

VACUUM CHUCK HEATED PLATES - Compact Design

Thin Films – Wafers – Membrane Heating and Drying Applications

Remote Control - Max. Temperature 200 °C

Model family: **HTP-MB1-200-PRF**

Description.

THERMANSYS HTP-MB1-200 PRF Vacuum Chuck Heated Plates family was designed to provide accurate and uniform surface temperature control. Ideal choice for heating thin film substrates, wafers or flexible thin membranes. Controlled and monitored through a flexible conduit by a remote control box.

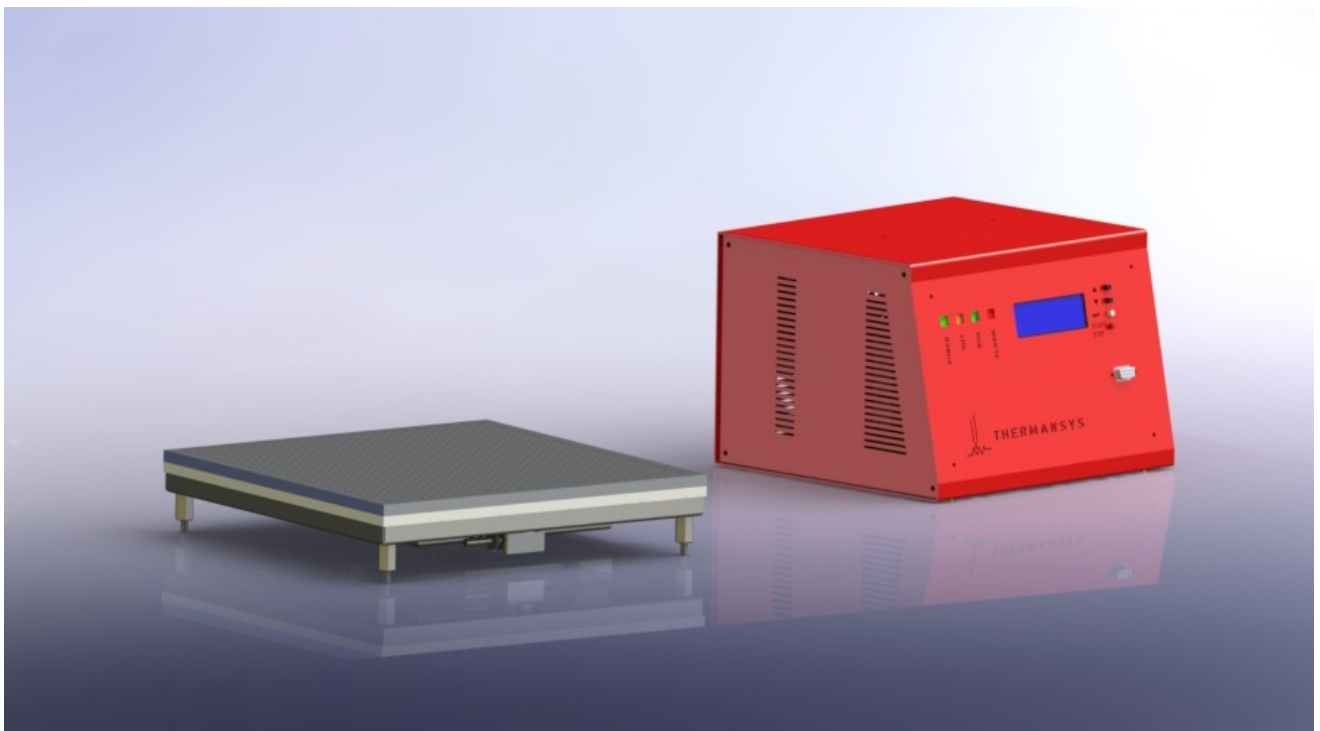
HTP-MB1-200 series heated surface area is equal with the device footprint. The heated body is made from Aluminum providing superior heat transfer and temperature uniformity. A perforated anodized Aluminum plate on top of the heated body allows for air suction through the holes. This way keep the heat treated substrate attached uniformly with the heated surface enhancing significantly the heat transfer. The perforated plate is detachable for easy cleaning. The outer shell of the heated plate body is made of corrosion-free stainless steel ASTM 304.

A Pt100 temperature sensor is measuring directly the heated surface temperature. A PID algorithm is maintain accurately the user selected temperature or temperature profile program.

A hose connector at the bottom side of the hot plate allows for an external pump connection. The **HTP-CPU-A3** control box provide a power output for the pump. The on-off operation of the pump can be controlled though the system interface.

HTP-MB1-200 PRF series design protect the internal electrical components against possible liquid spillage on top of the heated surface.

Suitable for many applications including Electronics/Semiconductors, Pharmaceuticals/Cosmetics, Plastics, Agricultural and other.



