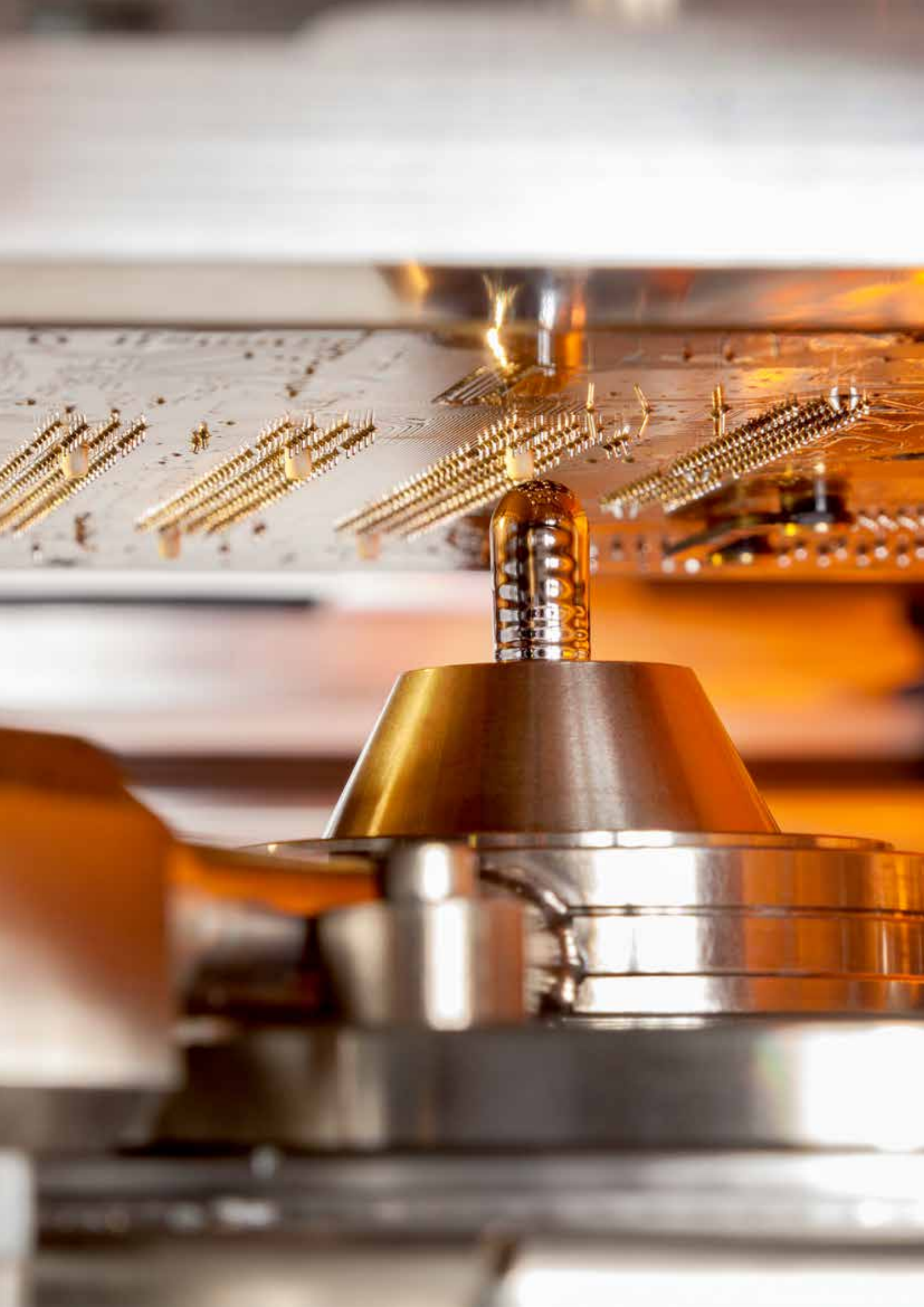
kurtz ersa

Ersa Selective Soldering Systems

In a Class of its own!

globalPoint horus® Temperature Profiling inside

GLOBAL. AHEAD. SUSTAINABLE.



VERSAFLOW 4/55

Ersa Selective Soldering Systems

In a Class of its own!

With top technology and modular design, Ersa selective soldering systems satisfy the highest demands made on flexibility and throughput – they are perfectly tailored for all needs and budgets.

When the subject turns to selective soldering, it is impossible not to think of Ersa. Ersa's leading edge technology and the comprehensive range of models have been convincing customers worldwide for many years. Maximum flexibility? Maximum throughput? Or both? Whatever the demands may be, Ersa can deliver with their extensive range of models – **VERSAFLOW**, **SMARTFLOW**, **ECOCELL** and **ECOSELECT** – the perfect solutions to meet these demands. The worldwide leading inline selective soldering system **VERSAFLOW** performs up to the highest demands on flexibility and throughput rate. With virtually infinite system configurations available, these systems can be specified so as to meet all customer demands.

Additional module extensions make the **VERSAFLOW** fit for future demands. The **VERSAFLOW 4/55** is the 4th generation of the leading inline selective soldering system, and inspires with its completely new control software and further raised process flexibility.

The very successful model **VERSAFLOW 3/45** offers features such as the **VERSAEYE** module that can inspect and document the soldering quality of all THT solder joints after soldering through a 9-camera system. Whoever is looking for a compact production solution, without having to make compromises, has the choice between the innovative **SMARTFLOW** and the **ECOSELECT** models.

The **ECOCELL**, laid-out in a U-shaped soldering process and with a multiwave solder bath, is designed for use in modern manufacturing islands – and just as in the **VERSAFLOW**, the independently operating aggregates of each process step ensure particularly high throughput rates.

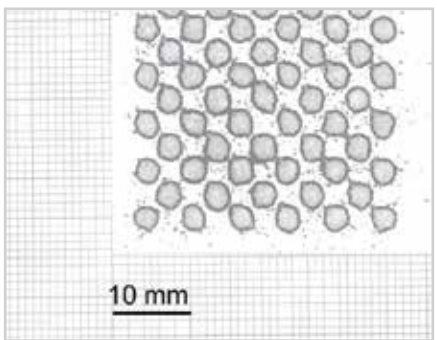
The more than 3,000 systems installed in manufacturing facilities worldwide, and their satisfied customers who have an excellent return on their investment, are adequate proof for Ersa's leadership position in automated selective soldering. We have invented the electric soldering iron – a commitment for us and our motivation to look for new roads to go in all areas of electronic manufacturing, and to search for breakthrough solutions for our customer.

Today as also tomorrow!

Fluxing with Highest Precision

Best process safety and accuracy of positioning

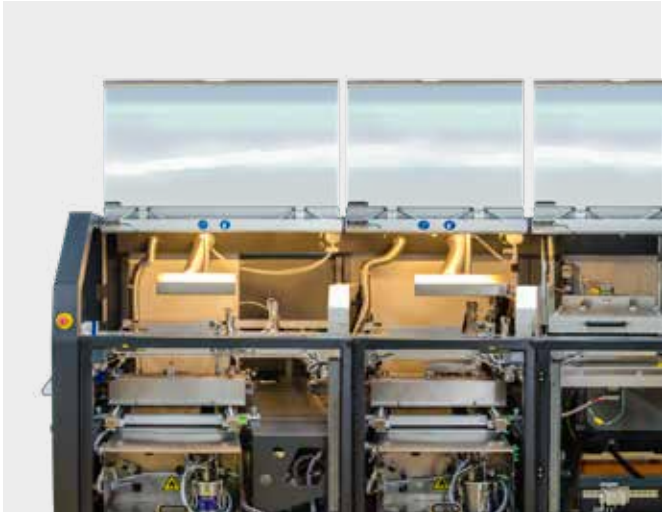
The fluxing system of a selective soldering system has to meet a number of different demands. Aside from precision and speed, top quality fluxing processes also need a high degree of reliability.



