kurtz ersa

# *THE ONE.*
# FOR EVERYONE.

The VERSAFLOW ONE – Your Entry into Selective Soldering Excellence.


GLOBAL. AHEAD. SUSTAINABLE.

100 years ersa
1921 – 2021


# THE ONE.
# GREAT PERFORMANCE.

VERSAFLOW ONE – High Quality and Throughput with a Compact Footprint.

VERSAFLOW ONE – Highest quality and throughput with a compact footprint

Ersa is presenting VERSAFLOW ONE the new entry-level model into the world of VERSAFLOW inline selective soldering machines. The VERSAFLOW ONE embodies decades of know-how gained by the market leader in the form of proven hardware and intuitive software (ERSASOFT 5). Even with its compact dimensions and very attractive price, this machine does not require the user to make any compromises in terms of quality and throughput.

When designing the VERSAFLOW ONE, the Ersa developers focused on the requirements most customers need for successful selective soldering. As the quintessence of this, the smallest VERSAFLOW has been developed to focus consistently on productivity and profitability. This makes it not just any entry-level model - instead, with its flexible, future-proof configuration, it offers direct access to more quality, performance, productivity, variability and excellent services.

Thanks to an improved heating system in the cross profile the power requirement of the machine has been significantly reduced, resulting in energy savings of 10 %.

**Features**

- Entry into the VERSAFLOW world
- Proven VERSAFLOW technology
- Highest quality and services
- High throughput
- 10 % energy savings
- Compact footprint

Fast and easy soldering program set-up and stable processes guarantee perfect soldering results

Just set it up, switch it on, and solder. Optimal selective soldering cannot be faster or easier.

The VESRAFLOW ONE is particularly user-friendly. The intuitive ERSASOFT 5 software stands out here. Thanks to the integrated CAD Assistant 4, creating of soldering programs is child's play. No complicated start-up phase means faster profit from new efficiency.

The VERSAFLOW ONE is available with one or two solder modules and has proven Ersa quality on board – such as automatic nozzle activation, process camera, or IR bottom heating. Customers gain special added value from the x-variability version (optionally available as 2-stopper version), which leads to a significant increase in throughput – a feature that is unique in the entry-level class.

The VERSAFLOW ONE therefore becomes the machine that further increases productivity and cost-effectiveness in every electronics production with fast setup and intuitive operation.

**Features**

- Fast start-up
- Award-winning user interface
- Intuitive operation
- Fast & easy program setup

# *THE ONE.*
# EASY SOLDERING.

Intuitive User Interface and Operation – Switch On and Get Perfect Soldering Results.

# THE ONE.
# A SAFE INVESTMENT.

Future Proof Technology and Services
from the World Market Leader.

Reliable and future proof technology from the leading VERSAFLOW world

With the inline selective soldering platforms VERSAFLOW 3 and VERSAFLOW 4, Ersa is the undisputed technology and world market leader. The VERSAFLOW ONE now offers all electronics manufacturing companies an entry into the excellent VERSAFLOW technology, which is used very successfully by 5,000 satisfied selective soldering customers worldwide.

thanks to its modular design, the VERSAFLOW ONE can be equipped with one or two solder modules that customers can remain successfull in the long-term. Even as an entry-level model, the VERSAFLOW ONE is available in various versions and can be equipped with 1, 2 or 4 solder pots to further increase throughput if desired.

Of course, all VERSAFLOW ONE customers benefit from the worldwide Kurtz Ersa network with comprehensive services according to common standards.

**Features**

- Future proof technology
- Sustainable investment
- Flexible configuration
- Modular design
- Excellent, worldwide services

Due to series production with the most popular configuration features, the VERSAFLOW ONE is available directly from stock

Even with its compact dimensions and very attractive price, this machine does not require the user to make any compromises in terms of quality and throughput. Just set it up, switch it on, and solder. It couldn't be faster or easier to carry out optimum selective soldering.

And this is also true in times when delivery situations are not always easy. In addition to throughput and ease of maintenance, the VERSAFLOW ONE also scores in areas such as availability, which has recently become a decisive factor in purchasing decisions. With a delivery time of about two to four weeks, Ersa offers the highest availability worldwide – another important argument.

**Features**

- Short delivery time from stock
- Most popular machine configuration

# THE ONE.
# AVAILABLE AT ONCE.

Short Delivery Time due to Serial Production with the Most Popular Configuration.

