



Window Installation System

OSI[®]

Professional Grade Adhesives & Sealants

NEW CONSTRUCTION INSTALLATION - SILL PAN METHOD

This Manual contains installation instructions and details for installing windows in new construction using the WINTeQ[™] Window Installation System.



OSI
TeQ::Clean
 Foam and Applicator Cleaner
 • Removes dirt and grime
 • Use to clean TeQ::Foam applicator gun
 • Easy to use
 • Non-toxic
 • No VOC's
 • Net Wt. 12 oz (340 g)

OSI
TeQ::Foam
 Low Foam Expansion Window & Door Foam
 • Won't bow windows • Quick setting formulation
 • Cold temperature application

OSI
TeQ::Seal
 Window Flange Sealant
 • All weather formulation • Adheres to wet surfaces
 • Compatible with weather barrier

OSI
TeQ::Flash
 Flexible Window Flashing
 Rubberized Asphalt
 • Easy hand tear
 • Cold temperature application 20°F
 • Self healing butyl technology

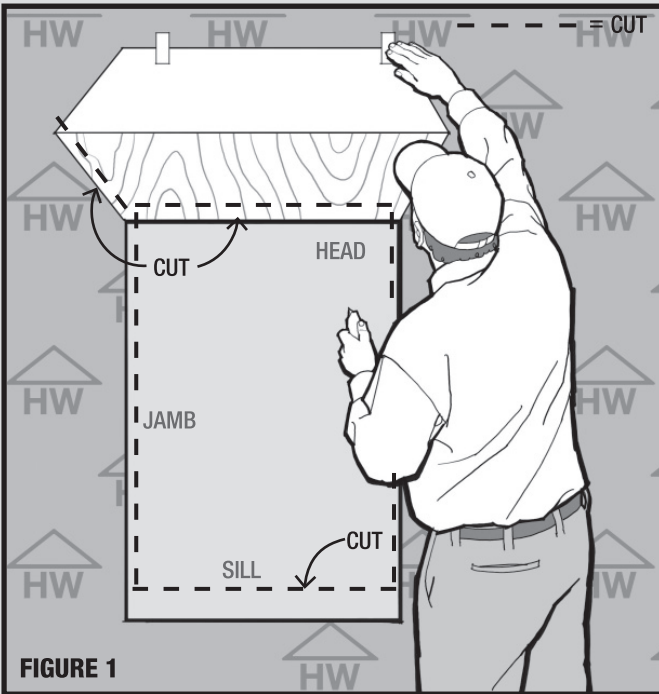
OSI
TeQ::Flash
 Butyl Window Flashing
 self adhering tape
 • Cold temperature application 20°F
 • Self sealing butyl technology
 1 ROLL
 60 in x 75 ft (24.9 sq ft)
 150 cm x 22.8 m (2.28 sq m)

Mounting flange windows are generally used in buildings that incorporate a “Membrane/Drainage System” (exterior weather barrier). Mounting flange windows are designed to integrate with the weather resistant barrier and flashing materials. When installed following the WINTeQ™ System Window Installation guidelines the completed assembly will provide excellent energy efficiency and protection from water infiltration. Mounting flange windows are designed to be installed with fasteners that secure the window through the mounting flange to the building sheathing or rough framing members. In some cases sheathing is not installed around the perimeters of windows and doors. The installation of the WINTeQ™ System Window Installation and ASTM window and door installation standards require that sheathing is in place prior to window installation.

WINDOW INSTALLATION

Step 1. Cut Weather Resistant Barrier

Cut and remove weather resistant barrier (WRB) from rough opening using the new modified “O” method. The Modified “O” cut employs the technique of cutting the WRB back 2” beyond the jambs to allow for direct and permanent seal of the window flange to the exterior sheathing. Cut top portion of WRB to create flap, then fold up and temporarily tape above head. (Figure 1)



Step 2. Install Sill Pan Flashing

Note: If using OSI “Foil Back” TeQ::Flash Butyl Window Flashing please proceed to the Premium Foil Back Sill Pan Steps on Page 5.

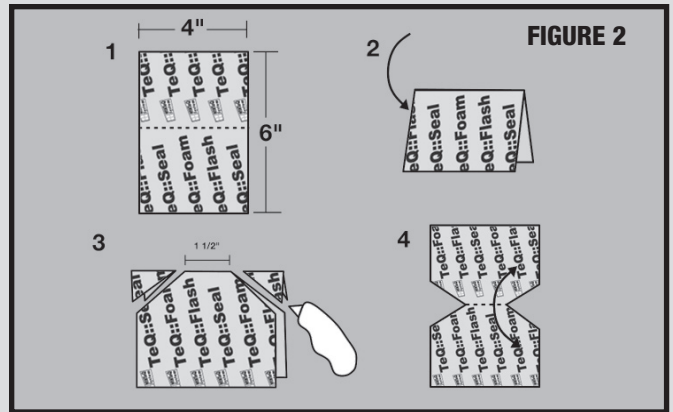
CORNER GUARDS

2.1.1. Create your Corner Guard Flashing for the corners of the sill using a 4” x 6” Flashing. Fold in half and clip edges. (Figure 2)

CUTTING AND APPLYING FLASHING

The following flashing cut formulas should be used to determine the length of each strip of flashing for each window.

Tip: It is best to pre cut flashing to save time during installation process. Using the rough opening dimensions and the formula listed will ensure appropriate length. Be sure to label the cut pieces for easy identification during installation.



