

## Which is Better: Plasma Treatment Machine or Corona Treatment Machine?

### Surface Treatment Before Printing: A Safe and Fast New Choice

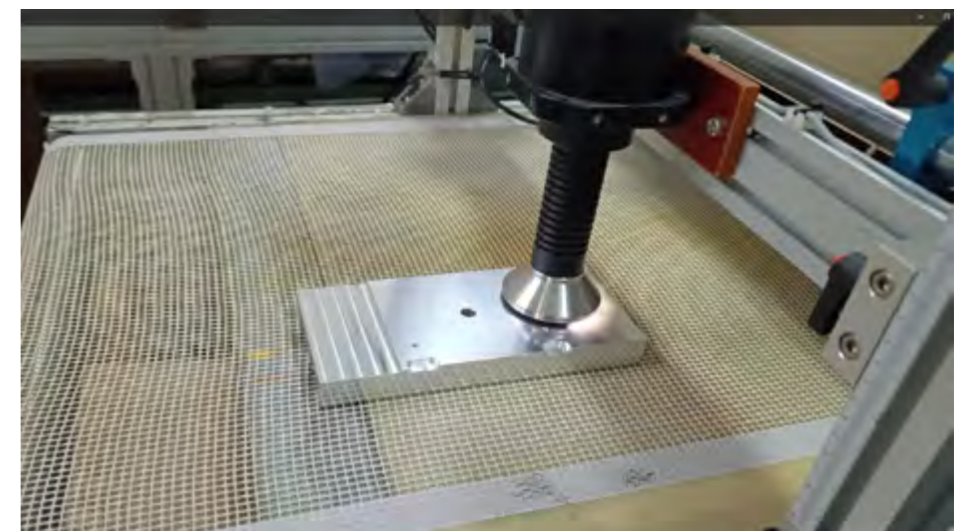
**When considering whether to choose a corona treatment machine or a plasma treatment machine, understanding their different characteristics and pros and cons is crucial for selecting the equipment that best meets your needs.**

#### Advantages of Plasma Treatment Machines:

- **Wide Material Applicability:** Suitable for various materials, including plastics, metals, glass, ceramics, paper, etc.
- **Suitable for Curved and Irregular Surfaces:** Ideal for treating materials with curved and irregular shapes, such as bottles, containers, plastic tubes, rubber tires, etc.
- **Efficient Surface Treatment:** Capable of deep treatment, providing better results, especially suitable for high-precision and high-cleanliness applications.
- **Low-Temperature Treatment:** Suitable for heat-sensitive materials, without damaging the base material.
- **Versatility:** Provides multiple surface treatment functions, including cleaning, activation, and coating, meeting various industrial needs.
- **Safety:** Can safely treat metal materials without causing conductivity or combustion.
- **Higher Treatment Efficiency:** Plasma treatment machines can achieve dyne levels over 10 higher than corona treatment machines, necessary for UV or water-based ink printing on PP and BOPP.
- **Dyne Level:** Indicates the surface energy of the material. The higher the dyne level, the better the ink adhesion. Water-based inks have the poorest adhesion, requiring high dyne levels on the material surface.

#### Advantages of Corona Treatment Machines:

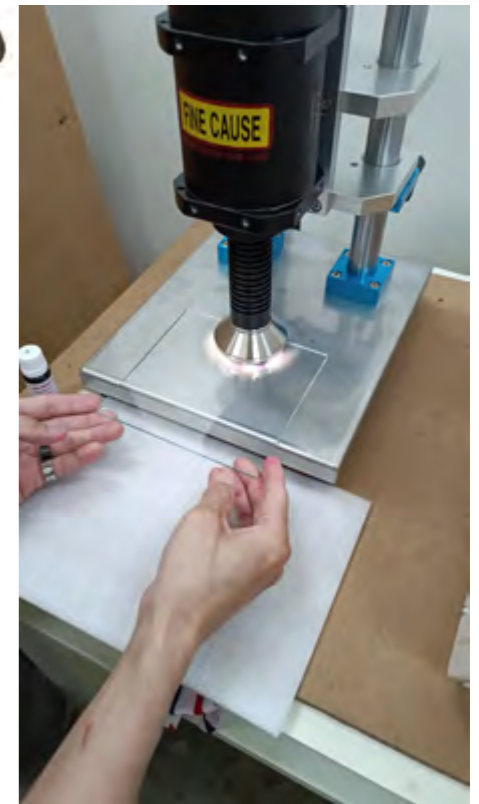
- **Suitable for Various Materials:** Ideal for plastic films, sheets, aluminum foil, metallized films (such as PP, PE, PET, OPP, PS, ABS, etc.), paper, and fibers.
- **Curved Surface Corona Treatment:** Especially suitable for treating curved and irregularly shaped materials, such as bottles, containers, plastic tubes, rubber tires, etc.
- **Lower Equipment Cost:** Corona treatment machines have lower purchase and operating costs.
- **Simple Operation:** Easier to operate and maintain, without the need for highly specialized technicians.
- **Safety:** Corona treatment machines use low-temperature high-energy treatment, which is safe and non-combustible.
- **Efficient Surface Activation:** Significantly enhances the surface energy of materials, making inks and coatings adhere more easily.
- **No Air Supply Needed:** Does not require an air compressor or external air supply.



