

Precision Automated Vision Dispensing System

AXELIA®

High Precise Vision Guided Robot



		Vision System-ADVANCED (3 Axis)			
Item		AXA200	AXA300	AXA400	AXA600
Number of Axis		3 Axis			
Operating Range	X & Y Axis	200 / 200	300 / 300	400 / 400	600 / 500
	Z Axis	75mm	150mm		
Maximum Portable Load	X Axis (Tool)	3KG	5KG		
	Y Axis (Workpiece)	10KG			
Maximum Speed (PTP Drive)	X Axis	500 mm/sec	800 mm/sec		
	Y Axis	500 mm/sec	800 mm/sec		
	Z Axis	200 mm/sec	300 mm/sec		
Repeatability (Robot)	X, Y, Z Axis	± 0.008mm			
Data Storage		PC storage			
Interpolation		3 axes (3D space)			
Drive Movement	Languages	English (Standard), Japanese			
External Input/Output	I/O	PTP & CP			
Tip Detection System		32 inputs / 32 outputs			
Vision	Camera	Optional (Contact type)			
	Lens	USB-standard vision / CCD-High-precision			
	Lighting	Included			
Power Supply		Included			
Operating Environment	Temperature	Auto-switching AC100-240V 50/60Hz			
	Relative Humidity	10 ~ 40°C			
	Liner Guide	20 ~ 90% (non condensing)			
	Drive Method	Single LM Guide			
		XY Axis / 3-Phase Micro Stepping Motor / Synchronous belt			
		Z Axis / 3-Phase Micro Stepping Motor / Precision Ball Screw			

All-in-one dispensing solution for critical dispensing demands

High precision automatic vision guided dispensing system AXA series, equipped with simple image processing features enables flexible and intuitive operation applied for various assembling processes that require high level of dispensing conditions.



- Accurate fiducial identification and alignment for accurate repeatable dispense placement
- Proprietary vision-controlled “Fluid Magic” software developed for simple user friendly setup, programming and operation

Intuitive and easy programming with simple navigation



	CCD	USB
200×200	AXA200-HV	AXA200-SV
300×300	AXA300-HV	AXA300-SV
400×400	AXA400-HV	AXA400-SV
600×500	AXA600-HV	AXA600-SV



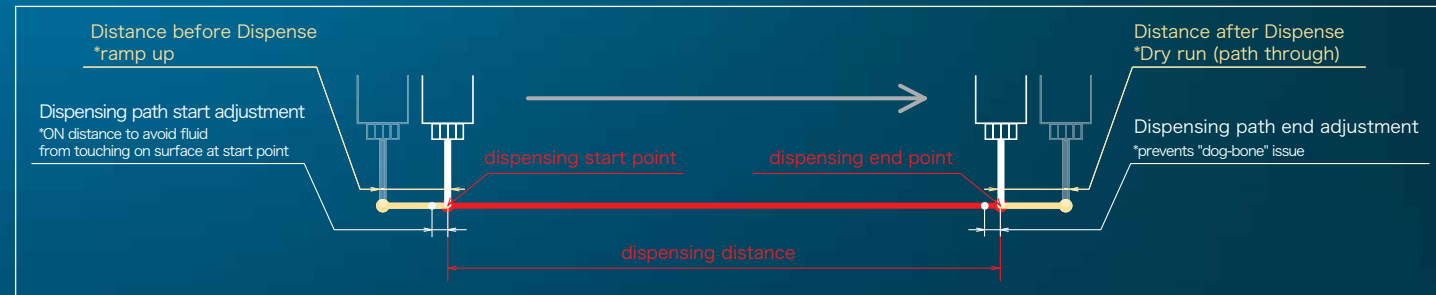
HV type



SV type

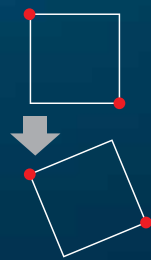
Fluid Magic's advanced capabilities

High Accuracy, advanced motion control with integrated vision allows for increased production capacity, faster cycles, improved quality over more tedious and complex projects



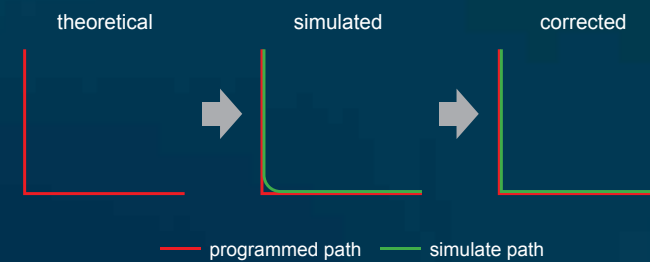
Block offset feature

Making global changes to batch or group of address in a program only by selecting two points in X, Y, and theta directions allows for faster programming.



