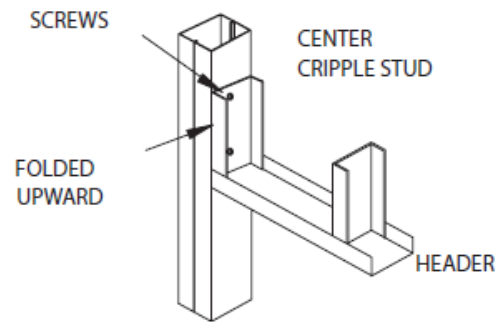


Overview: Installation instructions

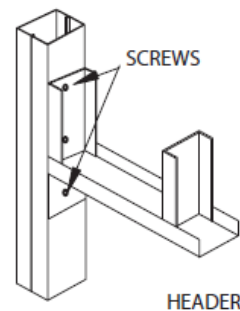
These installation instructions are guidelines only. Applicable building codes, standards and accepted practices apply. The Authority Having Jurisdiction is the final authority in issues related to the installation and use of any building products. Typical installation details are supported by a video collaboration with the Steel Door Institute (SDI). See “Prep and Installation Videos” of [SDI Videos](#). Typical methods including constantly checking for plumb, level and square, alignment and twist.

A. Choosing correct Jamb Depth and Wall construction:

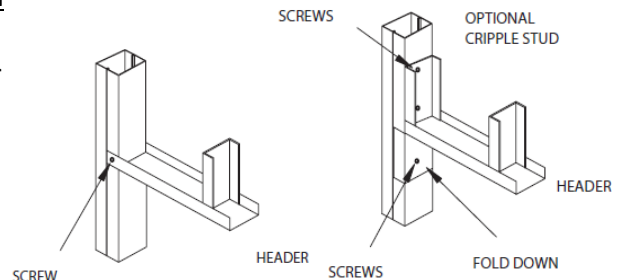
1. Frame jamb depth: The frame jamb depth should be 1/8” greater than the total wall thickness, since the nominal frame dimension is measured to the outsides of the frame.
2. Stud wall construction: It can be critical to consider steel stud construction assembly methods to maintain proper wall thickness 1/8” under your nominal frame depth. Reference ANSI/SDI A250.11 and NAAMM HMMA 840-07 Installation and Storage of Hollow Metal Doors and Frames. Note page 12 and images to right from HMMA 840-07 providing acceptable, as well as not recommended examples for steel stud construction. Methods of steel stud header connections using cripple studs to frame out the opening are recommended. Taller and wider openings should use cripple studs and/or boxed headers for additional support. Whatever method chosen, extreme caution should be taken to be certain that construction of stud walls will not increase the wall thickness. If necessary, accepted manufacturer or industry practices should be followed such as removing just the necessary amount of drywall to avoid interference with, for example, stud connector screw heads and tracks which are thicker than studs. This will allow the drywall sheet to lay flat against the steel stud to maintain your expected wall



RECOMMENDED



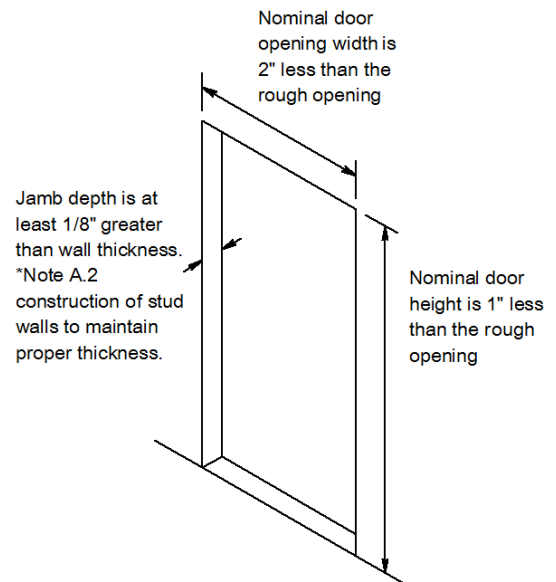
ACCEPTABLE



NOT RECOMMENDED

thickness. If this cannot be done, there are specially designed heads such as Redheader and others from ClarkDietrich. Using frame jamb depths greater than 1/8" the wall size (1/16" gap per side) can be used for an easier installation, but will be noticeable when the face attachment screws pull the faces in at the attachment holes. This is typically not noticeable once casement is added but must be planned. Checking for plumb, level and square, alignment and twist in the studs when framing out the opening is be critical. Note if no precautions are made as noted above, the wall will typically be about 1/16-3/16" greater than expected in the jamb section, and 1/4"-3/8" greater than expected in the header (dimensions will vary depending upon gauge and stud/track manufacturer and screw heads).

