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GSB Services LLC

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Edge Melt Systems is a division of GSB Services LLC
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Overview & History of Deicing Systems Technology

Technology
Edge Melt Systems’ products have been engineered to achieve the highest performance level. This is proven by how effective the system is at preventing ice dams and contending with snow storms. Our decades of experience fosters our technology. Our production process measures fabrication tolerances to four thousandths of an inch. Our heat cables have a tolerance of .010” and are backed with an industry leading ten-year limited warranty. These tolerances are vitally important to the performance of our systems.

Notice the embedded hardware store heat cable unable to keep up with preventing icicle and ice dam formation

Zig Zag Heat Cables:
- Limited heat output
- Outdated layout concept
- Short lifespan with inferior performance
- Prone to damage

History
Old ideas relied on heating cables laying on the roof in a zig zag fashion. Most of the heat produced was quickly lost to the atmosphere. The resulting system was often ineffective, easily overwhelmed, and short lived.

In the early 1990’s, systems were developed that coupled the heat cables with thermally conductive materials. While these systems weren’t manufactured to our exacting standards, they were still a big leap forward in ice dam prevention. In the 2000’s, some attempts were made to improve this idea. These systems still fell short of effective heat transfer to the cover panel and were overly expensive.

Improving on the original concept and avoiding the problems of earlier attempts by others, Edge Melt Systems’ products have advanced the technology, perfecting the balance between heat transfer (function) and aesthetic beauty (form). Our roof ice prevention systems have been successfully installed throughout the country from the state of Washington to Maine. Edge Melt Systems’ products are ideal for the Midwest, New England, the Great Lakes Snow Belt, and the Mountain West.
Comprehensive Product Line
Edge Melt Systems is the only company to offer a comprehensive product line. No other manufacturer and supplier of roof ice prevention systems can compete with our offer.

- Roof Heat Panels
- Gutter Protection
- Heat Cable
- Specialty Panels
- Controllers
- Custom Designs

Our approach provides confidence that NOTHING is overlooked!

All Season Gutter Guards
The VersaScreen gutter guard system prevents gutter and downspout clogging debris from entering the gutter system. Yet it can easily be cleaned. The VersaScreen gutter guard system is unparalleled in its performance and ease of installation. VersaScreen is available in a patented (US9121179 B2) heated version, which will further enhance the performance of the deicing system.

EP-SC after two snowfalls totaling over 20” of snow and temps in the single digits

The Now Solution
We are the ‘One Stop Shop’ for your ice dam prevention system needs. Our complete system approach includes a variety of heated panels, heated and unheated gutter guards, heat cables, and control systems. We manufacture standard products for virtually all types of roofs, which we stock for rapid delivery. We can also provide custom products for unique applications. Our ability to customize to your needs is unmatched with our in-house CNC fabrication.

Real Lower Cost
IceBlaster & VersaScreen are very competitively priced. But the real advantage is the reduced installation cost because our products are engineered to be the smartest, simplest, and fastest system to install. Additionally, with our flexible components, left over materials can be used on the next job leading to little or no waste. Allowing the contractor to purchase and stock inventory provides greater flexibility over competing systems. This means you can make real time changes and not face long delays awaiting new material to be shipped to you.
What is an ice dam?

- An ice dam is a ridge of ice that causes water to be trapped behind it. This results in water being forced into areas that your roof and gutter system was not designed to handle.
  - Ice dams form at roof edges whether you have gutters or not. Gutters are not the cause of ice dams. Melted snow and below freezing temperatures at the roof edge are the primary cause of ice dams.
  - Ice dams form in valleys (generally near the bottom or exit of the valley) due to snow compression, heavy drifting and obstructions. Valleys concentrate the amount of water present because they collect water from larger areas above them.
  - Ice dams can form anywhere melted snow can refreeze.
  - Icicles usually indicate an ice dam formation has occurred.
- Ice dams are the result of snow melted by:
  - Heat loss from the conditioned area of the home or business into the attic cavity which warms the roof from underneath.
  - Inadequate levels of insulation allowing conducted heat to transfer into the roof structure.
  - Temperatures fluctuating above and below freezing.
  - Solar gain – the roof surface being warmed by the sun even though temps are below freezing. This can occur even at temperatures below 10F.
  - Poor or non-existent ventilation.
  - Roof ventilation that is covered by snow will not allow trapped warm air to escape. Also, the process of the snow melting from around ridge ventilation creates meltwater which can lead to ice dam formation.

Understanding the causes of your ice dams will help in solving your ice dam problems.

Ice Dams are often accompanied by icicle formations
**Structural Features**

- **Channel Melt or Valley Panel**
- **Valley Panel**
- **Heat Cable in gutter bottom**
- **Heat Cable in downspout**

Note: Not every feature of a home is included in the House Isometric Drawing. Its purpose is to familiarize you with typical uses for Edge Melt Systems products. EMS products are suitable for all snow areas and can be customized to specific job site requirements.

**Roof Types Appropriate Products**

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Shingles</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Wood Shingles</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Slate /Tile</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Metal</td>
<td>Note 1</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Membrane /Rubber</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

*Note 1 Metal Roof with EP-DC & EP-SC These products can be used as part of new construction with concealed fastener style or retrofit on to an existing roof with exposed fastener style (AG Panel).*
**Eaves** (heated eave and specialty panels)
- EP-EO for extended or exposed overhangs
- EP-LS for low slope membrane roofs
- EP-MR for metal roofs with exposed or concealed fasteners
- SP-SSR for retrofit standing seam metal roofs

**Gutters** (heated gutter protection and heated gutter products)
- Need Gutter Leaf Protection
  - HGS-MaxPro for heated gutter protection
  - HGS-REPro for heated gutter protection
  - HGS-FEPro or FE5 for heated gutter protection
  - HGS-FE5 in combination with EP-S0, SC, EO, LS, MR
- No Gutter Protection
  - HGS-GMX for heating gutter bottom heating
  - HGS-CCB for single cable gutter bottom heating
  - HC in gutter bottom and downspout

**Valleys** (heated valley panels)
- VP-MW for metal W style valleys
- VP-SV for woven or closed cut (California) style valleys

**Specialty Areas**
- SP-CM for creating a positive heated drainage path to lower area
  - Also useful for draining upper downspouts to lower gutters
- VP-SV for creating a heated roof area for drainage Skylights, Around Chimneys and Heavy Drifting Areas (heated utility and specialty panels)
- VP-SV for wrapping around chimneys and saddle/cricket area
- SP-SSR for creating large melt paths below skylights and roof areas that typically build up with heavy snow accumulations from drifting and blowing snow
How our products integrate with heated gutter protection

- **1st Course Shingle**
- **Self Regulating Heat Cable**
- Optional **Self Regulating Heat Cable**
- **Fastener with Neoprene Seal**

**Single Cable Eave Panel with Heated Gutter Guard VS-FE5**

- **2nd Shingle Course**
- **Versa Screen 5**
- **FE Bracket**
- **Optional Self Regulating Heat Cable**

- **Single Cable Eave Panel with Heated Gutter Guard by OGG**
  - **2nd Shingle Course**
  - **Fastener with Neoprene Seal**
  - **Self Regulating Heat Cable**

**Standard Colors EMS**
- Medium Bronze
- Dark Bronze
- Mansard Brown
- Matte Black
- Hartford Green
- Charcoal Gray
- Slate Gray

**Optional Additional Cost Colors EMS**
- Complete line of Firestone UnaClad
- Complete line of Petersen PacClad
- 20 oz. Real Copper

**Color Selection for EMS Products**
Color Selection for EMS Products

Standard Colors EMS
- Medium Bronze
- Dark Bronze
- Mansard Brown
- Matte Black
- Hartford Green
- Charcoal Gray
- Slate Gray

