

FasTRAK® Plasma System

Features and Benefits

- Flexible configuration accommodates the full range of strip dimensions and magazine designs
- Advanced robotic handling system minimizes strip handling, pushing, pulling and reduces operator intervention
- New camera-based material tracking provides 100% plasma treatment validation
- High-efficiency, application specific, plasma chamber design offers Direct or Ion Free plasma treatment modes
- Significantly smaller system footprint and magazine reuse capability save space and help lower cost of ownership

High Reliability Strip Handling

The FasTRAK® system is a fully-automated, high-throughput, plasma treatment system for lead-frame strips, laminate substrates, and other strip-type microelectronic components.

Measuring 1.65 meters wide by 1.5 meters deep the FasTRAK system has a >35% smaller system footprint than previous strip processing models. The capability to reuse magazines further reduces the effective footprint as the empty magazines do not need to be staged at the system.

Using state-of-the-art robotic movement that virtually eliminates operator handling of the strips or magazines, the FasTRAK system accommodates the full-known range of magazines and strip width, length and thickness dimensions.

The FasTRAK system makes it easy to change over to accommodate a new magazine or strip size - recipes are software driven and the system requires minimal hardware interaction or tooling.



The field-proven robotics were specifically designed to lower the handling risk to sensitive substrate materials by using minimal movement, pushing, pulling and low G-forces.

The FasTRAK system features an innovative new material tracking software application and internal camera to count the number of strips and track their progress throughout the entire treatment process, providing 100% treatment validation. Up to 10 strips can be accommodated per batch with an industry leading units per hour (UPH) treatment rate.

The FasTRAK system also includes a new high-efficiency, application-specific, plasma chamber that can be configured for Direct or Ion-Free plasma modes.

Plasma Processes Include

- Pre-die attach for improved adhesion
- Pre-wire bond for higher pull strength and CpKs
- Pre-mold to reduce delamination
- Post-mold to remove flash
- Pre-underfill to reduce voiding

Specifications: FasTRAK® Plasma System

Enclosure Dimensions	W x D x H – Footprint	1650W x 1500D x 2100H mm (64.96W x 59.06D x 82.68H in.)
	Net Weight	909 kg (2000 lb)
	Equipment Clearances	All Sides – 914 mm (36 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	10, 25, 50, 100, 250 or 500 sccm
	Maximum Number of MFCs	4
Control & Interface	Software Control	EPC with PC Based Touch Screen 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
	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
Compliance	Exhaust	25.4 mm (1 in.) OD Pipe Flange
	SEMI	E10, S2/S8 (EH&S/Ergonomics)
Ancillary Equipment	International	CE Marked
	Gas Generators	Nitrogen, Hydrogen (Requires Additional Non-Optional Hardware)
	Facilities	Chiller, Scrubber

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Published 2016-08-30

