

Nordson SELECT

**The new name for ACE Production Technologies
and InterSelect GmbH**



Nordson SELECT



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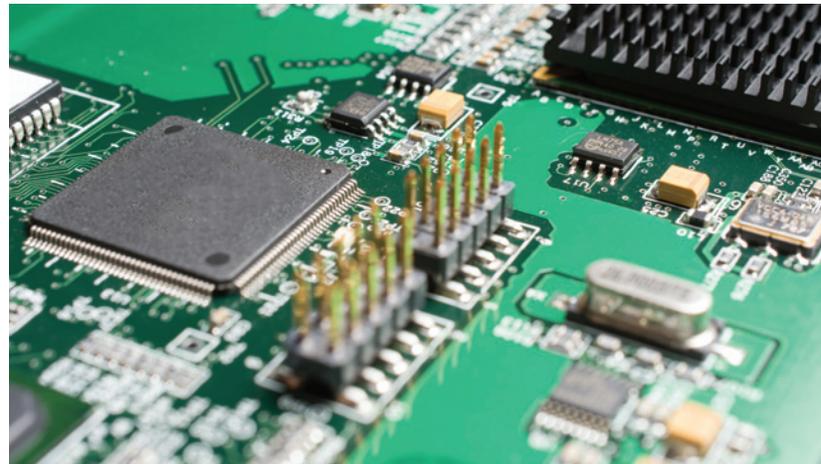
...The Selective Soldering Specialists

Our core business is selective soldering. With a combined 25 years of experience in electronics manufacturing, our proven products are tailored by our highly experienced and devoted team to perform flawlessly. Nordson SELECT soldering systems are innovative by design and our team is committed to tackling the new challenges and needs of our customers. Whether it be a product with a more diverse range of capabilities, or a machine that dramatically increases throughput, Nordson SELECT can deliver. With a reputation for innovation, all our comprehensive process solutions ensure our customers of maximum return on investment and low cost of ownership. From the initial process development, to full-scale production, our family of industry experts supports our worldwide customer base with anything and everything they may need to ensure their success.

What We Do

The future of mixed-technology assembly belongs to those who can process any through-hole soldering application with absolute precision and unmatched speed. Nordson SELECT understands both the need for high levels of throughput and the ability to adapt the selective soldering process to customer's ever changing requirements. As an example, our parallel or double processing modes enable fluxing and soldering of two printed circuit boards at the same time, effectively doubling throughput. Or if its flexibility you seek, these same systems can solder with multiple sized nozzles within the same program or two different solder alloys without requiring physical changing of solder pots. Ultimately this means our customers no longer have to sacrifice throughput for flexibility...or flexibility for thoughtput, they can have both in the same machine.

As a customer driven company, we design our products with the success of the customer in mind and use this as our underlying principal for product development. Nordson SELECT fully understands how costly an idle machine can be. And as such, we have designed our products to have a low cost of ownership in order to minimize the time and money that is wasted as a result of downtime. As an



example, our machines boast a tool-free maintenance routine that can be performed rapidly by virtually anyone, because the productivity and performance of our customers is a priority.

Nordson SELECT is pleased to offer a full spectrum of selective soldering solutions, from compact and economical standalone models to multi-station in-line models with uncompromising high performance. Yet, Nordson SELECT is much more than just an illustrious and proven track record of excellence. Today Nordson SELECT is the combination of two highly innovative companies, ACE Production Technologies and InterSelect GmbH, dedicated to enabling the success of our clients.

Best in Class Features

Lowest Cost of Ownership

Nordson SELECT machines provide our customers with the lowest cost of ownership in the industry. With standard design features including the minimal use of specialty spare parts and

tool-free solder pot maintenance, Nordson SELECT customers gain the benefit of reduced operational costs year after year.

Modularity for Flexible Manufacturing

Several Nordson SELECT models can be paired with our In-Line Flux and Preheat Module to provide a highly flexible selective soldering line for the ultimate in manufacturing flexibility. Individual or multiple solder modules can be easily reconfigured in under one hour providing increased production flexibility and the ability to rapidly adapt to changes in production requirements. This increased production flexibility via rapid line



reconfiguration is further enhanced with interchangeable solder pots equipped with either single selective nozzles, dual selective nozzles or wave soldering nozzles.

Automated Programs



Solder nozzle before and after automatic nozzle tinning



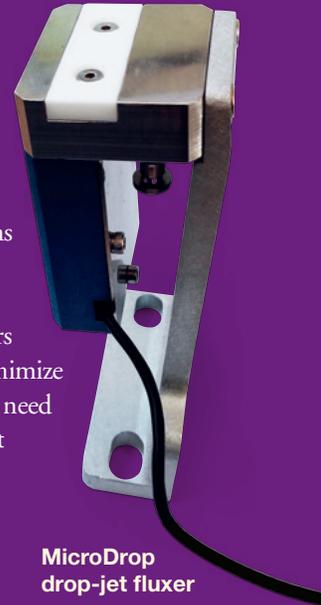
- **Automatic Solder Nozzle Tinning System** – As industry experts we know that only a clean and oxidation free solder nozzle can be properly wetted. Unlike other nozzle cleaning systems, Nordson SELECT's patent pending system does not spray a liquid or powdered flux. Our solder nozzle tinning system keeps our solder nozzles meticulously clean by automatically removing oxidation residues and re-tinning the surface of the nozzle without any resulting overspray or contamination on the printed circuit board or the selective soldering machine.
- **Board Warp Compensation System** – This system measures the height differences of a printed circuit board as it is heated, calculates the downward deflection, and automatically corrects all Z-axis values to compensate for warpage. This eliminates the need for a traditional, and labor intensive, manual adjusting of the soldering program.
- **Automatic Solder Level Monitoring System** – A sensor continuously checks the solder level, and sends a message to an automatic solder wire feeder that deploys solder wire from a reel if the solder levels drop below the predetermined threshold.
- **Wave Height Control Sensing System** – This sensor automatically controls and corrects the height of the solder wave, returning it to the original preset wave height if necessary. To maintain our high levels of consistency, our software records and displays all the appropriate information during production, guaranteeing quality and ensuring complete traceability.
- **Automatic Conveyor Width Adjustment** – All Cerno™ and Integra™ in-line soldering models offer an automatic conveyor width adjustment feature. Adjustment takes place whenever a new soldering program is activated within the machine. No manual intervention or manual data entry is required, making these machines highly efficient and adaptable to a wide range of printed circuit board sizes.

Fluxing

Quality Control

- Closed-Loop Pyrometer Controlled Preheating** – To ensure the consistency and quality of solder joints, Nordson SELECT utilizes pyrometer controlled preheating. The temperature is measured directly on the surface of the circuit board and is adjusted until the desired temperature is reached. Furthermore, the temperature of the PCB can be held constant during the soldering process, significantly improving solder quality. This is particularly important with long soldering cycles, where circuit boards can tend to cool down rapidly before the last solder joints can be properly formed.
- Process Viewing Cameras** – Our process cameras stream a live video feed of the entire soldering process directly to the operator's screen, enabling them to constantly monitor and adjust the soldering program to their desired parameters. This way nothing goes unseen, and our customers can keep their operators well informed and accountable.
- Automatic Wave Height Monitoring** – Prior to commencing a soldering program, our machines automatically adjust all nozzle wave height related values by means of a specialized sensor, ensuring the highest level of precision and consistency.
- Data Logging and Traceability** – All Nordson SELECT machines are configured with multiple sensors capable of monitoring all aspects of the selective soldering process. The information gathered by these sensors is stored in an SQL database and can be instantly exported in XML format for further analysis. Parameters such as the temperature of the solder alloy, printed circuit board temperature, accurate flux application, and error messages are readily available. Any additional parameters can be easily added to adapt to any of our customer's unique traceability needs.
- AOI Solder Joint Inspection** – Several of our selective soldering models can be equipped with an automated optical inspection system capable of inspecting solder joints immediately after soldering to ensure the utmost in solder joint integrity.

