

# IceBlaster™

## Edge Melt Systems™

*Patent Pending Technology*



## Systems Catalog

*0001-01*

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### Revision History

Date	Revision	Description	Author
7/30/2015	0001.00	Initial Availability	Mike Franco

# Overview of Deicing Systems Technology

## Technology

IceBlaster Edge Melt System products have been engineered to achieve the highest performance level. This can be seen by how effective the system is at preventing ice dams and contending with snow storms. Our decades of experience drives 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 a ten year warranty. These tolerances are vitally important to the performance of our systems.

Our industry leading heating cables are tightly embedded in custom designed extrusions for maximum heat transfer. While not required for the efficient operation of our systems, we also offer a thermal conducting compound to massively improve the heat transfer. This compound also blocks the buildup of oxidation of metal surfaces which leads to the substantial erosion of performance of other systems.

Heat transfer is the name of the game. 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.



This meant a system that 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 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, our products have been successfully installed throughout the country from the state of Washington to Maine. Ideal for the Midwest, New England, and the Mountain West.



Our VersaScreen gutter guard system keeps all but the smallest debris from contaminating the system. Yet it can be easily be cleaned. The VersaScreen gutter guard system is unparalleled in its performance and ease of installation. VersaScreen is available in a heated version, which will further enhance the performance of the deicing system.

### **The Now Solution**

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.

We ship LTL freight and FedEx ground for fast turnaround. With our large inventory, in house manufacturing and customization, and emphasis on serving our customers, we can provide you with what you need when you need it.

### **Real Lower Cost**

IceBlaster & VersaScreen are very competitively priced. But the real competitive 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 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.

# System Design

## Overview

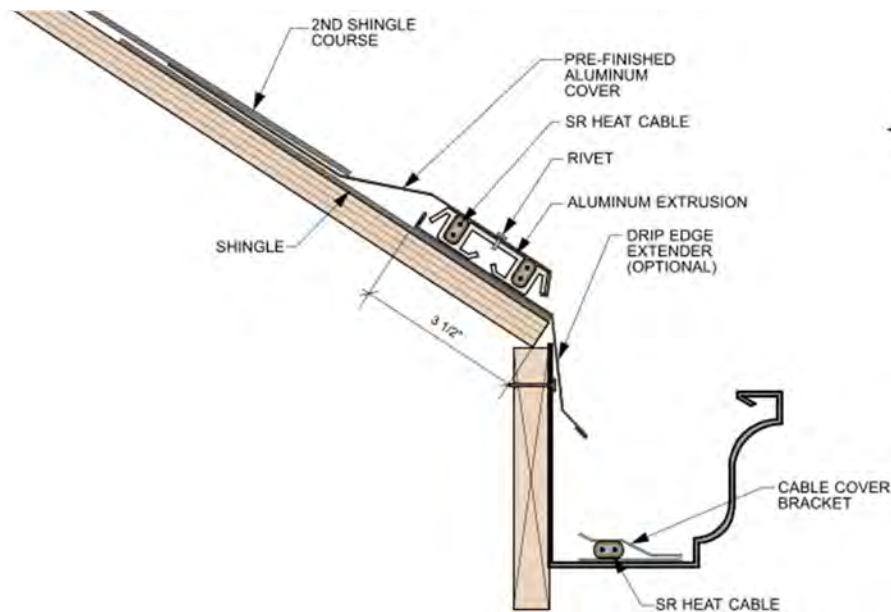
The purpose of this section is to assist you in designing your ice dam prevention system. We strongly believe that providing you with this information will help you to make the best decision for your project and budget. Please take the time to read this thoroughly, as doing so will put you in the best position in designing your ice dam prevention system.

## What is an ice dam?

1. An ice dam is a ridge of ice that causes water to be trapped behind it. This results in water being forced into areas your roof and gutter system was not designed to handle.
  - 1.1. 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.
  - 1.2. 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.
  - 1.3. Ice dams can form anywhere melted snow can refreeze.
  - 1.4. Icicles indicate an ice dam formation.
2. Ice dams are the result of snow melted by:
  - 2.1. Heat loss from the conditioned area of the home or business into the attic cavity which warms the roof.
  - 2.2. Inadequate levels of insulation.
  - 2.3. Temperatures fluctuating above and below freezing.
  - 2.4. Solar gain – the roof surface being warmed by the sun even though temps are below freezing.
  - 2.5. Poor or non-existent ventilation.
3. Understanding the causes of your ice dams will help in solving your ice dam problems.

## Types of Ice Dam Prevention Systems

1. Our ice dam prevention systems rely on the well-founded principle of thermal conduction. We use the heat generated by the heat cables to warm the aluminum panels to create continuous areas warm enough to prevent ice dam formation.
  - 1.1. Old ideas rely on heat cables melting ‘paths’ through the ice dams. Zig zag heat cables do not prevent ice dams.
2. Heated (radiant) panels that are placed at the roof edge, in valleys, around chimneys, and other roof areas where ice dams and icicles form.
  - 2.1. **Eaves** are the area where your gutter hangs or the water drips off of a roof.
    - 2.1.1. Eaves are protected by Eave Panels (EP) or Heated Gutter Guards (HGS)
  - 2.2. **Valleys** are the area where two roof planes meet forming a trough or groove where water drains to and flows down the roof to a lower roof or eave.
    - 2.2.1. Valleys are protected by Valley Panels (VP) or Cable Cover Brackets (CCB)
  - 2.3. Dormers, chimneys and saddles can be protected with one or both types of ice dam protection.
  - 2.4. Types of Eave and Valley Panels are included in this packet. They include the IceBlaster EMS EP and VP products as well as the Specialty Panel (SP) products
  - 2.5. Types of Heated Gutter Guards include the VersaScreen IceBlaster. There are multiple versions depending on your need.



### Anatomy of Heated Eave Panel, Drip Edge and Gutter

#### 2.5.1. MaxPro

- 2.5.1.1. One run of heat cable at the roof edge embedded in a heavy aluminum extrusion – the RE (Roof Edge)
- 2.5.1.2. One run at the front lip of the gutter embedded between the VersaScreen Pro Gutter Protection and the FE (Front Edge) extrusion.
- 2.5.1.3. One run of heat cable in the gutter bottom and down any downspouts. Downspouts are always treated to allow for any melted water to be able to drain away.
- 2.5.1.4. Best choice for maximum ice dam prevention as it prevents roof edge ice buildup and limits icicle formation.
- 2.5.1.5. Most often used on asphalt roofs.

#### 2.5.2. REPro

- 2.5.2.1. House one run of self-regulating heat cable at the roof edge in the RE extrusion and one run in the gutter bottom/downspout.
- 2.5.2.2. Great choice for limiting roof edge ice buildup. May have minor icicle formations at the front lip in winter extremes.
- 2.5.2.3. Most often used on asphalt roofs.

#### 2.5.3. FEPro and FE5

- 2.5.3.1. Houses one run of self-regulating heat cable at the front lip of the gutter embedded between the VersaScreen Pro or 5 Gutter Protection and the FE (Front Edge) extrusion.
- 2.5.3.2. Great choice for limiting ice and icicle build up at the gutter. Limits ice dam formation.
- 2.5.3.3. Uses include metal roofs, cedar roofs, asphalt roofs, other roof types where the roof edge does not allow for the installation of the RE or VersaScreen Pro under the roofing materials.
- 2.5.3.4. Also a great choice for retro fitting already installed VersaScreen Pro or 5.
- 2.5.3.5. May be combined with IceBlaster EMS EP or SP panels for even greater melting capacities Heavy or Extreme snow areas.

#### 2.6. Custom Fabricated Ice Dam Prevention Systems

- 2.6.1. Because we operate our own full service sheet metal shop, we can custom modify any existing application or design a new product just for your unique application.
- 2.6.2. Our extensive experience allows us to make the best recommendation.

## Control Options for Your Ice Dam Prevention System

### 3. Manual Control

3.1. A switch is installed to directly operate your system.

#### 3.2. Optimal use:

3.2.1. 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.

3.2.2. Business or commercial enterprise that has in house maintenance responsible for operation.

#### 3.3. Advantages

3.3.1. Allows for direct control of the heat cables.

3.3.2. Can be the most efficient way to operate your system.

3.3.3. Puts you in charge.

#### 3.4. Disadvantages

3.4.1. Requires direct supervision for efficient and effective operation.

3.4.2. If heat cables are left on continually they will:

3.4.2.1. Draw more electricity the colder it gets.

3.4.2.2. Use electricity if left on when not needed.

3.4.2.3. Sometimes possible to create only enough heat to make ice rather than prevent ice. This can be overcome by overdesigning with higher wattage heat cables.

3.4.2.3.1.1. Higher wattage heat cables recover quicker and melt faster at lower temps.

3.4.2.3.1.2. Higher wattage cables may be able to be left on for shorter periods.

### 4. DCAS4/8 Digital Thermostat Controller

4.1. This is an indoor mounted controller for automatic control of your ice dam prevention.

#### 4.1.1. Advantages:

4.1.1.1. Centrally located for convenient indoor monitoring and operation of the ice dam prevention system.

4.1.1.2. Automatic control. Heat cables are energized when temps are between the set points (factory set).

4.1.1.3. Controls multiple circuits.

4.1.1.4. Set points are easily field adjustable with digital display.

4.1.1.5. Most reliable form of system control.

4.1.1.6. Can save operating costs over leaving system on all winter long.

4.1.1.7. UL508A

#### 4.1.2. Disadvantages

4.1.2.1. 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.

#### 4.2. Optimal use:

4.2.1. The customer who is not often home and/or knows they will not remember to closely monitor their system.

4.2.2. Business or commercial enterprise that prefers to automate the operation of systems.

#### 4.3. Versions:

##### 4.3.1. DCAS4

4.3.1.1. Operates up to 4 separate branch circuits up to 240V 30 amp.

4.3.1.2. Ideal for small to medium systems.



4.3.1.3. Includes optional low temp cut out turns the system off when temps drop below 5 degrees and back on when temps rise above 9 degrees.

#### 4.3.2. DCAS8

4.3.2.1. Same features as DCAS4 and:

4.3.2.2. Operates up to 8 separate branch circuits up to 240V 30 amp.

4.3.2.2.1.1. Contains dual 4 circuit contactors.

4.3.2.2.1.2. 2nd contactor is delayed for 2 minutes to minimize inrush current.

4.3.2.3. Ideal for medium to large systems.

### 5. DS-2C Thermostat Controller

5.1. This is an outdoor controller for automatic control of your ice dam prevention system. Reads outside temperature.

5.2. Optimal use:

5.2.1. The customer who is not often home and/or knows they will not remember to closely monitor their system.

5.2.2. Turns on heat cables when temps drop below 38 degrees.

5.2.3. (While 38 degrees seems like it may be too high, roof and gutter surfaces do not warm as quickly as air temps. Additionally, sometimes snow falls when temps are above freezing).

5.3. Optional low temp cut out.

5.3.1. This turns off cables when temps drop below 5 degrees and turns back on when temps rise above 10 degrees.

5.4. Optional CDP-2 (indoor mounted control display panel).

5.4.1. Allows for the indoor interface with this outside controller.

5.4.2. Great option for those with limited mobility or for when the controller is not easily accessible.

5.5. Advantages

5.5.1. Easy and efficient operation of your system without having to remember to turn it on and off with temperature changes.

5.5.2. Can save operating costs over leaving the system on throughout the winter.

5.5.3. Improves effectiveness of the system by having the heat cables off at low temps when they are less effective.

5.5.4. System can be turned off when there is no snow on the roof, minimizing operating costs.

5.6. Disadvantages

5.6.1. System will be on even if there is not snow on the roof.

5.6.2. Can use more energy than direct control of the system through a switch.

5.6.3. If system is turned off during the winter, customer must remember to turn back on.

### 6. Custom and Next Generation Control Panels

6.1. Designed to specific location need.

6.1.1. Ambient Temperature Sensing

6.1.2. Snow/Ice Sensing

6.1.3. Panel Temperature Sensing for power management

6.2. 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.

6.3. Built in equipment ground fault protection.

6.4. UL and CSA components.

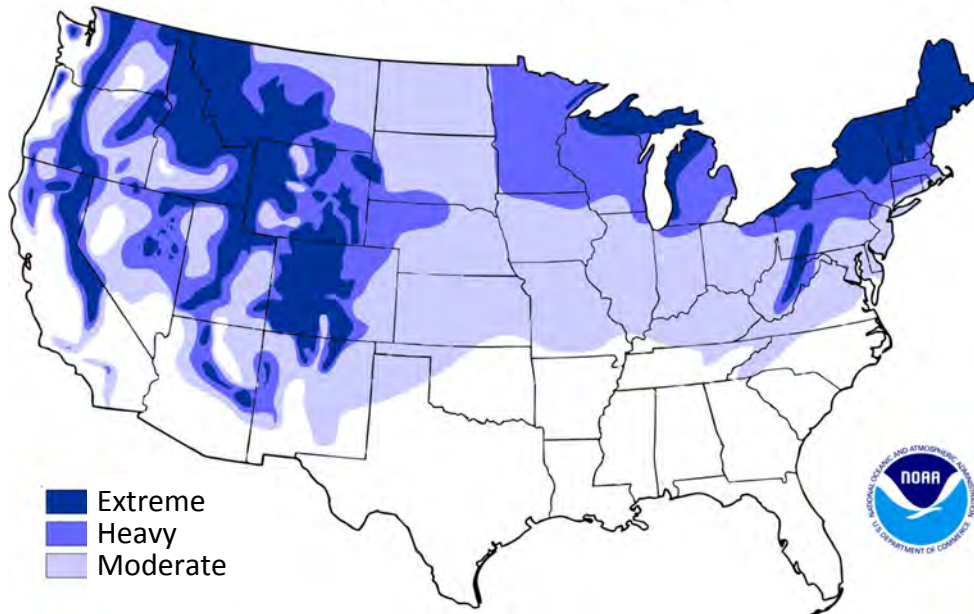
6.5. UL 508A

6.6. Perfect for residential, commercial and industrial applications.



# Snowfall Map

## Annual Average Snowfall



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 snow fall you experience in your area, the more robust your system will need to be.

