kurtz ersa

WAVE

Soldering Systems

GLOBAL. AHEAD. SUSTAINABLE.

Ersa wave soldering systems A class of its own!

For over 50 years, Ersa wave soldering systems have set innovative trends in electronics manufacturing, whether in the entry-level class, as compact mid-size machines or as powerful high-end systems that can process XXL heavy-duty formats. Whatever your requirements, Ersa POWERFLOW wave soldering systems deliver quality and productivity, providing a safe and energy-efficient foundation for soldering processes.

High-performance wave soldering

The electronics industry must deliver the highest quality at the lowest possible prices. In short, it must be efficient and flexible.
Modern wave soldering systems are central for the economical processing of wired components in mass soldering processes. Thanks to their modular design, Ersa POWERFLOW systems can be flexibly adapted to a wide range of requirements, whether as a high-end full-tunnel gas-shielded soldering system or an atmospheric wave soldering system.

Requirements for a wave soldering system:

- Low operating costs
- Best energy balance
- Low energy consumption
- High machine availability
- Excellent serviceability
- Encapsulated, low-maintenance spray fluxer
- Freely programmable fluxer spray areas
- Powerful bottom and top heating
- Individually configurable preheating
- Freely selectable solder nozzle configurations for all product requirements
- Sequential soldering
- Process gas purification
- Tunnel temperature compensation
- Suction-independent N_2 control
- Flexible conveyor for all soldering frame systems and individual assemblies
- Split conveyor for optimum profiling
- User-friendly software
- Interfaces for digital connections and data exchange

POWERFLOW PRO

Ersa POWERFLOW Family:

- POWERFLOW ONE
- POWERFLOW PRO
- POWERFLOW ULTRA
- POWERFLOW FIVE
- POWERFLOW

How wave soldering systems work (with and without nitrogen):

Fluxing

Ersa flux spray systems and fluxers are designed not only for system reliability but also for cost-effectiveness (flux consumption and processing speed). Spray areas can be defined for specific products, which significantly reduces flux consumption. The use of high-quality materials enables the use of VOC-free fluxes.

Preheating

During the preheating process in wave soldering, a significant proportion of the soldering heat requirement is already transferred. The POWERFLOW preheating section ensures a stable and reproducible preheating process, maintaining temperature profiles and process windows. The preheating process can be configured and assembled from various modules.

Soldering module

The newly designed soldering unit is based on proven dual wave soldering technology and has enabled POWERFLOW systems to adapt to increased market requirements. This enables the use of a wide range of soldering nozzles.
The distance between the soldering nozzles and the printed circuit board, as well as the passage height, can be conveniently adjusted from the outside without opening the process tunnel. Alternatively, this can be done automatically using optional actuators from the soldering program.
This means that the passage height can be adjusted to suit specific assemblies in mixed operation, resulting in higher system availability.

Wave soldering under nitrogen atmosphere – yes or no?

The use of nitrogen in soldering processes leads to a larger process window with better wetting conditions. An oxide-free solder surface has maximum surface tension and enables short, uniform detachment of the solder from the solder joints. This is essential for fine-pitch applications.

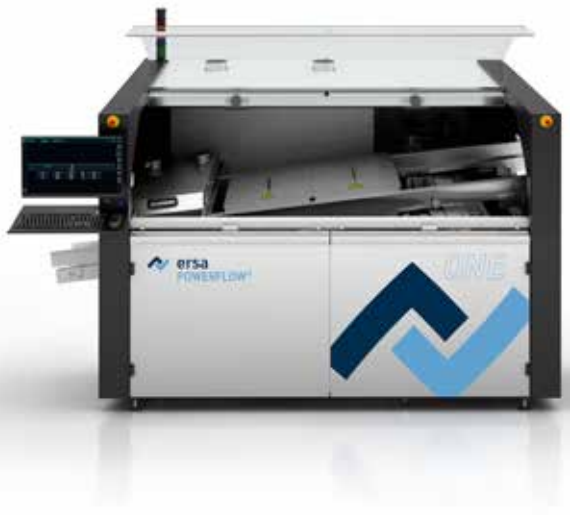
Normal atmosphere: The surface of the solder wave is covered with a thin, clearly visible oxide layer. The “flag” of the solder, which causes the break-off, is long and weak, and the detachment is irregular, leading to the formation of bridges and icicles.

N_2/nitrogen atmosphere: The surface of the solder wave is completely free of oxidation. The solder flag, at the end of which the break-off occurs, is short, strong and even. In addition, dross formation is significantly reduced. The amount of solder saved usually immediately offsets the nitrogen consumption.

further information

The One for everyone.
Ersa POWERFLOW *ONE*

The POWERFLOW ONE is the ideal entry-level machine for electronics manufacturers who rely on the proven quality and reliability of Ersa products. The ONE has a small footprint and is built to reduce downtime to an absolute minimum. This is made possible by the use of tried-and-tested components, such as solder pots and heaters, which are well established in the POWERFLOW line of systems.



Compact design and cost efficiency

The POWERFLOW ONE is a compact machine with a length of only 2.90 meters, which provides a cost-effective entry into the Ersa wave soldering portfolio. It focuses on the essentials of wave soldering and combines excellent price-performance ratio with proven Ersa quality. The basic version has a wave former and is designed for standalone operation with a soldering frame. The reduced pot volume supports cost-efficient operation. Optional extensions enable upgrades and adaptations up to high-performance inline operation.

Precise spray fluxer for reliable flux application

Powerful preheating with 3 cassettes (2x medium wave; 1x bright radiator)

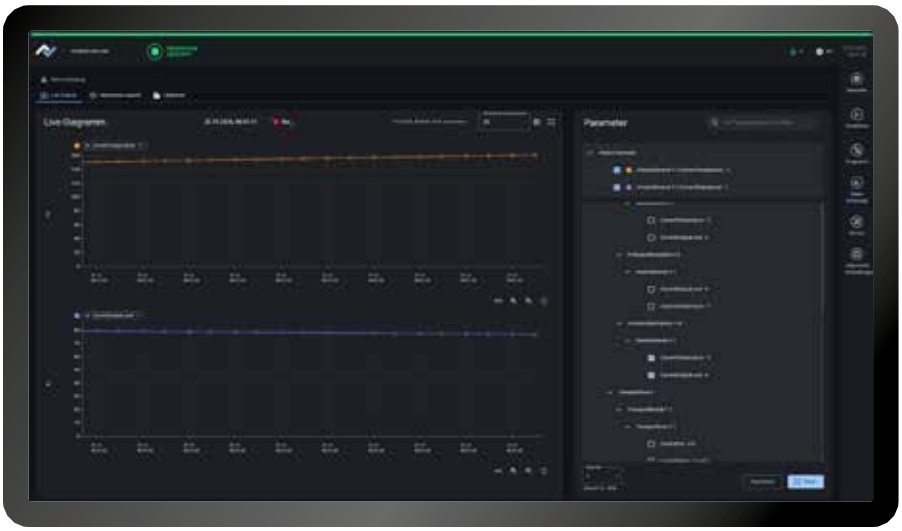
Soldering module: Proven Ersa pot technology with a filling volume of only 345 kg

Designed for solder frame operation as standard. Finger transport optional.

