

PCB-400 Plasma Treatment System



A compact plasma treatment system for advanced PCB processing

The PCB-400 plasma system from Nordson MARCH is self-contained, and requires minimal floor space. The chassis houses the plasma chamber, control electronics, 40 kHz RF generator, and automatic matching network. Maintenance access is available from either front or rear access panels.

The plasma chamber is constructed of high-quality aluminum for superior durability. The plasma chamber is designed to process PCBs in 4 separate plasma slots in order to deliver high etch rates together with excellent treatment uniformity.

Designed for even the most challenging desmear, etch back, and surface activation applications

The PCB-400 plasma system can process boards of many shapes and sizes, and is suitable for both through hole and blind via applications. The system is able to process both rigid and flexible panels with ease, using convenient telescoping load rails that slide easily into and out of the chamber.

High etch rates with superior process uniformity

The system is designed to accommodate a wide range of process gases to meet every customer's specific requirements (typical process gases may include Ar, O₂, N₂, and CF₄).

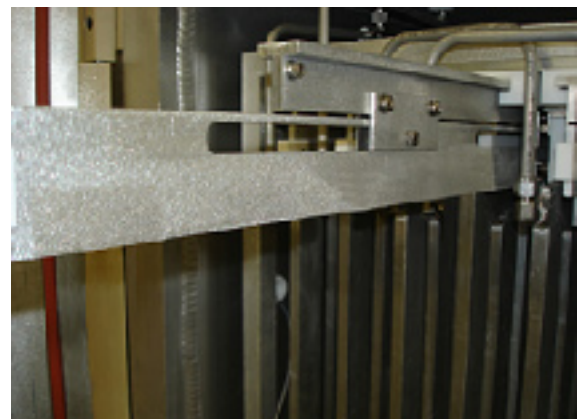
Three (3) electronically-controlled mass flow controllers (MFCs) are standard, which enable optimal gas control. An additional two (2) MFCs are available as an option.

PCB-400 plasma system design features

- Easy-to-use PC & keyboard-based user interface with P²CIM control software
- 40 kHz RF generator with automatic matching network delivers excellent process repeatability
- Temperature-controlled cooling loop integrated into electrodes delivers highly repeatable results
- Compact system footprint requires minimal floor space while maximizing panel throughput

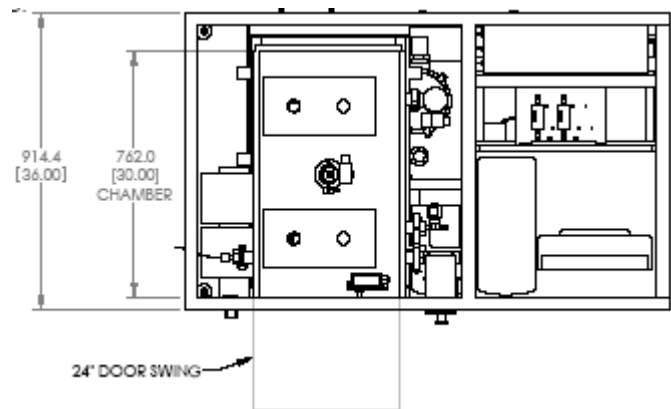
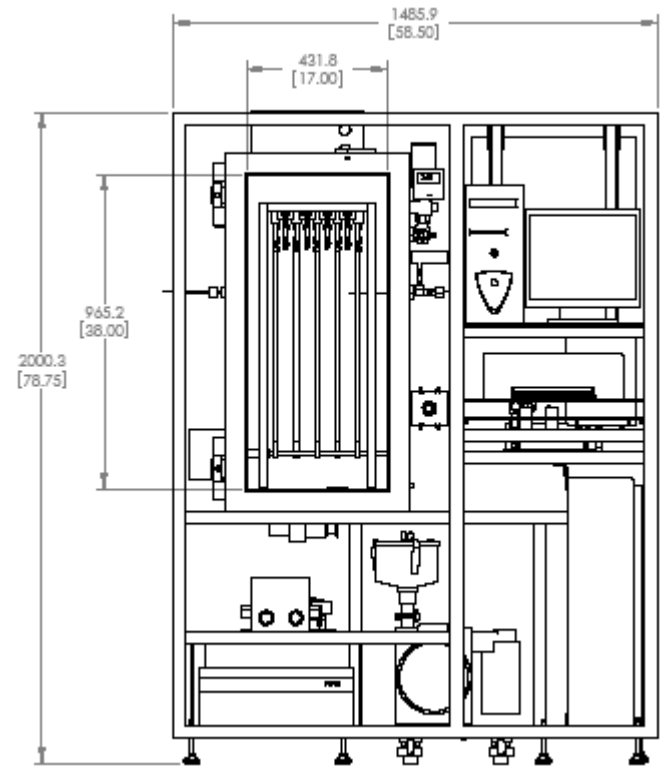


PCB-400 Plasma System for Advanced PCB Processing



Telescoping Panel Rack for PCB-400 Plasma System

System Specifications	
Enclosure	Painted aluminum Completely houses process chamber, electronics, pump, automatic matching network, and RF generator
Dimensions	1486 W x 2000 H x 914 D (mm) 58.50 W x 78.75 H x 36.00 D (in.)
Chamber	Construction: Aluminum Internal chamber dimensions: 432 W x 965 H x 762 D (mm) 17.00 W x 38.00 H x 30.00 D (in.) Tru-Temp water-cooled electrodes 4 plasma slots for 24" H x 18" D (or similar) panels Telescoping panel racks (4)
RF Power	2.5 kW, 40 kHz RF generator with automatic matching network
Gas Control	3 integrated mass flow controllers
Controller	P ² CIM control software, PC & keyboard user interface
Pump System	46 CFM wet pump w/ corrosive gas oil mist eliminator Prepared, charged and tested with fluid for oxygen use
Facility Requirements	Power: 200-230 VAC, 3-phase, 60A Purge Gas: 0.25 in. Swagelok compression fitting for 50-80 psig nitrogen or clean dry air (CDA) Process Gas: 0.25 in. Swagelok compression fitting for 10-15 psig CDA/Nitrogen: 0.25 in. Swagelok compression fitting for 85 psig
Options	Up to two (2) additional mass flow controllers (5 total) Oil filtration system for wet pump package 65 CFM dry pump package (in lieu of wet pump package) Nitrogen generator Chiller unit Fume scrubber
	CE marked



Backed by the Plasma Experts

Nordson MARCH has a global team of scientists and engineers experienced in plasma technology. We work closely with you to determine the right plasma system and process that best fits your specific requirements. Our Applications and Customer Service departments bring you over 25 years of experience in plasma technology.

Nordson MARCH reserves the right to make design changes to products and components to improve their function. These changes may occur between printings.



Leading Plasma Innovations

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