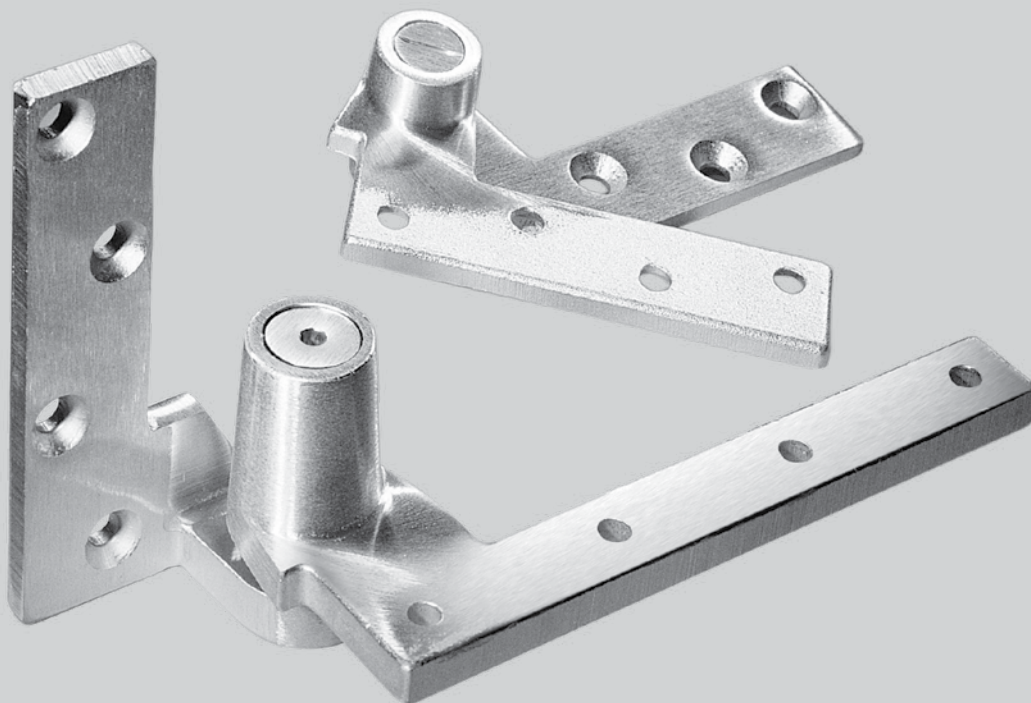


LM Pivot Sets & Components



LM Pivot Sets & Components

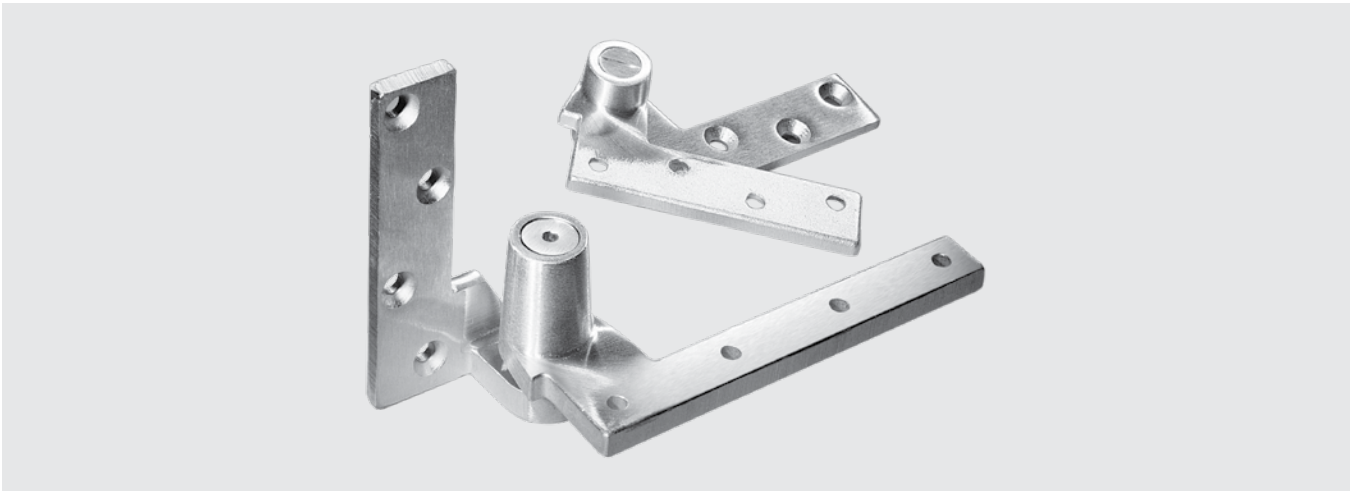
Applications & Listings

- 2 Overview
- 3 Technical Details & Specifications
- 4 Applications/Application Drawings
- 9 Component Drawings
- 16 Pocket Pivots

dormakaba USA quality and environmental management systems in Reamstown, PA and Steeleville, IL are certified to ISO 9001:2015 and ISO 14001:2015.



LM Series



LM Series pivots support door weight effectively in a variety of applications and finishes to complement surrounding decor.

LM Series pivots using brass and steel are designed for long life and trouble-free operation. Each pivot and pivot set meets our exacting specifications for support of rated and non-rated high-traffic interior and exterior openings, extra-heavy doors, or lead-lined doors.

Pivots for 20 minute and 3 hour fire-rated doors comply with applicable codes.

LM pivots span a wide variety of styles and applications that can interface with other dormakaba products on wood, aluminum, or hollow metal doors and frames. They can also be used on doors of special design such as paneled doors, and doors of unusual weight, thickness, or material. Durable and long lasting, LM Series pivots and pivot sets accommodate doors weighing up to 1000 lb. Pivot sets are available for center hung, 3/4" offset, and 1-1/2" offset. Components are offered for center hung, 3/4"

offset, 1-1/2" offset, and pocket pivot applications. Floor bearings with numerous spindle heights are available to accommodate an array of bottom door clearances.

Center Hung walking beam top pivots and bottom arms are mortised into the door. Floor bearings are surface applied or grouted into the floor, depending on which pivot set/floor bearing is used. Pivot sets are available for doors weighing from 200 lb to 660 lb. Heavy-duty versions are available for doors up to 1000 lb. Center hung pivots and pivot sets can be

single-acting (must use an applied stop) or double-acting.

3/4" Offset Pivots and pivot sets are available for non-rated and fire-rated applications. Pivot sets use full mortise pivots. Optional intermediate pivots are recommended for use with pivot sets. Side jamb bottom arm is available for conditions where floor preparation is not desired. Lead-lined door pivots and pivot sets are available for varying door thicknesses.

1-1/2" Offset Pivots and pivotsets are available for non-rated and fire-rated applications. All pivots are full-mortise. Optional intermediate pivots are recommended for use with pivot sets.

Pocket Pivots are available for non-rated and fire-rated openings that require the door to open 90° into a pocket and flush with the frame rabbet and adjacent wall.

Technical Details

- Center hung, 3/4" offset, 1-1/2" offset, and pocket door pivots available.
- Pivots standard design includes needle bearings with hardened pins for durability and long life.
- 3/4" and 1-1/2" offset versions available for flush and 1/8" inset door and frame conditions. Flush versions are standard.
- Pivot sets are available for nonrated, 20 minute rated, and up to 3 hour fire-rated applications.
- Intermediate pivots are recommended with offset pivot sets.

- Pivot sets available for leadlined doors weighing up to 800 lb. Can also be used on non lead-lined doors.
- Lead-lined door pivots available for varying door thicknesses. The hole pattern in the pivots is staggered to straddle the lead in the center of the door.
- Pocket pivots available for 90° pocket door applications that require the door to be flush with an adjacent wall.
- Pivots and pivot sets furnished standard with all machine screws. Half or all wood screw options available.

Certification

- UL and CUL listed under their continuing reinspection programs.
- Certified to the requirements of ANSI/BHMA A156.4.



Specifications

LM Series pivots are produced from brass or steel for interior and exterior non-rated and fire-rated doors. Top pivots and bottom arms will be

center hung, 3/4" or 1-1/2" offset. Intermediate pivots will be 3/4" or 1-1/2" offset. Side jamb bottom pivot will be 3/4" offset. Top and intermediate pivots will be full mortise configurations. Bottom arms and side jamb pivot will be mortised. Pivots can be substituted within a pivot set, assuming the offset is the same. Offset 3/4" and 1-1/2" top pivots are available for doors that are inset 1/8" from the frame face while standard intermediate and bottom arms are templated accordingly. Center hung pivots will accommodate double-acting and single-acting doors. Center hung single-acting doors will use an applied stop. Pocket pivots will accommodate doors opening 90° that must be flush with an adjacent wall. All pivots and pivot sets will incorporate needle bearings and lubricated hardened steel pivot pins treated to prevent corrosion. All pivots and pivot sets will be available in a variety of finishes.

