



ASYMTEK Spectrum II S2-900 Series

Scalable Solutions for High-Volume Manufacturing and Assembly

Fluidmove
Fluid Dispensing Software

© 2018 Nordson Corporation
Patents pending and pending.
Terms of use per end user license agreement
nordsonasymtek.com

The Spectrum® II series is ideal for high-volume consumer electronics and MEMs applications with capabilities that decrease process variation, increase yield, and reduce cost. Supported applications include underfill, cavity fill, die attach, and encapsulation.

Software-managed temperature, fluid, and air pressure provide closed-loop control that eliminates manual adjustments. Calibrated Process Jetting (CPJ) automatically maintains volumetric repeatability during long production runs. And the standard digital vision system includes high-brightness LEDs with RGB three-color control for good image contrast and detection for better pattern recognition. The Monocle Vision Package (MVP) enhances contrast and field of view size and resolution for more challenging applications.

With over 30 years of precision fluid dispensing experience and a reputation for the best closed-loop process controls, Nordson provides customers with a reliable fluid dispensing partner. Our experienced worldwide engineering, applications development, and technical service network supports you from process development to full-scale production.

Features and Benefits

- Scalable design for maximum flexibility with single or dual lanes.
- A compact footprint maximizes floor space.
- High-precision X-Y-Z motion system.
- Total system wet dispense accuracy for dots and lines.
- Patented, closed-loop process controls for consistent dispense weights over long production runs.
- Integrated vision system with on or off-axis lighting.
- Non-contact laser or tactile height sensor.
- Digital vision system with high-brightness RGB lighting.
- Manual or programmable fluid and valve pressures.
- Optional independent X-Y-Z dual-simultaneous valve dispensing for increased productivity.
- Optional integrated substrate heating for up to 6 stations.
- Optional programmable dual-axis tilt.

ASYMTEK Spectrum II S2-900 Series

Specifications

Motion System	Z repeatability ⁽¹⁾	±15 µm (0.0006 in.), 3 sigma
	X-Y repeatability ⁽¹⁾	±15 µm (0.0006 in.), 3 sigma
	X-Y acceleration	1 g peak
	X-Y velocity	1 m/s peak (40 in./s)
	X-Y-Z encoder resolution	1 µm
Single Applicator – Wet Dispensing Accuracy & Repeatability	C _p ≥ 1.0	±35 µm (0.0016 in.)
	C _{pk} ≥ 1.0 ⁽¹⁾	±40 µm (0.0016 in.)
Z-gap Performance	Z-Gap Repeatability ⁽²⁾	±15 µm (0.0006 in.), 3 sigma
	Minimum Z-Gap Capability	50 µm (0.002 in.)
Dispense Area (X-Y)	339 x 410 mm (13.3 x 16.1 in.)	
Conveyor	Min. board/carrier width ⁽³⁾	34 mm (1.3 in.)
	Max. board/carrier thickness	12 mm (0.5 in.)
	Max. board/carrier length	One station: 340 mm (13.4 in.) Three stations: 320 mm (12.6 in.)
	Min. board/carrier length	25 mm (1.0 in.)
	Max. board/carrier width	Single lane: 535 mm (21.1 in.) Dual lane: up to 228 mm (9.0 in.) (configuration dependent)
	Conveyor overboard clearance	30 mm (1.2 in.) standard
Computer	Laptop	
Software	Fluidmove® fluid dispensing software	
Facilities Requirements	System footprint	Single heat station: 600 mm wide x 1321 mm deep (23.6 x52.0 in.) Two heat stations: 850 x 1321 mm (33.5 x52.0 in.) Three heat stations: 1100 x 1321 mm (43.3 x52.0 in.)
	Air supply	Two air supplies: one with 3 CFM @ 100 psi for contact tooling, a second one with 1 CFM @ 100 psi for the rest of the system (100 psi = 689 kPa, 6.8 atm)
	Power (mains)	Power supply accommodates 200-240 VAC, 47-63 Hz single phase, 30 A Note: System can run on 10A, 120 VAC without heater option installed.
	Ventilation	Downdraft or updraft.
	System weight ⁽⁴⁾	377-422 kg (830-930 lbs.)
Standards Compliance	Semi S2-0818 Semi S8-0218 EN 60204-1: 2018 (CE) SMEMA	
Optional Features	<ul style="list-style-type: none"> Controlled process substrate heat Dual-action dispensing (two applicators operate independently) Exterior bulk fluid reservoir: 600 cc (20 oz), includes remote feed and fluid level sensor Hot plate, process development (batch processing) low fluid sensor, magnetic or capacitive Monocle Vision Package (MVP) for increased contrast, field of view, and vision resolution SECS/GEM interface Ventilation interlocking for volatile organic compound (VOC) dispensing, e.g., flux or primer Patented Calibrated Process Jetting (CPJ) and Mass Flow Calibration (MFC) weight scale option Fids-on-the-Fly software for high-speed fiducial capture Tilt jetting or Automatic Dual Simultaneous (ADS) dispensing options Pre and post-dispense heat stations 	

(1) Wet dispense Cpk is tested against ASYMTEK standard sealant line path accuracy test method.

(2) Z-gap repeatability is tested with ASYMTEK standard white ceramic, performance with other substrates may vary.

(3) Contact factory regarding smaller boards or carriers.

(4) System weight varies depending on configuration.