Technical highlights

- Entry into the POWERFLOW world at a length of only 2.90 m
- Powerful preheating on 3 cassettes (2x medium wave, 1x bright radiator)
- Proven solder pot technology with only 345 kg filling volume
- Nitrogen option
- Optional finger conveyor
- Optional inline capability

further information



Innovative software platform

The POWERFLOW ONE is the first Ersa machine based on the new Kurtz Ersa software platform. With its state-of-the-art design, it offers a future-proof, modern user interface and modular interfaces that enable expandability at any time.

The advantages include:

- **Modular state-of-the-art software architecture**
  Equipped for future requirements in terms of security, stability, and flexibility
- **Optimized collection of machine data**
  Efficient process design and smart features
- **Modern, intuitive user interface**
  Standardized across all Kurtz Ersa products in the future
- **Familiar strengths**
  Comprehensive user management and easy operation

Proven POWERFLOW quality

Focus on the essentials

Compact dimensions

New software platform

The universal mid-size machine.
Ersa POWERFLOW PRO

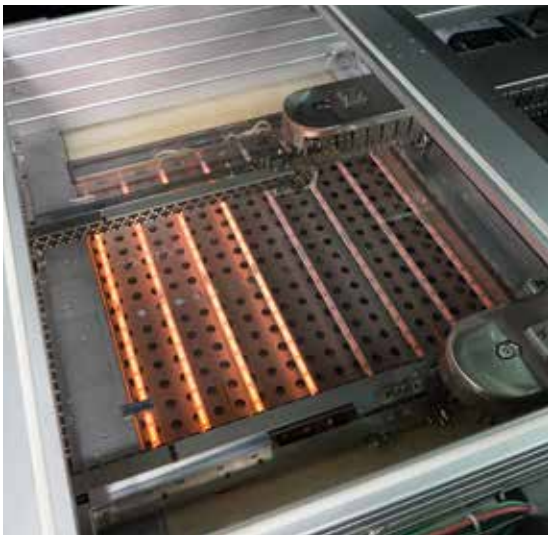
The POWERFLOW PRO from the proven Ersa POWERFLOW series is a powerful full tunnel system operating under a nitrogen atmosphere, enabling wave soldering to the highest standard. Designed for manufacturing environments with the strictest quality standards, it provides stable processes and consistent parameters for optimal performance in terms of quality, cost and service. Thanks to its partially modular design, the POWERFLOW PRO provides all the essential options in a compact form, thus saving valuable floor space.

Spray pattern programming for reduced flux consumption

Precise spray pattern programming using graphical input enables product-specific spray areas to be defined, ensuring that the flux is applied precisely to the areas to be soldered.
This matrix spray function reduces flux consumption to a minimum.

Modular preheating concept

The combination of medium/short-wave IR emitters and convection modules can be optimally tailored to different applications and easily expanded in terms of length and power at a later date.



Dynamic IR emitters

Medium-wave radiator cassette

Proven Ersa dual wave soldering technology

Proven soldering technology

Ersa's proven dual wave soldering technology ensures a long wetting time with a consistently stable wave height.
Various nozzle combinations cover every application requirement, while the automatic solder bar feeder ensures continuous production. Optional alternating pot concepts increase flexibility, as the system can be quickly adapted to different solder alloys and production processes.

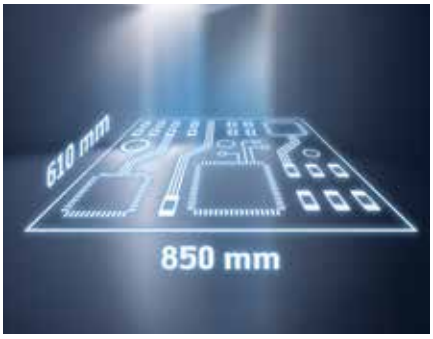
further information

- **Modular and flexible preheating concept with 1,500 mm or 2,000 mm length**
- **Compact full-tunnel nitrogen system**
- **Automatic bar feed**
- **Spray pattern programming for reduced flux consumption**
- **Frame conveyor with 330/400 mm or finger conveyor with 458 mm width**
- **ERSASOFT 5 operating software: innovative user interface and process control**

Established high-end solution with proven technology

Ersa POWERFLOW ULTRA

The POWERFLOW ULTRA is a state-of-the-art full-tunnel wave soldering system offering a wide range of options. It can be individually adapted to a wide variety of requirements. This makes it ideal for high-performance applications, such as the processing of server boards for 5G technology.

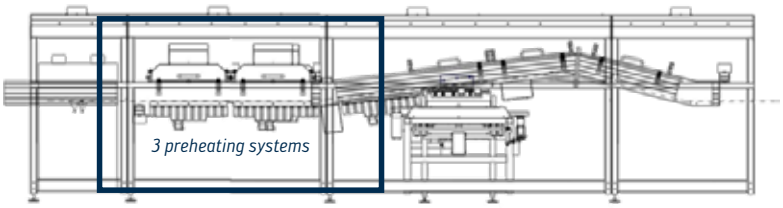


XXL capacities for maximum flexibility:
Depending on the configuration level of the POWERFLOW ULTRA, it is possible to process printed circuit boards with dimensions of up to 850 x 610 mm.

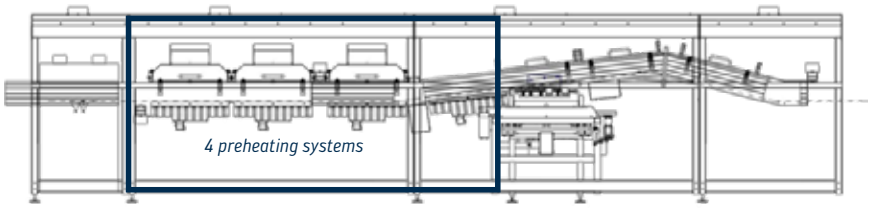
Sequential soldering:
The soldering module of the POWERFLOW ULTRA offers unmatched process control through innovative sector-based processing. With 5–18 mm nozzle height adjustment, the system dynamically adapts to any assembly geometry. The program-controlled sector division allows individual parameters for each area of the printed circuit board. The patented sensor system continuously measures the actual solder volume.

Connectivity and automation:
The proven ERSASOFT 5 software visualizes, controls, and monitors the entire system. Individual user interfaces provide each operator group with the necessary data and information at a glance. Production in code mode enables fully automated production processes.

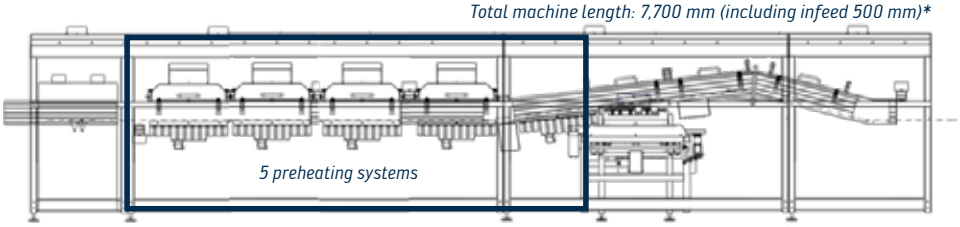
*Total machine length: 6,200 mm (including infeed 500 mm)**



*Total machine length: 6,950 mm (including infeed 500 mm)**

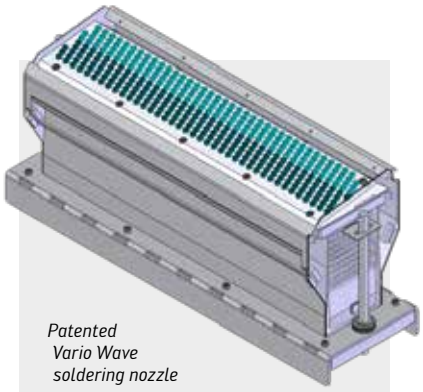


*Total machine length: 7,700 mm (including infeed 500 mm)**



Modular preheating concept:
The combination of medium/short-wave IR emitters and convection modules can be optimally adapted to the respective assemblies. With a maximum configuration of 5 preheating modules, the POWERFLOW ULTRA achieves a heating length of up to 3,000 mm.

