

PROCESS PLATFORM: AXIOM™ X-1010 SERIES

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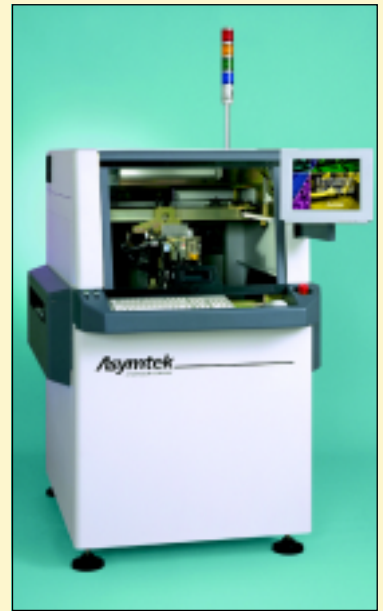
The Axiom X-1010 dispensing system meets mid-range throughput requirements for inline, high-volume, high-accuracy SMT application of surface mount adhesive (SMA), solder paste and electrically conductive adhesive applications. The system keeps pace with placement equipment in the 30,000 components-per-hour range. Configured with the patented DJ-2100 DispenseJet® valve for non-contact jetting, the system delivers precise dot volume repeatability without use of mechanical needle standoffs.

When dispensing solder paste and conductive adhesives, Asymtek's DV-7000 Heli-flow™ pump provides fast, repeatable dispensing of medium- to high-viscosity materials using standoff nozzles and a floating head. Its light-touch contact, coupled with under-board support, provides precise z-axis positioning for fast, accurate small-dot dispensing for dot diameters below 0.5 mm.

Built directly into the dispense head, the Dynamic Dispensing Control™ (DDC) microcontroller provides precise control of pump operation. In addition, incorporation of a new communication bus structure provides increased control and future expansion for new applications.

The standard Axiom system is configured with the latest version of Asymtek's Fluidmove® for Windows NT® (FmNT) software. With the CAD Import software utility, Fluidmove programs can be quickly and efficiently developed offline using existing CAD-generated data, or a file from a component placement machine.

Configurable for single- or dual-pump dispensing to accommodate a wide variety of fluids, processes and applications, the Axiom X-1010 system flexibly fits a variety of SMT production line configurations.



FEATURES:

- Proven dispense speeds of surface mount adhesives in excess of 30,000 dots per hour using the DispenseJet® valve
- Fast, accurate dispensing of medium- to high-viscosity solder pastes and conductive adhesives with the DV-7000 Heli-flow™ pump
- Linear-encoded X-Y positioning system for high throughput with ± 0.025 mm repeatability
- Dynamic Dispensing Control™, a servo control system, provides greater pump accuracy and repeatability
- Fast motion (acceleration 1-g peak, velocity 1 m/s)
- Enhanced pattern recognition system with red/blue LEDs for a larger dynamic range of lighting
- Data-driven, offline programming with CAD import software

X-1010 SYSTEM SPECIFICATIONS

MOTION SYSTEM:

X-Y Type:	Brushless DC servomotor driven, low-inertia, closed-loop, high-resolution cable drive with linear- encoder feedback
Z Type:	Brushless DC servomotor, rack and pinion Z-drive with precision encoder feedback
Encoder Resolution:	5 micrometer
X-Y Acceleration:	1.0 g peak with S-curve jerk control
X-Y Velocity:	1 m/s (40 in/s) peak
X-Y Accuracy:	±0.075 mm (0.003 in.)
X-Y Repeatability:	±0.025 mm (0.001 in.)
Z Travel:	90 mm (3.5 in.)

