

ProVIA™ Plasma System

Uniform PCB Treatment

Features and Benefits

- **High throughput of HDI, flexible and rigid panels for maximum production flexibility**
- **Accommodates multiple panel sizes within a small footprint to consume minimal floor space**
- **Fast units per hour (UPH) processing to meet today's demanding manufacturing schedules**
- **Low CF4 gas consumption for desmear applications contributes to the lowest cost of ownership in its class**
- **Patented system technologies produce superior process uniformity at high throughputs**

Superior Plasma Uniformity for High Throughput PCB Treatment

Nordson MARCH's ProVIA System is specifically configured to meet the demands of today's high throughput 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 system 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.

Application Specific Technology

The ProVIA system incorporates the best of Nordson 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 low-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 which generates 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.

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.

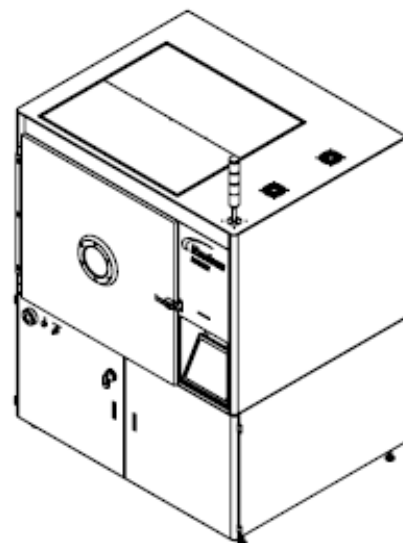
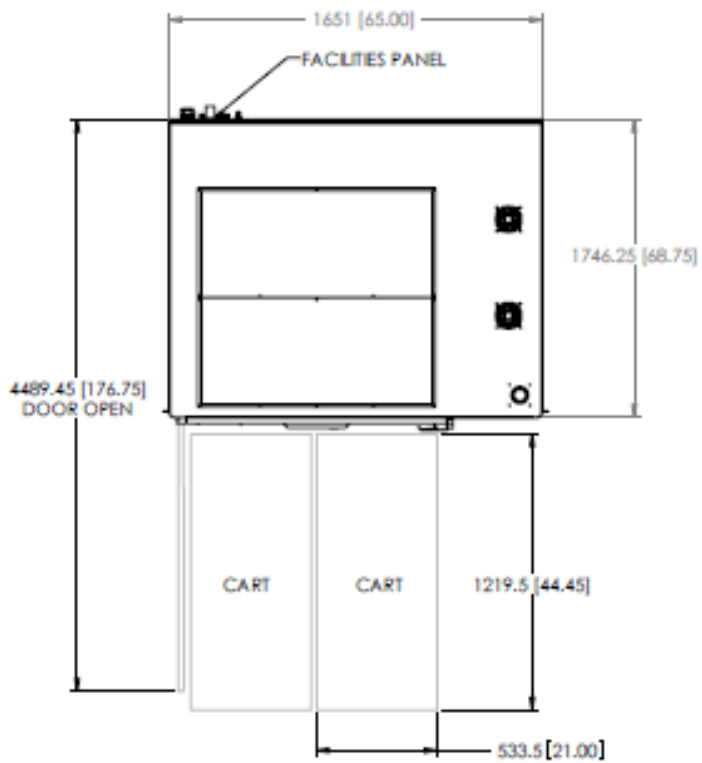
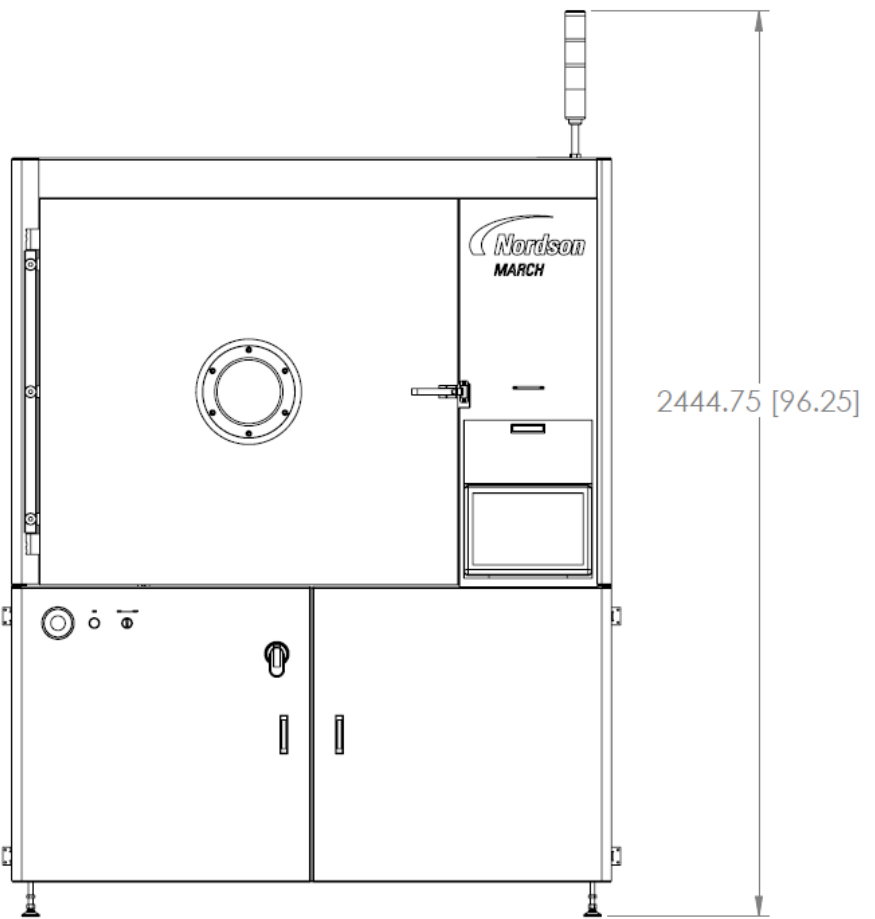


