

SER-DC Series

Desktop Conformal Coating System



SER-DC desktop conformal coating system is a compact machine designed for precise application of protective coatings to electronic components like PCBs. It offers adjustable settings for spray patterns, coating thickness, and speed, ensuring accurate coverage. The system is suitable for various coating materials and includes features like selective coating and integrated curing options for efficient operation. Its small size makes it easy to integrate into existing workspaces, providing reliable protection for electronics against environmental factors.

SER-DC can be integrated with different coating valve including full board spraying valve or film coating valve for selective conformal coating process.

FEATURES

- Dispensing area from 200x200x100 mm to 600x500x100 mm
- Dot, Lines, Arc etc. and 3D dispensing path is available.
- 100 programs, 4000 points per program.
- A hand-held Teach Pendant is provided for simple and intuitive programming functions.
- Windows SRE software is available for CAD file input (optional).
- **Compact Design:** Ideal for lab environments and small-scale production, fitting easily on a desk.
- **Precision Application:** Equipped with advanced dispensing technology for accurate coating of printed circuit boards (PCBs) and other electronic components.
- **Adjustable Settings:** Allows customization of spray patterns, coating thickness, and application speed for various materials.
- **Selective Coating:** Capable of applying coatings only to specific areas, reducing material waste.

OPTIONS



Dual Table



Dual Valve



Different tank sizes

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DESKTOP ROBOT MAIN SPECIFICATIONS

Model	SER-200	SER-300	SER-400	SER-500
Working range (X/ Y/ Z) mm	200 x 200 x 50	300 x 300 x 100	400 x 400 x 100	500 x 500 x 100
Max. load Y/ Z Axis	5kg/ 3kg	11kg/ 6kg		
Speed X & Y/ Z (mm/sec)	500/350	800/350		
Repetitive Positioning Accuracy	±0.02mm/axis			
Program Capacity	Min. 100 group, 4000 points/group			
Data Storage Type	CF Card			
Byte	32 bit			
Program Display	LCD			
Motor System	Micro stepping motor			
Mode of transmission	Synchronous belt	X/Y Axis synchronous belt, Z Axis precision ball screw		
Interpolation Function	3 axis			
Teaching Method	Teach Pendant			
I/O Signals Port	8 Inputs/ 8 Outputs			
External Control Interface	RS232			
Power Supply	AC100 - 230V 300W			
Working Temperature	10 ~ 40°C			
Working Relative Humidity	20 ~ 90% no condensation			
Dimension (L x W x H) mm	385 x 380 x 500	485 x 505 x 610	585 x 610 x 610	785 x 700 x 610
Total weight	23kg	34kg	41kg	56kg

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GV-690 ATOMIZING VALVE

Full board Conformal Coating/ Spraying Valve

GV-690 spray valve is engineered to ensure a uniform application of thinner to moderately thick fluids using low-pressure air, preventing excess spray or mist. By choosing the right nozzle, you can achieve precise control over the spray's quality.

FEATURES

- Suitable for low viscosity solvent, paint, flux
- Typical application: Conformal Coating
- Low pressure for better adhesion result

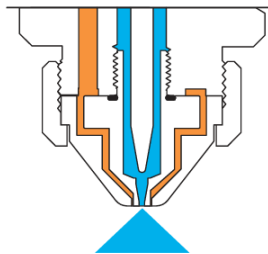


Figure 1

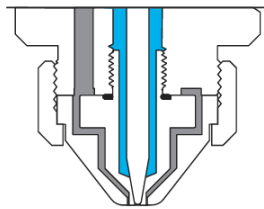


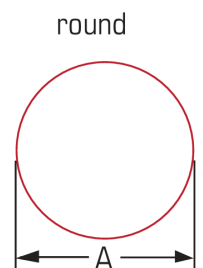
Figure 2



SPRAY COVERAGE AREA

Round Pattern Spray Coverage (A)

Nozzle distance from surface	Nozzle size		
	#46	#28	#14
25mm	6mm	5mm	4mm
50mm	13mm	10mm	8mm
75mm	19mm	15mm	12mm
150mm	36mm	30mm	24mm