Finishes

Plated Finishes

- Primed for Painting: 600
- Brass: 605 (Bright) or 606 (Satin)
- Bronze: 611 (Bright), 612 (Satin), or 613 (Oxidized Satin Oil Rubbed)
- Nickel: 618 (Bright) or 619 (Satin)
- Chrome: 625 (Bright) or 626 (Satin)

Sprayed Finishes

- Aluminum: 689
- Bronze: 691 (Dull), 690 (Statuary), or 695 (Dark Duranodic)
- Gold: 696
- Black: 693

Optional Custom Color or Designer Color Finishes

Contact Customer Service.

Warranty

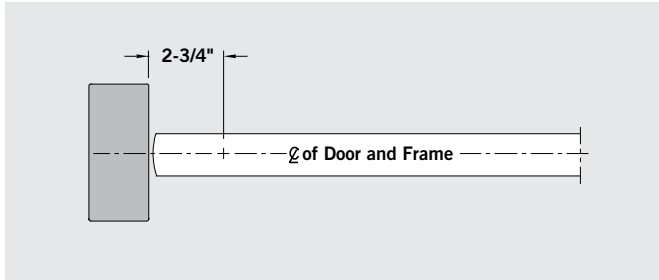
For details, refer to Limited Warranty on our website at go.dormakaba.com/Terms-DA

ANSI Conversion Chart

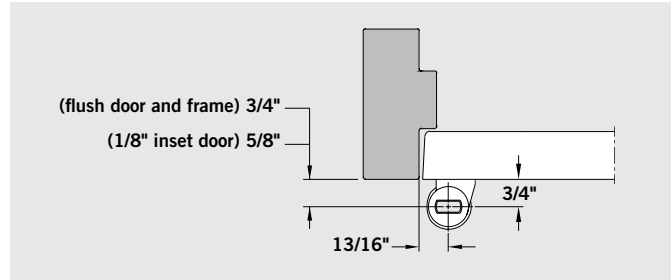
ANSI #	ANSI Requirement/Function	LM Pivot Sets	LM Pivots
CO7011	Center pivoted, 1000 lb door max	CP1000	—
CO7021	Center pivoted, 250 lb door max	CP660	—
CO7032	Center pivoted, 150 lb door max	CP440, CPA440	—
CO7121	Offset pivoted, 250 lb door max	OPH750, OP1550	—
CO7131	Offset pivoted, side jamb bottom pivot, 250 lb door max	OPJ350	—
CO7162	Offset pivoted, 150 lb door max	OP440, OPL440, OP15200	—
CO7172	Offset pivoted, side jamb bottom pivot, 150 lb door max	OPJ350	—
CO7202	Offset pivoted, labeled fire doors, 150 lb door max	OPF440, OPLF440, OPF15200	—
CO7311	Offset pivoted, lead-lined intermediate pivot	—	75240
CO7321	Offset pivoted, intermediate pivot	—	75220, 15220
CO7371	Offset pivoted, intermediate pivot, labeled fire doors	—	75233, 15233
CO7382	Offset pivoted, full mortise intermediate pivot (light-duty)	—	75210

Applications

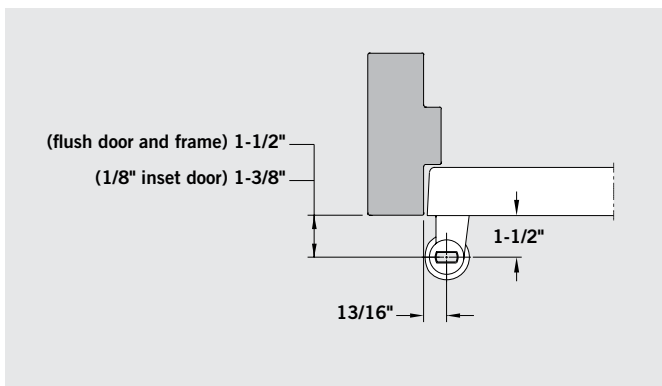
Center Hung—Single or Double Acting



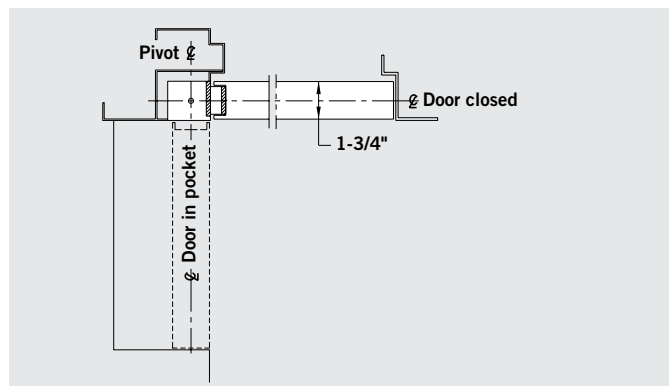
3/4" Offset Hung—Single Acting



1-1/2" Offset Hung—Single Acting



90° Pocket Pivot Hung



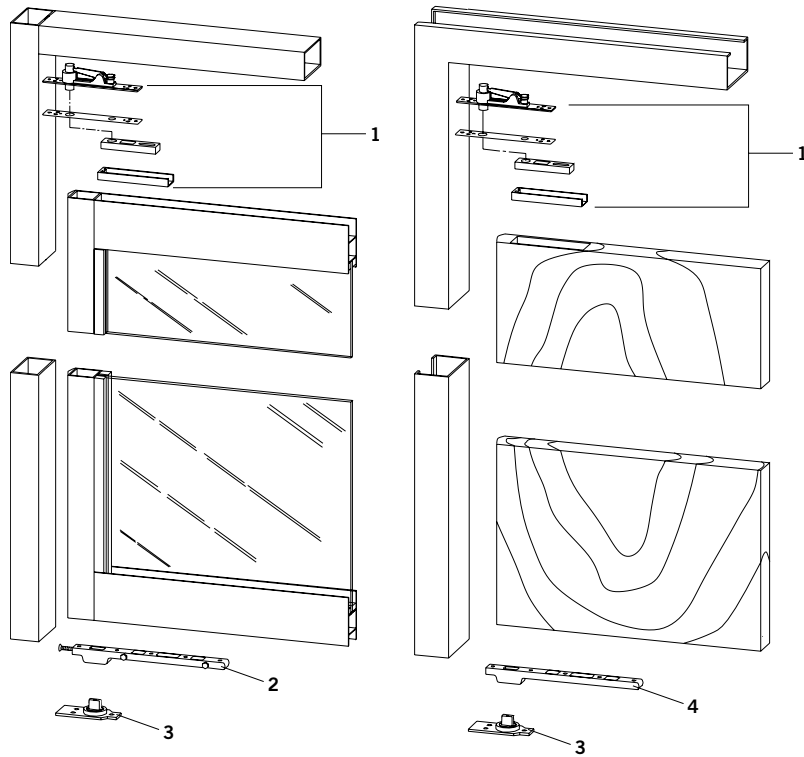
Pivot Set Selection Chart

Pivot Set	Application	Max. Door Width	Max. Door Weight	Fire Rated	Center Hung Double-Acting	Offset Hung Single-Acting
OP440	3/4" offset standard	4'-0"	440 lb	—	—	✓
OPF440	3/4" offset, up to 3 hour fire rated	4'-0"	440 lb	✓	—	✓
OPJ350	3/4" offset side jamb	4'-0"	350 lb	—	—	✓
OPH750	3/4" offset heavy duty	4'-0"	750 lb	—	—	✓
OPHF750	3/4" offset heavy duty, up to 3 hour fire rated	4'-0"	750 lb	✓	—	✓
OPL440	3/4" offset lead-lined	4'-0"	440 lb	—	—	✓
OPL800	3/4" offset lead-lined	4'-0"	800 lb	—	—	✓
OP15200	1-1/2" offset	3'-6"	200 lb	—	—	✓
OP15500	1-1/2" offset heavy-duty	4'-0"	500 lb	—	—	✓
OPF15200	1-1/2" offset, up to 3 hour fire rated	3'-6"	200 lb	✓	—	✓
OPF15500	1-1/2" offset heavy-duty, up to 3 hour fire rated	4'-0"	500 lb	✓	—	✓
CP440	Center hung, wood or steel door	4'-0"	440 lb	—	✓	—
CPA440	Center hung, aluminum door	4'-0"	440 lb	—	✓	—
CP660	Center hung, medium duty, wood or steel door	4'-0"	660 lb	—	✓	—
CP1000	Center hung heavy-duty, wood or steel door	6'-0"	1000 lb	—	✓	—

All bottom arms and floor bearings, excluding the 75320 side jamb pivot, can be used on fire doors. Top and intermediate pivots for 20 minute rated and up to 3 hour rated doors can be assembled with a bottom arm and floor bearing of common application to create specialty fire rated sets. See component drawings for specific details on the standard, fire rated, lead-lined, and electrified components and their compatibility in the various applications.

