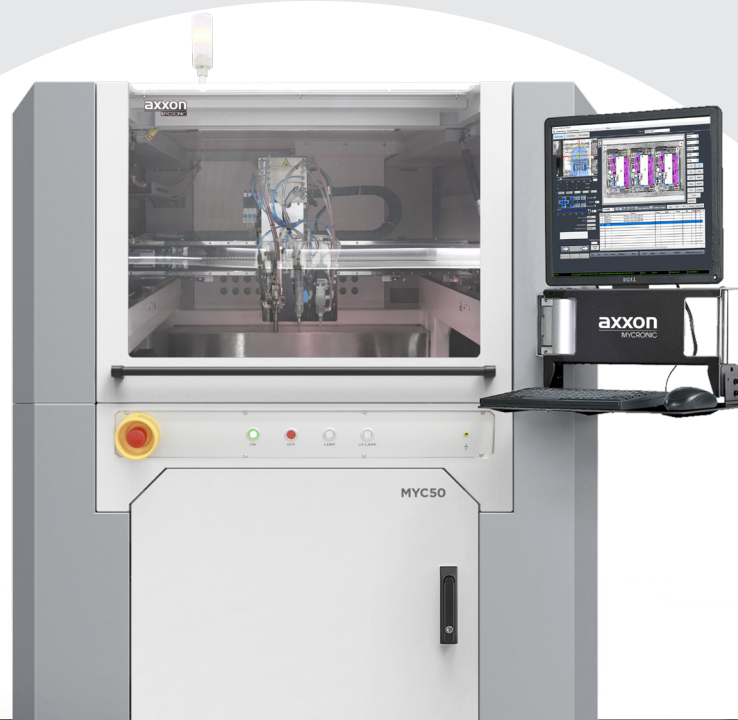


High-productivity, high-precision **conformal coating system**

MYSmart™ MYC50™ inline coating system



Introducing the MYC50 platform

High-performance conformal coating systems

As electronics continually become embedded into an endless variety of products, the need for high-precision conformal coating is greater than ever before. Automate complex coating processes, monitor process parameters and switch spray patterns without interruption. The MYC50 gives you powerful, software-driven process flows that ensure years of productivity for even the most complex printed circuit boards.



- 1 Fast and stable operation.
- 2 Spray patterns can be changed during production, significantly improving process efficiency.
- 3 Flexible multi-axis control enables precise coating of complex PCBs.
- 4 Powerful process controls result in precise coating that consistently meet strict quality guidelines.
- 5 Barcode reader enables automatic program loading and traceability.



Fast and stable operation



Automated spray pattern changeovers



Flexible multi-axis control for complex processes



Powerful process controls enhance quality



Barcode-defined program selection

The MYSmart MYC50 inline conformal coating platform combines high-accuracy edge definition with advanced feedback systems. A wide range of process parameters can be monitored enabling high quality output. There are rich options for process control optimizations such as: fan width control, flow monitoring, heated fluid systems and bar code readers. Wherever ruggedized electronics are required, the MYC50 minimizes material waste while ensuring a controlled coating film thickness, area and process speed.

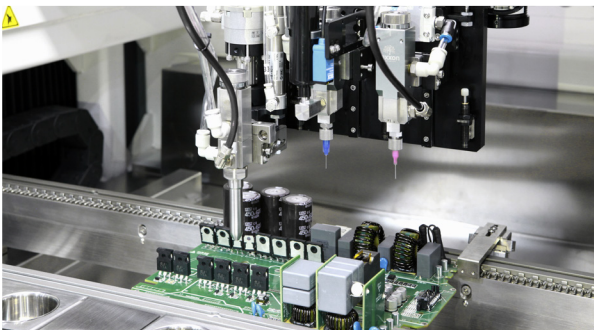
Applications

- Consumer electronics
- Industrial electronics
- Household appliances
- Automotive control panels
- Military electronics
- Computer control panels
- Agricultural equipment control panels
- Battery protection boards
- Led lighting
- Outdoor led displays
- Converter circuit boards
- Security control panels
- Motor control boards
- Power management devices



