

The New Generation of Selective Soldering

Product Portfolio

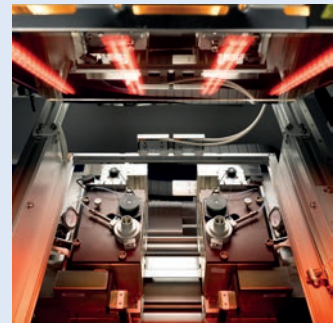
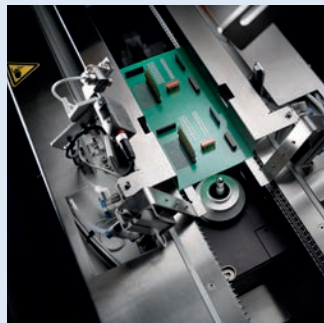
We are selective soldering specialists, with 25 years of product development, design and manufacturing experience.

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.

The New Generation of Selective Soldering



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Nordson SELECT...The Selective Soldering Specialists

About Us

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 throughput, they can have both in the same machine.

We are customer driven, so we design our products with the success of our clients as the fundamental principal and objective from which we build upon. 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 mainta-

nence 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, determined to enabling the success of our clients.

Best in Class Features

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.

• Barcode Reader –

Our integrated barcode reader registers each PCB before the soldering begins, assigns it a unique identification number, and records this information in the machines database.

As production carries forward, all operating data and relevant information can be assigned to the specific ID number and exported into an XML file ensuring detailed traceability and improved quality reporting to ensure total quality compliance.



Barcode/QR-Code-Reader

Automated Programs

- **Board Warpage Sensing System** – This sensor measures the height differences of a printed circuit board as it is preheated, calculates the deflection, and automatically corrects all Z-axis values to compensate for warpage. This eliminates the need for the traditional, and labor intensive, manual adjusting of the soldering program.

- **Automatic Solder Nozzle Cleaning System** –

As industry experts we know all too well that only a clean and oxidation free solder nozzle can be wetted. Nordson SELECT has developed an innovative solution to keeping our solder nozzles prestigiously clean. Our machines can be fitted with an automatic solder nozzle cleaning system that cleans and removes oxidation residues and re-tins the surface of the nozzle, eliminating the need for manual intervention.

- **Automatic Solder Wire Feeding System** – To ensure optimized soldering conditions our systems can be fitted with an automatic solder wire feeder that deploys solder wire from a reel if the solder levels drop below the predetermined threshold.

- **Automatic Solder Level Sensing System** – A laser monitored sensor checks the solder level continuously, and sends an immediate message to the machines operating system when the level drops below the acceptable height.

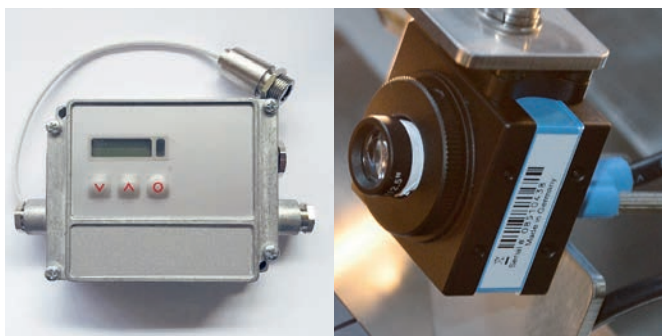
- **Wave Height Control Sensing System** – This laser sensor automatically controls and corrects the height of the solder wave, returning it to the original preset wave height if necessary. To maintain our high levels of consistency, our software records and displays all the appropriate information during production, guaranteeing quality and ensuring complete traceability.

- **Automatic Conveyor Width Adjustment** – All Cerno™ and Integra™ in-line soldering models come standard with an automatic conveyor width adjustment feature. Adjustment takes place instantaneously whenever a new soldering program is uploaded into 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.



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 continuously adjusted until the desired temperature is reached. Our pyrometer controlled closed-loop preheating eliminates the need for traditional circuit board profiling and attains a more precise temperature with less room for human error. Furthermore, the temperature of the PCB can be held constant during the soldering process, significantly improving the quality of production. 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.



Pyrometer for temperature control

Process Viewing Camera

- **Process Viewing Camera** – 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 Nozzle Height Monitoring** – Prior to commencing a soldering program, our machines automatically adjust all solder nozzle height related values by means of a specialized laser sensor, ensuring the highest level of precision and consistency.

