



SELECT Integra 508.3 Two-Segment Inline

All-in-One Selective Soldering for High Volume and Maximum Throughput

The Integra® 508.3 Two-Segment is a multi-station selective soldering system with concurrent fluxing, preheating, soldering, and maximum preheat capabilities.

With its highly flexible configuration, the Integra solders PCBs as large as 508 x 508 mm (20.0 x 20.0 in.) and increases throughput significantly with parallel processing.

The system meets a range of process requirements and features a drop-jet fluxer and two solder pots, which enables the soldering of two singulated boards in-line at the same time.

Features and Benefits

- Cost-effective processing of demanding double-sided, through-hole surface mount (SMT), through-hole selective, and mini-wave soldering applications.
- Solder two boards in-line with two segmented conveyors without panelization, palletization, or special tooling.
- Run through-hole and SMT mixed-technology soldering applications with multiple solder alloys and without changing solder pots.
- Easy tool-free maintenance and full titanium solder pots compatible with all solder alloys.
- Experienced global engineering, applications development, and technical service support from process development to full-scale production.

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Specifications

Motion System	Z accuracy	±100 µm (0.004 in.)
	Z repeatability ⁽¹⁾	±50 µm (0.002 in.), 3 sigma
	Z velocity	0.05 m/s peak (2 in./s)
	X-Y accuracy	±100 µm (0.004 in.)
	X-Y repeatability ⁽¹⁾	±50 µm (0.002 in.), 3 sigma
	X-Y velocity	0.2 m/s peak (8 in./s)
Computer	PC with Windows® operating system Windows is a registered trademark of Microsoft Corporation in the United States and other countries.	
Software	PhotoScan “point-and-click” programming editor and machine control software	
Solder Pot Capacity and Weight	Capacity ⁽²⁾	Approx. 12.0 kg (26.4 lbs.)
	Total weight of tin-lead solder, solder pot, and pump assembly ⁽²⁾	Approx. 22.4 kg (49.2 lbs.)
	Total weight of lead-free solder, solder pot, and pump assembly ⁽²⁾	Approx. 19.7 kg (43.3 lbs.)
	Max. temperature	320°C
Solderable Area (X-Y)	Single, parallel or double operating mode ^(3,4)	Max. 508 x 508 mm (20.0 x 20.0 in.) Min. 50 x 50 mm (2.0 x 2.0 in.)
Preheating	Selectable topside preheating from 1.5 kW to 12.0 kW Selectable bottom preheating from 1.5 kW to 6.0 kW	
	508.3 Two-Segment ^(3,4)	Max. board size: 350 x 508 mm (13.8 x 20.0 in.) Min. board size: 50 x 50 mm (2.0 x 2.0 in.)
Conveyor	Max. board/carrier length	508 mm (20.0 in.)
	Min. board/carrier length	50 mm (2.0 in.)
	Max. board/carrier width	508 mm (20.0 in.)
	Min. board/carrier width ⁽⁴⁾	50 mm (2.0 in.)
	Max. board/carrier thickness	15.2 mm (0.6 in.)
	Max. overboard clearance	120 mm (4.7 in.)
	Max. underboard clearance	40 mm (1.5 in.)
	Edge clearance ⁽⁵⁾	3 mm (0.12 in.), edge conveyor including on-rail clamps
	Transport height ⁽⁶⁾	Conforms to SMEMA standard for conveyor height; height adjustable from 940-965 mm (37.0 -38.0 in.) from the floor to bottom of the board.
	Load capacity ⁽⁷⁾	7.5 kg (16.5 lbs.)
	Operation modes	Automatic (SMEMA), manual or pass-through

(1) Repeatability is measured at full-rated system speed.

(2) Solder capacity and the total weight of the solder pot and pump assembly vary depending on the alloy.

(3) Board size is reduced when operating in parallel, double, and two-segment sequential modes.

(4) Contact the factory regarding smaller or larger boards/carriers.

(5) Edge conveyor conforms to SMEMA standards.

(6) 900 mm (35.4 in.) non-SMEMA conveyor height available upon request.

