

# Precise and flexible dispensing systems

MYSmart™ series MYD10™/MYD50™ inline dispensing systems



# Introducing the MYD series

## Fully automated compact dispensing systems

The MYSmart series offers a wide range of inline dispense solutions together with a comprehensive portfolio of valve technologies. The compact MYD10 enables highly advanced non-contact jetting for enhanced dispensing uniformity, throughput and material utilization. For high-precision applications such as complex chip packaging, the powerful MYD50 platform further boosts productivity with linear motor motion control. The MYSmart inline dispensing solutions are proven in the most advanced production environments. We have developed our systems to handle a vast array of current and emerging products, assembly fluids and package types.



- 1 Unsurpassed value by combining high end technology with low total cost of ownership.
- 2 From underfill to solder paste the MYD series offers unique jetting and dispensing technologies for enhanced flexibility in high volume manufacturing.
- 3 Built in AVI capabilities for automatic inspection of dispense results.



MYD series automated inline dispensing systems can handle a wide range of dispensing applications.

#### **FLEXIBLE**

MYD series can handle different substrate sizes and compositions to meet specific process requirements. Numerous applications can be achieved with optional features such as tilt and rotate, contact and non-contact heating and dual head configurations.

#### **COST-EFFICIENT**

Smaller machine dimensions, high quality build and streamlined mechanical design allow the system to run for longer periods of time with less maintenance and lower downtimes. Our Piezo Jetting technology has been designed with a reduced number of wear parts further reducing the cost of ownership making the MYD series a cost-effective dispensing solution.

#### **IMPROVED PRODUCTIVITY**

Precise temperature controls, on-the-fly fiducial search, robust vision algorithms, low motion Z axis and non-contact dispensing result in increased productivity.



