

Total Solutions

for Soldering Processes and
Automated Production Lines

SEHO GoWave

Wave Soldering System SEHO GoWave



Reflow | Selective | Wave | Handling Solutions | AOI | Know How & Training

Compact ... but with the Technology of a High-End System

GoWave

- Flexible and powerful with minimum footprint.
- Usable soldering width up to 340 mm.
- Flexible and robust conveyor system for processing of soldering frames.
- Efficient PCS control unit.
- Easy and convenient operation with touch screen and USB interface.
- Precise CAN bus motors.
- Innovative fluxer area with HVLP technology.
- Powerful preheat with programmable stop.
- Up-to-date solder nozzle geometries.
- 100 % lead-free capable.

The wave soldering system GoWave is a powerful soldering system for those just entering into mass-soldering operations. The system is suited for electronic productions with small or medium-sized volumes and also provides an economic solution for universities, schools and laboratories.

A special feature of this machine is its compact, but performance-oriented design. It therefore allows an economical, automatic wave soldering process at simultaneously low costs.

The design of the GoWave provides the same basic technology found in SEHO's large wave soldering machines. Offering a fluxing module, an efficient and powerful preheater, an innovative soldering area and an up-to-date microprocessor control, this system presents the finest soldering technology in its class.



The Fluxer Module: Innovative HVLP Technology

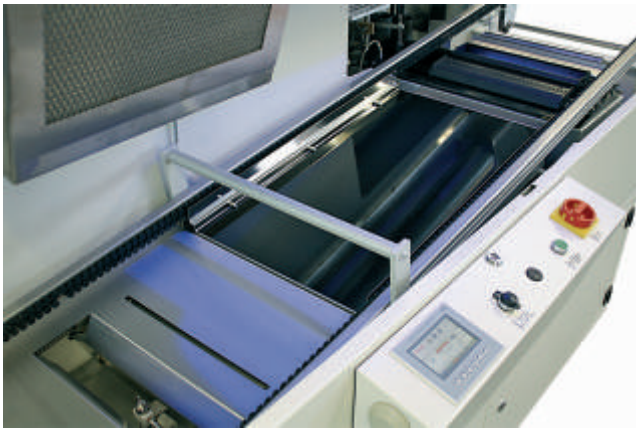
The ATS spray fluxing module, developed by SEHO, has several advantages and is ideally suited for processing of low-solid fluxes.

The spray head features HVLP technology (high-volume, low pressure) which generates atomization of the flux with a comparatively low pressure. This ensures a stable and reproducible spray jet with a very homogeneous spray pattern and an extremely good boundary at the outer edges to enable a remarkable reduction of the flux consumption.

Overall, this low pressure system creates considerably less spray mist which results in a notable reduction of soiling in the fluxer area. As a result, maintenance requirements are minimized.



Maximum Performance for Small and Medium-Sized Production Volumes: SEHO GoWave



The Preheat Area: Powerful and Individually Adjustable

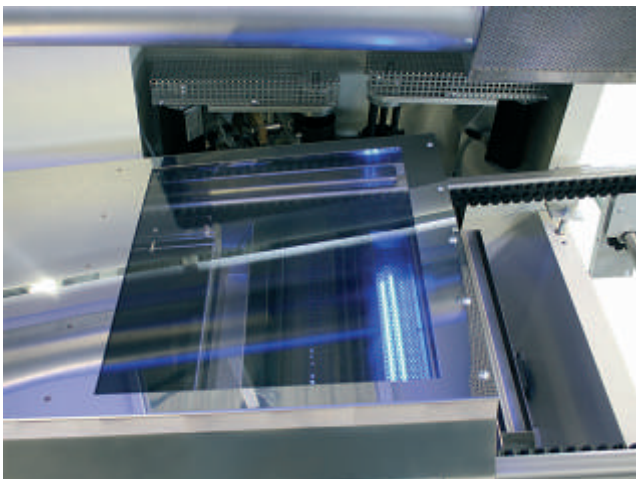
The GoWave is featured with an infrared preheat zone with a total length of 700 mm and has a ceramic glass cover. The generous width of 400 mm ensures a very even and reproducible heating of even high-mass printed circuit boards.