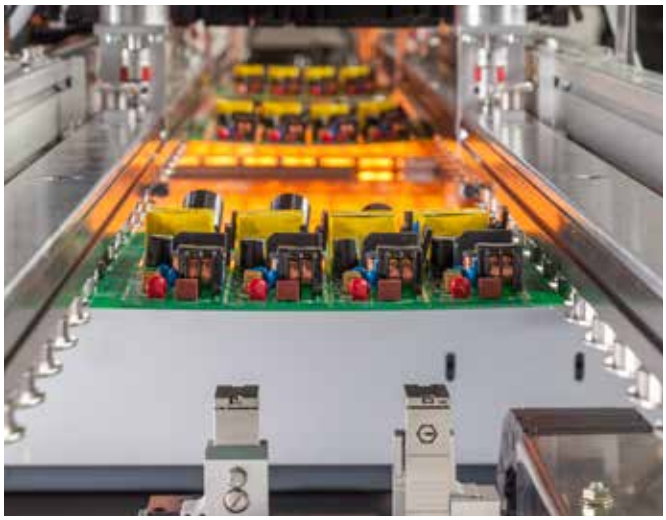
Flux spray pattern: multidrop precision fluxer ensures minimal ionic contamination

Precision and Accuracy

Areas of the printed circuit board that will not be wetted by the solder may not be fluxed. In order to ensure this, the most modern multidrop flux heads, coming from the industrial ink-jet technology, are used today. Here the flux is not vaporized, but it is rather deposited by accurately jetting it in individual tiny drops on defined areas of the board.



2 flux modules possible



Multidrop precision fluxer: Highest process safety through flux volume measurement and control

Largest Throughput

To ensure short cycle times in this sequential process, dynamic servo drives are used, and, equally important, the flux modules of the VERSAFLOW and ECOCELL systems can be equipped with up to 4 flux heads. And with the new VERSAFLOW 4, it is now also possible to program the moves of the additional flux heads in the Y-distance, eliminating downtime due to set-up.

Applying an innovative function, the high performance controls of the system allow the exact wetting of larger areas. Without time-intensive stops of the fluxer axes, the flux heads can be continuously in motion and be activated to spray precisely at the programmed locations.

To operate with two different flux types, the systems can be equipped with a second flux storage tank and a second spray head. The switch to the flux type required is fully automatic, as it is part of the solder program. For fluxes with a very high solid content, Ersa offers a special ultrasonic fluxer unit.

Highlights Fluxing:

- Multidrop precision fluxer
- Up to 4 spray heads possible
- 2 flux storage containers possible
- Continuous monitoring of the flux deposition
- 2 fluxer modules possible

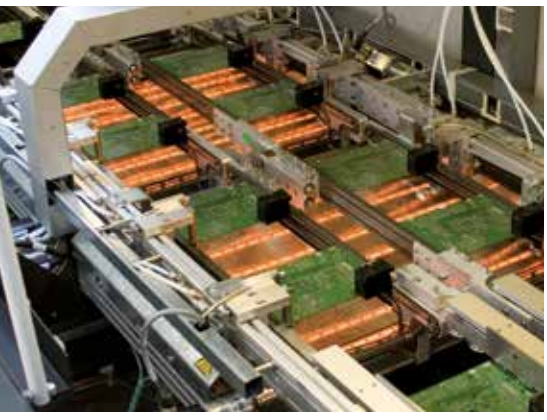
Process Safety

During automatic operation of the soldering system, the deposition of flux can be continuously monitored. Laser light barriers capture both, the volume of flux deposited as well as the target coordinates. If these parameters differ from their nominal values, the process is stopped and a corresponding operating message for the operator is displayed.

Flux supply from 2 separate flux storage tanks

Perfect, Homogeneous Preheating

Reproducible and economical – lower and upper preheat ideally combined



Segmented IR heater cassette

Lead-free, multilayer and high power applications in the selective solder process, combined with the quest to always operate the systems with the optimal cycle times, demands a steady increase in the heating capacity.

For optimal wetting of the pad and the pins to take place, particularly for assemblies with high heat requirement, full activation of the flux is indispensable. Only then will sufficient capillarity and with that a complete rise of the solder in the through-hole be ensured.

To meet these numerous demands, Ersa's selective soldering systems can be equipped with up to five individual preheat modules.

Heater cassettes below the conveyor system are generally equipped with short-wave IR emitters. The intelligent controls of these emitters allow the user to enter into the program different preheat powers over a number of time intervals. The hybrid convection or the newly developed power convection preheat modules installed above the conveyor system additionally support the homogeneous warming of the assembly. The top-side power convection preheating guarantees an especially gentle warming of the board and especially of the board's top-side components. To optimally control the preheat process, the flow of air can be controlled, and the temperature setting of the heater cassette is continuously monitored.

The nominal temperatures set in the solder program for a specific assembly are continuously monitored and recorded by a pyrometer.

The heating modules are generally designed in such a way that a full area heating of the maximum processable assembly size is possible.

Power convection for a homogeneous through warming of the PCB – even for the most complex boards

Bottom-side preheater cassette – IR emitters can be switched in groups

Yet, and to improve the energy efficiency of the system, for processing smaller assemblies the heated area can be adapted. This adaptation is controlled by the solder program.

Highlights Preheating:

- Lower heating cassette with infrared emitters
- Segmented bottom-side preheater for higher throughput
- Selection of upper heaters with full or partial convection
- Pyrometer to monitor and document the temperature
- Heated area customizable via program
- Power convection for homogenous through warming

The Ersa preheat concept – a perfect combination of dynamic top- and bottom-side preheats with the venturi principle for reproducible results

Optimal Soldering Results

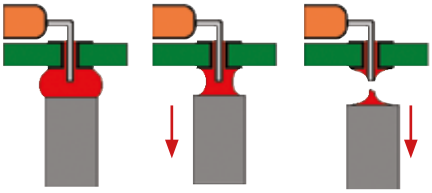
Unique energy transfer and precision

Regardless for which selective soldering system a customer may decide, he does not have to accept any compromise when it comes to the soldering technology. All Ersa soldering systems are equipped with an electromagnetic solder pump. This technology offers the advantage, that, due to the lack of movable mechanical parts, very small amounts of dross are generated, making the solder bath itself a low-maintenance item.

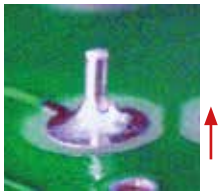
The pump ensures a very constant flow rate and features therefore an exact and finely adjustable solder wave height.

A highly precise axes system forms the basis of all selective soldering systems. The fiducial recognition feature allows to solder board assemblies which, on account of imprecisely cut sides, cannot reproducibly be positioned in the conveyor. In addition, board warpage can be detected by a laser measuring the distance to

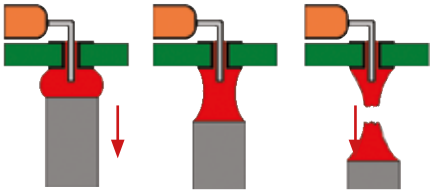
Automatic monitoring of solder wave height



Improved break-off during nozzle retraction with the "Peel-Off" function



Lean fillet/ capillary rise



Break-off during nozzle retraction with standard nozzle

Fat fillet/ capillary rise

Visual process control – camera system shows real-time soldering process and assists in detecting defects

the board, so that the correct positioning of the solder nozzle in relation to the underside of the board is ensured.

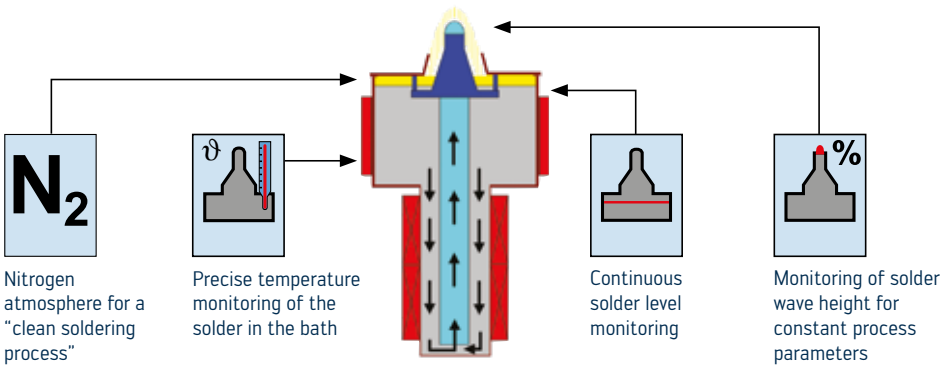
So as to offer the largest possible flexibility together with the shortest cycle times, Ersa offers its customers the choice between a variety of solder bath- and nozzle concepts, which are combinable in numerous ways.