# How to Choose Between a Plasma Treatment Machine and a Corona Treatment Machine?

## Selection Recommendations:

- Plasma Treatment Machine: If you handle a variety of materials, including metals and glass, and require high-precision, high-cleanliness surface treatment, the [F1Z-1000 Plasma Surface Treatment Machine \(Rotating Gun\)](#) is your best choice.
- Curved Surface Corona Treatment Machine: If you need to treat not only flat materials but also curved and irregularly shaped materials, such as bottles and containers, while controlling costs and simplifying operations, the [FC-FGX-D Curved Surface Corona Treatment Machine](#) will better meet your needs.
- Sheet Corona Treatment Machine: If you mainly handle plastic films or sheet packaging materials and want easy and simple treatment, the [FC-P40 Sheet Corona Treatment Machine](#) is more suitable for you.
- No matter which equipment you choose, we provide the highest quality products and services to ensure your production process is more efficient and stable. You can click on the product names above to view the complete introduction on their respective product pages. For further details or to apply for a trial, feel free to contact us anytime.



### Which is Better: Plasma Treatment Machine or Corona Treatment Machine?

Differences	General Plasma Surface Treatment Machine	General Corona Treatment Machine / Curved Surface Corona Machine
Principle	Uses high-frequency high-voltage electric field to generate plasma in gas, where high-energy particles bombard the material surface.	Uses high-voltage electric field to create corona discharge on the material surface, where high-energy electrons bombard the material surface.
Air Source Connection	Requires air compressor / air connection	No air connection required
Material Suitability	Various materials (plastic, metal, glass, ceramic, paper, etc.)	Most effective for plastic and film materials
Surface Treatment Depth	Deep treatment, better effect	Used for surface treatment, quick processing
Heat Impact	Low temperature treatment, suitable for heat-sensitive materials, does not damage the substrate	Generates higher heat during the process, some heat-sensitive materials are not suitable
Multifunctionality	Provides multiple surface treatment functions such as cleaning, activation, and coating	Mainly used for activation and surface energy enhancement
Precision Control	Precisely controls processing power, suitable for high-precision requirements	Simple control, suitable for less precise requirements
Treating Three-dimensional Objects	Can treat three-dimensional objects, curved and irregular shapes, bottles, containers, wider application range	Sheet corona treater: Mainly suitable for flat and film materials Curved surface corona treater: Can treat three-dimensional objects, curved and irregular shapes, bottles, containers, wider application range
Equipment Cost	Relatively higher cost	Relatively lower cost
Operation Complexity	FINECAUSE corona treatment machines are easy to operate.	FINECAUSE curved surface corona treatment machines / sheet corona treatment machines are easy to operate.
Suitable Industries	Suitable for curved surfaces, bottles, containers, electronic products, medical equipment, high-performance coatings, etc.	Suitable for surface treatment of bottles, containers, plastic films, packaging materials, etc.
Printing Assistance	Increases surface energy of various printing materials, improves ink adhesion, enhances ink absorption, and improves printing quality	Increases surface energy of materials, enhances ink adhesion
Cleaning Effect	Excellent cleaning effect, removes dust and oil, eliminates static electricity. Enhances adhesion between different materials, increases product strength and durability	Basic cleaning effect, removes static electricity and enhances surface energy

Fine Cause manufactures pad printer and screen printer including standard types and customization. We manufacture a variety of ink cup pad printer, open-tray pad printer, servo motor screen printer, pneumatic cylinder screen printer and customized screen printer.

In the past decade, we have taken part in an extent of customized and precise machinery projects on both pad printing and screen printing including a variety of application fields: printer for plastics, printer for metals, printer for glass, plastic surface printer, metal surface printer, glass surface printer, coin printer, auto-cylindrical bottle printer, SD card printer, MICRO SD card printer, contact lens printer, syringe printer, test tube printer, solder paste printer and touch glass printer, etc.

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