

ROOF SPECIALTIES

D-SERIES PRODUCTS FOR SLOPED METAL ROOFS WITH NEW D-100 FLEXIBLE FLASHING

DESCRIPTION

The Thaler D-100 EPDM Flexible Flashing is a dependable new flashing product designed specifically for sloped metal roofs. The flashing consists of an upper flashing boot (with triple pressure grommet seal), a separate Base Seal, cast aluminum hold-down ring, and a series of aluminum lock rivets with synthetic rubber washers under the heads.

Prominent Features: Available for both standing seam and corrugated panel profiles. EPDM Base Seal eliminates condensation and condensation build-up from below and eliminates flashing leaks from above (seals never, ever need caulking). Aesthetically pleasing. Promotes structural sufficiency since support posts must be tied to the roof structural frame. Maintenance free.

Options: Refer to specific D-Series product literature e.g. vent pipe flashing, roof supports (all disciplines), fall arrest roof anchors and similar products for available sizes and applications.

RECOMMENDED USE

For both standing seam and corrugated metal panel roofs. Fabricated to suit specific manufacturer panel profiles. See "Ordering and Availability". Refer to specific D-Series product literature e.g. vent pipe flashing, equipment roof supports (all disciplines), fall arrest safety anchors, and similar products for applications and sizes. Also available for metal roofs with insulated liner systems (longer support posts only required).

WARRANTY

20 year warranty against **leaks, condensation and defects** in materials and/or manufacture when installed in accordance with Thaler "Installation Instructions". Copy of Warranty Certificate available upon request.

MAINTENANCE

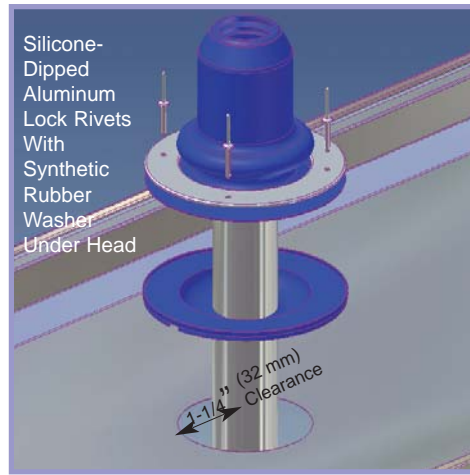
No maintenance required (maintenance free).

SPECIFICATION

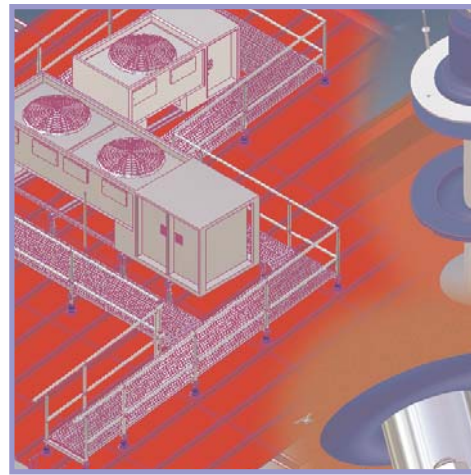
Refer to specific D-Series product data sheet e.g. snow guards, roof supports, safety anchors, etc. for Short Form Specification. For multi-product applications, refer to end of D Section of manual for specifications written up as a complete section of work (3-Part Format).

