI NO: C07511



#### Product Description & Features

- Optional top pivot where jamb portion cannot be mortised
- Designed for channel iron door frames with aluminum, hollow metal or wood doors
- Available for fire door assemblies (ferrous material)—specify F380
- Door portion from L180 pivot is available if lead-lined doors are used—specify L380 and door thickness
- Non-ferrous base metal
- 3/4"(19mm) offset (measured from centerline of pivot to face of door)
- Available with longer than standard pivot pins. Increments are 1/4"(6mm), 1/2"(13mm), 3/4"(19mm) only
- Furnished with wood and machine screws

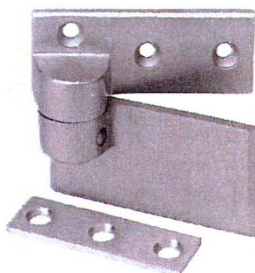
#### Technical Information



### MODEL 480

**Application**  
Full Surface  
Handed

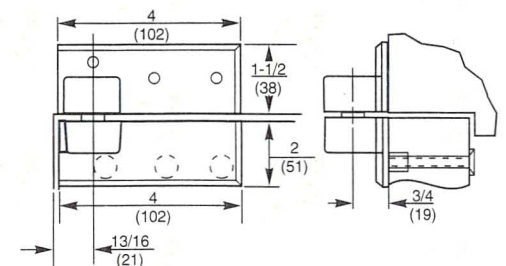
BHMA/ANSI NO: C07521



#### Product Description & Features

- Optional top pivot where door and jamb portion cannot be mortised
- Designed for channel iron door frames and any door where through bolting is advantageous
- Available for fire door assemblies (ferrous material)—specify F480
- Non-ferrous base metal
- 3/4"(19mm) offset (measured from centerline of pivot to face of door)
- Available with longer than standard pivot pins. Increments are 1/4"(6mm), 1/2"(13mm), 3/4"(19mm) only
- Furnished with wood and machine screws

#### Technical Information

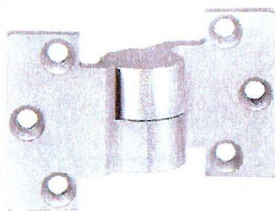




### MODEL 119

**Application**  
Full Mortise  
Handed

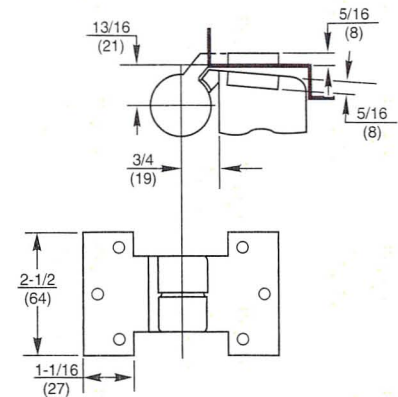
BHMA/ANSI NO: C07382



#### Product Description & Features

- Not load-bearing
- Available 3/4"(19mm) offset only
- Non-ferrous base material
- Used with 117, 117-1/4, 195, UNI closers, 127 closer
- Maintains door alignment
- Furnished with wood and machine screws

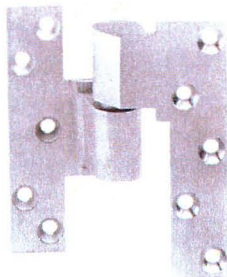
#### Technical Information



### MODEL M19

**Application**  
Full Mortise  
Handed

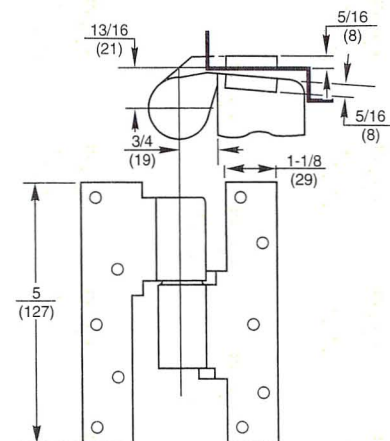
BHMA/ANSI NO: C07321/C0731



#### Product Description & Features

- Not load-bearing
- Maintains door alignment
- For 20-minute label suffix -20
- Non-ferrous base metal
- 3/4"(19mm) offset
- Available for fire door assemblies (ferrous material)—specify FM19
- On labeled fire door assemblies, NFPA80 requires an intermediate pivot for every additional 30"(762mm) (or fraction thereof) of door height over 60"(1524mm)
- Furnished with wood and machine screws

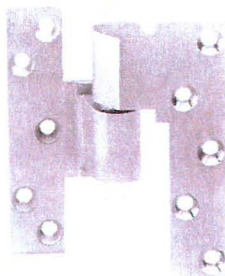
#### Technical Information



### MODEL M190

**Application**  
Heavy-Duty Full Mortise  
Handed

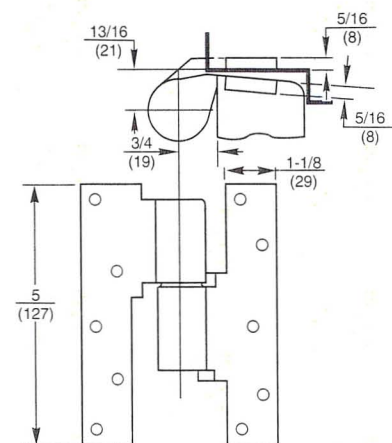
BHMA/ANSI NO: C07321



#### Product Description & Features

- Used when frame condition does not allow standard top pivot
- Heavy-duty needle bearing
- Non-ferrous base metal
- 3/4"(19mm) offset
- Lateral load-bearing
- Available for fire door assemblies (ferrous material)—specify FM190
- For 20-minute label suffix -20
- On labeled fire door assemblies, NFPA80 requires an intermediate pivot for every additional 30"(762mm) (or fraction thereof) of door height over 60"(1524mm)
- Furnished with wood and machine screws

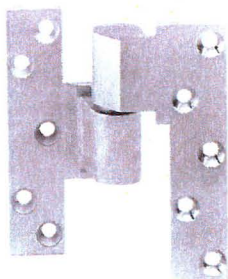
#### Technical Information



### MODEL M19 x 1-1/2"

**Application**  
Full Mortise  
Handed

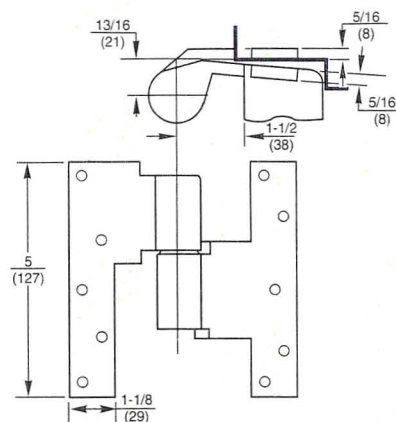
BHMA/ANSI NO: C07321



#### Product Description & Features

- Not load-bearing
- 1-1/2"(38mm) offset to clear decorative door or frame trim
- Maintains door alignment
- Available for fire door assemblies (ferrous material)—specify FM19 x 1-1/2"
- For 20-minute label suffix -20
- On labeled fire door assemblies, NFPA80 requires an intermediate pivot for every additional 30"(762mm) (or fraction thereof) of door height over 60"(1524mm)
- Furnished with wood and machine screws

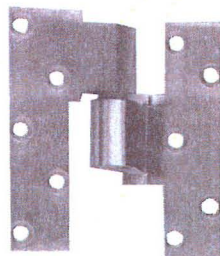
#### Technical Information



### MODEL ML19

**Application**  
Full Mortise  
Lead-Lined, Heavy or  
High Traffic Doors  
Handed

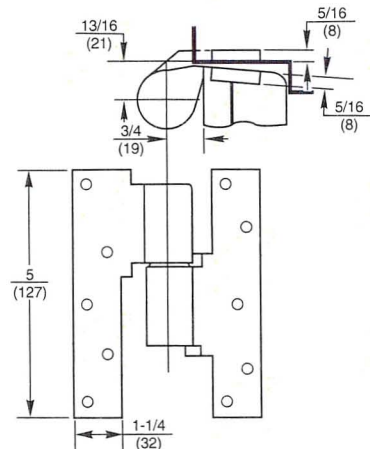
BHMA/ANSI NO: C07311



#### Product Description & Features

- Designed for doors with lead in center of door
- Screw holes designed to straddle the lead lining
- Available to accommodate door thicknesses 1-3/4"(44mm), 2"(51mm), 2-1/4"(57mm), 2-1/2"(64mm), or 3"(76mm)—specify thickness when ordering
- Load-bearing
- Non-ferrous base material
- Available for fire door assemblies—1-3/4"(44mm) door only—specify FML19
- For 20-minute label suffix -20
- On labeled fire door assemblies, NFPA80 requires an intermediate pivot for every additional 30"(762mm) (or fraction thereof) of door height over 60"(1524mm)
- Furnished with wood and machine screws

#### Technical Information



### MODEL FA19

**Application**  
Full Mortise  
Asylum or High Security  
Applications  
Handed

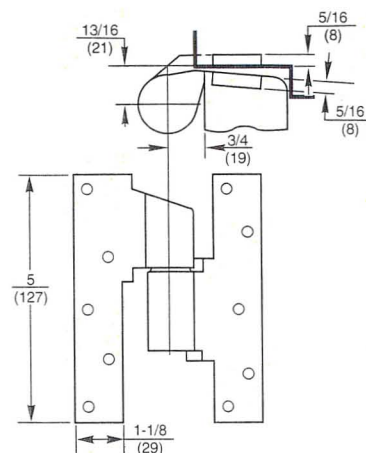
BHMA/ANSI NO: C07361



#### Product Description & Features

- Optional intermediate pivot for institutional use or installations where flat surfaces are objectionable
- Maintains door alignment
- May be used with fire door assemblies
- Ferrous base metal
- On labeled fire door assemblies, NFPA80 requires an intermediate pivot for every additional 30"(762mm) (or fraction thereof) of door height over 60"(1524mm)
- Furnished with Torx® screws

#### Technical Information

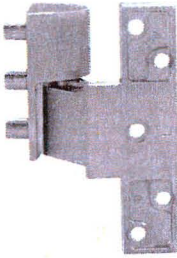




### MODEL 219

**Application**  
Half Surface  
Handed

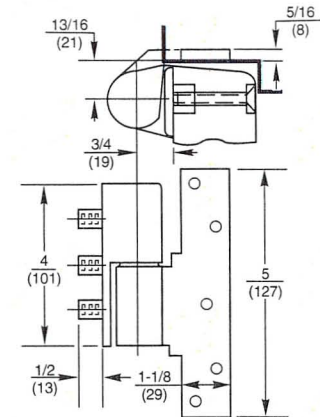
BHMA/ANSI NO: C07331



#### Product Description & Features

- Flush door and frame applications only
- Optional intermediate pivot where door portion cannot be mortised
- On labeled fire door assemblies, NFPA80 requires an intermediate pivot for every additional 30"(762mm) (or fraction thereof) of door height over 60"(1524mm)
- Maintains door alignment
- Available for fire door assemblies (ferrous material)—specify F219
- Non-ferrous base metal
- 3/4"(19mm) offset only
- Furnished with wood and machine screws

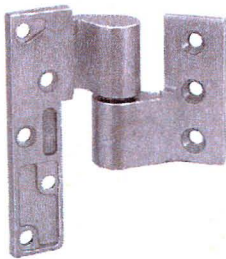
#### Technical Information



### MODEL 319

**Application**  
Half Mortise  
Handed

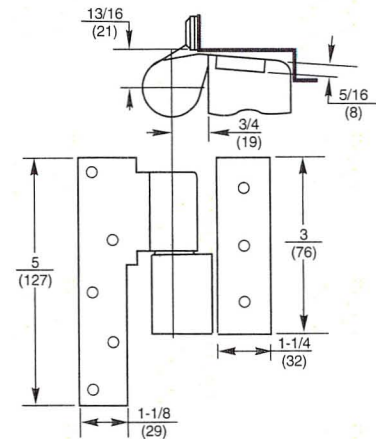
BHMA/ANSI NO: C07341



#### Product Description & Features

- Flush door and frame applications only
- Optional intermediate pivot where jamb portion cannot be mortised
- Door portion from ML19 pivot is available if lead-lined door is used—specify L319 and door thickness
- Non-ferrous base metal
- 3/4"(19mm) offset only
- Maintains door alignment
- Available for fire door assemblies—specify F319
- On labeled fire door assemblies, NFPA80 requires an intermediate pivot for every additional 30"(762mm) (or fraction thereof) of door height over 60"(1524mm)
- Furnished with wood and machine screws

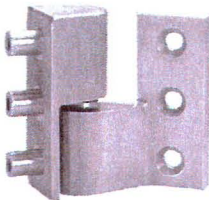
#### Technical Information



### MODEL 419

**Application**  
Full Surface  
Handed

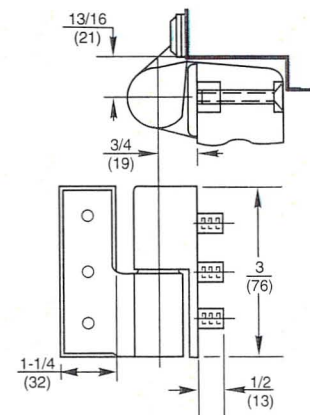
BHMA/ANSI NO: C07351



#### Product Description & Features

- Flush door and frame applications only
- Optional intermediate pivot where door and jamb portion cannot be mortised
- Non-ferrous base metal
- 3/4"(19mm) offset only
- Maintains door alignment
- Available for fire door assemblies (ferrous material)—specify F419
- On labeled fire door assemblies, NFPA80 requires an intermediate pivot for every additional 30"(762mm) (or fraction thereof) of door height over 60"(1524mm)
- Furnished with wood and machine screws

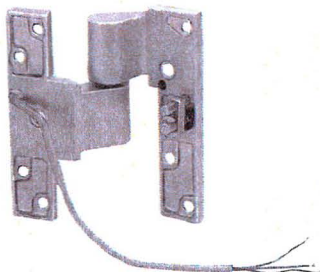
#### Technical Information



### MODEL CS-M19

#### Application

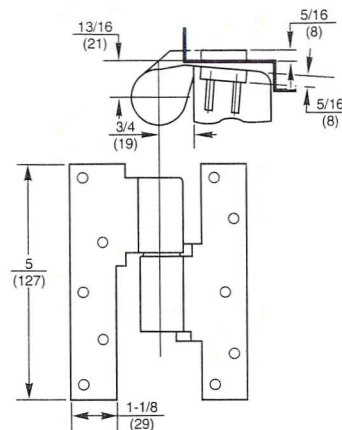
Offset Hung  
Electric Pivot for Door  
Position Monitoring  
Handed



#### Product Description & Features

- Maintains door alignment
- Magnetically activated reed switch in frame leaf of pivot transmits door position signal to a remote control unit
- Adjusting screw is easy to set on-site after installation. Screw is disguised as an installation screw
- Door and jamb portion are factory assembled and cannot be separated
- Switch rated at 0.3 amps and 28 volts maximum
- Not available in ferrous material
- 3/4"(19mm) offset
- Not load-bearing
- Furnished with wood and machine screws
- For 20-minute label, suffix -20

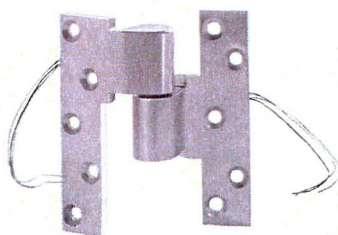
#### Technical Information



### MODEL E-M19

#### Application

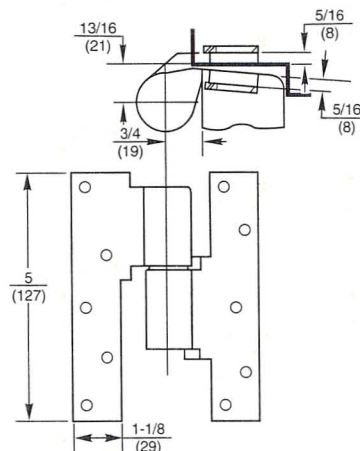
Offset Hung  
Electric Pivot for Power Transfer  
Handed



#### Product Description & Features

- Maintains door alignment
- Standard with four wires, six wires maximum
- 24-gauge wire is rated at 2 amps for low voltage, class II wiring applications
- Available in non-ferrous and malleable iron for fire door assemblies—specify EFM19
- 3/4"(19mm) offset
- Not load-bearing
- Door and jamb portion are factory assembled and cannot be separated
- Furnished with wood and machine screws
- For 20-minute label, suffix -20

