

VERSAFLOW 3/66

Modular selective platform for highly flexible inline soldering of XL boards



Ersa VERSAFLOW 3/66

The worldwide leading selective system for PCBs in XL format



Highlights

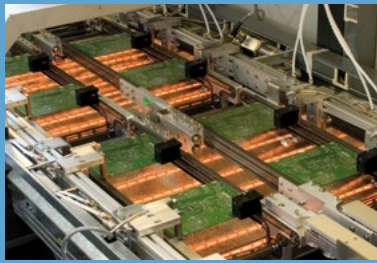
- High-end selective soldering system for the integration in inline production concepts
- Parallel process due to the separation of fluxing, preheating and soldering
- Operation of up to four spray heads
- Flexible system configuration due to modular concept
- Perfect for the connection to assembly stands and periphery
- Maximum PCB size 610 x 610 mm

In order to meet all requirements in terms of flexibility, the third-generation VERSAFLOW has been created as a modular platform. The VERSAFLOW 3/66 belongs to this generation of machines and is especially designed for the selective soldering of PCBs in "XL" format. PCBs with dimensions of up to 610 mm x 610 mm pose no problem for this modern soldering system.

The basic version of the VERSAFLOW 3/66 includes a flux module, a preheat module and a solder module with a segmented transport. Depending on the soldering task at hand and the required throughput, it is possible to integrate additional flux, preheat and solder modules. This allows the VERSAFLOW 3/66 to be equipped with up to three solder modules which can each

be fitted with one or two single nozzle solder pots. An additional preheating can be added in front of each solder module in order to consistently guarantee the ideal heating of the PCB. Both the preheating and the solder modules can also be optionally equipped with an additional upper preheating.

An optional dual-track transport is available to increase the throughput of the selective soldering system. While the system's floor space remains constant, this allows to process PCBs simultaneously on two tracks. All other options are also available in the XL format, so that, just like the Ersa standard, this selective system can be optimally adapted to each customer's needs. This guarantees consistent, repeatable soldering processes of the highest quality.



Dual track conveyor



Long solder nozzle for PCBs with high components on soldering side



Perfect preheat concept with dynamic lower and upper preheaters

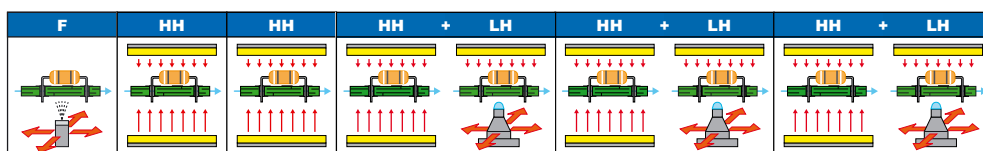
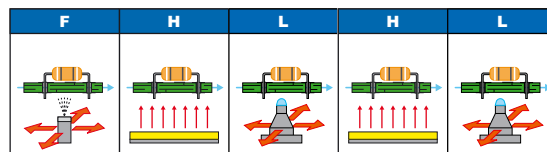
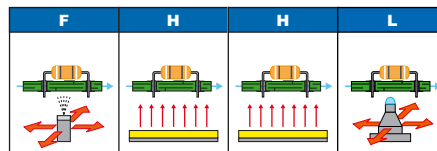
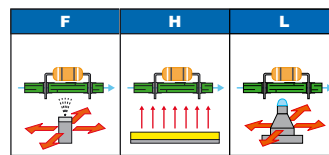


Basic configuration

- Segmented pin-and-chain/roller conveyor
- High-precision spray fluxer with spray test function and flux level monitoring
- Bottom-side IR preheater
- Maximum PCB size 610 x 610 mm
- PC control
- Process visualization including solder protocol, process data writer, monitoring function, maintenance and error message indication, password protection
- Exhaust air monitoring
- Solder bath with electromagnetic solder pump
- Solder level- and solder wave height monitoring