- MicroDrop Drop-Jet Fluxer** – Several Nordson SELECT models come standard with a highly-adaptable MicroDrop drop-jet fluxer that can precisely deposit flux both at individual points on a printed circuit board as well as entire lines in sequence. All flux applications can be adapted and customized to the requirements of each printed circuit board assembly. Our integrated MicroDrop fluxers drastically reduce flux consumption and minimize flux residue contamination, eliminating the need for post-soldering cleaning of printed circuit board assemblies.



MicroDrop drop-jet fluxer

- FluxJet Precision Drop-Jet Fluxer** – Several Nordson SELECT models offer an available FluxJet precision drop-jet fluxer that can dispense alcohol-based fluxes, water-soluble fluxes, rosin-based fluxes, high solids content fluxes and low pH flux chemistries. In addition, the FluxJet precision drop-jet fluxer can be integrated side-by-side with an atomizing spray fluxer to create a dual fluxing system capable of both site-specific flux dispensing as well as mass flux application.



FluxJet precision drop-jet fluxer



Dual FluxJet and spray fluxers

- In-Process Flux Verification** – Nordson Select machines are available with an in-process flux control system that verifies the presence and accuracy of flux application by a drop-jet fluxer. This system ensures micro deposition of flux to extremely small solder sites with unparalleled accuracy and minimal flux consumption. Monitoring this process has proven to greatly increase consistency and quality during production.
- Atomizing Spray Flux Applicator** – Several Nordson SELECT models come standard with an atomizing spray flux applicator which is ideal for mass application of fluxes to printed circuit boards that will be cleaned after selective soldering. Compatible with a full spectrum of flux chemistries, the atomizing spray flux applicator can operate flawlessly with very high solids content fluxes.

Preheating

- **Topside and Bottom-side Infrared Preheat** – Nordson SELECT machines can hold the temperature of a PCB constant during the soldering process, significantly improving the quality of production. This is particularly important with long soldering cycles where circuit boards can have a tendency to cool down rapidly before the last solder joints can be properly formed. Multi-layer printed circuit boards or applications with high-thermal mass components all benefit greatly from having sustained and constant preheating. To minimize thermal stress on the board during preheating and to achieve an optimal heat distribution, our full surface infrared preheaters are carefully monitored and controlled. Our optimized control can heat multiple PCBs simultaneously, significantly reducing the cycle time per board, a feature that is particularly valuable for high-volume production..
- **Energy Savings** – Nordson SELECT preheaters regulate themselves according to the size and scope of the PCB in production. Our closed-loop system ensures consistent and accurate heat throughout production. In an effort to save energy costs, we have designed the preheaters to be active only as long as the assembly is above or below them. Our customers have reported substantial energy savings, especially with high-volume application where machines are running virtually non-stop.
- **Temperature Control** – Nordson SELECT pyrometer controlled closed-loop preheating eliminates the need for circuit board profiling and attains a more precise temperature with less room for human error. Overheating of the PCB is diminished and, thanks to the closed-loop control, the user no longer needs to estimate how much thermal energy the components will drain or how long the assembly must be preheated. The system always brings the exact required amount of energy to the PCB.
- **Sustained Preheating** – Our Nordson SELECT machines prevent the cooling of the assembly during soldering by utilizing the top preheater to compensate for thermal loss and maintain the temperature during the entire soldering cycle. It has become apparent that reliable and consistent soldering is best achieved through a closed-loop pyrometer-controlled system like ours.
- **Thermal Data Logging System** – Our thermal data logging system provides accurate measurement and control of actual PCB temperature and eliminates the need for traditional circuit board profiling. This system is available on several models and minimizes damage to thermally sensitive components.

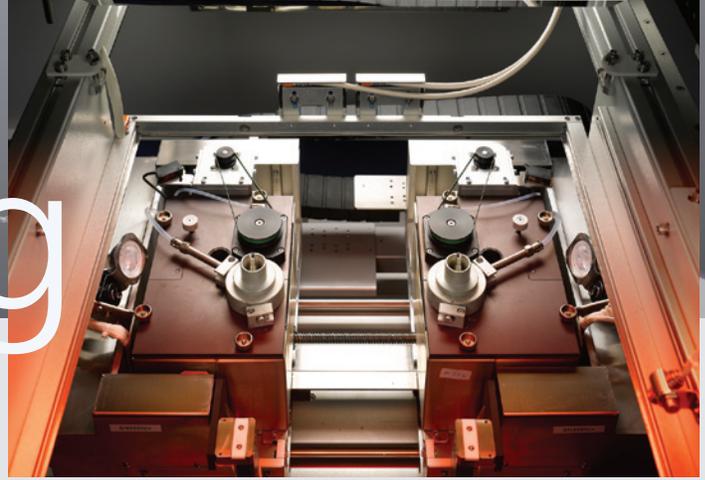
Soldering

- **Parallel-Double Configuration (PD)** – Some Nordson SELECT machines can be configured in such a way that doubles machine productivity and versatility. These models can be equipped with dual drop-jet fluxers and dual solder pots. This enables the fluxing and soldering of two PCB's simultaneously, or soldering with multiple sized nozzles within the same program using two distinct alloys without needing to physically change the solder pots. Our customers no longer have to sacrifice throughput for flexibility...or flexibility for thoughtput. They can have both in the same machine.

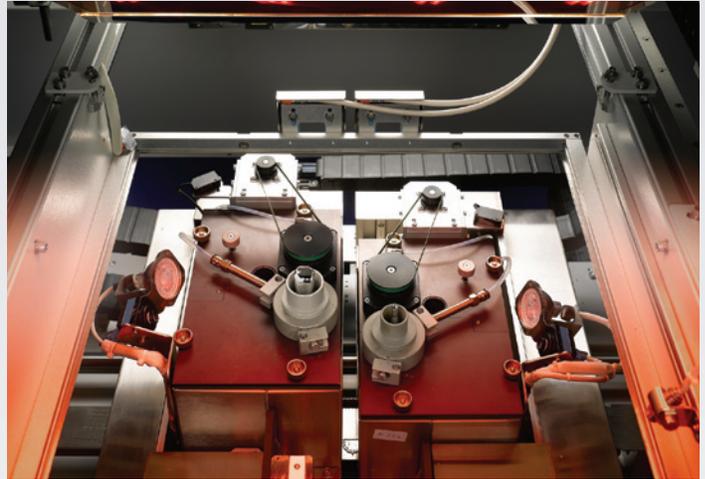
- **Interchangeable Solder Pots** – Several Nordson SELECT models are available with interchangeable solder pots capable of processing multiple types of solder alloys including tin-lead, lead-free and high melting point alloys. These interchangeable solder pots can be exchanged in less than 20 minutes. Various Nordson SELECT models feature titanium solder pots, permitting them to process all types of solder alloys. Our solder pots are robust and highly resistant to potential damage during cleaning and operational use. This straightforward design allows for effortless tool-free maintenance and rapid cleaning, which minimizes downtime.

As a standard feature these solder pots are nitrogen inerted so inert nitrogen gas covers the entire solder bath, significantly reducing the formation of dross and ensuring an oxidation free soldering environment. Designed to equalize the flow of molten solder inside the solder pump and to keep it free of fluctuations, our solder pumps have a special anti-cavitation design that minimizes wave height variation at the solder nozzle.

- **Wettable and Non-Wettable Solder Nozzles** – All Nordson SELECT machines can be fitted with either wettable or non-wettable nozzles. Our solder nozzles are made of a specially developed metallic alloy which is highly resistant to the corrosive effects of lead-free solder alloys. A specially designed nozzle body further reduces the formation of dross by more than 90% and avoids disturbed solder from forming on the underside of the PCB.



Parallel mode solders two boards at the same time



Double mode with multiple size solder nozzles

Most non-wetted solder nozzles have a minimal solder height, limiting the pin length that can be soldered. Nordson SELECT non-wetted solder nozzles are specially designed with a radial groove to establish backpressure raising the solder height an additional 50% for soldering of longer length pins.

Our wettable mini-wave solder nozzles have directional solder flow and are ideal for soldering multi-row connectors. As an extension of our wettable mini-wave solder nozzles, some Nordson SELECT models can be equipped with a 75 mm (3.0 in.) wide wave solder nozzle that can solder left-to-right or right-to-left and can solder around obstacles thanks to programmable X, Y and Z-axis motion.