The preheat temperature is individually adjustable up to 420°C. Thus, the system is ideally suited for high temperature applications, such as lead-free soldering processes.

Of course, the preheat area is separately controlled and monitored.

The entire preheat and soldering area is covered with a reflection tunnel. This enables a very high thermal stability and reduces energy consumption.

To achieve a higher energy transfer especially when processing high-mass printed circuit boards, the control unit may be programmed to stop the assemblies in the preheat zone.



The Soldering Area: Up-to-Date and Low Maintenance

The heart of the GoWave - the soldering area - is featured with a flexible configuration and therefore the system may be used for nearly all soldering tasks.

As a standard, the solder pot is provided with a protective composite coating, developed by SEHO, which is ideally suited for processing leadfree solder alloys. Our experience is your gain: the solder pot comes with a warranty of four years!

The solder pot has a modest 185 kg (SnPb) capacity, ensuring low start-up costs and a short heat-up time which contributes to a low energy consumption and a remarkable reduction of the costs of ownership.

Innovative solder nozzle geometries which may be used in a single wave or dual wave concept guarantee highest flexibility.

This allows flexible processing of the entire product range, from conventional through-hole assemblies to surface mount applications and mixed technology. Dual wave configurations are particularly of advantage if difficult-to-solder assemblies are to be processed as they usually provide improved hole penetration and reduced bridging. Typical solder faults thus can be decreased remarkably.

All solder nozzles, of course, are suitable for leadfree applications and can be removed quickly and easily for servicing. The solder pumps are driven by high precision CAN bus motors.

To achieve an ideal peel-off, the conveyor angle at the solder wave may be adjusted manually between 6 degree and 8 degree, depending on the application.

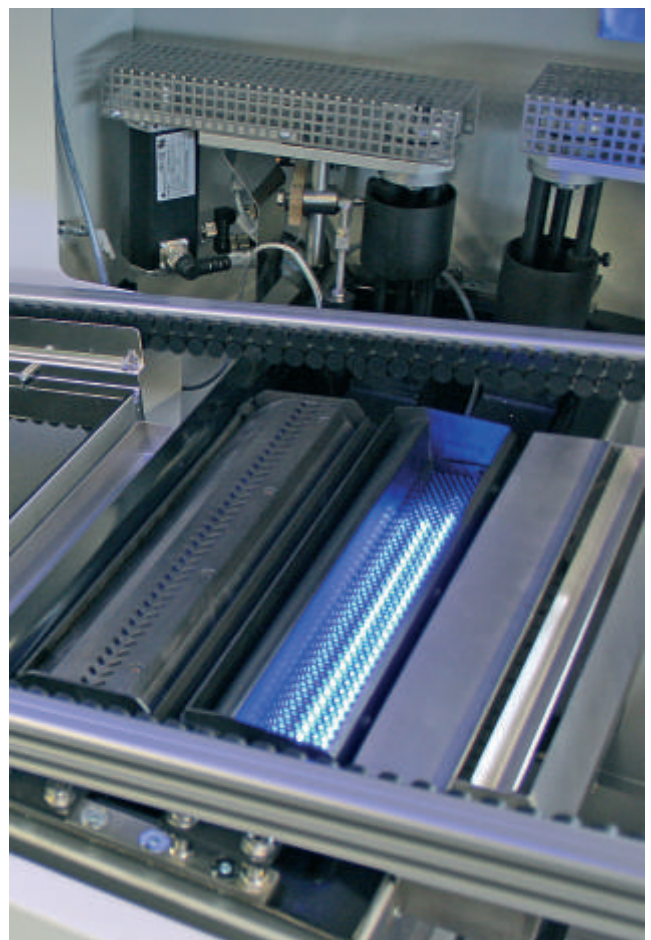
To improve the soldering results particularly when processing complex printed circuit boards, the soldering area of the GoWave may be equipped with a local nitrogen inertion unit. Simultaneously, this minimizes oxidation and dross formation. As a result, maintenance requirements and solder consumption are reduced remarkably, with a very positive effect on the cost of ownership.

