

# Committed to providing innovative solutions

for material surface treatment.

# NE-PE25

# 25L (40Khz) LOW PRESSURE PLASMA ETCHING SYSTEM





# **NE-PE25 PROFILE**

**NE-PE25** 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-PE25 FEATURES**

#### ♦ Compact, tabletop unit

Weight: 100KG

Size: 650mm(W) $\times$ 740mm(D)  $\times$ 666mm(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 1000W which can be adjusted continuously.

#### ♦ Stainless steel cavity

Durable high-quality stainless steel dedicated electrodes with tray.

Size: 380(L)×390(D)×170(H)mm;25L



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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.

#### ♦ 7" 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. It can support multiple program recipe processing at the same 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-PE25 SPECIFICATIONS**

	STANDARD MODEL	OPTIONAL	
Overall dimensions			
Size	650mm(W)×740mm(D) ×666mm(H)		
Weight	100KG(Including vacuum pump)		
Plasma generator			
Power	1000W(Adjusted)		
Frequency	40Khz		
Vacuum chamber			
Cavity material	316 stainless steel, military grade seal		
Cavity volume	25L		
Cavity size	380(L)×390(D)×170(H)mm		
Effective processing range	332 (W) ×320 (D) ×30 (H) mm		
Layers	2		
Discharge electrode			
Electrode	High conductive aluminum alloy special electrode		
Discharge modes	ССР		
Gas Control			
Gas flow controller	High precision float needle valve flow controller		
Flow value	0-500sccm		

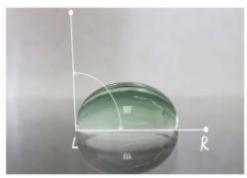


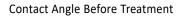
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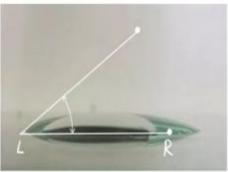
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Gas channel	2 channels(supports various process gases, such as		
Sas chamici	oxygen, argon, hydrogen, nitrogen, etc.)		
	oxygen, argon, nydrogen, mirogen, etc.)		
Vacuum measurement			
Vacuometer	SMC		
Pumping system			
Pumping speed	16 m³ /H, oil pump	Dry pump	
Limiting vacuum	1PA		
Control system			
Touch screen	7"		
PLC	Panasonic		
Software	Plasma control system with independent patent: 3 - level		
	permissions, auto/manual modes, recipe param		
	setup/storage/call, alarm history query, IO monitoring.		
Real-time monitoring	Power, vacuum degree, air pressure, gas flow rate,		
	working hours, etc.		
Alarm function	Vacuum anti-misoperation, power anti-misoperation, air		
	pressure alarm, phase sequence alarm		
Condition			
Power Supply	220V		
Type of air pipe	Ф 6mm		
Gas purity	99.999%		
Gas pressure	0.3-0.6Mpa		
Exhaust port	KF25		

# **TYPICAL PROCESS RESULTS**







Contact Angle After Treatment

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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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