

Double Hung/Single Hung Rough Opening Installation with Sheathing Intact



Tools: (Not supplied by manufacturer)

Tape Measure	Utility Knife
Drill	Caulk Gun
Level	Hammer
Putty Knife	Safety Glasses
Square	Hand Roller
Foam Gun	

Supplies: (Not supplied by Manufacturer)

9" flashing tape	Sealant
Low expanding Foam	Non-biodegradable shims
Fasteners	

Manufacturer supplied items:

Nail fin (if applicable)	Chevrons (if applicable)
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Warnings:

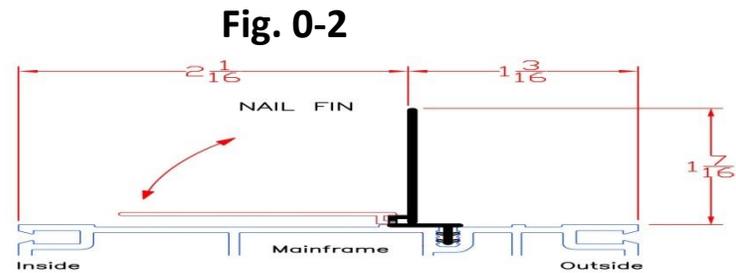
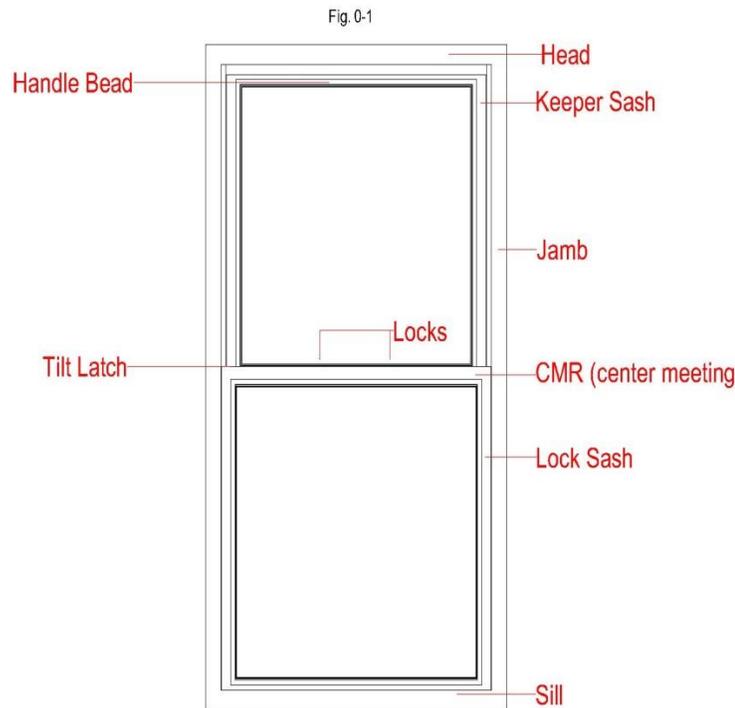


Fig. 0-3

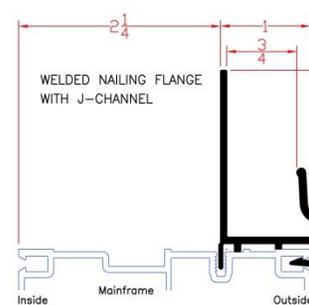
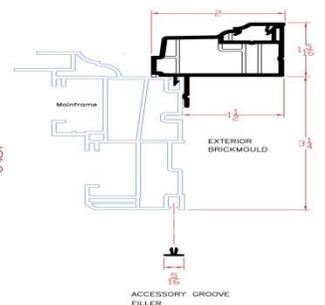
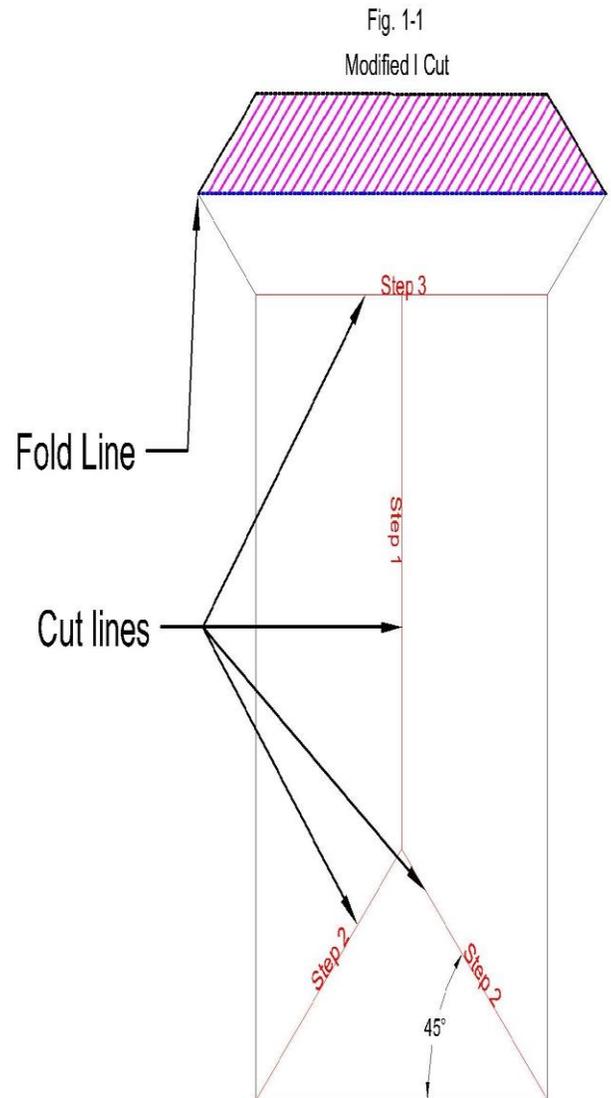


