


This guide contains information to help prepare your facility for the arrival of your PA300PS probe system.

Probe Station Requirements

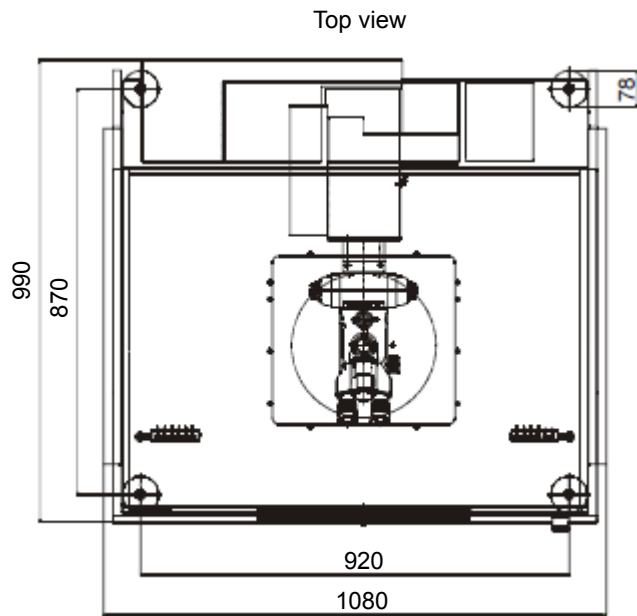
Air and Vacuum	Vacuum	<ul style="list-style-type: none"> • Less than 200 mbar absolute • Flow rate insignificant • 6 mm hose (US 1/4")
	Compressed air for Vibration Isolation Table	<ul style="list-style-type: none"> • Filtered, dry and oil-free • Minimum 4 bar to 8 bar maximum • Flow rate insignificant • 6 mm hose (US 1/4")
	Dry air for station	<ul style="list-style-type: none"> • Compressed air ≥ 5 bar (max. 8 bar, flow $< 15\text{Nm}^3/\text{h}$) • Dew point $< -70^\circ\text{C}$, air dryer optional • 8 mm hose (US 5/16") <p style="text-align: center;">WARNING</p> <div style="display: flex; align-items: center;">  <p> <i>Cascade Microtech does not endorse or recommend using nitrogen instead of CDA for thermal system operation with any Cascade Microtech system due to the risk of oxygen depletion in the working environment.</i> <i>If your testing configuration requires the use of nitrogen instead of CDA for MicroChamber or shielded environment 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.</i> </p> </div>
Dimensions	Station + accessories	<ul style="list-style-type: none"> • 1080 (1230) mm x 990 mm x 1573 mm with microscope in lowered position • Additional height added by optional accessories such as cameras and laser cutters can add up to a maximum of 900 mm.
	Additional clearance	<p>Front • 800 mm</p> <p>Back • 200 mm for cables • 800 mm during installation or service</p> <p>Left • 600 mm during installation or service</p> <p>Right • 200 mm for cables • 800 mm during installation or service</p> <p>Top • 900 mm</p> <p>Depending on your system configuration, the thermal system controller may require an additional table. Additional room may also be required for thermal system cooling units.</p>
	ProberBench Electronics II	<ul style="list-style-type: none"> • 450 mm (W) x 400 mm (D) x 230 mm (H), with connectors installed. • Compatible with a 19-inch rack system, usually located on the inside shelf of the vibration isolation table. Alternate placement may require an additional table.
	Joystick Controller	<ul style="list-style-type: none"> • 280 mm (W) x 250 mm (D) x 140 mm (H), with connector installed. • Usually located on the optional joystick controller holder. Alternate placement may require an additional table.
Weight	Station (incl. VIT)	830 kg
Temperature	Operating range	19°C to 24°C
	Target temperature	22°C
	Tolerance	1K
	ProberBench rack	Side ventilators and air expellers must be kept clear for air circulation.
Humidity	Tool area	25% to 60%
	Support equipment area	25% to 60%