- **Nitrogen De-Bridging Knife** – Several Nordson SELECT models can be equipped with an available nitrogen de-bridging knife that ensures bridge free soldering when selective soldering fine-pitch devices such as micro-connectors.



Solder nozzle with greater solder height



Dual solder nozzle pot and pump



75 mm (3.0 in.) wide wave solder nozzle

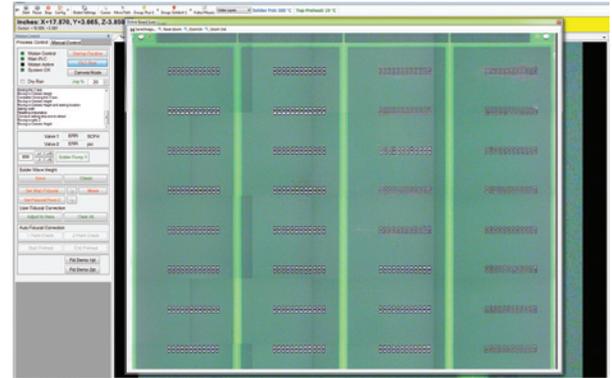


Fine-pitch selective soldering

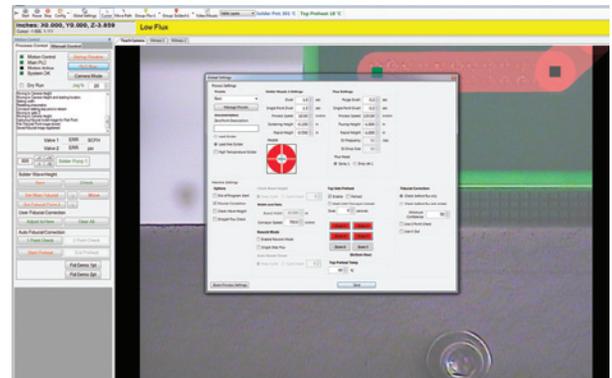
Programming

SWAK-OS 4.0 Software

- **Highly Intuitive Graphics-Based Programming** – Some Nordson SELECT models utilize SWAK-OS 4.0, a state-of-the-art programming and editing software that enables graphic monitoring of the entire selective soldering process. Programs are quickly and easily created by fiducial recognition, imaging a board and painting flux and solder paths with a single screen graphical user interface. On-the-fly editing for quick adjustments can be made to fully optimize the selective soldering process. SWAK-OS 4.0 is fully network compatible, facilitating complete data storage and maintenance logging.
- **Ultimate in Manufacturing Flexibility** – Nordson SELECT machines equipped with SWAK-OS 4.0 use a single-user interface for global deployment, allowing worldwide program mobility across multiple machine platforms. Programs created at one customer location can be utilized at other global manufacturing sites, enabling rapid reconfiguration of selective soldering lines for the ultimate in manufacturing flexibility. This unique capability provides Nordson SELECT customers with the ability to rapidly adapt to changes in production requirements.
- **Innovative Features and Capabilities** – SWAK-OS 4.0 equipped machines have an extensive feature set of advanced software capabilities including:
 - Integrated board scanning creates true-to-scale image of entire board
 - Automatic fiducial alignment with single click fiducial teach capability
 - Seamless fiducial recognition with true board alignment and skew correction
 - Pattern recognition of correct board assembly, x-out circuits or missing components
 - Board warp compensation function
 - Remote machine diagnostics for long distance viewing of possible abnormalities
 - Comprehensive library of on-demand help videos



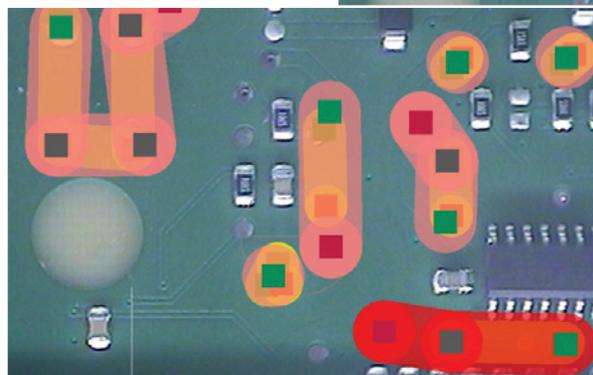
Seamlessly create true-to-scale image of entire board



Compile board parameters via global settings



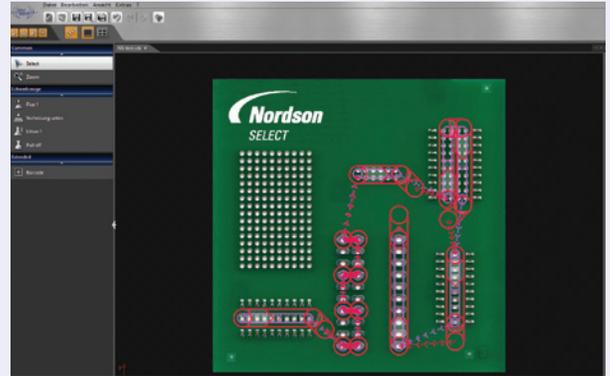
Paint flux and solder paths to create and edit program



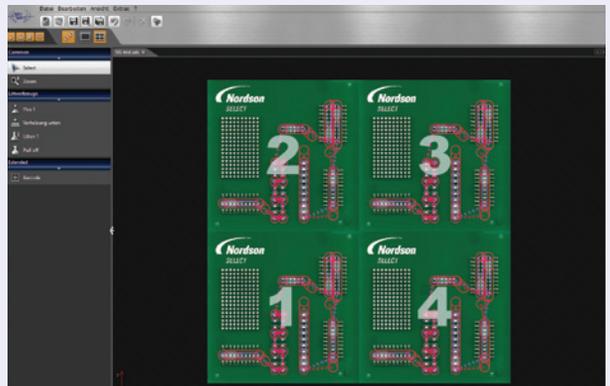


PhotoScan Software

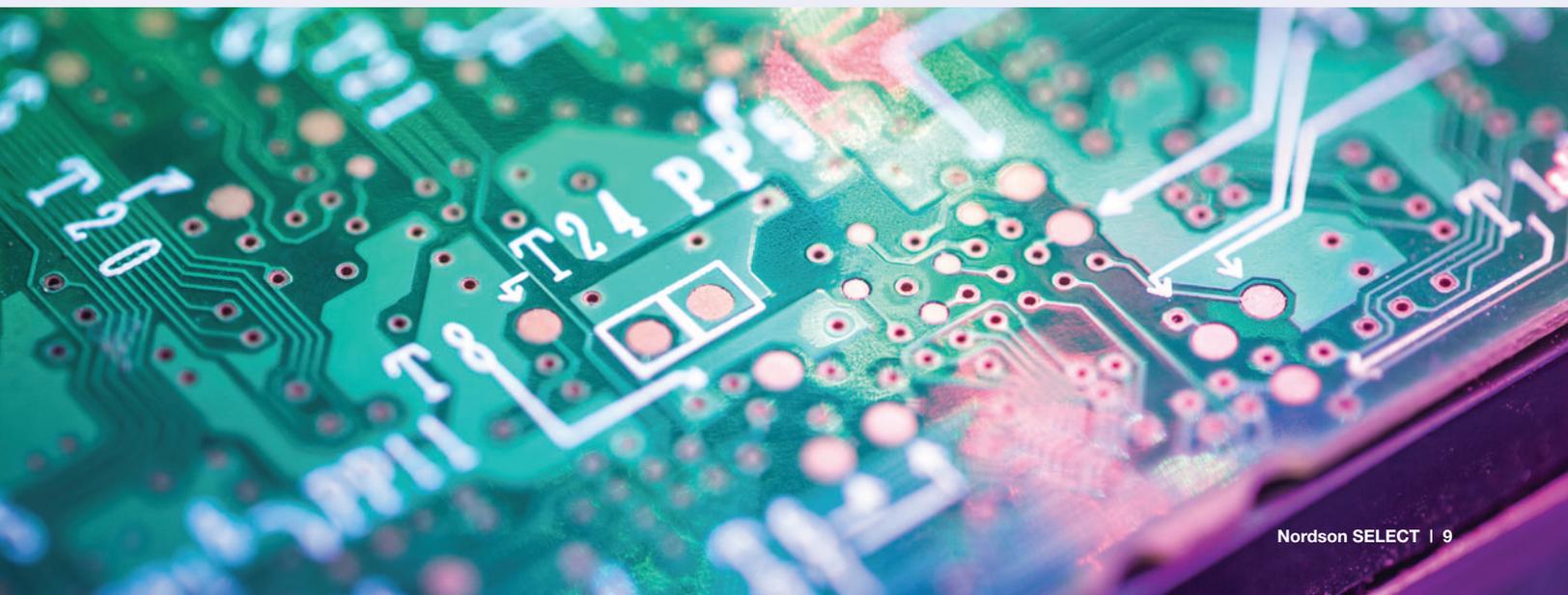
- **Programming and Editing with Ease** – Some Nordson SELECT models use PhotoScan software that provides easy “point-and-click” programming with highly editable graphical monitoring of programs throughout the selective soldering process. All machine parameters are accessible through a single graphical user interface for both programming and machine operations. This software is fully network compatible through either cable or wi-fi, providing backup capabilities for programs and project storage. Crucially, this software is highly editable and can be manipulated on-the-fly while simultaneously soldering boards. Our highly functional control system allows that all parameters of each soldering and flux location can be easily adjusted to obtain optimal soldering performance.
- **Advanced Features and Capabilities** – PhotoScan equipped machines have an extensive feature set of unique software capabilities including:
 - Easy “point-and-click” programming with highly editable graphical monitoring
 - On-the-fly editing in combination with simultaneous processing
 - Remote machine control and remote machine maintenance
 - Full connectivity to customer’s company network
 - Factory information system (FIS) capability
 - Production data and quality reporting to customer’s SQL database
 - Direct linkage to FIS system for ultimate in traceability



