

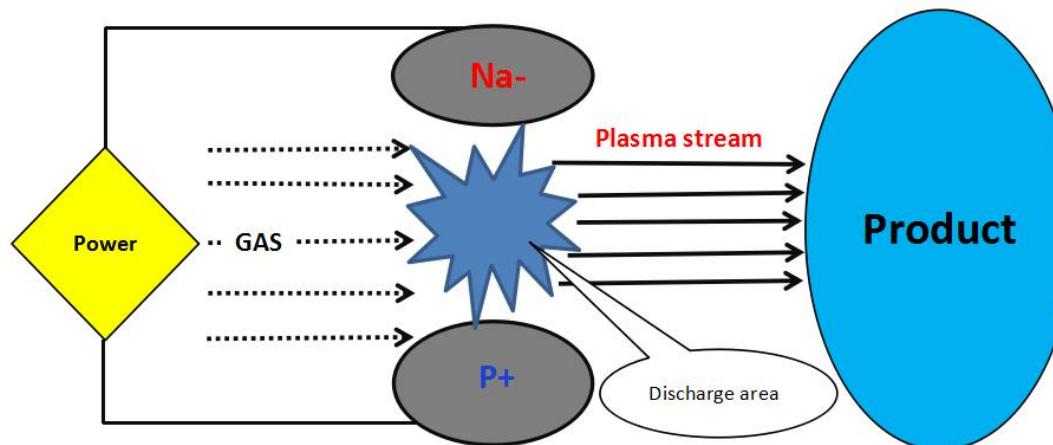
# Specifications of PM-G16D Plasma Treatment Machine

## I. Theory of Plasma Treatment Machine

Plasma is a state of existence of matter. Generally, matter exists in three states: solid, liquid, and gaseous, such as matter on the surface of the sun and the ionosphere in the earth's atmosphere. The state in which this type of matter shrinks is called the plasma state, also known as the fourth state of matter.

The following substances exist in the plasma: electrons in high-speed moving transition states, neutral atoms, molecules, atomic groups (radicals) in excited transition states, and ultraviolet rays generated during the dissociation reaction of ionized atoms, molecules, and molecules. Reacting molecules, atoms, etc. but the substance remains electrically neutral in general. The "active" components of plasma include ions, electrons, active groups, excited nuclides (metastable states), photons, and so on.

Plasma cleaning technology uses the characteristics of low-temperature plasma to make the plasma contact and react with the surface of the material, so that the surface of the processed material is chemically and surface etching and physically cleaned, improving the wettability of the surface, implanting new chemical functional groups.



## II. Advantage of Plasma

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.

**【Width Application】** : Regardless of the type of substrate to be processed, such as metal, plastic, glass, polymer materials, etc. can be processed.

**【Easy Operation】** : Simple process, convenient operation, strong production controllability and high stability.

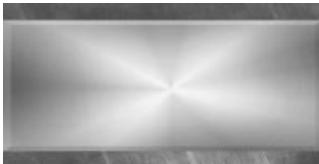
**【High Efficiency】** : Combined with production line, continuous operation is possible.

**【Low Energy and Environment-friendly】** : The whole process of drying treatment method does not consume water resources, does not need to add chemicals, and does not produce pollution.

### III. Product Introduction

PM-G16D plasma treatment machine is widely used in electronics, solar energy, automobile, packaging and printing, biomedical and general industries. It is characterized by high processing efficiency, good repeatability and stability, easy operation and suitable for different materials. Wide-width product cleaning, activation, improving adhesion, adhesion and other processes, and can customize professional, efficient and stable solutions according to different product needs of customers.

## IV. Product Application

	Circuit Board Industry Organic cleaning and surface activate for FPC and PCB
	Glass Industry AF coating film pre-treatment Remove organic pollutant for improve hydrophilic and prolong life
	Metal Sheet Industry Organic cleaning and surface activate for aluminum sheet , stainless and other metal.
	Plastic Sheet Industry Plasma cleaning and plasma activate for many kinds plastic
	FPD Industry Plasma pre-treatment for mini LED encapsulation, TP bonding and ITO printing and coating
	Photonics and Electronics Industry Remove the molecular polar pollution generated during the production of electronic products and improve encapsulation reliability and yield

## V. Technical Specification of Product

Name	Item	Parameter
Control System	Power	AC220V, 50 Hz
	Size	550(L)*350(W)*472(H) mm
	Weight	32 kg
Plasma Power Supply	Power	1200 W
	Frequency	18-25 KHz
Plasma Nozzle	Treatment Width	300 mm (
	Treatment Height	3-5 mm (3 mm suggested)
	Size	420mm(L)*116mm(W)*133mm(H)
	Weigth	12 kg
	Cable Length	3 m
Process Gas	Gas Available	N2 (nitrogen, suggest purity 99.9%)
	Gas Flow	100 L/min
	Air Pressure	3 kg/ cm <sup>2</sup>
Assembly line Specification	Speed of Conveyor	0-600 mm/min

