

# PLASMA-PREEN®

The **PLASMA-PREEN** plasma cleaning/etching system is manufactured from a top of the line microwave oven. The **PLASMA-PREEN** system incorporates the following features and has been successfully evaluated in the following applications:



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## Features

Reasonably Priced  
High Power  
Electronic Digital Control  
Duty Cycle Control  
Analog Power Control  
Process Memory  
Water Cooled Base Plate  
2.45 GHz Operation  
Reduced Effluents  
Safety Designed  
Ease of Use  
Simplicity of Maintenance  
Reliability of Performance

## Applications

Wire Bond Pad Cleaning  
Cleaning Pd-Ag Die Attach Pads  
Cleaning Gold Plated Parts  
Epoxy Bleed Removal  
Photoresist Removal  
Cleaning Ceramic Substrates  
Cleaning Glass Parts  
Cleaning Optics  
Cleaning Semiconductor Surfaces  
Removal of Plastic Encapsulants  
for Failure Mode Analysis  
Surface Preparation of Plastics  
for Gluing  
Cleaning Silver Plated Parts  
Reduction of Some Metal Oxides  
Removal of Oil or Epoxy Residues

\*patented

#Microwave shown is typical

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**PLASMATIC SYSTEMS, INC.**

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**PLASMA-PREEN SYSTEM SPECIFICATIONS**

The PLASMA-PREEN system comes in three versions. The first is a barrel type reactor. The second is a water cooled unit with a reaction chamber size of 8" x 6" x 2". The third is a larger water cooled unit with a reaction chamber size of 9" x 7" x 3". System specifications of these units are described below

<b>Barrel Reactor System</b>	<b>PLASMA-PREEN I</b>	
Chamber	Barrel	
Diameter	4.1"	
Length	6.0"	
Material	Pyrex (Quartz on Special Order)	
<b>Water Cooled Systems</b>	<b>PLASMA-PREEN II</b>	
Model No.	862	973
Chamber	Rectangular	Rectangular
Dimensions	8" x 6" x 2"	9" x 7" x 3"
Cooling Along	8" x 6" side	9" x 7" side
Material	Pyrex & Aluminum	Pyrex & Aluminum
External w x h x d	28" x 12" x 13"	28" x 12" x 13"
Shipping Weight	65 pounds	80 pounds
<b>Power</b>	Electrical	115V ac 15 Amp service grounded or 220V ac 50Hz
	Plasma	Variable 100 to 750 Watts
Frequency	2.45 Ghz	
Duty Cycle adjustment	From 10% to continuous	
Flow meter Standard	(5 cu-ft./Hr. at STP)	
Utilities required	Vacuum pump	Water and Drain
Gas Supply	Oxygen	Argon

**SUGGESTED USES OF PLASMA-PREEN**

- Cleaning substrates in hybrid circuit manufacture.
- Cleaning electronic components before wire-bonding to improve reliability.
- Cleaning critical gold plated parts for before soldering or welding.
- Cleaning semiconductors before processing.
- Photoresist stripping.
- Preparation of surfaces for gluing, printing and other surface wetting operations
- Cleaning of optical components before coating.
- Cleaning of quartz, sapphire and other materials.

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**PLASMA-PREEN PRICE LIST**

Barrel Reactor: PLASMA-PREEN I **\$5,290.00**

Includes:

*Power supply, Flow meter with needle valve, Vent Valve, Time control, Duty cycle control, Reaction Chamber*

Water cooled reactor: PLASMA-PREEN II #862 **\$6,290.00**  
with 8" x 6" x 2" Reaction Chamber:  
(Includes the above features)

Water cooled reactor: PLASMA-PREEN II #973 **\$7,480.00**  
with 9" x 7" x 3" Reaction Chamber:  
(Includes the above features)

**Options:**

Alcatel Model 205SDMLAM 3.8 cfm Vacuum pump with **2,499.00**  
4lbs. non-combustible oil, anti-suck back valve, oil mist eliminator,  
all fittings and universal motor

Gas Control Panel **1,366.00**  
(Includes 2 flowmeters, electric vent valve and vacuum valve control)

Ion trap (Faraday cage to protect sensitive components) **100.00**

Regulator (Specify oxygen or argon) **150.00**

2 Gas input Valve **75.00**

4 Gas input Valve **150.00**

&Water Recirculating Unit **330.00**

\*Process platform **125.00**

\*Special tongs **150.00**

**NOTE:** For 220 volt/50Hz operation; add \$500  
and 10% to the price of the Controller.

**Terms: Net 30 days.**

**Prices are F.O.B., North Brunswick, NJ, USA**

*\* For use in the barrel reactor  
& Stand alone unit for use with water cooled reactor*