

Hotflow 7

100 % controlled convection



Serviceable and low maintenance - future oriented reflow soldering.

The ERSA Hotflow 7, a high-end convection reflow soldering system, was conceived for standard reflow applications, for glueing and underfill, as well as for double sided reflow applications. It is specifically designed and laid out for handling high production volumes and multi-shift operation. The Hotflow 7 represents state-of-the-art technology, starting with its highly efficient heat transfer technology, converting most of the energy provided for in the form of electricity into usable heat, to its intelligent and user friendly maintenance concept. The upper heater cassettes are freely accessible due to the double hinged hood, while the lower cassettes are installed on telescopic rails and can be retracted towards the rear of the system for maintenance. The condensation management system consists of two active zones, located where adiabatic cooling takes

place (entry of system and reflow/cooling zone transition), and it efficiently removes the condensate from the tunnel system. The condensation management system can be maintained with the system in full operation. The frequency controlled blower motors allow for fine tuning of the profiles, even difficult ones. As build, all parts of the system are ready for the introduction of lead-free solders and its higher temperature requirements. Upgraded insulation will prevent the skin from radiating much of the additional energy in the form of heat into the factory environment. Naturally, the Hotflow 7 is also available with a nitrogen option. The vibration- and warpage free conveyor system is available as either pin-and-chain, as optional dual track, as optional wire mesh conveyor or with the low mass tubular support.

Features ERSA Hotflow 7

● Standard ○ Option

Nitrogen option	○	PC with PC swing arm	○
Residual oxygen monitoring and control	○	PCB pass through control	○
Condensation management system	○	Active bottom side cooling (for double sided soldering applications)	○
TWIN modules (preheat units)	○	Additional set of top heaters (4.8 kW)	○
Wire mesh conveyor	○	Exhaust monitoring per stack	●
Dual track conveyor	○	Uninterrupted power supply (UPS)	○
Low mass tubular support	○	2 additional emergency stop buttons	●
Parkable PCB centre support (up to 2 possible)	○	Temperature profiling system (sensor shuttle)	○
Motorized adjustment (push button)	○	Double hinged hood	●
Programmable adjustment	○	Power saving circuit (warm-up step-by-step)	●
Conveyor width adjustment	○	Extractable bottom side heater cassettes	●
Motorized adjustment (push button)	●	Active cooling zone	●
Programmable adjustment	○	Volume flow control	●
Automatic chain lubricator	○		
Inline communication interface (e.g. SMEMA, etc.)	○		
PC interface with ERSAsoft	○		



ERSA product range

Soldering tools

- NEW DIMENSION
- PROFI-LINE
- IR-Rework
- CLEAN-AIR

Soldering systems

Wave soldering

- ETS-line
- EWS-line
- N-Wave-line
- Solution

Reflow soldering

- Hotflow 3
- Hotflow 5
- Hotflow 7
- Hotflow 9
- Hotflow 11
- ERS 250

Selective soldering

- EAS-line
- Multiflow
- Versaflow
- Versaflow Compact
- Versaflow High Speed
- Place & Solder

