Plasma Cleaner

Model V-1000XS

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

Plasma Mode
RIE and DP
DP : direct plasma

High-frequency Output
0～1000W

Oscillating Frequency
13.56MHz

Dimension of Stage
300 × 300mm

Control Display

Programmable control
(touch panel)

Chamber

Aluminum chamber
Internal Dimension : 600mmW × 554mmD × 440mmH
Electrode
Parallel flat stage plate : 460mmW × 410mmD

Specifications

Model	**V-1000XS** (International Model)
■ Plasma Mode	RIE and DP
■ Main Unit	
Aluminum chamber	Internal dimension: 600mmW × 554mmD × 440mmH
Electrode	Parallel flat stage plate: 460mmW × 410mmD
Vacuum gauge	Capacitance manometer
Reaction gas system	Two systems
Controller	Programmable controller
Display	Programmable terminal (touch panel)
■ Radio-Frequency Power Supply	
Input	AC 220V,Three phase, 12A (50/60 Hz)
Radio-frequency output power	1000W
Reference oscillator	Quartz oscillator
Oscillating frequency	13.56 MHz
Matching adjustment	Automatic tuning
■ Discharge System (Vacuum Pump)	
Model	LEYBOLD D65B
Displacement	Total 1500 liters/min. (60 Hz)
Input power supply	Three phases, 220V, 8.2A, 60 Hz
Inlet configuration	NW40 with a flexible stainless steel hose (1 meter long)
Outlet configuration	NW40
■ Gas Systems	
Purge gas	Nitrogen (N_2) and a regulator (3 kgf/cm^2) with a manometer
Driving gas	Air or nitrogen (N_2) and a regulator (alarm contact at 10 kgf/cm^2) with a manometer
Reaction gas G1	Oxygen (O_2) and a mass flow controller (1000 secm)
Reaction gas G2	Argon (Ar) and a mass flow controller (100 secm)
■ Safety Mechanisms	
●System Protections	★Oscillator protection circuit ★Front-door interlock switch (interlocked with the startup) ★Safety switches (interlock switch on the side panels) ★Vacuum leak test function ★Air-purge end buzzer ★Alarm buzzer ★Emergency stop push-button 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 alarm indicator lamp lights up to notify the trouble of the vacuum pump ★The treatment process timer stops
■ REQUIRED UTILITIES	
●Power Supply	
Main unit with vacuum pump	Three phases, AC220V, 30 A, 60Hz (with an accessory power cable of 3 meters long, and exposed crimp-style terminals of 8 millimeters long)
●Gases	
Driving gas	Air or nitrogen (N_2) (Feed pressure: 5～7 kgf/cm^2)
Purge gas	Nitrogen (N_2) (Feed pressure: 2～7 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 the Discharge Duct (and inlet Port)	
Vacuum pump's inlet port	NW4O (with a flexible stainless steel hose of 1 meter long)
Vacuum pump's outlet port	NW4O
Main unit's ozone outlet port	163mm diameter
Oscillator's ventilation port	163mm diameter
	Note: Every port has a connector designed for a flexible hose. Connect a duct to these inlet and outlet ports.

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