- **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.

Fluxing

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

- **Fully Adaptable MicroDrop Drop-Jet Fluxer**

- All Nordson SELECT machines come standard with a MicroDrop drop-jet fluxer that can precisely deposit flux both at individual points 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.



MicroDrop Jet Fluxer

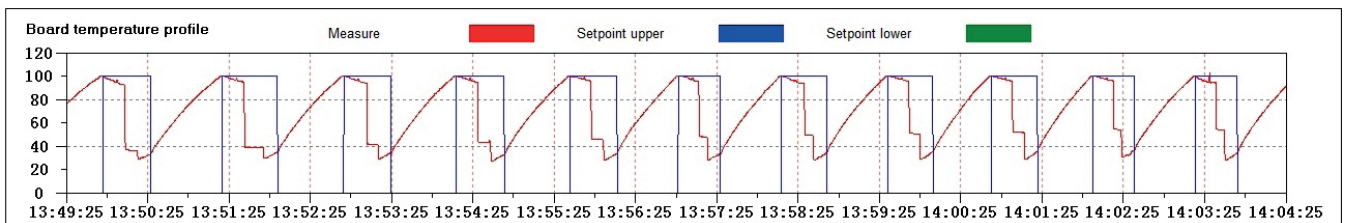
- **In-Process Closed-Loop Flux Control** – Nordson Select machines are available with a versatile flux control system that can record drop counts and droplet positioning. Monitoring this process has proven to greatly increase consistency and quality during production. All data recorded by our flux control system is stored in the machine software, and can be accessed for review at any time.

- **High Quality Materials** – Nordson SELECT uses only the best materials for all elements of its machines. In this specific application Nordson SELECT boasts a fluxer made entirely from stainless steel, designed to withstand highly aggressive flux chemistries. Additionally, our durable high precision solenoid valve and nozzle allows the operator to dispense extremely small flux droplets with extreme accuracy.

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. With sustained preheating, optimized control can heat multiple PCBs simultaneously significantly reducing the cycle time per board, a feature that is particularly valuable for high-volume production.

