

# FlexVIA™ Plasma System

Flexible PCB Treatment

## Features and Benefits

- **Efficient design, economical gas consumption, small footprint, and attractive system pricing all contribute to a low cost of ownership**
- **Easy loading and versatile horizontal racks allow for maximum throughput**
- **Single stage plasma process, and capacity for up to (18) 20" x 24" panels per cycle enable a rate of 80-120 units per hour (UPH)**
- **Patented, industry-proven plasma technologies provide superior surface treatment uniformity, prior to lamination, to improve adhesion and reliability of flexible materials**

## Efficient and Cost Effective

The FlexVIA™ Plasma System from Nordson MARCH is a self-contained vacuum plasma system specifically designed for maximum efficiency and cost effective treatment of flexible materials. It features a space-saving, compact chassis with two easy-access, front-loading doors.

The FlexVIA System's advanced horizontal electrode design, with integrated rack, provides optimum material alignment for industry leading plasma treatment uniformity. The dual-rack chamber accommodates up to (18) 20"x 24" panels in a single cycle.

Uniform plasma treatment of both sides of the flex material surface area is accomplished via a single-step process enabling a rate of 80–120 units per hour (UPH).

The FlexVIA System does not require heating or cooling, therefore; the system does not require additional temperature control or a blower, which further maximizes the system's cost effectiveness.



It also does not require the use of expensive fluorine gases. Instead, environmentally friendly and cost effective gas plasma solutions such as Argon (Ar) and Oxygen (O<sub>2</sub>) are utilized.

## Easy to Use

The FlexVIA Plasma System makes it easy to load various sizes of flexible materials into the chamber via two, optimum height, front-loading doors. Convenient carts smoothly slide the racks in and out of the system. The loading racks include versatile slide out trays to accommodate many different flexible material sizes. The system is controlled by an intuitive touch screen GUI with a one-button start feature.

## Innovation and Applications

The FlexVIA System further builds on the success of the Nordson MARCH VIA™ line of products (ProVIA™, MaxVIA™, RollVIA™) which incorporate innovative application-specific technology with over 25 years of experience in plasma treatment for the PCB industry.

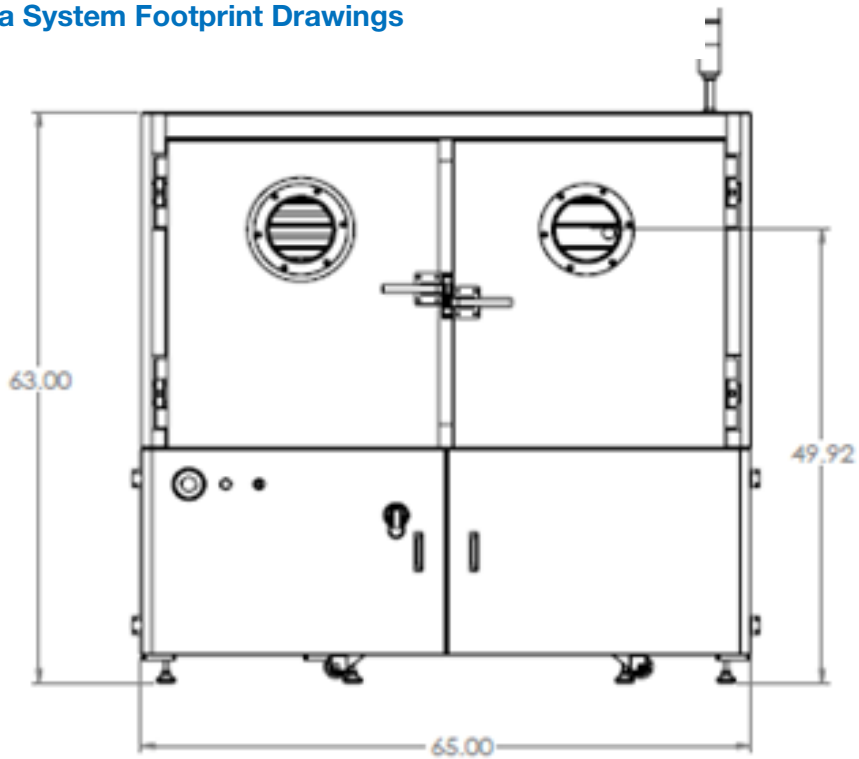
The primary plasma application is surface treatment of inner layer flex, prior to lamination, for improved adhesion and reliability.