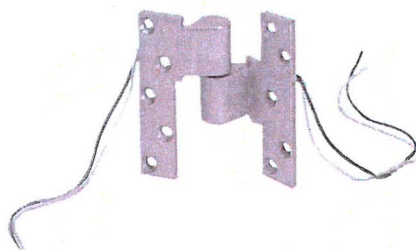
#### Technical Information



### MODEL E-M19U

#### Application

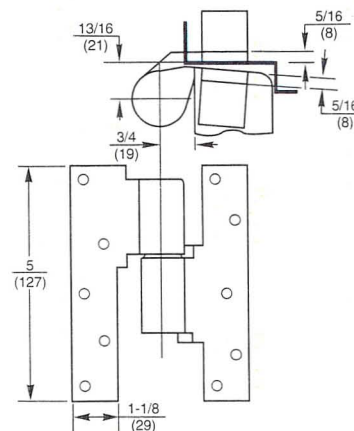
Offset Hung  
Electric Pivot for Power Transfer  
Handed



#### Product Description & Features

- Maintains door alignment
- Designed and UL listed for wiring used with electrical panic devices and other electronic locking means
- Junction boxes are supplied with pivots
- Door and jamb portion are factory assembled and cannot be separated. Wires pass through pivot for completely concealed wiring installations
- Available 2-wire only. Each wire is rated at 2 amps continuously. UL listed for 24-volt, Class I wiring
- Not available in ferrous material
- 3/4"(19mm) offset
- 18-gauge wire
- Furnished with wood and machine screws

#### Technical Information



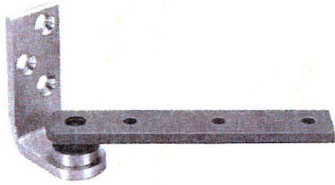


### MODEL 127-3/4

#### Application

Interior Doors  
Weight to 200 lbs.  
Door Sizes up to 3'6"x 8'6"  
(1067 x 2591mm)  
Non-handed

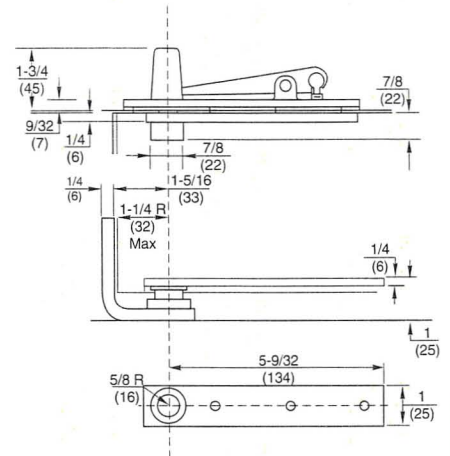
BHMA/ANSI NO: C07042



#### Product Description & Features

- Standard top pivot 320 included
- Bottom pivot mortised into side jamb
- All center hung pivot sets are double acting unless stopped by some means on the door frame
- Not allowed for use on labeled doors and frames
- Available with longer spindles in 1/2" (13mm) increments up to 2" (51mm)
- Pivot point centered in thickness of door
- Door must have radius on pivot edge
- Furnished with wood and machine screws
- Weight of door borne by floor
- Doors do not return to center

#### Technical Information



### MODEL 128-3/4

#### Application

Interior Doors  
Weight to 250 lbs.  
Door Sizes up to 3'6"x 8'6"  
(1067 x 2591mm)  
Non-handed

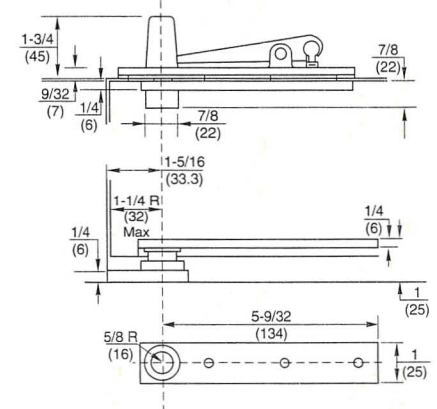
BHMA/ANSI NO: C07032



#### Product Description & Features

- Identical to the 127-3/4 except:
- Bottom pivot mounts directly to floor

#### Technical Information



### MODEL 370

#### Application

Exterior or Interior Doors  
Weight to 500 lbs.  
Door Sizes up to 3'8"x 8'6"  
(1118 x 2591mm)  
Non-handed

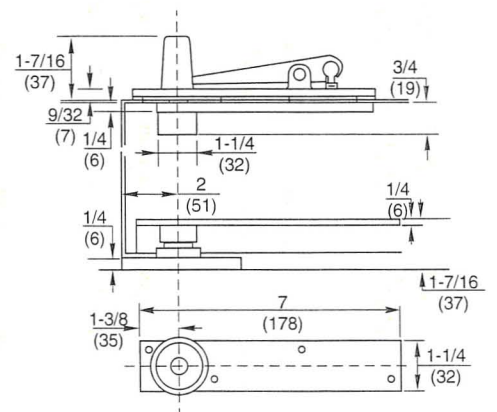
BHMA/ANSI NO: C07032



#### Product Description & Features

- Standard top pivot 340 included
- Bottom pivot mounts directly to floor
- Pivot set features sealed bearings for protection against weather and debris
- All center hung pivot sets are double acting unless stopped by some means on the door frame
- Not allowed for use on labeled doors and frames
- Available with longer spindles in 1/2" (13mm) increments up to 2" (51mm)
- Pivot point centered in thickness of door
- Door must have radius on pivot edge
- Furnished with wood and machine screws
- Doors do not return to center

#### Technical Information

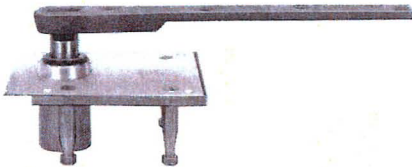


### MODEL 117-3/4

#### Application

Exterior or Interior Doors  
Weight to 600 lbs.  
Door Sizes up to 4'0" x 8'6"  
(1219 x 2591mm)  
Non-handed

BHMA/ANSI NO: C07021 (modified)

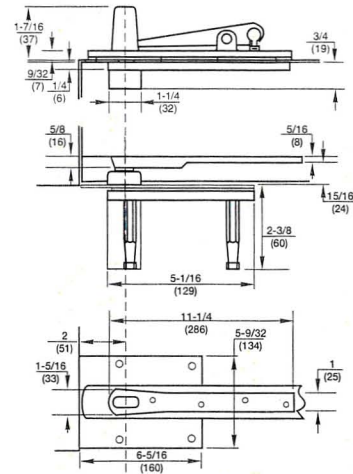


\* For doors taller than 8'6" use top pivot #345 in lieu of 340

#### Product Description & Features

- Standard top pivot 340 included
- Pivot set is fully concealed
- Bottom pivot is mortised into floor
- Heavy-duty bearings
- All center hung pivot sets are double acting unless stopped by some means on the door frame
- Not allowed for use on labeled doors and frames
- Available with longer spindles in 1/2" (13mm) increments up to 2" (51mm)
- Pivot point centered in thickness of door
- Door must have radius on pivot edge
- Furnished with wood and machine screws
- Doors do not return to center

#### Technical Information

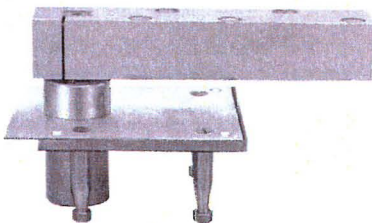


### MODEL H117-3/4

#### Application

Exterior or Interior Doors  
Weight to 1,000 lbs.  
Door Sizes up to 4'0" x 8'6"  
(1219 x 2591mm)  
Non-handed

BHMA/ANSI NO: C07011

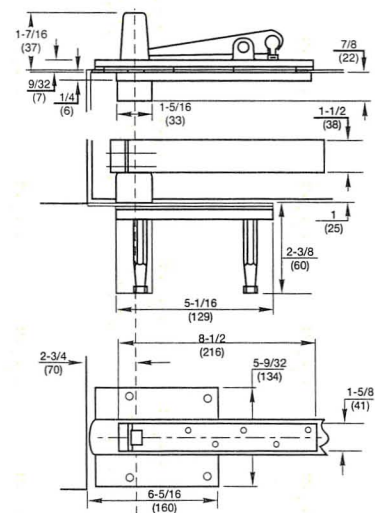


\* For doors taller than 8'6" use top pivot #H345 in lieu of H340

#### Product Description & Features

- Standard top pivot H340 included
- Pivot set is fully concealed
- Bottom pivot is mortised into floor
- Standard set is equipped with end load arm for 2" (51mm) thick doors
- Extra heavy-duty bearings
- All center hung pivot sets are double acting unless stopped by some means on the door frame
- Not allowed for use on labeled doors and frames
- Available with longer spindles in 1/2" (13mm) increments up to 2" (51mm)
- Pivot point centered in thickness of door
- Door must have radius on pivot edge
- Furnished with wood and machine screws
- Doors do not return to center

#### Technical Information



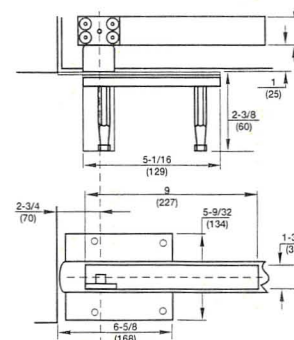
### MODEL H117-3/4 x 587 ARM

#### Product Description & Features

Identical to Model H117-3/4 except:

- Special side load arm for 1-3/4" thick doors
- Allows pivot point to be moved away from edge of door
- Standard top pivot H340 included

#### Technical Information



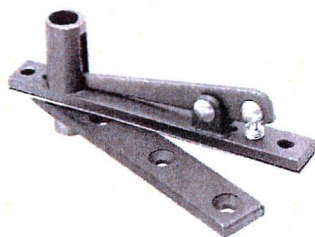
\* For doors taller than 8'6" use top pivot #H345 in lieu of H340



## MODEL 320

## Application

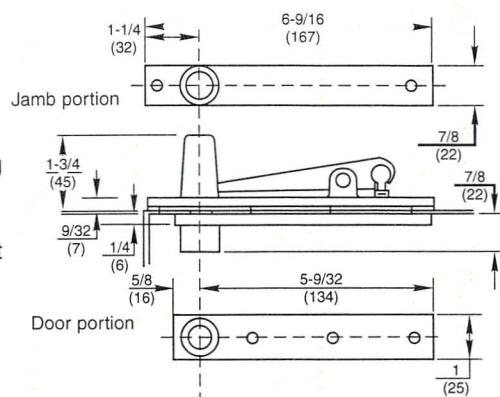
Fully Concealed  
Non-handed



## Product Description & Features

- Standard top pivot for Models 127-3/4 and 128-3/4 pivot sets
- Walking beam-type pivot—1/2"(13mm) diameter pivot pin with 3/4"(19mm) engagement
- Oil-impregnated sintered bronze bearing
- Completely concealed when door is closed
- Available with longer than standard pivot pins. Increments are 1/4"(6mm), 1/2"(13mm), 3/4"(19mm) only
- Furnished with wood and machine screws

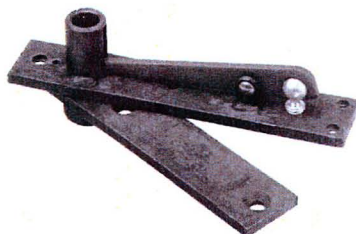
## Technical Information



## MODEL 340

## Application

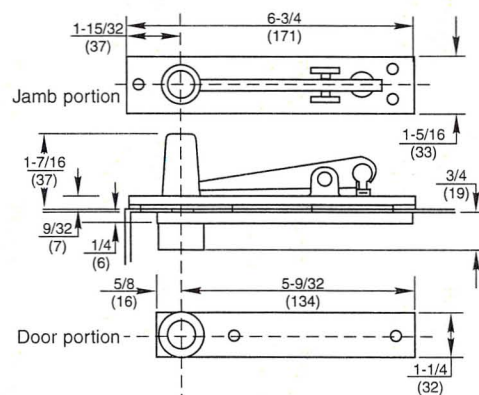
Fully Concealed  
Non-handed



## Product Description & Features

- Standard top pivot for Models 370 and 117-3/4 pivot sets. Also used for 28, 30, 40 and 50 Series floor closers
- Walking beam-type pivot—1/2"(13mm) diameter pivot pin with 3/4"(19mm) engagement
- Oil-impregnated sintered bronze bearing
- Completely concealed when door is closed
- Available with longer than standard pivot pins. Increments are 1/4"(6mm), 1/2"(13mm), 3/4"(19mm) only
- Furnished with wood and machine screws

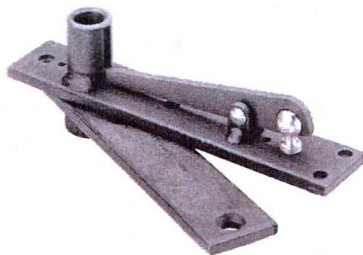
## Technical Information



MODEL H340

## Application

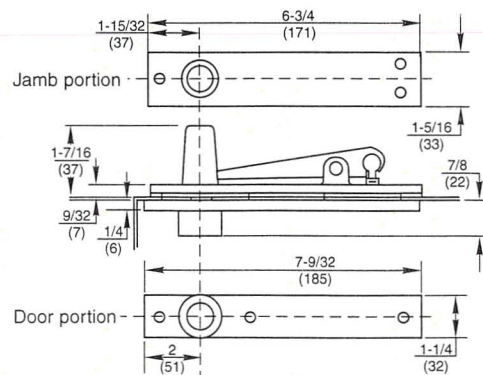
Fully Concealed  
Heavy-Duty  
Non-handed



## Product Description & Features

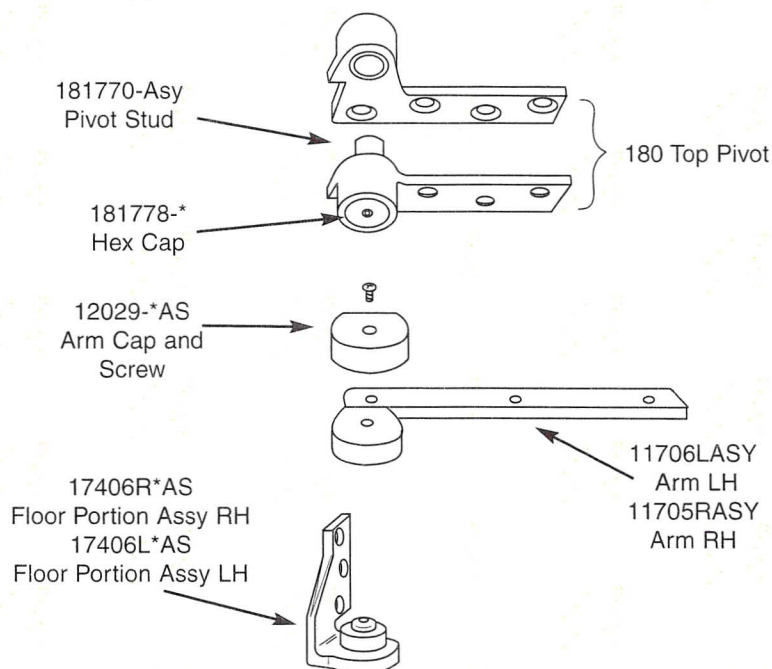
- Standard top pivot for Model H117-3/4 pivot set. Also used for H28 and H40 Series floor closers
- Walking beam-type pivot—11/16"(17mm) diameter pivot pin with 3/4"(19mm) engagement
- Heavy-duty needle bearing
- Completely concealed when door is closed
- Available with longer than standard pivot pins. Increments are 1/4"(6mm), 1/2"(13mm), 3/4"(19mm) only
- Furnished with wood and machine screws

