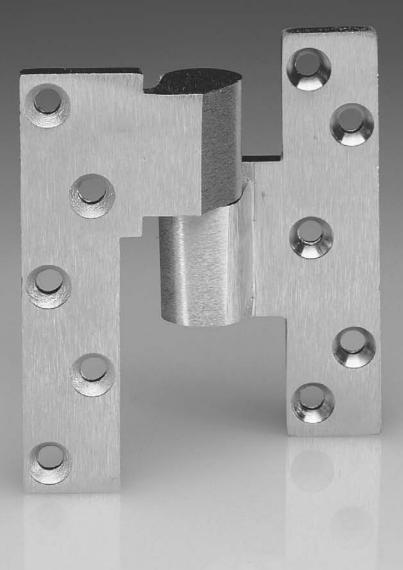


Experience a safer and more open world



PIVOTS AND PIVOT SETS

Architectural Solutions for Durable and Efficient Hanging of Doors

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PIVOTS AND PIVOT SETS

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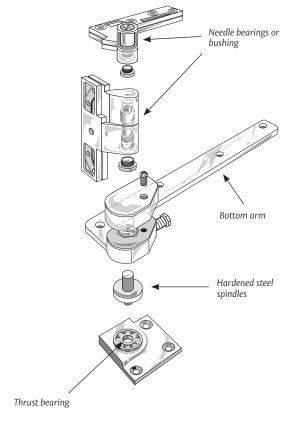


3

GENERAL INFORMATION, HOW TO SELECT PRODUCT

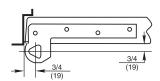
Pivot sets provide the best possible means of hanging a door. They are designed to work with the laws of physics to provide long-lasting performance and reliability.

- The weight of the door is supported at the bottom by the floor
 - Uses principles of gravity to its advantage
 - Door swings with less resistance
 - Heavier doors can be accommodated
- Reduced stress on frame
 - Fasteners are in shear, not tension
 - Eliminates door sag
 - Vertically adjustable
- Heavy-duty hardened steel spindles
 - Thrust bearing supports vertical load
 - Needle bearings and bushings for lateral force
 - Extra heavy-duty models also have an additional surface applied thrust bearing to handle heavier or high-traffic doors
- Offset pivots provide better weight distribution and can accommodate taller doors
- Intermediate pivots are used for alignment and to ensure proper installation of bottom pivot or floor closer
- Center hung pivots are used for aesthetics or if the pivot point is going to be moved nearer the lock edge of the door
- PIVOTS DO NOT RETURN DOORS TO CENTER. Pivots in this section are for door hanging means only. For door control see door closer catalog sections.



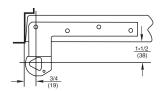
147 Pivot set and M19 Intermediate pivot shown (recommended)

1. OFFSET VS. CENTER HUNG APPLICATION



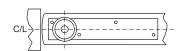
3/4" Offset

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. Extended offsets should be used when there is cladding on the face of door or trim on the frame.



Center Hung

Pivot point centered in thickness of door.



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

Estimated door weights pounds per square foot (PSF)	DOOR TH	ICKNESS	
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 Resistent	20	21	_
MDF	7	9	11.5
	GLASS THICKNESS		
Tempered Glass	3/8"	1/2"	3/4"
	6.5 7 7 9 3.5 4 20 21 7 9 GLASS THICKNESS 3/8" 1/2" 5 7 LEAD THICKNESS 1/16" 1/8" 5 8 CLADDING MATERIAL Wood Stone	9.75	
	7 9 11 3.5 4 — 20 21 — 7 9 11 GLASS THICKNESS 3/8" 1/2" 3/- 5 7 9. LEAD THICKNESS 1/16" 1/8" 1/- 5 8 9. CLADDING MATERIAL Wood Stone Br		
Lead Lining	1/16"	1/8"	1/4"
(add to door weight)	3.5 4 20 21 7 9 GLASS THICKNESS 3/8" 1/2" 5 7 LEAD THICKNESS 1/16" 1/8" 5 8 CLADDING MATERIAL Wood Stone	9.75	
2/411 CL 1 LL:	CLADDING MATERIAL		
3/4" Cladding	Wood	Stone	Bronze
(add to door weight)	3	10.5	28

Example: $3/6 \times 8/0 \times 1/2$ " Tempered Glass Door Door: 28sq ft $\times 7lb./sq$ ft = 196lbs. For doors of other sizes, consult factory

Example: 3/0 X 7/0 X 1-3/4" WD X 1/4" Lead lining Door: 21sq ft x 7lb,/sq ft = 147lbs. Lead Lining: 9.75 = 204.75lbs. Total Door weight: 351.75lbs.

3. CYCLES

APPLICATION	DAILY CYCLES	YEARLY CYCLES		
Large department store entrance	5,000	1,500,000	High	
Large office building entrance	4,000	1,200,000		
Theater entrance	1,000	365,000		
School entrance	1,250	225,000		
School restroom door	1,250	225,000		
Store or bank entrance	500	150,000		
Office building restroom door	400	118,000		
School corridor door	80	15,000		
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		



OPTIONS, CERTIFICATIONS, WARRANTY, SPECIFICATIONS

Door Thickness – Suffix 1-3/4", 2", 2-1/4", 2-1/2" or 3"

When ordering L series pivot for lead-lined doors, the thickness of the door must be given. The purpose of the L product is to have screws spaced so 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.

ElectroLynx® Connectors – Suffix QC – Number of Wires

The plug-in connectors, with easy color coded wire system, eliminate matching wires. Must be used with ASSA ABLOY doors, frames and hardware. Available 4, 6, 8 or 12 wires for most products.

Extended Spindle - Suffix extra length needed

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

Fire Rated – Prefix F



Pivots for fire rated doors (up to 3 hours) include a steel top pivot and must have additional steel intermediate pivots. For F519 pocket pivot, door assemblies must have been tested with pocket pivots.

Handing

All offset pivots and pivot sets are handed. Suffix RH or LH.

Less Top Pivot – Suffix LTP

For conditions requiring special top pivots or for arch top doors, the pivot set should be ordered less top pivot – LTP. 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.

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. The greater the offset the less weight can be carried by the pivot.

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 ordering.

Twenty-minute label – Suffix - 20



This UL rating is for 20-minute assemblies. Product with this rating has an authorized label.

CERTIFICATIONS BHM4

All Rixson® pivots and pivot sets are in compliance with ANSI/BHMA A156.4 Standards. See individual products for sub sections.

LIMITED WARRANTY

Rixson pivot sets are warranted for 2 years for defect. See Rixson Price Book for specific details of the limited warranty.

SPECIFICATIONS

All pivots and pivot sets shall be of one manufacturer. All heavy-duty pivots shall have a minimum of 2 bearings internal to the bottom pivot. One shall be a thrust bearing and the other a needle bearing. Separate bearing surfaces shall be in the top pivot. Lead-lined door units and high traffic pivots shall have additional thrust bearing. Fire rated pivot sets shall have steel top pivots. Fire rated doors require steel intermediate pivots.



- Interior Doors
- Weight 150 lbs.
- Door Sizes up to 3'0" x 8'0" x 1-3/4" (914x2438x44mm)
- Handed

Product Description & Features

- 180 top pivot included
- 119 intermediate pivot recommended for all doors over 6'8" (2032mm) (order separately)
- 3/4" (19mm) offset only (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Bottom pivot mounts directly to concrete floor
- 3/8" (10mm) vertical adjustment
- No spindle extensions available
- Door will swing 180°, trim permitting
- Uses same arm and cap as 117 pivot set
- Non-ferrous base metal
- Furnished with wood and metal screws

Optional Features

- Available for 1-1/2" (38mm) offset (door weight 100 lbs.) for doors with cladding or frame molding

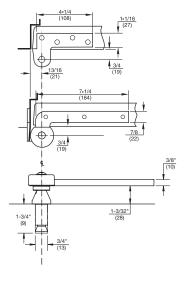
Compliance

- ANSI/C07162/C07202





Technical Information



OFFSET HUNG

Application

- Interior Doors
- Weight to 250 lbs.*
- Door Width up to 3'6" (1067mm)
- Handed

Product Description & Features

- 180 top pivot included
- 119 intermediate pivot recommended (order separately)
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Bottom pivot mortised into side jamb
- Weight of door borne by floor
- Not available for fire-rated doors
- Non-ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Furnished with wood and machine screws

Optional Features

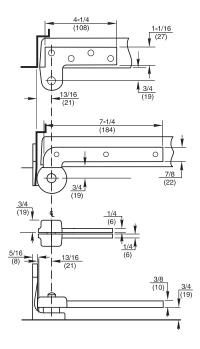
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Compliance

- ANSI/C07172



Technical Information





^{*}Door size & weight guidelines are determined using the appropriate number of intermediate pivots

