PA300PS Thermal Probe System

Facility Planning Guide

This guide contains information to help prepare your facility for the arrival of your PA300PS probe system. For the corresponding thermal system requirements, refer to the ATT Thermal System for PA300PS: A300 and C300 Facility Planning Guide.

Probe Station Requirements

Air and Vacuum	Vacuum	• Less than 200 mbar absolute • Flow rate insignificant • 8 mm hose
	Compressed air for Vibration Isolation Table	• Filtered, dry and oil-free • Minimum 6 bar to 10 bar maximum • Flow rate insignificant • 8 mm hose • Can be a sideline from CDA
	CDA (Clean Dry Air) – for ATT Thermal System A300 series	• Compressed air 6 bar minimum to 10 bar maximum • Air flow maximum 120 liters/min at SATP • Dew point temperature: – A300 +15°C system = ≤ 5°C – A300 -10°C system = ≤ –20°C • 8 mm hose
	CDA (Clean Dry Air)– for ATT Thermal System C300 series	• Compressed air 6 bar minimum to 10 bar maximum • Air flow maximum 180 liters/min at SATP • Dew point temperature: – C300 -40°C system = ≤ –50°C – C300 -60°C system = ≤ –70°C • 8 mm hose
		**WARNING** *Cascade Microtech does not endorse or recommend using nitrogen instead of CDAfor thermal system operation with any Cascade Microtech 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 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.*

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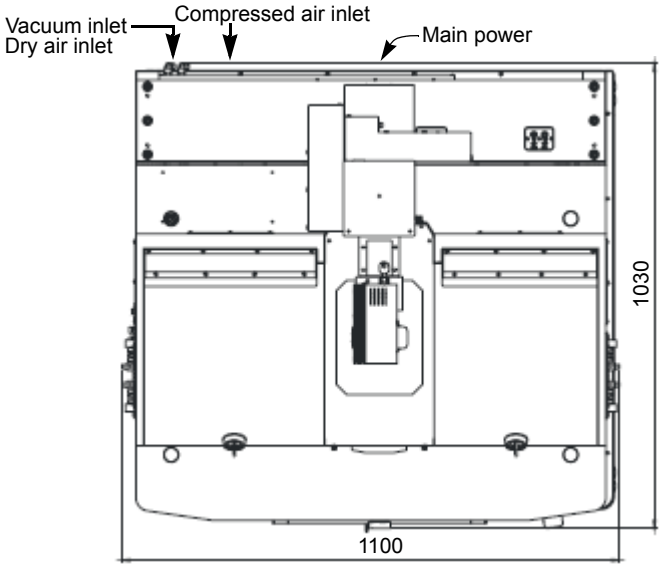
Dimensions	Station + Accessories	• 1100 mm (W) x 1030 mm (D) x 1460 mm (H) (with microscope in focus position, add 130 mm for z-lift). The table can be mounted in two different height options with 80 mm difference. The lower position is factory default adjustment. • Additional height added by optional accessories such as cameras and laser cutters can add up to a maximum of 900 mm.
	Additional Clearance	*Front* • 800 mm for operator/installation *Back* • 200 mm for cables • 800 mm during installation or service, or permanently when using optional holders for monitor, keyboard or test instrument *Left* • 200 mm for cables • 800 mm during installation or service, or permanently when using optional holders for monitor, keyboard or test instrument *Right* • 200 mm for cables • 800 mm during installation or service, or permanently when using optional holders for monitor, keyboard or test instrument *Top* • 900 mm 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.
	ProberBench Electronics rack	• 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	• 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	• Maximum 1000 kg, actual weight depends on configuration • A forklift is required for moving and unpacking the station
Temperature	Station	• Operating range = 19° C to 24° C
	ProberBench rack	• Surface area louvers must be kept clear for air circulation. Do not top load.
Humidity	Tool area	• 25% to 60%
Vibrations	The facility should be free of vibrations caused by other equipment.	
Electrical Data	Power	• 100–240 V AC nominal • 50/60 Hz • 1 phase • Maximum 1500 VA (including ProberBench control rack, computer, monitors and microscope)
	Protection class	• I
	Transient overvoltage	• Overvoltage category II (IEC 60364-4-443)
	Main connector - North America	The station has an integrated socket strip (UL-498, CSA, with NEMA 5-15R receptacles) with grounded mains plug NEMA 5-15P, 15A/125V.
	Main connector - Europe	The station has an integrated socket strip (with DIN 49440 sockets) with grounded mains plug CEE 7/7, DIN 49441, 16A/250V (German “Schuko”).
	Main connector - Asia	The station has an integrated socket strip (with DIN 49440 sockets) with grounded mains plug CEE 7/7, DIN 49441, 16A/250V (German “Schuko”). A grounded mains plug NEMA 5-15P, 15A/125V is provided in Japan and Taiwan. 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 station’s main connector is plugged in.
Pollution Level	1 IEC 664	
Clean Room Class	Class 6 corresponding to DIN EN ISO 14644-1	