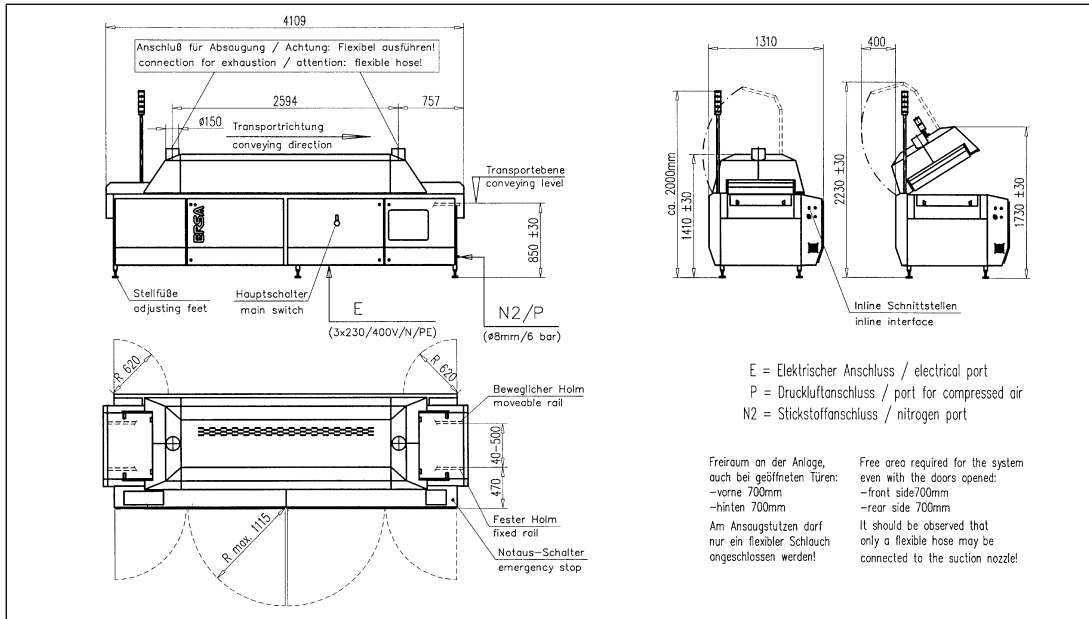
Inspection systems

- ERASCOPE
- ImageDoc Software

Other services

- Know-how seminars
- In-House trainings
- Test soldering
- Installation and maintenance assistance
- Process support

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Dimensions:

Length: 4,110 mm (162")
Width: 1,310 mm (52")
Height: 1,410 mm, ±30 mm (56" ±1.2")
Height (open): 1,730 mm, ±30 mm (68", ±1.2")
2,230, ±30 mm (88" ±1.2")
Weight: 1,350 kg (2980 lb)

Exhaust rating:

Exhaust volume per stack: 400 m³/h (523yd³/h)
Exhaust stack: 2 x 150 mm (2 x 6") diameter

Conveyor system:

Working width: 30 - 500 mm (1.2 - 20")
Working width with PCB centre support (parked):
30 - 500 mm (1.2 - 20")
Board clearance: +35 / -40 mm (+1.4 / -1.6")
Conveyor speed: 0.25 - 2 m/min (0.8 - 6.6 ft/min)
Conveyor height from floor:
820 - 880 mm (32 - 34.6")
deviating conveyor heights on request
Conveyor parallelism: ±0.5 mm (±0.02")
Conveyor width adjustment accuracy: ±0.5 mm (±0.02")
Pin-and-chain conveyor: 5 mm (0.2") pin length as
standard, 2.85 mm (0.1") available as an option

Process zone:

Process length: 2,730 mm (108")
Heating zone: 2,090 mm (82")
consisting of:
Preheating zone: 1,520 mm (60")
Soldering zone: 570 mm (22")
Cooling zone: 630 mm (25")
Infeed zone: 755 mm (30")
Outfeed zone: 755 mm (30")
Process chamber width: 700 mm (28")

Paint:

RAL 7035

Heating system:

Convection: 100 %
Convection modules:
Quantity: 6 standard modules
(optionally 10 modules for TWIN equipment)
Nominal rating per module: 4.8 kW / 6 kW
Gas flow per module: 0 - 1,000 m³/h (0 - 1,308 yd³/h)



Preheating zone:

2 zones top and bottom each (without TWIN module option)
4 zones top and bottom each (with TWIN module option)
Soldering zone: 1 zone top and bottom each

Cooling zone:

ERSA Multijet system, top and bottom (active cooling)

Nitrogen option:

Gas injection in soldering zone: 2 x
Gas injection in preheating zone: 2 x
Gas flow: 1 x 0 - 25 m³/h (1 x 0 - 33 yd³/h)
Pressure control: 1 x 6 bar (90 PSI)
Regulation of gas injection according to the real residual
oxygen level

Electrical data:

Power: 5-wire system, 3 x 230/400 V, N, PE
Power tolerance range: +6 %, -10 %
Nominal rating: 30 - 45 kW
Operation rating: 8 kW
Frequency: 50 or 60 Hz
Max. fuse rating: 3 x 80 A (slow blow)
standard configuration
3 x 100 A (slow blow) for TWIN module equipment



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