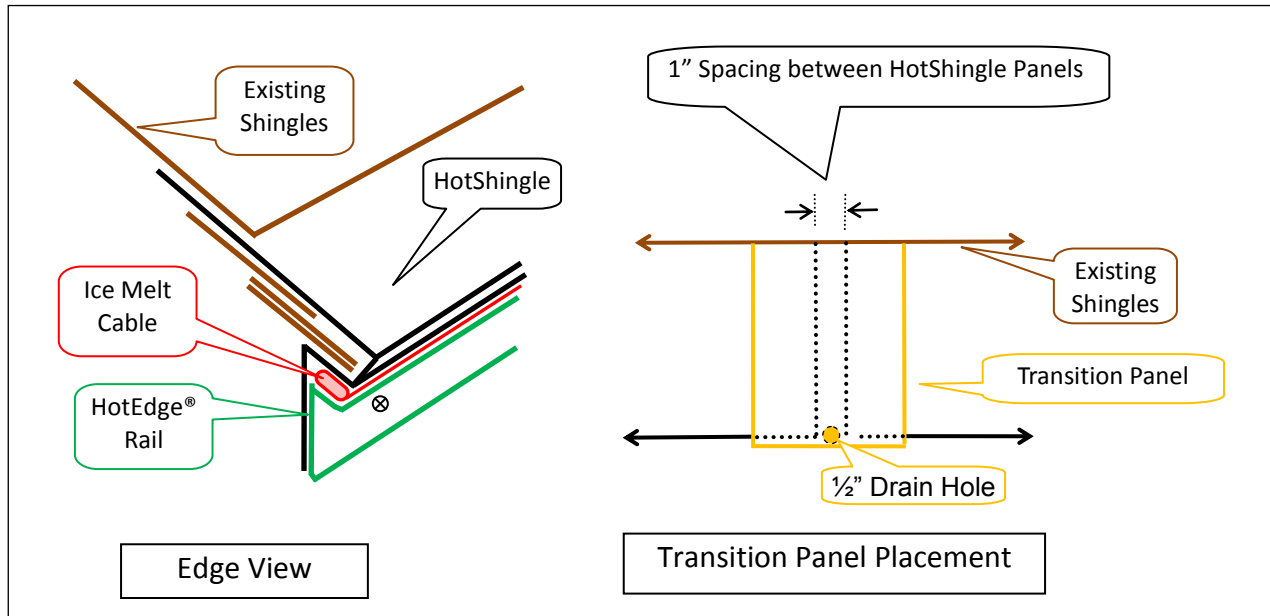


HotShingle™ Panel – Design Guide

Order Entry Information & Engineering Specifications
Hot Edge, Inc. www.HotEdge.com



The HotShingle™ Panel – Part of the HotEdge™ Ice Melt System

The HotShingle™ Panels provide a metal drip edge for many existing shingled roofs that have less than a ½ inch thickness of shingles at the drip edge. It may be possible to remove some shingle thickness at the drip edge to accommodate the ½ inch cavity in the HotShingle™ panel. A licensed professional roofing contractor can advise the building owner on the suitability of this type of conversion.

