

1200x1400 HERKULES X

Technical data



- Highly productive semi-automatic, hydraulically manipulated two column band saw machine.
- The machine is designed for vertical cuts.
- The machine is designed to saw steel materials, but also non-ferrous and light metals. However, we recommend consulting the manufacturer about this option.
- **No other materials may be sawn without approval from the manufacturer.**

Control system:

- Machine is equipped with programmable PLC SIEMENS SIMATIC S7-1200. Drive of band blade and movement of arm are completely controlled and drive by SIEMENS technology.
- The coloured touch screen HMI SIEMENS TP 700 COMFORT enables easy communication with an operator. It shows working conditions (blade speed, moving to the cut, cutting parameters etc.)
- SEMIAUTOMATIC CYCLE: The machine cuts the material immediately in a semiautomatic mode. The operator uses the feeder of the machine for the manipulation with the material and for the exact feed of the material into the cutting zone. The movement of the feeder is realized by manual buttons or by GTO function. After starting GTO function the operator sets the position of the feeder, presses START GTO button and feeder goes to the set position.
- Regulation of cutting feed is realized by controlled system by the servo-motor and throttle valve of hydraulic. Then is reached very precise cutting feed. Operator will input into program required cutting feed (mm/min) and bandsaw this cutting feed precisely set.
- Two basic regimes of automatic system regulation (ASR): ARP a RZP.
 - RZP = Zone regulation. System enable to cut material in 5 zones, because of setting optional cutting feed and blade speed according on blade position.
 - ARP = System of the automatic regulation of the cutting feed rate depending on the cutting resistance of the material or blunting the blade. System offers two basic modes of ARP: BIMETAL and CARBIDE.
 - BIMETAL mode is suitable for optimization of the cutting feed when cutting profiles by bimetal blades. The cutting feed is higher if the blade cuts sides of the profile. As the blade reaches the full material, the system reduces the cutting feed automatically so that teeth gap of the blade would not be filled.
 - CARBIDE mode is suitable for cutting of full bars. If the blade is old (blunt), loaded is the cutting feed reduced Reaction time is slower than in mode BIMETAL.
- Safety module with autodiagnosics.

Construction:

- The machine is constructionally designed in that way, so that it corresponds to extreme exertions in productive conditions. Massive construction enables using of carbide blades comfortably.
- The arm of machine with columns situated as near the clamping vice as possible minimizes vibrations and enables max. cutting performance.
- The arm of the machine is robust, heavy weldment and it is designed so that a toughness and a precision of cut was ensured.
- The arm moves along two columns using a four row linear leading with a high loading capacity. Arm movement using two hydraulic cylinders.
- The robust steel pulleys sloped of 25 degrees regarding the level of the cut. Thanks to sloped arm the twist of the blade is eliminated and there is possibility to bring the blade closer to the minimal distance from the linear leading on columns. This arrangement eliminates vibrations and enables the max. cutting performance of the machine.
- The arm uses incremental sensor for evaluation of current position above material. Upper working position of the arm is possible to set in control system.
- Down working position is set with adjustable mechanical stop and microswitch. Down working position of the arm is also possible to set in the saw control system. After reaching bottom working position the arm stops in the position set in the system.
- Jaws of the main vice move on two rails of linear leading using hydraulic cylinder. One jaw is longstroke (the movement by longstroke hydraulic cylinder), one is fixed.

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



- There is a roller conveyer which supports material in whole feeded length. Conveyor contains driven rollers.
- The blade leading in guides with hardmetal plates and leading bearings and along cast iron pulleys.
- There is a guide situated on the firm beam on the drive side. On the tightening side there is the guide situated on the moving beam.
- The guide beams of the blade are adjustable in the whole working range. A guide moving is connected with a vice-jaw movement so that to achieve the minimum distance of the guide and material. That is why it is not necessary to set the position manually.
- Hydraulic tightening of band.
- Automatic indication of blade tension.
- A cleaning brush is driven by an electroengine and ensures perfect cleaning of a blade
- There is a planet gear box drive and a three-phase electroengine, a fluent regulation of a blade speed by a frequency converter for a fluent change of blade speed.
- The cooling system for emulsion, leaded to the guides of the blade and by LoLine system directly to the cut groove.
- Massive base with a tank for chips and with chip extractors. Base is designed for manipulation manipulation with machine by crane.
- Indication of blade tightening and opening of the cover.
- Controlling 24 V.
- Maschine is equipped with hydraulic system which controls all functions of that machine. It pushes the arm to cut, pulls up the arm and opens and closes vices.

Basic equipment of the machine:

- Chip extractor
- Lighting of workink space.
- Band saw blade.
- Set of spanners for common service.
- Manual instructions in electronic form (CD).

Cutting parameters:

		 0°
	D [mm]	1200
	D [mm]	1200*
	a x b [mm]	1200 x 1400
	a x b [mm]	1000x 680

^o Cutting bundles without vertical clamp. HP = accessory at extra cost. When HP is used, the cutting parameters will be limited.

Performance parameters

Blade dimensions	mm	11650x80x1,6
Blade speed	m/min	15-80
Blade drive	kW	11,0
Pump of the cooling emulsion	kW	0,09
Electroengine of the drive of the worm chip extractor	kW	0,12
Control circuit	kW	0,5
Total input (Ps)	kW	20,1
installed power(Pi =)	kW	15,4
Total input (Ps)	kW	20,1
Electrical connection		3 x 400V, 50Hz, TN-S

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Saw dimensions					
Lenght	Width	Height		Height of the table	Weight
[L]	[B]	[Hmin]	[Hmax]	[V]	(kg)
5200	2700	2850	4100	760	25000

A technical drawing of the saw machine from a side perspective. It shows the main body, the table, and the blade assembly. Dimension lines indicate: Lmax (total length), B (width), H (total height), and V (height of the table surface).

Note: the dimensions are valid for the saw without optional accessories