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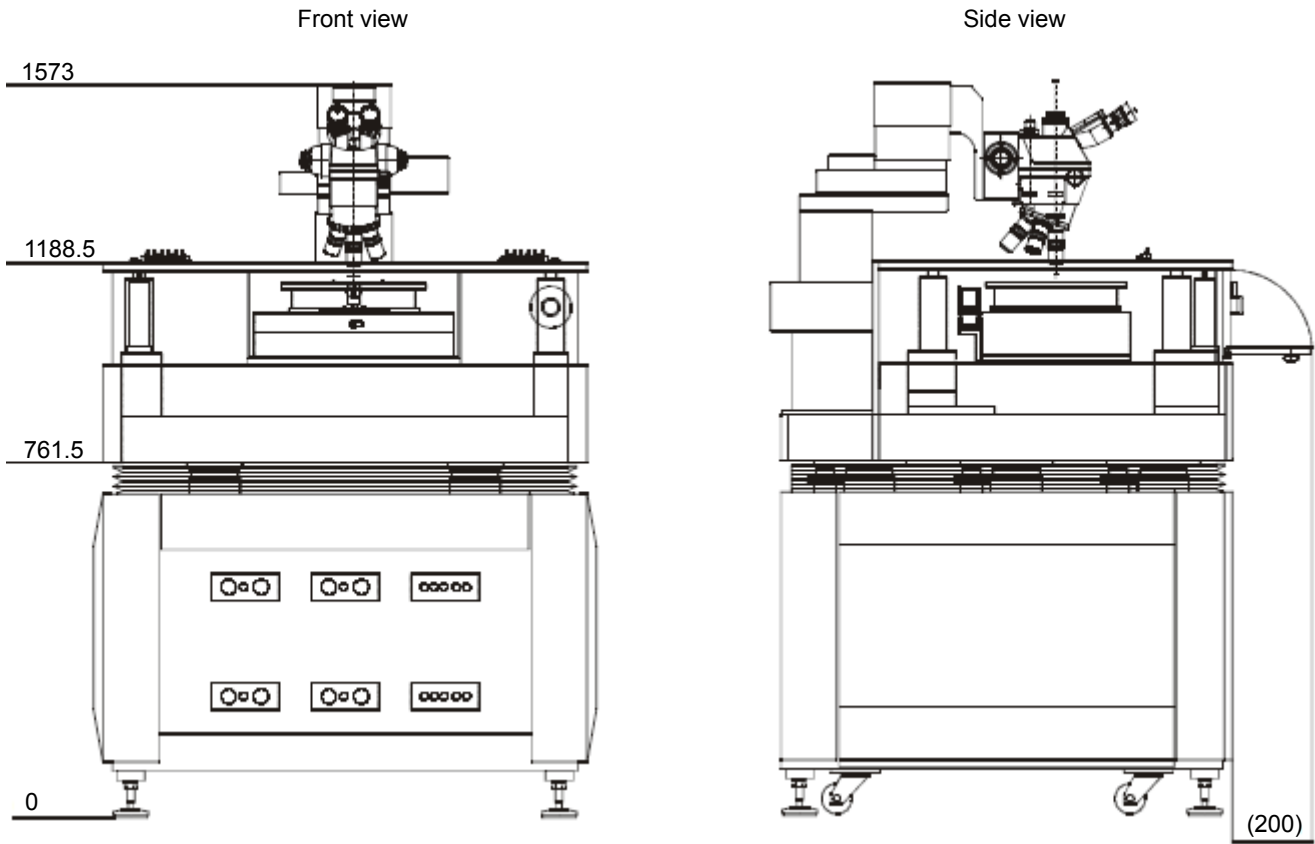
Vibrations	The facility should be free of vibrations caused by other equipment.	
Electrical Data	Power	100–240 V AC nominal, 50/60 Hz, 500 VA
	Protection class	I
	Transient overvoltage	Overvoltage category II (IEC 60364-4-443)
	Main connector–North America	The station has an integrated socket strip with grounded mains plug 15A/115V; UL-498, CSA.
	Main connector–Europe	The station has an integrated socket strip with grounded mains plug 16A/250V; CEE-7/VII / DIN 49441
Electrical Data (continued)	Availability	Contact a Cascade Microtech representative if these power line receptacles are not available in your facility.
	Facility power line fuse for main connector	Ensure that a 16 A lead fuse is available in your facility power line where the main connector is plugged in.
Pollution Level	1 IEC 664	
Clean Room Class	Class 6 corresponding to DIN EN ISO 14644-1	
Additional Equipment	Thermal chuck	Dependent on specification. May require a coolant: <ul style="list-style-type: none"> • Dry air: 200 NI/min at 0.5 to 0.7 MPa or 5 to 7 bar • (Optional) water: 1 liter/minute at 207 kPa max.
	Thermal System M300 -60 to +300°C	
	Controller	<ul style="list-style-type: none"> • 440 mm (W) x 350 mm (D) x 180 mm (H) • Weight: 21 kg • Power: 230V AC 50/60 Hz 10A
	Chiller 1	<ul style="list-style-type: none"> • 460 mm (W) x 600 mm (D) x 1300 mm (H) • Weight: 186 kg • Power: 380V AC 50/60 Hz 16A
	Chiller 2	<ul style="list-style-type: none"> • 350 mm (W) x 310 mm (D) x 615 mm (H) • Weight: 50 kg • Power: 230V AC 50/60 Hz 16A
	Plugs	<ul style="list-style-type: none"> • 2x grounded mains plug 16A/250V; CEE-7/VII / DIN 49441, or • 1x grounded mains plug 16A/250V; CEE-7/VII / DIN 49441, and • 1x 4 pole 5 wire grounding plug 16A/400V; DIN VDE 0623, IEC 60309-1.
	PC Table	Extra space is required for the PC next to the probe system.
	Shipping Dimensions and Weight (approx. values)	Probe station box
Accessories, incl. VIT		<ul style="list-style-type: none"> • 1200 mm x 800 mm x 800 mm • Gross weight: approx. 80 kg

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Dimensions (in mm)



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