- B. Rough opening and ordering the correct size frame:
 - 1. Rough opening width: 2" less than the actual frame width, which is the nominal door opening plus 2". This will create a 1" frame face overlap with a 2" face frame. During install you can shift the frame to the hinge side, for example to allow more room for latching hardware as needed. For fire rated frames, you must have at least 1/2" drywall entering the frame throat (more is better).
 - 2. Rough opening height: 1" less than the actual frame height, which is the nominal door height plus 1". This will create a 1" frame face overlap with a 2" face frame.
- C. C-series Frames: Frame installed before stud wall
 - 1. Typical weld-in wood stud or steel stud anchors in the throat of the jambs are used. Welding is optional (rated must be welded). The wall will go up after the frame and steel studs moved into the frame throat against reinforcements before locking into steel tracks and frame reinforcements with proper screws.
- D. CK-series Frames: Wall constructed before Frame
 - 1. Wall will typically be finished and painted in this application. Note the example photos

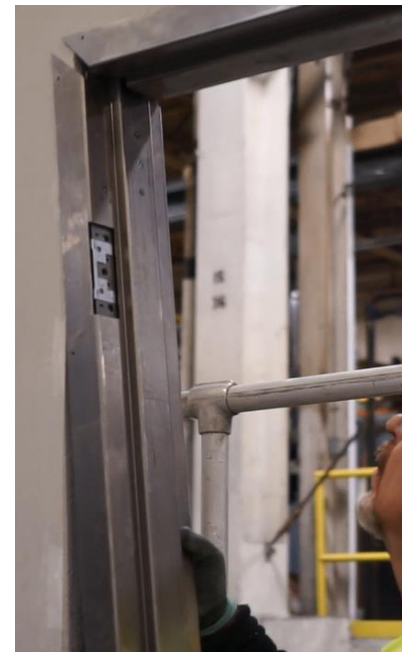


used were taken only as an installation example for this document. Installer preferences may vary with the same or different results. This particular example uses a 3-5/8", 25ga min stud with 2 sheets of 1/2" drywall per side to achieve a 90 min fire rating on a 5-5/8" wall using 5-3/4" JD frame. See Price book and tech data for fire rating specifications.

2. Check wall construction for correct thickness around perimeter and check plumb, level, square, twist before beginning installation.
3. Slide header over the wall board. Typically friction will hold the header in place. As a precaution, use wood stud ground supports or assistance to hold until supported by jambs.
4. Use hammer claw or similar to adjust position.
5. Insert hinge jamb at an angle to engage the tabs in the head. Push vertical. Follow with the same method for the strike jamb.
6. Tighten compression anchors to pull jambs into the head (jamb slots must engage the head tabs).
7. Alternate tightening the compression anchor with tapping using a wood block and rubber mallet / butt of hammer in order to get the frame into place against the header. Use levels to check plumb, level, and square, including proper placement to maintain spacing for hardware. Place a wood spreader in place at the base of the frame and cut to the correct opening width in order to maintain the correct frame opening at the base of the frame.



8. As you adjust, locate the frame to your specifications. For example, you might locate the frame closer to the hinge jamb if more room is needed for your latching hardware. If fire rated, be sure to maintain at least 1/2"

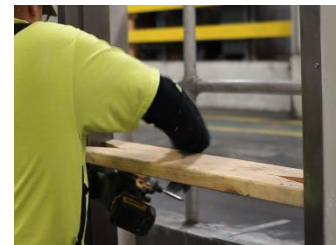


overlap of frame face over drywall per NFPA80.

9. Once the frame is in position and plumb, level, and square, securely in place with both metal shims and correctly tightened compression anchors, begin anchoring through face attachment holes starting at the bottom.
 - a) Use #8 Stainless Tech screws.
 - b) Fine threaded drywall screws may be used if the screw head does not interfere with your casement trim, or you may countersink as needed being sure not to go too deep, negatively affecting the structural integrity.
 - c) Nails can also be used.



- E. After attaching the bottom, again check plumb, level, square, and twist while continuing to fine tune the compression anchor and frame position as you anchor the middle and finally the upper attachment holes. Add a middle wood spreader as you move from one jamb to the other. Also alternate, working both sides of the wall/frame.



- F. After secured, trim can be installed either by drilling through to the frame and studs with a pilot for nails, or by using structural adhesive. If using adhesive for Fire rated frames, rated adhesives must be used.



(end of document)