**Machine length specified without outlet*



Patented Vario Wave soldering nozzle

Technical highlights:

- XXL version for processing printed circuit boards up to 850 x 610 mm (L x W)
- Up to 5 preheating modules possible (heating length 3,000 mm)
- ERSASOFT 5 operating software based on a database

further information

Spray pattern programming for reduced flux consumption

Modular and flexible preheating concept

Sequential soldering

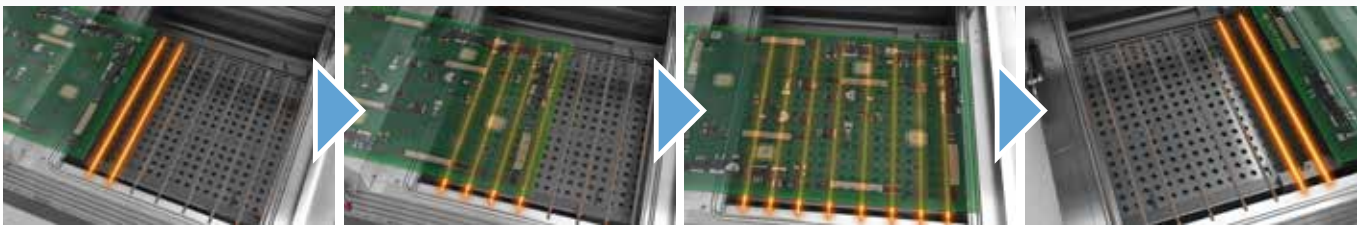
Processing of PCB sizes up to 850 x 610 mm

ERSASOFT 5 operating software

The new flagship for ultimate wave soldering

Ersa POWERFLOW *FIVE*

The Ersa POWERFLOW FIVE is the latest generation of Ersa wave soldering systems, setting the benchmark in the ultra-high segment. Designed to meet the dynamic requirements of today's and tomorrow's markets, it is particularly suited to the areas of e-mobility, 5G and smart grids. The POWERFLOW FIVE is aimed at electronics manufacturers, particularly those working in power electronics.



Energy efficiency revolution: SMART IR RADIATION

The new preheating system uses SMART IR RADIATION. It consists of eight pairs of controllable infrared emitters which automatically switch to standby mode as soon as the flat module reaches the next pair. This significantly reduces operating costs.

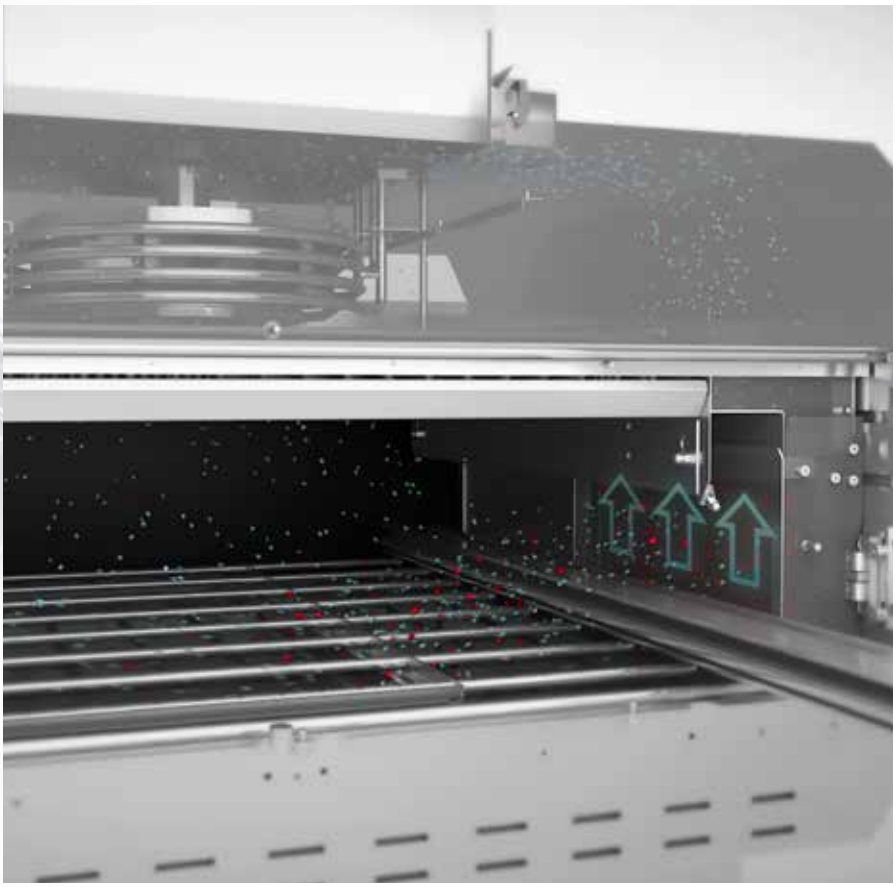


Illustration of the operating principle of Ersa SMART ELEMENTS® process gas purification

View of the preheating zone of the SMART ELEMENTS® cassettes, which are attached to the side of the efficient Ersa process gas cleaning system.

SMART ELEMENTS® Process Gas Purification:

The granulate-based SMART ELEMENTS® system absorbs contamination highly efficiently and extends operating times by reducing maintenance. The easily accessible design minimizes maintenance times and maximizes productivity. The system thus ensures consistent process quality with reduced operating costs.

