



Introduction of
EZ-Plasma Pre-Treatment Machine
for Cylindrical & Conical Objects



»» Application

Pre-treatment for printing and coating using plasma has established itself as a standard process in all common printing processes. The adhesion of the printing inks and varnishes to the surface is enormously improved by pre-treatment with plasma, which significantly increases the print quality.

The **EZ-Plasma Pre-Treatment Machine** is specially designed for surface treatment of cylindrical and conical objects such as bottles and cups before printing. It creates an ideal printing condition for UV direct printing on cylinders and cones entirely without the need for additional adhesion promoters.

The EZ-Plasma can be integrated into customers' existing production lines to simplify processes and improve efficiency. The Easy Plasma is not only suitable for UV digital inkjet printing, but also for various common printing processes, such as screen printing and pad printing.

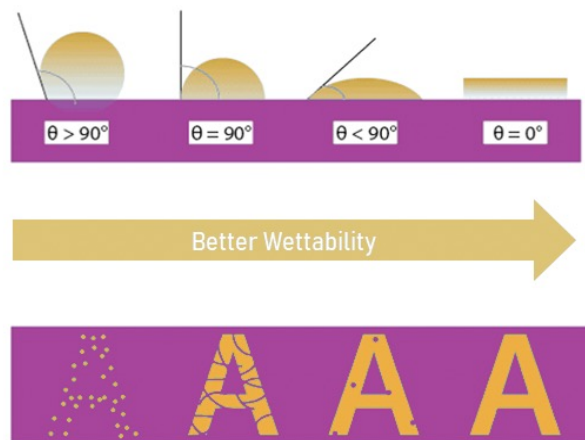


» Specifications

Technology	Plasma process technology
Type of Spray Gun	Atmospheric rotary spray gun
Plasma Head Diameter	50/100 mm
Plasma Power	1600 W
Maximum Processing Line Speed	1400r/min
Shape	Cylindrical objects / Tapered objects
Object Size	Diameter: 40-220 mm ; Length: 0-180 mm ;
Power Supply	220 V±10% (50/60 Hz, AC); 8 A; 1800 W
Compressed Air	0.5 Mpa; Clean and dry
Operational Environment	Temperature: 16-28°C (61-82°F) Humidity: 40-60% (Recommended) Altitude: up to 1000 m (3281 ft)
Media Type	Metal, plastic, glass, ceramics, etc.
Dimensions (W × D × H)	500 mm x 1000 mm x 1300 mm
Other Configurations	Automatic door with glass windows for easy observation of processing status
Machine Weight	150 kg

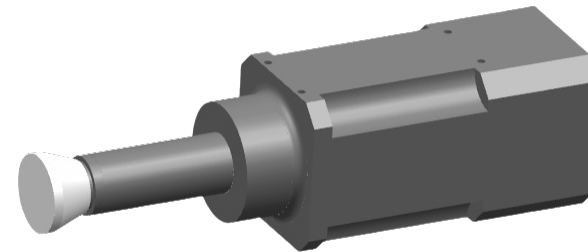
➤➤ Improved Quality of the Overall Print Appearance

- EZ-Plasma pre-treatment technology achieves the level of wettability through the highly effective micro-fine cleaning and activation of the surface to ensure long-time stable print adhesion.
- The increased wettability results in larger ink droplets with a low contact angle. This results in a print result with sharp edges and high color brilliance, as the drops flow into each other and thus wet the entire surface.
- Plasma processing achieves the surface functionalization effect through a combination of ultra-fine surface cleaning from organic contaminants, modification of the surface topography and deposition of functional chemical groups.

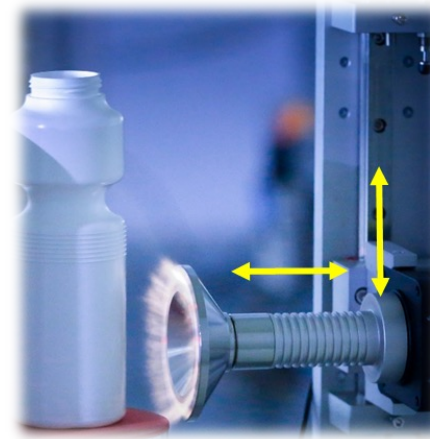


➤➤ Rotary Plasma Spray Gun Plasma Generator

- The plasma effect can be rapidly and evenly distributed on the object surface.

