700x750 HERKULES X

PEGAS GONDA

A highly productive semiautomatic, hydraulically manipulated two column band saw machine.
X version in the basic solution offers 64-bits control system with posibilities of automatic regulation of the arm movement towards the cut that depends on cut resistance of the material, electronic setting of upper and down position of the arm, on display you can see cutting speed. The control system is prepared for comunication with other external accesories.
The machine is designed for vertical cuts.
It is suitable for serial production in industrial premises. Thank to its robust construction enables to cut wide range of materials including stainless stells and tool steels both profiles and full materials.

Construction:

- The band saw machine has a robust construction which determines Herkules machines for use of carbide blades. The machine is designed so that it answers the extreme exposure in production conditions.
- An arm is a rugged weldment and it is designed so that a toughtness and a precision of cut was secured.
- Arm moves on two columns by a help of a four row linear leading with a high loading capacity. Arm movement by a help of 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 these 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 of the machine uses the incremental sensor to evaluate the cutting feed and hight of the blade above the vice level.
- Working positions of the arm : the end switch to set the down position. the upper working position of the arm is set automatically by an optic sensor which is situated under the blade. The arm of the machine moves by a cutting feed after starting of every cut. It is possible to activate the speed feed of the arm in manual regime only. This minimalizes the human error of the error of the miscroswitch.
- Electro-hydraulical equipement of a blade tension with an end switch ensures a constant tension and enables to keep ideal cut conditions. Machine has hydraulically manipulated band tension, adjustable quides with hardmetal plates and upper blade leading by a harden ring on a needle bearing. A giude is connected to a jaw of vice so that to achieve the minimum distance of the guide and material.
- 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 circumferential blade speed by a frequency converter for a fluent change of blade speed. Attention: Drive with planet gearbox coresponds with drive with worm grearbox and engine of cca double multiple power.
- Machine is equipped with a cooling systém for emulsion distributed to blade quides.
- Robust base with a tank for chips.
- Indication of blade tightening and opening of the cover.
- Control terminal with a microprocessor, control 24V.
- The machine is equipped by the controlling MAHLER terminal, which controls the cut of the machine in two basic regimes : BIMETAL and CARBIDE.
- **BIMETAL** regime is suitable for optimalization of the cutting feed when cutting profiles by bimetal blades. The cutting feed is realized by PEGAS ARP system which automatically regulates cutting feed depending on the resistance of the material. The cutting feed is higher if the blade cuts sides of the prifile. As the blades reaches the full material, the system reduces the cutting feed automatically so that teeth gap of the blade would not be filled.
- **CARBIDE** regime is suitable for cutting of full bars by bimetal or carbide blades. The controlling system regulates the cutting feed automatically (75% feed) at the beginning of the cut. The aim is to eliminate vibrations and the load of the blade teeth at the beginning of the cut. The cutting feed is constant during the cut, 15mm before the end of the cut the systems reduces the cutting feed automatically. Higher bladelife is achieved. Controlling system in CARBIDE regime uses the regulation of the cutting feed during excessive load of the blade (systems reads the load of the blade drive in Ampers). The regualtion is not active, it serves as a fuse if the blade is not worn out. The controlling system reduces the cutting feed to one half and finishes the cut.
- The regulation of the cutting feed is realized by a hydraulic valve controlled by servoengine. Thanks to this a very precise cut is achieved. The operator inserts the desired cutting feed (mm/min) into the programm and the machine sets this feed very exactly. This way of control depends on the temperature (viscosity) of hydraulic oil.
- A controlling systém of machine represents a working states as circumferential blade speed, speed of arm movement to cut and a state of single working movements. A part of a system are also inputs and outputs for connection of an abovestandard accessories.
- Safe Siemens model with autodiagnostics.
- Working movements are regulated by hydraulic system. There are regulation valves for setting a vice pressure in hydraulic systém.

Basic equipment:

- light above the working place
- frequency converter
- blade
- set of tools
- manual instructions

Operating cycle:

After starting the machine, vices are clamped automatically, cut is made by selected cutting speed, in the end position microswitch is on, arm goes to selected up position and vices open automatically. The only task for operator is to manipulate with material.

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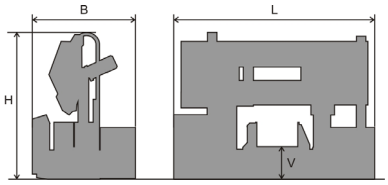
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cutting parameters				
		0°	b / a	
○	D [mm]	700	x	
●	D [mm]	700	x	
▭ a b	axb [mm]	750x700	750x450	
▯ a b	axb [mm]	750x700	750x450	*recommended values

performance parameters		
drive of the blade	kW	11,0
drive of the hydraulic agregate	kW	4,0
pump of the cooling emulsion	kW	0,155
electroengine of the cleaning of the blade	kW	0,12
total input	kW	28,8
cutting speed – fluently set	m/min	15 - 80
diameter of the blade	mm	7680x67x1,6
electric connection		3/N/PE AC 400/230V 50Hz, TN-S

Kontrol		
feed of the arm to the cut	Hydraulically	
feed of the material	Manually	
clamping of material	Hydraulically	
bend tension	Hydraulically	
cleaning of the blade	A cleaning brush is driven by an electroengine	
cooling	Input by jets directly to quides of the blade and by a flexible distribution into the cutting place	
	performance [l/min]	performance [l/min]
	63	

Parameters					
Lenght	width	Height max	Height min	height of the table	weight
[L]	[B]	[Hmax]	[Hmin]	[V]	(kg)
3800	1950	2800	2400	620	5950



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