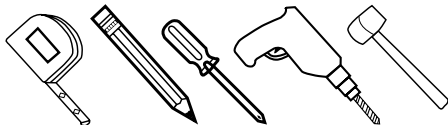




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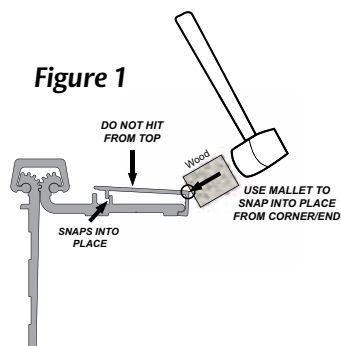
Tools Required:



Installation Instructions:

Half Surface units are designed mainly for retrofit work, and are applied to the exposed surface of the door and the frame rabbet, with clearances shown below in Figures A & B (below).

1. Open the PemkoHinge™ leafs and position the frame leaf portion against the frame rabbet. Be sure the leaf alignment flange is tight against the face of the frame. Allow 1/8" between the frame header and the top of the hinge leaf, for door clearance.
2. Mark and drill for #12-24 x 7/16" thread forming screws, per Drill Size Chart (below), and attach frame leaf to frame. (Use wax or soap on screws to aid installation.)
3. Position the door in the opening; shim to adjust for proper clearance (See Figures A and B).
4. Install the six (6) #12-24 x 3/4" self drilling screws in the six (6) 7/32" holes located in the door leaf portion of the hinge.
5. Remove shims and open the door. Check for proper swing and clearances. Adjust if required.
6. Close the door. Mark the centers of the remaining holes. Drill holes all the way through the door using a 1/4" diameter drill.
7. Open the door. Enlarge the 1/4" holes on the inside face of the door using a 3/8" diameter drill. Finish attaching door leaf portion of PemkoHinge™ to the face of the door using the four (4) thru-bolts and shoulder bolts. Thru-bolts attach from inside face; shoulder bolts attach from the outside of face.
8. To complete the installation, secure the cover by hooking the edge away from hinge gears under the door leaf and then snap the other edge over using a rubber mallet on the far side, working from top to bottom. Adjust so top of cover is flush with top of hinge.



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Shortening the Hinge:

If the hinge must be shortened, cut the bottom only using a chop saw. This will allow metal chips to work out after the installation. Although it is not handed, the hinge becomes handed after cutting and the cut edge must be installed at the bottom of the opening.

DRILL SIZE CHART:

MATERIAL	THICKNESS	DRILL SIZE
Aluminum	.090 - .140	13
Metal	20 gauge	17
Metal	16-18 gauge	15
Metal	12-14 gauge	13
Wood	N/A	5/32"

FIGURE A

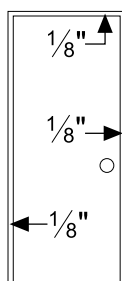
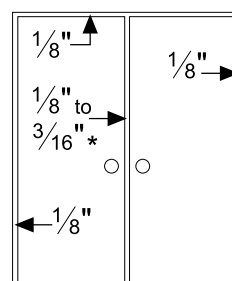


FIGURE B



* Allow extra clearance as required per astragal manufacturer. Certain door and frame conditions may require an extra 1/32"-1/16" clearance. Excessive clearance on fire rated assemblies may violate the requirements of NFPA 80.