CATALOG

# ASSA ABIOY

# HEAVY DUTY & SHALLOW DEPTH FLOOR CLOSERS

Experience a safer and more open world

COMPLETE DOOR CONTROL FOR EXTERIOR AND INTERIOR DOORS, WHERE CONCEALMENT IS DESIRED









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#### **Shallow Depth Floor Closers**

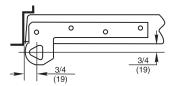
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## **HOW TO SELECT A PRODUCT**



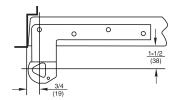
FLOOR CLOSERS

#### 1. Offset Vs. Center Hung Application



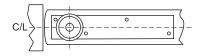
#### 3/4" Offset

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. Used on doors with cladding on face or trim on frame



#### Center Hung

Pivot point centered in thickness of door. Distance from heel edge can vary 2-3/4" and up. **Not for use on fire rated doors.** 

#### 2. Size of Door (Width, Height, Thickness)

Door Material		Door Thickness			
Door Material	1-3/4"	2-1/4"	3"		
Hollow Metal	6.5	7	_		
Solid Core Wood	7	9	11.5		
Aluminum/Glass Storefront	3.5	4	_		
Bullet Resistant	20	21			
MDF	7	9	11.5		
		Glass Thickness			
Tempered Glass —	3/8"	1/2"	3/4"		
Terripered Olass	5	7	9.75		
		Lead Thickness			
Lead Lining	1/16"	1/8"	1/4"		
(add to door material weight)	5	8	9.75		
		Cladding Material			
3/4" Cladding	Wood	Stone	Bronze		
(add to door material weight)	3	10.5	28		

Example:  $3' \times 7' \times 1-3/4"$  WD x 1/4" Lead lining

Door:  $2 \log ft \times 7 \text{lb.sq ft} = 147 \text{lbs}$ Lead Lining:  $2 \log ft \times 9.75 \text{lb./sq ft} = 204.75 \text{lbs}$ 

Total Door weight 351.75lbs

Example: 3'6" x 8' x 1/2" Tempered Glass Door

Door:  $28sq ft \times 7lb./sq ft = 196lbs$ 

For doors of other sizes consult factory



# **HOW TO SELECT A PRODUCT**

FLOOR CLOSERS

## 3. Expected Frequency of Door Opening

Application	Daily	Yearly	
Large department store entrance	5,000	1,500,000	
Large office building entrance	4,000	1,200,000	
Theater entrance	1,000	365,000	
School entrance	1,250	225,000	High
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	
Office building corridor door	75	22,000	Average
Store restroom door	60	18,000	
Residential entrance door	40	15,000	
Residential restroom door	25	9,000	
Residential hallway door	10	3,600	Low
Residential closet door	6	2,200	

#### How to Determine Hand of Door



Face a door swinging open away from you. If it opens to the right, it is right handed. If it opens to the left, it is left handed.

#### GENERAL INFORMATION



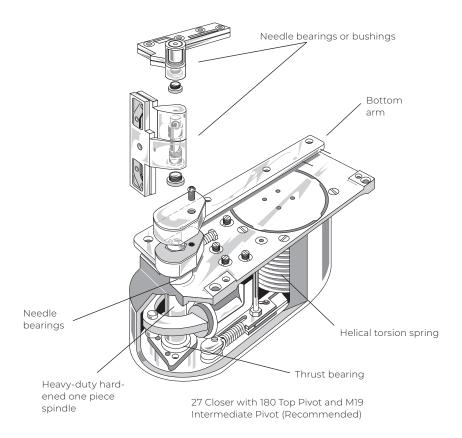
FLOOR CLOSERS

Norton Rixson heavy-duty floor closers are ideal for supporting and controlling doors. Floor closers provide long-lasting performance and dependability. Heavy-duty closers are used on exterior or interior, medium to high traffic openings or for applications where the doors are very heavy.

#### **Features and Benefits**

- Weight of the door is supported by the bottom arm and floor
  - Door swings with less resistance
  - Reduces stress on the frame
  - Fasteners are in shear, not tension
  - Eliminates door sag
  - Doors can be adjusted vertically
- · Bottom arm attaches directly to the closer spindle
  - A mechanical advantage that increases efficiency insuring that ICC/ANSI A117.1 compliant, lower opening forces will still close the door
  - One to one ratio of door swing to spindle rotation makes control more precise

- · Closer is concealed in the floor
  - Aesthetics -the beauty of the opening is the focal point, not the closer
  - Vandal resistance -the mechanism is not exposed
  - Solution for arch top doors (offset models)
- Heavy-duty, hardened, one piece steel spindles
  - Designed to provide positive dead stop
  - Thrust bearings support vertical load
  - Needle bearings for lateral loads
  - L models have applied thrust bearings to handle extra heavy doors or doors with high traffic
- Helical torsion springs
  - Operates in the same direction as door movement contributes to higher closer efficiency
  - Torsion spring has a longer life than compression springs





#### **GLOSSARY OF TERMS**

FLOOR CLOSERS

#### Automatic Hold Open - Suffix A

These closers hold the door open. This feature cannot be changed in the field. Models 27-180, 30 & 40 only.

#### Cold Weather Fluid - Suffix CWF

Cold weather fluid should be specified for exterior doors in consistently cold climates under 32° F for weeks at a time. The hydraulic fluid is of a lower viscosity to prevent sluggish closing. Cannot be used with the delayed action feature.

#### Cover Pan (Terrazzo) – Suffix Part Number

Closers should always be accessible. They should never be buried beneath flooring materials. A cover pan sits on top of the closer and has the flooring material set in it. This way the sight line for the floor is consistent. Cover pans may require closers with longer spindles. See cover pan template to determine spindle length needed.

#### Degree of Swing – Follows Model Number

Single acting heavy-duty floor closers have a deadstop. This means that the door cannot go past a certain point. If ordered as a hold open closer, the hold open position is exactly the same as the deadstop. The degrees available are 85°, 90°, 95° or 105° (180° for model 27 only). It is recommended that the maximum degree of swing be ordered.

Double acting closers have a deadstop at 103° and are available with hold open options at 90° or 100°.

#### Delayed Action – Prefix DA

After full open, permits door to remain ajar (at 70 degrees) for up to 40 seconds. Operates by separate valve and can be shut off if not needed. Not available on closers with hold open feature.

#### Door Thickness - Suffix 1-3/4, 2, 2-1/4, 2-1/2 or 3

When ordering L product for lead lined doors, the thickness of the door must be given. The purpose of the L product is to have screws spaced so that they straddle the lead in the center of the door. Also used when lead lining is under the skins of the door. Recommended for use on extra heavy or high traffic doors.

#### Extended Spindle – Suffix Extra Length

Any special floor coverings, or severe door undercuts, will affect the spindle height. In these applications an extended spindle may be required. See product template to determine if an extended spindle is needed. Extended spindles available in 1/2" increments up to 2" longer than standard.

#### Fire Rated – Prefix F



Closer packages for fire rated doors (up to 3 hours) include a steel top pivot and must have additional steel intermediate pivots. These closers are non-hold open.

#### Hand-Suffix RH or LH

All single acting floor closers are handed. All double acting floor closers (30, 40, H40) are non-handed.

#### Less All Parts - Suffix LAP

If a closer is needed for replacement, the arm, cover, cement case, top pivot and floor plate are omitted.

#### Less Cement Case - Suffix LCC

For existing installations or when cement case has been sent earlier in construction. Closer will be packaged without the cement case.

#### Less Floor Plate - Suffix LFP

When thresholds or cover pans are being used, the closer doesn't need the decorative floor plate.

#### Less Top Pivot – Suffix LTP

For unusual head conditions, where the top pivot cannot be used, the closer is shipped without the top pivot. For offset installations, an additional load bearing intermediate (side jamb) M190 pivot is required. All intermediate pivots for that opening should be M190's, not M19's.

#### Non Hold Open – Suffix N

These closers do not hold the door open. This feature cannot be changed in the field.

#### 1-1/2" Offset – Suffix 1-1/2

Offset is the distance from the face of the door to the pivot point. Extended offsets should not be used unless there is cladding on the face of the door or there is trim to clear on the frame. 1-1/2" offset arms and pivots are for doors with cladding or trim that project 3/4" from the face of the door.

#### Physically Handicapped – Prefix PH



To comply with ICC/ANSI A117.1 established by the Americans with Disabilities Act. PH prefix indicates 5 pounds of opening force, based at 30" from centerline of pivot. PH closers may not be used on labeled fire doors or exterior doors. Norton Rixson accepts no responsibility for PH closers and door latching. Also, be advised that ADA guidelines DO NOT apply to fire rated openings or exterior doors.

#### 8-1/2 Lbs. Opening Force – Prefix PH Suffix 8-1/2

This is a lighter than normal opening force. Be aware that this may not be strong enough to close fire rated or exterior doors. Norton Rixson accepts no responsibility for PH closers and door latching. Also, be advised that ADA guidelines DO NOT apply to fire rated openings or exterior doors.

#### **GLOSSARY OF TERMS**





#### Sealed Closer - Prefix SC

This option for exterior doors or interior doors, with heavy exposure to water or cleaning solvents, protects the body. The closer body is placed in the cement case. A stainless steel cover plate is then gasketed and fastened to the cement case. This must be ordered with closer and cannot be ordered less the cement case.

#### Selective Hold Open - Suffix S

These closers can be set to hold open or non-hold open. This is done via a screw control on the top of the closer. Available on Models 27 and 28 only.

#### Special Layouts - Suffix SPLO #

Unique installations or specially engineered products are called special layouts. These numbers must be assigned by the technical support department and they must be called out specifically, by their number, when ordered.

#### Twenty Minute Label – Suffix -20 (4)



This UL rating is for 20 minute doors. Pivots are brass base material and include a visible label.

#### Wood Door - Prefix W

When using a center hung product with the centering arm (e.g. 28, 30 or 40) a special plate and less obtrusive adjusting screws are needed for wood doors. This plate is reinforcement to the deep mortise required for that arm. protecting veneer.

## CERTIFICATIONS BHMA

See individual sections for compliance with ANSI A156.4 standards.

#### LIMITED WARRANTY

Norton Rixson heavy-duty floor closers models 27, 28, 30 and 40 are warranted for 10 years against defect. The model 20 closer carries a 2 year warranty. See Price Book for specific details of the limited warranty.

#### **SPECIFICATION**

Floor closers shall be heavy-duty model 27 (offset) or model 28 (center hung). All closers shall be handed. Choose appropriate functions and strengths to accommodate lead lining, extra high traffic, fire rating, independently hung or quick install models. These closers shall have separate and independent checking valves, to control latch speed, closing speed and adjustable hydraulic backcheck. All single acting closers shall have a built in dead stop feature. All closers shall have one piece spindle assembly. Extra heavy-duty closers shall have minimum of two thrust bearings and one needle bearing. Closers shall not have compression spring.



FLOOR CLOSERS

#### MODEL 27

#### **Application**

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

#### **Product Description & Features**

- 180 top pivot included
- M19 intermediate pivot(s) required (order separately)
- · Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95°, 105°)
- Separate and independent valves for closing speed, latch speed and backcheck
- Vertical door adjustment
- Available with floor plate or threshold installation (floor plate shown)
- · Cycolac, rust-proof cement case
- For arch top doors or applications when the 180 top pivot cannot be used, supply
  at least two each M190 load-bearing intermediate pivots, mounted together at
  the top of the straight vertical edge

#### **Optional Features**

- Delayed action option-prefix "DA" (non-hold open closers only)
- Cold weather fluid available specify "CWF" (not available for closers with "DA")
- Sealed closer option specify "SC"
- Available 1-1/2" offset, for doors with 3/4" cladding or frames with applied molding, maximum door weight 250 lbs.
- Extended spindles available in 1/2" increments up to 2" longer than standard
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- · Furnished with wood and machine screws

#### Compliance

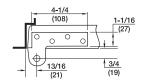
- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs. of opening force prefix PH and suffix 8-1/2 lbs.)
- For fire rated openings (up to 3 hour assemblies) prefix "F". This package will be supplied with a F180 steel top pivot and a non-hold open closer. FM19 intermediate pivot required (order separately)
- · UL listed closers cannot have PH option
- For 20-minute labeled doors suffix "-20" to the part number (non-hold open closer only)
- ANSI/C06041/C06051
- ANSI/BHMA A156.4, Grade 1

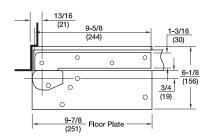
\*Door size & weight guidelines are determined using the appropriate number of intermediate pivots

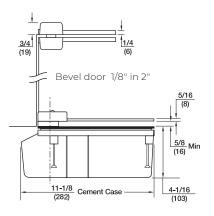




# TECHNICAL INFORMATION











#### **MODEL 27-180**

#### **Application**

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

#### **Product Description & Features**

- 180 top pivot included
- M19 intermediate pivot(s) required (order separately)
- Available non-hold open (N) or automatic hold open (A)
- Maximum opening 180°, auxiliary floor or wall stop recommended
- · Separate and independent valves for closing speed and latch speed
- Adjustable hydraulic backcheck
- · Vertical door adjustment
- Available with floor plate or threshold installation (floor plate shown)
- · Cycolac, rustproof cement case
- For arch top doors or applications where a 180 top pivot cannot be used, supply at least two each M190 load-bearing intermediate pivots, mounted together at the top of the vertical edge
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot.
   Each additional 30" (762mm) warrants another intermediate pivot
- Not available with delayed action (DA)
- · Furnished with wood and machine screws

#### **Optional Features**

- Cold weather option specify "CWF"
- Sealed closer option specify "SC"
- Available 1-1/2" offset, for doors with 3/4" cladding or frames with applied molding, maximum door weight 250 lbs.
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

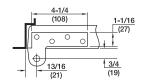
- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs. of opening force prefix "PH" and suffix "8-1/2 lbs.")
- For fire rated openings (up to 3 hour assemblies) prefix "F". This package will be supplied with a F180 steel top pivot and a non-hold open closer. FM19 intermediate pivot required (order separately)
- UL labeled closers cannot have PH option
- For 20-minute labeled doors suffix "-20" to the part number (non-hold open closer only)

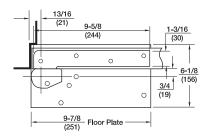
\*Door size & weight guidelines are determined using the appropriate number of intermediate pivots

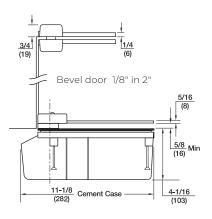




# TECHNICAL INFORMATION









FLOOR CLOSERS

#### **MODEL 127**

#### **Application**

- · Single Acting, Handed
- · Exterior or Interior Doors
- Deep Reveal Applications
- · Weight to 250 lbs.\*
- Door Width up to 4'0" (1219mm)