Optional Additional Cost Colors EMS
- Complete line of Firestone UnaClad
- Complete line of Petersen PacClad
- 20 oz. Real Copper

The Firestone original brochure can be seen on-line at:
Control Options for Your Ice Dam Prevention System

1. Manual Control
   1.1. A switch is installed to directly operate your system.
   1.2. Optimal use:
      1.2.1. The customer who knows they will closely monitor when their system is on. Not ideally suited for the customer who is away from home for extended periods or knows they will not remember to monitor the system.
      1.2.2. Business or commercial enterprise that has in house maintenance responsible for operation.
   1.3. Advantages
      1.3.1. Allows for direct control of the heat cables.
      1.3.2. Can be the most efficient way to operate your system.
   1.4. Disadvantages
      1.4.1. Requires direct supervision for efficient and effective operation.
      1.4.2. If heat cables are left on continually they will:
         1.4.2.1. Draw more electricity the colder it gets.
         1.4.2.2. Use electricity if left on when not needed.
         1.4.2.3. Sometimes possible to create only enough heat to make ice rather than prevent ice.
            1.4.2.3.1. Higher wattage heat cables recover quicker and melt faster at lower temps.
            1.4.2.3.2. Higher wattage cables may be able to be left on for shorter periods.

2. DC-AS Series Digital Thermostat Controller
   2.1. This is an indoor mounted controller for automatic control of your ice dam prevention.
   2.1.1. Advantages:
      2.1.1.1. Available in 2, 4, and 8 Circuit Models
      2.1.1.2. Centrally located for convenient indoor monitoring and operation of the ice dam prevention system.
      2.1.1.3. Automatic control. Heat cables are energized when temps are between the set points (factory set).
      2.1.1.4. Controls multiple circuits.
      2.1.1.5. Time delay minimizes surge current
      2.1.1.6. Set points are easily field adjustable with digital display.
      2.1.1.7. Most reliable form of system control.
      2.1.1.8. Can save operating costs over leaving system on all winter long.
      2.1.1.9. UL508A
   2.1.2. Disadvantages
      2.1.2.1. Heat cables are energized based on temperature and will be on regardless of snowfall or snow cover on the roof. System is easily turned off manually when not needed during periods of little or no snow on the roof.
   2.2. Optimal use:
      2.2.1. The customer who is not often home and/or knows they will not remember to closely monitor their system.
      2.2.2. Business or commercial enterprise that prefers to automate the operation of systems.
1. **DC-Sierra High Efficiency Control Panel**
   
1.1. Designed to specific location need.
   
1.1.1. Ambient Temperature Sensing with ‘Window’ operation for performance and efficiency
   
1.1.2. Panel Temperature Sensing for power management.
   
1.1.2.1. Reduces overall operating costs dramatically
   
1.1.2.2. Offers more heat cable per circuit
   
1.2. Configured with our proprietary soft start technology to reduce heat cable stress and minimize start up impact. The overall result is extended heat cable life and performance.
   
1.3. Optional built in equipment ground fault protection.
   
1.4. UL and CSA components.
   
1.5. UL 508A Industrial Enclosure Listing
   
1.6. Perfect for residential, commercial and industrial applications.
   
1.6.1. Advantages
   
1.6.1.1. Centrally located for convenient indoor monitoring and operation of the ice dam prevention system.
   
1.6.1.2. Automatic control. Heat cables are energized when temps are between the set points (factory set).
   
1.6.1.3. Controls multiple circuits.
   
1.6.1.4. Set points are easily field adjustable with digital display.
   
1.6.1.5. Most reliable form of system control.
   
1.6.1.6. Can save operating costs over leaving system on all winter long.
   
1.6.1.7. UL508A
   
1.6.2. Disadvantages
   
1.6.2.1. Heat cables are energized based on temperature and will be on regardless of snowfall or snow cover on the roof. System is easily turned off manually when not needed during periods of little or no snow on the roof.
   
1.7. Optimal use:
   
1.7.1. The customer who is not often home and/or knows they will not remember to closely monitor their system.
   
1.7.2. Business or commercial enterprise that prefers to automate the operation of systems.
As a rule of thumb, the more snowfall you experience in your area, the more robust your system will need to be. Snowfall amounts affect ice dam formation. Melted snow is the fuel for ice dam formation. Our Annual Average Snowfall map is for reference only. It is not intended as a guarantee of expected snowfall. Annual snowfall amounts can be double or more the annual average and changes in climate over time may affect the classification of certain areas.

This map is intended to assist you in making a wise decision on which products to use. As a rule of thumb, the more snowfall you experience in your area, the more robust your system will need to be.

<table>
<thead>
<tr>
<th>Extreme</th>
<th>Heavy</th>
<th>Moderate</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Greater than 120 inches annually</td>
<td>• Generally less than 100 inches annually</td>
<td>• Generally less than 40 inches annually</td>
</tr>
<tr>
<td>• Individual snowfall events routinely exceed 15 inches</td>
<td>• Individual snowfall events rarely exceed 15 inches</td>
<td>• Individual snowfall events rarely exceed 6 inches</td>
</tr>
<tr>
<td>• Snow accumulations on the roof in excess of 15 inches for much of the season</td>
<td>• Snow accumulations on the roof generally do not exceed 20 inches for much of the season</td>
<td>• Snow accumulations rarely exceed six inches on the roof throughout the season</td>
</tr>
<tr>
<td>• Alpine areas and mountain resort areas</td>
<td>• Upper Midwest to New England</td>
<td>• Moderate areas that experience prolonged below freezing temperatures should consider products designed for Heavy areas</td>
</tr>
<tr>
<td>• Western mountain areas</td>
<td>• Eastern Colorado and Wyoming through the upper central plains</td>
<td>• This would include the northern plains</td>
</tr>
<tr>
<td>• New England mountain/resort areas</td>
<td>• Areas of New York, Pennsylvania, and Ohio that are not in lake effect snow belt</td>
<td></td>
</tr>
<tr>
<td>• Great Lakes lake effect snow belt</td>
<td>• New Jersey, northern West Virginia</td>
<td></td>
</tr>
<tr>
<td>• Northern and Western Michigan and the upper peninsula</td>
<td>• Long Island and northern plains (can also be considered Moderate)</td>
<td></td>
</tr>
<tr>
<td>• Northern Indiana, Ohio, Pennsylvania</td>
<td>• Areas in Moderate that experience severe drifting should consider using products rated for Heavy areas</td>
<td></td>
</tr>
<tr>
<td>• Western New York - Buffalo to Rochester to Syracuse</td>
<td></td>
<td></td>
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</table>
Heat Cable Selections for Different Conditions

<table>
<thead>
<tr>
<th></th>
<th>10-X</th>
<th>8-X</th>
<th>8-X</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-SC</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X</td>
</tr>
<tr>
<td>EP-DC</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X</td>
</tr>
<tr>
<td>VP-MW/SV</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X</td>
</tr>
<tr>
<td>VP-U</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X</td>
</tr>
<tr>
<td>EP-EQ</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X</td>
</tr>
<tr>
<td>HGS-MaxPro</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X*4</td>
</tr>
<tr>
<td>HGS-REPro</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X*4</td>
</tr>
<tr>
<td>HGS-FE5 or FEP 1</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X*4</td>
</tr>
<tr>
<td>SP-CM</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X*3,5</td>
</tr>
<tr>
<td>SP-SM</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X*3</td>
</tr>
<tr>
<td>SP-SSR</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X*3</td>
</tr>
<tr>
<td>HGS-GMX</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X*3</td>
</tr>
<tr>
<td>HGS-CCB</td>
<td>10-X</td>
<td>8-X</td>
<td>8-X*3</td>
</tr>
</tbody>
</table>

1 Added to any IceBlaster option - use cable supplied with rest of system
2 Use EP-SC with 8-X
3 Optional 5-X available
4 No heat cable required in gutter bottom

Special Consideration:
- Steeper roofs can have less snow higher on the roof that create solar gain melting.
- Larger roofs can increase the amount of melted snow leading to larger ice dams.
- Your homes architecture can play a role in ice dam formation.
  - Large roof areas can be funneled down to small gutter sections.
  - Certain architectural features can lead to heavy drifting areas on your home.
  - Dormers can introduce ice dams higher up on your roof.
- Valleys should always be included in any ice dam prevention system design.
- Gutter guards should be integrated into the design.
- Gutter guards need to be heated to prevent refreezing.
- All our systems are supplied with the properly sized heat cables. No substitutions.

