

Spectrum™ S-822

Precision standalone dispensing for semiconductor applications

Features and Benefits

- **Dual shuttle stages for increased productivity and machine utilization**
- **Fluidmove® for Windows XP® software for easy-to-use programming control**
- **Patented Mass Flow Control automatically compensates for changes in fluid viscosity**
- **Automatic Pattern Recognition System for accurate identification of global and local fiducials**
- **Optional impingement or contact heated tooling surfaces for one or both shuttle stages**



The Spectrum™ S-822 Series system is designed for production of semiconductor and electronics packaging processes, such as chip scale package (CSP) underfill, cavity fill, die attach, and encapsulation. The S-822 is a standalone system with dual-shuttle stages to increase the productivity achieved in such processes. Ideal for labs, lean production environments, and new product introductions, the S-822 system offers the controlled precision dispensing capabilities and many of the patented processes found in Nordson ASYMTEK's advanced in-line systems.

The S-822 system allows parallel processing on two shuttle stages for nearly continuous dispensing, which significantly reduces lost time in non-dispensing activities such as pre-heating, loading, and unloading parts. The dispenser's two stages automatically slide in and out through an opening in the front of the machine, allowing the operator to safely unload and load one side while dispensing continues on the other stage.

The S-822 performs with a wide range of fluids, processes, and substrates used in semiconductor packaging and assembly. It easily integrates with most jets, pumps and valves from Nordson ASYMTEK, including the DispenseJet® DJ-9000.

The processes developed on the S-822 can be transferred to an inline Spectrum™ or Axiom™ platform. Production can be expanded with minimal configuration downtime and seamless transition from engineering development to inline manufacturing.

The S-822 is fully supported by Nordson ASYMTEK's exclusive Fluidmove® for Windows XP® software, providing dispense programming control within a familiar Windows® environment.

Specifications: Spectrum™ S-822

Motion System

Type: Brushless DC servo motors, closed-loop with encoder feedback

Encoder resolution: 10 micrometers

X-Y acceleration: 0.25 g peak with S-curve jerk control

X-Y velocity: 500 mm/s (20 in./s)

Z-axis velocity: 500 mm/s (20 in./s)

Positional accuracy: ± 0.075 mm (0.003 in.), 3 sigma

X-Y repeatability: ± 0.025 mm (0.001 in.)

Z-axis repeatability: ± 0.025 mm (0.001 in.)

Dispense Area

Work envelope: Dual shuttle stages

- Without heat, each accommodates parts up to 200 x 180 mm
- Impingement heater accommodates 145 x 175-mm parts
- Vacuum hot plate accommodates 190 x 170-mm parts

Z-travel: 75 mm

Tool payload: 3 kg

Workpiece payload: 2 kg

Vision and Lighting

Vision: Vision system with Automatic Pattern Recognition

Lighting: Programmable, on-axis, red/blue LED, 256 steps

Computer

Windows-based laptop PC with mouse

Software

User environment: Fluidmove® for Windows® XP

Operating system: Windows® XP

Fluid Delivery Method

DispenseJet® DJ-9000

Heli-flow® DV-7000 and DV-8000 pumps

DV-01, DV-02, DV-03, DV-04, DV-05, DV-09

Facilities Requirements

System footprint:

866 mm wide x 1123 mm deep (34 x 44 in.)

Display extends 610 mm (24 in.)

Height including light beacon: 2045 mm

Dimensional diagrams on next page.

Air supply:

621 kPa (6.1 atm, 90 psi)

3 CFM @ 90 psi (28 liters/hr = 1 SCFM)

May be higher depending upon application

Power (mains):

200/240 VAC, 10 Amps (max), 50/60 Hz, Single Phase

Weight:

340 kg (750 lbs)

Other Standard Features

Integrated height sensor

Needle heater control, software-programmable setpoints

Needle tactile sensor

Vacuum purge station

Light beacon with audible alarm

Precision air regulators

Low air pressure alarm, with programmable setpoint

Advanced process control modules:

- Mass flow control (MFC)
- Calibrated process jetting (CPJ)
- Jet on the fly (JOF)
- Dynamic dispense control (DDC)

Options

Heated tooling plates with software-programmable setpoints for one or both shuttle stages