further information

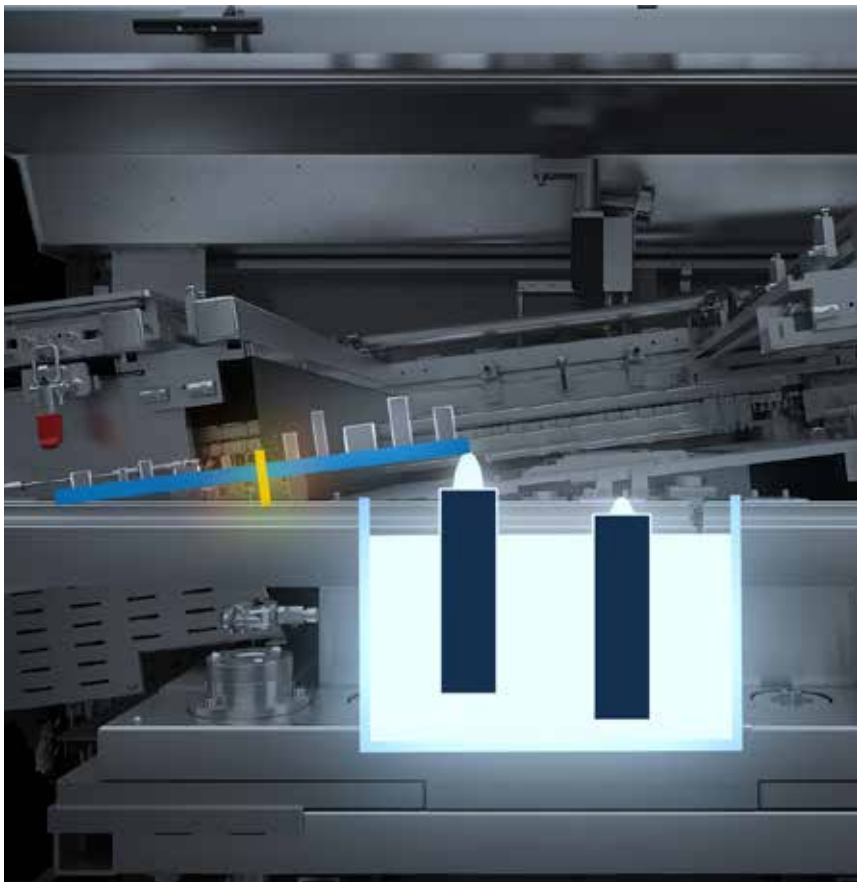
Soldering module with dynamic Z-axis & sequential soldering

SMART WAVE GUARD for precise wave height adjustment

Heavy-duty conveyor up to 25 kg

Highly efficient SMART ELEMENTS® Process gas purification

Energy savings through hybrid heating and SMART IR RADIATION

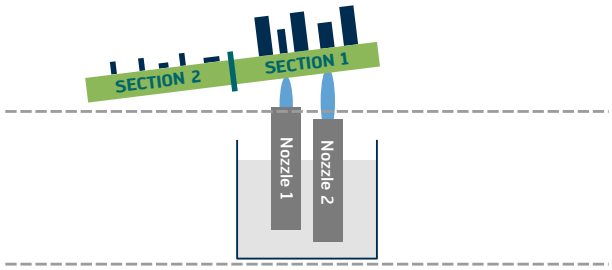


Dynamic Z-axis and sequential soldering 2.0:

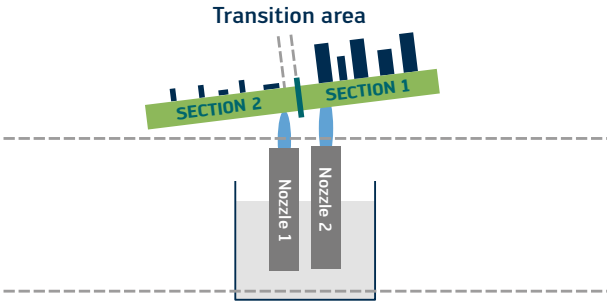
In future electronics production, more and more power electronics and digital components will be combined within the same product.
This makes it necessary to adjust the distance between the nozzles and the circuit board individually for each product, as well as being able to specify different distances within a product. The POWERFLOW FIVE features new dynamic Z-axis control for sequential soldering 2.0. The new Z-axis allows distances between the waveformer and flat assembly of 5–18 mm. The second waveformer is also independently adjustable in height.
All settings are conveniently made via the operating software. The independent nozzle adjustment dynamically adapts to different requirements.
With an accuracy of 0.1 mm and 10 individually controllable sections, sequential soldering 2.0 guarantees perfect solder joints for even the most complex mixed technology assemblies.

Sequential soldering 2.0

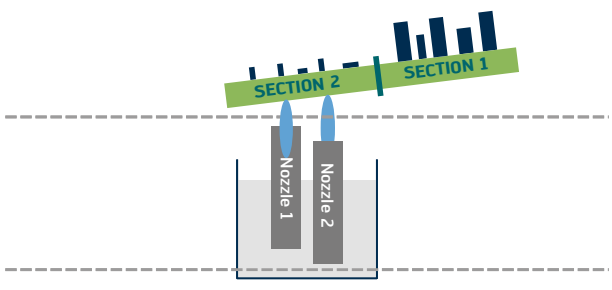
- 5–18 mm nozzle height adjustment
- Travel speed of 5 mm/s
- Component clearance from below up to 18 mm



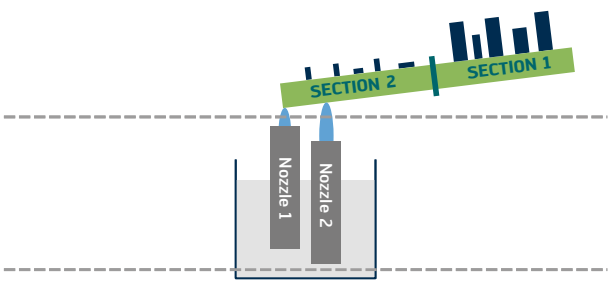
Step 1: In section 1, soldering is performed using the stored program parameters 1.



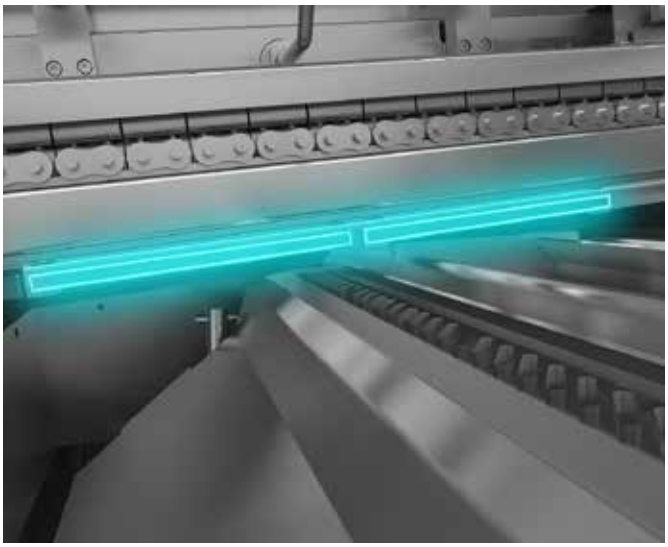
Step 2: Nozzle 1 reaches section boundary – the new nozzle height and shaft speed are set by the program



Step 3: Section 2 is soldered using the stored program parameters 2.



Step 4: Nozzle 1 reaches the end of the board. It then goes into standby mode and reduces the wave height and speed.



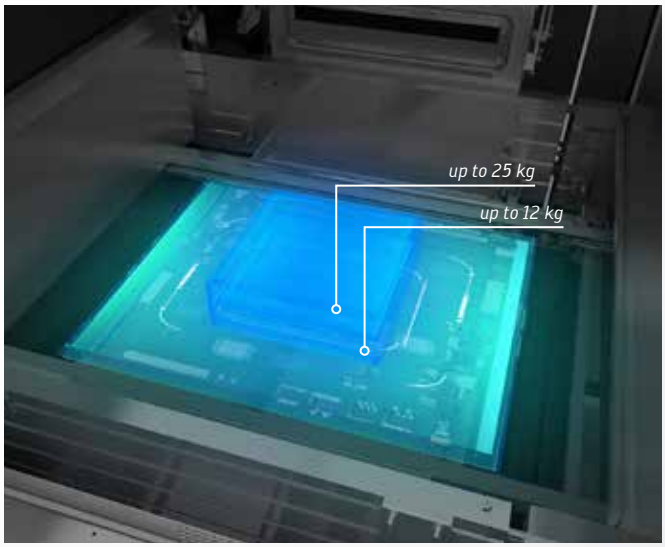
Automatic solder wave height control and adjustment ensures reproducible soldering quality with minimal scrap rates.

