

AP-600 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-600 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-600 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-600 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-600 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-600 Plasma System

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|--------------------------------|---|--|
| 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 | 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 |
| | 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 |
| Compliance | SEMI | S2/S8 (EH&S/Ergonomics) |
| | International | CE Marked |
| Ancillary Equipment | Gas Generators | Nitrogen, Hydrogen (Requires Additional Non-Optional Hardware) |
| | Facilities | Chiller, Scrubber |

For more information, speak with your local representative or contact your regional office.

North America
Headquarters
Concord, CA
+1.925.827.1240

China
Shanghai
+86.21.3866.9166

EMEA
Maastricht,
Netherlands
+31.65.155.4996

S.E. Asia
Singapore
+65.6796.9500

Korea
Seoul
+82.31.736.8321

Taiwan
New Taipei City
+886.2.2902.1860

India
Chennai
+91.44.4353.9024

www.nordsonmarch.com

info@nordsonmarch.com

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