Fig. 0-4



Step One: Rough Opening (RO) Prep

- Check opening for level, plumb and square. Note any discrepancies for proper shimming in later steps or if possible adjust rough opening to create a level, plumb and square opening.
- The exterior surface of the home should already have a weather barrier such as but not limited to Tyvek, TYPAR, or PINKWRAP.
- At the opening, create a modified I cut running from the top middle portion of the opening running down the middle stopping high enough to allow a diagonal 45 degree cut from bottom left and bottom right to meet your middle cut. (fig.1-1 Steps 1 and 2)
- Finally, cut along the top or head of the window opening. (fig 1-1 Step 3)
- Fold the wrap toward the interior of the home and staple along the rough framing.
- Cut any excess house wrap off.
- At the top left corner of the opening, come up 9" and out away from the opening 9" and make a mark.
- Repeat this step for the Right side.
- From each of the corners using a utility knife, cut from the created mark down to the top corner of the rough opening.
- From the left mark, cut down to the upper left of the rough opening.
- From the right mark, cut to the upper right corner of the rough opening. This will create a flap at the top of the window opening
- Fold the flap up and temporarily tape.(fig. 1-1 Fold line)



Below is the formula to determine the flashing tape lengths:

Sill is RO width + 18"

Jamb is RO width + 17"

Head is RO width + 20"

- Cut the self-adhesive flashing tape to size using the formula provided above. If 9" flash tape is not being used, formulas will need to be adjusted. 9" is the minimum width permitted.
- At the bottom left corner of the opening, measure 9" and out 9"; mark this spot and repeat for the bottom right corner.
- Apply your precut sill flashing tape starting at the one of the predetermined spots made in the previous step and end at the other pre-marked spot. The flashing tape should touch both marks and reach to the outside bottom of the rough opening. (fig. 1-2)
- Use a hand roller to ensure a smooth even application of the flashing tape.
- Using a single piece of self-adhesive flashing tape, make a sill pan with an end dams (sides) that run up the Rough framing jamb at least 6" and fold over on to the face of the rough opening and extend outward from the rough opening at least 2". (Figure 1-3 and 1-4)
- Next, set your level on the sill of the rough opening and shim accordingly