## Technical Information



### 117-1/4 PIVOT SET

Right Hand Shown  
3/4" Offset Only



180 Screw Kit  
107014 - \* Machine ( 2 required)  
107114 - \* Wood (2 required)

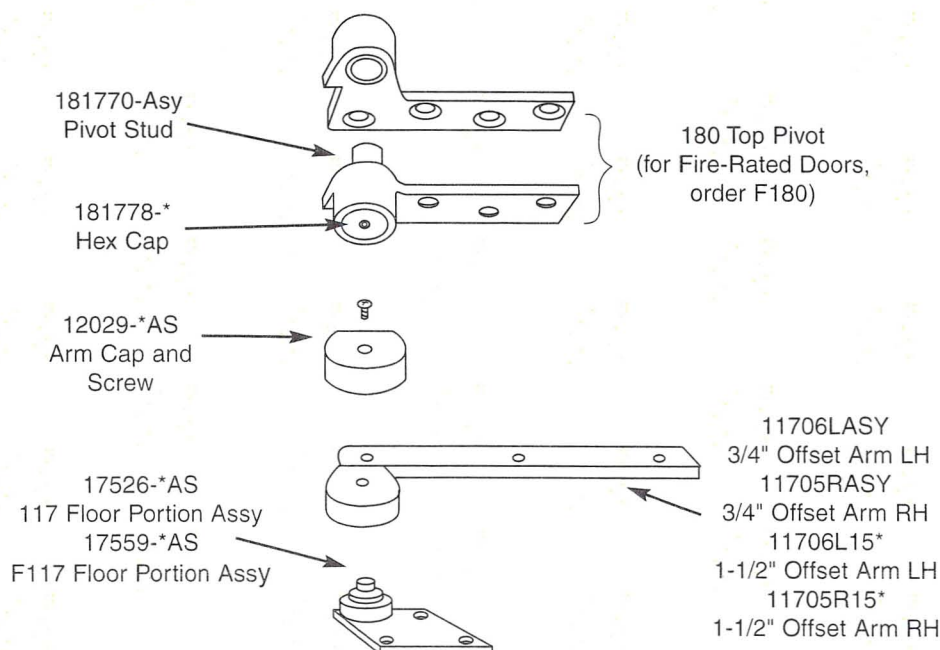
117-1/4 Screw Kit  
117127 - \*

\* specify finish

Pivots &  
Pivot Sets

### 117, F117 PIVOT SET

Right Hand Shown  
3/4" and 1-1/2" Offset



180/F180 Screw Kit  
107014 - \* Machine (2 required)  
107114 - \* Wood ( 2 required)

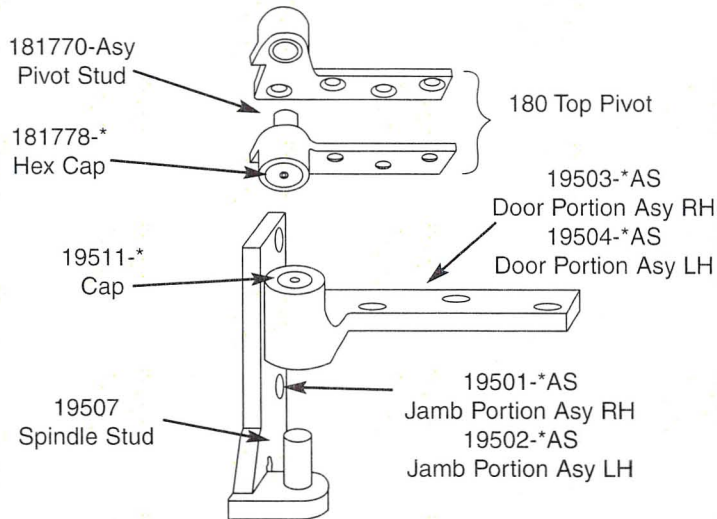
117/F117 Screw Kit  
117127 - \*

\* specify finish



### 195 PIVOT SET

Right Hand Shown  
3/4" Offset Only



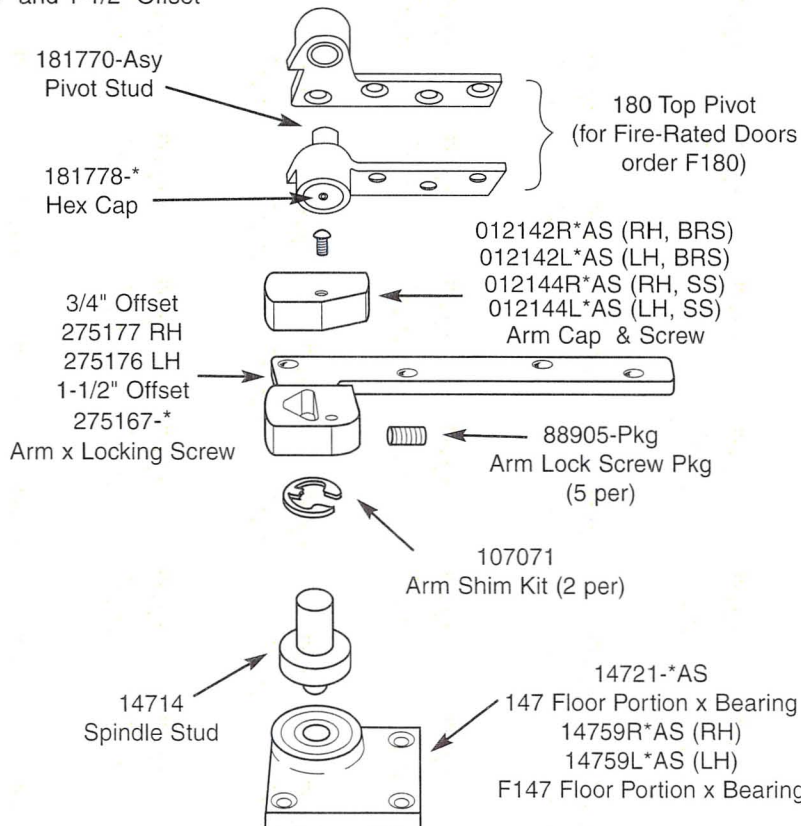
180 Screw Kit  
107014 - \* Machine (2 required)  
107114 - \* Wood (2 required)

195 Screw Kit  
107014 - \* Machine (2 required)  
107114 - \* Wood (2 required)

\* specify finish

### 147, F147 PIVOT SET

Right Hand Shown  
3/4" and 1-1/2" Offset



180/F180 Screw Kit  
107014 - \* Machine (2 required)  
107114 - \* Wood (2 required)

147/F147 Screw Kit  
107062 - \*

Arm Screw Kit  
107044 Machine  
107144 Wood

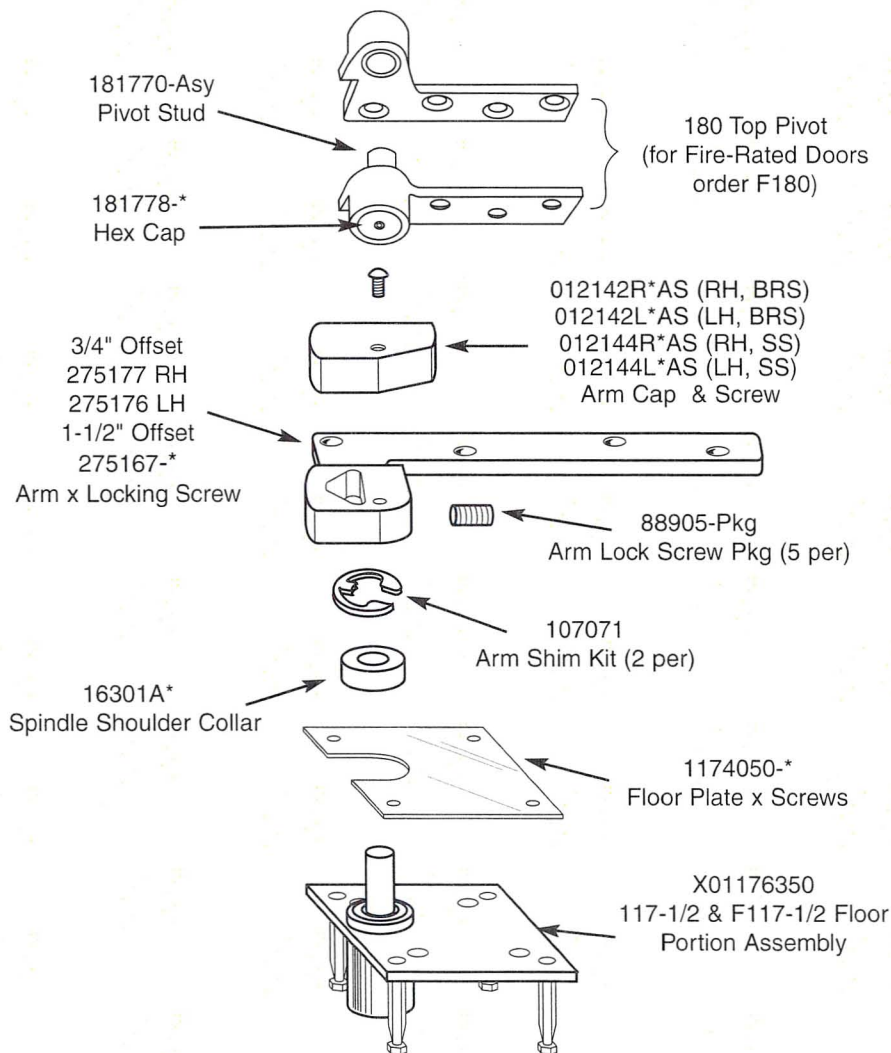
\* specify finish

Closers prior to 1988  
use Arm Cap 012132\*



### 117-1/2, F117-1/2 PIVOT SET

Right Hand Shown  
3/4" and 1-1/2" Offset



180/F180 Screw Kit  
107014 - \* Machine (2 required)  
107114 - \* Wood (2 required)

Arm Screw Kit  
107044 Machine  
107144 Wood

Floor Plate Screw Kit  
107004-\*

\* specify finish

Pivots &  
Pivot Sets

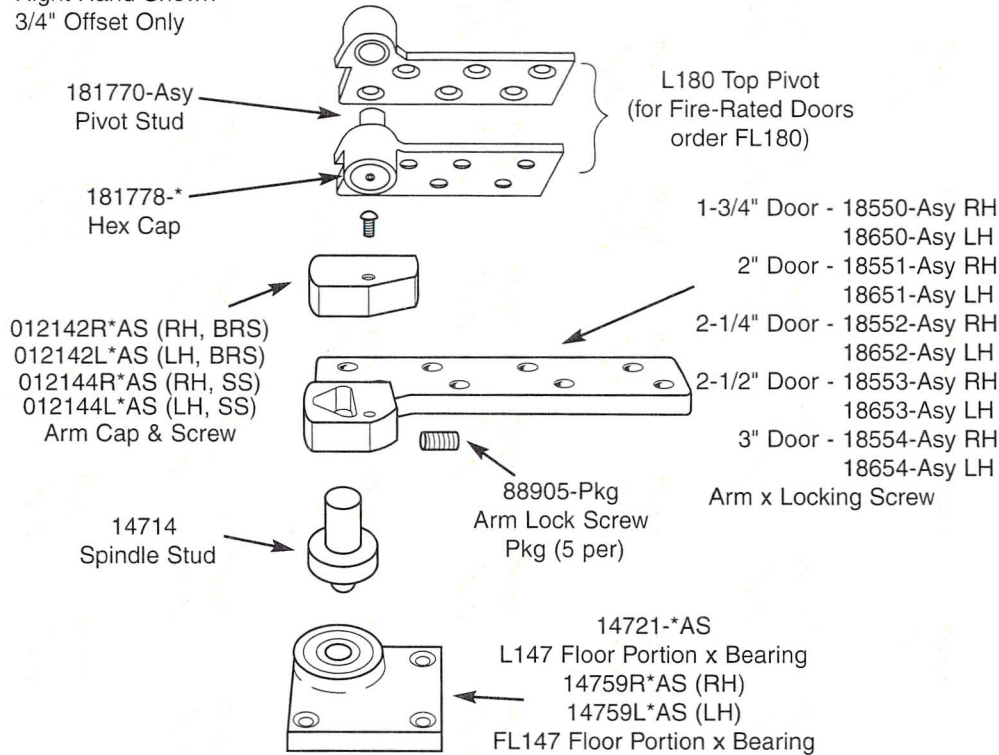
Closers prior to 1988  
use Arm Cap 012132\*





### L147, FL147 PIVOT SET

Right Hand Shown  
3/4" Offset Only



**L180/FL180 Screw Kit**  
107016 - \* Machine (2 required)  
107116 - \* Wood (2 required)

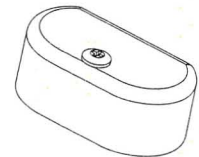
**Arm Screw Kit**  
107048 Machine (2 required)  
107144 Wood (2 required)

**L147/FL147 Screw Kit**  
(includes "E" ring shim)  
107062-\*

\* specify finish

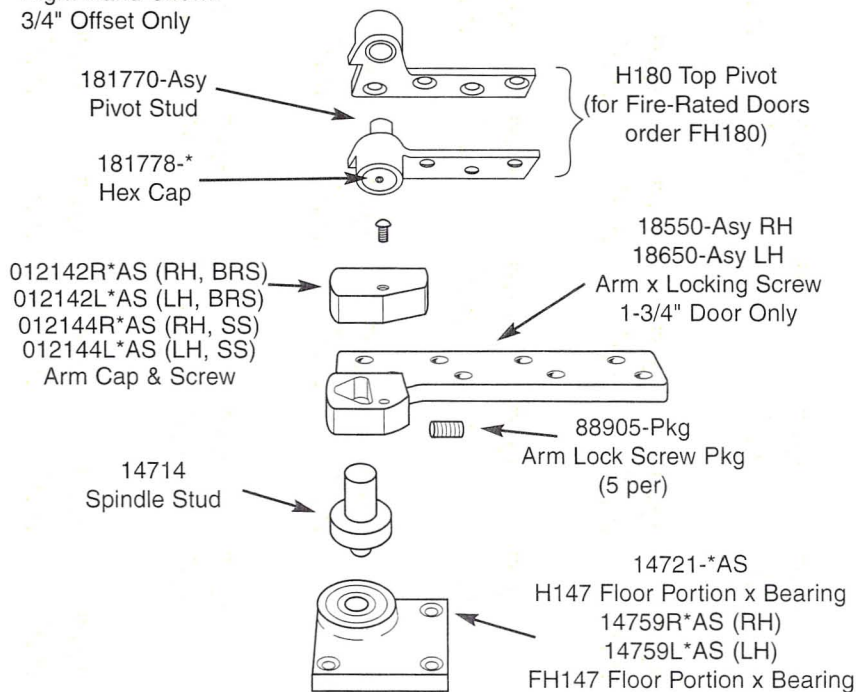
**Special Note:**  
FL147 is available for  
1-3/4" doors only

**Closers prior to 1988  
use Arm Cap 012132\***



### H147, FH147 PIVOT SET

Right Hand Shown  
3/4" Offset Only



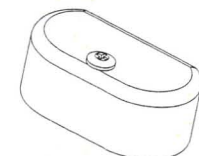
**H180/FH180 Screw Kit**  
107014 - \* Machine (2 required)  
107114 - \* Wood (2 required)