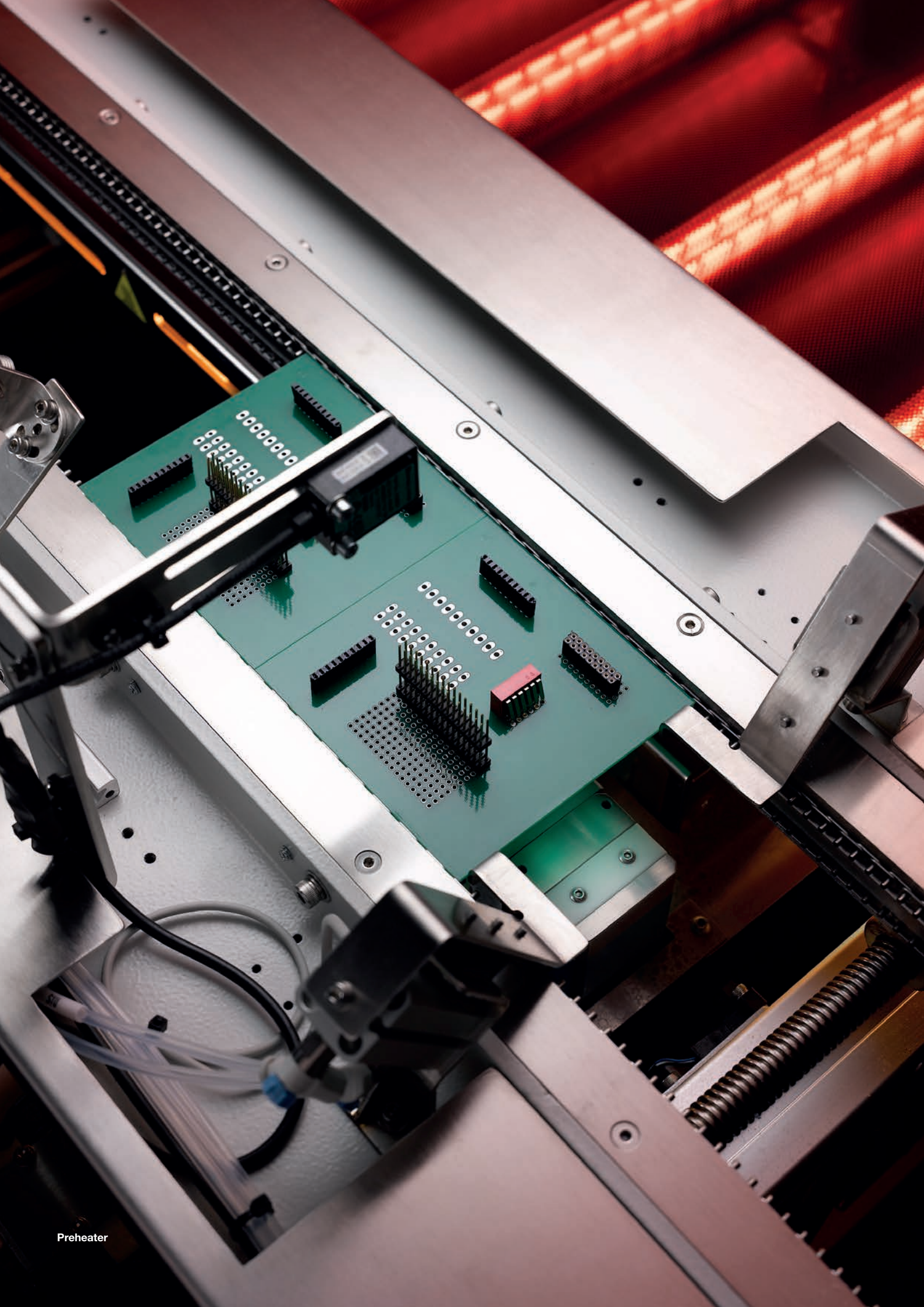
- **Temperature Control** – Conventional preheaters operate according to a time and power scheme which is preheating at a certain power setting for a certain amount of time. Depending on the circuit board, the results are quite different per assembly, requiring each individual board type to require a unique manually created profile. To ensure consistent and high quality of solder joints, Nordson SELECT utilizes pyrometer controlled preheating. The temperature is measured directly on the surface of the circuit board and is continuously adjusted until the desired temperature is reached. Our pyrometer controlled closed-loop preheating eliminates the need for traditional 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.



- **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.

- **Sustained Preheating** – As was briefly mentioned above, Nordson SELECT machines prevent the cooling of the assembly during soldering by utilizing the top preheater to compensate 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.

- **Recording the Temperature Profile** – Our closed-loop pyrometer controlled temperature is automatically recorded and stored in the machine software. If needed, the profile for each board, can be retrieved and exported for detailed analysis.



Preheater

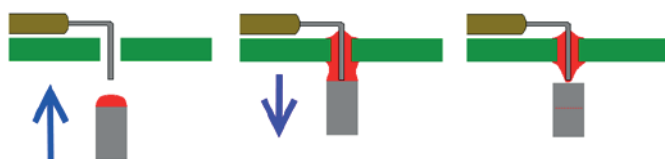
Soldering

Parallel-Double Configuration (PD) – Nordson SELECT machines can be configured in such a way that doubles machine productivity and versatility. Our products 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 throughput, they can have both in the same machine.

- **Standard Titanium Solder Pot** – All Nordson SELECT machines feature an all titanium solder pot permitting it to process all types of solder alloys. Our pots are robust and highly resistant to potential damage during cleaning and operational use. Their straightforward design allows for effortless tool-free maintenance, rapid cleaning, which minimizes downtime. As a standard feature these solder pots are nitrogen inerted meaning inert nitrogen gas covers the entire solder bath, significantly reducing the formation of dross, and ensuring an oxidation free soldering environment.