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

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Specifications

Facilities Requirements	System footprint	508.3 Two-Segment	4500 x 1700 mm (177.2 x 66.9 in.)
	Compressed air	6 bar (90 psi) min., 8 bar (110 psi) max.	
	Power (mains) ⁽⁸⁾	508.3 Two-Segment	400/480VAC, 50-60 Hz, three phase, 29 kW, 42 A without preheating, or 36 kW, 50 A with preheating
	Nitrogen	99.99% (4.0) pure, 4-6 bar (60-90 psi), 1.3 m ³ /hour (single pot), 2.6 m ³ /hour (dual pot)	
	Ventilation	300 m ³ /hour (180 SCFM), two 100 mm (4.0 in.) dia. ducts	
	System weight ^(9,10)	1500 kg (3300 lbs.)	
Standards Compliance	SMEMA, CE		

(8) Electrical power varies depending on the configuration.

(9) System weight varies depending on the configuration.

(10) Configuration dependent. Other configurations may be available. Contact Nordson.

System Solution

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 product reliability. No matter where you are, you've likely manufactured or purchased a product made reliable with our equipment.

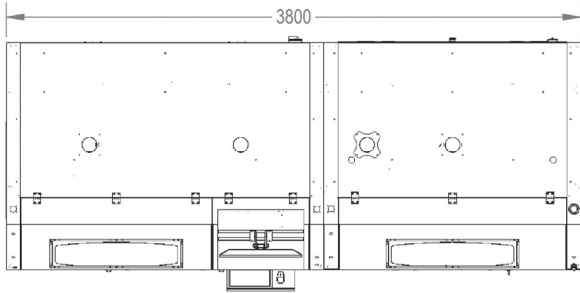
Explore the Integra 508.3 Two-Segment solution. Continue to see how we support the future.

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

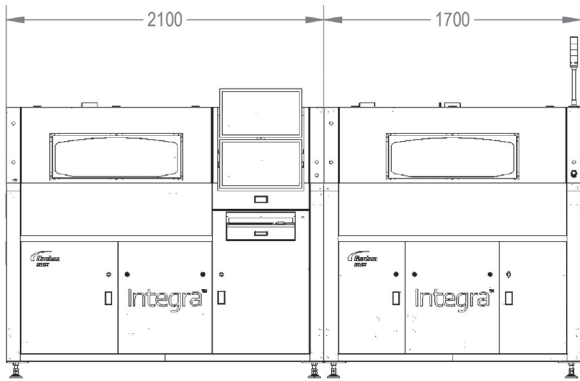
Productivity	Multi-station in-line processing.	Single-lane parallel processing, top and bottom-side heating, and two solder pots ideal for a range of applications.
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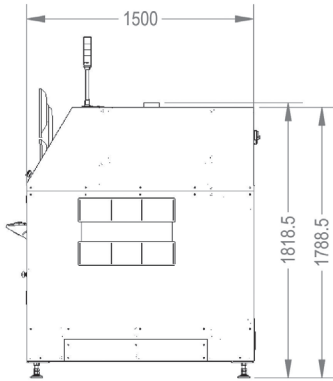
System Dimensions



Top View



Front View



Side View

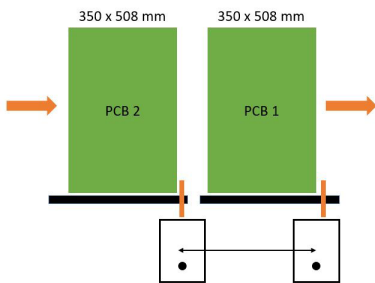
For more information, visit our website to find your local regional office or representative.

We have several global locations to serve you.

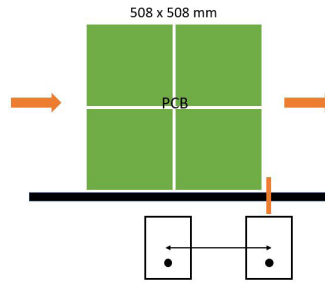
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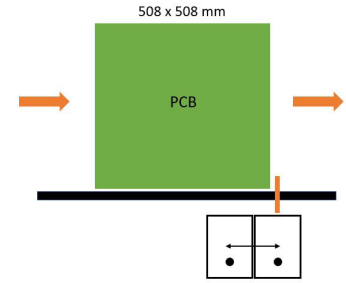
Cerno 508.3 Two-Segment — two singulated boards in parallel mode.



Cerno 508.3 Two-Segment — soldering a panelized board with dual nozzles.



Cerno 508.3 Two-Segment — soldering a board with small and large nozzles.



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Nordson
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