

Wall-Mount Frames

Description:

In cases where equipment screening is needed but attaching to the roof is not feasible, or is otherwise impractical, RoofScreen Wall-Mount Frames may be a good solution. Using either standard or watertight brackets attached directly to a parapet wall or the exterior of the building, the screen can be supported with vertical tubes without utilizing diagonal braces and roof attachments.

The outward appearance is that of a parapet extension. Various types of panels can be applied to either blend with the building, or use contrasting textures, colors and styles to provide an architectural statement.

Materials:

- Tubing: 2.5" O.D., 16ga and 11ga (ASTM A-500) with special triple coat galvanizing process lasts more than 4 times longer than standard galvanized pipe.
- Tube Connectors: AISI Type 304 Stainless Steel.
- Hardware: Nuts and bolts used for connectors are corrosion resistant 18-8 stainless steel. Tek Screws are carbon steel with premium coating.
- Wall Brackets: Steel (ASTM A36) with hot-dip galvanized finish.

Application:

RoofScreen Wall-Mount Frames are appropriate for use when there is sufficient space on the wall to allow the attachment brackets to be properly mounted. The wall also needs to have adequate structural capacity. Concrete and fully grouted CMU walls work the best. Wood and steel stud framed walls have limited capacity and can be problematic.

Interior Wall-Mount Frames (IWM), as illustrated in Figure 1, are used on the inside (roof side) of a parapet wall. This is the most common and easiest way to use a Wall-Mount RoofScreen frame. The parapet wall must have enough height and clear surface area to properly mount the attachment brackets. As shown in Figure 1, the distance between attachment brackets is referred to as Span. The minimum span distance is 12". A minimum of 6" is needed above the top bracket and below the bottom bracket. This means the parapet wall must have at least 24" of clear height for attachment.

The span distance is a critical dimension in determining the capacity of the frame. The strength of the frame and the allowable height of the panel is increased by increasing the span. These dimensions and the resultant frame capacity determines how far apart the frames can be placed along the parapet wall.

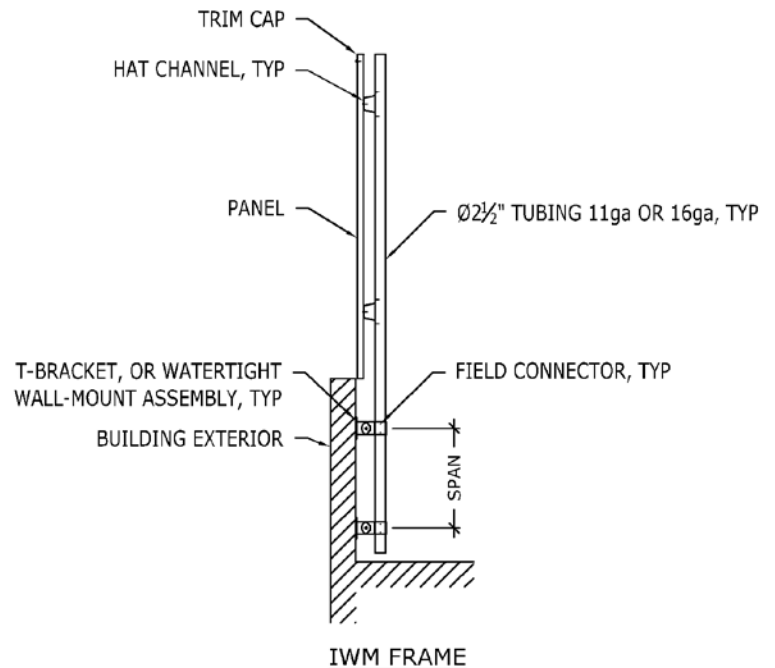


Figure 1

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Exterior Wall-Mount Frames (EWM), as illustrated in Figure 2, are used on the exterior wall of a building, and extend up past the roof edge or parapet wall. This type of Wall-Mount Frame is useful when the parapet wall on the inside of the roof is inaccessible, or there is no parapet wall at all. The disadvantage to this type of installation is that the framing and brackets are more visible to the public, and requires additional panels and closure trims to make it aesthetically pleasing.

The span distance (see Figure 1) is a critical dimension in determining the capacity of the frame. The strength of the frame and the allowable height of the panel is increased by increasing the span. These dimensions and the resultant frame capacity determines how far apart the frames can be placed along the building wall.