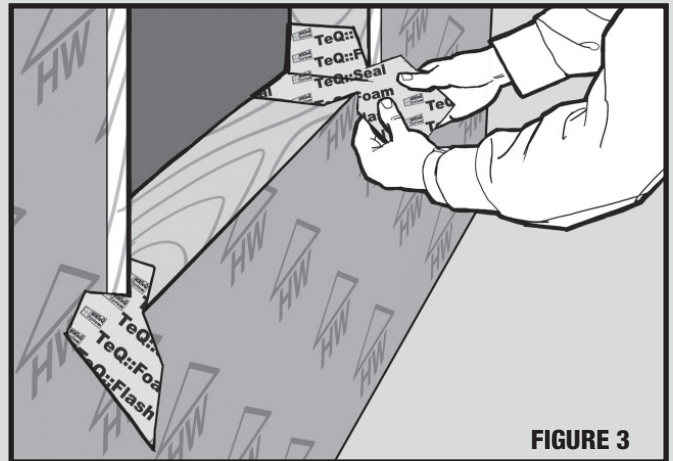
FLASHING LENGTHS AND CUT FORMULAS

Sill Flashing	=	$RO^W + 12''$
Jamb Flashing	=	$RO^H + (2 \times \text{flashing width}) - 1''$
Head Flashing	=	$RO^W + (2 \times \text{flashing width}) + 2''$

legend

RO	=	rough opening
RO^H	=	rough opening vertical (height)
RO^W	=	rough opening horizontal (width)

2.2.1. Pre cut a length of 6” TeQ::Flash 12” longer than the sill rough opening. Apply pre cut flashing by removing the release backing and carefully starting 6” up and 3” in rough opening (or minimum depth of window frame) on the jamb side. Continue to apply the flashing across sill and up opposite side jamb. Once the flashing is attached to the sill and jambs, make a cut in each corner to allow the remaining unattached flashing to fold out and over the exterior sheathing. (Figure 3)



2.2.2. Roll smooth to ensure air bubbles are removed and flashing is adhered to the sill and exterior sheathing.

Step 3. Install Window

3.1.1. Shim sill and jambs to allow for a minimum 1/4” gap (1/2” gap optimal) between rough opening and window. Some window manufacturers require the placement of shims and WINTeQ™ recommends placement of shim on the sill to allow for a minimum 1/4” gap. When called for by the window manufacturer, shims must be left in place. When used as a spacer they can be removed after the window has been mechanically anchored.



FIGURE 4

For left in place shims place a bead of TeQ::Seal™ across area where shim will mount. Embed shim in sealant and then apply a second bead of sealant over shim. This will ensure a complete seal around the shim.

3.2.1. Apply a continuous bead of TeQ::Seal™ Window Flange Sealant to the interior side of the nailing fin, on jambs and head flanges and an intermittent bead on the sill flange. (Figure 5)

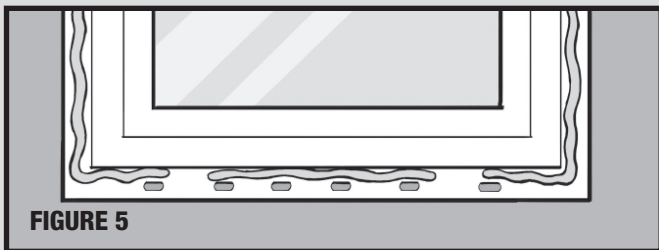


FIGURE 5

3.3.1. Install window into opening within 10 minutes by placing window sill on rough opening sill shims and tilt in header. (Figure 6) Press firmly in place.

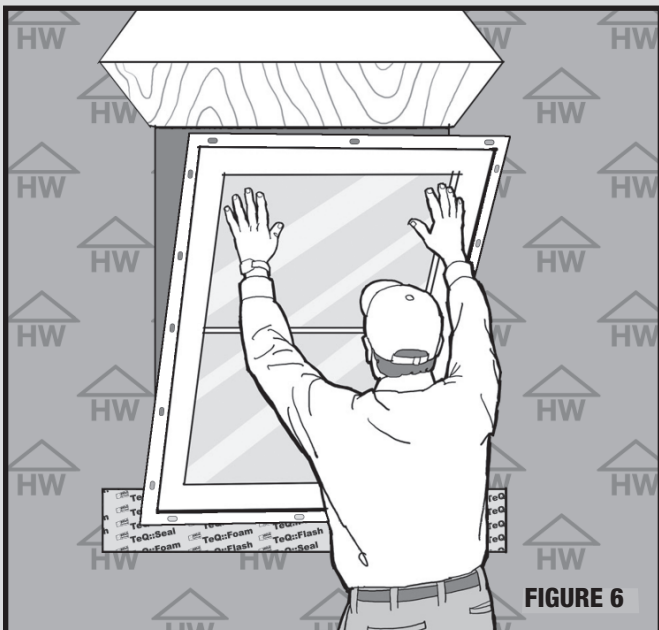


FIGURE 6

3.4.1. Place a mechanical fastener on one side of the nailing flange in the upper part of the flange. Do not drive the fastener all the way in at this time.

3.5.1. Check for level, plumb and true, shim as necessary to achieve.

3.6.1. Ensure window is square and operates smoothly.

3.7.1. Continue to mechanically fasten the window in place beginning at the opposite side of the first fastener. Make sure window remains plumb, true and square.

3.8.1. Do not over drive fastener heads.

Step 4. Install Jamb Flashing

TeQ::Flash™ should be installed to both sides of the jamb following the listed steps.

4.1.1. Jamb Flashing should extend above the head and below sill of the rough opening equal to the width of the flashing less 1/2”.

