

PM-100 Plasma Treatment System

March
A NORDSON COMPANY

Leading Plasma Innovations

The PM-100 plasma system is designed to provide advanced plasma treatment capabilities at low capital cost. The system is suitable for R&D centers, universities, and laboratory facilities, who will find the PM-100 plasma system the perfect fit for their plasma needs.

APPLICATIONS – Electronic & Medical Device Processing

Gas plasma treatment provides a fast, efficient method for surface modification and cleaning prior to: wire bonding, die attach, encapsulation, conformal coating, printing and other processes. Plasma processing increases wettability, improves lubricity, enhances bonding and adhesion strength, promotes underfill adhesion, and enables deposition of bio-compatible materials.

CHAMBER

The plasma chamber is constructed of high-quality quartz that is resistant to chemicals and easy to clean. It's designed to provide the most efficient plasma processing with the short cycle times.

PROCESS CONTROL

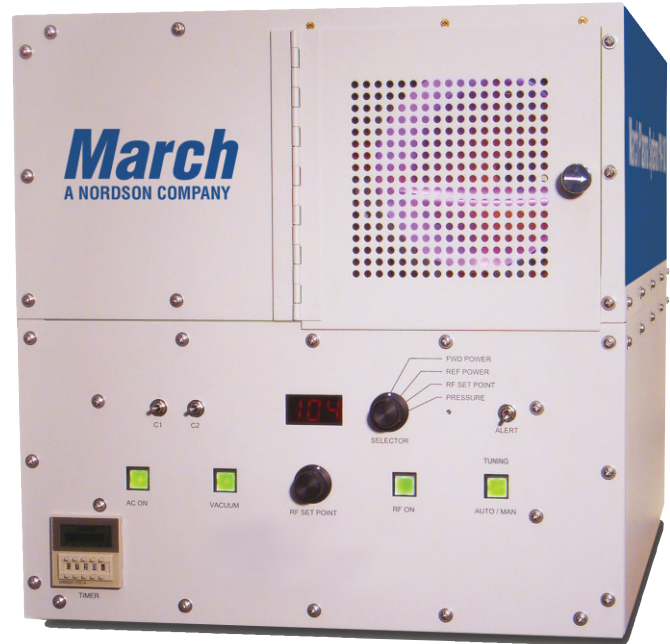
The system's control module monitors chamber pressure and power level. Up to two (2) process gasses can be connected to a gas control manifold (GCM) that provides process recipe flexibility. The controller provides automatic operation, is user-friendly, and ensures precise, reproducible process conditions.



2 Gas GCM

POWER and MATCHING NETWORK

Different plasma applications require different RF power settings. The PM-100 plasma system is equipped with an automatic impedance matching network for ease of operation and consistent results. RF power is available up to 300 Watts.



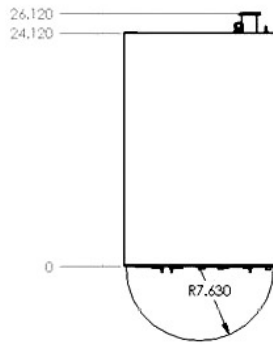
SAFETY

Standard safety features include an emergency shut-off button (EMO button) that terminates gas flow and RF power input. Safety interlocks prevent activation of RF power and gas flow when the chamber door is open. The system is CE marked and compliant.

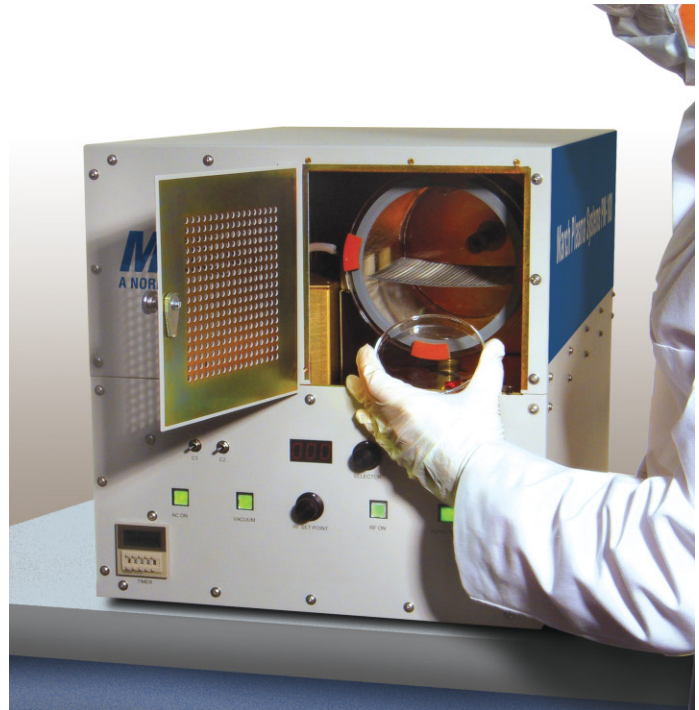
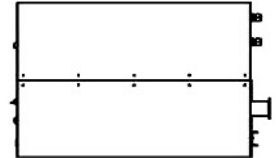
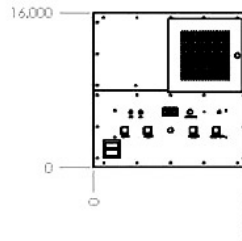
THE PM-100 PLASMA SYSTEM IS IDEAL FOR:

- BGAs
- Hybrid devices
- Optical components
- Flex/Rigid circuit panels
- Solar Cells
- Medical devices
- Catheters
- LED & FPD devices
- Lead frames
- Multi-chip modules
- Plastics & Ceramics
- PV devices
- Automotive parts
- Ocular implants

PM-100 System Specifications	
Enclosure	Zinc-coated steel, polyurethane painted Houses process chamber, RF generator, electronics & controls Pump package & Gas Control Manifold (GCM) are external
Dimensions	406 W x 613 D x 406 H (mm) 16 W x 24.12 D x 16 H (in.)
Weight	37.7 kg (83 lbs.)
Chamber	High-purity quartz 147 dia. x 177 D (mm) 5.8 dia. x 7.0 D (in.)
RF Power	13.56 MHz 300 W, solid state Automatic tuning network
Control	Push-button interface, dial control of RF power Selectable display for Forward Power, Reflected Power, RF Setpoint & Pressure
Gas Control	2 gasses via Gas Control Manifold (GCM) Toggle On/Off for each gas
Pump System	3.8 CFM wet pump with oil mist eliminator Prepared, charged & tested with hydrocarbon fluid for oxygen use
Facility Requirements	Power: 120-220 VAC, single phase, 10 A, 50-60 Hz, 18 AWG, 3 wire Process Gas (ea.): 0.25 in. female pipe thread (FTP) fitting, 20 psig Gas Connections: Stainless Steel or Teflon® tubing (customer supplied) Exhaust: KF25 flange, connects to pump package
Options	Spare parts kit



Units: inches



Our Applications and Customer Service departments bring to you more than 20 years of experience in RF plasma technology.

March Plasma Systems reserves the right to make design changes to products and components to improve their function. These changes may occur between printings.



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