- Interior Doors
- Weight to 300 lbs.*
- Door Width up to 3'6" (1067mm)
- Handed

Product Description & Features

- 180 top pivot included
- 119 intermediate pivot recommended (order separately)
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2
- Bottom pivot mortised into floor
- Non-ferrous base material
- Doors will swing 180°, trim permitting
- Doors up to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Furnished with wood and machine screws

Optional Features

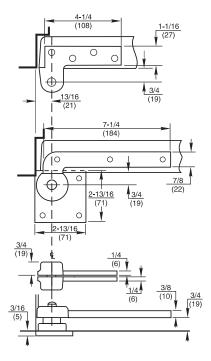
- Available for 1-1/2" (38mm) offset (door weight 150 lbs.) for doors with cladding or frame molding
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Compliance

- Available for fire door assemblies up to three hours specify F117. Intermediate pivot required by UL. Specify FM19 (order separately).
- For 20-minute label suffix "-20" to the part number
- ANSI/C07162/C07202



Technical Information



^{*} Door size & weight guidelines are determined using the appropriate number of intermediate pivots

- Exterior or Interior Doors
- For Doors Without Bottom Pivots
- Weight to 300 lbs.*
- Door Width up to 3'6" (1067mm)
- Handed

Product Description & Features

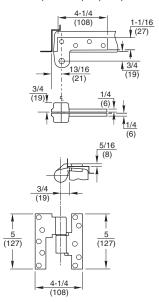
- Set consists of one H180 top pivot and two each M190 intermediate pivots
- Not available for fire door assemblies
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Doors will swing 180°, trim permitting
- Non-ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height have two intermediate pivots. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Furnished with wood and machine screws

Compliance

- ANSI/C07162 (modified)



Technical Information





^{*} Door size & weight guidelines are determined using the appropriate number of intermediate pivots

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

Product Description & Features

- 180 top pivot included
- 119 or M19 intermediate pivots are recommended (order separately)
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Bottom pivot mortised into side jamb
- Pivot set can be vertically adjusted up to 3/16" (5mm) after installation without the use of shims
- Weight of door is borne by floor portion
- Doors will swing 180°, trim permitting
- Non-ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Furnished with wood and machine screws

Optional Features

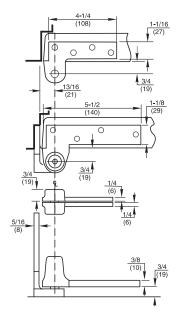
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Compliance

- Available for fire door assemblies up to three hours. Specify F195. Intermediate pivot required by UL. Specify FM19 (order separately)
- ANSI/C07172



Technical Information





^{*} Door size & weight guidelines are determined using the appropriate number of intermediate pivots

OFFSET HUNG

Application

- Exterior or Interior Doors
- For Arch Top Doors or Overhead Concealed Closers
- Weight to 500 lbs.
- Door Width up to 3'6" (1067mm)
- Handed

Product Description & Features

- Set consists of two each M190 intermediate pivots and bottom pivot
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Bottom pivot mounts directly to floor
- Doors will swing 180°, trim permitting
- Non-ferrous base material
- Doors 60" (1524) to 90" (2286mm) in height have two intermediate pivots. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Furnished with wood and machine screws

Optional Features

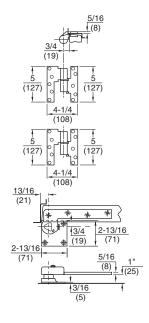
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Compliance

- Available for fire door assemblies up to three hours. Specify F547. Intermediate pivots (FM190) included
- For 20-minute label suffix "-20" to the part number
- ANSI/C07162 (modified)/C07202



Technical Information





- Exterior or Interior Doors
- Weight to 600 lbs.*
- Door Width up to 4'0" (1219mm)
- Handed

Product Description & Features

- 180 top pivot included
- M19 intermediate pivot required (order separately)
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Bottom pivot mounts directly to floor
- Doors will swing 180°, trim permitting
- Uses same arm and cap as 27 floor closer
- Non-ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Furnished with wood and machine screws

Optional Features

- Available for 1-1/2" (38mm) offset (door weight 350 lbs.) for doors with cladding or frame molding
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard

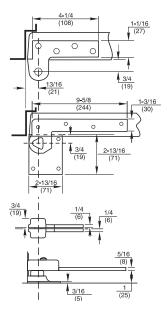
Compliance

- Available for fire door assemblies up to three hours (ferrous material) specify F147. Intermediate pivot required by UL. Specify FM19 (order separately)
- For 20-minute label suffix "-20" to the part number
- ANSI/C07162/C07202





Technical Information



^{*} Door size & weight guidelines are determined using the appropriate number of intermediate pivots

OFFSET HUNG

Application

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

Product Description & Features

- 180 top pivot included
- M19 intermediate pivot required (order separately)
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Bottom pivot mortised into floor
- Doors will swing 180°, trim permitting
- Non-ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Furnished with wood and machine screws

Optional Features

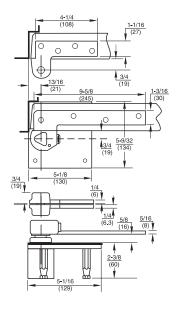
- Available for 1-1/2" (38mm) offset (door weight 350 lbs.) for doors with cladding or frame molding
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Compliance

- Available for fire door assemblies up to three hours (ferrous material) specify F117-1/2
- Intermediate pivot required by UL. Specify FM19 (order separately)
- For 20-minute label suffix "-20" to the part number
- ANSI C07121/C07202



Technical Information





 $^{^{*}}$ Door size & weight guidelines are determined using the appropriate number of intermediate pivots

- Exterior or Interior Doors
- Lead-Lined, Heavy, High Traffic Doors
- Weight to 800 lbs.
- Door Width up to 4'0" (1219mm)
- Handed

Product Description & Features

- L180 top pivot included
- ML19 intermediate pivot required (order separately)
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled 1/8" in 2"
- Bottom pivot mounts directly to floor
- Doors with lead lining under the skin should also use this product.
- Screw holes in top pivot and bottom arm spaced to straddle lead lining in the middle of the door
- Doors will swing 180°, trim permitting
- Non-ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Available to accommodate lead in door thicknesses 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (64mm), or 3" (76mm) specify when ordering
- Furnished with wood and machine screws

Optional Features

- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard

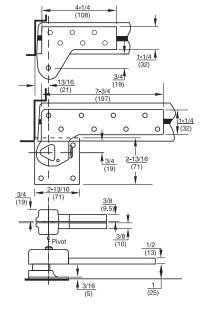
Compliance

- Available for fire door assemblies up to three hours for 1-3/4" (44mm) doors only (ferrous material) specify FL147. Intermediate pivot required by UL. Specify FML19 (order separately)
- For 20-minute label suffix "-20" to the part number
- ANSI/C07162/C07202





Technical Information



1-3/4" door shown



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

Product Description & Features

- L180 top pivot included
- ML19 intermediate pivot required (order separately)
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled in 1/8" in 2"
- Bottom pivot mortised into floor
- Available to accommodate lead in door thicknesses 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (64mm), or 3" (76mm) specify when ordering
- Additional thrust bearing for greater load capacity
- Doors will swing 180°, trim permitting
- Non-ferrous base material for top pivot
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Furnished with wood and machine screws

Optional Features

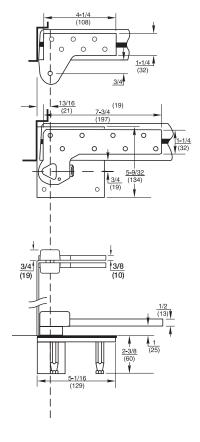
- Extended spindles available in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Compliance

- Available for fire door assemblies up to three hours (ferrous material). Specify FL117. Intermediate pivot required by UL. Specify FML19 (order separately). Note: UL listing for 1-3/4" thick doors only
- For 20-minute label suffix "-20" to the part number
- ANSI/C07111



Technical Information



Pivot for 1-3/4" door shown



 $^{^{}st}$ Door size & weight guidelines are determined using the appropriate number of intermediate pivots

Model 180

Application

- Full Mortise
- Non-handed

Product Description & Features

- Standard top pivot for most offset pivot sets and floor closers
- Oil-impregnated sintered bronze bushing
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Non-ferrous base material
- Furnished with wood and machine screws

Optional Features

- Available for 1-1/2" (38mm) offset
- For extra wide or high traffic prefix "H" H pivots have heavy-duty needle bearings; available in 1-1/2" (38mm) offset
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

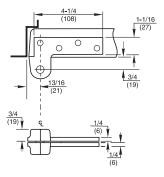
Compliance

- Available for fire door assemblies (ferrous material) specify F180 or FH180
- For 20-minute label suffix "-20" to the part number



Technical Information

(Frame stop required)



