

Spectrum™ S-910N Series

Scalable solutions for high-volume dispensing applications

Features and Benefits

- **Slim design maximizes floor space utilization and lowers cost of ownership**
- **Pre- and post-queue stations can be added for higher throughput or as buffer stations**
- **Digital vision system provides high-speed image acquisition**
- **A variety of conveyor belts and clamping options handle the most challenging parts or carriers**
- **CAD Import software for quick and efficient offline programming**



The scalable Spectrum™ S-910N series with Fluidmove®XP (FmXP) software is ideal for high-volume dispensing applications that do not require heat, such as SMA, silver epoxy, solder paste, corner- and edge-bonding.

Scalability. With its flexible, scalable configuration, the Spectrum S-910N series can be configured to meet your current capacity requirements while allowing future upgrades to add options such as a pre-queue station. The S-910N maximizes use of floor space — it is 600 mm wide (without the optional pre- and post-queue stations), half the width of other dispensers on the market.

Advanced Process Control. FmXP software offers advancements in throughput, fluid management, and process control. With multiple layers of operational control, FmXP can accomplish basic production tasks while providing a user-friendly interface for program development. Adding the patented Calibrated Process Jetting or Mass Flow Calibration (for needle dispensing) options ensures that volumetric repeatability is maintained during long production runs for increased dispense accuracy and improved process capability (CpK). The Spectrum's digital vision system with dual-color, adjustable on-axis lighting offers fast and reliable image acquisition for increased throughput.

Jet Technology. Patented non-contact jetting offers many advantages over traditional needle dispensing. The DispenseJet® valve shoots “on the fly” using a patented high-speed mechanism, jetting precise volumes of fluid in dots, lines and patterns with flow rates up to 500 mg/second and 200 dots/second. Jetting overcomes the limitations of needle dispensing — no bent needles, no chipped die, no dripping, less sensitivity to surface height variations — and has the ability to dispense material into tight spaces without slowing down.

Value. Nordson ASYMTEK leverages over 25 years of automated fluid dispenser and jetting technology to design and manufacture a full line of dispensing and coating systems. With a reputation for innovation, comprehensive process solutions from Nordson ASYMTEK ensure a maximum return on investment and low cost of ownership. From initial process development through full scale production, you are supported by our experienced worldwide engineering, applications development and technical service network.



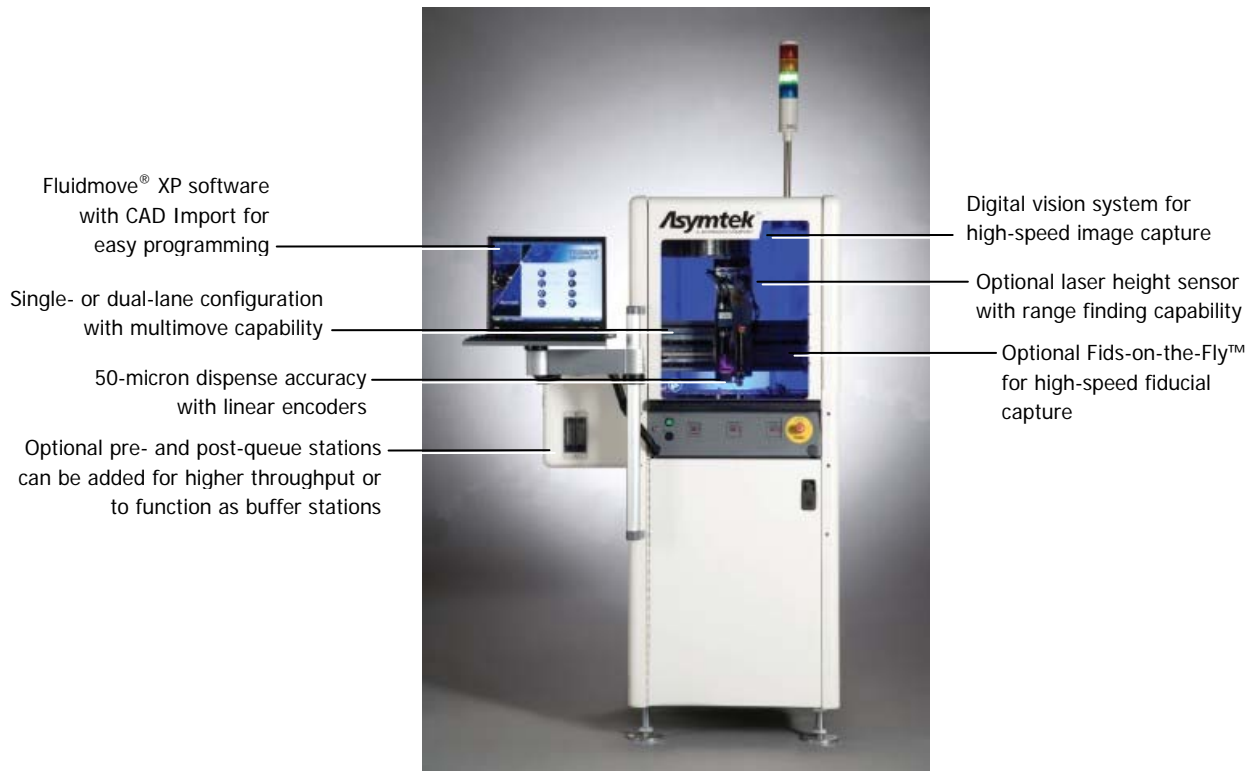
S-910N Series Features

Standard features

CAD Import software
Calibration Module: vacuum purge and fiducial marks for automatic setup
Digital Vision System
Light Beacon with audible alarm
Low Pressure Sensor
Manual fluid and valve pressure setting
Tactile Height Sensor

