

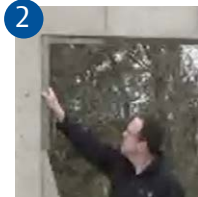
# StormPro (ICC 500/FEMA 361) Door and Frame Installation

## StormPro (ICC 500/FEMA 361) Frame Installation

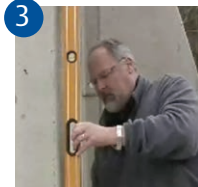
**Note:** Frames are not required to be welded to meet ICC 500/FEMA 361 requirements. Frames can be welded or knocked down (KD). Frames are not required to be grouted to meet ICC 500/FEMA 361 requirements. Refer to architectural and/or drawings for grouting requirements.

- 1 Check the rough opening to confirm the frame will fit the opening. With a long string, run the string diagonally from each corner to check alignment of the rough opening. You may need to switch the string over to the other side to ensure that the string is not binding.

- 2 Check rough opening for square in corners using a framing square.



- 3 Check rough openings for level and plumb of walls with a 6' level. Both sides and the top need to be verified for level.

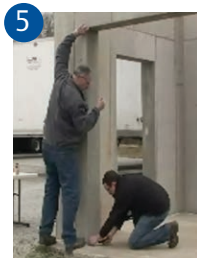


- 4 Check to confirm rough opening dimensions are correct. This will help determine the amount of shimming needed to install frame. The rough opening shall be no less than 1/4" larger on the width and 3/16" on the height than the overall size of the frame. The maximum rough opening is 3/8" larger than overall size of the frame on the width and 1/4" on the height.



**Note:** The installer is responsible for shimming and aligning the frame. Gaps are normally sealed as part of the installation or caulking/painting process. Refer to architectural specifications for the appropriate sealant material to be used at fire or smoke control openings.

- 5 Determine location of frame in opening width. Reference architectural drawings for required placement. Set frame in determined location and snap a chalk line along the door hinge side to help determine the frame location on the face side.

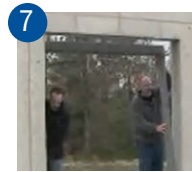


**Note:** frames are not always centered in the opening.

- 6 If the frame is welded together, remove the shipping spreader from frame before setting in the opening. If frame is knock down construction, see manufacturer's instructions for assembly.



- 7 Locate frame in opening.



- 8 Install setting spreader bar (set at correct width) at the bottom of the frame using wood spreader bar or PLS tool.



- 9 Shim bottom of the frame on the lock side to keep hinge side tight to wall. If too many shims are needed, (max 1/4") then divide evenly between the two jambs. Use shims to tighten frame to the spreader bar width, make sure all four rabbets of the frame touch the spreader bar. This prevents twist in the frame.



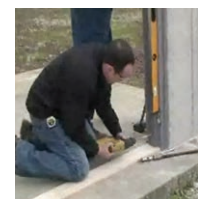
**Tip:** Use tapered shims between anchors and wall (above the holes for bolts) and spreader bar to maintain squareness and alignment of frame, and to maintain door opening sizes.

- 10 Level the head, if not level shim under bottom of frame if necessary. Be aware that bottom latch on the strike side has a minimum engagement per hardware manufacturer's instructions, shim accordingly.





**11** Align hinge jamb to the chalk line and confirm level and plumb of hinge jamb. Anchor hinge jamb to wall. Drill appropriate size and depth holes (per fastener manufacturer's instructions) for one-piece anchor bolts. We recommend drilling and anchoring each anchor one at a time. Insert anchor bolt into hinge jamb starting with the bottom bolt and tighten securely following bolt manufacturer's recommended torque. Install top bolt in the hinge jamb next, checking frame alignment before installing. Install balance of bolts on the hinge side, checking for frame alignment as each bolt is secured.

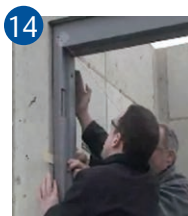


**12** Tape string (tape string to face of frame in opposite corners running diagonally) to check alignment of frame. Keep in mind you may need to move one string from inside to the outside to make sure of correct alignment.

**Helpful hint:** keep strings on frame until the frame is completely anchored.



**13** Check alignment of frame with cross strings.



**14** Plumb and square the strike jamb, and shim if necessary. Shims used should be located immediately above the anchor points.

**15** Anchor strike jamb (other hinge jamb on paired application) to wall, install bolts in the same sequence as previous jamb, check center of frame for correct width, before installing center bolts. Shim as necessary to maintain correct opening width.

**16** Check to see if shims are required between head and wall. Remember to place shims above anchor point.

**17** Anchor head in the same way as jambs.

**Note:** Backer rod or caulking shall be used where gaps occur between frame and wall. See specified caulk manufacturer's instructions for details.

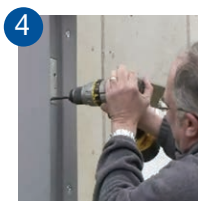
## StormPro (ICC 500/FEMA 361) Door Installation



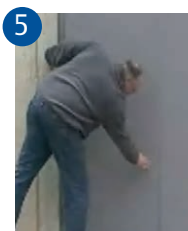
**1** Install hinges onto door using manufacturer's instructions. Use screws provided with hinges. DO NOT SUBSTITUTE.

**2** Install multipoint lock or exit device into door using manufacturer's instructions.

**3** Install appropriate hardware into frame using manufacturer's instructions



**4** Hang door in frame with hinges. Use screws provided with hinges



**5** Check for appropriate gaps between door and frame. Refer to NFPA 80 for correct clearances. Shim if needed. See Steel Door Institute publication 122-07 for shimming instructions.

**6** Confirm door opens, closes and latches correctly. Adjusted with shims as needed.

### Checklist

- 1** Confirm door opens, closes and latches correctly.
- 2** Check that hardware meets latch engagement requirements per manufacturer's instructions.
- 3** Confirm for fire rated applications that door is self closing and self latching per NFPA 80.



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