SMART WAVE GUARD wave height control and adjustment

The soldering module enables 1.5 million maintenance-free strokes, guaranteeing maximum availability. To maintain a constant wave height, the POWERFLOW FIVE features new measurement technology that regularly checks the soldering wave height and automatically adjusts the solder overflow if necessary. This ensures uniform wetting and constant pressure at the nozzle outlet.

Heavy-duty conveyor

To cover the expanded range of applications, the POWERFLOW FIVE features a new heavy-duty conveyor system that safely transports printed circuit boards weighing up to 25 kg. The design is geared toward long maintenance intervals, while wear parts can be replaced quickly and easily.



Two versions for 12 or 25 kg

Powerful wave soldering system with flexible solder bath technology

Ersa POWERFLOW

The Ersa POWERFLOW is a modern wave soldering system based on proven components from the POWERFLOW series. With a maximum working width of 508 mm, this system offers excellent price-performance ratio and ensures the highest quality standards through stable processes and reproducible parameters. The proven Ersa dual wave soldering technology with a user-friendly soldering unit offers maximum process stability for your production requirements.

Basic configuration:

- Consistent, complete lead-free capability and resistance to VOC-free, water-based flux
- Precise spray fluxer with motorized axis drive and 25 l storage facility
- Finger conveyor with 508 mm working width 1,800 mm preheating
- Modern control concept
- Easy operation via desktop PC or touchscreen (optional)
- Continuous monitoring of all relevant soldering parameters
- Standard nozzle combination: Arc nozzle (item 1) and laminar nozzle (item 2)
- Intermediate heating module

Highlights:

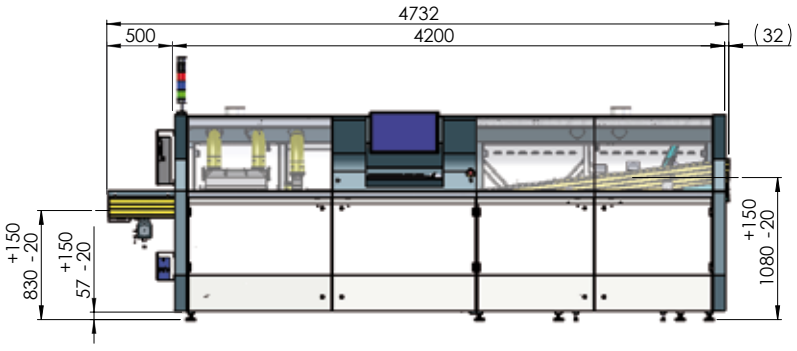
- Compact nitrogen tunnel
- External or integrated fluxer
- Multi-functional exit module with PCB cooling and process gas cleaning
- Spray fluxer with intelligent spray pattern programming
- Modular, flexible, and individually expandable preheating concept with convection and radiant heating; variable configuration in terms of length and power (can also be retrofitted)
- Motorized height adjustment of the solder nozzles
- Long wetting sequence
- Extremely stable wave height (up to 16 mm)
- 3 nozzle combinations for every requirement
- Optional interchangeable pot concepts
- Sequential soldering
- Automatic production with code operation possible
- Ready for traceability

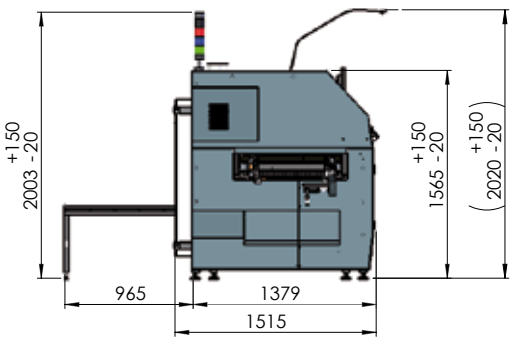
further information

POWERFLOW – Technical data

Dimensions	POWERFLOW
Length:	
3 Preheaters:	4.200 mm
4 Preheaters:	4.950 mm
Width:	1.510 mm
Height:	1.565 mm
Weight:	
3 Preheaters:	2.200 kg
4 Preheaters:	3.000 kg
Paint:	RAL 7035 / 7016
Pneumatics	
Inlet pressure:	min. 6 bar
Air consumption:	approx. 5 – 10 m³/h
Extraction	
Suction power:	1 x 800 m³/h and 2 x 200 m³/h
Suction nozzle:	3 x AD 150 mm
Environmental specifications	
Ambient temperature:	10 – 35 °C
Humidity:	20 – 95 % (non-condensing)
Noise level	
Permanent noise level:	< 65 dB (A)
Conveyor system	
Type:	Finger conveyor
Conveyor width:	60 – 508 mm
PCB length:	120 – 600 mm
PCB top-side clearance:	120 mm
PCB bottom-side clearance:	max. 15 mm
Conveyor speed:	0,5 – 2,5 m/min
Conveyor angle:	7 ° (non-adjustable)

Electrical data	
Voltage:	5-wire network, 3 x 400 V, N, PE
Voltage tolerance:	±10 %
Frequency:	50/60 Hz
Fuse rating:	3 x 125 A (tr)
Amperage:	79 A
Capacity:	80 kW
Flux module	
Flux storage tank:	25 l
Spray pressure:	0,9 – 2,5 bar
Bottom-side preheat module	
Type:	shortwave radiator cassette, dynamic
Capacity:	max. 10,4 kW (performance-based)
Type:	medium-wave radiator cassette
Capacity:	max. 6 kW (regulated)
Type:	Convection module
Capacity:	max. 6 kW (regulated)
Dimensions:	600 mm in length each
Solder module	
Capacity:	approx. 9,8 kW
Solder volume:	approx. 820 kg lead-free alloy
Warm-up time:	approx. 10 h
Solder temperature:	max. 300 °C
Solder bar feeder:	automatically
Capacity:	approx. 9,2 kW
Solder volume:	approx. 525 kg (for lead-free alloys) approx. 630 kg (for SnPb37 alloy)
Warm-up time:	approx. 3,5 h (260 °C)
Solder temperature:	max. 300 °C
Solder bar feeder:	automatically