Optional features

Calibrated Process Jetting (CPJ) or Mass Flow Calibration (MFC) for fluid weight calibration and automatic flow rate adjustment (Nordson ASYMTEK patented)
Dual Lane configuration – Model S-912N
Exterior Bulk Fluid Reservoir: 600 cc (20 oz), includes remote feed and fluid level sensor
Fids-on-the-Fly™
Laser Height Sensor
Low Fluid Sensor (magnetic or capacitive)
Material Handling: freestanding loaders/unloaders
Pre- and Post-queue Stations
Programmable Fluid and Valve Pressure
SECS/GEM Interface



Why choose Nordson ASYMTEK? Customers have told us:

- Speed and accuracy of DispenseJet® technology
- User-friendly, highly accurate platforms for advanced technology applications
- Technical skills and professionalism of the applications and engineering teams
- Willingness and ability to develop robust custom-engineered solutions

Lower Your Cost of Ownership

The Spectrum S-910N series lowers cost of ownership by:

- Providing a smaller footprint frame
- Monitoring flow-rate to minimize material waste and increase process yield
- Maintaining tight temperature control with software-managed jet/needle heaters
- Fast non-contact jetting that reduces yield loss associated with needle dispensing
- Supplying higher throughput with dual lane conveyors
- Offering optional software control of valve pressures to minimize operator intervention

Key Features for Enhanced Throughput and Process Control

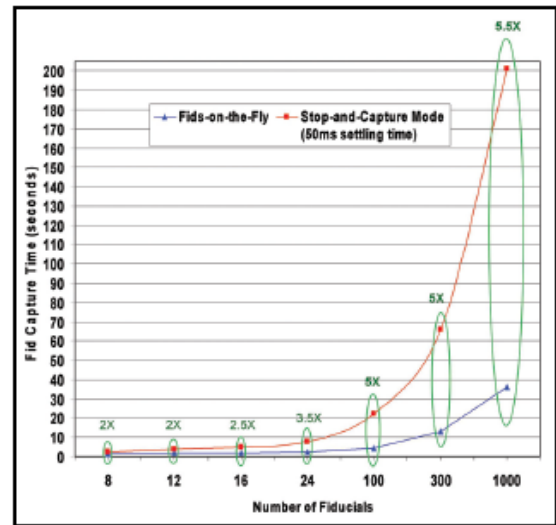
CAD Import Software for SMA, Solder Paste, and Silver Epoxy Dots: Nordson ASYMTEK's CAD Import software imports CAD data or an ASCII file from a component placement machine and quickly creates an FmXP program.



Digital Vision System for High-Speed Image Acquisition: The Spectrum's vision system is faster than an analog version for reduced vision processing time, doubling the frames per second.

Fids-on-the-Fly™

The Fids-on-the-Fly option is up to 5.5 times faster than the traditional stop-and-capture method for locating fiducials and can increase UPH (units per hour) as much as 35 percent.



Tests were run on a variety of parts with a varied number of fiducials. Fids-on-the-Fly is 2 to 2.5 times faster than the stop-and capture method. The more fiducials required, the greater the time savings.

Multimove Conveyor: Simultaneous movement significantly decreases convey time, contributing to increased throughput. In one sequence, a part is transported from the upstream machine while the Spectrum system unloads a part from the dispense station to the downstream machine. Optional pre-and post-queue stations can be added for even higher throughput.



Innovative Designs and Customized Solutions

Nordson ASYMTEK designs and manufactures equipment that offers innovative dispensing solutions to customers worldwide. In addition to the standard product offerings, our experienced engineers can develop customized solutions to meet the unique demands of your environment. Nordson ASYMTEK has a solid history of developing customized solutions for fluid delivery, material handling, factory-specific lot tracking and control, vision and lighting systems, and software interface and control. Our goal is to improve your production throughput and yields, and ultimately, lower your cost of ownership

Specifications: Spectrum™ S-910N Series

Motion System

X-Y placement accuracy:	±0.050 mm (0.002 in.), 3 sigma
Z accuracy:	±0.025 mm (0.001 in.), 3 sigma
X-Y repeatability:	±0.025 mm (0.001 in.), 3 sigma
X-Y acceleration:	1 g peak
X-Y velocity:	1 m/s peak (40 in./s)

Vision and Lighting

Camera resolution:	640 x 480 pixels
Field of view:	7.0 x 5.0 mm (0.28 x 0.20 in.)
Lighting:	Red/blue LED with 255 independent light levels for each color

Computer

Laptop with Windows® XP operating system

Software

Fluidmove® for Windows® XP

Fluid Delivery Method

Supports all Nordson ASYMTEK jets, piezo-activated valves, encoded auger pumps, spool, and pressure-time valves. An integration kit may be required.