#### **Product Description & Features**

- Recommended for applications where vertical movement of the door at installation is not possible, such as a door inset in a deep reveal or with no ceiling clearance
- Closer has a tapered spindle and uses a unique bottom arm to allow door installation
- 180 top pivot included
- 119 intermediate pivot(s) recommended for non-fire rated opening (order separately)
- Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95° or 105°)
- · Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- Cycolac, rustproof cement case
- For arch top doors or applications where a 180 top pivot cannot be used, supply at least two each M190 load-bearing intermediate pivots, mounted together at the top of the vertical edge. Do not use 119 intermediate pivot.
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- · Sealed closer option specify "SC"
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH". (For 8-1/2 lbs. of opening force prefix PH and suffix 8-1/2 lbs.)
- For fire rated openings (up to 3 hour assemblies) prefix "F". This package will be supplied with a F180 steel top pivot and a non-hold open closer. FM19 intermediate pivot required (order separately)
- UL labeled closers cannot have PH option
- For 20-minute labeled doors suffix "-20" to the part number (non-hold open closer only)
- ANSI/C06041
- ANSI/BHMA A156.4, Grade 1

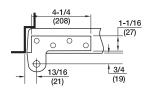
\*Door size & weight guidelines are determined using the appropriate number of intermediate pivots

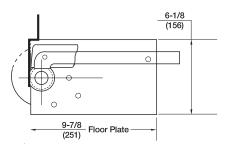
\*specify finish

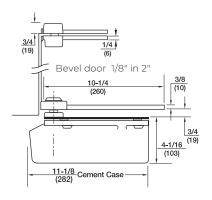




# TECHNICAL INFORMATION







#### FLOOR CLOSERS



#### **MODEL 427**

#### **Application**

- · Single Acting, Handed
- · Exterior or Interior Doors
- Deep Reveal/Alcove Applications
- · Weight to 250 lbs.\*
- Door Width up to 4'0" (1219mm)

#### **Product Description & Features**

- Recommended for applications where vertical movement of the door at installation is not possible, such as a door inset in an alcove with no ceiling or side jamb clearance
- · Closer has a tapered spindle and uses a unique bottom arm
- 180 x 102 top pivot included
- 119 intermediate pivot(s) recommended (order separately)
- Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95° or 105°) Note: Alcove doors can rarely go beyond 90°
- · Separate and independent valves for closing speed, latch speed and backcheck
- · Available with floor plate or threshold installation (floor plate shown)
- Cycolac rustproof cement case
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot.
   Each additional 30" (762mm) warrants another intermediate pivot
- · Not available for fire rated openings
- · Furnished with wood and machine screws

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- Sealed closer option specify "SC"
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

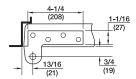
- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs. of opening force prefix "PH" and suffix "8-1/2 lbs.")
- ANSI/C06041
- ANSI/BHMA A156.4, Grade 1

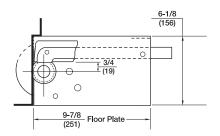
\*Door size & weight guidelines are determined using the appropriate number of intermediate pivots

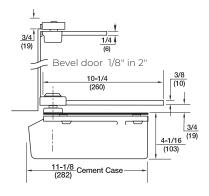




# TECHNICAL INFORMATION









FLOOR CLOSERS

#### **MODEL 127**

#### **Application**

- Single Acting, Handed
- · Exterior or Interior Doors
- · Lead-Lined, Heavy, High Traffic Doors
- Weight to 1500 lbs.\*
- Door Width up to 4'0" (1219mm)

#### **Product Description & Features**

- L180 top pivot included
- ML19 intermediate pivot(s) required (order separately)
- Heavy-duty bottom arm and top pivot with screw holes spaced to straddle lead lining, or for extra heavy or very high traffic doors.
- Available for the following lead-lined door thicknesses: 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (63mm) or 3" (76mm)
- · Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95° or 105°)
- Additional thrust bearing for greater load capacity
- · Separate and independent valves for closing speed, latch speed and backcheck
- · Vertical door adjustment
- Available with floor plate or threshold installation (floor plate shown)
- · Cast iron cement case
- For arch top doors or applications where an L180 top pivot cannot be used, supply
  at least two each ML19-load bearing intermediate pivots, mounted together at
  the top of the vertical edge
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- · Furnished with wood and machine screws

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- Sealed closer option specify "SC"
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

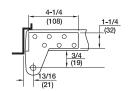
- Models available to meet ICC/ANSI All7.1 low opening force requirements, prefix "PH". (For 8-1/2 lbs.) of opening force prefix PH and suffix 8-1/2 lbs.)
- For fire rated openings (up to 3 hour assemblies) prefix "F". This package will
  be supplied with a FL180 steel top pivot and non-hold open closer. FML19
  intermediate required (order separately). Note: UL listing for 1-3/4" thick doors only.
- UL labeled closers cannot have PH option
- For 20-minute labeled doors suffix "-20" to the part number (non-hold open closer only)
- ANSI/C06071
- ANSI/BHMA A156.4, Grade 1

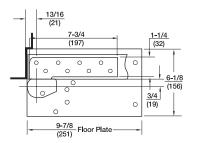
\*Door size & weight guidelines are determined using the appropriate number of intermediate pivots

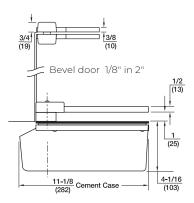




# TECHNICAL INFORMATION







\* 1-3/4" door thickness shown





#### **MODEL L27-180**

#### **Application**

- · Single Acting, Handed
- · Exterior or Interior Doors
- · Lead-Lined, Heavy, High Traffic Doors
- · Weight to 1500 lbs.\*
- Door Width up to 4'0" (1219mm)

#### **Product Description & Features**

- · L180 top pivot included
- ML19 intermediate pivot(s) required (order separately)
- Heavy-duty bottom arm and top pivot with screw holes spaced to straddle lead lining, or for extra heavy or very high traffic doors.
- Available for the following lead-lined door thicknesses: 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (63mm) or 3" (76mm)
- Available non-hold open (N) or automatic hold open (A) at 180°
- Built-in positive dead stop prevents door from swinging beyond 180° only
- · Additional thrust bearing for greater load capacity
- Separate and independent valves for closing speed, latch speed and backcheck
- · Vertical door adjustment
- · Available with floor plate or threshold installation (floor plate shown)
- · Cast iron cement case
- For arch top doors or applications where a L180 top pivot cannot be used, supply at least two each ML19 load bearing intermediate pivots, mounted together at the top of the vertical edge
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot.
   Each additional 30" (762mm) warrants another intermediate pivot
- · Furnished with wood and machine screws

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- · Sealed closer option specify "SC"
- Extended spindles available in 1/2" increments up to 2" longer than standard

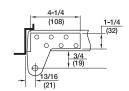
#### Compliance

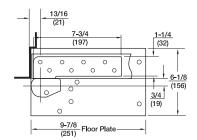
- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs.)
- For fire rated openings (up to 3 hour assemblies) prefix "F". This package will be supplied with a FL180 steel top pivot and non-hold open closer. Furnish FML19 intermediate pivot (order separately). Note: UL listing for 1-3/4" thick doors only.
- UL labeled closers cannot have PH option
- For 20-minute labeled doors suffix "-20" to the part number (non-hold open closer only)

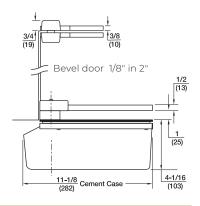




# TECHNICAL INFORMATION







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

FLOOR CLOSERS

### MODEL Q27/QT27

#### **Application**

- · Single Acting, Handed
- Exterior and Interior Doors
- · Weight to 350 lbs.\*
- Door Width up to 4'0" (1219mm)
- 1-3/4" Thick Only

#### **Product Description & Features**

- 180 top pivot included
- One M19 intermediate pivot included. Closer cannot be ordered without the intermediate pivot
- 3/4" offset only
- · Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95°)
- Maximum door swing 95°
- · Separate and independent valves for closing speed, latch speed and backcheck
- Vertical door adjustment
- Surface-attached bottom arm allows closer removal without demounting door
- · Q closers have a floor plate (shown).
- For threshold application prefix "QT"
- Mortise arm with thru-bolt attachment
- · Cycolac rustproof cement case
- · Increased depth of cement case for easy closer removal
- · For arch top doors, consult factory
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot (included). Each additional 30" (762mm) or doors over 195 lbs. warrants another intermediate pivot
- Furnished with wood and machine screws

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

Models available to meet ICC/ANSI All7.1 low opening force requirements, prefix "PH"

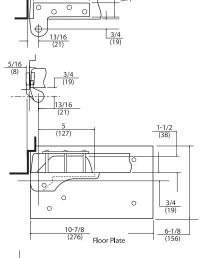
(For 8-1/2 lbs. of opening force prefix "PH" and suffix "8-1/2 lbs.")

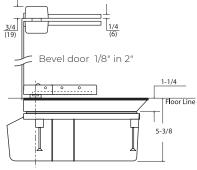
- For fire rated openings (up to 3 hour assemblies) prefix F. This package will be supplied with a F180 steel top pivot, one FM19 intermediate pivot and a non-hold open closer
- UL labeled closers cannot have PH option
- For 20-minute labeled doors suffix "-20" to the part number (non-hold open closer only)
- ANSI/C06041/C06051

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



# TECHNICAL INFORMATION





#### FLOOR CLOSERS



#### **MODEL HM27**

#### **Application**

- · Single Acting, Handed
- · Exterior or Interior Doors
- 1-3/4" Hollow Metal Doors/Frames
- · Weight to 250 lbs.
- Door Width up to 4'0" (1219mm)

#### **Product Description & Features**

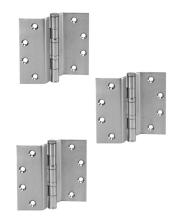
- Designed for stock hollow metal doors and frames with standard weight 4-1/2" hinge preparation
- Includes three special steel 4-1/2" ball bearing standard weight hinges with 3/4" offset. Doors over 90" in height warrant an additional hinge
- · Surface mounted bottom arm with thru-bolts
- Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (85°, 90°, 95°)
- Maximum door swing 95°
- · Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- · Cycolac rustproof cement case
- Furnished with 1/2 wood and full machine screws

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only)
- · Cold weather fluid option specify "CWF" (not available for closers with "DA")
- Sealed closer option specify "SC"
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

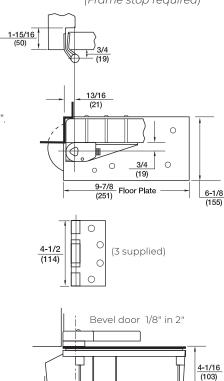
- Models available to meet ICC/ANSI All7.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs. of opening force prefix "PH" and suffix "8-1/2 lbs.")
- For fire rated opening (up to 3 hour assemblies) prefix "F". This package will be supplied with 3 steel hinges and a non-hold open closer
- UL labeled closers cannot have PH option
- ANSI/C06041/C06051
- · ANSI/BHMA A156.4, Grade 1





# TECHNICAL INFORMATION

(Frame stop required)



11-1/8 Cement Case



FLOOR CLOSERS

#### MODEL 20

#### **Application**

- Single Acting, Handed
- · Interior Doors
- · Weight to 200 lbs.\*
- Door Width up to 3'0"

#### **Product Description & Features**

- 180 top pivot included
- M19 intermediate pivot(s) recommended (order separately)
- Allows 180° door swing (trim permitting)
- · Available non-hold open only
- Single valve adjustable closing speed 70° to 0°
- Built-in hydraulic backcheck cushions opening from 140° to 180°
- Vertical door adjustment
- Available with floor plate or threshold installation (floor plate shown)
- · Cast iron cement case
- · Delayed action not available
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot.
   Each additional 30" (762mm) warrants another intermediate pivot
- · Furnished with wood and machine screws

#### **Optional Features**

- Extended spindles available in 1/2" increments up to 2" longer than standard

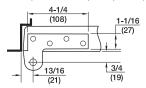
#### Compliance

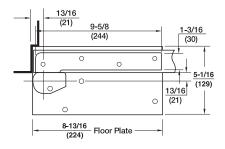
- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs. of opening force prefix "PH" and suffix "8-1/2 lbs.")
- For fire rated openings (up to 3 hour assemblies) prefix F. This package will be supplied with a F180 steel top pivot and non hold open closer. FM19 intermediate pivot required (order separately)
- UL labeled closers cannot have PH option
- For 20-minute labeled doors suffix -20 to the part number

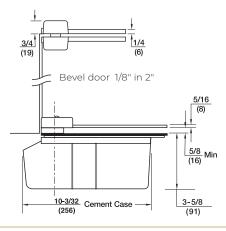
\*Door size & weight guidelines are determined using the appropriate number of intermediate pivots



# TECHNICAL INFORMATION







#### INTERMEDIATE PIVOTS





#### **MODEL 119**

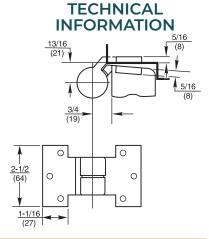
#### **Application**

- Full Mortise
- Handed

#### **Product Description & Features**

- Not load-bearing
- · Maintains door alignment
- Available 3/4" offset only
- · Non-ferrous base material
- Recommended for use with Model 127 and 427 Floor Closers
- Bevel door 1/8" in 2"
- Furnished with wood and machine screws





#### Model M19, M190

#### **Application**

- Full Mortise
- Handed

#### **Product Description & Features**

- M19, bushing, not load-bearing
- M190, bearing, load-bearing
- · Maintains door alignment
- · Aids in installing floor closers and bottom pivots
- Non-ferrous base material 3/4" offset standard
- Bevel door 1/8" in 2"
- For arch top doors or applications where a 180 top pivot cannot be used, supply at least two each M190 load bearing intermediate pivots, mounted together at the top of the vertical edge with a bottom pivot or floor closer
- · Furnished with wood and machine screws

#### **Optional Features**

• Available 1-1/2 (38mm) offset for 3/4" cladding

#### Compliance

- Available for fire door assemblies (ferrous material) specify FM19 or FM190
- On labeled for fire doors NFPA80 requires an intermediate pivot for every additional 30" (762mm) of door height over 60" (1542mm)
- For 20-minute label suffix "-20" to the part number



**TECHNICAL** 

**INFORMATION** 

## 13/16 (21) (21) (19) (19) (19) (17) (17)

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## INTERMEDIATE PIVOTS

FLOOR CLOSERS

#### **MODEL ML19**

#### **Application**

- Heavy-Duty Full Mortise
- Handed

#### **Product Description & Features**

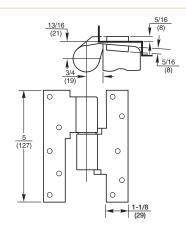
- Load-bearing
- Maintains door alignment
- Available to accommodate door thicknesses 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm),
   2-1/2" (64mm), or 3" (76mm) specify thickness when ordering
- Screw holes spaced to straddle lead lining in center of door. Use on extra heavy or high traffic doors.
- · Aids in installing floor closers and bottom pivot
- · Non-ferrous base material
- 3/4" offset, for extended offsets consult factory
- Bevel door 1/8" in 2"
- For arch top doors or applications where a 180 top pivot cannot be used, supply at least two each ML19 load bearing intermediate pivots, mounted together at the top of the vertical edge with a bottom pivot or floor closer
- · Furnished with wood and machine screws