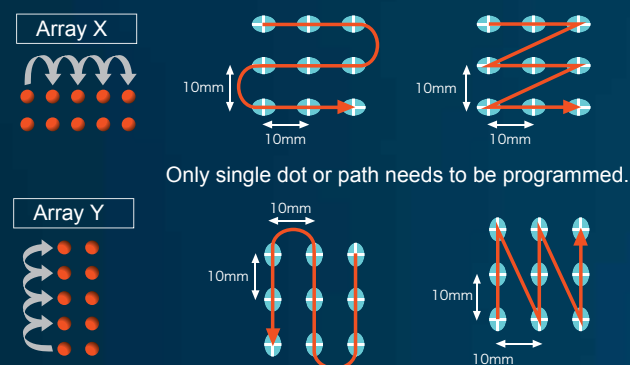
Pre-dispense simulate path feature

Provides user the ability to visually review dispensing programmed path and estimated cycle speed before running actual program.



Automatic array repeat feature

Automatically duplicates a single dispensing dot or path points into multiple within a grid pattern in X or Y direction.



Encapsulation feature

Few, easy steps allows users define area, shape and coverage to be filled. Program command enables easy adjustment to fine-tune dispensing parameters to be filled.



Simple Vision teaching through searching & pointing

All steps of the programming process can be visually steered for precise calibration and offsets.

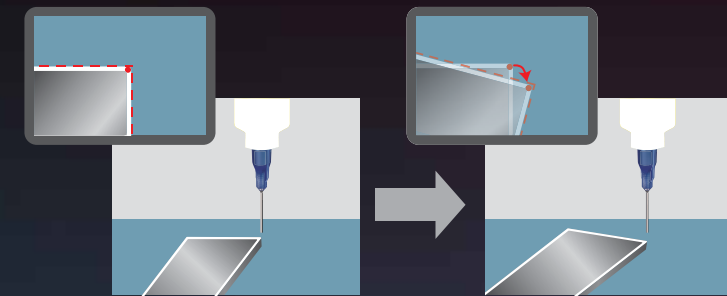


Image alignment feature

Dual references for fiducial marks in X / Y align entire part and adjust all dispense points in program

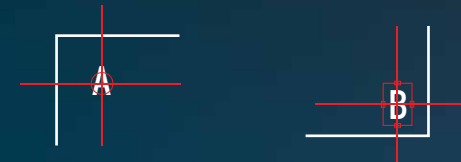
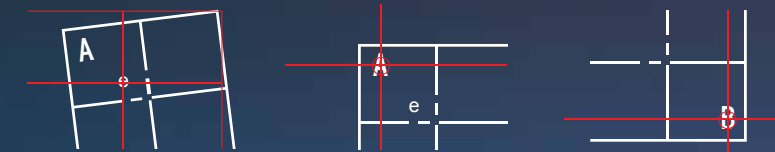


Image correction feature

Angle correction allows identification of part orientation and changes programming from original for seamless uninterrupted dispensing

- ① Set the angle of the mark.
- ② Set the dual reference of fiducial points

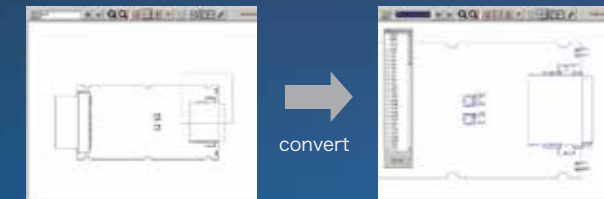


Built in File Download utility for accurate, flexible dispense programming

Download product coordinates or scan image automatically

① Integrated DXF download Function

Automatically converts DXF formatted dispense or part image into program points to create dots, lines, arcs, circles, etc.

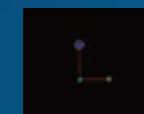


② Part scanning function

Scan an actual work piece image to be easily converted into program points aligned to the exact part placement on fixture plate.

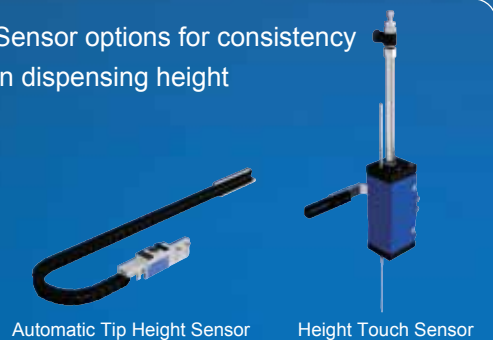


Vision guided programming save tedious programming time



Accurate point converting to reduce operating time

Sensor options for consistency in dispensing height



Automatic Tip Height Sensor

Height Touch Sensor