4.2.1. Install jamb flashing so that the flashing covers the nailing flange and is tight to window frame edge. (Figure 7)

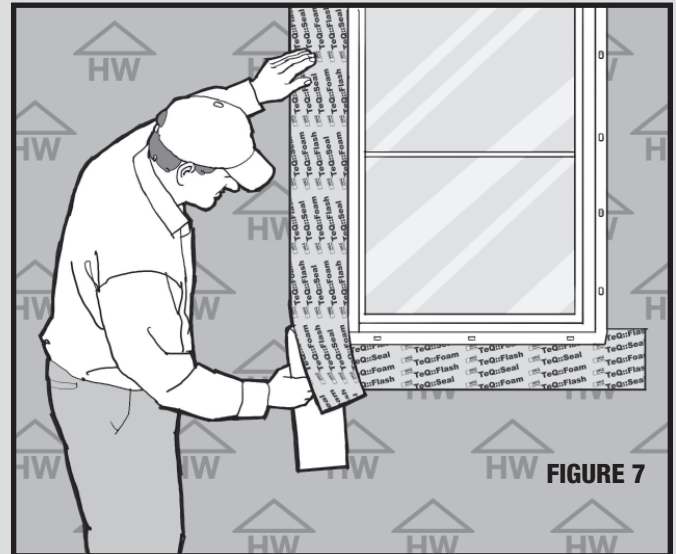


FIGURE 7

4.3.1. Roll smooth to ensure air bubbles are removed and intimate contact is made between substrates. (Figure 8)

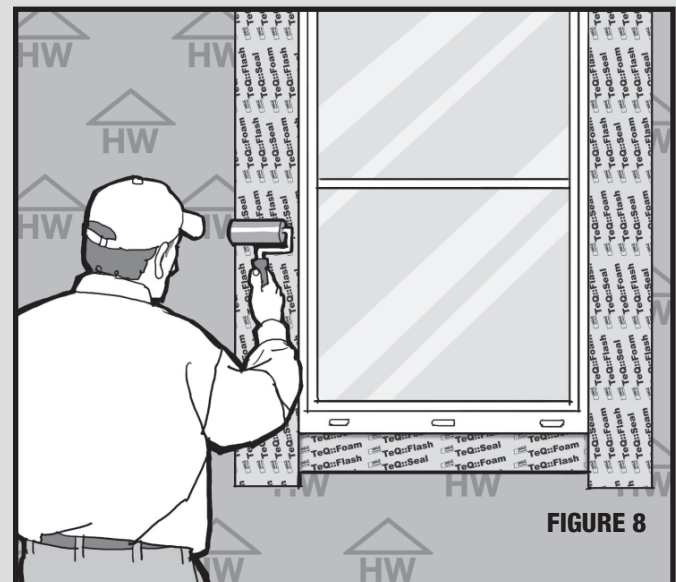
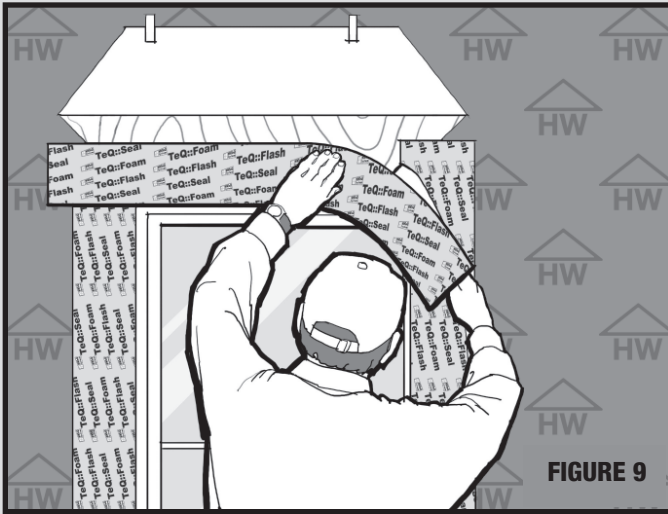


FIGURE 8

Step 5. Install head flashing

Install TeQ::Flash™ to the head condition of the window flange as described in the listed steps

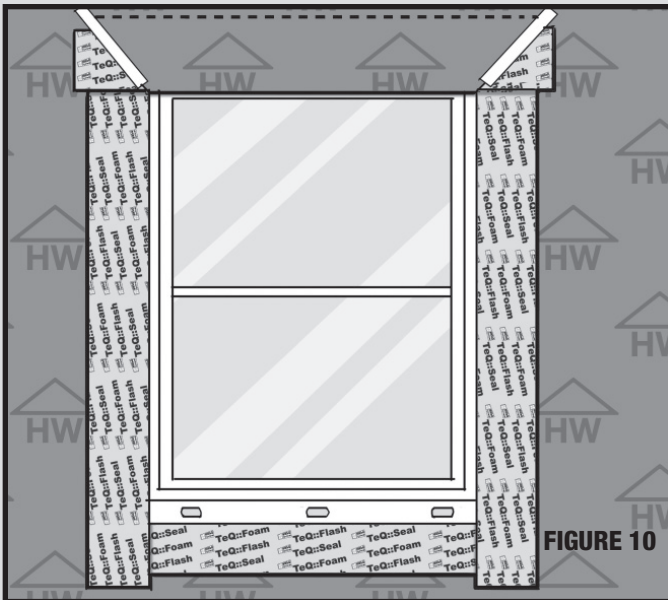
5.1.1. Head flashing should extend beyond jamb flashing by 1" on both sides. (Figure 9)



Apply head flashing under WRB flap created in Step 1.

5.2.1. Install head flashing so that TeQ::Flash™ covers the nailing flange and is tight to the window frame edge.

5.3.1. Remove tape that holds flap created in step 1 and pull flap down over head flashing. (Figure 10)



5.4.1. Apply tape over diagonal cut made in the WRB made using the modified "O" method.

Step 6. Install Interior Insulation

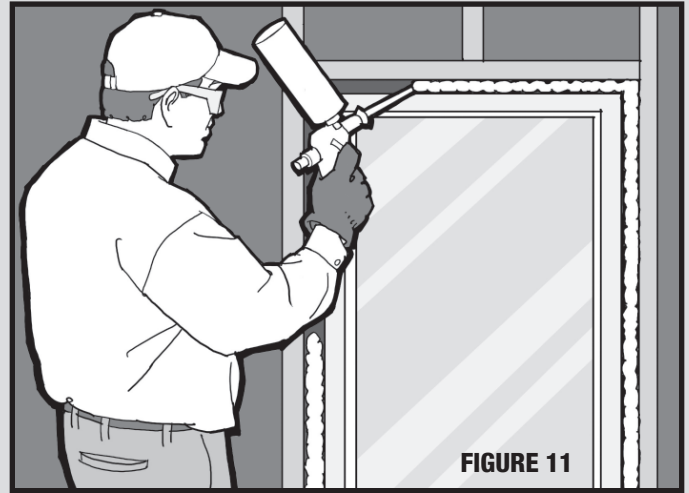
Interior insulation is an integral part of the WINTeQ™ System Window Installation. Once window has been fully installed following steps 1 through 5, TeQ::Foam™ can be applied to the interior side of the window between the rough opening and the window frame.

