

## Coil Heaters

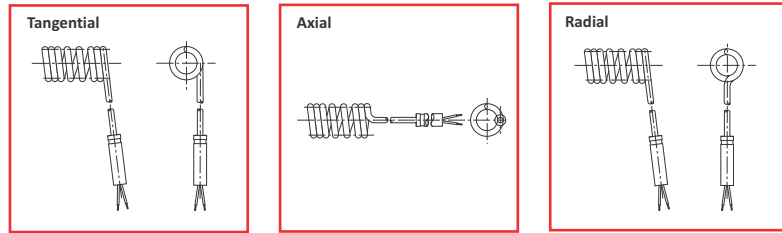
Coil heaters are an advance concept of thermal engineering, is also known as high performance tubular heaters or cable heaters. The basic construction of these heaters consist of compacted MgO, high temperature resistance wire and Chrome Nickel Steel tube. These heaters can be constructed with or without built in thermocouples.



### Applications

- Hot Runner Nozzles & Bushings
- Tube Extrusion
- Pipe Forming
- Hot runner distribution plates
- Sealing and cutting bars and jaws for packaging machines
- Small Manifold Heating
- Hot metal forming dies and punches
- Semiconductor manufacturing and wafer processing

## Types Of Termination Exits

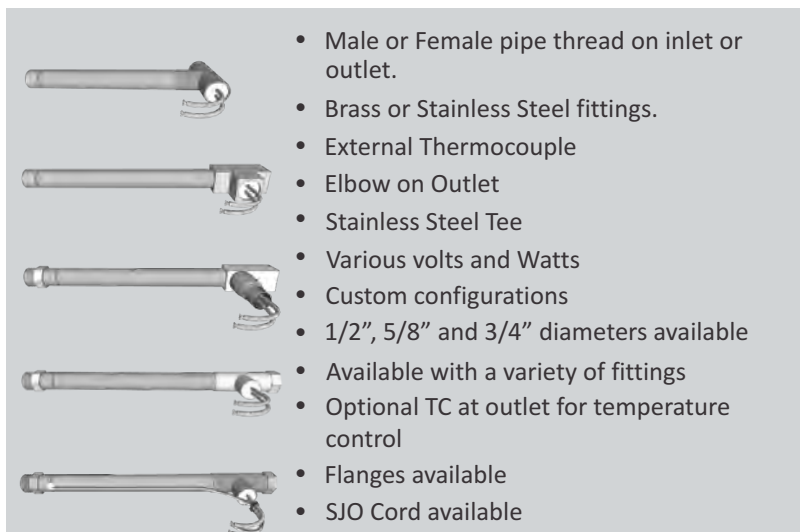


### Technical Data

Sheath material	: Chrome Nickel Steel
Insulation material	: High purity MgO
Heating element	: NiCr 80:20
Thermocouple	: 'J' type (Fe K), 'K' type (Cr Al) grounded or ungrounded
Connection Wires	: Stranded Nickel wires with PTFE coating
Voltage Range	: 24 to 250 volts
Power rating	: Depending on application
Power tolerance	: $\pm 10\%$
H. V Testing	: 800 V (Bent heater), 500 V between T/C and heating element
Insulation Resistance	: $> 5 \text{ MW}$
Current Leakage	: $< 0.5 \text{ mA}$
Sheath Temperature	: $750^\circ\text{C}$ max
Adapter Temperature	: $150^\circ\text{C}$ max
Length Tolerance	: Heated length $\pm 2\%$
Unheated Length	: 5-10 mm on bottom end, 50 mm at the adapter end. Larger lengths available on request.

## Air Heaters

Marathon air heaters feature an open coil of high temperature resistance wire electrically isolated in a stainless steel sheath. Because the air being heated passes directly over the resistance wire, maximum heat transfer efficiency is achieved. Marathon brand air heaters are used for heat staking, plastic welding, laminating, drying, heat sealing, and any other operation where air needs to be heated up  $500^\circ\text{C}$ .



### Applications

- Heat Staking
- Shrink Fitting
- Plastic Welding
- Laminating
- Sealing
- Drying

### Standard Construction

- 1/2", 5/8" or 3/4 diameter
- 304 Stainless Steel Sheath
- High temperature leads or 3 pin connector
- Epoxy Seal
- Copper Tee
- 120 Volt and 240 Volt



### Specifications

- Maximum Amps: 10
- Maximum CFM: 10
- Use clean air only
- Air temp up to  $500^\circ\text{C}$
- Heat air to temperatures as high as  $500^\circ\text{C}$ .