The heart of a solder bath is the solder nozzle or the solder nozzle plate installed. Being aware of this fact, Ersa is strictly focusing on all aspects of quality pertaining to solder nozzles or nozzle plates. Ersa's selective solder nozzles ensure the repeatability of perfectly formed solder joints.

The innovative "Peel-Off" function enables to optimally form solder joints when soldering on a horizontal level, and the formation of solder shorts (bridging) can be almost eliminated. The advantage is obvious: Since there is no preferred direction in the run-off of the solder from the nozzle, the solder wave can be moved in any direction.

Highlights Solder Bath:

- Low-maintenance electro-magnetic pump
- Fiducial recognition
- Warpage detection of the board assembly via laser
- Dynamic process parameters such as solder level, solder wave height and solder temperature are continuously monitored and recorded
- Various solder bath and solder nozzle concepts
- "Peel-Off" function
- N_2 heating



The Ersa induction pump – very low in maintenance, with a stable and constant flow rate and excellent temperature stability

Dual pot system, Y- and Z axes variable

Dual pot system, Y axis variable, Z axis fixed

Dual pot system, Y axis fixed, Z axis variable

Dual pot system, Y- and Z axes fixed

Single Pot System with single nozzle

VERSAFLEX module, X-, Y- and Z axis variable

Ersa Mini Wave Solder Module

Meeting all demands with our maximum flexibility

Depending on the customers' requirements, and to ensure the optimal processing of the assemblies, the single solder baths can be positioned on either the same or on a different axis. Especially if they are combined with a multiwave solder bath, shortest cycle times can be reached also in the processing of complex assemblies.

A wide range of different solder nozzles ensures that a nozzle with the right parameters is available for the solder bath to meet virtually any customer requirment.

An enormous added value for the production is created by the innovative dual solder pot system. These enable to double throughput in the processing of multi panels or ensure flexibility through the use of different solder alloys without the need for changeover.

With the VERSAFLEX module, Ersa is setting new standards in quality, flexibility and throughput. Two independent axis systems operate in this soldering module, allowing the solder pot to be individually adjusted and moved in the x, y and z directions. In this way, assemblies can be soldered synchronously or asynchronously.

Highlights Miniwave:

- Highest flexibility because of variable Y- and Z axes
- Individually adjustable parameters for each solder joint
- 360° soldering – no preferred soldering direction
- No cost for tools
- No lead time

Nozzle Combinations
- *Inner diameter: 3 – 35 mm*
- *Nozzle height: 47 – 90 mm*
- *Customized nozzles and gasification rings*

MINI-VARIO-WAVE
- *Maximum working width/soldering width: 75 mm*
- *Wave soldering at an angle of 0°*
- *Adjustable process speed and wave pressure*

MINI-DIP
- *Soldering area: 80 x 80 mm*
- *Product-specific solder nozzle combination*

Ersa Multiwave Solder Module

Maximum throughput for all applications

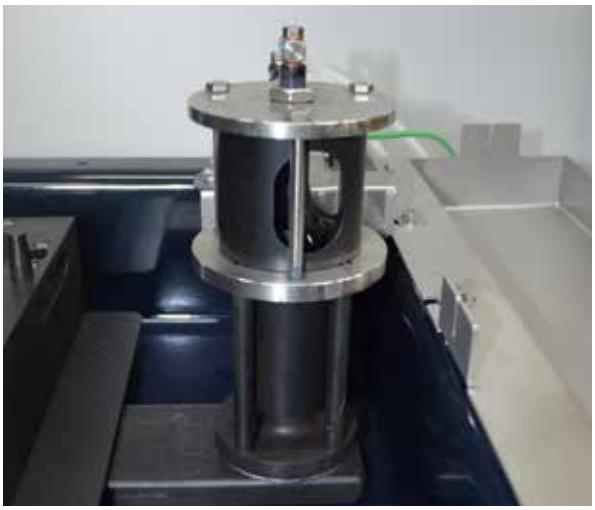
Electromagnetic solder pump

When the process is well-adapted to the application and the quantities to be produced, selective soldering will invariably lead to economic success. One very important factor in connection with this is the productivity, i.e. the number of assemblies moving through the system. In more and more production facilities classical wave soldering systems are being replaced by modern selective soldering systems.

But if, in a high-volume production environment, a selective soldering system is to deliver the same throughput as that available from a wave soldering unit, a simultaneous soldering process is required. This allows the formation of all joints that are to be selectively soldered to be simultaneously processed in one cycle. That technology is put in practice with the multiwave soldering system from Ersa. At the heart of its soldering module is a product-specific soldering tool with individually designed and manufactured solder nozzles, which deliver the solder simultaneously and precisely to the joints of the leaded devices. As a result, pure soldering times of 2 – 3 seconds can be realized, independent of the number of components to be soldered.

For the user, selective soldering systems based on the multiwave technology ensure a stable and reproducible selective soldering process with short cycle times. Extensive equipment features of the soldering systems allow for economical processes and ensure a very high quality level.

The sparing handling of consumables and supplies leads to low operating costs. The high uptime of the soldering systems is made possible by the drastic reduction of downtime of the unit due to maintenance, programming and retooling. Extensive monitoring of all process relevant parameters ensures



Solder wave height measurement

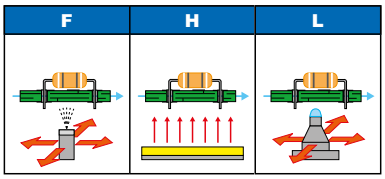
Solder bath in maintenance/set-up position

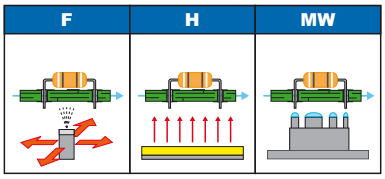
the high quality level of the soldered assemblies.

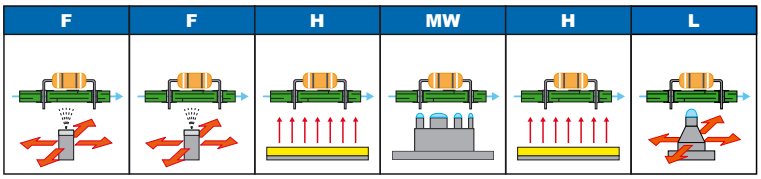
Automatic solder bar feeder

Highlights Multiwave:

- Short cycle time through simultaneous soldering
- Process time independent of the number of joints to be made
- Maintenance “on the fly” (with 2nd solder module)
- Minimal distances required to adjacent SMT components
- Excellent heat transfer through continuous flow of solder/ circulation of solder, even during soldering
- N_2 monitoring in the process chamber