Dispense Area (X-Y)

339 x 410 mm (13.3 x 16.1 in.)

Conveyor

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: 525 mm (20.7 in.) Dual lane: 228 mm (9.0 in.)
Min. board/carrier width ⁽¹⁾ :	34 mm (1.3 in.)
Max. board/carrier thickness:	12 mm (0.5 in.)
Max. overboard clearance:	30 mm (1.2 in.)
Underboard clearance:	4.5 mm (0.18 in.) @ 4 to 5.75 mm (0.16 to 0.23 in.) from edge; 55 mm (2.17 in.) beyond 5.75 mm (0.23 in.) from edge
Transport height:	Conforms to SMEMA standard for conveyor height; height adjustable from 913-965 mm (35.9 - 38.0 in.) from floor to bottom of the part
Standard edge clearance:	6 mm (0.24 in.) includes clamp; 5 mm (0.20 in.) available by request
Maximum load capacity ⁽²⁾ :	2 kg (4.4 lbs.)
Operation modes:	Automatic (SMEMA), manual, pass-through
Belt types:	ESD O-ring, ESD high-temp 6-mm flat belt, ESD high-temp 4-mm flat belt

Facilities Requirements

System footprint:	600 x 1391 mm (23.6 x 54.8 in.)
Air supply:	689 kPa (6.8 atm, 100 psi)
Power (mains):	power supply accommodates 200-240 VAC, 47-63 Hz single phase, 10 A
Ventilation:	Downdraft or updraft
System weight ⁽³⁾ :	377-422 kg (830-930 lbs.)

(1) Contact factory regarding smaller boards/carriers.

(2) Total weight of all parts on conveyor at any one time. Contact factory regarding requirements for greater load capacity.

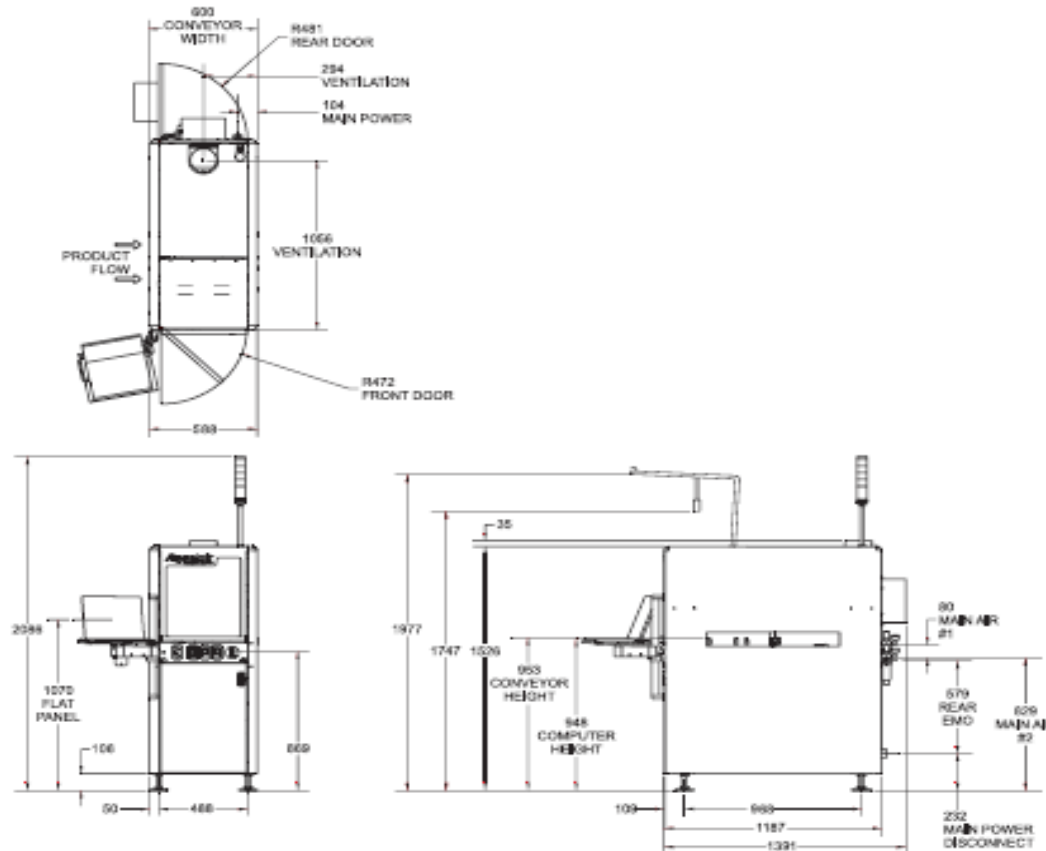
(3) System weight varies depending on configuration.

Standards Compliance

SEMI-S2; SEMI-S8; SMEMA; CE

Specifications: Spectrum™ S-910N Series

Dimensions are in millimeters



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