PhotoScan editing and machine control software



PhotoScan single graphical user interface



Product Portfolio

We are selective soldering specialists with 25 years of product development, design and manufacturing experience. Over time we have compiled our customer's feedback and have applied it to our work. Because of this our machines are fine-tuned, not just by our dedicated team of engineers, but by the hand of our customers. Based on this invaluable feedback, we have tailored our product line to meet a wider array of demands and can be adapted to any of our customer's selective soldering needs.

Current Range of Products

Novo™ Series

- **Novo™ 102 and 103**

The Novo™ 102 and 103 offer an exceptional combination of versatility, productivity and outstanding value in a compact footprint. With feature rich, graphics-based programming and fully-automated fiducial board alignment, the Novo™ 102 and 103 are ideally suited for prototype, cell manufacturing or small batch production requirements. Refer to Page 12 for more information.

- **Novo™ 300**

The Novo™ 300 offers an economically friendly solution and is a natural fit for prototype, cell manufacturing or small batch production. With a radical design concept, we achieved a remarkably small 1.1 square meter footprint and maintained the accuracy and 200 mm/second production speed of our high-end in-line models. Refer to Page 13 for more information.

- **Novo™ 460 S/PD**

The Novo™ 460 expands the reach of Nordson's compact selective soldering systems with the Novo™ 460S coming standard with a single MicroDrop fluxer and solder pot, and the Novo™ 460PD equipped with two parallel MicroDrop fluxers and solder pots and can process two printed circuit boards at the same time. Refer to Page 14 for more information.



Cerno™ Series

- **Cerno™ 102IL and 103IL**

The Cerno™ 102IL and 103IL are durable in-line systems that deliver an exceptional combination of versatility, productivity and value. When paired with our In-Line Flux and Preheat Module, the Cerno™ 102IL and 103IL provide a complete modularity and real-time machine reconfiguration for the ultimate in manufacturing flexibility. Refer to Page 15 for more information.

- **Cerno™ 105IL**

The Cerno™ 105IL is the ideal solution for selective soldering of large printed circuit boards or large backplanes and can accommodate PCBs up to 22.7 kg (50.0 lbs.). Interchangeable solder pots and pumps are available with either single selective solder nozzle, dual selective nozzles with independent control or 75 mm (3.0 in.) wide wave soldering nozzle. Refer to Page 16 for more information.

- **Cerno™ 508.1S/PD**

The Cerno™ 508.1S/PD is a compact system that can be used for either batch or in-line production. The Cerno™ 508.1PD model is fitted with dual drop-jet fluxers and dual solder pots enabling fluxing and soldering of two PCB's simultaneously, or soldering with multiple sized nozzles within the same program. The Cerno™ 508.1PD also provides the use of two different solder alloys without needing to physically change solder pots. Refer to Page 17 for more information.





Integra™ Series

• Integra™ 103ILD

The Integra™ 103ILD is a robust selective soldering system delivering an exceptional combination of versatility, productivity and value. The Integra™ 103ILD has many unique features, including dual independent X-Y gantries with two solder pots for faster processing time and reduced soldering cycle. With its feature rich, graphics-based programming and fully-automated fiducial board alignment, the Integra™ 103ILD is specially designed for demanding selective soldering applications.

With its flexible configuration, the Integra™ 103ILD is a versatile selective soldering system capable of processing tin-lead, lead-free, or HMP solder alloys. Interchangeable solder pots and pumps are available with either single selective solder nozzle, dual selective nozzles with independent control or 75 mm (3.0 in.) wide wave soldering nozzle. Refer to Page 18 for more information.

• Integra™ 508.2 S/PD

The Integra™ 508.2 is built with two independent zones within an integrated in-line system. The first zone heats and fluxes the PCB board before soldering in the second zone. The Integra™ 508.2 can be configured with dual solder pots and is supported with a topside IR preheater that sustains the PCB's temperature during the soldering process. When fully optimized, the Integra™ 508.2 is highly automated and efficient. It can be easily integrated into our client's operations with automated loaders and unloaders to form a complete production work cell.

The Integra™ 508.2S comes with a multitude of special capabilities, like concurrent fluxing, preheating, and soldering, for shorter process time and a reduced soldering cycle. The Integra™ 508.2PD can be configured with dual drop-jet fluxers as well as dual solder pots, and can be used in two different modes allowing it to process up to 4 PCBs at one time. Refer to Page 20 for more information.

• Integra™ 508.3 and 508.4

The Integra™ 508.3 and 508.4 are expanded versions of the Integra™ 508.2. These systems are needed when our clients require the functionality of the Integra™ 508.2 but with more processing power to reach the desired production capabilities. The Integra™ 508.3S and Integra™ 508.3PD models provide an additional preheating zone for thermally demanding requirements while the Integra™ 508.4S and Integra™ 508.4PD models provide two additional preheating zones as well as having two soldering stations for greater throughput. Refer to Page 21 for more information.

• Integra™ 508.5 S/PD

Our crème of the crop, the Integra™ 508.5S five-zone in-line system combines flux and preheat plus selective soldering stations for concurrent fluxing, preheating, and soldering. Variants are available with two or three soldering stations for high-volume and high-performance soldering. Its modular design allows the Integra™ 508.5S to be matched to the needs of various high-volume applications. The Integra™ 508.5 can be configured in four different ways. For maximum throughput, it can be setup with up to three soldering stations, each as an independent zone but connected through a fully adjustable SMEMA automatic chain conveyor.

In addition to processing PCBs at an incredible high rate, the Integra™ 508.5PD can, like the rest of our systems, be setup with dual drop-jet fluxers and dual solder pots. The parallel processing mode enables fluxing and soldering of up to 10 PCBs simultaneously, which effectively doubles the machines productivity. If its flexibility the client's needs, this machine can be used with multiple sized nozzles within the same program and can run two different alloys without the need to physically change solder pots. Refer to Page 22 and 23 for more information.

