

It is a highly efficient automatic hydraulically controlled band-saw with multiple material feed. The length and number of pieces are set on the control panel. The machine selects the number of feeds and performs the necessary calculations by itself. The system allows the selection from nine different settings for quick adjustment of lengths or automatic modification of lengths when sawing several dimensions from one bar. There is an automatic and a semiautomatic mode, where all movements are controlled independently.

The machine is designed for vertical and angular cuts; angular cuts are steplessly adjustable from 0° to +45° right (in automatic mode) and from 0° to -45° left (in semiautomatic mode). Change of angle using quick clamping handle. The angles indicated on the digital display show the displacement of the turntable.

It is suitable for serial production and thanks to its robust construction enables to cut wide range of materials including stainless steels and tool steels both profiles and full materials.

Construction: The band sawing machine has a sturdy design. The machine is constructionally designed in that way, so that it corresponds to extreme exertions in productive conditions. That is why all carrying parts are made as cast-iron castings (solidity, damping of vibrations and stops). Parts of Frame, vice and turn table is cast iron.

- The Frame of the machine is made of cast iron and it is designed to ensure the strength and the precision of the cut. It is supported by adjustable bearings and firmly attached to the gear unit and to the frame by means of a joint. Frame is placed in adjustable bearings. The power and speed of the Frame can be changed.
- The main vice and feeding vice is made of cast iron and the jaws allow a safe grip. The hydraulically controlled vice with short travel is situated in an adjustable dovetail groove. The adjustment is manual with a wheel and trapeze thread. The vice jaw travels left-right with regard the angular cut; it is secured by a crank.
- The feeding vice is driven by the hydraulic cylinder on two grinded bars by teflon cases. The feeder moves the material to be cut to the main vice according to the set length that was adjusted by the operator in the controlling panel. The position of the feeder is indicated by electromagnetic sensor and measuring magnetic tape. There is a floating seating of the feeding vice in the feeder, it means that the feeding vice moves in perpendicular sense regarding the feeding sense. The firm jaw of the feeding vice copies the possible roughness of feeded material and the wearing of mechanical parts of the feeder is eliminated. For a perfect placing of a feeder, feeder moves to end positions by a slow velocity.
- The turntable provides enough space for supporting and gripping the material. The turning table has autoarresting every 15 grades (the groove with the spring). The angles indicated on the digital display show the displacement of the turntable.
- Leading of blade in hard-metal plates. An electro-mechanical device for tension control and a limit switch protect the saw-band from insufficient tension and maintain perfect cutting conditions at all times. The saw-band is equipped by a guard, which protects the operator from millings and cutting emulsion.
- A powered cleaning brush cleans the saw-band perfectly.
- Drive of machine is solved by worm gear box with maintenanceless oil filling. Three-phases electromotor with double winding, with a frequency converter for a fluent regulation of the blade speed from 20 to 100 m/min. Sturdy flange with shaft. Thermoprotection of engine.
- Cooling system for emulsion with liquid distribution to blade guides.
- Robust base with a tank for chips.
- Indication of blade tightening and opening of the cover
- Controlling 24 V
- The main switch is located on the front door. The motor allows stepless speed variation and is equipped with a safety button, which stops the saw, and another two buttons for turning it on. There is also a feed regulator and buttons, which control the various available movements necessary for managing the "SAW MICRO" tool.
- Machine is equipped by hydraulic system that manipulates all functions of that machine. It presses the Frame to cut, pulls up the Frame, opens and closes vices, moving of feeder.

Basic equipment of machine:

- slide of cut pieces,
- blade,
- set of tools,
- manual instructions.

Operating cycle: The machine automatically grips the material in the main vice and the feeder moves into a position determined by the processor (i.e. the required length of the cut and a constant added length); the feeder-vice's jaw stays open. The Frame moves into the cut; after cutting the material, it moves into the upper position. The feeder moves by the constant added length (exactly to a position determined by the processor) and the feeder jaw grips the material. The vice is released; the feeder moves the material into the zero position (by the required length). The main vice grips, the feeder-vice is released and the entire cycle is repeated. The operator only removes the sawn material.

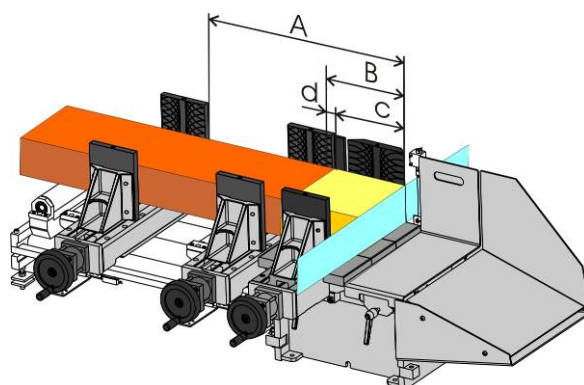
cutting parameters

		 0°	 45°	 45°	 $\frac{b}{a}$	 $\frac{b}{a}$ +HP max	 $\frac{b}{a}$ +HP min
		Automatic cycle		semiautomatic cycle			
	D [mm]	350	320	320	x	x	x
	D [mm]	250*	180*	180*	x	x	x
	a x b [mm]	400x350	330x120	330x120	400x210	400x180	170x10
	a x b [mm]	400x350	260x350	210x350	400x210	400x180	170x10

* recommended values, + HP = The cutting diameter is limited by the hydraulic upper vice

WARNING:

- automatic cutting cycle: only for 90 degree (0 degree) and 45 degree cuts to the right
- semiautomatic cutting cycle (without material feeding into the cut and feeder device in a very left position): for angle cutting to the left



The smallest divisible diameter	5	mm
A: One feed step of the material max	490	mm
A: One feed step of the material Min	3	mm
A: Multiple feed	3200	mm
B: The shortest rest in automatic cycle (c+d)	260+20*	mm

* d = Recommended minimal value. Customer can changed it regarding weigh or quality of material surface.

performance parameters

drive of the blade	kW	3,0
drive of the hydraulic agregate	kW	0,85
pump of the cooling emulsion	kW	0,05
electroengine of the drive of the worm chip extractor-accesories	kW	0,12
installed power of the machine Pi	kW	4,3
electric input of the machine Ps	kW	8,5
cutting speed – fluently set	m/min	20-100
diameter of the blade	mm	4520x34x1,1
electric connection		3x400V, 50 Hz

control

feed of the Frame to the cut	Hydraulically		
feed of the material	Hydraulically		
clamping of material	Hydraulically		
bend tension	Manually		
cleaning of the blade	Cleaning brush driven by a pulley		
cooling	Cooling system for emulsion with liquid distribution to blade guides.		
	performance [l/min]	16,0	content of the tank [l]
			40-45

Parameters

length	width		Height		height of the table	weight
[L]	[Bmin]	[Bmax]	[Hmin]	[Hmax]	[V]	(kg)
2300	2350	2750	1570	2500	940	1325