# VERSAFLOW ONE with single wave unit

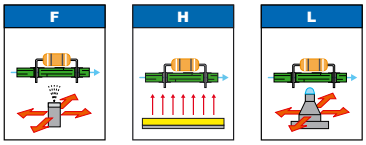
2 equipment versions:

## VERSAFLOW ONE F

**Configuration:**

- Programmable conveyor width adjustment
- 3 mm pin-and-chain conveyor
- Spray head 130 µm, stainless steel
- Bottom-side preheater, IR emitter
- 1 solder pot
- Automatic solder wire feeder
- Automatic nozzle activation
- Process monitoring camera
- SMEMA – inline interface for in- and outfeed

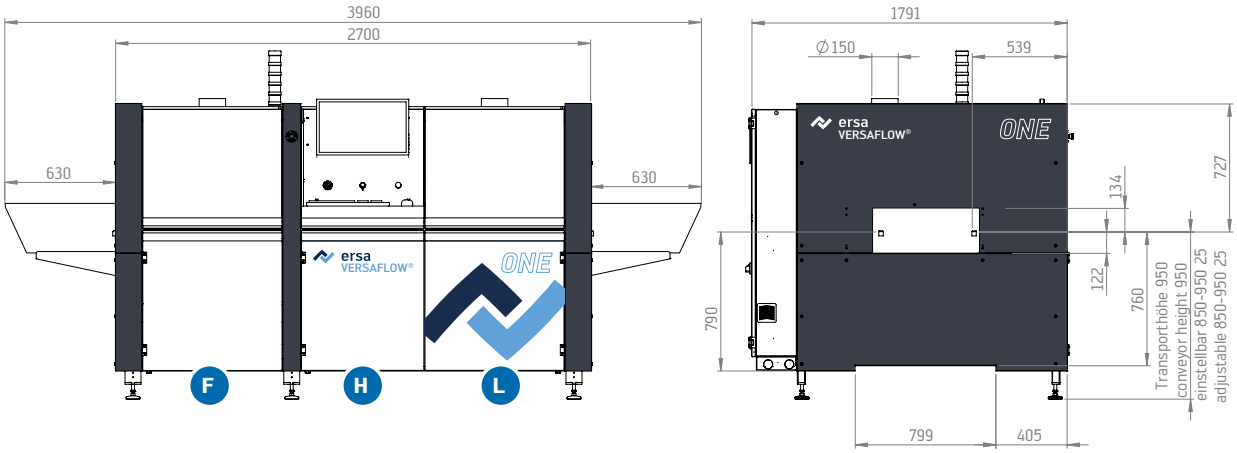
**Modules:**




*Flux module with spray fluxer* | *Preheat module with bottom-side heating* | *Solder module with single wave unit*

**Measurements:**

- Length: 2,700 mm (3,960 mm with in- & outfeed)
- Width: 1,791 mm
- Height: 1,577 mm

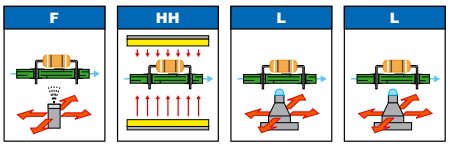



## VERSAFLOW ONE FF

**Configuration:**

- Programmable conveyor width adjustment
- 3 mm pin- and-chain conveyor
- Spray head 130µm, stainless steel
- Bottom-side preheater, IR emitter
- 2 solder modules with one solder pot each
- 1x automatic solder wire feeder per solder module
- 1x automatic nozzle activation per solder module
- 1x process monitoring camera per solder module
- SMEMA inline interface for in- and outfeed