TeQ::Foam™ has been specifically designed for window and door applications and should be installed using the listed steps (6.1.1. - 6.8.1.).

6.1.1. Safety first, always wear gloves, eye protection and proper work clothes when using TeQ::Foam™.

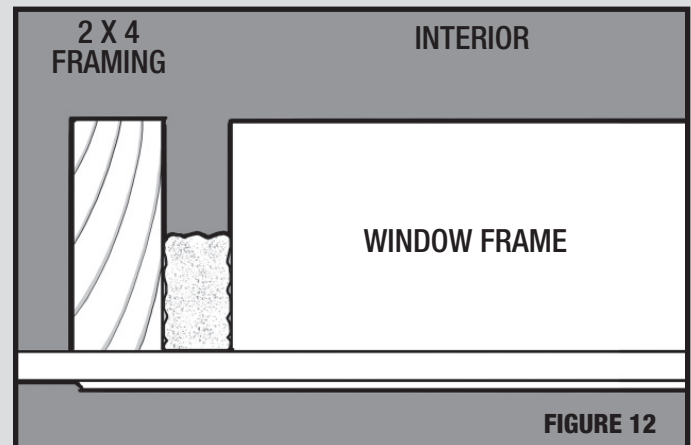
6.2.1. Attach applicator gun to TeQ::Foam™ can.

6.3.1. Starting at the header cavity on one side of the window, insert gun nozzle into gap. (Figure 11)



6.4.1. Pull trigger on applicator gun and begin to apply foam while simultaneously moving applicator along gap.

6.5.1. Apply foam to a depth of approximately 1/2 of the depth of the cavity between the window frame and the rough opening. (Figure 12)



6.6.1. Continue application of foam down each jamb gap and into the sill gap.

6.7.1. Trim off excess foam with sharp knife once cured (approximately 10 minutes).

6.8.1. Clean up spills and foam from unwanted areas immediately with acetone, cured foam is difficult to remove and must be sanded or cut away.

PREMIUM FOIL BACK SILL PAN METHOD

The Foil Back Sill Pan method shown here in great detail, will provide the ultimate protection on the sill against any incidental moisture that makes it to the sill. The extra steps taken here will assure a quality seal of the sill and allow moisture to drain to the drainage plane. Please follow these steps carefully.



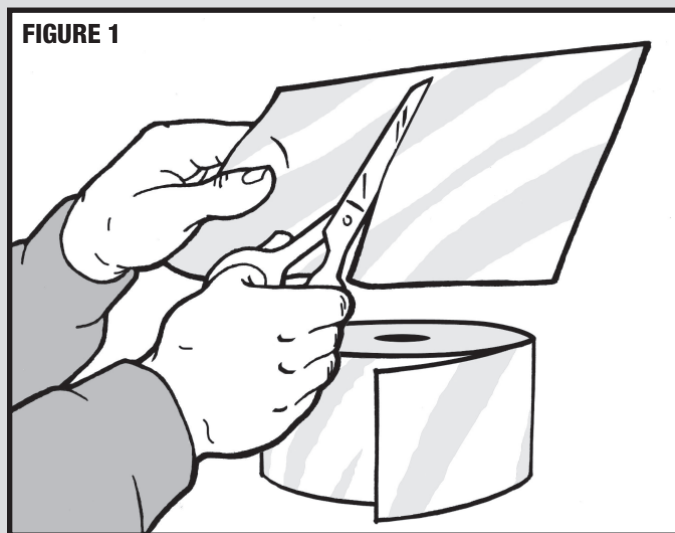
WINDOW INSTALLATION

WINTeQ™ TeQ:: Butyl Window Flashing method.

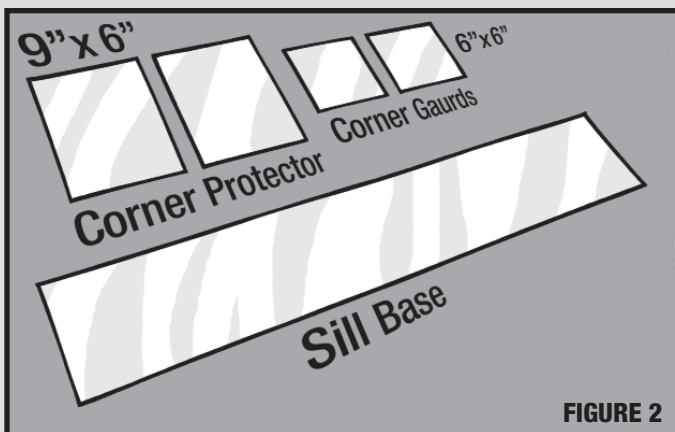
Step 1. Prepare flashing lengths. Prepare to cut flashing into 5 pieces out of a 6" x 75' roll (for walls deeper than standard 2 x 4 wall depth, 9" x 75' roll may be required).