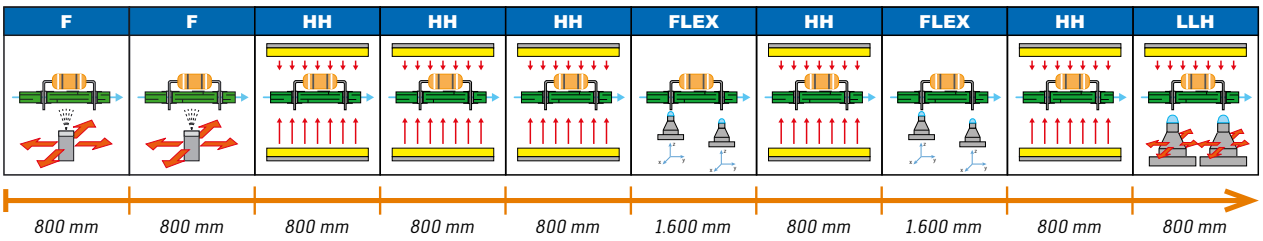


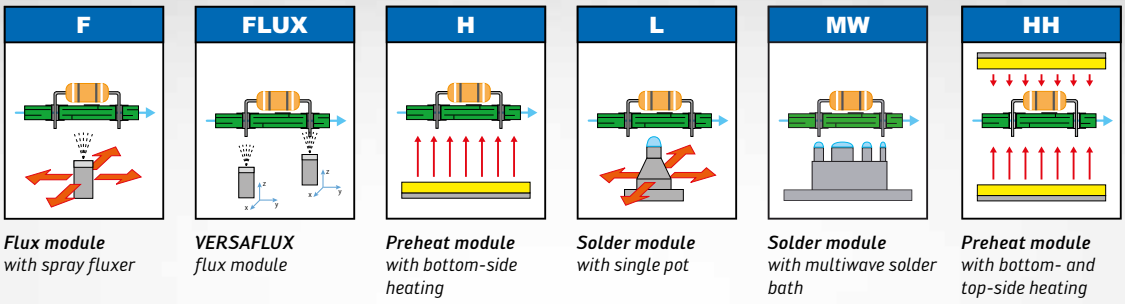


The Ersa Modular System

We optimize the soldering process for your specific needs

Maximum machine configuration





Flux module
with spray fluxer

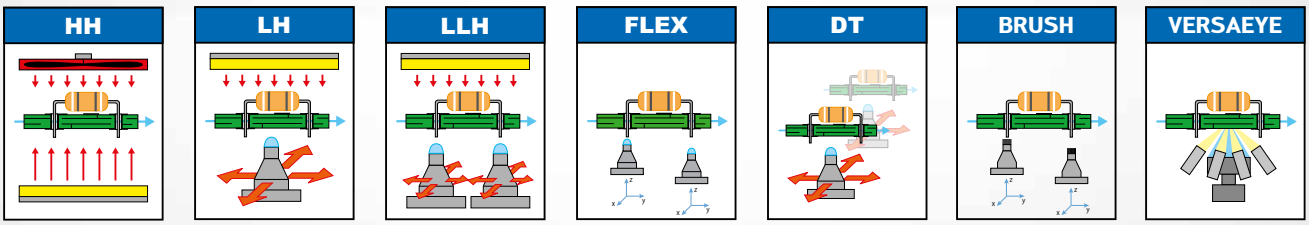
VERSAFLUX
flux module

Preheat module
with bottom-side heating

Solder module
with single pot

Solder module
with multiwave solder bath

Preheat module
with bottom- and top-side heating



Preheat module
with top-side power convection and bottom-side heating

Solder module
with single pot and top-side heating

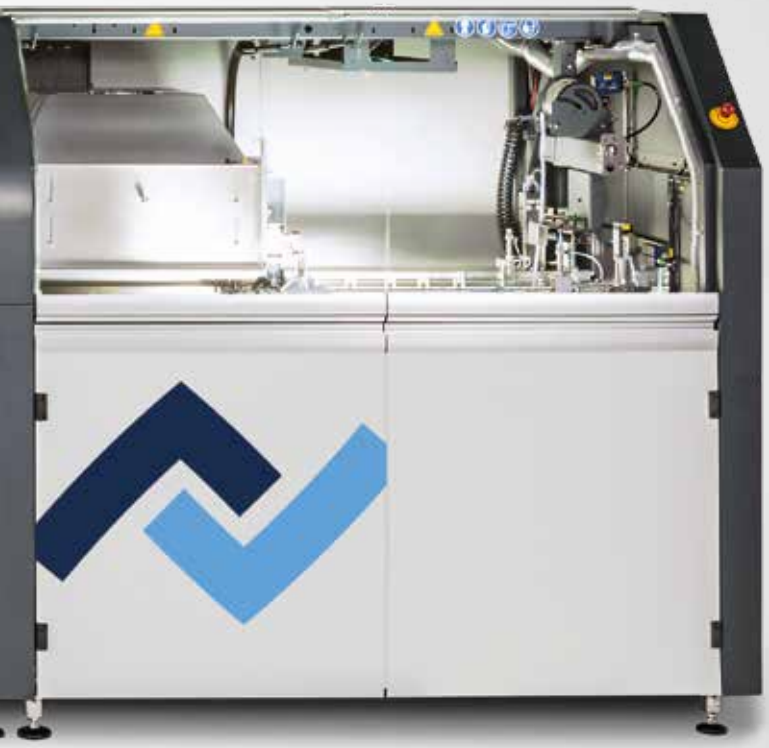
Solder module
with dual pot and top-side heating

VERSAFLEX
solder module

Dual track feature
with two parallel single wave units

Brush module
with VERSABRUSH

VERSAEYE
for optical inspection of solder joints from below



The combinations of modules depicted here show only some of the many variations possible with the extremely flexible Ersa modular system.

Corresponding to the needs of the customer throughput can be substantially increased by implementing a dual solder pot or dual track conveyor system, without taking up more floor space. When introducing new products or when increasing production quantities, the system can be, on account of its modular design, extended, and options or complete modules can be individually configured and retrofitted.

By being able to retrofit the existing system, no new investment in another production line is needed. The floor space and the resources used will be optimally used, and productivity will be increased.

Modular System:

- Higher throughput
- Maximum flexibility
- Optimally tuned to the process
- Can be retrofitted

Batch & ECOCELL

Compact systems with high-end technology. No compromises in quality.

ECOSELECT 1:
Small dimensions - big technology. Compact batch system with up to two flux heads and two solder pots for small and special series

Highlights ECOSELECT 1:

- Compact batch system with small footprint
- Up to two solder pots and two flux heads to increase thoughput
- Full-area lower IR preheating (adjustable)
- Upper convection heating

ECOSELECT 4:
Compact inline and batch system with up to two flux heads and two solder pots, power convection, VERSACAM and 508 x 508 mm soldering area

Highlights ECOSELECT 4:

- Compact selective soldering system with small footprint
- Batch or inline production
- Up to two flux heads and solder pots to increase throughput
- Full-area lower IR-preheating (adjustable)
- Upper convection preheating/ power convection
- Upper convection heater in the solder module
- Award-winning user interface ERSASOFT 5
- VERSACAM
- PCB size 508 x 508 mm

SMARTFLOW 2020:
Perfect start-up solution! Compact, extremely easy to maintain and with full-area IR preheating top and bottom side

Highlights SMARTFLOW 2020:

- VERSAFLOW technology on small footprint
- Award-winning user interface ERSASOFT 5
- Extremely maintenance-friendly
- Full-area upper/lower IR pre-heating (adjustable)

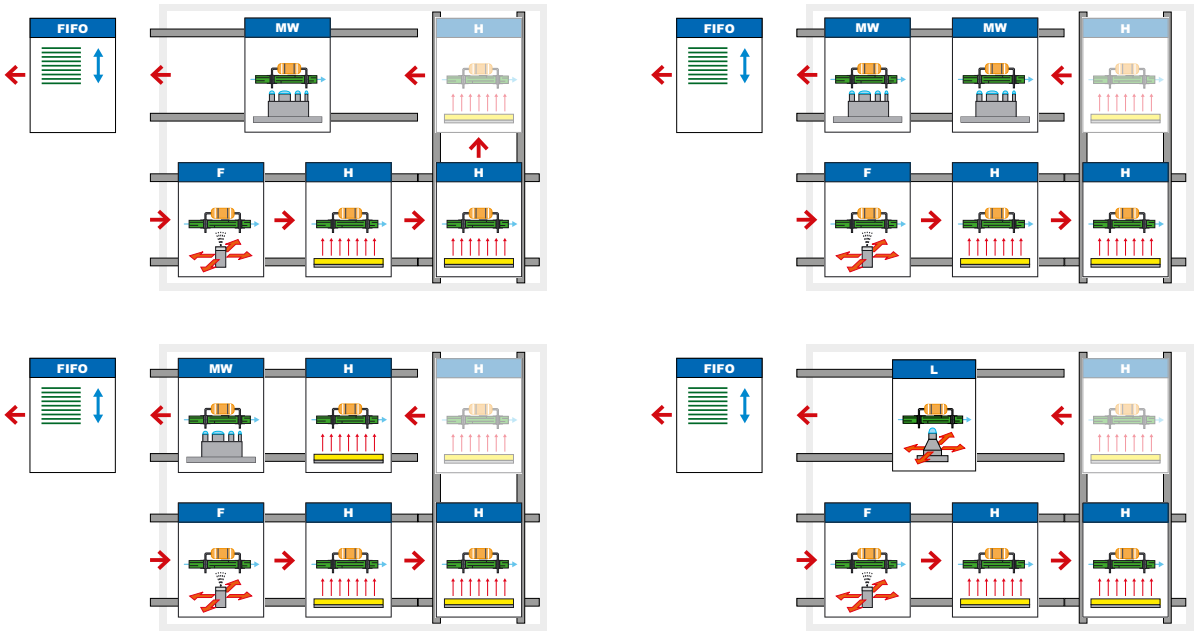
Ersa ECOCELL with FIFO-TOWER

ECOCELL:

Inline and batch system for maximum flexibility in production layout; ideal for connection to workplaces and peripherals

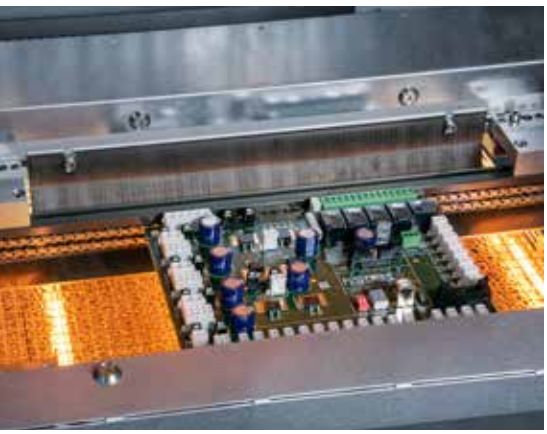
Highlights ECOCELL:

- High-end selective soldering system for lean production processes (U-shape)
- Single wave soldering for highest flexibility or multiwave soldering for high-volume applications
- Product changes without downtime even in multiwave soldering processes
- Parallel processes due to the separation of fluxing, preheating and soldering
- Operation of up to four spray heads
- Up to two lower preheatings and optional upper convection heating
- Perfect for the connection to workplaces and periphery



THE ONE.
FOR EVERYONE.

The VERSAFLOW ONE
Your entry into selective soldering excellence



VERSAFLOW ONE – Highest quality and throughput with a compact footprint

Ersa is presenting VERSAFLOW ONE the new entry-level model into the world of VERSAFLOW inline selective soldering machines. The VERSAFLOW ONE embodies decades of know-how gained by the market leader in the form of proven hardware and intuitive software (ERSASOFT 5). Even with its compact dimensions and very attractive price, this machine does not require the user to make any compromises in terms of quality and throughput.

When designing the VERSAFLOW ONE, the Ersa developers focused on the requirements most customers need for successful selective soldering. As the quintessence of this, the smallest VERSAFLOW has been developed to focus consistently on productivity and profitability. This makes it not just any entry-level model - instead, with its flexible, future-proof configuration, it offers direct access to more quality, performance, productivity, variability and excellent services.

Thanks to an improved heating system in the cross profile the power requirement of the machine has been significantly reduced, resulting in energy savings of 10 %.

Highlights VERSAFLOW ONE:

- Entry into the VERSAFLOW world
- Proven VERSAFLOW technology
- Highest quality and services
- High throughput
- 10 % energy savings
- Compact footprint

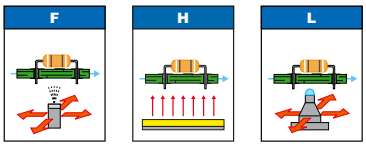
VERSAFLOW ONE F-SERIES with single wave unit – 2 configurations:

VERSAFLOW ONE F

Configuration:

- Programmable conveyor width adjustment
- Segmented pin-and-chain conveyor, 3 mm
- Flux module with spray head 130 µm, stainless steel
- Bottom-side preheater, IR emitters
- 1 solder pot
- Automatic solder wire feeder
- Automatic nozzle activation
- Process monitoring camera
- SMEMA – inline interface for in- and outfeed

Modules:



Flux module *with spray fluxer*

Preheat module *with bottom-side heating*

Solder module *with single wave unit*

Measurements:

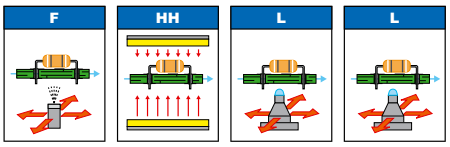
- Length: 2,771 mm
- Width: 1,791 mm
- Height: 1,577 mm

VERSAFLOW ONE FF

Configuration:

- Programmable conveyor width adjustment
- Segmented pin-and-chain conveyor, 3 mm
- Flux module with spray head 130 µm, stainless steel
- Preheating with bottom-side IR emitters and top-side convection
- 2 solder modules with one solder pot each
- 1x automatic solder wire feeder per solder pot
- 1x automatic nozzle activation per solder module
- 1x process monitoring camera per solder pot
- SMEMA inline interface for in- and outfeed

Modules:



Flux module *with spray fluxer*

Preheat module *with bottom-side heating*

Solder module *with single wave unit*

Solder module *with single wave unit*

Measurements:

- Length: 3,871 mm
- Width: 1,791 mm
- Height: 1,577 mm

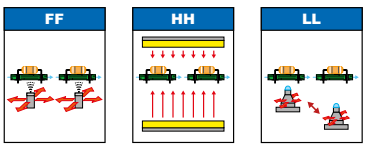
VERSAFLOW ONE X-SERIES with dual pot, x-variable, available with or without stoppers – 2 configurations:

VERSAFLOW ONE X

Configuration:

- Programmable conveyor width adjustment
- Segmented 3 mm pin-and-chain conveyor, solder module with roller conveyor
- Flux module with 2 spray heads, 130 µm each, stainless steel
- Preheating with bottom-side IR emitters and top-side convection
- 1 dual solder pot
- 1x automatic solder wire feeder per solder pot
- Automatic nozzle activation
- 1x process monitoring camera per solder pot
- SMEMA – inline interface for in- and outfeed
- Additional stoppers available

Modules (with additional stoppers):



Flux module *with spray fluxer*

Preheat module *with bottom-side heating*

Solder module *with dual pot, x-variable*

Measurements:

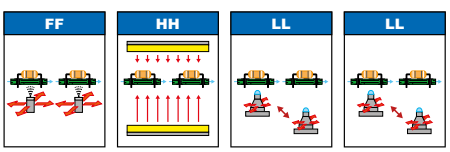
- Length: 4,430 mm
- Width: 1,791 mm
- Height: 1,577 mm

VERSAFLOW ONE XX

Configuration:

- Programmable conveyor width adjustment
- Segmented 3 mm pin-and-chain conveyor, solder module with roller conveyor
- Flux module with 2 spray heads, 130 µm each, stainless steel
- Preheating with bottom-side IR emitters and top-side convection
- 2 solder modules with one dual solder pot each
- 1x automatic solder wire feeder per solder pot
- 1x automatic nozzle activation per solder module
- 1x process monitoring camera per solder pot
- SMEMA inline interface for in- and outfeed
- Additional stoppers available

Modules (with additional stoppers):



Flux module *with spray fluxer*

Preheat module *with bottom-side heating*

Solder module *with dual pot, x-variable*

Solder module *with dual pot, x-variable*

Measurements:

- Length: 6,030 mm
- Width: 1,791 mm
- Height: 1,577 mm

Ersa VERSAFLOW 3/45

Ersa VERSAFLOW 3 Series

The world's leading inline selective soldering platform with a future-safe modular concept and new features

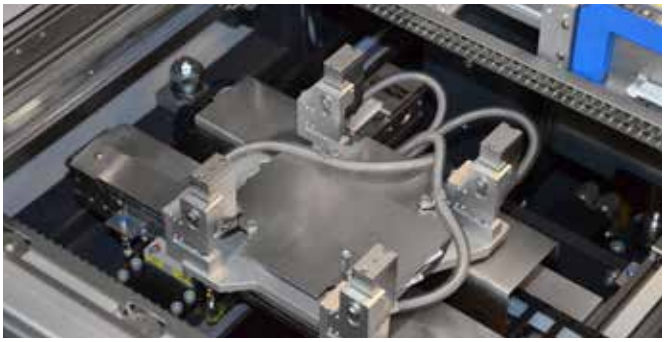
In order to meet all requirements in terms of flexibility, a modular machine platform has been created with the third VERSAFLOW generation. A VERSAFLOW 3/45 or VERSAFLOW 3/66 contains in the basic version a flux, a preheating and a soldering module with a segmented conveyor system. Depending on the application and the requirements additional flux, preheating or soldering modules can be integrated. The VERSAFLOW 3 series in its maximum configuration can manage up to three soldering modules, each of which can contain up to two single-wave solder pots. Each soldering module can be preceded by a preheating module.