Continued at left and on reverse

D-100 EPDM Flexible Flashing



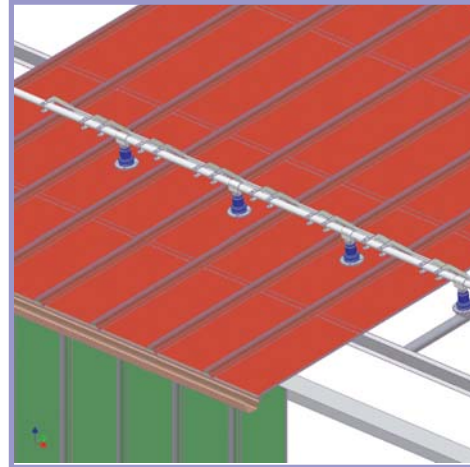
D-ARS 100A Floating Walkway



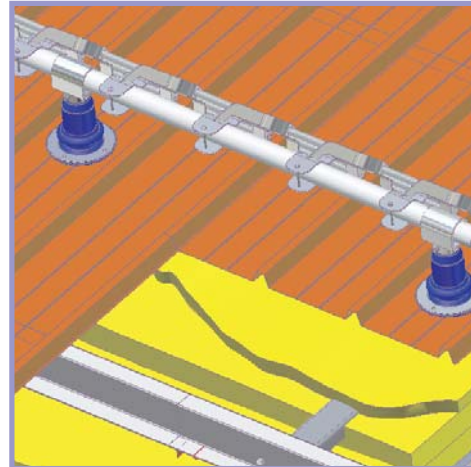
D-ARS-400 Flag Pole Or Rail Roof Supports



