GD-100

Vacuum Plasma Cleaner Technical Specifications



Theory of the Plasma Cleaning

Plasma is a state of matter commonly referred to as the fourth state of matter, distinct from the three standard states: solid, liquid, and gas. Naturally occurring examples of plasma include solar surface matter and Earth's ionosphere.

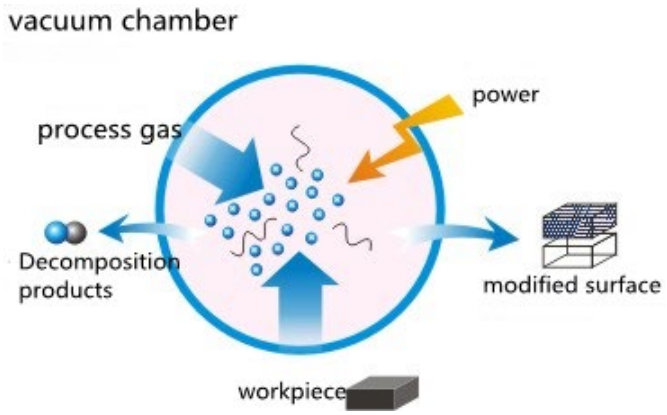
Plasma Composition

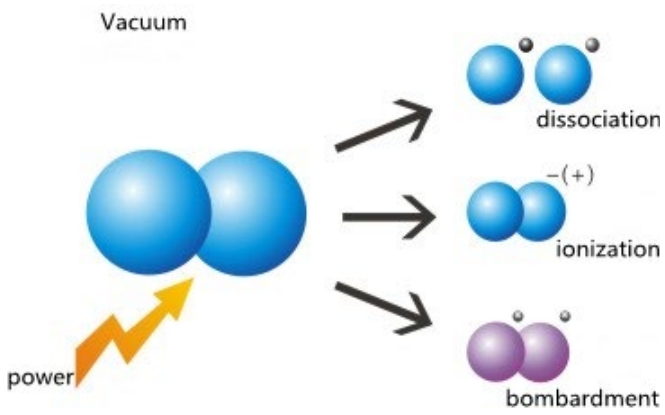
Despite containing charged particles, plasma remains macroscopically electrically neutral. It comprises a complex mix of species, including:

- High-velocity electrons undergoing transitions
- Neutral atoms and molecules
- Excited-state atomic groups (free radicals)
- Reactive ions, photons (including UV radiation generated during ionization and dissociation), and metastable excited species

Plasma Cleaning Technology

Plasma cleaning utilizes non-thermal (low-temperature) plasma to modify substrate surfaces. When the plasma interacts with a material surface, it performs chemical reactions, physical ablation, and micro-etching. This process thoroughly cleans the substrate, improves surface wettability, and introduces new functional chemical groups to the surface.





Plasma Advantages

Compared with traditional processes, plasma surface treatment technology has the following advantages:

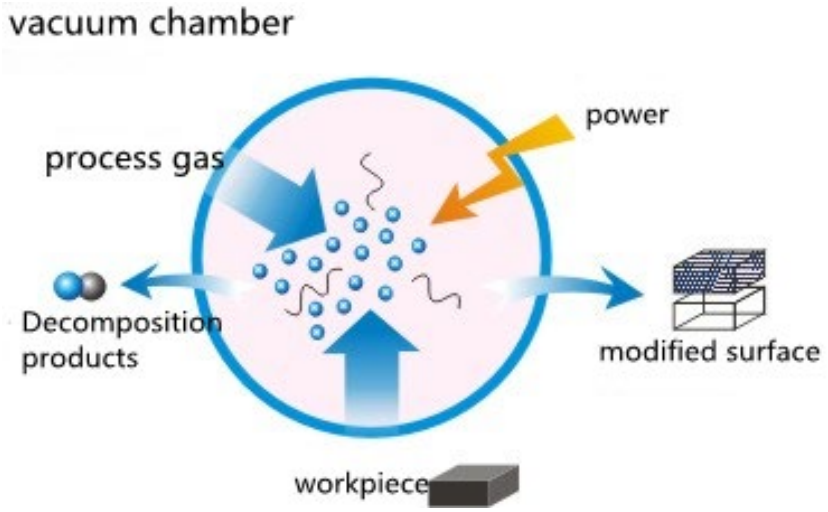
- **Strong function**: The modification only occurs on the surface of the material (about several to tens of nanometers), giving it one or more new functions without changing the inherent properties of the matrix;
- **Wide application**: It can be processed regardless of the type of substrate of the object to be processed, such as metal, plastic, glass, polymer materials, etc.;
- **Easy to operate**: The process is simple, the operation is convenient, the production controllability is strong and the stability is high;
- **High Efficiency**: Short processing time, high reaction rate, and good processing uniformity;
- **Energy saving and environmental protection**: The whole process of drying treatment method does not consume water resources, does not need to add chemicals, and does not produce pollution.

