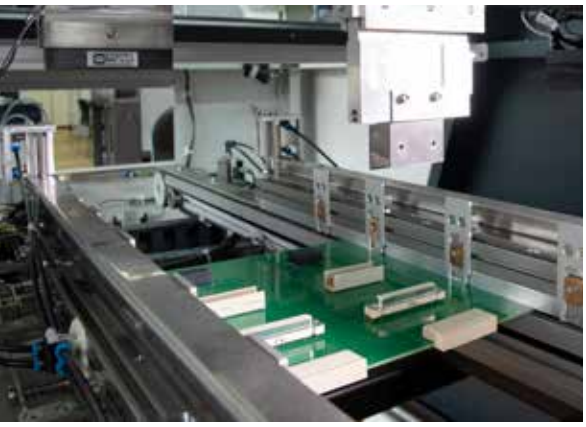
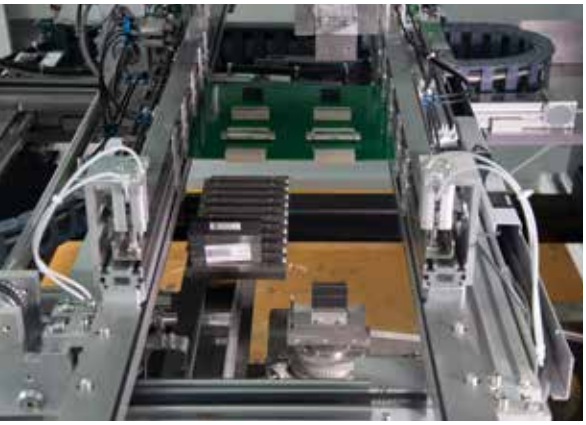
kurtz ersa

Ersa VERSAFIT 500

The alternative connection technology

GLOBAL. AHEAD. SUSTAINABLE.





Bottom-side press unit with tool changer

Ersa VERSAFIT 500

Significantly reduced production costs, improvement of the assembly quality, increasing competitiveness

The market for press-fit components for electronic assemblies is subject to permanent growth. For many years, connectors and plug pins were the manageable components in this connection technology, but now classic components such as inductors, power semiconductors, relays and even electrolytic capacitors are increasingly conquering this market.

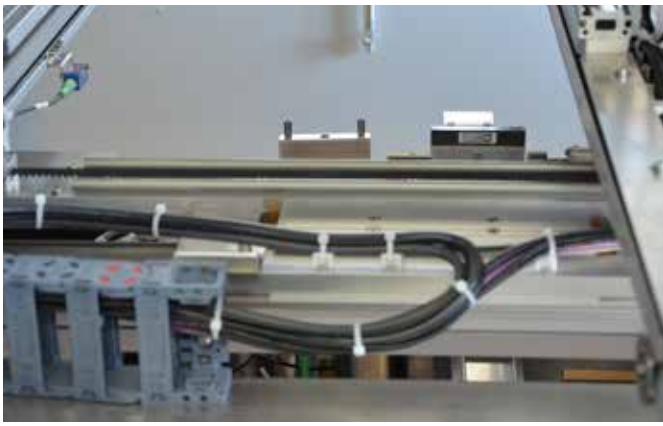
The reason for this is the advantages of this technology compared to soldering. Higher reliability of the joints, shorter cycle times in production, no additional heat load on the assembly, no need for flux and thus no flux residues. The absence of nitrogen and a considerably lower energy consumption also are strong arguments for their use. However, with this technology, the requirements on PCBs are increasing, e.g. with regard to the tolerances of the diameters of metallized vias. Ersa VERSAFIT 500 is an effective and highly flexible inline system to increase competitiveness using press-fit technology for electronic assembly production. With it, production costs can be significantly reduced, and the assembly's quality can be improved.

Its core component, the press cylinder, is servo-electrically designed and can therefore be precisely controlled and monitored in terms of force and distance. The PCBs are positioned under the press tool on a high-precision X-/Y-table, which also is the conveyor system for the assemblies.

To meet the demands for high flexibility, VERSAFIT 500 has a magazine for a wide variety of press-in tools. The user defines the tool change or its selection and orientation, as well as the associated process parameters, in the control program. The programs are selected and activated via the codes of the assembly or the workpiece carrier.

Programming is based on automatic placement machines. The positions of the X-/Y-table under the press cylinder result from the position of the components on the assembly. The number of pins per component as well as the geometry of the press-in zones result in the press force, the recording of which, depending on the stamp distance, results in the force-distance diagram of the component. The process is monitored via envelopes with selectable tolerance fields in the force-distance diagram.

VERSAFIT 500 with VERSAPRINT 2 stencil printer and peripherals



PCB conveyor on X-/Y-axis system

Unique technology advantages

- Servoelectric press cylinder
- High-precision X-/Y-table
- Tool magazine for up to 10 tools (5 top & 5 bottom)
- High flexibility
- Tool selection via control program
- Permanent process monitoring
- Flat belt conveyor
- Easy maintenance

