

Laboratory and Small-Scale Production PLASMA-SYSTEM

S U R F A C E T E C H N O L O G Y

NANO



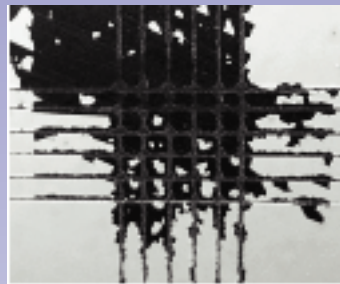
Applications:

- Cleaning of surfaces
- Activation of surfaces
- Etching of surfaces
- Deposition of coatings

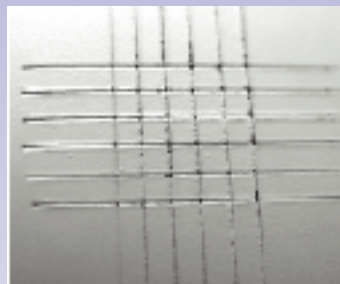
Area of applications:

- Semiconductor technology
- Precision mechanics
- Electronic technology
- Medical technology
- Plastics technology
- Elastomer technology
- Research and development

Paint ability



Grid cut test without plasma treatment



Grid cut test with plasma treatment

Wet ability



Test ink without plasma treatment



Test ink with plasma treatment

Diener electronic
Plasma-Surface-Technology

PLASMA-SYSTEM NANO

TECHNICAL DATA

	Plasma-System Typ NANO
1. Switch cabinet	Dimensions: Width: approx. 580 mm (19") Height: approx. 650 mm Depth: approx. 600 mm
2. Vacuum chamber	Dimensions: Diameter: approx. 267 mm Depth: approx. 420 mm (Other depths are possible) Volumen: approx. 24 l Chamber material: stainless steel Door material: aluminium
3. Gas connection/ Pressure measurement	2 process gases with needle valve Pressure measurement with Pirani Vacuum saftey switch
4. Power supply	Frequency: 40 kHz Power: 0 - 300 W, infinitely variable Automatic impedance matching Vacuum safety switch Door safety switch
5. Electrodes and goods-carriers	One electrode . One goods carrier . Or optional with rotary drum .
6. Electronic control	Semiautomatic Control Parameters which the operator can set: Process time Power Gas type Process pressure
7. Connections	Gas: 6 mm Swagelok Power supply: 230 V / 16 A Exhaust air: tube with approx. 10 mm diameter
8. Pump	2-step rotary vane pump with electromagnetic valve filled with mineral oil (not with extremely expensive PFPE-oil) Exhaust filter Purge system makes it possible to run the pump with oxygen Pumping speed: min. 4 m ³ / hr

Available options:

- Rotary drum
 - Spare parts package
 - Additional gas channels
 - Polymerisation accessories
 - Bias voltage measurement
 - Special flanges/additional flanges
 - Safety valve
 - Maintenance agreement
 - Hot plate
 - Pressure reducing valve for gas bottle
 - Custom made goods carriers
 - RIE electrode
 - Ion measuring sensor
 - Test inks
 - Exhaust filter
 - Input filter for vacuum pump
 - Temperature measurement
 - MFC (Mass-Flow-Controller)
- Different generators for LF (40 kHz), RF (13,56 MHz), MW (2,45 GHz Microwave)
● Options for special gases (CF₄, NH₃, SiH₄, ...)

Technical modifications reserved

Diener electronic

Plasma-Surface-Technology
HF-generators

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