Extreme	Heavy	Moderate
<ul style="list-style-type: none"> <li>• Greater than 120 inches annually</li> <li>• Individual snow fall events routinely exceed 15 inches</li> <li>• Snow accumulations on the roof in excess of 15 inches for much of the season</li> <li>• Alpine areas and mountain resort areas               <ul style="list-style-type: none"> <li>○ Western mountain areas</li> <li>○ New England mountain/resort areas</li> </ul> </li> <li>• Great Lakes lake effect snow belt               <ul style="list-style-type: none"> <li>○ Northern and Western Michigan and the upper peninsula</li> <li>○ Northern Indiana, Ohio, Pennsylvania</li> <li>○ Western New York - Buffalo to Rochester to Syracuse</li> </ul> </li> <li>• Areas in Heavy that experience severe drifting should consider using products rated for Extreme areas</li> </ul>	<ul style="list-style-type: none"> <li>• Generally less than 100 inches annually</li> <li>• Individual snow fall events rarely exceed 15 inches</li> <li>• Snow accumulations on the roof generally do not exceed 20 inches for much of the season</li> <li>• Upper Midwest to New England</li> <li>• Eastern Colorado and Wyoming through the upper central plains</li> <li>• Areas of New York, Pennsylvania, and Ohio that are not in lake effect snow belt</li> <li>• New Jersey, northern West Virginia</li> <li>• Long Island (can also be considered Moderate)</li> <li>• Areas in Moderate that experience severe drifting should consider using products rated for Heavy areas</li> </ul>	<ul style="list-style-type: none"> <li>• Generally less than 40 inches annually</li> <li>• Individual snow fall events rarely exceed 6 inches</li> <li>• Snow accumulations rarely exceed six inches on the roof throughout the season</li> <li>• Moderate areas that experience prolonged below freezing temperatures should consider products designed for Heavy areas               <ul style="list-style-type: none"> <li>○ This would include the northern plains</li> </ul> </li> </ul>

## Products for Different Conditions

	Extreme	Heavy	Moderate
EP-SC	15W	13 or 15W	13W
EP-SO	13 or 15W	13W	8W
VP-MW/SV	13 or 15W	13W	8W
EP-EO	13 or 15W	13W	8W
EP-LS & LSMR	13 or 15W	13W	8W
HGS-MaxPro	13 or 15W	13W	8W
HGS-REPro	15W	13W	8W
HGS-FE5 or FEPro <sup>1</sup>	13 or 15W	13W	8W
SP-CM	13 or 15W	13W	8W
SP-SM	13 or 15W	13W	8W
SP-SSR	13 or 15W	13W	8W
HG-GMX	13 or 15W	13W	8W

<sup>1</sup> Added to any EMS option - use cable supplied with rest of system

### 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.

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

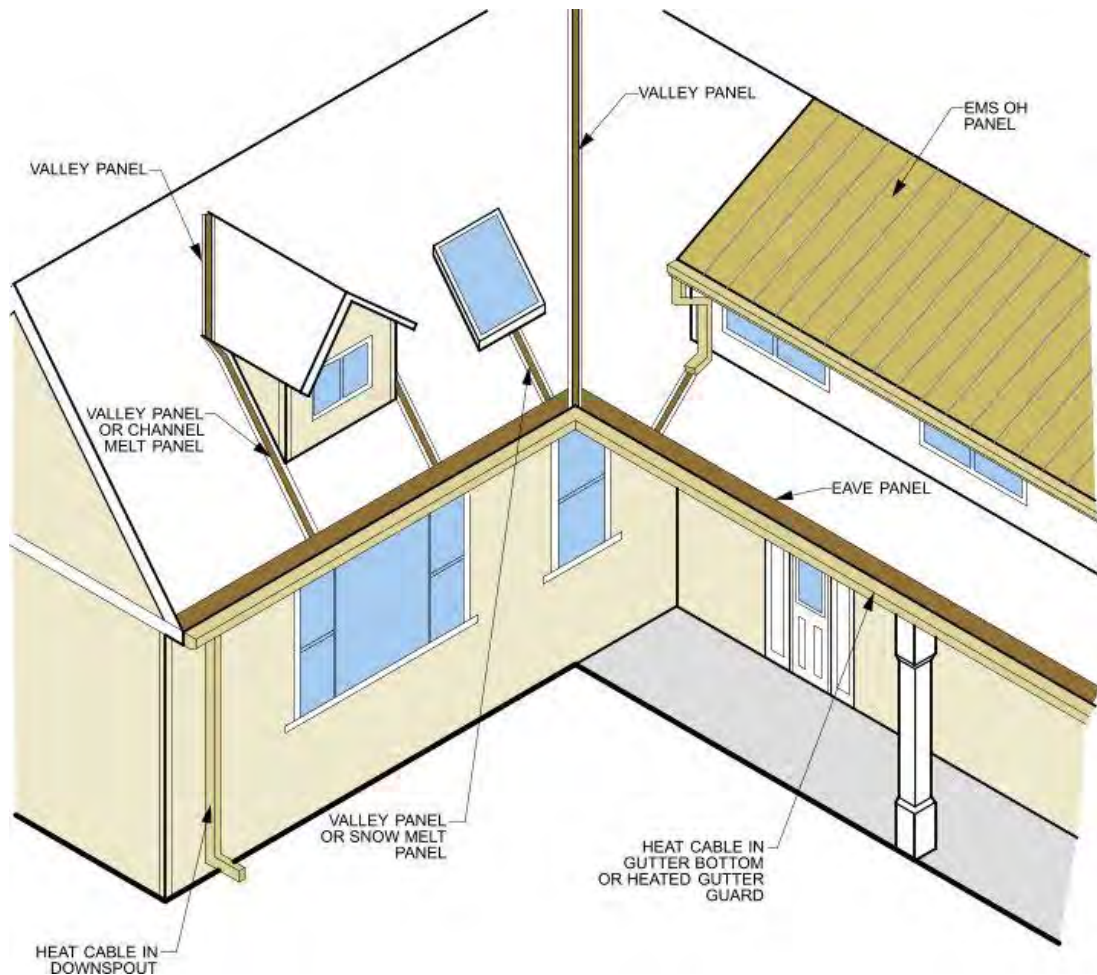
### VARIABILITY:

Our systems are designed to be adaptable. Steeper and larger roofs create unique circumstances that require higher heat output. A heat cable system is not 'highly efficient' if it does not address these situations. 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 12 watt cables produce 6 watts or less when used in ice melt systems.

# Structural Features

Dormer, Valley, Chimney, Cricket /Saddle, Apron /Shed Roof, Extended Overhang, Roof Edge, etc.



## Eaves (heated eave and specialty panels)

- EP-SO and EP-SC for standard roof edges and overhangs
- EP-EO for extended or exposed overhangs
- EP-LS for low slope membrane roofs
- EP-LSMR 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-SO, SC, EO, LS, LSMR
- No Gutter Protection
  - HG-GMX for heating gutter bottom heating

- HG-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
- Along Dormers (heated utility and specialty panels)
- 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)
- SP-SM for creating large melt paths below skylights and roof areas that typically build up with heavy snow accumulations from drifting and blowing snow
- VP-SV for wrapping around chimneys and saddle/cricket area

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

Consult individual data sheets for specific product information.

We can customize our products to many different roof styles and features!

**Color Selection:**

**Standard Colors EMS**

- Medium Bronze
- Dark Bronze
- Mansard Brown
- Matte Black
- Forest Green
- 20 oz. Copper (metal not a painted finish)

**Optional Colors EMS**

- Complete line of
  - Firestone UnaClad
  - Petersen PacClad

**Standard Color VersaScreen**

- Durable Powder Coat in Dull Black

See specific product data sheets for additional information.

## Roof Types Appropriate Products

	EP-SO EP-SC	EP-EO	EP-LS	EP-LSMR	VP-MW VP-SV	SP-CM SP-SM	SP-SSR	HGS-FE5	HGS-FEPro	HGS-REPro MAXPro
Asphalt Shingles	Y	Y	Y	N	Y	Y	N	Y	Y	Y
Wood Shingles	Y	Y	Y	N	Y	Y	N	Y	Y	N
Slate /Tile	Y	Y	Y	N	Y	Y	N	Y	Y	N
Metal	Note <sup>1</sup>	N	N	Y	Y	Y	Y	Y	N	N
Membrane /Rubber	N	N	Y	N	Y	Y	N	Y	N	N

*Note 1 Metal Roof with EP-SO & EP-SC These products can be used as part of new construction with concealed fastener or retrofit on to an existing roof with exposed fastener.*

# Heat Cables

Our heat cables are the engine of the ice dam prevention system. They are the most important component and we do not scrimp on quality. You can find more 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 actually manufactured 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 that same fanatical production processes we all know Japan is famous for.

What does this mean for the customer?

- Cables that are produced to exacting standards of quality and consistency
- Consistent wattage output
- 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. We provide control systems to match. When compared to the zig zag cable products, our systems are a good value because of their effectiveness and longevity.

We are obsessive about testing the heat cables that go into our products. Some of our testing is published on YouTube - <https://www.youtube.com/user/NolceDams>. We have never been about what is the cheapest. That is great to maximize profit in the short term, but a terrible thing to do to 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 240V (220V residential) is used 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 HC132 (13 watt output, 208-277 voltage). It allows for a good balance between effectiveness, efficiency and circuit sizing.

HC-8 = 8 watt output at 32 degrees F in iced water

HC-13 = 13 watt output at 32 degrees F in iced water

HC-15 = 15 watt output at 32 degrees F in iced water

# System Wiring

This is the work of a licensed electrician. The 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 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

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 on cables are essential. Where there is concern, consideration should be given to using epoxy potting of electrical connections or similar, 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

# System Design Documentation

Please provide photos of all areas where Edge Melt Systems are to be installed and architectural plans if available.

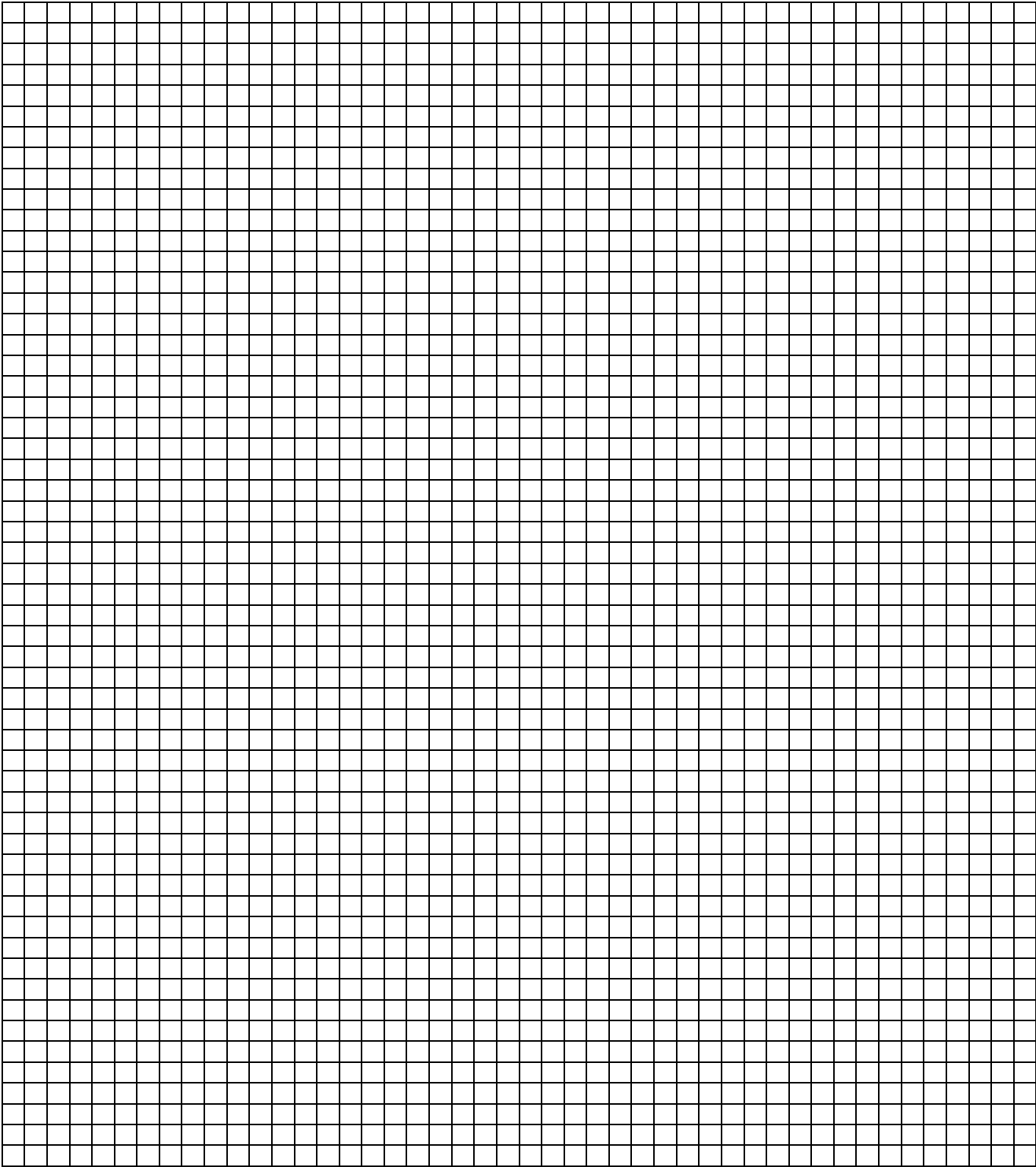
<b>Customer Name:</b>	
Address:	
Contact:	
Phone: (      )	Mobile: (      )
Fax: (      )	
e-mail:	