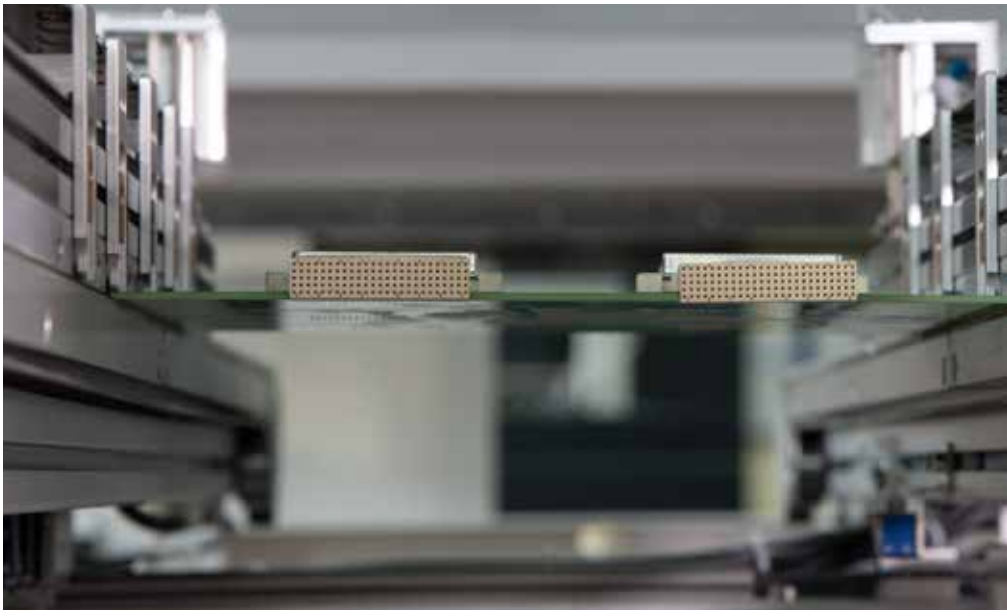
Based on Ersa's extensive experience in integrating production equipment into the infrastructure of MES, ERP and traceability systems, the VERSAFIT 500 control system and software ensure complete process control of the press-fit process. As a result, the data is available to the user in different ways and allows appropriate processing.

With Ersa VERSAFIT 500, a completely new machine generation is available for the field of assembly and connection technology. The symbiosis of Ersa's many years of experience in soldering machine construction with the challenges of automated, inline press-fit technology offers customers completely new possibilities in the design and manufacture of electronic assemblies.

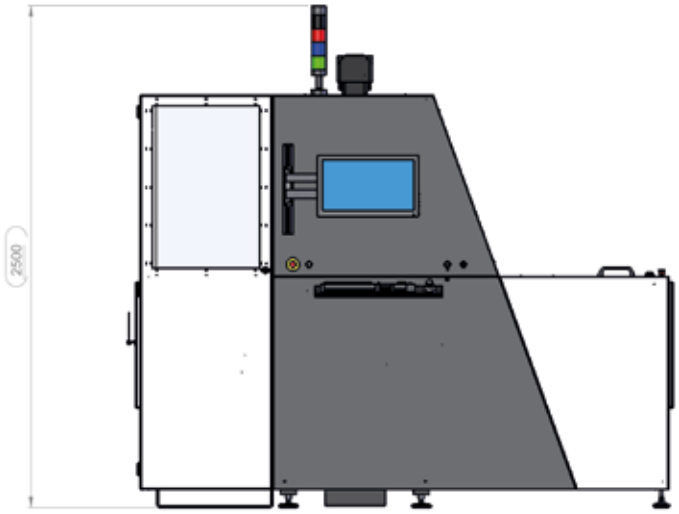
Basic configuration Ersa VERSAFIT 500

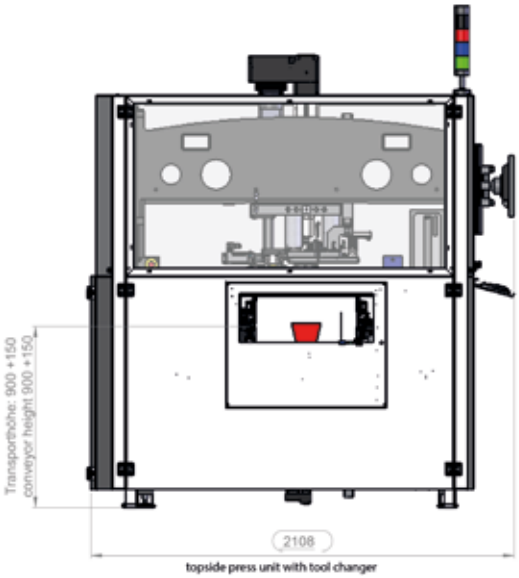
- Individual width adjustment
- Tool rotation
- ERSASOFT 5
- Integrated control cabinet
- Touch control via computer
- X-/Y-axis adjustment and password lock

Proven Ersa conveyor system



Technical data Ersa VERSAFIT 500





Dimensions	
Length:	2,680 mm
Width:	2,110 mm
Height:	2,500 mm
Weight:	2,300 kg

Press	
Press force:	50 kN
Positioning accurancy press axes:	± 0.15 mm
Linearity force sensor:	± 5 % FSO adjustable measuring range
Measuring principle force sensor:	piezoelectric
Tool rotation:	315 °
Tool magazine (optional):	5 top & 5 bottom
Tool length:	max. 100 mm

Electrical data	
Voltage:	5-wire system, 3 x 230/400 V, N, PE
Power tolerance range:	±10 %
Frequency:	50/60 Hz
Power consumption:	13 kW
Safety fuse:	3 x 25 A

PCB conveyor	
Type:	flat belt conveyor
PCB width:	max. 508 mm
PCB length:	max. 508 mm
Edge clearance:	5 mm
PCB top-side clearance:	max. 100 mm
PCB bottom-side clearance:	max. 100 mm
PCB weight:	max. 7.5 kg
Positioning accuracy X-/Y-axis:	± 0.15 mm

Worldwide presence:

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