

### MICA BAND HEATER

Specialist In: Custom Built Heaters & Heater Assembly Unit Along-With Temperature Controller As Per Customer's Specification.



AN ISO 9001:2015 COMPANY



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

+91 9999710410, 9311163794, [sales@subhotheaters.com](mailto:sales@subhotheaters.com), [info@subhotheaters.com](mailto:info@subhotheaters.com)

51/10, Madhuban Bapudham Industrial Area, Meerut Road, Ghaziabad, Uttar Pradesh 201013

## Company Profile

**"SUBHOT"** the brand name of **Three Decades Rich**, quality oriented and completely indigenously manufactured IEC standard product since 1990, we are catering successfully to domestic and international Industries. We design develop and supply industrial heaters, heating elements, thermocouples and other high temperature Material Management equipments as per the customer's requirement. We have in house Design, Development & research facilities, follows by stringent quality control measures right from beginning to delivery of the material. Customer satisfaction is our first priority.

We manufacture various types of Tubular Electrical Heaters and heating systems, along with control accessories Cartridge Heaters, Mica Band Heaters, Ceramic Band Heaters, Casted Heaters, Furnace Heaters, Nozzle Heaters, Coil heaters, which are used in Hazardous and Non Hazardous area. In Tubular Electrical heater Heating element is Mineral filled sheathed tubular type. Heating element Insulation material used is Mgo (Magnesium oxide) and heating element wire material is Nichrome. Heating elements are manufactured and tested as per IS-4159 BIS Standards. Electrical heaters are suitable for application for Water, Oil, Chemical, Air, Fuel gas, Natural gases etc and Design as per requirement of customer based on the technical input provided by them. Heating unit consist of Heater vessel, Heater bundle, Terminal box, and U-Shaped heating element fitted on Tube sheet .The selection of heating element for a particular assembly depends on the uses & customers requirement total rating, surface loading, diameter of heating element tube, Operating temperature, space limitation, Type of electrical connection and number of bank etc. The heating element can be permanently fixed on tube sheet OR Can be removable type. Various Sheath material and sizes are available based on design requirement. The heating unit can be supplies Complete with Heater Vessel, Inlet-Outlet Nozzle/Flange, Lug Support and external insulation.

**Heater vessels are generally designed as per ASME SecVIII Div-1. For Hazardous area flameproof terminal box are used which are duly certified by CMRI Dhanabad for Gas group IIA, IIB or IIC.**

### **We are also manufacturing the following product at our works:**

- Immersion heating elements for Water, Oil and Chemical heating.
- Air Heating element
- Fuel gas and Process gas heater.
- Regeneration heaters.
- Large heating unit upto 520KW with terminal box and control panel.
- Heater for ESP and Ash handling system.
- Cartridge Heaters
- Mica Band Heaters
- Ceramic Band Heaters
- Casted Heaters
- Furnace Heaters



**Size of heating tube:** 8.2mm, 9.5mm, 11.0mm, 12.0mm, 12.5mm, and 16.0mm, 19.0 mm or as per customer requirement.

**MOC of Heating Tube:** Copper, Titanium, SS all grade, Incoloy 800, Inconel etc.

**Sizing of Tube Sheet:** As per design requirement.

**Sizing of Heater Vessel:** As per design requirement.

**Thermocouple:** J & K Type own make in SS all grade and Incoloy.

## MICA BAND HEATER



## DESCRIPTION

The Mica Band Heater By Subhot Enterprises Pvt. Ltd. Is Designed For Efficient, Uniform Heating Of Cylindrical Surfaces Such As Barrels, Pipes, And Nozzles. Built With A Nickel-Chromium Resistance Element, Mica Dielectric Core, And Stainless-Steel Sheath, This Heater Ensures Excellent Thermal Conductivity, High Dielectric Strength, And Long Service Life.

With Customizable Dimensions, Watt Density, And Terminal Enclosures (IP54/IP66), Mica Band Heaters Are Widely Used In Plastic Processing, Packaging, Extrusion, And Food Machinery Where Precise And Reliable Heating Is Critical.



COMPONENTS

Component	Description
Heating Element	Nickel-chromium resistance strip for precise, uniform heating.
Dielectric Core	High-strength mica core providing excellent dielectric strength and thermal conduction.
Metal Sheath	Stainless-steel or aluminum-clad sheath for mechanical protection and insulation.
Thermocouple Pocket	Built-in Type J/K thermocouple (grounded/ungrounded) for accurate control.
Clamping System	Spot-welded clamp bars with Allen screws for secure, uniform fit.
Terminal Enclosure	Standard IP54 or optional IP66 moisture-resistant terminal box for safe electrical connection.

TECHNICAL SPECIFICATION

Parameter	Specification
Max. Sheath Temp.	Up to 450 °C
Voltage	Up to 480 V
Watt Density	Up to 30 W/in <sup>2</sup>
Minimum Diameter	25 mm
Minimum Width	25 mm
Standard Gap	9 mm
Terminal Enclosure	IP54 standard / IP66 optional
Control Options	Thermostat or Integrated Thermocouple

## ADVANTAGES

- **High Efficiency** : Direct surface heating ensures maximum heat transfer and minimal energy waste.
- **Durability** : Robust stainless steel/aluminum sheath and mica insulation provide a long operating life.
- **Customization** : Available in a wide range of diameters, widths, voltages, and watt densities to fit exact user requirements.
- **Safe Operation** : Moisture-resistant enclosures and insulated connections ensure operator safety and reduced downtime.
- **Versatility** : Ideal for plastic processing, food packaging, extrusion, and other industrial heating needs.
- **Quick Heat Response** : Low thermal mass allows faster heating and cooling cycles, reducing machine downtime.

## APPLICATIONS

- Plastic Industry: Heating of injection molding barrels, nozzles, and extrusion machines
- Packaging Machinery: Sealing jaws, cutting and sealing rollers
- Food Processing: Container heating, drum heating, and hot sealing processes
- Chemical & Pharma: Pipe and tank heating for controlled material flow
- Extrusion & Blow Molding: Uniform heating of dies and nozzles
- Drum & Pipe Heating: Suitable for small to medium-sized cylindrical storage vessels

## FEATURES

- Precise and uniform heating performance with minimal heat loss
- Compact, lightweight design that ensures easy installation
- High dielectric strength due to mica insulation layer
- Corrosion-resistant sheath (SS or Aluminum cladding) for long life
- Customizable in size, voltage, watt density, and design
- Optional thermocouple integration for accurate control
- Moisture-resistant enclosure (IP66) available for wet environments
- Quick heating response and energy-efficient operation