

1) MULTI LAYER PRESS

model LP 3000-VK

For multilayer boards, max. laminator surface 620 x 700 mm

Technical data:

Pressure	1250 kN
Number of piston	1
Number of openings	2
Hot plate size	660 x 810 mm
Max. laminator surface	620 x 700 mm
Number of steel plates	3
Thickness of plate	62 mm
Inner width	147 mm (95 bei 2-Etage)
Heating per plate	15,0 kW
Hydraulic	2,2 kW
Vacuum	2,2 kW
Complete consumption	50,0 kW
Electric mains	3 x 400 V, 50 Hz
Nominal current	73 A
fuse protection	80 A
max. temperature	300° C
heating period (40 to 175 °C)	approx. 25 min.
cooling period	programmable
cooling water	approx. 240 l per press cycle (pressure = 5 bar)

dimensions (L x W x H):

- machine	1300 x 1050 x 1950 mm
- hydraulic/vacuum	980 x 700 x 800 mm
- control system	800 x 400 x 1900 mm

weight

- machine	approx. 4500 kg
- hydraulic/vacuum	approx. 100 kg
- control system	approx. 200 kg

Frame of press:

In steel welded construction as a vacuum chamber with prismatic guide and steel plates

Press pistons:

With polished surfaces

Heat isolation:

30 mm for surface isolation

Steel plates for electrical heating and water cooling:

The plates are equipped with 2 separate drilled hole systems:

1 system for the electrical heating by cartridges

1 system for return cooling by cooling water

The cooling water is let in and out through special rubber hoses.

Parallelity: 0,05 mm

Hydraulic oil filling is not included in delivery volume.

Pressure adjustment is made at a proportional valve.

The weight of the intermediate hot plates is compensated hydraulically.

The press table opens automatically when cooling temperature is reached.

Control system over PC with WIN 9X / WIN ME

Software: Windows 9X / WIN ME

Continuos display during operation

- plate temperatures (average value)
- pressure
- inner layer temperature
- rest working time
- actual (desired) temperature (average value)
- cycle time
- Vacuum announcement
- graphic representation of pressure, plate- and inner layer temperature as well as vacuum on the monitor (Vacuum Graphik – Option)

Program- and parameter input

- high-tension delay time
- removal temperature
- removal waiting time
- time vacuum
- waiting time vacuum
- warming up- pressing period

- cooling period
- quantity active tiers
- quantity printed circuit boards
- cold- or worm start

manual operation

- cool press
- open press
- shut press
- decalcify press (every plate separate) (Option)

Additional functions

- graphical expression with date and time of pressing
- recipe expression with all parameters and changing date
- password in 4 levels (you can switch off)
- edition of fault announcement
- accumulation of the measuring curves
- cold- and warm start choosing over press programs

Vacuum device:

vacuum: ≤ 10 mbar

exhausting time: ≤ 180 sec.

max. vacuum of pump = 1,0 mbar

The vacuum chamber with sealed cover / door allows vacuum supported pressing of circuit boards. The control system allows pressure free evacuation within a pre-selectable time range.

The vacuum is maintained during the pressure phase being applied up to the beginning of the cooling down.

Options

- The possibility for two openings later
- 2 tool sets existing of:
transport plates and top plates
all plates incl. registration holes
- 8 press sheets with registration holes
and 6 pcs. Registration pins for each tool
- loader/unloader for two press tools (manuell)