

FlexTRAK™ Plasma Treatment System

March
A NORDSON COMPANY

Superior plasma process quality and automation in one system

The March TRAK 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 the latest addition to the March TRAK series, and 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.

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.



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.

System Specifications	
Enclosure	Powder-coated aluminum Completely houses the process chamber, electronics, pump and generator
Integrated Handling System	Operation Modes: In-line automatic, manual and pass-through Contact us to discuss your material handling and form-factor material requirements.
Chamber	Material: Nickel-plated aluminum with aluminum fixturing Part Envelope: 305 x 305 x 50 mm (12.0 x 12.0 x 2.0 in.) Controlled Vacuum Exhaust Flexible Inlet Gas Flow Geometries
RF Power	600 W, solid state 13.56 MHz
Gas Control	Two (2) Mass flow controllers: 100 SCCM, 250 SCCM (other sizes available upon request) Hydrogen-ready
User Interface	Touch-screen PC with intuitive graphical user interface Unlimited alphanumeric recipe storage
Pump System	16 CFM Dry Pump Variable Frequency Drive for process consistency
System Controls	Automatic Impedance Matching Network Temperature-Compensated Baratron Remote EMO/On Remote Process By-Pass Capability
Facility Requirements	Footprint (with light tower): 382 x 1170 x 1700 mm (15.0 x 46.0 x 67.0 in.) Power: Single-phase 220VAC \pm 10%, 20A, 50/60 Hz Process Gases: 6 mm (1/4 in.) compression fitting, 0.7-1.4 bar (10-20 PSI) CDA: 6 mm (1/4 in.) compression fitting, 5.5-6.9 bar (80-100 PSI) N ₂ : 6 mm (1/4 in.) compression fitting, 0.7-3.5 bar (10-50 PSI) Shipping weight (including crate): 227 kg (500 lbs)
Compliance	Complete machine enclosure Light tower CE-certified SMEMA 1.2 compatible SEMI E-10



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

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Leading Plasma Innovations

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