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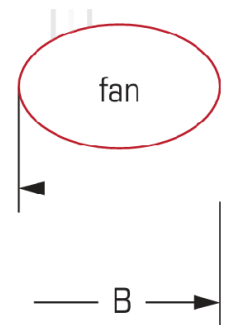
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GV-690 ATOMIZING VALVE

Full board Conformal Coating/ Spraying Valve

Fan Pattern Spray Coverage (B)

Nozzle distance from surface	Nozzle size		
	#46WF	#46F	#28F
25mm	40mm	25mm	10mm
50mm	60mm	40mm	20mm
75mm	80mm	50mm	30mm
150mm	165mm	80mm	60mm



SPECIFICATION

GV-690	Value
Dimension	∅ 26.9 mm (Fluid body) x 105 mm length
Net weight	294g
Air cylinder body	SUS303
Piston needle	SUS303
Needle packing	SUS303, Teflon
Nozzle air cap	SUS303
Fluid inlet port	1/8NPT female
Mounting hole	M6 female
Valve operating air pressure	0.4 ~ 0.62 MPa
Maximum nozzle air pressure	0.2MPa (Standard)
Maximum fluid pressure	0.7MPa
Free flow orifice (special)	#46, #28, #14

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GV-697 NON-ATOMIZING FILM COATING VALVE

Selective Conformal Coating/ Spraying Valve

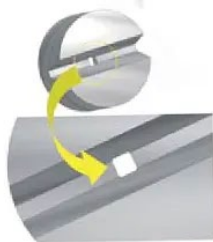
The GV-697 conformal coating valve is specifically engineered to administer moisture-resistant coatings onto PCBs at a reduced flow rate. Its unique square-cut nozzle design guarantees exceptional stability and prevents any excess spray, resulting in a faster and mess-free dispensing process.

FEATURES

- Consistent and precise coating
- No overspray or misting
- Customizable spray quality
- Gentle and controlled spraying



Spray pattern



Square-cut nozzle



SPECIFICATIONS

GV-697	Value
Dimension	26.9 x 36.9 x 141 mm
Net weight	334g
Viscosity	< 500cps
Fluid inlet port	1/8NPT female
Mounting hole	M6 female
Valve operating air pressure	0.4 ~ 0.62 MPa
Outlet	M6 female
Cylinder body material	SUS303
Nozzle connector	SUS303
Runner material	SUS303

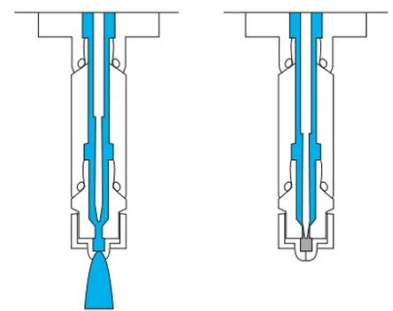
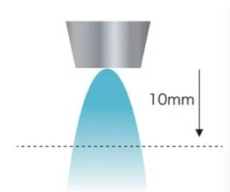


Figure 1

Figure 2



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GC-850V SPRAYING VALVE CONTROLLER



- Suitable to control all kinds of pneumatic valve, such as diaphragm valve, firing pin valve, Piston valve, Spray valve, Screw valve & with encoder motor screw valve;
- Dispenser controller timer, pressure are all digital display, and can be exactly regulate;
- It can set 10 changable, sequential or single dispensing points;
- Diversification dispensing mode, as timing, moving, teaching and interrupting this four dispensing modes;
- It can store 10 dispensing programs which can flexibly respond to the change of different points' dispensing quantity;
- RS232 port and foot switch to trigger & control to achieve automatic dispensing;
- With adjust low pressure alarm function;

SPECIFICATION

GC-850SV	Value
Dimension	L254 x W191 x H102 mm
Cycle Time	900 cycles/min
Timing range	0.008 ~ 60.000 s
Timing repeatability	0.001%
Air input	Max. 100 Psi (6.9 bar)
Air output	1 ~ 100 Psi (0.7 ~ 6.9 bar)