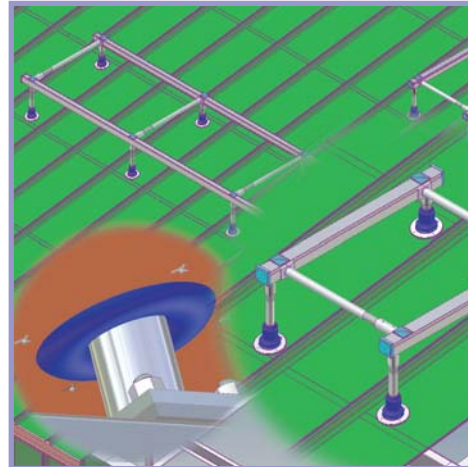
D-ARS-600 Snow Guard



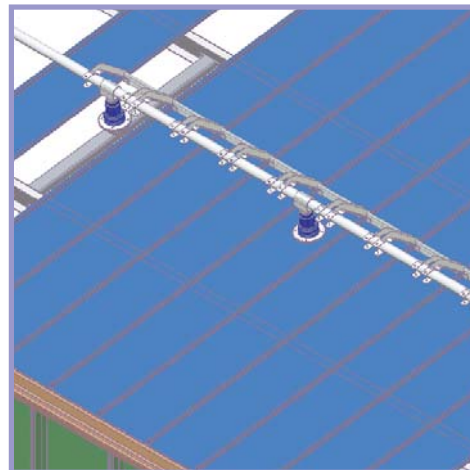
D-ARS-600 Snow Guard



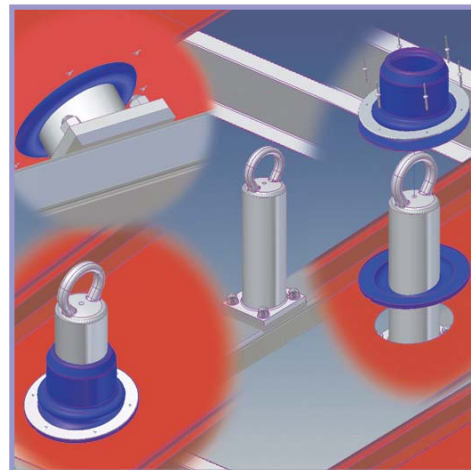
HVAC Unit or Duct Supports



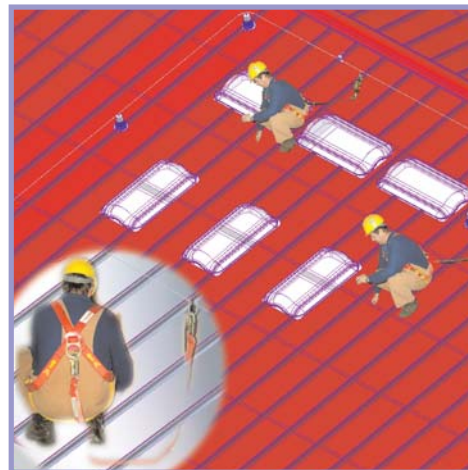
D-ARS-600 Snow Guard



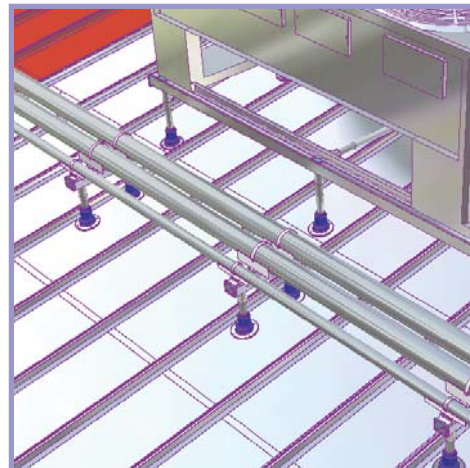
Fall Protection Anchors



D-190 EASY SLIDER Horizontal Lifeline



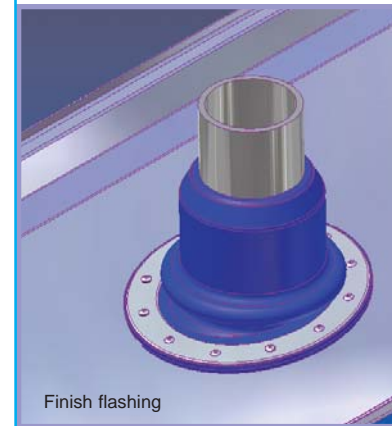
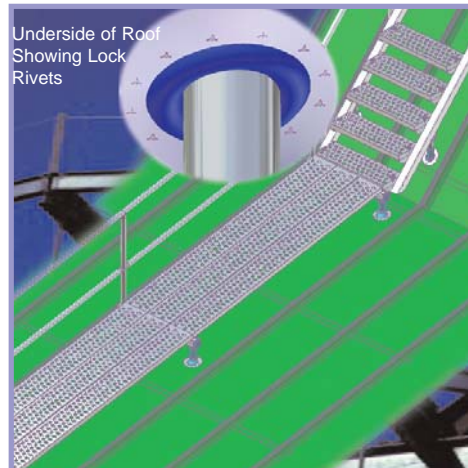
D-MERS-630 Multiple Pipe Supports



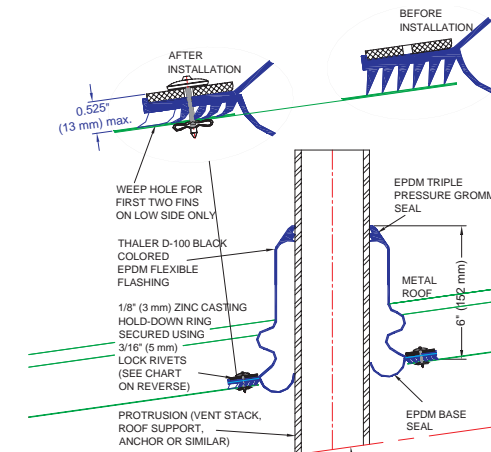
D-190 EASY SLIDER Horizontal Lifeline



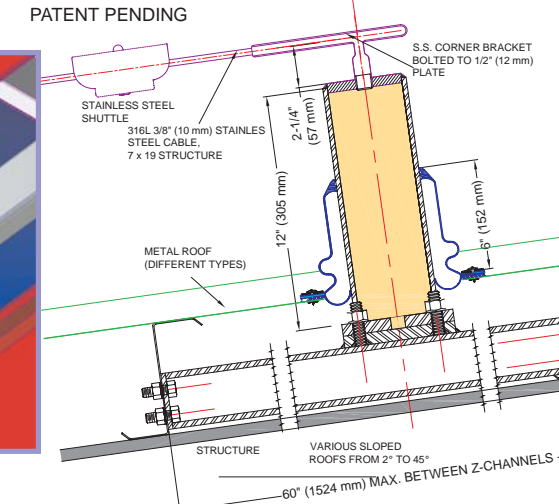
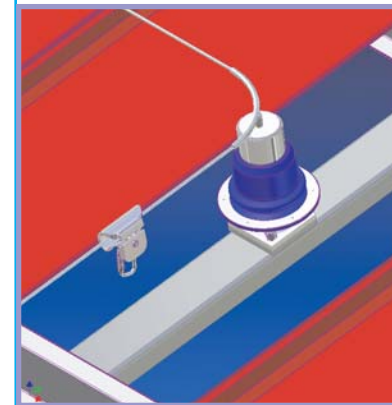
Stair Supports