#### Compliance

- · Available for fire door assemblies 1-3/4" (44mm) door only specify FML19
- On labeled fire door assemblies, NFPA80 requires an intermediate pivot for every additional 30" (762mm) of door height over 60" (1524mm)
- For 20-minute label suffix "-20" to part number



# TECHNICAL INFORMATION



#### Model FA19

#### **Application**

- Full Mortise
- Handed

#### **Product Description & Features**

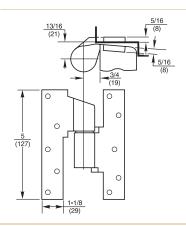
- Optional intermediate pivot for institutional use or installations where flat surfaces are objectionable
- · Maintains door alignment
- · Aids in installing bottom pivots
- · Not load bearing
- 3/4" (19mm) offset
- Bevel door 1/8" in 2"
- Furnished with wood and machine Torx® screws

#### Compliance

- May be used with fire door assemblies
- Ferrous base material
- Doors up to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot



# TECHNICAL INFORMATION



#### INDEPENDENTLY HUNG





#### MODEL F327

#### **Application**

- · Single Acting, Handed
- · Interior or Exterior Doors
- Door Width up to 4'0" (1219mm)
- For Doors over 250 lbs. Consult Factory
- 1-3/4 doors only

#### **Product Description & Features**

- Used as a concealed floor closer for independently hung doors butt hinges, pocket pivots, or continuous hinges
- Closer does not support weight of door
   Note: Hanging means must be specified when ordering. Check the product template. If your hanging means are not listed, contact factory for a special layout and pricing
- Includes closer, mortised rail and arm with slider
- 90° maximum door swing
- · Auxiliary stop recommended
- · Separate and independent valves for closing speed, latch speed and backcheck
- Floor plate standard. For threshold applications a 1/2" extended spindle is required
- Cycolac rustproof cement case
- Not available in "PH", "DA", or Hold Open
- Furnished with wood and machine screws

#### **Optional Features**

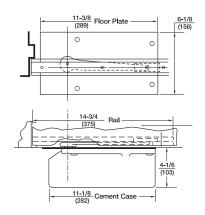
- · Cold weather fluid "CWF"
- Sealed closer option specify "SC"
- Extended spindle available in 1/2" increments up to 2" longer than standard

#### Compliance

 This closer carries a UL Listing for 3 hour fire door assemblies. Fire rated hanging means required



# TECHNICAL INFORMATION





FLOOR CLOSERS

#### MODEL 28

#### **Application**

- · Single Acting, Handed
- · Exterior or Interior Doors
- · Weight to 350 lbs.
- Centering Arm
- Sizes up to 4'0" x 8'6"\* (1219 x 2591mm)

#### **Product Description & Features**

- 340 top pivot included
- · Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95° or 105°)
- · Centering arm with adjusting screws in face of door
- Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- Cycolac, rustproof cement case
- Not allowed for fire rated doors
- Frame stop required on the header at the lock side. If not supplied by frame manufacturer, recommend use of 60131 (see Door Control Accessories catalog).
- Furnished with wood and machine screws

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- · Sealed closer option specify "SC"
- Arm reinforcement bracket for wood doors prefix W
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

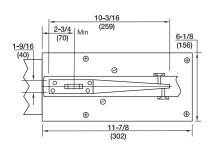
- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH". (For 8-1/2 lbs.)
- ANSI/C06021
- ANSI/BHMA A156.4, Grade 1

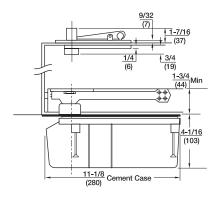




# TECHNICAL INFORMATION

(Frame stop required at lock edge)





Pivot edge of door must be radiused.

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





#### **MODEL 28 X 554 ARM**

#### **Application**

- · Single Acting, Handed
- · Exterior or Interior Doors
- · Weight to 350 lbs.
- · Concealed Arm
- Sizes up to 4'0" x 8'6"\* (1219 x 2591mm)

#### **Product Description & Features**

- 340 top pivot included
- Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95° or 105°)
- · Concealed arm is designed to eliminate visible adjusting screws on face of door
- Arm bolt locks arm to closer spindle adjustments made through heel of door
- · Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- · Cycolac, rustproof cement case
- · Not allowed for fire rated doors
- Frame stop required on the header at the lock side. If not supplied by frame manufacturer, recommend use of 60131 (see Door Control Accessories catalog).
- · Furnished with wood and machine screws

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- · Sealed closer option specify "SC"
- $\bullet$  Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

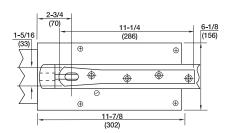
- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs.)
- ANSI/C06021
- ANSI/BHMA A156.4, Grade 1

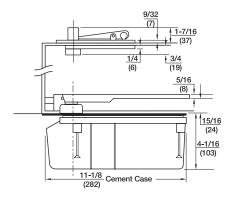




# TECHNICAL INFORMATION

(Frame stop required at lock edge)





Pivot edge of door must be radiused.

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



FLOOR CLOSERS

#### **MODEL H28**

#### **Application**

- · Single Acting, Handed
- Exterior or Interior Doors
- Extra Heavy High Traffic Doors
- · Weight to 1000 lbs.
- Sizes up to 4'0" x 8'6"\* (1219 x 2591mm)

#### **Product Description & Features**

- · H340 top pivot included
- Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95° or 105°)
- For high traffic or extra heavy doors (2" min. thickness)
- · Additional thrust bearing for greater load capacity
- Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- · Cast iron cement case
- Not allowed for fire rated doors
- Frame stop required at header on lock side. If not supplied by frame manufacturer,
   Norton Rixson 60131 recommended. Consult Door Control Accessories Catalog.
- · Furnished with wood and machine screws

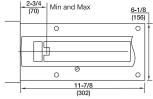
#### **Optional Features**

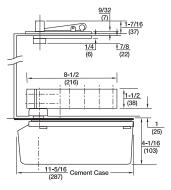
- Delayed action option prefix "DA" (non-hold open closers only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- Sealed closer option specify "SC"
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs. of opening force prefix "PH" and suffix "8-1/2 lbs.")
- ANSI/C06061
- ANSI/BHMA A156.4, Grade 1

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Pivot edge of door must be radiused.

#### MODEL H28 X 587 ARM

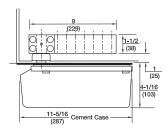
#### **Product Description & Features**

Identical to Model H28 except:

- Special side load arm for 1-3/4" thick doors
- Allows pivot point to be moved away from pivot edge of door minimum 2-3/4" backset



#### **Technical Information**



<sup>\*</sup> For doors taller than 8'6" use top pivot H345 in lieu of H340





#### **MODEL 328**

#### **Application**

- · Single Acting, Handed
- · Exterior or Interior Doors
- · Glass Doors with Patch Fittings
- · Weight up to 325 lbs.
- Size Up to 3'2" x 8'0"

#### **Product Description & Features**

- No arm or top pivot provided
- Patch fittings by others. Norton Rixson will provide spindle configuration to fit provide details when ordering
- · Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95° or 105°)
- Separate and independent valves for closing speed, latch speed and backcheck
- Floor plate standard. For threshold application an extended spindle is required
- · Cycolac, rustproof cement case
- Not allowed for fire rated doors
- Frame stop required at header on lock side. If not supplied by frame manufacturer,
   Norton Rixson 60131 recommended. Consult Door Control Accessories Catalog.

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- Sealed closer option specify "SC"
- For extended spindles, contact the factory

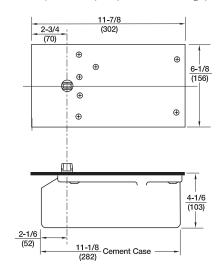
#### Compliance

- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH". (For 8-1/2 lbs. of opening force prefix "PH" and suffix "8-1/2 lbs.")
- ANSI/C06021
- ANSI/BHMA A156.4, Grade 1



# TECHNICAL INFORMATION

(Frame stop required at lock edge)





FLOOR CLOSERS

#### **MODEL 428 (WITH PATCH FITTINGS)**

#### **Application**

- · Single Acting, Handed
- Exterior or Interior Doors
- Full Glass Doors
- · Weight up to 325 lbs.
- Size Up to 3'2" x 8'0"

#### **Product Description & Features**

- Top and bottom patch fittings for tempered glass doors 3/8" 1/2" thick
- Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95° or 105°)
- Separate and independent valves for closing speed, latch speed and backcheck
- Floor plate standard. For threshold application an extended spindle is required (floor plate shown)
- Cycolac, rustproof cement case
- Frame stop required at header on lock side

#### **Optional Features**

- Delayed action available prefix "DA" (non-hold open closer only)
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- Sealed closer option specify "SC"
- For extended spindles, contact the factory. No vertical adjustment

#### Compliance

- Models available to meet ICC/ANSI All7.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs. of opening force prefix "PH" and suffix "8-1/2 lbs.")
- ANSI/C06061
- ANSI/BHMA A156.4, Grade 1

\*specify finish

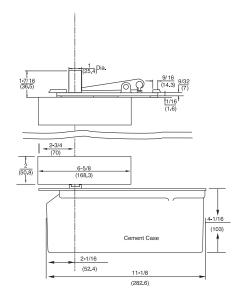
Note: 428 closers are only available in the following finishes: 605 (US3) - Bright brass, clear coated, 629 (US32) - Bright stainless steel or 630 (US32D) - Satin stainless steel





#### **Technical Information**

(Frame stop required at lock edge)







#### **MODEL EH28**

#### **Application**

- · Single Acting, Handed
- · Interior or Exterior Doors
- Floor Closer for Power Transfer
- · Weight to 500 lbs.
- Sizes up to 4'0" x 8'6"\* (1219 x 2591mm)

#### **Product Description & Features**

- H340 top pivot included
- Available non-hold open (N) or selective hold open (S) at same degree as dead stop
- Built-in positive dead stop prevents door from swinging beyond the desired opening degree (specify 85°, 90°, 95° or 105°)
- Provides power transfer through closer spindle. Low voltage, Class II wiring (2 wire, 18 gauge only)
- · 2" min. door thickness
- · Additional thrust bearing for greater load capacity
- Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- · Cast iron cement case
- · Not allowed for fire rated doors
- Frame stop required on header on lock side. If not supplied by frame manufactuer, Norton Rixson 60131 recommended. Consult Door Control Accessories Catalog.
- · Furnished with wood and machine screws

#### **Optional Features**

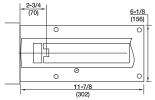
- Delayed action option prefix "DA"
- Cold weather fluid option specify "CWF" (not available for closers with "DA")
- Sealed closer option specify "SC"
- Extended spindles available in 1/2" increments up to 2" longer than standard

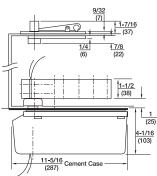
#### Compliance

- Models available to meet ICC/ANSI All7.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs. of opening force prefix "PH" and suffix "8-1/2 lbs.")
- ANSI/C06061
- ANSI/BHMA A156.4, Grade 1

#### **Technical Information**

(Frame stop required at lock edge)





Not available with ElectroLynx®

Pivot edge of door must be radiused.

#### **MODEL EH28 X 587 ARM**

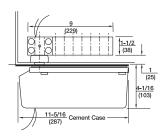
#### **Product Description & Features**

Identical to Model EH28 except:

- Special side load arm for 1-3/4" thick doors
- Allows pivot point to be moved away from pivot edge of door – minimum 2-3/4" backset



#### **Technical Information**



<sup>\*</sup> For doors taller than 8'6" use top pivot H345 in lieu of H340



# **CENTER HUNG, DOUBLE ACTING**

FLOOR CLOSERS

#### MODEL 30

#### **Application**

- · Double Acting, Non-handed
- · Interior or Exterior Doors
- · Weight to 200 lbs.
- Sizes up to 4'0" x 8'6"\* (1219 x 2591mm)

#### **Product Description & Features**

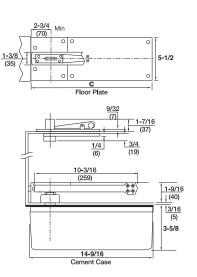
- 340 top pivot included
- Available non-hold open (N) or automatic hold open (A) at 90° (requires 93° swing) or 100° (requires 103° swing)
- Maximum door opening 103°
- Centering arm with adjustment screws in faces of door (critical for double acting doors)
- · Adjustable closing speed valves for each direction of door swing
- · Mechanism returns door to center
- Auxiliary door stop required, overhead or floor type
- Available with floor plate or threshold installation (floor plate shown)
- Steel cement case
- Not available in Delayed Action (DA)
- Not allowed for fire rated doors
- Furnished with wood and machine screws

#### **Optional Features**

- · Cold weather fluid option specify "CWF"
- · Sealed closer option specify "SC"
- Arm reinforcement bracket for wood doors prefix "W"
- Extended spindles available in 1/2" increments up to 2" longer than standard



#### **Technical Information**



Pivot edge of door must be radiused.

<sup>\*</sup> For doors taller than 8'6" use top pivot 345 in lieu of 340  $\,$ 

<sup>^</sup>Primary means of egress should not use double-acting closers

# **CENTER HUNG, DOUBLE ACTING**



#### FLOOR CLOSERS

#### MODEL 40

#### **Application**

- · Double Acting, Non-handed
- · Interior or Exterior Doors
- · Weight to 300 lbs.
- Sizes up to 4'0" x 8'6"\* (1219 x 2591mm)

#### **Product Description & Features**

- 340 top pivot included
- Available non-hold open (N) or automatic hold open (A) at 90° (requires 93° swing) or 100° (requires 103° swing)
- Maximum door opening 103°
- Centering arm with adjustment screws in faces of door (critical for double acting doors)
- · Adjustable closing speed valves for each direction of door swing
- · Mechanism returns door to center
- · Auxiliary door stop required, overhead or floor type
- Available with floor plate or threshold installation (floor plate shown)
- Steel cement case
- Not available in Delayed Action (DA)
- Not allowed for fire rated doors
- · Furnished with wood and machine screws

#### **Optional Features**

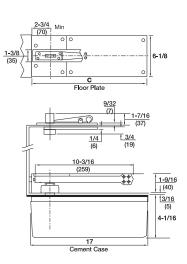
- · Cold weather fluid option specify "CWF"
- Sealed closer option specify "SC"
- Arm reinforcement bracket for wood doors prefix "W"
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

- Models available to meet ICC/ANSI All7.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs.)
- \* For doors taller than 8'6" use top pivot 345 in lieu of 340
- ^ Primary means of egress should not use double-acting closers



#### **Technical Information**



Pivot edge of door must be radiused.



