

Ceramic Band Heaters Are Designed To Conserve Energy and Improve Operation Efficiency

Design Features

- * Built-In Thermal Insulation
- * Conserves Electrical Energy
- * Minimum Heat Loss
- * Fully Flexible For Easy Installation
- * Good Temperature Uniformity
- * Longer Heater Life
- * Various Constructions & Terminations
- * Heats Through Conduction and Radiation
- * Designed to Your Specifications

Tempco Ceramic Insulated Band Heaters

are specifically designed and engineered to meet the ever increasing demand for energy conservation and to improve operation efficiency. The Ceramic Band Heaters are capable of generating the higher temperatures essential to process today's high temperature resins. Electrical energy savings are achieved by using a 1/4" thick ceramic fiber insulating blanket, reducing power consumption by 25 to 30 percent. Because of the low thermal conductivity of the ceramic fiber insulation, the external surface temperature of the Ceramic Band Heater is approximately 400°F while running the inside surface temperature at 1200°F.

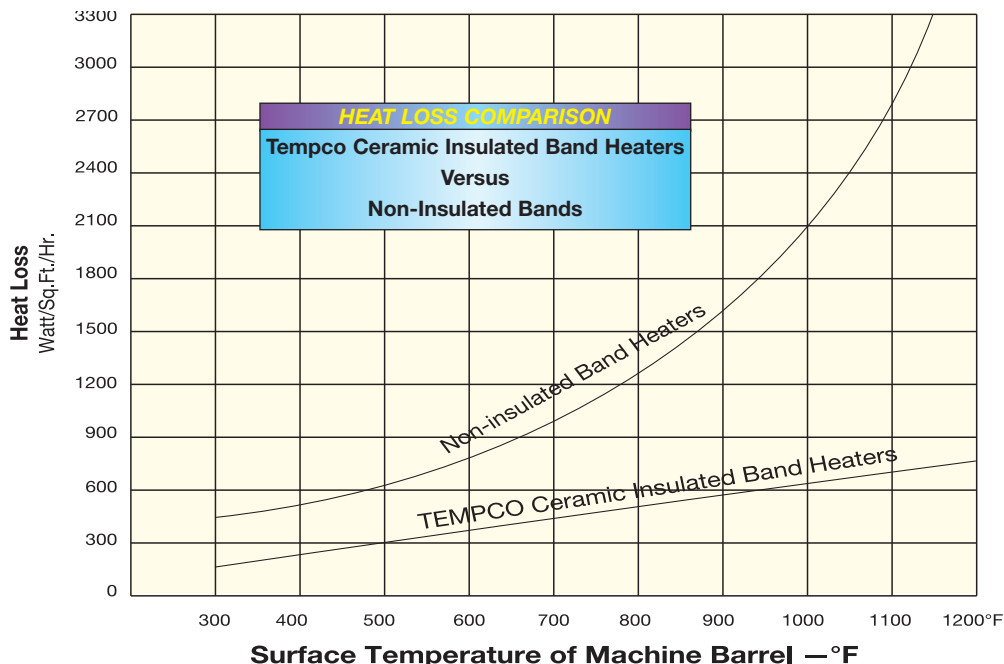
Ceramic Band Heaters transmit heat through both conduction and radiation. The element winding is designed to run at maximum temperature and heat the ceramic blocks to the point at which they radiate energy into the barrel as well as conduct energy by being in contact with the barrel. Therefore, the fit is not as critical as in other types of bands.

Tempco Ceramic Band Heaters have become extremely popular among Original Equipment Manufacturers as the standard heaters for the barrels of Plastic Injection Molding Machines, Extruders, and Blow Molding Equipment.

Variations and Advantages

Ceramic Band Heaters are manufactured in a full range of standard construction variations, physical dimensions, electrical ratings, and a complete arrangement of screw terminals and lead terminations.

However, these standard Ceramic Band Heater variations and terminations do not represent the extent of our capabilities. Tempco's engineering staff, with many years of experience in heat processing and temperature control applications, can assist you in designing the right Ceramic Band Heater for your specific application.



Construction Characteristics

Standard

The basic Tempco Ceramic Band Heater design consists of a helically wound resistance coil made from nickel-chrome wire, evenly stretched and precisely strung through specially designed ceramic insulating bricks, forming a flexible heating mat. The ceramic heating mat along with 1/4" thick ceramic fiber insulation is installed in a stainless steel housing made with serrated edges, providing maximum flexibility for ease of installation. This allows the use of wider band heaters, eliminating the need for numerous narrow width and two-piece band heaters.

Double Insulated

For situations requiring additional insulation for lower external temperatures and increased electrical energy savings, Tempco offers Double Insulated Ceramic Bands with a full 1/2" thick ceramic fiber insulation. This will decrease power consumption by 35 to 37 percent when compared to uninsulated band heaters.

Rib Cage (Type R) Ceramic Band Heater

When Ceramic Band Heaters are used on extruder barrels that require both heating and cooling, Tempco manufactures the **Rib Cage (Type R)** Air-Cooled Ceramic Band Heater in two watt density styles. See page 1-75 for details.