<b>Installation Location:</b>	
Address:	
Contact:	
Phone: (      )	Mobile: (      )
Fax: (      )	
e-mail:	

Edge Melt System Information	
Material <input type="checkbox"/> Kynar Coated Aluminum <input type="checkbox"/> Copper <input type="checkbox"/> VersaScreen Pro <input type="checkbox"/> VersaScreen 5	
Eave Color: <input type="checkbox"/> Dark Bronze <input type="checkbox"/> Forest Green <input type="checkbox"/> Mansard Brown <input type="checkbox"/> Matte Black <input type="checkbox"/> Medium Bronze	
Valley Color: <input type="checkbox"/> Dark Bronze <input type="checkbox"/> Forest Green <input type="checkbox"/> Mansard Brown <input type="checkbox"/> Matte Black <input type="checkbox"/> Medium Bronze	
AC Power Available <input type="checkbox"/> 120VAC <input type="checkbox"/> 208 <input type="checkbox"/> 240 VAC <input type="checkbox"/> 277 VAC	Breaker Current Rating <input type="checkbox"/> 15Amp <input type="checkbox"/> 20 Amp <input type="checkbox"/> 30Amp

Roofing Information	
<input type="checkbox"/> New	<input type="checkbox"/> Existing Roof
<input type="checkbox"/> Asphalt Shingles <input type="checkbox"/> Wood Shingles /Shakes <input type="checkbox"/> Slate /Tile <input type="checkbox"/> Metal <input type="checkbox"/> Membrane /Rubber	
Slope	Height Above Ground

Notes
-------



<b>Check List</b>
Length of gutters to be heated
Gutter /Downspout Length & Location
Length of valleys to be heated
Controller & Sensor Location
Circuit Breaker Panel
Power Source Junction Box
North Direction Indicator

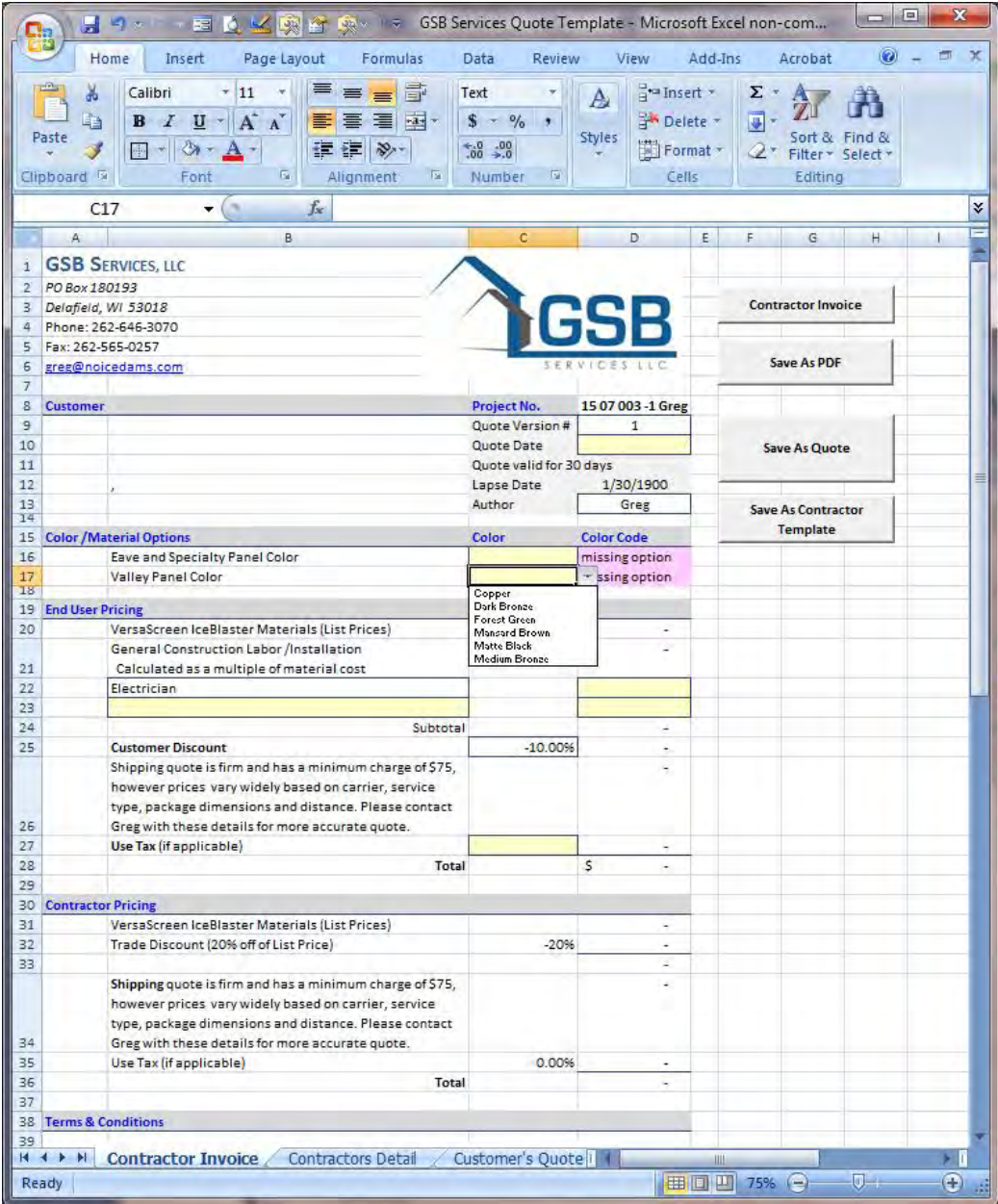


# Invoice and Quoting Tool

Overview – We provide, at no charge to contractors, an easy to use Excel quoting tool. The tool provides an itemized detail invoice that a contractor can issue a purchase order against. In addition, we will customize the tool with the contractor’s company logo, T&C’s, etc. So that the tool can be used to generate quotes for the contractor’s customers.

Sheets include Contractors Invoice, Contractors Itemized Costs, Customer Quote, Materials List, Product Information and Instructions. The tool automatically numbers quotes with date code, unique sequence code and version numbers. The tool is also provides for contractor implemented customizations.

## Contractors Invoice



## Customer Quote

All the required information is in clearly highlighted cells with easy to understand 14 step instructions. These steps will create not only the contractors' invoice but the customer quote as well.

The screenshot shows an Excel spreadsheet titled "GSB Services Quote Template - Microsoft Excel non-com...". The ribbon includes Home, Insert, Page Layout, Formulas, Data, Review, View, Add-Ins, and Acrobat. The active cell is B14.

**Contractor Information (Rows 1-6):**

- 1 Contractor Name
- 2 Address
- 3 City, State Zip
- 4 Phone:
- 5 Fax:
- 6 [greg@noicedams.com](mailto:greg@noicedams.com)

**Project Information (Row 8):**

- 8 Project Number 15 07 003 -1 Greg

**Customer Contact Information (Row 9):**

- 9 Customer Contact Information

**Ship to Address (Row 9):**

- 9 Ship to Address

**Customer Details (Rows 10-19):**

- 10 Customer Name John Smith
- 11 Address 1 123 Jones Ave
- 12 Address 2
- 13 City Buffalo
- 14 State
- 15 Zip
- 17 Phone 1
- 18 Phone 2
- 19 e-mail

**Order Summary (Row 21):**

22 Group	Name	Code	Qty	Ext Cost
23				
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51				
52				
53	General Construction Labor /Installation	-	Subtotal	-
54	Electrician	-	Shipping	-
55		-	Discount -10%	-
56				
57			Total	-

**Buttons (Rows 2, 6):**

- 2 Print Customer Summary
- 6 Save As PDF

**Order Summary (Row 58):**

- 58 Terms & Conditions

The bottom status bar shows "Ready", "75%", and a taskbar with "Contractors Detail", "Customer's Quote", and "GSB Customer's Q".

Please contact Greg at GSB Services Support, Phone (262) 646-3070, e-mail [greg@noicedams.com](mailto:greg@noicedams.com)

