



### 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 N<sub>2</sub> 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 N<sub>2</sub> atmosphere reduces downtime
- Switchable internal/external cooling unit
- 100 % tested process tunnel (gas sealed)
- Lowest energy and N<sub>2</sub> consumption
- New process control software
- Best machine uptime
- Without any tool retractable heating modules
- Energy efficient blower motors
- Ultra Low-Mass Center Support

#### 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 3/20

Bottom-side preheating, 7 convection modules	<input type="checkbox"/>
Adjustable fan speed in soldering & cooling zones	<input checked="" type="checkbox"/>
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	<input checked="" type="checkbox"/>
Basic cooling top and bottom	<input checked="" type="checkbox"/>
Basic cooling Plus with cold water cooler and air conditioning compressor	<input type="checkbox"/>
Power cooling with 4 convection modules top and 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	<input checked="" type="checkbox"/>
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	<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"/>
Online servicing	<input type="checkbox"/>
Temperature measurement device (Sensor Shuttle)	<input type="checkbox"/>
Ersa process control (EPC)	<input type="checkbox"/>
Autoprofiler	<input type="checkbox"/>
Energy measurement	<input type="checkbox"/>
Energy consumption calculation	<input checked="" type="checkbox"/>
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



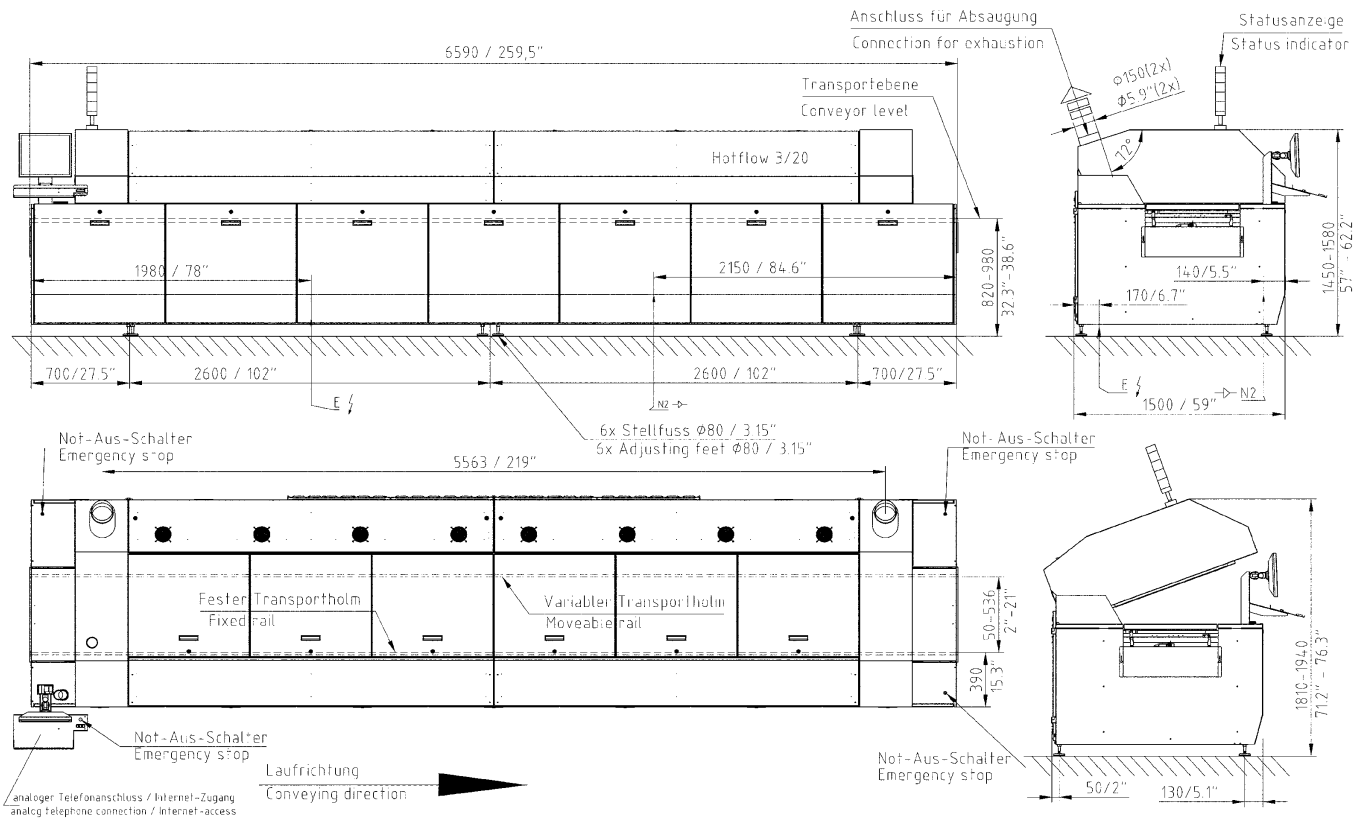
Maintenance "On-the-Fly" continues to operate while the condensation management system is being cleaned



Quick and easy servicing through excellent accessibility



Ersa Autoprofiler: Easy offline profiling for highest machine uptimes.



### Dimensions (Basic machine):

Length:	6,590 mm
Width:	1,530 mm
Height:	1,450 – 1,580 mm
Height (open):	1,810 – 1,940 mm
Weight (incl. options):	approx. 3,200 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:	5,190 mm
Heating zone:	3,700 mm
Cooling zone:	1,490 mm
Infeed/Outfeed zone:	700 mm
Process chamber width:	approx. 770 mm

### Heating system:

Convection share:	100 %
Gas flow/module:	approx. 500 m <sup>3</sup> /h (17,657 ft <sup>3</sup> /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
Pressure control:	4,5 – 10 bar

### Safety devices:

1x main switch
4x Emergency-Stop buttons
2x 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:	65 kW – 104 kW (subject to configuration)
Reduced rating:	44 kW
Continuous rating for operation:	ca. 12 – 19 kW

### Exhaust rating:

Exhaust stacks:	2 stacks, 150 mm (6") ø each
Exhaust volume per stack:	400 m <sup>3</sup> /h (14,126 ft <sup>3</sup> /h)
Exhaust monitoring per stack:	integrated

### Noise level:

Permanent noise level:	< 70 dB (A)
------------------------	-------------