



Solder Paste Inspection (SPI)



SPI

# SE3000S



## 3D SPI

A Leap Forward in SPI Speed, Accuracy and Resolution.

The new SE3000S™ 3D SPI system incorporates the industry leading MRS sensor technology with a finer resolution for the best accuracy, repeatability and reproducibility - even on the smallest paste deposits.

Combined with the award winning, easy-to-use SPI software, solder paste inspection has a new level of precision for the most stringent requirements.

## Metrology-Grade Accuracy

- At production speed enabled by MRS technology.
- Ideal for measuring height, area, volume, registration and bridging. Effectively detects insufficient paste, insufficient height, insufficient area, excessive paste, excessive height, smear, offset, shape height, deposit and customer defect types.

## Faster, Smarter, Software

- Ultra-fast programming capabilities, auto tuning and enhancements that significantly speed setup, simplify the process, reduce training efforts and minimize operator interaction.

- Take ease-of-use to a whole new level of inspection with multi touch controls and 3D image visualization tools with Nordson Test & Inspection's 3D AOI software that includes full SPI capability.
- Add on Nordson Sight for full-fledged machine-level to factory-level SPC capability.

## Richer SPI Experience

- Optimize printing process by proactively analyzing current trend data with the standalone SPI software and Nordson Print Optimizer.
- Enable smarter and faster inspection that provides reduction in rework costs, minimizes scrap and optimizes print process.

| System Configuration           | SE3000S-DR   | SQ3000S-HS                   |
|--------------------------------|--|------------------------------|
| Nordson Part Number            | 6283906  |                              |
| Inspection Sensor              | Dual Resolution PSX 189  |                              |
| <b>Inspection Capabilities</b> |  |                              |
| Resolution Mode                | 9 µm   | 18 µm                        |
| Inspection Speed               | 16 cm <sup>2</sup> /sec  | 46 cm <sup>2</sup> /sec      |
| Minimum Paste Size             | 100 x 100 µm (3.9 x 3.9 mil)   | 200 x 200 µm (7.8 x 7.8 mil) |
| Maximum Paste Size             | 15 x 15 mm (0.59 x 0.59 in.)   | 30 x 30 mm (1.18 x 1.18 in.) |
| Height Measurement Range       | 2 mm (0.07 in.)  | 3 mm (0.12 in.)              |
| Height Accuracy                | 2 µm on a Certification Target   |                              |
| Measurement Gage R&R           | < 10%  |                              |
| Measurement Types              | Height, Area, Volume, Registration, Bridge Detection   |                              |
| Defect Category                | Bridging, Insufficient Paste, Insufficient Height, Insufficient Area, Excessive Paste, Excessive Height, Smear, Offset, Shape Δ Height, Deposit, and more defect types |                              |
| Function Capability            | Closed-loop to printer, CyberPrint, inline SPC tool  |                              |
| <b>Vision System</b>           |  |                              |
| Panel Minimum Size             | 50 x 50 mm (2 x 2 in.)   |                              |
| Panel Maximum Size             | 510 x 510 mm (20 x 20 in.)   |                              |
| Panel Maximum Inspection Area  | 508 x 503 mm (20 x 19.8 in.)   |                              |
| Field-of-View (FOV)            | 22 x 18 mm (0.86 x 0.70 in.)   | 36 x 36 mm (1.42 x 1.42 in.) |
| Component Height Clearance     | Top: 50 mm (1.97 in.); Bottom: 30 mm (1.97 in.)  |                              |
| Panel Edge Clearance           | Top: 2.5 mm (0.10 in.); Bottom: 3 mm (0.12 in.)  |                              |
| Panel Thickness                | 0.3 to 5.0 mm ( 0.01 in. to 0.2 inc)   |                              |
| Maximum Weight                 | 3 kg / 5 kg (Option)   |                              |
| Conveyor Width Adjustment      | Automatic  |                              |
| Conveyor Direction             | Left to Right (Standard); Right to Left (Option)   |                              |
| <b>System Specifications</b>   |  |                              |
| Machine Interface              | SMEMA, RS232 and Ethernet  |                              |
| Power Requirements             | 100-120 VAC or 220-240 VAC, 50/60 hz, 10-15 amps   |                              |
| Compressed Air Requirements    | 5.6 Kg/cm <sup>2</sup> to 7.0 Kg/cm <sup>2</sup> (80 to 100 psi @ 4 cfm)   |                              |
| System Dimensions              | 110 x 129 x 139 cm (W x D x H)   |                              |
| Weight                         | 900 kg (2127 lbs.)   |                              |
| <b>Options</b>                 |  |                              |
|                                | SPC software, Barcode Readers (1D/2D), Programming Software: ePM-SPI/AOI, Offline Defect Review, Certification Target  |                              |

**For more information, speak with your Nordson representative or contact your Nordson regional office**

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