

CERAMIC BAND HEATERS



Ceramic band heaters are medium-to-high temperature heaters that can deliver up to 1600°F (870°C). The heating element (Nichrome wire) is embedded in a flexible outer wall made of interlocking ceramic tiles, assembled like a brick wall. A ceramic fiber insulating mat and a stainless steel/ Aluminized Steel jacket cover this assembly. This makes them flexible, highly efficient, prevents heat loss and reduces electrical consumption by 20%. An energized ceramic heater that operates at 1200°F internally will have around 400°F on its outside shell. These durable heaters have versatile configurations which allow selection of clamping mechanism, terminal styles, holes and cut outs and perforations. Uniform heat distribution is an added advantage of ceramic band heaters. Limitations on the width of these heaters within a certain incremental range of sizes, is due to ceramic tiles that are available in specific lengths. Ceramic Band Heaters afford customers a means to heat large cylinders from intermediate to high temperatures without concern of failures due to "Hot-Spotting". A layer of thermal insulation reduces ambient heat loss and power consumption.

Some of the advantages of Ceramic band heaters include :

- Lower Operating Cost – Less heat escapes to the air and less wattage is required to maintain barrel

temperature, due to superior insulation.

- Heat transfer – Conduction and radiation are used as the means to transfer heat, thus they are less prone to thermal expansion problems and a near perfect fit is not required as with other heaters.
- Longer Heater Life – because all materials used are rated to operate at very high temperatures.
- Higher Operating Temperatures
- Flexible – easy to install and remove

Band heaters can be combined with high velocity fans to form fast responding heat/cool units in accurate heating applications. These heaters are made with a perforated outside stainless steel sheath, and with no insulating jacket.

OPTIONS

| Application | Sheath Material |
|---------------------|----------------------------|
| Sheath Material | Steel or Stainless Steel |
| Insulation Material | Ceramic Fiber Blanket |
| Watt Density | Up to 45 W/in ² |
| Watt Ratings | 500 - 5000 W |
| Voltage | 120-600 V |
| Width | 1 ½ - 6" |
| Diameter | Customized |

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