Finish flashing



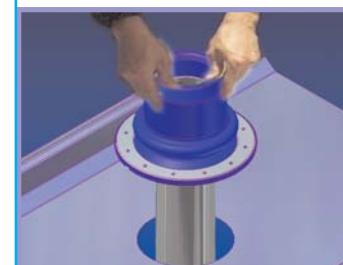
VENT STACK APPLICATIONS (For Passive and Exhaust Vents, Etc.)



ROOF SUPPORT APPLICATIONS (For Snow Guards, Equipment Supports, Fall Arrest, Etc.)

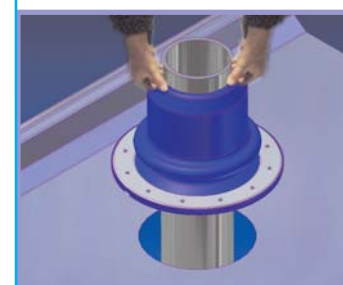
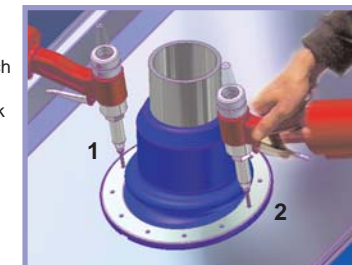
INSTALLATION

"Installation Instructions" are provided with every Thaler product. Essentially, the Thaler D-100 EPDM Flexible Flashing is installed by first bolting the support post assemblies where applicable e.g. snow guard, rooftop equipment, safety anchors, etc. to the structural roof framing (Z or C channels). Panels, with hole cutouts, are then placed over the posts and the D-100 Flexible Flashing is simply placed over the post and sealed using silicone dipped aluminum lock rivets with synthetic rubber washers under the heads. The number and location of rivets will depend on size of flashing (use), roof slope, and gauge of metal roofing.

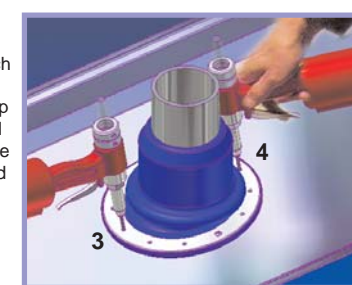


Cutout hole around vent stack and place flexible flashing over pipe.

Drill and inset lock rivets each side of vent stack at right angles to slope.



With hands on EPDM push and work flashing down to metal roof. Ensure EPDM Base Seal (donut shape portion) fits into hole.



Drill and inset lock rivets each side of vent on up slope and downslope sides, and than complete rivetting.

Ordering and Availability: The D-100 EPDM Flexible Flashing is fabricated to order based upon metal roofing profile employed. **For flat/ribbed profile, products are available as stock items. Allow 3-4 months lead time for corrugated panel profiles after checking availability of Thaler stock items.** Available throughout North America. Contact Thaler for list of distributors and current cost information.

INTRODUCING THE THALER D-100 FLEXIBLE FLASHING-A DEPENDABLE NEW FLASHING FOR PROTRUSIONS IN SLOPED METAL ROOFS

Eliminating Condensation in Flashings is Essential While Successfully Adapting to Corrugated or Standing Seam Roofs

Sloped metal roofs have always been a challenge with regard to providing a waterproof and weather-resistant seal around pipes, vent stacks and other elongate members projecting from metal roofs including support members for a whole host of roof-mounted apparatus or equipment such as:

- Snow guards
- HVAC units
- Walkways
- Satellite dishes
- Antennas
- Access ladders
- Fall protection anchors
- Rail posts
- Conduit or pipes
- Ductwork
- Signage
- Screen walls
- Lighting

Metal roof design is dramatically different from other types of roofs due to the wide array of metal roof panel profiles and the difficulty with providing a long-lasting, watertight seal of any gap that exists between the flashing and projecting members.