# CENTER HUNG, DOUBLE ACTING

FLOOR CLOSERS

#### MODEL H40

#### **Application**

- · Double Acting, Non-handed
- Interior or Exterior Doors
- Weight to 1000 lbs.
- Sizes up to 4'0" x 8'6"\* (1219 x 2591mm)

#### **Product Description & Features**

- H340 top pivot included
- Available non-hold open (N) or automatic hold open (A) at 90° (requires 93° swing) or 100° (requires 103° swing)
- Maximum door opening 103°
- For thick, extra heavy doors (2" min. thickness)
- Thrust bearing for greater load capacity
- Adjustable closing speed valves for each direction of door swing
- · Mechanism returns door to center
- Available with floor plate or threshold installation (floor plate shown)
- Steel cement case
- · Auxiliary door stop required, overhead or floor type
- This arm does not allow door centering adjustment. Not recommended for pairs of
  doors.
- Not allowed for fire rated doors
- Furnished with wood and machine screws

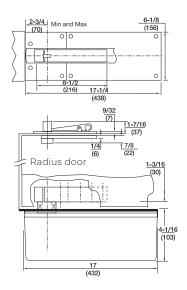
#### **Optional Features**

- Cold weather fluid option specify "CWF"
- · Sealed closer option specify "SC"
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

- Models available to meet ICC/ANSI A117.1 low opening force requirements, prefix "PH".
   (For 8-1/2 lbs.)
- \* For doors taller than 8'6" use to pivot H345 in lieu of H340
- ^ Primary means of egress should not use double-acting closers

#### **Technical Information**



Pivot edge of door must be radiused.

#### MODEL H40 X 587 ARM

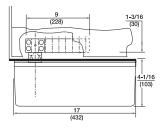
#### **Product Description & Features**

Identical to Model H40 except:

- Special side load arm for 1-3/4" thick doors
- Allows pivot point to be moved away from pivot edge of door. Minimum 2-3/4" backset



#### **Technical Information**



## **OPTIONAL CENTER HUNG TOP PIVOTS**



FLOOR CLOSERS

#### 345 TOP PIVOT

#### **Application**

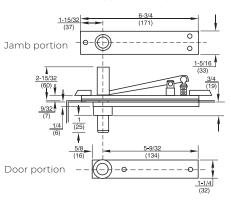
- Fully Concealed
- Center Hung
- Non-handed
- Earthquake Tolerant
- Taller Doors

#### **Product Description & Features**

- Ideal for locations where dramatic building settling is possible. Also, for doors over 8'6"
   in height
- Long pivot pin engages in top of door 1-3/4" (44mm).
- Can be used with any center hung floor closer. Order the floor closer LTP (less top pivot) and the 345 top pivot separately
- Walking beam-type pivot 1/2" (13mm) diameter pivot pin
- · Oil impregnated sintered bronze bearing
- · Completely concealed when door is closed
- · Furnished with wood and machine screws



#### **Technical Information**



#### **H345 TOP PIVOT**

#### **Application**

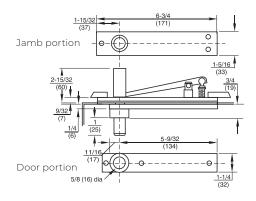
- Fully Concealed
- Center Huna
- Non-handed
- · Earthquake Tolerant
- Taller Doors

#### **Product Description & Features**

- Ideal for locations where dramatic building settling is possible or for doors over  $8\ensuremath{^{'}}6\ensuremath{^{''}}$  in height
- Long pivot pin engages in top of door 1-3/4" (44mm)
- Can be used with heavy-duty (H) center hung floor closer. Order the floor closer
   LTP (less top pivot) and the H345 top pivot separately
- Walking beam-type pivot 11/16" (18mm) diameter pivot pin
- · Heavy-duty needle bearing
- · Completely concealed when door is closed
- · Furnished with wood and machine screws



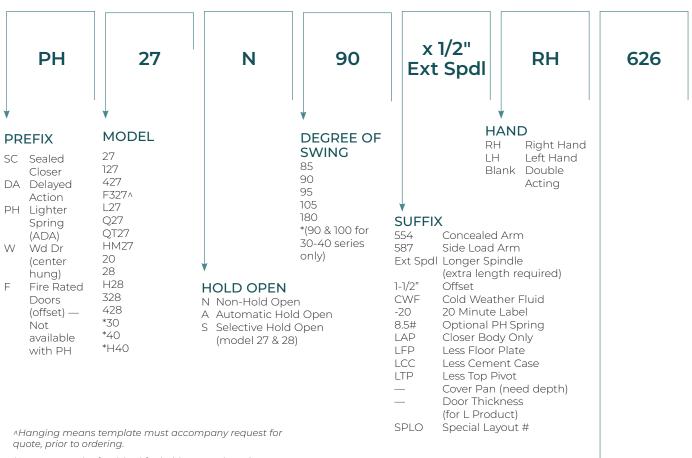
#### **Technical Information**





## **HOW TO ORDER**

FLOOR CLOSERS



<sup>\*</sup>Degree must be furnished for hold open units only.

Note: All options (prefixes & suffixes) may not be available on each floor closer. Refer to the individual product pages for more details.

#### **FINISHES**

ANSI/BHMA (US)	Description
605 (US3)	Bright brass, clear coated
606 (US4)	Satin brass, clear coated
611 (US9)	Bright bronze, clear coated
612 (US10)	Satin bronze, clear coated
613 (US10B)	Antique bronze
613E (US10BE)	Dark oxidized satin bronze - equiv.
618 (US14)	Bright nickel plated, clear coated
619 (US15)	Satin nickel plated, clear coated
622 (US19)	Flat black coated
625 (US26)	Bright chrome plated over nickel
626 (US26D)	Satin chrome plated over nickel
BSP	Black suede powder coat
WSP	White suede powder coat

428 floor closers are only available in

605 (US3) - Bright brass, clear coated, 629 (US32) - Bright stainless steel or 630 (US32D) - Satin stainless steel

## PRODUCT COMPARISON CHART



FLOOR CLOSERS

#### **OFFSET HUNG**

	20	27	27-180	127	427	HM27 <sup>6</sup>	L27	L27-180	Q27, QT27 <sup>7</sup>
Application	Replacement	Standard	Standard	Deep reveal	Deep reveal or alcove	Hollow metal doors and frames	Lead-lined, heavy or high traffic	Lead-lined, heavy or high traffic	Arm allows closer to be removed without demounting door
3/4" offset standard	•	•	•	•	•	•	•	•	•
1-1/2" offset optional <sup>1</sup>		•	•						
Handed	•	•	•	•	•	•	•	•	•
Exterior door		•	•	•	•	•	•	•	•
Interior door	•	•	•	•	•	•	•	•	•
Non-hold open	•	•	•	•	•	•	•	•	•
Selective hold open		•		•	•	•	•		•
Automatic hold open			•					•	
Door weight	200 lbs.	450 lbs.	450 lbs.	250 lbs.	250 lbs.	250 lbs.	1500 lbs.	1500 lbs.	350 lbs.
Maximum door swing <sup>2</sup>	180°	105°	180°	105°	105°	95°	105°	180°	95°
Maximum door width	36"	48"	48"	48"	48"	48"	48"	48"	48"
Standard top pivot (included)	180	180	180	180	180x102	N/A	L180	L180	180
Intermediate pivot (order separately) <sup>3</sup>	M19	M19	M19	119	119	N/A	ML19	ML19	(1) M19 included
Standard 1-3/4" door thickness	•	•	•	•	•	•	•	•	•
Optional door thicknesses available <sup>4</sup>							•	•	
Extended spindles available <sup>5</sup>	•	•	•	•	•	•	•	•	•
Options	PH, F, -20	SC, DA, PH, F, CWF, -20	SC, PH, F, CWF, -20	SC, DA, PH, F, CWF, -20	SC, DA, PH, CWF	SC, DA, PH, F, CWF, -20	SC, DA, PH, F, CWF, -20	SC, PH, F, -20	SC, DA, PH, F, CWF, -20
Furnished with wood and machine screws	•	•	•		•	•	•	•	•

Note: All offset closers have positive deadstop except models F327 and 20  $\,$ 

- 1. Recommended door weight will be less when 1-1/2" offset is specified
- 2. Door swing must be specified when ordering several models. Models 27, 127, 427 and L27; specify 85°, 90°, 95° or 105°. Q/QT models; specify 85°, 90° or 95°
- 3. Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- $4. \ \ Can\ accommodate\ the\ following\ door\ thicknesses:\ 2",\ 2-1/4",\ 2-1/2"\ or\ 3".\ Specify\ when\ ordering$
- 5. 1/2" increments up to 2"
- 6. Shipped with (3) special hinges
- 7. Q: includes floor plate, QT: for threshold applications
- 8. Delayed Action only available with NHO closers
- 9. CWF not available for closers with DA

<b>Optional Features</b>	Designation
Sealed Closer	SC
Delayed Action <sup>8</sup>	DA
Physically Handicapped	PH
Fire Rated	F
Cold Weather Fluid <sup>9</sup>	CWF
20 minute label	-20



## PRODUCT COMPARISON CHART

FLOOR CLOSERS

## **CENTER HUNG, SINGLE ACTING**

	28	28x554	328	428	EH28 <sup>3</sup>	EH28x587 <sup>3,4</sup>	H28	H28x587 <sup>4</sup>
Application	Standard	Standard; concealed arm eliminates visible adjusting screws	Glass doors with patch fittings (by others)	Full glass doors with patch fitting (by	Floor closer for power transfer through closer spindle	Floor closer for power transfer through closer spindle; side load arm	Extra Heavy, High Traffic Doors	Extra Heavy, High Traffic Doors; side load arm
Handed	•	•	•	•	•	•	•	•
Exterior door	•	•	•	•	•	•	•	•
Interior door	•	•	•	•	•	•	•	•
Non-hold open	•	•	•	•	•	•	•	•
Selective hold open	•	•	•	•	•	•	•	
Door weight	350 lbs.	350 lbs.	325 lbs.	325 lbs.	500 lbs.	500 lbs.	1000 lbs.	1000 lbs.
Maximum door swing <sup>1</sup>	105°	105°	105°	105°	105°	105°	105°	105°
Maximum door width	48"	48"	38"	38"	48"	48"	48"	48"
Standard top pivot (included)	340	340	N/A	Special to fit patch fitting	H340	H340	H340	H340
Standard door thickness	1-3/4"	1-3/4"	N/A	3/8" - 1/2" thick tempered glass doors	2"	1-3/4"	2"	1-3/4"
Frame stop required	•	•	•	•	•	•	•	•
Extended spindles available <sup>2</sup>	•		Consult factory	Consult factory	•	•	•	•
Optional Features	SC, DA, PH, W, CWF	SC, DA, PH, CWF	SC, DA, PH, CWF	SC, DA, PH, CWF	SC, DA, PH, CWF	SC, DA, PH, CWF	SC, DA, PH, CWF	SC, DA, PH, CWF
Furnished with wood and machine screws	•				•	•	•	•

#### Notes:

- Center hung closers are not allowed on fire rated doors
- Doors taller than 8'6", use 345 in lieu of 340 top pivot and H345 in lieu of H340 top pivot
- All single acting closers have positive deadstop
- 1. Door swing must be specified when ordering center hung single acting closers. Single acting closers: specify 85°, 90°, 95° or 105°  $\,$
- 2. 1/2" increments up to 2"
- 3. Low voltage Class II wiring (2 wire, 18 gauge only)
- 4. Side load arm allows pivot point to be moved away from pivot edge of door; minimum 2-3/4" backset
- 5. Delayed Action only available with NHO closers
- 6. Cold Weather Fluid not available for closers with Delayed Action

Optional Features	Designation
Sealed Closer	SC
Delayed Action⁵	DA
Physically Handicapped	PH
Wood Door	W
Cold Weather Fluid <sup>6</sup>	CWF

## PRODUCT COMPARISON CHART



FLOOR CLOSERS

## CENTER HUNG, DOUBLE ACTING

	30	40	H40 <sup>3</sup>	H40x587 <sup>4</sup>
Application	Standard	Standard	Extra Heavy, High Traffic Doors	Extra Heavy, High Traffic Doors; Side Load Arm
Exterior door	•	•	•	•
Interior door	•	•	•	•
Non-hold open	•	•	•	•
Automatic hold open	•	•	•	•
Door weight	200 lbs.	300 lbs.	1000 lbs.	1000 lbs.
Maximum door swing <sup>1</sup>	103°	103°	103°	103°
Maximum door width	48"	48"	48"	48"
Standard top pivot (included)	340	340	H340	H340
Standard 1-3/4" door thickness	•		2" (min)	•
Extended spindles available <sup>2</sup>	•			•
Optional Features	SC, PH, W, CWF	SC, PH, W, CWF	SC, PH, CWF	SC, PH, CWF
Furnished with wood and machine screws	•		•	•

#### Notes:

- · Center hung closers are not allowed on fire rated doors
- Primary means of egress should NOT use double acting closers
- Doors taller than 8'6", use 345 in lieu of 340 top pivot and H345 in lieu of H340 top pivot
- 1. Door swing must be specified when ordering closers. Specify 90° or 100°. Door will swing 3° beyond specified degree.
- 2. 1/2" increments up to 2"
- 3. Arm does not allow centering adjustment; NOT recommended for pair of doors
- 4. Side load arm allows pivot point to be moved away from pivot edge of door; minimum 2-3/4" backset
- 5. CWF not available for closers with DA

<b>Optional Features</b>	Designation
Sealed Closer	SC
Physically Handicapped	PH
Wood Door	W
Cold Weather Fluid⁵	CWF



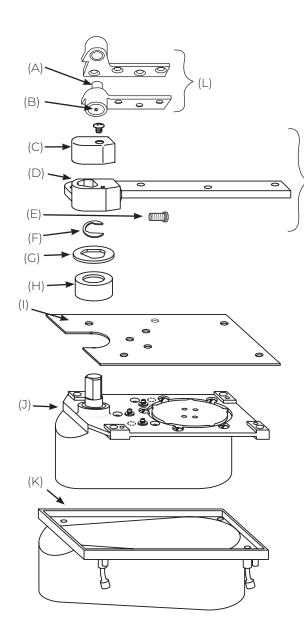
#### PARTS DRAWINGS

FLOOR CLOSERS

#### MODEL 27

# RIGHT HAND SHOWN 3/4" OFFSET

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-\*
- (C) Arm Cap & Screw 012142R\*AS (RH, BRS) 012142L\*AS (LH, BRS) 012144R\*AS (RH, SS) 012144L\*AS (LH, SS)
- (D) 3/4" Offset Arm x Locking Screw 275177 (RH) 275176 (LH)
- (E) Arm Locking Screw Only 88905-PKG (5)
- (F) Arm Shims 275065-PKG (5)
- (G) Arm Bearing Washer 275062-PKG (5)
- (H) Spindle Shoulder Collar 259000-\*
- (I) Floor Plate x Screws 274050R\* (RH) NHO 274050L\* (LH) NHO 274750R\* (RH) SHO 274750L\* (LH) SHO
- (J) Closer Body LAP Specify Complete Model
- (K) Cement Case x Screws 253000-PKG
- (L) 3/4" Offset Top Pivot Assembly 180 (standard) F180 (Fire Rated) 180-20 (20 minutes)
- (M) Bottom Arm Package 252050R\* (RH) 252050L\* (LH) (Includes C,D, H, and attaching screws)



