

UHV – Sample Heater Stage

Based on BORALECTRIC® Heating Elements



Example: HTR-2-100



HC3500 Controller

BORALECTRIC® heating elements are proven sample heaters for in-vacuum use, down to Ultra-high vacuum (UHV) conditions. They are ceramic heaters made of Pyrolytic Boron Nitride (PBN) with an embedded Pyrolytic Graphite (PG) layer. All these layers are made by chemical vapor deposition yielding in highest purity material.

The BORALECTRIC® heating elements have a dielectric surface, are chemically mostly inert, UHV compatible, allow ultimately high temperatures of 1.500°C and can ramp up extremely quick (ambient to 1.000°C in <15sec).

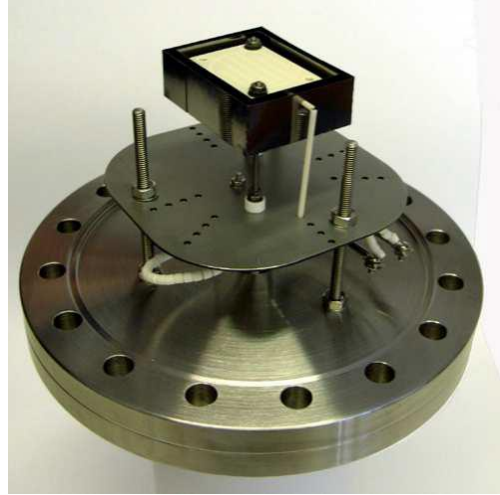
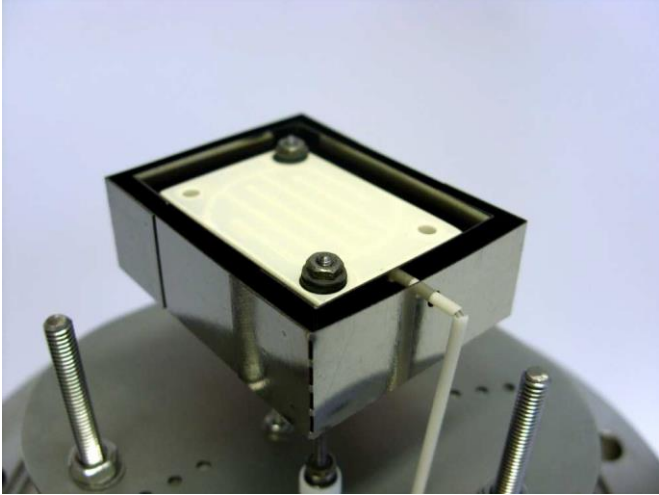
The tetra UHV Sample Heater stages use the BORALECTRIC® heating elements to make Complete flange mounted stages (e. g. on CF-100, 6"OD flanges). All necessary heat shielding, vacuum feedthroughs, contacting and insulating material as well as power supply With PID temperature controller is included.

For easy adaptation to an existing vacuum system and experimental setup, the level of the support plate and height of heater plane can be adjusted to a certain extend. The support plate has an array of extra mounting holes which can be used for any assembly to be fixed relative to the heater.

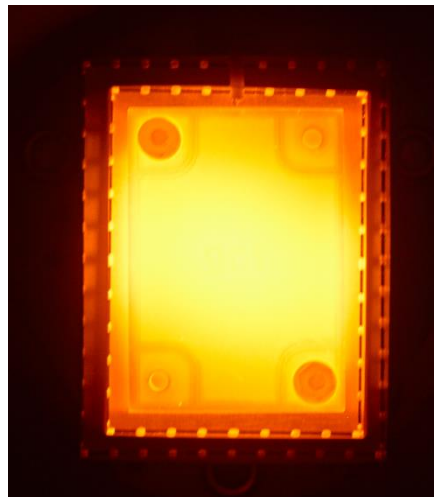
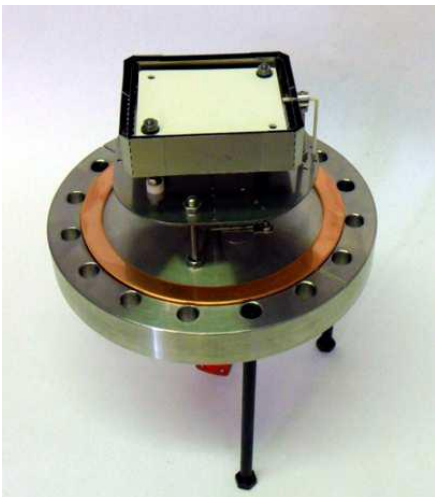
KEY FEATURES AND BENEFITS

