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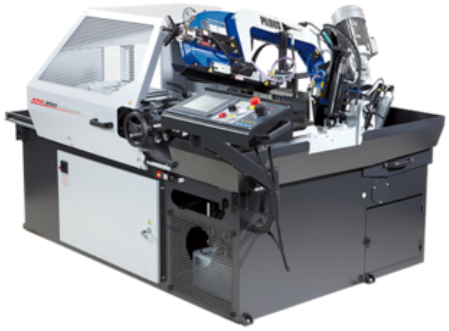
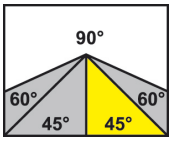
ARG 250 CF-NC automat





2710 x 27 x 0,9

	90°	+45°
●	250	180
■	245	170
▬	245 x 250	180 x 120

Main motor	400 V, 50 Hz, 2,2 kW
Pump motor	400 V, 50 Hz, 0,05 kW
Hydraulic motor unit	400 V, 50 Hz, 0,37 kW
Servo motor of the feed	400 V, 50 Hz, 1,3/2 kW
Feed rate of material	1,6 / 2,5 / 3 m/min.
Saw blade speed	15-90 m/min.
Working height of vice	790 mm
Hydraulic system oil	cca 25 l (ISO 6743/4-HM, DIN 51 524 part 2-HLP
Coolant tank	cca 40 l
Machine dimensions (min.)	1500 x 2150 x 1350 mm
Machine dimensons (max.)	1800 x 2150 x 1650 mm
Machine weight	937 kg

DESCRIPTION

Fully automated CNC band saw is generally suitable for cutting big series in the heaviest and non-stop operating plants. The machine is equipped with a workpiece feed by industrial servomotor with a new control system. The servomotor and ball screw ensure high speed and maximum accuracy of workpiece feed, even in multiple feed when cutting long pieces. Options of setting three feed rates – 27, 42 or 50 mm/s acording to weight and length of the workpiece to be cut. Maximum length of a single feed is 500 mm.

Central control panel with a big colour touch screen (7.5”) ensures simple intuitive control of all features of the machine. The control unit allows for programming of up to 60 programmes for quick setting of the feed length in repetitive production. Each programme can be annotated, e.g. by the drawing number. Possibility of programming and cutting of different number of pieces of different sizes without the need for further operation of the machine. The machine can be controlled in fully automatic, semi-automatic or manual mode. In manual mode all functions of the machine are controlled separately. Workpiece clamping and arm feed into and out of the cut in the desired position according to section of the workpiece are controlled by hydraulics. Regulation of pressure of the feeding and fixed vice is included in the standard equipment.

Maximum cutting efficiency is maintained also thanks to the possibility of setting optimum saw band rate by a frequency converter in the range between 15 and 90 m/min., which significantly contributes to cutting accuracy and service life of saw bands. Maximum accuracy of workpiece feeding is based on a very robust construction of the machine with all the main parts made of grey cast iron and massive framework of the feeding system. Large base and overall massive framework guarantee exceptional stability of the machine even when cutting heavy workpieces. The base is equipped with a large removable chips container and allows for installation of an optional worm chips container. Industrial band 27 x 0.9 mm is manufactured in many versions and allows for cutting of wide range of materials, including stainless steel or tool steel.

- Continuous manual setting of the cutting angle within 90°–45°. The material can be cut by angular cutting or in automatic mode as well.
- Very robust machine framework composes of castings from grey cast iron and ensures vibration absorption.
- Modern concept of the band saw arm allows for large cutting ranges in upright and angular cuts.
- Large diameter running wheels and precise three-side hardmetal guiding ensure long service life of the band and cutting accuracy.
- Overdesign of running wheel bearings, tensioning wheel system and all rotary parts ensures long service life of the machine.
- Noiseless and maintenance-free band drive is provided by an industrial electric motor with worm gearbox.
- The machine is connected to a complete cooling system with a high-performance pump and possibility of regulating the flow on both guiding heads independently and on an additional adjustable outlet. Coolant tank with a high-performance pump is placed in the base of the machine.
- The machine checks correct tension or break of the saw band. If the saw band breaks the machine automatically switches off.
- Easy intuitive controls by ergonomically places controls on the rotary central control panel.

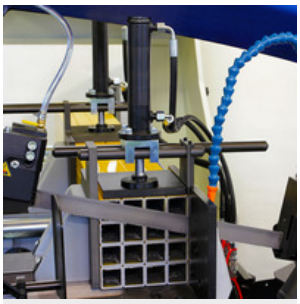
ACCESSORIES

FR*

Frequency converter - Standard equipment
Enables continuous blade speed regulation between 15–90 m/min. and thus setting the optimum cutting conditions for the given material.

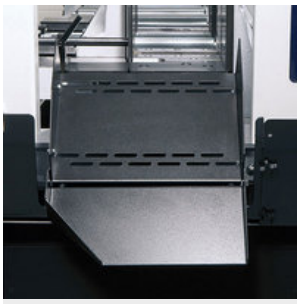
OPL*

Rinse spray gun - Standard equipment
For cleaning working space of the machine.