**Arm Screw Kit**  
107048 Machine (2 required)  
107144 Wood (2 required)

**H147/FH147 Bottom Pivot Screw Kit**  
(includes "E" ring shim)  
107062-\*

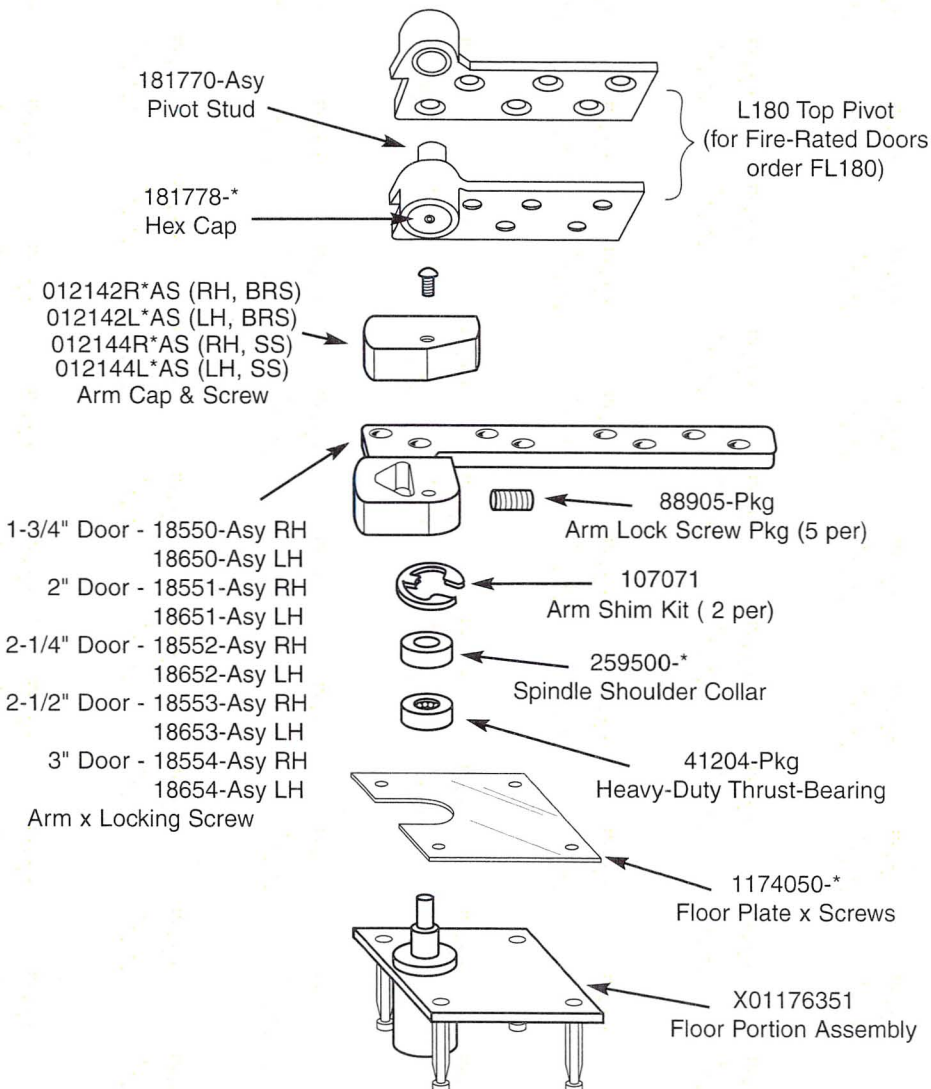
\* specify finish

**Closers prior to 1988  
use Arm Cap 012132\***



### L117, FL117 PIVOT SET

Right Hand Shown  
3/4" Offset Only



L180/FL180 Screw Kit  
107016 - \* Machine (2 required)  
107116 - \* Wood (2 required)

Arm Screw Kit  
107048 Machine (2 required)  
107144 Wood (2 required)

Floor Plate Screw Kit  
107004-\*

\* specify finish

Special Note:  
FL117 is available for  
1-3/4" doors only

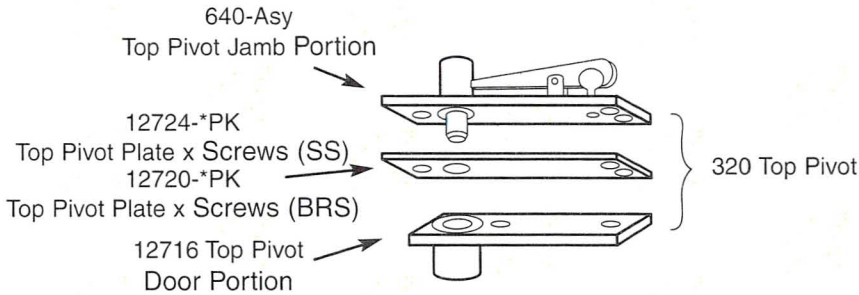
Pivots &  
Pivot Sets

Closers prior to 1988  
use Arm Cap 012132\*





### 127-3/4 & 128-3/4 PIVOT SETS

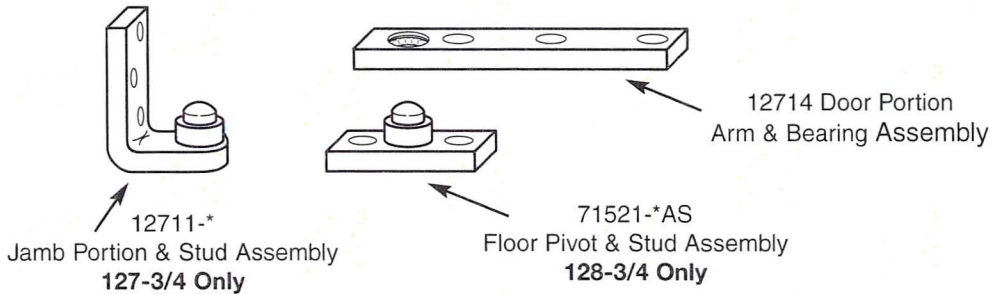


320 Screw Kit  
107340 Machine & Wood

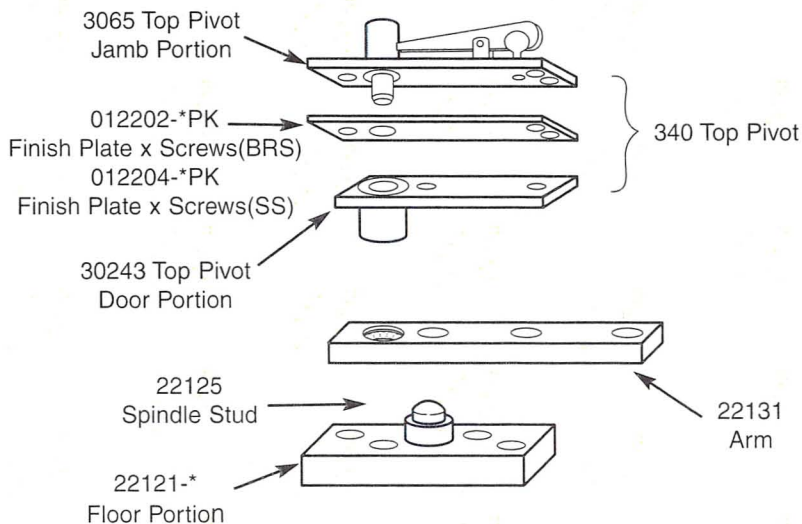
127-3/4 & 128-3/4 Screw Kit  
117127-\*

\* specify finish

Pivots &  
Pivot Sets



### 370 PIVOT SET

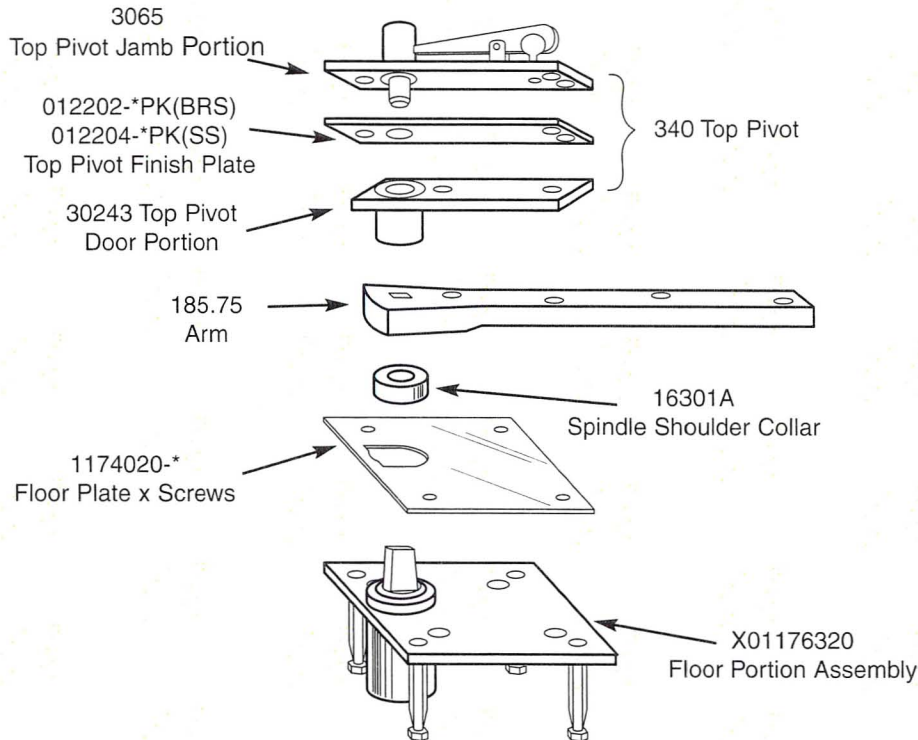


340 Screw Kit  
107329 Machine & Wood

370 Screw Kit  
107370-\*

\* specify finish

### 1 1/4 PIVOT SET

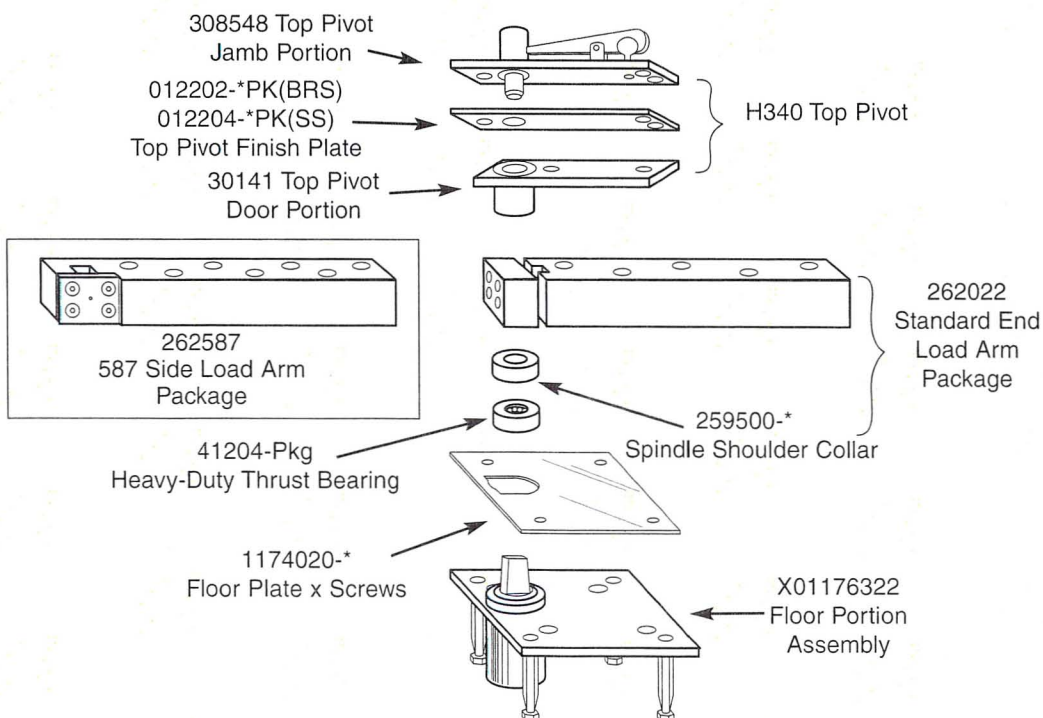


340 Screw Kit  
107329 Machine & Wood

Arm Screw Kit  
107064 Machine  
107144 Wood

\* specify finish

### H 1 1/4 PIVOT SET



H340 Screw Kit  
107329 Machine & Wood

Arm Screw Kit  
107045 Machine  
107145 Wood

587 Arm Screw Kit  
107077  
107177

Arm Shim Screw Kit  
107060

Floor Plate Screw Kit  
107004 - \*

\* specify finish





## QUICK REFERENCE OF OPTIONS

### REFERENCE

| Model    | Standard 3/4" Offset | Available 1-1/2" Offset | Center Hung | Standard Top Pivot | Available for 3-Hour Fire Rated Doors | Available for 20-Minute Fire Doors | Center Hung & 3/4" Offset Door Weight | 1-1/2" Offset Door Weight | Handed (RH/LH) | Finish |
|----------|----------------------|-------------------------|-------------|--------------------|---------------------------------------|------------------------------------|---------------------------------------|---------------------------|----------------|--------|
| 117-1/4  | yes                  | no                      |             | 180                | no                                    | no                                 | 250                                   |                           | yes            | yes    |
| 117      | yes                  | yes                     |             | 180                | yes                                   | yes                                | 300                                   | 150                       | yes            | yes    |
| 195      | yes                  | no                      |             | 180                | no                                    | no                                 | 450                                   |                           | yes            | yes    |
| 147      | yes                  | yes                     |             | 180                | yes                                   | yes                                | 600                                   |                           | yes            | yes    |
| 117-1/2  | yes                  | yes                     |             | 180                | yes                                   | yes                                | 650                                   | 350                       | yes            | yes    |
| L147     | yes                  | *SPLO                   |             | L180               | 1-3/4" door only                      | yes                                | 1000                                  | 450                       | yes            | yes    |
| H147     | yes                  | no                      |             | H180               | yes                                   | yes                                | 800                                   |                           | yes            | yes    |
| L117     | yes                  | *SPLO                   |             | L180               | 1-3/4" door only                      | yes                                | 1750                                  | 500                       | yes            | yes    |
| 127-3/4  |                      |                         | yes         | 320                | no                                    | no                                 | 200                                   |                           | no             | yes    |
| 128-3/4  |                      |                         | yes         | 320                | no                                    | no                                 | 250                                   |                           | no             | yes    |
| 370      |                      |                         | yes         | 340                | no                                    | no                                 | 500                                   |                           | no             | yes    |
| 117-3/4  |                      |                         | yes         | 340                | no                                    | no                                 | 600                                   |                           | no             | yes    |
| H117-3/4 |                      |                         | yes         | H340               | no                                    | no                                 | 1000                                  |                           | no             | yes    |
| 178      |                      |                         | yes         | 1494               | no                                    | no                                 | 175                                   |                           | no             | yes    |

\*special layout

### SAMPLE

|                    |                     |                       |                                  |                   |                      |
|--------------------|---------------------|-----------------------|----------------------------------|-------------------|----------------------|
| <b>F</b><br>prefix | <b>147</b><br>model | <b>3/4"</b><br>offset | <b>x 1/2" ext.spdl</b><br>suffix | <b>RH</b><br>hand | <b>605</b><br>finish |
|--------------------|---------------------|-----------------------|----------------------------------|-------------------|----------------------|

### FINISHES

| U.S. Standard | Description                       | BHMA Code |
|---------------|-----------------------------------|-----------|
| US3           | Bright brass, clear coated        | 605       |
| US4           | Satin brass, clear coated         | 606       |
| US9           | Bright bronze, clear coated       | 611       |
| US10          | Satin bronze, clear coated        | 612       |
| US10B         | Satin oxidized bronze, oil rubbed | 613       |
| US26          | Bright chrome plated              | 625       |
| US26D         | Satin chrome plated               | 626       |



# Why Brush Weatherseal is Better

Doors are installed to close an opening to keep inside air in and outside air out. However, the clearance doors need to operate properly creates a gap that permits air infiltration. Therm-L-Brush Weatherseal is the most effective in preventing air infiltration, therefore saving money on heating and cooling costs.

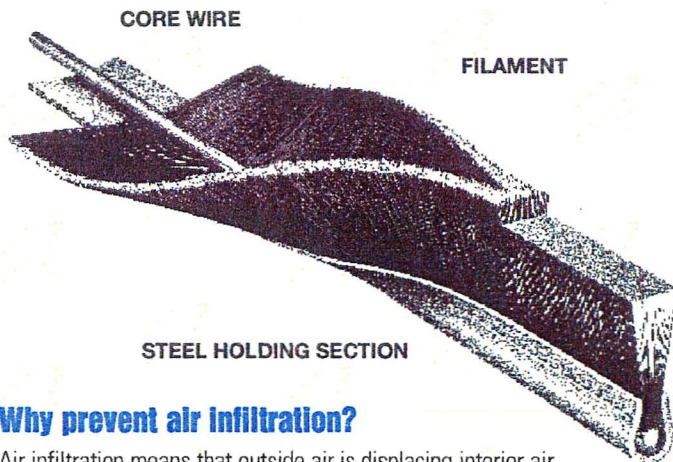
The following facts illustrate why Sealeze's Therm-L-Brush Weatherseal is necessary.

A  $\frac{1}{4}$ " gap around a standard 3' x 7' entrance door is equivalent to a hole with an area of 30 square inches. Sounds very drafty, doesn't it?

Therm-L-Brush will put an end to that draft!

A  $\frac{1}{4}$ " gap on the sides and top of a 10' x 10' sectional door is equivalent to a hole with the area of 90 square inches. Just imagine what else could be coming in with the wind! Therm-L-Brush Weatherseals will prevent unwanted pests!

An unsealed 10' x 10' sectional door can permit 328 million cubic feet of air infiltration in a year. Think of all the money being spent in heating and cooling bills! Our Therm-L-Brush Weatherseals will more than "fit the bill."



## Why prevent air infiltration?

Air infiltration means that outside air is displacing interior air. And every cubic foot of infiltrated air will be heated or cooled at someone's expense. With air infiltration comes a host of unwanted elements including dust, blowing sand, driving rain and snow, noise and fumes, birds and bats, insects and rodents. Effective weather sealing with brush keeps all of these outside where they belong and helps bring down the cost of expensive heating and cooling bills.