Model 180 X 102

Application

- Full Mortise
- Handed

Product Description & Features

- Special top pivot for doors in deep reveals or unusual door details where one leaf is too long for the normal door or frame portion
- Oil-impregnated sintered bronze bushings
- Non-ferrous base metal
- May be inverted
- Furnished with wood and machine screws

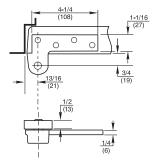
Optional Features

- Available for 1-1/2" (38mm) offset
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only



Technical Information







- Half Surface
- Handed

Product Description & Features

- Flush door and frame application only
- Optional top pivot where door portion cannot be mortised
- 1-3/4" (44mm) door only
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Contact factory if door is not flush
- Non-ferrous base material
- Furnished with wood and machine screws

Optional Features

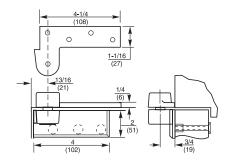
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

Compliance

- Available for fire door assemblies (ferrous material) specify F280
- ANSI/C07501



Technical Information



Model 380

Application

- Half Mortise
- Handed

Product Description & Features

- Flush door and frame application only
- Optional top pivot where jamb portion cannot be mortised
- Designed for channel iron door frames with aluminum, hollow metal or wood doors
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Non-ferrous base material
- Furnished with wood and machine screws

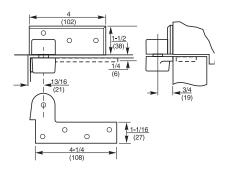
Optional Features

- Door portion from L180 pivot is available if lead-lined doors are used specify L380 and door thickness
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

Compliance

- Available for fire door assemblies (ferrous material) specify F380
- ANSI/C07511







Model 480

Application

- Full Surface
- Handed

Product Description & Features

- Flush door and frame application only
- Optional top pivot where door and jamb portion cannot be mortised
- Designed for channel iron door frames and any door where thru-bolting is advantageous
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- 1-3/4" (44mm) door only
- Non-ferrous base material
- Furnished with wood and machine screws

Optional Features

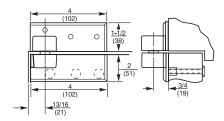
- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

Compliance

- Available for fire door assemblies (ferrous material) specify F480
- ANSI/C07521



Technical Information



Model 680

Application

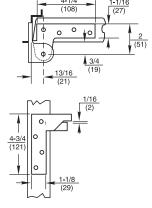
- Side Jamb Mounted
- Frame Portion
- Handed

Product Description & Features

- Used where no frame exists above door, or where it is not possible to anchor pivot into header of frame
- Side jamb portion can be surface mounted or mortised
- Non-ferrous base material
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Door edges must be beveled in 1/8" in 2"
- Furnished with wood and machine screws
- Possible mountings:
- Surface mount jamb; double mortise door
- Mortise jamb, header and door
- Mortise jamb and door



Technical Information





OFFSET HUNG TOP PIVOTS

Application

- Behavioral Health Design
- Full Mortise
- Handed

Product Description & Features

- Standard top pivot for SEC27-180 floor closer packages
- Optional top pivot for institutional use or installations where flat surfaces are objectionable
- Ferrous base material
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Furnished with wood and machine Torx® screws

Optional Features

- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

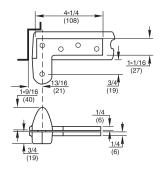
Compliance

- For fire door assemblies



Technical Information

(Frame stop required)



Model L180

Application

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

Product Description & Features

- Standard top pivot for L147, L117 pivots and L27 floor closers
- Doors with lead lining under the skin should also use this product
- Screw holes spaced to straddle lead in the middle of the door
- Available to accommodate lead lined door thicknesses: 1-3/4" (44mm), 2" (51mm), 2-1/4" (57mm), 2-1/2" (64mm), or 3" (76mm) specify when ordering
- 3/4" (19mm) offset (measured from centerline of pivot to face of door)
- Non-ferrous base material
- Furnished with wood and machine screws

Optional Features

- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

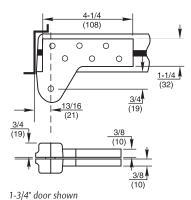
Compliance

- Available for fire door assemblies for 1-3/4" (19mm) doors only (ferrous material). Specify FL180
- For 20-minute label suffix "-20" to the part number



Technical Information

(Frame stop required)



RIXSON

ASSA ABLOY

Model 119

Application

- Full Mortise
- Handed

Product Description & Features

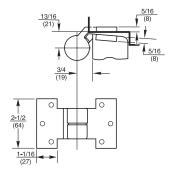
- Not load-bearing
- Maintains door alignment
- Available 3/4" (19mm) offset only
- Door edges must be beveled in 1/8" in 2"
- Used with 117, 117-1/4, 195 pivot sets and 127 and 427 floor closers
- Non-ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) of door height warrants another intermediate pivot
- Furnished with wood and machine screws

Compliance

- ANSI/C07382



Technical Information



Model 219

Application

- Half Surface
- Handed

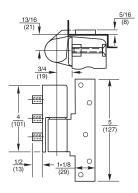
Product Description & Features

- Flush door and frame applications only
- Optional intermediate pivot where door portion cannot be mortised
- Maintains door alignment
- 3/4" (19mm) offset only
- 1-3/4" (44mm) door only
- Door edges must be beveled in 1/8" in 2"
- Non-ferrous base material
- Doors up 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

- ANSI/C07331







- Half Mortise
- Handed

Product Description & Features

- Flush door and frame applications only
- Optional intermediate pivot where jamb portion cannot be mortised
- Maintains door alignment
- 3/4" (19mm) offset only
- Door edges must be beveled in 1/8" in 2"
- Non-ferrous base material
- Doors up 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

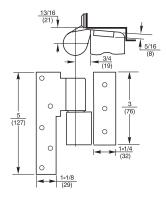
- Door portion from ML19 pivot is available if lead-lined door is used – specify L319 and door thickness

Compliance

- ANSI/C07341



Technical Information



Model 419

Application

- Full Surface
- Handed

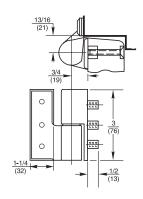
Product Description & Features

- Flush door and frame applications only
- Optional intermediate pivot where door and jamb portion cannot be mortised
- Maintains door alignment
- 3/4" (19mm) offset only
- Non-ferrous base material
- 1-3/4" (44mm) door only
- Doors up 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

- ANSI/C07351







Model FA19

Application

- Full Mortise
- Behavioral Health or High Security Applications
- Handed

Product Description & Features

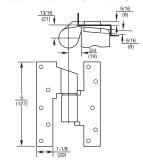
- Optional intermediate pivot for institutional use or installations where flat surfaces are objectionable
- Maintains door alignment
- Aids in installing bottom pivots
- 3/4" (19mm) offset
- Door edges must be beveled in 1/8" in 2"
- Ferrous base material
- Doors 60" (1524mm) to 90" (2286mm) in height should use one intermediate pivot. Each additional 30" (762mm) warrants another intermediate pivot
- Furnished with wood and machine Torx® screws

Compliance

- May be used with fire door assemblies
- ANSI/C07361



Technical Information



Model M19

Application

- Full Mortise
- Handed

Product Description & Features

- Not load-bearing
- Maintains door alignment
- Aids in installing floor closers and bottom pivots
- 3/4" (19mm) offset
- Door edges must be beveled in 1/8" in 2"
- Non-ferrous base metal
- 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

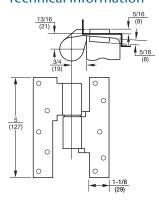
- Available for 1-1/2" (38mm) offset

Compliance

- Available for fire door assemblies (ferrous material) specify FM19
- For 20-minute label suffix "-20" to the part number
- ANSI/C07321/C07371



Technical Information



RIXSON[®] ASSA ABLOY

- Heavy-Duty Full Mortise
- Handed

Product Description & Features

- Used when frame condition does not allow standard top pivot
- Lateral load-bearing
- Maintains door alignment
- Aids in installing floor closers and bottom pivots
- Heavy-duty needle bearing
- 3/4" (19mm) offset standard
- Door edges must be beveled in 1/8" in 2"
- Non-ferrous base metal
- 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

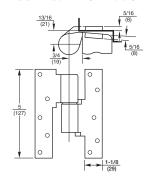
- Available for 1-1/2" (38mm) offset

Compliance

- Available for fire door assemblies (ferrous material) specify FM190
- For 20-minute label suffix "-20" to part number
- ANSI/C07321/C07371



Technical Information



Model ML19

Application

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

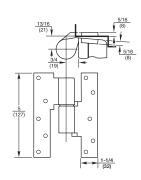
Product Description & Features

- Load-bearing
- Screw holes spaced to straddle lead lining in center of door. Also use on extra heavy or high traffic door
- Maintains door alignment
- Aids in installing closers and pivots
- Door edges must be beveled in 1/8" in 2"
- 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
- Non-ferrous base material
- 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

