



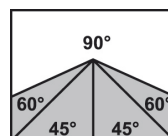
**Pilous**

Železná 9, 619 00 Brno, Czech Republic

Tel.: +420 543 25 20 10

e-mail: [metal@pilous.cz](mailto:metal@pilous.cz), [www.pilous.cz](http://www.pilous.cz)

## ARG 330 DC S.A.F.



3870 x 34 x 1,1

	90°
●	330
■	310
■	360 x 310

Main motor	400 V, 50 Hz, 3 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	855 mm
Hydraulic system oil	cca 25 l (ISO 6743/4-HM, DIN 51 524 part 2-HLP)
Coolant tank	cca 30 l
Machine dimensions (min.)	1450 x 2500 x 1950 mm
Machine dimensions (max.)	1700 x 2500 x 2100 mm
Machine weight	1170 kg

## DESCRIPTION

**Massive double-column semi-automatic machine designed for versatile use in the industrial cutting of materials even in the most challenging and non-stop applications. A completely new revolutionary concept of the band saw arm casting and a unique design. The massive grey cast iron arm is entirely unique in the category of dual-column band saws. This, and the massive dual-column arm support moving on linear guides ensure excellent stiffness of the whole system and accurate cut during industrial cutting of full materials. Industrial band 34 x 1.1 mm is manufactured in many versions and allows for cutting of wide range of materials, including stainless steel or tool steel.**

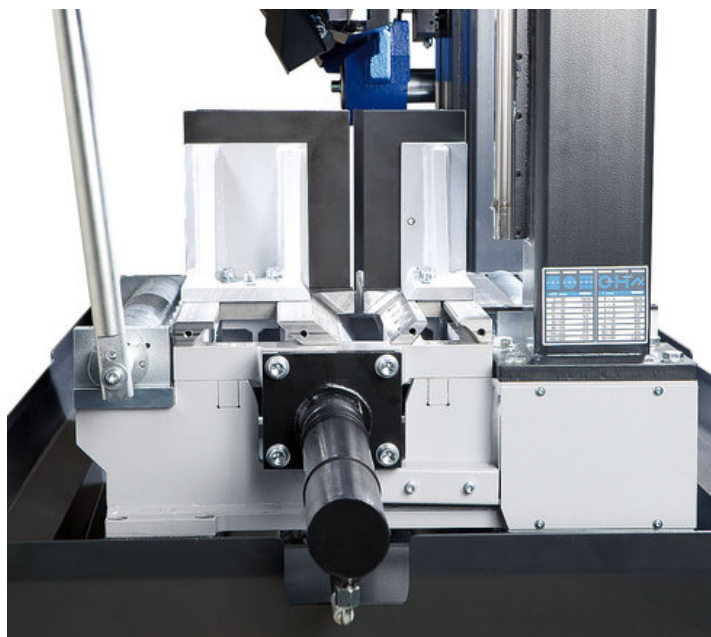
Optimum clamping of the workpiece when cutting is facilitated by full-stroke double-jaw vice which clamps the material both before and behind the cut. Pressing a single switch will execute complete cutting cycle – material clamping, band and cooling system start, cutting, band and cooling stop, arm uplift to the original adjustable position and vice unclamping. When you switch to the manual mode you can control all functions separately.

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 machine is equipped with a high-performance industrial hydraulic unit which allows setting of the contact pressure of the vice. Maximum cutting efficiency is maintained also thanks to the possibility of setting optimum saw band speed 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. Large base and overall massive framework guarantee exceptional stability of the machine even when cutting heavy workpieces. By default the machine is equipped with a screw conveyor. Its location right below the cut ensures optimum removal of chips. The basic version of the vice assembly is also equipped with an eccentrically placed roller which allows easy manual lift of the material onto the loading area of the vice and therefore its smooth movement. The assembly is equipped with a material slide behind the cut. High-quality lighting of the work area by a line of powerful LEDs with a cover.

- In order to achieve maximum accuracy and productivity the machine is designed only for upright cutting.
- Very robust machine construction composes of massive castings from grey cast iron and ensures vibration absorption.
- 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 the possibility of regulating the flow on both guiding heads independently and on two additional adjustable outlets. The coolant tank with a high-performance pump are 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.

