

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 cuts.

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. Regarding its robust construction it will be favoured in industrial premises.

Construction:

- A frame of this machine is made from cast iron and is loaded in two columns with linear bearings. Tough frame of machine with columns situated as near the clamping vice as possible minimizes vibrations and enables max. cutting performance.
- A frame of this machine is made from cast iron and is loaded in two columns with linear bearings.
- A driven brush is mounted for a perfect cleaning of a blade.
- The 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 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.
- Loading 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.
- 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
- On the front door is main switch, 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 arm to cut, pulls up the arm, 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 arm 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					
			b	b +HP max	b +HP min
	D [mm]	350	x	x	x
	D [mm]	250*	x	x	x
	axb [mm]	400x350	400x210	400x160	240x150
	axb [mm]	400x350	400x210	400x160	240x150

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

the shortest cutting	10	mm
the smallest divisible diameter	10	mm
the shortest rest durring one cut	50	mm
the shortest rest in automatic cycle	270	mm
one feed step of the material Min		mm
one feed step of the material max		mm
multiple feed		mm

performance parameters		
drive of the blade	kW	3,0
drive of the hydraulic agregate	kW	0,75
pump of the cooling emulsion	kW	0,05
electroengine of the drive of the worm chip extractor	kW	0,12
total input	kW	
cutting speed – fluently set	m/min	20-100
diameter of the blade	mm	4520x34x1,1
electric connection		3x400V, 50 Hz

control		
feed of the arm 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	input by jets directly to quides of the blade and by a flexible distribution into the cutting place	
	performance [l/min]	content of the tank [l]
	16,0	50-60 l

Parameters						
lenght	width		Height		height of the table	weight
	[L]	[Bmin]	[Bmax]	[Hmin]		
2300	1000		2100	2000	930	1150