Novo™ 102 and 103

Selective Soldering with Compact Footprint and Outstanding Value



Product Highlights

- Selective soldering of PCBs as large as 406 x 406 mm (16.0 x 16.0 in.) or 610 x 457 mm (24.0 x 18.0 in.)
- Standalone platform ideal for prototype, cell manufacturing or batch production requirements
- Interchangeable solder pots and pumps compatible with tin-lead, lead-free and HMP solder alloys
- Choice of single selective solder nozzle, dual selective nozzles with independent control or 75 mm wide wave soldering nozzle
- SWAK-OS graphics-based programming and machine control software enables fast and straightforward program creation

Features and Options

PCB Handling:

- PCBs up to 406 x 406 mm (16.0 x 16.0 in.) or 610 x 457 mm (24.0 x 18.0 in.)
- Universal PCB location rails with motor driven adjustment and multiple board stops for processing several boards at one time

Fluxing:

- Atomizing spray flux applicator with flux level sensing

Preheating:

- Scalable infrared preheating from 1.0 kW to 3.0 kW or 1.0 kW to 6.0 kW

Soldering:

- Tin-lead solder pot and pump assembly
- Quick change magnetically coupled solder nozzles
- Automatic solder level and wave height monitoring system
- Solder alloy verification system
- Dual process viewing cameras

SWAK-OS 4.0 Software:

- Graphics-based programming with seamless board scanning
- Fully-automated fiducial alignment and board warp compensation
- Remote machine diagnostics and FIS capability

Configurations:

- 102: Manual load/unload, 406 x 406 mm (16.0 x 16.0 in.), single solder pot
- 103: Manual load/unload, 610 x 457 mm (24.0 x 18.0 in.), single solder pot

Available Options:

- Universal PCB location fixture
- FluxJet precision drop-jet flux dispenser
- In-process flux verification system for drop-jet
- Dual flux heads, 2 atomizing spray heads, 2 drop-jet dispensers or one of each
- Topside infrared preheater with closed-loop control
- Automatic solder nozzle tinning system
- Lead-free or HMP solder pot and pump assembly (titanium)
- Dual nozzle solder pot and pump assembly, tin-lead or lead-free (titanium)
- 75 mm wide wave nozzle and pump assembly, tin-lead or lead-free (titanium)
- Solder pot exchange cart with warming controls
- Nitrogen de-bridging knife
- Six channel thermal data logging system
- Barcode reader

Facilities:

System Footprint:

- 1194 x 1411 mm (47.0 x 55.5 in.) or 1400 x 1421 mm (55.1 x 55.9 in.)

System Weight:

- 381 kg (840 lbs.) or 422 kg (930 lbs.)

Electrical:

- 208/220/240VAC, 60 Hz, single phase, 15 A, 30 A with topside preheating or 208/220/240VAC, 60 Hz, single phase, 15 A, 50 A with topside preheating

Compressed Air:

- 6-7 bar (90-100 psi)

Nitrogen:

- 99.999% pure, 4-7 bar (60-100 psi), 1.2 m³/hour

Ventilation:

- 420 m³/hour, two 100 mm (4.0 in.) dia. ducts

For more information please request a Novo™ 102 or 103 data sheet

Novo™ 300

Selective Soldering with a Compact Footprint and Exceptional Value



Product Highlights

- Entry level selective soldering with compact footprint in less than 1.1 square meters of factory floor space
- Standalone platform ideal for prototype, cell manufacturing or small batch production
- Full titanium solder pot compatible with all solder alloys plus easy tool-free maintenance
- Modular platform design allows options to be added as application needs change
- Entry level selective soldering system with capability to solder printed circuit boards at the same speed as larger or more expensive machines

Features and Options

PCB Handling:

- PCBs up to 500 x 300 mm (19.6 x 11.8 in.)
- Manual loading and unloading

Fluxing:

- Maintenance-free MicroDrop drop-jet

Preheating:

- Nitrogen preheating

Soldering:

- Titanium solder pot and pump assembly
- Quick change magnetically coupled solder nozzles
- Fast and accurate X, Y, Z-axis positioning system

PhotoScan Software:

- Easy "point-and-click" programming with TFT monitor
- Remote machine control and remote machine maintenance
- Network and FIS capability

Configurations:

- 300S

Available Options:

- Solder frame for printed circuit boards
- Full surface topside infrared preheating
- Customer-friendly process viewing camera
- Automatic solder level sensing system
- Wave height control sensing system
- Automatic solder nozzle tinning system
- Flux level monitoring with information display
- Data logging system with traceability of all process parameters

Facilities:

System Footprint
931 x 1235 mm (36.6 x 48.6 in.)

System Weight:
350 kg (770 lbs.)

Electrical:
230VAC, 50-60 Hz, 2 kW, 13 A without preheater or
400/480VAC, 50-60 Hz, 10 kW, 16 A with preheater

Compressed Air:
None required

Nitrogen:
99.99% pure, 4-6 bar (60-90 psi), 1.3 m³/hour

Ventilation:
150 m³/hour, 100 mm (4.0 in.) dia. duct

For more information please request a Novo™ 300 data sheet

Novo™ 460

Selective Soldering with Combined Flexibility and Modularity



Product Highlights

- Choice of single or dual drop-jet fluxers and solder pots for either simultaneous parallel or independent double processing modes
- Parallel processing significantly increases machine throughput while double processing broadens soldering flexibility
- Software control between different solder alloys without changing solder pots
- Standalone platform with combined fluxing, preheating and soldering for highest possible process flexibility
- Full titanium solder pots compatible with all solder alloys plus easy tool-free maintenance

Features and Options

PCB Handling:

- PCBs up to 460 x 460 mm (18.1 x 18.1 in.)
- Two-way loading and unloading system
- Solder frame for printed circuit boards

Fluxing:

Maintenance-free MicroDrop drop-jet

Preheating:

- Nitrogen preheating
- Scalable infrared preheating from 1.5 kW to 3.0 kW

Soldering:

- Titanium solder pot and pump assembly
- Quick change magnetically coupled solder nozzles
- Automatic solder level monitoring system
- Automatic wave height monitoring system

PhotoScan Software:

- Easy “point-and-click” programming with TFT monitor
- Remote machine control and remote maintenance
- Network and FIS capability

Configurations:

- 460S: Single MicroDrop fluxer and single solder pot
- 460PD: Dual MicroDrop fluxers and dual solder pots for parallel or double soldering modes

Available Options:

- Flux level sensing system
- In-process, closed-loop flux verification system for drop-jet control
- Full surface topside infrared preheating
- Full surface bottom-side infrared preheating
- Closed-loop pyrometer temperature control
- Customer-friendly process viewing camera
- Automatic solder wire feeding system
- Automatic solder nozzle tinning system
- Data logging system with traceability of all process parameters
- Barcode reader

Facilities:

System Footprint:

1700 x 2104 mm (69.9 x 82.8 in.)

System Weight:

900 kg (1985 lbs.)

Electrical:

400/480VAC, 50-60 Hz, 2-12 kW, 9-20 A

Compressed Air:

6-8 bar (90-110 psi)

Nitrogen:

99.99% pure, 4-6 bar (60-90 psi),
1.3m³/hr. single pot or 2.6m³/hr. dual pot

Ventilation:

150 m³/hour, 100 mm (4.0 in.) dia. duct

For more information please request a Novo™ 460 data sheet

Cerno™ 102IL and 103IL

Selective Soldering System with Advanced Process Controls



Product Highlights

- Selective soldering of PCBs as large as 406 x 406 mm (16.0 x 16.0 in.) or 610 x 457 mm (24.0 x 18.0 in.)
- Interchangeable solder pots and pumps compatible with tin-lead, lead-free and HMP solder alloys
- Choice of single selective solder nozzle, dual selective nozzles with independent control or 75 mm wide wave soldering nozzle
- SWAK-OS graphics-based programming and machine control software enables fast and straightforward program creation
- Optional in-line flux and preheat module with concurrent fluxing/preheating for greater throughput

Features and Options

PCB Handling:

- PCBs up to 406 x 406 mm (16.0 x 16.0 in.) or 610 x 457 mm (24.0 x 18.0 in.)
- In-line SMEMA edge conveyor
- Program controlled conveyor width adjustment

Fluxing:

- Atomizing spray flux applicator with flux level sensing

Preheating:

- Scalable infrared preheating from 1.0 kW to 3.0 kW or 1.0 kW to 6.0 kW

Soldering:

- Tin-lead solder pot and pump assembly
- Quick change magnetically coupled solder nozzles
- Automatic solder level and wave height monitoring system
- Solder alloy verification system
- Dual process viewing cameras

SWAK-OS 4.0 Software:

- Graphics-based programming with seamless board scanning
- Fully-automated fiducial alignment and board warp compensation
- Remote machine diagnostics and FIS capability

Configurations:

- 102IL: Left-to-right conveyor, 406 x 406 mm (16.0 x 16.0 in.), single solder pot
- 103IL: Left-to-right conveyor, 610 x 457 mm (24.0 x 18.0 in.), single solder pot

Available Options:

- Right-to-left conveyor direction
- FluxJet precision drop-jet flux dispenser
- In-process flux verification system for drop-jet
- Dual flux heads, 2 atomizing spray heads, 2 drop-jet dispensers or one of each
- Topside infrared preheater with closed-loop control
- Automatic solder nozzle tinning system
- Lead-free or HMP solder pot and pump assembly (titanium)
- Dual nozzle solder pot and pump assembly, tin-lead or lead-free (titanium)
- 75 mm wide wave nozzle and pump assembly, tin-lead or lead-free (titanium)
- Solder pot exchange cart with warming controls
- Nitrogen de-bridging knife
- Six channel thermal data logging system
- Barcode reader

Facilities:

System Footprint:

- 1371 x 1411 mm (53.9 x 55.5 in.) or 1701 x 1421 mm (66.9 x 55.9 in.)