1.1. Measure the rough opening width and add 2X the flashing width minus 1". ($RO^w + 2X \text{ Flashing width} - 1"$).

1.2. Cut these lengths. (Figures 1, 2)

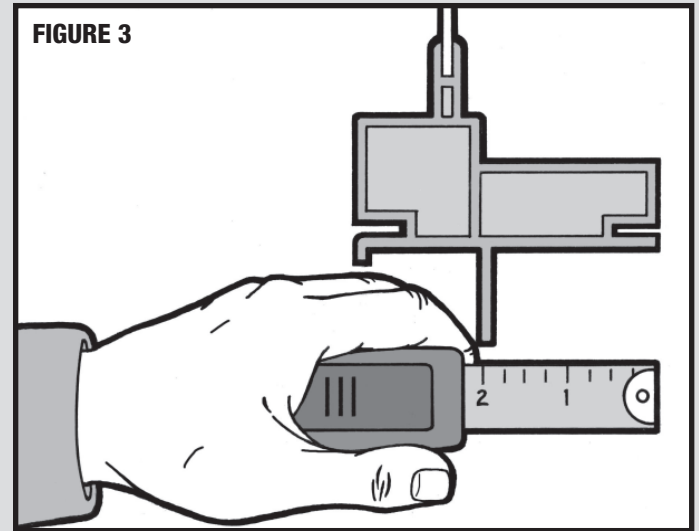


- 2 qty. at 6" x 6" square Corner Guards
- 2 qty. at 6" x 9" Corner Protectors
- 1 qty. at Sill Base ($RO^w + 2X \text{ Flashing width} - 1"$). (Figure 2)

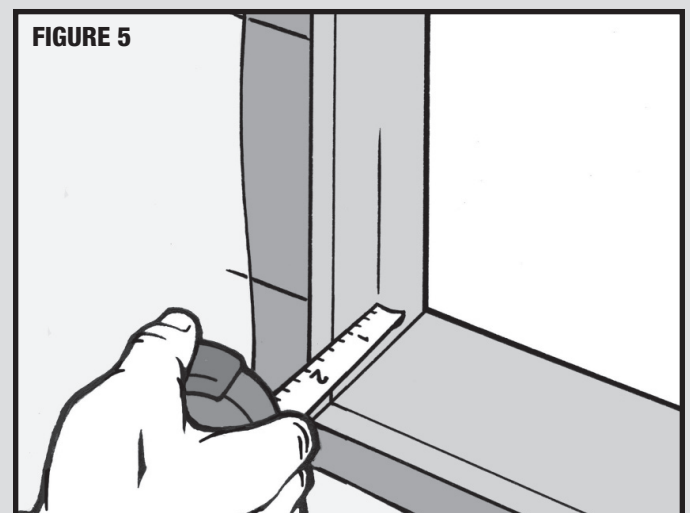
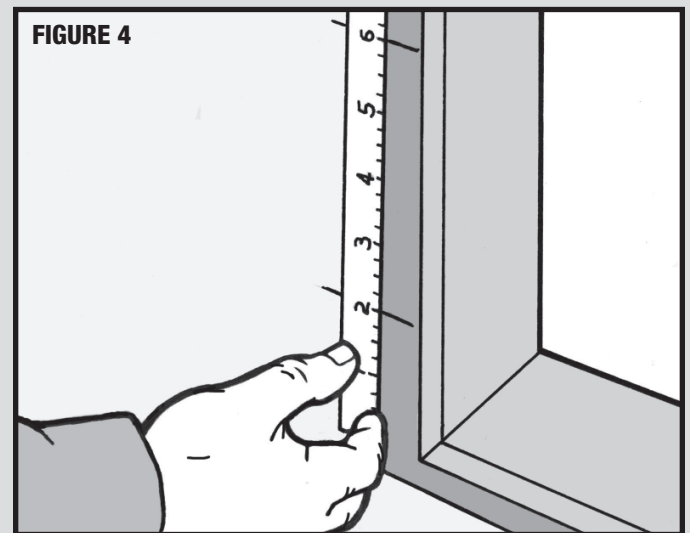


Now you have the 5 essential components for the Premium Foil Back Sill Pan.

Step 2. Measure and Mark the opening. Measure the depth of the frame of the window from the flange into the interior. (Figure 3)



2.1. Transfer this measurement and make a mark to the roughsill, jamb and to the face of the wall from the sill up and into the jambs as shown. (Figure 4, 5)



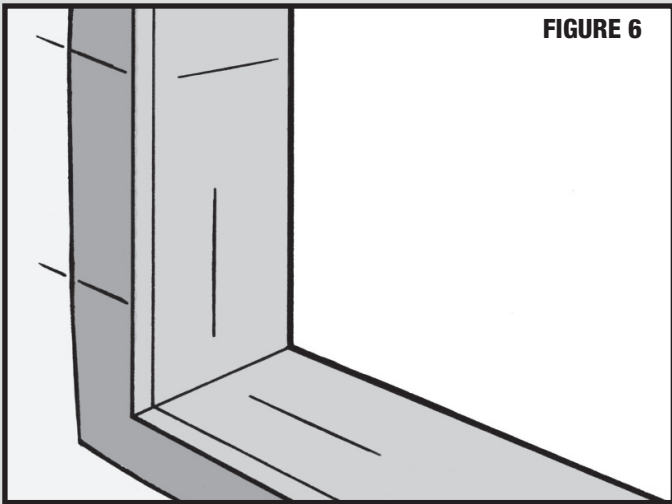


FIGURE 6

2.2. These marks are important to set the flashings in place correctly. Also, make a mark on the face of the wall 6" up from the sill as shown and a mark on the jambs 6" up off the sill. (Figures 5 - 7)

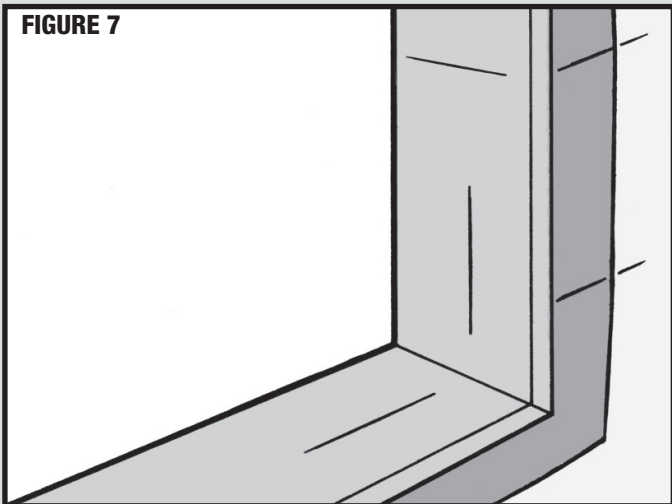


FIGURE 7

Step 3. Ensure sill is dry, structurally sound and free of all dirt and dust. Use a wisk broom to brush off sill. This will ensure quality seal to the substrate. (Figure 8)

