

Ersa POWERFLOW PRO

Cost-optimized wave soldering
in a nitrogen atmosphere



Ersa POWERFLOW PRO

Cost-optimized wave soldering in a nitrogen atmosphere



Highlights

- Spray fluxer with intelligent spray pattern programming
- Modular, flexible and individually expandable preheating concept with convection heating and emitters; variable configuration in length and performance (also possible at a later date)
- ERSASOFT 5 operating software on databank basis
- Long wetting times
- Extremely stable solder wave height
- Nozzle combinations for every requirement
- Concepts for optional exchange solder pots
- Automatic production with code operation possible
- Ready for Industry 4.0

Based on absolutely stable processes and reproducible parameters, the high-performance Ersa wave soldering systems ensure the customer top standards when it comes to quality, costs and delivery service.

The POWERFLOW PRO from the Ersa POWERFLOW series is a high-performance, technically state-of-the-art full nitrogen tunnel system with an attractive price-performance ratio.

Fluxer

Ersa spray fluxers offer numerous innovative solutions with regard to flux consumption and processing speed, ensuring extremely safe and economical processes. For example,

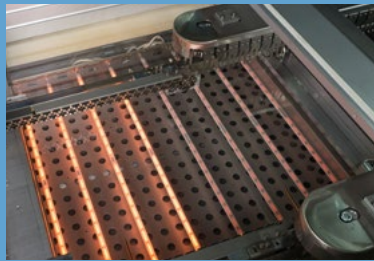
spray patterns can be entered graphically for each product in the ERSASOFT machine software, which greatly reduces flux consumption.

Preheating

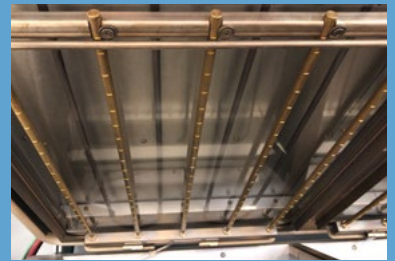
In addition to medium- and short-wave infrared emitters, convection heaters are also available in the modular POWERFLOW PRO. The IR emitters react immediately and are therefore ideal for mixed production. Convection modules are perfect with large, high-mass components or with temperature-sensitive components that must not be overheated. Thanks to the individually configurable and modularly expandable preheating



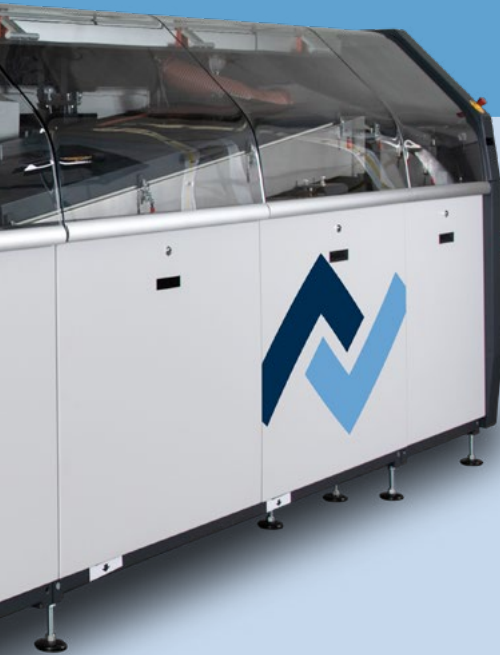
Medium wave emitter



Short-wave emitter



Convection preheating



Basic configuration

- Integrated, complete lead-free capability and reliability when using VOC-free, water-based flux
- Full nitrogen tunnel system
- Precise spray fluxer with motorized axis drive and 10 l flux tank
- Frame conveyor with a working width of 330 or 400 mm, respectively finger conveyor with a working width of 458 mm
- 1,500 or 2,000 mm preheating length
- Award-winning ERSASOFT 5: simple and intuitive operation

concept, the POWERFLOW PRO can be individually adapted to the respective product requirements.

Solder module

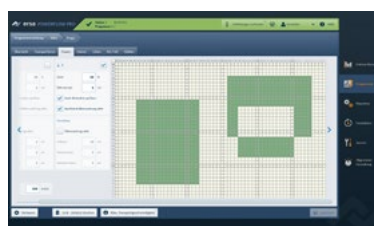
The POWERFLOW PRO works with the proven Erska double wave soldering technology. Its solder module was completely re-engineered on this basis. Thanks to various combinations of solder nozzles the user-friendly solder aggregate can be optimally adapted to the respective application. Besides long wetting times, high wave heights are possible.