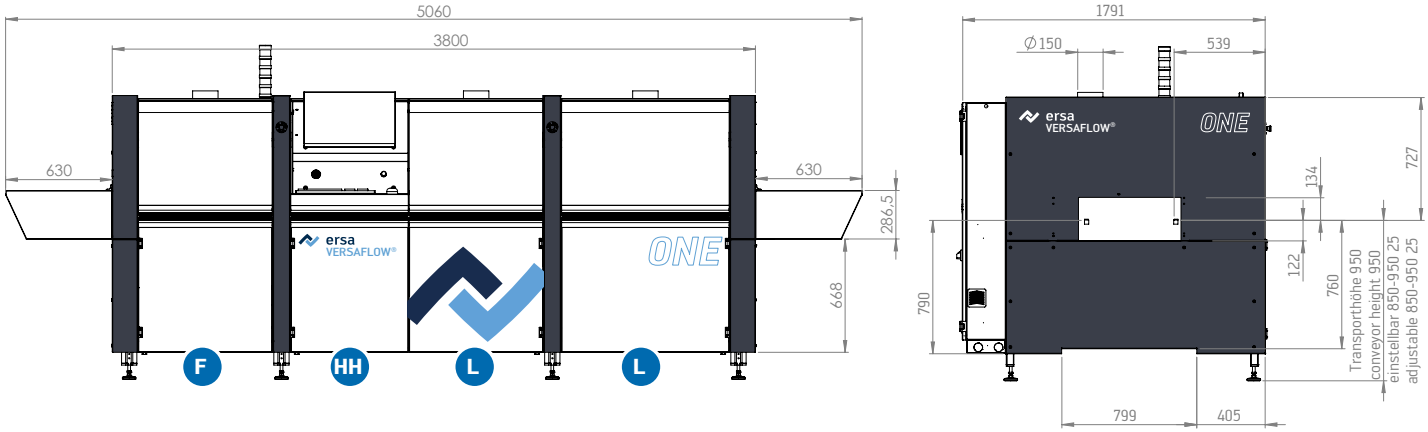
**Modules:**

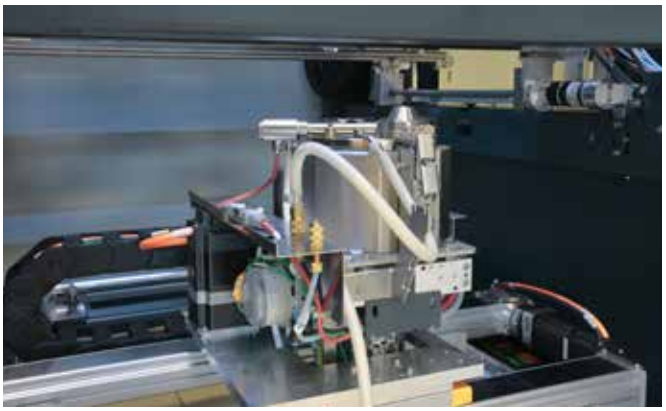


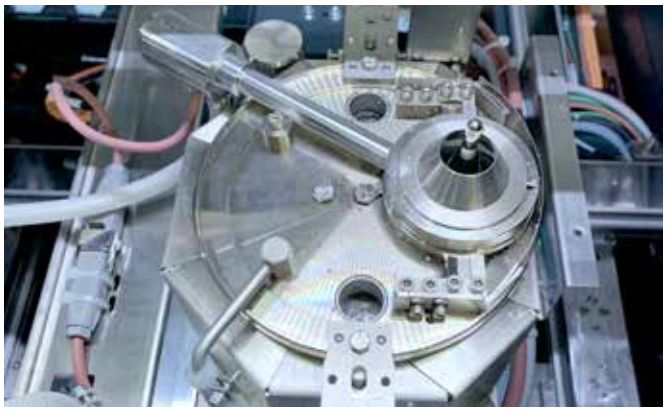

*Flux module with spray fluxer* | *Preheat module with bottom and top side heating* | *Solder module with single wave unit* | *Solder module with single wave unit*

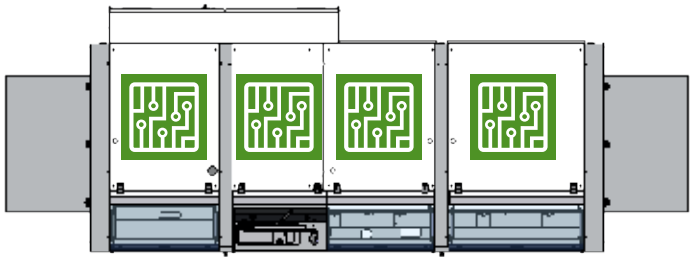
**Measurements:**

- Length: 3,800 mm (5,060 mm with in- & outfeed)
- Width: 1,791 mm
- Height: 1,577 mm









3* / 4** PCBs with max.
508 x 508 mm in the machine

* VERSAFLOW ONE F
** VERSAFLOW ONE FF

## Technical Data

| Conveyor system | |
|---|---|
| Type | segmented pin-and-chain conveyor for PCB transport without workpiece carrier |
| PCB width | 80 – 508 mm |
| PCB length | 150 – 508 mm |
| Clearance from PCB edge | 3 mm |
| PCB top-side clearance | 120 mm |
| PCB bottom-side clearance | 80 mm |
| Conveyor speed | 1,5 – 15 m/min |
| PCB weight | max. 8 kg |
| **Flux module** | |
| Type | Precision spray flux system 2-axis positioning system |
| Flux tank | 1,8 l |
| Positioning speed | 0,5 – 400 mm/s |
| Positioning accuracy | ±0,25 mm |
| Spray width | 2 – 8 mm (130 µm spray head) |
| **Preheat module** | |
| Type | IR emitter, bottom-side |
| Power | max. 10,8 kW IR emitter |
| **Solder module single wave** | |
| Solder wave height | max. 5 mm |
| Clearance from PCB edge | 3 mm |
| Solder volume | approx. 14 kg Sn63Pb; approx. 13 kg lead-free alloy |
| Solder temperature | max. 330 °C |
| Warm-up time | 75 min. (to 280 °C) |
| Positioning speed | 0,5 – 200 mm/sec |
| Positioning accuracy | ±0,25 mm |