## Why use Therm-L-Brush Weatherseal?

It is simply the most effective weatherseal and is 98.5% effective in blocking air infiltration. It is at least three times more effective than vinyl, and almost never needs replacement. Therm-L-Brush will not interfere with the operation of the door. A study by the U.S. Navy on energy conservation found Therm-L-Brush to be the superior weatherseal material.

## How does it work?

Therm-L-Brush is a dense wall of nylon filaments bound securely by a strip of galvanized steel and held in an aluminum holder. This wall of nylon forms an almost air-tight barrier. It is flexible enough to allow unimpaired door movement. It will not tear or pull out and will conform to surface irregularities to maintain a complete weather tight seal for the life of the door.

## It's better.

Therm-L-Brush design lasts longer and seals better than vinyl, felt, neoprene, silicone, or any other weatherstrip product.

## It's easy to install.

Therm-L-Brush aluminum holders come slotted with a generous supply of self-drilling TEK type screws for fast, low-cost installation. With our silicone gel adhesive (referred to as double backed tape) installation takes seconds.

## It's attractive.

Therm-L-Brush comes in a variety of holder and brush color combinations to complement any opening. Aluminum holders are available in a clear anodized finish, a gold anodized finish, a dark brown duranodic finish, or a mill finish. Brush filaments are stocked in black and can be special ordered in white or a wide variety of custom colors.

## It's UL 3-Hour Fire Door rated.

Sealeze Nylon Therm-L-Brush up to 4" long are UL labeled for use on 3-hour fire doors.

## It lasts the longest.

Independent laboratory testing has proven our brush to stand up to 2,000,000 cycles (opening and closing) without degradation. Nylon filaments give Therm-L-Brush unmatched flexibility and durability. This not only enables it to conform to all surface contours for a complete seal but also makes it impossible to tear the way solid sealing materials do. Our Therm-L-Brush almost never needs replacement. And the nylon holds up to the weather like nothing else. Installations of 10-15 years are the rule, not the exception. It can usually be expected to last the life of the door.

## It works even at 70° below.

In the coldest climates, where vinyl and other materials can freeze and become brittle, Sealeze Therm-L-Brush will stay flexible.

## It blocks light.

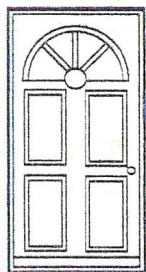
It's ideal for sealing doors to light-sensitive areas and for use around warehouses and food preparation areas to keep out pests. With no light visible, there is less of a chance of attracting pests.

## It blocks sound.

Independent laboratory tests show Sealeze Therm-L-Brush effectively reduces the sounds that can come through the openings around interior and exterior doorways.



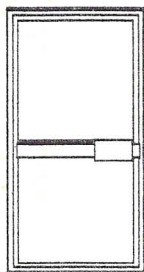
# Brush Weatherseal For Entrance Doors



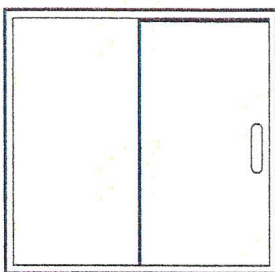
Wood



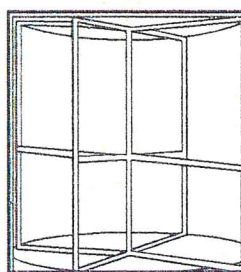
Hollow Metal



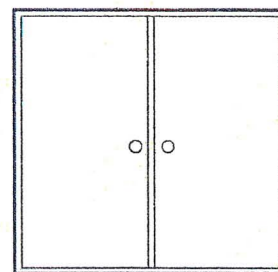
Storefront



Automatic Sliding



Revolving



Glass

**Keeps  
Out:**

**Drafts • Light • Insects • Noise • Dust • Sand • Wind  
Rain • Snow • Sleet • Fumes • Rodents**

The importance of sealing openings in a building applies to entrance doors just as it does to overhead doors. Any gap around a door causes energy loss due to air infiltration. Dirt and debris are just as much of a problem. Brush designed as Door Bottom Seals and Door Jamb Seals provide the most effective means of solving these problems. Mounted using special finished holders, brush weatherseals provide an attractive and effective solution to gaps for any door. And, Sealeze AstraSweep™ corner seals when used with Sealeze door sweeps and astragal seals provide a more complete seal by closing the gap between the sweep and astragal.

## Kits

All Sealeze weatherseal products are stocked in kits for standard size entrance doors. Kits are available for sweeps, door header and jamb seals, astragal seals and AstraSweep kits which include astragal, sweep and corner seals for a more complete seal around double doors. Kits are pre-cut to size; holders are pre-slotted with self-drilling screws for fast, easy installation. Kits are packaged in clear poly bags with instructions. Easy to stock, easy to use!

## Custom Kits

For special door sizes or configurations, Sealeze will custom-cut weatherseal to your specifications and package in clear poly bags.

## Bulk\*

Weatherseals are also available in bulk to package yourself, or to keep on hand so you can cut to fit as needed.

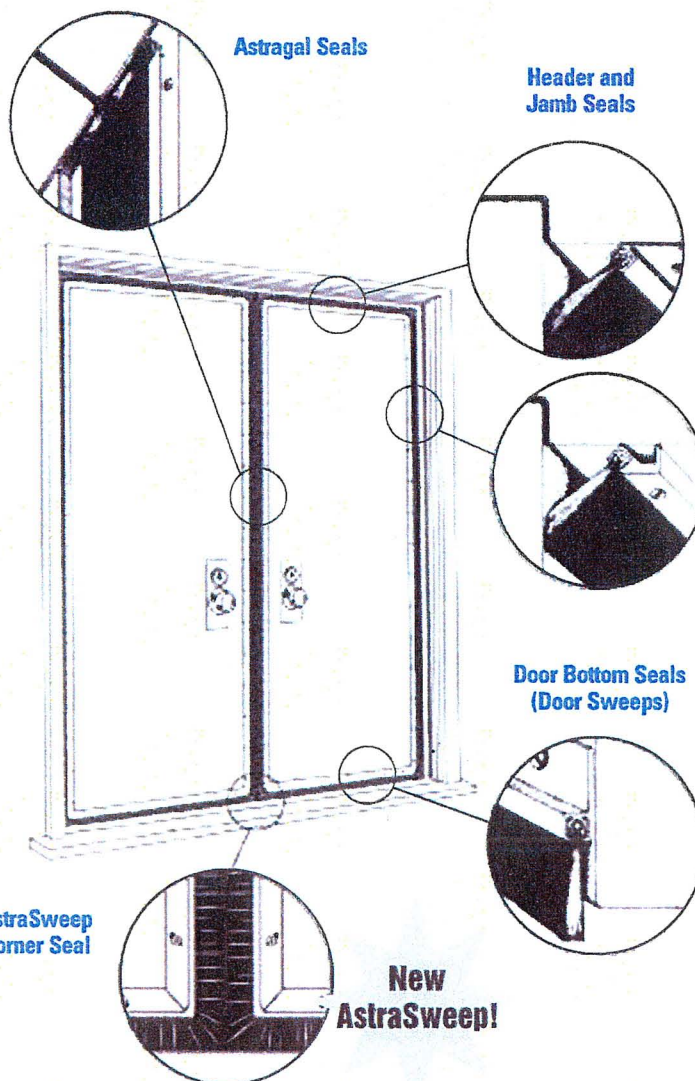
## Cut To Order\*

For special door sizes or configurations, Sealeze will custom cut weatherseals to your specifications.

## Double Backed Tape

For the fastest installation use our double backed adhesive tape. This clear silicone adhesive gel makes installation time a matter of seconds and holds securely without screws. It is available in two forms: applied to the weather-seal holder, or in rolls. Weatherseal with applied double backed tape is not slotted.

*\*When ordering please specify: piece length, number of pieces.*

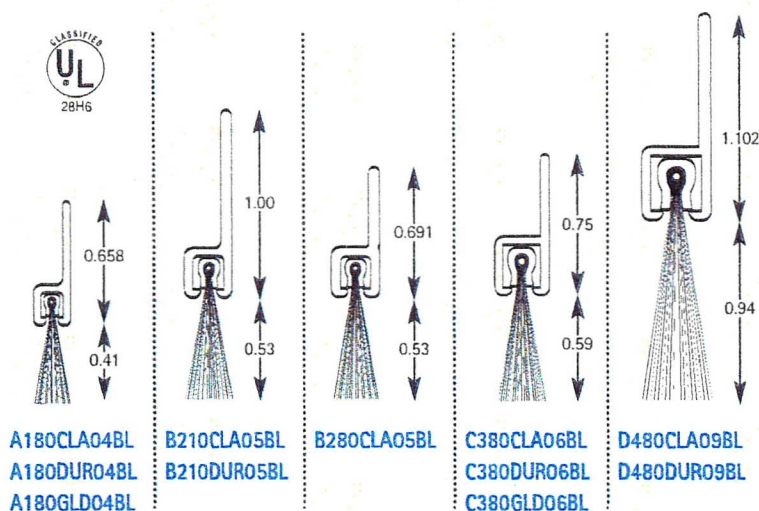


ISO 9001 Certified



## Door Sweeps

Brush weatherseals are ideal for sealing the irregular surfaces of thresholds at door bottoms, conforming to the surface while not impairing the door's movements. Select the right brush and holder, based on the size of the gap to be sealed and the desired appearance of the holder.



(Holder and brush length in inches)

| Product Code | Brush Length | Holder Length | Stock Length        |
|--------------|--------------|---------------|---------------------|
| A180CLA04BL  | 0.41"        | 0.658         | 7, 8, 10'           |
| A180DUR04BL  | 0.41"        | 0.658         | 7, 10'              |
| A180GLD04BL  | 0.41"        | 0.658         | 12'                 |
| B210CLA05BL  | 0.53"        | 1.000         | 3, 7, 10'           |
| B210DUR05BL  | 0.53"        | 1.000         | 10'                 |
| B280CLA05BL  | 0.53"        | 0.691         | 10'                 |
| C380CLA06BL  | 0.59"        | 0.750         | 3, 7, 10'           |
| C380DUR06BL  | 0.59"        | 0.750         | 7, 10'              |
| C380GLD06BL  | 0.59"        | 0.750         | 3, 8'               |
| D480CLA09BL  | 0.94"        | 1.102         | 3, 7, 8, 9, 10, 12' |
| D480DUR09BL  | 0.94"        | 1.102         | 8, 10'              |

All products are available in different brush lengths.  
Call for assistance with your special application.

## Door Sweep Kits

Aluminum door sweeps in both clear and duranodic finish with black brush are the perfect complement to their corresponding door jamb seals. The aluminum holders are pre-slotted for ease of installation and sweeps are prepackaged with fasteners for 3', 3.5' and 4' doors.

| Kit Product Code | Brush Length | Door Bottom Width |
|------------------|--------------|-------------------|
| A180CLA04BL3     | 0.41"        | 3'                |
| A180CLA04BL3.5   | 0.41"        | 3.5'              |
| A180CLA04BL4     | 0.41"        | 4'                |
| A180DUR04BL3     | 0.41"        | 3'                |
| A180DUR04BL3.5   | 0.41"        | 3.5'              |
| A180DUR04BL4     | 0.41"        | 4'                |
| A180GLD04BL3     | 0.41"        | 3'                |
| A180GLD04BL3.5   | 0.41"        | 3.5'              |
| A180GLD04BL4     | 0.41"        | 4'                |
| B210CLA05BL3     | 0.53"        | 3'                |
| B210CLA05BL3.5   | 0.53"        | 3.5'              |
| B210CLA05BL4     | 0.53"        | 4'                |
| B210DUR05BL3     | 0.53"        | 3'                |
| B210DUR05BL3.5   | 0.53"        | 3.5'              |
| B210DUR05BL4     | 0.53"        | 4'                |
| C380CLA06BL3     | 0.59"        | 3'                |
| C380CLA06BL3.5   | 0.59"        | 3.5'              |
| C380CLA06BL4     | 0.59"        | 4'                |
| C380DUR06BL3     | 0.59"        | 3'                |
| C380DUR06BL3.5   | 0.59"        | 3.5'              |
| C380DUR06BL4     | 0.59"        | 4'                |
| C380GLD06BL3     | 0.59"        | 3'                |
| C380GLD06BL3.5   | 0.59"        | 3.5'              |
| C380GLD06BL4     | 0.59"        | 4'                |
| D480CLA09BL3     | 0.94"        | 3'                |
| D480CLA09BL3.5   | 0.94"        | 3.5'              |
| D480CLA09BL4     | 0.94"        | 4'                |
| D480DUR09BL3     | 0.94"        | 3'                |
| D480DUR09BL3.5   | 0.94"        | 3.5'              |
| D480DUR09BL4     | 0.94"        | 4'                |

## How to Select the Right Door Sweep

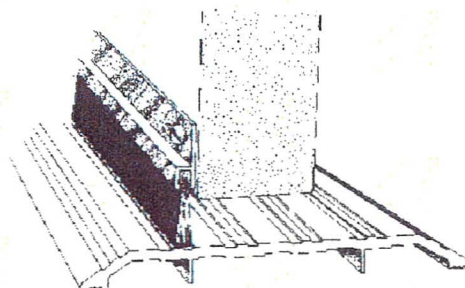
What size gap are you sealing? Look at these items:

|             |                              |
|-------------|------------------------------|
| Up to 3/8"  | Starting with the letter "A" |
| Up to 1/2"  | Starting with the letter "B" |
| Up to 9/16" | Starting with the letter "C" |
| Up to 1"    | Starting with the letter "D" |

What color should the holder be?

Look at these items:

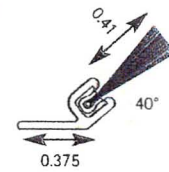
|                                |  |
|--------------------------------|--|
| Clear Satin (silver in color)  | Items with the letters "CLA" in the middle |
| Bronze (dark brown in color)   | Items with the letters "DUR" in the middle |
| Polished Brass (gold in color) | Items with the letters "GLD" in the middle |



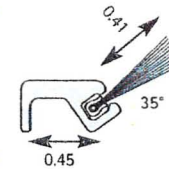
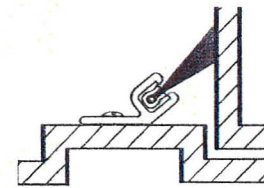


## Jamb Seals

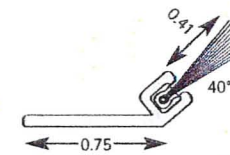
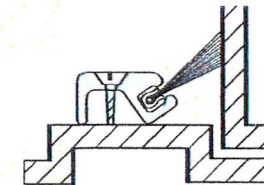
| Product Code | Brush Length | Holder Length | Holder Angle | Finish Color   | Stock Length |
|--------------|--------------|---------------|--------------|----------------|--------------|
| JR40CLA04BL  | 0.41"        | 0.375"        | 40°          | Clear Anodized | 7, 8, 9, 10' |
| J135CLA04BL  | 0.41"        | 0.450"        | 35°          | Clear Anodized | 7, 10'       |
| J135DURO4BL  | 0.41"        | 0.450"        | 35°          | Duranodic      | 7, 10'       |
| J135GLD04BL  | 0.41"        | 0.450"        | 35°          | Gold Anodized  | 7'           |
| J140CLA04BL  | 0.41"        | 0.750"        | 40°          | Clear Anodized | 7, 8, 10'    |
| J140DURO4BL  | 0.41"        | 0.750"        | 40°          | Duranodic      | 7, 10'       |



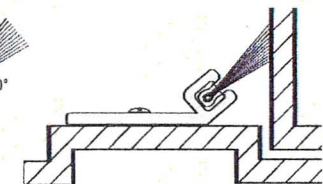
JR40CLA04BL



J135CLA04BL  
J135DURO4BL  
J135GLD04BL



J140CLA04BL  
J140DURO4BL



Brush lengths also available in 0.75" and 1.00".

UL listed jamb kits provide reliable seals without restricting automatic door closers. Tested for 2,000,000 cycles by Scovill Laboratories, these high-quality brush seals provide long-lasting, cost-effective service.

