PROCESS SOLUTIONS, EQUIPMENT AND SERVICES

YES-G Series

(G500 and G1000)

Manual Plasma Cleaning Systems

The YES-G500 and YES-G1000 are parallel capacitive plasma systems designed to provide the optimum in plasma mode flexibility. For cleaning, stripping, and surface modification, plasma is an effective replacement for toxic chemicals and leaves no solvent residues on surfaces. Byproducts are inert and environmentally safe.

The G Series is available with 40 kHz or 13.56 MHz, and the user can choose from 5 plasma modes. Anisotropic modes include RIE and active ion trap; isotropic modes include downstream (electron free), active and downstream ion trap.

- RF Plasma with 40 kHz or 13.56 MHz
- Low pressure environment
- Downstream to aggressive plasma
- Temperature monitor
- 3 gas inputs
- Gas inputs can include more esoteric gases such as forming gas, CF4 and SF6

Applications

- Wirebond cleaning
- Encapsulate cleaning
- Flip chip underfill cleaning
- Contamination removal
- Excellent uniformity and superior control

Benefits

- Gentle molecular level cleaning
- Clean, repeatable process
- No solvent residues
- Safe and reliable energy

Contact Us: We offer process demonstrations. If you would like to submit samples, please call us. We can run your samples and provide a detailed process report.

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G500 AND G1000 SPECIFICATIONS

For Wire Bond Surface Preparation and Gentle Cleaning Applications

G500 SPECIFICATIONS

HARDWARE	
Clean Room Compatibility	Class 10
Operation Temperature	20 – 100 ˚C
N2 Flow Rate	1.0 SCFM
Process Gas Flow Rate	0.6 X 10-3 SCFM @ 150 MTORR, 12 CFM PUMP — 1.2 X 10-3 SCFM @ 150 MTORR, 19 CFM PUMP
Interior Chamber Dimensions	45.72 cm (W) x 45.72 cm (D) x 20.955 cm (H) — (18" x 18" x 8.25")
Chamber Process Area	700 IN2 maximum (mode dependent) OR 233 IN2 per shelf
Overall System Dimensions	59.69 cm (W) x 71.2 cm (D) x 103.81 cm (H) — (23.5" x 28.03" x 40.87") — *light tower adds 27 cm to height (10.62")*
Chamber Material	6061-T6 aluminum
Process Gas Inputs	3 standard, 4th optional
Mass Flow Controllers	Optional, up to 3 for gas mixing
SEMI™ Compliance	S2 compliance
SOFTWARE	
Number of Recipes	12 with load/save/loop/link capability
Range of Exposure Time	0-1200 seconds (20 minutes)
Resolution of Timer Setting	1 second
PERFORMANCE	
RF Plasma Power	100-500 watts
RF Leakage Magnetic	0.5 m from front; 0.84 mA/m, 7.06 x 10-7 A2/m2 — 0.5 m from rear; 0.35 mA/m, 1.23 x 10-7 A2/m2
RF Leakage Electrical	0.5 m from front; 2.89 V/m, 8.35 V2/m2 — 0.5 m from rear; 0.24 V/m, 0.06 V2/m2
Nitrogen Consumption	0 SCF idle, 6.8 SCF peak, 1.7 SCF average
Power Consumption w/Pump	375W idle, 1000W peak, 640W average
Reactant Gas Consumption	0 SCF idle, 20-50 SCCM
Heat Emission	920 watts average
ADDITIONAL	
Power Requirements	208-230V, 20 amps, 50/60 Hz, 1 phase
System Weight	147 kg (325 lbs)

G1000 SPECIFICATIONS

HARDWARE	
Clean Room Compatibility	Class 10
Operation Temperature	145 ˚C maximum
N2 Flow Rate	1.7 SCFM
Process Gas Flow Rate	20-50 SCCM average
Interior Chamber Dimensions	45.72 CM (W) X 45.72 CM (D) X 30.48 CM (H) — (18" x 18" x 12")
Chamber Process Area	12 trays total; 13 tray slots for flexible configuration — 15" x 15" shelf size trays for different process modes (Active, ground and floating) — Standard configuration: 4 active, 4 ground, 4 floating
Overall System Dimensions	59.69 cm (W) x 71.12 cm (D) x 113.284 cm (H) — (23.5" x 28" x 44.6")
Chamber Material	6061-T6 aluminum
Process Gas Inputs	3 standard, 4th optional
Mass Flow Controllers	Optional, up to 3 for gas mixing
SEMI™ Compliance	S2/S8
SOFTWARE	
Number of Recipes	12 with load/save/loop/link capability
Range of Exposure Time	0-1200 seconds (20 minutes)
Resolution of Timer Setting	1 second
PERFORMANCE	
RF Plasma Power	0-1000 watts @ 550 VAC, selectable power
RF Leakage Magnetic	0.6 mA/m, 4.15 x 10-7 A2/m2 Average
RF Leakage Electrical	1.6 V/m, 4.2 V2/m2 Average
Nitrogen Consumption	0 SCF idle, 6.8 SCF peak, 1.7 SCF average
Power Consumption w/Pump	375W idle, 1000W peak, 640W average
Reactant Gas Consumption	0 SCF idle, 20-50 SCCM
Heat Emission	920 watts average
ADDITIONAL	
Power Requirements	208-230V, 20 amps, 50/60 Hz, 1 phase
System Weight	158.76 kg (350 lbs)