The Ersu Modular System

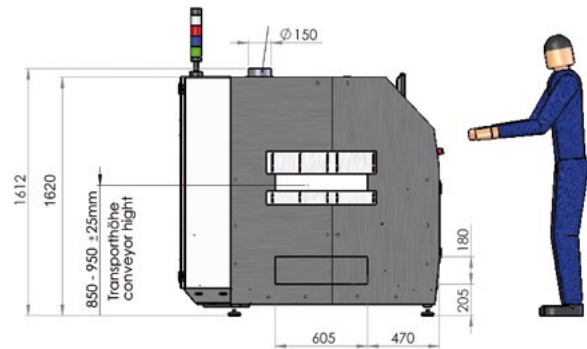
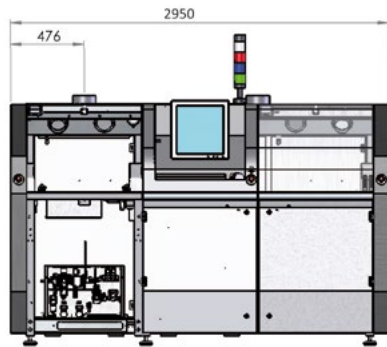
Below combinations of the arrangement of different modules show only some of the possibilities of the extremely flexible Ersu modular system concept. Depending on a customer's request, with the addition of the optional dual pot feature and/or the dual track feature, throughput could be substantially enhanced without increasing floor space requirements.



Legende:

- F**
Flux module fitted with spray fluxer
- H**
Preheat module fitted with bottom-side heating
- HH**
Preheat module with bottom-side and top-side heating
- L**
Solder module with single wave unit
- LH**
Solder module with single wave unit top-side heating

Technical data VERSAFLOW 3/66



VERSAFLOW 3/66 (basic system)	
Length:	2.950 mm
Width:	1.900 mm
Height:	1.650 mm
Weight:	approx. 1.700 kg
Type:	inline
PCB loading:	manual/automatic

Electrical data	
Power:	5-wire system, 3 x 230/400 V, N, PE
Power tolerance range:	+ 6%, -10%
Frequency:	50/60 Hz
Power consumption:	30 kW
Safety fuse:	max. 45 A

Conveyor system	
Type:	Segmented pin-and-chain conveyor/roller conveyor for PCB transport without workpiece carrier
PCB width:	60 – 610 mm
PCB length:	120 – 610 mm
Clearance from PCB edge:	3 mm
PCB top-side clearance:	max. 120 mm
PCB bottom-side clearance:	max. 30 mm
Speed:	0.2 - 10 m/min
Mask/PCB weight:	8 kg (heavy load conveyor optional) (15 kg)

Flux module	
Type:	high-precision spray fluxer
Positioning system:	2 axis, servo motor driven
Flux storage tank:	1.8 l
Positioning speed:	1 – 400 mm/s
Fluxer speed:	20 mm/s
Positioning accuracy:	±0.25 mm
Spray width:	2 – 8 mm (130 µm nozzle)

Preheat module	
Type:	IR bottom-side (basis), top-side convection (option),
Power:	12 kW
Temperature:	bis 200 °C

Miniwave solder module	
Solder wave height:	max. 5 mm
Clearance from PCB edge:	min. 3 mm
Solder volume:	approx. 14 kg (Sn63Pb) approx. 13 kg (lead-free)
Solder temperature:	max. 330 °C
Warm-up time:	75 min to 280 °C
Positioning speed	x/y: 2 - 200 mm/s z: 2 - 100 mm/s
Soldering speed:	10 mm/s
Positioning accuracy:	±0,25 mm

Nitrogen technology	
Nitrogen supply:	to be supplied locally
Nitrogen injection:	N ₂ cover over the solder bath
Required pressure:	6 bar
Consumption:	approx. 2 m ³ /h per pot
Particle cleanliness:	5.0 (recommendation)

Compressed air	
Compressed air supply:	to be supplied locally
Required pressure:	6 bar
Consumption:	< 5 m ³ /h

Exhaust rating	
Exhaust stacks:	2 pc., OD 150 mm
Exhaust volume per stack:	250/200 m ³ /h

Environmental specs/noise level	
Ambient temperature:	15 - 35 °C
Permanent sound level:	< 65 dB (A)

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