Our products are available for Residential, Commercial, and Industrial applications

VARIABILITY:
Our systems are designed to be adaptable. Steeper and larger roofs can create unique circumstances that require higher heat output. A heat cable system is not ‘highly efficient’ if it does not address these situations. While the coupling of heat cables with heat-transferring metals can greatly improve their performance, there is not a one size fits all solution. It is up to the property owner to decide if they prefer a system that uses less energy with lower heat output or one that uses more energy with higher heat output. Often, it is the higher heat output systems that can be turned off sooner and use less energy in the long run. Therefore, when given a choice for the heat cable applicable to your Class Area and product, the higher heat output option will always perform better at the extremes in temperature and snow fall amount.

*Caution - most competitor “so-called” 12 watt cables produce 6 watts or less when used in ice melt systems. Their single cable systems can be easily overwhelmed by heavier snowfalls and may not recover sufficiently. This includes the thin, steel heated edge brackets.
Heat Cables

Our heat cables are the engine of our ice dam prevention systems. They are the most important component and we do not scrimp on quality. You can find comparably priced or less expensive heat cables on the market, but you will not find better quality. Our pricing is set by the sheer volume we use. We pass that savings on to you.

By doing an internet search of heat cable manufacturers, you may conclude that there are dozens of makers of self-regulating heat trace cables. There are not. There are only a few manufacturers around the world and they imprint various names on the cables. Just because a company has their name or logo on the cable does not mean they are the manufacturer of it. This is called private labelling. We could do it as well. Some cable is made in the United States, some is made in China or South Korea. Ours is made in Japan under the same fanatical production processes we all know the Japanese are famous for.

What does this mean for the customer?

- Cables that are produced to exacting standards of quality and consistency
- Consistent heat output with no “Cold Spots”
- The strongest warranty in the industry
- Cables that work as intended in your ice dam prevention system

Why does it matter?

Our systems are investment grade and not the same thing you purchase at the hardware store to plug into an outlet. You don’t put a roof on or install windows with the expectation of replacement in a year or two. Why settle for heat cables that are short-lived. Our systems are designed to last 15 years or more with control systems to match. When compared to the zig zag cable products, our systems are a good value because of their effectiveness, energy efficiency, and longevity.

We are obsessive about testing the heat cables that go into our products. We have never been about what is the cheapest. That may maximize profit in the short term, but it is a terrible thing to do to our customers. The relationship with our heat cable manufacturer benefits us and you whether you are purchasing in volume or by the system.

Types of Heat Cables

Our heat cables are voltage specific. That means that the heat cable is designed to operate at 110-130V or 208-277V. Most commonly 220V to 240V is used in residential/commercial applications as it allows for more heat cable to be run on a given circuit.

We offer three wattage selections. The higher the wattage the greater the heat output and recovery of a system. Our most common heat cable is the 8-2DR (8 watt/ft output at 50F, 13 watt/ft output in 33F iced water; 208-277 voltage). In our heat panel systems, the 8-2DR averages between 7w/ft and 13w/ft depending on ambient temperature and snow load. The 8-2DR allows for a good balance between effectiveness, efficiency and circuit sizing.

5-X = 5 Watt output at 50 degrees F ambient & 8-9 W/FT at 32F
8-X = 8 Watt output at 50 degrees F ambient & 11-13 W/FT at 32F (Also HT8-X)
10-X = 10 Watt output at 50 degrees F ambient & 15-17 W/FT at 32F
How to Understand Heat Output of Heat Cables
Self-regulating heat cables are constantly adjusting their heat output based on the internal temperature of the heat cable itself. How quickly heat is drawn out of the cable affects its internal temperature. The two recognized methods of rating wattage output for SR heat cable is:

- Output on a 50°F metal pipe under 1 inch of insulation
- Output in 32°F water bath (or oil, since water freezes at 32°F)

Of the two, neither is ideal for determining what heat cables will do in roof ice prevention systems or on roof/gutter zig zag installations because they are not under 1 inch of insulation or constantly entirely submerged in 32°F water. For UL and CSA certifications, 50F rating is most commonly recognized. Some have tried to extrapolate what the wattage output would be at 32F on a roof based on that, but it is only really a guess.

All of our Naming Codes for heat cables are based on the 50F output at steady state. When considering other heat cables, look at the what temperature their wattage is figured for. The following is an equivalency wattage output chart for your reference:

<table>
<thead>
<tr>
<th>Drexan HeatTracer SJP or HotTape** 50F</th>
<th>Drexan HeatTracer SJP or HotTape 32F*</th>
<th>Competitor 40/50F*</th>
<th>Competitor 32F (Snow/Ice)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 W/FT</td>
<td>8 W/FT</td>
<td>5 or 6 W/FT</td>
<td>8 or 9 W/FT</td>
</tr>
<tr>
<td>8 W/FT</td>
<td>11-13 W/FT</td>
<td>8 W/FT</td>
<td>10 to 13 W/FT</td>
</tr>
<tr>
<td>10 W/FT</td>
<td>13-16 W/FT</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

*Variability results from self-regulating nature of heat cable and from output differences based on voltage

**Drexan HotTape only available in 8 watt/ft models

System Wiring
This is the work of a licensed electrician. An electrician should be consulted regarding system planning. All applicable building and electrical codes should be followed. The system wiring (not including heat cable) is recommended (but not required) to be the last step of the installation, which includes:

1. Installation of the electrical circuit with breaker in the main panel
2. Installation of equipment ground fault protection device with 30mA trip rating
3. Installation of the system controller and connection to the main panel
4. Installation of the junction boxes and connections to the system controller
5. Connections of the heat cables to the junction box circuits.
6. Commissioning the system
   a. Verifying connections
   b. Insulation resistance testing (aka “Megger” testing or dielectric strength testing) is required for warranty
   c. Electrical power draw
   d. Setting up the controller

It is very important to bear in mind that these are high power devices. Therefore, the installation instructions for the connections need to be followed. Also, the outdoor portions need to be protected from moisture intrusion. Sealed exterior junction boxes and drip loops and weeps on cables are essential. Where there is concern, consideration should be given to potting of electrical connections with products such as:

- Ideal #30-030 Noalox Anti-Oxidant Joint Compound
- 3M™ Scotchcast™ Connector Sealing Pack 3570G-N
- Tough-Seal #41 from Key Polymer Corporation
Overview
The IceBlaster™ Eave Panel (EP-DC) is specifically designed to prevent ice dam and icicle build up at the eaves. The highly efficient system is comprised of an aluminum extrusion base panel which houses two runs of industrial grade self regulating heat cable. Uses for the EP-DC are roof edges, dormer edges and other areas where roof slopes present ice dam and icicle problems. Installation is simple. Base extrusion mounts over existing first course of shingles with counter sunk exterior grade screws. Route two runs of industrial grade self regulating heat cable. Pre-finished aluminum cover panel slides under second course of shingles and is riveted to base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s).

