

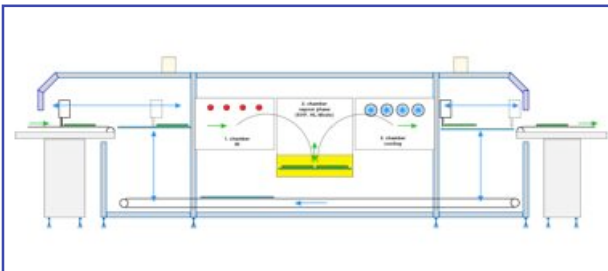
Premium In-Line Vapour Phase Soldering Machine for High Volume Production



LV 600

Features

- Fully automatic in-line-operation
- Easy and comfortable programming of the solder data
- Two independent stations for loading and unloading of the carriers
- Up to four multi-line carriers in the production circulation
- Fastest carrier cycle time approximately 120 seconds
- Cycle time for assemblies per board from up to 20 seconds possible
- Carriers can be used with or without a middle support rail
- Optimised loading of the carrier controlled by the PLC
- Additional batch carrier can be used during the in-line production
- Lead or lead-free soldering without changing the fluid
- IR- Preheating
- Minimized soldering fluid usage
- No pressurized air required



Modes of operation

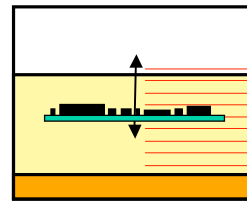
Heat Level Mode (HL-Mode)

A simple variation of vapour phases soldering, generates different, nearly linear temperature profiles. Energy transfer is controlled by adjustable heating power.

Soft-Vapour-Phase-Mode (SVP-Mode, **Patented**)

Extremely variable possibility to create reproducible temperature profiles for different requirements.

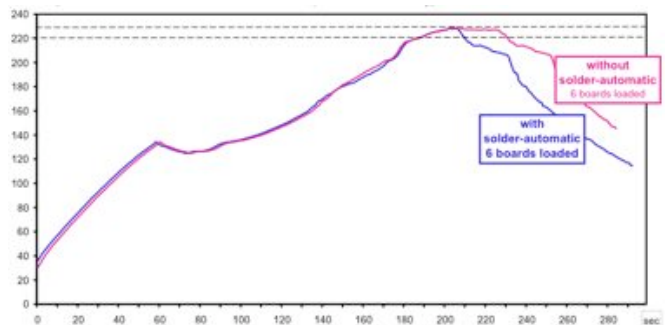
Soft-Vapour phase stands for slow stepping into the vapour phase and the possibility to stay in different positions. Up and down movements in the vapour phase are freely programmable.



Step 1 Freely programmable vapour steps allow optimum adjustments of heat transfer in 20 steps

Automatic-Mode

For the optimization of the solder-process the integrated premium-solder-automatic can be activated in addition in both modes. This automatically controls the adaptation of the solder time or the maximum solder-temperature.



Limitation of the time above liquidus

After the solder temperature is reached a timer will begin. The solder cycle will finish automatically after the adjusted time over liquidus.

Documentation

Production data can be stored using the IBL VP-Control software of IBL.

Standard Equipment / Specification

- Automatic loading and unloading of the carriers
- Integrated semi-automatic loading conveyor
- Selective possibility of loading of batch carriers
- Three internal chambers with automatic air locks
- SMEMA-Interface
- IR heater unit for extended preheating from above
- SVP for soft temperature rise (**Patented**)
- Observation window to process chamber
- Integrated lighting of the soldering area
- Automatic liquid agent filtering
- Double control for monitoring the cooling water temperature
- Temperature control of heater surface with thermocouple
- Integrated cooling chamber for board cooling
- Fluid level check
- Automatic WPC-Temperature compensation
- Program storage
- Program set-up for glue hardening
- Signal lights post (red-green)
- Integrated heat exchangers for minimizing and fluid recovery system
- Variable energy level set-up
- Maintenance free high-grade steel transportation system (**Patented**)
- Patented process procedure
- Integrated PC with TFT-Panel and Software VP-control
- Premium-Solderautomatic

Options

- Display indicator for the height of the vapour level
- Siemens-Interface
- Automatic adjustment of line width and middle support rails on the carriers
- Additional batch type carrier for manually loading
- Unloading conveyor with SMEMA-Interface
- Cooling device for closed loop machine cooling
- Rapid cooling system (RCS, **Patented**)
- ReSy, a device for repair of QFP's and BGA's (**Patented**)
- Special adhesive tape for ReSy
- Additional multi line carrier for 3 lines with middle support

- Every option can also be installed afterwards -



Technical data LV 600

Length (over all)	4900mm (5610 including unloading conveyor)
Width	1400 mm (2000 mm at loading module)
Height	1560 mm
Weight	1600 kg
Loading/Unloading level, approx.	950 mm
Maximum PCB size (manual loading / In-Line-operation)	650 x 640 x 80 mm / 650 x 620 x 50 mm
Liquid agent filling	25kg
Water connection	1/2"
Max. heating capacity of Vapour Phase heater / IR-heater / Ø power consumption	10,4 kW / 8kW / 5 kWh
Power supply / main fuse	400/230 VAC, 16 kW / 32 A, Type "gL" or "C"