System Weight:

- 409 kg (900 lbs.) or 431 kg (950 lbs.)

Electrical:

- 208/220/240VAC, 60 Hz, single phase, 15 A, 30 A with topside preheating or 208/220/240VAC, 60 Hz, single phase, 15 A, 50 A with topside preheating

Compressed Air:

- 6-7 bar (90-100 psi)

Nitrogen:

- 99.999% pure, 4-7 bar (60-100 psi), 1.2 m³/hour

Ventilation:

- 420 m³/hour, two 100 mm (4.0 in.) dia. ducts

For more information please request a Cerno™ 102IL or 103IL data sheet

Cerno™ 105IL

Selective Soldering System for Large Board and Backplane Soldering



Product Highlights

- Selective soldering of printed circuit boards as large as 914 x 711 mm (36.0 x 28.0 in.) with included carrier
- Heavy duty conveyor to support added weight of large backplanes, PCBs or tooling fixtures up to 22.7 kg (50.0 lbs.)
- Interchangeable solder pots and pumps compatible with tin-lead, lead-free and HMP solder alloys
- Choice of single selective solder nozzle, dual selective nozzles with independent control or 75 mm wide wave soldering nozzle
- SWAK-OS graphics-based programming and machine control software enables fast and straightforward program creation

Features and Options

PCB Handling:

- PCBs up to 914 x 711 mm (36.0 x 28.0 in.)
- Heavy duty conveyor to support added weight of heavy backplanes, printed circuit boards or tooling fixtures

Fluxing:

- Atomizing spray flux applicator with flux level sensing

Preheating:

- Scalable infrared preheating from 3.0 kW to 9.0 kW

Soldering:

- Tin-lead solder pot and pump assembly
- Quick change magnetically coupled solder nozzles
- Automatic solder level and wave height monitoring system
- Solder alloy verification system
- Dual process viewing cameras

SWAK-OS 4.0 Software:

- Graphics-based programming with seamless board scanning
- Fully-automated fiducial alignment and board warp compensation
- Remote machine diagnostics and FIS capability

Configurations:

- 105IL: Left-to-right conveyor direction and single solder pot

Available Options:

- Right-to-left conveyor direction
- FluxJet precision drop-jet flux dispenser
- In-process flux verification system for drop-jet
- Dual flux heads, 2 atomizing spray heads, 2 drop-jet dispensers or one of each
- Topside infrared preheater with closed-loop control
- Automatic solder nozzle tinning system
- Lead-free or HMP solder pot and pump assembly (titanium)
- Dual nozzle solder pot and pump assembly, tin-lead or lead-free (titanium)
- 75 mm wide wave nozzle and pump assembly, tin-lead or lead-free (titanium)
- Solder pot exchange cart with warming controls
- Nitrogen de-bridging knife
- Six channel thermal data logging system
- Barcode reader

Facilities:

- System Footprint
1981 x 1716 mm (78.0 x 67.5 in.)
- System Weight
570 kg (1250 lbs.)
- Electrical
208/220/240VAC, 60 Hz, single phase, 15 A, 60 A with topside preheating
- Compressed Air
6-7 bar (90-100 psi)
- Nitrogen
99.999% pure, 4-7 bar (60-100 psi), 1.2 m³/hour
- Ventilation
420 m³/hour, two 100 mm (4.0 in.) dia. ducts

For more information please request a Cerno™ 105IL data sheet

Cerno™ 508.1

Selective Soldering with Combined Flexibility and Modularity



Product Highlights

- Batch or in-line platform with combined fluxing, preheating and soldering for highest possible process flexibility
- Choice of single or dual drop-jet fluxers and solder pots for either simultaneous parallel or independent double processing modes
- Parallel processing significantly increases machine throughput while double processing broadens soldering flexibility
- Full titanium solder pots compatible with all solder alloys plus easy tool-free maintenance
- Software control between different solder alloys without changing solder pots

Features and Options

PCB Handling

- PCBs up to 508 x 508 mm (20.0 x 20.0 in.)
- In-line SMEMA chain conveyor
- Automatic conveyor width adjustment

Fluxing

- Maintenance-free MicroDrop drop-jet
- Flux level sensing system

Preheating

- Heated nitrogen inerting system
- Scalable infrared preheating from 1.5 kW to 3.0 kW

Soldering

- Titanium solder pot and pump assembly
- Quick change magnetically coupled solder nozzles
- Automatic solder level monitoring system
- Automatic wave height monitoring system
- Customer-friendly process viewing camera

PhotoScan Software

- Easy "point-and-click" programming with TFT monitor
- Remote machine control and remote maintenance
- Network and FIS capability

Configurations

- 508.1S: Single MicroDrop fluxer and single solder pot
- 508.1PD: Dual MicroDrop fluxers and dual solder pots for parallel or double soldering modes

Available Options

- In-process, closed-loop flux verification system for drop-jet control
- Full surface topside infrared preheating
- Full surface bottom-side infrared preheating
- Closed-loop pyrometer temperature control
- Board warpage sensing system
- Dual process viewing camera and second monitor
- Automatic solder wire feeding system
- Automatic solder nozzle tinning system
- Data logging system with traceability of all process parameters
- Barcode reader

Facilities

- System Footprint
1700 x 1700 mm (69.9 x 66.9 in.)
- System Weight
850 kg (1870 lbs.)
- Electrical
400/480VAC, 50-60 Hz, 2-12 kW, 9-20 A
- Compressed Air
6-8 bar (90-110 psi)
- Nitrogen
99.99% pure, 4-6 bar (60-90 psi), 1.3m³/hr. single pot or 2.6m³/hr. dual pot
- Ventilation
150 m³/hour, 100 mm (4.0 in.) dia. duct

For more information please request a Cerno™ 508.1 data sheet

Integra™ 103ILD

Dual Solder Pot Soldering System with High-Speed Capability

Product Highlights

- Selective soldering of printed circuit boards as large as 610 x 457 mm (24.0 x 18.0 in.)
- Dual independent X-Y gantries with two solder pots for high-speed fluxing, preheating and selective soldering
- Interchangeable solder pots and pumps compatible with tin-lead, lead-free and HMP solder alloys
- Choice of single selective solder nozzle, dual selective nozzles with independent control or 75 mm wide wave soldering nozzle
- SWAK-OS graphics-based programming and machine control software enables fast and straightforward program creation



Features and Options

PCB Handling:

- PCBs up to 610 x 457 mm (24.0 x 18.0 in.)
- In-line SMEMA edge conveyor
- Program controlled conveyor width adjustment

Fluxing:

- Atomizing spray flux applicator with flux level sensing

Preheating:

- Scalable infrared preheating from 1.0 kW to 6.0 kW

Soldering:

- Dual independent X-Y gantries with two tin-lead solder pot and pump assemblies
- Quick change magnetically coupled solder nozzles
- Automatic solder level and wave height monitoring system
- Solder alloy verification system
- Dual process viewing cameras

SWAK-OS 4.0 Software:

- Graphics-based programming with seamless board scanning
- Fully-automated fiducial alignment and board warp compensation
- Remote machine diagnostics and FIS capability

Configurations:

- 103ILD: Left-to-right conveyor direction and dual solder pots

Available Options:

- Right-to-left conveyor direction
- FluxJet precision drop-jet flux dispenser
- In-process flux verification system for drop-jet
- Dual flux heads, 2 atomizing spray heads, 2 drop-jet dispensers or one of each
- Topside infrared preheater with closed-loop control
- Automatic solder nozzle tinning system
- Lead-free or HMP solder pot and pump assembly (titanium)
- Dual nozzle solder pot and pump assembly, tin-lead or lead-free (titanium)
- 75 mm wide wave nozzle and pump assembly, tin-lead or lead-free (titanium)
- Solder pot exchange cart with warming controls
- Nitrogen de-bridging knife
- Six channel thermal data logging system
- Barcode reader

Facilities:

System Footprint:

2768 x 1470 mm (108.9 x 57.8 in.)

