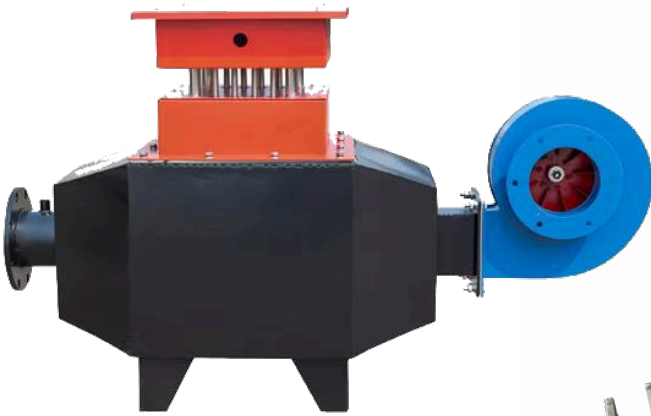


# DUCT HEATER

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.

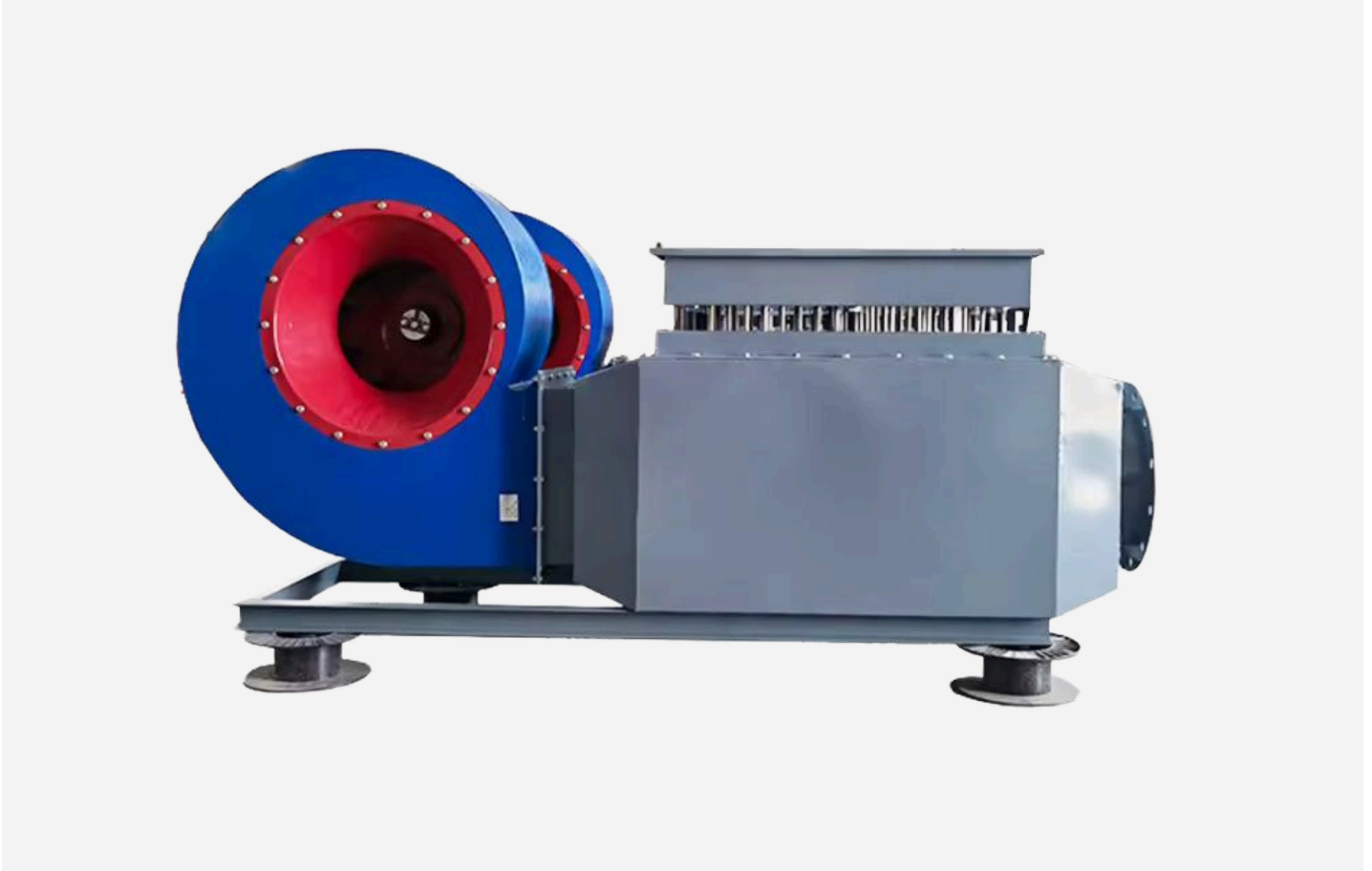
**MOC of Heating Tube:** Copper, Titanium, SS all grade, Incoloy 800, Inconel etc.

