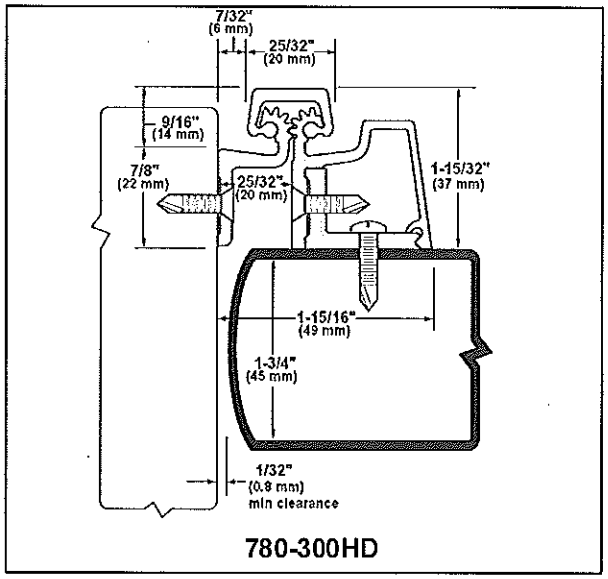
ROTON INSTRUCTION SHEET
ROTON MODEL: 780-300HD

PART NO: 75008300
REVISION: 021510

HAGER Companies - 139 Victor Street - St. Louis, MO 63104 1(800)-325-9995



780-300HD

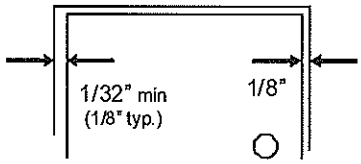
ROTON Models 780-300HD is an Aluminum Continuous Geared Half Surface Hinge that provides a 7/8" (22mm) minimum inset. This hinge is designed for the installation (or conversion) of center-hung doors as single-acting singles or pairs. Clearance required between the hinge edge of the door and the frame is 1/32" (0.8mm) minimum.

Hinge Length

All ROTON Hinges are supplied approximately 1" to 1-5/16" shorter than the nominal door height to avoid threshold or carpet clearance problems. If the hinge must be trimmed shorter, first determine the correct hand of the door and orientation of the hinge. Then mark and trim from the *bottom* of the hinge only – do not cut from the top end.

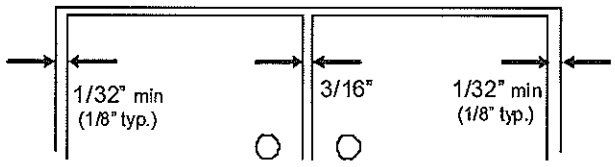
NOM. DOOR HEIGHT	NOM. HINGE LENGTH	NUMBER OF FASTENERS (Door/Frame)
6'-8"	79" (2006mm)	14/14
7'-0"	83" (2108mm)	14/14
7'-2"	85" (2159mm)	14/14
8'-0"	95" (2413mm)	16/16
10'-0"	119" (3022mm)	20/20

Total Clearance Between Door And Frame Width



SINGLE DOOR - SQUARE EDGED

Hinge side clearance (typ.)	1/8" (3.2mm)
Latch side clearance (typ.)	1/8" (3.2mm)
TOTAL	1/4" (6.4mm)



PAIR OF DOORS - SQUARE EDGED

First hinge side clearance (typ.)	1/8" (3.2mm)
Clearance between doors (typ.)	3/16" (4.8mm)
Second hinge side clearance (typ.)	1/8" (3.2mm)
TOTAL	7/16" (11.2mm)

General Fitting Procedure

- For new construction with metal doors/frames: See the clearance information above to attain the proper door/frame size. A minimum clearance of 1/32" (0.8mm) is required between the hinge edge of the door and the frame rabbet. Mortar guards, either styrofoam or wood, are recommended for frames to prevent grout from interfering with the installation of the hinge fasteners.
- For new site-hung wood doors: If necessary, scribe and cut from the *latch edge* of the door to leave sufficient hinge stile thickness for proper fastening. A minimum clearance of 1/32" (0.8mm) is required between the hinge edge of the door and the frame. See the clearance information above to attain the proper finished width of the door.
- For remodeling with existing wood or laminate doors: If necessary, scribe and cut from the hinge edge of the door and plane smooth. A minimum clearance of 1/32" (0.8mm) is required between the hinge edge of the door and the frame. See the clearance information above to attain the proper finished width of the door.

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Installation Procedure

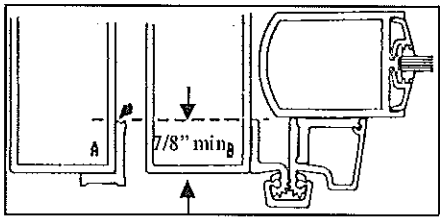


Fig. 1

SPECIAL NOTE FOR 180 DEGREE DOOR SWING:

1. For minimum inset, position the "L"-shaped base with the short leg against the frame face (Fig 1A). Scribe a line along the edge of the longer leg. This will position the door at the minimum 7/8" inset (Fig 1B).
2. For maximum inset, fully open the hinge to 180 degrees. With a 1/32" shim in place on the frame face, hold the hinge tight against the frame and scribe the inset line (Fig 2).

