

Ceramic Knuckle Heaters Offer High-Performance Heating Option



Ceramic knuckle band heaters are designed to provide high-performance heating at temperatures up to 760°C (1400°F). This level of performance is achieved from the ceramic knuckles that provide excellent insulation and long heater life. The construction of the ceramic knuckle heater includes interlocking ceramic blocks with resistance wires threaded through holes within the ceramic. This method provides superior heat distribution across the band, resulting in a perfectly heated surface. Ceramic knuckle heaters are specifically engineered and manufactured with three layers:

- **Aluminized steel sheath layer** improves mechanical protection to heater and resists corrosion.
- **Ceramic fiber layer** provides thermal insulation, energy conservation and minimizes heat loss.
- **Ceramic knuckle layer** provides mechanical protection and electrical insulation to the resistance element, which increases heater life and conducts or radiates the heat to the surface.

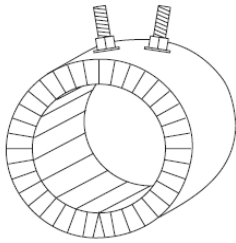
Specifications

Electrical	Mechanical
Resistance tolerance: -10 percent (+5 percent)	Overall thickness: 1/2 inch
Wattage tolerance: +10 percent (-5 percent)	Minimum width: 1-1/2 inch ±1/8 inch
Maximum watt density: 45 W/in ²	Maximum width: 9-11/16 inches
Maximum operating temperature: 760°C (1400°F)	Minimum I.D.: 2 inches
	Maximum I.D.: 15 inches (one piece only)

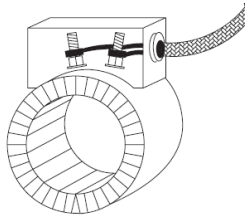


Options & Variations

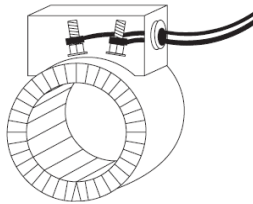
Lead Arrangements



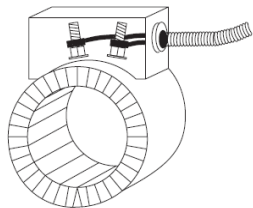
Post Terminals are the standard termination, providing quick connection with ring or fork connectors or buss strips, 1/4 - 20 inch thread, and includes double nuts and washers. Standard terminal location is 180° from gap.



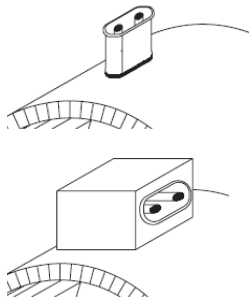
SS Braid method includes a loose metal braid that is welded to the terminal box with a coupler. This provides excellent abrasion protection and flexibility. Leads are attached to posts with a ring connectors.



Flexible Lead Wire exits tangential to heater and includes leads connected to the post terminals with ring connectors. This termination method requires a terminal box.

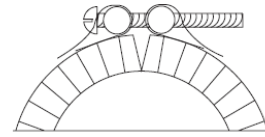


SS Braid method includes a loose metal braid that is welded to the terminal box with a coupler. This provides excellent abrasion protection and flexibility. Leads are attached to posts with a ring connector.

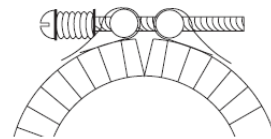


European Style Plugs provide a simple and safe way to apply power. The combination of high temperature male and female quick disconnect plug assemblies eliminate all live exposed terminals and electrical wiring. When ordering, specify vertical or horizontal European plug.

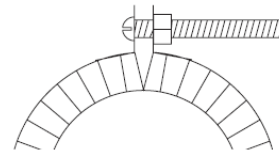
Clamping Arrangements



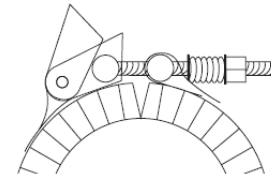
Barrel Clamps are used in applications where access for instrumentation is required. Includes an oversized gap.



Spring Loaded Barrel Clamps help to compensate for the thermal expansion of metals.



Clamp Tabs are a standard clamping option that offer a uniform clamping force across the heater width.



Latch And Trunion Clamps provide a quick clamp option. Clamping force is similar to barrel clamps and a spring is included to allow for thermal expansion of metals.