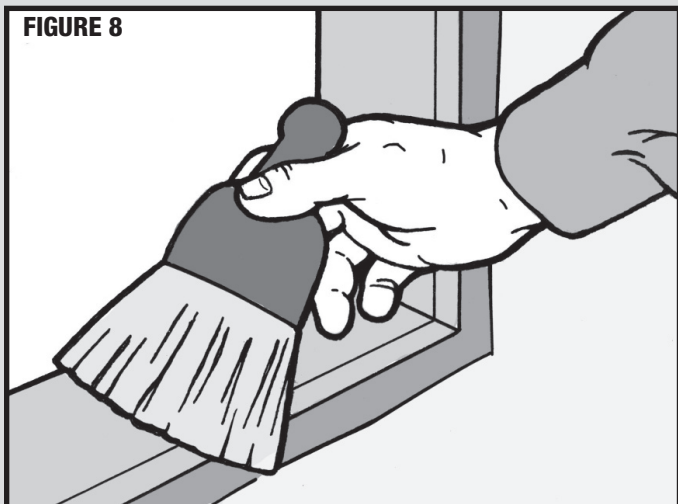


FIGURE 8

Step 4. Set the 6" x 6" Corner Guards. Peel release paper and align with marks made on sill and jamb at each corner.

4.1. Fit the flashing corner guard tightly and squarely into the 90 degree joint and smooth out. (Figure 9)

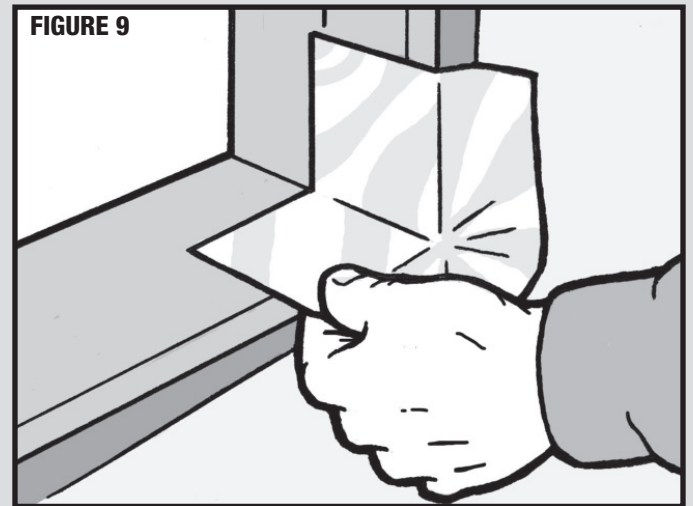


FIGURE 9

See completed example of proper seal into the joint (Figure 10) as opposed to the improper example. (Figure 11)

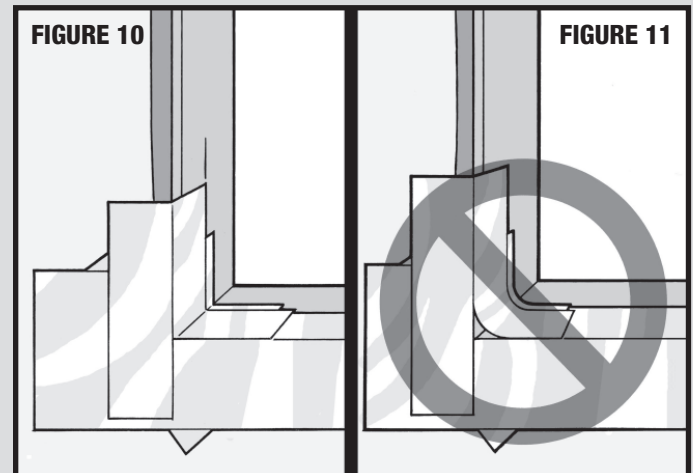


FIGURE 10

FIGURE 11

Step 5. Slit flashing. With a sharp utility knife, make a slit approx 1 1/2" on both sides to aid in bending the flashing. (Figure 12)

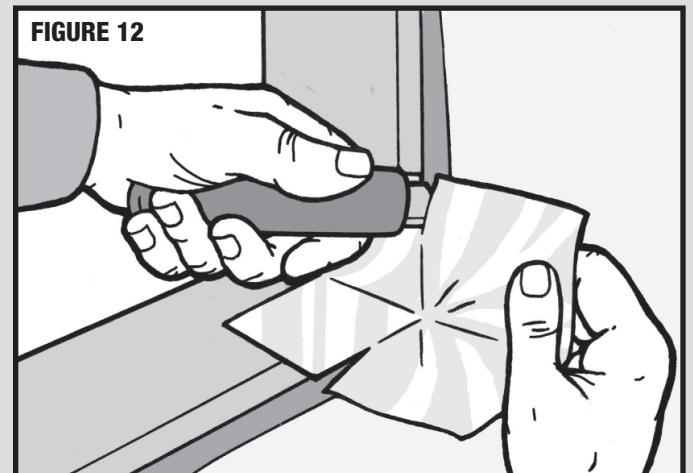
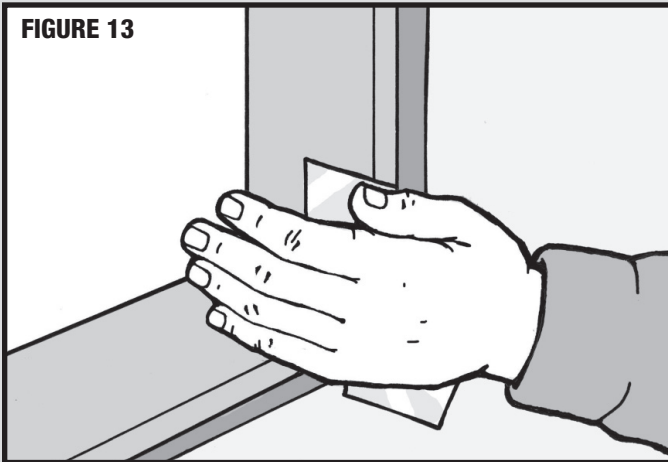


