

## NE-PE10

### 10L (40Khz) LOW PRESSURE PLASMA TREATMENT SYSTEM

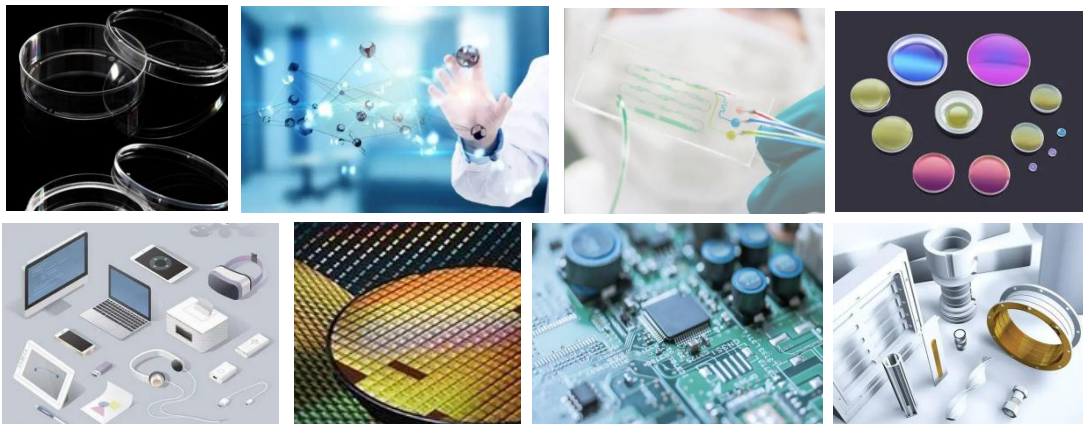


## NE-PE10 PROFILE

**NE-PE10** is a microprocessor controlled desktop plasma treatment system which is dedicated to cleaning and surface activation of a wide range of materials including polymers, metals, glass and ceramics, delivering optimum adhesion properties of otherwise difficult to bond materials.

It is widely used in scientific research institutions, enterprise R&D units and small batch production proofing, including:

- ❖ Plasma cleaning organics
- ❖ Plasma surface activation to improve adhesion
- ❖ PDMS & microfluidic devices
- ❖ PEEK & other engineering polymers
- ❖ PTFE
- ❖ Metals
- ❖ Ceramics
- ❖ Glass & optical devices



## NE-PE10 FEATURES

### ✧ Compact, tabletop unit

Weight: 35KG

Size: 600mm(L)×530mm(W) ×550mm(H)

### ✧ Easy to install

Only need to connect the equipment with the vacuum pump, and then connect the power supply to use.

### ✧ Adjustable power settings

The max power is 300W which can be adjusted continuously.

### ✧ Stainless steel cavity

Durable high-quality stainless steel dedicated electrodes with tray.

Size : 200(L)×270(D)×200(H)mm



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✧ **Self-developed power supply**

Digital high-frequency plasma generator produces high-density contour particles to ensure outstanding cleaning effect.

✧ **High precision float needle valve flow controller**

Two gas channels are standard,supports various process gases, such as oxygen, argon, hydrogen, nitrogen, etc.

✧ **Pro-environment**

Dry processing, low gas emission, no hazardous emissions,no pollution to the air.

✧ **4.3" Touch screen**

The whole process can be directly set and processed through the touch screen, which is intuitive and the process can be monitored in real time.

✧ **Vacuum pump**

Equipped with a high-speed vacuum pump, the ideal vacuum value can be reached within 30 seconds, saving the entire processing time.

✧ **Fast treatment time**

A cycle only takes two to five minutes, and processing times can be set according to demand, with a maximum processing time of 9,999 seconds.

## NE-PE10 SPECIFICATIONS

	STANDARD MODEL	OPTIONAL
<b>Overall dimensions</b>		
Size	600mm(L)×530mm(W) ×550mm(H)	
Weight	45KG(Including vacuum pump)	
<b>Plasma generator</b>		
Brand	NAEN	Specified by customer
Power	300W	Specified by customer
Frequency	40khz	
Radiation-resistant high-frequency matcher	Automatic impedance matching	
<b>Vacuum chamber</b>		
Cavity material	316 stainless steel, military grade seal	
Cavity volume	10L	
Discharge electrode	2 aluminum alloy special electrode + 2 tray	
Cavity size	200( L)×270(D) ×200(H)mm	
Effective processing range	180 (W) *210(D)mm	
Processing layers	2	
Monolayer spacing	H:55mm	
<b>Gas Control</b>		
Gas flow controller	High precision float needle valve flow controller	
flow value	0-500ml	Specified by customer
Gas channel	2 channels(supports various process gases, such as	