DISPENSE AREA:

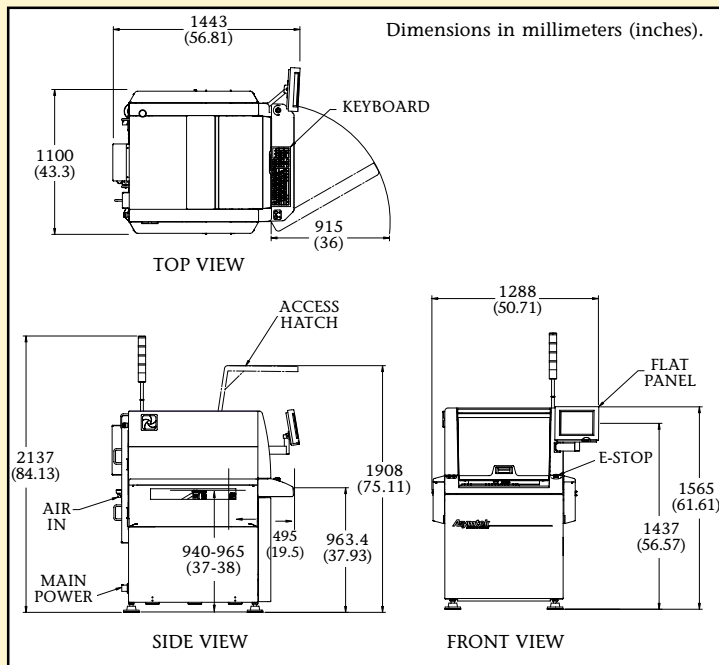
DJ-2100 DispenseJet® Pump (X-Y):	468 x 458 mm (18.4 x 18.0 in.)
DV-7000/8000 Pump (X-Y):	458 x 458 mm (18.0 x 18.0 in.)
Dual Action	
DJ/DV (X-Y):	347 x 433 mm (13.6 x 17.0 in.)
DV/DV (X-Y):	357 x 431 mm (14.0 x 16.9 in.)
DJ/DJ (X-Y):	366 x 432 mm (14.4 x 17.0 in.)

VISION AND LIGHTING:

Vision:	Automatic pattern recognition system allows for optical registration of the work piece to reliably locate dispensing sites (can compensate for up to ±7° rotational misalignment of part)
Lighting:	On-axis red/blue LED standard
Image Size:	12.7 mm (0.5 in.) standard

CONVEYOR:

O-ring style conveyor	
SMEMA-compatible: Height adjustable between	900-965 mm (35.4-38 in.)
Width:	23 mm (0.9 in.) 460 mm (18.1 in.)
Note:	Standard clearance from conveyor to light source is 38 mm (1.5 in.)



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All specifications are believed to be a true and accurate representation of system capabilities and are subject to change without notice. Contact Asymtek for your specific application requirements.

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COMPUTER:

Computer:	Celeron® PC with 3.5 in. (1.44 MB) floppy and CD-ROM drives
User Interface:	307 mm (12.1 in.) color LCD Flat-panel display; ASCII keyboard/mouse; Ethernet network port

SOFTWARE:

User Environment:	Fluidmove® for Windows NT®; CAD Import for FmNT
Operating System:	Windows NT®

FLUID DELIVERY METHOD:

DJ-2100 DispenseJet® Valve; DV-7000 and DV-8000 Heli-flow™ Pumps

FACILITIES REQUIREMENTS:

System Footprint:	See illustration
Air Supply:	621 kPa (6.1 atm, 90 psi) 2 CFM @ 90 psi (28 liters/hr = 1 SCFM)
Power (Mains):	Note: This is an adaptive power supply; it can accommodate supply voltages between 170-264 VAC, single phase, 25A, 50-60 Hz
System Weight:	435 kg (960 lbs.)
Standards Compliance:	SEMI-S2; SEMI-S8; SMEMA; CE

OTHER STANDARD FEATURES:

Fiber optic needle sensor and vacuum purge station
Needle heater support (RTD controlled)
Conveyor with lift table and part sensors
Low pressure sensor
Light beacon with audible alarm
Tactile height sensor

OPTIONAL FEATURES:

Dual-action dispense head:	Selective dispensing of two different materials
Free-standing loaders/unloaders	
SECS/GEM interface	
Lift pins with or without vacuum for underboard support	
Low fluid sensor	
Needle heater	

Other options are available.

Please contact these locations for the name of your local representative:

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