Unmatched production value



Non-contact jetting technology



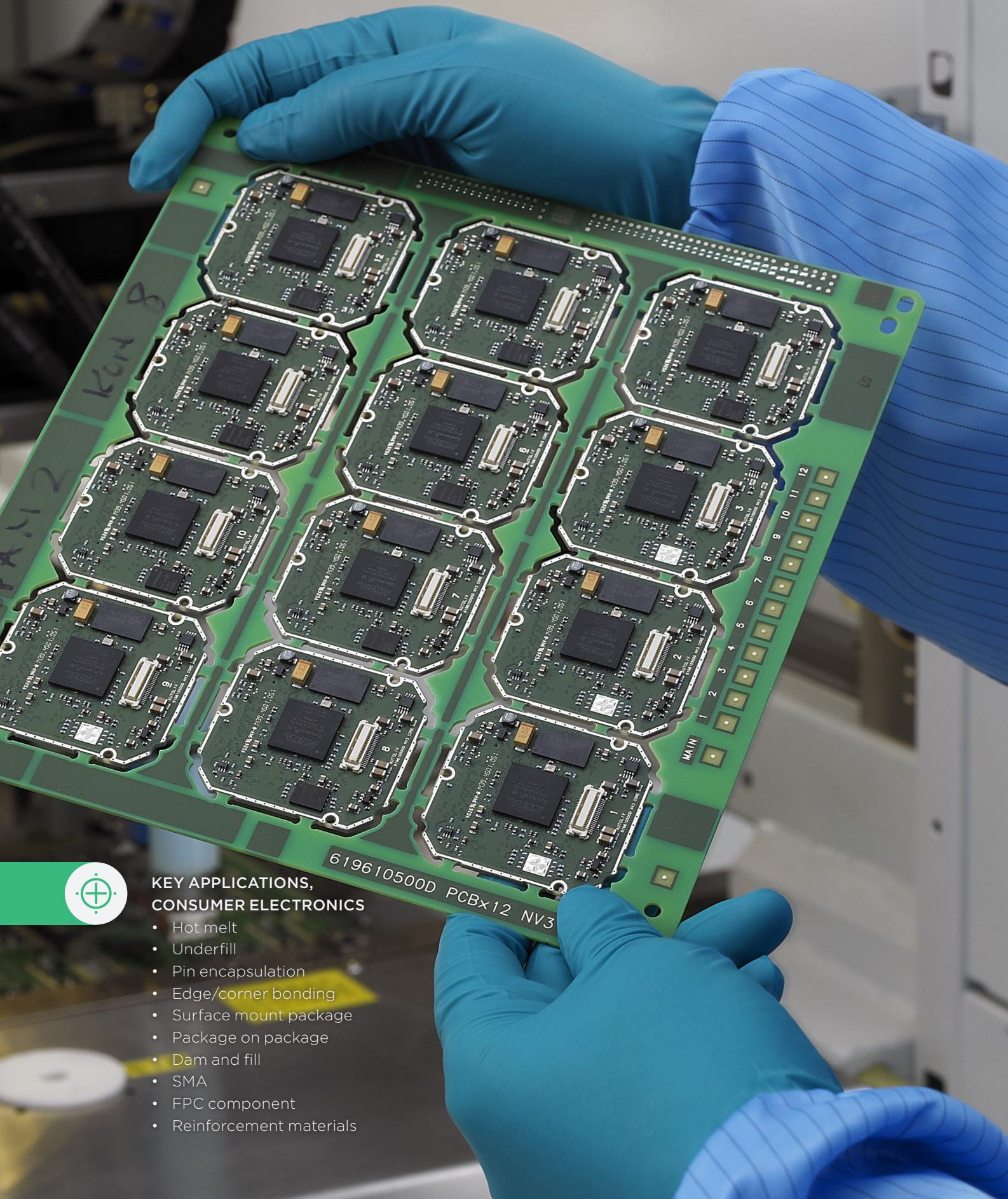
Semi- or full automation



Low maintenance and long service life



High-precision dispensing volume control



## KEY APPLICATIONS, CONSUMER ELECTRONICS

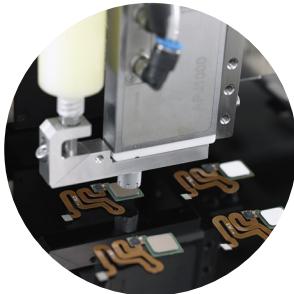
- Hot melt
- Underfill
- Pin encapsulation
- Edge/corner bonding
- Surface mount package
- Package on package
- Dam and fill
- SMA
- FPC component
- Reinforcement materials

# MYD series

## Cross-industry capable platform

The MYD series automatic inline dispensing system is proven across many industries such as electronics, medical devices, optics and industrial assembly to name a few.

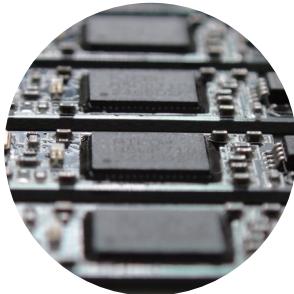
Consumer electronics



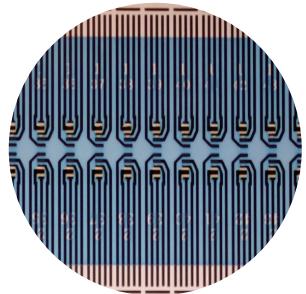
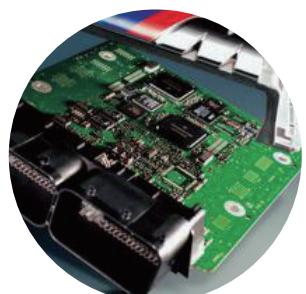
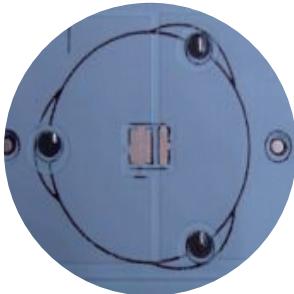
Automotive electronics



SMT electronics



LED and medical industry



# MYD series core components

## Fully automated compact dispensing

---

Different types of dispensing valves are available with a wide range of capabilities to optimize your process based on specific materials. A comprehensive valve portfolio allows a wide range of flowrates and applications. All jets, valves and pumps are designed with speed, durability and precision in mind.

