



MYSmart™ series MYC50™ in-line coating



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

**MYCRONIC**

When passion meets innovation ●

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# 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 on the fly, 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 for enhanced quality
- Barcode-defined program selection

The MYSmart series MYC50 in-line conformal coating platform combines high-accuracy edge control with advanced feedback systems. A wide range of process parameters can be monitored enabling high quality output. Options such as fan width control, non-heated circulation systems, heated circulation systems and barcode readers are a few examples of process control enhancements that are possible. Wherever ruggedized electronics are required, the MYC50 helps to prevent material waste while ensuring highly controlled coating film thickness, coating area and process speed.

### APPLICATIONS

- Consumer electronics
- Industrial electronics
- Household appliances
- Automotive electronic 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



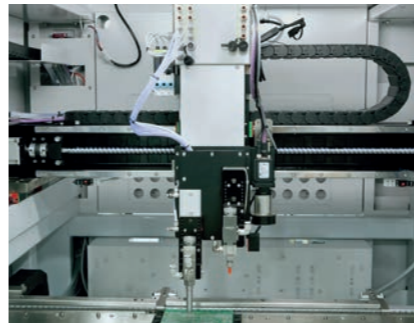


**SMART COATING MADE SIMPLE**

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 in-line operations as volume, complexity and automation demands grow. Giving you more ways than ever before to handle tomorrow's production challenges.

# Highly configurable for precise conformal coating results

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

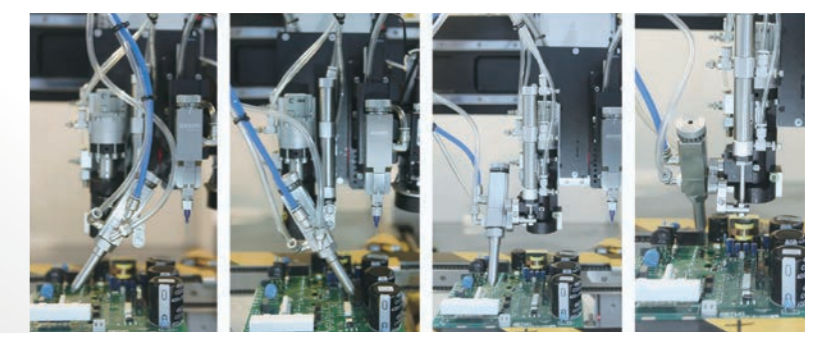


**HIGH SPEED, HIGH PRECISION MOTION PLATFORM**

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

**ANGLE AND ROTATE COATING CAPABILITIES**

- Four-direction tilting
- Software controlled
- Modular design for easy installation and removal
- Suitable for V-5000 and V-420A



**INTUITIVE SOFTWARE DESIGN**

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



# Valve configurations for every application

The MYC50 series can be equipped with a variety of different valves; tri-mode spray valve, precision spray valve and film valve for different applications as well as combinations between them.

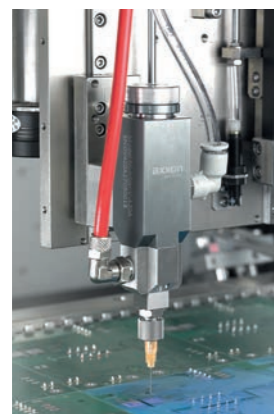


## TRI-MODE VALVE V-5000

V-5000 is suitable for middle to low viscosity fluids. The three modes are line, swirl and spray. The V-5000 valve has high edge definition and good balance between efficiency and effect.

### FEATURES AND ADVANTAGES

- Controlled film thickness at high speed
- Viscosity range: 500-10,000 CPS
- Optional 360 degree rotation structure
- Easy maintenance



## NEEDLE VALVE V-420A

The V-420A needle valve is suitable for low-viscosity materials and mainly used in selective coating applications. Maximum dispensing speed is 100 dots/s. For tall component coating areas and very small tolerances of noncoating requirements, the best choice is V-420A configured with spray or film valve.

### FEATURES AND ADVANTAGES

- Good sealing effect, especially for low viscosity materials
- Cost effective
- Simple structure and easy maintenance
- Flexible needle sizes and changeable needles
- Adjustable flow rate by parameter settings
- High precision dispensing accuracy



## FILM VALVE 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, with a utilization rate of up to 99%. Optional sizes of nozzles help achieve the best results of film width and thickness for your application.

### FEATURES AND ADVANTAGES

- Non-atomizing mode reduces emissions
- Adjustable film width and high transfer efficiency
- High material utilization, reduced waste, and low cost
- Optional 90 degree rotation of film direction
- No masking required

# MYC50 in-line specification

## MOTION SYSTEM

X,Y AXIS	Z AXIS
X, Y speed: max 800 mm/s	Z axis speed: max. 300 mm/s
X, Y acceleration: max. (0.8 g peak with s-curves)	Z axis acceleration: max. (0.3 g peak with s-curves)
X, Y repeatability: ± 25 um, 3 σ	Z axis repeatability: ± 25 um, 3 σ
X, Y drive mode: servo motor, ball screw	Z axis drive mode: servo motor, ball screw

## D AXIS

Rotation angle: ± 90 degrees	Valve rotation axis
Repeatability: ± 0.1 degree	Rotation angle: ± 30 degrees
Drive mode: cylinder	Repeatability: ± 0.1 degree

## DISPENSING AREA

ONE WORK STATION	TWO WORK STATIONS
Single valve max: 650 × 450 mm	Single valve max: 450 × 450 mm
(V-5000 + V-420A ) max : 560 × 450 mm	V-5000+V-420A max: 450 × 450 mm
V-5000 tilting module + V-420A max : 560 × 380 mm	V-5000 tilting module + V-420A max: 450 × 380 mm
	Max. clearance above and below PCB: 100 mm

## BOARD HANDLING

Drive mode: stepper motor, stainless steel chain	Power: 220V, 2.5KW, 16A, 60 Hz
Payload capacity: 5 kg	Air supply: 80 psi (5.5 bar)
Min. board/carrier width: 40 mm	System footprint: 1364 × 1290 × 1638 ± 50 mm (D × W × H)
Max. board/carrier width: 500 mm	Machine weight: 900 kg
Max. board/carrier length: 650 mm (1 station)	Standards compliance: CE UL
450 mm (2 stations)	Exhaust volume: diameter 200 mm
Min. board edge: 3 mm	volume ≥ 13m <sup>3</sup> /minute
Width adjustment drive mode: stepper motor	
Communication signal: SMEMA	

## CONTROL SYSTEM

Computer: IPC, LCD monitor, keyboard	V-5000 three-mode spray valve
Operating system: Windows 7	V-420A precise needle valve
Control software: Axxon coating software	V-5400 film coater
CCD resolution: 30W	

## STANDARD FEATURES

Industrial computer and software and monitor	Valve type and fixture
X, Y, Z axis and motion platform	Conveyor module / bottom return conveyor
Conveyor auto-width adjustment	Cleaning platform
Ultraviolet and white light	Pressure tank supply module
Safety interlock	Low liquid alarm module
Audible alarm	Circulation heating module
Exhaust port	Pump supply module
Fluid supplying pipe	Laser height detection module
Tube cleaning	Laser fan width adjusting control (V-5400)
CCD camera	Needle calibration module
	Exhaust fan
	Wind speed monitoring module
	Four direction tilting module (for V-420A and V-5000 series valve)
	Electric tilt and rotate module (for V-420A and V-5000 series valve)
	2D barcode reader module

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