NOTE: Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. IceBlaster™ Eave Panels can be installed on a roof overhang without a gutter. Cable Cover Bracket (CCB) is optional. Optional Drip Edge Extender can be used when no drip edge is present or when the EP-DC must be positioned further up on the roof. The Drip Edge Extender provides for heat transfer on the roof edge.
**Overview**

The IceBlaster Eave Panel Single Cable (EP-SC) is specifically designed to prevent ice dam and icicle build up at the eaves. This highly efficient system is comprised of a heavy gauge aluminum panel fabricated to house a single run of self regulating heat cable at the roof edge. The low profile panel is perfect for today’s designer shingles, cedar shingle roofs, lower sloped roofs, and other applications where efficient ice dam prevention and affordability are important. Suitable for all Snow Class areas (see Snow Class Guide).

**Performance:**
1 run of self-regulating industrial grade heat cable

**Cover Panel:**
0.040” Kynar 500 pre-finished aluminum or 20 oz. real copper

**Warranty:**
30 yr on cover panel finish
10 yr on supplied heat cable
See Warranty for complete details

**Components:**
Panel cover (standard 4’ & 5’ lengths)
Splice covers
Mounting hardware
C/US Listed self-regulating heat cable

**Options:**
110-130v or 208-277v in 8 & 10 watts/foot self regulating heat cable

Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Hartford Green, Mansard Brown, Slate Gray, or Charcoal Gray

Integrated Drip Edge

**Additional Cost Options**
20 oz. solid copper

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**NOTE:**
Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. Cable Cover Bracket (CCB) is optional.

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Valley Panel - Metal W Valleys  VP-MW

Overview
The IceBlaster VP-MW is specifically designed to prevent ice dam and icicle build up in the valleys, along dormers, around chimneys and skylights, and any area where a defined melt path is needed. The highly efficient system is comprised of an aluminum extrusion base panel which houses two runs of industrial grade self regulating heat cable. Installation is simple. Base extrusion mounts over existing metal W valley flashing with a suitable adhesive. Route two runs of industrial grade self-regulating heat cable. Pre-finished aluminum cover panel clamps on base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s). The VP-MW can be combined with other EMS products for a comprehensive ice dam prevention system.

NOTE: Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. IceBlaster Valley Panels can also be installed on closed cut or woven valley styles.

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Overview

The IceBlaster VP-SV is specifically designed to prevent ice dam and icicle build up in the valleys, along dormers, around chimneys and skylights, and any area where a defined melt path is needed. The highly efficient system is comprised of an aluminum extrusion base panel which houses two runs of industrial grade self regulating heat cable. Installation is simple. Base extrusion mounts over existing valley shingles with a suitable adhesive. Route two runs of industrial grade self regulating heat cable. Pre-finished aluminum cover panel clamps on base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s). The IceBlaster VP-SV can be combined with other EMS products for a comprehensive ice dam prevention system.

NOTE: Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. IceBlaster Valley Panel can also be installed metal W valley styles.
Overview

The IceBlaster Eave Panel for Metal Roofs (EP-MR) is specifically designed to prevent ice dam and icicle build up at the eaves on sloped standing seam and other metal roof configurations. The highly efficient system is comprised of an aluminum extrusion base panel/heat transfer panel which houses two runs of industrial grade self regulating heat cable. Uses for the EP-MR are roof edges, dormer edges and other areas where metal roof sections present ice dam and icicle problems. Installation is simple. Base assembly is integrated with the metal roof materials using standard roof edge flashing techniques. Route two runs of industrial grade self regulating heat cable. Pre-finished aluminum cover panel affixes to the base and is riveted to base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s). EP-MR is also available with an integrated drip edge for easy integration with metal roof panel hemmed edges. EP-MR is not a snow retention system.

NOTE:
Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. EP-MR can be installed on a roof with or without a gutter. When installing on a roof with a gutter, the gutter and downspout must be heat traced to prevent re-freezing. Also available with integrated drip edge.
Overview
The IceBlaster Low Slope Eave Panel (EP-LS) is specifically designed to prevent ice dam and icicle build up at the eaves on low sloped/flat roofs. The highly efficient system is comprised of an aluminum extrusion base panel/heat transfer panel which houses two runs of industrial grade self regulating heat cable. Uses for the EP-LS are roof edges, dormer edges and other areas where flat or low sloped roof sections present ice dam and icicle problems. Installation is simple. Base assembly is integrated with the roof materials using standard roof edge flashing techniques. Route two runs of industrial grade self regulating heat cable. Pre-finished aluminum cover panel affixes to the base and is riveted to base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s).

NOTE:
Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. EP-LS can be installed on a roof with or without a gutter. When installing on a roof with a gutter, the gutter and downspout must be heat traced to prevent re-freezing.
Overview

The IceBlaster Extended Overhang Panel (EP-EO) is specifically designed to prevent ice dam and icicle build up on extended overhangs. The highly efficient system is comprised of an aluminum extrusion base panel which houses two runs of industrial grade self regulating heat cable. Uses for the EP-EO are roof edges, dormer edges, extended overhangs with exposed rafters, and other areas where roof slopes present ice dam and icicle problems.

Installation is simple. Base extrusion integrates with metal roof panels and transition. Route two runs of industrial grade self regulating heat cable. Pre-finished aluminum cover panel covers batten and transition extrusion and is riveted to base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s).

NOTE:
Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. IceBlaster EP-EO Panel can be installed on a roof overhang without a gutter.

Example Heat Cable Routing

Heat is transferred to the surrounding aluminum roof panels through the heated battens effectively clearing the entire area. Any melt water flowing from above is not allowed to re-freeze and form ice dams.

Performance:
2 runs of self-regulating industrial grade heat cable

Base Extrusion:
6063 T5 Aluminum

Cover Panel:
0.040” Kynar 500 pre-finished aluminum

Warranty:
50 yr on base panel
30 yr on cover panel finish
10 yr on supplied heat cable
See Warranty for complete details

Components:
Base extrusion
Panel cover
Splice covers
Mounting hardware
C/US Listed self-regulating heat cable

Options:
110-130v or 208-277v in 5, 8, & 10 watts/foot self regulating heat cable

Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Hartford Green, Mansard Brown, Slate Gray or Charcoal Gray

Additional Cost Options:
20 oz. solid copper

Special Order Colors: Complete line of UnaClad aluminum colors

Made to order - no standard lengths
Overview
The IceBlaster Channel Melt Panel (SP-CM) is specifically designed to prevent ice dams that occur at dormers and other areas where melt water draining onto a roof surface can re-freeze and create leak issues. Installation is simple. Base panel mounts over existing roofing material with supplied channel panel cleat. Base panel should be installed so that it collects runoff from an upper valley, downspout or other roof feature. Install base extrusion. Route two runs of industrial grade self regulating heat cable. Pre-finished aluminum cover panel is riveted to base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s).

NOTE: Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. SP-CM can be installed on a roof without a gutter.
Specialty Panel - Standing Seam Retrofit  SP-SSR

Overview
The IceBlaster Standing Seam Retrofit Panel (SP-SSR) is specifically designed to prevent ice dam and icicle build up at the roof edge on metal standing seam roofs. The highly efficient system is comprised of an aluminum extrusion base panel which houses two runs of industrial grade self regulating heat cable. Uses for the SP-SSR are roof edges, dormer edges and other areas where metal roof slopes present ice dam and icicle problems. Installation is simple. Base extrusion mounts over existing metal roof attaching to the standing seam with supplied attachment clamp and optional butyl tape or adhesive. Route two runs of industrial grade self regulating heat cable. Kynar pre-finished aluminum cover panel covers extrusion and is riveted to base panel for maximum heat transfer. Route any heat cable in valley, gutter and downspout(s). Expert design layout and installation guidance are available with order.