### UNIQUE CAPABILITIES

The MYD jet valves can produce high drop velocity, for compatibility with a wide range of fluids and applications.

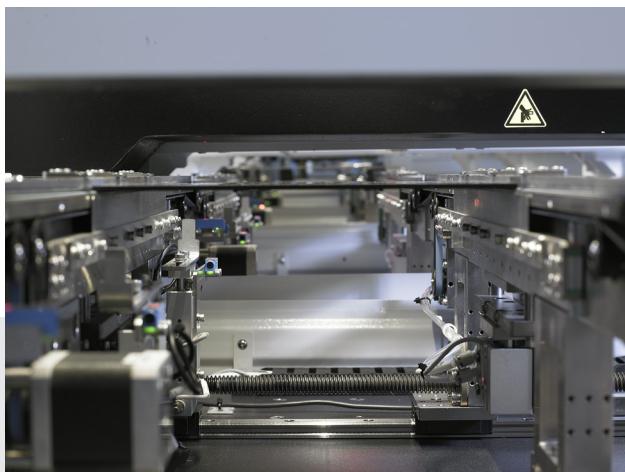
It is easy to modify process parameters to fine tune the dispensing and achieve an accurate and reliable result.

### PRECISE CONTROLS

Closed loop controls and system feedback are key for higher yields. Focus on smart jetting controls, closed loop substrate heating, user specified temperature spot checks and closed loop material dispense are the foundation of quality output.

### SIMPLE MAINTENANCE

The MYD jet valves are designed with simplicity and ease of use in mind. Minimal disassembly required and wear parts are easily replaced.



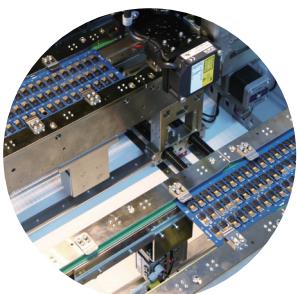
**Configurable conveyors.** Modular design enables transfer and handling of any PCB, carrier or other unique substrate.



## Continuous improvement

Jetting technology that is constantly adapting to new market requirements, enabling more materials, smaller dots, higher accuracy and faster processes.

# MYD series Key features



## **Dual lane conveyors**

Dual lane your production line and optimizing throughput. Two different jobs can run on each line.



## **Configurable conveyor stations**

Edge clamps, vacuum blocks, vacuum heating and non-contact heating offer all the potential material handling options for efficient dispensing.



## **Dual valve configurations**

Synchronous dual valve, two heads work at the same time for improved productivity and throughput. Asynchronous dual valve, two heads work independently. Different materials can be used on a single product, increasing the functionality of the MYD dispense system.



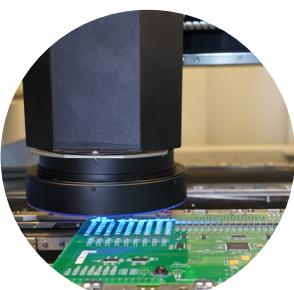
#### **Tilt options**

Pneumatic and electric tilt and rotate options place fluids in difficult to reach locations. Angle and rotation can be programmed for each location for increased flexibility.



#### **Temperature spot check**

User programmable location to verify the process temperature and return a go/no-go signal.

