



MARCH FlexTRAK and FlexTRAK-S

Plasma Processing of Strip-Type Components for Semiconductor Packaging Applications

The FlexTRAK® and FlexTRAK®-S systems provide the following:

- Industry-leading throughput capacity with unmatched cycle times.
- A slim structure that requires minimal floor space, and all service components are easily accessible from the front.

SMART Tune™ Management System:

- Closed-loop plasma control for RF system optimization and minimized tuning time.
- Automatic recycle to a plasma-ready state compensates for varied lot sizes, vacuum pressure, and temperature change.
- Achieve maximum power to the chamber in seconds with a proprietary algorithm that constantly measures forward and reflective power inside the chamber.

Key Applications and Benefits

- The systems support variable-size form factors, including boats, carriers, Jedec/Auer® boats, strips, and laminates.
- Flexible chamber configurations support direct, downstream, and ion-free plasma treatment modes, allowing treatment without exposure to ions and UV.
- Magazine-to-magazine processing of single and multiple strips or lead-frames and standalone configurations for island-based production environments.
- Easy integration with existing process equipment, including wire bond, die-attach, dispense, mold, and marking

FlexTRAK and FlexTRAK-S

Specifications

Enclosure Dimensions	W x D x H – Footprint	382W x 1210D x 1595H mm (2037H mm with light tower) 15W x 47.6D x 62.8H in. (80.2H in. with light tower)
	Net Weight	FlexTRAK: 275 kg (605 lbs.)
		FlexTRAK-S: 315 kg (693 lbs.)
Equipment Clearance	Right, Left – 153 mm (6 in), Front, Back – 914 mm (36 in)	
Chamber	Maximum Volume	FlexTRAK: 5.5 liters (338 in ³)
		FlexTRAK-S: 9.6 liters (585 in ³)
Electrodes	Variable Electrode Configurations	Power-Ground, Ground-Power; Power-Power
	Working Area	FlexTRAK: 305W x 305D mm (12W x 12D in.)
		FlexTRAK-S: 305W x 560D mm (12W x 22D 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 Purged Dry Pump	16 cfm
	N ₂ 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 N ₂ /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
International		CE Marked
Ancillary Equipment	Gas Generators	Nitrogen (Requires Additional Non-Optional Hardware)

FlexTRAK and FlexTRAK-S

FlexTRAK

The three-axis symmetrical chamber in the FlexTRAK plasma system treats all positions of a product uniformly while maintaining tight control over process parameters for repeatable results.



FlexTRAK-S

Process larger substrates with high uniformity, quality, and short cycle times with the FlexTRAK-S. The system features a 9.6-liter plasma chamber with twice the capacity of a standard FlexTRAK plasma system.

Adjustable chamber kits and fixtures support the processing of various substrates and products. The system also includes a high-power RF generator and enhanced vacuum conductance, delivering performance comparable to the smaller FlexTRAK system.



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 and FlexTRAK-S offer superior plasma process quality and automation for advanced semiconductor and electronics packaging, designed to last and provide cutting-edge capabilities continuing a time-honored tradition.

Explore the FlexTRAK and FlexTRAK-S 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.	These compact automated systems uniformly treat microelectronic components for advanced semiconductor packaging applications. Low maintenance and dependability deliver excellent cost-of-ownership.
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North America
Asia Pacific
EMEA

www.nordson.com/electronics
info-electronics@nordson.com

North America Headquarters
2762 Loker Avenue West
Carlsbad, CA 92010-6603, USA

+1.760.431.1919

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