

# Advanced Temperature Test (ATT) Systems

Thermal System: +20°C to 300°C, +30°C to 300°C

This guide defines the facility requirements for operation of your ATT Systems ambient and booster thermal systems for A160, C200, and C300 chucks. The thermal system discussed here is compatible with 150, 200 and 300 mm systems.



**NOTE**

A cooling booster is included with the 20°C to 200/300°C ATT thermal systems. It is mounted to the chamber exit panel on the rear of the probe station in a manner that requires no additional foot print. The cooling booster is a passive device that operates off the supplied volume of CDA and consumes no electrical power.

## Thermal System Requirements

|                          |  |   |  |
|--------------------------|--|---|--|
| Clean Dry Air (CDA)      |  | <b>WARNING</b>  | Operating the system without sufficient air pressure or flow can cause significant component damage. The control unit and the chiller must be connected to common ground.  |
|                          |  |   | FormFactor does not endorse or recommend using nitrogen instead of CDA for thermal system operation with any FormFactor system due to the risk of oxygen depletion in the working environment. If your testing configuration requires the use of nitrogen instead of CDA for MicroChamber purge, time in Quick Purge mode should be controlled. Discuss your setup with your safety and facilities departments to ensure that the oxygen flow in your working environment is adequate to dissipate any nitrogen build up. The use of oxygen sensor alarms is also recommended. For MicroChamber purge requirements, refer to your probe station Facility Planning Guide. |
|                          |  | Cooling medium  | • ISO 8573.1 Class 1.3.1 (-20°C dew point, oil less than 0.01 mg/m <sup>3</sup> )  |
|                          |  | Temperature   | • Minimum: 5°C<br>• Maximum: 30°C  |
|                          |  | 150 mm  | • 300 l/min (10.6 CFM) at SATP* supplied at 6-8 bar (87 - 116 psi) gage<br>• 8 mm OD push-in tube connection   |
|                          |  | 200 mm  | • 400 l/min (14.1 CFM) at SATP* supplied at 6-8 bar (87 - 116 psi) gage<br>• 8 mm OD push-in tube connection   |
| 300 mm                   | • 400 l/min (14.1 CFM) at SATP* supplied at 6-8 bar (87 - 116 psi) gage<br>• 8 mm OD push-in tube connection |   |  |
| Power                    | Controller   | <ul style="list-style-type: none"> <li>• Single phase: 100-127 VAC or (200) 208-240 VAC 50/60Hz</li> <li>• 1500 VA</li> <li>• Source:                             <ul style="list-style-type: none"> <li>– North American: NEMA 5-20 for 100-127 VAC or NEMA L6-15 for 208-240 VAC</li> <li>– Europe: CEE VII (Schuko)</li> <li>– Other: consult factory</li> </ul> </li> </ul> |  |
| Environmental Conditions | Thermal system heat rejection  | Cooling media air is used to cool the chuck and is exhausted into the surrounding environment   |  |
|                          | Ambient temperature  | • +18°C to +28°C  |  |
|                          | Relative humidity  | • 20% to 60%  |  |
| Communications           |  | • RS-232  |  |
| Dimensions (WxDxH)       | Controller   | • See <a href="#">Dimensions (in mm)</a> on page 2.   |  |
|                          | Cooling booster  | • No additional footprint required  |  |
| Weight                   | Controller   | • ~11 kg (24 pounds)  |  |

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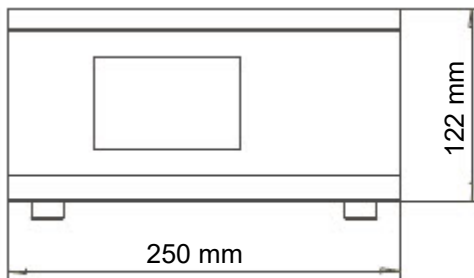
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|                                    |                    |   |
|------------------------------------|--------------------|---|
| <b>Shipping Dimensions (WxDxH)</b> | Controller and box | • 570 x 500 x 300 mm (22 x 20 x 12 in.) |
| <b>Shipping Weight</b>             | Controller and box | • ~14.8 kg (32.6 pounds)                |

\* Standard Ambient Temperature And Pressure (SATP)

## Dimensions (in mm)

Controller

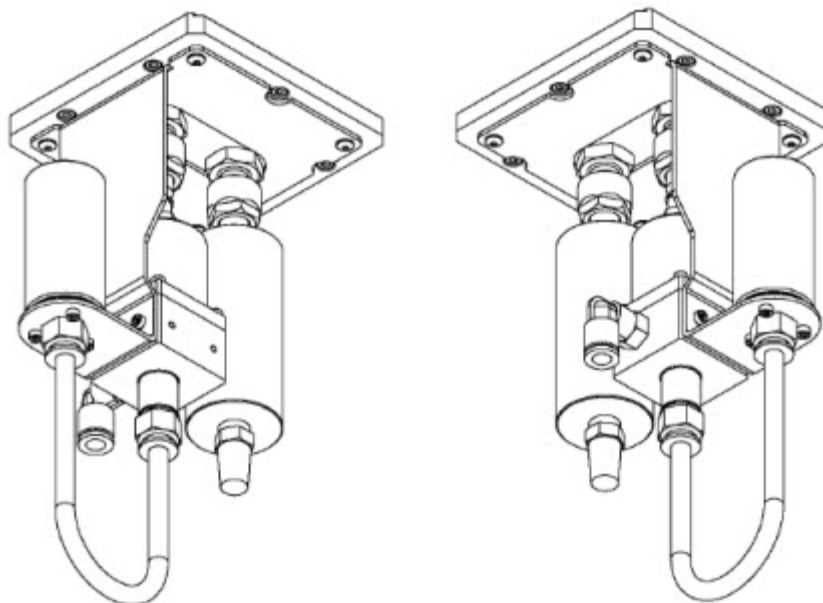


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C200/C300 cooling booster  
(no additional footprint required)



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