



Highest throughput, optimized energy balance, best process control and maximum machine uptimes

The new HOTFLOW is the third generation machine based on the proven & proprietary Multijet Ersa heating technology. The R&D of this HOTFLOW series had its focus on improved heat transfer via a complete re-design of the process tunnel, reduced energy and N₂ consumption, improved cooling, as well as optimized process control.

From a productivity versus floor space requirement standpoint, the HOTFLOW sets the industry standard. With dual, triple and now quad track options, it is possible to increase throughput by as much as 400 % without increasing floor space! Tracks run at their own set speed and at their own PCB width for maximum flexibility.

It is now possible to run as many as three different products simultaneously at four different set speeds and widths. Only highest quality materials have been used in order to guarantee the highest machine availability. Finally, all major parts are exchangeable within only minutes in order to keep machine downtime to an absolute minimum.

Unique Technology Advantages:

- Dual, triple and quad track transport increases throughput
- Motor basic cooling top/bottom
- Optimized heat transfer, minimized Delta T, zone separation & temperature controlled cooling
- "On-The-Fly" maintenance under N₂ atmosphere reduces downtime
- Switchable internal/external cooling unit
- 100 % tested process tunnel (gas sealed)
- Lowest energy and N₂ consumption
- New process control software
- Best machine uptime
- Without any tool retractable heating modules
- Ultra low-mass center support
- Energy efficient blower motors

Software-Highlights:

- New process control software (EPC)
- Ersasoft – process data recorder
- Ersasoft – user friendly machine control
- Auto Profiler for rapid offline profiling
- Standby & sleep mode
- Job management

Features Ersa HOTFLOW 3/14

Bottom-side preheating, 5 convection modules	<input type="checkbox"/>
Adjustable fan speed in cooling & soldering zones	■
Adjustable fan speed in preheating zones	<input type="checkbox"/>
Temperature management system with optimized zone separation	<input type="checkbox"/>
Nitrogen equipment	<input type="checkbox"/>
Residual oxygen monitoring	<input type="checkbox"/>
Nitrogen consumption measurement	<input type="checkbox"/>
Temperature monitoring of the cooling zone	■
Basic cooling top and bottom	■
Basic cooling Plus with cold water cooler and air conditioning compressor	<input type="checkbox"/>
Power Cooling with 3 convection modules top/bottom, controlled cooling zone 1 & "On-The-Fly" process atmosphere cleaning	<input type="checkbox"/>
External cold water supply	<input type="checkbox"/>
Switchable external/internal cold water supply	<input type="checkbox"/>
Low-mass conveyor 580 mm	■
Low-mass track conveyor 1 to 4	<input type="checkbox"/>
Adjustable speed for each track conveyor	<input type="checkbox"/>
Low-mass support tubes, 540 mm/21" width	<input type="checkbox"/>
Low-mass center support 1 to 4 with uninterrupted rest	<input type="checkbox"/>
Safety conveyor	<input type="checkbox"/>
Program controlled width adjustment for conveyors and center support	<input type="checkbox"/>
Automatic chain lubrication	■
PC with TFT screen	■
TFT touch screen	<input type="checkbox"/>
Status indication light	■
Emergency power supply (transport, hood, SPS, PC)	<input type="checkbox"/>
Temperature measurement device (Sensor Shuttle)	<input type="checkbox"/>
Ersa process control (EPC)	<input type="checkbox"/>
Online servicing	<input type="checkbox"/>
Auto Profiler	<input type="checkbox"/>
Energy measurement	<input type="checkbox"/>
Energy consumption calculation	■
Quick profile change	<input type="checkbox"/>

standard ■ / option □



Improved heat transfer with high density Ersa multijet nozzle system



Process tunnel, tested for tightness, guarantees long-term stability



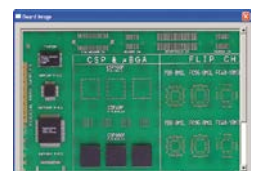
Maintenance-friendly condensation management with cleaning granulate



