

MOUNTING DETAILS

NOTE: Heavy Duty (HD) mounting features hex drive for positive tightening and large overall size for superior strength. Recommended for high frequency and rough service openings.

Free End
Thru Bolt

TYPE 1 - Thru Bolt
Wood or Metal Door

Labels: Pull, Finish Washer, Flat Head Machine Screw, Outside, Inside

Type	Bolt Size	Drill Size
1	1/4"-20	9/32
1HD	5/16"-18	11/32
1XHD	3/8"-16	13/32

Free End
Concealed

TYPE 6 - Surface Concealed
Metal Door

Minimum diameter of pull is 5/8"

Labels: Cone Head Machine Screw, Pull, Set Screw, Reinforcement by others

For doors with rivnuts specify Type 6R

Type	Bolt Size	Drill Size
6	1/4"-20	1/4"-20 Tap
*6HD	5/16"-18	5/16"-18 Tap

TYPE 6R - Surface Concealed
Metal Door

Minimum diameter of pull is 1"

Labels: Cone Head Machine Screw, Pull, Set Screw, Rivnut

Type	Bolt Size	Drill Size
6	1/4"-20	N/A
*6HD	5/16"-18	N/A

TYPE 8 - Surface Concealed
Wood Door

Labels: Cone Head Machine Screw, Pull, Knife Thread Insert, 1/4"-20 Set Screw

Type	Bolt Size	Drill Size
8	1/4"-20	23/64"-9/16 dp.
*8HD	5/16"-18	7/16"-9/16 dp.

Common End
Back-to-Back

TYPE 5 - Back-to-Back
Wood or Metal Door

Minimum diameter of pull is 5/8"

Labels: Cone Head Machine Screw, Pull, Set Screw, Inside, Outside

Type	Bolt Size	Drill Size
5	1/4"-20	9/32
5HD	5/16"-18	11/32

TYPE 13 - Back-to-Back
Glass Door

Labels: Cone Head Machine Screw, Pull, Set Screw, Plastic Washers, Washer, Neoprene Bushing, 5/8" Dia. Hole, Inside, Outside

Type	Bolt Size	Drill Size
13	1/4"-20	5/8
*13HD	5/16"-18	5/8

*HD mountings feature 2 set screws 180° apart.

NOTE: Y base plates are recommended on wood or glass doors to make a stable and durable mounting (see page 40 for details).

NOTE: Heavy Duty (HD) mounting features hex drive for positive tightening and large overall size for superior strength. Recommended for high frequency and rough service openings.

Push and Pull Bar Mounting Details

Sizing of Push Bars

Flush Doors

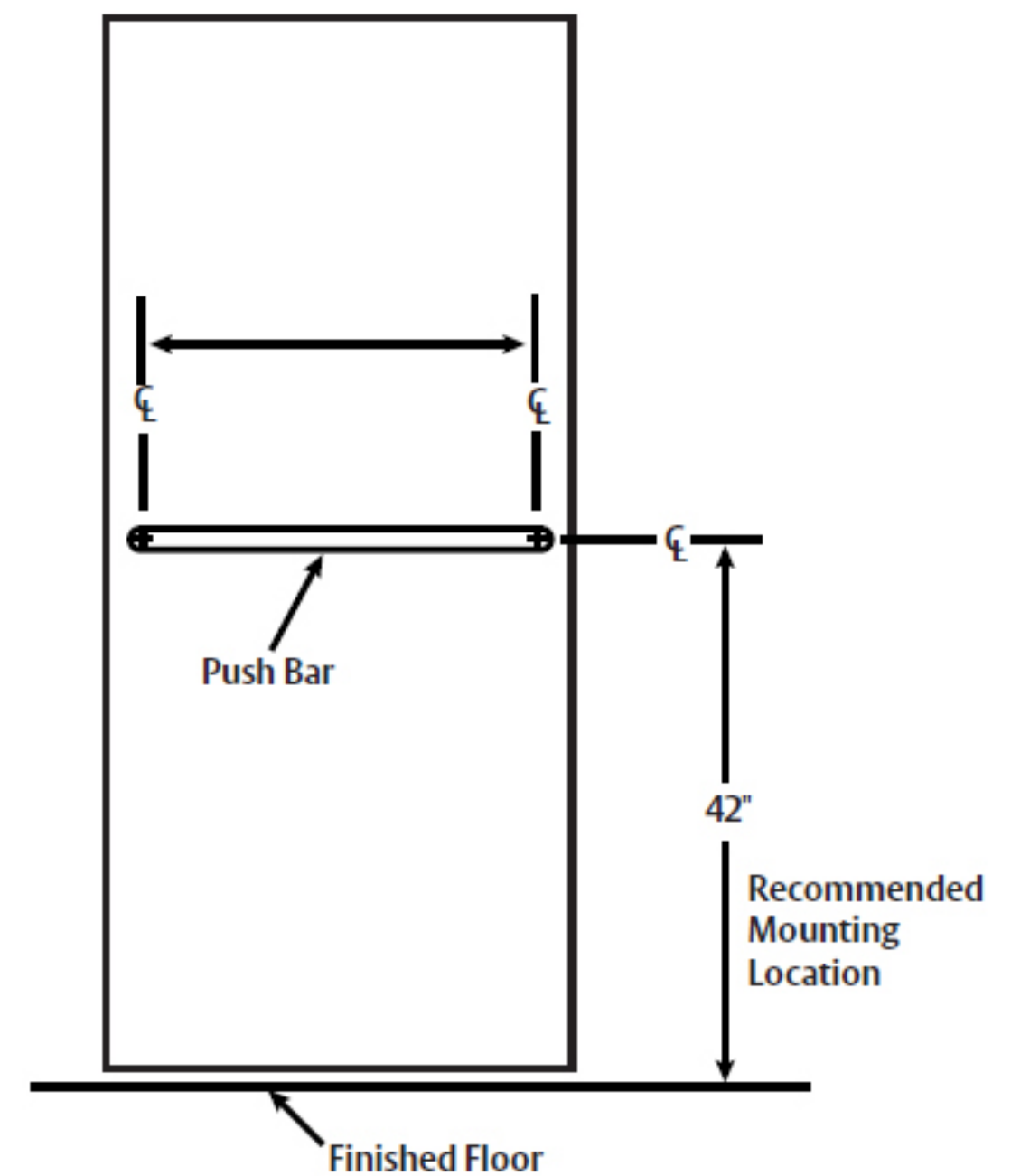
- Door width:
- minus 5" for bent end bars
 - minus 5" for square end post mount bars
 - minus 7" for round end post mount bars