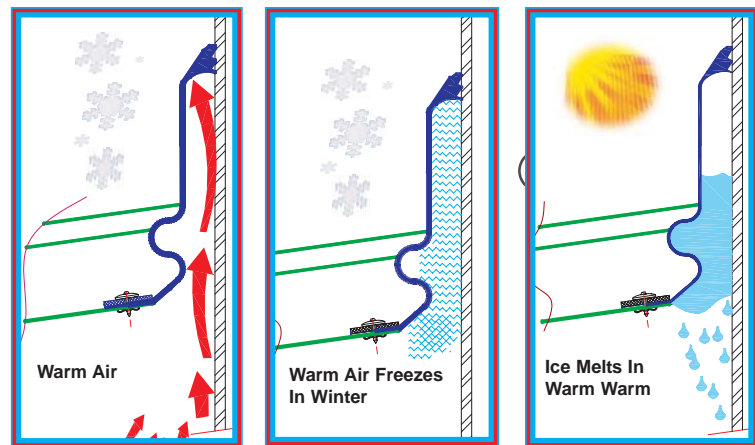
Grommets or Resilient Flashings

Grommet seals or rubber flashings are often utilized to seal gaps between roof protrusions and flashing, instead of caulking.

However, these types of flashing constructions suffer from a susceptibility to the build-up of condensation within the flashing. This may even be exacerbated in roof flashing assemblies having resilient grommet or rubber seals, due to a larger air space being created between the outer surface of the protrusion and the interior surface of the flashing member (large chamber). This air space is in liquid communication with the inside atmosphere of the structure. This allows moisture in warm air from within the structure to collect, condense and freeze within the flashing during winter months. This collected moisture melts during the spring, eventually leaking into the structure.

The amount of moisture entering the structure in the spring is sufficient to cause the occupants of the building to incorrectly assume that the grommet seal is leaking, resulting in unnecessary, expensive roof repairs and an industry perception that grommet seals are unreliable.

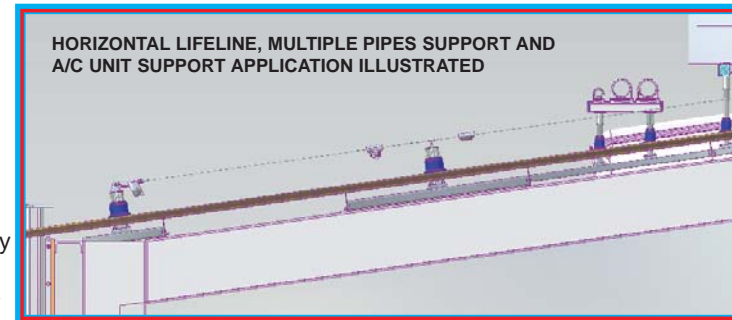
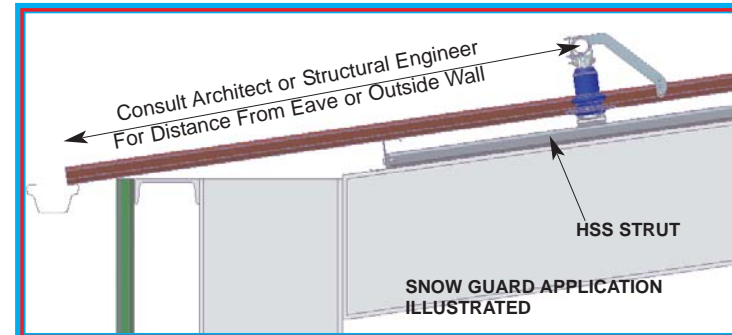
In an attempt to alleviate water infiltration into the interior of a building due to condensation, insulation is typically applied to the inside surface of the flashing. Despite the availability of insulated roof flashings, many installers elect, because of cost, to use non-insulated flashings. However, even when insulation is used, it has been found that condensation problems will still persist to an unacceptable degree.