## Jamb Seal Kits

| Kit Product Code | Brush Length | Door Size | Finish Color     |
|------------------|--------------|-----------|------------------|
| JR40CLA04BL17    | 0.41"        | 3' X 7'   | Clear Anodized   |
| JR40CLA04BL18    | 0.41"        | 4' X 7'   | Clear Anodized   |
| JR40CLA04BL20    | 0.41"        | 6' X 7'   | Clear Anodized   |
| J135CLA04BL17    | 0.41"        | 3' X 7'   | Clear Anodized   |
| J135CLA04BL18    | 0.41"        | 4' X 7'   | Clear Anodized   |
| J135CLA04BL20    | 0.41"        | 6' X 7'   | Clear Anodized   |
| J135DURO4BL17    | 0.41"        | 3' X 7'   | Duranodic Finish |
| J135DURO4BL18    | 0.41"        | 4' X 7'   | Duranodic Finish |
| J135DURO4BL20    | 0.41"        | 6' X 7'   | Duranodic Finish |
| J135GLD04BL17    | 0.41"        | 3' X 7'   | Gold Anodized    |
| J135GLD04BL18    | 0.41"        | 4' X 7'   | Gold Anodized    |
| J135GLD04BL20    | 0.41"        | 6' X 7'   | Gold Anodized    |
| J140CLA04BL17    | 0.41"        | 3' X 7'   | Clear Anodized   |
| J140CLA04BL18    | 0.41"        | 4' X 7'   | Clear Anodized   |
| J140CLA04BL20    | 0.41"        | 6' X 7'   | Clear Anodized   |
| J140DURO4BL17    | 0.41"        | 3' X 7'   | Duranodic Finish |
| J140DURO4BL18    | 0.41"        | 4' X 7'   | Duranodic Finish |
| J140DURO4BL20    | 0.41"        | 6' X 7'   | Duranodic Finish |

JR40 and J140 kits come with screw slots for after-installation adjustments. J135 kits have counter-sunk screw holes for a neat, flush finish. Fasteners and installation instructions are provided with all kits.

**These kits are stock items:** 17 ft. Kit – fits 3'0" x 7'0" door • 18 ft. Kit – fits 4'0" x 7'0" door • 20 ft. Kit – fits 6'0" x 7'0" door

## Selecting The Right Door Jamb

**What color should the holder be?**

**Select:**

|                                |  |
|--------------------------------|--|
| Clear Satin (silver in color)  | Items with letters "CLA" in the middle     |
| Bronze (dark brown in color)   | Items with the letters "DUR" in the middle |
| Polished Brass (gold in color) | Items with the letters "GLD" in the middle |

**What style holder should be used?**

It's strictly a matter of preference. Our JR40 extrusion is the smallest, offering a .375" flange at a 40° angle. Our J140 extrusion is slightly larger with a .75" flange at a 40° angle. Our J135 extrusion offers a more "finished" look to your jambs with a .45" flange at a 35° angle.



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## Astragal Seals For Wood And Metal Doors

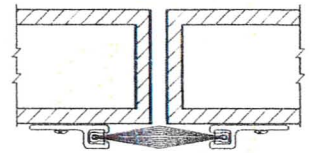
| PRODUCT CODE | BRUSH LENGTH | STRAIGHT HOLDER LENGTH | STOCK LENGTH |
|--------------|--------------|------------------------|--------------|
| A180CLA04BL  | 0.41"        | 0.658"                 | 7, 8'        |
| A180DUR04BL  | 0.41"        | 0.658"                 | 7, 8'        |
| A180GLD04BL  | 0.41"        | 0.658"                 | 7, 8'        |
| C380CLA06BL  | 0.59"        | 0.750"                 | 7, 8'        |
| C380DUR06BL  | 0.59"        | 0.750"                 | 7, 8'        |
| C380GLD06BL  | 0.59"        | 0.750"                 | 7, 8'        |

Therm-L-Brush is perfect for astragal applications when closing the gap between two doors is necessary. Fourteen and sixteen foot standard kits, available in our A180 or C380 product codes, come poly-bagged to include fasteners and installation instructions for wood doors. Metal doors are sealed just as quickly when our weatherseals are applied by using our silicone gel adhesive.

## Astragal Seal Kits

| KIT PRODUCT CODE | BRUSH LENGTH | DOOR HEIGHT | KIT PRODUCT CODE | BRUSH LENGTH | DOOR HEIGHT |
|------------------|--------------|-------------|------------------|--------------|-------------|
| A180CLA0.4BL14   | 0.41"        | 7'          | A180CLA0.4BL16   | 0.41"        | 8'          |
| A180DUR04BL14    | 0.41"        | 7'          | A180DUR04BL16    | 0.41"        | 8'          |
| A180GLD04BL14    | 0.41"        | 7'          | A180GLD04BL16    | 0.41"        | 8'          |
| C380CLA06BL14    | 0.59"        | 7'          | C380CLA06BL16    | 0.59"        | 8'          |
| C380DUR06BL14    | 0.59"        | 7'          | C380DUR06BL16    | 0.59"        | 8'          |
| C380GLD06BL14    | 0.59"        | 7'          | C380GLD06BL16    | 0.59"        | 8'          |

Top View



## AstraSweep™ Kits

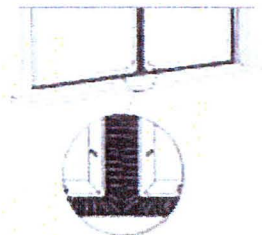
| KIT PRODUCT CODE | DOOR SIZE (W X H) | FINISH COLOR   | KIT PRODUCT CODE | DOOR SIZE (W X H) | FINISH COLOR   |
|------------------|-------------------|----------------|------------------|-------------------|----------------|
| C380CLA06BL67    | 6' x 7'           | Clear Anodized | C380CLA06BL87    | 8' x 7'           | Clear Anodized |
| C380DUR06BL67    | 6' x 7'           | Duranodic      | C380DUR06BL87    | 8' x 7'           | Duranodic      |
| C380GLD06BL67    | 6' x 7'           | Gold Anodized  | C380GLD06BL87    | 8' x 7'           | Gold Anodized  |
| C380CLA06BL68    | 6' x 8'           | Clear Anodized | C380CLA06BL88    | 8' x 8'           | Clear Anodized |
| C380DUR06BL68    | 6' x 8'           | Duranodic      | C380DUR06BL88    | 8' x 8'           | Duranodic      |
| C380GLD06BL68    | 6' x 8'           | Gold Anodized  | C380GLD06BL88    | 8' x 8'           | Gold Anodized  |
| C380CLA06BL77    | 7' x 7'           | Clear Anodized |                  |                   |                |
| C380DUR06BL77    | 7' x 7'           | Duranodic      |                  |                   |                |
| C380GLD06BL77    | 7' x 7'           | Gold Anodized  |                  |                   |                |
| C380CLA06BL78    | 7' x 8'           | Clear Anodized |                  |                   |                |
| C380DUR06BL78    | 7' x 8'           | Duranodic      |                  |                   |                |
| C380GLD06BL78    | 7' x 8'           | Gold Anodized  |                  |                   |                |

### AstraSweep (corner seal) only

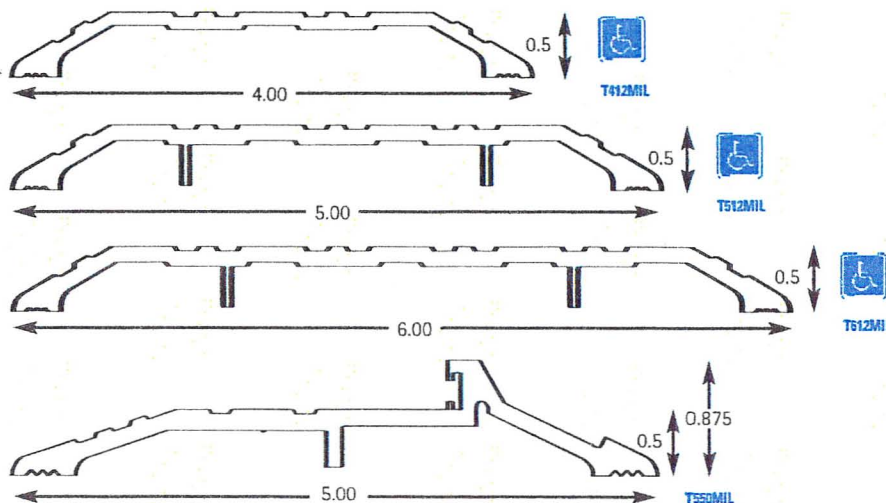
(includes 2 seals for size "C" door sweep and astragal seal.)

| KIT PRODUCT CODE | FINISH COLOR   |
|------------------|----------------|
| C38090CLA06BL    | Clear Anodized |
| C38090DUR06BL    | Duranodic      |
| C38090GLD06BL    | Gold Anodized  |

Sealeze AstraSweep corner seals seal the hole between the astragal seal and the door sweep. AstraSweep Kits include two corner seals, two door sweeps and two astragal seals — all the materials necessary to seal the inside (gaps up to 1 inch) and bottoms of a double door. Holders are pre-slotted for easy installation.



## Entrance Door Thresholds



| PRODUCT CODE | THRESHOLD WIDTH | TYPE             |
|--------------|-----------------|------------------|
| T412         | 4"              | Saddle Threshold |
| T512         | 5"              | Saddle Threshold |
| T550         | 5"              | Panic Threshold  |
| T612         | 6"              | Saddle Threshold |

Our entrance door thresholds are stocked in four popular styles. The saddle thresholds are made of heavy duty aluminum extrusions in a mill finish and are ADA compliant. The panic threshold, made of the same material, is available with a pile insert. All can be cut to length and will include screws, anchors and pre-drilled countersunk holes as specified. Diagrams shown smaller than actual size.





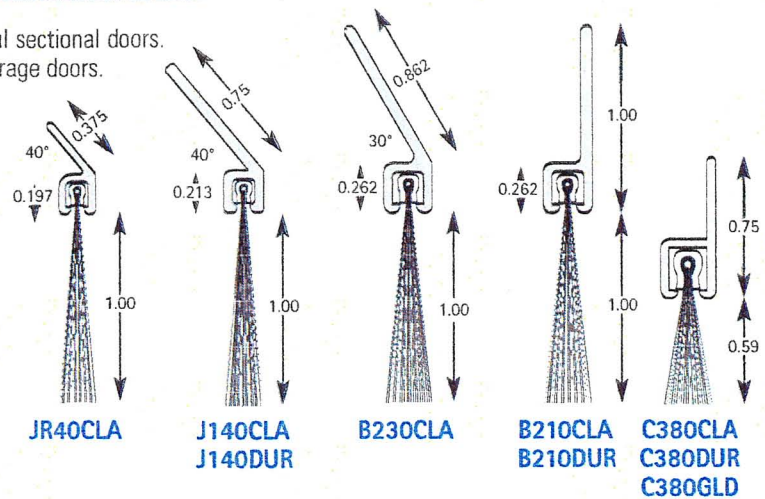
## Light Duty



Available in Bee-Ware Safety-Tape Design Brush

Light-duty brush seals are ideal for residential and commercial sectional doors. JR40 and J140 are available in kits for 9' X 7' and 16' X 7' garage doors.

| Product Code | Brush Length | Holder Length | Holder Angle |
|--------------|--------------|---------------|--------------|
| JR40CLA08BL  | 0.75"        | 0.375"        | 40°          |
| JR40CLA10BL  | 1.00"        | 0.375"        | 40°          |
| J140CLA10BL  | 1.00"        | 0.750"        | 40°          |
| J140DUR10BL  | 1.00"        | 0.750"        | 40°          |
| B230CLA10BL  | 1.00"        | 0.862"        | 30°          |
| B210CLA10BL  | 1.00"        | 1.000"        | 180°         |
| B210DUR10BL  | 1.00"        | 1.000"        | 180°         |
| C380CLA06BL  | 0.59"        | 0.750"        | 180°         |
| C380DUR06BL  | 0.59"        | 0.750"        | 180°         |
| C380GLD06BL  | 0.59"        | 0.750"        | 180°         |



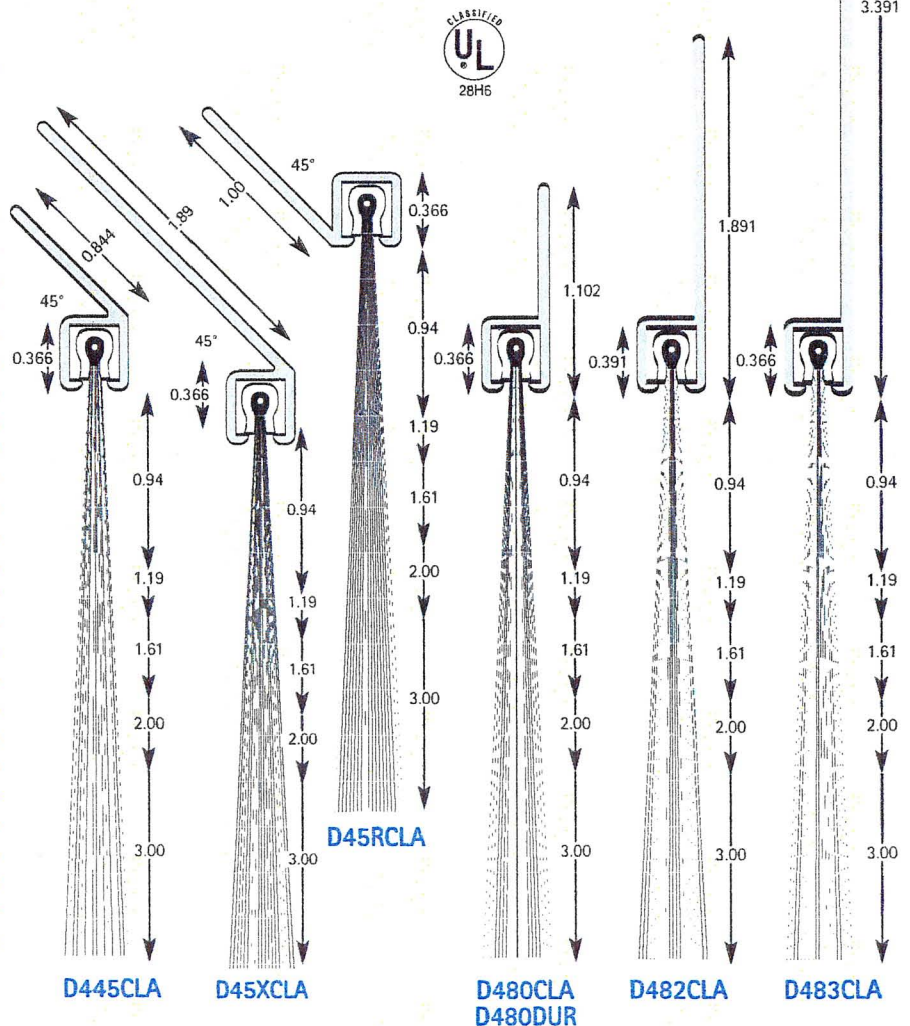
## Standard Duty



Available in Bee-Ware Safety-Tape Design Brush

| Product Code | Brush Length | Holder Length | Holder Angle |
|--------------|--------------|---------------|--------------|
| D480CLA09BL  | 0.94"        | 1.102"        | 180°         |
| D480DUR09BL  | 0.94"        | 1.102"        | 180°         |
| D480CLA12BL  | 1.19"        | 1.102"        | 180°         |
| D480DUR12BL  | 1.19"        | 1.102"        | 180°         |
| D480CLA16BL  | 1.61"        | 1.102"        | 180°         |
| D480DUR16BL  | 1.61"        | 1.102"        | 180°         |
| D480CLA20BL  | 2.00"        | 1.102"        | 180°         |
| D480DUR20BL  | 2.00"        | 1.102"        | 180°         |
| D480CLA30BL  | 3.00"        | 1.102"        | 180°         |
| D480DUR30BL  | 3.00"        | 1.102"        | 180°         |
| D482CLA09BL  | 0.94"        | 1.811"        | 180°         |
| D482CLA12BL  | 1.19"        | 1.811"        | 180°         |
| D482CLA16BL  | 1.61"        | 1.811"        | 180°         |
| D482CLA20BL  | 2.00"        | 1.811"        | 180°         |
| D482CLA30BL  | 3.00"        | 1.811"        | 180°         |
| D483CLA09BL  | 0.94"        | 3.391"        | 180°         |
| D483CLA12BL  | 1.19"        | 3.391"        | 180°         |
| D483CLA16BL  | 1.61"        | 3.391"        | 180°         |
| D483CLA20BL  | 2.00"        | 3.391"        | 180°         |
| D483CLA30BL  | 3.00"        | 3.391"        | 180°         |
| D445CLA09BL  | 0.94"        | 0.844"        | 45°          |
| D445CLA12BL  | 1.19"        | 0.844"        | 45°          |
| D445CLA16BL  | 1.61"        | 0.844"        | 45°          |
| D445CLA20BL  | 2.00"        | 0.844"        | 45°          |
| D445CLA30BL  | 3.00"        | 0.844"        | 45°          |
| D45XCLA09BL  | 0.94"        | 1.890"        | 45°          |
| D45XCLA12BL  | 1.19"        | 1.890"        | 45°          |
| D45XCLA16BL  | 1.61"        | 1.890"        | 45°          |
| D45XCLA20BL  | 2.00"        | 1.890"        | 45°          |
| D45XCLA30BL  | 3.00"        | 1.890"        | 45°          |
| D45RCLA09BL  | 0.94"        | 1.000"        | 45° REV      |
| D45RCLA12BL  | 1.19"        | 1.000"        | 45° REV      |
| D45RCLA16BL  | 1.61"        | 1.000"        | 45° REV      |
| D45RCLA20BL  | 2.00"        | 1.000"        | 45° REV      |
| D45RCLA30BL  | 3.00"        | 1.000"        | 45° REV      |

Standard duty brush seals are the perfect seal for all sectional, rolling steel, and other service doors. Sealeze "D" series is synonymous with quality, energy-saving and value. Comes in brush lengths from 1" to 3".



