

AP-300 Plasma System

Features and Benefits

- Touch screen control and graphical user interface give real-time process information
- Flexible shelf architecture allows processing of a wide variety of piece parts, components or carriers
- 13.56 MHz RF generator with automatic matching network delivers excellent process repeatability
- Convenient facility hook-ups for periodic calibration requirements used in validation processes

State-of-the-art plasma treatment in a compact, bench-top configuration

The AP-300 system from Nordson MARCH is designed to deliver exceptionally uniform plasma cleaning and treatment with unmatched ease of operation, reliability and low cost.

The AP-300 system is completely self-contained, requiring minimal bench space. The system chassis houses the plasma chamber, control electronics, 13.56 MHz RF generator, and the automatic matching network (only the vacuum pump is external to the system). Maintenance access is provided through an interlocked door or removable panels.

The plasma chamber is constructed of high-quality aluminum with aluminum fixtures for superior durability. The plasma chamber supports up to 7 removable and adjustable powered or grounded shelves to accommodate a wide range of piece-parts, components, and part carriers including magazines, trays, and boats.



Plasma cleaning, surface activation and adhesion improvement

The AP-300 system is suitable for a wide variety of plasma cleaning, surface activation and adhesion improvement applications. These capabilities are used for semiconductor manufacturing, microelectronic packaging and assembly, and by manufacturers of medical and life science devices.

The AP-300 system can accommodate a wide range of process gases including argon, oxygen, hydrogen, helium, and fluorinated gases. The system comes standard with two electronic mass flow controllers for optimal gas control, with another two available optionally (four total max.).

Specifications: AP-300 Plasma System

Enclosure Dimensions	W x D x H – Footprint	569W x 869D x 704H mm (22W x 34D x 28H in.)
	Net Weight	221 kg (487 lbs)
	Equipment Clearance	Right, Left, Front – 569 mm (22 in.), Back – 254 mm (10 in.)
Chamber	Maximum Volume	33.1 liters (2023 in ³)
	Variable Electrode Configurations	Power-Ground, Ground-Power, Power-Power
	Number of Electrode Positions	7
Electrodes	Electrode Pitch	25.4 mm (1 in.)
	Powered Working Area	190W x 330D mm (7.5W x 13D in.)
	Ground/Perforated Working Area	229W x 330D mm (9W x 13D in.)
RF Power	Floating Working Area	190W x 330D mm (7.5W x 13D in.)
	Standard Wattage	300 W
	Frequency	13.56 MHz
Gas Control	Available Flow Volumes	10, 25, 50, 100, 250 or 500 sccm
	Maximum Number of MFCs	4
Control & Interface	Software Control	PLC Control with Touch Screen Interface
	Remote Interface	PlasmaLINK, ProcessLINK
Vacuum Pump	Standard Wet Pump	19.5 cfm with Oxygen Oil Mist Eliminator
	Optional Wet Pump	19.5 cfm with Corrosive Oil Mist Eliminator
	Optional Purged Dry Pump	22 cfm
	N ₂ Purged Pump Flow	2 slm
Facilities	Power Supply	110-240 VAC, 50-60 Hz, 1-phase, 10 A
	Process Gas Fitting Size & Type	6.35 mm (0.25 in.) OD Swagelok Tube
	Process Gas Purity	Lab or Electronic Grade
	Process Gas Pressure	0.69 bar (10 psig) min. to 1.03 bar (15 psig) max., regulated
	Purge Gas Fitting Size & Type	6.35 mm (0.25 in.) OD Swagelok Tube
	Purge Gas Purity	Lab or Electronic Grade N ₂ /CDA
	Purge Gas Pressure	2 bar (30 psig) min. to 6.9 bar (100 psig) max., regulated
	Pneumatic Valves Fitting Size & Type	6.35 mm (0.25 in.) OD Swagelok Tube
	Pneumatic Gas Purity	CDA, Oil Free, Dewpoint ≤7°C (45°F), Particulate Size <5 μm
	Pneumatic Gas Pressure	3.45 bar (50 psig) min. to 6.89 bar (100 psig) max., regulated
Compliance	Exhaust	25.4 mm (1 in.) OD Pipe Flange
	SEMI	S2/S8 (EH&S/Ergonomics)
Ancillary Equipment	International	CE Marked
	Gas Generators	Nitrogen, Hydrogen (Requires Additional Non-Optional Hardware)
	Facilities	Scrubber

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