HVP NC 250/300/330

Hydraulic pressure device NC
Used to clamp bundles of material to be cut. It provides reliable clamping with hydraulically operated vertical pressure, working within the machine's cycle. It is installed on the fixed vice and feeding vice.



KL

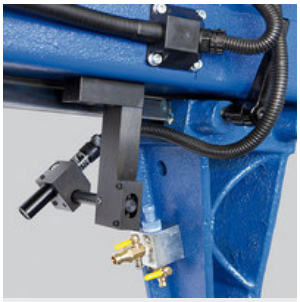
Material chute KL
Continuously joins the vice behind the cut and allows for easy slide of cut pieces into a container when cutting larger series. The chute construction consisting of 2 parts prevents leakage of the coolant.

LA 50

Halogen lamp LA 50
Provides good lighting of the workplace of the machine. An invaluable tool especially when the lighting at the workplace is insufficient.

MM

Oil mist lubrication MM
Creates an oil mist that is sprayed onto the cutting edge. It replaces the use of a classic coolant, especially when cutting sections during which leakages may occur. Possibility of using organic oils.



LS

Laser alignment LS
High-quality industrial laser projects the cutting line on the material to be cut. Makes the setting of the required material length simpler, faster and more accurate.

SD

Screw chips conveyor SD
Ensures smooth removal of chips from the machine. Reduces the time needed for the cleaning of the machine especially when cutting series of full materials producing large amount of chips.

CD

Saw band tension indicator CD
Ensures accurate tensioning of the saw band to a required value according to the pressure gauge and its control during the use of the machine. Optimum tensioning of the saw band is essential for its service life and cutting accuracy.

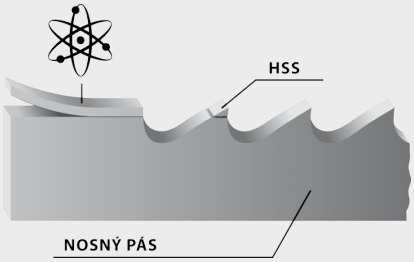
SDB

Chip container SDB
For easy handling is chip container equiped with wheels and swivel chip bin.

CONVEYORS

MAXtech

- Original bandsaw blades produced using the latest technology with top-quality German materials, while strictly complying with all stated production and control procedures.
- High productivity and precision of cut with the maximum service life of the blade is ensured.
- Wide range of produced types of sawblades and toothing enables the professional cutting of almost all available materials.



Bi-metal blade

Consists of bearing band from special steel on which a layer of HSS material is welded into where the teeth are milled.

Constant toothing

The distance of the teeth are always the same.

Variable toothing

The distance of teeth vary and is periodically repeated. This results in a greater cutting range, ability to further eliminate vibrations caused by the impact of the tooth blade on material, longer service life of the blade.

M42

Universal blade recommended for a wide palette of material, including tool steels and stainless steel up to hardness 45 HRC. Teeth are made from steel HSS-M42 containing cobalt.

M51

Blade for tool and stainless steel with hardness up to 50 HRC. Tooth tips are made from steel HSS-M42 containing cobalt and wolfram

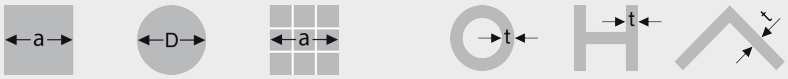
Carbide

Consists of bearing band from special steel into which the teeth are milled on which especially grinded carbide plates are welded. The carbide mounted blade is recommended for cutting surface hardened materials, chrome parts, forged pieces and materials with external tenacity and hardness up to 62 HRC.

Cutting range

For optimal output of the blade, the correct selection of the size of the blade tooth is important depending on the size of the divided material.

SOLID MATERIALS	PROFILED MATERIALS



Variable toothing		Constant toothing		Variable toothing		Constant toothing	
a(D) [mm]		a(D) [mm]		t [mm]		t [mm]	
0–25	10/14	0-10	18	0-4	10/14	0-1	18
20-40	8/12 (8/11)	5-20	14	3-6	8/12 (8/11)	0-3	14
30-60	6/10	20-40	10	6-9	6/10	4-7	10
40-70	5/8 (5/7)	40-80	6	9-13	5/8 (5/7)	8-11	6
60-110	4/6	80-120	4	12-16	4/6	12-15	4
80-140	3/4	120-200	3	16-22	3/4	16-20	3
120-350	2/3	200-400	2	20-35	2/3	21-30	2
250-550	1,4-2	300-800	1,25	30-85	1,4-2	31-90	1,25
380-750	1/1,5			40-85	1/1,5		
550-3000	0,75/1,25			80-200	0,75-1,25		

When selecting the number of teeth for the blade, the general principle applies of a minimum of 4 teeth, but no more than 30 teeth are in contact with the work piece.