Both the preheating modules and the soldering modules with single wave solder pots can be equipped with additional top-side heating systems. With the dual track option the throughput rate can be doubled without increasing the space requirement of the machine. If the size of the assembly allows segmentation of the preheating modules, a further increase in throughput is possible. If all these features, of the VERSAFLOW 3 series are used, up to 22 assemblies can be processed simultaneously.

A unique selling point of the VERSAFLOW 3/45 is the use of a multi-wave module to maximize throughput.

Up to 5 preheat modules

Dual track conveyor



Fluxer unit with 4 spray heads

The VERSAFLOW 3/66 is designed for large PCB formats of up to 610 x 610 mm. As a special solution, the VERSAFLOW 3/66 XL can process PCB giants of up to 3,000 x 610 mm.

Highlights VERSAFLOW 3 Series:

- Working area:
  - VERSAFLOW 3/45: 508 x 406 mm (option 508 x 508 mm)
  - VERSAFLOW 3/66: 610 x 610 mm
- Single-wave soldering for higher flexibility or multiwave soldering for high-volume processes
- Product changes without downtime even in multiwave processes
- Parallel process due to the separation of fluxing, preheating and soldering
- Operation of up to four spray heads
- Up to five lower preheatings with optional upper convection heating
- Perfect for the connection to workplaces and periphery
- Connection to traceability systems for process control

Ersa VERSAFLOW 4 Series

Fit for the future of selective soldering

The world's leading inline selective soldering system **VERSAFLOW** meets the highest demands in flexibility and throughput. Ersa **VERSAFLOW 4/55** is the 4th generation, built to match production requirements from high volume, low mix to high mix, low volume.

Innovative features make the **VERSAFLOW 4/55** fit for future demands. With almost endless possibilities of configurations, the modular system can ideally be custom-fitted to any requirement. Up to 4 spray heads can be installed in the flux modules of the **VERSAFLOW 4/55**. Flux application is controlled by a laser system. This enables a safe automated production.

Apart from infrared emitters and convection heaters, the heating module can also be equipped with power convection heating ensuring an efficient, safe and homogenous warm-up of even most complex PCBs.

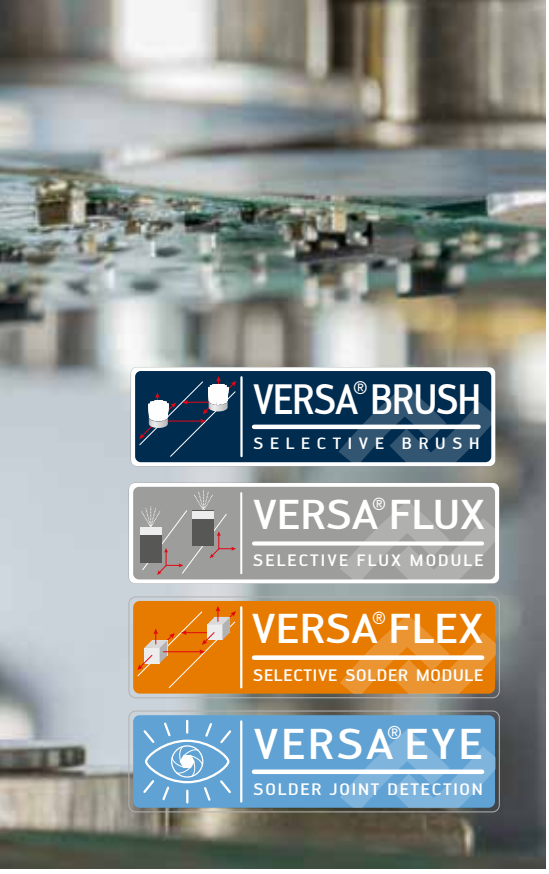
The machine configuration of **VERSAFLOW 4/55** may include up to 3 solder modules with one or two single wave pots per soldering module. The **VERSAFLEX** solder module takes the system flexibility to completely new dimensions.

The intuitively operable system software **ERSASOFT 5** is based on newest Microsoft technology, and it is operated via 24" touchscreen. It also permits complete process monitoring and visualization, and it reduces the time required to configure

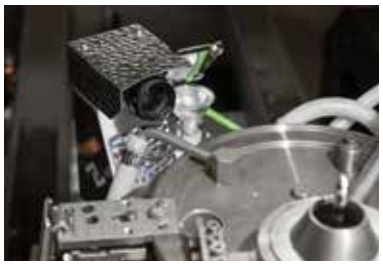
Highlights VERSAFLOW 4 Serie:

- Max. PCB size:
  - VERSAFLOW 4/55: 508 x 508 mm
  - VERSAFLOW 4 XL: 1,200 x 610 mm
- Fluxer Y variable
- Power convection
- Dual pot Y-Z variable
- Automatic nozzle activation
- ERSASOFT 5
- VERSAFLEX
- VERSACAM
- VERSAEYE

IPC-HERMES-9852
The global standard for "M2M" in SMT assembly



VERSAFLEX soldering module



VERSACAM

Power convection

Dual pot Y-Z variable

process parameters. Complete process data management, documentation of all process- and system relevant data as well as an interface for the integration of traceability as per ZVEI protocol respectively MES systems are important features.

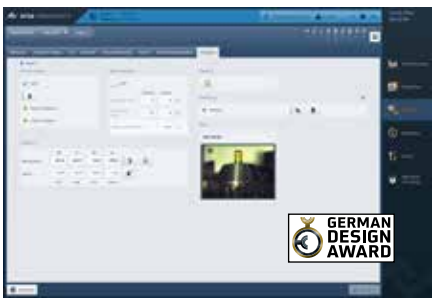
Basic configuration:

- Roller conveyor
- Side fixing in flux module
- ERSASOFT 5
- Precision spray flux system with spray test function and flux level monitoring
- IR ermitter, bottom side
- Maximum PCB size 508 x 508 mm

- PC control with touch screen monitor
- Process visualization including solder protocol, process data writer, monitoring function, maintenance and error message indication, password protection
- Exhaust air monitoring
- Solder pot with electro-magnetic solder pump
- Solder level- and solder wave height monitoring

Fluxer, Y variable

Automatic nozzle activation



ERSASOFT 5

Simple, Clearly Arranged, Efficient

Controlling and documenting with ERSASOFT 5

GERMAN DESIGN AWARD

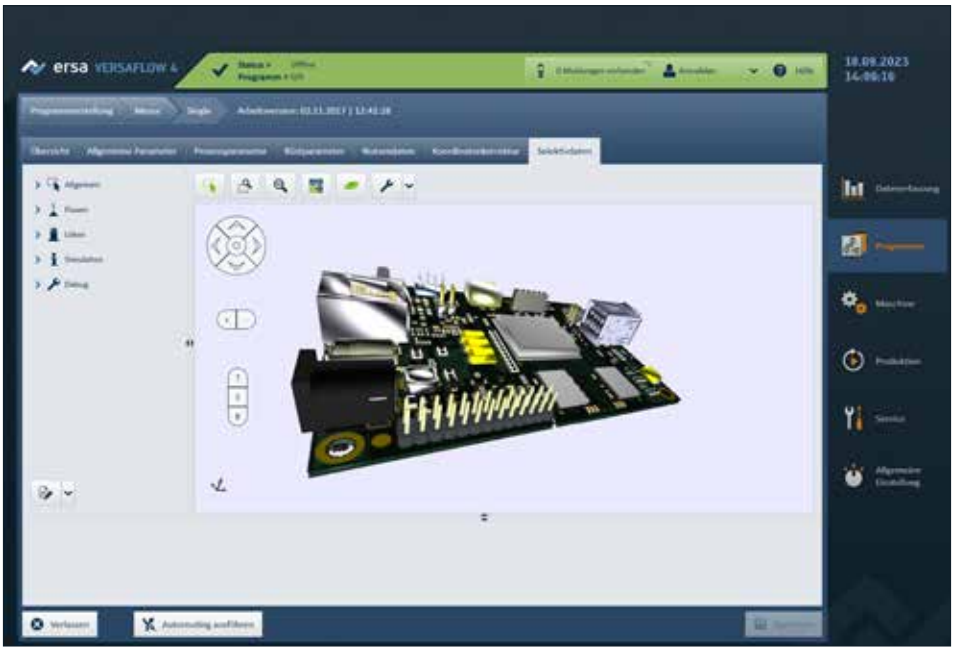
Ersa's selective soldering systems of the 4th generation are delivered with the state-of-the-art ERSASOFT 5 operating software.