The Control Unit: Easy to Operate

The integrated microprocessor control with touch screen makes for easy programming of the system and ensures reproducibility of all soldering processes.

The control unit monitors all machine functions and reliably controls all key process parameters. With the possibility to save up to 100 soldering programs, the GoWave provides quick and easy change of parameter settings for soldering of different printed circuit boards.

A USB data interface as well as recording of operating and process data ensures uncomplicated tracking and illustration of the processes.



Make Your Production Flexible: SEHO GoLean

The GoLean is a highly flexible one-person-workstation with integrated wave soldering system GoWave. This system ideally fits into a lean production concept.

The GoLean production concept is featured with a high profitability, particularly in case of a large number of different products or frequently changing production volumes.

The operator places the assemblies on an inlet conveyor module. Afterwards, the assemblies are fluxed, preheated and wave soldered. Following the soldering process, the boards are taken over by a lift station and returned to the operator using a conveyor which is installed at the bottom side of the machine.



Technical Data and Machine Options

usable soldering width	max. 340 mm [13.39"]
pass-through height (measured from bottom edge of PCB)	100 mm [3.94"]
PCB / solder mask dimensions l x w	max. 410 x 340 mm [16.14" x 13.39"]

Fluxer Area

ATS spray fluxer with HVLP technology	●
quantity adjustable via flow meter	●
volume of working tank	0.7 liter
maintenance unit for compressed air	incl.
exhaust hood with stainless steel filter for fluxer area	●
spray width individually manually adjustable	●

Preheat Area

infrared preheating with glass ceramic cover	●
preheat length and width	700 x 400 mm [27.56" x 15.75"]
preheat power rating	3 kW
preheat temperature	max. 420°C
programmable stopping of PCBs in the preheat zone	●
reflection tunnel above the preheat and soldering area	●

Conveyor

solder frame conveyor	●
pass-through direction from left to right	●
conveyor angle manually adjustable	6 - 8 degree
conveyor speed	0.3 - 2.0 m/min.

Soldering Area

composit coating for processing lead-free alloys	●
solder volume SnPb / SnAgCu	approx. 185 kg / 150 kg
electrical power rating of the solder pot	4.5 kW
wave height	max. 7 mm
solder level control	○
solder nozzle units as single wave concept	○
solder nozzle units as dual wave concept	○
local nitrogen inertion in the soldering area	○

Control Unit

microprocessor control with touch screen	●
storage capacity for 100 soldering programs	●
closed loop control for conveyor, heating and pump speed	●
clock timer	●
USB interface	●
recording of operating and process data via USB stick	●
high precision CAN bus motors for pumps and conveyor	●

Connections and Dimensions

exhaust volume	1 x 550 m³/h
connection voltage (standard)	230/400 V, 50 Hz
total power consumption	8 kW
compressed air connection and pressure	R 1/4", 6 bar
compressed air consumption	approx. 250 l/min.
dimensions l x w	3000 x 820 mm (+ display ca. 150 mm) [118.11" x 32.28"]
Further options upon request.	● Standard ○ Option



Headquarters Germany

SEHO Systems GmbH

Frankenstrasse 7 - 11
97892 Kreuzwertheim
Germany
Phone +49 (0) 93 42-889-0
Fax +49 (0) 93 42-889-200
E-Mail info@seho.de
Website www.seho.de

Americas

SEHO North America, Inc.

1445 Jamike Avenue Suite # 1
Erlanger, KY 41018
USA
Phone +1-859-371-7346
Fax +1-859-282-6718
E-Mail sehona@sehona.com
Website www.sehona.com