NFPA 80 requires that labeled fire doors up to 60" in height be provided with 2 pivots and an additional pivot for each 30" of door height or fraction thereof. The same recommendation applies for non-labeled doors. Distance between pivots may exceed 30".

Center Hung — Single or Double Acting



CPA440 Pivot Set

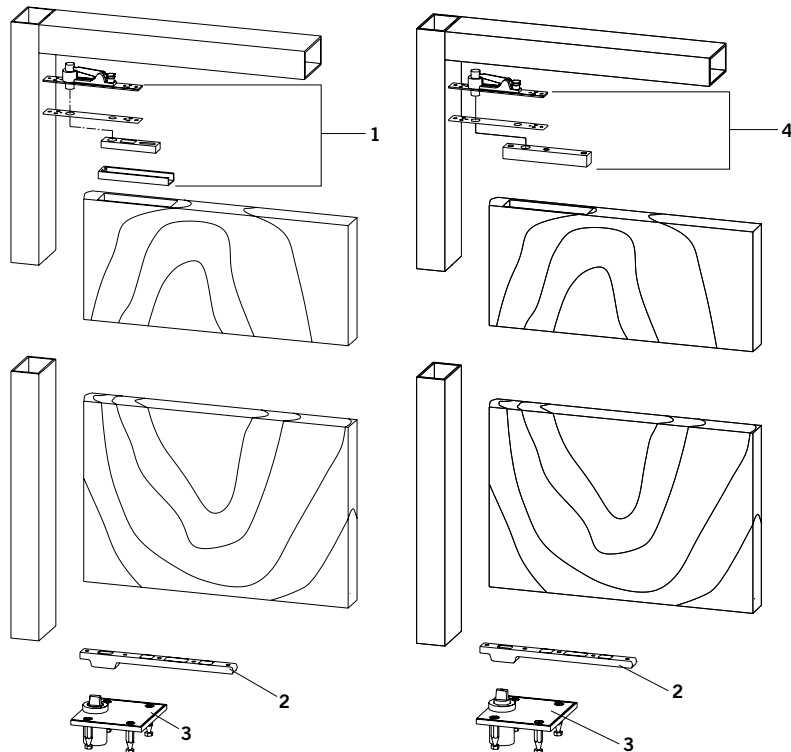
For aluminum doors up to 4'-0" wide and weighing up to 440 lb

1	8062	Top Pivot
2	7422	Bottom Arm
3	7471K	Floor Bearing

CP440 Pivot Set

For wood or hollow metal doors up to 4'-0" wide and weighing up to 440 lb

1	8062	Top Pivot
4	7421	Bottom Arm
3	7471K	Floor Bearing



CP660 Pivot Set

For wood or steel doors up to 4'-0" wide and weighing up to 660 lb

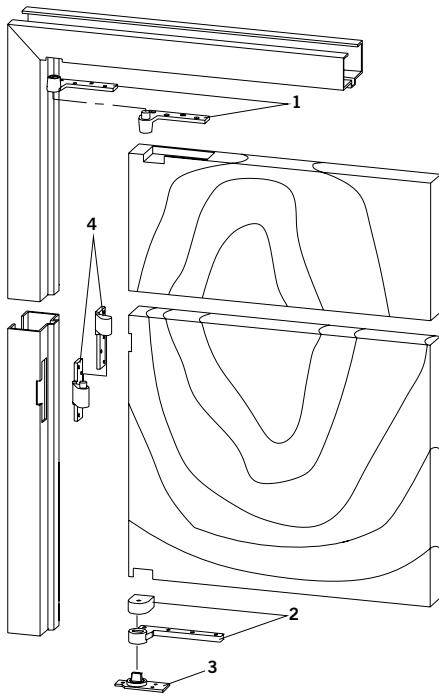
1	8062	Top Pivot
2	7421	Bottom Arm
3	7471HD	Floor Bearing

CP1000 Pivot Set

For wood or steel doors up to 6'-0" wide and weighing up to 1000 lb

4	HD8062	Top Pivot
2	7421	Bottom Arm
3	7471HD	Floor Bearing

3/4" Offset Hung—Single Acting



OP440 Pivot Set

For doors up to 4'-0" wide and weighing up to 440 lb

1	75120	Top Pivot
2	75323	Bottom Arm
3	7471K	Floor Bearing
4	75220	Intermediate Pivot (optional)

(Specify Hand)

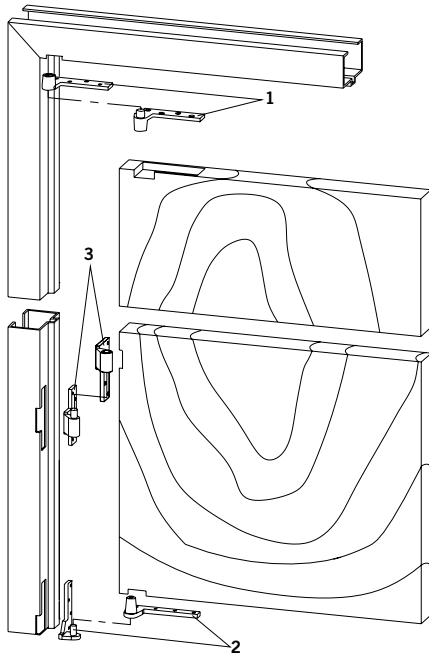


OPF440 Pivot Set

For up to 3 hour rated fire doors, 4'-0" wide and weighing up to 440 lb

1	75133	Top Pivot
2	75323	Bottom Arm
3	7471K	Floor Bearing
4	75233	Intermediate Pivot (optional)

(Specify Hand)



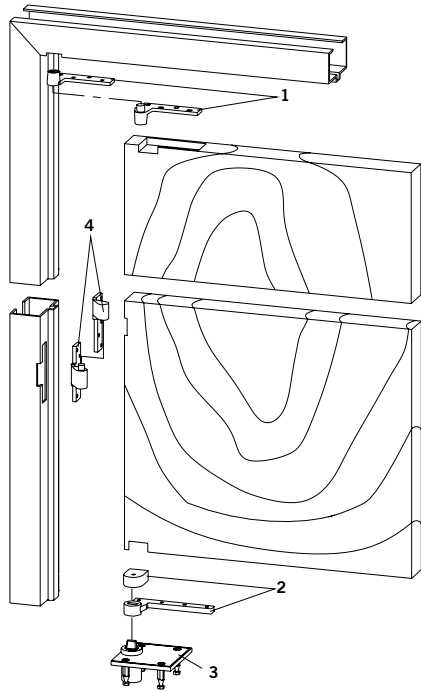
OPJ350 Pivot Set

For doors up to 4'-0" wide and weighing up to 350 lb

1	75120	Top Pivot
2	75320	Bottom Arm
3	75220	Intermediate Pivot (optional)

(Specify Hand)

3/4" Offset Hung—Single Acting (Heavy-Duty)



OPH750 Pivot Set		
For doors up to 4'-0" wide and weighing up to 750 lb		
1	75120	Top Pivot
2	75323	Bottom Arm
3	7471HD	Floor Bearing
4	75220	Intermediate Pivot (optional)