The new version of our proven machine operation software convinces, aside from its modern visualization, through its operator-oriented,, user-friendly structure. Through individual user interfaces, each group of operators receives, at one glance, the data and information it requires.
The new interface is also more comfortable in regard to process monitoring. Thanks to modern PiP technology (picture in picture), the soldering parameters as well as the process images are available at one glance, providing optimal control for each individual soldering process.

Through an additional monitor, up to 6 single nozzles can be permanently displayed for the purpose of process monitoring. By a mouse click, the individual nozzle can be enlarged to full screen for closer observance of the soldering process.

Highlights ERSASOFT 5:

- Intuitive user guidance
- Modern design
- PiP-function/process monitoring
- Individual user interfaces
- Integrated CAD-Assistant



Quick, Intuitive and Comfortable

Soldering program creation with the CAD Assistant 4 editor

The efficient generation of complex soldering programs is of great importance. The Ersa CAD Assistant 4 provides for an offline program generation while the machine is in operation! This ensures highest machine availability.

CAD Assistant 4 considers the specific equipment configuration in the generation of a soldering program. Furthermore, it supports modules with two independent axes (VERSAFLUX & VERSAFLEX). The data sets of the CNC axes are processed using Drag&Drop. Furthermore, CAD Assistant 4 includes pre-defined data sets the user can easily adapt to his specific application. Errors during the program creation are prevented by a plausibility check. Both CAD files of PCBs and image files can be used as basis in the program generation with CAD Assistant 4.

All movements of the fluxer and the solder pots are graphically entered on the image of the board, after which the process data is added. Program files created with the CAD Assistant 4 can easily be verified by means of process simulations and can immediately be used in the selective soldering machine.

During programming the user selects the operating mode: x/z-variable or y/z-variable for synchronous processing of PCB panels or the asynchronous mode where the axes move independently in x-y-z. Due to the new autorouting feature, the generation of complex solder programs is super easy: The user only enters the tracks or single joints to be fluxed and soldered. CAD Assistant 4 then automatically sets the machine movements in the most efficient way.

Highlights CAD Assistent 4:

- Intuitive programming due to graphic user interface
- Optimized cycle times by means of auto-routing
- Automatic and optimized assignment of fluxing and soldering jobs to the available modules
- Prevention of crashes by the definition of exclusion areas
- Program simulation to verify settings

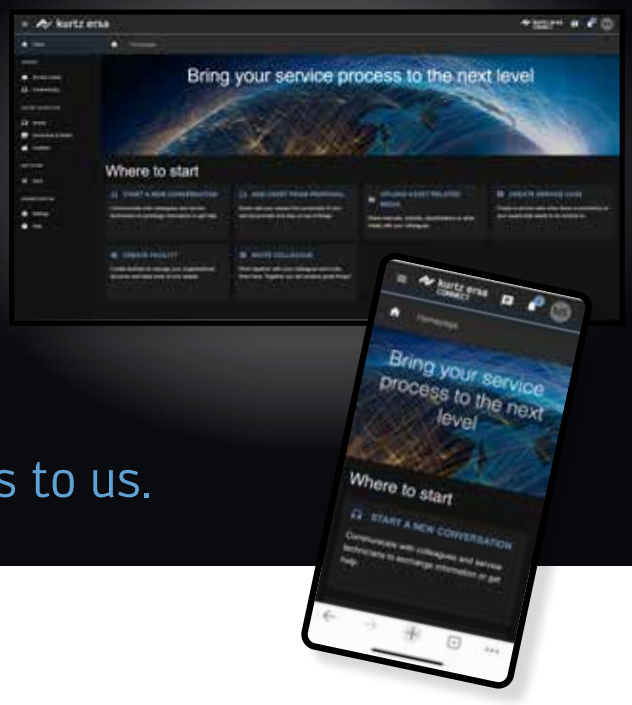
Autorouting on PCB panels

Simulation

Component details

KURTZ ERSA CONNECT

Added value through digitalization



Features

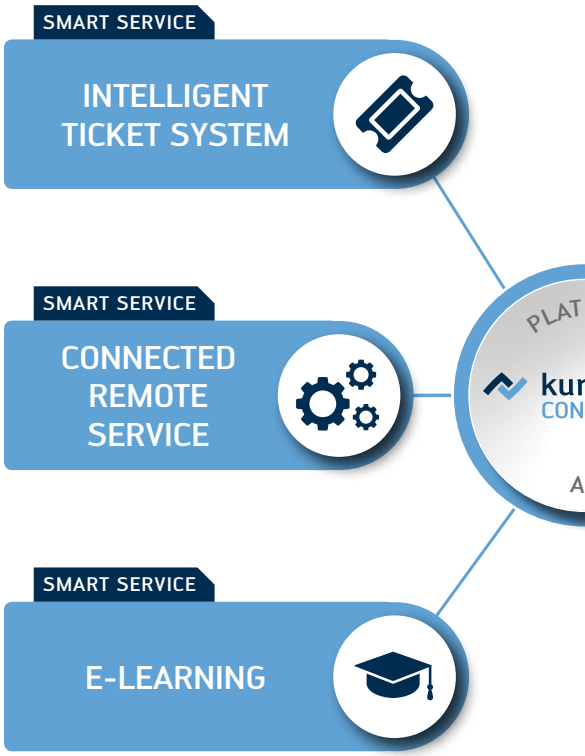
- Integrated hardware and software infrastructure
- Available for the whole Kurtz Ersa machine portfolio
- Standardized interfaces and systems
- Available for web browsers and smartphones
- Access independent of location and device

One Tool. All Services. Your Access to us.

Intelligent ticketing system "Service Cases"

Optimized service processes

With the intelligent ticket system "Service Cases", Ersa GmbH optimizes service processes worldwide. Thanks to standardized communication between the customer and Ersa Service via ticketing, error situations can be resolved quickly. In the process, digital real-time information from the machine and other modules is supplemented, e.g. digital machine database, monitoring or machine data. In addition, there is access to modules such as E-Learning or E-Maintenance, including an intelligent evaluation of completed tickets.



Remote Service

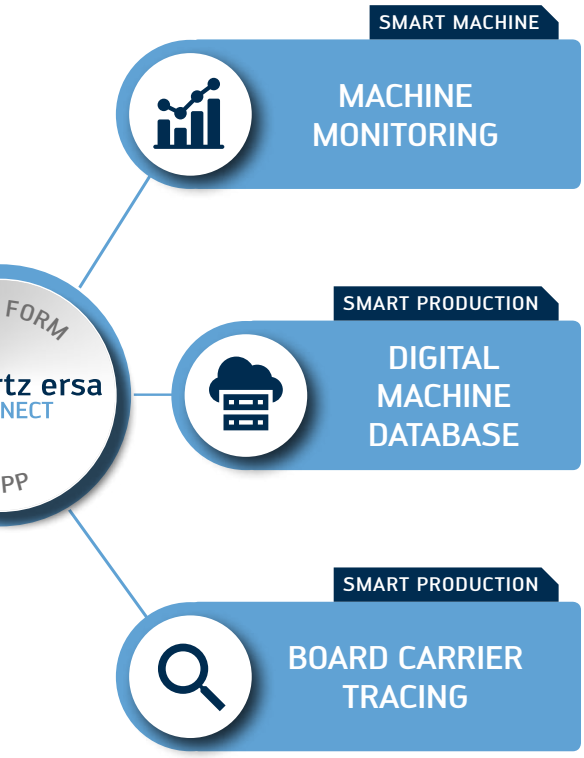
Remote analysis and quick support

Malfunctions in the customer's systems must be remedied immediately, as these machine downtimes are often associated with high costs. The remote service of Kurtz Ersa CONNECT offers a simple and safe possibility for remote diagnosis and fast first aid. With the help of the Edge Gateway Ersa Service immediately carries out a detailed troubleshooting and repairs. Good to know: Remote maintenance is always carried out via digital switch at the invitation by the customer and cannot be started externally.