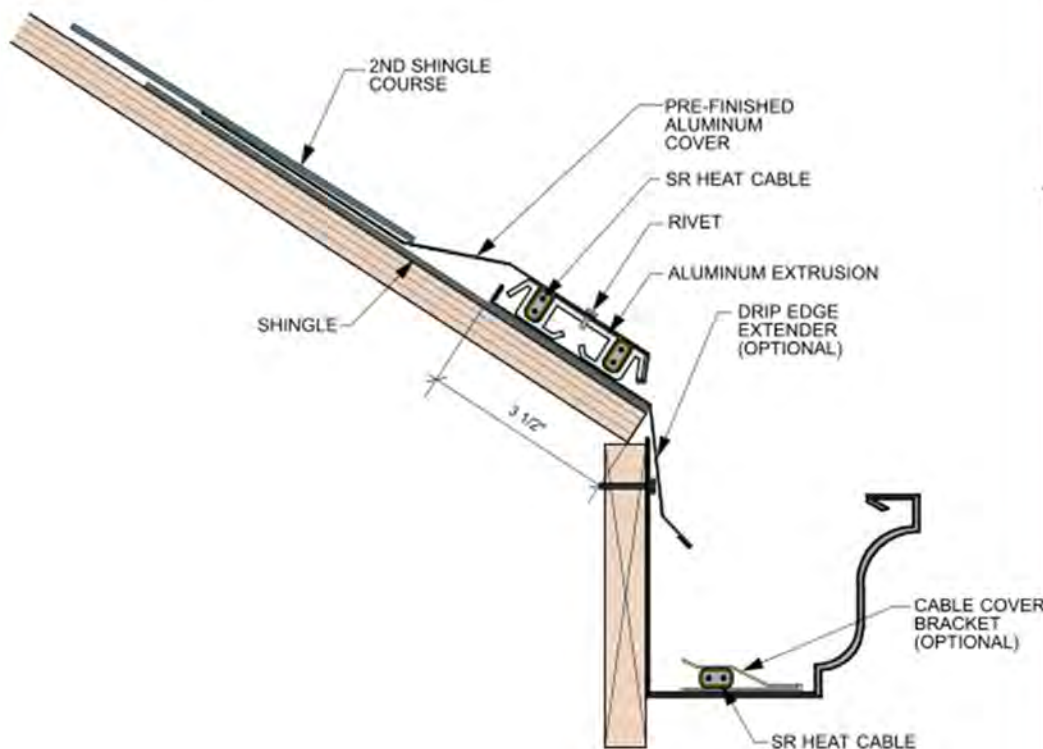
# Product Data Sheets

Category	Description	Product Name	Code
<b>Eave Panel</b>	Standard Overhangs 0 to 30" Apron that installs before the eave panel when no gutter is being used	Eave Panel - Standard Overhangs	EP-SO EP-DEE
<b>Eave Panel</b>	Exposed or Extended Overhangs greater 30"	Eave Panel - Extended or Exposed Overhangs	EP-EO
<b>Eave Panel</b>	Low Sloped Roofs	Eave Panel - Low Slope	EP-LS
<b>Eave Panel</b>	Single Cable Eave Panel for standard overhangs	Eave Panel - Single Cable	EP-SC
<b>Eave Panel</b>	Low or Steep Slope Standing Seam Metal Roof Edge concealed or exposed fastener	Eave Panel - Low Slope Metal Roof	EP-LSMR
<b>VersaScreen</b>	VersaScreen Pro Gutter Screen, unheated for all gutters	Gutter Screen - VersaScreen Pro	VS-P
<b>VersaScreen</b>	VersaScreen 5 Gutter Screen, unheated for 5" gutters	Gutter Screen - VersaScreen 5	VS-5
<b>Heated Gutter Screen</b>	VersaScreen Pro Heated Gutter Screen, heated at the roof edge and the front edge	VersaScreen Pro Heated Gutter Screen MaxPro	HGS-MaxPro
<b>Heated Gutter Screen</b>	VersaScreen Pro Heated Gutter Screen, heated at the front edge only	VersaScreen Pro Heated Gutter Screen Front Edge	HGS-FEPro
<b>Heated Gutter Screen</b>	VersaScreen Pro Heated Gutter Screen, heated at the roof edge only	VersaScreen Pro Heated Gutter Screen Roof Edge	HGS-REPro
<b>Heated Gutter Screen</b>	VersaScreen Heated Gutter Screen for 5" gutters, heated at the front edge only	VersaScreen 5 Heated Gutter Screen Front Edge	HGS-FE5
<b>Heated Gutter</b>	Gutter Heater extrusion based	Heated Gutter - Gutter Melt Extrusion	HG-GMX
<b>Heated Gutter</b>	Gutter Heater Cable Cover Bracket	Heated Gutter - Cable Cover Bracket	HG-CCB
<b>Valley Panel</b>	Metal W Valleys	Valley Panel - Metal W	VP-MW
<b>Valley Panel</b>	Woven or Closed Cut Shingle Valleys	Valley Panel - Shingle Valley	VP-SV
<b>Specialty Panel</b>	Along Dormers	Specialty Panel - Channel Melt	SP-CM
<b>Specialty Panel</b>	Heavy Drifting Roof Areas	Specialty Panel - Snow Melt	SP-SM
<b>Specialty Panel</b>	Retrofit on Standing Seam	Specialty Panel - Standing Seam Retrofit	SP-SSR
<b>Heat Cable</b>	Self-Regulating Heat Cable 8 Watt	Heat Cable - 8/120	HC-81
<b>Heat Cable</b>	Self-Regulating Heat Cable 13 Watt	Heat Cable - 8/240 Heat Cable - 13/120 Heat Cable - 13/240	HC-82 HC-131 HC-132
<b>Heat Cable</b>	Self-Regulating Heat Cable 15 Watt	Heat Cable - 15/120 Heat Cable - 15/240	HC-151 HC-152
<b>System Controller</b>	4 Circuit Indoor Digital Controller	System Controller - Quad Circuit	SC-DCAS4
<b>System Controller</b>	8 Circuit Indoor Digital Controller	System Controller - Dual Quad Circuit with delay	SC-DCAS8
<b>System Controller</b>	Outdoor Ambient Sensing Thermostat Controller & Optional Indoor Display Panel for DS2C	System Controller - Outdoor Temperature Sensing & Display Panel	SC-DS2C SC-CDP2

<b>Accessories</b>	Universal EPD	Accessories – 120/240 VAC 30A max	AC-UEPD
<b>Accessories</b>	Outdoor junction box PVC 4x4x2	System Controller - 4x4x2 PVC Junction Box	AC-JB4
<b>Accessories</b>	Outdoor Junction box PVC 5x5x2	System Controller - 5x5x2 PVC Junction Box	AC-JB5
<b>Accessories</b>	Power connection kit UL	Accessories - Power Connection Kit	AC-PCK
<b>Accessories</b>	Power connection kit generic	Accessories - Power Connection Kit Generic	AC-PCKG
<b>Accessories</b>	Tee Splice kit UL	Accessories - Tee Splice Kit	AC-TSK
<b>Accessories</b>	Heater feed through fitting	Accessories - Heater Feed-Through Fitting	AC-HFF
<b>Accessories</b>	Panel Rivet Fasteners Specify Color:	Accessories – Panel Rivet Fasteners	AC-ARIV
<b>Accessories</b>	Copper Rivets	Accessories - Copper Rivets	AC-CRIV
<b>Accessories</b>	Roof Clips	Accessories - Roof Clips	AC- RC50
<b>Accessories</b>	Base Panel Mounting Screws	Accessories - BP Mounting Screws	AC-BPMS
<b>Accessories</b>	Butyl Tape	Accessories - Butyl Tape	AC-BT
<b>Accessories</b>	Sealant Adhesive for Valley Panel Specify Color	Accessories – VP Sealant Adhesive	AC-SA
<b>Accessories</b>	Insulation Resistance Tester	Accessories – IRT3	AC-IRT3
<b>Accessories</b>	Mounting Screws for single cable eave panel	Accessories – SC Mounting Screws	AC-SCMS
<b>Accessories</b>	12 AWG Grounded AC Line Cord 4’ with connection kit	Accessories – Grounded Plug Kit	AC-3GPK
<b>Accessories</b>	Aluminized Tape 2” x 150’	Accessories –Aluminized Tape	AC-AT
<b>Accessories</b>	½” Black Zip Screws	Accessories – Black Zip Screws .5”	AC-BZS
<b>Accessories</b>	Heat Transfer Compound	Accessories – Heat Transfer Compound	AC-HTG

## IceBlaster Edge Melt System™ Eave Panel for Standard Overhangs (EP-SO)

The IceBlaster Edge Melt System Eave Panel (EP-SO) 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 commercial grade self regulating heat cable. Uses for the EP-SO 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 supplied counter sunk screws. Route two runs of commercial grade self regulating heat cable. Prefinished 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). Expert design layout and installation guidance are available with order.



### NOTE:

Roof drip edge or gutter apron, ice/water shield, tarpaper, gutter straps, and other features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems. IceBlaster EMS Eave Panel 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 EMS EP-SO must be positioned further up on the roof. The Drip Edge Extender provides for heat transfer on the roof edge.

## IceBlaster EMS™ EP-SO

**Performance:** 2 runs of 13 watt per foot self regulating industrial grade heat cable  
 Base Extrusion: 6063 T5  
 Aluminum Cover Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

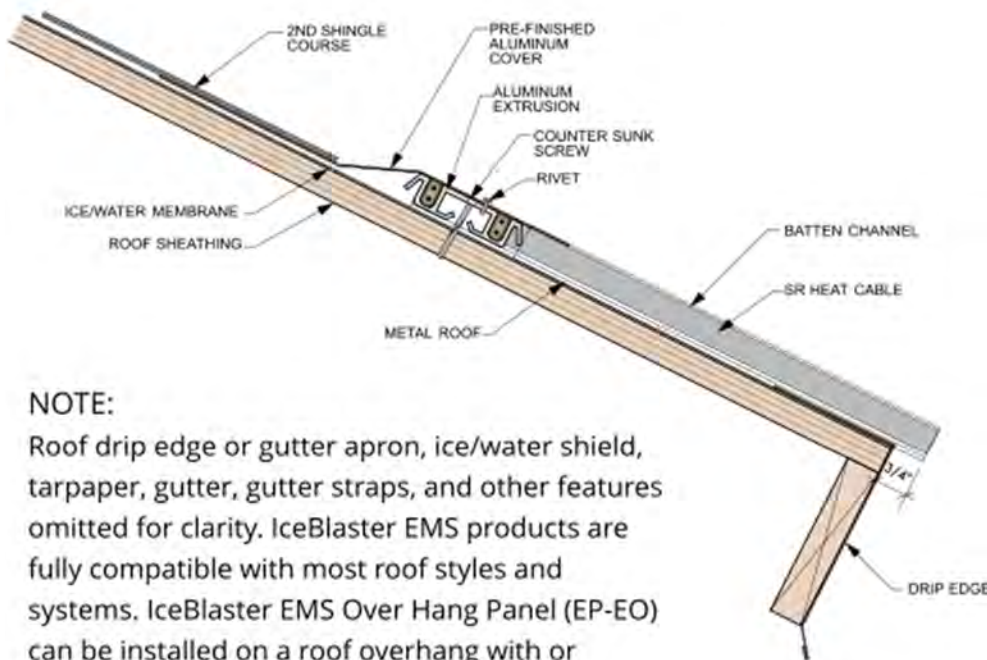
- 50 yr on base panel and cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

- Base extrusion, panel cover, and splice covers
- Mounting hardware
- C/US Listed 13w self regulating heat cable
- 110-130v or 208-277v
- Power Connection Kit
- Extrusions and covers are 10' standard lengths
- Standard Colors:
  - Medium Bronze, Matte Black, Dark Bronze, Forest Green, Mansard Brown, 20 oz. real copper.
- Special Order Colors:
  - Complete line of UnaClad aluminum colors
- Standard lengths can be cut to length
- 15 watt heat trace cable is available for use in Class 1 areas
- 8 watt heat trace cable is available for use in Class 3 and some Class 2 areas

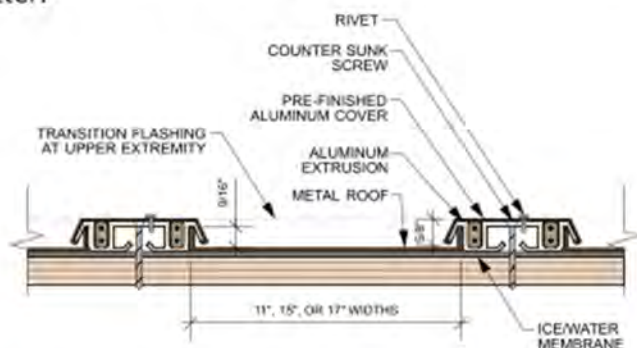
## IceBlaster Edge Melt System™ Extended or Exposed Overhang Panel (EP-EO)

The IceBlaster Edge Melt System Over Hang Panel (EP-EO) is specifically designed to prevent ice dam and icicle build on extended overhangs. The highly efficient system is comprised of an aluminum extrusion base panel which houses two runs of commercial grade self regulating heat cable. Uses for the EMS 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 commercial grade self regulating heat cable. Prefinished 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). Expert design layout and installation guidance are available with order.



### NOTE:

Roof drip edge or gutter apron, ice/water shield, tarpaper, gutter, gutter straps, and other features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems. IceBlaster EMS Over Hang Panel (EP-EO) can be installed on a roof overhang with or without a gutter.



## IceBlaster EMS™ EP-EO

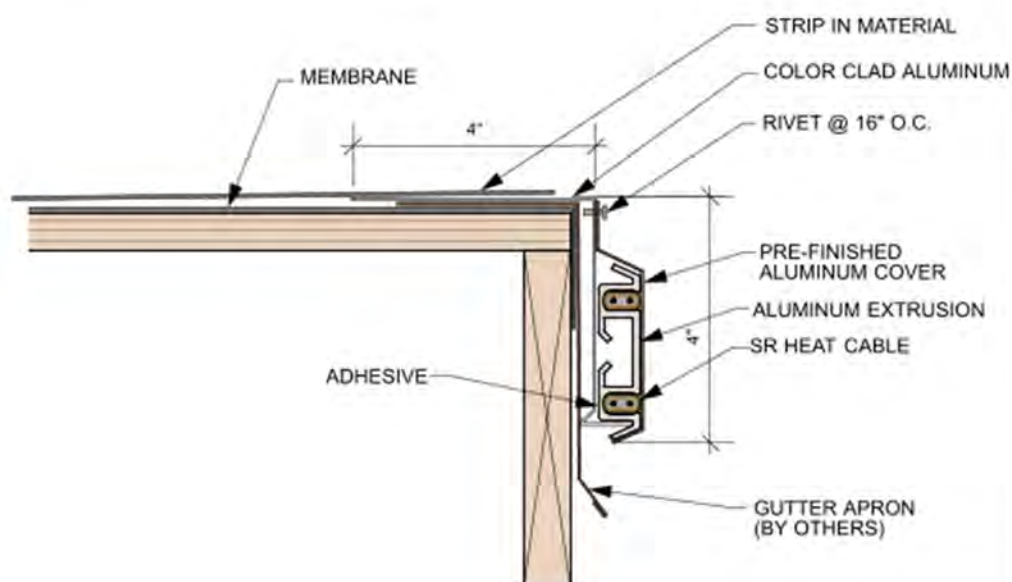
**Performance:** Supplied 13 watt (nominal) per foot industrial grade self regulating heat cable  
 Base Extrusion: 6063 T5 Aluminum  
 Cover and Roof Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

- 50 yr on base panel and cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details
  - Special Order Colors: Complete line of Firestone UnaClad aluminum colors

## IceBlaster Edge Melt System™ Low Slope Eave Panel (EP-LS)

The IceBlaster Edge Melt System 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 commercial 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 commercial grade self regulating heat cable. Prefinished 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). Expert design layout and installation guidance are available with order.



### NOTE:

Some roof assembly features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems. IceBlaster EMS 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 refreezing.