Be careful when unpacking welded saw blades. They are in a shipping container in tensioned condition. Remove the saw blade cover only after fitting it onto the machine.

EMULSION

COOLcut Standard

COOLcut Standard – universal coolant and lubricant.
Recommended concentration 5–10 %. 5 litres pack. Dilution 1:20.
• fluid allows achievement of optimal lubricating and cooling properties during the machining process
• low aromatic, highly refined paraffinic oil
• effective corrosion inhibitors provide permanent protection of the workpiece and the machine from corrosion
• bio stability and excellent wettability ensure excellent cooling and lubricating effect even in very hard water
• minimum tendency to foaming ensures effective lubrication
• high efficiency and profitability of use
Except use on log band saws the product is designed for machining operations carried out both on conventional machines and NC and CNC machining centres.

COOLcut Opti

COOLcut Opti – universal coolant and lubricant. Such machining fluid allows achievement of unique lubricating and cooling properties during the machining process.
Recommended concentration 4–7 %. 1 and 5 litres pack. Dilution 1:20.
• low aromatic, highly refined mineral oil
• effective corrosion inhibitors provide permanent protection of the workpiece and the machine from corrosion
• above average stability and excellent wettability ensure excellent cooling and lubricating effect even in very hard water
• minimum tendency to foaming ensures effective lubrication
• high efficiency and profitability of use
• long-term biostability
In addition to use in saw bands the product is designed for machining operations carried out both on conventional machines and NC and CNC machining centres.

COOLcut Eco 65

COOLcut Eco 65 – universal cooling and lubricating emulsifying oil, well biodegradable according to OECD 301-D test. Biodegradability of 65 % in 21 days.
Recommended concentration 4–7 %. 5 litres pack. Dilution 1:20.
• Such machining fluid allows achievement of unique lubricating and cooling properties during the machining
• process
• highly refined synthetic ester oil
• effective corrosion inhibitors provide permanent protection of the workpiece and the machine from corrosion
• above average stability and excellent wettability ensure excellent cooling and lubricating effect even in very hard water
• minimum tendency to foaming ensures effective lubrication
• high efficiency and profitability of use
• long-term biostability
In addition to use in saw bands the product is designed for machining operations carried out both on conventional machines and NC and CNC machining centres.

COOLcut Bio 90

COOLcut Bio 90 – universal cooling and lubricating emulsifying oil, well biodegradable according to OECD 301-D test. Biodegradability of 90 % in 21 days. Due to its biodegradability it can be used in any outdoor environment without environmental damage.
Recommended concentration 4–7 %. 5 litres pack. Dilution 1:20.
• Such machining fluid allows achievement of unique lubricating and cooling properties during the machining
• process
• highly refined synthetic ester oil
• effective corrosion inhibitors provide permanent protection of the workpiece and the machine from corrosion
• above average stability and excellent wettability ensure excellent cooling and lubricating effect even in very hard water
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In addition to use in saw bands the product is designed for machining operations carried out both on conventional machines and NC and CNC machining centres.

COOLcut Micro

COOLcut Micro – an easily biodegradable semi-synthetic cooling and lubricating micro-emulsion. Due to its biodegradability it can be used in any outdoor environment without environmental damage. Such machining fluid allows achievement of unique lubricating and cooling properties during the machining process.
Pack of 5 litres. Use undiluted.
• highly refined synthetic ester oil
• effective corrosion inhibitors provide permanent protection of the workpiece and the machine from corrosion
• above average stability and excellent wettability ensure excellent cooling and lubricating effect even in very hard water
• minimum tendency to foaming ensures effective lubrication
• high efficiency and profitability of use
• long-term biostability
In addition to use in saw bands the product is designed for machining operations carried out both on conventional machines and NC and CNC machining centres. 5 litres pack.

COOLcut Antifreeze

COOLcut Antifreeze – low-freezing ingredient for water miscible coolants used in winter in outdoors environment, up to minus 20 °C, depending on the dosage.
5 litres pack. Dilution 1:20.
• effectively lowers the freezing point of the fluid
• very good resistance to oxidation guarantees long service life
• does not act aggressively on the sealing elements (elastomers), to which it comes into contact.

Optima Antifreeze	(%)	10	20	30	40	50
Flowability temperature	(°C)	-5	-10	-17	-26	-40

RECOMMEND

OH 90

Simple and very fast deburring of all kinds of sections (including the internal edges) or full material by a rotary steel brush. High quality construction of the machine along with a three-phase motor make use of the machine possible in specialized workshops as well as in production plants. Compared to manual deburring it reduces the required time and hence reduces your costs. While maintaining incomparably higher and balanced quality of deburring.
We recommend using stainless steel brush for stainless steel products.
Example of the difference between manual deburring (including internal edges) and OH 90

Hollow section 60 x 60 x 2 mm:	manual deburring - 32 s	machine OH 90 - 8 s
Tube diameter 50 x 2 mm:	manual deburring - 21 s	machine OH 90 - 4 s

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