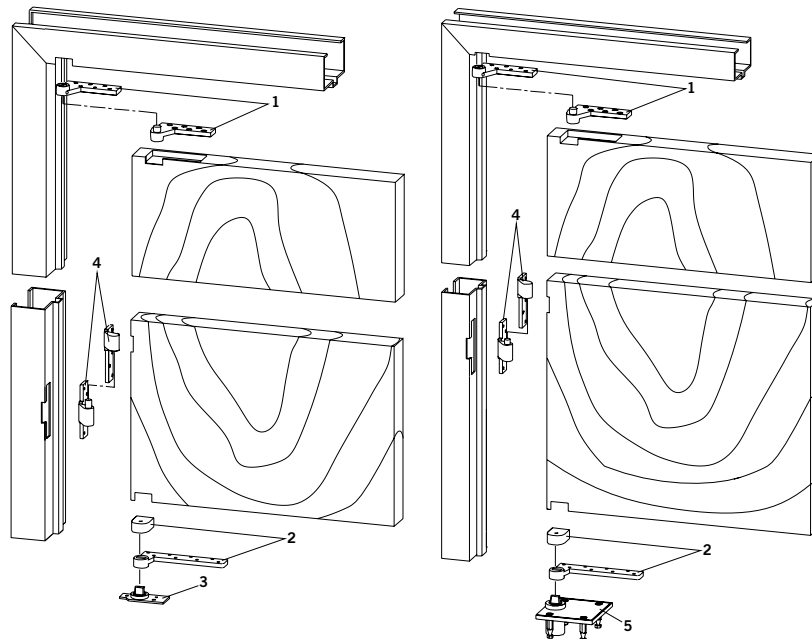
(Specify Hand)



OPHF750 Pivot Set		
For up to 3 hour rated fire door 4'-0" wide and weighing up to 750 lb		
1	75133	Top Pivot
2	75323	Bottom Arm
3	7471HD	Floor Bearing
4	75233	Intermediate Pivot (optional)

(Specify Hand)

3/4" Offset Hung—Single Acting (Lead-Lined)



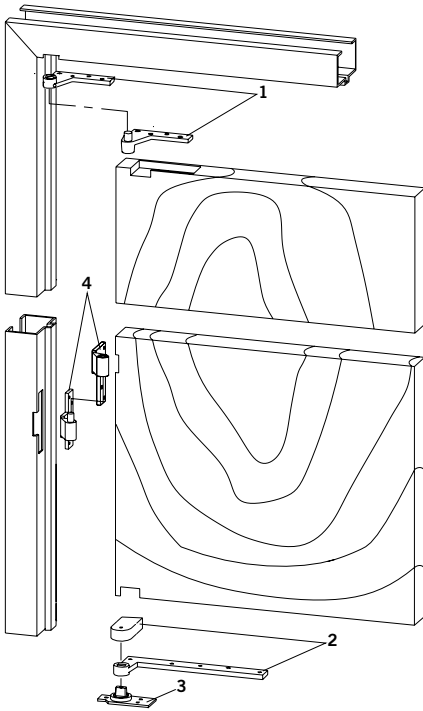
OPL440 Pivot Set		
For lead-lined doors up to 4'-0" wide and weighing up to 440 lb		
1	75140	Top Pivot
2	75343	Bottom Arm
3	7471K	Floor Bearing
4	75240	Intermediate Pivot (optional)

(Specify Hand)

OPL800 Pivot Set		
For lead-lined doors up to 4'-0" wide and weighing up to 800 lb		
1	75140	Top Pivot
2	75343	Bottom Arm
5	7471HD	Floor Bearing
4	75240	Intermediate Pivot (optional)

(Specify Hand)

1-1/2" Offset Hung—Single Acting



OP15200 Pivot Set

For doors up to 3'-6" wide and weighing up to 200 lb

1	15120	Top Pivot
2	15323	Bottom Arm
3	7471K	Floor Bearing
4	15220	Intermediate Pivot (optional)

(Specify Hand)

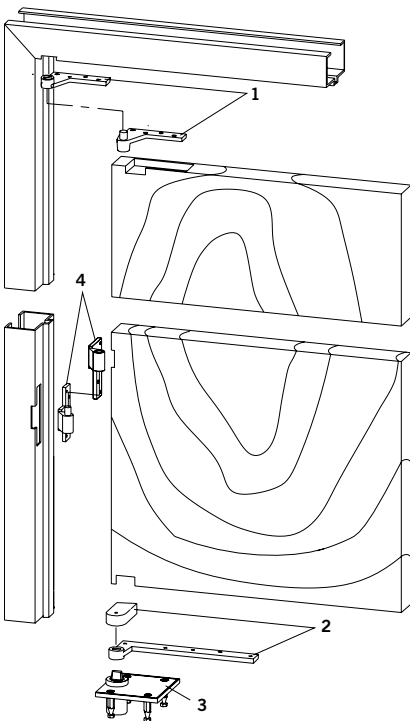


OPF15200 Pivot Set

For up to 3 hour rated fire doors, 3'-6" wide and weighing up to 200 lb

1	15133	Top Pivot
2	15323	Bottom Arm
3	7471K	Floor Bearing
4	15233	Intermediate Pivot (optional)

(Specify Hand)



OP15500 Pivot Set

For doors up to 4'-0" wide and weighing up to 500 lb

1	15120	Top Pivot
2	15323	Bottom Arm
3	7471HD	Floor Bearing
4	15220	Intermediate Pivot (optional)

(Specify Hand)



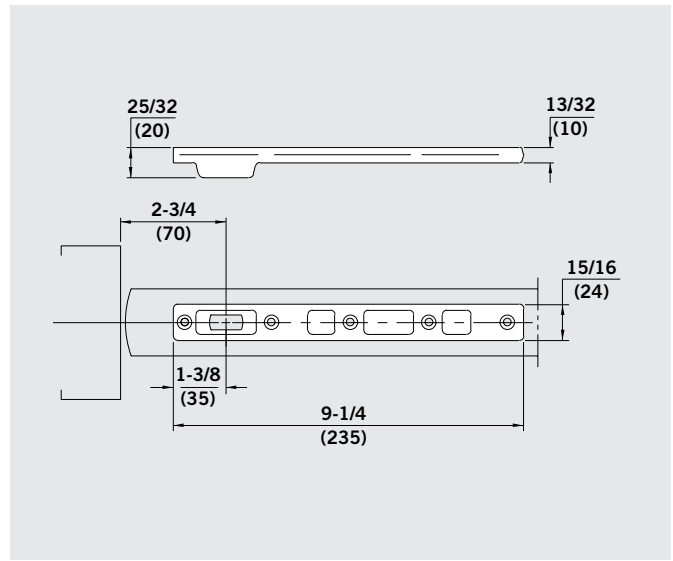
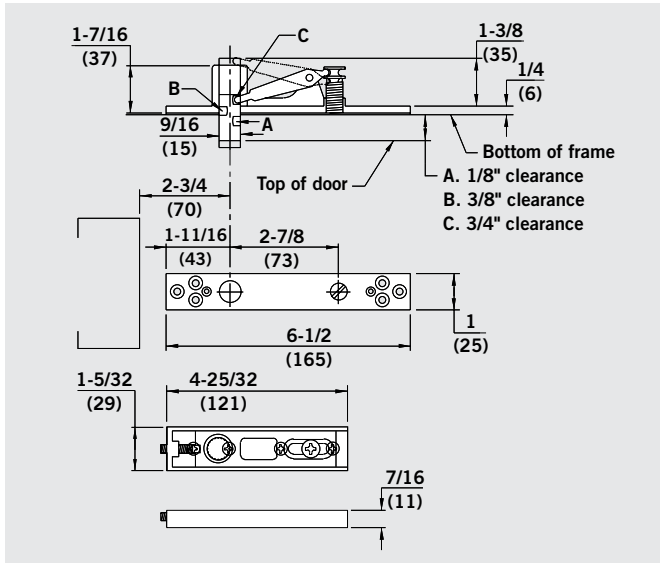
OPF15500 Pivot Set

For up to 3 hour rated fire doors, 4'-0" wide and weighing up to 500 lb

1	15133	Top Pivot
2	15323	Bottom Arm
3	7471HD	Floor Bearing
4	15233	Intermediate Pivot (optional)

