

Plasma Cleaner**PR1000**

Plasma Mode
DP
DP : Direct Plasma
Radio-Frequency Output
10 to 1000W
Oscillating Frequency
13.56MHz
Chamber Size (mm)
ø300 X 500D

Barreled type large glass chamber**Equipment Summary**

This Plasma cleaner is made up composed of as follows ;

- Reaction chamber
- Matching box for taking adjust between
- load and RF power
- Reaction gas flow system (CF₄ and O₂)
- PLC controller with Touch panel
- Radio-frequency power supply (RF)
- Vacuum pump
- Purge gas system (N₂)



Specifications

Model	PR-1000
■ Main Unit	
Chamber size	ø300×500(D)mm
Chamber method	Quartz glass
Electrode	Condenser (4 division)
Plasma mode	DP mode
Vacuum gauge	Capacitance manometer T
Reaction gas system	wo system (CF ₄ , O ₂)
Main controller	PLC controller
Display	LCD color display and Touch panel (5.7 inch)
Door	Manual open, swing type
External Dimension	700(W)×820(D)×1600(H)mm
■ Radio-Frequency Power Supply	
Input voltage	AC 200V 8A 50/60Hz
Radio-frequency output power	10 to 1000W
Reference oscillator	Quartz oscillator
Oscillating frequency	13.56MHz
Output setting system	Digital setting
Matching adjustment	Automatic tuning
■ Vacuum Pump	
Displacement	670L/min.
Input power supply	3 phase AC200V 11A 50/60Hz
Inlet Configuration	NW40
Outlet Configuration	NW40
■ Gas System	
Purge gas	N ₂
Reaction gas control	Mass flow controller CF ₄ (F.S.300scm) O ₂ (F.S.300scm)
■ System Protection of Equipment	
<ol style="list-style-type: none"> 1. Protect over current, Built in protect over current of Vacuum pump, RF power supply and main unit 2. Protect quartz oscillator, When matching unit have miss matching, Automatic RF power down and protect quartz oscillator 3. Door panel inter lock, Built in inter lock switch 4. External cover safety lock switch 5. Emergency stop switch 	
■ System Protections by Software in PLC	
When occurred following conditions, Equipment stop and Error will display.	
<ol style="list-style-type: none"> 1. In case of RF power is out of setting value. 2. In case of gas flow (CF₄, O₂) is out of setting flow rate. 3. In case of RFW power is over permission value. 4. In case of Vacuum pressure does not reach within setting time. 5. After finish plasma process, chamber does not become atmosphere. 	
■ Utility	
Electric power supply	3 phase AC380V 20A 50/60Hz (Total system) with down transformer
CF ₄ gas	0.15 to 0.25Mpa
O ₂ gas	0.15 to 0.25Mpa
Pressure Air	0.4 to 0.6Mpa for driving air valve
Connecting size	1/4 swagelok