

AP-3P SERIES

SELECTIVE ATMOSPHERIC PLASMA TREATMENT SYSTEM

Product Description

ANDA's AP-3 Series are advanced inline 3 axes XYZ gantry atmospheric pressure plasma surface treatment machines that are equipped with high-speed servo motors and ball screw linear slides. The standard machine AP-3P is equipped with a single nozzle situated above the conveyor to plasma treat, clean, and activate surfaces from the top side only. The AP-3DP utilizes dual plasma nozzles for maximizing productivity of top and bottom surface treatment (single nozzle above and single nozzle below conveyor) synchronized for simultaneous treatment or operate each nozzle independently.

Plasma Treatment removes static electricity and contaminants such as fine dust, oil, grease, microbial organisms, and both organic/inorganic compounds. It serves to increase the surface energy on a substrate (breaking surface tension), through increasing surface area by making atomic level surface modifications. These changes provide better material wettability and stronger adhesion for applied coatings and glues to substrates that are plasma treated, making their bonds less susceptible to fail.

- Steel structure smooth motion platform
- Simple online vision programming
- A variety of nozzles are available for selective concentrated spear-tip or wide area rotary plasma cleaning to meet process needs



Rotary Nozzle, Atmospheric Plasma Treatment



Spear Nozzle, Atmospheric Plasma Treatmen





Specifications:

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Board Handling	
Standard Work Area	X 450 mm (17.71") Y 450 mm (17.71")
Min. Conveyor Width	50 mm (1.96")
Max. Conveyor Width	450 mm (17.71")
Max. Component Height	± 90 mm (3.54")
PCB Edge Clearance	≥ 5 mm (≥ 0.19")
Process Flow	L to R (Standard), R to L (Optional)
Max. Conveyor Load	4 kg/m (Standard), 10 kg/m (Optional) with even distribution
Max. Conveyor Speed	13 m/min
Conveyor Height	$900 \pm 20 \text{ mm} (35.43" \pm 0.79")$
Conveyor Width Adjustment	Motorized
Operation	
Gantry System	Servo Motors & Ball Screw
XY Max. Speed	800 mm/s
Working Speed	50 - 100 mm/s (Recommanded)
XYZ Repeatability	± 0.2 mm (± 0.007")
Nozzle Configuration	See nozzle options (Right)
Nozzle Effective Height	3 - 15 mm (0.12" - 0.59")
RF Power	
Standard Power	500 W / 1000 W / 300 - 620 W
Frequency	20 - 25 kHz
acility	
	L 900 mm (33.43")
Footprint	W 1300 mm (51.18") H 1650 mm (64.96")
Weight	
Weight	~530 kg (~1170 lbs)
Min. Air Supply	0.4 MPa (60 psi, 4 Bar)
Exhaust Requirement	5 m³/min (180 CFM)
Input Power	AC 220 V 50/60 Hz
Standard Compliance	SMEMA, IPC, CE
nterface	
Controller	IPC & KMM
OS	Windows OS
Software	Anda Software
Programming	File Transfer & On-board Programming

Standard Features

- Board presence sensors
- UPS and voltage stabilizer
- Light tower beacon
- ESD grounding

Optional Features

- Heavy duty conveyor
- Dual lane conveyor system
- Multi-stage or multi-zone conveyor
- Return conveyor (underneath)
- Larger conveyor width
- CCD vision camera
- Barcode or 2D code scanner
- Dual plasma nozzles for top and bottom side simultaneous cleaning
- Nitrogen generator

Nozzle Options

Spear Nozzles:









Rotational Nozzles:







CSM-RN50 50 mm Width



CSM-RN60 60 mm Width