- ◆ UHV heater stage using ceramic BORALECTRIC® heating elements
- ◆ Flange Mounted, compact and robust design
- ◆ Several Standard Sizes
- ◆ Custom design possible
- ◆ In-Vacuum Height Adjustment
- ◆ Incl. Power Supply and PID Controller
- ◆ Standard Thermocouples
- ◆ Optional Cover available

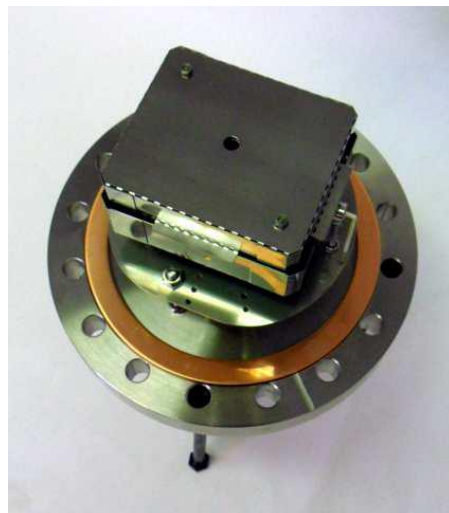
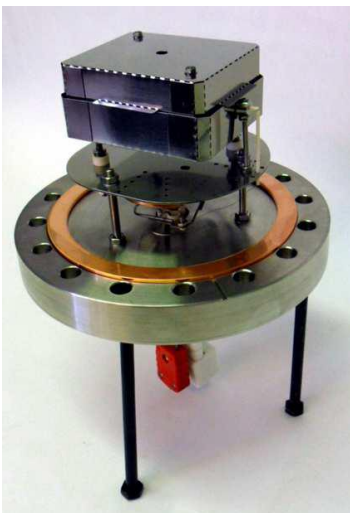
Heater stages are available for the standard 1", 2" and 3" Boralectric heaters (HTR1001, HTR1002 and HTR1003).



Heater Stages with 1" heater



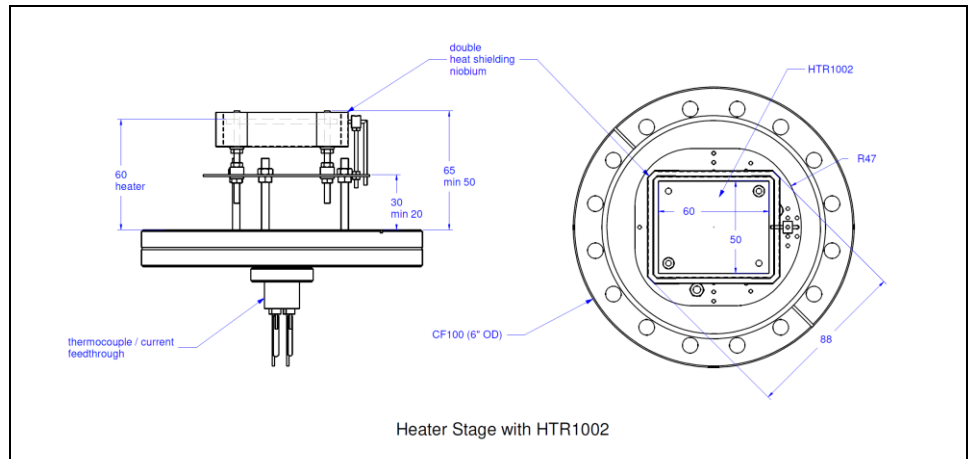
UHV Heater Stages with 2" heater (before installation and at ca. 750°C)



UHV Heater Stages with 2" heater and optional cover heat shielding

SPECIFICATION

Dimensions (Example HTR-2-100)



Technical Specification

Heating Element	Type BORALECTRIC® heating elements
Heat Shielding	2 – fold Nb Foil
Flange	CF100 Flange mount standard (Others on Request)
Thermocouple	Type K (Standard, others on request) Mounted Inside the Heater
Others	In Vacuum Cabling Electrical and Thermocouple Feedthroughs In-vacuum Height Alignment

Power Supply

Power	230 VAC / 50 Hz (Standard) 115 VAC / 60 Hz (to be stated with order)
Controller	PID

Options

Power Supply	19" Rack Mounting
Controller	Serial Interface RS232 Serial Interface RS485
Thermocouple	Type C, others on request
Heat Shielding	Cover Shielding
Others	On Request

*BORALECTRIC® is a trademark of Momentive Performance Materials Inc. ("Momentive")



Please contact us for more Information.
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