Performance:
2 runs of self-regulating industrial grade heat cable

Base Extrusion:
6063 T5 Aluminum

Cover Panel:
0.040" Kynar 500 pre-finished aluminum

Warranty:
50 yr on base panel
30 yr on cover panel finish
10 yr on supplied heat cable
See Warranty for complete details

Components:
Base extrusion
Panel cover
Splice covers
Mounting hardware
C/US Listed self-regulating heat cable

Options:
110-130v or 208-277v in 5, 8, & 10 watts/foot self regulating heat cable

Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Hartford Green, Mansard Brown, Slate Gray, or Charcoal Gray

Additional Cost Options
20 oz. solid copper

SS Roof Clamp

Special Order Colors: Complete line of UnaClad aluminum colors

Order cut to length

NOTE:
Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. IceBlaster EMS SP-SSR Panel can be installed on a roof overhang without a gutter.
IceBlaster
Speciality Panel - Snow Melt Panel  SP-SM

Overview
The IceBlaster Snow Melt Panel (SP-SM) is specifically designed to prevent snow and ice dam build up at the eaves, on lower shed style roofs, under skylights, on standing seam metal roofs, and other locations where a larger melting area is desired. The highly efficient and useful system is comprised of an aluminum extrusion base panel which houses two runs of industrial grade self regulating heat cable. Installation is simple. Base extrusion mounts over existing roofing with supplied cleat and/or adhesives. Route two runs of industrial grade self regulating heat cable. Pre-finished aluminum cover panel is riveted to base panel for maximum heat transfer. Route heat cable in any gutter(s) and downspout(s).

NOTE: IceBlaster products are fully compatible with most roof styles and systems. Snow Melt Panel can be used in conjunction with other EMS products. SP-SMP can be fastened to roofing with a cleat, adhesive/sealant and other methods depending on roofing materials. This panel is useful for controlling snow build up on lower sloped roofs where heavy drifting is a concern.

888 360-7872   info@edgemeltsystems.com   www.EdgeMeltSystems.com
VersaScreen Pro Gutter Protection
The VersaScreen HGS-MaxPro is a heated gutter guard system designed to work on most styles of gutters including K style and fascia style. It is specifically designed to prevent ice dam and icicle build up at the eaves and gutters. The highly efficient system is comprised of the VersaScreen Pro, the FE cover and the REHH bracket along with three runs of the self regulating heat cable - one at the roof edge, one at the front edge of the gutter, and one in the gutter bottom. Installation is simple. Route heat cable in the gutter bottom, downspout and REHH bracket, then on top of screen. Secure heat cable in REHH and install the VSP; cover cable with the FE cover.

Performance:
- Three runs of industrial grade self-regulating heat cable
- Screen and FE Cover: .032 aluminum with a durable Kynar 500 Matte Black finish
- RE mill finish aluminum

Warranty:
- 10 yr on VSP and FE
- 10 yr on supplied heat cable
- 50 yr on RE extrusion
- See Warranty for complete details

Components:
- VSP, REHH, FE (4’ standard lengths)
- Mounting hardware

Options:
- C/US Listed self-regulating heat cable, please specify 5, 8, or 10 watt/foot in 120 or 240 VAC. See Self-Regulated Heat Cable Datasheet

Patent:
- US9121179B2

NOTE: Some roof assembly features omitted for clarity. VSP is designed to fit a variety of gutter style and installation methods. VersaScreen and IceBlaster products are fully compatible with most roof styles and systems.
Overview
The IceBlaster Eave Panel Single Cable (EP-SC) with the heated gutter guard HGS-FE5 is specifically designed to prevent ice dam and icicle build up at the eaves and in the gutters. This highly efficient system is comprised of a heavy gauge aluminum panel fabricated to house a single run of self regulating heat cable at the roof edge along with the Front Edge heated VersaScreen 5. The low profile panel is perfect for today’s designer shingles, cedar shingle roofs, lower sloped roofs, and other applications where efficient ice dam prevention and affordability are important.

Performance:
3 runs of self-regulating industrial grade heat cable

Cover Panel:
0.040” Kynar 500 pre-finished aluminum or 20 oz. real copper

Screen and FE Cover: .040 aluminum with a durable powder coat matte black finish

Warranty:
30 yr on cover panel finish
10 yr on VersaScreen
10 yr on supplied heat cable
See Warranty for complete details

Supplied Components:
Panel cover (standard 5’ lengths)
VS5 and FE
Splice covers
Mounting hardware
C/US Listed self-regulating heat cable
NEC compliant design

Options:
110-130v or 208-277v in 5, 8, & 10 watts/foot self regulating heat cable

Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Hartford Green, Mansard Brown, Slate Gray, or Charcoal Gray

Additional Cost Options:
20 oz. solid copper

Patent:
US9121179B2

NOTE:
Some roof assembly features omitted for clarity. IceBlaster products are fully compatible with most roof styles and systems. Heat cable in gutter bottom is optional with HGS-FE5 heated gutter guard in place in Class 2 and some Class 1 areas.

888 360-7872 info@edgemeltsystems.com www.EdgeMeltSystems.com
**VersaScreen Gutter Protection**

The OGG heated gutter guard HGS-OGG5 is designed to work on most styles of 5” gutters including K style and fascia style. It is specifically designed to prevent ice dam and icicle build up at the gutters. The highly efficient system is comprised of the OGG 5 and the with two runs of the self regulating heat cable - one at the front edge and one in the gutter bottom. When used in conjunction with the EP-SC single cable eave panel, the heat cable in the gutter bottom is optional. Installation is simple. Route heat cable in the gutter bottom, downspout and on top of the screen. Secure heat cable in the chassis and cover with screen.

**NOTE:** Some roof assembly features omitted for clarity. VersaScreen is designed to fit a variety of gutter style and installation methods. VersaScreen and IceBlaster products are fully compatible with most roof styles and systems.

**Heated Gutter Protection with EP-SC**

The OGG heated gutter guard HGS-OGG5 is designed to work on most styles of 5” gutters including K style and fascia style. It is specifically designed to prevent ice dam and icicle build up at the gutters. The highly efficient system is comprised of the OGG 5 and the with two runs of the self regulating heat cable - one at the front edge and one in the gutter bottom. When used in conjunction with the EP-SC single cable eave panel, the heat cable in the gutter bottom is optional. Installation is simple. Route heat cable in the gutter bottom, downspout and on top of the screen. Secure heat cable in the chassis and cover with screen.

**NOTE:** Some roof assembly features omitted for clarity. VersaScreen is designed to fit a variety of gutter style and installation methods. VersaScreen and IceBlaster products are fully compatible with most roof styles and systems.

**Performance:**
Two runs of industrial grade self-regulating heat cable

**Screen:** .024 aluminum with a durable matte black finish and #18 stainless steel mesh

**Warranty:**
10 yr on OGG
10 yr on supplied heat cable
See Warranty for complete details

**Components:**
OGG (5' standard lengths)
Mounting hardware

**Options:**
Copper
Heated Gutter Protection
The OGG heated gutter guard HGS-OGG5/6 is designed to work on most styles of 5” and 6” gutters including K style and fascia style. It is specifically designed to prevent ice dam and icicle build up at the gutters. The highly efficient system is comprised of the OGG 5/6 gutter guard and two runs of the self regulating heat cable - one at the front edge and one in the gutter bottom. When used in conjunction with the EP-SC or EP-REHH single cable eave panel, the heat cable in the gutter bottom is optional. Installation is simple. Route heat cable in the gutter bottom, in down spout, and on top of the screen. Secure heat cable in the chassis and cover with screen. See EP-SC and EP-REHH data sheets for further details.

