

# GIGA 80 Plus HS

## High-Speed Plasma System



# Highspeed plasma treatment for advanced semiconductor packaging

## Unique loadlock design for up to 3x higher UPH than conventional systems

The GIGA 80 Plus HS redefines productivity in leadframe and carrier handling with its advanced high-speed processing capabilities. Engineered for automated and parallel loading and unloading of leadframes, the system delivers exceptional throughput and reliability across a wide range of production environments.

### Applications

- Plasma cleaning and activation on substrates or wafers before die bonding, wire bonding, molding, flip chip underfill and solder ball attach
- Ultra-fine cleaning for optics, and micro-electronics
- Reliably removes organic contamination and improves surface adhesion

### 80 Plus HS System



- Innovative high-speed strip or carrier handling
- Automated, parallel leadframes (un)loading
- Flexible for various leadframes, carriers, and magazine sizes
- Motorized pushers with unique jam detection
- Vacuum magazine (un)loading and plasma processing
- UPH: 200 – 800 (depending on configuration)

### Optional Features

- Comprehensive selection of vacuum pumps, from oil-sealed to dry models
- SECS-GEM host communication for seamless integration into production environments
- Hydrogen process gas option, featuring a safety-certified gas box and an integrated hydrogen generator
- Up to 4 gas channels with separate mass flow controllers (MFC)
- Chamber liner, chamber heating, venting valve
- Extended suction capacity (63m<sup>3</sup>/h)
- Additional magazine trays & track conversion kits

## Specifications

Plasma Source	2.45 GHz	13.56 MHz
	0 - 2000 W	0 - 1000 W
	No electrodes inside chamber	Electrodes inside chamber
Process chamber	Material	Aluminium
	Size	H 100 x W 400 x D 550 mm (approx. 22l)
Function	Vacuum magazine loading/unloading and plasma processing	
Throughput	200 - 800 units per hour	
Track configuration	6 tracks (<75 mm), 5 tracks (<92 mm), 4 tracks (<118 mm), 3 tracks (<160 mm), 2 tracks (<215 mm)	
Gas channels	Venting	Stainless steel solenoid vent valves
	Process gas	2 gas channels with separate mass flow controllers (MFC)
Vacuum system	Vacuum connection	DN 40 ISO K
	Ultimate pressure	< 0.08 mbar
	Process pressure	0.4 - 0.8 mbar
	Vacuum gauge	0.1 - 1.5 mbar
Hardware and Interfaces	Industrial PC with PLC and 17" OSD touch screen system	
	Graphical user interface (SEMI E95) with recipe management	
	Ethernet, USB, interface, Light tower r/y/g	
Functions and Software	Graphical real-time operating system	
	Real-time process monitoring, recipe management, and process warnings	
	SEMI S2 and CE compliant Real-time data logging and monitoring of process data and plasma intensity	
Supply	Power	Different voltages and frequencies available
	Process gas	¼" Swagelok-connector, input pressure
	Compressed air	Connector 6 mm Festo, input pressure 4 - 6 bar, oil free
Dimensions	W x H x D	1700 mm x 2000 mm (incl. light tower) x 2000 mm
	Weight	Approx. 795 kg (incl. vacuum pump)

## Our promise

We combine deep consulting expertise in plasma, solution-oriented thinking, and the highest quality standards across all technology fields. This results in future-proof high-tech systems with industry-leading process technology and top-tier quality – Made in Germany.

We support our customers throughout the entire project with expert, personalized service – from the initial consultation to reliable after-sales support. Our customers value our flexibility, backed by the financial strength of the publicly listed PVA TePla AG.

This is how we consistently fulfill our promise: the best system technology for even better materials.



**PVA Metrology & Plasma Solutions GmbH**

Im Westpark 10 - 12

D-35435 Wettenberg

T: +49 (0) 641/68690-0

[plasma-info@pvatepla.com](mailto:plasma-info@pvatepla.com)

[www.pvatepla-mps.com](http://www.pvatepla-mps.com)