HT FIREROD®

Swaged Cartridge Heater Ideal for High Temperature Applications

The Watlow FIREROD® revolutionized the heating element industry in 1954 when it was patented as the first swaged cartridge heater. With premium materials and tight manufacturing controls, the FIREROD heater continues to provide superior heat transfer, uniform temperatures, and resistance to oxidation and corrosion even at high temperatures.

Taking the cartridge hearter one step further Watlow developed the HT (high temperature) FIREROD. This unique twist on a cartridge heater enables the heater to withstand application temperatures up to 204°C (400°F) higher than the standard FIREROD.

Performance Capabilities

- Platen temperatures to 980°C (1800°F)
- Maximum watt density to1 5.5 W/cm² (100 W/in²)
- Maximum voltage 277V~(ac) to ground
- Length tolerance: +0, -4 percent standard diameters; +0, -8 percent for special diameters

Nominal Diameter in.	Actual Diameter in.	Max Amps
0.5	0.496 ± 0.004	10
0.625	0.580 ± 0.004	23
	0.621 ± 0.004	23
0.75	0.710 ± 0.004	46
	0.746 ± 0.004	46
1.0	0.960 ± 0.004	46
	0.996 ± 0.006	46

Applications

- Thermo plastics
- Superplastic forming of titanium aircraft parts
- Diffusion bonding to laminate and shape titantium

Features and Benefits

High temperature seal

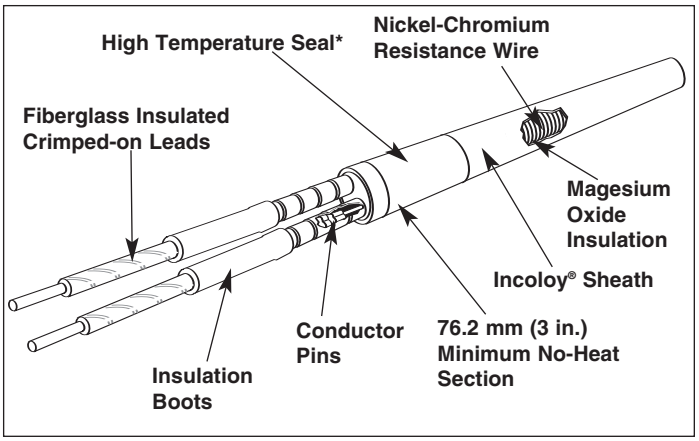
- Prevents exposure to the atmosphere which minimizes oxidation of the winding wires; the end result is longer life of the element

Incoloy® sheath

- Transfers heat more efficiently

High emissivity sheath

- Results in better heat transfer and longer life



*First one inch at lead end must be kept below 538°C (1000°F)

WATLOW

12001 Lackland Road
St. Louis, Missouri 63146 USA
Phone: +1 (314) 878-4600
FAX: +1 (314) 878-6814
Internet: www.watlow.com
e-mail: info@watlow.com

STL-FRHT-0505

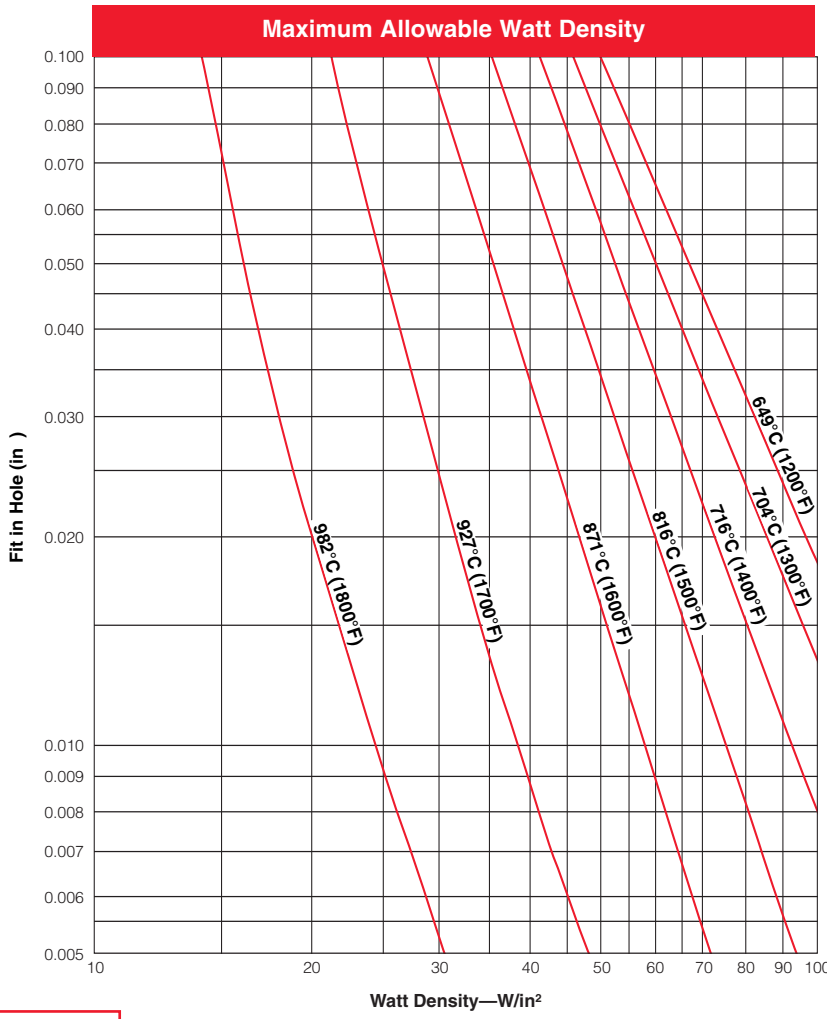
Options and Technical Data

- Thermocouples
- Independently controllable heat zones
- Distributed wattage
- MI leads
- Flanges
- Threaded fittings
- Post terminals
- Conduit NEMA boxes
- Bending *(chart below)*

Dia. in	Minimum Required* No-Heat Length** in (mm)	Bend Radius in (mm)
0.496	1.875 (47)	0.75 (19)
0.580	2.25 (57)	1.0 (25)
0.621	2.3125 (59)	1.0 (25)
0.710	2.75 (70)	1.25 (32)
0.746	2.8125 (71)	1.25 (32)
0.996	3.375 (86)	1.5 (38)

*Minimum no heat 3 in. for crimped on leads. 3 in. + 10 percent of the overall length for swaged in leads.

** Total no heat required for bent heater = 3+dimension



Ordering Information

HT FIRERODs are available only as **made-to-order** units.

To place an order, please specify:

- Diameter
- Overall length
- No-heat length if greater than three inches (76 mm)
- Volts
- Watts
- Intended application and temperature
- Atmospheric information
- Lead type and length or terminal configuration
- Options including finishing, internal construction and mounting

To be automatically connected to the nearest North American Technical and Sales Office call:

1-800-WATLOW2

International Technical and Sales Offices: **Australia,** +61 (39) 335-6449 • **China,** +86 (21) 5211-0231 • **France,** +33 (01) 3073-2425 • **Germany,** +49 (0) 7253-9400-0 • **Italy,** +39 (02) 458-8841 • **Japan,** +81 (03) 3518-6630 • **Korea,** +82 (02) 575-9804 • **Malaysia,** +60 (4) 641-5977 • **Mexico,** +52 (442) 217-6235 • **Singapore,** +65 6773-9488 • **Spain,** +34 91 675 12 92 • **Sweden,** +46 31 7014959 • **Taiwan,** +886 (0) 7-288-5168 • **United Kingdom,** +44 (0) 115-964-0777