

## Swaged Cartridge Heater Ideal for High Temperature Applications

The Watlow® high temperature (HT) FIREROD® heater is specially designed for high temperature platen applications up to 1800°F (980°C). The HT FIREROD heater utilizes the same industry leading design principals used on all of Watlow's FIREROD heaters. Taking the cartridge heater one step further enables the HT FIREROD to withstand application temperatures up to 400°F (204°C) higher than standard cartridge heaters.

The HT FIREROD is designed specifically for use in high temperature applications:

- Internal seal construction is virtually airtight to reduce the effects of resistance wire oxidation
- The high temperature sheath is treated to improve its emissivity for better heat transfer

### Performance Capabilities

- Platen temperatures to 1800°F (980°C)
- Maximum watt density to 100 W/in<sup>2</sup> (15.5 W/cm<sup>2</sup>)
- Maximum voltage 277VAC to ground
- Length tolerance: +0, -4 percent standard diameters; +0, -8 percent for special diameter

### Features and Benefits

#### High temperature seal

- Reduces exposure to the atmosphere which minimizes oxidation of the winding wires and extends the life of the element

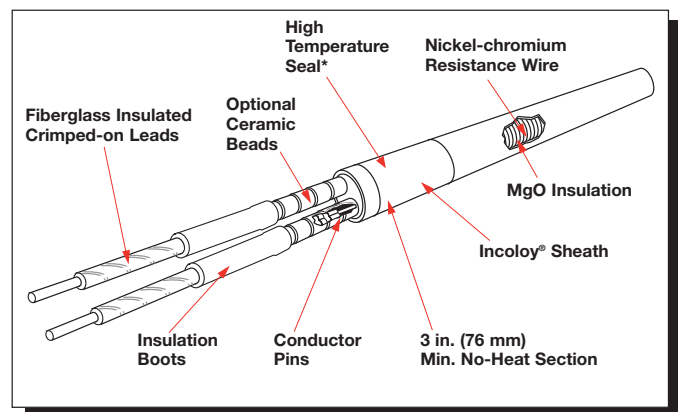
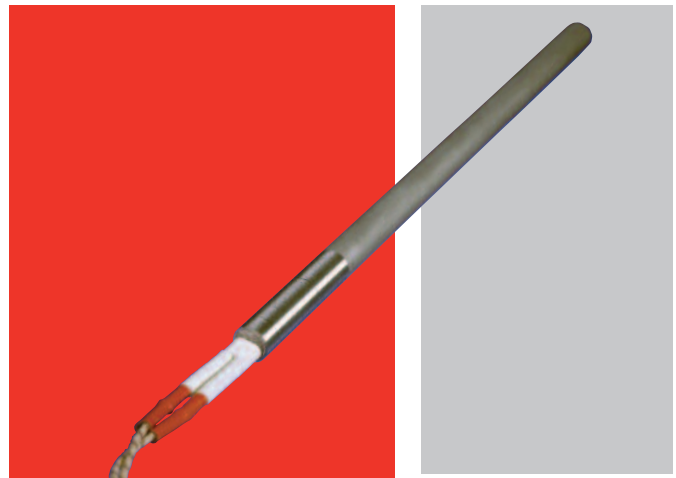
**Note:** First 3 in. (76 mm) must be outside the platen in free air and less than 1000°F (538°C).

#### Incoloy® sheath

- Resists oxidation and corrosion enabling more efficient heat transfer

#### High emissivity sheath

- Provides better heat transfer and longer life



\* First 3 in. (76 mm) at lead end must be kept below 1000°F (538°C)

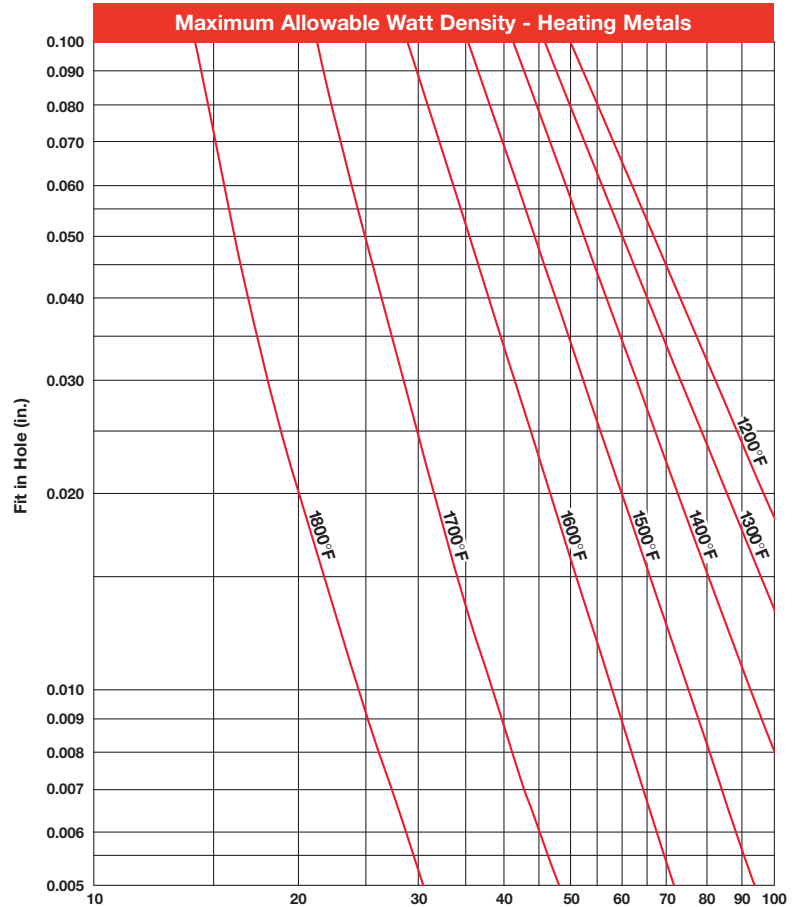
### Typical Applications

- Thermo plastic
- Super plastic forming of titanium aircraft parts
- Diffusion bonding to laminate and shape titanium

## Options and Technical Data

- Thermocouples
- Independently controllable heat zones
- Distributed wattage
- Flanges
- Post terminals
- Conduit NEMA boxes
- Bent FIREROD

Reference the recommended *Maximum Watt Density graph* to determine if the HT FIREROD heater fits the application.



## Made-to-Order Availability

Nominal Diameter in.	Actual Diameter in.	Max. Amperes
1/2	0.496 ± 0.004	10
5/8	0.580 ± 0.004	23
	0.621 ± 0.004	23
3/4	0.710 ± 0.004	46
	0.746 ± 0.004	46
1	0.960 ± 0.004	46
	0.996 ± 0.006	46

Contact a Watlow representative for special diameter requests.

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

**1-800-WATLOW2 • [www.watlow.com](http://www.watlow.com) • [inquiry@watlow.com](mailto:inquiry@watlow.com)**

**International Technical Sales Offices:** Australia, +61 3 9335 6449 • China, +86 21 3381 0188 • France, +33 1 41 32 79 70  
Germany, +49 (0) 72 53 / 94 00-0 • Italy, +39 024588841 • Japan, +81 3 3518 6630 • Korea, +82 2 2628 5770  
Malaysia, +60 3 8076 8745 • Mexico, +52 442 217 6235 • Singapore, +65 6773 9488 • Spain, +34 91 675 12 92  
Taiwan, +886 7 288 5168 • United Kingdom, +44 (0) 115 964 0777