

# FlexTRAK™

Plasma Treatment System

## Features and Benefits

- Easily integrates with a variety of process equipment, including wire bond, die attach, dispense, mold and marking equipment
- Ultimate application flexibility for direct, downstream and ion-free (patent-pending) plasma which allows treatment without exposure to the direct plasma glow discharge
- A compact, three-axis symmetrical chamber and proprietary process control for unmatched process uniformity
- Industry-leading throughput capacity with short cycle times
- A unique, slim structure that requires minimal floor space, all service components are easily accessible from the front

## Superior Plasma Process Quality and Automation in One System

The Nordson MARCH FlexTRAK series of gas plasma equipment provides unparalleled treatment uniformity and process consistency. A three-axis symmetrical chamber ensures all positions of the product are treated uniformly, while tight controls over all process parameters ensure repeatable results from product to product.

The FlexTRAK is a highly configurable, high-throughput plasma system. Its universal architecture accommodates a multitude of material handling configurations to support a wide assortment of variable-size form factors. Its small chamber volume and proprietary process control enable unmatched short cycle times, while its slim structure minimizes floor space requirements.



## High-Throughput Processing Capability

The FlexTRAK system handles a wide variety of product form factors, including boats, carriers, Jedec/Auer® boats, strips, laminates and wafers. Depending on throughput and product form requirements, the system can be configured for magazine-to-magazine processing of single and multiple strips or lead frames, reel-to-reel, wafer processing, and standalone for island-based production environments.

## SMART Tune™ Management System

The FlexTRAK's SMART Tune management system provides closed-loop plasma control that optimizes the RF system and minimizes tuning time. The system automatically recycles to a plasma-ready state, compensating for changes in vacuum pressure, temperature and varied lot sizes. Maximum power to the chamber is achieved in seconds with a proprietary algorithm that constantly measures forward and reflective power inside the chamber.

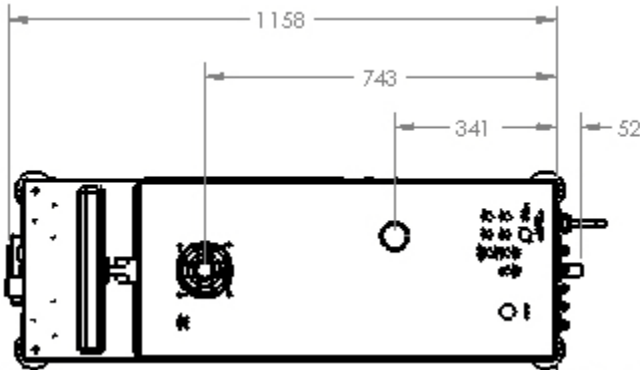
The logo for Nordson MARCH, featuring a blue swoosh above the word "Nordson" in a bold, sans-serif font, with "MARCH" in a smaller, all-caps font below it.

## Specifications: FlexTRAK Plasma System

|                             |  |  |
|-----------------------------|--|--|
| <b>Enclosure Dimensions</b> | <b>W x D x H – Footprint</b>                       | 382 W x 1210 D x 1595 H; 2037H mm with Light Tower (15 W x 47.6 D x 62.8 H; 80.2 H in. with Light Tower) |
|                             | <b>Net Weight</b>                                  | 275 kg (606 lbs)   |
|                             | <b>Effective Footprint – Clearances</b>            | Right, Left – 153 mm (6 in.), Front, Back – 914 mm (36 in.)  |
| <b>Chamber</b>              | <b>Dimensions</b>                                  | 330 W x 330 D x 50 H mm (13 W x 13 D x 2 H in.)  |
|                             | <b>Volume</b>                                      | 5.5 liters (338 in <sup>3</sup> )  |
| <b>Electrodes</b>           | <b>Powered Electrode Dimensions - Working Area</b> | 305 W x 305 D (mm); 12 W x 12 D (in.)  |
| <b>RF Power</b>             | <b>Standard Wattage</b>                            | 600 W  |
|                             | <b>Frequency</b>                                   | 13.56 MHz  |
| <b>Gas Control</b>          | <b>Maximum Number of MFCs</b>                      | 4  |
| <b>Control System</b>       | <b>Control System</b>                              | PLC Control with PC Based Touch Screen Interface   |
| <b>Remote Interface</b>     | <b>Remote Interface</b>                            | SMEMA; SECS/GEM; Remote HMI  |
| <b>Vacuum Pump</b>          | <b>Dry Vacuum Pump</b>                             | 16 CFM, Variable Frequency Drive   |
| <b>Facilities</b>           | <b>Power Supply</b>                                | 220 VAC, 20 A, 50/60Hz, Single Phase, 12 AWG, 3-Wire   |
|                             | <b>Process Gas Fitting Size &amp; Type</b>         | .25-in. OD Swagelok Compression  |
|                             | <b>Process Gas Purity</b>                          | Industrial grade or better   |
|                             | <b>Process Gas Pressure</b>                        | Regulated from .69 bar (10 psig) min. to 1.4 bar (20 psig) max.  |
|                             | <b>Purge Gas Fitting Size &amp; Type</b>           | .25-in. OD Swagelok Compression  |
|                             | <b>Purge Gas Purity</b>                            | Industrial grade Nitrogen or CDA   |
|                             | <b>Purge Gas Pressure</b>                          | Regulated from 5.5 bar (80 psig) min. to 6.9 bar (100 psig) max.   |
|                             | <b>Pneumatic Valves Fitting Size &amp; Type</b>    | .25-in. OD Swagelok Compression  |
|                             | <b>Pneumatic Gas Purity</b>                        | CDA, Oil Free, Dewpoint <=7°C /45°F, Particulate Size <5 micron  |
|                             | <b>Pneumatic Gas Pressure</b>                      | Regulated from 5.5 bar (80 psig) min. to 6.9 bar (100 psig) max.   |
|                             | <b>Exhaust</b>                                     | 25.4 mm (1 in.) OD Pipe Flange   |
| <b>Compliance</b>           | <b>Compliance</b>                                  | CE Marked, SEMI S2/S8 (EH&S/Ergonomics)  |
| <b>Ancillary Equipment</b>  | <b>Ancillary Equipment</b>                         | Nitrogen generator, Hydrogen generator (requires additional non-optional hardware), Chiller, Scrubber    |