- Available for fire door assemblies 1-3/4" (44mm) door only specify FML19
- For 20-minute label suffix "-20" to the part number
- ANSI/C07311







Model E-M19

Application

- Offset Hung
- Electric Pivot for Power Transfer
- Handed

Product Description & Features

- Not load-bearing
- Door and jamb portion are factory assembled and cannot be separated
- Always use M19 intermediate pivot to install door
- Specify four, six, eight or twelve wires
- ElectroLynx® option available, suffix "QC#" (number of wires)
- 24-gauge wire is rated at 2 amps for low voltage, Class II wiring applications
- 3/4" (19mm) offset
- Door edges must be beveled in 1/8" in 2"
- Furnished with wood and machine screws

Optional Features

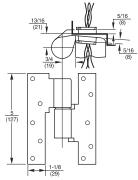
- Available 1-1/2" offset

Compliance

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

Whenever power transfer pivots are used, the leaves must not be separated

Technical Information



Model E-M19U

Application

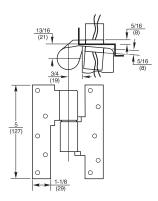
- Offset Hung
- Electric Pivot for Power Transfer
- Handed
- For Electrified Panic Devices with Large Inrush Current

Product Description & Features

- Not load-bearing
- Door and jamb portion are factory assembled and cannot be separated
- Two each 18 gauge wires. Each wire is rated at 2 amps continuously. UL listed for 24-volt, Class I wiring
- ElectroLynx® option not available
- Junction boxes are supplied with pivots
- Not available in ferrous material
- 3/4" (19mm) offset
- Always use M19 intermediate pivot to install door
- Door edges must be beveled in 1/8" in 2"
- Furnished with wood and machine screws

Whenever power transfer pivots are used, the leaves must not be separated







ELECTRIFIED INTERMEDIATE OR SIDE JAMB PIVOTS

Application

- Offset Hung
- Lead Lined or Extra Heavy Doors
- Electric Pivot for Power Transfer
- Handed

Product Description & Features

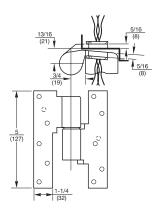
- Not load-bearing
- Door and jamb portion are factory assembled and cannot be separated
- Specify four, six, eight or twelve wires
- ElectroLynx® option available, suffix "QC#" (number of wires)
- 24-gauge wire is rated at 2 amps for low voltage, Class II wiring applications
- 3/4" (19mm) offset
- Available 1-3/4" (44mm) doors only
- Always use ML19 intermediate pivot to install door
- Door edges must be beveled in 1/8" in 2"
- Furnished with wood and machine screws

Compliance

- Available for fire door assemblies (ferrous base material) specify E-FML19
- For 20-minute label, suffix "-20" to the part number

Whenever power transfer pivots are used, the leaves must not be separated







- Pocket Door Pivot
- Non-handed

Product Description & Features

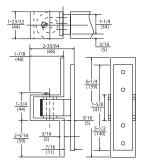
- Full mortise, non-handed pivot for pocket door applications
- Heavy-duty steel pivot with ball bearings
- Allows doors to swing 90°
- Minimum three pocket pivots per door
- Doors 60" (1524mm) to 90" (2286mm) in height require four pocket pivots. Every additional 30" (762mm) of door height warrants another pocket pivot
- Furnished with wood and machine screws

Compliance

- UL listed for all labeled pocket fire-door assemblies up to and including 3 hours
- Fire-rated door assemblies must have been tested with pocket pivots
- ANSI/C07611



Technical Information



Model E-F519

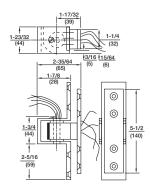
Application

- Pocket Door Pivot
- Electric Pivot for Power Transfer
- Non-handed

Product Description & Features

- Full mortise, non-handed pivot for pocket door applications
- Door and jamb portions are factory assembled and cannot be separated
- Always use as middle pivot
- Available with four wires only
- ElectroLynx® option available, suffix "QC4"
- 24-gauge wire is rated at 2 amps for low voltage, Class II wiring 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. Every additional 30" (762mm) of door height warrants another pocket pivot
- Furnished with wood and machine screws







Model 176

CENTER HUNG

Application

- Interior Doors
- Weight up to 150 lbs.
- Door Sizes up to 3'0" x 8'0" (914x2438mm)
- Door Thickness 1-3/8" to 1-3/4" (34-44mm)
- Non Handed

Product Description & Features

- 320 top pivot included
- Bottom pivot mounts directly into concrete floor
- Pivot point centered in thickness of the door
- Door must have radius on pivot edge
- Not allowed for use on labeled doors and frames
- 3/8" (10mm) vertical adjustment
- No spindle extensions available
- Furnished with wood and machine screws

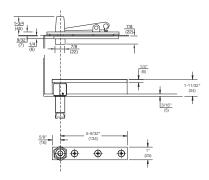
Compliance

- ANSI/C07032

25.



Technical Information



Model 178

Application

- Interior Doors
- Weight to 175 lbs.
- Door Sizes up to 3'0" x 8'0" (914 x 2438mm)
- Non Handed

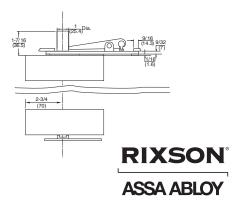
Product Description & Features

- Used on full glass doors
- Doors do not return to center
- Accommodates glass thicknesses 3/8"-1/2" (10-13mm)
- Includes special floor portion, top and bottom patch fittings and walking beam top pivot

Center hung pivots are door hanging means only. To close doors see closer sections of the catalogs.







CENTER HUNG

Application

Model 127-3/4

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

Product Description & Features

- 320 top pivot included
- Bottom pivot mortised into side jamb
- Weight of door borne by floor
- Pivot point centered in thickness of door
- Door must have radius on pivot edge
- Not allowed for use on labeled doors and frames
- Pivot point remains constant at 1-1/4" (32mm) from the edge of the door
- Furnished with wood and machine screws

Optional Features

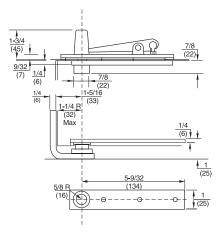
- Available with extended spindles in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Compliance

- ANSI/C07042

Center hung pivots are door hanging means only. To close doors, see floor closer sections of the catalogs.

Technical Information



Model 128-3/4

Application

Identical to the 127-3/4 except

- Weight to 250 lbs.

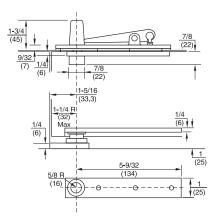
Features

- Bottom pivot mounts directly to floor

Compliance

- ANSI/C07032







Model 370

CENTER HUNG

Application

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

Product Description & Features

- 340 top pivot included
- Bottom pivot mounts directly to floor
- Pivot point centered in thickness of door
- Door must have radius on pivot edge
- Pivot set features sealed bearings for protection against weather and debris
- Not allowed for use on labeled doors and frames
- Furnished with wood and machine screws

Optional Features

- Available with extended spindles in 1/2" (13mm) increments up to 2" (51mm) longer than standard

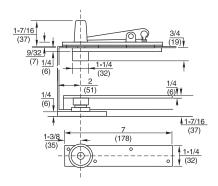
Compliance

- ANSI/CO7032

Center hung pivots are door hanging means only. To close doors, see floor closer sections of the catalogs.



Technical Information



Model 375

Application

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

Product Description & Features

- 345 top pivot included
- Bottom pivot mounts directly to floor
- Pivot point centered in thickness of door
- Door must have radius on pivot edge
- Pivot set features sealed bearings for protection against weather and debris
- Not allowed for use on labeled doors and frames
- Furnished with wood and machine screws

Optional Features

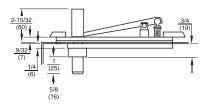
- Available with extended spindles in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Compliance

- ANSI/CO7032

Center hung pivots are door hanging means only. To close doors, see floor closer sections of the catalogs. *For doors taller than 8'6" use top pivot 345 in lieu of 340





For bottom portion see 370 above



^{*}For doors taller than 8'6" use top pivot 345 in lieu of 340

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

Product Description & Features

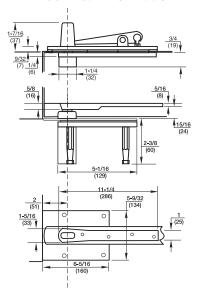
- 340 top pivot included
- Bottom pivot is mortised into floor
- Pivot point centered in thickness of door
- Door must have radius on pivot edge
- Heavy-duty bearings
- Pivot set features sealed bearings for protection against weather and debris
- Not allowed for use on labeled doors and frames
- Furnished with wood and machine screws