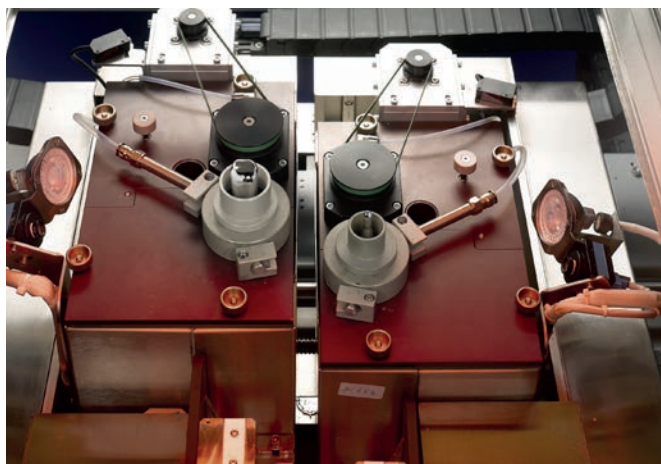
- **Standard Titanium Pump System** – In order to equalize the flow of the molten solder inside the solder pump and to keep it free of fluctuations, our all-titanium pump has a special anti-cavitation design that minimizes wave height variation at the solder nozzle.

- **Pull-Off Feature to Avoid Shorts** – To eliminate the possibility of solder bridges or bulbous solder joints Nordson SELECT has devised a system called the “pull-off” feature. Traditional systems have always suffered from dragging excess solder from one pin to another. Our unique pull-off system recognizes when the solder wave is moments away from moving onto the next joint, and abruptly reduces the pump power. The rapid collapse of the solder wave draws the excess solder away from the pins and leaves only the appropriate amount of solder required.

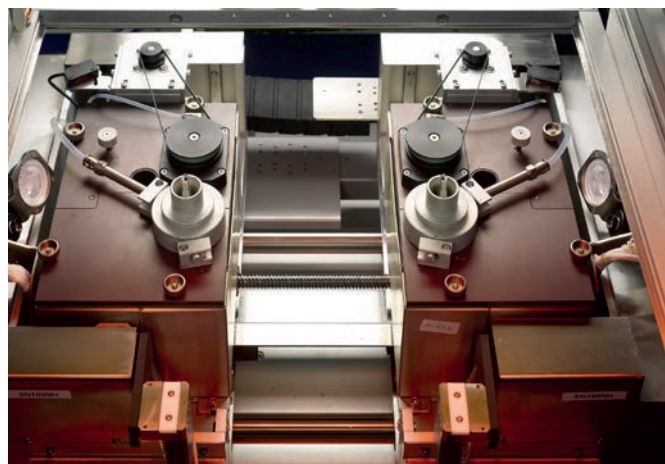


- **Wettable and Non-Wettable Solder Nozzles** –

All Nordson SELECT machines can be fitted with either wettable or non-wettable nozzles. The essential difference between the two types is in the drain direction of the solder. With wettable nozzles the solder flows in one direction. The best soldering performance is always obtained by soldering in the opposing direction of the solder flow. 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.



Double configuration small nozzle - big nozzle

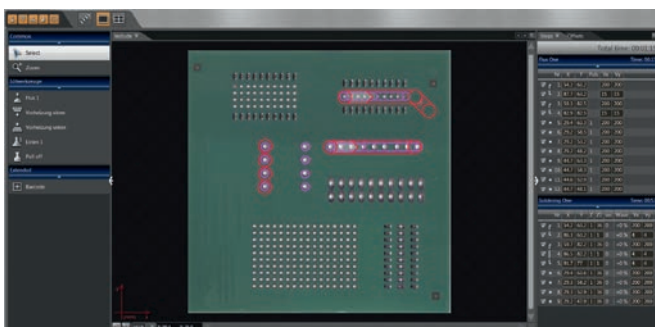


Parallel configuration double throughput

Programming PhotoScan Software

“The Nordson SELECT PhotoScan Editor is the easiest and fastest way to create a Soldering Programme.”

- **Programming and Editing with Ease** – Nordson SELECT uses a state-of-the-art software system that provides easy “point-and-click” programming and 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. Our system is fully network compatible through either cable or wi-fi providing backup capabilities for programs and project storage. Crucially, our software is highly editable and can be manipulated on-the-fly while simultaneously soldering boards. Highly accessible control allows all parameters of each soldering point and flux drops can be easily adjusted to reach optimal soldering performance.



- **Remote Machine Control and Remote Machine Maintenance** – All Nordson SELECT machines have the ability to be integrated into a customer’s company network. If there is ever a need for our engineers to provide immediate service or to assist in troubleshooting an issue, our customers can grant Nordson SELECT access to their machine through the web, and our team can get to work. Expensive and time consuming maintenance trips are significantly reduced allowing for our customers to refocus their efforts and continue with business as usual.