NOTE: Some roof assembly features omitted for clarity. VersaScreen is designed to fit a variety of gutter style and installation methods. One Gutter Guard and IceBlaster products are fully compatible with most roof styles and systems.
VersaScreen Gutter Protection
The VersaScreen HG-FE5/6 is a heated gutter guard system designed to work on most styles of 5" and 6" gutters including K style and fascia style. It is specifically designed to prevent ice dam and icicle build up at the eaves and gutters. The highly efficient system is comprised of the VersaScreen 5 or 6 and the FE Cover along with two runs of the self regulating heat cable - one at the front edge and one in the gutter bottom. Installation is simple. Route heat cable in the gutter bottom, downspout and on top of the screen. Secure heat cable on top of the screen with FE Cover flashing.

Performance:
Two runs of industrial grade self-regulating heat cable

Screen and FE Cover: .040 aluminum with a durable powder coat matte black finish

Warranty:
10 yr on VSP and FE
10 yr on supplied heat cable
See Warranty for complete details

Components:
VS5/6, FE (5' standard lengths)
Mounting hardware

Options:
C/US Listed self-regulating heat cable, please specify 5, 8, or 10 watt/foot in 120 or 240 VAC. See Self-Regulated Heat Cable Datasheet

Additional Cost Options:
20 oz. Copper

Patent:
US9121179B2

NOTE: Some roof assembly features omitted for clarity. VersaScreen is designed to fit a variety of gutter style and installation methods. VersaScreen and IceBlaster products are fully compatible with most roof styles and systems.
VersaScreen Pro Gutter Protection
The VersaScreen HGS-FEPPro is a heated gutter guard system designed to work on most styles of gutters including K style and fascia style. It is specifically designed to prevent ice dam and icicle build up at the eaves and gutters. The highly efficient system is comprised of the VersaScreen Pro, the FE cover along with two runs of the self-regulating heat cable - one at the front edge of the gutter, and one in the gutter bottom. Installation is simple. Route heat cable in the gutter bottom, downspout and then on top of screen. Secure heat cable in and install the VSP; cover cable with the FE cover.

Performance:
Two runs of industrial grade self-regulating heat cable
Screen and FE Cover: .032 aluminum with a durable Kynar 500 Matte Black finish

Warranty:
10 yr on VSP and FE
10 yr on supplied heat cable
See Warranty for complete details

Components:
VSP, FE (4’ standard lengths)
Mounting hardware

Options:
C/US Listed self-regulating heat cable, please specify 5, 8, or 10 watt/foot in 120 or 240 VAC. See Self-Regulated Heat Cable Datasheet

Patent:
US9121179B2

NOTE: Some roof assembly features omitted for clarity. VersaScreen Pro is designed to fit a variety of gutter style and installation methods. VersaScreen and IceBlaster products are fully compatible with most roof styles and systems.
**VersaScreen Pro Gutter Protection**

The VersaScreen HGS-REPro is a heated gutter guard system designed to work on most styles of gutters including K style and fascia style. It is specifically designed to prevent ice dam and icicle build up at the eaves and gutters. The highly efficient system is comprised of the VersaScreen Pro and the REHH bracket along with two runs of the self regulating heat cable - one at the roof edge and one in the gutter bottom. Installation is simple. Route heat cable in the gutter bottom, downspout and REHH. Secure heat cable in REHH and install the VSP.

**NOTE:** Some roof assembly features omitted for clarity. VSP is designed to fit a variety of gutter style and installation methods. VersaScreen and IceBlaster products are fully compatible with most roof styles and systems.
The IceBlaster Gutter Melt Extrusion HG-GMX is specifically designed to prevent ice dam and icicle build up in the gutters. The HG-GMX is perfect for larger, industrial gutter systems. The highly efficient system is comprised of an aluminum extrusion base panel which houses two runs of industrial grade self regulating heat cable. Uses for the HG-GMX are in commercial and residential gutters. Gutter sizes 5” through 9” use one HG-GMX. Gutter sizes 10” and larger can use 2 or more HG-GMX. Installation is simple. Base extrusion is laid in gutter bottom. Route two runs of industrial grade self regulating heat cable in HG-GMX. Cover with supplied aluminized tape. Route any heat cable in downspout(s). Expert design layout and installation guidance are available with order.

**NOTE:** Some roof assembly features omitted for clarity. VSP is designed to fit a variety of gutter style and installation methods. IceBlaster products are fully compatible with most roof styles and systems.
Gutter Screen - VersaScreen 5 inch  GS-VS5

Overview

- Contractor grade gutter protection
- Easy installation with 5’ pieces
- Fastens to the front lip of the gutter
- Strong construction - 040 aluminum with a durable powder coat finish
- Small hole perforation only lets fine debris through which easily flushes out with rainfall
- Built in drip lip minimizes staining and ‘tiger striping’
- Perfect for 5” gutters (K style/Ogee, half round, box, fascia) with no modifications
- Works with metal roofs, cedar shake, slate, tile, synthetic, and asphalt shingles
- Low profile, matte black finish makes it less visible - blends in easily with all roof colors
- No need for accessory pieces - ends and miters are fabricated from the VS5

Performance:
Screen Material: .040 aluminum with a durable powder coat matte black finish

Warranty:
10 yr on VS5
See Warranty for complete details

Components:
VS5 (5’ standard lengths)
Mounting hardware

Additional Cost Options:
20 oz. Copper

NOTE: Some roof assembly features omitted for clarity. VS5 is designed to fit a variety of gutter style and installation methods.
Overview

- Contractor grade gutter protection
- Easy installation with 5’ pieces
- Fastens to the front lip of the gutter
- Strong construction - 040 aluminum with a durable powder coat finish
- Small hole perforation only lets fine debris through which easily flushes out with rainfall
- Built in drip lip minimizes staining and ‘tiger striping’
- Versatile - fits 5, 6 and 7 inch gutters (K style/Ogee, half round, box, fascia) with no modifications
- Can be easily modified in the field to fit other gutter styles, roof pitches and roof styles
- Works with metal roofs, cedar shake, slate, tile, synthetic, and asphalt shingles
- Low profile, matte black finish makes it less visible - blends in easily with all roof colors
- No need for accessory pieces - ends and miters are fabricated from the VSP

NOTE: Some roof assembly features omitted for clarity. VSP is designed to fit a variety of gutter style and installation methods. VSP is perfect for gutter installations where a gutter apron is used and the screen can be slid under the first course of shingles.

Performance:
Screen Material: .032 aluminum with a durable Kynar 500 Matte Black finish

Warranty:
10 yr on VSP
See Warranty for complete details

Components:
VSP (4’ standard lengths)
Mounting hardware

888 360-7872  info@edgemeltsystems.com  www.EdgeMeltSystems.com
**HeatTracer SJP Self-Regulating Heat Cable**  
*SJP-1, SJP-2, SJP8-1, SJP8-2, SJP10-1, SJP10-2*

### Overview

Drexan HeatTracer® Self-Regulating Heating Cables meets all your Roof/Gutter and Pipe Heat Trace needs. They are designed to serve the demands of the Commercial, Residential and Industrial non-hazardous markets. Industry leading 10 year warranty available.

HeatTracer SJP is designed to maintain temperatures up to 150°F/65°C and can withstand temperatures up to 185°F/85°C. They are also certified to all applicable CSA (CUS) standards for use throughout North America, as well as ATEX for global applications. They are suitable for metallic and non-metallic roofs, gutters, pipes, tanks and vessels.

![Diagram of HeatTracer SJP Cable](image)

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<th>Maximum Continuous Circuit (feet) per Circuit Breaker</th>
<th>Start-Up Ambient Temperature</th>
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<th>240V SJP-2</th>
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**NOTE:**

Global Electrical Codes require ground-fault protection of equipment on each heating cable branch circuit to reduce the danger of fire caused by continuous electrical arcing resulting from improper installation or damage to the heating cable. Conventional circuit protection may not be suitable for preventing electrical arcing.