| Nitrogen technology | |
|---|---|
| Nitrogen supply | to be supplied locally |
| Nitrogen injection | N2 cover over the solder bath |
| Required pressure | 6 bar |
| Nitrogen consumption | approx. 2 m³/h per solder pot |
| Particle cleanliness (recommendation) | 5.0 |
| **Compressed air** | |
| Compressed air supply | to be supplied locally |
| Required pressure | 6 bar |
| Consumption | < 5 m³/h |
| **Electrical data** | |
| Power | 5-wire system, 3 x 230/400 V, N, PE |
| Power tolerance range | +6 %, -10 % |
| Frequency | 50/60 Hz |
| Power consumption | 37,6 A (F)<br>41,9 A (FF) |
| **Exhaust rating** | |
| Exhaust stacks | 2 St., AD 150 mm (F)<br>3 St., AD 150 mm (FF) |
| Exhaust volume per stack | 250/200 m³/h (F)<br>250 m³/h / 300 m³/h (200 m³/h) (FF) |
| **Environmental specs/noise level** | |
| Ambient temperature | 15 – 35 °C |
| Permanent sound level | < 65 dB (A) |

(F) VERSAFLOW ONE F, (FF) VERSAFLOW ONE FF

# VERSAFLOW ONE with dual pot in x-variable

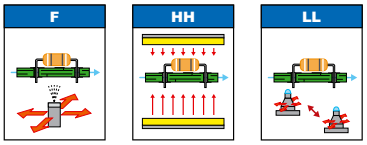
without stoppers, 2 equipment versions:

## VERSAFLOW ONE XF

**Configuration:**

- Programmable conveyor width adjustment
- 3 mm pin-and-chain conveyor
- Spray head 130 µm, stainless steel
- Bottom-side preheater, IR emitter
- 1 dual solder pot
- Automatic solder wire feeder
- Automatic nozzle activation
- Process monitoring camera
- SMEMA – inline interface for in- and outfeed

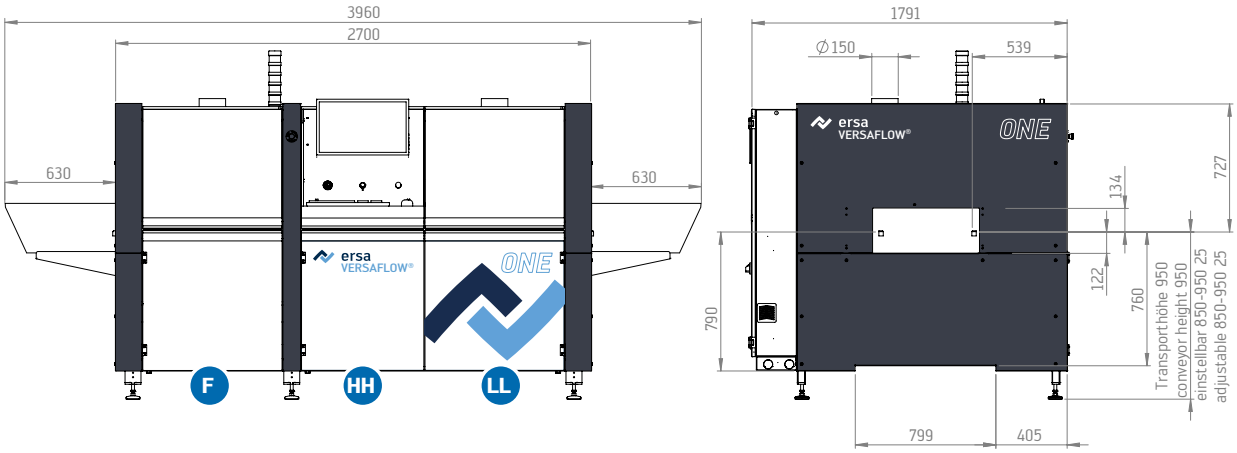
**Modules:**




*Flux module with spray fluxer* | *Preheat module with bottom-side heating* | *Solder module with dual pot, x-variable*

**Measurements:**

- Length: 2,700 mm (3,960 mm with in- & outfeed)
- Width: 1,791 mm
- Height: 1,577 mm

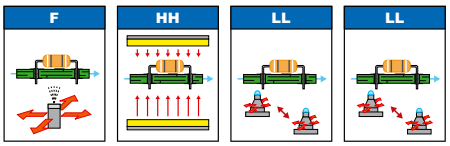



## VERSAFLOW ONE XFF

**Configuration:**

- Programmable conveyor width adjustment
- 3 mm pin- and-chain conveyor
- Spray head 130µm, stainless steel
- Bottom-side preheater, IR emitter
- 2 solder modules with one dual solder pot each
- 2x automatic solder wire feeder per solder module
- 1x automatic nozzle activation per solder module
- 1x process monitoring camera per solder module
- SMEMA inline interface for in- and outfeed