System Weight:

613 kg (1350 lbs.)

Electrical:

208/220/240VAC, 60 Hz, single phase, 50 A, 80 A with topside preheating

Compressed Air:

6-7 bar (90-100 psi)

Nitrogen:

99.999% pure, 4-7 bar (60-100 psi), 1.2 m³/hour per solder pot

Ventilation:

420 m³/hour, four 100 mm (4.0 in.) dia. ducts

For more information please request an Integra™ 103ILD data sheet

In-Line Flux and Preheat Module

Concurrent Fluxing and Preheating for Increased Throughput

Product Highlights

- In-line fluxing and preheating of printed circuit boards up to 406 x 406 mm (16.0 x 16.0 in.) or 610 x 457 mm (24.0 x 18.0 in.)
- Concurrent fluxing and preheating increases throughput and reduces processing time
- Atomizing spray flux applicator or precision drop-jet flux dispenser for processing a wide range of various flux chemistries
- Choice of topside or bottom-side infrared or topside or bottom-side convection preheating with controlled ramp rate
- SMEMA edge conveyor with program width adjustment for easy pairing with Nordson SELECT in-line selective soldering systems



Features and Options

PCB Handling:

- PCBs up to 406 x 406 mm (16.0 x 16.0 in.) or 610 x 457 mm (24.0 x 18.0 in.)
- In-line SMEMA edge conveyor
- Program controlled conveyor width adjustment

Fluxing:

- Atomizing spray flux applicator
- Flux level sensing system

Preheating:

- Topside infrared preheater with closed-loop control
- Scalable preheating from 3.0 kW to 6.0 kW

SWAK-OS Software:

- Graphics-based programming with seamless board scanning
- Fully-automated fiducial alignment and board warp compensation
- Remote machine diagnostics and FIS capability

Configurations:

- 508.5 2S or 508.5 3S: Single MicroDrop fluxer and single solder pot
- 508.5PD 2S or 508.5PD 3S: Dual MicroDrop fluxers and dual solder pots for parallel or double soldering modes

Available Options:

- Right-to-left conveyor direction
- FluxJet precision drop-jet flux dispenser
- In-process flux verification system for drop-jet
- Dual flux heads, 2 atomizing spray heads, 2 drop-jet dispensers or one of each
- Four fluxers, any combination of atomizing spray heads or drop-jet dispensers
- Bottom-side infrared preheater with closed-loop control
- Topside convection preheating with closed-loop control
- Bottom-side convection preheating with closed-loop control
- Six channel thermal data logging system
- Barcode reader

Facilities:

System Footprint

- 1701 x 1421 mm (66.9 x 55.9 in.) or 1981 x 1716 mm (78.0 x 67.5 in.)

System Weight

- 431 kg (950 lbs.) or 568 kg (1250 lbs.)

Electrical

- 208/220/240VAC, 60 Hz, single phase, 30 A, 50 A with 2 preheaters, 70 A with 3 preheaters, or 208/220/240VAC, 60 Hz, single phase, 40 A, 70 A with 2 preheaters, 100 A with 3 preheaters

Compressed Air

- 6-7 bar (90-100 psi)

Nitrogen

- 99.999% pure, 4-7 bar (60-100 psi), 0.7 m³/hour

Ventilation

- 420 m³/hour, two 100 mm (4.0 in.) dia. ducts

For more information please request an In-line Flux and Preheat Module data sheet

Integra™ 508.2

Selective Soldering System with Advanced Process Controls

Product Highlights

- Two stage operation with combined flux and preheat zone plus selective soldering zone for concurrent fluxing, preheating and soldering
- Choice of single or dual drop-jet fluxers and solder pots for either simultaneous parallel or independent double processing modes
- Parallel processing significantly increases machine throughput while double processing broadens soldering flexibility
- Full titanium solder pots compatible with all solder alloys plus easy tool-free maintenance
- Software control between different solder alloys without changing solder pots



Features and Options

PCB Handling:

- PCBs up to 508 x 508 mm (20.0 x 20.0 in.)
- In-line SMEMA chain conveyor
- Automatic conveyor width adjustment

Fluxing:

Maintenance-free MicroDrop drop-jet
Flux level sensing system

Preheating:

Full surface bottom-side infrared preheating
Scalable infrared preheating from 1.5 kW to 4.5 kW

Soldering:

- Titanium solder pot and pump assembly
- Quick change magnetically coupled solder nozzles
- Automatic solder level monitoring system
- Automatic wave height monitoring system
- Customer-friendly process viewing camera

PhotoScan Software:

- Easy "point-and-click" programming with TFT monitor
- Remote machine control and remote maintenance
- Network and FIS capability

Configurations:

- 508.2S: Single MicroDrop fluxer and single solder pot
- 508.2PD: Dual MicroDrop fluxers and dual solder pots for parallel or double soldering modes

Available Options:

- In-process, closed-loop flux verification system for drop-jet control
- Full surface topside infrared preheating
- Closed-loop pyrometer temperature control
- Board warpage sensing system
- Dual process viewing camera and second monitor
- Automatic solder wire feeding system
- Automatic solder nozzle tinning system
- AOI solder joint inspection system
- Data logging system with traceability of all process parameters
- Barcode reader

Facilities:

System Footprint:
2300 x 1700 mm (90.5 x 66.9 in.)

System Weight:
1200 kg (2640 lbs.)

Electrical:
400/480VAC, 50-60 Hz, 17-19 kW, 28-29 A

Compressed Air:
6-8 bar (90-110 psi)

Nitrogen:
99.99% pure, 4-6 bar (60-90 psi),
1.3m³/single pot or 2.6m³/dual pot

Ventilation:
150 m³/hour, 100 mm (4.0 in.) dia. duct

For more information please request an Integra™ 508.2 data sheet

Integra™ 508.3 and 508.4

Selective Soldering Systems Combining Scalability and Throughput

Product Highlights

- Three or four-zone operation with concurrent fluxing, preheating and soldering for increased throughput with maximum preheat capabilities
- Choice of single or dual drop-jet fluxers and solder pots for either simultaneous parallel or independent double processing modes
- Parallel processing significantly increases machine throughput while double processing broadens soldering flexibility
- Full titanium solder pots compatible with all solder alloys plus easy tool-free maintenance
- Software control between different solder alloys without changing solder pots



Features and Options

PCB Handling:

- PCBs up to 508 x 508 mm (20.0 x 20.0 in.)
- In-line SMEMA chain conveyor
- Automatic conveyor width adjustment

Fluxing:

- Maintenance-free MicroDrop drop-jet
- Flux level sensing system

Preheating:

- Full surface bottom-side infrared preheating
- Scalable infrared preheating from 1.5-4.5 kW or 1.5-6.0 kW

Soldering:

- Titanium solder pot and pump assembly
- Quick change magnetically coupled solder nozzles
- Automatic solder level monitoring system
- Automatic wave height monitoring system
- Customer-friendly process viewing camera

PhotoScan Software:

- Easy "point-and-click" programming with TFT monitor
- Remote machine control and remote maintenance
- Network and FIS capability

Configurations:

- 508.3S or 508.4S: Single MicroDrop fluxer and single solder pot
- 508.3PD or 508.4PD: Dual MicroDrop fluxers and dual solder pots for parallel or double soldering modes

Available Options:

- In-process, closed-loop flux verification system for drop-jet control
- Full surface topside infrared preheating
- Closed-loop pyrometer temperature control
- Board warpage sensing system
- Dual process viewing camera and second monitor
- Automatic solder wire feeding system
- Automatic solder nozzle tinning system
- AOI solder joint inspection system
- Data logging system with traceability of all process parameters
- Barcode reader

Facilities:

System Footprint:

- 3000 x 1700 mm (118.1 x 66.9 in.) or
- 4300 x 1700 mm (169.3 x 66.9 in.)