Dual-Action Dispensing Head

Laser Height Sensor

Low fluid sensor

CADImport software program

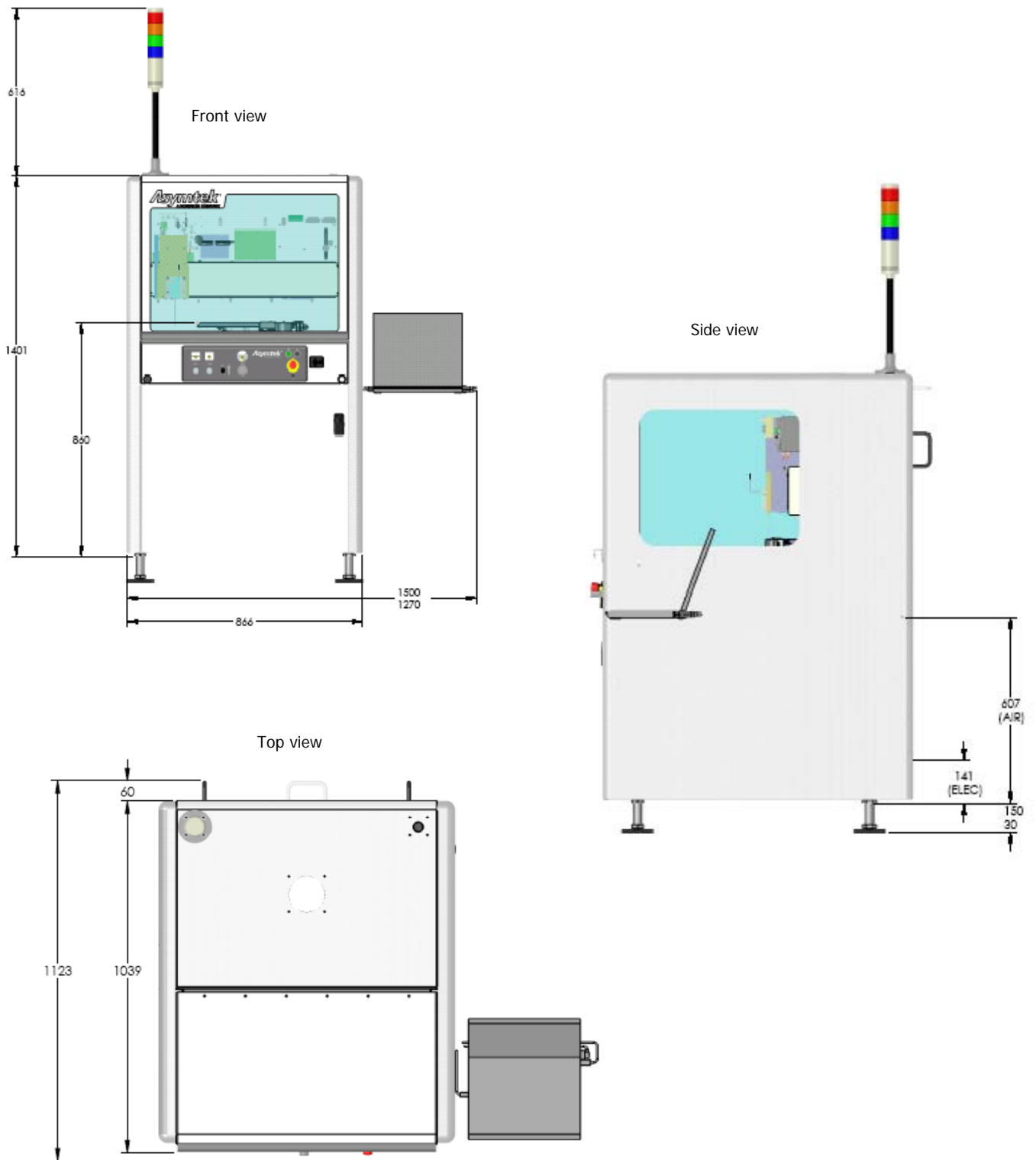
SECS/GEM interface

Additional options are available: contact

Nordson ASYMTEK for further information



Dimensions: Spectrum™ S-822



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speak with your local
representative or
contact your regional
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