Features and Benefits

- Pulsed 13.56 MHz RF generator to enhance the properties of plasma polymerized films
- Gas vapor, or heated liquid monomer vapor delivery system to deposit coatings
- Proven for fast, effective plasma deposition
- Patented designs maximize treatment performance and throughput
- Compact system enclosure minimizes footprint
- Simple system operation and data logging
- Easy loading and unloading of the chamber
- Low operational costs and cost of ownership
- Optional intraluminal deposition capability

Effective plasma polymerization with an extra-large chamber for batch processing

The Nordson MARCH PD-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 system delivers uniform plasma deposition with unmatched reliability, safety and ease of operation.

The PD-1500 system is a cost- and space-efficient plasma deposition system for processing all types of parts and components. It is completely self-contained, and requires minimal floor space. The pump, chamber, control electronics, and 13.56 MHz RF generator are all contained within its enclosure. The vapor delivery system is expertly integrated into the base system for ease of access, maintenance and control. Front and rear maintenance doors allow for convenient access to all interior components, and the pump is positioned on rollers for easy removal.

Plasma Polymerization Deposition

The PD-1500 system is designed to deliver superior performance for plasma polymerization deposition applications. The horizontal electrodes (shelves) allow for large batch loads.

The PD-1500 system is designed to maximize plasma deposition 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 PD-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.
<table>
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<th>Specifications: PD-1500 Plasma Deposition System</th>
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### Enclosure Dimensions
- **W x D x H – Footprint**: 1581W x 1303D x 2407H mm (62W x 51D x 95H in.)
- **Net Weight**: 921 kg (2030 lb)

### Chamber
- **Maximum Volume**: 442.4 liters (27,000 in³)
- **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**: 1000 W
- **Optional Wattage**: 2000 W
- **Frequency**: 13.56 MHz

### 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 Purged Dry Pump**: 63 cfm

### 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**: Industrial Grade or better
- **Process Gas Pressure**: 0.69 bar (10 psig) min. to 1.7 bar (25 psig) max., regulated
- **Purge Gas Fitting Size & Type**: 6.35 mm (0.25 in.) OD Swagelok Tube
- **Purge Gas Purity**: 97% N2
- **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, ISO 8573-1:2010[4:3:2]
- **Pneumatic Gas Pressure**: 3.45 bar (50 psig) min. to 6.89 bar (100 psig) max., regulated
- **Exhaust**: NW 40 connection Negative Draw, -1.5in/-38.1mm WC Draw, 63SFCM/1780SLM Maximum flow rate
- **System Coolant**: 5.52 bar (80 psig) max static
- **2.76 bar (40 psig) min. differential between machine inlet and outlet: 3.8 Lpm (1.0 gpm) min.
- **Inlet temp: 15-35 ºC (60-95 ºF), 5 ºC min above dew point.
- **Distilled Water; Inlet Fitting: 12.7mm (0.5 in.) OD hose barb,
- **Outlet Fitting: 12.7mm (0.5 in.) OD hose barb

### 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.

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