MARCH AP-600

High-Performance Plasma Treatment for Batch Manufacturing

The AP-600 bench-top plasma systems deliver exceptionally uniform plasma cleaning and treatment for semiconductor, microelectronic packaging and assembly, and medical device manufacturing R&D environments.

The AP-600 systems provide the following:

- Durable, high-quality aluminum construction and fixtures.
- Up to 7 removable and adjustable powered or grounded shelves for a wide range of piece-parts, components, and part carriers, including magazines, trays, and boats.
- A compact, self-contained system chassis that 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).
- An intuitive touchscreen control panel for real-time process monitoring.
- Convenient facility hook-ups for periodic calibration requirements used in validation processes.
- Support for a wide range of process gases, including argon, oxygen, helium, and fluorinated gases.
- Maintenance access through an interlocked door or removable panels.
- Two standard electronic mass flow controllers for optimal gas control, with an option for one additional controller.

Key Applications

- Plasma cleaning
- Surface activation
- Adhesion improvement

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AP-600

Specifications

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	50.4 liters (3076 in^3)
	Variable Electrode Configurations	Power-Ground, Ground-Power, Power-Power
	Number of Electrode Positions	7
	Electrode Pitch	25.4 mm (1 in.)
Electrodes	Powered Working Area	330W x 330D mm (13W x 13D in.)
	Ground/Perforated Working Area	368W x 330D mm (14.5W x 13D in.)
	Floating Working Area	330W x 330D mm (13W x 13D in.)
RF Power	Standard Wattage	600 W
	Frequency	13.56 MHz
Gas Control	Available Flow Volumes	10, 25, 50, 100, 250 or 500 sccm
	Maximum Number of MFCs	3
Control System and Interface	Software Control	EPC control with touchscreen interface
	Remote Interface	PlasmaLINK, ProcessLINK
Vacuum Pump	Standard Wet Pump	19.5 cfm with Oxygen Oil Mist Eliminator
	Optional Purged Dry Pump	22 cfm
	N2 Purged Pump Flow	2 slm
Facilities	Power Supply	110 VAC, 20A, 50/60 Hz, Single Phase, 12 AWG, 3-Wire or 220 VAC, 10A, 50/60 Hz, Single Phase, 12 AWG, 3-Wire
	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 N2/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
	Exhaust	38 mm (1.5 in.) OD Pipe Flange

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Compliance	SEMI	S2/S8 (EH&S/Ergonomics)
	International	CE Marked
Auxiliary Equipment	Gas Generators	Nitrogen (Requires Additional Non-Optional Hardware)

Essential System Capabilities

Nordson Electronics Solutions builds the future of electronics reliability all across the globe. We're proud of the decades of service and solutions we've provided to enhance semiconductor reliability. No matter where you are, you've likely manufactured or purchased a product made reliable with our equipment. The AP-600 systems offer flexible plasma treatment for semiconductor, microelectronic packaging and assembly, and medical device manufacturing applications, designed to last and provide cutting-edge capabilities continuing a time-honored tradition.

Explore the AP-600 system capabilities. Continue to see how we support the future.

For more information, contact us at info-electronics@nordson.com.

Essential Capabilities	Flexible batch processing.	An indispensable, compact plasma system with flexible shelf architecture to support batch processing of various part carriers in direct or downstream plasma mode. Ideal for a range of markets and applications.

For more information, visit our website to find your local regional office or representative.

We have several global locations to serve you.

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