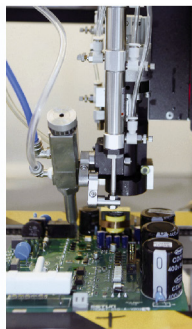
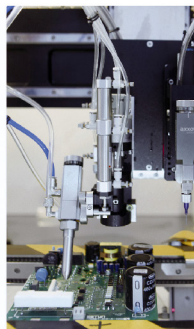
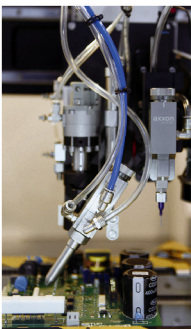
Highly configurable **for precise conformal coating results**

The MYC50's high-precision platform, multi-angle rotation options and flexible software operation ensures perfect selective conformal coating output.



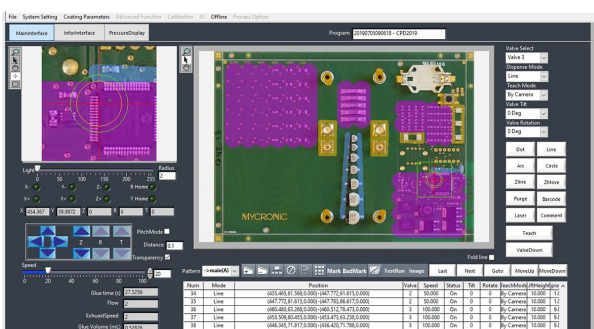
High speed, high precision motion platform

- Robust design of frame structure and axis
- High precision ball screw and AC servo motor
- High speed operation with high precision



Tilt and rotate coating capabilities

- Four-direction tilting
- Software controlled
- Modular design for easy installation and disassembly
- Suitable for spray and jet valves



Intuitive software design

- Offline programming
- Easy software to operate and learn
- Rich functionality to meet complex processes
- A variety of program input methods including camera teaching



Smart coating made simple

The MYC50 is built upon years of coating experience, condensing that knowledge into a robust, easy to use system. The result is a highly capable platform that's simple to program and operate, yet powerful enough to add increasing value to your inline operations as volume, complexity and automation demands grow. You'll have more ways than ever before to handle tomorrow's production challenges.



Valve configurations for every application



Tri-mode V-5000

The V-5000 is suitable for higher viscosity conformal coating fluids. The three modes are line, swirl and spray. The V-5000 has high edge definition and good balance between efficiency and effect.

FEATURES AND ADVANTAGES

- Suitable for higher viscosity fluids
- Optional 360 degree rotation
- Easy maintenance



Needle jet V-420A

The V-420A needle jet is suitable for high precision conformal coating applications. Maximum dispensing speed is 100 dots per second. For tall component coating and tight tolerance keepout areas, the best choice is a V-420A combined with spray or film valve.

FEATURES AND ADVANTAGES

- Cost effective
- Simple structure and easy maintenance
- Compatible with a wide range of dispense tips
- Adjustable flow rate by parameter settings
- High precision dispensing accuracy

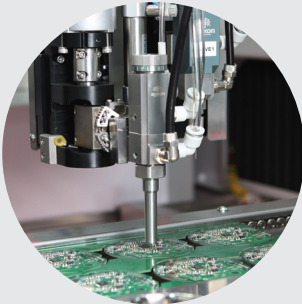


Film coating V-5400

The V-5400 film coating valve is suitable for low viscosity fluids and solvent-based materials. A special nozzle structure enables the material to be applied in a non-atomized manner. Optional nozzle sizes can be configured for the best results of film width and thickness for your application.

FEATURES AND ADVANTAGES

- Adjustable film width and high transfer efficiency
- High material utilization, reduced waste and low cost
- Standard 90 degree rotation of film direction

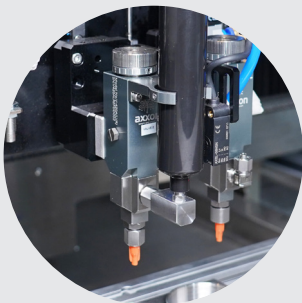


Spray valve

The V-5800 spray valve is for medium and low viscosity fluids. It can achieve a small width and a thin film thickness, ideal choice for precision selective spraying and thin deposition requirements. Additional configurations for fluids such as nano-coating.