System Weight:

- 1500 kg (3300 lbs.) or 2000 kg (4400 lbs.)

Electrical:

- 400/480VAC, 50-60 Hz, 10-19 kW, 28-29 A or
- 17-19 kW, 28-29 A

Compressed Air:

- 6-8 bar (90-110 psi)

Nitrogen:

- 99.99% pure, 4-6 bar (60-90 psi), 1.3m³/hr. per single pot or 2.6m³/hr. per dual pot

Ventilation:

- 150 m³/hour, 100 mm (4.0 in.) dia. ducts

For more information please request an Integra™ 508.3 or 508.4 data sheet

Integra™ 508.5

Selective Soldering System for High-Volume, High-Performance Soldering

Product Highlights

- Five-zone in-line operation with simultaneous fluxing, preheating and up to three individual soldering stations for maximum throughput
- Variants available with two or three soldering stations for high-volume, high-performance selective soldering
- Choice of single or dual drop-jet fluxers and solder pots for either simultaneous parallel or independent double processing modes
- Parallel processing significantly increases machine throughput while double processing broadens soldering flexibility
- Full titanium solder pots compatible with all solder alloys plus easy tool-free maintenance



Features and Options

PCB Handling:

- PCBs up to 508 x 508 mm (20.0 x 20.0 in.)
- In-line S/EMMA chain conveyor
- Automatic conveyor width adjustment

Fluxing:

- Maintenance-free MicroDrop drop-jet
- Flux level sensing system

Preheating:

- Full surface bottom-side infrared preheating
- Scalable infrared preheating from 1.5 kW to 9.0 kW

Soldering:

- Titanium solder pot and pump assembly
- Quick change magnetically coupled solder nozzles
- Automatic solder level monitoring system
- Automatic wave height monitoring system
- Customer-friendly process viewing camera

PhotoScan Software:

- Easy “point-and-click” programming with TFT monitor
- Remote machine control and remote maintenance
- Network and FIS capability

Configurations:

- 508.5 2S or 508.5 3S: Single MicroDrop fluxer and single solder pot
- 508.5PD 2S or 508.5PD 3S: Dual MicroDrop fluxers and dual solder pots for parallel or double soldering modes

Available Options:

- In-process, closed-loop flux verification system for drop-jet control
- Full surface topside infrared preheating
- Closed-loop pyrometer temperature control
- Board warpage sensing system
- Dual process viewing camera and second monitor
- Automatic solder wire feeding system
- Automatic solder nozzle tinning system
- AOI solder joint inspection system
- Data logging system with traceability of all process parameters
- Barcode reader

Facilities:

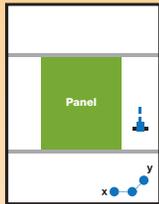
- System Footprint:
5540 x 1700 mm (218.1 x 66.9 in.)
- System Weight:
3000 kg (6600 lbs.)
- Electrical:
400/480VAC, 50-60 Hz, 26-34 kW, 30-32 A
- Compressed Air:
6-8 bar (90-110 psi)
- Nitrogen:
99.99% pure, 4-6 bar (60-90 psi),
1.3m³/hr. per single pot or
2.6m³/hr. per dual pot
- Ventilation:
150 m³/hour, 100 mm (4.0 in.) dia. ducts

For more information please request an Integra™ 508.5 data sheet

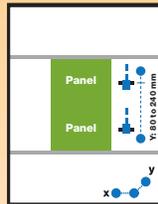
Available Configurations

The Integra™ 508.5 multi-station selective soldering system is available in either two or three soldering station variants designed to meet a wide range of demanding high-volume, high-performance soldering applications. Both two and three soldering station variants have top and bottom preheating directly after fluxing and can be equipped for either single, parallel or double processing.

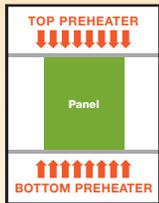
Modules



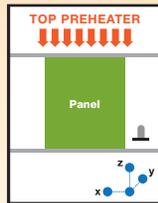
Single MicroDrop Fluxing Module



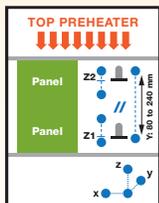
Dual MicroDrop Fluxing Module



Top and Bottom Preheat Module



Single Selective Soldering Module

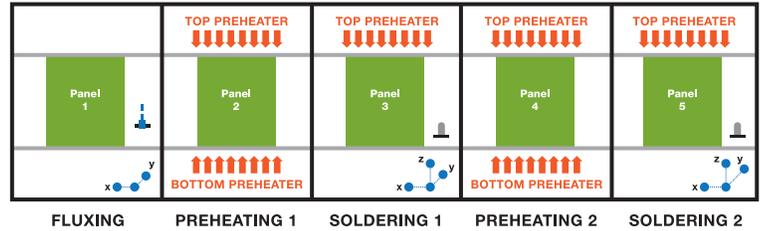


Dual Parallel or Double Soldering Module

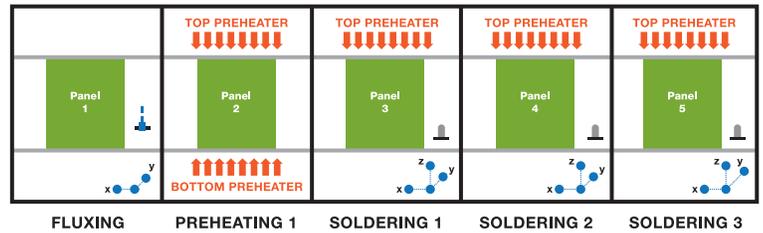


AOI Solder Joint Inspection Module

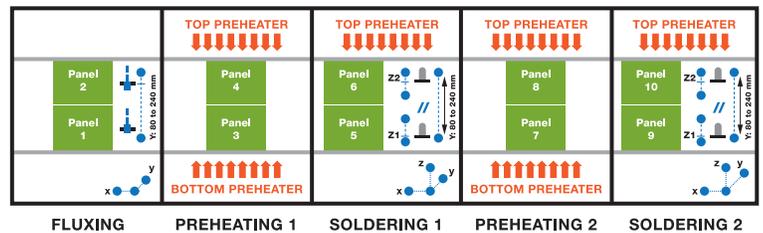
Integra™ 508.5 2S – two soldering stations, single



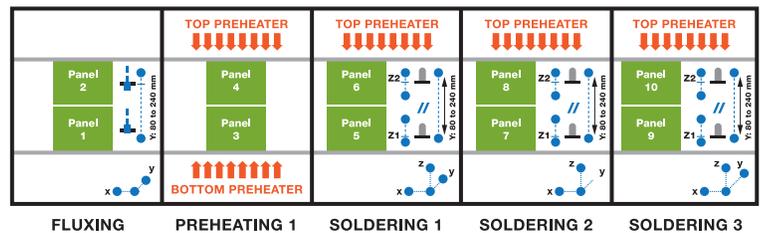
Integra™ 508.5 3S – three soldering stations, single



Integra™ 508.5PD 2S – two soldering stations, parallel or double



Integra™ 508.5PD 3S – three soldering stations, parallel or double





● Direct Support

● Distributor Support

Global Support Network

As part of the Nordson Corporation (NASDAQ: NDSN) Advanced Technology Systems segment, Nordson SELECT is dedicated to enabling the success of its customers throughout the global electronics manufacturing industry. With a reputation for innovation, comprehensive process solutions from Nordson SELECT ensure a maximum return on investment and of 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.

Worldwide Support Locations

Spokane Valley, WA USA
Hagenbach, Germany
Guadalajara, Mexico
Juarez, Mexico
Suzhou, China
Dongguan, China
Penang, Malaysia
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