E-Learning

Location and time-independent access to the knowledge database

The interactive and module-based E-Learning courses include 3D animated machine illustrations and training videos. Learning progress is documented and verified via exams and certificates. The access to the E-Learning platform is independent of location and time. Via this knowledge database personnel worldwide can be trained uniformly. Thus, the need for on-site training is reduced, and waiting times for classroom training are eliminated – best conditions for increasing efficiency in the production process.



Machine monitoring

KPIs for the condition monitoring of your production

This provides real-time monitoring of relevant machine and process data. Location-independent access to the status of machine parts allows for quick actions if necessary. Machine monitoring enables the visualization of key figures and deviations within the range of predefined tolerances. Limit value violation is displayed in order to keep an eye on the control loop of the production.

Digital machine database

Your plant and machinery at a glance

With the digital machine database, you always have relevant real-time data at your fingertips, such as customer data and general machine information, the visual representation of the current configuration (hardware and software) and the location of the machine.

Also within reach are important documents such as customer acceptance tests/machine capability tests (MCT), service reports and instructions, safety documents and waybills/customs documents.

Workpiece carrier tracing/Kurtz Ersa line control

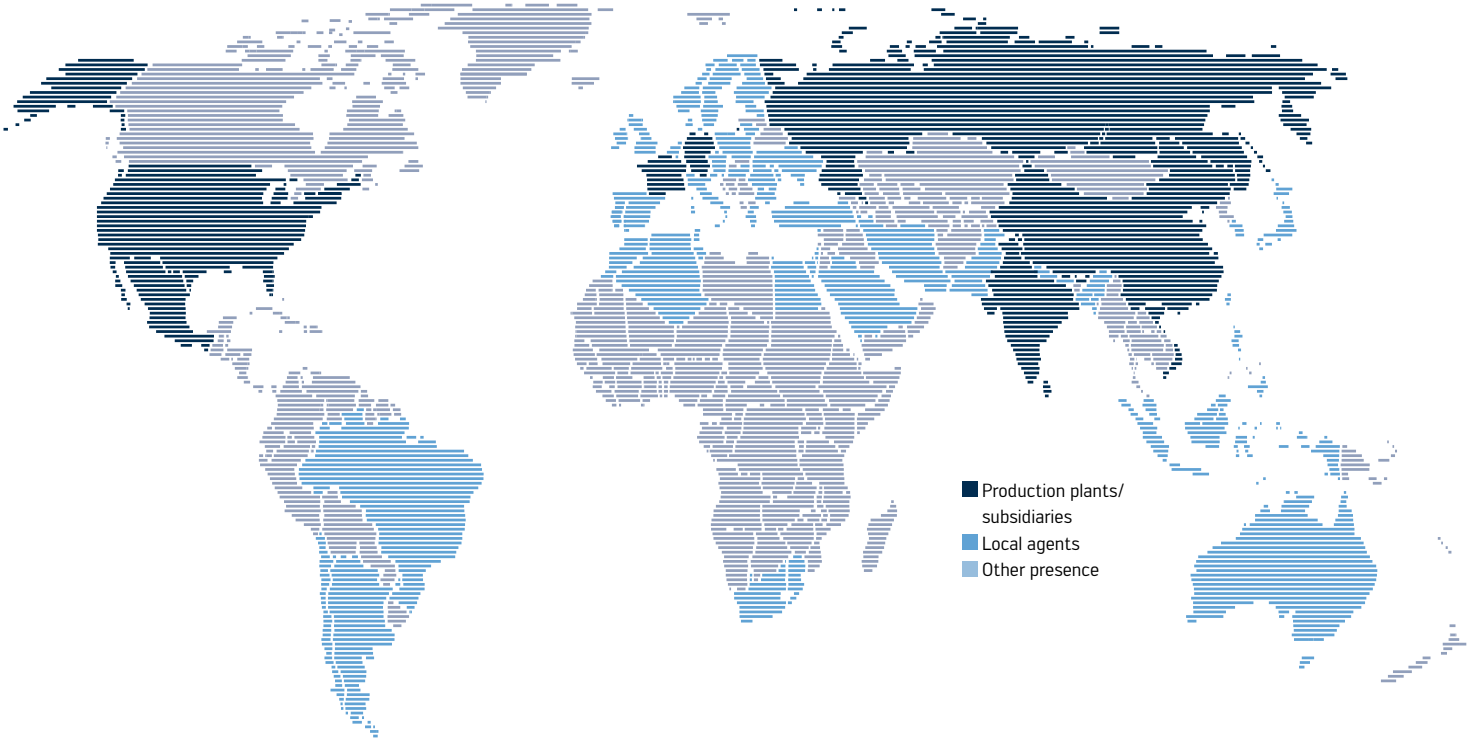
Monitoring, tracking and process control

In the case of product carrier tracing, all product movements and related processes within a complete line are controlled. Individual PCBs, e.g. with product carriers, masks or holders are linked using the product IDs. The used components and parts are recorded and important process data of the line is linked with the product IDs. Automatic product carrier cycles are likewise managed.

You too can benefit from our future-oriented service offers.
Feel free to contact us!

ELECTRONICS PRODUCTION EQUIPMENT

Worldwide presence



America
Kurtz Ersa, Inc.
1779 Pilgrim Road
Plymouth, WI 53073
USA
Phone +1 920 893 3772
aus den US: 1 800 363 3772
usa@kurtzersa.com
www.ersa.com

Mexico
Kurtz Ersa, S.A. de C.V.
Av. Lopez Mateos Sur Núm. 1450 Int. 7
Col. Las Villas (Plaza las Villas)
Tlajomulco de Zúñiga, Jalisco
C.P. 45643
México
Phone +52 33 15 93 18 63
info-kmx@kurtzersa.com
www.ersa.com

Asia
Kurtz Ersa Asia Ltd.
Unit 03-05, 8th Floor
One Island South
No. 2 Heung Yip Road
Wong Chuk Hang
Hongkong
China
Phone +852 2331 2232
asia@kurtzersa.com
www.ersa.com

China
Ersa Shanghai
Room 720, Tian Xiang Building
No. 1068 Mao Tai Rd.,
Shanghai 200336
China
Phone +86 213126 0818
info-esh@kurtzersa.com
www.ersa.com

Vietnam
Kurtz Ersa Vietnam Ltd.
Que Vo IZ, Phuong Lieu Ward,
Que Vo District, Bac Ninh Province
Vietnam
Phone +84 2723 733 682
info-kev@kurtzersa.com
www.ersa.com

India
Kurtz Ersa India
Smart Production Technologies
Private Limited
Plot No. 16A,
Bommasandra Industrial Area,
Bommasandra Attibele Hobli,
Anekal Taluk,
Bangalore 560099
Phone +91 973 954 5461
india@kurtzersa.com
www.kurtzersa.com

France
Kurtz Ersa FRANCE
2, Avenue de Wissembourg
67500 Haguenau
France
Phone: +33 6 07 78 01 87
kefrance@kurtzersa.com
www.ersa.com

globalPoint horus® Temperature Profiling inside

horus-profiling.com

Ersa GmbH
Leonhard-Karl-Str. 24
97877 Wertheim/Germany

Phone +49 9342 800-0
Fax +49 9342 800-127
info@ersa.de
www.ersa.com

kurtz ersa