PLASMA TREATMENT SYSTEM for 3D OBJECTS







PLASMA TREATMENT SYSTEM



Increasing surface tension of substrate through Advance Technology

The Process of Increasing Surface Tension of a Substrate by exposing it to an atmospheric plasma is called Atmospheric Plasma Treatment, Non-Contaminated refrigerated Dry, Moisture Free and Oil Free Compressed Air is passed through High Voltage at High Frequency. Air Molecules get ionized and air reaches fourth stage of matter creating Atmospheric Plasma

This Treatment works on a simple principle that the Ion and the electron mixed in the plasma zone run against each other in High speed on the surface of the material. This eliminates foreign matter and helps the functional coating radical to stick on the surface. This process helps achieve a rinsing effect and hydrophilic effect on the surface—resulting in increased surface tension

PLASMION3D+ Single Head Atmospheric Pressure Plasma Jet Treater



GYROPLASMION 3D+ TS With Touch Screen Panel Single Rotating Head Atmospheric Pressure Plasma Jet Treater



PLASMION3D+ DUO TS With Touch Screen Panel Single Head Atmospheric Pressure Plasma Jet Treater







TECHNICAL SPECIFICATIONS			
Model	PLASMION3D+	PLASMION3D+DUO	GYROPLASMION3D+
Input Voltage	220 Volt	220 Volt	220 Volt
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	4.5 Amp.	7.0 Amp	4.5 Amp.
Output Voltage	3.4 K Volt	3.4 K Volt	3.4 K Volt
Output Frequency	40 ~ 60 KHz	40 ~ 60 KHz	40 ~ 60 KHz
Output Current	0.1 Amp.	0.2 Amp.	0.1 Amp.
Out Power	700 Watt	1000 Watt	700 Watt
Max. Ambient Operating Temp.	55 Deg C.	55 Deg C.	55 Deg C.
Discharge Head	1	2	1
Type of Head	Stationary	Stationary	Rotating
Air Flow	40 LPM per Head	40 LPM per Head	40 LPM per Head
HMI & PLC	OPTIONAL	OPTIONAL	YES
Discharge Width	12mm	12mm	Up-to Ø 60 mm
Dimensions in mm (Approx.) Net Dimensions	(W x H x D) 400 x 1060 x 550	(W x H x D) 550 x 850 x 420	(W x H x D) 490 x 325 x 400
Net Weight in Kg. (Approx.)	60 Kg	65 Kg	65 Kg

APPLICATIONS

Automobile Industry: Head Lights, Door Sealing, Profiles, Decorative Trim, Switch Components, Control unit Housings, Body Bumpers

Printing Industry: Inkjet Printing on bottles, Caps, Wires, Cables, Pipes, glass, Plastic Cards, and other materials. Pad Printing on Pens, Mobile Cover, Switches, Switch Boards etc.

Medical Devices: Dialysis Machines, Disposable Syringes, Catheter, Ampoules, Contact Lenses, Test Tubes, Petri Dishes

Glass Industry: Window Seals, Window Frames, printing on drinking glasses and bottles, perfume flacons

Coating: Foil Coating, Flocking, Laminating

Adhesive Technology: Plastic Sheets, Furniture Coatings

Laminating: Instrument panels, interior door coverings, car boot linings

Extrusion: Signage, Pipe Extrusion, EPDM Profile Extrusion





Advantages of IEEC Plasma Treater

- Maintenance free: EHT Transformer is specially designed in a compact tank, having primary and secondary coil which are made from LITZ WIRE. Imported 'U' core dipped in a Special EHT grade dielectric Gel for High performance, trouble free working. Hence HT transformer is maintenance free. So Plasma Treater does not required any type of maintenance
- Low Air Pressure: Special design of IEEC plasma treater ensure about high quality of plasma treatment on low air pressure. IEEC system works on very low air pressure i.e between 0.1 to 1.0 Bar only.
- **Digital Pressure** Switch: SMC Corporation Japan make Digital Pressure Switch continuously monitor pressure and trip the system if pressure goes below 0.1 bar and above 1.00 bar. It is 2-Color Display, High Precision for Positive Pressure.
- **EMC** Filter: EMC filter is used in Plasma treatment system to limit electromagnetic interference in electric power line generated by other electrical/electronic systems and to avoid malfunctioning of the system.
- **H.T** Cable: High Voltage Cable is multi-strand Silicone Cable with 6.5 mm thick covered in silicone transparent tube of 12mm for high insulation of the system.
- Interlock with Machine: Remote interlock for pulse block with machine is possible.
- **Safety:** HT Cable and pneumatic pipe provided inside Heavy Duty Poly-coated Metal Conduit to safeguard cables from damage and for the safety. Also it helps to elements noise interference.
- Ceramic insulators used in Torch to insure highly insulation from High Voltage and long life of Plasma Gun.
- **Modular** FRL: SMC Corporation Japan make Air filter + mist separator with regulator unit used in the system to control and filter the air.
- **High Quality**: IEEC always take care of quality as well safety during manufacturing of products by using branded electrical and electronics components.

Nozzles for various Applications:

Torch gun and Nozzle are made of high quality Stainless Steel for longer life. Nozzles are designed according to application and as per requirement of client.





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