The Phenomena Of Condensation Build-Up

Ensuring Structural Sufficiency of Roof Supports

In order to support HVAC units, snow guards or similar rooftop items, construction professionals cannot afford to guess regarding the strength of roof supports. Ultimately, supports secured to the structure on the underside of metal panel roofs is the only way to ensure supports can accommodate the imposed loads.

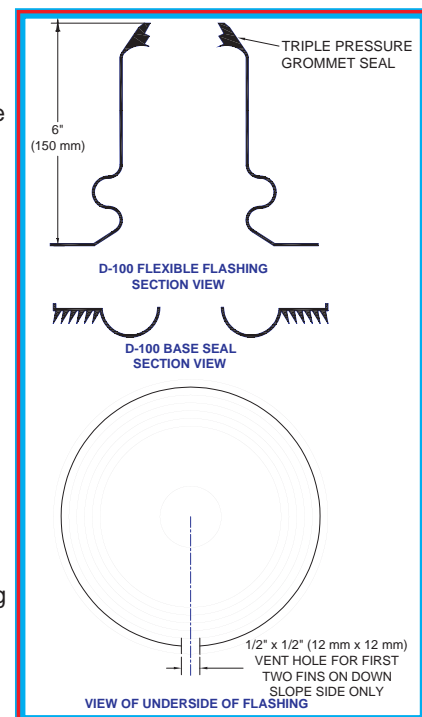


The Thaler D-100 Flexible Flashing

The Thaler D-100 Flexible Flashing is economical to purchase and install while providing a long-lasting watertight seal between the metal roof and a penetrating member. Its main feature is that the flashing does not suffer from a susceptibility to the build-up of condensation within the roof flashing. In the case of some roof flashing assemblies made in accordance with this invention, i.e. Thaler products, the insulation typically applied to the inside surface of the flashing is no longer necessary.

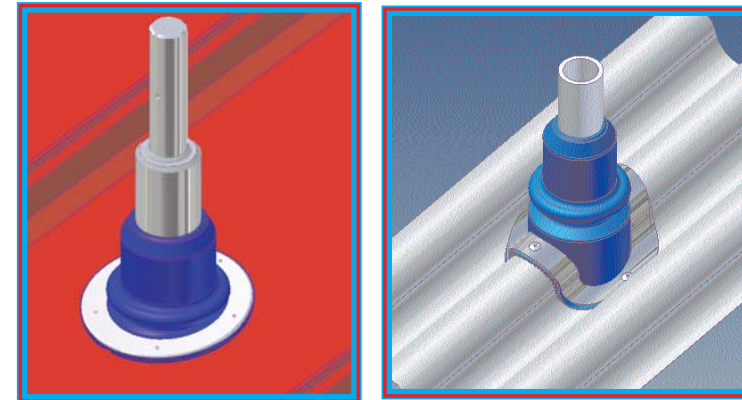
Some construction professionals have trouble believing this claim, and insist on having urethane insulated flashings regardless, and we provide it at extra cost even though it is redundant. However, those professionals, and building owners, who are sold on Thaler EPDM flashings are enjoying a new level of comfort. These and other objects are addressed by the new Thaler D-100 Flexible Flashing.

D-100 Flashing Seals EPDM Components



Metal Panel Profiles

The Thaler D-100 Flexible Flashing was originally developed to suit all roof panel profiles (corrugated or standing seam). The base of the flexible flashing is configured to suit the exact profile of the metal roof being employed. In the case of standing seam roofs, the flashing is positioned on the flat portion of the metal panel. There is no site fitting, pressing or configuring required. A perfect seal is achieved every time without relying on degree of installer resourcefulness.