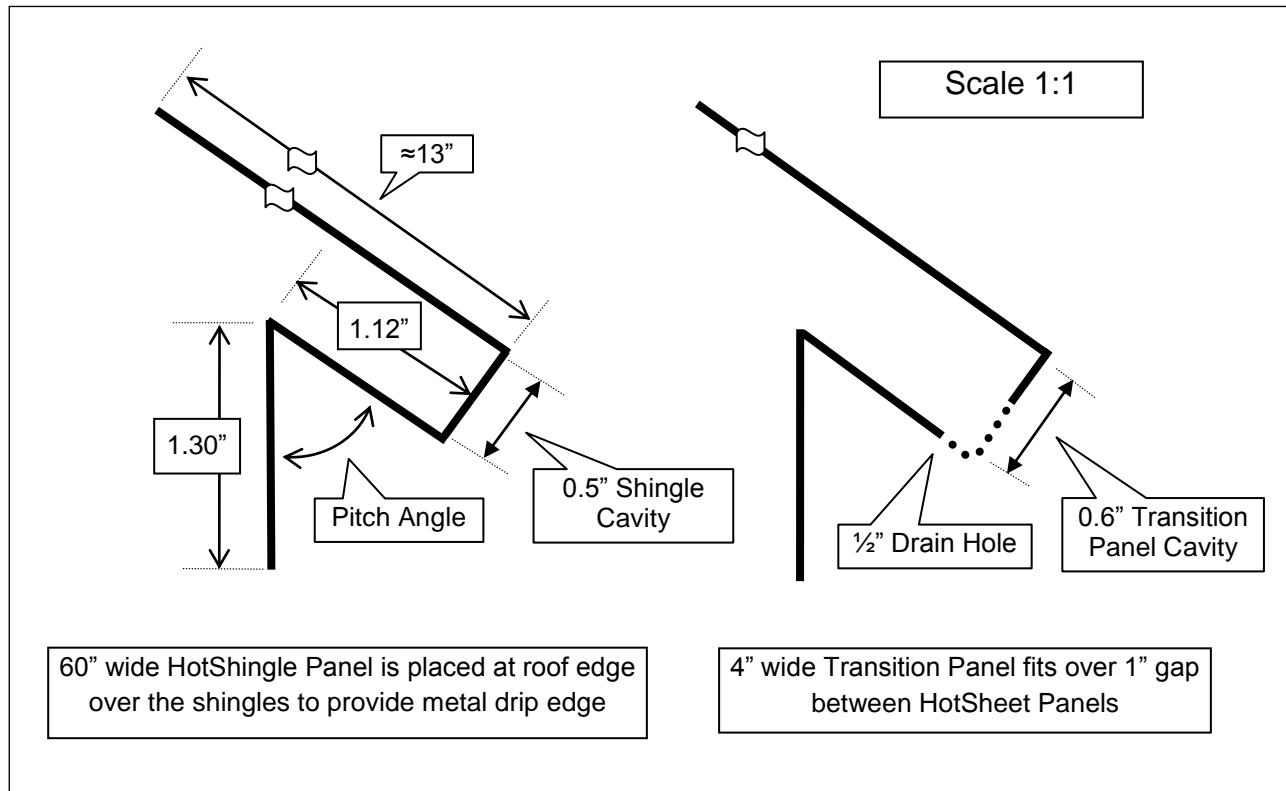
Once a metal drip edge is presented at the roof edge, the UL Listed HotEdge™ Rail and ice melt cable system can be installed. The idea of a metal slip sheet or snow slide at the roof edge has been used for a long time. The patent pending HotShingle™ and HotEdge™ Rail products make it easy to add a modern heated roof edge to many structures.

Note: In all cases, a one inch minimum metal drip edge must be present for the HotEdge™ Rail ice melt system to operate successfully.

Note: Specifications and tension guidelines are subject to change without notice. Before ordering material, insure the latest revision of this document is used.

Warning: Low cost, constant current ice melt cable must not be used. Only safety agency Listed, self regulating ice and snow melt cable for structures that is provided with the system can be used.

HotShingle™ and HotShingle™ Transition Panel Profiles



The HotShingle™ Panels are normally five feet wide and installed with a one inch gap for expansion and drainage between the panels. The four inch wide Transition Panel has a slightly larger inside cavity and fits over the gap between the longer HotSheet™ Panels. The 1/2 inch hole on the underside of the Transition Panel provides continuous drainage path for any water under the panel.

Overview

The overall objective is to keep the snow melt water in a liquid state until it is drained away from the structure's foundation. A heated gutter and downspout system is required for most applications.

It is necessary to create a spring-like holding tension to eliminate any air gap between the HotEdge™ Rail raceway, the ice melt cable and the bottom of the drip edge. The "storm window effect" of any air gap in this critical area dramatically decreases the amount of heat that is transferred from the self-regulating ice melt cable to the metal drip edge and metal fascia.

The UL Listed HotEdge™ Rail creates a three-sided raceway that holds a single run of self-regulating ice melt cable firmly against the bottom of the metal drip edge. This patent pending open raceway design conforms to the NEC (National Electrical Code) Article 426 and provides access for insertion, inspection and replacement. The heat generated by the ice melt cable is directly conducted to the metal drip edge. This helps prevent icicles and ice dams from forming in this critical area.

Angle Selection Guidelines

The angle of the HotShingle™ Panel should match the angle of the drip edge to fascia. This angle is sometimes different than the slope of the roof.

There are a number of variables, including the oil canning of the drip edge, the variation of the fascia and the flexibility of the different HotShingle™ Panel materials. For example copper is more flexible than steel, so a copper HotShingle™ Panel can span a slightly larger range than steel.

Measure the Angle Carefully

Some fascias are not vertical - they slope back toward the house. Some fascias may have been replaced and are not plum. On a given structure, several different angles may be encountered. Each drip edge to fascia angle should be measured carefully in degrees, not in roof pitch. Do not depend on the apparent roof pitch to be the actual angle of the drip edge to fascia when ordering product.

The various inside angles between the fascia and the bottom of the drip edge need to be determined to order the correct bend angle for the various Hot Edge Inc. products. It is recommended that a digital protractor be used for this task. The General Tools & Instruments Model 1702 is a suitable instrument. Available at Lowe's (www.lowes.com).