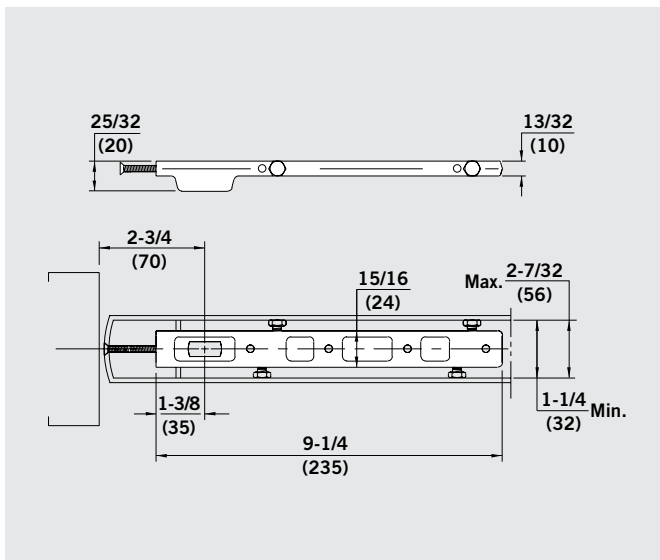
(Specify Hand)

Center Hung



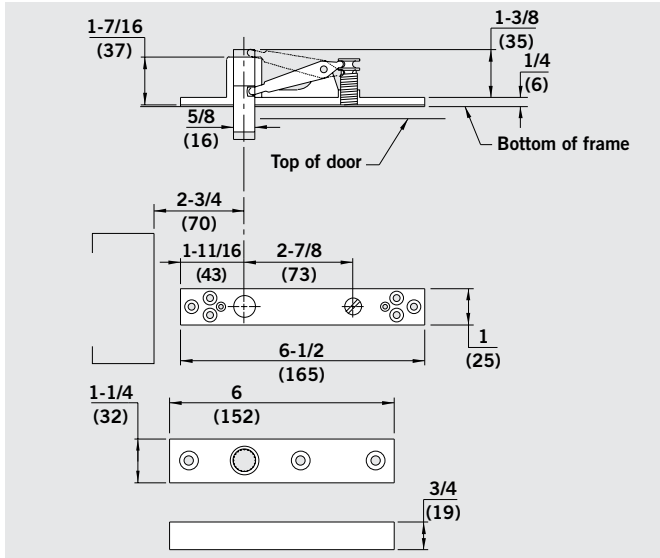
No. 8062 — Walking beam top pivot with cover plate. Lateral adjustment assures the door is plumb. Accommodates top door clearances of 1/8", 3/8", or 3/4". Optional extended pin available for clearances of 3/4", 1", or 1-5/16". Not recommended for use with overhead stops/holders. Use HD8062.

No. 7421 — Center hung bottom arm for steel or wood doors. For use with 7471K and 7471HD floor bearing.

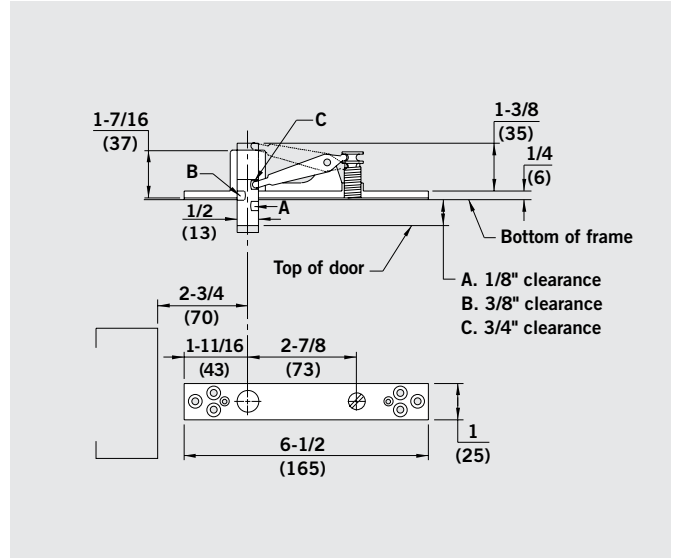


No. 7422 — Center hung bottom arm for aluminum doors. For use with 7471K and 7471HD floor bearing.

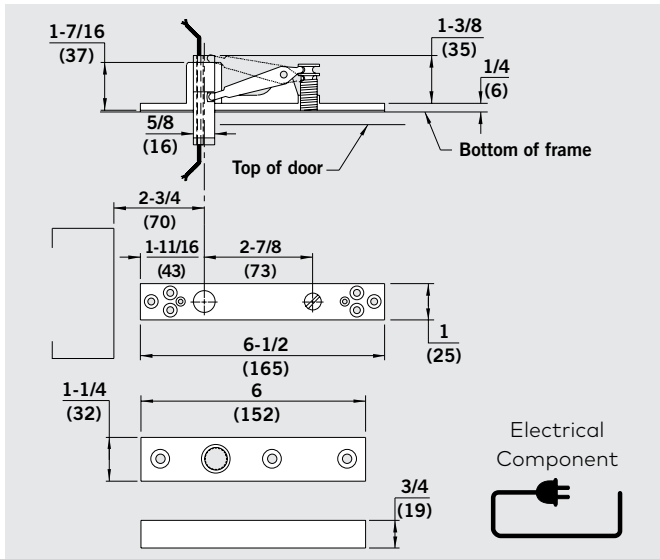
Center Hung



HD8062 — Heavy-duty walking beam top pivot with frame portion and cover plate. Door portion consists of a needle bearing pressed into a 3/4" thick aluminum block. Adjustable to obtain a 1/8"–3/8" clearance between the door and frame. Required when using overhead stops/holders.



8062.5 — Walking beam top pivot frame portion with cover plate. Pin has a 1/2" diameter.



E8062 — Electrified walking beam top pivot for power transfer. Available in a two wire and four wire design using #18 AWG. Both designs provide a maximum of 6 A at 24 V. Specify number of wires required.

Miscellaneous Center Hung Accessories

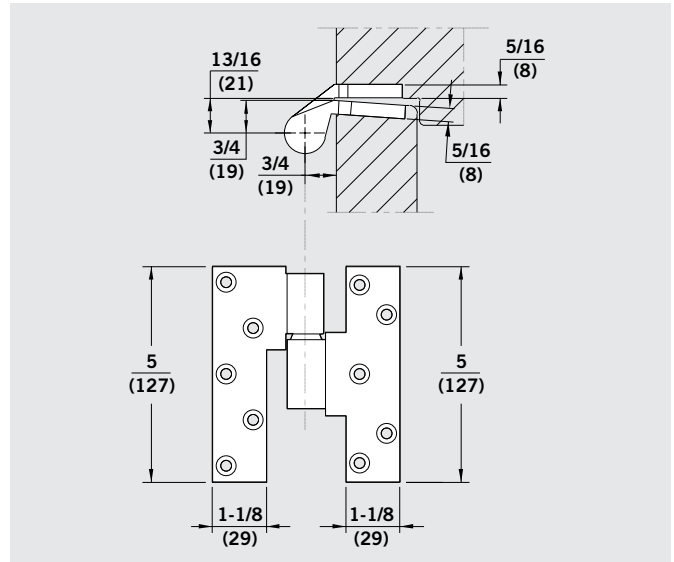
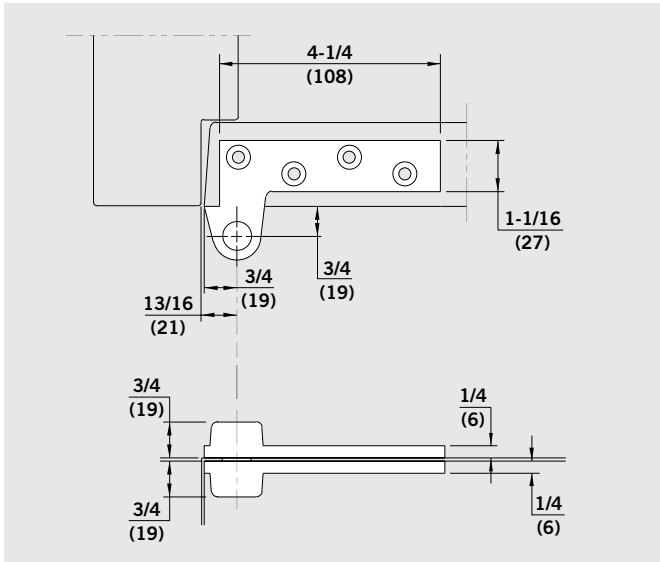
8062 EXT PIN — Pin only for standard 8062 pivot. Increases clearance to 3/4", 1", or 1-5/16".

8062.6 — Frame portion only for the standard 8062 pivot.