Teamviewer Remote Machine Control

- **Network and FIS Capability** – All Nordson SELECT machines can have full connectivity with a customer’s company network. All production data, quality reporting and traceability information can be directly linked to the SQL database of a customer’s factory information system (FIS) for the ultimate in traceability.

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™ 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 larger models. All of this has been done without compromising the quality of the components or processes of our high-end in-line systems. The Novo™ 300 consumes the least amount of energy during production and is economical to operate.

Refer to Page 14 for more information

• Novo™ 460 S/PD

The Novo™ 460 expands the reach of Nordson's compact selective soldering systems and has an unintrusive footprint of 3.6 square meters. The Novo™ 460S comes standard with a single MicroDrop fluxer and solder pot, and can be equipped with pyrometer controlled bottom and topside preheaters to ensure consistent soldering like any of our larger models. Although fundamentally the same as the Novo™ 460S, the Novo™ 460PD comes with the two parallel MicroDrop fluxers and soldering pots and can process two printed circuit boards at the same time. Large batch sizes, thanks to the doubled throughput, can be easily handled with this system.

Refer to Page 15 for more information

Cerno™ Series

• Cerno™ 508.1S

The Cerno™ 508.1S is a durable system that delivers an exceptional combination of versatility, productivity and value. It is the first of our in-line systems and is a step-up by way of its in-line conveyor making production flow more efficiently and can be used for either batch or in-line production.

Refer to Page 16 for more information

• Cerno™ 508.1PD

As an extension of the Cerno™ 508.1S model, the Cerno™ 508.1PD comes equipped with all the strong foundations that make the basic model such a worthy value proposition. This specific variation simply takes the Cerno™ 508.1PD to a new level of performance. This machine is fitted with dual drop-jet fluxers and dual solder pots. This enables fluxing and soldering of two PCB's simultaneously, or soldering with multiple sized nozzles within the same program using two different solder alloys without needing to physically change solder pots.

Refer to Page 16 for more information

Integra™ Series

• 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 is supported with an IR topside heater which sustains the PCBs 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 is all about optimizing the balance between flexibility, throughput, and large board size. 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. Additionally, 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. By combining the parallel and dual processing modes our clients no longer have to sacrifice throughput for flexibility... or flexibility for throughput, the Integra™ 508.2PD can do both. Refer to Page 17 for more information

• Integra™ 508.3 and 508.4 S/PD

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 18 and 19 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 with positive PCB location.

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 20 and 21 for more information

Novo™ 300

Novo™ 300 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 need change
- Entry level selective soldering system with capability to solder printed circuit boards at the same speed as larger or more expensive machines

Selective Soldering with a Compact Footprint and Exceptional Value



Features and Options

PCB Handling	PCBs up to 500 x 300 mm Manual loading and unloading
Fluxing	Maintenance-free MicroDrop drop-jet
Preheating	Nitrogen preheating
Soldering	All titanium solder pot and pump assembly Quick change magnetically coupled solder nozzle 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 cleaning system Flux level monitoring with information display Data logging system with traceability of all process parameters

For more information please request a Novo™ 300 data sheet

Novo™ 460

Novo™ 460 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

Selective Soldering with Combined Flexibility and Modularity



Features and Options

PCB Handling	PCBs up to 460 x 460 mm 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	All titanium solder pot and pump assembly Quick change magnetically coupled solder nozzle 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 cleaning system Data logging system with traceability of all process parameters Barcode reader

For more information please request a Novo™ 460 data sheet

Cerno™ 508.1

Cerno™ 508.1 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

Selective Soldering with Combined Flexibility and Modularity



Features and Options

PCB Handling	PCBs up to 508 x 508 mm 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	All titanium solder pot and pump assembly Quick change magnetically coupled solder nozzle 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 cleaning system Data logging system with traceability of all process parameters Barcode reader

For more information please request a Cerno™ 508.1 data sheet

Integra™ 508.2

Integra™ 508.2 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

Selective Soldering System with Advanced Process Controls



Features and Options

PCB Handling	PCBs up to 508 x 508 mm 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	All titanium solder pot and pump assembly Quick change magnetically coupled solder nozzle 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 cleaning system AOI solder joint inspection system Data logging system with traceability of all process parameters Barcode reader