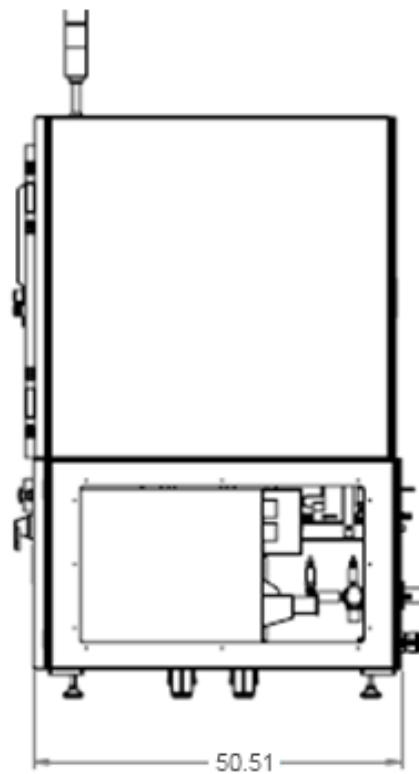
## Specifications: FlexVIA Plasma System

<b>Enclosure Dimensions</b>	<b>W x D x H – Footprint</b>	1651W x 1283D x 2015H mm (with light tower) (65W x 50.51D x 79.33H in.)
	<b>Net Weight</b>	360.8 kg (3000 lbs)
	<b>Effective Footprint – Clearances</b>	1651W x 2400D mm with door open (65W x 94.5D in.)
<b>Chamber</b>	<b>Dimensions</b>	1397W x 762D x 723.9H mm (55W x 30D x 28.5H in.)
	<b>Number of Available Cells</b>	18
<b>Electrodes</b>	<b>Powered Electrode Dimensions - Working Area</b>	511.2W x 628.7D mm (20.125W x 24.75D in.)
	<b>Temperature Controlled Electrode</b>	N/A
<b>RF Power</b>	<b>Standard Wattage</b>	5000W
	<b>Frequency</b>	40 kHz
<b>Gas Control</b>	<b>Standard Sizes</b>	Standard – (3) 0.5slm
	<b>Maximum Number of MFCs</b>	3
<b>Control System</b>	<b>Interface</b>	PLC with PC Based Touch Screen Interface
<b>Vacuum Pump</b>	<b>Standard Dry Pump</b>	63 cfm
	<b>Water Flow</b>	5 slm
	<b>N2 Flow</b>	6-11psi
	<b>Standard Booster Pump</b>	N/A
<b>Facilities</b>	<b>Power Supply</b>	208 VAC, 50 A, 3 Phase + Ground; 50/60 Hz
	<b>Process Gas Fitting Size &amp; Type</b>	6.35mm (1/4 in.) Swagelok
	<b>Process Gas Purity</b>	O2 = 99.996%; N2 = 99.99%; Ar = 99.999%
	<b>Process Gas Pressure</b>	15-20 psig
	<b>Purge Gas Fitting Size &amp; Type</b>	6.35mm (1/4 in.) Swagelok
	<b>Purge Gas Purity</b>	N2 = 99.99%
	<b>Purge Gas Pressure</b>	15-20 psig
	<b>Pneumatic Valves Fitting Size &amp; Type</b>	6.35mm (1/4 in.) Swagelok
	<b>Pneumatic Gas Purity</b>	Clean and Dry (CDA)
	<b>Pneumatic Gas Pressure</b>	80-100 psig
	<b>Exhaust</b>	NW 40 @ Utility Panel
<b>Compliance</b>	<b>CE Marked</b>	Yes
<b>Ancillary Equipment</b>	<b>Nitrogen Generator (option)</b>	80-100 psig 5.3 scfm CDA 6.35mm (1/4 in.) fitting
	<b>Chiller (option)</b>	30,000 BTU, 208 VAC, 3 Phase 35-50 Amp, 50/60 Hz
	<b>Scrubber (option)</b>	120 VAC, 38.1mm (1.5 in.) hose input, 50.8mm (2 in.) output
<b>Shipping</b>	<b>Crate Dimensions</b>	Machine = 1930.4 x 1651 x 1879.6 mm (76 x 65 x 74 in.) Pump = 1143.6 x 1041.4 x 711.2 mm (45 x 21 x 48 in.) Carts/Racks = 1600.2 x 965.2 x 1676.4 mm (63 x 38 x 66 in.)
	<b>Gross Weight</b>	1680 kg (3700 lbs)
	<b>Number of Packages</b>	3
	<b>Packing Conforms to ISPM 15</b>	Yes

## FlexVIA Plasma System Footprint Drawings



FlexVIA Plasma System Front View



FlexVIA Plasma System Side View – Doors Closed

## FlexVIA Plasma System



Nordson MARCH FlexVIA Plasma System with horizontal loading carts



Nordson MARCH FlexVIA Plasma System with operator

For more information,  
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FlexVIA Rev. A

The logo for Nordson MARCH. It features the word "Nordson" in a bold, blue, sans-serif font, with a blue swoosh above it. Below "Nordson" is the word "MARCH" in a smaller, black, sans-serif font.