8062 LOWER — Door portion only for the standard 8062 pivot.

8062 COV — Cover only for frame portion of the standard 8062 pivot.

3/4" Offset Full Mortise

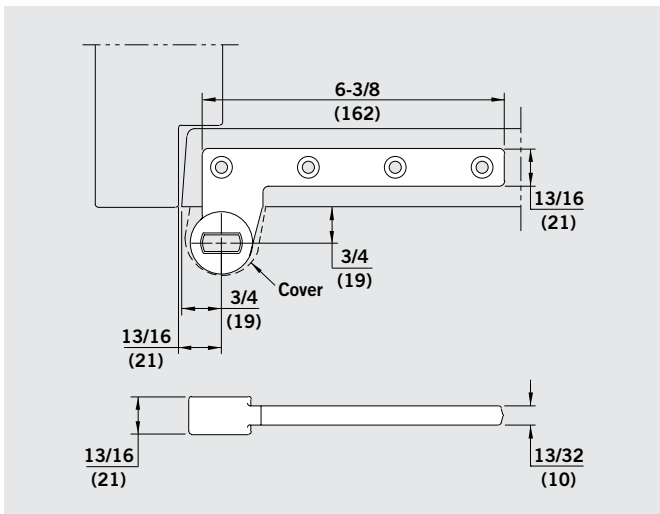


- No. 75120** — 3/4" offset standard brass top pivot.
- No. 75122** — 3/4" offset brass top pivot. U.L. listed for 20 minute rated fire doors.
- No. 75133** — 3/4" offset steel top pivot. For use on fire doors rated up to three hours.

- No. 75220** — 3/4" offset standard brass intermediate pivot.
- No. 75222** — 3/4" offset brass intermediate pivot. U.L. listed for 20 minute rated fire doors.
- No. 75233** — 3/4" offset steel intermediate pivot. For use on fire doors rated up to three hours.

Note: Standard pivots are non-handed and designed for flush door and frame conditions. For 1/8" inset pivots, add 5/8 suffix and hand, i.e. 75120 5/8 RH.

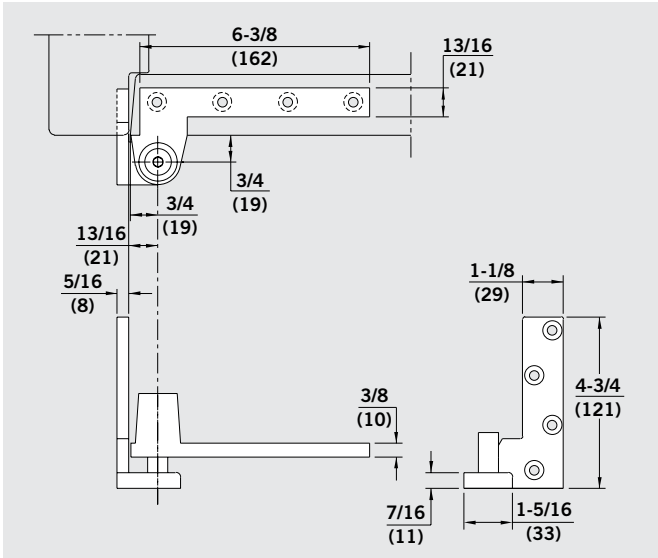
(Specify Hand)



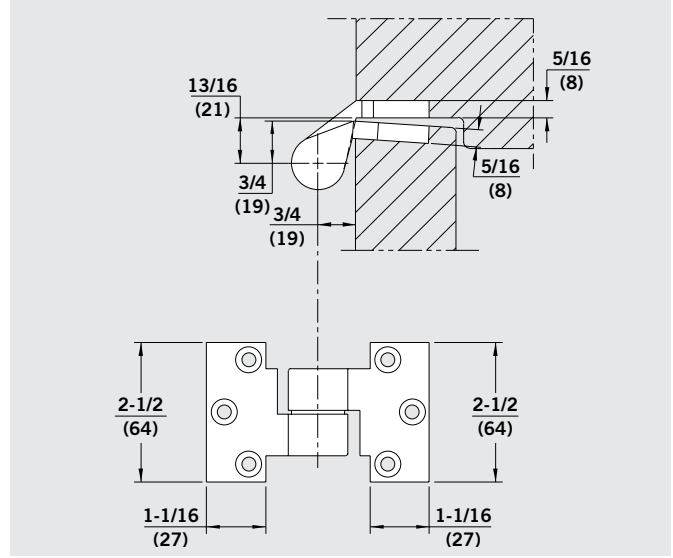
- No. 75323** — 3/4" offset standard steel bottom arm. Can also be used on fire doors rated up to three hours. For use with 7471K and 7471HD floor bearing.

(Specify Hand)

3/4" Offset Full Mortise

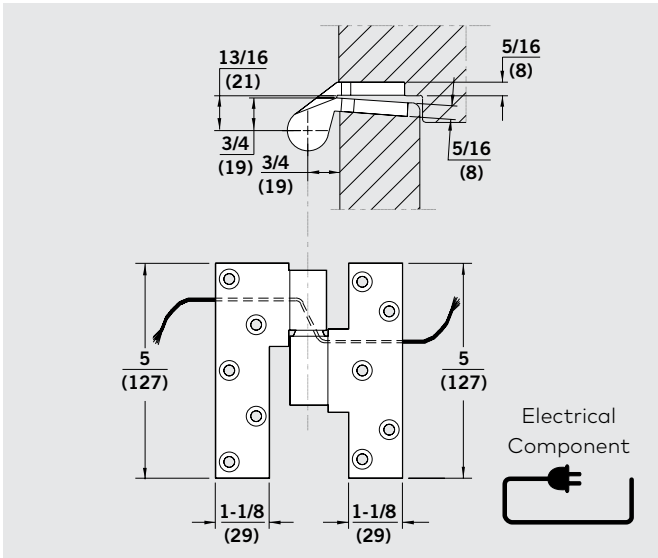


No. 75320 — 3/4" offset brass bottom side jamb pivot. For use with doors weighing up to 350 lb. Has a vertical height adjustment of 3/8".
(Specify Hand)

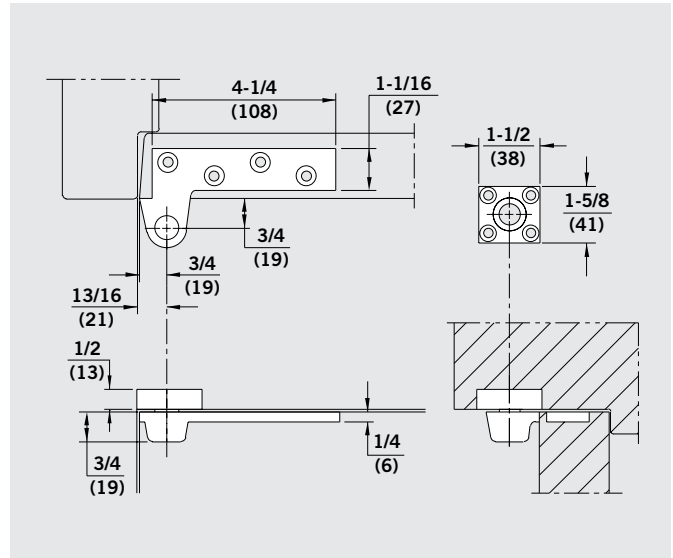


No. 75210 — 3/4" offset light-duty brass intermediate pivot. Non-load bearing, for door alignment only.
(Specify Hand)

3/4" Offset Full Mortise (Miscellaneous)



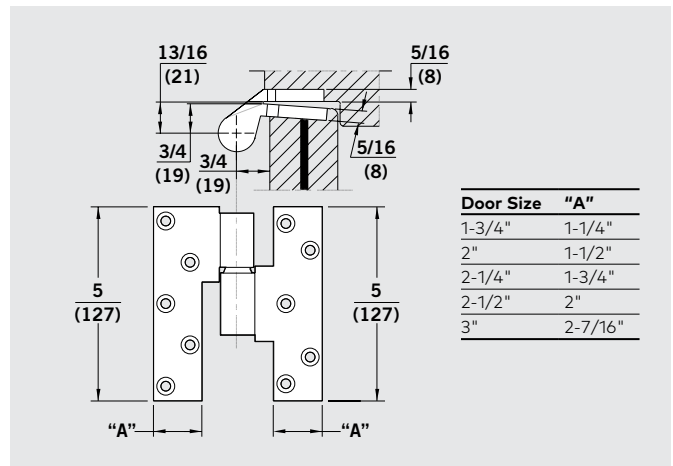
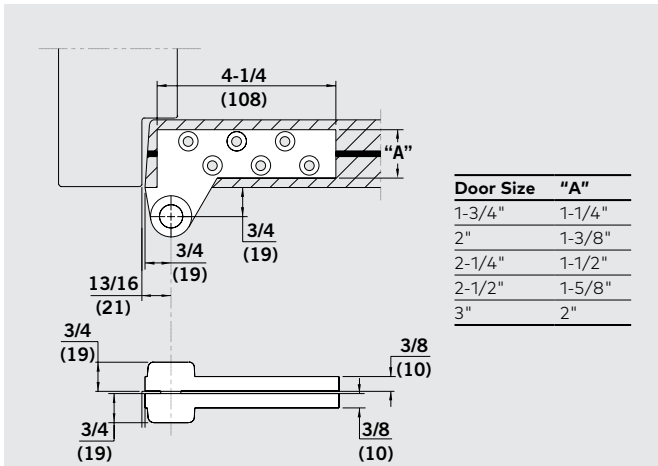
No. 75200 — Electrified intermediate pivot for power transfer. Available as an eight-wire design using #28 AWG, rated for 24 V maximum. Pairs of wires connected together provide 2 A maximum. Multiple pairs provide greater amperage ratings, i.e. two pairs in a circuit provide 4 A maximum and four pairs provide 8 A maximum. Pivot is non-load bearing and has non-separable pivot leaves.
(Specify Hand)



