



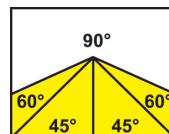
## Pilous

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### ARG 500 plus S.A.F.



6040 x 41 x 1,3

|   | 90°       | -45°      | +45°      | +/- 60°   |
|---|-----------|-----------|-----------|-----------|
| ● | 500       | 500       | 500       | 350       |
| ■ | 450       | 440       | 440       | 310       |
| ■ | 620 x 450 | 440 x 450 | 430 x 450 | 310 x 400 |

|                           |                                                 |
|---------------------------|-------------------------------------------------|
| Main motor                | 400 V, 50 Hz, 4 kW                              |
| Pump motor                | 400 V, 50 Hz, 0,12 kW                           |
| Hydraulic motor unit      | 400 V, 50 Hz, 0,55 kW                           |
| Saw blade speed           | 15-90 m/min.                                    |
| Working height of vice    | 870 mm                                          |
| Hydraulic system oil      | cca 26 l (ISO 6743/4-HM, DIN 51 524 part 2-HLP) |
| Coolant tank              | cca 35 l                                        |
| Machine dimensions (min.) | 1410 x 2370 x 1580 mm                           |
| Machine dimensions (max.) | 2000 x 2600 x 2150 mm                           |
| Machine weight            | 1530 kg                                         |

## DESCRIPTION

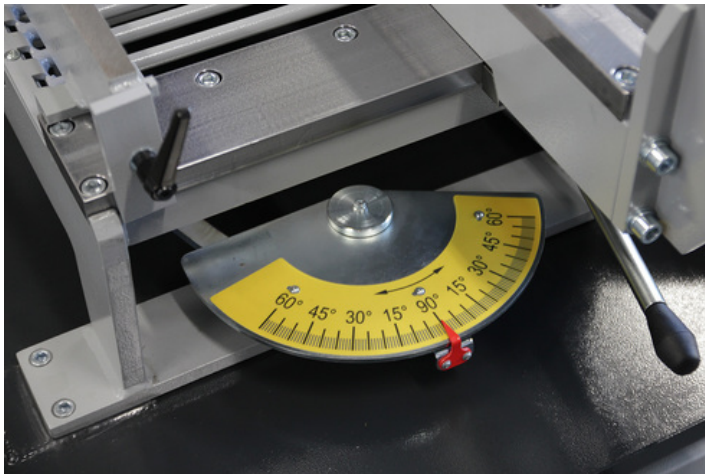
**The modern conception of a massive band saw arm allows for industrial cutting of full materials of large sections, cutting of very large sections and also for angular cutting. That is why the maximum cutting angle range of 60° to the right and 60° to the left is available. The robust industrial band saw is generally suitable for all demanding production plants. The saw band sized 41 x 1.3 mm ensures accurate cutting of large cross-sections. The band is manufactured in many versions and allows for cutting of wide range of materials, including stainless steel or tool steel.**

Easy intuitive controls through a touchscreen on an ergonomic rotary central control panel. The display also shows required lifting height of the saw band arm depending on the cross section of the material to be cut. Moreover it allows you to monitor the number of cut workpieces in the current settings and machine diagnostics (PLC inputs and outputs, history of errors). During cutting the display shows saw band speed, main engine load and any potential error messages. The display also shows cutting angle settings. Special accessories.

When you switch to the manual mode you can control all functions separately. The machine is equipped with a high-performance industrial hydraulic unit which allows setting of the contact pressure of the vice. All of this in connection with hydraulics-controlled saw band feed into cut significantly increases cutting efficiency, especially in larger series and cutting of full and high-quality materials. Pressing a single switch will execute complete cutting cycle – material clamping, band and cooling system start, cutting, band and cooling stop, arm uplift to the original adjustable position and vice unclamping. Both saw band guiding heads are fitted with automatic regulation of feed into cut, which significantly increases the rate and accuracy of cutting and service life of the saw band. 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. The ergonomic base of the machine is by default equipped with a removable chips container or with an additional chips conveyor. Powerful, separately powered cleaning brush for removal of chips from the saw band.

- In order to achieve maximum stiffness of the whole system and cutting accuracy, the band saw arm is attached to a sturdy turntable on both sides in massive housings fitted with pre-stressing tapered roller bearings.
- The turntable rotates along with the saw band. Thanks to that the saw band does not cut into the loading surface of the vice.
- The system is mounted on tapered roller bearings in order to facilitate the easiest possible rotation of the arm during angular cutting.
- Simple locking and adjusting of a required cutting angle on the angle scale or, as additional accessories, digital monitoring on a touch screen.
- Massive full uplift vice ensures easy, fast and reliable material clamping.
- 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 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 control by ergonomically placed controls (electrical and hydraulics) on a rotary panel.

## PHOTOGALLERY





FR\*

## Frequency converter - Standard equipment

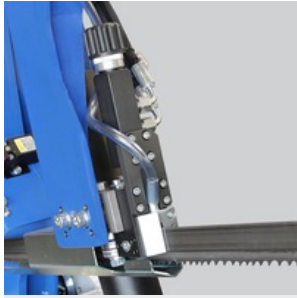
Enables continuous blade speed regulation between 15–90 m/min. and thus setting the optimum cutting conditions for the given material.