For more information please request an Integra™ 508.2 data sheet

Integra™ 508.3

Integra™ 508.3 Highlights

- Three-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

Selective Soldering System with Combined Flexibility and Throughput



Features and Options

PCB Handling	PCBs up to 508 x 508 mm 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	All titanium solder pot and pump assembly Quick change magnetically coupled solder nozzle 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: Single MicroDrop fluxer and single solder pot 508.3PD: 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 cleaning system AOI solder joint inspection system Data logging system with traceability of all process parameters Barcode reader

For more information please request an Integra™ 508.3 data sheet

Integra™ 508.4

Integra™ 508.4 Highlights

- 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

Selective Soldering System Combining Scalability and Throughput



Features and Options

PCB Handling Capabilities	PCBs up to 508 x 508 mm 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 6.0 kW
Soldering	All titanium solder pot and pump assembly Quick change magnetically coupled solder nozzle 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	508.4S: Single MicroDrop fluxer and single solder pot 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 cleaning system AOI solder joint inspection system Data logging system with traceability of all process parameters Barcode reader

For more information please request an Integra™ 508.4 data sheet

Integra™ 508.5

Integra™ 508.4 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

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



Features and Options

PCB Handling Capabilities	PCBs up to 508 x 508 mm 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 9.0 kW
Soldering	All titanium solder pot and pump assembly Quick change magnetically coupled solder nozzle 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 cleaning system AOI solder joint inspection system Data logging system with traceability of all process parameters Barcode reader

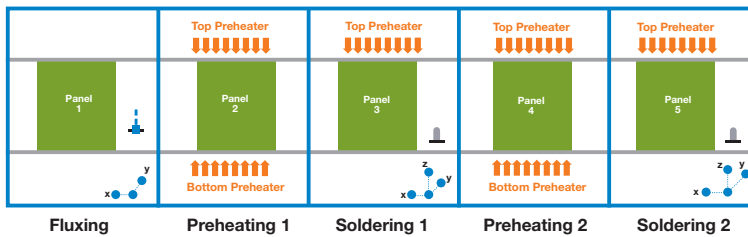
For more information please request an Integra™ 508.4 data sheet

Integra™ 508.5

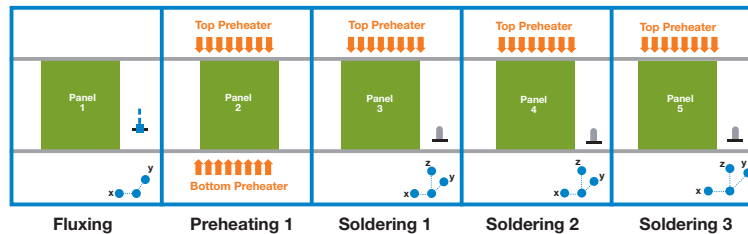
Available Configurations

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.

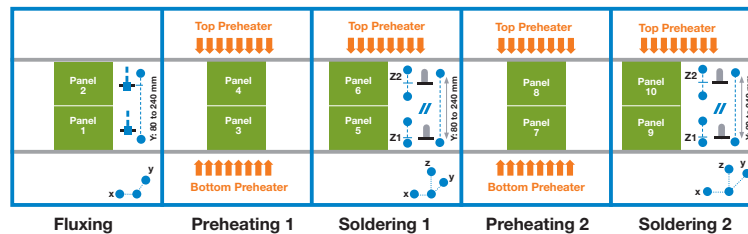
Integra™ 508.5 2S - two soldering stations, single



