

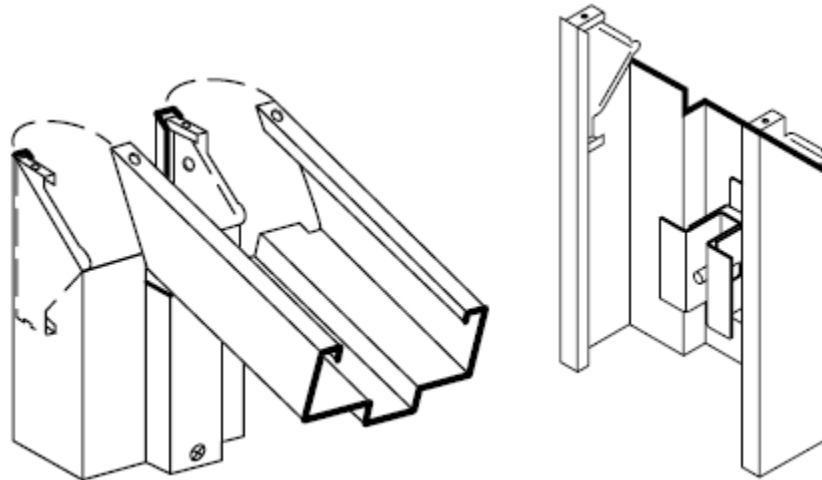
Hollow Metal Frames

There are 2 types of hollow metal frames...the standard jambs ready for welding to make a one piece unit or the knockdown drywall 3 piece unit type. The knockdown (KD DW) type is used for installation after the drywall is already up. The welded type is the one used most often and can be installed in exterior walls or interior stud walls.

Hollow metal frames come in 18, 16 (standard), 14, and 12 gauge for welding which go into a masonry wall or a stud wall. The knockdown drywall frames are available in 18, 16 (standard), and 14 gauge. All frames that will have any surface mounted hardware applied need to have reinforcement plates welded in at the necessary locations. All frames are available cold rolled (non galvanized) or A40 or A60 galvanized.

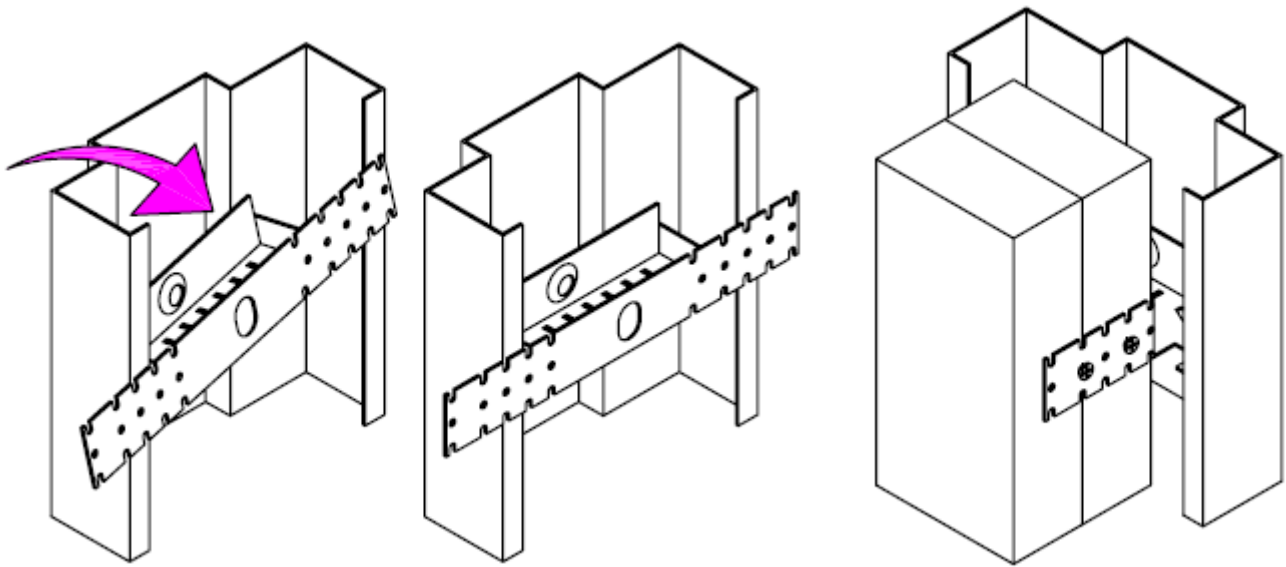
Knockdown drywall frame: Although there are certainly variations, the most common stud walls in our area consist of 3 5/8" studs with either 1/2" (4 5/8" wall) or 5/8" drywall (4 7/8" wall) or 6" studs with 5/8" drywall (7 1/4" wall). The kd dw frame is meant to go over the drywall and comes in 3 separate pieces: the hinge jamb, strike jamb (two hinge jambs if it's a pair of doors), and the head. There are "compression anchors" (shown below right) in the top of each jamb and pre drilled holes on each side of each jamb at the bottom so no loose or separate anchors are required with this frame as they are part of the unit.

To install it you simply slide the head in place over the wall, install the hinge jamb by aligning the tabs in the top of the jamb with the slots in the head and pushing it over the wall, install the strike jamb (or other hinge jamb if it is a pair of doors) the same way as the hinge jamb. Pull the head down tightly with the jambs and level by shimming at the base of the jambs if needed. Tighten the compression anchors, make sure the frame is square and level, and install sheet metal screws in the bottom holes. It is a good idea to cut a wood spreader bar to the exact door opening width and insert it at the bottom of the frame to keep the frame square during installation.

