

## **TECHNICAL DESCRIPTION**

A panel beam saw, able to process board material made of chip board, laminated material, synthetic or similar materials. The saw facilitates the efficient process of board materials for constructions in the interior furniture and exhibition sectors.

The automated production of the saw allows for exact cuts in dimensions and angles, rebates as well as the simultaneous introduction of freely positionable grooves with variable adjustable depths on the board, all within one operation.

### **Machine bed:**

The robust machine bed consists of a stable and buckling resistant framework made of welded hollow chamber profiles.

The frame of the machine is supported with a stable base construction. The buckling resistant and modern construction of the machine bed guarantees the exact run of the saw unit.

### **Guide system:**

The saw unit is suspended within the machine frame work on both sides and is perfectly guided on a horizontal level by two ground and hardened round guide bars via four concave ground rollers... (horizontal 4-point guiding system).

### **Saw unit :**

The saw unit is equipped with two independently working motor units. The vertical setting of the saws is carried out by specialised guide carriages, which glide along ground and hardened linear guide rails. Seals at the end and along the sides of the guide carriages ensure protection against dust.

The feed speed of the saw unit is variable from 0 – 80 m/min, the return speed always runs at the maximum speed of 80 m/min in order to optimize the time changes.

The maximum forward movement of the saw unit is regulated automatically via the machine control and depends on the predefined working length.

It can also be regulated through optical recognition. In order to achieve the shortest possible cycle times, the saw unit starts off from a fixed base position and cuts away from the angle fence. This applies to both the programmed and manual operation.

The saw unit is driven by a 11.0 kW motor and is equipped with a variable cutting height regulator for the saw blade, which can be preset via the control panel. The diameter of the saw blade is 350 mm.

The motor of the scoring saw has a capacity of 2,2 kW and is operated in opposing direction. The saw blade has a diameter of 180 mm

The horizontal and vertical adjustments of the scoring saw are done electronically with step motors via entry at the control panel – horizontal 0,003mm – vertical 0,1mm

Both saw and scoring unit are equipped with the mechanical APA work tool fast clamping system

## Pressure beam:

The pressure beam is welded from enforced buckling resistant profiles and is guided both sides via a toothed rack with automated parallel balance system. The touching zone of the pressure beam is covered with wear free rubber surfaces..

The opening of the pressure beam is done via an electronically optimized positioning depending on the board heights. (EDP)

The pressure beam danger zone is protected with a safety bar and a safety segment protection which tilts automatically.

The pressure beam also has an integrated function for the last cut for an optimal usage of the panels.

The applied pressure of the pressure beam is variable and can be regulated with a manometer.

## Pusher fence:

The pusher fence is equipped with automated grippers to clamp the material.

The clamping pressure of the clamps can be regulated optionally from the control panel in two levels.

The drive for the pusher fence is variable with a controlled motor, which operates via a strong dimensional balance shaft onto the outer toothed racks, resolution 0.01 mm.

The use of a wear free, dust resistant and touch free magnetic measuring system enables the highest possible accuracy when positioning the pusher fence on a permanent operation modus. +/- 0.1 mm

## Support tables:

3 air cushion tables 1800 x 600 mm at SL3200/4200 mm with cross-flow blower assist in an easy handling of the work pieces. At SL5800 , 4 air cushion tables are used.

The machine bed consists of a strong buckling resistant steel plate, covered with wear free and exchangeable table tops.

At the back area of the machine bars with special rollers have been mounted to protect the board surface

## Dust- suction facility:

A central canal is situated in the machine frame (Ø 160mm) with two separate suction points of Ø 160 mm, one of these to be connected to an external dust suction plant.

The saw aggregate is equipped with a large sawdust canal, which directs the saw dust into the central canal.

Special rubber seals ensure optimal insulation between the central canal and the saw unit.

The pressure beam is equipped with suction points Ø 100 mm. (2 for the SL3200, 3 for the SL 4200 and 4 for the SL5800)

The hollow body of the pressure beam also features plates to guarantee maximum transportation of all dust to the suction point.

## Screen control EUROLINE IPC

Industrial-PC, Pentium, Windows NT-Technology, 3,5" disc harddrive, CD-drive, TFT-Display 15" with connection facilities for external keyboard, mouse and label printer. Integration and communication within a local network as well as long distance maintenance are possible.

Easy data entry with permanent display of remaining board dimensions.

Pending cutting programmes are displayed on the control monitor in synchronisation with the operation cycle.

The monitor highlights which part is being worked on and when it is finished.

Automatical consideration of the saw blade diameter and thickness during the programming of operations.

Rebate and groove depths as well as feed speed are variable and can be preset.

All material dependent functions (eg scoring saw etc) can be saved to the material.

With integrated angle cut device the angle input can be edited between -45° to + 45°.

Furthermore the sawing lengths can be pre-defined and pre-programmed and saved to the material. It is also possible to programme outcuts (option: outcuts)  
Automated calculation of cut metres per order is possible via the control panel.  
Written online help is available for maintenance and trouble shooting.

### Cut optimization PIOS:

Integrated into the control panel EUROLINE IPC, to automatically design a cutting plan with information regarding numbers of boards, cut display, item lists up to 10000 elements at 99999 items each, edge correction, material administration up to 50 formats per material and 200 remaining formats per material, 500 filling elements per material, consideration of fibre run, tension free cut programme.  
Automatic input of item lists taken from external programs via disc drives or network as an optional

### Technical Data:

Working area X-axis max.:	3200/4200/5800mm
Working area Y-axis max.:	3200/4200 mm
Cutting height max.:	82 mm
Emerge of blade max.:	92 mm
Main saw motor:	11,0 kW
Rpm main saw motor:	4200 1 /min
Ø main saw blade:	350 mm
max. blade thickness:	4,40 mm
Scoring saw motor:	2,2 kW
Rpm scoring saw:	5500 1 /min
Rotational direction:	counter rotation
Ø scoring saw blade:	180 mm
max. blade thickness:	4,4 mm
Angle cut device:	- 45° to + 45°
Feed motor tilting saw unit:	1,1 kW
Feed motor pusher fence:	0,75 kW
Clamps at pusher fence:	6/7/9 piece
Clamp position from the left:	65/245/395/985/1605/2845 mm – at SL3200mm 65/245/395/985/1605/2225/3465 mm – SL4200mm 65/245/395/985/1605/2225/3465/4705/5325 mm –
Stops at pusher fence:	1 piece – at SL3200/4200mm 2 pieces – at SL5800mm

Position of stops from the left:	2225 mm – SL3200mm 2845 mm – SL4200mm 2845/4085mm – SL5800mm
Lateral pressure device:	direct from 1300 mm to 30 mm pre-positioned via the programme
Min. suction speed at suction point:	30 m/s
Min. suction capacity:	3900 m <sup>3</sup> /h (at 1 point at the base and 2 at the pressure beam) 900 m <sup>3</sup> /h for every further point at the pressure beam
Min. vacuum at suction point :	830 Pa
Suction point at base:	160 mm Ø, 1 piece left 160 mm Ø, 1 piece right
Suction points at the pressure beam:	100 mm Ø, 2 (3) (4) piece
Air pressure: Air requirement:	6-8 bar 80 l/min
Voltage:	400 V / 50 Hz

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