HOPPER HEATING FOR GENERAL MANUFACTURING

A durable and effective way to heat manufacturing hoppers

Application

Manufacturing facilities often use hoppers to collect all different types of materials. These hoppers come in all shapes and sizes and can be found indoors and outdoors. Typically they have large openings at the top where materials are loaded and much smaller openings at the bottom to dispense the contents as needed. General manufacturing hoppers are often used as material storage areas or a pre-heating stage before dispensing. During the cold season, outdoor hoppers are at an increased risk of freezing and clogging. When this happens, operators often experience long periods of downtime and a significant loss of productivity. To reduce risk, heat is used to ensure the contents remain at optimal operating temperature for peak performance.

Solution

BriskHeat’s SRL/SRP silicone rubber heating blankets are a perfect, easy-to-install solution to ensure hopper clogging and freezing does not occur. Heaters are typically placed on the bottom half of the outside of the hopper. To assist with installation, the heaters are held firmly in place using the peel-and-stick adhesive backing. SRL heaters are used for metal hoppers and SRP heaters are used for plastic or composite hoppers. The flexibility of silicone heaters allows for easy installation around unique geometries found on hoppers. The system is easily monitored and temperature is regulated with a single controller.

For maximum efficiency, cover heaters with a sheet of Insul-EZ foam insulation; a closed-cell weatherproof foam insulation that protects the heater while increasing thermal efficiency. The insulation features a peel-and-stick adhesive for easy installation over silicone heaters or it can be used as insulation only. An abrasion resistant top layer provides added durability that reduces tears and extends service life of the insulation. Insul-EZ is in-stock and available in 48 in x 48 in (1.2 m x 1.2 m) sheets to fit large and small applications. Cut and shape the insulation in the field with a box-cutter, knife, or scissors. Insul-EZ has a R-value of 3.

SRL-ADJ Silicone Rubber Heating Blankets are equipped with a built-in temperature controller for plug-and-play operation. Other SRL and SRP heaters require a temperature controller suited to the voltage, amp requirement and environment specific to the application. The BH-510 Digital Controller can be used indoors or out for 100 – 240 volts applications requiring up to 16 amps. If higher capacity is required, the TB4000 and TC4000 series can operate up to 2 contactors each with loads of 50 amps per contactor. These also operate at voltages up to 480 VAC.

Key Features

• 20-mil thick silicone rubber provides extreme durability and flexibility.
• Acceptable for indoor/outdoor use.
• Grounded for safety.
• Peel-and-stick adhesive for easy installation.
• Available models for metal or plastic/composite hoppers.
• Voltage up to 600V.

Additional Uses

BriskHeat’s SRL/SRP silicone rubber heating blanket systems can be used on troughs, tanks, and vessels of all shapes and sizes where heat is used to protect against cold weather. BriskHeat can help design a heating system for any tank size, shape, industry, or geography.