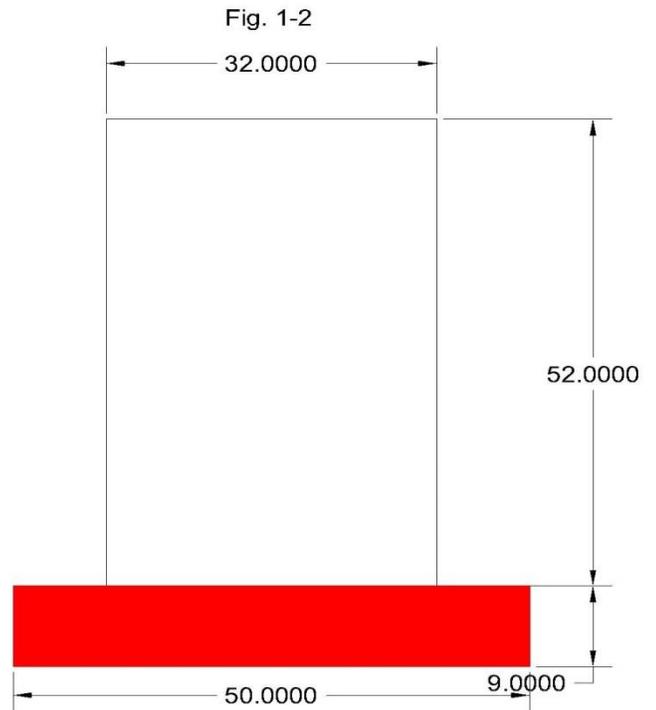


Fig. 1-3

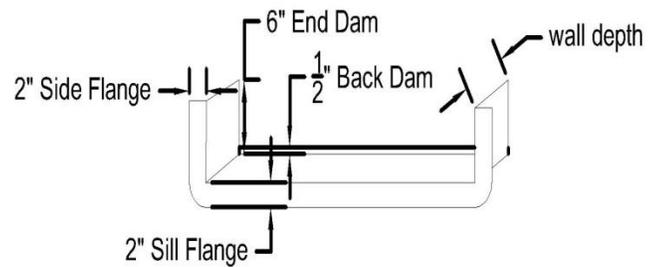
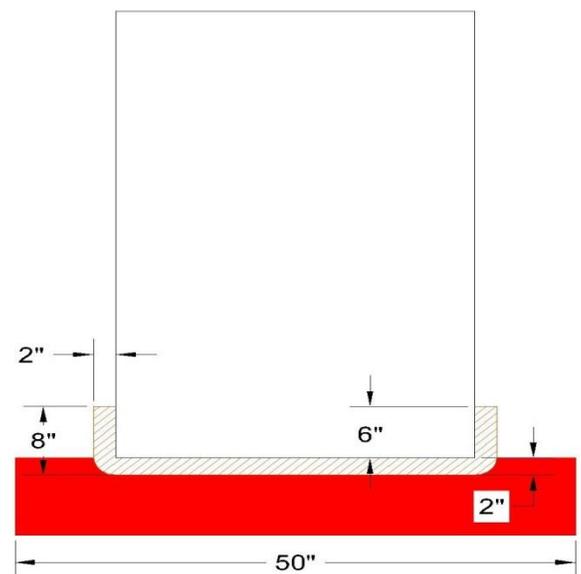


Fig. 1-4



Step Two: *Window installation*

- Remove packaging from the replacement window using a utility knife making sure not to cut or damage interior or exterior frame/sash areas or screen.
- Apply the left side and right side flashing tape. Each piece should extend 8.5" above the head of the window and set 1/2" above the bottom of the sill flashing tape (Fig. 2-1)
- Apply flashing tape to the head of the unit. The flashing tape should overlap the left and right jamb flashing by 1". (2-2)
- Using a hand roller press the flashing tape into the previously applied sealant while making sure that the flashing tape is smooth and evenly applied
- Apply two 3/8" beads of sealant around the perimeter of the rough opening on top of the previously applied flashing tape.
- Remove the screw cap cover from around the brick mold.
- Insert brickmould window into the rough opening bottom first; next tilt the top into place, and press the window into place. Squeeze out should be present around the entire perimeter of the window.
- Starting at the top left corner, come down the jamb 4" and place a fastener in the screw channel of the brickmould.
- Check the unit for level, plumb and square and adjust accordingly.
- Apply a second fastener 4 inches up from the bottom right corner sill in the brickmould screw channel and check level, plumb, and square. Adjust accordingly.
- Measure up 4" from the sill on the bottom left and apply another fastener. Come over 4" from both the right and left jamb and apply a fastener.