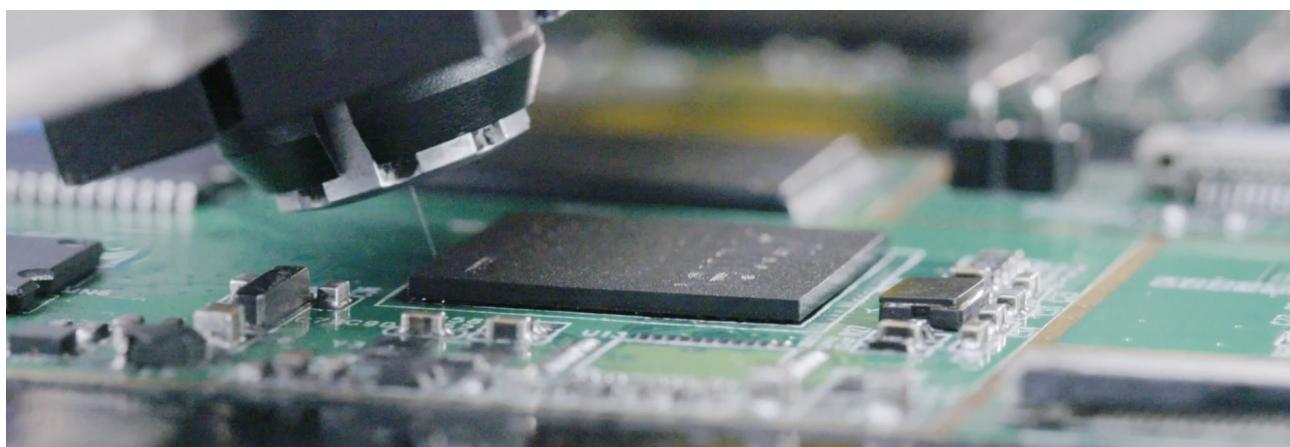


#### **Automatic visual inspection**

AVI, automatic visual inspection, improves inspection quality and helps automate the production line. The AVI can be set to warn, flag and log production results increasing yield traceability and visibility.

# Specifications **MYD10X/MYD50X/MYD10i/MYD10iL inline**

	MYD10X	MYD50X
<b>FACILITY REQUIREMENT</b>		
Power supply	AC 200-240V,2.5kW,11A,50/60Hz	AC 200-240V,1.8kW,8A,50/60Hz
Air supply	90psi(6bar)	90psi(6bar)
Dimension	770x1200x1450mm(WxDxH)	770x1300x1530mm(WxDxH)
Weight	650kg	1350kg
Standard compliance	CE	CE
<b>MOTION SYSTEM</b>		
XYZ positioning accuracy	XY: $\pm 30\text{um}$ @ $3\sigma$ Z: $\pm 10\text{um}$ @ $3\sigma$	XY: $\pm 25\text{um}$ @ $3\sigma$ Z: $\pm 10\text{um}$ @ $3\sigma$
Repeatability	XY: $\pm 15\text{um}$ @ $3\sigma$ Z: $\pm 5\text{um}$ @ $3\sigma$	XY: $\pm 10\text{um}$ @ $3\sigma$ Z: $\pm 5\text{um}$ @ $3\sigma$
Max speed	1000mm/s(XY)	1500mm/s(XY)
Acceleration	1.0g	1.5g
Drive system	Servo motor	Linear motor (XY) / Servo motor (Z)
<b>MACHINE PARAMETERS</b>		
Conveyor payload	3kg	3kg
Conveyor width adjusting range	50~475mm	50~500mm
Max board length	Single heating stage: 350mm Dual heating stage: Left-right 300mm Right-left 255mm	Single heating stage: 350mm Dual heating stage: Left-right 300mm Right-left 255mm
Board thickness	0.5~6mm	0.5~6mm
Operating system	Windows 10	Windows 10
Communication protocol	SMEMA	SMEMA
Minimum edge clearance	3mm	4mm
Max top clearance	26mm	35mm
Max bottom clearance	23mm	23mm
Z travel	40mm	40mm
<b>DISPENSE AREA</b>		
Max dispensing area (single lane/dual lane)	350x475mm/350x210mm (WxD)	350x500mm/350x218mm (WxD)
Synchronized dual valve - automatic adjustment (single lane/dual lane)	320x420mm/320x172mm (WxD)	315x405mm/315x160mm (WxD)
Asynchronized dual valve (single lane/dual lane)	290x450mm/290x197mm (WxD)	290x430mm/290x183mm (WxD)
Tilt & rotation (single lane/dual lane)	270x420mm/270x182mm (WxD)	270x410mm/270x173mm (WxD)