FIGURE 12

Step 6. Bend the flashing onto the face. Use the palm of your hand and with a quick motion of the hand downwards, bend the flashing to the face. (Figure 13)

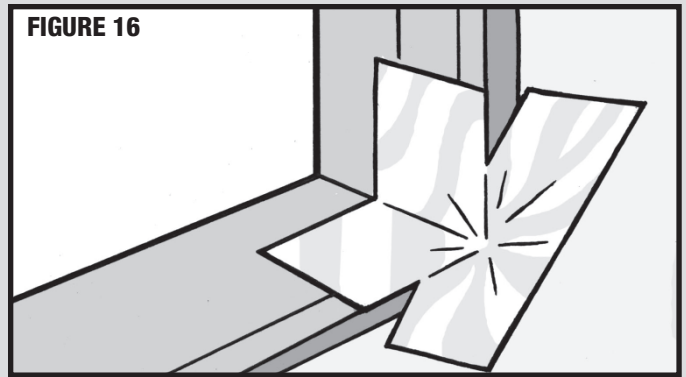
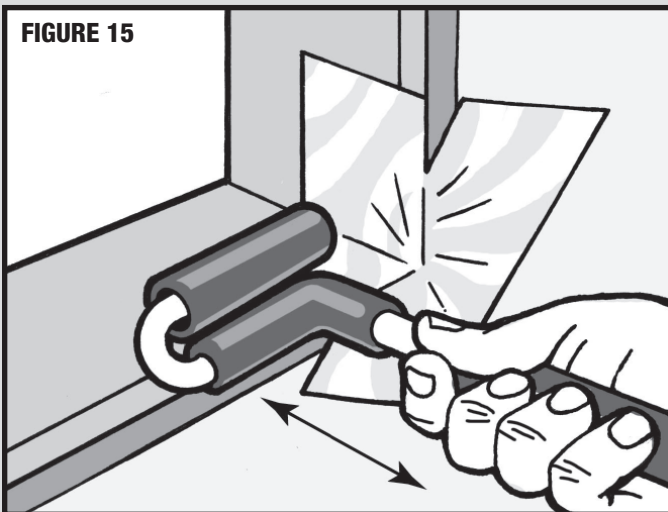


Caution: Do not bend the flashing to the face of the wall by pulling the corner guard as it may tear.

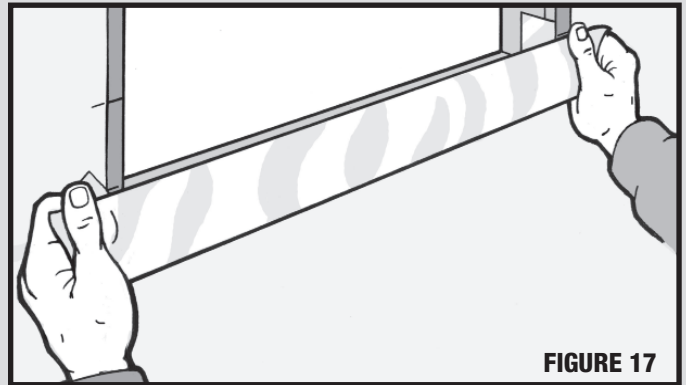
6.1. The cornerguard has to be pushed down with palm as shown. (Figure 14)



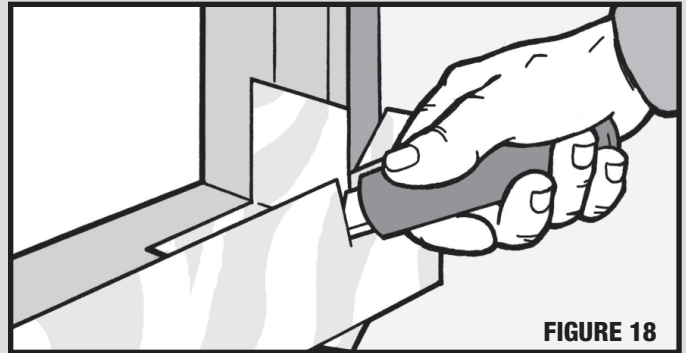
Step 7. Smooth wrinkles. Smooth out all wrinkles using a J roller. (Figures 15,16)



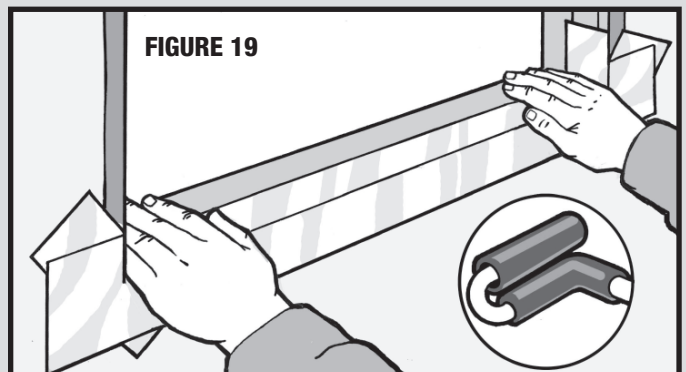
Step 8. Install sill base flashing. Peel the release paper on the sill base flashing and align the sill base flashing with the previous marks made on face of wall that correspond with window depth. (Figure 17)



Step 9. Slit sill base flashing. With utility knife use the jambs as a guide and slit the flashing to the sill. (Figure 18)



Step 10. Bend flashing. Bend the foil flashing over to meet the marks on the sill previously applied. (Figure 19)



Step 11. Smooth the flashing. Smooth out the wrinkles of total flashing with J roller. (Figure 19)

Step 12. Install Corner Protector. Using the larger Corner Protector 9 x 6 pieces, peel the release paper and run the flashing up to the 6" mark on the jambs, force into the 90 degree joint and over the top of the sill base flashing. (Figure 20) It will sit over the base sill flashing approx 3" since it was set 6" up the jamb.

