This TDS covers the installation of Fleming F, DE, MN, ST, FSS and MD-Series frames. Our F, FSS and MD-Series are available as knocked-down or welded product. The DE, MN and ST-Series frames are all set-up and welded.

DW-Series is a knocked-down drywall application and the installation requirements are covered on TDS G10. The A-Series is a knocked-down adjustable jamb depth frame and the installation instructions are included on TDS G11.

Refer to TDS G13 for imperial frame installation tolerances and G14 for metric tolerances.

Installation methods and sequence varies with the construction of the frame and wall type. Welded and knocked-down frames installed in new masonry or drywall partitions are set in place with the wall being constructed around them.

For knocked-down frames start at Step 1, welded frames at Step 2.

1. Assemble Frame
   a) Insert jamb corner clip tabs into 4 slots at each end of head
   b) Ensure that face miters on jambs and heads are tight and corners are square
   c) Bend the tabs at each head rabbet slot downwards away from the door opening and the tabs at each head return slot downwards towards the throat opening

2. Remove Temporary Spreaders
   a) Welded frames are provided with temporary steel spreaders to maintain alignment and minimize other damage during shipping and handling. They are not intended to be used during the installation and must be removed.

   For new unit masonry or steel stud partitions proceed to Step 3
   For wood stud partitions go to Step 7
   For existing unit masonry or poured concrete walls proceed to Step 8

3. Place and Anchor to Floor
   a) Stand frame in position
   b) Place a wooden spreader between the jambs at the floor. The spreader must be square, at least 1” (25mm) thick, almost as wide as the frame jamb depth with clearance notches at each end for the frame stops
   c) Level the frame head, placing shims under the jamb floor anchors as necessary
   d) Adjust frame for alignment and twist. Rabbets must be parallel
   e) Fasten jambs to the floor through the floor anchors

4. Set Frame
   a) Brace the frame as shown. Do not brace in the direction of the adjacent wall
   b) Install a second wooden spreader at the mid-height of the frame to maintain correct frame rabbet width and to prevent bowing of the jambs
5. **New Unit Masonry Wall Anchorage**  
   a) As the wall is laid up, embed wire or masonry fire anchors in mortar coursing immediately above or below each hinge and directly opposite on the strike jamb.
   b) Although not mandatory, even for fire-rated frames, grouting of the jambs is recommended in all units to ensure a more secure and stable installation.

6. **Steel Stud Partition Anchorage**  
   a) Where loose combination stud anchors are provided, install in frame throat opening directly above or below each hinge reinforcing and immediately opposite on the strike jamb.
   b) Bend legs of combination stud anchors back inside the frame profile.
   c) Place and secure floor and ceiling steel runners.
   d) Place, plumb and secure the first vertical steel studs inside the floor and ceiling runners with stud fitting snug against the wall anchors in each jamb. The open webs of the first studs should be facing away from the frame.
   e) With standard 1/2” (13mm) long pan head sheet metal screws, secure studs to each anchor.
   f) Check plumb and square of frame, alignment and twist of jambs.
   g) Place and secure a second vertical steel stud inside the floor and ceiling runners with stud returns abutting the first steel stud returns.
   h) Install and secure steel lintel runners at the head of the frame.

7. **Wood Stud Partition Anchorage**  
   Wood stud partitions are constructed prior to the installation of the frame in a method called ‘tilt-up construction’. The wall, complete with rough openings for frames, is built flat on the floor and then stood or tilted-up into position. Double studs should be used at all jambs with solid blocking at both sides of the framed opening.
   a) The rough stud opening width should be 1/2” (12.7mm) greater than the over-all frame width.
   b) The rough stud opening height should be 1/4” (6.4mm) greater than the over-all frame height.
   c) Install and secure optional adjustable floor anchors to the floor anchor straps with the floor legs extending into the frame rabbet opening.
d) Where loose combination stud anchors are provided, install in frame throat opening, directly above or below each hinge reinforcing and immediately opposite on the strike jamb, with the anchor legs bent outwards, parallel to the finished wall.

e) Set the assembled frame, centered in the rough stud opening width, with the wall anchors wrapping the faces of the jamb studs.
f) Place a wooden spreader between the jambs at the bottom of the frame. See Step 3b for additional information on the wooden spreaders.
g) Level the frame head, placing shims under the floor anchors as necessary.
h) Adjust the frame for alignment and twist. Rabbets must be parallel.

i) Fasten jamb to floor through the floor anchors.
j) Install a second wooden spreader at the mid-height of the frame to maintain correct rabbet width and to prevent the bowing of the jambs.

k) Plumb and square frame.
l) Secure frame to studs with 4 nails per anchor.
m) Check plumb and square of frame, alignment and twist of jambs.

8. Existing Masonry or Poured Concrete Wall Anchorage
a) Set the assembled frame centered in the completed opening.
b) Place wooden spreaders between the jambs at the floor and at mid-height of the frame.
c) Level the head by placing shims under the jambs as necessary.
d) Adjust the frame for plumb, square, alignment and twist. Rabbets must be parallel.
e) Mark the wall through the dimpled holes in each jamb soffit to locate the anchor points.
f) Drill the wall for 1/4" (6mm) diameter anchor bolts at the marks.
g) Install sleeve or expansion shell anchors in the wall holes.
h) Insert anchor bolts through the dimpled holes into the wall sleeve anchors.
i) Place shims snugly between the frame and the wall above each anchor bolt.
j) Tighten bolts, checking plumb, square, alignment and twist.