**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.

## DUCT HEATER



## DESCRIPTION

Duct Heaters Are Designed To Heat Air Or Gases Directly Within A Duct Or Airflow System. They Are Widely Used In HVAC Systems, Industrial Process Heating, And Drying Applications. Available In Open-Coil, Tubular, And Finned-Tubular Designs, These Heaters Provide Efficient, Uniform Temperature Control With Minimal Pressure Drop.

Constructed With Corrosion-Resistant Materials And Customizable Mounting Options, Duct Heaters Can Be Integrated Into Both Small And Large Air Handling Systems. Optional Temperature Control Systems Ensure Precise Heating For Process-Critical Applications.



COMPONENTS

Component	Specification
Heating Element	Choice of open-coil NiCr, MgO-packed tubular, or finned-tubular elements for tailored heat transfer.
Mounting Frame	Galvanized or stainless-steel frame with flanges or slide-in rails for duct installation.
Terminal Housing	IP65/67-rated, ATEX, CIMFR enclosure with ceramic block and cable gland for secure electrical connections.
Fins (Optional)	GI or SS fins mechanically bonded to tubular elements to boost convective performance.
Insulation & Seals	High-temp ceramic fiber insulation and gasketing to prevent heat loss and air bypass.

TECHNICAL SPECIFICATION

Parameter	Specification
Heater Sheath Material	SS304/310/316/321, Incoloy, Titanium
Duct Sheath Material	MS, SS
Element Type	Open Coil, Tubular, Finned Tubular
Watt Density	Up to 40 W/in <sup>2</sup> (6 W/cm <sup>2</sup> )
Max Wattage	Up to 2 MW
Voltage	Up to 600 V AC/DC (Customizable)
Air Velocity	0.5–20 m/s recommended
Operating Temp.	–20 °C to 650 °C air temperature

## ADVANTAGES

- **High Energy Efficiency** – Minimal heat loss with optimized airflow design.
- **Material Versatility** – Multiple sheath and frame materials for varied environments.
- **Customizable Design** – Tailored dimensions, wattage, and mounting styles.
- **Uniform Heating** – Even temperature profiles across duct width.
- **Low Maintenance** – Modular construction for quick servicing.
- **Safe Operation** – IP-rated and hazardous-area compliant terminal enclosures available.

## APPLICATIONS

- **HVAC Systems** – Heating in air handling units.
- **Industrial Drying** – Ovens, tunnels, and conveyor systems.
- **Paint & Coating Lines** – Curing in paint booths and powder coating facilities.
- **Food Processing** – Hot-air baking, drying, and dehumidifying.
- **Heat Treatment** – Annealing, curing, and controlled atmosphere chambers.

## FEATURES

- **Install or Remove Without Draining** – Minimal downtime during maintenance.
- **Portable Design** – One heater can service multiple tanks.
- **Robust Construction** – Designed for industrial durability and long life.
- **Customizable Shapes & Lengths** – Tailored to match vessel size and shape.
- **Safety Options** – Explosion-proof and hazardous-area rated models available.