#### SCREW KITS

180 Top Pivot Screw Kit 107014-\* Machine (2) Req 107114-\* Wood (2) Req

Arm Screw Kit 107044 Machine 107144 Wood

Floor Plate Screw Kit 107004 -\*

Cement Case Screw Kit 107046

#### FOR 27 X 1-1/2" OFFSET

1-1/2" Offset Top Pivot 180 x 1-1/2" (standard) F180 x 1-1/2" (Fire Rated) 180 x 20 x 1-1/2" (20 minute)

1-1/2" Offset Arm x Locking Screw 275167-\*

1-1/2" Bottom Arm Package 252060R\* 252060L\*

#### PARTS DRAWINGS

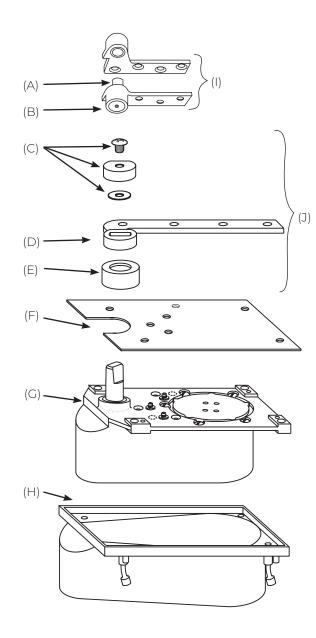




#### MODEL 127/427

# RIGHT HAND SHOWN 3/4" OFFSET

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-\*
- (C) Arm Cap x Screw 12029-\*AS
- (D) 3/4" Offset Arm 12027 (RH) 12028 (LH)
- (E) Spindle Shoulder Collar 259000-\*
- (F) Floor Plate with Screws 274050R\* (RH) NHO 274050L\* (LH) NHO 274750R\* (RH) SHO 274750L\* (LH) SHO
- (G) Closer Body (Specify Complete Model No. x LAP)
- (H) Cement Case with Screws 253000 - PKG
- (I) 3/4" Offset Top Pivot 180 (standard) F180 (Fire Rated) 180 x 20 (20 Minute)
- (J) Bottom Arm Package 652050R\* (RH) 652050L\* (LH) (Includes C, D and attaching screws)



#### **SCREW KITS**

180 x 102 Screw Kit 107014-\* 1 each Machine 107114-\* 1 each Wood 107112-\* 1 each Wood 107012-\* 1 each Machine

180 Top Pivot Screw Kit 107014-\* Machine (2) Req 107114-\* Wood (2) Req

Arm Screw Kit 107044 Machine 107144 Wood

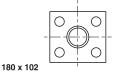
Floor Plate Screw Kit 107004-\*

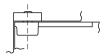
Cement Case Screw Kit 107046

#### **MODEL 427**

(D) 3/4" Offset Arm 12027 (RH) 12028 (LH)

Top Pivot 180 x 102





<sup>\*</sup>specify finish



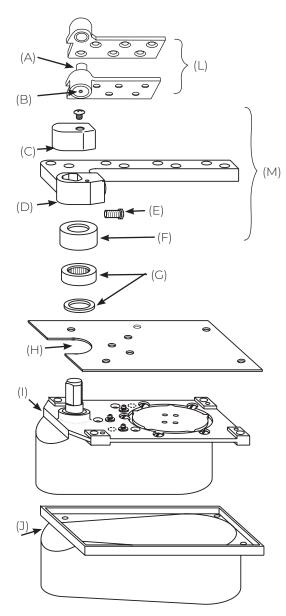
#### **PARTS DRAWINGS**

FLOOR CLOSERS

#### **MODEL L27**

# RIGHT HAND SHOWN 3/4" OFFSET

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-\*
- (C) Arm Cap & Screw 012142R\*AS (RH, BRS) 012142L\*AS (LH, BRS) 012144R\*AS (RH, SS) 012144L\*AS (LH, SS)
- (D) Arm x Locking Screw 1-3/4" Door 18550-Asy (RH) 18650-Asy (LH)
  - 2" Door 18551-Asy (RH) 18651-Asy (LH)
  - 2-1/4" Door 18552-Asy (RH) 18652-Asy (LH)
  - 2-1/2" Door 18553-Asy (RH) 18653-Asy (LH)
  - 3" Door 18554-Asy (RH) 18654-Asy (LH)
- (E) Arm Locking Screw Only 88905-PKG (5)
- (F) Spindle Shoulder Collar 259500-\*
- (G) Heavy-Duty Thrust Bearing 41204-PKG (Includes 41207N spacer)
- (H) Floor Plate with Screws 274050R\* (RH) NHO 274050L\* (LH) NHO 274750R\* (RH) SHO 274750L\* (LH) SHO
- (I) Closer Body (Specify Complete Model No. x LAP) (Includes G)
- (J) Cement Case with Screws 253001



- (L) 3/4" Offset Top Pivot L180 (standard) FL180 (Fire Rated) L180 x 20 (20 minute)
- (M) Bottom Arm Package 1-3/4" Door 252051R\*(RH) 252051L\* (LH)
  - 2" Door 252052R\* (RH) 252052L\* (LH)
  - 2-1/4" Door 252053R\* (RH) 252053L\* (LH)
  - 2-1/2" Door 252054R\* (RH) 252054L\* (LH)
  - 3" Door 252055R\* (RH) 252055L\* (LH) (Includes: C, D, F and attaching screws)

#### SCREW KITS

L180 Screw Kit 107016-\* Machine (2) Req 107116-\* Wood (2) Req

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

Floor Plate Screw Kit 107004-\*

Cement Case Screw Kit 107046

\*specify finish

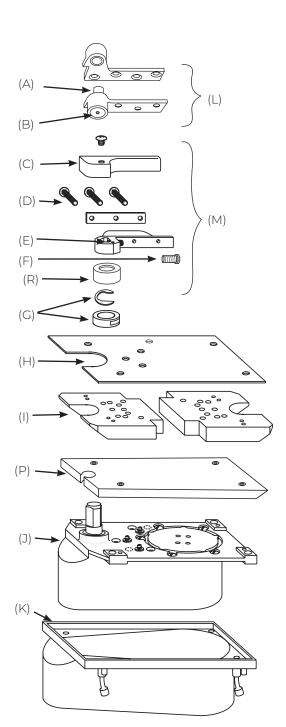




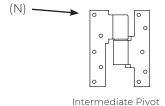
## MODEL Q27/QT27

# RIGHT HAND SHOWN 3/4" OFFSET ONLY

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-\*
- (C) Arm Cap & Screw 73035R\*AS (RH) 73035L\*AS (LH)
- (D) Arm Mounting Screws and Plate 73014-\*
- (E) Removable Arm 73001R-ASY (RH) 73001L-ASY (LH)
- (F) Arm Locking Screw Only 88905-PKG (5)
- (G) Arm Washer/Shim Package - 275179 (Includes 275065 and 275178 Torque Washer)
- (H) Q Floor Plate with Screws 294050R\* (RH) (NHO) 294050L\* (LH) (NHO) 294750R\* (RH) (SHO) 294750L\* (LH) (SHO)
- (I) Q27 Styrofoam Filler 73009
- (J) Closer Body (Specify Complete Model No. x LAP)
- (K) Cement Case with Screws 253000-PKG
- (P) QT Styrofoam Filler 73017
- (R) Spindle Shoulder Collar 259000-\*



- (L) 3/4" Offset Top Pivot 180 (standard) F180 (Fire Rated) 180 x 20 (20 minute)
- (M) Bottom Arm Package 222050R\* (RH) 222050L\* (LH) (Includes C, D, E, R and attaching screws)
- (N) 3/4" Offset Intermediate Pivot M19 (standard) FM19 (Fire Rated) M19-20 (20 minute)



#### **SCREW KITS**

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

Q Floor Plate Screw Kit 107010-\*

Cement Case Screw Kit 107046

M19 Intermediate Pivot Screw Kit 107015-\* Machine (2 Req) 107115-\* Wood (2 Req)

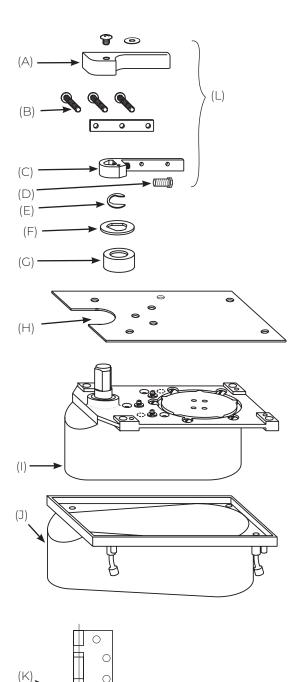


FLOOR CLOSERS

## **MODEL HM27**

# RIGHT HAND SHOWN 3/4" OFFSET

- (A) Arm Cap & Screw 73025R\*AS (RH) 73025L\*AS (LH)
- (B) Arm Mounting Screws and Plate 73014-\*
- (C) Arm x Set Screw 73041R\*AS (RH) 73041L\*AS (LH)
- (D) Arm Locking Screw Only 88905-PKG (5)
- (E) Arm Shims (5) 275065-PKG
- (F) Arm Bearing Washer 275062-PKG-5
- (G) Spindle Shoulder Collar 259000-\*
- (L) Bottom Arm Package 222050R\*HM (RH) 222050L\*HM (LH) (Includes A, B, C, G and attaching screws)
- (H) Floor Plate with Screws 274050R\* (RH) (NHO) 274050L\* (LH) (NHO) 274750R\* (RH) (SHO) 274750L\* (LH) (SHO)
- (I) Closer Body (Specify Complete Model No. x LAP)
- (J) Cement Case with Screws 253000-PKG
- (K) Special Offset Hinges (3) 254545\*PK



#### SCREW KITS

Floor Plate Screw Kit 107004-\*

Cement Case Screw Kit 107046

Hinge Screw Kit 107519-\*

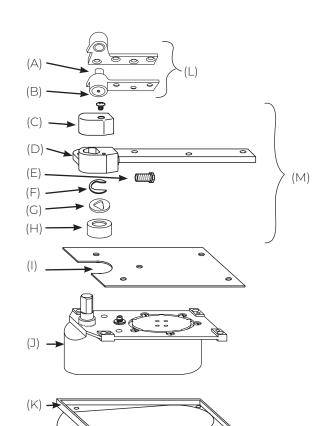




## MODEL 20

# RIGHT HAND SHOWN 3/4" OFFSET

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-\*
- (C) Arm Cap & Screw 012142R\*AS (RH, BRS) 012142L\*AS (LH, BRS) 012144R\*AS (RH, SS) 012144L\*AS (LH, SS)
- (D) 3/4" Offset Arm x Locking Screw 275177 (RH) 275176 (LH)
- (E) Arm Locking Screw Only 88905-PKG (5)
- (F) Arm Shims 275065-PKG (5)
- (G) Arm Bearing Washer 275062-PKG (5)
- (H) Spindle Shoulder Collar 259000-\*
- (L) 3/4" Offset Top Pivot 180 (standard) FL180 (Fire Rated) 180 - 20 (20 Minute)
- (M) Bottom Arm Package 252050R\* (RH) 252050L\* (LH) (Includes C, D, H and attaching screws)
- (I) Floor Plate with Screws 204050-\*
- (J) Closer Body (Specify Complete Model No. x LAP)
- (K) Cement Case with Screws 203000



#### **SCREW KITS**

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

Arm Screw Kit 107044-\* Machine (2) Req 107144-\* Wood (2) Req

Floor Plate Screw Kit 107004-\*

Cement Case Screw Kit 107046



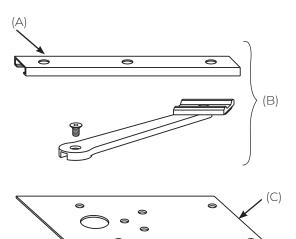


FLOOR CLOSERS

## MODEL F327

# RIGHT HAND SHOWN INDEPENDENTLY HUNG

- (A) Door Rail 327006
- (B) Bottom Arm Package 3252010-\*
- (C) Floor Plate with Screws 3274010R\* (RH) 3274010L\* (LH)
- (D) Closer Body (Specify Complete Model No. x LAP)
- (E) Cement Case with Screws 253000-PKG

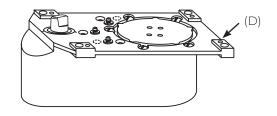


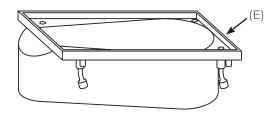


Slide Track Screw Kit 107033

Floor Plate Screw Kit 107004-\*

Cement Case Screw Kit 107046



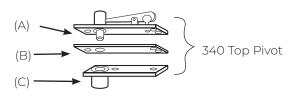




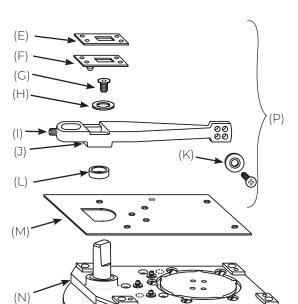


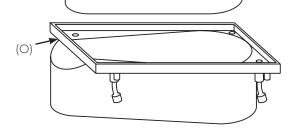
### MODEL 28

- (A) Jamb Portion 3065
- (B) Finish Plate 012202-\*PK(BRS) 012204-\*PK(SS)
- (C) Door Portion 30243
- (E) Arm Plate Shims (.062) 46045-PKG (5) Arm Plate Shims (.187) 46145-PKG (5)
- (F) Arm Plate & Stud Assy 46445
- (G) Arm Spindle Screw 01244010-PKG (5)
- (H) Arm Spindle Washer 01030-PKG (5)
- (I) Arm Set Screw Only 26087-PKG (5)
- (J) Arm & Arm Set Screw 282026
- (K) Arm Alignment Screw & Washer (2) of each 107032-\*
- (L) Arm Spindle Collar 259000-\*
- (M) Floor Plate with Screws 284020R\* (RH) NHO 284020L\* (LH) NHO 284720R\* (RH) SHO 284720L\* (LH) SHO
- (N) Closer Body (Specify Complete Model No. x LAP)
- (O) Cement Case with Screws 253000-PKG
- (P) Bottom Arm Package (E-K) 282026-\*









