Heating Technologies

UDYAM-
DL-07001874

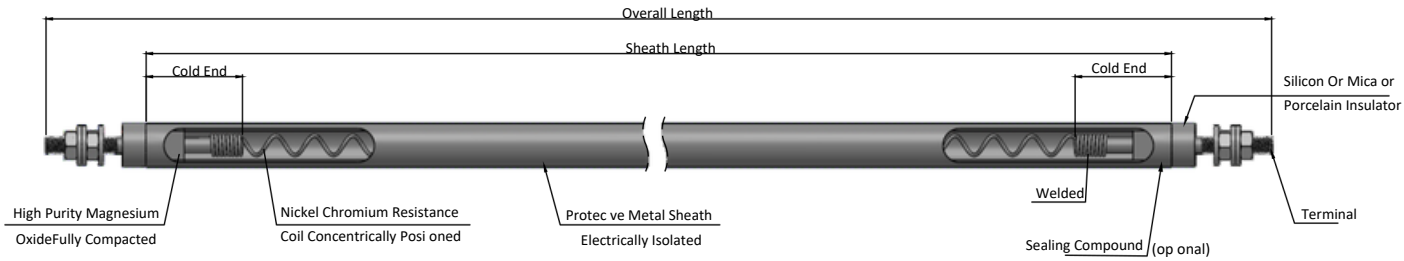
FINNED TUBULAR HEATERS

Contact @
V-303,Gali NO-22A, Near By Khan Medical, Vijay Park Maujpur, Delhi 110053
M.no +91 8700859004
+91 8470050586
E-mail : heat.coolenterprises@gmail.com

heat&cool.in

Finned Tubular Heaters : are frequently employed in applications that call for low- to medium-temperature forced convective heating
of air or gases. Tubular heating components with aluminized steel fins brazed, crimped, or welded to the sheath comprise heaters. Because fins significantly enhance surface area and allow for a faster rate of heat transfer to air, they are more efficient than tubular heaters. This allows for larger wattage levels to be achieved in the same flow area. It prolongs heater life by maintaining lower element surface temperatures because of its higher heat transfer rate. At high air velocities, mechanically attached continuous fins assist reduce fin vibration and guarantee superior heat transfer.
Among the most popular heaters, these industrial heating solutions work best for a wide range of applications, including conduction, convection, and radiation for air conditioners, drying cabinets, industrial ovens, and stoves. They may be molded into a wide variety of intricate and distinctive shapes and are utilized in almost any industrial setting up to 750°C (1382°F). Finned heaters require very little maintenance, are very durable, and have cheap initial expenses.

Construction :



1. **Chromium nickel** For the longest heater life, choose resistance wire with excellent mechanical and creep strengths. The resistance coil made of nickel and chromium is fused to the metal termination pins.
2. **High-purity** magnesium oxide fill that has been extensively compressed for optimal heat transfer and chosen for best dielectric strength and thermal conductivity.
3. **Suitable** for high temperature applications, stainless steel and Inconel sheaths are resistant to oxidation and corrosion in a wide range of environments.
4. **Aluminized** or stainless steel Fins are resistant to oxidation and corrosion and are brazed, crimped, or welded to the cold portion of the tubular element to enhance surface area and optimize heat transfer.

If you have specific design needs or want to discuss a custom project, please reach out to us.

Technical Information

- **Materials for the sheath:** copper, steel, titanium, incoloy, and stainless steel
- **Maximum Watt Density:** 120 W/in2 Finishes Material: stainless steel and aluminum
- **Maximum Voltage:** 480 VAC
- **Maximum Operating Temperature:** 1200 °F
- **Diameter:** 0.475", 0.375", and 0.430"
- **Power Tolerance range:** 5% to 10%
- **Tolerance for Resistance:** -5%, +10%

End Seal Options

1. **The Teflon seal** When an efficient seal against moisture and oil contamination is needed, Teflon seal is utilized. barrier, Teflon lead wire and Teflon seal are combined. **Rubber Seal with Silicon** When used with silicon rubber lead wires,
2. a high temperature silicon rubber seal effectively seals moisture up to 400°F (200°C). sealants, it is the most impenetrable. **The Epoxy Seal** Compared to silicon rubber, epoxy potting creates a better moisture seal with greater
3. mechanical strength. Epoxylite is rated at 600°F (316°C), while regular epoxy is rated at 350°F (177°C). **Cement** Although it is not waterproof, it offers defense against some heavier liquids and dust. It is also a little subject and brittle.
4.

To create an efficient

Out of all the moisture

Option of Termination

Both single-ended and double-ended terminal configurations are available.
Both terminals are at one end of the single-ended configuration. The other end is sealed. Flexible lead wires feature silicone-impregnated fiberglass over-sleeves and a 12-inch (305-mm) crimp attached to the terminal pin.
The double-ended design is quite versatile for bending, particularly when bending is done in the field, and has a circular cross sectional geometry. Multiple resistor coil and thermocouple assemblies are available within a single sheath thanks to double-ended tubular components. They can provide three-phase capabilities in a single element or consistently detect the heater's internal temperature.

Quali es and Advantages

- There are numerous custom bends available.
- silicone sealing to guarantee resistance to moisture in humid conditions.
- There are many different kinds of terminations.
- specialized cold areas.
- more surface area to transmit heat more quickly.
- mounting bracket made of stainless steel that is welded to the end.

Utilization

- Convective Heating of Gas and Air.
- Dehumidification.
- Ovens for curing and plastic dryers.
- Paint Curing and Organic Resins.
- Autoclave.
- Industrial ovens.
- A drying cabinet, among other things.

If you have specific design needs or want to discuss a custom project, please reach out to us.