## IceBlaster EMS™ EP-LS

**Performance:** 2 runs of 13 watt per foot self regulating industrial grade heat cable  
Base Extrusion: 6063 T5  
Aluminum Cover Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

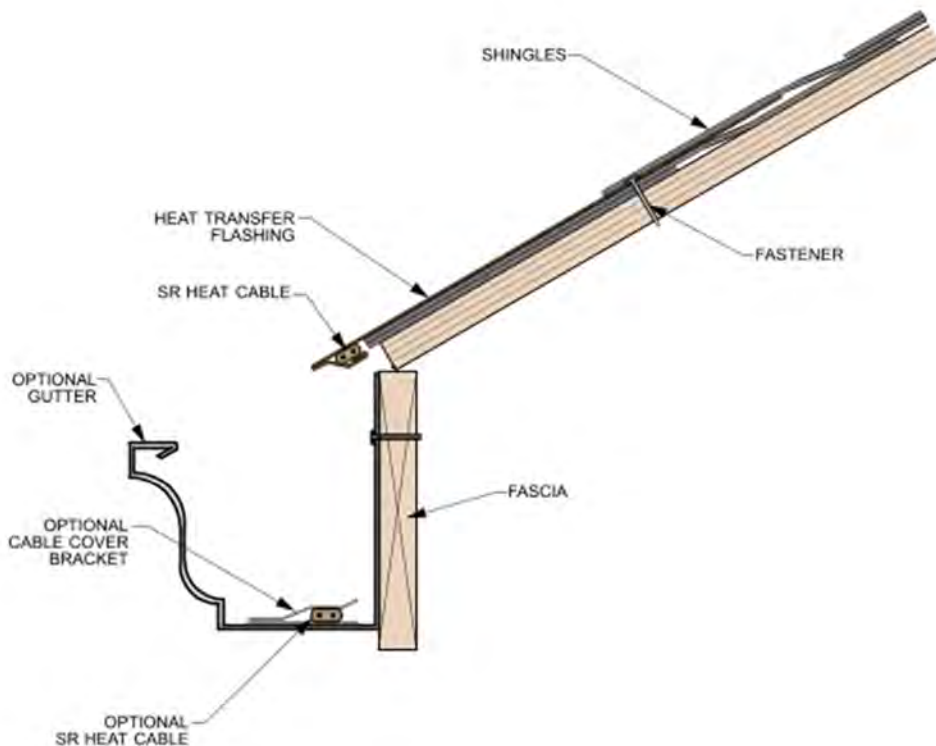
- 50 yr on base panel and cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

- Base extrusion, panel cover, and splice covers
- Mounting hardware
- C/US Listed 13w self regulating heat cable
- 110-130v or 208-277v
- Power Connection Kit
- Extrusions and covers are 10' standard lengths
- Standard Colors:
  - Medium Bronze, Matte Black, Dark Bronze, Forest Green, Mansard Brown, 20 oz. real copper.
- Special Order Colors:
  - Complete line of UnaClad aluminum colors
- Standard lengths can be cut to length
- 15 watt heat trace cable is available for use in Class 1 areas
- 8 watt heat trace cable is available for use in Class 3 and some Class 2 areas

## IceBlaster Edge Melt System™ Single Cable Eave Panel (EP-SC)

The IceBlaster Edge Melt System 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. The EP-SC can also be used to heat the roof edge on metal roofs. Suitable for all Snow Class areas (see Snow Class Guide). Expert design layout and installation guidance are available.



### NOTE:

Roof drip edge or gutter apron, ice/water shield, tarpaper, gutter straps, and other features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems. Cable Cover Bracket (CCB) is optional.

## IceBlaster EMS™ EP-SC

**Performance:** One run of 13 watt (nominal) per foot industrial grade self regulating heat cable

- Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

- 50 yr on cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

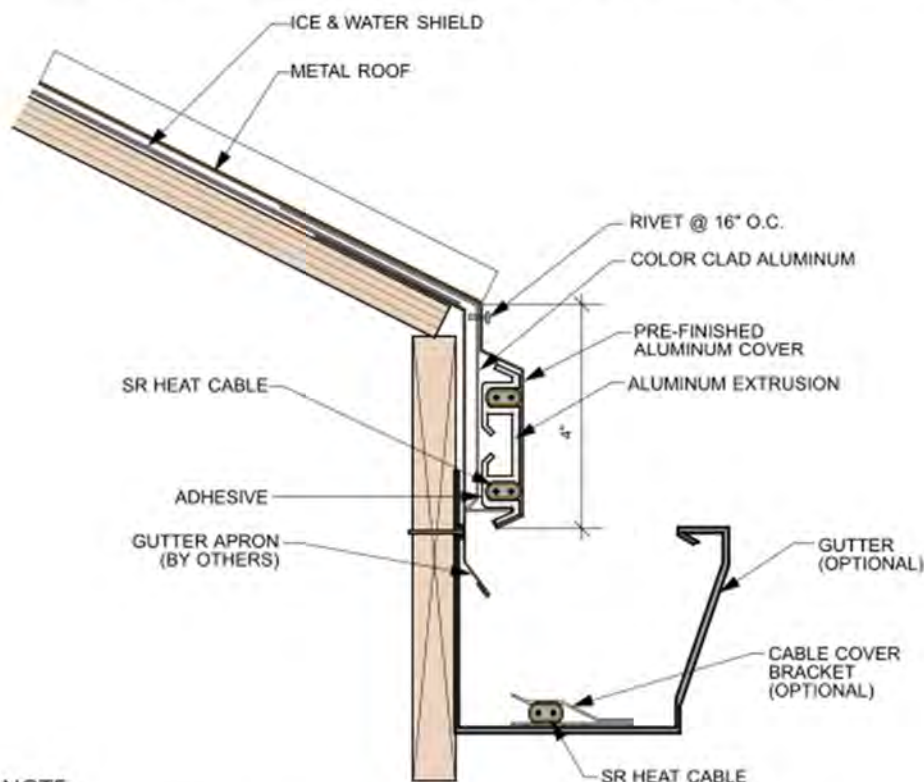
- EP-SC Panel in standard colors and copper
  - 5' lengths standard
- Mounting hardware
- C/US Listed self regulating 13w/ft heat cable
  - Optional 8w/ft or 15w/ft heat trace cable is available
- 110-130v or 208-277v (voltage specific)
- Power Connection Kit

**IceBlaster.**  
Edge Melt Systems™



## IceBlaster Edge Melt System™ Low Slope Eave Panel for Metal Roofs (EP-LSMR)

The IceBlaster Edge Melt System Low Slope Eave Panel for metal roofs (EP-LSMR) 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 commercial grade self regulating heat cable. Uses for the EP-LSMR 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 commercial grade self regulating heat cable. Prefinished 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). Expert design layout and installation guidance are available with order. EP-LSMR is also available with an **integrated drip edge** for easy integration with metal roof panel hemmed edges.



### NOTE:

Some roof assembly features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems. EP-LSMR 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 refreezing.

## IceBlaster EMS™ EP-LSMR

**Performance:** Two runs of industrial grade 13 watt (nominal) per foot self regulating heat cable

Base Extrusion: 6063 T5 Aluminum

Cover and Base Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

- 50 yr on base panel and cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

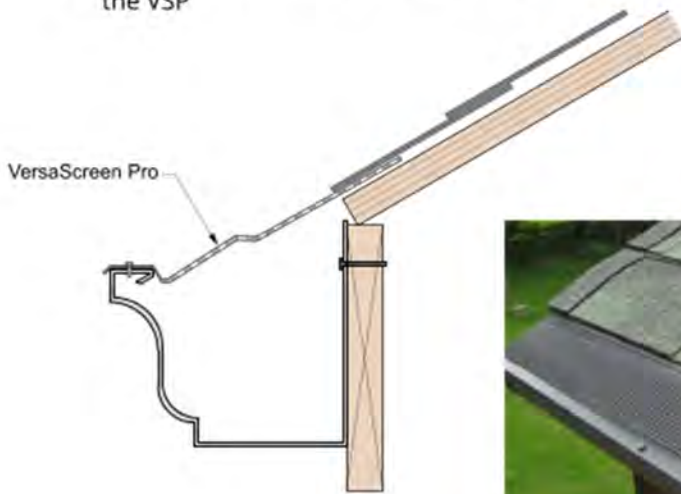
- Base extrusion, panel cover, and splice covers
- Mounting hardware
- C/US Listed self regulating 13w/ft heat cable
  - 110-130v or 208-277v
  - 8w & 15w available
- Power Connection Kit
- Extrusions and covers are 10' standard lengths
  - Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Forest Green, Mansard Brown, 20 oz. real copper.
  - Special Order Colors: Complete line of UnaClad aluminum colors
  - Standard lengths can be cut to length

**IceBlaster.**  
Edge Melt Systems™

## IceBlaster Edge Melt System™ Gutter Protection System for all gutters (GS-VSP)

### VersaScreen Pro Gutter Protection

- 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



VersaScreen Pro



#### NOTE:

Some roof and gutter 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

## IceBlaster EMS™ GS-VSP

#### Performance:

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

#### Warranty:

- 10 yr on VSP
- See Warranty for complete details

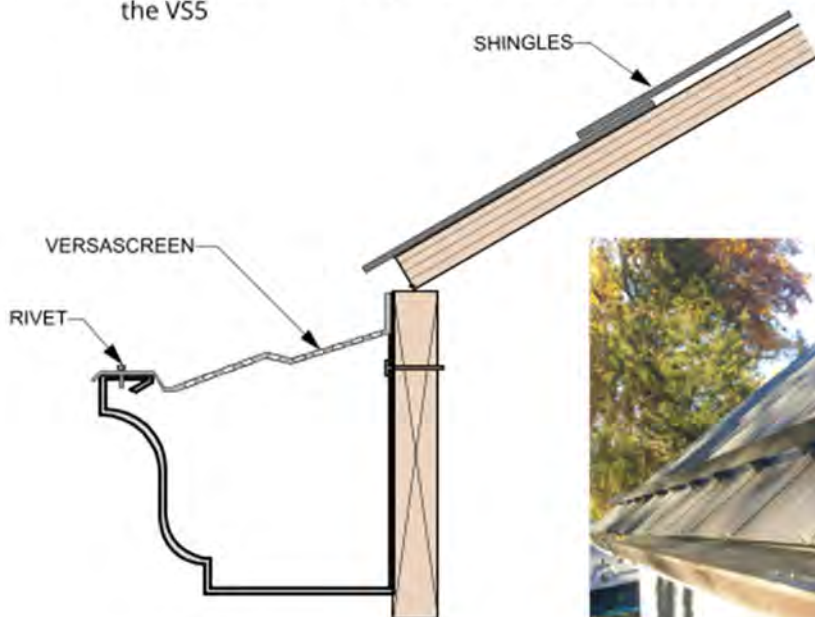
#### Supplied Components:

- VSP (5' standard lengths)
- Mounting hardware

## IceBlaster Edge Melt System™ Gutter Protection System for 5 inch gutters (GS-VS5)

### VersaScreen Pro Gutter Protection

- 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 VSS



#### NOTE:

Some roof and gutter 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

## IceBlaster EMS™ GS-VS5

#### Performance:

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

#### Warranty:

- 10 yr on VSP
- See Warranty for complete details

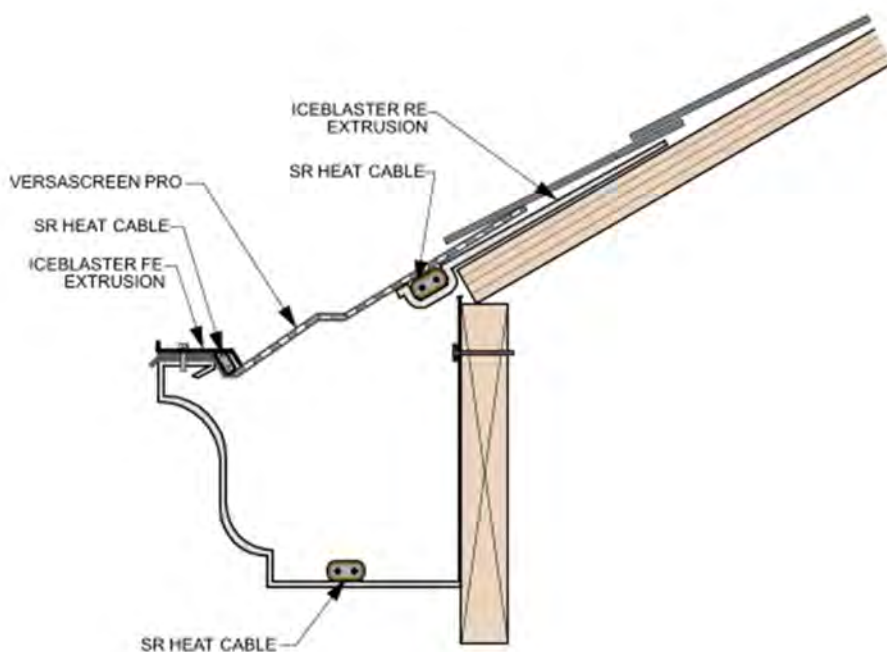
#### Supplied Components:

- VSP (5' standard lengths)
- Mounting hardware

**IceBlaster**  
Edge Melt Systems™

## IceBlaster Edge Melt System™ Heated Gutter Guard with Roof and Front Edge Heating (HGS-MaxPro)

The VersaScreen IceBlaster HG-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 RE extrusion 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 RE extrusion, then on top of screen. Secure heat cable in RE and install the VSP; cover cable with the FE cover. Expert design layout and installation guidance are available.



### NOTE:

Roof drip edge or gutter apron, ice/water shield, tarpaper, gutter straps, and other features omitted for clarity. VersaScreen and IceBlaster EMS products are fully compatible with most roof styles and systems.