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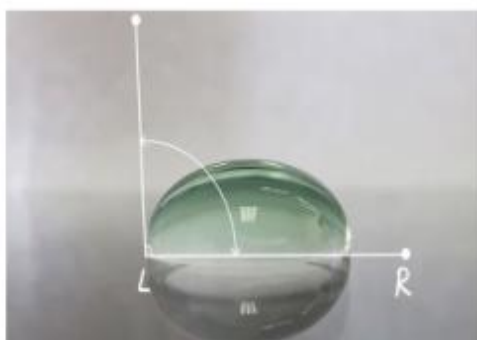
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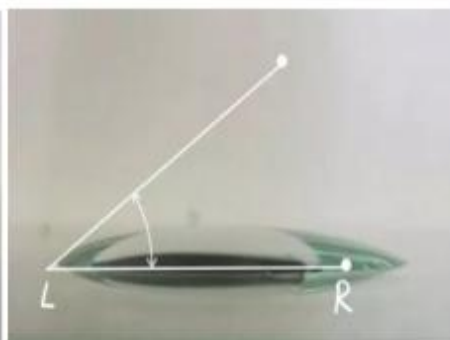
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	oxygen, argon, hydrogen, nitrogen, etc.)	
<b>Vacuum measurement</b>		
Vacuometer	SMC	
<b>Pumping system</b>		
Pumping speed	8 m <sup>3</sup> /H,oil pump with filter	Dry pump
Limiting vacuum	1PA	
Vacuum line	Stainless steel pipeline + pneumatic valve	
<b>Control system</b>		
Touch screen	4.3"	
PLC	Panasonic	
Software	Independent patent design plasma control system, precise & repeatable,multi - language options	
<b>Condition</b>		
Power Supply	220V	Specified by customer
Type of air pipe	Φ 6mm	
Gas purity	99.999%	
Gas pressure	0.3-0.6Mpa	
Exhaust port	KF25	

## TYPICAL PROCESS RESULTS

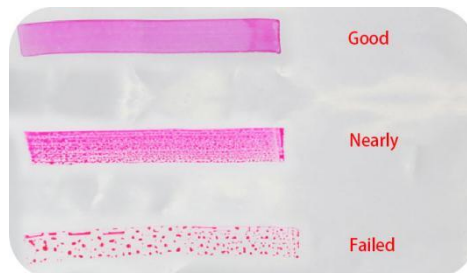
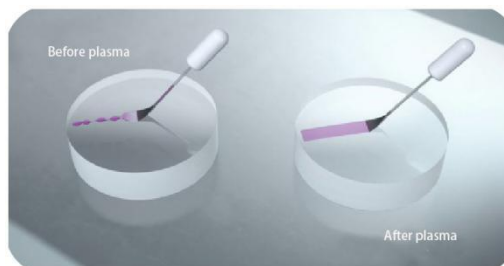


Contact Angle Before Treatment



Contact Angle After Treatment

## Comparison of Dyne values



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## ABOUT NAEN TECH

Naen Tech are an international leader in the design, development and manufacture of plasma surface treatment systems & advanced plasma processes.

Our products are installed worldwide and trusted to deliver consistent, reliable results in both leading research institutes and in critical manufacturing steps.

We are experts in plasma technology and surface science. We are trusted partners, valued for our courtesy, professionalism and dedication to delivering the correct solution for our clients.

## OUR SERVICES

### ❖ **Contract plasma treatment**

We have more than 10,000 customer cases around the world, and we are equipped with technicians who can meet the plasma needs of various industries, and will provide a quick, no-nonsense feasibility solution for the surface treatment needs of different segments!

### ❖ **Surface testing laboratory**

With a comprehensive suite of surface analysis equipment, we are able to conduct a wide range of surface property tests, both before and after plasma treatment, in order to provide you a professional report with the whole pictures and videos.

### ❖ **After sales support**

The equipment is guaranteed for one year free of charge and provides lifetime technical services. If the equipment fails (non-human damage), we will arrange after-sales personnel to follow up within 24 hours until the fault is eliminated.

### ❖ **Rental plasma systems**

We carry a wide range of our standard equipment in stock and available for short or long term hire. This is particularly useful for in-house proof of concept trials or to satisfy short term contract work.

### ❖ **Method development**

We have invested significantly in laboratory facilities to assess, test and investigate all aspects of plasma surface modification on a wide range of materials. Coupled with extensive in-house and real-world knowledge, we can usually deliver a tailored treatment quickly and efficiently to suit your individual product or production needs.



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