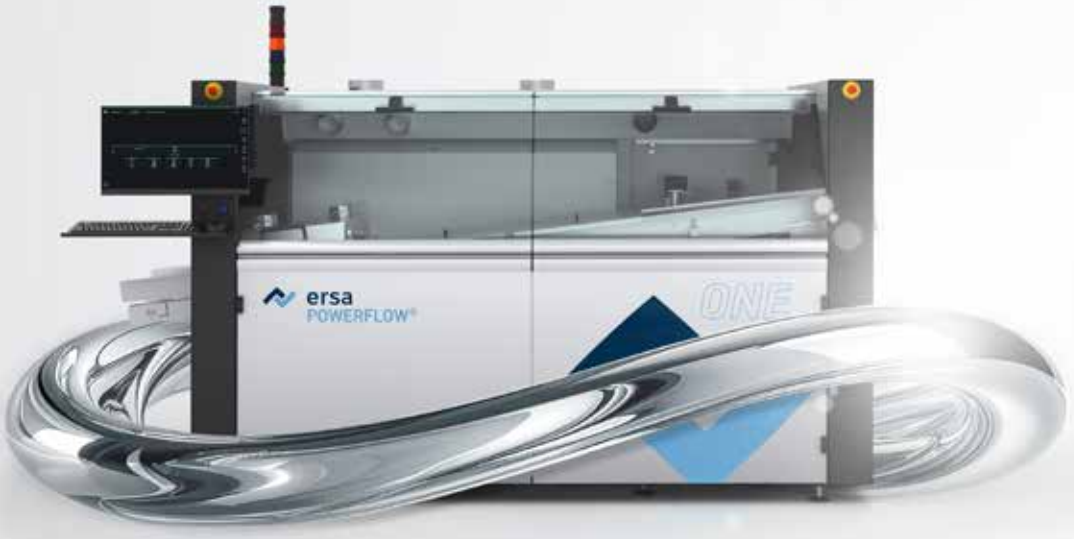




POWERFLOW ONE – Technical data

Dimensions	POWERFLOW ONE
Length:	2,900 mm
Width:	1,481 mm
Height:	1,590 mm (at inlet height 635 mm; outlet height 1,066 mm)
Weight:	1,500 kg
Paint:	RAL 7035/7016
Conveyor system	
Type:	Frame conveyor, Finger conveyor
PCB width finger conveyor:	406 mm
PCB width frame conveyor:	400 mm
PCB length:	120 mm - 500 mm
PCB top-side clearance:	100 mm
Conveyor speed:	0,5 m/min to 1,8 m/min
Conveyor angle:	7°
Max. preheating length	
Standard:	1200 mm
Optional:	max. number of preheaters 3 (a 2 x 450 mm, 1 x 300 mm)
Protective gas technology	
Inlet pressure:	8 bar
Required purity level:	Class 5.0
Nitrogen consumption:	approx. 8 m³/h
Environment/Noise level:	
Ambient temperature:	10 °C - 35 °C
Humidity:	20 -95 % relative humidity
Permanent noise level:	< 65 dB (A)
Flux module	
Flux storage tank:	1 x 10L
Spray pressure:	0,5 bar up to max. 2 bar
Flux system:	3x Schütze spray head fixed

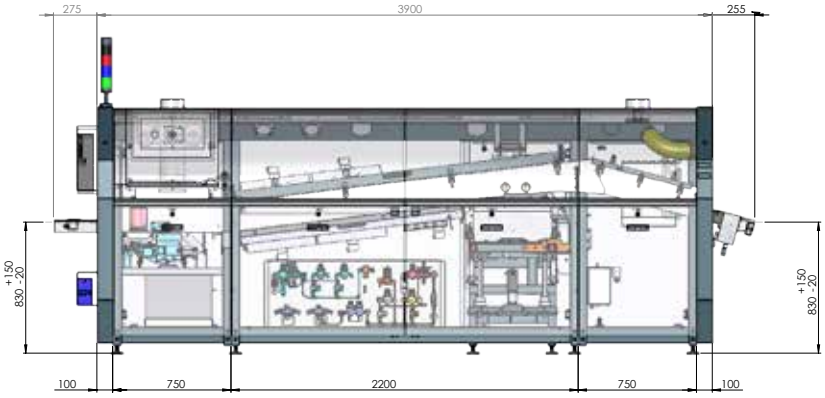
Bottom-side preheat module	
Type: Dynamic	
Capacity:	5,2 kW
Type: Medium wave	
Capacity:	2 x 4 kW
Type: Convection	
Capacity:	by compressed air
Solder module	
Capacity:	9,2 kW
Solder volume (SnPb37)	630 kg
Solder volume (SAC305)	525 kg (optional 345 kg)
Warm-up time (to 260°C)	approx. 210 min (optional 180 min at 345 kg)
Max. solder temperature:	300 °C
Compressed air	
Compressed air connection (required connection):	8 NW
Required pressure (minimum inlet pressure):	6 bar
Compressed air consumption (maximum supply quantity):	5 m³/h - 10 m³/h
Electrical data	
Voltage:	5-wire network, 3 x 230/400 V, N, PE
Voltage tolerance:	± 10 %
Frequency:	50/60 Hz
Fuse rating:	3 x 63 A
Extraction	
Total extraction capacity:	1000 m³/h

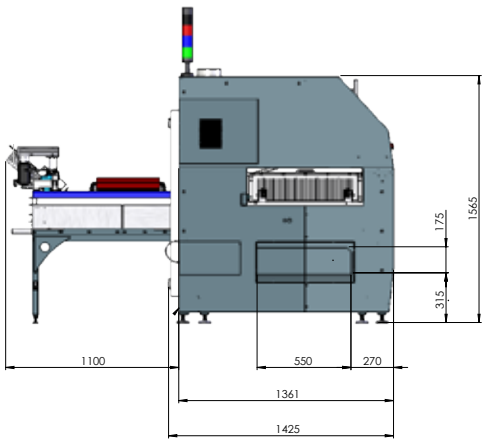


POWERFLOW PRO – Technical data

Dimensions	POWERFLOW PRO
Length:	
3 Preheaters:	3,900 mm
4 Preheaters:	4,650 mm
Width:	1,425 mm
Height:	1,580 mm
Weight:	
3 Preheaters:	1,600 kg
4 Preheaters:	1,800 kg
Paint:	RAL 7035 / 7016
Pneumatics	
Inlet pressure:	min. 6 bar
Air consumption:	approx. 5 – 10 m³/h
Extraction	
Suction power:	1x 800 m³/h and 2x 200 m³/h
Environmental specifications	
Ambient temperature:	10 – 35 °C
Humidity:	20 – 95 % (non-condensing)
Noise level	
Permanent noise level:	< 65 dB (A)
Conveyor system	
Type:	Frame conveyor, finger conveyor
Conveyor width	
for frame conveyor:	330/400 mm
for finger conveyor:	60 – 458 mm
PCB length:	120 – 500 mm
PCB top-side clearance:	max. 100 mm
Conveyor speed:	0,5 – 2,5 m/min
Conveyor angle:	7° (non-adjustable)

Electrical data	
Voltage:	5-wire network, 3x 230/400 V, N, PE
Voltage tolerance:	±10 %
Frequency:	50/60 Hz
Fuse rating:	3x 80 A (tr)
Max. amperage:	74 A
Max. capacity:	46 kW
Nitrogen	
Inlet pressure:	min. 6 bar
Required purity level:	100,00%
Nitrogen consumption:	approx. 15 m³/h
Flux module	
Flux storage tank:	10 l (optional 25 l)
Spray pressure:	0,9 – 2,5 bar
Flux system:	1-axis system with CAN motor
Bottom-side preheat module	
Type:	shortwave radiator cassette, dynamic
Capacity:	max. 7,8 kW (performance-based)
Type:	medium-wave radiator cassette
Capacity:	max. 4 kW (regulated)
Type:	Convection module
Capacity:	max. 4 kW (regulated)
Dimensions each:	Length 500 mm
Solder module	
Capacity:	approx. 9,2 kW
Solder volume:	approx. 525 kg (for lead-free alloys) approx. 630 kg (for SnPb37 alloy)
Warm-up time:	approx. 3,5 h (260 °C)
solder temperature:	max. 300 °C
Solder feed:	automatically