KDE\*

## Electrical cleaning brush - Standard equipment

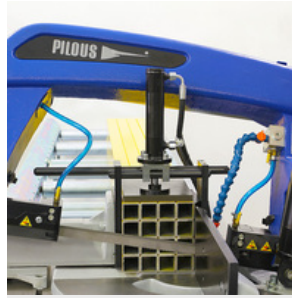
Steel circular brush powered by and industrial motor with worm gearbox. Used to remove chips from the saw band behind the cut.



AG\*

## Pressure regulation - Standard equipment

Hydraulically controlled double-side automatic regulation of saw band feed into cut according to the resistance of the material to be cut. Significantly reduces the cutting time and service life of the saw band.



HVP

## Hydraulic pressure device

Used to clamp bundles of material to be cut. Ensures reliable clamping by hydraulically controlled vertical contact pressure working within the machine's cycle.



LA 50

## Halogen lamp

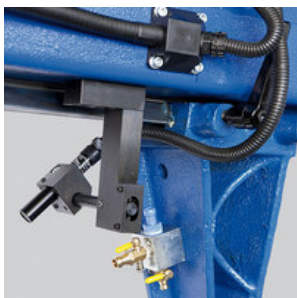
Provides good lighting of the workplace of the machine. An invaluable tool especially when the lighting at the workplace is insufficient.



MM

## Oil mist lubrication

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

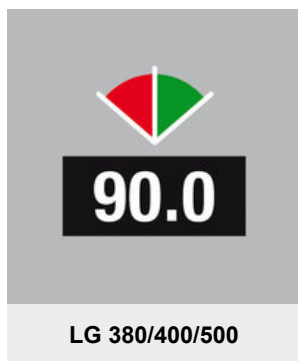
High-quality industrial laser projects the cutting line on the material to be cut. Makes the setting of the required material length simpler, faster and more accurate.



DR 380/400/500

## Workpiece stop

Robust stop with a 500mm scale for setting the required length of the material to be cut.



### Display of angles

Digital scanning of set cutting angle ensures fast and accurate setting of the required angle. The value is displayed with an accuracy of 0.1 degrees on a central touchscreen. We recommend this equipment especially for a frequent angular cutting.



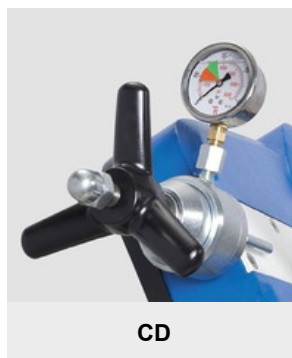
### Hydraulic tensioning

Ensures convenient tensioning of the saw band by a manual hydraulic pump 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.



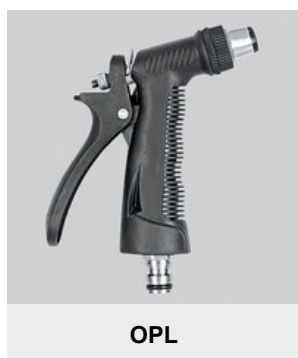
### Screw chips conveyor

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.



### Saw band tension indicator

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.



### Rinse spray gun

For cleaning working space of the machine.



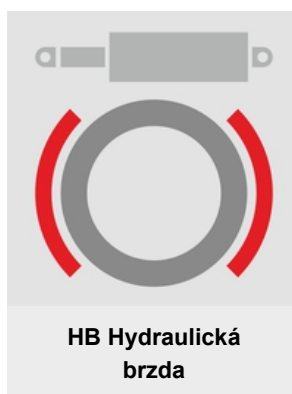
### Bevel gearbox with 5,5 kW motor

Bevel gearbox with stronger motor 5,5 kW increases cutting power. Efficient for highly productive cutting of tough metal, e.g. stainless steel.



### Chip container

For easy handling is chip container equipped with wheels and swivel chip bin.

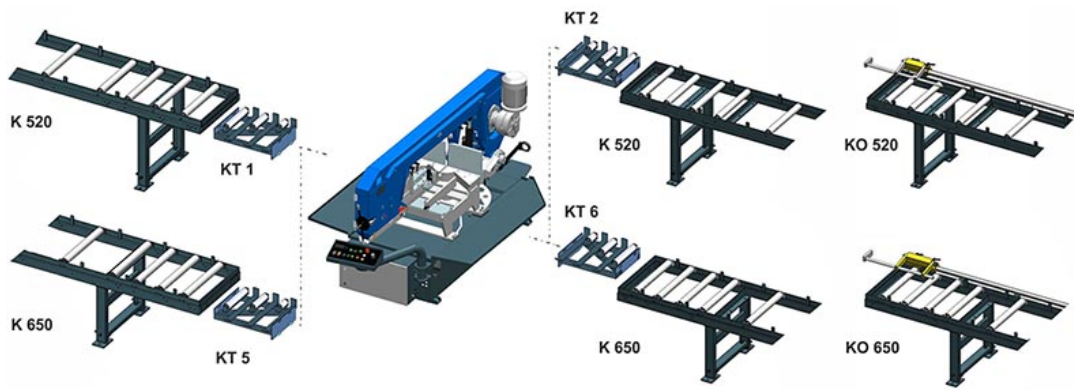


### Hydraulic brake of the arm swiveling

Device allows easy fixation of the arm position from the control panel.



## CONVEYORS





- 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 toothings 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 toothings**  
The distance of the teeth are always the same.

**Variable toothings**  
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.



| Variable toothings |             | Constant toothings |      | Variable toothings |             | Constant toothings |      |
|--------------------|-------------|--------------------|------|--------------------|-------------|--------------------|------|
| 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
- 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 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 |



OHE 90

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