ISO 9001 Certified



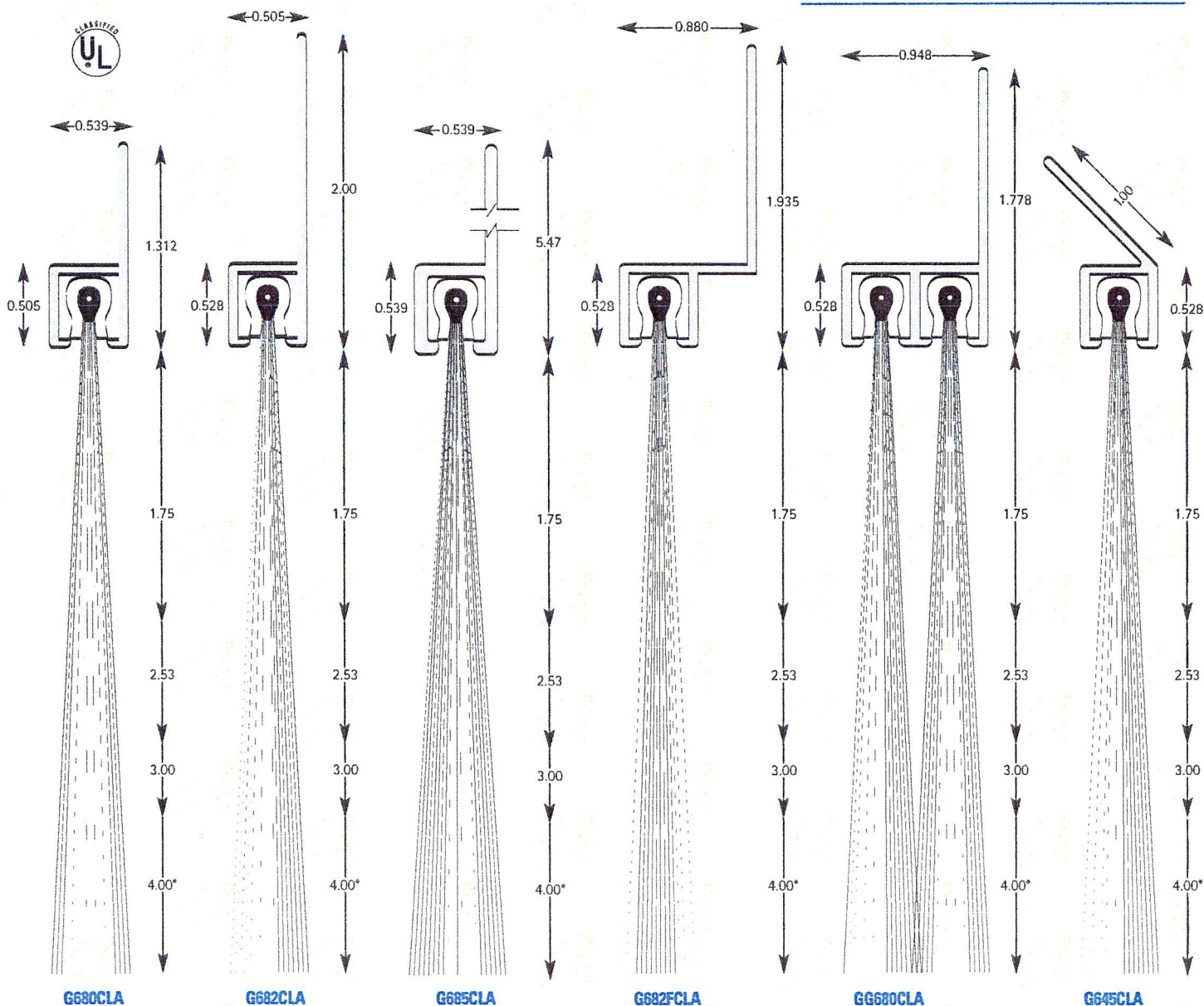


The heaviest brush seals available anywhere, Sealeze's "G" series brushes seal out the elements around large industrial rolling steel doors, sectional doors, and other large service doors, including aircraft hangar doors. Available in brush lengths up to 7." UL rating on all brushes up to 4" in length.

| PRODUCT CODE | BRUSH LENGTH | HOLDER LENGTH | HOLDER ANGLE |
|--------------|--------------|---------------|--------------|
| G680CLA18BL  | 1.75"        | 1.312"        | 180°         |
| G680CLA25BL  | 2.53"        | 1.312"        | 180°         |
| G680CLA30BL  | 3.00"        | 1.312"        | 180°         |
| G680CLA40BL  | 4.00"        | 1.312"        | 180°         |
| G680CLA50BL  | 5.00"        | 1.312"        | 180°         |
| G680CLA60BL  | 6.00"        | 1.312"        | 180°         |
| G680CLA70BL  | 7.00"        | 1.312"        | 180°         |
| G682CLA18BL  | 1.75"        | 2.00"         | 180°         |
| G682CLA25BL  | 2.53"        | 2.00"         | 180°         |

| PRODUCT CODE | BRUSH LENGTH | HOLDER LENGTH | HOLDER ANGLE |
|--------------|--------------|---------------|--------------|
| G682CLA30BL  | 3.00"        | 2.00"         | 180°         |
| G682CLA40BL  | 4.00"        | 2.00"         | 180°         |
| G682CLA50BL  | 5.00"        | 2.00"         | 180°         |
| G682CLA60BL  | 6.00"        | 2.00"         | 180°         |
| G682CLA70BL  | 7.00"        | 2.00"         | 180°         |
| G685CLA18BL  | 1.75"        | 5.470"        | 180°         |
| G685CLA25BL  | 2.53"        | 5.470"        | 180°         |
| G685CLA30BL  | 3.00"        | 5.470"        | 180°         |
| G685CLA40BL  | 4.00"        | 5.470"        | 180°         |

| PRODUCT CODE | BRUSH LENGTH | HOLDER LENGTH | HOLDER ANGLE |
|--------------|--------------|---------------|--------------|
| G685CLA50BL  | 5.00"        | 5.470"        | 180°         |
| G685CLA60BL  | 6.00"        | 5.470"        | 180°         |
| G685CLA70BL  | 7.00"        | 5.470"        | 180°         |
| G682FCLA18BL | 1.75"        | 1.935"        | 180° Offset  |
| G682FCLA25BL | 2.53"        | 1.935"        | 180° Offset  |
| G682FCLA30BL | 3.00"        | 1.935"        | 180° Offset  |
| G682FCLA40BL | 4.00"        | 1.935"        | 180° Offset  |
| G682FCLA50BL | 5.00"        | 1.935"        | 180° Offset  |
| G682FCLA60BL | 6.00"        | 1.935"        | 180° Offset  |
| G682FCLA70BL | 7.00"        | 1.935"        | 180° Offset  |



\*G645CLA, G680CLA and G685CLA available up to 7"; UL only applies up to 4".



ISO 9001 Certified



## Heavy Duty — continued

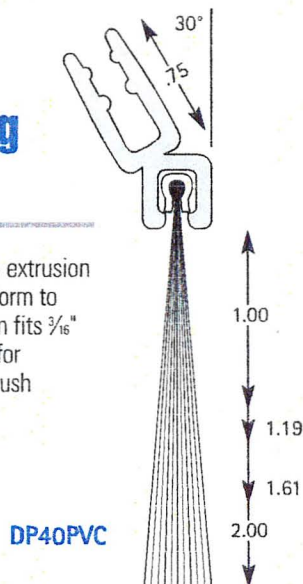
| PRODUCT CODE | BRUSH LENGTH | HOLDER LENGTH | HOLDER ANGLE |
|--------------|--------------|---------------|--------------|
| GG680CLA18BL | 1.75"        | 1.778"        | 180°         |
| GG680CLA25BL | 2.53"        | 1.778"        | 180°         |
| GG680CLA30BL | 3.00"        | 1.778"        | 180°         |
| GG680CLA40BL | 4.00"        | 1.778"        | 180°         |
| GG680CLA50BL | 5.00"        | 1.778"        | 180°         |
| GG680CLA60BL | 6.00"        | 1.778"        | 180°         |

| PRODUCT CODE | BRUSH LENGTH | HOLDER LENGTH | HOLDER ANGLE |
|--------------|--------------|---------------|--------------|
| GG680CLA70BL | 7.00"        | 1.778"        | 180°         |
| G645CLA18BL  | 1.75"        | 1.000"        | 45°          |
| G645CLA25BL  | 2.53"        | 1.000"        | 45°          |
| G645CLA30BL  | 3.00"        | 1.000"        | 45°          |
| G645CLA40BL  | 4.00"        | 1.000"        | 45°          |
| G645CLA50BL  | 5.00"        | 1.000"        | 45°          |

| PRODUCT CODE | BRUSH LENGTH | HOLDER LENGTH | HOLDER ANGLE |
|--------------|--------------|---------------|--------------|
| G645CLA60BL  | 6.00"        | 1.000"        | 45°          |
| G645CLA70BL  | 7.00"        | 1.000"        | 45°          |

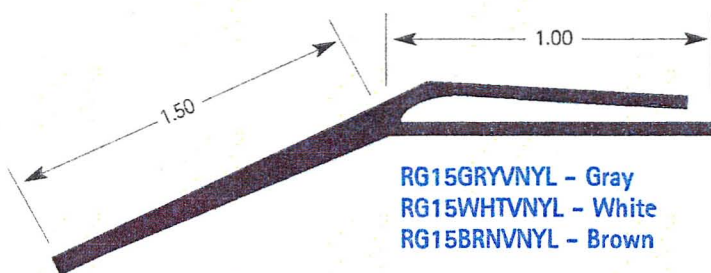
### Plastic Guide Seal For Rolling Steel Doors

Installation is a "snap." Just slide extrusion over guide and let the brush conform to all surface irregularities. Extrusion fits  $\frac{3}{16}$ " guides. Use alone or with epoxy for additional hold. Available with brush lengths up to 3."



### Reverse Angle Clip-On

For use on commercial sectional doors. Dual durometer construction provides a hard vinyl holding section and a flexible flap. Use in situations where price is a key consideration. Sold in rolls of 200 feet.



**SEALEZE**  
A Unit of Jason Incorporated

ISO 9001 Certified

# Dock Leveler Seals / Special Applications

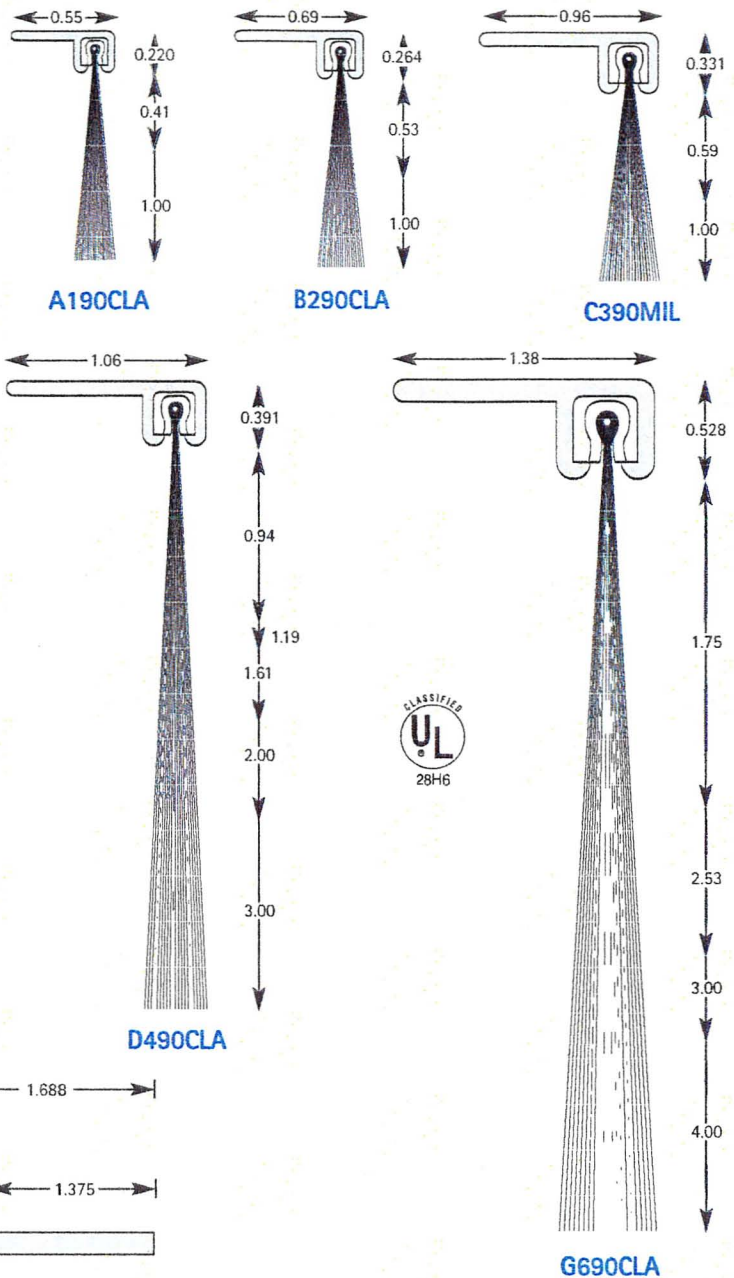


Available in Bee-Ware Safety-Tape Design Brush

Loading dock areas present a great opportunity to seal around the many openings of a building. Not only do the overhead doors provide areas for air infiltration, but the dock levelers themselves can act as wind tunnels, robbing a building of its conditioned air supply.

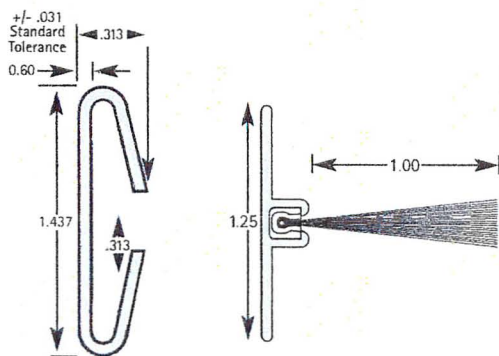
Sealeze's 90° flanges form the perfect fit for dock leveler seals and other special applications. "A" series is ideal where a small brush is required, while "G" series brush will cover the largest gaps.

| PRODUCT CODE | BRUSH LENGTH | HOLDER LENGTH | HOLDER ANGLE |
|--------------|--------------|---------------|--------------|
| A190CLA04BL  | 0.41"        | 0.55"         | 90°          |
| A190CLA10BL  | 1.00"        | 0.55"         | 90°          |
| B290CLA05BL  | 0.53"        | 0.69"         | 90°          |
| B290CLA10BL  | 1.00"        | 0.69"         | 90°          |
| C390MIL06BL  | 0.59"        | 0.96"         | 90°          |
| C390MIL10BL  | 1.00"        | 0.96"         | 90°          |
| D490CLA09BL  | 0.94"        | 1.06"         | 90°          |
| D490CLA12BL  | 1.19"        | 1.06"         | 90°          |
| D490CLA16BL  | 1.61"        | 1.06"         | 90°          |
| D490CLA20BL  | 2.00"        | 1.06"         | 90°          |
| D490CLA30BL  | 3.00"        | 1.06"         | 90°          |
| G690CLA18BL  | 1.75"        | 1.38"         | 90°          |
| G690CLA25BL  | 2.53"        | 1.38"         | 90°          |
| G690CLA30BL  | 3.00"        | 1.38"         | 90°          |
| G690CLA40BL  | 4.00"        | 1.38"         | 90°          |



## Weldable Dock Leveler Seals

Includes a steel holder that can be welded to the sides of the leveler.