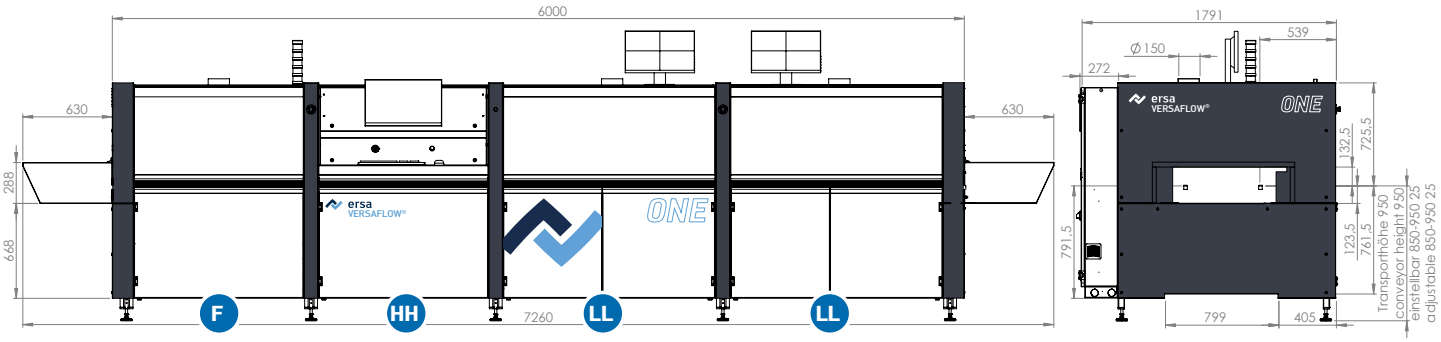
**Modules:**

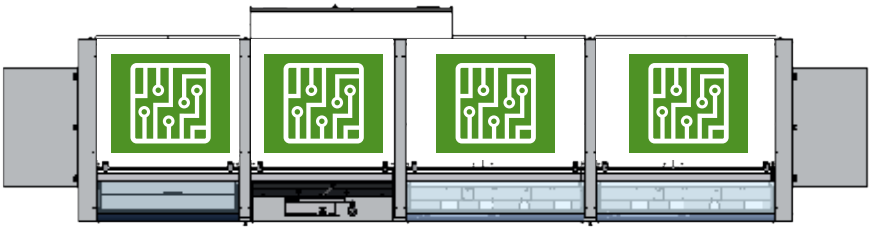



*Flux module with spray fluxer* | *Preheat module with bottom and top side heating* | *Solder module with dual pot, x-variable* | *Solder module with dual pot, x-variable*

**Measurements:**

- Length: 6,000 mm (7,260 mm with in- & outfeed)
- Width: 1,791 mm
- Height: 1,577 mm





3* / 4** PCBs with max.
610 x 508 mm in the machine

* VERSAFLOW ONE XF
** VERSAFLOW ONE XFF

## Technical Data

| Conveyor system | |
|---|---|
| Type | segmented pin-and-chain conveyor for PCB transport without workpiece carrier |
| PCB width | 80 – 508 mm |
| PCB length | 150 – 610 mm |
| Clearance from PCB edge | 3 mm |
| PCB top-side clearance | 120 mm |
| PCB bottom-side clearance | 80 mm |
| Conveyor speed | 1,5 – 15 m/min |
| PCB weight | max. 8 kg |
| **Flux module** | |
| Type | Precision spray flux system 2-axis positioning system |
| Flux tank | 1,8 l |
| Positioning speed | 0,5 – 400 mm/s |
| Positioning accuracy | ±0,25 mm |
| Spray width | 2 – 8 mm (130 µm spray head) |
| **Preheat module** | |
| Type | IR emitter, bottom-side |
| Power | max. 10,8 kW IR emitter |
| **Solder module single wave** | |
| Solder wave height | max. 5 mm |
| Clearance from PCB edge | 3 mm |
| Solder volume | approx. 14 kg Sn63Pb; approx. 13 kg lead-free alloy |
| Solder temperature | max. 330 °C |
| Warm-up time | 75 min. (to 280 °C) |
| Positioning speed | 0,5 – 200 mm/sec |
| Positioning accuracy | ±0,25 mm |

| Nitrogen technology | |
|---|---|
| Nitrogen supply | to be supplied locally |
| Nitrogen injection | N2 cover over the solder bath |
| Required pressure | 6 bar |
| Nitrogen consumption | approx. 2 m³/h per solder pot |
| Particle cleanliness (recommendation) | 5.0 |
| **Compressed air** | |
| Compressed air supply | to be supplied locally |
| Required pressure | 6 bar |
| Consumption | < 5 m³/h |
| **Electrical data** | |
| Power | 5-wire system, 3 x 230/400 V, N, PE |
| Power tolerance range | +6 %, -10 % |
| Frequency | 50/60 Hz |
| Power consumption | 63,7 A (XF)<br>79,3 A (XFF) |
| **Exhaust rating** | |
| Exhaust stacks | 2 St., AD 150 mm (XF)<br>3 St., AD 150 mm (XFF) |
| Exhaust volume per stack | 250/200 m³/h (XF)<br>250 m³/h / 300 m³/h (200 m³/h) (XFF) |
| **Environmental specs/noise level** | |
| Ambient temperature | 15 – 35 °C |
| Permanent sound level | < 65 dB (A) |

