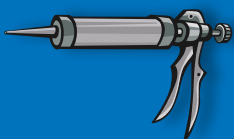


## Materials Required

- **Fortress Pro™ Seaming Tape**, a 2" wide tape for vertical and horizontal seams.
- **Fortress Flashshield™**, a straight self adhering window and door flashing tape.
- **Optional Fortress Flexshield™**, a flexible self adhering window and door flashing tape for arched windows and doors as well as for forming pan flashing for window sills.
- **Compatible Caulk** such as polyurethane or other elastomeric sealants.

## Tools You Will Need

- **Caulk Gun**



- **Utility Knife**



Please see "Fortress Pro™ Installation Guidelines" for Proper Installation of the Fortress Pro™ Weather Protective Barrier System.

## Installation Guidelines

Raven Industries is providing this window flashing installation guide as part of our Fortress Pro™ Weather Barrier System. These recommended installation guidelines are provided in an effort to address potential moisture issues, minimize expensive call-backs for repairs and improve the overall quality of your project. Compliance with the building code and proper installation of all building components that comprise the entire wall envelope are vital to its performance as a system to prevent bulk water penetration. Failure to follow these installation instructions could compromise the wall assemblies ability to effectively resist exterior water penetration.

### FLEXSHIELD™ STRETCHABLE SILL FLASHING

Fortress Flexshield™ should be applied over the weather resistive barrier after it has been properly cut and folded in and around the window rough opening (Fig. 1 & 2).

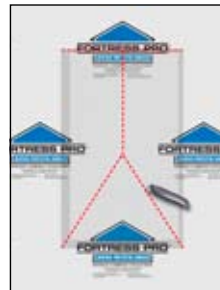


Fig. 1

To prepare opening make one horizontal cut under the header plate at top. Make a vertical center cut from top of window opening  $\frac{3}{4}$  of the way down towards the bottom of the window opening. From the base of this cut continue with two angled cuts towards the bottom corners of the opening (upside down martini glass). Fold the Fortress Pro™ inward, fastening it on the inside of the rough opening. Remove any excess.

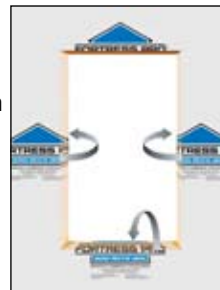


Fig. 2

Prepare sill flashing by cutting Fortress Flexshield™ at least 12" longer than the width of the rough opening. Install sill flashing by removing the release paper, centering sill flashing on sill framing stud, and adhering into rough opening (Fig. 3). The back edge of Flexshield™ should extend to inside edge of sill framing stud and at least 6" up each jamb framing stud.



Fig. 3



Fig. 4

(Note: Sill flashing should not wrap onto the inside of wall). **DO NOT STRETCH MATERIAL ALONG THE SILL OR JAMB.** Once in place, stretch to form outside corner (Fig.4).

### WINDOW INSTALLATION

Before installing the window; (a) apply a continuous bead of sealant to the backside (interior) of the mounting flange near the outer edge. Or, (b) apply a continuous window opening



Fig. 5

at a point to assure contact with the backside (interior) of the mounting flange. (Do not caulk along bottom) (Fig. 5 and 6). Install window according to manufacturer's installation procedures (Fig. 6).



Fig. 6

## Installation Guidelines

### SIDE JAMB FLASHING

Apply Fortress Flashshield™ along vertical sides of the opening. Flash over the side window flanges. Extend the flashing a minimum of 3" beyond the sill flashing (Flexshield™) already in place and extend the flashing you are using a minimum of 3" beyond the top of the opening, so that it is laid underneath the head flashing to be applied later (Fig. 7).



Fig. 7



Fig. 8

### HEAD FLASHING

Affix the bottom of the head flashing over the mounting flange. Be sure to extend the flashing beyond each jamb flashing. Secure in place by applying pressure (Fig. 8). Unattach Fortress Pro™ or other housewrap and apply overhead Fortress Pro™ seaming tape as shown (Fig. 9). Tape all seams and joints.



Fig. 9

### CIRCULAR WINDOWS

Follow above instructions for proper installation prior to head flashing installation. Install circular-top windows according to window manufacturers installation guidelines, then follow instructions below to complete the process.



Fig. 10

Measure the circular portion of the window and add 12" to this number. Cut Fortress Flexshield™ to this length for the head flashing. Remove approximately 20" of release paper and position Flexshield™ tightly along the first edge of round window, press firmly into place. Continue removing release paper and conform Flexshield™ along entire circular portion of window. Use Raven Fortress Pro™ Tape or mechanical fasteners (i.e. nails, staples, or screws) to temporarily hold top edge of head flashing to wall. Flexshield's adhesive bond will strengthen over time. Both ends of head flashing should overlap jamb flashings by at least 6" (Fig. 10 and 11). Unattach Fortress Pro™ or other housewrap and apply overhead Fortress Pro™ seaming tape as shown (Fig. 12).



Fig. 11

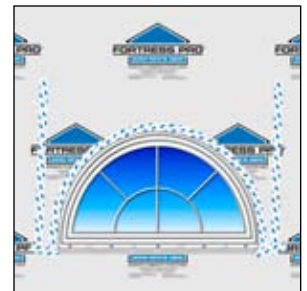


Fig. 12

**Important Note:** This recommendation refers to the most commonly used types of windows (surface mounted). For other types of frames, special attention should be paid to window manufacturer's instructions. A spray adhesive, such as 3M™ Super 77™, is recommended when Flashshield™ is applied directly to Oriented Strand Board (OSB) or other surfaces where additional adhesion is needed or required. For optimum product performance, store in original sealed packaging at temperatures between 5°- 32°C (40°- 90°F) under moisture free conditions.