Suitable devices for providing Equipment Ground Fault Protection: GFEP circuit breakers, AC-GFEPD130/230

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**Application**

Area classification - Hazardous and non-hazardous locations

Traced surface type - Metal, Plastic, Asphalt

**Supply Voltage**

- SJP XX-1 - 100-130 VAC
- SJP XX-2 - 208-277 VAC

**Temperature Ratings**

- Maximum maintain or continuous exposure temperature (power on) 185°F/85°C
- Maximum intermittent exposure temperature, 1000 hrs (power-on) 130°F/55°C
- Temperature ID number (t-rating) T6: 185°F/85°C

**Product Characteristics**

- Minimum installation temperature -40°F/-40°C
- Weight (nominal) - 0.84 lb./10 ft. (125 g/m)
- Heating cable dimensions - 0.51 x 0.22 in. (13.0 x 5.7 mm)
- Bus wire size - 16 AWG
- Outer jacket color - Black polyolefin

**Approvals**

- II 2G Ex e IIC T6 Gb Sira 12ATEX3095X
- C US Class I, Div. 1/2, Groups A, B, C, D
- Class II, Div. 1/2, Groups E, F, G
- Class III

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[888 360-7872](tel:8883607872) info@edgemeltsystems.com www.EdgeMeltSystems.com
**HotTape Self-Regulating Heat Cable HT8-1, HT8-2**

**Overview**

Drexan HotTape® Self-Regulating Heating Cables meets all your Freeze Protection needs. They are designed to serve the demands of the Commercial, Residential and Industrial non-hazardous markets. Industry leading 10 year warranty available.

HotTape is designed to maintain temperatures up to 150°F/65°C and can withstand temperatures up to 185°F/85°C. They are also certified to all applicable CSA (CUS) standards for use throughout North America, as well as ATEX for global applications. They are suitable for metallic and non-metallic roofs, gutters, pipes, tanks and vessels.

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<td>HT 8</td>
<td>HT 8</td>
<td>HT 8</td>
</tr>
<tr>
<td>32°F</td>
<td>115</td>
<td>150</td>
</tr>
<tr>
<td>14°F</td>
<td>100</td>
<td>135</td>
</tr>
<tr>
<td>0°F</td>
<td>90</td>
<td>125</td>
</tr>
</tbody>
</table>

**NOTE:**

Global Electrical Codes require ground-fault protection of equipment on each heating cable branch circuit to reduce the danger of fire caused by continuous electrical arcing resulting from improper installation or damage to the heating cable. Conventional circuit protection may not be suitable for preventing electrical arcing.

Suitable devices for providing Equipment Ground Fault Protection: GFEP circuit breakers, AC-GFEPD130/230
Overview
The ice dam prevention system controller DC-Flex allows for automatic operation of the Edge Melt Systems heated roof panels and heated gutter guards. The DC-Flex operates up to 4 separate branch circuits according to the temperature control values set on the digital temperature controller. A set point for heat cable on/off operation as well as a set point for low temperature cut out (LTC) of the circuits is provided. The LTC mode saves energy by keeping the heaters off when temperatures are below the threshold at which solar gain and heat loss melts snow or additional snow accumulates. Both temperature set points are easily field adjustable to suit local conditions.

Operation
The DC-Flex Controller uses a remote thermistor sensor to measure the ambient (outside) temperature. When the sensed outdoor temperature falls below the upper set point (out1), the temperature controller energizes the branch circuits. When temps rise above the upper set point the branch circuits are de-energized. If the sensed temp falls below the LTC (out2), the branch circuits are de-energized and re-energized when the temperature rises above the LTC set point. This is commonly referred to as 'window' operation and is the most efficient way to operate your heat cable system.

Specifications
- Operates up to 4 separate circuits
- 208/240V @ up to 30 amps per circuit
- Single and/or 3 phase
- 2 circuits are delayed to limit inrush impact
- MAX control energizes heat cable circuits regardless of temperature
- ECO control energizes the heat cable circuits when ambient temperature is between set points
- Fool proof, economical control
- Set points are field adjustable
- Precision calibration function customizes controller to installation site
- Polycarbonate enclosure measures 10” tall, 8” wide, 4” deep
- NEMA Type 1 insulated enclosure (indoor installation)
- UL 508A C/US
Digital Controller - Sierra

Overview
The DC-Sierra is a new generation of ice dam prevention system control. This advanced controller offers as much as 50% in reduced operating cost over ambient sensing controllers. With its unique capabilities and features, the DC-Sierra achieves a new milestone in affordability, convenience and energy efficiency.

Features
Proportional Temperature Control and Ambient Temperature Sensing with 'Window' Operation- reduces power consumption

- Precision Temp Sensors - accurate and reliable
- Start Up & Current Control - increases maximum cable lengths and reduces installation costs
- Soft Start - increases cable life expectancy
- Integrated GFEPD - built in safety
- Available in 1-6 Circuit Models

Operation
The DC-Sierra can be used to upgrade any existing installation, providing reduced operating costs along with soft starting. The DC Sierra uses one remote RTD to measure outdoor ambient temperature and energize the system only when temps are right for ice formation. It uses a second RTD to measure the temperature of the panel or pipe and adjusts power so that only the necessary amount of energy is used to accomplish what is needed.

Specifications
- 1 to 3 circuits
- 208/240V @ up to 30 amps per circuit
- Single and/or 3 phase
- Integrated 30 mA GFEP available
- Soft Start up to 99.9 seconds (factory set, field adjustable)
- MAX control energizes heat cable circuits regardless of temperature Useful for preseason testing
- ECO (automatic) control energizes the heat cable circuits when ambient temperature is between set points Fool proof, economical control
- Temp controller set points are field adjustable
- Gray Steel Enclosure 24"x20"x8"
- NEMA Type 1 insulated enclosure (indoor installation)
- UL 508A C/US
Outdoor Digital Controller  DS-2C

Overview
The ice dam prevention system controller DS-2C allows on/off operation of the Edge Melt Systems heated roof panels and heated gutter guards. The DS-2C operates a single branch circuit according to the temperature control values set internally. A set point for heat cable on/off operation as well as an optional set point for low temperature cut out (LTC) of the circuits is provided. The LTC mode saves energy by keeping the heaters off when temperatures are below the threshold at which solar gain and heat loss melts snow or additional snow accumulates.

Specifications
Dimensions: 4¾”x7”x2¾” (120x178x70 mm)
Weight: 2 Lbs (0.9 Kg)
Operating Temperature: -40°F to +185°F (-40°C to +85°C)
Enclosure Rating: NEMA 3R
Supply Power: 100-277VAC 50/60Hz 15W max
Trigger Temperature*: 34°F-44°F (1.1°C-6.6°C)
Low Temperature Cutoff**: off at 5°F back on at 9°F (off -15°C on -13°C)
Load Contact Capacity: 30A @ 277 VAC
Service Life: 100,000 operations min @ full load
Monitor Contact Capacity: 24 VDC/VAC 400mA 10W max
Regulatory Approval: ETL C/US

• Automatic Activation means Lower Deicing Costs
• Selectable Low Temperature Cutoff Allows for ‘Window’ operation
• Reliable Temperature Detection
• Full 30A @ 277VAC Control
• Universal 100-277 VAC 50/60 Hz Operation
• Easy Installation, Full Access to Electronics
• Adjustable Temperature Trigger Point
• Super Bright Power/Activation LED Indicator
• High Power, Low Price!
Ground Fault Electrical Protection Device
AC-EPD230 & AC-EPD130

Overview
The AC-EPD230 (or AC-EPD130) Industrial Grade Equipment Ground Fault Protection Device (GFEPD) is ideal for both new and existing circuit installations. It provides 30mA ground fault current detection and safety power interruption consistent with Article 426 of the NEC. Required by heat cable manufacturers and the National Electrical Codes, these devices are used to protect the heat cable systems and are far less prone to the problem of ‘nuisance’ tripping common with standard GFCI outlets and breakers. These units solve the problem of using expensive and hard to find GFEP breakers.