Roof Pitch Angle Chart		
Roof Pitch Ratio	Roof Pitch Angle	Plum Fascia to Drip Edge Angle
0:12	0°	90°
1:12	5°	85°
2:12	10°	80°
3:12	14°	76°
4:12	18°	72°
5:12	23°	67°
6:12	27°	63°
7:12	30°	60°
8:12	34°	56°
9:12	37°	53°
10:12	40°	50°
11:12	42°	48°
12:12	45°	45°

HotShingle™ Panel – Harmonized Part Number Nomenclature

HSLP 063 — S - HAGR — 060 — F13 — Rev8

Hot Edge Inc. Products

<u>HotShingle™ Panel Angle</u>	<u>Roof Pitch</u>
HSLP 090 = HotSheet, 90°	(0:12)
HSLP 085 = HotSheet, 85°	(1:12)
HSLP 080 = HotSheet, 80 °	(2:12)
HSLP 076 = HotSheet, 76°	(3:12)
HSLP 072 = HotSheet, 72°	(4:12)
HSLP 067 = HotSheet, 67°	(5:12)
HSLP 063 = HotSheet, 63°	(6:12)
HSLP 060 = HotSheet, 60°	(7:12)
HSLP 056 = HotSheet, 56°	(8:12)
HSLP 053 = HotSheet, 53°	(9:12)
HSLP 050 = HotSheet, 50°	(10:12)
HSLP 048 = HotSheet, 48°	(11:12)
HSLP 045 = HotSheet, 45°	(12:12)

<u>Transition Panel Angle</u>	<u>Roof Pitch</u>
HSLT 090 = T-Panel, 90°	(0:12)
HSLT 085 = T-Panel, 85°	(1:12)
HSLT 080 = T-Panel, 80 °	(2:12)
HSLT 076 = T-Panel, 76°	(3:12)
HSLT 072 = T-Panel, 72°	(4:12)
HSLT 067 = T-Panel, 67°	(5:12)
HSLT 063 = T-Panel, 63°	(6:12)
HSLT 060 = T-Panel, 60°	(7:12)
HSLT 056 = T-Panel, 56°	(8:12)
HSLT 053 = T-Panel, 53°	(8:12)
HSLT 050 = T-Panel, 50°	(9:12)
HSLT 048 = T-Panel, 48°	(10:12)
HSLT 045 = T-Panel, 45°	(12:12)

Material & Color

Material
C= Copper, 0.021",
16oz., ½ Hard

S= SMP Painted Galvanized
Steel, 0.019"

A = Kynar Painted
Aluminum, 0.032"

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Color
NATC = Natural Copper
(For copper material)

ALMD= Almond
CLRD = Colonial Red
HMGR = Hemlock Green
SLBL = Slate Blue
BNWH = Bone White
COPE = Copper Penny
MNBN = Mansard Brown
SLGR = Slate Gray
MABL = Matte Black
DKBZ = Dark Bronze
MDBZ = Medium Bronze
CLGR = Classic Green
HAGR = Hartford Green
SRTN = Sierra Tan

Length

120= 120"

060= 60"
(Note: 060
can be
shipped UPS)

004= 4"
Transition
Panel

Options

F13 = 1.3" Fascia
Height

F16 = 1.6" Fascia

HotShingle Panels
SC05 = 0.50" Shingle
cavity - standard
product

SC03 = 0.30" Shingle
cavity - Special order
option

Transition Panels
TC06 = 0.6"
Transition Panel
cavity used with SC05

TC04 = 0.4"
Transition Panel
cavity used with SC03

BTP= Build to Print
(Special Order Only)

The HotEdge™ Rail Roof Edge Ice Melt System

The UL Listed, HotEdge™ Rail roof edge ice melt System creates a three-sided raceway that holds a single run of self-regulating ice melt cable firmly against the bottom of the metal drip edge of most structures. This patent pending open raceway design conforms to the NEC (National Electrical Code) Article 426 and provides access for insertion, inspection and replacement of the ice melt cable. The heat generated by the ice melt cable is directly conducted to the top of metal drip edge. This helps prevent icicles and ice dams from forming in this critical area. The snow and ice melt water is not permitted to re-freeze at the drip edge and it can be safely drained away from the structure.

Some roofs will require the addition of a metal drip edge or a metal slip sheet (snow slide) that can be heated. Warning: In all cases, a metal drip edge must be present for the HotEdge Ice Melt System to operate safely and successfully. Hot Edge Inc. manufactures the HotSheet™ and the HotShingle™ products for this purpose.

Additional products are offered (e.g. HotValley and HotFlashing) to maintain a heated drain path for the ice melt water until it can be safely drained away from the foundation of the structure.

The ice melt cable manufacturer's installation instructions are provided with the cable. These procedures must be followed. Installation personnel must be skilled in the art and be aware of the dangers inherent in this type of construction work. This product is designed to be part of a complete roof structure. Only experienced professional contractors should install this product.

Consult with a licensed electrical contractor for the electrical system layout, junction box placement, maximum cable run lengths and power feed requirements with EDP breakers as defined by the National Electrical Code (NEC), local building codes and the ice melt cable manufacturer.

Completely read and understand these documents before starting the project.

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