Optional Features

- Available with extended spindles in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Center hung pivots are door hanging means only. To close doors, see floor closer sections of the catalogs. *For doors taller than 8'6" use top pivot 345 in lieu of 340







CENTER HUNG

Application

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

Product Description & Features

- H340 top pivot included
- Bottom pivot is mortised into floor
- End load arm for minimum 2" (51mm) thick doors
- Pivot point centered in thickness of door
- Additional surface applied thrust bearing
- Door must have radius on pivot edge
- Pivot point remains constant at 2-3/4" (70mm) from the edge of the door
- Pivot set features sealed bearings for protection against weather and debris
- Not allowed for use on labeled doors and frames
- Furnished with wood and machine screws

Optional Features

- Available with extended spindles in 1/2" (13mm) increments up to 2" (51mm) longer than standard

Compliance

- ANSI/C07011

Center hung pivots are door hanging means only. To close doors, see floor closer sections of the catalogs. *For doors taller than &6" use top pivot H345 in lieu of H340

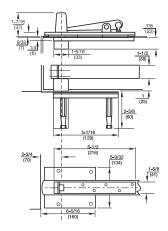
Product Description & Features

Identical to the H117-3/4 except:

- Special side load arm for 1-3/4" (44mm) thick doors or for moving pivot point toward lock edge of door

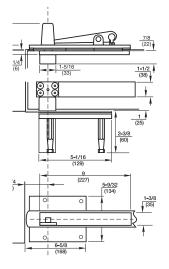


Technical Information



Model H117-3/4 X 587 Arm







Model 320

Application

- Fully Concealed
- Non-handed

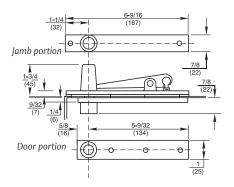
Product Description & Features

- Standard top pivot for Models 127-3/4, 128-3/4, and 176 pivot sets
- Walking beam-type pivot 1/2" (13mm) diameter pivot pin with 3/4" (19mm) engagement
- Oil-impregnated sintered bronze bushing
- Completely concealed when door is closed
- Furnished with wood and machine screws

Optional Features

- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

Technical Information



Model 340

Application

- Fully Concealed
- Non-handed

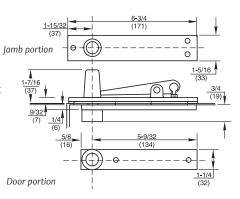
Product Description & Features

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

Optional Features

- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only

Technical Information



Model 340 X 102

Application

- Fully Concealed
- Non-handed

Product Description & Features

- Optional top pivot for doors or frames that have conflicts with other hardware
- Can be inverted. The walking beam portion would be installed the header of the frame
- No finish plate supplied
- If inverted, finish plate should be ordered and priced separately
- Oil-impregnated sintered bronze bushing
- Completely concealed when door is closed
- Furnished with wood and machine screws
- For lighter weight doors use 320 x 102

Optional Features

- Available with longer than standard pivot pins. Increments are 1/4" (6mm) up to 3/4" (19mm)

Technical Information

RIXSON ASSA ABLOY

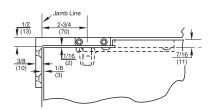
- Surface mounted
- Handed doors up to 3'6" (1067mm) wide

Product Description & Features

- Used where no frame exists above door, or where it is not possible to anchor pivot into header of frame
- Center hung applications only
- Furnished with 340 door portion
- Part is handed to keep installation plate to inside of room or building
- Furnished with wood and machine screws



Technical Information



Model H340

Application

- Fully Concealed
- Heavy-Duty
- Non-handed

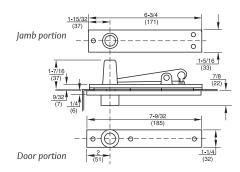
Product Description & Features

- Standard top pivot for Model H117-3/4 pivot set. Also used for H28 and H40 Series floor closers
- Can be used with any floor closer or pivot set with pivot point 2-3/4" (70mm), or greater, from edge of the door
- Walking beam-type pivot 11/16" (17mm) diameter pivot pin with 3/4" (19mm) engagement
- Heavy-duty needle bearing
- Completely concealed when door is closed
- Furnished with wood and machine screws

Optional Features

- Available with longer than standard pivot pins. Increments are 1/4" (6mm), 1/2" (13mm), 3/4" (19mm) only







Model 345

Application

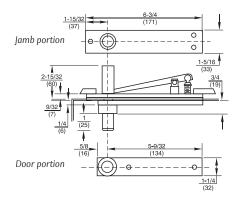
- Fully Concealed
- Center Hung
- Non-handed
- Earthquake Tolerant
- Taller Doors

Product Description & Features

- Optional top pivot
- Ideal for locations where there is a fear of dramatic building settling or for doors over $8'6"\ (2491mm)$ in height
- Long pivot pin engages in top of door 1-3/4" (44mm)
- Can be used with any center hung bottom pivot or floor closer whose pivot point is 2" (50mm), or greater, from the edge of the door.
- Walking beam-type pivot –1/2" (13mm) diameter pivot pin
- Oil-impregnated sintered bronze bushing
- Completely concealed when door is closed
- Furnished with wood and machine screws



Technical Information



Model H345

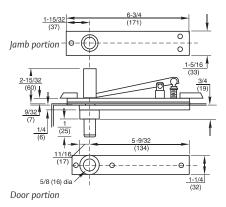
Application

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

Product Description & Features

- Ideal for locations where there is a fear of dramatic building settling or for doors over 8'6" (2591mm) in height
- Long pivot pin engages in top of door 1-3/4"(44mm)
- Can be used with any center hung bottom pivot or floor closer whose pivot point is 2-3/4" (70mm), or greater, from the edge of the door. Order pivot set or floor closer LTP (less top pivot) with H345 on separate line item
- Walking beam-type pivot 11/16" (17mm) diameter pivot pin
- Heavy-duty needle bearing
- Completely concealed when door is closed
- Furnished with wood and machine screws







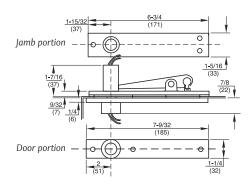
- Center Hung
- Top Pivot for Power Transfer
- Non-handed

Product Description & Features

- Walking beam type pivot –11/16" (17mm) diameter pivot pin with 3/4" (19mm) engagement
- Can be used with any center hung bottom pivot or floor closer. Order the pivot set LTP (less top pivot) with E-H340 as a separate line
- Heavy-duty needle bearing
- Specify two, four, six, eight or twelve wires
- Two-wire is available in 18 gauge and is not available ElectroLynx®
- Four, six, eight and twelve wires are 24 gauge and available in ElectroLynx®. Suffix QC# (number of wires)
- Completely concealed when door is closed
- Furnished with wood and machine screws



Technical Information



Model E-H345

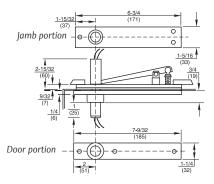
Application

- Fully Concealed
- Center Hung
- Top Pivot for Power Transfer
- Non-handed
- Earthquake Tolerant
- Taller Doors

Product Description & Features

- Walking beam-type pivot 11/16" (17mm) diameter pivot pin
- Longer pivot pin throw engages in top of door 1-3/4" (44mm). Ideal for locations where there is a fear of dramatic building settling
- Can be used with any center hung bottom pivot or floor closer whose pivot point is 2-3/4" (70mm), or greater, from the edge of the door. Order the pivot set LTP (less top pivot) with E-H345 as a separate line
- Used with heavy-duty pivots & floor closers
- Heavy-duty needle bearing
- For doors over 8'6" in height
- Specify two, four, six, eight or twelve wires
- Two-wire is available in 18 gauge and is not available with ElectroLynx®
- Four, six, eight and twelve wires are 24 gauge and available in ElectroLynx®. Suffix QC# (number of wires)
- Furnished with wood and machine screws







PARTS DRAWINGS

Model 173 Pivot Set

(A) Pivot Stud 181770-ASY

(B) Hex Cap 181778-*

(C) 180 Top Pivot

(D) Arm Cap and Screw 12029-*AS

(E) Arm LH 11706L*AS

(E) Arm RH 11705R*AS

Screw Kits

180 Screw Kit

107014 - * Machine (2 req.)

107114 - * Wood (2 req.)