No. 75120/102 — Standard mortised door portion with a pivot block containing a needle bearing mortised into the overhead condition above. This pivot is ideal for conditions when the door is inset from the frame face, or the ceiling is directly above the door.
(Specify Hand)

3/4" Offset Full Mortise (Lead-Lined)

Heavy-Duty Pivots Designed for Lead-Lined doors or extra heavy or thick doors.



No. 75140 – 3/4" offset brass top pivot for lead-lined doors 1-3/4" thick.

No. 75142 – 3/4" offset brass top pivot for lead-lined doors 1-3/4" thick. U.L. listed for 20 minute rated fire doors.

No. 75143 – 3/4" offset steel top pivot for lead-lined doors 1-3/4" thick. For use on doors rated up to three hours.

Note: For doors 2" to 3" thick specify as follows

No. 75140 – 2 – For use on doors 2" thick.

No. 75140 – 2-1/4 – For use on doors 2-1/4" thick.

No. 75140 – 2-1/2 – For use on doors 2-1/2" thick.

No. 75140 – 3 – For use on doors 3" thick.

Note: Standard pivots are non-handed and designed for flush door and frame conditions. For 1/8" inset pivots, add 5/8 suffix and hand, i.e. 75140-2 5/8 RH.

No. 75240 – 3/4" offset brass intermediate pivot for lead-lined doors 1-3/4" thick.

No. 75242 – 3/4" offset brass intermediate pivot for lead-lined doors 1-3/4" thick. U.L. listed for 20 minute rated fire doors.

No. 75243 – 3/4" offset steel top pivot for lead-lined doors 1-3/4" thick. For use on doors rated up to three hours.

Note: For doors 2" to 3" thick specify as follows

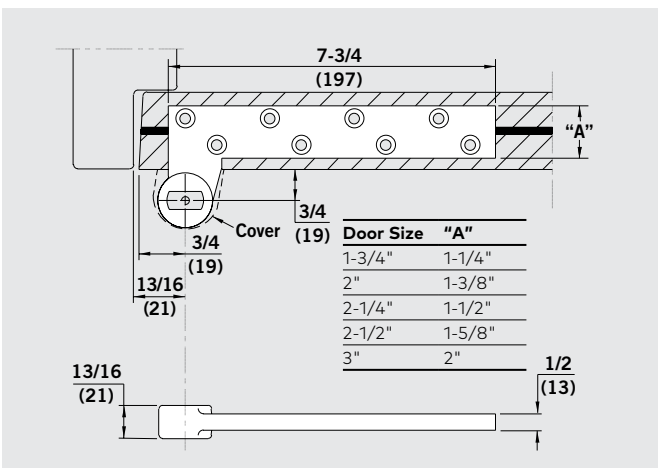
No. 75240 – 2 – For use on doors 2" thick.

No. 75240 – 2-1/4 – For use on doors 2-1/4" thick.

No. 75240 – 2-1/2 – For use on doors 2-1/2" thick.

No. 75240 – 3 – For use on doors 3" thick.

(Specify Hand)



No. 75343 – 3/4" offset standard steel bottom arm for lead-lined 1-3/4" doors. Can also be used on fire doors rated up to 3 hours. For use with 7471K and 7471HD floor bearing.

Note: For doors 2" to 3" thick specify as follows

No. 75343 – 2 – For use on doors 2" thick.

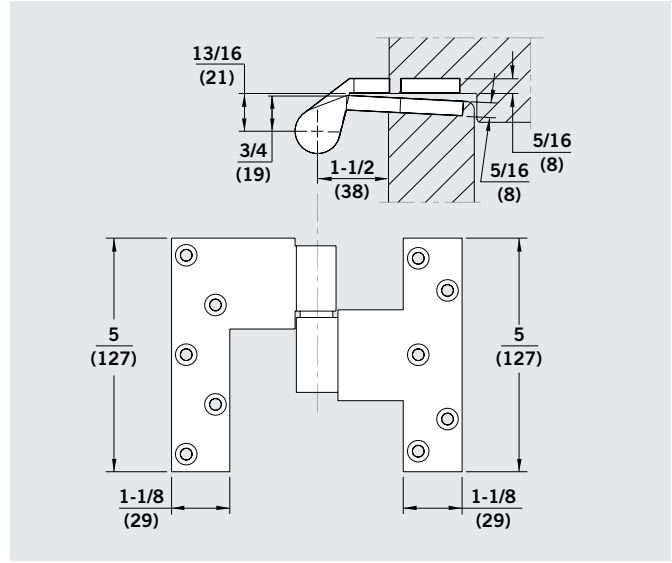
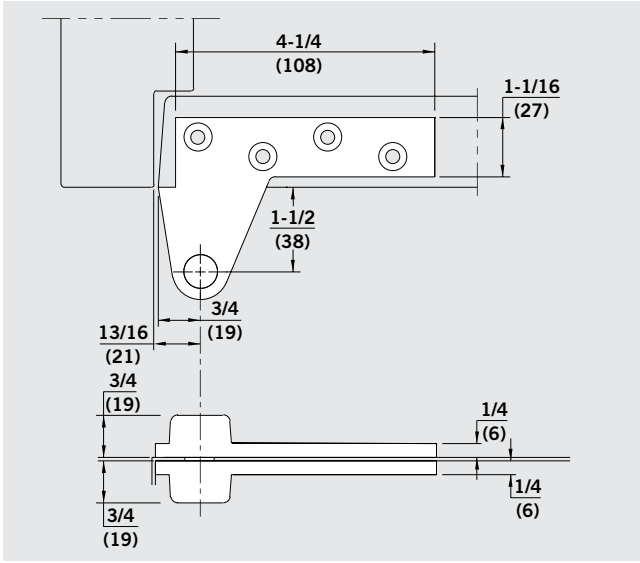
No. 75343 – 2-1/4 – For use on doors 2-1/4" thick.

No. 75343 – 2-1/2 – For use on doors 2-1/2" thick.

No. 75343 – 3 – For use on doors 3" thick.

(Specify Hand)

1/2" Offset Full Mortise

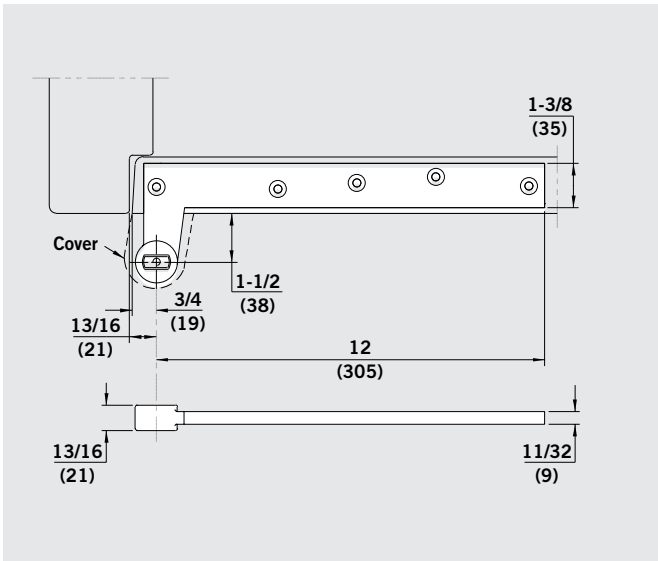


- No. 15120** — 1-1/2" offset standard brass top pivot.
- No. 15122** — 1-1/2" offset brass top pivot. U.L. listed for 20 minute rated fire doors.
- No. 15133** — 1-1/2" offset steel top pivot. For use on fire doors rated up to three hours.