Wood Door Arm Package 282126 (includes D, E, F, J)

(D) W28 Wood Door Plate & Shim Pkg 107066 (Includes 46145 & 46445)

554 Concealed Arm Package 282554 (Includes 107064)



#### **SCREW KITS**

340 Screw Kit 107329 Machine & Wood

Arm Screw Kit 107048-\* Machine (2) Req

107144-\* Wood (2) Req

554 Arm Screw Kit 107064

Floor Plate Screw Kit 107004-\*

Cement Case Screw Kit 107046



FLOOR CLOSERS

### **MODEL H28**

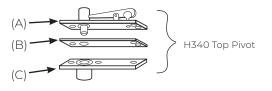
- (A) Jamb Portion 308548
- (B) Finish Plate 012202-\*PK (BRS) 012204-\*PK (SS)
- (C) Door Portion 30141
- (D) Standard End Load Arm Package (minimum 2" door thickness)

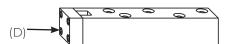
262022 (Includes 107060, 107045, and 107145)

- (E) Arm Spindle Collar 259500-\*
- (F) Heavy-Duty Thrust Bearing 41204-PKG (Includes 41207N)
- (G) Arm Shim Kit 107060
- (H) Floor Plate with Screws NHO 284020R\* (RH 284020L\* (LH) SHO

284720R\* (RH) 284720L\* (LH)

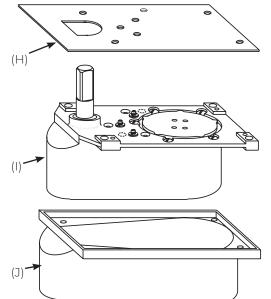
- (I) Closer Body (Specify Complete Model No. x LAP) (Includes 41204- PKG)
- (J) Cement Case with Screws 253001











# 587 SIDE LOAD ARM PACKAGE FOR 1-3/4" DOOR



262587 (Includes G and attaching screws)

#### **SCREW KITS**

H340 Screw Kit 107329 Machine & Wood

587 Arm Screw Kit 107077 Machine 107145-\* Wood

Arm Screw Kit 107045 Machine 107145 Wood

Floor Plate Screw Kit 107004-\*

Cement Case Screw Kit 107046

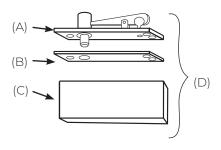




## **MODEL 328/428**

- (A) Jamb Portion 42801
- (B) Finish Plate 012202-\*PK (BRS) 012204-\*PK (SS)
- (C) Patch Fitting Cover 7495 \*
- (J) Bottom Pivot Insert 74101
- (K) Top Pivot Insert 74102

#### Model 428^





\*^Model 428 includes patch fittings, top pivot, cement case, closer body and floor plate (D, E, F, G & H)

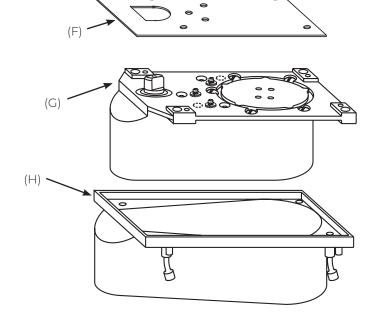
- (D) Top Patch 7494-\* PK (Includes C and K)
- (E) Bottom Patch 7495-\* PK (Includes C and J)

(F) Floor Plate with Screws NHO

NHO 284020R\* (RH) 284020L\* (LH)

SHO 284720R\* (RH) 284720L\* (LH)

- (G) Closer Body (Specify Complete Model No. x LAP)
- (H) Cement Case with Screws 253000-PKG





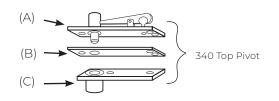
FLOOR CLOSERS

## MODEL 30, 40

- (A) Jamb Portion 3065
- (B) Finish Plate 012202-\*PK(BRS) 012204-\*PK(SS)
- (C) Door Portion 30243
- (E) Arm Plate Shims (.062) 46045-PKG (5)
- (E) Arm Plate Shims (.187) 46145-PKG (5)
- (F) Arm Plate & Stud Assy 46445
- (G) Arm & Arm Set Screw 302026
- (H) Arm Set Screw Only (5)
  - 26087-PKG
- (I) Arm Alignment Screw & Washer (2) 107032-\*
- (J) Arm Spindle Collar 259000-\*
- (K) Floor Plate with Screws
  - (1 large and 1 small) 30 closer - 304020-\* 40 closer - 404020-\*

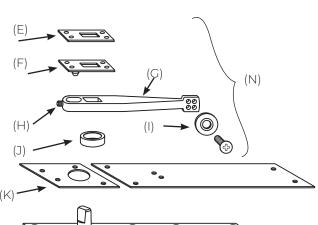
(L)

- (L) Closer Body (Specify Complete Model No. x LAP)
- (M) Cement Case with Screws 30 closer - 303000 40 closer - 403000



Wood Door Arm PKG 302126 (Includes D and G)

(D) Wood Door Plate & Shim PKG 107066 (Includes shims and special arm centering screws)



(N) Bottom Arm Package 302026 -\* (Includes E, G, I, J and attaching screws)

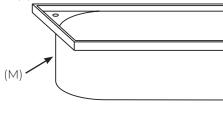
#### **SCREW KITS**

340 Screw Kit 107329 Machine & Wood

Arm Screw Kit 107048 Machine 107144 Wood

Floor Plate Screw Kit (2 req.) 107004-\*

Cement Case Screw Kit 107014

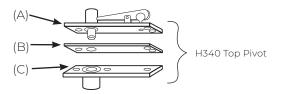


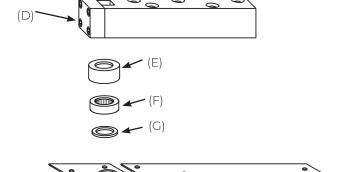


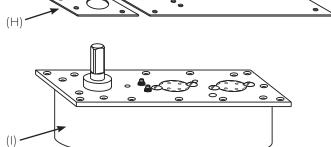


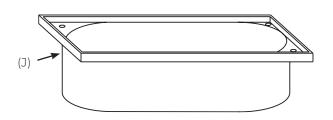
## MODEL H40

- (A) Jamb Portion 308548
- (B) Finish Plate 012202-\*PK (BRS) 012204-\*PK (SS)
- (C) Door Portion 30141
- (D) Standard End Load Arm Package (minimum 2" door thickness) 262022
- (E) Arm Spindle Collar 259500-\*
- (F) Heavy-Duty Thrust Bearing 41204-PKG
- (G) Arm Shim Kit 107060
- (H) Floor Plate with Screws 1 Large 1 Small 404020 -\*
- (I) Closer Body (Specify Complete Model No. x LAP) (Includes 41204- PKG)
- (J) Cement Case with Screws 403000









# 587 SIDE LOAD ARM PACKAGE FOR 1-3/4" DOOR



262587 (Includes G and attaching screws)

#### **SCREW KITS**

H340 Screw Kit 107329 Machine & Wood

587 Arm Screw Kit 107077 Machine 107145 Wood

Arm Screw Kit 107045 Machine 107145 Wood

Floor Plate Screw Kit (2 req.) 107004-\*

Cement Case Screw Kit 107014



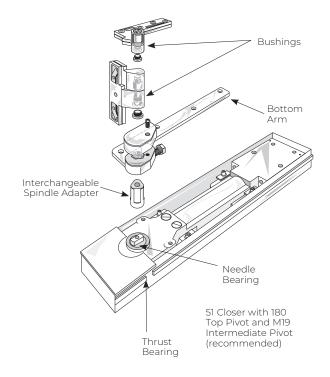
## **GENERAL INFORMATION**

FLOOR CLOSERS

## **FEATURES AND BENEFITS**

Norton Rixson shallow depth floor closers provide long-lasting performance and reliability. Ideal for low to moderate traffic, interior doors, these closers are typically used in applications where traditional floor closer depth is too great. Shallow depth closers feature interchangeable spindle adapters, fixed spring sizes and separate and independent adjusting valves.

- · Weight of the door is supported by the bottom arm and floor
  - Door swings with less resistance
  - Reduces stress on the frame
  - Fasteners are in shear, not tension
  - Eliminates door sag
  - Doors can be adjusted vertically
- Bottom arm attaches directly to the closer spindle
  - A mechanical advantage that increases efficiency insuring that ICC/ANSI A117.1 compliant, lower opening forces will still close the door
  - One to one ratio of door swing to spindle rotation makes control more precise
- · Closer is concealed in the floor
  - Aesthetics -the beauty of the opening is the focal point, not the closer
  - Vandal resistance -the mechanism is not exposed
  - Solution for arch top doors (offset models)



#### LIMITED WARRANTY

Norton Rixson shallow depth floor closers 50 and 51 series are warranted for 10 years against defect. See Price Book for specific details of the limited warranty.

#### **SPECIFICATIONS**

Interior door floor closers shall be models 50 (center hung), 51 (offset hung) or F53 (independently hung). These closers shall have separate and independent checking valves to control latch speed, closing speed and adjustable hydraulic backcheck. All closers shall have a minimum of two bearings internal to the closer. One shall be a thrust bearing and the other a needle bearing. Separate bearing surfaces shall be in the top pivot. Closers shall have cases no more that 2" deep. Fire rated model F51 shall have steel top pivots. Male spindle assemblies shall have removable spindle adapters, changeable in the field.

## **GLOSSARY OF TERMS**





### Delayed Action – Prefix DA

After full open permits door to remain ajar (at 70 degrees) for up to 40 seconds. Operates by separate valve and can be shut off if not needed. Not available on closers with hold open feature. Closers with DA feature do not have backcheck.

### Wood Door - Prefix W

When using a center hung product with the centering arm (e.g., 5010 and 5020) a special plate and less obtrusive adjusting screws are needed for wood doors. This plate is reinforcement for the deep mortise required for that arm, protecting the veneer.

## Fire Rated – Prefix F

Closer packages for fire rated doors (up to 3 hours) include a steel top pivot and must have additional steel intermediate pivots. These closers are non-hold open.

#### Twenty Minute Label - Suffix -20

This UL rating is for 20-minute doors. Pivots are brass-based material and include a visible label.

## Less All Parts – Suffix LAP

If closer is needed for replacement, the arm, cover, cement case, top pivot and floor plate are omitted.

#### Less Floor Plate – Suffix LFP

When thresholds or cover pans are being used the closer doesn't need the decorative floor plate.

#### Less Cement Case - Suffix LCC

For existing installations or when cement case has been sent earlier in construction. Closer will be packaged without the cement case.

## Less Top Pivot – Suffix LTP

For unusual head conditions where the top pivot cannot be used, the closer is shipped without the top pivot. For offset installations an additional load bearing intermediate (side jamb) M190 pivot is required. All intermediate pivots for that opening should be M190's, not M19's.

### Non Hold Open – Suffix NBC

These closers do not hold the door open. This feature cannot be changed in the field.

### Automatic Hold Open – Suffix ABC

These closers hold the door open. This feature cannot be changed in the field. Specify 90°, 105° or 180°.

#### Hand – Suffix RH or LH

All single acting floor closers are handed. All double acting floor closers (5020) are non-handed.

## Extended Spindle – Suffix Extra Length

Any special coverings or severe door undercuts will require an extended spindle. See product template to determine if an extended spindle is needed. Extended spindles are available in 1/2" increments up to 2" longer than standard.

#### 1-1/2" Offset – Suffix 1-1/2

Offset is the distance from the face of the door to the pivot point. Extended offsets should not be used unless there is cladding on the face of the door or there is trim to clear on the frame. 1-1/2" offset arms and pivots are for doors with cladding or trim that project 3/4" from the face of the door.

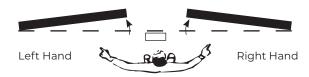
#### Cover Pan (Terrazzo) – Suffix Part Number

Closers should always be accessible. They should never be buried beneath flooring materials. A cover pan sits on top of the closer and has the flooring material set in it. This way the sight line for the floor is consistent. Cover pans may require closers with longer spindles. See cover pan template to determine spindle length needed.

#### Special Layouts - Suffix SPLO#

Unique installations or specially engineered products are called special layouts. These numbers must be assigned by the technical support department and they must be called out specifically by their number when ordered.

## How to Determine Hand of Door



Face a door swinging open away from you. If it opens to the right, it is right handed. If it opens to the left, it is left handed.

## FLOOR CLOSERS

## MODEL 51

#### **Application**

- Interior Doors
- Weight to 250 lbs.\*
- Door Width up to 4'0" (1219mm)

#### **Features**

- · Single Acting
- Handed
- 180 top pivot included
- M19 intermediate pivot recommended (order separately)
- · Order spring sizes 3 through 5:

Model	Door Width	
5103	36" (914mm)	
5104	42" (1067mm)	
5105	48" (1219mm)	

- Allows doors to swing 180°, trim permitting
- Available non-hold open (NBC) or automatic hold open (ABC) specify  $90^\circ$ ,  $105^\circ$  or  $180^\circ$
- Doors will swing 5° beyond hold open point
- · Separate and independent valves for closing speed, latch speed and backcheck
- · Available with floor plate or threshold installation (floor plate shown)
- · Cycolac, rustproof cement case
- Vertical door adjustment
- · Interchangeable spindle adapters
- Furnished with wood and machine screws
- For arch top doors or applications where a 180 top pivot cannot be used, supply at least two each M190 load bearing intermediate pivots, mounted together at the top of the vertical edge
- Doors up to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- · 2-year limited warranty

#### **Optional Features**

- Delayed action option prefix "DA" (non-hold open only). Closer will not have backcheck
- $\bullet$  Extended spindles available in 1/2" increments up to 2" longer than standard
- Available 1-1/2" offset, for doors with cladding or frames with applied molding.
   Maximum door weight 175 lbs.