Bottom Arm Screw Kit

173176 Wood and Machine

173 x 1-1/2" Offset

(E) 1-1/2" offset arm LH 11706L15*

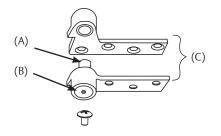
(E) 1-1/2" offset arm RH 11705R15*

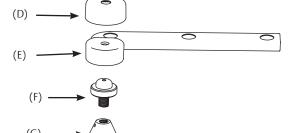
(F) Spindle Stud 173003

(G) Spindle Collar 173001

(H) Mounting Bolt 173002

(I) Floor Anchor 173010









Model 117-1/4 Pivot Set

Right Hand Shown

3/4" Offset Only

(A) Pivot Stud 181770-ASY

(B) Hex Cap 181778-*

(C) 180 Top Pivot

(D) Arm Cap and Screw 12029-*AS

(E) Arm LH 11706LASY

(E) Arm RH 11705RASY

(F) Floor Portion Assy RH 17406R*AS

(F) Floor Portion Assy LH 17406L*AS

Screw Kits

180 Screw Kit

107014 - * Machine (2 req.)

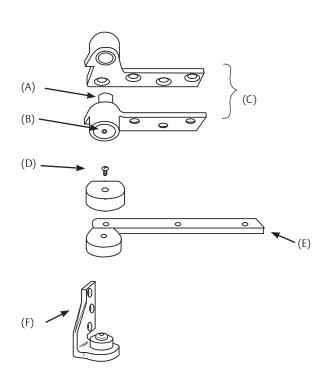
107114 - * Wood (2 req.)

117-1/4 Screw Kit 117127 - *

*specify finish



ASSA ABLOY



Model 117, F117 Pivot Set

PARTS DRAWINGS

Right Hand Shown

3/4" and 1-1/2" Offset

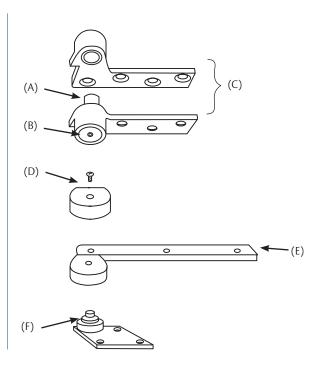
- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-*
- (C) 3/4" Offset Top Pivot Assembly 180 (standard) F180 (Fire Rated) 180-20 (20 minutes)
- (D) Arm Cap and Screw 12029-*AS
- (E) 3/4" Offset Arm LH 11706LASY
- (E) 3/4" Offset Arm RH 11705RASY

117 x 1-1/2 OS

- (E) 1-1/2" Offset Arm LH 11706L15*
- (E) 1-1/2" Offset Arm RH 11705R15*
- (F) 117 Floor Portion Assy 17526-*AS F117 Floor Portion Assy 17559-*AS

Screw Kits

180 Screw Kit 107014 - * Machine (2 req.) 107114 - * Wood (2 req.) Bottom Pivot Screw Kit 117127 -*



Model 195 Pivot Set

Right Hand Shown

3/4" Offset

(A) Pivot Stud 181770-ASY

(B) Hex Cap 181778-*

(C) 3/4" Offset Top Pivot Assembly 180 (standard)F180 (Fire Rated)

- (D) Door Portion Asy RH 19503-*AS
- (D) Door Portion Asy LH 19504-*AS
- (E) Cap 19511-*
- (F) Jamb Portion Asy RH (Includes Stud) 19501-*AS
- (F) Jamb Portion Asy LH (Includes Stud) 19502-*AS

Screw Kits

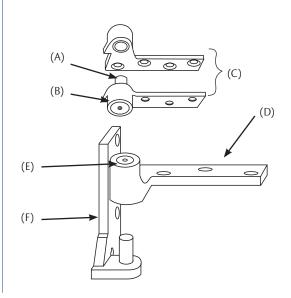
180 Screw Kit

107014 - * Machine (2 req.) 107114 - * Wood (2 req.)

195 Screw Kit

107014 - * Machine (2 req.)

107114 - * Wood (2 req.)



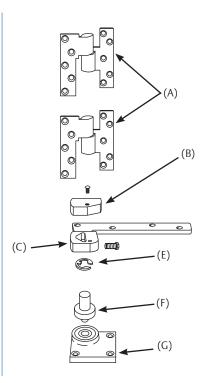


Model 547/F547 Pivot Set

Right Hand Shown

3/4" Offset Only

- (A) M190 Intermediate Pivot (For Fire-Rated Doors order FM190)
- (B) Arm Cap & Screw 012142R*AS (RH, BRS) 012142L*AS (LH, BRS) 012144R*AS (RH, SS) 012144L*AS (LH, SS)
- (C) Arm x Locking Screw 275177RH 275176LH
- (D) Arm x Locking Screw Pkg (5 per) 88905-PKG
- (E) Arm Shim Kit (2 per) 107071
- (F) Spindle Stud 14714
- (G) 147 Floor Portion x Bearing 14721-*AS





PARTS DRAWING

Right Hand Shown

3/4" and 1-1/2" Offset

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-*
- (C) 3/4" Offset Top Pivot Assembly 180 (standard) F180 (Fire Rated) 180-20 (20 minutes)
- (D) Arm Cap & Screw 012142R*AS (RH, BRS) 012142L*AS (LH, BRS) 012144R*AS (RH, SS) 012144L*AS (LH, SS)
- (E) Arm x Locking Screw 3/4" Offset 275177 RH 3/4" Offset 275176 LH

147 & F147 1-1/2 OS

- (E) Arm x Locking Screw 1-1/2" Offset 275167-*
- (F) Arm Lock Screw Pkg (5 per) 88905-PKG
- (G) Arm Shims (2 per) 107071
- (H) Spindle Stud 14714
- (I) 147/F147 Floor Portion x Bearing 14721-*AS

Screw Kits

180/F180 Screw Kit 107014 - * Machine (2 req.) 107114 - * Wood (2 req.)

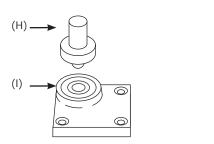
Arm Screw Kit

107044 Machine

107144 Wood

147/F147 Bottom Pivot Screw Kit (includes "E" ring shims) 107062-*

⁽A) (B) (C) (E) (G) (F)





^{*}specify finish

Model 117-1/2, F117-1/2 Pivot Set

Right Hand Shown

3/4" and 1-1/2" Offset

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-*
- (C) 3/4" Offset Top Pivot Assembly 180 (standard)F180 (Fire Rated)180-20 (20 minutes)
- (D) Arm Cap & Screw 012142R*AS (RH, BRS) 012142L*AS (LH, BRS) 012144R*AS (RH, SS) 012144L*AS (LH, SS)
- (E) Arm x Locking Screw 3/4" Offset 275177 RH 3/4" Offset 275176 LH
- (F) Arm Lock Screw Pkg (5 per) 88905-PKG
- (G) Arm Shim Kit (5 per) 275065-PKG
- (H) Spindle Shoulder Collar 16301*
- (I) Floor Plate x Screws 1174050-*
- (J) 117-1/2 & F117-1/2 Floor Portion Assembly X01176350

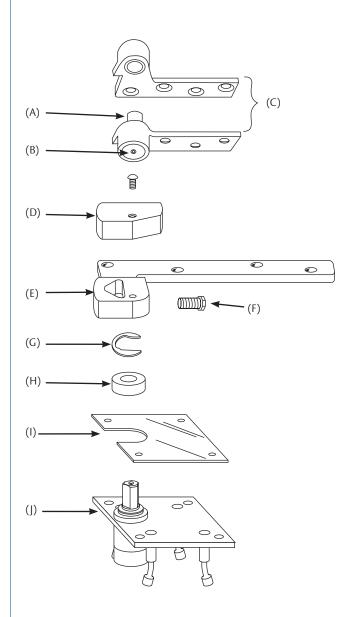
1-1/2" Offset Arm 275167-*

Screw Kits

180/F180 Screw Kit 107014 - * Machine (2 req.) 107114 - * Wood (2 req.) Floor Plate Screw Kit 107004-*

Arm Screw Kit

107044 - * Machine 107144 - * Wood





Model L147, FL147 Pivot Set

Right Hand Shown

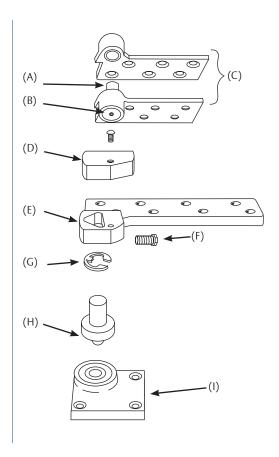
3/4" Offset Only

- (A) Pivot Stud 181770-ASY
- (B) Hex Cap 181778-*
- (C) 3/4" Offset Top Pivot Assembly L180 (standard) FL180 (Fire Rated) L180-20 (20 minutes)
- (D) Arm Cap & Screw 012142R*AS (RH, BRS) 012142L*AS (LH, BRS) 012144R*AS (RH, SS) 012144L*AS (LH, SS)
- (E) Arm x Locking Screw 1-3/4" Door 18550-Asy RH 18650-Asy LH
- (E) Arm x Locking Screw
 2" Door 18551-Asy RH
 18651-Asy LH
- (E) Arm x Locking Screw 2-1/4" Door 18552-Asy RH 18652-Asy LH
- (E) Arm x Locking Screw
 2-1/2" Door 18553-Asy RH
 18653-Asy LH
- (E) Arm x Locking Screw
 3" Door 18554-Asy RH
 18654-Asy LH
- (F) Arm Lock Screw Pkg (5 per) 88905-PKG
- (G) Arm Shims (2 per) 107071
- (H) Spindle Stud 14714
- (I) L147 Floor Portion x Bearing 14721-*AS