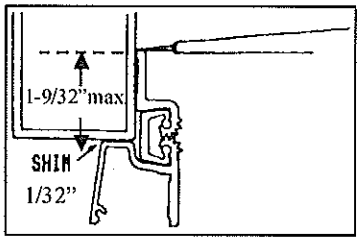
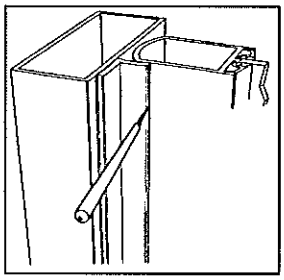


Fig. 2

Marking the Door and Frame

1. Wedge the door in place to the desired hinge side clearance. Place the short leg of the "L"-shaped base against the face of the door as shown (Fig. 3). Scribe a mark along the full height of the door.
2. With the door wedged to its desired inset depth, scribe a line on the frame exactly in line with the face of the door (Fig. 4).


Fig. 3

Door Preparation

1. Turn the "L"-shaped base end-over-end so that the long leg of the "L" is against the face of the door, and the corner is on the scribed line on the frame and the top end flush with the top of the door. (Fig. 4). Use 'C' clamps (if available) to hold the base in place
2. Mark and center punch the screw hole locations. *Accurate location is important for proper installation.*
3. For hollow metal doors 12 gage or less (= .110"/2.8mm), it is not necessary to pre-drill pilot holes if using the self-drilling screws provided. For metal doors thicker than 12 gage (> .110"/2.8mm), drill and tap all mounting holes for #12-24 threads prior to installing the screws.
4. Attach the "L"-shaped base to the door using the **pan head** self-drilling screws provided (recommended driver speed 1,900-2,500 RPM).
5. Position the hinge assembly over the "L"-shaped base as shown (Fig. 5A). Starting from one end, press the hinge leaf onto the "L"-shaped base so that it snaps in place along its entire length (use a rubber mallet or wood block under a hammer, taking care not to damage the hinge leaf). If necessary, spread the leaf open just a bit with a wooden wedge to get it started. Position the hinge flush with the top edge of the door by tapping the end with a rubber mallet.
6. Mark and center punch the screw hole locations in the L-shaped base. *Accurate location is important for proper installation.*
7. Attach the hinge to the "L"-shaped base using the flat head self-drilling screws provided(Fig.5B)

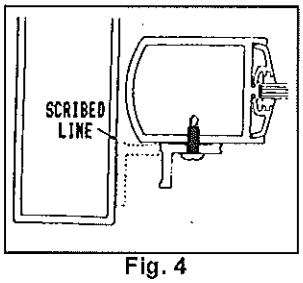


Fig. 4

Hanging the Door

1. Position the door (with hinge attached) at 90 degrees to the frame. Wedge the door to the proper height so that the frame leaf is no more than 1/16" **(1/8" maximum)** below the lowest point on the frame header. **Note: A 1/16" shim is recommended due to initial settling of the bearings.**
2. Align the edge of the frame leaf on the scribed line of the frame (Fig. 6).
3. Mark and center punch the screw hole locations. *Accurate location is important for proper installation.*
4. For metal frames 12 gage or less (= .110"/2.8mm), it is not necessary to pre-drill holes if using the self-drilling screws. For metal frames thicker than 12 gage (> .110"/2.8mm), drill and tap all mounting holes for #12-24 threads prior to installing the screws.
5. Attach the hinge to the frame. For metal frames, use the #12 flat head self-drilling screws provided (recommended driver speed 1,900-2,500 RPM).
6. Remove all shims and wedges, and make a gentle trial swing. Carefully check the door for proper swing and clearances.

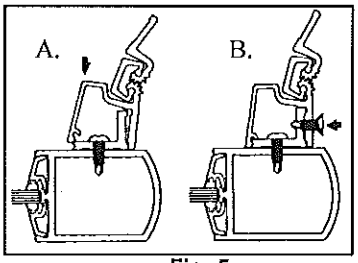
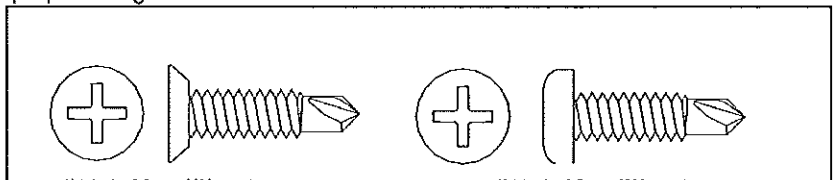


Fig. 5



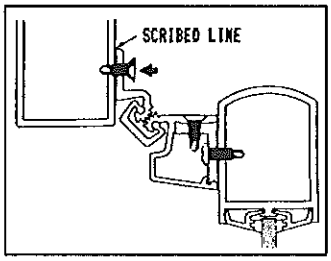


Fig. 6

DWG # 75008300 B	Revision #: 2	Rev. Description: PLACED IN CAD FORMAT	Drawn By: DW	Date: 021510