

HeatDefender® DrainMelt Installation Instructions

ROOF TYPES

- Membrane

SYSTEM DESCRIPTION: The HeatDefender® DrainMelt Kit is an engineered, open-platform aluminum housing solution designed to shield and optimize heat trace paths, keeping roof drains and scuppers clear of ice and snow. The system uses a radial or linear "spoke" design to transfer heat efficiently across the entire drainage area. Note: This is a structural hardware housing platform only. **Self-regulating heat trace cable, connection components, and adhesives are sold separately and are not included in this kit.**

KIT CONFIGURATIONS & LAYOUTS

Use the appropriate kit based on the diameter of your drain or the width of your scupper:

Kit Model	Product Code	Drain Diameter	Scupper Width	Component Qty (2' sections)	Layout Pattern
HeatDefender® DrainMelt 10	HS-DRAIN10IN-KIT	8"–10"	Up to 10" wide	(6) HS-701 Bases / HS-702 Covers	6-Spoke Radial or Fan
HeatDefender® DrainMelt 16	HS-DRAIN16IN-KIT	12"–16"	Up to 16" wide	(8) HS-701 Bases / HS-702 Covers	8-Spoke Radial or Fan
HeatDefender® DrainMelt 18	HS-DRAIN18IN-KIT	18+	18" or greater	(10) HS-701 Bases / HS-702 Covers	10-Spoke Radial or Fan

PREPARATION AND SAFETY

- **Surface Preparation:** The roof membrane must be clean, dry, and free of all debris to ensure a permanent bond with the adhesive
- **Adhesive Selection:** Use a high-quality adhesive recommended by the roof material manufacturer (Chemlink recommended).
- **Adhesive Compatibility:** Follow all adhesive manufacturer installation instructions specifically for the project-specific roof membrane (TPO, EPDM, PVC, etc.) to ensure proper chemical adhesion.
- **Electrical Mandate:** These assemblies house electrical infrastructure. All electrical rough-ins, routing, and final connections must be completed by a licensed electrician to prevent shock or fire.
- **Cable Restrictions:** The system requires a two-conductor, self-regulating heating cable with an outer polyolefin jacket. Constant-wattage plug-in heat cables are strictly unacceptable.
- **Ground-Fault Protection:** Ground-fault equipment protection must be used on each heating cable branch circuit.
- **Cable Care:** Keep heating cable ends dry before and during installation. Do not break bus wire strands when scoring the jacket or core.

STANDARD DRAIN INSTALLATION

1. Layout and Dry Fit

- Use the supplied HeatDefender® DrainMelt Layout Template to mark spoke positions accurately on the roof membrane.
- Position the HS-701 Base sections (2' length) radially around the drain.

2. Base Attachment (Adhesive)

- Apply two parallel lines of adhesive to the bottom of the HS-701 Base.
- Each bead should be 1/4" thick and run continuously for the full 2" length of the extrusion. To prevent excessive adhesive "squeeze-out" from the sides of the HS-701 Base, ensure your parallel beads are inset approximately 1/2" from the extrusion's outer edges.

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- c. Press the base firmly onto the marked positions on the roof membrane.

IMPORTANT: Allow the adhesive to cure per the manufacturer's specifications before proceeding with cable installation.

3. Cable Routing

- a. Route the **externally sourced** self-regulating heating cable through the designated channels of the HS-701 Base.
- b. Ensure the cable loops effectively at the outer end of each spoke and continues directly into the roof drain to maintain an open, functional melt path.

4. Cover Installation & Riveting

- a. Install the HS-702 Cover sections over the HS-701 Bases.
- b. Rivet the covers to the bases at the marked locations shown on the HS-700 Cut Sheet.

5. End Cap Assembly

- a. Once the covers are secured, apply adhesive to the End Caps
- b. Install one end cap at the outer end of each spoke by fitting it into the combined base-and-cover assembly.

SCUPPER INSTALLATION

For wall scuppers, the layout transitions from a radial circle to a "fan" pattern to guide meltwater directly toward the wall opening.

1. **Fan Layout:** Arrange the HS-701 Bases in a fan pattern on the roof deck, angling all sections toward the scupper opening.
2. **Base Attachment:** Secure the bases to the membrane using your approved adhesive following the same 1/4" bead guidelines.
3. **Cable Path:** Route the heating cable smoothly through the bases. At least one run of the self-regulating cable must extend directly through the scupper wall opening and continue down into the conductor head or downspout.
4. **Covers & End Caps:** Install and rivet the HS-702 Covers in place. Finish by installing the End Caps with adhesive over the base/cover ends furthest from the wall.

FINAL STEPS

1. **Electrical Hookup:** Have a licensed electrician connect the heating cable infrastructure to the building's power supply.
2. **Power Testing:** Perform a final insulation and power test to ensure that heat output is completely consistent across all spokes and through the drainage exit path.