Screw Kits

180/F180 Screw Kit 107016 - * Machine (2 req.) 107116 - * Wood (2 req.) Arm Screw Kit 107048 Machine (2 req.) 107144 Wood (2 req.) L147/F147 Bottom Pivot Screw Kit (includes "E" ring shim) 107062-*

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





Model L117, FL117 Pivot Set

Right Hand Shown

3/4" Offset Only

(A) Pivot Stud 181770-ASY

(B) Hex Cap 181778-*

(C) 3/4" Offset Top Pivot Assembly L180 (standard)FL180 (Fire Rated)L180-20 (20 minutes)

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

(D) Arm Cap & Screw 012142R*AS (RH, BRS) 012142L*AS (LH, BRS) 012144R*AS (RH, SS) 012144L*AS (LH, SS)

(E) Arm x Locking Screw
1-3/4" Door 18550-ASY RH
18650-ASY LH

(E) Arm x Locking Screw
2" Door 18551-ASY RH
18651-ASY LH

(E) Arm x Locking Screw
2-1/4" Door 18552-ASY RH
18652-ASY LH

(E) Arm x Locking Screw
2-1/2" Door 18553-ASY RH
18653-ASY LH

(E) Arm x Locking Screw
3" Door 18554-ASY RH
18654-ASY LH

(F) Arm Lock Screw Pkg (5 per) 88905-PKG

(G) Arm Shim Kit (5 per) 275065-PKG

(H) Spindle Shoulder Collar 259500-*

(I) Heavy-Duty Thrust-Bearing 41204-PKG

(I) Floor Plate x Screws 1174050-*

(K) Floor Portion Assembly X01176351 Includes 41204-PKG

Screw Kits

L180/FL180 Screw Kit

107016 - * Machine (2 req.) 107116 - * Wood (2 req.)

Arm Screw Kit

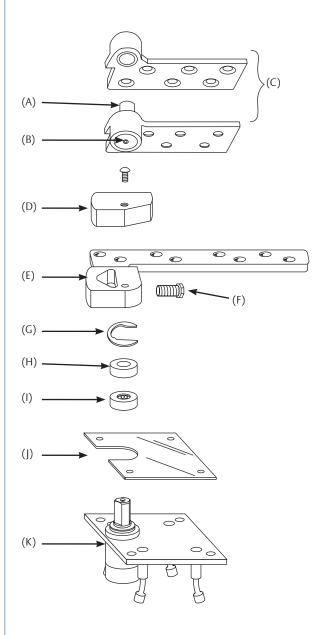
107048 - * Machine (2 req.)

107114 - * Wood (2 req.)

Floor Plate Screw Kit

107004 - * Machine (2 req.)

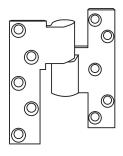
Special Note: FL117 is available for 1-3/4" doors only





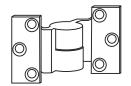
M19, M190, ML19, FA19, 219, 319, FM19, FM190, All Electrified M19 Intermediate Pivots

Model	Description
107015-*	Metal Screws for One Leaf
107115-*	Wood Screws for One Leaf
181778-*	Hex Cap
219, 319 and 419 Also Use:	
107059-*	Includes Screws and Backplate
	Torx® Available - Suffix "T"



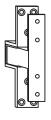
Model 119 Intermediate Pivot

Model	Description
107014-*	Metal Screws for One Leaf
107114-*	Wood Screws for One Leaf
	Torx® Available - Suffix "T"



Model F519 Pocket Pivot

Model	Description
619005-*	Screw Kit
	Torx® Available





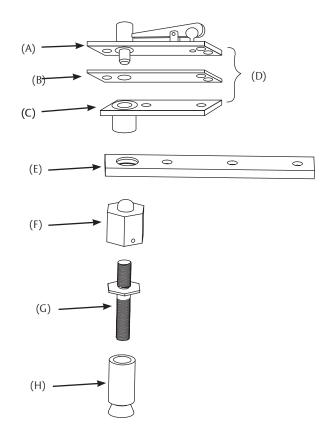
Model 176 Pivot Sets

- (A) Top Pivot Jamb Portion 640-ASY
- (B) Top Pivot Plate x Screws 12724-*PK (SS) 12720-*PK (BRG)
- (C) Top Pivot Door Portion 12716
- (E) Bottom Arm 12704
- (F) Sleeve 176001
- (G) Mounting Bolt 176002
- (H) Floor Anchor 173010

Screw Kits

320 Screw Kit 107340 Machine and Wood Bottom Arm Screw Kit

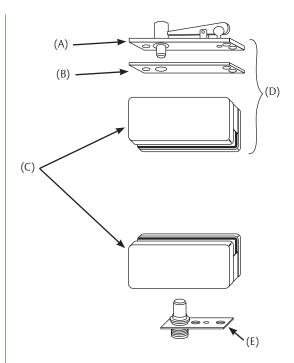
173176 Machine and Wood



Model 178 Pivot Sets

- (A) Top Jamb Portion 42801
- (B) Finish Plate 012202-*PK (BRS) 012204-*PK (SS)
- (C) Patch Fitting 7495-*
- (D) Top Patch 7494-* PK
- (E) Bottom Pivot Floor Portion 74104

Top Pivot Screw Kit 107329





Model 127-3/4 & 128-3/4 Pivot Sets

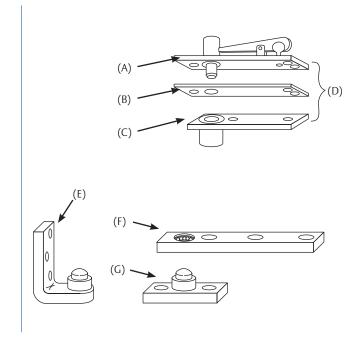
PARTS DRAWING

- Top Pivot Jamb Portion 640-ASY
- Top Pivot Plate x Screws 12724-*PK (SS) 12720-*PK (BRS)
- (C) Top Pivot Door Portion 12716
- (D) 320 Top Pivot
- Jamb Portion & Stud Assembly 127-3/4 Only 12711-*
- (F) Arm & Bearing Assembly 12714 Door Portion
- (G) Floor Pivot & Stud Assembly 128-3/4 Only 71521-*AS

Screw Kits

320 Screw Kit 107340 Machine & Wood 127-3/4 & 128-3/4 Screw Kit 117127-*

*specify finish





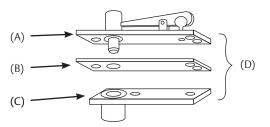
46

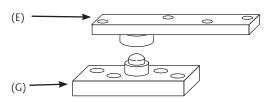
Model 370 Pivot Set

- (A) Top Pivot Jamb Portion 3065
- (B) Finish Plate x Screws 012202-*PK (BRS) 012204-*PK (SS)
- (C) Top Pivot Door Portion 30243
- (D) 340 Top Pivot
- (E) Arm 22131
- (G) Floor Portion and Stud 22121-*

Screw Kits

340 Top Pivot Screw Kit 107329 Machine & Wood 370 Floor Portion 107370-*





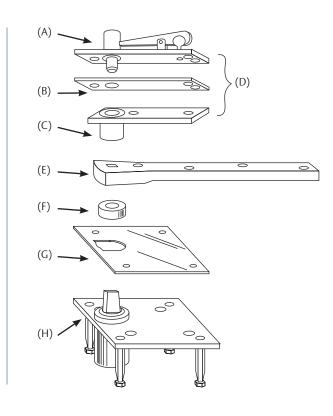
Model 117-3/4 Pivot Set

- (A) Top Pivot Jamb Portion 3065
- (B) Top Pivot Finish Plate 012202-*PK (BRS) 012204-*PK (SS)
- (C) Top Pivot Door Portion 30243
- (D) 340 Top Pivot
- (E) Arm 185.75
- (F) Spindle Shoulder Collar 16301*
- (G) Floor Plate x Screws 1174020-*
- (H) Floor Portion Assembly X01176320

Screw Kits

340 Top Pivot Screw Kit 107329 Machine & Wood Floor Plate Screws 107004-* Machine & Wood Arm Screw Kit 107064





Model H117-3/4 Pivot Set

PARTS DRAWING

- (A) Top Pivot Jamb Portion 308548
- (B) Top Pivot Finish Plate 012202-*PK (BRS) 012204-*PK (SS)
- (C) Top Pivot Door Portion 30141
- (D) 340 Top Pivot
- (E) Standard End Load Arm Package 262022
- (F) Spindle Shoulder Collar 259500-*
- (G) Heavy-Duty Thrust Bearing 41204-PKG
- (H) 587 Side Load Arm Package 262587
- (I) Floor Plate x Screws 1174020-*
- (J) Floor Portion Assembly X01176322 Includes 41204-PKG

Screw Kits

H340 Screw Kit

107329 Machine & Wood

Arm Screw Kit

107045 - Machine

107145 - Wood

587 Arm Screw Kit

107077 Machine

107177 Wood

Arm Shim Screw Kit 107060

Floor Plate Screw Kit

107004-*

*specify finish

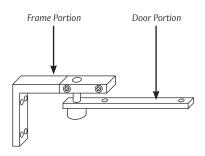
RIXSON° ASSA ABLOY

PARTS DRAWINGS

Angle Pivot-3

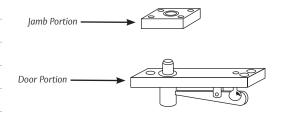
Model Description	
107047*	Includes Screws and Stud
30243	Door Portion
30814**	Frame Portion (handed)

Torx® not available.



