

The new HOTFLOW is the third generation machine based on the proven & proprietary multijet Ersas heating technology. The R&D of this HOTFLOW series had its focus on improved heat transfer via a complete redesign 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.



Improved heat transfer with high density Ersas multijet nozzle system



Process tunnel, tested for tightness, guarantees longterm 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.

Unique Technology Advantages

- Dual, triple and quad track transport increases throughput
- Optimized heat transfer, minimized Delta T, zone separation & temperature controlled cooling
- "On-The-Fly" maintenance reduces downtime
- Switchable internal / external cooling unit
- 100 % tested process tunnel (gas sealed) with lowest energy and N₂ consumption
- New process control software
- Best machine uptime
- Retractable heating modules top and bottom
- Ultra low-mass center support

Features HOTFLOW 3/20	
Bottom-side preheating, 7 convection modules	<input type="checkbox"/>
Adjustable fan speed in cooling & heating 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	<input checked="" type="checkbox"/>
Basic cooling plus with cold water cooler and air conditioning compressor	<input type="checkbox"/>
Power cooling with 4 convection modules, 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	<input checked="" type="checkbox"/>
Low-mass dual track conveyor	<input type="checkbox"/>
Low-mass triple track conveyor	<input type="checkbox"/>
Low-mass quad 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"/>
Program controlled width adjustment for conveyors and center support	<input type="checkbox"/>
Automatic chain lubrication	<input checked="" type="checkbox"/>
PC with TFT screen	<input checked="" type="checkbox"/>
TFT touch screen	<input type="checkbox"/>
Status indication light	<input checked="" type="checkbox"/>
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"/>
Auto profiler	<input type="checkbox"/>
Energy measurement	<input type="checkbox"/>

Standard / Option

Unique Technology Advantages

- New process control software (EPC)
- ERSASOFT - process data recorder
- ERSASOFT - user friendly machine control
- Auto profiler for rapid offline profiling

Specifications

Model	HOTFLOW 3/20
Dimensions (basic machine)	
Length	6.590 mm
Width	1.530 mm
Height	1.450 - 1.580 mm
Height (open)	1.810 - 1.940 mm
Weight	approx. 3.200 kg incl. options
Paint	RAL 7035 / 7016
Conveyor system	
Working width	50 - 536 mm
Working width (PCB center support)	60 - 536 mm
Board clearance (standard / option)	+25/-35 mm / +35/-35 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
Process zone	
Process length	5.150 mm
Heating zone	3.700 mm
Cooling zone	1.450 mm
Infeed zone	700 mm
Outfeed zone	700 mm
Process chamber width	approx. 700 mm
Heating system	
Convection share	100 %
Gas flow/module	approx. 500 m ³ /h (17,657 ft ³ /h), adjustable, Multijet system
Convection modules	10 top / 3 - 10 bottom
■ Preheating	7 top / 7 bottom (option)
■ Soldering zone	3 top / 3 bottom
Nominal rating per module	3,3 kW
Cooling	
Cooling zone	Ersa multijet system; 4-stage version and water recooling
Coolant	Water / R407C (option) / air
Ambient temperature	max. 32°C (90°F)
Nitrogen option	
Gas injection	in process zones
Gas flow	14 - 20 m ³ /h (494.41 - 706.29 ft ³ /h)
Pressure control	6 bar
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	65 kW - 104 kW (subject to configuration)
Reduced rating	55 kW
Continuous rating for operation	ca. 16-22 KW
Exhaust rating	
Exhaust stacks	2 stacks, 150 mm (6") ø each
Exhaust volume per stack	400 m ³ / (14,126 ft ³ /h)
Exhaust monitoring per stack	integrated
Noise level	
Permanent noise level	< 70 dB [A]
Safety devices	
■ 1 main switch ■ 4 emergency-stop buttons ■ 2 x exhaust monitors	