MARCH FlexTRAK-2MB

High-Throughput, Inline Boat Processing for Semiconductor Packaging Applications

The FlexTRAK®-2MB system is designed for high-throughput, inline processing of microelectronic devices held in boats, trays, or other carriers. The advanced three-axis symmetrical plasma chamber treats all positions of a product uniformly while maintaining tight control over process parameters for repeatable results.

The FlexTRAK-2MB system provides the following:

- Pre-flip chip underfill (FCUF), pre-die attach, pre-wire bond, and pre-mold plasma treatment capabilities.
- Patented plasma module for exceptional uniformity and run-to-run process repeatability.
- A unique integrated boat bypass feature for rapid material transfer, up to 2 boats per plasma cycle.
- Production-ready, dual-lane boat handling.
- Multiple inline plasma modules.
- A compact plasma chamber, short plasma cycle time, and proprietary process control for maximum throughput and minimum cost of ownership.
- Unmatched production flexibility with seamless production line integration and support for a wide range of boat sizes.

Key Applications

Plasma Contamination Removal and Cleaning

- Fluorine and other halogens.
- Metals and metal oxides.
- Organic compounds.

Plasma Etching

- Roughen surfaces to improve adhesion and reduced delamination.
- Modify surfaces to increase bond strength and surface tension properties.

Surface Activation

- Improve flip-chip underfill performance by minimizing voids, enhancing adhesion, increasing wicking speed, and maximizing filet height uniformity.
- Improve mold material flow to eliminate voids and reduce wire sweep.

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Specifications

Enclosure Dimensions	W x D x H – Footprint	800W x 1530D x 1596H; 1950H mm with Light Tower (31.5W x 60.2D x 62.8H; 76.8H in. with Light Tower)
	Net Weight	590 kg (1300 lbs.)
	Equipment Clearance	Front, Right, Left – 607 mm (24 in.), Back – 254 mm (10 in)
Chamber	Maximum Volume	5.5 liters (338 in^3)
Electrodes	Variable Electrode Configurations	Power-Ground, Ground-Power; Power-Power
	Working Area	305W x 305D mm (12W x 12D in.)
RF Power	Standard Wattage	600 W
	Frequency	13.56 MHz
Gas Control	Available Flow Volumes	50, 100, or 250 sccm
	Maximum Number of MFCs	3
Control System and Interface	Software Control	EPC with PC-based touchscreen interface
	Remote Interface	SMEMA, SECS/GEM
Vacuum Pump	Standard Dry Pump	16 cfm
	Optional Wet Pump	19.5 cfm
	Optional Purged Dry Pump	16 cfm
	N2 Purged Pump Flow	2 slm
Facilities	Power Supply	220 VAC, 15A, 50/60 Hz, 1-Phase, 12 AWG, 3-Wire
	Process Gas Fitting Size & Type	6.35 mm (0.25 in.) OD Swagelok Tube
	Process Gas Purity	Lab or Electronic Grade
	Process Gas Pressure	0.69 bar (10 psig) min. to 1.03 bar (15 psig) max., regulated
	Purge Gas Fitting Size & Type	6.35 mm (0.25 in.) OD Swagelok Tube
	Purge Gas Purity	Lab or Electronic Grade N2/CDA
	Purge Gas Pressure	2 bar (30 psig) min. to 6.9 bar (100 psig) max., regulated
	Pneumatic Valves Fitting Size & Type	6.35 mm (0.25 in.) OD Swagelok Tube
	Pneumatic Gas Purity	CDA, Oil Free, Dewpoint ≤7°C (45°F), Particulate Size <5 µm
	Pneumatic Gas Pressure	3.45 bar (50 psig) min. to 6.89 bar (100 psig) max., regulated
	Exhaust	25.4 mm (1 in.) OD Pipe Flange
Compliance	SEMI	E10, S2/S8 (EH&S/Ergonomics)
	International	CE Marked
Ancillary Equipment	Gas Generators	Nitrogen (Requires Additional Non-Optional Hardware)

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Essential System Capabilities

Nordson Electronics Solutions builds the future of electronics reliability all across the globe. We're proud of the decades of service and solutions we've provided to enhance semiconductor reliability. No matter where you are, you've likely manufactured or purchased a product made reliable with our equipment. The FlexTRAK-2MB offers high-throughput, inline boat processing for semiconductor manufacturing applications, designed to last and provide cutting-edge capabilities continuing a time-honored tradition.

Explore the FlexTRAK-2MB capabilities. Continue to see how we support the future.

For more information, contact us at info-electronics@nordson.com.

Essential Capabilities	Reliable, cost-effective plasma treatment.	The compact inline automated system uniformly treats microelectronic components for advanced semiconductor packaging applications. Low maintenance and dependability deliver excellent cost-of-ownership.

For more information, visit our website to find your local regional office or representative.

We have several global locations to serve you.

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