All that is required is a feed current limited to 30 amps or less. The AC-EPD230 unit can be conveniently wired directly into the DC Flex Controller. The AC-EPD130 or 230 can also be used as stand alone protection without a controller. All units have 18" splicing lead wires, a ¾" NPT fitting that can connect to ¾" PVC, EMT, Burial and Flexible conduits. All units are available with an Automatic reset. Note ground wire is connected externally and does not enter the EPD housing. All units are MADE IN THE USA and tested by CSA to UL1053 and CSA 22.2 No. 144-M91 standards.

Installing & Operation
The AC-EPD230 (for 240V systems) and the AC-EPD130 (for 120V systems) provides 30mA ground current detection and power interruption. The units can be wired in line using a standard junction box or directly into the DC Flex Controller (see wiring diagram).
Registered Limited Warranty

GSB Services, LLC manufactures VersaScreen Gutter Protection™, IceBlaster™, Edge Melt Systems™, and ECO™ digital controllers (the “Product”) in accordance with high standards and tight quality controls.

What Does This Warranty Cover?

Material Warranty

GSB Services, LLC warrants to you, the purchaser, that the products covered by these warranties will be free from defects due to faulty materials or workmanship and that, under normal use and maintenance, the painted finishes will not crack or peel. This material warranty is limited to the exclusions, limitations, conditions, requirements, and legal rights in this warranty. Products covered are VersaScreen Pro, EMS and ECO components.

- 50 years on the Base Extrusion
- 40 years on the prefinished aluminum cover materials and VersaScreen materials
- 30 years on the prefinished aluminum finish
- 10 years on the VersaScreen finish
- 10 years on the IceBlaster heat cables (as supplied by the heat cable manufacturer)
- 2 years on ECO digital controllers

WHAT IS NOT COVERED?

This Warranty does not cover:

- Damage of any kind resulting from faulty or improper installation;
- Changes to surface color resulting from chalking, fading, soiling, or staining. Exposure to the elements may cause these changes over time. The degree to which weathering occurs will vary depending on air quality, the building’s location, and other conditions over which we have no control;
- Distortion of the property structure, accidental damage, impact of foreign objects;
- Airborne stains, mold and mildew accumulation, surface deterioration due to air pollution, harmful chemicals;
- Acts of God;
- Warping or distortion due to exposure to excessive heat sources;
- Products that have been painted or whose surface has been altered in any way;
- Any other causes beyond our reasonable control.
- Your failure to perform routine required maintenance for removal of debris lying on the top of the VersaScreen Gutter Protection and Edge Melt Systems product.
- Damage by animals or others
OTHER LIMITATIONS

- This Warranty covers only genuine VersaScreen Gutter Protection and EMS IceBlaster and ECO products. It is your responsibility to verify that the product installed is genuine VersaScreen Gutter Protection, ECO or IceBlaster.
- Due to normal weathering, the replacement product may differ from that which was originally installed. We reserve the right to change or discontinue any design or color.
- There are no warranties on this product other than as set forth in this Warranty. We are not liable to you for a breach of any other written or oral express warranties, such as those, if any, given to you by dealers, contractors, applicators, or distributors of the Product.
- WE EXCLUDE AND ARE NOT RESPONSIBLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES ARISING OUT OF ANY BREACH OF THIS EXPRESSED WARRANTY OR ANY OTHER ORAL, WRITTEN, OR IMPLIED WARRANTY THAT MAY APPLY TO YOUR PURCHASE, AS IT RELATES TO OUR PRODUCTS. THIS IS YOUR EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

HOW DO YOU REGISTER YOUR WARRANTY?

Warranty registration must be completed online. Warranty registration must be completed within 30 days after original installation has been completed.

HOW DO YOU SUBMIT A WARRANTY CLAIM?

To initiate a claim, you should contact the installation company for service and resolution within the warranty period and within a reasonable period of time after the defect is discovered. To submit a written claim, please provide the following information:

A copy of the original warranty registration form, a description and photograph of the claimed defect and the date the defect was discovered. Send to GSB Services LLC, PO Box 180193, Delafield, WI 53018 or email to info@EdgeMeltSystems.com. For warranty issues with the Drexan heat cable supplied, consult the warranty information. GSB Services LLC will provide notification of any additional information and physical evidence that may be required to process your claim.

CARE & MAINTENANCE

VersaScreen Gutter Protection is one of the most effective gutter protection systems available today for residential and commercial applications. In most cases, dry debris is removed with wind as low as 10 miles per hour. If debris is wet or compressed, a minimum wind of 20 mph may be required. It is the responsibility of the property owner to ensure proper debris removal from the top of the VersaScreen Gutter Protection to keep it working properly. All debris should be removed from eaves and valleys and other areas where the roof ice prevention system is installed each fall prior to snowfall for proper functioning of the system.
WHAT WE WILL DO

You must notify us in accordance with the notice requirements outlined above, and we must validate the complaint. Upon the notification and validation, we will undertake the following:

If there is a defect in the manufacture of the product, at our sole option, we will either repair, replace, or refund the purchase price of the originally installed product found to be defective. In the event that we choose to replace the product, we will only be responsible for providing materials. For ECO digital controllers, the controller must be returned to GSB Services LLC shipping prepaid for any warranty repairs. The unit will be returned shipping prepaid in the event it is a warrantable repair.

We will not be responsible for any cost or expense to clear any blockage or obstruction which is determined to be below grade. Nor are we responsible for any consequential damage arising from the operation or non-operation of VersaScreen or IceBlaster products. Our obligations under this Warranty will in no event exceed the purchase price of the originally installed product found to be defective. Any additional costs and expenses beyond these amounts are your responsibility. In the event of repair or replacement under this Warranty, the Warranty applicable to the replacement material or to the repaired product will extend only for the time remaining under the original Warranty.

ECO controllers are warranted against defects in workmanship and materials for two years from the date of sale. This warranty does not apply to damage resulting from accident, misuse, or alteration nor where connected to voltage that is more than 5% above the configured operating voltage, nor to equipment improperly installed, wired, or maintained in violation of the Operating Guide. No other written or oral warranty applies. No employee, agent, dealer, or other person is authorized to give any warranties on behalf of GSB Services, LLC. Units returned for warranty repair cannot be modified from original shipped condition other than feeder holes for wiring. The customer shall be responsible for all costs incurred for the removal or reinstallation and shipping of the product for repairs. Within the limitations of this warranty, inoperative units should be returned, freight prepaid, to GSB Service LLC, and that GSB Services LLC IS NOT RESPONSIBLE FOR DAMAGES OF ANY KIND, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGE. Some states do not allow the exclusion of or limitation of incidental or consequential damages so the above exclusion may not apply to you. The warranty gives you specific legal rights, and you may also have other rights which vary from state to state.
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No employee, agent, dealer, or other person is authorized to give any warranties on behalf of GSB Services, LLC. Units returned for warranty repair cannot be modified from original shipped condition other than for holes for wiring. The customer shall be responsible for all costs incurred for the removal or reinstallation and shipping of the product for repairs. Within the limitations of this warranty, inoperative units should be returned, freight prepaid, to GSB Service LLC, and that GSB Services LLC IS NOT RESPONSIBLE FOR DAMAGES OF ANY KIND, INCLUDING INCIDENTAL AND CONSEQUENTIAL DAMAGE. Some states do not allow the exclusion of or limitation of incidental or consequential damages so the above exclusion may not apply to you. The warranty gives you specific legal rights, and you may also have other rights which vary from state to state.