(XF) VERSAFLOW ONE XF, (XFF) VERSAFLOW ONE XFF

# VERSAFLOW ONE with dual pot in x-variable

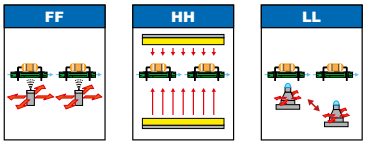
with stoppers, 2 Equipment variants:

## VERSAFLOW ONE XF

**Configuration:**

- Programmable conveyor width adjustment
- 3 mm pin-and-chain conveyor
- 2x Spray head 130 µm, stain-less steel
- Bottom-side preheater, IR emitter
- 1 dual solder pot
- Automatic solder wire feeder
- Automatic nozzle activation
- Process monitoring camera
- SMEMA – Inline interface for In- and Outfeed
- additional stoppers

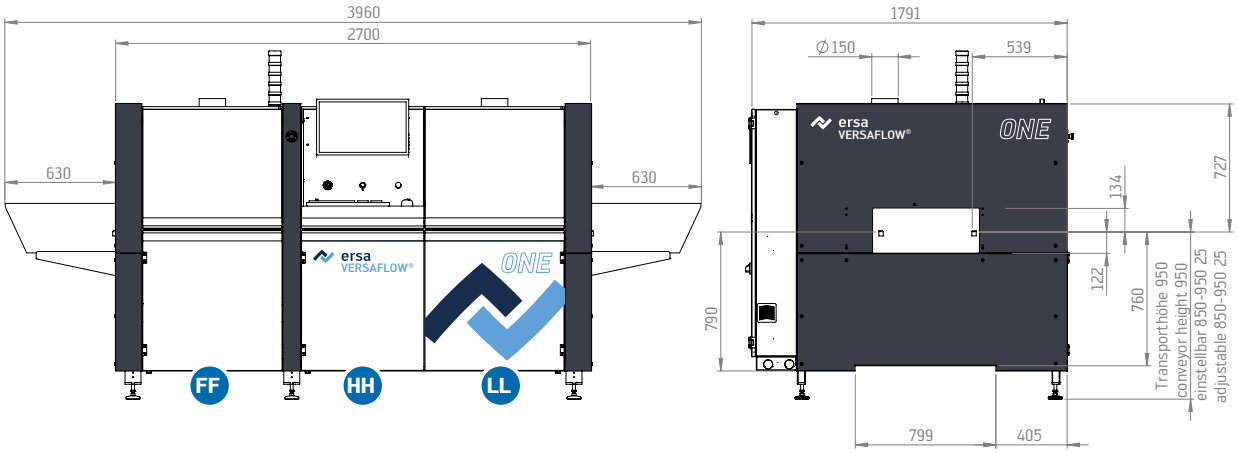
**Modules:**




*Flux module with 2 spray fluxers* | *Preheat module with bottom-side heating* | *Solder module with dual pot, x-variable*

**Measurements:**

- Length: 2,700 mm (3,960 mm with in- & outfeed)
- Width: 1,791 mm
- Height: 1,577 mm

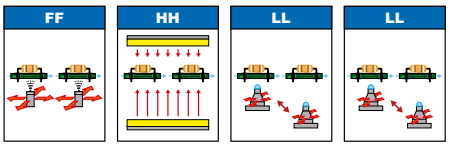



## VERSAFLOW ONE XFF

**Configuration:**

- programmable conveyor width adjustment
- 3 mm pin- and-chain conveyor
- 2x Spray head 130µm, stain-less steel
- Bottom-side preheater, IR emitter
- 2 solder modules with one dual solder pot each
- 2x automatic solder wire feeder per solder module
- 1x automatic nozzle activation per solder module
- 1x process monitoring camera per solder module
- SMEMA Inline interface for in- and outfeed
- additional stoppers