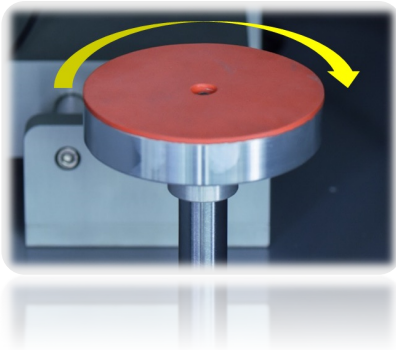


- Plasma head front rear, up down, tilt all adjustable. Plasma head running up down for taller treatment height up to 200 mm.



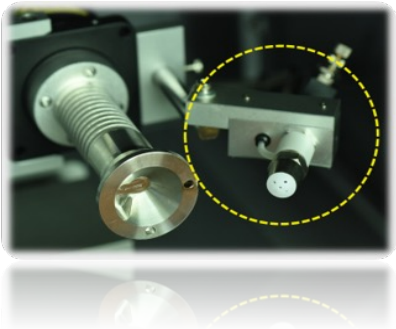
»» Universal Tooling for Bottles & Cups

- Tooling with vacuum. Tooling with silicone coating.
- Tooling rotation when treating, rotation driven by motor, with speed adjustable.



»» Electrostatic Dust Removal Device

- Electrostatic dust removal device is integrated inside machine.



»» Color LCD Touch Panel with on-board PLC Control

- Air pressure setting, speed setting
- Setting of spray gun power
- Motion control



»» Waste Air Exhausting System

- Waste air exhausting system on the top.



➤➤ Fully Enclosed Design

- 3-sided safety cover. Dust-free.

➤➤ Pretreatment without Corona Effect

- Pretreatment without corona effect, no material contact with high voltage.

➤➤ Low Temperature Treatment

- Low temperature treatment, no thermal input, suitable for heat sensitive materials.

➤➤ Advantages of the Pre-Treatment for Printing with Plasma

Plasma cleans, strengthens and chemically functionalizes the surface. All these effects, which are required for a good printing result, are achieved simultaneously in a single step:

- Ultra-fine cleaning, no residues
- Better ink adhesion
- High resistance to aging, handling, and weathering
- Excellent color brilliance
- Gentle, non-destructive surface treatment
- No wet chemistry
- Air or cheap non-toxic working gases
- Environmental friendliness
- No expensive vacuum equipment
- Fast processing speeds
- Easy integration into existing production lines

➤➤ Environmentally-Friendly Surface Modification

- Plasma functionalization of surfaces can be performed at the atmospheric pressure using air or typical industrial gases. It avoids expensive vacuum equipment or wet chemistry with VOC emissions, which positively affects its costs, safety, and environmental impact.

➤➤ Safety Operation with CE

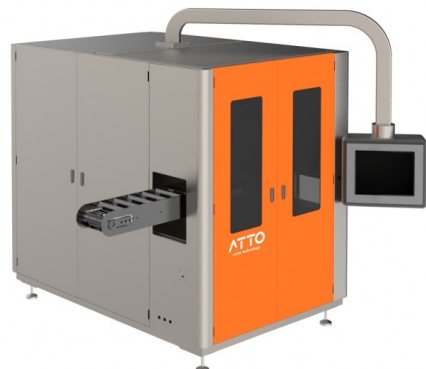


FEATURE PRODUCTS



Spinner-SP2

UV Inkjet Printing Machine with 2 stations



Spinner-SP4

Rotary Cylindrical Inkjet Printer with 2 workstations



EZ-Print 600

Auto Visual Positioning UV Inkjet Printer with Conveyor



EZ-Plasma

Pre-Treatment Machine



EZ-Fab

DTG-2 Direct to Garment / DTB-2 Direct to Bag Printer



AS2-8

2-8 Colors Rotary Screen Printing System



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year experience

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