	MYD10i	MYD10iL
<b>FACILITY REQUIREMENT</b>		
Power supply	AC 200-240V,2.5kW,11A,50/60Hz	AC 200-240V,2.5kW,11A,50/60Hz
Air supply	90psi(6bar)	90psi(6bar)
Dimension	890x1500x1500mm (WxDxH)	1000x1500x1550mm (WxDxH)
Weight	950kg	1000kg
Standard compliance	CE	CE
<b>MOTION SYSTEM</b>		
XYZ positioning accuracy	XY: ±30um@3σ Z:±10um@3σ	XY: ±30um@3σ Z:±10um@3σ
Repeatability	XY: ±15um@3σ Z:±5um@3σ	XY: ±15um@3σ Z:±5um@3σ
Max speed	1000mm/s(XY)	1000mm/s(XY)
Acceleration	1.0g	1.0g
Drive system	Servo motor	Servo motor
<b>MACHINE PARAMETERS</b>		
Conveyor payload	3kg	3kg
Conveyor width adjusting range	40-760mm	40-760mm
Max board length	Single heating stage:440mm Dual heating stage: Left-right 355mm Right-left 310mm	Single heating stage:550mm Dual heating stage: Left-right 410mm Right-left 365mm
Board thickness	0.5-6mm	0.5-6mm
Operating system	Windows 10	Windows 10
Communication protocol	SMEMA	SMEMA
Mini edge clearance	2mm	2mm
Max top clearance	45mm	45mm
Max bottom clearance	23mm	23mm
Z travel	60mm	60mm
<b>DISPENSE AREA</b>		
Max dispensing area (single lane/dual lane)	440x760mm/440x355mm (WxD)	550x760mm/550x355mm (WxD)
Synchronized dual valve - automatic adjustment (single lane/dual lane)	410x660mm/410x295mm (WxD)	520x660mm/520x295mm (WxD)
Asynchronized dual valve (single lane/dual lane)	380x690mm/380x320mm (WxD)	490x690mm/490x320mm (WxD)
Tilt & rotation (single lane/dual lane)	360x660mm/360x305mm (WxD)	470x660mm/470x305mm (WxD)
<b>MYD10X/MYD50X/MYD10i/MYD10iL</b>		
<b>STANDARD FEATURES</b>		<b>OPTIONAL FEATURES</b>
Vacuum cleaning module		Weighing system (contact mode/non-contact mode)
Audible and visual alarm		Laser height detecting system
Vision system		Barcode reading
30cc/55cc feeding syringe		Valve for contact dispensing (auger valve/needle valve/needle dispensing)
Standard operating software		Dual valve (synchronized dispensing/asynchronized dispensing)
X,Y,Z fiducial calibration platform		Tilt dispensing in four directions
IPC		Loader & unloader
Single lane		Conveyor heating for waiting and dispensing area
		Dual lane
		Vacuum product support (customized)
		Low fluid level sensor

# Bringing tomorrow's electronics to life

**axxon**  
MYCRONIC

**NETHERLANDS**  
Axxon Europe B.V.  
High Tech Campus 10  
5656 AE Eindhoven  
Netherlands

**MEXICO**  
Mychronic Mexico  
Carretera Guadalajara-Tepic  
No. 7355 Col. San Juan de  
Ocotán in Zapopan  
Jalisco C.P. 45019



**CHINA**  
Axxon Automation Co.,Ltd.  
A14, Silicon Valley Power  
Automotive Innovation Park  
334 Guanlan, Shenzhen, China  
Tel: +86 755 8358 6066

**USA**  
Mychronic Inc.  
554 Clark Road  
Tewksbury, MA 01876  
USA

**USA**  
US Application Center  
1450 Koll Circle  
San Jose, CA 95112  
USA