## IceBlaster EMS™ HGS-MaxPro

### Performance:

- Three runs of 13 watt (nominal) industrial grade self regulating heat cable
- Screen and FE Cover: .040 aluminum with a durable powder coat matte black finish
- RE mill finish aluminum

### Warranty:

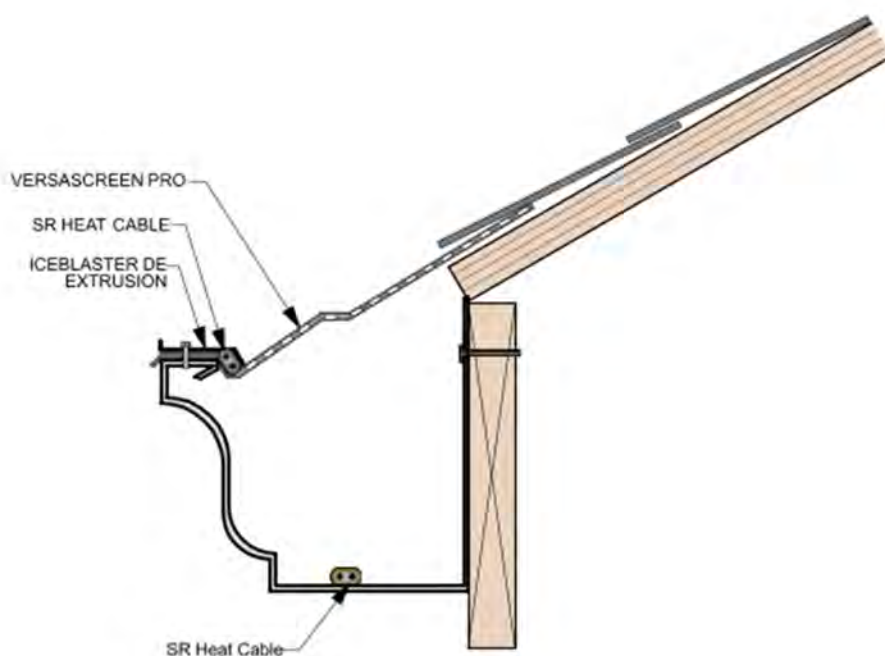
- 10 yr on VSP and FE
- 10 yr on supplied heat cable
- 50 yr on RE extrusion
- See Warranty for complete details

### Supplied Components:

- VSP, RE, FE (5' standard lengths)
- Mounting hardware
- C/US Listed self regulating 13w/ft heat cable
  - 110-130v or 208-277v (voltage specific)
- Power Connection Kit
- Patent Pending

## IceBlaster Edge Melt System™ Heated Gutter Guard with Front Edge Heating (HGS-FEPro)

The VersaScreen IceBlaster HGS-FEP 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 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. Expert design layout and installation guidance are available. Heat cable for gutter bottom is included.



### NOTE:

Roof drip edge or gutter apron, ice/water shield, tarpaper, gutter straps, and other features omitted for clarity. VersaScreen and IceBlaster EMS products are fully compatible with most roof styles and systems. VersaScreen IceBlaster FE can be installed with additional heating options at the roof edge, including the IceBlaster EMS EP-SO.

## IceBlaster EMS™ HGS-FEPro

### Performance:

- Two runs of industrial grade 13 watt (nominal) per foot self regulating heat cable
- Screen and FE Cover Panel: .040 aluminum with a durable powder coat matte black finish

### Warranty:

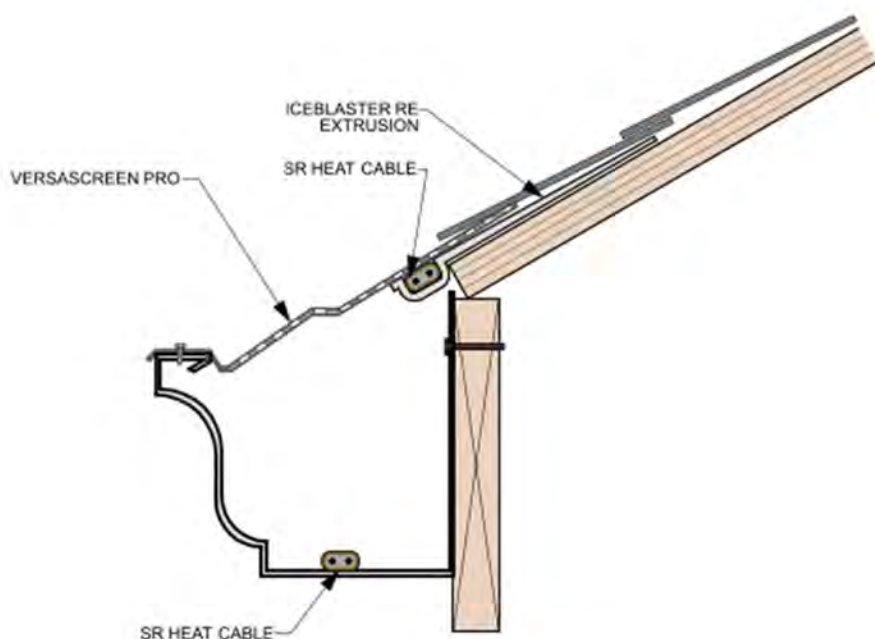
- 10 yr on VSP and FE
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

- VSP, FE (5' standard lengths)
- Mounting hardware
- C/US Listed self regulating 13w/ft heat cable
  - 110-130v or 208-277v (voltage specific)
- Power Connection Kit
- Patent Pending

## IceBlaster Edge Melt System™ Heated Gutter Guard with Roof Edge Heating (HGS-REPro)

The VersaScreen IceBlaster 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 RE extrusion 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 RE extrusion. Secure heat cable in RE and install the VSP. Expert design layout and installation guidance are available.



### NOTE:

Roof drip edge or gutter apron, ice/water shield, tarpaper, gutter straps, and other features omitted for clarity. VersaScreen and IceBlaster EMS products are fully compatible with most roof styles and systems.

## IceBlaster EMS™ HGS-REPro

### Performance:

- Two runs of industrial grade 13 watt (nominal) per foot self regulating heat cable
- Screen: .040 aluminum with a durable powder coat matte black finish
- RE mill finish aluminum

### Warranty:

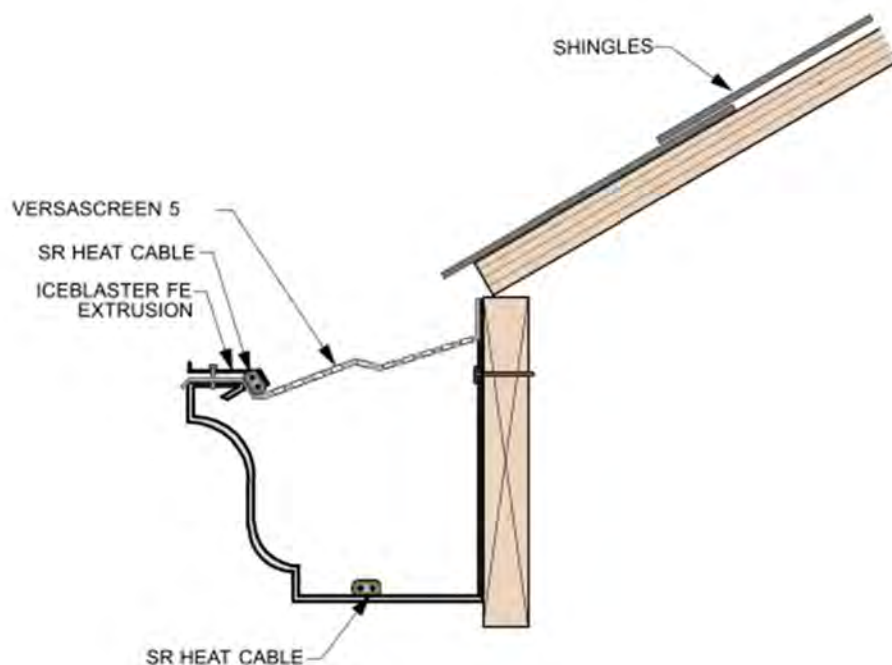
- 10 yr on VSP
- 10 yr on supplied heat cable
- 50 yr on RE extrusion
- See Warranty for complete details

### Supplied Components:

- VSP, RE (5' standard lengths)
- Mounting hardware
- C/US Listed self regulating 13w/ft heat cable
  - 110-130v or 208-277v (voltage specific)
- Power Connection Kit
- Patent Pending

## IceBlaster Edge Melt System™ Heated 5" Gutter Guard with Front Edge Heating (HGS-FE5)

The VersaScreen IceBlaster HG-FE5 is a heated gutter guard system 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 eaves and gutters. The highly efficient system is comprised of the VersaScreen 5 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. Expert design layout and installation guidance are available.



### NOTE:

Roof drip edge or gutter apron, ice/water shield, tarpaper, gutter straps, and other features omitted for clarity. VersaScreen and IceBlaster EMS products are fully compatible with most roof styles and systems. VersaScreen IceBlaster FE5 can be installed with additional heating options at the roof edge, including the IceBlaster EMS EP-SO and EP-SC.

## IceBlaster EMS™ HGS-FE5

### Performance:

- Two runs of industrial grade 13watt (nominal) per foot self regulating heat cable
- Screen and FE Cover Panel: .040 aluminum with a durable powder coat matte black finish

### Warranty:

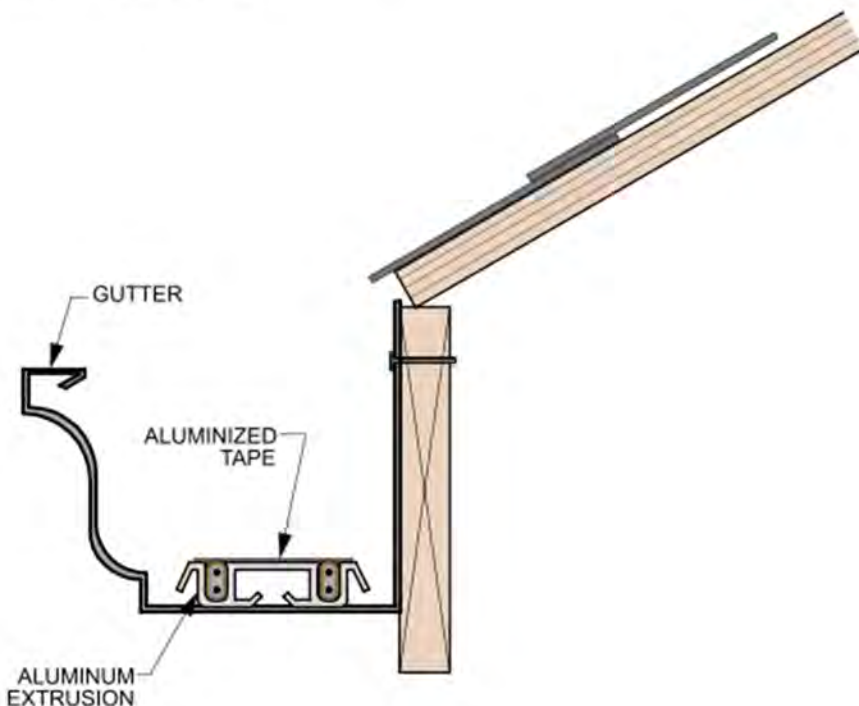
- 10 yr on VS5 and FE
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

- VS5, FE (5' standard lengths)
- Mounting hardware
- C/US Listed self regulating 13w/ft heat cable
  - 110-130v or 208-277v (voltage specific)
- Power Connection Kit
- Patent Pending

## IceBlaster Edge Melt System™ Gutter Melt Extrusion (HG-GMX)

The IceBlaster Edge Melt System Gutter Melt Extrusion (HG-GMX) is specifically designed to prevent ice dam and icicle build up in the gutters. The EMS HG-GMX is perfect for larger, commercial gutter systems. The highly efficient system is comprised of an aluminum extrusion base panel which houses two runs of commercial grade self regulating heat cable. Uses for the EMS 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 commercial 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:

Roof drip edge or gutter apron, ice/water shield, tarpaper, gutter straps, and other features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems.

## IceBlaster EMS™ HG-GMX

**Performance:** Two runs of industrial grade 13 watt (nominal) per foot self regulating heat cable

Base Extrusion: 6063 T5 Aluminum

Cover Panel: Aluminized tape

### Warranty:

- 50 yr on base panel material
- 10 yr on supplied heat cable
- See Warranty for complete details

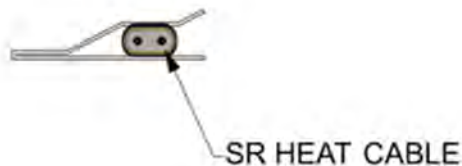
### Supplied Components:

- Base extrusion and aluminized tape
- C/US Listed self regulating 13w/ft heat cable
  - 110-130v or 208-277v
- Power Connection Kit
- Extrusions - 5 or 10' standard lengths
  - Standard lengths can be cut to length
  - Can be used in conjunction with other IceBlaster EMS products



## IceBlaster Edge Melt System™ Cable Cover Bracket (HG-CCB)

The IceBlaster Edge Melt System Cable Cover Bracket (HG-CCB) is specifically designed to prevent ice dam and icicle build up in the gutters. The EMS HG-CCB is perfect for residential gutter systems. The highly efficient system is comprised of an aluminum panel which houses one run of commercial grade self regulating heat cable. Uses for the EMS HG-CCB are in residential gutters, valleys and other roof areas where a defined melt path is desired. 5" gutter size uses one run of CCB. 6 and 7 inch gutters uses two runs of CCB. Installation is simple. CCB is laid in gutter bottom. Route one run of commercial grade self regulating heat cable in HG-CCB. Route any heat cable in downspout(s). Expert design layout and installation guidance are available with order.