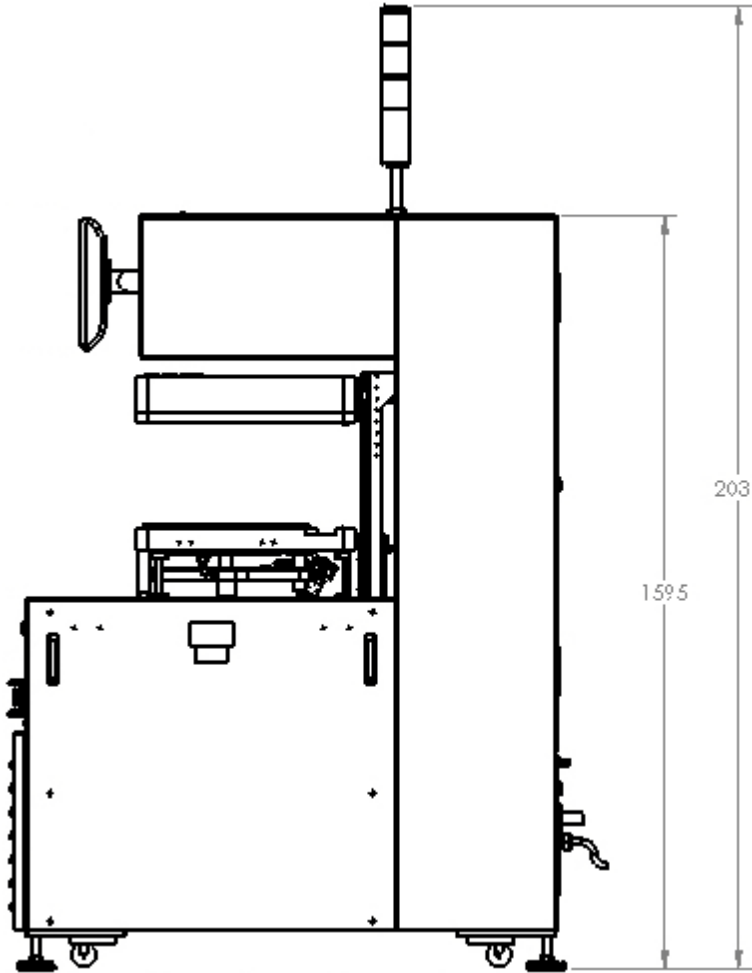
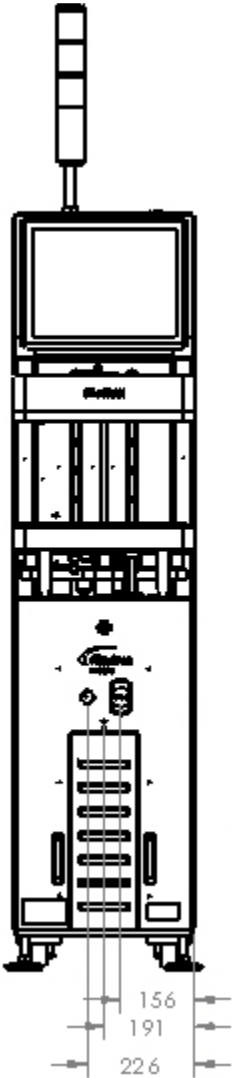


**FlexTRAK Plasma System Footprint Diagrams**



Front view of FlexTRAK Plasma System

Top view of FlexTRAK Plasma System



Side view of FlexTRAK Plasma System



FlexTRAK Plasma System with front access panel open

## Intuitive Software and Graphical Interface

March's proprietary software and intuitive graphical interface allow easy touch-screen programming. An unlimited number of alphanumeric recipes can be saved and instantly accessed. The FlexTRAK platform is Ethernet, Internet- and LAN-ready. Real-time process representation allows statistical data gathering.

**For more information,  
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*FlexTRAK Reformatted Rev. A*