Fig. 2-1

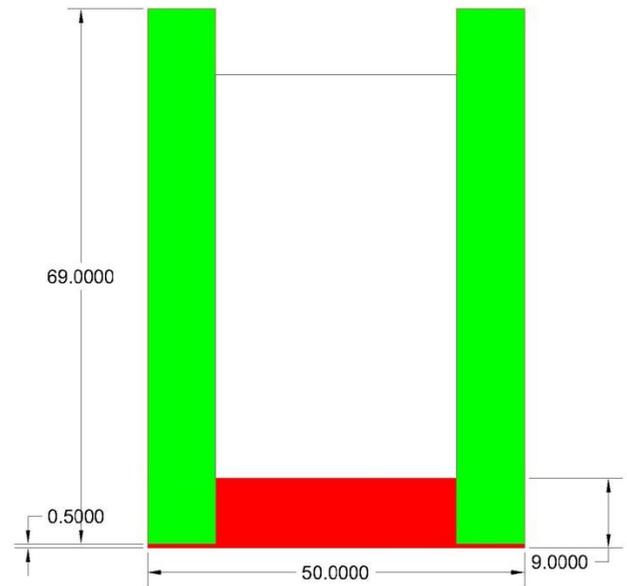
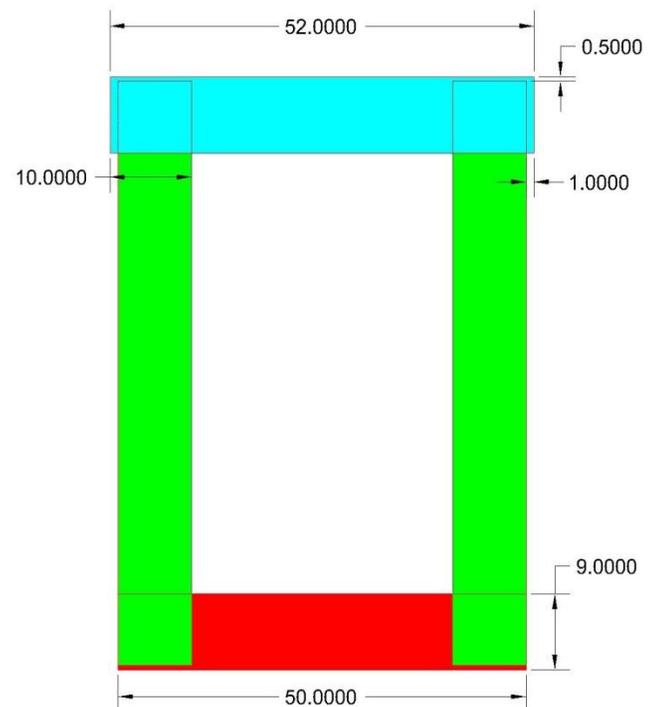
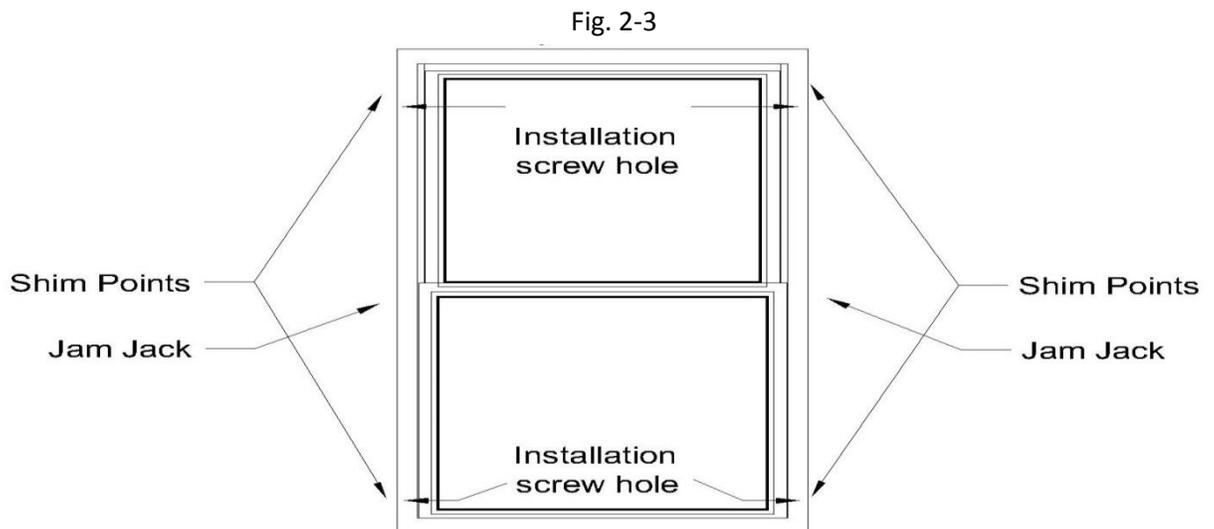


Fig. 2-2



- Fasteners should also be applied every 10" - 12".
- Apply a bead of sealant along the top/head of the unit where the brick mold meets the flashing tape.
- Place a drip cap on top/head of the brick mold and press it into the previously applied sealant and attach the drip cap with a fastener on the up turned leg of the drip cap making sure to apply sealant on the head of each fastener.
****A drip cap should have a upward turned leg that is at least 6" and a downward turned leg that is between 1/8" and 1/4". It should cover the top of the brickmould and come down the jambs far enough to meet up with down turned leg.***
- A piece of self-adhesive flashing identical to the previously applied head flashing should then be applied over top of the drip cap.
- Shim at interior screw points and at jamb jacks if necessary. (fig. 2-3)



- Operate the sashes making sure that they operate correctly and that all lock function smoothly and all sight lines are even.
- Check for level, plumb and square.

Step Three: *Interior Finishing*

- Secure the window using the provided installation screws in the pre-drilled screw holes leaving all screws loose until final adjustments have been made. (Fig.2-3)
- Using low expansion foam, insulate around the interior of the window unit making sure to follow the manufacturer's instruction on proper usage. Loose insulation can be substituted for low expansion foam
- Finish as desired.

NOTE: There are many variations of installation that may be encountered when replacing windows. One conventional installation is described in these instructions. For questions on appropriate installation procedures, refer to your GENERAL CONTRACTOR, LOCAL and STATE BUILDING CODES, ARCHITECTURAL SPECIFICATIONS, and ASTM E2112.