

# PROVIA™ Plasma System

**March**  
A NORDSON COMPANY

## Superior Plasma Uniformity For High Throughput PCB Treatment

March Plasma Systems' PROVIA™ System is specifically configured to meet the demands of today's PCB Manufacturing Operations. Plasma treatment uniformity is a key operational feature in desmear and etchback applications for HDI, Flexible and Rigid circuit board manufacturing technologies. The PROVIA system delivers!

The PROVIA platform is completely self-contained, requiring minimal floor space. The vacuum system, plasma chamber, control electronics and 40 kHz power supply are housed in a single enclosure. Full front and rear access allows for convenient service to all interior components. The pump is positioned on rollers for easy removal. No side access is required allowing for even greater floor space savings.

- Superior Uniformity
- Easy and Fast Loading of Panels
- Flex Panel Ready
- Proven, Robust Technology

## Application Specific Technology

The PROVIA system incorporates the best of March's market leading technology combined with novel application specific technology development based on our greater than 25 years of experience. Through extensive Research and Development, the PROVIA system presents unique vacuum and gas flow technology, new electrode designs, and superior temperature management. The careful balance of these critical design elements and process recipe parameters delivers a system that creates the most uniform PCB treatment for key applications like desmear and landing pad cleaning.

The PROVIA system's superior performance capabilities are complemented by very attractive cost-of-ownership aspects. The system features a very compact and service-friendly design. The vertical loading concept and the use of easy loading carts minimizes any idle time generating high levels of productivity. The fast vacuum pump down and greatly enhanced process cycle times further add to the throughput and productivity of the system.



*March PROVIA Plasma System*

Equipped with a touch-screen PC Operator Interface, the PROVIA system provides a wide breadth of control capability and data collection. Unlimited recipes can be stored for easy switching of plasma processes from batch to batch. Password protection ensures that no unauthorized entries can be made.

## Features and Benefits

- Compact system consumes minimal floor space
- Patented, application specific features
- Designed and built for HDI, Flex and Rigid Panels
- Incorporates over 25 years of PCB plasma experience
- Backed by Experts

**Specifications**

	ed aluminum completely houses the process chamber, electronics, vacuum pump and RF generator
Footprint	1650 W x 1993 H x 1412 D (mm) 65 W x 78 H x 55.5 D (in.)
Chamber	Construction: Aluminum Internal chamber dimensions: 990 W x 825 H x 860 D (mm) 39 W x 32 H x 34 D (in.) Max. panel size (per cell) Std. electrode: 21 H x 26 D (in.) XL option: 24.5 H x 30.5 D (in.) Number of available cells: 13
RF Power	5000 W, solid state 40kHz
Gas Control	Up to 5 mass flow controllers
Controller	PLC with PC touch-screen interface
Pump System	65 CFM dry pump with 612 CFM blower
Facility Requirements	Power: 200-230 VAC, 3 phase, 70A Process Gas: 0.25" Swagelok compression fittings 10-15 psig CDA: 90-100 psig Nitrogen (CDA) Purge: 15-20 psig Chilled Water: 80-100 psig at 20° C
Options	Additional mass flow controllers Scrubber (120 VAC (wall outlet), 1-1/2" hose input / 2" output) 36" W x 32" D x 60" H Flex panel load rack Easy loading carts Chiller (200-230 VAC, 3 phase, 50/60 Hz, 35-50 A max.) 60" W x 36" D x 36" H N2 Generator (85 PSIG, 5.3 SCFM CDA Req.) 25" W x 29" D x 51" H, 175 lb, 1/4" fittings (female) I/O



- Easy load / unload
- Compact design
- Fully self-contained
- High performance plasma treatment
- Low cost of ownership

**Backed by the Experts**

March Plasma Systems has a global team of scientists and engineers experienced in the applications of plasma science. We will work closely with you to determine the right system and plasma processes that best fit your specific application requirements. Our applications and customer service departments bring to you 25 years of experience in RF plasmas 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.



**Leading Plasma Innovations**

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