Stile and Rail Doors or Doors with Lites

- Door width:
- minus width of one stile

CAUTION: Always confirm bars will not interfere with jamb or cause pinching hazard.

CAUTION: On narrow stile doors, be sure push bar base fits on the stile and bar does not interfere with the stop.

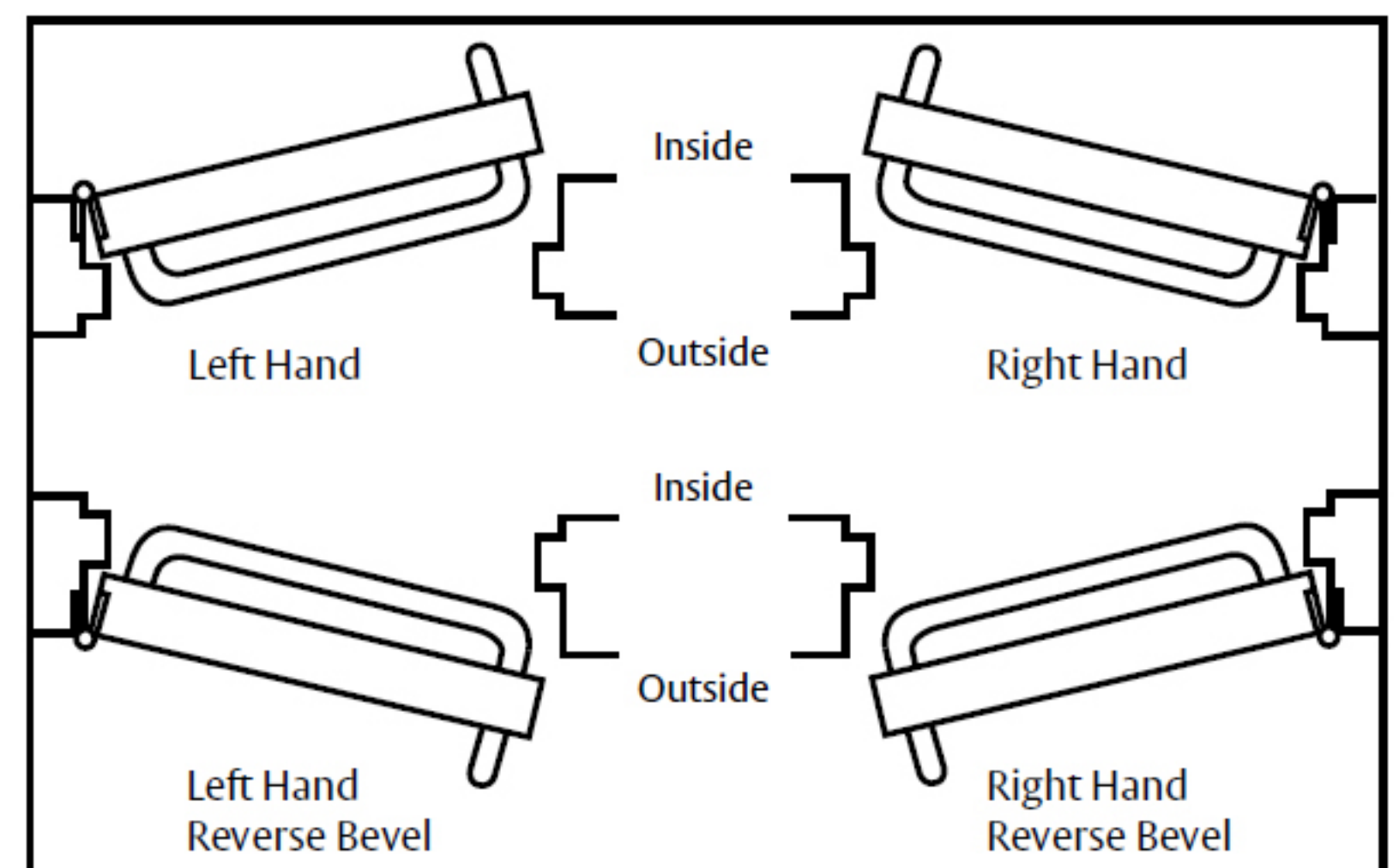


Handing of Doors

The handing of a door is determined from the outside of the opening.

Standing outside the door:

- If the hinges are on the right, it is a right hand door.
- If the hinges are on the left, it is a left hand door.
- If the door opens away from you, it is a regular bevel door.
- If the door opens toward you, it is a reverse bevel door.



Typical Mounting