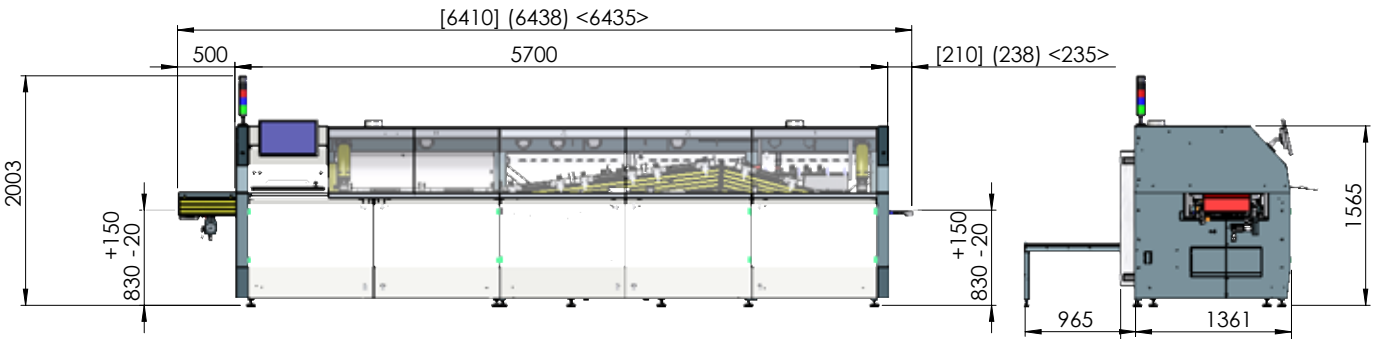
POWERFLOW ULTRA – Technical data

POWERFLOW ULTRA (Base machine, 3 VHZ)	
Length:	5,700 mm (6,425 mm incl. conveyor)
Width:	1,400 mm/1,513 mm*/1,613 mm**
Height:	1,580 mm
Weight:	approx. 2,800 kg / approx. 2,850 kg**
Conveyor system	
Type:	Finger conveyor, frame conveyor
Conveyor width for finger conveyor:	60 – 406 mm/520 mm*/610 mm**
for frame conveyor:	330/400 mm/500 mm*
PCB length:	120 – 600 mm/850 mm**
PCB top-side clearance:	80 mm (optional up to 150 mm)
Conveyor speed:	0,5 – 2,5 m/min
Conveyor angle:	7° (non-adjustable)
Max. preheating length	
Standard:	1,8 m
Optional:	2,4 m & 3,0 m
Protective gas technology	
Inlet pressure:	min. 6 bar
Required purity level:	100,00%
Nitrogen consumption:	16 – 20 m³/h
Environment/Noise level:	
Ambient temperature:	10 – 35 °C
Humidity:	20 – 95 % (non-condensing)
Permanent noise level:	< 65 dBA
Flux module	
Flux storage tank:	10 l
Spray pressure:	0,9 – 2,5 bar
Flux system:	1-axis system with CAN motor
Bottom-side preheat module	
Type:	shortwave radiator cassette, dynamic
Capacity:	max. 10,4 kW (performance-based)
Dimensions:	Length 600 mm / Width 720 mm
Type:	medium-wave radiator cassette
Capacity:	max. 6 kW (regulated)
Dimensions:	Length 600 mm / Width 720 mm
Type:	Convection module
Capacity:	max. 10,2 kW (regulated)
Dimensions:	Length 600 mm / Width 720 mm

Top-side preheat module	
Type:	Convection module
Capacity:	max. 6 kW (regulated)
Dimensions:	Length 600 mm / Width 720 mm
Solder module	
Capacity:	approx. 9,2 kW
Solder volume:	approx. 525 kg/600 kg*/700 kg** (for lead-free alloys) approx. 630 kg/ 725 kg*/ 800 kg** (for SnPb37 EQ alloy)
Warm-up time:	3,5 h – 4 h* (260 °C)
solder temperature:	max. 300 °C
Solder feed:	automatically
Compressed air	
Compressed air connection:	to be provided by the customer
Required pressure:	min. 6 bar
Compressed air consumption:	approx. 5 – 10 m³/h
Electrical data	
Voltage:	5-wire network, 3 x 230/400 V, N, PE
Voltage tolerance:	± 10 %
Frequency:	50 / 60 Hz
Fuse rating:	3 x 125 A (tr)
Amperage:	114 A
Capacity:	79 kW
Extraction	
Extraction capacity:	1 x 800 m³/h and 2 x 200 m³/h