## PHOTOGALLERY



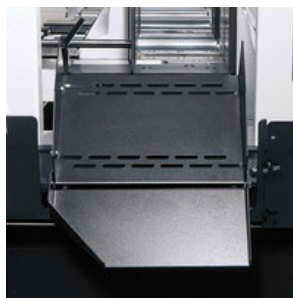




FR\*

## 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.



KL\*

## Material chute - Standard equipment

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.



SD 520\*

## Screw chips conveyor - Standard equipment

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.



OPL\*

## Rinse spray gun - Standard equipment

For cleaning working space of the machine.



LED\*

## LED Light - Standard equipment

High-quality lighting of the work area by a line of powerful LEDs with a cover. An invaluable tool especially when the lighting at the workplace is insufficient.



HVP

## Hydraulic pressure device

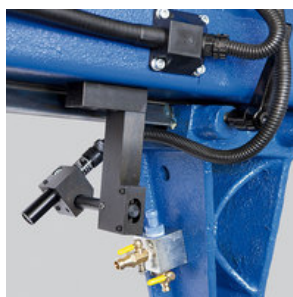
Used to clamp bundles of material to be cut. Ensures reliable clamping by hydraulically controlled vertical contact pressure working within the machine's cycle.



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.

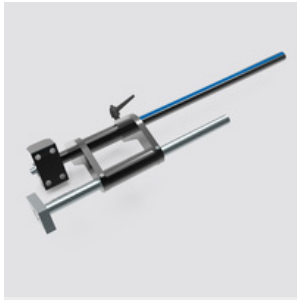


LS

## 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 330 DC SAF**

#### **Workpiece stop**

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



**KDM**

#### **Cleaning brush**

Steel cleaning brush, driven by driving wheel. Used to remove chips from the saw band behind the cut.



**KDE**

#### **Electrical cleaning brush**

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



**AG 330 DC**

#### **Pressure regulation**

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.



**CD**

#### **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.



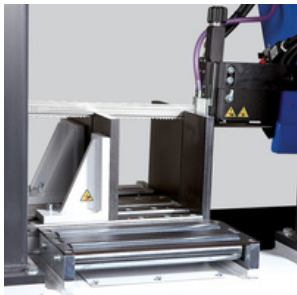
**M2**

#### **Signalling beacon M2**

Signalling beacon is designed for a remote check of the working status of the machine. Dichromatic beacon is fitted with LED lights of a high luminosity and visibility from all directions, thanks to a unique shape of lenses.

Green light – indication of a working mode of the machine, sawblade is in the cut. After cutting operation and sawblade stopping the light switches off signalling that a next cut can be started.

Red light – indication of malfunction, e.g. broken sawblade, main motor overload, opened safety cover and other failures leading to the stop of the machine.



**PV 330**

#### **Additional rollers**

To be installed instead of the slide behind the cut. Facilitates the feed of the material when cutting long workpieces.

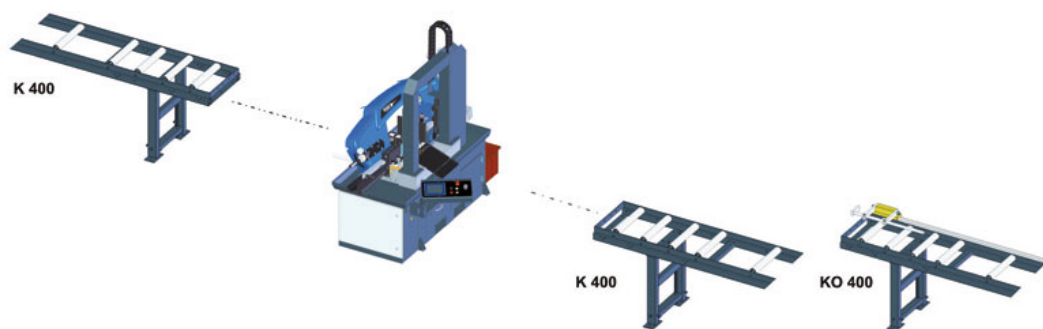


**SDB**

#### **Chip container**

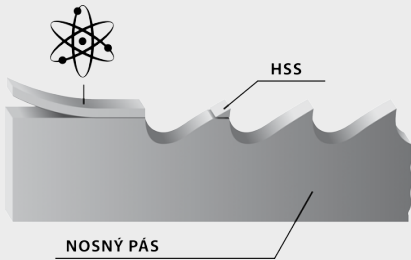
For easy handling is chip container equipped with wheels and swivel chip bin.

## 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

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