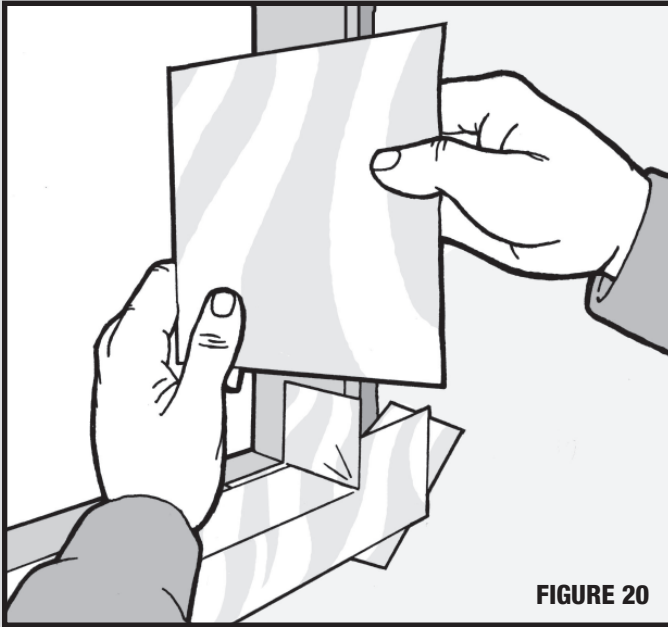


FIGURE 20

Step 13. Slit Corner Protectors. With a utility knife, make a slit along the face of the wall towards the jamb. Be careful not to slit the flashing previously applied to this point. (Figure 21)



FIGURE 21

Step 14. Bend Corner Protectors. Now bend over the flashing to the face of the wall as shown and smooth out all wrinkles with a J roller. (Figures 22 - 24)

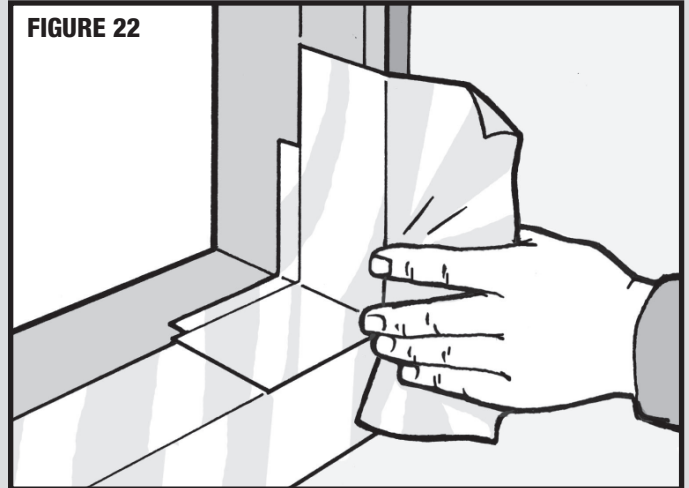


FIGURE 22

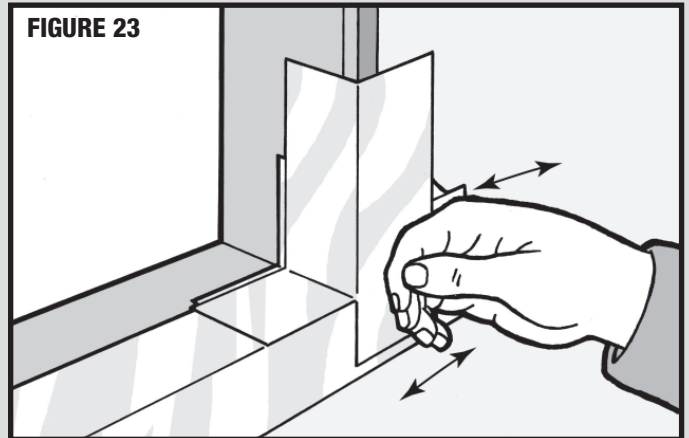


FIGURE 23

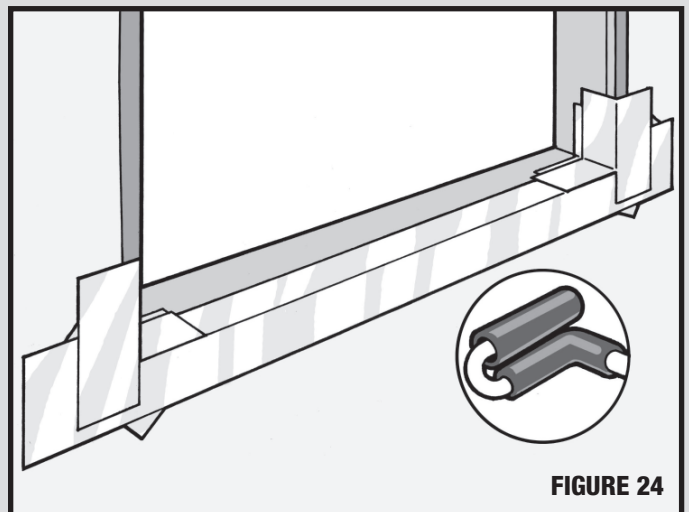


FIGURE 24



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