Nordson
MARCH

Specifications: ProVIA Plasma System

Enclosure Dimensions	W x D x H – Footprint	1651W x 1746.25D x 2444.75H mm (65W x 68.75D x 96.25H in.)
	Net Weight	1776kg (3907lbs)
	Effective Footprint – Clearances	1651W x 4489.45D mm with Door Open (65W x 176.75D in.)
Chamber	Dimensions	1003.3W x 965.2D x 914.4H mm (39.5W x 38D x 36H in.)
	Number of Available Cells	13
Electrodes	Powered Electrode Dimensions - Working Area	762D x 609.6H mm; (30D x 24H in.)
	Temperature Controlled Electrode	Standard
RF Power	Standard Wattage	5 kW
	Optional Upgrade Wattage	10 kW
	Frequency	40 kHz
Gas Control	Standard Sizes, Others Available on Request	Standard – 5slm, 2slm, 0.5slm Option – 2slm, 2slm
	Maximum Number of MFCs	5
Control System	Interface	PLC with PC-Based Touch Screen Interface
Vacuum Pump	Standard Dry Pump	63 cfm
	Cooling Water Flow	5 slm
	N2 Pump Purge Flow	17 slm
	Standard Booster Pump	612 cfm
Facilities	Power Supply	208VAC, 50 A, 3 Phase + Ground; 50/60Hz
	Process Gas Fitting Size & Type	6.35mm (.25 in.) Swagelok
	Process Gas Purity	CF4 = 99.97%; O2 = 99.996%; N2 = 99.99%; Ar = 99.999%; H2 = 99.999%
	Process Gas Pressure	15-20 psig
	Purge Gas Fitting Size & Type	6.35mm (1/4 in.) Swagelok
	Purge Gas Purity	N2 = 99.99%
	Purge Gas Pressure	15-20 psig
	Pneumatic Valves Fitting Size & Type	6.35mm (1/4 in.) Swagelok
	Pneumatic Gas Purity	Clean and Dry (CDA)
	Pneumatic Gas Pressure	80-100 psig
Compliance	CE Marked	Yes
	Ancillary Equipment	Nitrogen Generator (option) 80-100 psig 5.3 scfm CDA 6.35mm (1/4 in.) fitting Chiller (option) 70,000 BTU, 208 VAC, 3 Phase 35-50 Amp, 50/60 Hz Scrubber (option) 120 VAC, 38.1mm (1.5 in.) hose input, 50.8mm (2 in.) output
Shipping	Crate Dimensions	Machine = 2082.8 x 1981.2 x 2336.8mm (82 x 78 x 92 in.) Pump = 1244.6 x 1244.6 x 1371.6mm (49 x 49 x 54 in.) Carts/Racks = 1422.4 x 1295.4 x 2082.8mm (56 x 51 x 82 in.)
	Gross Weight	2693.5kg (5925.7lbs)
	Number of Packages	3
	Packing Conforms to ISPM 15	Yes

Nordson MARCH ProVIA Plasma System Footprint Drawings



ProVIA Panel Size and Throughput Chart

Panel Size (mm)	Panel Size (inches)	# Units per Cycle	Units Per Hour (UPH)
500 x 350	19.69 x 13.78	13	56
533 x 609	21 x 24	13	56
510 x 535	20 x 21	13	56
305 x 455	12 x 18	26	112
455 x 610	18 x 24	13	56

- Values are approximate and based upon Nordson MARCH's general experiences
- 7.5 microns of desmear Flex Substrates
- Door Close to Door Open



Nordson MARCH ProVIA Plasma System with optional cart/rack

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

nordsonmarch.com

North America

Headquarters
Concord, CA, USA
+1.925.827.1240
info@nordsonmarch.com

China

Shanghai
+8621.3866.9166

Europe & Africa

Maastricht, Netherlands
+31.65.155.4996

S.E. Asia

Singapore
+65.6853.4589

Nordson MARCH

+1.800.326.1151 Phone

info@nordsonmarch.com Email

2470-A Bates Avenue

Concord, CA, 94520-1122 U.S.A.

www.nordsonmarch.com

ProVIA Reformatted Rev. A



Nordson
MARCH