SUBHOT®
INDUSTRIAL HEATERS

FINNED TUBULAR HEATERS

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

MAKE IN INDIA

AN ISO 9001:2015 COMPANY

NSIC CERTIFIED CO. | CE | ZED Zero Effect Zero Defect | D&B Decide with Confidence | IAF MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT | eiaCI 035-CB-QMS | GeM Government e Marketplace

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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 manufactur 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.

FINNED TUBULAR HEATERS

DESCRIPTION

Finned Tubular Heaters Are Designed To Provide Efficient And Uniform Heating Of Air And Gases In Ducts, Ovens, Tunnels, And Process Equipment. By Bonding Aluminum, Stainless Steel, Or GI Fins To The Tubular Sheath, The Effective Surface Area Is Significantly Increased, Enhancing Heat Transfer And Promoting Rapid Convective Heating.

Available In Custom Lengths, Bends, And Fin Pitches, These Heaters Are Adaptable To A Wide Variety Of Industrial And Commercial Heating Systems. With Rugged Construction And Optional Moisture Protection, Finned Tubular Heaters Ensure Long Service Life, High Efficiency, And Reliable Performance In Demanding Environments.

COMPONENTS

Component	Specification
Heating Element	NiCr or FeCrAl tubular coil, MgO-packed for efficient heat transfer and insulation.
Fins	Aluminium, stainless steel, or GI fins mechanically bonded to sheath for increased surface area.
Sheath	Steel, SS304/310/316/321, Incoloy, or titanium tubular housing for protection and conduction.
Mounting Brackets	Adjustable steel or stainless-steel brackets for secure installation in ducts or ovens.
Terminal Enclosure	IP54/66/67-rated housing with ceramic terminal block and cable gland for safe connections.
Moisture Seals	Optional silicone or fiberglass gaskets to protect against moisture and contaminants.

TECHNICAL SPECIFICATION

Parameter	Specification
Heater Sheath Material	Steel, SS304/310/316/321, Incoloy, Titanium
Watt Density	Up to 35 W/in²
Fins Material	Aluminium, Stainless Steel, GI
Fin Pitch	2–10 fins per inch (Customizable)
Fin Thickness	0.4–1.0 mm
Voltage	Up to 480 V AC
Operating Temperature	Up to 550 °C
Diameter	6mm, 8mm, 10mm (other sizes on request)

ADVANTAGES

- **Enhanced Heat Transfer** – Fins increase surface area, promoting efficient convection.
- **Durable Build** – Rugged sheath materials for high-temperature and corrosive environments.
- **Energy Efficient** – Optimized design reduces heat loss and accelerates heat-up times.
- **Custom Engineering** – Fin pitch, thickness, and element shape tailored to application needs.
- **Reliable Performance** – Moisture seals and IP-rated enclosures for added protection.
- **Low Maintenance** – Long service life with easy replacement of elements.

APPLICATIONS

- **Air & Gas Heating** – Convective heating in ducts and process chambers.
- **Industrial Ovens** – Curing, baking, and drying tunnels.
- **Sterilization Systems** – Autoclaves and medical-grade heaters.
- **Load Banks** – Electrical load testing applications.
- **Food Processing** – Packaging, drying, and temperature control systems.
- **HVAC Systems** – Dehumidification and hot-air circulation units.

FEATURES

- **Custom Bends & Lengths** – Designed to fit any duct, chamber, or enclosure.
- **Moisture & Corrosion Resistance** – Optional seals for harsh operating environments.
- **Fast Thermal Response** – Rapid heat-up with minimal energy loss.
- **Uniform Airflow Heating** – Optimized finned design ensures even temperature distribution.
- **Service-Friendly Design** – Replaceable elements for reduced downtime.