Top Pivot 340 X 102 or 320 X 102

Model	Description
10210 AS	Jamb Portion
3065	Door Portion
640-ASY	Door Portion (320 x 102)
107012*	Jamb Portion Screw Kit
107329	Door Potion Screw Kit



Torx® not available.



Prefix	L147 Model 	3/4" Offset 	x LTP x 2-1/4 dr Suffix	x RH Hand 		x 626 Finish
F Fire-Rated Doors	117-1/4 117 173 147 L147 547 165 195 117-1-1/2 L117 127-3/4 128-3/4 370 117-3/4 H117-3/4 176	3/4" 1-1/2" Blank - Center Hun	587 CH Arm for 1-3/4" Dr - Extended Spindles - Longer Top Pivot Pins LTP Less Top Pivot -20 20-Minute Label - Cover Pan (xDepth) SPLO Special Layout # - Door Thickness - L Product	RH Right Hand LH Left Hand Blank - Center Hung	606 611 612 613 613E 618 619 622 625 626 BSP	Bright Brass Satin Brass Bright Bronze Satin Bronze Dark Bronze Dark Oxidized Satin Bronze - equivalent Bright Nickel Satin Nickel Flat Black Bright Chrome Satin Chrome Black Suede Powder White Suede Powder



OFFSET HUNG PIVOT SETS

	173	117-1/4	117	165	195	547	147	117-1/2	L147	L117
Application	Standard	Standard	Standard	For doors without bottom pivots	Standard	Arch top doors or overhead concealed closers	Standard	Standard	Lead lined, heavy or high traffic doors	Lead lined, heavy or high traffic doors
3/4" offset standard	•	•	•	•	•	•	•	•	•	•
1-1/2" offset optional ¹	•		•				•	•		
Handed	•	•	•	•	•	•	•	•	•	•
Exterior door				•	•	•	•	•	•	•
Interior door	•	•	•	•	•	•	•	•	•	•
Door weight	150 lbs.	250 lbs.	300 lbs.	300 lbs.	450 lbs.	500 lbs.	600 lbs.	650 lbs.	800 lbs.	1750 lbs.
Maximum door swing ²	180°	180°	180°	180°	180°	180°	180°	180°	180°	180°
Maximum door width	36"	42"	42"	42"	48"	42"	48"	48"	48"	48"
1-3/4" Standard door thickness	•	•	•	•	•	•	•	•	•	•
Optional door thicknesses available ³									•	•
Standard top pivot (included)	180	180	180	H180	180	N/A	180	180	L180	L180
Intermediate pivot (order separately)	119	119	119	(2) M190's included	119 or M19	(2) M190's included	M19	M19	ML19	ML19
Bottom pivot mounting	Mounts directly to concrete floor	Mortised into side jamb	Mortised into floor	N/A	Mortised into side jamb	Mounts directly to floor	Mounts directly to floor	Mortised into floor	Mounts directly to floor	Mortised into floor
Extended spindles available ⁴		•	•	N/A	•	•	•	•	•	•
Optional Features			F, -20		F	F, -20	F, -20	F, -20	F, -20	F, -20
Furnished with wood and machine screws		•	•	•	•	•	•	•	•	•

¹ Door weight is less when 1-1/2" offset is ordered

Options	Designation
Fire Rated	F
20 minute label	-20



² Trim permitting 3 Can accommodate the following door thicknesses: 2", 2-1/4", 2-1/2" or 3". Specify when ordering

^{4 1/2&}quot; increments up to 2"

PRODUCT COMPARISON CHARTS

INTERMEDIATE PIVOTS

	119	219	319	419	FA19	M19	M190	ML19
Application	Standard	Flush door and frame applications	Flush door and frame applications	Flush door and frame applications	Asylum or high security	Standard	Use when frame conditions do not allow standard top pivot	Lead-lined, heavy or high traffic
3/4" offset standard	•	•	•	•	•	•	•	•
1-1/2" offset optional						•	•	
Handed	•	•	•	•	•	•	•	•
Standard door thickness	1-3/4"	1-3/4" only	1-3/4"	1-3/4" only	1-3/4"	1-3/4"	1-3/4"	1-3/4"
Optional door thicknesses available ¹								•
Mounting	Full mortise	Half surface	Half mortise	Full surface	Full mortise	Full mortise	Heavy-duty full mortise	Full mortise
Maintains door alignment	•	•	•	•	•	•	•	•
Load bearing							Lateral load bearing	•
Heavy-duty needle bearing							•	
Optional Features					F is standard	F, -20	F, -20	F, -20
Furnished with wood and machine screws	•	•	•	•	•	•	•	•

¹ Can accommodate the following door thicknesses: 2", 2-1/4", 2-1/2" or 3". Specify when ordering.

Options	Designation
Fire Rated	F
20 minute label	-20



ELECTRIFIED INTERMEDIATE PIVOTS

	E-M19 ^{1,3}	E-M19U ²	E-ML19 ^{1,4}
Application	Electric Pivot for Power Transfer	Electric Pivot for Power Transfer and for Electrified Panic Devices with Large Inrush Current	Electric Pivot for Power Transfer
3/4" offset standard	•	•	•
1-1/2" offset optional	•		
Handed	•	•	•
Standard door thickness	1-3/4"	1-3/4"	1-3/4" only
Available wires	4, 6, 8 or 12 (24 gauge)	2 (18 gauge)	4, 6, 8 or 12 (24 gauge)
Non-load bearing	•	•	•
Options	F, -20, QC		F, -20, QC
Furnished with wood and machine screws	•	•	•

Note: Door and jamb portion are factory assembled and cannot be separated

- 24-gauge wire is rated at 2 amps for low voltage, Class II wiring applications
 18-gauge wire is rated at 2 amps continuously. UL listed for 24-volt, Class I wiring
 Always use M19 intermediate pivot to install door
 Always use ML19 intermediate pivot to install door

Options	Designation
Fire Rated	F
20 minute label	-20
ElectroLynx®	QC



CENTER HUNG PIVOT SETS

	176	178	127-3/4	128-3/4	370	375	117-3/4	H117-3/4	H117-3/4 x 587 Arm
Application	Standard	Full glass doors	Standard	Standard	Standard	Standard	Standard	Heavy- Duty	Heavy- Duty
Non-Handed	•	•	•	•	•	•	•	•	•
Exterior door					•	•	•	•	•
Interior door	•	•	•	•		•			
Door weight	150 lbs.	175 lbs.	200 lbs.	250 lbs.	500 lbs.	500 lbs.	600 lbs.	1000 lbs.	1000 lbs.
Maximum door width	36"	36"	42"	42"	44"	44"	48"	48"	48"
Standard door thickness	1-3/8" to 1-3/4"	3/8" – 1/2" glass	1-3/4"	1-3/4"	1-3/4"	1-3/4"	1-3/4"	2"	1-3/4"
Standard top pivot (included)	320	N/A	320	320	340	345	340	H340	H340
Bottom pivot mounting	Mounts directly into concrete floor	Mounts directly to floor	Mortised into side jamb	Mounts directly to floor	Mounts directly to floor	Mounts directly to floor	Mortised into floor	Mortised into floor	Mortised into floor
Extended spindles available ¹			•	•	•	•	•	•	•
Furnished with wood and machine screws	•		•	•	•	•	•	•	

^{1-1/2&}quot; increments up to 2"





The ASSA ABLOY Group is the global leader in access solutions. Every day, we help billions of people experience a more open world.

ASSA ABLOY Opening Solutions leads the development within door openings and products for access solutions in homes, businesses and institutions. Our offering includes doors, frames, door and window hardware, locks, perimeter fencing, access control and service.



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