ASYMTEK Helios SD-960 Series
Medium- to Large-volume Automated Fluid Dispensing

A fully automated fluid dispensing platform for potting, thermal interface material (TIM), gasketing, structural adhesive, and sealing applications.

Features and Benefits

- Inline and batch process support
- Suitable for single- and two-component materials
- Camera system enables programming and fiducial recognition
- ASYMTEK Fluidmove® software supports user-programmable dispense geometries and process controls
- Stainless steel surface interior for easy cleaning
- Hose routing for large-volume dispensing
- Optional Mass Flow Calibration (patented)
- Optional automatic XYZ needle position correction
- Optional Laser Height Sensor for substrate height correction

The ASYMTEK Helios™ SD-960 Series is designed to dispense medium- to large-volumes of material using the same industry-leading software and process controls that power our award-winning micro-dispensing systems. The platform is ideal for automotive, industrial, consumer, aerospace, and military electronics assembly applications.

Single- and Two-component Process Solutions. The SD-960 Series delivers a range of comprehensive single- and two-component solutions for Thermal Interface Material (TIM), potting, gasketing, and sealing applications — supporting a variety of materials including epoxies, urethanes, silicones, and abrasive fluids.

Valves and Metering Systems. Equipped with ASYMTEK dispense valves or fully integrated metering systems, you can customize the SD-960 Series to meet your specific process requirements. Options such as time-pressure valves, auger valves, progressive cavity pumps, closed-loop process controls, and servo-controlled positive rod displacement systems are available.

Process Control. Several process control options are available including Mass Flow Calibration (MFC), XYZ Needle Sensing, Dispensed Dot Recognition, and Laser Height Sensing. The Laser Height Sensor provides automatic substrate-height calibration and multi-location height measurements. All features and options work seamlessly to ensure dispense volumes remain within defined process limits.

Global Application and Technical Expertise. From initial process development to full scale production, you can rely on our global application and support teams. Whether you are dispensing adhesive drops, thermal interface materials, silicone beads, or potting materials, the SD-960 Series can support your application.
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Motion System
• X-Travel: 500 mm
• Y-Travel: 525 mm
• X-Y Velocity: Up to 1000 mm/s (39.4 in./s)
• X-Y Acceleration: Up to 1 g peak with S-curve jerk control
• Z-Axis Velocity: Up to 250 mm/s (10 in./s)
• X-Y Resolution: 0.010 mm (0.0004 in.)
• Z-Axis Resolution: 0.025 mm (0.001 in.)

Dispense Area XY
Dependent upon system options and configuration. Contact ASYMTEK for information.
• Inline:
  Up to 500 x 440 mm
  (X can be increased with indexing option)
• Batch, single-drawer:
  Up to 420 x 380 mm
• Batch, dual-drawer:
  Up to 210 x 380 mm for left drawer
  Up to 200 x 380 mm for right drawer

Fluid Delivery Method
A wide range of single- and two-component dispense valves, auger valves, progressive cavity pumps, rod metering systems and bulk fluid supplies are available.

Conveyor
The conveyor specifications are dependent upon the system configuration and selected options. The inline base model includes a chain type conveyor, with a product sensor and standard stop pin.
• Motor-driven width adjustment: 35 to 475 mm (1.4 to 18.7 in.)
• Payload: 5 kg (11 lbs)
• Optional double-wide chain payload: 7 kg (15 lb)

Computer and Software
• Computer: Laptop computer
• User environment: Fluidmove® software — program dispense geometries and access features such as Dispensed Dot Recognition.
• Operating systems: Windows® 7 and Windows® 10

Facility Requirements
• System footprint: 1000 mm width x 1329 mm depth (39.3 x 52.3 in.)
  Computer keyboard/monitor occupy additional 527 mm (20.7 in.) in the front. Lower door requires 855 mm (33.7 in.) clearance to open in the front. Recommended clearance behind the machine depends on fluid supply configuration. Dimensional drawings are on the last page. Contact ASYMTEK for information.
• Air supply: 620 kPa (90 psi 6.2 Bar)
• Main power: 200/240 V AC, 3 wire single phase, 30A, 50/60 Hz
• Noise: Peak ≤ 76.0 dBA; Average ≤ 70.7 dBA Standards compliance: SMEMA, CE
• System weight: 502 kg (1107 lb)

Standard Features
• Door interlock controls
• Stainless steel interior
• Pattern Recognition System (camera) including lighting
• Adjustable height computer arm
• Low pressure sensor
• Large purge station
• Chain conveyor for inline systems
• Single- or dual-drawers for batch systems
• Light beacon with audible alarm

Featured Options
• Mass Flow Calibration — reduces daily setup time by automatically compensating for changes in viscosity and flow rate and ensures the right amount of material is dispensed for each part for the entire production run.
• Bar code recognition system, 1D or 2D
• Non-Contact Laser Height Measurement
• Dual-simultaneous applicator capability
• Dual-toggle applicator capability
• Low fluid sensor
• XYZ needle calibration sensor — eliminates the need for operators to manually re-calibrate the positioning system after changing the needle or mixer.
• Custom AOI hardware and software

Additional options are available. Contact ASYMTEK for information.
Dimensions are in millimeters. Specifications and dimensions subject to change.
Contact ASYMTEK for more detailed drawings if required.

Front view of batch configuration with dual-drawers.

Front view of inline system. Additional monitor supports integrated rod-metering system.

Side view of inline system with configurable side openings. Additional monitor supports integrated rod-metering system.

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