

TECHNICAL DESCRIPTION

A sawing centre, able to process board material made of chip board, laminated material, synthetic or similar materials. The sawing centre facilitates the efficient process of board materials for constructions in the interior furniture and exhibition sectors. The tilting saw unit manages panel cuts as well a mitre cuts up to 45° in a single operational cycle. The optional angle cut facility allows for angular cuts ranging from -45° to +45°, which can also be operated in combination with the mitre cut (the so called compound mitre cut).

The automated production of the sawing centre 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 tilting saw unit.

Guide system:

The tilting 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).

Tilting saw unit :

The tilting 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 tilting adjustment of the saw unit consists of a gliding guide on both sides of the saw carriage made of optimized material combinations.

The feed speed of the tilting saw unit is variable from 0 – 40 m/min, the return speed always runs at the maximum speed of 40 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.

The saw unit is driven by a 7,5 kW motor. The cutting height of the saw blade can be defined and preset via the machine control panel. The diameter of the saw blade is 350 mm.

The motor of the scoring saw has a capacity of 1,1 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 mechanically with an adjusting screw.

The adjustment process is done easily with a special key from the outside.

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

Pressure beam:

The pressure beam allows offset movements and is welded from enforced buckling resistant profiles. It 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 horizontal adjustment of the pressure beam is done via wear free linear guiding tracks. During the mitre cut the pressure beam is positioned automatically according to the mitre angle and thickness of material.

The thickness of material used is calculated automatically with a touch free measuring system situated at the pressure beam tower. Through the combination of this measurement and the data entered into the control panel, an exact horizontal offset of the pressure beam can be achieved.

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 to ensure 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.

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.

Support tables:

3 support tables 1400 x 600 mm (optional air cushion tables 1400 x 600 mm with cross-flow blower assist in an easy handling of the work pieces).

When using the integrated angle cutting device 1800 x 600 mm tables are being used. The air cushion tables avoid damages on panels.

An offset facility for 2 support tables enables individual positioning in order to achieve an optimal supporting for the work piece.

The machine frame 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 140mm) with two separate suction points of Ø 140 mm to be connected to an external dust suction plant.

The tilting 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 tilting saw unit.

The pressure beam is equipped with 2 (optionally 3) suction points Ø 100 mm.

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

Screen control HWS2002:

Industrial-PC, Pentium III, embedded-Windows NT-technology, 3,5" disc harddrive, CD-drive, touchscreen, connection facilities for external keyboard, mouse and table printer. Integration into a local network is possible. The control panel is situated in a switch box.

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 as well as the mitre angle during the programming of operations. Mitre angle input is possible from 0° to max 45°, rebate and groove depth input as well as feed speed can be pre-programmed.

Furthermore the sawing lengths can be pre-defined and pre-programmed and saved to the material.

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

Technical Data:

Working area X-axis max.:	3200 or 4200 mm	
Working area Y-axis max.:	3200/4200 mm	
	60 mm	
Cutting height max.:	70 mm	
Emerge of blade max.:		
	7,5 kW	
Main saw motor:	4400 1 /min	
Rpm main saw motor:	350 mm	
Ø main saw blade:	4,40 mm	
max. blade thickness:		
	1,1 kW	
Scoring saw motor:	6800 1/min	
Rpm scoring saw:	counter rotation	
Rotational direction: Ø	180 mm	
scoring saw blade:	4,55 mm	
max. blade thickness:		
	min. 0° - max. 45°	
Mitre angle:	40 mm	
Cutting height max. at 45°:		
	- 45° to + 45°	
Angle cut device:		
Feed motor tilting saw unit:	0,37 kW 0,75	
Feed motor pusher fence:	kW	
Clamps at pusher fence:		
	at SL 3200 mm	5 piece
	at SL 4200 mm	6 piece
Clamp position from the left:		
	at SL 3200 mm	65/245/395/985/2225 mm
	at SL 4200 mm	65/245/395/985/2225/3465 mm

Stops at pusher fence:	at SL 3200 mm	1 piece
	at SL 4200 mm	
Position of stops from the left:	at SL 3200 mm	1605 mm
	at SL 4200 mm	1605/2845 mm
Lateral pressure device:	variable from 1000 mm to 160 mm	
Min. suction speed at suction point:	30 m/s 65	
Min. suction capacity : Min. vacuum	m ³ /min 830	
at suction point :	Pa	
Suction point at the base :	140 mm Ø, 1 piece left 140 mm Ø, 1 piece right	
Suction point at the pressure beam	at CL 3200 mm	100 mm Ø, 2 piece
	at CL 4200 mm	100 mm Ø, 3 piece
Air pressure : Air	6-8 bar	
requirement:	80 l/min	
Voltage:	400 V / 50 Hz	