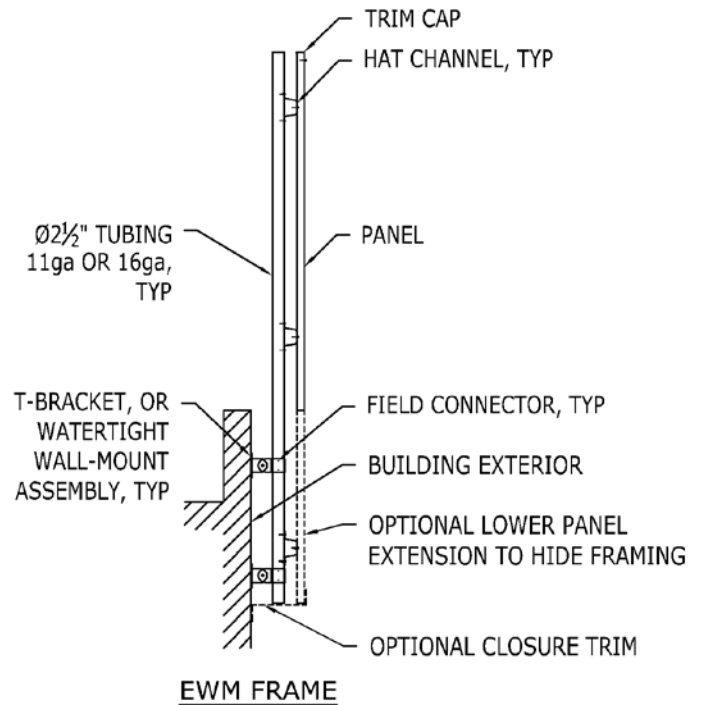


Figure 2

In cases where the parapet wall is too short to allow proper attachment of both mounting brackets, the frame can be mounted with a single bracket on the parapet wall and a brace back to the roof as shown in Figure 3.

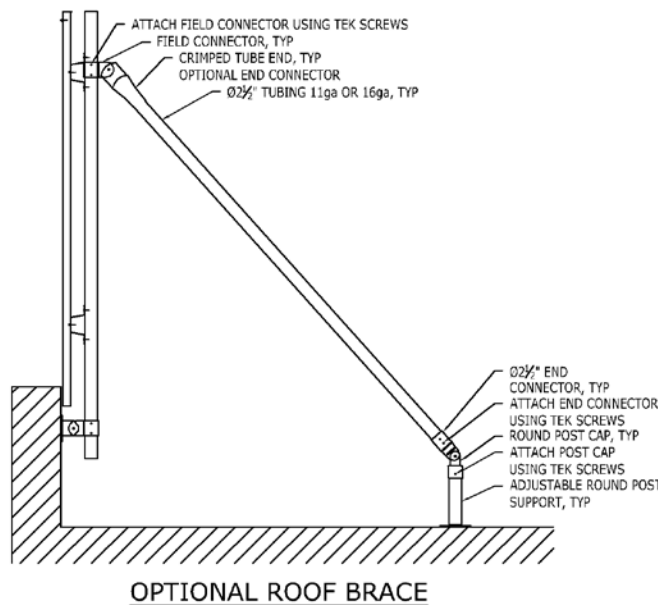


Figure 3

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On exposed walls, where waterproofing is not required, the standard T-Bracket mount is the appropriate choice (see Figure 4). The base plate in the bracket includes holes that are arranged and sized to allow attachment to various types of structures using different types of fasteners (e.g. expansion anchors, lag screws, self-drilling tek screws, etc.) After the T-Bracket is mounted, the RoofScreen standard field connector is bolted to the T-Bracket to support the vertical tube.