## VI. Main Configuration List of Equipment

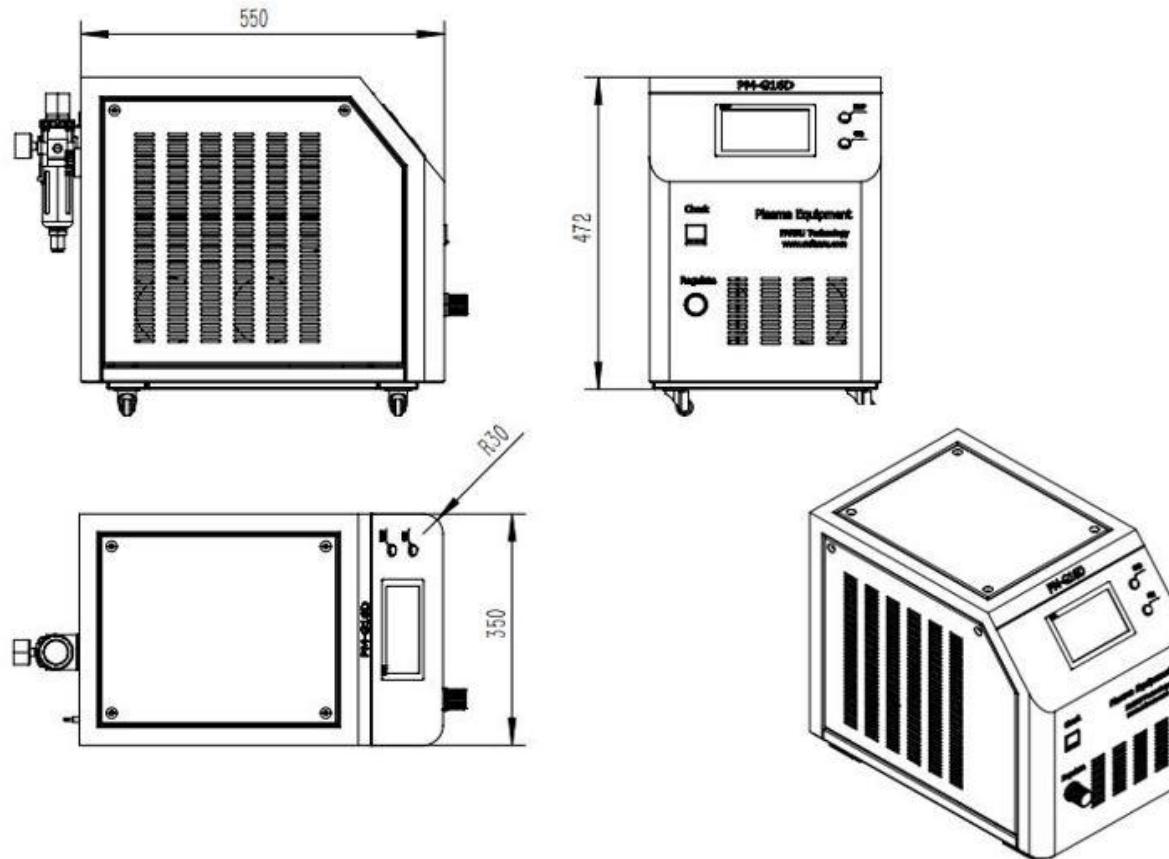
NO	Name
1	Host of PM-G16D plasma treatment machine
2	Nozzles and related accessories of equipment

### ◎Warranty and After-sales Service

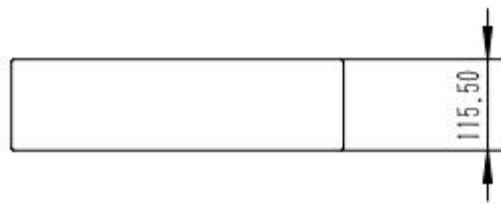
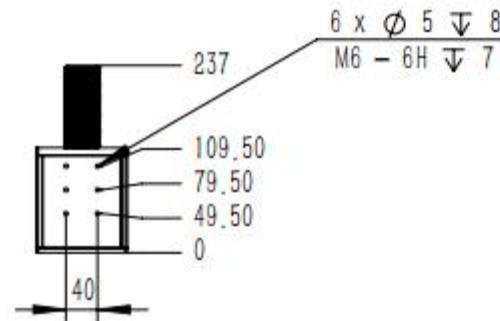
1. Our company is responsible for the one-year warranty for the equipment provided (except for consumables), and free maintenance and repairs for problems arising under normal application conditions.
2. After the one-year warranty expires, provide non-profit paid services to the equipment (only charge the cost of related services).
3. Provide long-term equipment maintenance, maintenance or improvement and other related matters.

## VII. Equipment Size Drawing

### 1、Plasma host appearance



## 2、Dimensional drawing of plasma nozzle



## VIII. Appearance drawing of Equipment