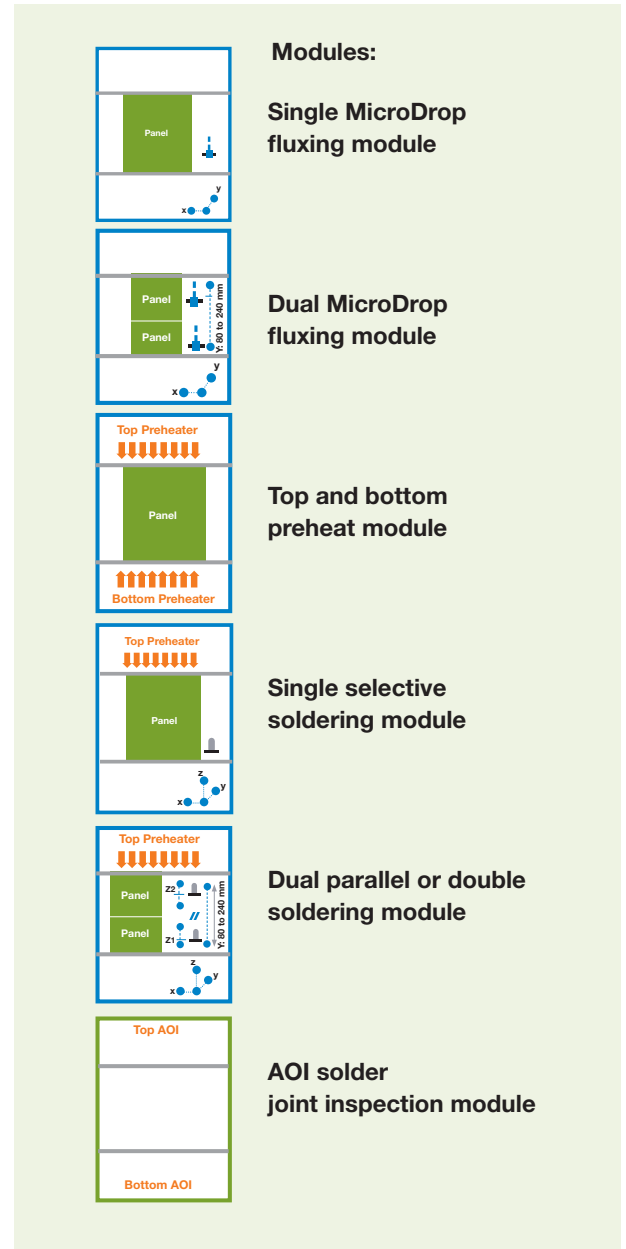
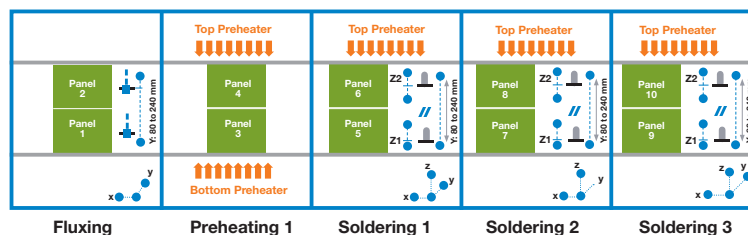
Integra™ 508.5 3S - three soldering stations, single



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



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



Nitrogen Generators

In-plant nitrogen generators produce nitrogen by compressing the ambient air. At a certain consumption rate or price per cubic meter, nitrogen bottles or bundles can become very costly and in these cases it's worth purchasing a nitrogen generator.

Pressure Swing Absorption

The pressure swing absorption technology enables a continuous supply of nitrogen with a purity of up to 6.0 and quantities from 0.5 to 5000 cubic meters per hour. This high-purity nitrogen distinguishes our generators within the PSA-range and from our competition. Our generators produce nitrogen from compressed air, after which the air is passed through the pre-filtration removing impurities such as moisture, oil vapors, particles and hydrocarbons. The purified compressed air stream is then passed into an activated carbon filter. While the air flows out of the filter, the oxygen and carbon dioxide molecules are removed and reduced to the dew point of the air. The result is a clean, dry, high purity nitrogen gas that can be used in numerous applications. To ensure consistency and quality all values such as air temperature, pressure, nitrogen purity, and nitrogen pressure are continuously monitored. With these systems, we can guarantee operational savings and consistency throughout any in-plant installation.

- **OnGo Series** – Includes residual oxygen analysis, pressure sensors, 90-liter product tank, and nitrogen purity of 4.0 (99.99%)

- Model 1250 OnGo:
1.3 m³/hour (for 1 solder pot)
- Model 1350 OnGo:
2.6 m³/hour (for 2 solder pot)

- **OnTouch Series** – Includes residual oxygen analysis, cabinet, dew point sensor, activated carbon pre-filter, pressure sensors, remote maintenance, touch-Screen, 90-liter product tank and nitrogen purity of 4.0 (99.99%)

- Model 1250 OnTouch:
1.3 m³/hour (for 1 solder pot)
- Model 1350 OnTouch:
2.6 m³/hour (for 2 solder pot)



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.



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