#### Compliance

- For fire rated openings (up to 3 hour assemblies) prefix "F". This package will be supplied with a steel F180 top pivot and a non-hold open closer. FM19 intermediate pivot is required (order separately).
- For 20-minute label doors suffix "-20" to the part number (non-hold open closer only)

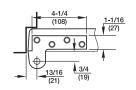


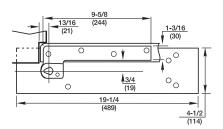


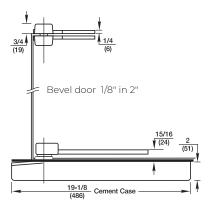


#### **Technical Information**

Frame stop required











## MODEL Q /QT51

#### **Application**

- Interior Doors
- Weight to 250 lbs.\*
- Door Width up to 4'0" (1219mm)
- 1-3/4" doors only

#### **Features**

- Single Acting
- Handed
- 180 top pivot included
- · For arch top doors, consult factory
- One M19 intermediate pivot included
   Note: Closer cannot be ordered without the intermediate pivot
- Order spring sizes 3 through 5

Model	Door Width		
Q (QT) 5103	36" (914mm)		
Q (QT) 5104	42" (1067mm)		
Q (QT) 5105	48" (1219mm)		

- Surface attached bottom arm allows closer removal without demounting door
- · Mortise arm with thru bolt attachment
- Available non-hold open (NBC) or automatic hold-open (ABC) specify 90° or 105°
- Doors will swing 5° beyond hold open point
- Separate and independent valves for closing speed, latch speed and backcheck
- "Q" closers have a floor plate (shown)
- For threshold applications, prefix "QT" no floor plate will be supplied
- Cvcolac, rustproof cement case
- Increased depth of cement case for easy closer removal
- Vertical door adjustment
- Interchangeable spindle adapters
- Furnished with machine and wood screws
- 3/4" offset only
- Doors up to 90" (2286mm) in height should use one intermediate pivot (included). Each additional 30" (762mm) warrants another intermediate pivot
- · 2-year limited warranty

### **Optional Features**

- Delayed-action option prefix "DA" (non-hold open only). Closer will not have backcheck
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

- For fire rated openings (up to 3 hour assemblies), prefix "F". This package will be supplied with a steel F180 top pivot, one FM19 intermediate pivot and a non-hold open closer
- For 20-minute label doors suffix "20" to the part number (non-hold open closer only)

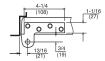


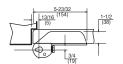


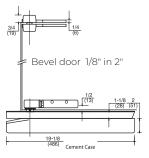


#### **Technical Information**

Frame stop required







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



## FLOOR CLOSERS

## MODEL HM51

#### **Application**

- · Interior Doors
- 1-3/4" Hollow Metal Doors & Frames
- · Weight to 250 lbs.
- Door Width up to 4'0" (1219mm)

#### **Features**

- · Single Acting
- Handed
- Designed for stock hollow metal doors and frames with standard weight 4-1/2" hinge preparation
- Three special steel 4-1/2" ball bearing standard weight hinges with 3/4" offset are included. Doors over 90" in height warrant an additional hinge.
- Order spring sizes 3 through 5:

Model	Door Width
HM5103	36" (914mm)
HM5104	42" (1067mm)
HM5105	48" (1219mm)

- · Surface mounted bottom arm with thru bolts
- Available non-hold open (NBC) or automatic hold open (ABC) specify 90° or 105°
- Doors will swing 5° beyond hold open point
- Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- · Cycolac, rust proof cement case
- Interchangeable spindle adapters
- Furnished with 1/2 wood and full machine screws
- 2-year limited warranty

## **Optional Features**

- Delayed action option prefix "DA" (non-hold open closers only). Closer will not have backcheck
- $\bullet$  Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

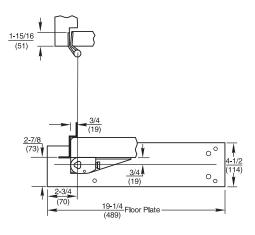
• For fire rated openings (up to 3-hour assemblies), prefix "F". This package will be supplied with three steel hinges and a non-hold open closer

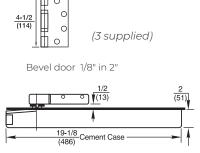




### **Technical Information**

Frame stop required





## FLOOR CLOSERS



### MODEL M19

#### **Application**

- Full Mortise
- Handed

#### **Features**

- Not load bearing (pivot has a bushing)
- · Maintains door alignment
- · Aids in installing closers and floor closers
- · Non ferrous base material
- 3/4" (19mm) offset standard
- Doors up to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- For arch top doors or applications where a 180 top pivot cannot be used, supply at least two
  each M190 load bearing intermediate pivots, mounted together at the top of the vertical
  edge
- · Furnished with wood and machine screws

## **Optional Features**

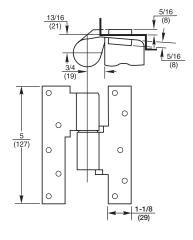
· Available in 1-1/2" (38mm) offset

#### Compliance

- · Available for fire door assemblies (ferrous material) specify FM19
- For 20-minute label suffix "-20" to the part number



#### **Technical Information**



## MODEL M190

### **Application**

- Full Mortise
- Handed

#### **Features**

- · Load bearing (pivot has a needle bearing)
- Maintains door alignment
- · Aids in installing closers and floor closers
- Non ferrous base material
- · 3/4" (19mm) offset standard
- Doors up to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- For arch top doors or applications where a 180 top pivot cannot be used, supply at least two
  each M190 load bearing intermediate pivots, mounted together at the top of the vertical edge
- · Furnished with wood and machine screws

#### **Optional Features**

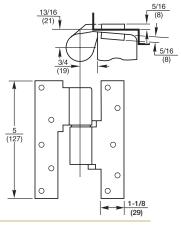
· Available in 1-1/2" (38mm) offset

#### Compliance

- Available for fire door assemblies (ferrous material) specify FM190
- For 20-minute label suffix "-20" to the part number



## **Technical Information**





## INDEPENDENTLY HUNG

FLOOR CLOSERS

### MODEL F53 AND F5310

#### **Application**

- · Interior Doors
- Door Width up to 4'0" (1219mm)
- · Weight to 250 lbs.

#### **Features**

- · Single Acting
- Handed
- Used to conceal floor closer for independently hung doors (butt hinges, pocket pivots, etc)
- · Closer does not support weight of door
- · Order spring sizes 3 through 5:

Model	Door Width	
F5303	36" (914mm)	
F5304	42" (1067mm)	
F5305	48" (1219mm)	

Note: Hanging means used must be specified when ordering. Check product template. If hanging means is not listed, contact factory for special layout and pricing.

- · Auxiliary stop recommended
- · Includes closer, mortised rail and arm with slider
- Maximum swing 90°
- · Separate and independent valves for closing speed, latch speed and backcheck
- Floor plate standard. For threshold applications a 1/2" extended spindle is required
- · Cycolac rustproof cement case
- Interchangeable spindle adapters
- Furnished with wood and machine screws
- 2-year limited warranty

#### F5310 ONLY:

For use in 90° pocket door installations where closer is located in the pocket. Can only be used with F519 pocket pivots.

• Specially milled spindle allows positive latch speed control

#### **Optional Features**

- Not available in "DA" or hold open
- Extended spindles available in 1/2" increments up to 2" longer than standard

#### Compliance

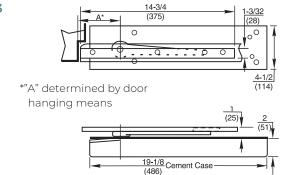
• This closer carries a UL listing for 3-hour fire door assemblies. Fire rated hanging means required.

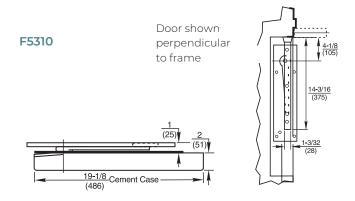
#### **Technical Information**

Frame stop required

Door shown parallel to frame

F53





## **INTERMEDIATE PIVOTS**





## **MODEL 519**

### **Application**

- Pocket Door Pivot
- Non-Handed

#### **Features**

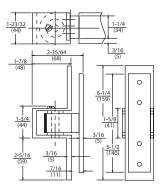
- Full mortise, pivot for pocket door applications
- Heavy-duty steel pivot with ball bearings
- Allows doors to swing 90°
- Minimum three pocket pivots per door
- Doors over 90" (2286mm) in height require four pocket pivots. Each additional 30" (762mm) warrants another pocket pivot
- Furnished with wood and machine screws

### Compliance

- UL listed for all labeled pocket fire-door assemblies up to and including  $\overline{\bf 3}$  hours
- Fire-rated door assemblies must have been tested with pocket pivots



#### **Technical Information**





# **CENTER HUNG, SINGLE ACTING**

FLOOR CLOSERS

### MODEL 50

#### **Application**

- · Interior Doors
- · Centering Arm
- · Weight to 250 lbs.
- Door Sizes up to 4'0" x 8'0" (1219 x 2438mm)

#### **Features**

- Single Acting
- Handed
- 340 top pivot included
- · Order spring sizes 3 through 5:

Model	Door Width		
5013	36" (914mm)		
5014	42" (1067mm)		
5015	48" (1219mm)		

- · Centering arm with adjustment screws in faces of door
- Available non-hold open (NBC) or automatic hold open (ABC) specify  $90^{\circ}$  or  $105^{\circ}$
- Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- Cycolac, rustproof cement case
- Frame stop required at lock edge. If not supplied by frame manufacturer, recommend use of 60131 (see Door Control Accessories Catalog)
- · Interchangeable spindle adapters
- · Furnished with wood and machine screws
- 2-year limited warranty

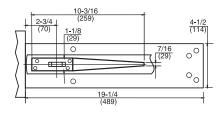
## **Optional Features**

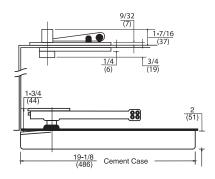
- Delayed action option prefix "DA" (non-hold open only). Closers will not have backcheck
- Extended spindles available in 1/2" increments up to 2" longer than standard
- · Arm reinforcement bracket for wood doors prefix "W"



#### **Technical Information**

Frame stop required at lock edge





Door edges must be radiused

Note: Center hung closers are not allowed for use on fire rated doors.

# **CENTER HUNG, SINGLE ACTING**





## MODEL 50 X 554 ARM

### **Application**

- Interior Doors
- Concealed Arm
- · Weight to 250 lbs.
- Door Sizes up to 4'0" x 8'0" (1219 x 2438mm)

#### **Features**

- Singe Acting
- Handed
- · 340 top pivot included
- · Order spring sizes 3 through 5:

Model	Door Width		
5013 x 554	36" (914mm)		
5014 x 554	42" (1067mm)		
5015 x 554	48" (1219mm)		

- Concealed arm is designed to eliminate visible adjusting screws on face of door visible adjusting screws on face of door
- · Arm bolt locks arm to closer spindle adjustment made through heel of door
- Available non-hold open (NBC) or automatic hold open (ABC) specify  $90^{\circ}$  or  $105^{\circ}$
- Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- · Cycolac, rustproof cement case
- Frame stop required at lock edge. If not supplied by frame manufacturer, recommend use of 60131 (see Door Control Accessories Catalog)
- Interchangeable spindle adapters
- · Furnished with wood and machine screws
- 2-year limited warranty

### **Optional Features**

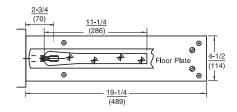
- Delayed action option prefix "DA" (non-hold open only) closer will not have backcheck
- Extended spindles available in 1/2" increments up to 2" longer than standard

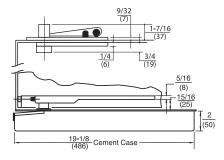




#### **Technical Information**

Frame stop required at lock edge





Door edges must be radiused

Note: Center hung closers are not allowed for use on fire rated doors.



# **CENTER HUNG, SINGLE ACTING**

FLOOR CLOSERS

### **MODEL 5040**

## **Application**

- · Interior, Full Glass Doors
- · Weight to 200 lbs.
- Door Sizes 3'6" x 8'0" (1067-2438mm)

#### **Features**

- Single acting
- Handed
- · Special top pivot included
- Top and bottom patch fittings for tempered glass doors 3/8" 1/2" thick
- Order spring sizes 3 and 4:

Model	Door Width
5043	36" (914mm)
5044	42" (1067mm)

- Available non-hold open (NBC) or automatic hold open (ABC) specify 90° or 105°
- · Separate and independent valves for closing speed, latch speed and backcheck
- Floor plate standard. For threshold application, an extended spindle is required (floor plate shown). There is no vertical adjustment
- · Cycolac rustproof cement case
- · Interchangeable spindle adapters
- · 2-year limited warranty

#### **Optional Features**

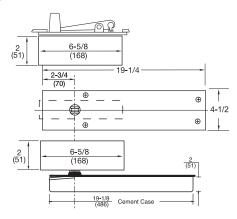
- Delayed action option prefix "DA" (nonhold open only). Closers will not have backcheck. DA is not recommended for full glass doors
- For extended spindles contact factory





#### **Technical Information**

Frame stop required at lock edge



Note: 5040 closers are only available in the following finishes: 605 (US3) - Bright brass, clear coated, 629 (US32) - Bright stainless steel or 630 (US32D) - Satin stainless steel

# **CENTER HUNG, DOUBLE ACTING**





### **MODEL 5020**

### **Application**

- Interior Doors
- Centering Arm
- · Weight to 250 lbs.
- Door Sizes up to 4'0"x 8'0" (1219 x 2438mm)

#### **Features**

- · Double Acting
- Non-handed
- · 340 top pivot included
- Order spring sizes 3 through 5:

Model	Door Width	
5023	36" (914mm)	
5024	42" (1067mm)	
5025	48" (1219mm)	

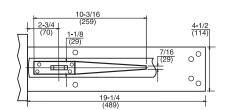
- Centering arm with adjustment screws in faces of door (critical for double acting doors)
- Available non-hold open (NBC) or automatic hold open (ABC) specify 90°, 105°
- Door may only swing 130° in either direction
- Auxiliary stop required
- · Separate and independent valves for closing speed, latch speed and backcheck
- Available with floor plate or threshold installation (floor plate shown)
- · Cycolac, rustproof cement case
- Interchangeable spindle adapters
- · Furnished with wood and machine screws
- 2-year limited warranty

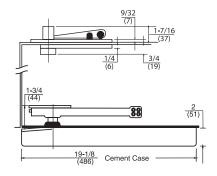
#### **Optional Features**

- Delayed action option prefix "DA" (nonhold open only). Closers will not have backcheck
- Extended spindles available in 1/2" increments up to 2" longer than standard
- · Arm reinforcement bracket for wood doors prefix "W"



#### **Technical Information**





Door edges must be radiused

Note: Center hung closers are not allowed for use on fire rated doors.



## **OPTIONAL CENTER HUNG TOP PIVOT**

FLOOR CLOSERS

## **MODEL 345**

## **Application**

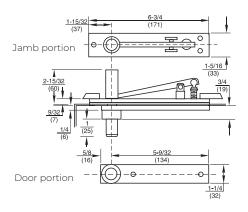
- Fully Concealed
- Non-handed
- Earthquake Tolerant
- Taller Doors (8'0" to 9'0")

#### **Features**

- Center Hung
- Non-Handed
- Ideal for locations where there is a fear that dramatic building settling is possible
- Long pivot pin engages in top of door 1-3/4" (44mm).
- Can be used with any center hung floor closer. Order the closer LTP (less top pivot) and the 345 top pivot separately
- Walking beam-type pivot 1/2" (13mm) diameter pivot pin
- Oil-impregnated sintered bronze bearing
- · Completely concealed when door is closed
- · Furnished with wood and machine screws



#### **Technical Information**



## **HOW TO ORDER**







\*Hanging means must be noted on purchase order.

Note: All options (prefixes & suffixes) may not be available on each floor closer. Refer to the individual product pages for more details.