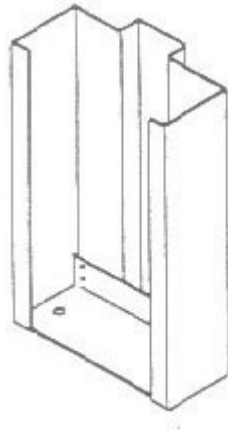


Welded frame: The kd dw frame is used in interior stud walls. The welded frame can be used in interior stud walls, concrete block, or poured concrete. This type of frame is assembled, squared up, spreader bar welded in at the base, and the joints welded and ground smooth.

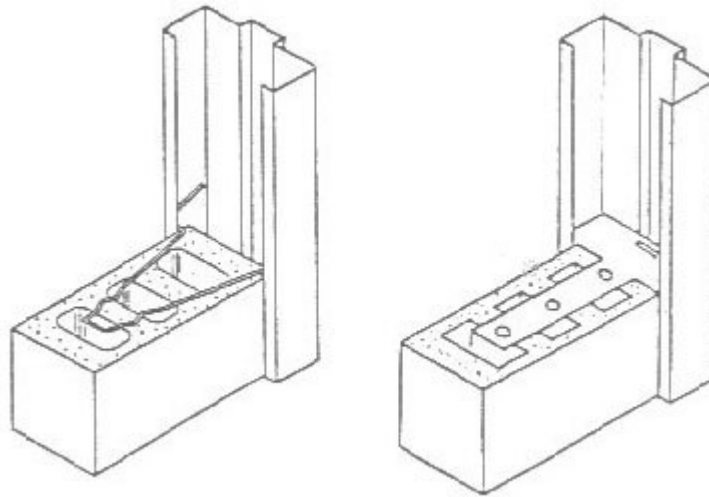
It is installed in stud walls before the drywall goes up with either universal stud anchors, "Z" anchors, or strap anchors. Stud anchors (shown) clip inside the frame and have tabs on each side that bend around and wrap the stud. There are pre-drilled holes so you can screw the tabs to the stud. 6'8" and 7'0" frames are supplied with 6 anchors while 8'0" frames will have 8. Anchors are also discussed on the [hollow metal frame anchors](#) page.



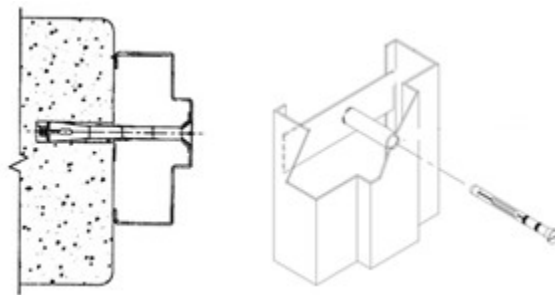
If you are installing the frame in a poured concrete wall, it is usually set in place and the wall is poured around it. Base anchors come as standard in welded type hollow metal frames. These are welded into the bottom of the 2 jambs. The base anchors have holes pre-drilled so you can fasten the frame to the floor.



In new block walls, the frame is fastened to the floor at the base anchors and either wire masonry anchors or T anchors are used. These are supplied either 6 or 8 to a frame and simply clip into the inside of the frame and are laid in between the rows of block as the wall goes up.



If you are installing the frame in an existing block wall, it will need to be "punch and dimpled". There is either 6 or 8 holes 3/8" diameter punched and countersunk in the jambs and either 4" or 5" sleeve anchors supplied. You then simply set the frame in the opening, drill through the holes into the block with a 3/8" masonry bit, and screw the sleeve anchors in.



Rough opening size, kd dw frame: Take the nominal door width and add 1 1/2" and the nominal door height and add 3/4". Keep in mind that on a 3068 door, the nominal measurements are 3'0" x 6'8" while the actual measurements are 2' 11 3/4" x 6' 7 1/8". Using a 3068 door as an example, the rough opening size for a kd frame would be 3' 1 1/2" x 6' 8 3/4". This will allow the frame to partially wrap the wall at all 3 sides. You can increase the rough opening size a bit if needed but remember that the drywall must extend **at least** 1/2" into the frame at fire rated openings.

Rough opening size, kd frame cased open: Take the nominal door width and add 2" and the nominal door height and add 1". Keep in mind that on a 3070 door, the nominal measurements are 3'0" x 7'0" while the actual measurements are 2' 11 3/4" x 6' 11 1/8". Using a 3070 door as an example, the rough opening size for a kd cased open frame would be 38" x 85".

Rough opening size, welded frame: Take the nominal door width and add 4 1/4" and the nominal door height and add 2 1/4". Keep in mind that on a 3070 door, the nominal measurements are 3'0" x 7'0" while the actual measurements are 2' 11 3/4" x 6' 11 1/8". Using a 3070 door as an example, the rough opening size for a welded frame would be 3' 4 1/4" x 7' 2 1/4". Since the standard face on a hollow metal frame is 2", the outside dimensions of a 3070 frame will be 3'4" x 7'2" so this RO dimension will give you 1/4" of "play". If you are installing a welded frame into a fire rated stud wall, remember that the drywall will have to extend **at least** 1/2" into the frame so you can not simply butt the drywall up to the frame at fire rated openings. On non-rated openings you can run the drywall down to the frame or caulk the seam if it is going into block