



Plasma Cleaner

Yamato

RIF and / or DP

Model PDC-200/210

Model

200

210

Plasma Mode

RIE or DP

RIE and DP

DP : direct plasma

High-frequency Output

0~300W

0~500W

Oscillating Frequency

13.56MHz

Dimension of Stage

250 × 170mm

Purpose : Removal of Organic films, Surface cleaning, Surface reforming, Surface etching etc.



PDC-210

Chamber



Aluminum chamber
Internal Dimension : 400mmW × 250mmD × 150mmH
Electrode
Parallel flat stage plate : 250mmW × 170mmD



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● Specifications

Model	PDC-200/210
Plasma Mode	PDC-200 (RIE or DP) / PDC-210 (RIE and DP)
Main Unit	
Aluminum chamber Electrode Vacuum gauge Reaction gas system Controller Display	Internal dimension: 400mmW × 250mmD × 150mmH Parallel flat stage plate: 230mmW × 170mmD Capacitance manometer Two systems(Ar,O ₂) Programmable controller LCD Touch panel Display
Radio-Frequency Power Supply	
Input Radio-frequency output power Reference oscillator Oscillating frequency Matching adjustment	PDC-200: AC 100V,Single phase, 8A (50/60 Hz) / PDC-210: AC 200V,Three phase, 15A (50/60 Hz) PDC-200:300W / PDC-210:500W Quartz oscillator 13.56 MHz Automatic tuning
Discharge System (Vacuum Pump) only PDC-210 / PDC200 Optional	
Displacement Input power supply Inlet configuration Outlet configuration	Total 345 liters/min. Three phases, AC200V, 4A, 50/60 Hz / PDC-200 Single phase ,AC100V,4A,(50/60Hz) NW25 NW25
Gas Systems	
Purge gas Reaction gas G1 Reaction gas G2	Nitrogen (N ₂) and a regulator (3 kgf/cm ²) with a manometer Oxygen (O ₂) and a mass flow controller (500 secm) / PDC-200:(200 secm) Argon (Ar) and a mass flow controller (100 secm)
Safety Mechanisms	
System Protections	(1) Watching Vacuum Pump and RF generater Watching over current by Thermal Protector Magnetic relay. (2) Product Quartz oscillator When Matching unit have miss matching,protect quartz oscillator. (3) Door Panel Inter lock Build Inter lock switch.
Actions against a trouble of the vacuum pump	The plasma scrubber takes the counteractions listed below and show an Alarm message on its display when something wrong happens on the vacuum pump. ★The main valve closes ★The gas feed valve closes ★The isolation valve closes ★The oscillator stops outputting ★Treatment process is suspended ★The Alarm buzzer starts sounding ★The treatment process timer stops
REQUIRED UTILITIES	
Power Supply	
Main unit with vacuum pump	PDC-200: Single phases, AC100V, 15 A, 50/60Hz PDC-210: Three phases, AC200V, 15 A, 50/60Hz (with an accessory power cable of 3 meters long, and exposed crimp-style terminals of 8 millimeters long)
Gases	
Purge gas Reaction gas G1 Reaction gas G2 Connection port	Nitrogen (N ₂) (Feed pressure: 2~7 kgf/cm ²) Oxygen (O ₂) (Feed pressure: 1.5 kgf/cm ²) Argon (Ar) (Feed pressure: 1.5 kgf/cm ²) 1/4" swagelok joint bulkhead union (SS-400-61)
Note: Pressure regulators, filters and other protective devices shall be prepared by others.	
Connection Diameter of the Discharge Duct (and inlet Port)	
Vacuum pump's inlet port Vacuum pump's outlet port	NW25 (with a flexible stainless steel hose of 1 meter long) NW25
Note: Every port has a connector designed for a flexible hose.	



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