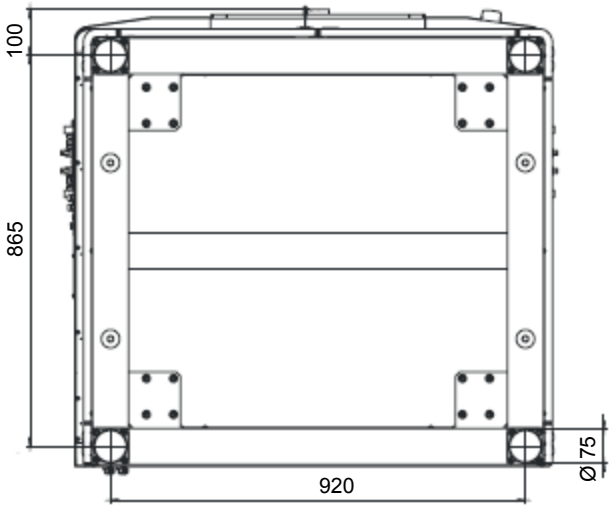
Other	For information on other optional components, refer to the specific data sheet for that item.	
Shipping Dimensions and Weight	Station box	• 1570 mm (W) x 1670 mm (D) x max. 2100 mm (H) • Weight: 1200 kg, forklift required for unpacking
	Accessories, 1 or 2 boxes	• 800 mm (W) x 1200 mm (D) x max. 800 mm (H) • Weight: approx. 120 kg each

Dimensions (in mm)

Top view



Bottom view (VIT)



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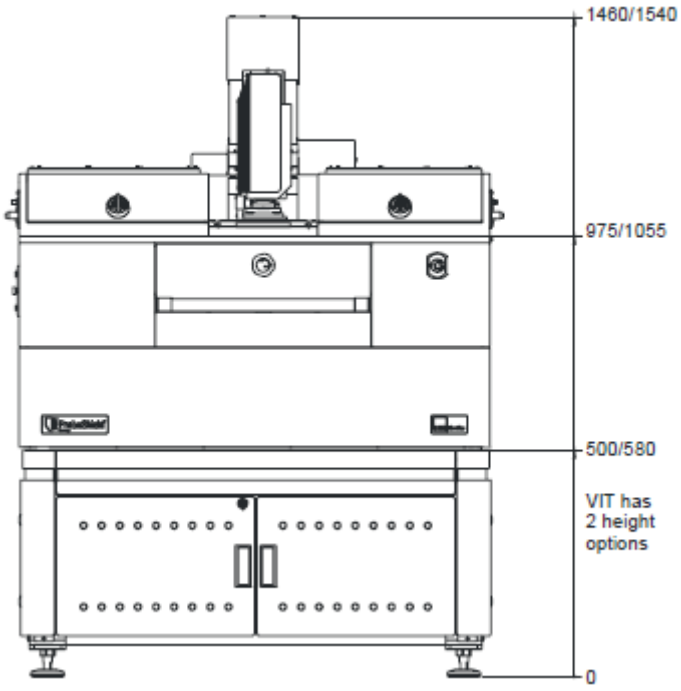
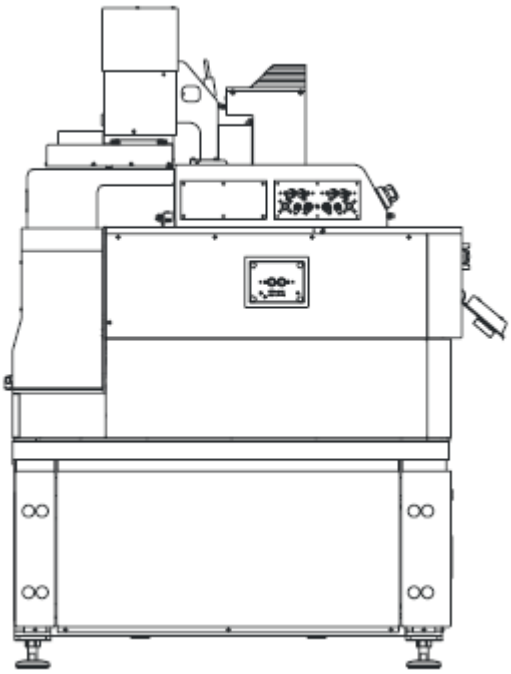
Front view



Side view



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