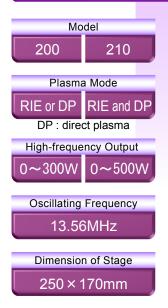
Plasma Cleaner

♥ Uamato RIF and / or DP

Model PDC-200/210



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





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



Plasma Cleaner

RIF and / or DP

Specifications

Model	PDC-200/210
Plasma Mode	PDC-200 (RIE or DP) / PDC-210 (RIE and DP)
Main Unit	
Aluminum chamber	Internal dimension: 400mmW × 250mmD × 150mmH
Electrode	Parallel flat stage plate: 230mmW × 170mmD
Vacuum gauge	Capacitance manometer
Reaction gas system	Two systems(Ar,O ₂)
Controller	Programmable controller
Display	LCD Touch panel Display
Radio-Frequency Power S	
Input	PDC-200: AC 100V,Single phase, 8A (50/60 Hz) / PDC-210: AC 200V,Three phase, 15A (50/60 Hz)
Radio-frequency output power	PDC-200:300W / PDC-210:500W
Reference oscillator	Quartz oscillator
Oscillating frequency	13.56 MHz
Matching adjustment	Automatic tuning
	n Pump) only PDC-210 / PDC200 Optional
Displacement	Total 345 liters/min.
Input power supply	Three phases, AC200V, 4A, 50/60 Hz / PDC-200 Single phase ,AC100V,4A,(50/60Hz)
Inlet configuration	NW25
Outlet configuration	NW25
Gas Systems	
Gas Systems	Niteman (NL) and a consideration (2 Loff (and 2) with a monomotor
Purge gas Reaction gas G1	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)
Reaction gas G2	Argon (Ar) and a mass flow controller (100 secm)
Reaction gas 62	Algon (Al) and a mass now controller (100 sectif)
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	The plasma scrubber takes the counteractions listed below and show an Alarm message
of the vacuum pump	on its display when something wrong happens on the vacuum pump.
	\star The main valve closes \star The gas feed valve closes \star The isolation valve closes
	★The oscillator stops outputting ★Treatment process is suspended ★The Alarm buzzer starts soun-
	ding ★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	Nitrogen (N ₂) (Feed pressure: $2 \sim 7 \text{ kgf/cm}^2$)
Reaction gas G1	Oxygen (O ₂) (Feed pressure: 1.5 kgf/cm ²)
Reaction gas G2	Argon (Ar) (Feed pressure: 1.5 kgf/cm ²)
Connection port	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 th	e Discharge Duct (and inlet Port)
Vacuum pump's inlet port	NW25 (with a flexible stainless steel hose of 1 meter long)
Vacuum pump's outlet port	NW25
	Note: Every port has a connector designed for a flexible hose.



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