

## Technical highlights:

- High-precision axis system (X, Y, Z) and high-resolution cameras
- Automated component placement as well as soldering and desoldering processes
- Hybrid heating head with two heating zones
- Large, powerful IR bottom heater in three zones
- Non-contact temperature measurement with digital sensor
- Three K-Type thermocouple elements for Accu-TC Sensor
- Effective component cooling with compressed air



## Ersa HR 600/3P – high-precision, automatic assembly and rework of fine pitch and chip components.

The Ersa HR 600/3P Hybrid Rework System performs automated assembly repair with the highest accuracy. With this system, all component shapes on modern assemblies can be repaired reliably. The system is particularly suitable for very fine components (pitch 0.3 mm and finer) as well as chip components of the designs 0402, 0201 and 01005.

As with the HR 600/2, all process steps are automated. The accuracy of the axis system and of the component nozzles has been further increased, and the 5 megapixel camera systems also provide the necessary resolution. Components are placed automatically; the integrated image processing software evaluates image data from the cameras. The exact component position is calculated automatically and the component is placed using a vacuum gripper and axis system. The device works with highly dynamic infrared heating elements in the bottom radiator for homogeneous heating of the assembly. The hybrid heating head combines infrared radiation and convection heating for targeted and efficient

component heating. The optional chip kit with precision nozzles and a manual belt feeder that can be retrofitted is suitable for processing chip components. The system is prepared to accommodate an Ersa Dip & Print frame. Component printing with solder paste is carried out externally at the Ersa Dip & Print Station. The dip-in of a component into a flux depot is carried out fully automatically.

A powerful reflow process camera with LED illumination is optionally available for process monitoring and documentation. The HRSOft 2 operating software (for Windows™) accompanies the user through all work processes and documents them. HRSOft 2 is prepared for connection to customer MES systems.

*Placement of a 01005 component.*



# Hybrid Rework System HR 600/3P

High-End Rework: automated component repair – high-precision, efficient, process-safe.

Technical data:	
Dimensions (W x D x H):	850 x 660 x 573 mm
Weight	approx. 70 kg
Antistatic version	yes
Nominal power	3.200 W
Nonminal voltage	220 V – 240 VAC, 50 – 60 Hz, 16 A
Top heater	Hybrid emitter 800 W, in two zones, 60 x 60 mm
Bottom heater	IR emitter (3 x 800 W), 380 x 270 mm
Measurement channels	3 x K-Typ, 1 x IRS
Position laser	Class II
Board size	up to 390 x 300 mm (+x), 15.4 x 11.8 inch
Component size	Chip 01005* up to 60 x 60 mm, 2.36 x 2.36 inch
Placement accuracy	up to +/- 25 µm
Placement camera top	5 MP GigE colour camera,
Component camera bottom	5 MP GigE black and white camera
Working distance	30 – 60 mm to top heater, 35 mm to bottom heater
Compressed air supply	6 – 10 bar (oil-free), ¼ inch quick coupling
Certification mark	CE
Operating software	HRSoft 2 – suitable for Windows 8 and Windows 10
Option – Reflow process camera	10,7 MP, CMOS GigE colour camera, 50 mm focal length, illumination 2 x LED, adjustable

\* further accessories are required



further information on our website



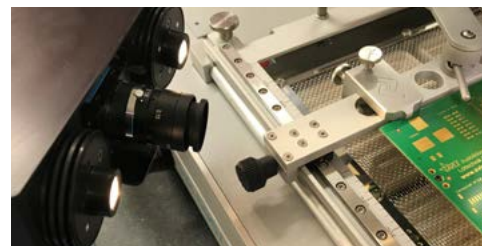
Ersa HR 600/3P Hybrid Rework System – automatic repair processes from 01005 to 60 x 60 mm.

## Order information:

Order number	description
0HR600/3P	<b>Ersa HR 600/3P</b> Hybrid Rework System
0HR610/3P	<b>RPC Kamera HR 600/3P</b>
0PR100	<b>DIP &amp; PRINT STATION</b> complete
0HR600/3PL	<b>Ersa HR 600/3P</b> mit PCB holder XL 535 x 300 mm (+x)
0HR600/3PBHL	<b>Ersa HR 600/3P</b> with lowered heating cassette (65 mm)
0HR600/3PLBHL	<b>Ersa HR 600/3P</b> with PCB holder XL & lowered heating cassette (65 mm)



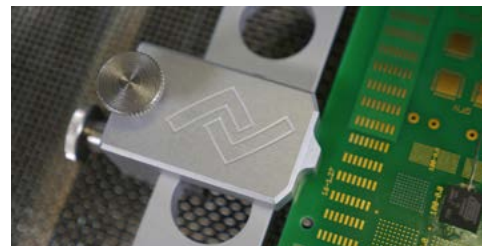
Placement of a metallic BGA.



Optional reflow process camera.



HRSoft 2 with intuitive operation surface.



Flexible PCB holder.