FEATURES AND ADVANTAGES

- Low pressure for very fine coating
- Precision spray with excellent edge resolution
- Configurable for nano-coating



V-420A Gel valve

The V-420A gel valve is for applying higher viscosity fluids that are used to prevent a lower viscosity coating material from flowing to undesired locations. The V-420A gel valve is normally used in a 3 valve configuration with the V-420 needle jet and either the film valve or one of the spray valves.

FEATURES AND ADVANTAGES

- Controlled deposition of higher viscosity coating materials
- Powerful closing action for clean material cut-off
- Adjustable stroke to optimize material flow
- Easy maintenance

Specifications **MYC50 inline**

MOTION SYSTEM	
X-/Y-AXIS	Z-AXIS
Speed: max 800mm/s	Speed: max 300mm/s
Acceleration: max (0.8g peak with s-curves)	Acceleration: max (0.3g peak with s-curves)
Repeatability: $\pm 25\mu\text{m}@3\sigma$	Repeatability: $\pm 25\mu\text{m}@3\sigma$
Drive mode: servo motor, ball screw	Drive mode: servo motor, ball screw
FOUR DIRECTION TILTING MODULE	
Rotation angle: 0 degree, 90 degrees	Tilt angle: 0 degree, ± 35 degrees(Manually adjust other degrees)
Repeatability: ± 0.1 degree	Repeatability: ± 0.1 degree
Drive mode: cylinder	Drive mode: cylinder
DISPENSING AREA	
ONE WORK STATION(XxY)	TWO WORK STATIONS(XxY)
Single valve max: 650x450mm	Single valve max: 450x430mm
Asynchronous dual valve max: 530x410mm	Asynchronous dual valve max: 450x410mm
Asynchronous dual valve with four direction tilting module max: 520x360mm	Asynchronous dual valve with four direction tilting module max: 450x360mm
Asynchronous tri-valve max: 455x380mm	Asynchronous tri-valve max: 450x380mm
Max clearance PCB: top 100mm, bottom 100mm	Max clearance PCB: top 100mm, bottom 100mm
BOARD HANDLING	FACILITY REQUIREMENTS
Drive mode: stepper motor, stainless steel chain	Power: AC220V, 2.5kW, 16A, 50/60 Hz
Payload capacity: 5kg (Other weight can be customized)	Air supply: 80psi (5.5bar)
Min board/carrier width: 50mm	System footprint: 1,290x1,364x1,638mm (WxDxH)
Max board/carrier width: 500mm	Machine weight: 900kg
Max board/carrier length: 650mm (1 station) 450mm (2 stations)	Standards compliance: CE, UL (optional), RoHS Reach (optional)
Min board edge: 3mm	Exhaust port: diameter 200mm, volume $\geq 3\text{m}^3/\text{min}$
Width adjustment drive mode: stepper motor	
Communication signal: SMEMA	
CONTROL SYSTEM	FLUID DELIVERY METHODS
Computer: IPC, LCD monitor, keyboard	V-5000 tri-mode spray valve
Operating system: Win 10 / Win 11	V-420A jet valve
Control software: Mysmart Coat	V-5400 film coater
	V-5800 low pressure spray valve
	V-420A gel valve
	V-300HP high pressure valve
STANDARD FEATURES	OPTIONAL FEATURES
Industrial computer and software and monitor	Exhaust fan
X-/Y-/Z-axis and motion platform	Exhaust detection module
Conveyor auto-width adjustment	Conveyor module/bottom return conveyor
Ultraviolet and white light	Cleaning platform
Safety interlock	Pressure tank supply module
Audible alarm	Low liquid alarm module
Exhaust port	Fluid heating module
Fluid supplying pipe	Pump supply module
Material changeover module	Laser height detection module
CCD camera	Laser fan width adjusting control (V-5400)
Offline programming	Nozzle calibration module
Fiducial alignment software	Nozzle vacuum cleaning module
Machine spare part kit	Four direction tilting module
Valves spare part kit	Electric tilt and rotate module
	2D barcode reader module
	Flow monitoring
	Closed loop flow controls
	THT component detection

Bringing tomorrow's electronics to life



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Published in March 2025

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