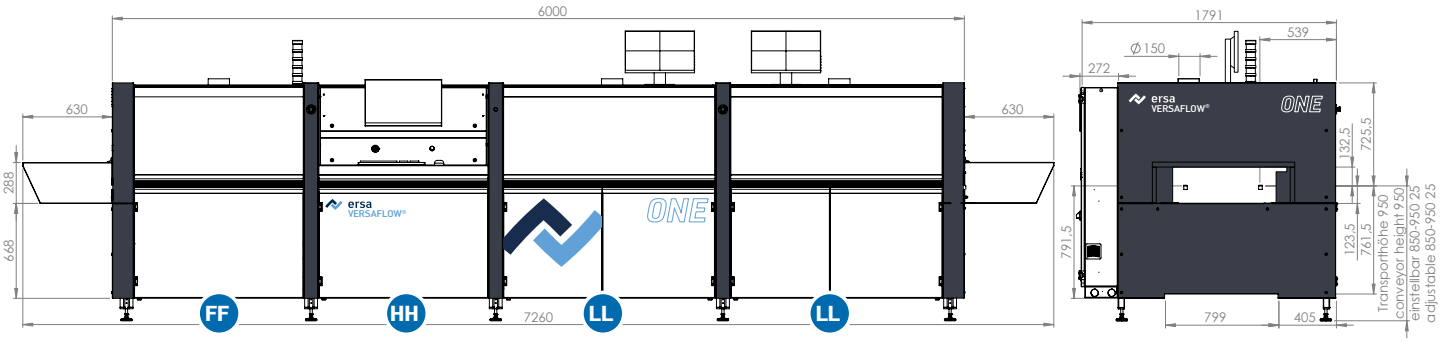
**Modules:**

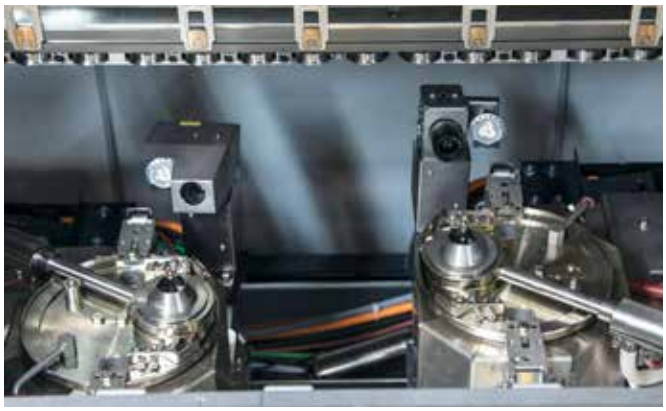


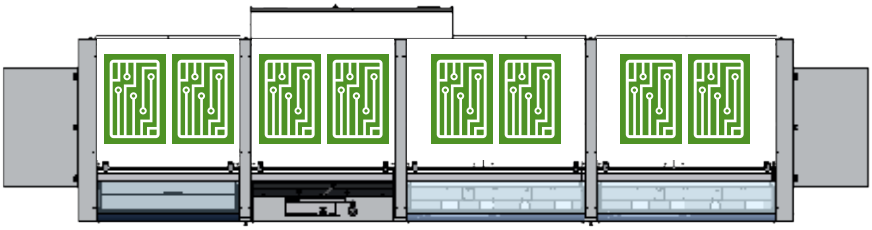

*Flux module with 2 spray fluxers* | *Preheat module with bottom and top side heating* | *Solder module with dual pot, x-variable* | *Solder module with dual pot, x-variable*

**Measurements:**

- Length: 6,000 mm (7,260 mm with in- & outfeed)
- Width: 1,791 mm
- Height: 1,577 mm