- No. 15220** — 1-1/2" offset standard brass intermediate pivot.
- No. 15222** — 1-1/2" offset brass intermediate pivot. U.L. listed for 20 minute rated fire doors.
- No. 15233** — 1-1/2" offset steel intermediate pivot. For use on fire doors rated up to three hours.

Note: For 1/8" inset pivots, add 5/8 suffix, i.e. 15122 5/8.

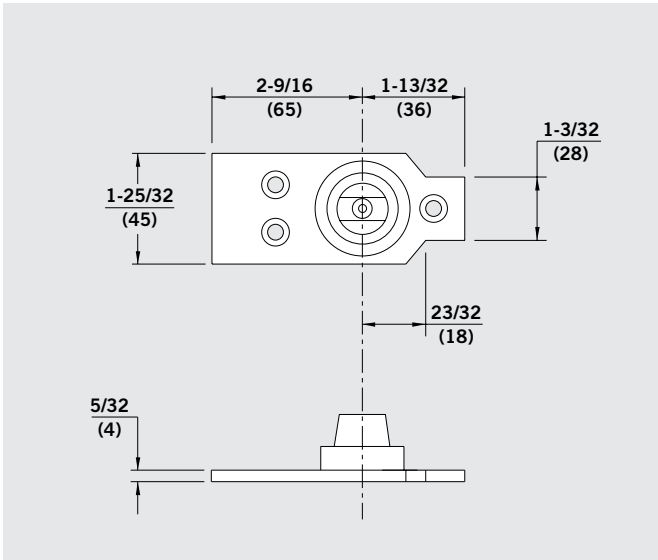
(Specify Hand)



- No. 15323** — 1-1/2" offset standard steel bottom arm. Can also be used on fire doors rated up to 3 hours. For use with 7471K and 7471HD floor bearing.

(Specify Hand)

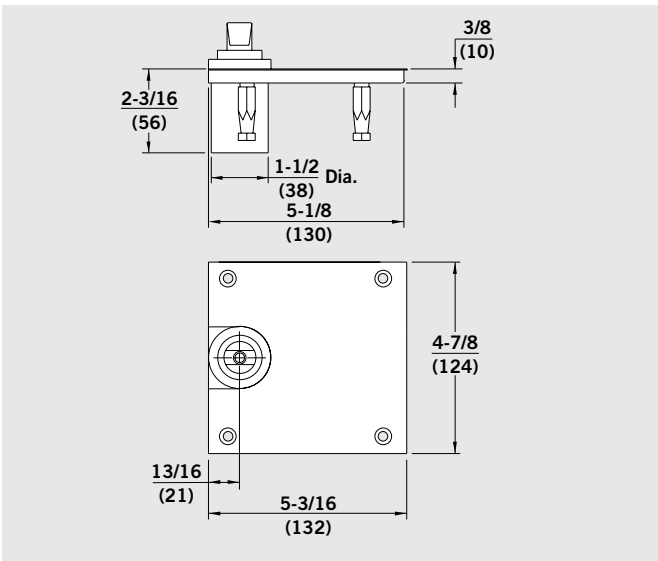
Floor Bearings



Floor Bearing Spindle Height	Clearance Provided Under Door
7471K	3/4"*
7471K x 5 mm	15/16"
7471K x 10 mm	1-1/8"
7471K x 15 mm	1-5/16"
7471K x 20 mm	1-1/2"
7471K x 25 mm	1-11/16"
7471K x 30 mm	1-15/16"
7471K x 35 mm	2-1/8"
7471K x 40 mm	2-5/16"
7471K x 45 mm	2-1/2"

* Lesser clearances can be obtained by altering the mortise depth of the arm

No. 7471K — Standard floor bearing with thrust roller bearing for doors weighing up to 440 lb. Can also be used on fire doors rated up to 3 hours. Includes cover cap. Mounts directly to floor. For use with No. 75323, 75343, 7421, 7422 and 15323 bottom arms. Available with integral spindle extensions as shown in the adjacent chart.

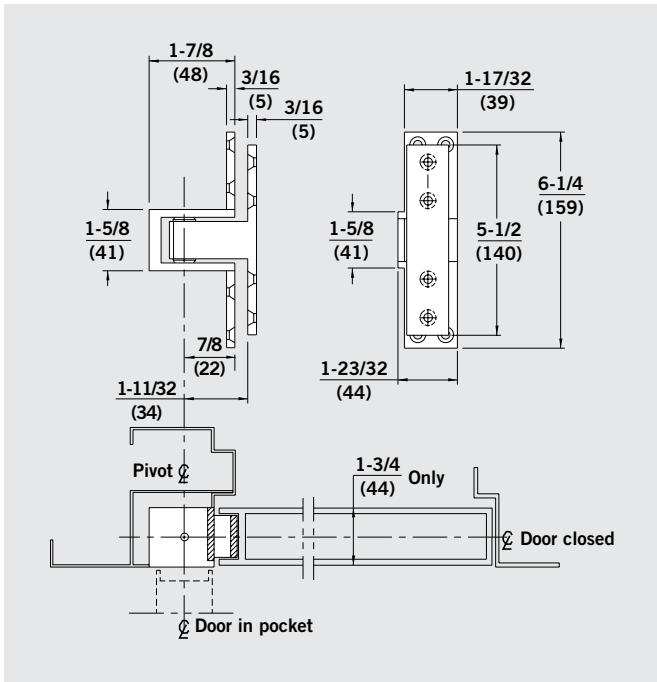


Interchangeable Spindle Extension	Clearance Provided Under Door
74003	3/8" to 9/16"*
74005 (std.)	3/4"
74007	7/8"
74010	1"
74012	1-1/16"
74015	1-1/8"
74020	1-3/8"
74025	1-9/16"
74030	1-3/4"

* Clearance is determined by the mortise depth of the arm

No. 7471HD — Heavy-duty floor bearing for center hung doors weighing up to 1000 lb and offset hung doors weighing up to 800 lb. Can also be used on fire doors rated up to 3 hours. For use with No. 7421, 75323, 75343 and 15323 bottom arms. Interchangeable spindles provide for bottom door clearances of 3/8" to 1-3/4". Includes cover plate. Bearing is mortised into floor. Interchangeable spindles and associated bottom door clearances shown in the adjacent chart.

Pocket Pivots

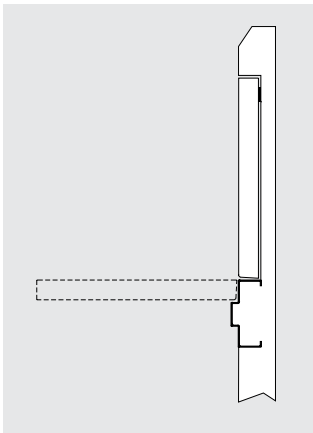


For use on doors up to 4'-0" wide and weighing up to 300 lb when hung on three pocket pivots. Allows for maximum door swing of 90°

Pocket door packages for surface door closers and floor concealed closers are available. See individual door closer brochures for surface closer details or BTS Series brochures for floor concealed closer details.

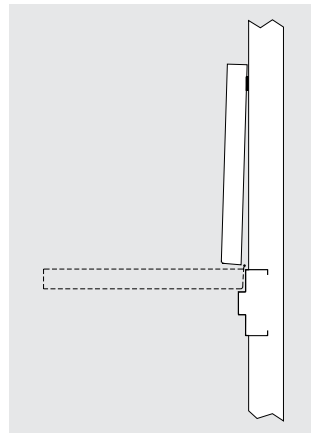
No. 75520 — Bronze pocket pivot. For 90° pocket doors.

No. 75523 — Steel pocket pivot for 90° pocket doors, U.L. listed for 20 minute wood doors and 3 hour rated steel fire doors.



Pocket Pivot Hung Door

- Door surface is flush with corridor wall.
- No protruding edges.
- Open door fits completely into hatched recessed wall pocket.
- No dirt or debris build-up behind door.



Conventional Hinged Door

- Door edge protrudes into corridor.
- Door face subject to damage.
- Door edge and hinge interfere with traffic.
- Dirt and debris build-up behind door.
- Door hampers floor maintenance.

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