Solder bar feeder



Nitrogen control

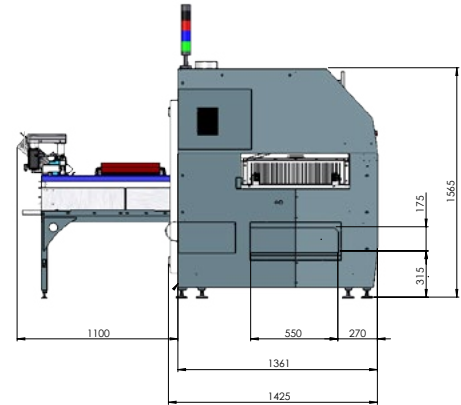
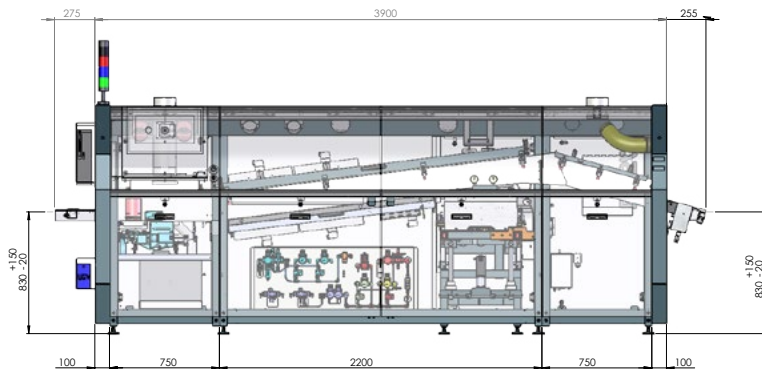


Fluxer for sequential fluxing



Innovative ERSASOFT 5

Technical data Ersa POWERFLOW PRO



Dimensions

Length: 3 preheating modules 3,900 mm
4 preheating modules 4,650 mm

Width: 1,425 mm

Height: 1,580 mm

Weight: 3 preheating modules 1,600 kg
4 preheating modules 1,800 kg

Paint: RAL 7035 / 7016

Pneumatic system

Inlet pressure: min. 6 bar

Air consumption: approx. 5 – 10 m³/h

Extraction

Exhaust connections 1x 800 m³/h
and 2x 200 m³/h

Environmental specifications

Ambient temperature: 10 – 35 °C

Humidity: 20 – 95 %
(non condensating)

Noise level

Permanent noise level: < 65 dB (A)

Conveyor system

Type: frame conveyor, finger-type conveyor

Conveyor width

Frame conveyor 330/400 mm

Finger-type 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° (fixed angle)

Electrical data

Voltage: 5-wire system, 3x 230/400 V, N, PE

Voltage tolerance: ±10 %

Frequency: 50/60 Hz

Fuse rating: 3x 80 A (slow blow)

Amperage: 74 A

Capacity: 46 kW

Inert gas

Inlet pressure: min. 6 bar

Required inert gas class: 99.999 %

N₂ consumption: approx. 15 m³/h

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: dynamic short-wave emitter

Capacity: max. 7.8 kW
(power controlled)

Type: medim-wave emitter

Capacity: max. 4 kW (controlled)

Type: convection module

Capacity: max. 4 kW (controlled)

Dimensions: 500 mm length each

Solder module

Capacity: approx. 9.2 kW

Solder volume: approx. 525 kg (lead-free)
approx. 630 kg (Sn63Pb37)

Warm-up time: approx. 3.5 h

Solder temperature: max. 300 °C

Solder bar feeder: automatic

America

Kurtz Ersä, Inc.
usa@kurtzersa.com

Mexico

Kurtz Ersä México, S.A. de C.V.
info-kmx@kurtzersa.com

Asia

Kurtz Ersä Asia Ltd.
asia@kurtzersa.com

China

Ersa Shanghai
info-esh@kurtzersa.com

Vietnam

Kurtz Ersä Vietnam Company Limited
info-kev@kurtzersa.com

France

Ersa France
info-efr@kurtzersa.com

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

Tel. +49 9342 800-0
info@ersa.de | www.ersa.com

 **kurtz ersa**