3* / 4** PCBs with max.
350 x 508 mm in the machine

* VERSAFLOW ONE XF
** VERSAFLOW ONE XFF

## Technical Data

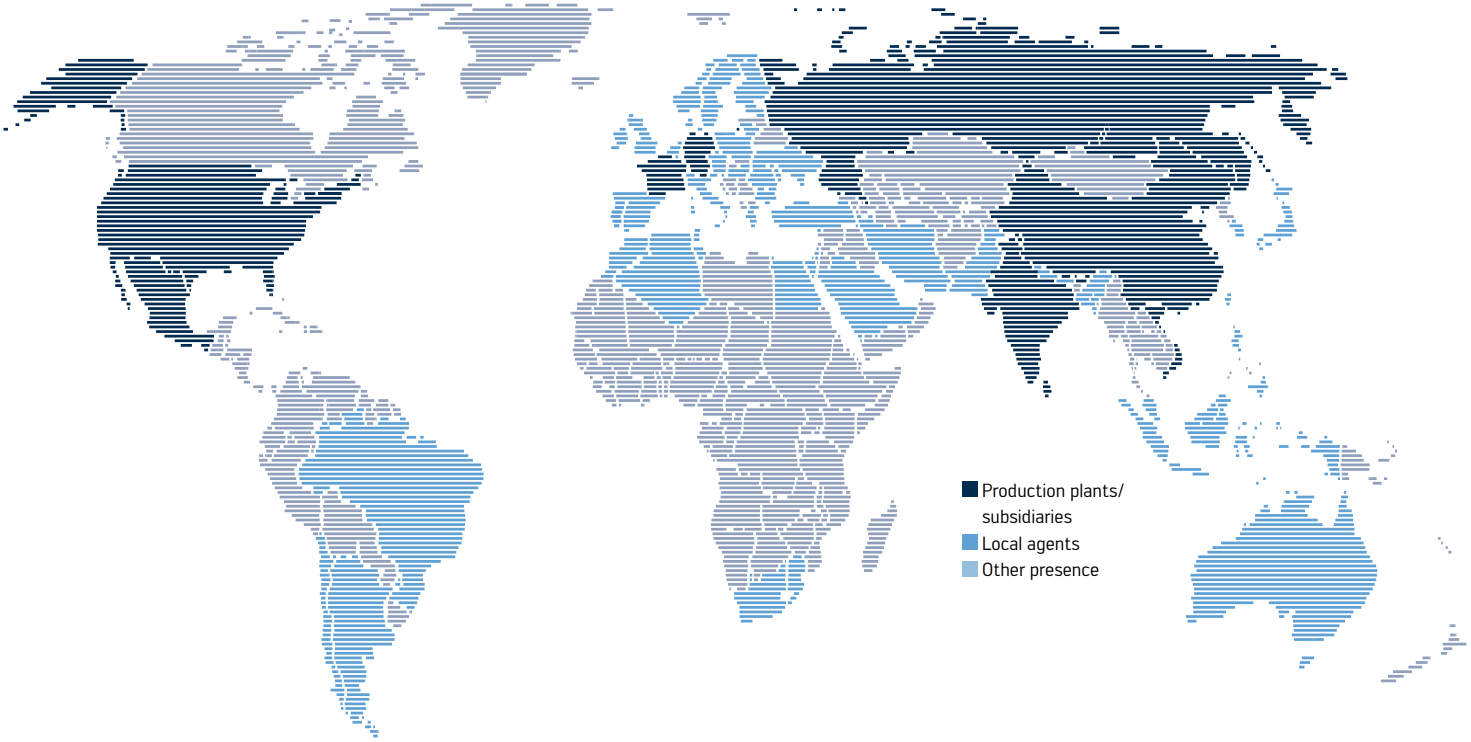
| Conveyor system | |
|---|---|
| Type | segmented pin-and-chain conveyor for PCB transport without workpiece carrier |
| PCB width | 80 – 508 mm |
| PCB length | 150 – 350 mm |
| Clearance from PCB edge | 3 mm |
| PCB top-side clearance | 120 mm |
| PCB bottom-side clearance | 80 mm |
| Conveyor speed | 1,5 – 15 m/min |
| PCB weight | max. 8 kg |
| **Flux module** | |
| Type | Precision spray flux system 2-axis positioning system |
| Flux tank | 1,8 l |
| Positioning speed | 0,5 – 400 mm/s |
| Positioning accuracy | ±0,25 mm |
| Spray width | 2 – 8 mm (130 µm spray head) |
| **Preheat module** | |
| Type | IR emitter, bottom-side |
| Power | max. 10,8 kW IR-emitter |
| **Solder module single wave** | |
| Solder wave height | max. 5 mm |
| Clearance from PCB edge | 3 mm |
| Solder volume | approx. 14 kg Sn63Pb; approx. 13 kg lead-free alloy |
| Solder temperature | max. 330 °C |
| Warm-up time | 75 min. (to 280 °C) |
| Positioning speed | 0,5 – 200 mm/sec |
| Positioning accuracy | ±0,25 mm |

| Nitrogen technology | |
|---|---|
| Nitrogen supply | to be supplied locally |
| Nitrogen injection | N2-cover over the solder bath |
| Required pressure | 6 bar |
| Nitrogen consumption | approx. 2 m³/h per solder pot |
| Particle cleanliness (recommendation) | 5.0 |
| **Compressed air** | |
| Compressed air supply | to be supplied locally |
| Required pressure | 6 bar |
| Consumption | < 5 m³/h |
| **Electrical data** | |
| Power | 5-wire system, 3 x 230/400 V, N, PE |
| Power tolerance range | +6 %, -10 % |
| Frequency | 50/60 Hz |
| Power consumption | 63,7 A (XF)<br>79,3 A (XFF) |
| **Exhaust rating** | |
| Exhaust stacks | 2 St., AD 150 mm (XF)<br>3 St., AD 150 mm (XFF) |
| Exhaust volume per stack | 250/200 m³/h (XF)<br>250 m³/h / 300 m³/h (200 m³/h) (XFF) |
| **Environmental specs/noise level** | |
| Ambient temperature | 15 – 35 °C |
| Permanent sound level | < 65 dB (A) |

(XF) VERSAFLOW ONE XF, (XFF) VERSAFLOW ONE XFF

# ELECTRONICS PRODUCTION EQUIPMENT

## Worldwide presence

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