Corrugated and standing seam profiles employing D-100 Flashing

Test Procedure for Sloped Metal Roofs

Although not a requirement for sloped metal roofs, testing for the Thaler D-100 Flexible Flashing was conducted in-house with metal panels completely submerged under a 12" (305 mm) head of standing water using a variety of roof pitches ranging up to 45 degrees slope and while simulating expansion and contraction in the metal of up to 1" (25 mm). No leakage at the underside of the metal roof was detected after several weeks of testing. Note: There is no formal standard for the testing of flashings in sloped metal roofs.

Patented EPDM Seals - An Industry First

The single most important development at the center of the company's accomplishments - an industry first - is the invention, by Ken Thaler, of unique, patented EPDM flashing seals for architectural, mechanical and electrical roof penetrations. In general, all roof penetrations are subject to the harmful effects of condensation that is responsible for up to 80% of all roof leaks.

Today however, the Thaler EPDM Base Seal eliminates condensation and condensation build-up from below, and the Thaler EPDM Triple Pressure Grommet Seal eliminates flashing leaks from above. The implementation of these EPDM flashing seals in the Thaler D-100 Flexible Flashing and employed in a wide range of Thaler roofing products represent a new generation of roofing products that meet the requirements of air leakage control better than



In-house test apparatus



EPDM Triple Pressure Grommet Seal

any protrusion-type flashings on the market today. And by the way, Thaler products never, ever need caulking.

The EPDM "memory" in the Base Seal portion of the Thaler D-100 Flexible Flashing provides constant pressure to the outside of the penetration while the "memory" in the Triple Pressure Grommet Seal at the top of the flashing provides constant pressure to the outside of the penetration to prevent leaks (reference: Thaler EPDM Flashing Seals literature).

Permanent Maintenance Free Installation

The Thaler D-100 Flexible Flashing is designed to allow movement and vibration of penetrations and metal roof panels independent of the flexible flashing. This means there are no stresses taking place in the flashing that might otherwise create openings for condensation to enter.

The Thaler D-100 Flexible Flashing relies on lock rivets to seal the flexible flashing to the metal roof. No additional silicone seal is required. Once a roof protrusion is flashed, it is flashed permanently. No scheduled maintenance is required. However, like all roofing, preventative maintenance inspections of flashings should be carried out as per NRCA or CRCA recommendations.

Corrosion Protection

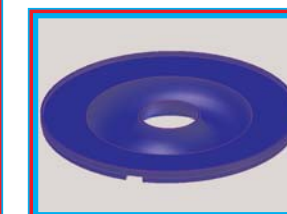
If water and/or condensation is not permitted to migrate to interior or building spaces via protrusions - which the Thaler D-100 Flexible Flashing does not allow - then the issues of metal corrosion at protrusion locations and associated maintenance problems are eliminated.

Aesthetic Considerations

The mounting of HVAC units and similar large mechanical equipment is often mounted on pressure treated wood sleepers. These supports are responsible for a variety of problems, e.g. movement of the wood blocking and equipment, blockage of draining surfaces, unsightliness, collection of debris, rotting, deterioration due to pressure treating chemicals which can speed corrosion, and entrapment of moisture which can result in premature corrosion of the metal roof panels. The Thaler D-100 flexible Flashing is not only a good-looking flashing, it eliminates all of these eyesore and associated problems.

Warranty Issues

Often, light gauge steel framing used to support ductwork, is screwed directly to the metal roof that is then carefully caulked. This is just one example of how equipment is supported on the roof. Once the caulking deteriorates, roof leaks can develop. Also, this method of fastening can have an effect on the thermal movement of the roof panels that may result in opening of the metal at fastener locations. Punching holes in roof panels can result in both frequent maintenance and warranty violations. Also, there are still a few die-hards who still insist on using pitch pans - an antiquated, unreliable, high maintenance method of flashing elongate members (outlawed in some regions). We don't want to go there, do we? With the Thaler method of supporting ancillary rooftop items employing the Thaler D-100 Flexible Flashing, these types of leakage and warranty problems will become a non-issue.



Top and bottom view of EPDM Base Seal