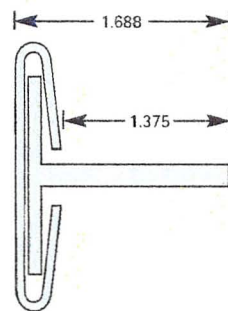


Weldable Holder\*

Brush Seal

| PRODUCT CODE    | EXPOSED SEAL LENGTH | SEAL TYPE |
|-----------------|---------------------|-----------|
| BT90CLA10BLKIT8 | 1.00"               | Brush     |
| BT90CLA14BLKIT8 | 1.40"               | Brush     |
| BT90CS15PVCKIT8 | 1.40"               | Rubber    |

\*Kit includes two 96" sections.



Rubber Seal

## Hinge Seals

For the rear hinge of the dock leveler. Choose from a 1" diameter neoprene "rope" seal or a 2" x 3" foam stock. Call for details.

| PRODUCT CODE    | DESCRIPTION           | DIMENSIONS   |
|-----------------|-----------------------|--------------|
| HINGE-SEAL      | Foam Seal             | 2" x 3" x 7' |
| HINGE-SEAL-PIPE | Hinge Seal Stabilizer | 3/4" x 7'    |
| RS1ONEOPR       | Rope Seal             | Cut-To-Order |



ISO 9001 Certified



ProSeal brush is available in a large number of stock lengths, depending on product code. Call or visit our web site for more information.

| PRODUCT CODE | BRUSH TYPE             | BRUSH LENGTH | HOLDER LENGTH | HOLDER ANGLE |
|--------------|------------------------|--------------|---------------|--------------|
| A+45MIL23BP  | Straight Polypropylene | 2.25"        | 0.75"         | 45°          |
| C382MIL10BP  | Straight Polypropylene | 1.00"        | 1.813"        | 180°         |
| C382MIL15BP  | Straight Polypropylene | 1.50"        | 1.813"        | 180°         |
| C382MIL20BP  | Straight Polypropylene | 2.00"        | 1.813"        | 180°         |
| C382MIL30BP  | Straight Polypropylene | 3.00"        | 1.813"        | 180°         |
| C383MIL10BP  | Straight Polypropylene | 1.00"        | 3.313"        | 180°         |
| C383MIL15BP  | Straight Polypropylene | 1.50"        | 3.313"        | 180°         |
| C383MIL20BP  | Straight Polypropylene | 2.00"        | 3.313"        | 180°         |
| C383MIL30BP  | Straight Polypropylene | 3.00"        | 3.313"        | 180°         |
| C345MIL10BP  | Straight Polypropylene | 1.00"        | 1.250"        | 45°          |
| C345MIL15BP  | Straight Polypropylene | 1.50"        | 1.250"        | 45°          |
| C345MIL20BP  | Straight Polypropylene | 2.00"        | 1.250"        | 45°          |
| C345MIL30BP  | Straight Polypropylene | 3.00"        | 1.250"        | 45°          |
| D480CLA15PC  | Crimped Polypropylene  | 1.50"        | 1.102"        | 180°         |
| D480CLA20PC  | Crimped Polypropylene  | 2.00"        | 1.102"        | 180°         |
| D480CLA30PC  | Crimped Polypropylene  | 3.00"        | 1.102"        | 180°         |
| D480CLA40PC  | Crimped Polypropylene  | 4.00"        | 1.102"        | 180°         |
| D482CLA15PC  | Crimped Polypropylene  | 1.50"        | 1.811"        | 180°         |
| D482CLA20PC  | Crimped Polypropylene  | 2.00"        | 1.811"        | 180°         |
| D482CLA30PC  | Crimped Polypropylene  | 3.00"        | 1.811"        | 180°         |
| D482CLA40PC  | Crimped Polypropylene  | 4.00"        | 1.811"        | 180°         |
| D483CLA15PC  | Crimped Polypropylene  | 1.50"        | 3.391"        | 180°         |
| D483CLA20PC  | Crimped Polypropylene  | 2.00"        | 3.391"        | 180°         |
| D483CLA30PC  | Crimped Polypropylene  | 3.00"        | 3.391"        | 180°         |
| D483CLA40PC  | Crimped Polypropylene  | 4.00"        | 3.391"        | 180°         |
| D445CLA15PC  | Crimped Polypropylene  | 1.50"        | .844"         | 45°          |
| D445CLA20PC  | Crimped Polypropylene  | 2.00"        | .844"         | 45°          |
| D445CLA30PC  | Crimped Polypropylene  | 3.00"        | .844"         | 45°          |
| D445CLA40PC  | Crimped Polypropylene  | 4.00"        | .844"         | 45°          |
| D45XCLA15PC  | Crimped Polypropylene  | 1.50"        | 1.890"        | 45°          |
| D45XCLA20PC  | Crimped Polypropylene  | 2.00"        | 1.890"        | 45°          |
| D45XCLA30PC  | Crimped Polypropylene  | 3.00"        | 1.890"        | 45°          |
| D45XCLA40PC  | Crimped Polypropylene  | 4.00"        | 1.890"        | 45°          |
| D45RCLA15PC  | Crimped Polypropylene  | 1.50"        | 1.000"        | 45 REV°      |
| D45RCLA20PC  | Crimped Polypropylene  | 2.00"        | 1.000"        | 45 REV°      |
| D45RCLA30PC  | Crimped Polypropylene  | 3.00"        | 1.000"        | 45 REV°      |
| D45RCLA40PC  | Crimped Polypropylene  | 4.00"        | 1.000"        | 45 REV°      |
| D490CLA15PC  | Crimped Polypropylene  | 1.50"        | 1.06"         | 90°          |
| D490CLA20PC  | Crimped Polypropylene  | 2.00"        | 1.06"         | 90°          |
| D490CLA30PC  | Crimped Polypropylene  | 3.00"        | 1.06"         | 90°          |
| D490CLA40PC  | Crimped Polypropylene  | 4.00"        | 1.06"         | 90°          |

# SELECT geared continuous hinges

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SELECT aluminum geared continuous hinges provide the longest-lasting solution for high-traffic doors. As a result, they save materials and energy. Select hinges have been proven to withstand 25 million cycles — equal to more than 50 years of use on the average high-traffic door. A longer life cycle means fewer hinges used, which means fewer resources used, fewer emissions produced and fewer tons of waste. And fewer maintenance dollars and headaches for you. They're a hassle-free way to make a greener building.

- **Lengths** – 83 in, 85 in, 95 in and 120 in. (79-in. lengths offered in some models). Custom lengths available.
- **Standard duty [SD]** – medium-frequency doors up to 200 lbs.
- **Heavy duty [HD]** – high-frequency or heavy medium-frequency doors up to 450 lbs. without door/frame reinforcements (up to 600 lbs. with Rivnuts).
- **Heavy duty [LL]** – includes additional fastener holes for doors up to 1,000 lbs., including most lead-lined doors
- **Standard anodized (after machining) colors** – clear, bronze and black on some models (custom anodized and paint colors available, including bone white gear caps.)
- **Fire rating** – Patented 3-hr. UL rating available *without fire pins or studs* (UL10B, UL10C and UBC 7.2 [1997])



# SELECT pin & barrel continuous hinges

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SELECT pin & barrel continuous hinges offer the classic look of stainless steel for special applications (carbon steel and aluminum also available). And because they are continuous hinges, they outperform most entrance components by distributing door weight along the full length of the doorframe.

- **Lengths** – 79 in, 83 in, 85 in, 95 in and 119 in. Custom lengths available.
- **Duty** – high-frequency or heavy medium-frequency doors up to 600 lbs. (4 ft. maximum door width)
- **Standard finishes** – US32D satin for stainless, gray powder coat for carbon steel and bright dipped anodized for aluminum. Custom finishes include painted and polished.
- **Fire rating** – 3-hr. UL rating *without extra parts to buy or install* UL 10C positive pressure (UBC 7.2). No rating on SL402.
- **Adjusta-Screw™ fasteners** – available to correct frame fit variances up to 3/8". Righthand threads for wood doors; lefthand for metal doors.

## **SELECT CONTINUOUS HINGES**

### **Features:**

- Full length door height support
- Streamlined, pleasing-to-the-eye appearance
- No exposed bolts, screws, or pins and knuckles
- Anodized aluminum finish will not rust
- Provides weather-proof, tamper-proof, and noise reduction features
- No cutouts or reinforcements in doors and frames
- Retrofit installation with existing doors and frames is easy and economical
- Long entrance life - tested at over 3,000,000 cycles
- For 1 3/4" doors. Hinges rotate to 180 degrees
- Standard lengths of 83", 85", 95"
- Templated screw hole pattern
- Chemically lubricated bearings
- Can be field cut to exactly fit doors
- All rotating parts permanently lubricated
- Standard anodized finishes of clear and dark bronze
- Fully anodized surfaces
- 410 stainless steel fasteners in self-tap or self-drill
- Standard and heavy duty available on all models
- Patented fire ratings available up to 3 hours
- Electric preps available on concealed & half surface models

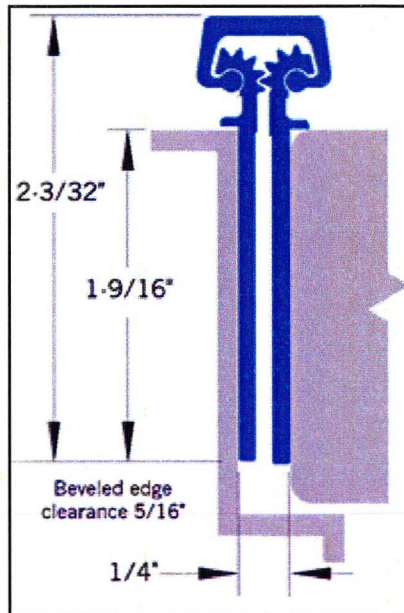
### **Note:**

A **standard model** number (such as SL-11) indicates a standard duty hinge for medium frequency doors weighing up to 200 lbs.

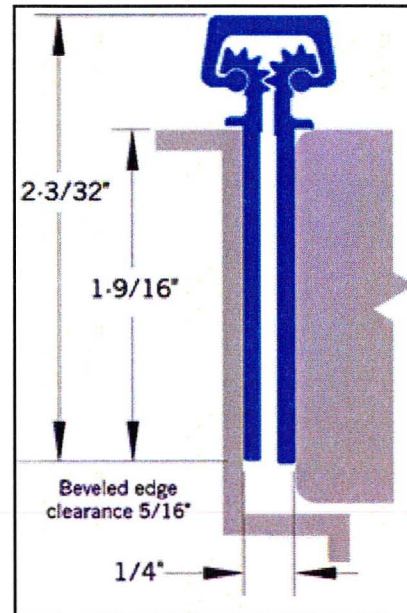
'**HD**' denotes a heavy duty hinge for high frequency or heavy medium frequency doors weighing up to 450 lbs.



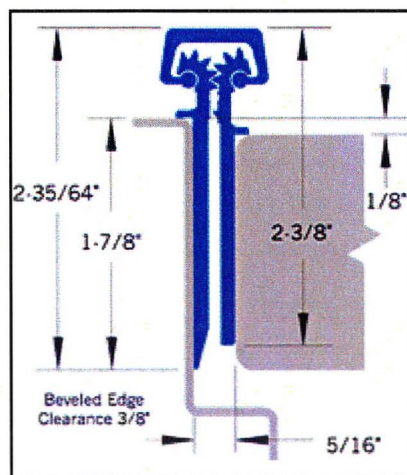
## **SELECT CONTINUOUS HINGES**



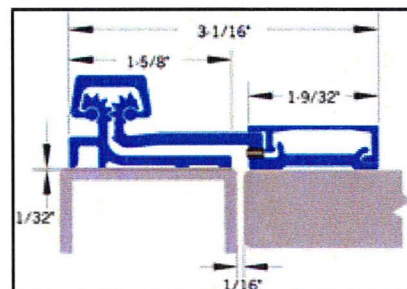
SL10



SL11

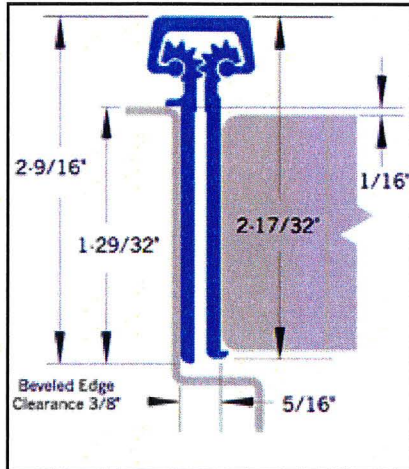


SL18

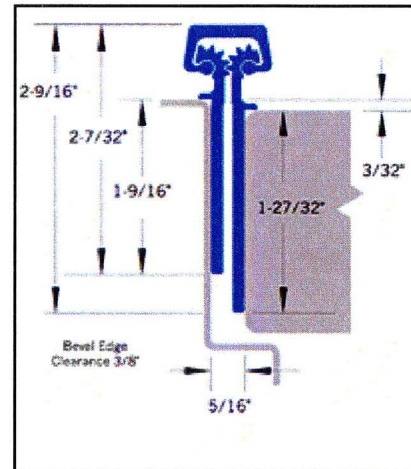


SL21

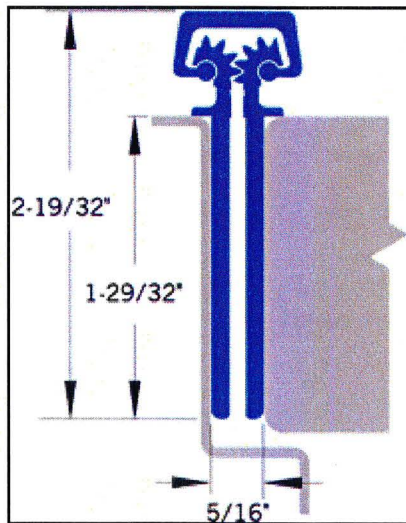
## **SELECT CONTINUOUS HINGES**



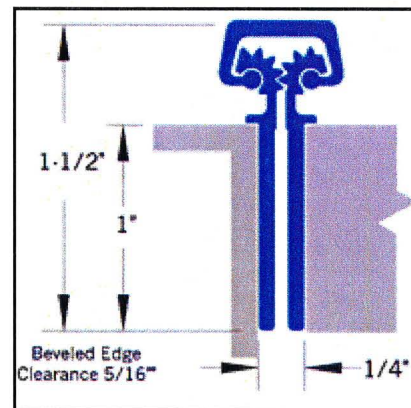
SL24



SL26



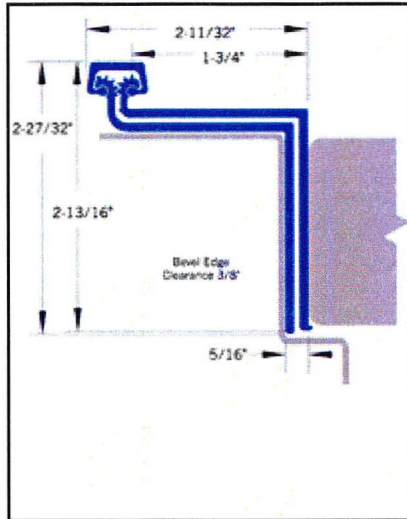
SL27



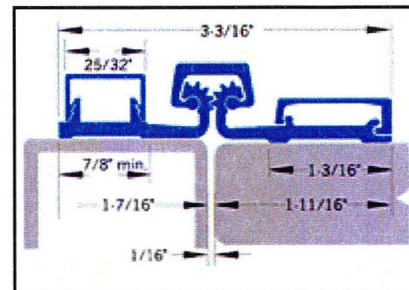
SL30



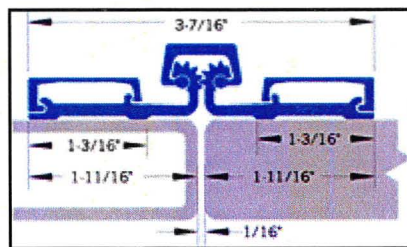
# **SELECT CONTINUOUS HINGES**



SL41



SL57



SL60-62