*POWERFLOW ULTRA XL

**POWERFLOW ULTRA XXL

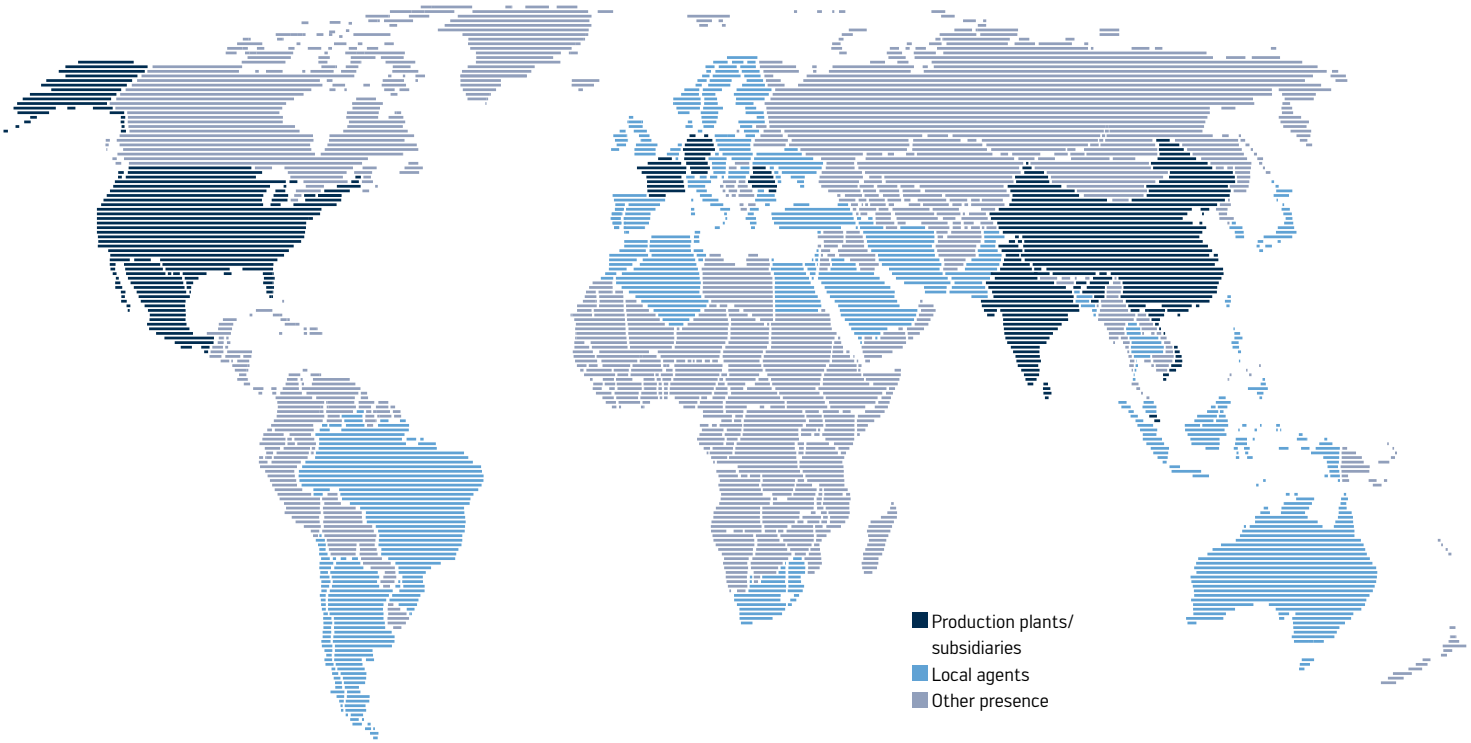


POWERFLOW FIVE – Technical data

Dimensions	POWERFLOW FIVE	POWERFLOW FIVE XL	POWERFLOW FIVE XXL
Length:	5,830 mm (3 preheaters) 6,580 mm (4 preheaters)	5,830 mm (3 preheaters) 6,580 mm (4 preheaters)	6,580 mm (4 preheaters)
Width:	1,760 mm	1,760 mm	1,845 mm
Height:	1,580 mm (at conveyor height 850 mm)	1,580 mm (at conveyor height 850 mm)	1,630 mm (at conveyor height 850 mm)
Weight:	2,400 kg	2,600 kg	3,100 kg
Paint:	RAL 7035/7016	RAL 7035/7016	RAL 7035/7016
Conveyor system			
Type:	Frame conveyor, external frame conveyor, finger conveyor	Frame conveyor, external frame conveyor, finger conveyor	Finger conveyor
PCB width finger conveyor:	60 mm - 406 mm (heavy-duty 12 kg: 60 mm - 406 mm) (heavy-duty 25 kg: 150 mm - 406 mm)	60 mm - 520 mm (heavy-duty 12 kg: 60 mm - 520 mm) (heavy-duty 25 kg: 150 mm -520 mm)	60 mm - 609 mm (heavy-duty 12 kg: 60 mm - 609 mm) (heavy-duty 25 kg: 150 mm - 609 mm)
PCB width external solder frame conveyor:	350/400 mm	450 mm	
PCB width frame conveyor:	330/400 mm	500 mm	
PCB length:	120 mm - 600 mm	120 mm - 600 mm	120 mm - 850 mm
PCB top-side clearance:	80 mm (optional 120 mm, optional 150 mm)	120 mm (optional 150 mm)	150 mm
Conveyor speed:	0,5 m/min to 2,5 m/min (heavy-duty 12 kg: 0,5 m/min to 2,5 m/min) (heavy-duty 25 kg: 0,5 m/min to 1,6 m/min)	0,5 m/min to 2,5 m/min (heavy-duty 12 kg: 0,5 m/min to 2,5 m/min) (heavy-duty 25 kg: 0,5 m/min to 1,6 m/min)	0,5 m/min to 2,5 m/min (heavy-duty 12 kg: 0,5 m/min to 2,5 m/min) (heavy-duty 25 kg: 0,5 m/min to 1,6 m/min)
Conveyor angle:	7°	7°	7°
Max. preheating length			
Standard:	2400 mm	2400 mm	2400 mm
Optional:	max. number of preheaters: 4 (a 600 mm)	max. number of preheaters: 4 (a 600 mm)	max. number of preheaters: 4 (a 600 mm)
Protective gas technology			
Inlet pressure:	8 bar	8 bar	8 bar
Required purity level:	Class 5.0	Class 5.0	Class 5.0
Nitrogen consumption:	approx. 25 m³/h	approx. 25 m³/h	approx. 30 m³/h
Environment/Noise level:			
Ambient temperature:	10 °C - 35 °C	10 °C - 35 °C	10 °C - 35 °C
Humidity:	20 -95 % rel. humidity	20 -95 % rel. humidity	20 -95 % rel. humidity
Permanent noise level:	< 65 dB (A)	< 65 dB (A)	< 65 dB (A)
Flux module			
Flux storage tank:	1 x 10L 1 x 25L 2 x 25L	1 x 10L 1 x 25L 2 x 25L	1 x 10L 1 x 25L 2 x 25L
Spray pressure:	0,5 bar to max. 2 bar	0,5 bar to max. 2 bar	0,5 bar to max. 2 bar
Flux system:	Schütze spray head (Option spraying systems) (Option ultrasonic spray head)	Schütze spray head (Option spraying systems) (Option ultrasonic spray head)	Schütze spray head (Option spraying systems) (Option ultrasonic spray head)
Bottom-side preheat module			
Dynamic capacity:	10,4 kW	10,4 kW	14,4 kW
Medium wave capacity:	6 kW	6 kW	10,2 kW
Convection capacity:	10,2 kW	10,2 kW	10,2 kW
Hybrid heating capacity:	6 kW	6 kW	10,2 kW
SMART IR RADIATION capacity:	10,4 kW	10,4 kW	14,4 kW
Top-side preheat module			
Medium wave capacity:	6 kW	6 kW	10,2 kW
Dynamic capacity:	10,4 kW	10,4 kW	14,4 kW
Convection capacity:	6 kW	6 kW	6 kW
Solder module			
Capacity:	9,2 kW	9,2 kW	11 kW
Solder volume (SnPb37)	630 kg	725 kg	780 kg
Solder volume (SAC305)	525 kg	600 kg	650 kg
Warm-up time: (to 260°C)	210 min	240 min	360 min
Max. solder temperature:	300 °C	300 °C	300 °C
Solder bar feeder:	Option	Option	Option
Compressed air			
Compressed air connection (required connection):	8 NW	8 NW	8 NW
Required pressure (minimum inlet pressure):	6 bar	6 bar	6 bar
Compressed air consumption (maximum supply quantity):	5 m³/h - 10 m³/h	5 m³/h - 10 m³/h	5 m³/h - 10 m³/h
Electrical data			
Voltage:	5-wire network, 3 x 230/400 V, N, PE	5-wire network, 3 x 230/400 V, N, PE	5-wire network, 3 x 230/400 V, N, PE
Voltage tolerance:	± 10 %	± 10 %	± 10 %
Frequency:	50/60 Hz	50/60 Hz	50/60 Hz
Fuse rating:	3 x 125 A	3 x 125 A	3 x 160 A
Nominal power (depending on configuration)	approx. 118 A	approx. 119 A	approx. 125 A
Connected load (depending on configuration)	approx. 31 kW - 83 kW	approx. 31 kW - 83 kW	approx. 44 kW - 115 kW
Extraction			
Total extraction capacity:	1200 m³/h	1200 m³/h	1200 m³/h

ELECTRONICS PRODUCTION EQUIPMENT

Worldwide presence



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