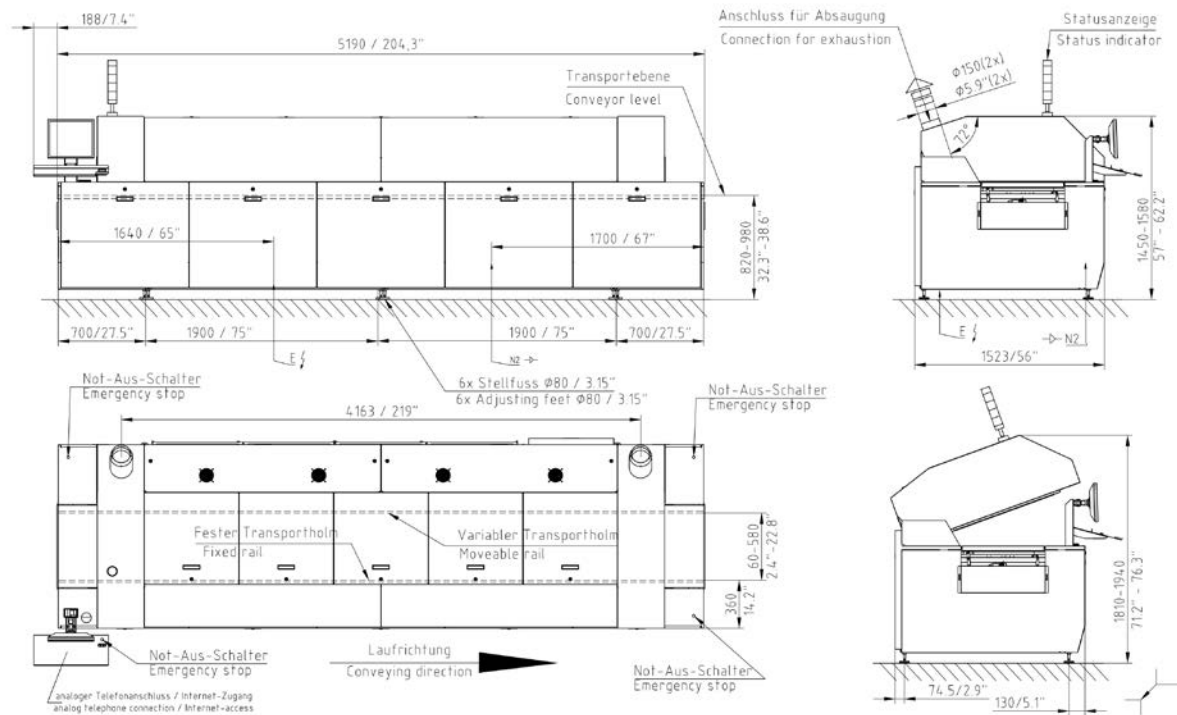
Maintenance "On-the-Fly" continues to operate while the condensation management system is being cleaned



Quick and easy servicing through excellent accessibility



Ersa Autoprofiler: Easy offline profiling for highest machine uptimes.



Dimensions (Basic machine):

Length:	5,190 mm
Width:	1,530 mm
Height:	1,450 – 1,580 mm
Height (open):	1,810 – 1,940 mm
Weight:	approx. 2,500 kg
Paint:	RAL 7035/7016

Conveyor system:

Working width:	45 – 580 mm
Working width (PCB center support):	45 – 580 mm
Board clearance (standard):	+25/-37 mm
Board clearance (option):	+35/-37 mm
Center support pin height:	15 mm
Conveyor speed:	20 – 200 cm/min
Conveyor height from floor:	820 – 980 mm
Pin-and-chain conveyor:	3 mm edge clearance, option: 4 mm, 5 mm

Process zone:

Process length:	3,790 mm
Heating zone:	2,650 mm
Cooling zone:	1,140 mm
Infeed/Outfeed zone:	700 mm
Process chamber width:	approx. 770 mm

Heating system:

Convection share:	100 %
Gas flow/module:	approx. 500 m³/h (17,657 ft³/h), adjustable, Multijet system
Convection modules:	7 top/2 – 7 bottom
■ Preheating:	5 top/5 bottom (option)
■ Soldering zone:	2 top/2 bottom
Nominal rating per module:	3,3 kW

Cooling:

Cooling zone:	Ersa Multijet system; 3-stage version and water recooling
Coolant:	water/R407C (option)/air
Ambient temperature:	max. 32°C [90°F]

Nitrogen option::

Gas injection:	in process zones
Pressure control:	4,5 – 10 bar

Safety devices:

- 1 main switch
- 4 Emergency-Stop buttons
- 2 x exhaust monitors

Electrical data:

Power:	5-wire-system, 3 x 400 V, N, PE
Power tolerance range:	+/- 10 %
Frequency:	50/60 Hz
Max. fuse rating:	3 x 100 A
Nominal rating:	53 kW – 86 kW (subject to configuration)
Reduced rating:	33 kW
Continuous rating for operation:	ca. 9 – 15 kW

Exhaust rating:

Exhaust stacks:	2 stacks, 150 mm [6"] Ø each
Exhaust volume per stack:	400 m³/h [14,126 ft³/h]
Exhaust monitoring per stack:	integrated

Noise level:

Permanent noise level:	< 70 dB (A)
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