DIFFUSION ELEMENTS

Thermcraft
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FIBERCRAFT™

FC-200

Low Mass Elements

For
- Low Temperature Operation
- Rapid Thermal Response

Ideal for LPCVD and thin oxidation processes, the Fibercraft FC-200 provides fast recovery and rapid cool down rates. These low-mass elements give you repeatable performance . Unique thermal engineering is used to increase the radiating surface, extending element lifetime.

LPCVD (Low Pressure Chemical Vapor Deposition)
Available with heater surfaces coated black.

The Benefits of Fibercraft Design

Fibercraft design incorporates helically wound ribbon or wire embedded in the heating element insulation. By using this unique construction, Fibercraft elements more than triple the effective radiating surface. The result is maximum heat dissipation, lower operating costs, decreased thermal response time, and improved temperature uniformity.

FC-200L

Low Mass Elements

For
- Low Temperature Operation
- Rapid Thermal Response
- Longer life

The FC-200L offers all the properties of the FC-200 combined with the additional features of powdered metal wire to provide longer life.

Improved lifetime for LPCVD and thin oxidation processes.

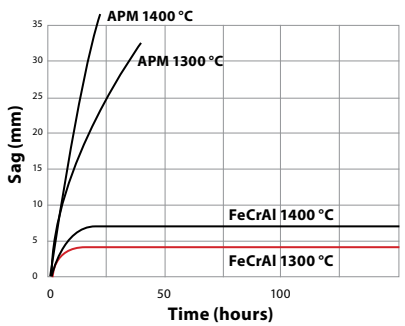
Available with heater surfaces coated black.

The Benefits of Powdered-Metal Wire

Powdered-metal wire increases the overall effectiveness of a heating element in high temperature applications. At 1100 °C, powdered metal wire lasts twice as long as conventional heating element wire. At lower temperatures, the difference is even greater. At high temperatures, powdered-metal wire also shows superior resistance to sagging.

Powdered Metal Elements Versus Conventional Alloy

This chart shows relative sag between conventional-alloy heating elements and powdered-metal elements. Powdered-metal wire also has a higher tolerance to corrosive atmospheres, making it a better choice for processes employing HCl.



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DURACRAFT™

DC-1300

Furnace Elements

For
- Cost-Effective High Temperature Operation

The advanced thermal engineering of the DC-1300 furnace elements provide dependable performance at the lowest cost. Power is balanced between center and end zones, providing precise temperature uniformity at varied operating temperatures while reducing heat loss.
For all high temperature processes including silicon nitride and HTO LPCVD, oxidation, annealing, and drive-in. Ideal for horizontal furnace retrofits.

DC-1300Plus

Furnace Elements

For
- High Temperature Operation
- Improved performance for temperature cycling

Addition of self locking spacers to the DC-1300 design allow the DC-1300Plus furnace elements to provide consistent, reliable operation throughout the fluctuations of repeated temperature cycling.
Ideal for all high temperature processes including silicon nitride and HTO LPCVD, oxidation, annealing, and drive-in.

DCHT-500

Furnace Elements

For
- High Temperature Operation
- Large Temperature Swings
- Longest Life

DCHT-500 furnace elements deliver dependable performance and long life even at the highest processing temperatures . Self-locking spacers and superior element design reduce the possibility for element sag. Like the DC1300, power is balanced between center and end zones , providing precise temperature uniformity at varied temperatures while reducing heat loss. The DCHT-500 includes heavy gauge, powdered-metal heating wire for the longest lite available.

The DCHT-500 is a must for well drive, field oxidation, LOCOS, and other long, high-temperature processes.

The Benefits of Self Locking Spacers

Self-locking spacers lock together around the circumference of the element, maintaining constant coil spacing and total support of each turn of the resistance coil. This design keeps the spacers in place throughout repeated temperature cycling.

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