### NOTE:

Gutter, gutter apron, roof drip edge, ice/water shield, tarpaper, gutter straps, and other features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems.

## IceBlaster EMS™ HG-CCB

**Performance:** One run of industrial grade 13 watt (nominal) per foot self regulating heat cable  
Cover Panel: Mill finish

### Warranty:

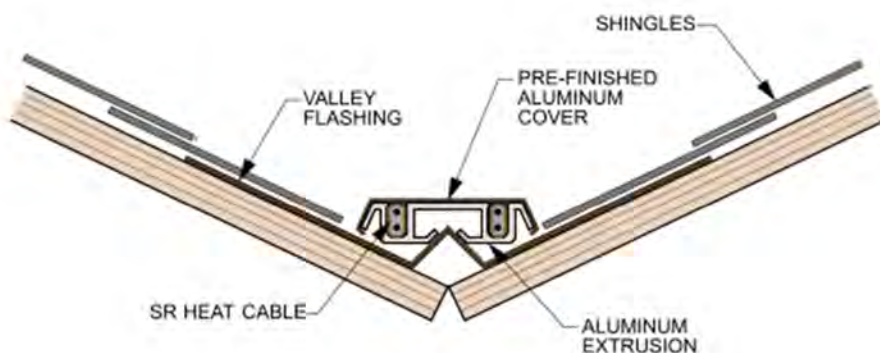
- 10 yr on cover panel material
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

- Cable Cover Bracket
- C/US Listed self regulating 13w/ft heat cable
  - 110-130v or 208-277v
- Power Connection Kit
- 5' standard lengths
  - Standard lengths can be cut to length
  - Can be used in conjunction with other IceBlaster EMS products

## IceBlaster Edge Melt System™ Valley Panel for Metal W Valleys (VP-MW)

The IceBlaster EMS 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 commercial 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 commercial grade self regulating heat cable. Prefinished aluminum cover panel clamps on base panel and can be riveted to base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s). The EMS VP-MW can be combined with other EMS products for a comprehensive ice dam prevention system. Expert design layout and installation guidance are available with order.



### NOTE:

Ice/water shield, tarpaper and other features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems. IceBlaster EMS Valley Panels can be installed close cut or woven valley styles. EMS VP-MW can be combined with EMS Eave Panels and the VersaScreen IceBlaster heated gutter guards.

## IceBlaster EMS™ VP-MW

**Performance:** Two runs of Industrial grade 13 watt per foot self regulating heat cable  
Base Extrusion: 6063 T5 Aluminum  
Cover Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

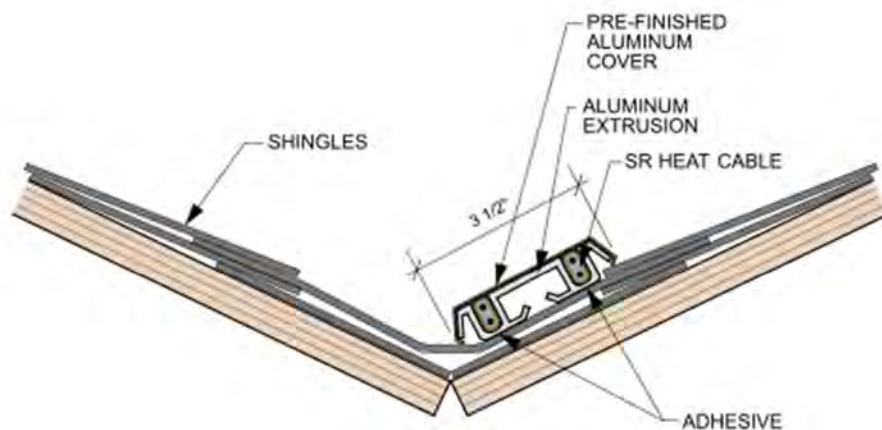
- 50 yr on base panel and cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

- Base extrusion and panel cover
- Adhesive or butyl tape
- C/US Listed for US and Canada 13w heat cable
  - 110-130v or 208-277v (voltage specific)
- Power Connection Kit
- Extrusions and covers are 10' standard lengths
  - Standard lengths can be cut to length
- Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Forest Green, Mansard Brown, 20 oz. real copper.
- Special Order Colors: Complete line of UnaClad aluminum colors

## IceBlaster Edge Melt System™ Valley Panel for Shingle or Woven Valleys (VP-SV)

The IceBlaster EMS 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 commercial grade self regulating heat cable. Installation is simple. Base extrusion mounts over existing valley shingles with a suitable adhesive. Route two runs of commercial grade self regulating heat cable. Prefinished aluminum cover panel clamps on base panel and can be riveted to base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s). The EMS VP-SV can be combined with other EMS products for a comprehensive ice dam prevention system. Expert design layout and installation guidance are available with order.



### NOTE:

Ice/water shield, tarpaper and other features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems. IceBlaster EMS Valley Panel can be installed close cut or woven valley styles. EMS VP-SV can be combined with EMS Eave Panels and the VersaScreen IceBlaster heated gutter guards.

## IceBlaster EMS™ VP-SV

**Performance:** Two runs of industrial grade 13 watt (nominal) per foot self regulating heat cable

Base Extrusion: 6063 T5 Aluminum

Cover Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

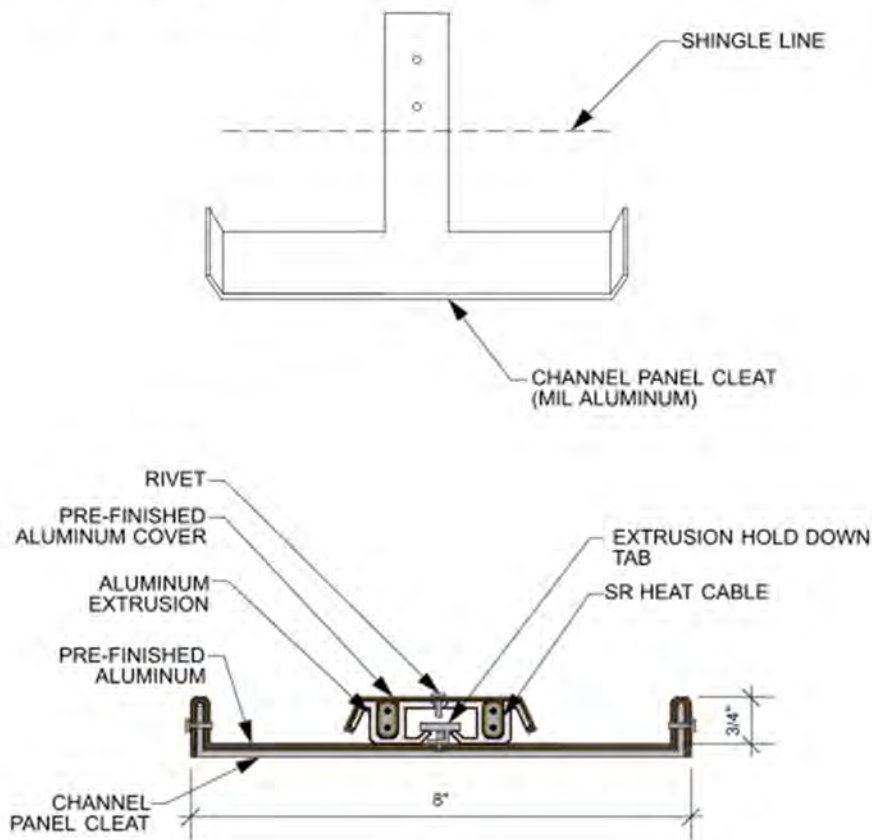
- 50 yr on base panel and cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

- Base extrusion, panel cover, and splice covers
- Mounting hardware
- C/US Listed 13w/ft heat cable
  - 110-130v or 208-277v
- Power Connection Kit
- Extrusions and covers are 10' standard lengths
  - Standard lengths can be cut to length
- Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Forest Green, Mansard Brown, 20 oz. real copper.
- Special Order Colors: Complete line of UnaClad aluminum colors

## IceBlaster Edge Melt System™ Channel Melt Panel (SP-CM)

The IceBlaster Edge Melt System 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 refreeze 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 commercial grade self regulating heat cable. Prefinished aluminum cover panel is riveted to base panel for maximum heat transfer. Route any heat cable in gutter and downspout(s). Expert design layout and installation guidance are available with order.



### NOTE:

Roof features omitted for clarity. IceBlaster EMS products are fully compatible with most roof styles and systems. IceBlaster EMS SP-CM can be installed on a roof without a gutter.

## IceBlaster EMS™ SP-CM

**Performance:** Two runs of 13 watt (nominal) per foot Industrial grade self regulating heat cable  
Base Extrusion: 6063 T5 Aluminum

Cover Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

- 50 yr on base panel and cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details

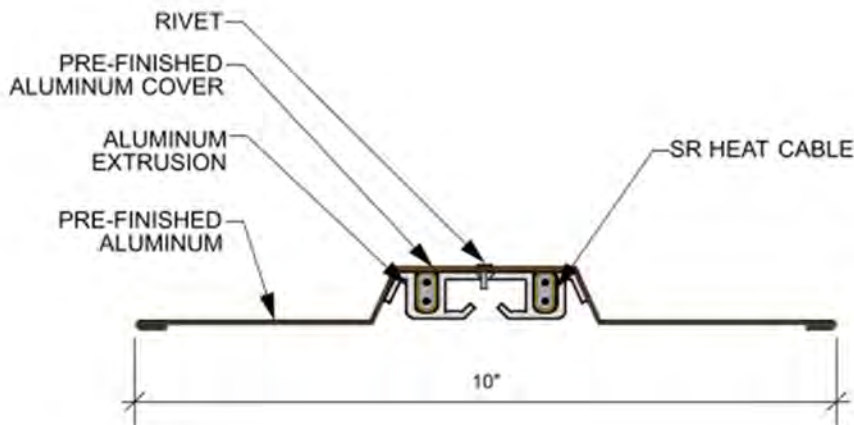
### Supplied Components:

- Base extrusion, panel cover, and splice covers
- Mounting hardware
- Industrial grade self regulating heat cable
  - C/US Listed for US and Canada
  - 110-130v or 208-277v
- Power Connection Kit
- Extrusions and covers are 10' standard lengths
  - Standard lengths can be cut to length
- Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Forest Green, Mansard Brown, 20 oz. real copper
- Special Order Colors: Complete line of UnaClad aluminum colors

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Edge Melt Systems™

## IceBlaster Edge Melt System™ Snow Melt Panel (SP-SM)

The IceBlaster Edge Melt System 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 commercial grade self regulating heat cable. Installation is simple. Base extrusion mounts over existing roofing with supplied cleat and/or adhesives. Route two runs of commercial grade self regulating heat cable. Prefinished aluminum cover panel is riveted to base panel for maximum heat transfer. Route heat cable in any gutter(s) and downspout(s). Expert design layout and installation guidance are available with order.



### NOTE:

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.

## IceBlaster EMS™ SP-SM

**Performance:** Two runs of industrial grade 13 watt (nominal) per foot self regulating heat cable

Base Extrusion: 6063 T5 Aluminum

Cover Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

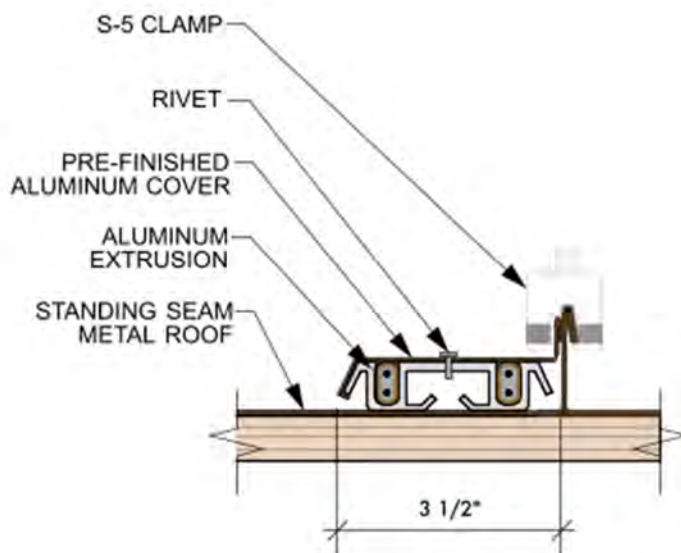
- 50 yr on base panel and cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

- Base extrusion, panel cover, and splice covers
- Mounting hardware
- C/US Listed self regulating 13w/ft heat cable
  - 110-130v or 208-277v (voltage specific)
- Power Connection Kit
- Extrusions and covers are 10' standard lengths
  - Standard lengths can be cut to length
- Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Forest Green, Mansard Brown, 20 oz. real copper.
- Special Order Colors: Complete line of UnaClad aluminum colors

## IceBlaster Edge Melt System™ Standing Seam Retrofit Panel (SP-SSR)

The IceBlaster Edge Melt System 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 commercial 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 commercial grade self regulating heat cable. Prefinished 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.



