Gas Plasma Etcher

Model ## PR500

Method
Barred type of DP

DP : direct plasma

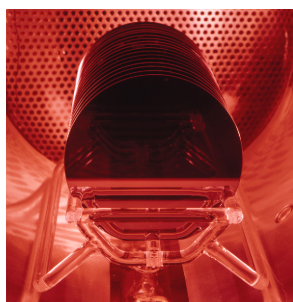| High-frequency Output |
|---|
| 0～500W |

Oscillating Frequency
13.56MHz

Reaction Chamber
φ215×305mm

The PR500 is a gas plasma device that is used widely for such applications as production of semiconductors and analysis work.
It boasts outstanding operability and safety, with an automatic tuning system as a standard component and other features.

● It has a compact design, with a small-size HF generator and an oscillation section integrated with a portion of the chamber.

● With the 215mm diameter large caliber chamber, the unit can process big testing samples.

●The gas plasma equipment has a wide range of applications from ashing, etching, dry cleaning, etc.
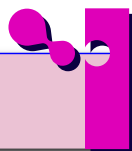
● Control Panel

●FORWARD／REFLECT indicate by digital

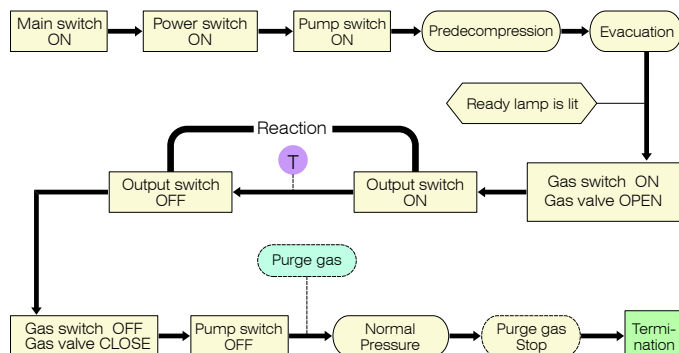## ● Reaction Chamber

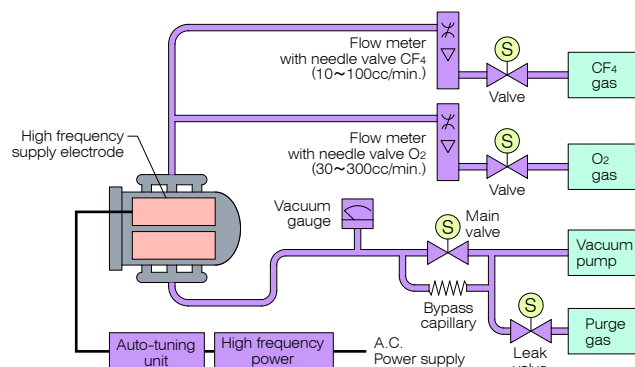●With the 215mm diameter large caliber chamber

Gas Plasma Etcher

Yamato

"Plasma Reactor"

● Operation Flowchart


```
Main switch ON → Power switch ON → Pump switch ON → Predecompression → Evacuation
                                                                            ↓
                                                              Ready lamp is lit
                                                                            ↓
        Reaction
Output switch OFF ← T ← Output switch ON ← Gas switch ON / Gas valve OPEN
        ↓
                                      Purge gas
        ↓
Gas switch OFF / Gas valve CLOSE → Pump switch OFF → Normal Pressure → Purge gas Stop → Termi-nation
```

● Piping System Diagram

High frequency supply electrode
Flow meter with needle valve CF₄ (10～100cc/min.) — Valve — CF₄ gas
Flow meter with needle valve O₂ (30～300cc/min.) — Valve — O₂ gas
Vacuum gauge
Main valve — Vacuum pump
Bypass capillary
Leak valve — Purge gas
Auto-tuning unit — High frequency power — A.C. Power supply

☐ : Optional Accessories

● Specifications

Model	PR500
■ **Method**	Barred type of direct plasma
■ **Control part**	
High frequency output Oscillating frequency Output impedance Tuning method	500W 13.56 MHz 50Ω Automatic tuning
Instrument	Output watt meter (0～600W) Reflected wave watt meter (0～300W) Vacuum gauge, thermocouple type Flow meter, needle valve integrated type, 2 sets
Timer	0.1sec.～999h
Gas inlet	1/4" stainless steel, 2 inlet
Power source (50/60Hz)	AC 100/230V, single phase, 2 kVA
■ **Reaction part**	
Reaction chamber Electrode structure Control system Piping material	Made of quarts, φ215×305mm Condenser type, 4-way split Auto pressure reduction, auto leak valve SUS, Teflon
External dimensions(W×D×Hmm) Weight	438×520×760 Approx. 55kg
■ **Standard Accessories**	
	● Connection cable 1 complete set ● Vacuum grease 1 pc. ● O-ring for reaction chamber 1 pc.
■ **Optional Accessories**	
	● Frame for wafers, 2, 3, 4, 5 inches ● Multipurpose angled frame ● Aluminum etching tunnel ● Stand