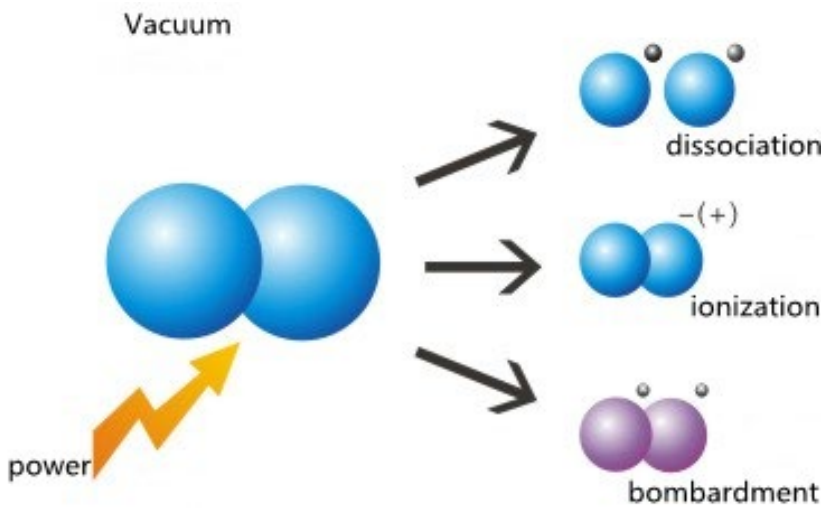
Product Introduction

GD-60 series plasma cleaners are positioned industrial production . They are widely used in electronics, solar energy, automobiles, textiles, packaging and printing, biomedical and general industries. They are characterized by high processing efficiency and repeatability. It is suitable for cleaning, activation, improving adhesion, adhesion and etching processes, and can be customized according to different needs of customers. Professional, efficient and stable solution.

Equipment Work Flow Chart

Place Material → Close the Door → Connect the Gas → Set Parameter → Start Plasma Cleaning → Balance Chamber → Take Out Material





Technical Parameter

Name	Vacuum plasma cleaner
Model	GD-100
Control System	PLC+ touch screen
Frequency	40KHz
Voltage	AC 380V(±10V)
Power	2000 W（Adjustable）
Gas Control	2-way proportional valve flow control
Control Method	Automatic and manual methods
Cavity Size (L*W*H) mm	470×470×480
Cavity Material	Stainless Steel
Load Specifications (L*W) mm	459×400 (A total of Six layers customizable)
Equipment Size (L*W*H) mm	1240×980×1710
Cavity Volume	100 L
Degree of Vacuum	10 Pa
Gas Select	Ar、N_2、O_2、Air

Equipment Main Configuration List

NO	Main Accessories Name
1	Vacuum Plasma Cleaner
2	Vacuum pump system and related accessories
3	Operation Manual



Warranty & Technical Support: The provided equipment includes a one-year warranty (excluding consumable parts). During this period, free maintenance and repair services are provided for issues occurring under normal operating conditions within Guangdong Province. Remote technical assistance is available for all locations.

Post-Warranty Support: Following the expiration of the one-year warranty, paid maintenance services will be provided at cost value (charging only for parts and direct service expenses, with no additional profit margin).

Long-Term Service: We offer long-term equipment maintenance, servicing, upgrades, and related technical support.