### NOTE:

Roof drip edge or gutter apron, ice/water shield, tarpaper, gutter, gutter strap, and other features omitted for clarity. IceBlaster EMS 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 EMS™ SP-SSR

**Performance:** Two runs of 13 watt per foot industrial grade self regulating heat cable  
Base Extrusion: 6063 T5 Aluminum  
Cover Panel: .040 Kynar 500 prefinished aluminum

### Warranty:

- 50 yr on base panel and cover panel material
- 40 yr on cover panel finish
- 10 yr on supplied heat cable
- See Warranty for complete details

### Supplied Components:

- Base extrusion, panel cover, and splice covers
- Mounting hardware
- C/US Listed self regulating 13w/ft heat cable
  - 110-130v or 208-277v (voltage specific)
- Power Connection Kit
- Extrusions and covers are 10' standard lengths
  - Standard lengths can be cut to length
- Standard Colors: Medium Bronze, Matte Black, Dark Bronze, Forest Green, Mansard Brown, 20 oz. real copper.
- Special Order Colors: Complete line of UnaClad aluminum colors

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Edge Melt Systems™

# IceBlaster Edge Melt System™ Heat Trace Cable

## For Roof & Gutter De-Icing and Heat Panels

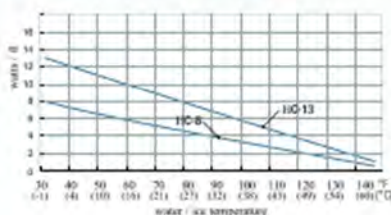
IceBlaster Edge Melt System™ Self-Regulating Heat Trace Cables by Drexan are designed for commercial and residential (non-hazardous) applications to create drain paths needed to prevent ice dams and ice build-up that can cause extensive damage to roof and gutter systems. The power output will increase as ambient temperature decreases in the presence of ice or snowfall.

### Features

- Regulates power output in response to changes in ambient temperature
- Cable can overlap itself without risk of overheating and/or burn out for easy installation around roof, gutter and downspouts
- Cable can be cut or extended to required length



### Power Output Curve



The Power Output Curve illustrates the relationship between wattage output and water/ice temperature. As the water/ice temperature rises, the heating cable uses less wattage and emits less heat.

### Wattage Output Curve

	Wattage output	
	@ 32°F in ice/snow	@ 50°F on metal pipe
HC-8	8	5
HC-13	13	8

## IceBlaster EMS™

### HC-13/HC-8

#### Model Numbers

HC-81 (8 watts/ft 110-130VAC)  
 HC-82 (8 watts/ft 208-277VAC)  
 HC-131 (13 watts/ft 110-130VAC)  
 HC-132 (13 watts/ft 208-277VAC)

#### Roof material

Suitable for shingles, metal, plastic tar and wood roofs

#### Output per Foot @ 32°F (in ice/snow)

8 watts - HC-8  
 13 watts - HC-13

#### Voltage

120V (100V -130V)  
 240V (208V -277V)

#### Cable dimensions

0.51 inches x 0.23 inches  
 (13.1mm x 5.6mm)

#### Minimum bend radius

1.18 inches (30mm)

#### Maximum exposure temp

185°F (85°C)

#### Temperature ID # (T-RATING)

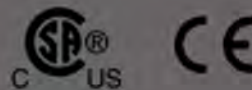
T6: 185°F/85°C

#### Warranty

10 years\*

#### Approvals

CSA (C/US)  
 CE



\* available when online warranty card completed within 30 days of installation



# IceBlaster Edge Melt System™ Heat Trace Cable

## For Roof & Gutter De-Icing and Heat Panels

### Maximum Circuit Lengths

	Start up temperature	120V				240V			
		Circuit Breaker Size							
		15a	20a	30a	40a	15a	20a	30a	40a
HC-8	50°F (10°C)	215	215	215	215	430	430	430	430
	32°F (0°C)	190	215	215	215	380	430	430	430
	14°F (-10°C)	160	215	215	215	325	430	430	430
	-4°F (-20°C)	140	190	215	215	285	380	430	430
HC-13	50°F (10°C)	145	170	170	170	295	345	345	345
	32°F (0°C)	125	170	170	170	255	340	345	345
	14°F (-10°C)	110	150	170	170	225	300	345	345
	-4°F (-20°C)	100	130	170	170	200	265	345	345

### Adjustment Factors

The IceBlaster EMS self regulating heat cable is rate at 240 VAC. Adjustments need to be made to the power output as well as maximum circuit lengths if the supply voltage of the application is at 208V or 277V.

	Heating Cable	Power Output	Cable Length
208V	HC-82	0.89	0.92
	HC-132	0.94	0.90
277V	HC-82	1.12	1.08
	HC-132	1.07	1.11

### Controls

The self-regulating cable can operate safely without the use of thermostats or controls but use of a thermostat controller is recommended to improve energy efficiency. Please contact VersaScreen Gutter Protection or your installer for more information on our sensors and controllers.

### Ground-Fault Protection

VersaScreen Gutter Protection/IceBlaster Edge Melt System and National Electrical Codes require 30 mA equipment ground fault protection 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.



# IceBlaster Edge Melt System™ Heat Trace Cable

## For Roof & Gutter De-Icing and Heat Panels

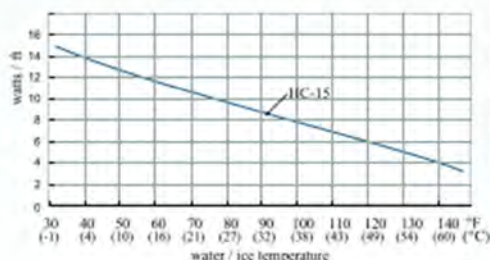
IceBlaster Edge Melt System™ Self-Regulating Heat Trace Cables by Drexan are designed for commercial and residential (non-hazardous) applications to create drain paths needed to prevent ice dams and ice build-up that can cause extensive damage to roof and gutter systems. The power output will increase as ambient temperature decreases in the presence of ice or snowfall.

### Features

- Regulates power output in response to changes in ambient temperature
- Cable can overlap itself without risk of overheating and/or burn out for easy installation around roof, gutter and downspouts
- Cable can be cut or extended to required length



### Power Output Curve



The Power Output Curve illustrates the relationship between wattage output and water/ice temperature. As the water/ice temperature rises, the heating cable uses less wattage and emits less heat.

### Wattage Output Curve

	Wattage output	
	@ 32°F in ice/snow	@ 50°F on metal pipe
HC-15	15	10

## IceBlaster EMS™ HC-15

### Model Numbers

HC-151 (15 watts/ft 110-130VAC)  
HC-152 (15 watts/ft 208-277VAC)

### Roof material

Suitable for shingles, metal, plastic tar and wood roofs

### Output per Foot @ 32°F (in ice/snow)

15 watts - HC-15

### Voltage

120V (100V -130V)  
240V (208V -277V)

### Cable dimensions

0.51 inches x 0.23 inches  
(13.1mm x 5.6mm)

### Minimum bend radius

1.18 inches (30mm)

### Maximum exposure temp.

185°F (85°C)

### Temperature ID # (T-RATING)

T6: 185°F/85°C

### Warranty

10 years\*

### Approvals

CSA (C/US)  
CE



\* available when online warranty card completed within 30 days of installation

# IceBlaster Edge Melt System™ Heat Trace Cable

For Roof & Gutter De-Icing and Heat Panels

## Maximum Circuit Lengths

	Start up temperature	120V				240V			
		Circuit Breaker Size							
		15a	20a	30a	40a	15a	20a	30a	40a
HC-15	50°F (10°C)	115	150	150	150	190	250	310	310
	32°F (0°C)	100	140	150	150	170	225	310	310
	14°F (-10°C)	95	120	150	150	155	210	310	310
	-4°F (-20°C)	85	110	150	150	145	195	295	310

## Adjustment Factors

The IceBlaster EMS self regulating heat cable is rated at 240 VAC. Adjustments need to be made to the power output as well as maximum circuit lengths if the supply voltage of the application is at 208V or 277V.

	Heating Cable	Power Output	Cable Length
208V	HC-152	0.96	0.88
277V	HC-152	1.07	1.11

## Controls

The self-regulating cable can operate safely without the use of thermostats or controls but use of a thermostat controller is recommended to improve energy efficiency. Please contact VersaScreen Gutter Protection or your installer for more information on our sensors and controllers.

## Ground-Fault Protection

IceBlaster Edge Melt System and National Electrical Codes require 30 mA equipment ground fault protection 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.

## IceBlaster Edge Melt System™ Digital Ambient Sensing Controller (DCAS4)

### Overview

The UL Listed DCAS4 Controller allows on/off operation of IceBlaster Edge Melt and VersaScreen IceBlaster Systems. The DCAS4 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 cutout (LTC) of the circuits are provided. The LTC mode saves energy by keeping the heaters off when temperatures are below the threshold at which heat loss and solar gain melts snow. Both temperature set points are easily field adjustable to suit local conditions.



### Operation

The DCAS4 Controller uses a remote thermistor sensor to measure the ambient (outside) temperature. When the sensed outdoor temperature falls below the Heater On set point (out1), the temperature controller causes the branch circuits to be energized. Conversely, when the sensed outdoor temperature rises above the Heater On set point the branch circuits are de-energized. If the sensed temperature falls below the Low Temp Cutout set point (out2), the branch circuits will be de-energized and remain so until the ambient temperature rises back above the Low Temp Cutout set point. This is commonly referred to as 'window' operation and is the most efficient way to operate your heat cable system.

## IceBlaster EMS™ SC-DCAS4

### Specifications

- Digital Controller  
Supply Voltage - 120v, less than 1 amp draw
- Contactor controls up to 4 separate circuits - 120/240v @ up to 30 amps per branch circuit
- "Manual" control energizes heat cable circuits regardless of temperature. Useful for preseason testing
- "Auto" control energizes the heat cable circuits when ambient temperature is between set points
- Set points are easily field adjustable
- Precision calibration function customizes controller to installation site
- Measures 10" tall, 8" wide, 4" deep
- NEMA 1 Metallic Enclosure
- Installs indoors

# IceBlaster Edge Melt System™ Outdoor Ambient Temp Sensing Thermostat Controller (SC-DS2C)

## DS-2C Thermostat Controller

Automatic Activation means Lower Deicing Costs  
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  
Selectable Low Temperature Cutoff  
Allows for 'Window' operation  
High Power, Low Price!



## CDP-2 Control Display Panel (optional)

Indoor Optional Controller Interface for the DS-2C  
Allows for easy operation of DS-2C thermostat controller  
No need to go outside to monitor operation

## IceBlaster EMS™ SC-DS2C

### DS-2C Specifications

Dimensions 4 3/4"(120) x 7"(178) x 2 3/4"(70)  
Weight 2 Lbs. (0.9 Kg)  
Operating Temperature -40oF to +185oF (-40oC to +85oC)  
Enclosure Rating NEMA 3R  
Supply Power 100-277VAC 50/60Hz 15W maximum  
Trigger Temperature 34oF-44oF (1.1oC-6.6oC) Field Selectable  
Delay Off (Sensor) 2 Minutes  
Delay Off (Controller) 30-90 Minutes/2-6 Hours Field Selectable  
Load Contact Capacity 30A @ 277 VAC/100,000 operations minimum at full load  
Monitor Contact Capacity 24 VDC/VAC 400mA 10W total

### CDP-2 Specifications

Dimensions 4.1"(104) x 1.8"(45) x 0.9"(23)  
Weight 2.5 Oz. (71g)  
Operating Temperature -40oF to +185oF (-40oC to +85oC)  
Supply Power Supplied by connected sensor, 3.5mW max  
Control Functions Manual On/Automatic/Standby  
Monitor Functions Manual On/Automatic/Standby/Deice On

# Registered Limited Warranty

GSB Services, LLC manufactures VersaScreen Gutter Protection™ (the “Product”) in accordance with high standards and tight quality controls.

## What Does This Warranty Cover?

### Material Warranty

VersaScreen Gutter Protection™ 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 and IceBlaster EMS components.

- 50 years on the Base Extrusion
- 40 years on the prefinished aluminum cover materials
- 10 years on the VersaScreen finish
- 10 years on the IceBlaster heat cables (as supplied by Drexan Energy Systems)

## 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 product.
- Damage by animals or others

## **OTHER LIMITATIONS**

- This Warranty covers only genuine VersaScreen Gutter Protection and IceBlaster EMS products. It is your responsibility to verify that the product installed is VersaScreen Gutter Protection.
- 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 and submitted 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 VersaScreen Gutter Protection, PO Box 180193, Delafield, WI 53018 or email to [sales@versascreengutterprotection.com](mailto:sales@versascreengutterprotection.com). VersaScreen Gutter Protection 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 or more may be required. Inside corners/valleys present special problems. Often diverters are used to prevent overshooting of water. Debris can be trapped behind the diverter and affect the function of the VersaScreen product. 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.

## **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]. 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.

Drexan Self Regulating Cables

<http://www.drexan.com/trace-heating-solutions/freeze-protection>



## The Performance Leader

GSB Services, LLC  
PO Box 180193  
Delafield, WI 53018  
262.646.3070

[www.VersaScreenGutterProtection.com](http://www.VersaScreenGutterProtection.com)