Wd Dr (center hung) Fire Rated Doors

#### **FINISHES**

ANSI/BHMA (US)	Description	
605 (US3)	Bright brass, clear coated	
606 (US4)	Satin brass, clear coated	
611 (US9)	Bright bronze, clear coated	
612 (US10)	Satin bronze, clear coated	
613 (US10B)	Antique bronze	
613E (US10BE)	Dark oxidized satin bronze - equiv.	
618 (US14)	Bright nickel plated, clear coated	
619 (US15)	Satin nickel plated, clear coated	
622 (US19)	Flat black coated	
625 (US26)	Bright chrome plated over nickel	
626 (US26D)	Satin chrome plated over nickel	
BSP	Black suede powder coat	
WSP	White suede powder coat	

5040 floor closers are only available in 605 (US3) - Bright brass, clear coated, 629 (US32) - Bright stainless steel or 630 (US32D) - Satin stainless steel



# PRODUCT COMPARISON CHART

FLOOR CLOSERS

<b>OFFSET HUNG</b>	51	Q/QT51 <sup>4</sup>	HM51 <sup>3</sup>
Application Standard		Surface attached bottom arm allows closer removal without demounting door	Stock hollow metal doors with standard weight 4-1/ hinge prep
3/4" offset standard	*	*	*
1-1/2" offset optional <sup>1</sup>	*		
Handed	*	*	*
Non-hold open	*	*	*
<b>Automatic hold open</b> 90°, 105° or 180		90°, or 105°	90°, or 105°
Spring sizes 3, 4 or 5		3, 4 or 5	3, 4 or 5
Door weight 250 lbs.		250 lbs.	250 lbs.
Maximum door width	48"	48"	48"
<b>Top pivot (included)</b> 180 top pivot		180 top pivot	N/A
Extended spindles <sup>2</sup>	Extended spindles <sup>2</sup> *		*
1-3/4" doors only		*	*
Options DA, F, -20		DA, F, -20	DA, F

<sup>1.</sup> Recommended door weight will be approx. half when 1-1/2" offset is specified

- 2. 1/2" increments up to 2"
- 3. Shipped with (3) special hinges
- 4. Q: includes floor plate, QT: for threshold applications
- 5. Delayed Action only available with NHO closers

Optional Features	Designation
Delayed Action⁵	DA
Fire-Rated	F
20 Minute Label	-20

<b>CENTER HUNG</b>	50	50 x 554 Arm	5020	5040
Application	Standard	Standard; concealed arm eliminates visible adjusting screws	Standard	Full glass doors
Single acting	*	*		*
Double acting			*	
Handed	*	*		*
Non-hold open	*			
Automatic hold open	90°, or 105°	90°, or 105°	90°, or 105°	90°, or 105°
Door weight	250 lbs.	250 lbs.	250 lbs.	200 lbs.
Spring sizes	3, 4 or 5	3, 4 or 5	3, 4 or 5	3, or 4
Maximum door width	48"	48"	48"	42"
Top pivot (included)	340 top pivot	340 top pivot	340 top pivot	Special top pivot
Extended spindles <sup>1</sup>	*	*	*	Contact factory
Options	DA	DA, W	DA, W	

<sup>\*</sup> Center hung closers are not allowed on fire rated doors

Optional Features	Designation
Delayed Action <sup>2</sup>	DA
Arm reinforcment bkt for Wood Doors	W

<sup>•</sup> Doors taller than 8'6", use 345 in lieu of 340 top pivot

<sup>1. 1/2&</sup>quot; increments up to 2"

<sup>2.</sup> Delayed Action only available with NHO closers



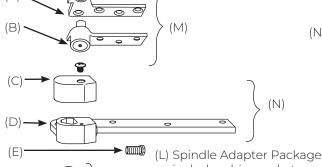


## MODEL 51

# RIGHT HAND SHOWN 3/4" OFFSET

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-\*
- (C) Arm Cap & Screw 012142R\*AS (RH, BRS) 012142L\*AS (LH, BRS) 012144R\*AS (RH, SS) 012144L\*AS (LH, SS)
- (D) 3/4" Offset Arm x Locking Screw 275177 (RH) 275176 (LH)
- (E) Arm Locking Screw Only PKG (5) 88905
- (G) Arm Bearing Washer 275062-PKG (5)
- (H) Spindle Washer 519000-\*

180 (standard) F180 (fire rated up to 3 hours) 180-20 (20 minutes)



(L)

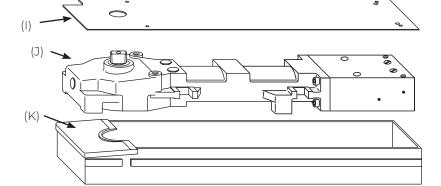
(H)→

(L) Spindle Adapter Package includes shim socket screw and washer 4007-XXA Extended Spindles Spindle Adapters: 4007-XXC 1/2" extended

4007-XXE 1" extended 4007-XXG 1-1/2" extended 4007-XXI 2" extended (N) Bottom Arm
Package
(Includes C, D and
attaching screws)
252050R\* (RH)
252050L\* (LH)

(M) 3/4" Offset Top Pivot Assembly

- (I) Floor Plate with Screws 4000500R\*XXE (RH) 4000500L\*XXE (LH)
- (J) Closer Body (Specify Complete Model No. x LAP)
- (K) Cement Case with Screws 4000301



For 51 x 1-1/2" Offset 180x1-1/2" (standard)

F180x1-1/2" (fire rated up to 3 hours)

180-20x1-1/2" (20 minutes)

1-1/2" Offset Arm x Locking Screw 275167-\*

1-1/2" Offset Bottom Arm pkg 252060-\*

\*specify finish

#### SCREW KITS

180 Screw Kit 107014 Machine (2) Req 107114 Wood (2) Req

Arm Screw Kit 107044 Machine 107144 Wood

Floor Plate Screw Kit 107004-\*

Cement Case Screw Kit 107075

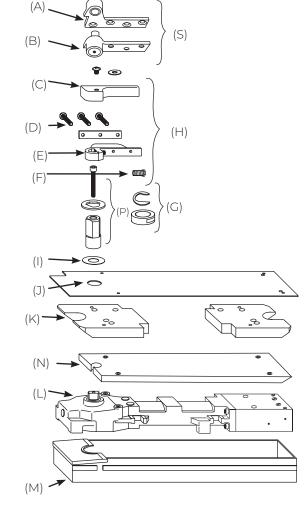


## FLOOR CLOSERS

## **MODEL Q51/QT51**

# RIGHT HAND SHOWN 3/4" OFFSET

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-\*
- (C) Arm Cap & Screw 73035R\*AS (RH, BRS) 73035L\*AS (LH, BRS)
- (D) Q/QT51 Arm Mounting Screws & Plate 73014-\*
- (E) Removable Arm 73001R-ASY (RH) 73001L-ASY (LH)
- (F) Arm Locking Screw Only 88905-PKG (5)
- (G) Arm Washer & Shim Package 275179 includes shim 275065 & 275178 torque washers
- (I) Spindle Washer 519000-\*

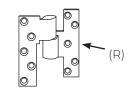


- (S) 3/4" Offset Top Pivot 180 FL180 Fire Rated 180 - 20 20 Minute
- (H) Bottom Arm Package 222050R\* (RH) 222050L\* (LH) (Includes C, D, E, F)
  - (P) Spindle Adapter Package 4007-XXC (Includes shims, socket screw & washer)

Extended Spindles Spindle Adapters:

4007-XXE 1/2" extended

4007-XXG 1" extended



M19 Intermediate Pivot

#### **SCREW KITS**

180 Screw Kit 107014 Machine (2) Req 107114 Wood (2) Req

Q Floor Plate Screw Kit 107010-\*

Cement Case Screw Kit 107075

M19 Intermediate Pivot Screw Kit 107015 Machine (2) Req 107115 Wood (2) Req

- (J) Floor Plate w/Screws 4000501R\* XXE (RH), ("BC") 4000501L\* XXE (LH), ("BC")
- (K) Q51 Styrofoam Filler 4000023
- (N) QT51 Styrofoam Filler 4000019
- (L) Closer Body (Specify complete model no. x LAP)
- (M) Cement Case w/ Screws 4000301

(R) 3/4" Offset Intermediate Pivot (1) M19 FM19 Fire Rated M19-20 20 Minute



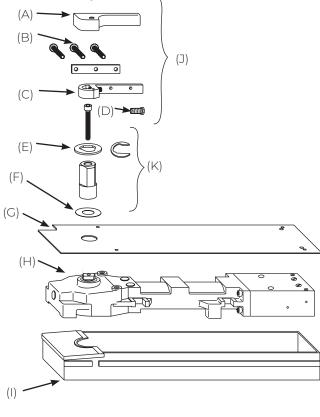


#### MODEL HM51

# RIGHT HAND SHOWN 3/4" OFFSET

- (A) Arm Cap & Screw 73025R\*AS (RH) 73025L\*AS (LH)
- (B) HM51 Arm Mounting Screws & Plate 73014-\*
- (C) Arm & Screw 73041R\*AS (RH) 73041L\*AS (LH)
- (D) Arm Locking Screw Only 88905 - (5)
- (E) Arm Bearing Washer 275062-PKG (5)
- (F) Spindle Washer 519000-\*

(L)



8 0

- (J) Bottom Arm Package 222050R\*HM (RH) 222050L\*HM (LH) (Includes A, B, C)
- (K) Spindle Adapter Package 4007-XXA

Extended Spindles Spindle Adapters: (Includes shims, arm washer & socket screw)

4007-XXC 1/2" extended

4007-XXE 1" extended

4007-XXG 1-1/2" extended

4007-XXI 2" extended

- (G) Floor Plate w/Screws 4000501R\* XXE (RH, "BC") 4000501L\* XXE (LH, "BC")
- (H) Closer Body (Specify complete model no. x LAP)
- (I) Cement Case with Screws 4000301

(L) Special Offset Hinges (3) 254545R\*PK 254545L\*PK

0

#### **SCREW KITS**

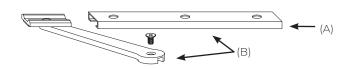
Floor Plate Screw Kit 107004-\* Cement Case Screw Kit 107075 Hinge screw kit 107519-\*



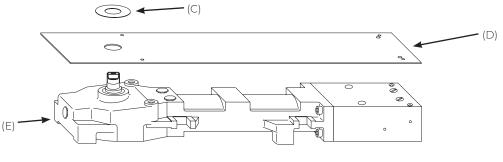
FLOOR CLOSERS

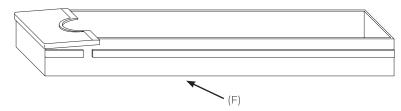
## MODEL F53 AND F5310

- (A) Door Rail 327006
- (C) Spindle Washer 519000-\*



- (B) Bottom arm package 3252010-\*
- (D) Floor Plate with screws 4000600-\*XXA 4000600-\*XXE ("BC")
- (E) Closer Body (specify complete model no. LAP)
- (F) Cement case with screws 4000301





## **SCREW KITS**

Floor Plate Screw Kit 107004-\*

Cement Case Screw Kit 107075

Slide Track Screw Kit 107033

## SPINDLE ADAPTER PACKAGE

includes socket screw

## Extended Spindle Adapters

4009-\*XXC 1/2" extended 4009-\*XXE 1" extended 4009-\*XXG 1-1/2" extended 4009-\*XXI 2" extended



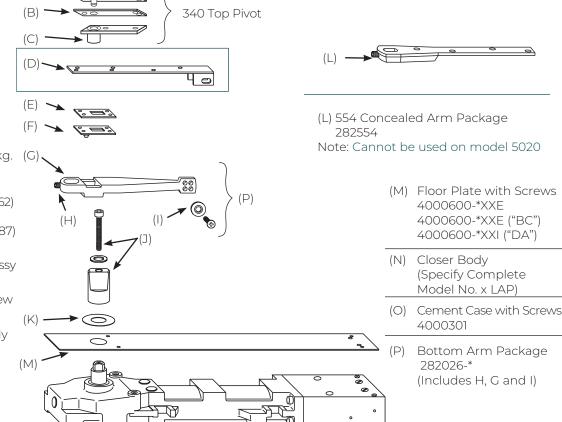


#### **MODEL 50 AND 5020**

- (A) Jamb Portion 3065
- (B) Finish Plate 012202-\*PK(BRS) 012204-\*PK(SS)
- (C) Door Portion 30243
- (D) W28 Wood Door Plate/Shim Pkg 107066 (Includes E and F) Wood door arm pkg. 282126 (Includes D and G)
- (E) Arm Plate Shims (.062) 46045-PKG (5) Arm Plate Shims (.187) 46145-PKG (5)
- (F) Arm Plate & Stud Assy 46445
- (G) Arm & Arm Set Screw 282026
- (H) Arm Set Screw Only 26087-PKG (5)
- (I) Arm Alignment Screw & Washer 107032-\*
- (K) Spindle Washer 519000-\*

(N)

(O)



(J) Spindle Adapter Package 4010-XXA (Includes socket screw & shim)

Extended Spindles
Spindle Adapters
4010-XXC 1/2" extended
4010-XXE 1" extended
4010-XXG 1-1/2" extended
4010-XXI 2" extended

#### **SCREW KITS**

554 Arm Screw Kit 107064

Floor Plate Screw Kit 107004-\*

Cement Case Screw Kit 107075

340 Screw Kit 107329 Machine & Wood

Arm Screw Kit 107048 Machine 107144 Wood

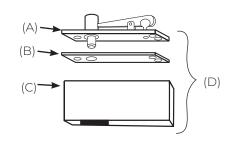


FLOOR CLOSERS

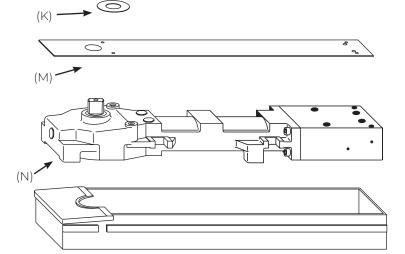
### **MODEL 5040**

RIGHT HAND SHOWN 3/4" OFFSET

- (A) Jamb Portion 42801
- (B) Finish Plate 012202-\*PK (BRS) 012204-\*PK (SS)
- (C) Patch Filling 7495-\*
- (J) Bottom Pivot Insert 74101
- (L) Top Pivot Insert 74102
- (K) Spindle Washer 519000-\*







- (D) Top Patch 7494\* PK (Includes C and L)
- (M) Floor Plate with Screws 4000600-\*XXE ("BC")
- (N) Closer Body (Specify Complete Model No. x LAP)
- (O) Cement Case with Screws 4000301
- (E) Bottom Patch 7495\*PK (Includes C and J)

### **SCREW KITS**

Floor Plate Screw Kit 107004-\* Cement Case Screw Kit 107075 340 Screw Kit Machine & Wood 107329

(O)





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