



## GENERAL INFORMATION

- **HIGH TEMPERATURE RESISTANCE:** Our ceramic fiber heaters can withstand extremely high temperatures (over 1000°C), suitable for applications involving very high-temperature environments.
- **EFFICIENT HEAT TRANSFER:** The heaters provide rapid and uniform heating, ensuring consistent temperature distribution across the surface.
- **EXCELLENT INSULATION:** The ceramic fiber material offers superior insulation properties, which helps in minimizing heat loss. This leads to better energy efficiency and reduced operational costs.
- **LIGHTWEIGHT AND FLEXIBLE:** Our ceramic fiber heaters are lightweight and flexible, allowing them to be easily shaped and installed in various configurations. This flexibility makes them suitable for applications with complex or irregular geometries.
- **DURABILITY:** Ceramic fiber heaters are highly durable and resistant to wear and tear. The ceramic fibers are designed to withstand mechanical stress and harsh operating conditions, extending the heater's lifespan.
- **LOW THERMAL MASS:** These heaters have a low thermal mass, which means they heat up quickly and respond rapidly to temperature changes. This quick response is beneficial in applications requiring precise temperature control.
- **CHEMICAL RESISTANCE:** The ceramic fiber material is resistant to many chemicals, making these heaters suitable for use in corrosive or reactive environments.
- **ENERGY EFFICIENCY:** By providing effective insulation and efficient heat transfer, ceramic fiber heaters contribute to energy savings. Reduced heat loss and lower energy consumption lead to cost savings over time.
- **SAFETY:** Ceramic fiber heaters often come with safety features such as overheat protection. Their construction minimizes the risk of overheating and potential damage to surrounding equipment or materials.
- **CUSTOMIZABLE:** We manufacture to specific sizes and shapes to meet the requirements of various applications. These custom configurations allow for tailored solutions in diverse industrial settings.

## FEATURES

- **STANDARD HEATER REACH 1100°C (2012°F)**
- **HIGH TEMPERATURE HEATERS REACH 1200°C (2192°F)**
- **DIMENSIONS ARE SPECIFIED BY THE CLIENT**
- **COMPOSITION: ALUMINA (38%), SILICA (62%)**

## APPLICATION

- High-Temperature Ceramic Fiber heaters are designed solely for radiant heat transfer and are not suitable for direct contact heating. Unlike band, cartridge, strip, or cast-in heaters, they lack the physical strength required for these applications.
- Ceramic Fiber heaters can be effectively mounted using washers, pins, screws, overlapping edge clamps, or interlocking edges. Cementing is not advised as it restricts the heater's ability to expand and contract.
- The achievable maximum temperature depends entirely on the application. To reach the highest temperature specified, the application must be well-sealed (e.g., oven) to trap heat and allow temperature buildup. In open environments, the heaters will not reach their maximum temperatures. For instance, to achieve maximum temperature with a ceramic fiber cylindrical heater, its ends should be sealed with insulated discs to minimize heat loss and promote temperature increase.
- Due to their high porosity, Ceramic Fiber Heaters cannot be fully sealed against contaminants or potential damage to the heating element. Ensure furnaces remain free from contaminants that could vaporize at high temperatures.
- Most applications require precise temperature control, which can be efficiently managed using fast-responding electronic PID temperature controls.
- Thermocouple temperature probes measure the application's temperature and provide feedback to the Temperature Control System. Type K thermocouples, which operate up to 1260°C/2300°F, are commonly used, with Alloy 600 sheaths, rated up to 1177°C/2150°F.
- Exercise caution with any electrical connections within the heated portion of the application. Ensure that connections are rated for the expected operating temperature and current flow.
- Only use inorganic fibers and binders to prevent corrosive fumes that could damage the heater.
- Ceramic Fiber Heaters are susceptible to damage from rough handling. Handle the units and their leads with care.