TABLE-TOP PHOTORESIST SPRAY COATING SYSTEM

Our POLOS® PC330 table-top photoresist spray coating system utilizes a unique ultrasonic spray coating technology to evenly coat the photoresist on the surfaces of substrates such as MEMs, wafers, masks and other substrates with various topographies.

Our systems allow high precision nano-particle coating with more efficient photoresist consumption compared to standard photoresist application techniques. On our ultrasonic spray coating systems the material usage ratio exceeds 95%, this will allow our users to reduce costs of photoresist consumption and improve their process efficiency.

Listening to the needs of our customers, we designed a compact system with easy-to-use software controls, the ability to choose from the wide range of Ultrasonic Nozzles and complimentary options will allow our customers to find the perfect match for their process application.

The POLOS® PC330 is a benchtop coating system especially for photoresist coating. It is suitable for wafers up to 300 mm (12"). The thickness of the photoresist coating is usually 1 to 100 microns. It is equipped with a vacuum heating plate, that can be adjusted to wafers of different sizes.

KEY FEATURES

- Bench-top system
- Better coverage of microstructure and controllable coating area than spin coating
- High precision nanoparticle coating due to Ultrasonic Nozzle, material consumption ratio > 95%
- Compatible with all series of POLOS® by Siansonic® nozzles; spray width from 1 mm to 100 mm and flow rate of 0.001 ml/min - 50 ml/min
- Max. spray area: 300 mm x 300 mm (12")
- Uniformity: >95%
- Liquid viscosity: <30 cps
- Thickness of coating: 1 - 100 micron (depending on material)
- XYZ servo motion system
- Precision syringe pump
- Exhaust system
- Laser light for positioning of nozzle
- Switchable multi-channel vacuum heating plate for wafers of 4", 6", 8" and 12"

OPTIONS

- Vacuum heating plate with maximum temperature of 150°C.
- Ultrasonic bath: used to pre-disperse the coating liquid.
- Ultrasonic syringe: Used to provide nano particle dispersion during the liquid delivery process and to avoid the solid settlement during spray coating.

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SPECIFICATIONS

Parts	Items	Value
Nozzle	Droplet size	10 - 40 µm
	Spray width	< 100 mm
	Flow rate	< 10 ml/min
Ultrasonic generator		Digital ultrasonic generator with power
	Control step size	0.01 W
Motion system	Max. spray area	300 × 300 mm
	Motion	XYZ servo system
	Motion precision	± 0.02 mm
	Max. velocity	XY axis: 300 mm/sec; Z axis: 30 mm/sec
	Control method	PLC
Liquid delivery		Precision syringe pump
Chamber lamp		Yellow light
Nozzle positioning		Laser light for positioning of nozzle
Exhaust system		Including fan and ready for connecting to exhaust system
Vaccum heating plate		Switchable multi-channels vaccum plate to fit 4”, 6”, 8”, 12” wafers
	Heating temperature	< 150°C (vaccum off), < 100°C (vaccum on)
Basic specifications	System dimension	1110 (w) x 850 (d) x 970 (h) mm
	Weight	180 kg
	Power Input	220 VAC 50/60 Hz

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