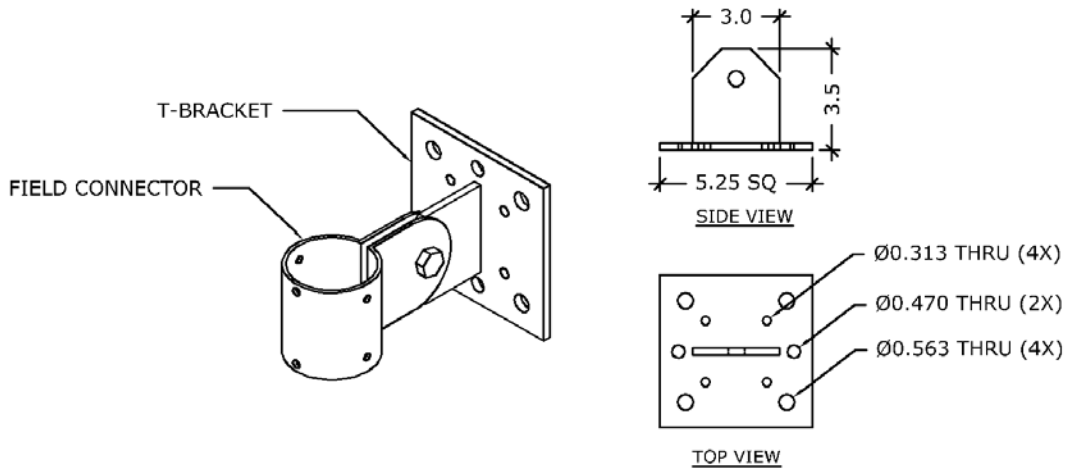


Figure 4

When the wall is waterproofed with a coating or membrane, the Watertight Wall-Mount Assembly is the best choice. The assembly consists of a Wall-Mount Base, a separate Surface Mount Bracket and (4) specially machined Sealing Bolts. The Wall-Mount Base is first attached to the wall using fasteners appropriate for the type of substrate being attached to. A flashing membrane (by others) may then be applied over the Base and roofed into the wall. Holes are cut in the flashing membrane to align with the (4) holes in the Surface Mount Bracket. Sealant may be applied to the flat surface around the holes. When the Surface Mount Bracket is installed, the (4) Sealing Bolts compress the flashing membrane between the Base and Bracket like a gasket. See Figure 5.

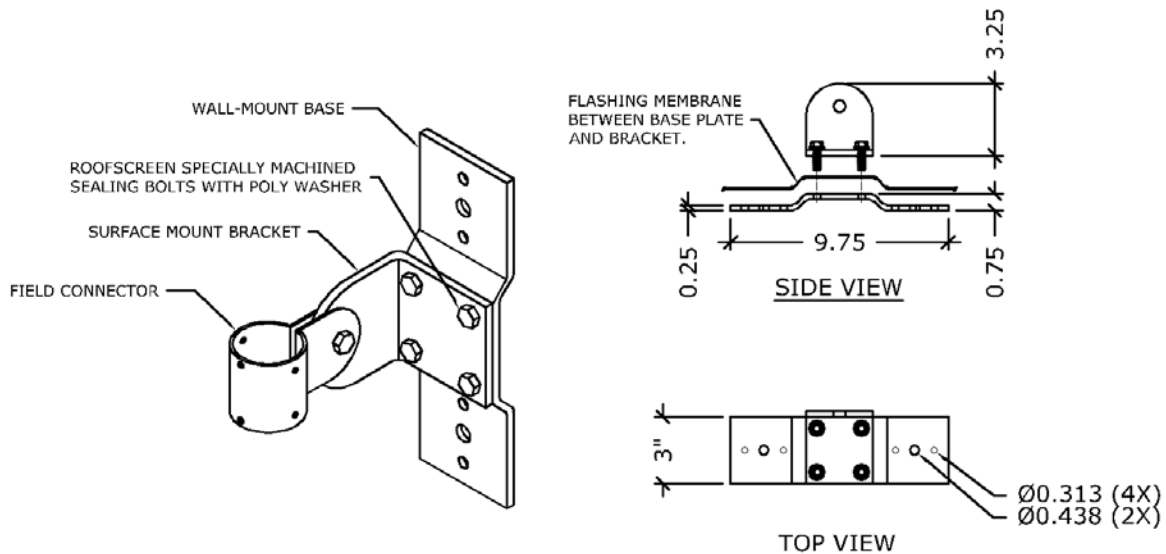


Figure 5

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The bolts used to fasten the Surface Mount Bracket to the Wall-Mount Base are specially machined with undercut shoulders. When the bolt is installed and seated, the washer is compressed approximately 50%, creating a seal. The solid metal-to-metal connection between the bolt shoulder and top surface of the Bracket prevents over-compression and damage to the washer. Since the washer is completely contained within the undercut, it is never exposed to the environment or UV light.



Warranty:

When the system is designed and engineered by RoofScreen Mfg., we include a 20-year limited warranty.