- **Standard equipped with a Digital LCD display temperature remote controller -15 step programming with 1 program storage.**
- **RS 485 port available for connection with a computer – Pyrologism 2.0 software available.**

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Information and data contained in this document was considered correct at the time of publication. Thermansys® is reserving the right to make modifications as a result of design improvements.

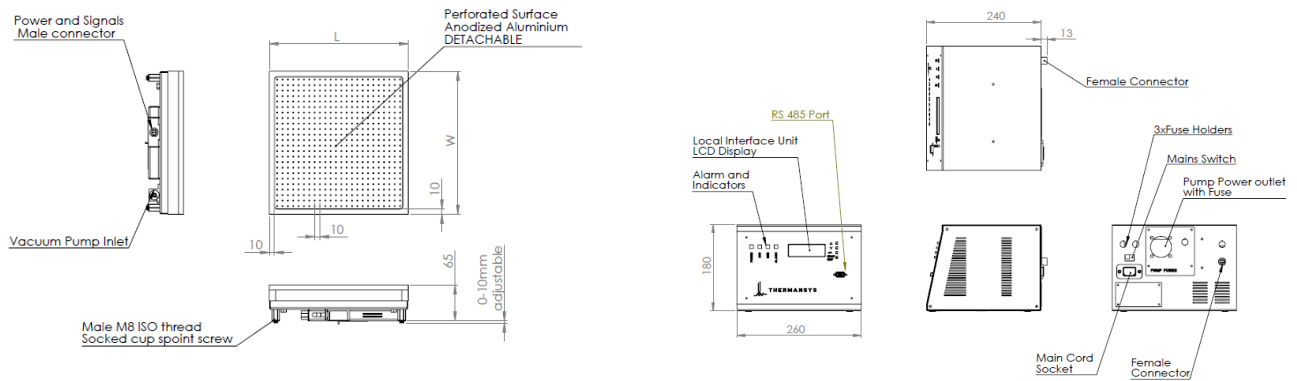
Specifications.

- Temperature control range, 5 °C above ambient to 200 °C. Monitoring resolution 0.1 °C.
- Operating Power: 230VAC – 50/60Hz. (115VAC on request)
- Pt100 type temperature sensor.
- Temperature control setting resolution 0.1 °C. Typical control fluctuation ±0.1 °C PID control.
- Burst firing insures silent operation and compliance with EMC standards.
- Heater galvanic isolation relay. Heater failure, thyristor failure, temperature sensor failure, alarms and interlocks.

Optional features:

- Remote, touch screen computer (10.0in Tablet PC), running the specially designed PYROLOGISM 2.0 software.
Add suffix _TSC
- Sealing feed-through for operation inside sealed Glove Box chamber, Vacuum rating 10-3 torr (mmHg), pressure rating 0.5 bar Gauge
 - ✓ Feedthrough flange: DN25 CF/ DN40 CF
Add suffix: _FT25CF/ _FT40CF
 - ✓ Feedthrough flange:DN25KF/ DN40 KF
Add suffix _FT25KF/ _FT40KF

Ordering Information.



DRAWING 1. HTP-MB1-200 PRF Vacuum Chuck Heated Plates Dimensions **DRAWING 2. HTP-CPU-A3 unit Dimensions**

Compliant with **Low Voltage Directive 2006/95/EC** (harmonized referenced standard EN 61010-1: 2001 and EN 61010-2-010:2003) and **EMC Directive 2004/108/EC** (harmonized referenced standard EN 61326-1:2006)

TABLE1. HTP-MB1-200 Precision Heated Plates Models

Model Part Number	Max. Temp. °C x Heat up time* (min)	Heated Surface dimensions Lh x Wh (mm) see drawing 1	Surface Uniformity % set point (Center and up to 30mm from edges)	Surface Uniformity % set point (Edges)	External dimensions Le x We (mm) see drawing 1	Nominal Heater Max. Power (W)
HTP-MB1...						
-L18W18-200 PRF	200 x 20	180x180	<0.5	<2	180x180	800
-L26W26-200 PRF	200 x 20	260x260	<0.5	<2	260x260	1000
-L30W18-200 PRF	200 x 20	300x180	<0.5	<2	300x180	1200
-L30W30-200 PRF	200 x 20	300x300	<0.5	<2	300x300	1600
-L40W18-200 PRF	200 x 20	400x180	<0.5	<2	400x180	1600
-L35W35-200 PRF	200 x 20	350x350	<0.5	<2	350x350	1800
-L40W30-200 PRF	200 x 20	400x300	<0.5	<2	400x300	1800
-L40W40-200 PRF	200 x 20	400x400	<0.5	<2	400x400	2000

* Hot plate working with no load..

Ordering Example:

HTP-MB1-L40W18-200_PRF: This Part Number includes one HTP-MB1-200 PRF Precision Vacuum Chuck Heated Plate having 180x180mm heated surface.

 HELLENIC PRODUCT.

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