

AP-1500 Plasma System

Features and Benefits

- Simple system operation and data logging
- Proven for fast effective plasma cleaning and surface preparation
- Patented designs maximize treatment performance and throughput
- Easy loading and unloading of the chamber
- Compact system enclosure minimizes footprint
- Low operational costs and cost of ownership

Effective plasma treatment with an extra large chamber for batch processing

The Nordson MARCH AP-1500 system is designed to provide best-in class plasma treatment with its large chamber for batch-type plasma processing. Daily operating expenses, such as process gases and power consumption, are minimized through unique design concepts.

The AP-1500 system is a cost- and space-efficient plasma system for treating all types of parts and components. It is completely self-contained, and requires minimal floor space. The pump, chamber, control electronics, and 40 KHz RF generator are all contained within its enclosure. Front and rear maintenance doors allow for convenient access to all interior components, and the pump is positioned on rollers for easy removal.



Plasma cleaning and surface preparation

The AP-1500 system is designed to deliver superior performance for plasma cleaning and surface preparation applications. The horizontal electrodes (shelves) allow for large batch loads.

The AP-1500 system is designed to maximize plasma efficiency through the use of advanced power matching and control system algorithms. The intuitive touch screen control panel monitors and controls the plasma process in real-time. The control system can be password-protected at multiple levels to prevent unauthorized recipe modification. This ensures consistent performance of the system from the first batch to the last.

The AP-1500 system also offers slide-out horizontal shelves for ease of loading and unloading. Its compact and service-friendly design features a small footprint, and is designed for maintenance access from only the front and rear of the system. Therefore, multiple systems can be placed side-by-side to maximize floor space utilization.

Specifications: AP-1500 Plasma System

Enclosure Dimensions	W x D x H – Footprint	1118W x 1196D x 2407H mm (44W x 47D x 95H in.)
	Net Weight	921 kg (2030 lbs)
	Equipment Clearances	Right, Left – 153 mm (6 in.), Front – 680 mm (27 in.) Back – 483 mm (19 in.) min.
Chamber	Maximum Volume	442.4 liters (27,000 in ³)
	Variable Electrode Configurations	Power-Ground, Ground-Power, Power-Power
	Number of Electrode Positions	14
	Electrode Pitch	50.8 mm (2 in.)
Electrodes	Powered Working Area	643W x 641D mm (25.3W x 25.2D in.)
	Ground/Perforated Working Area	698W x 641D mm (27.5W x 25.2D in.)
	Floating Working Area	643W x 641D mm (25.3W x 25.2D in.)
RF Power	Standard Wattage	2000 W
	Frequency	40 KHz
Gas Control	Available Flow Volumes	10, 25, 50, 100, 250, 500, 1000, 2000 or 5000 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	53 cfm with Oxygen Oil Mist Eliminator
	Optional Wet Pump	53 cfm with Corrosive Oil Mist Eliminator
	Optional Purged Dry Pump	63 cfm
	N2 Purged Pump Flow	14 slm
	Cooling Water Purged Pump Flow	5 slm
Facilities	Power Supply	220 V, 25 A, 50/60 Hz, 3-Phase, 8 AWG, 4-Wire 380 V, 25 A, 50/60 Hz, 3-Phase, 8 AWG, 5-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
Compliance	SEMI	S2/S8 (EH&S/Ergonomics)
	International	CE Marked
Ancillary Equipment	Gas Generators	Nitrogen, Hydrogen (Requires Additional Non-Optional Hardware)
	Facilities	Chiller, Scrubber

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