ASYMTEK Spectrum II S2-900 Series

System Packages

Nordson Electronics Solutions builds the future of electronics reliability all across the globe. We're proud of the decades of service and solutions we've provided to enhance electronics reliability. No matter where you are, you've likely manufactured or purchased a product made reliable with our equipment. The Spectrum II is an ideal fluid dispensing platform for consumer electronics and MEMs applications.

Explore the Spectrum II system packages. Continue to see how we support the future.

For more information, contact us at info-electronics@nordson.com.

Essential	Single-lane processing.	A flexible precision dispensing solution for high-mix manufacturing equipped with heating and single-lane processing.
High Yield	High precision and accuracy.	The addition of a high-resolution Monocle Vision camera and piezo-driven IntelliJet® Jetting System makes this platform an excellent choice for maximum control and accuracy.
Productivity	Dual-lane processing.	This system adds a second conveyor, a dual-lane, to increase throughput by 60% over a single-lane system. With a dual-lane system, dispensing occurs in one lane while queued parts reach a set temperature in a second lane.
Productivity Plus	Dual-lane and pre and post-heat processing.	The system includes a dual-lane conveyor and pre and post-queue stations that heat substrates before and after processing to reduce conveyance time and maximize throughput.

Recommended Options

Software Enabled	SECS/GEM CAD Import Software, Windows®
Conveyance and Tooling	Standard tooling Flexible impingement tooling Custom tooling (requires pre-approval) Lookup sensor Tooling vacuum sensor Cleaning station
Fluid Delivery	Magnetic low fluid sensor Capacitive low fluid sensor Needle heater
Power Kits	European power cord Japan power kit

ASYMTEK Spectrum II S2-900 Series

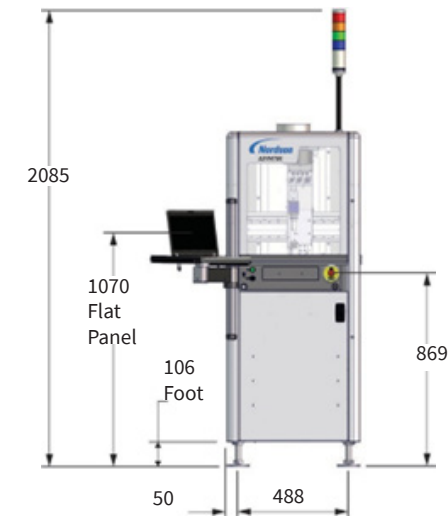
System Dimensions

For more information, visit our website to find your local regional office or representative.

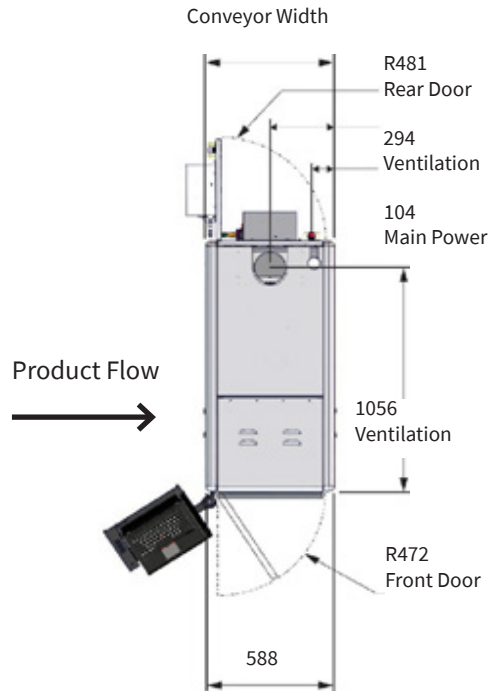
We have several global locations to serve you.

North America
Asia Pacific
EMEA

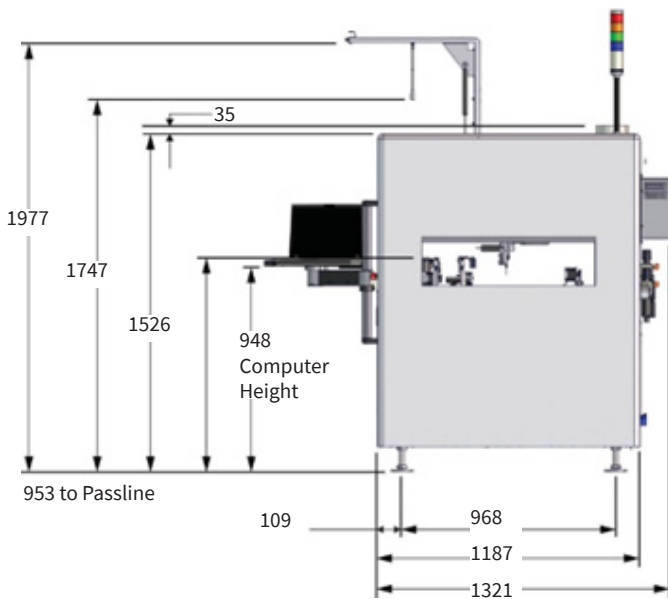
www.nordson.com/electronics
info-electronics@nordson.com



Front View



Top View



Side View

Dimensions are in millimeters.

North America Headquarters
2747 Loker Avenue West
Carlsbad, CA 92010-6603, USA

+1.760.431.1919

March 2023

