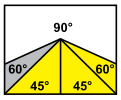
OFFER SHEET

PILOUS®
PROFESSIONAL BANDSAWS

Pilous
Železná 9, 619 00 Brno, Czech Republic
Tel.: +420 543 25 20 10
e-mail: metal@pilous.cz, ***www.pilous.cz***

ARG 235 plus



	90°	+45°	+60°	–45°
●	235	185	115	165
■	230	160	80	145
▬	280×180	185×100	115×80	185×80

		kg
400 V / 50 Hz / 1,5 kW	40/80 m/min.	285 kg

Main motor	400 V /50 Hz / 0,9/1,4 kW
Pump motor	400 V / 50 Hz / 0,05 kW
Saw blade speed	40/80 m/min.
Working height of vice	900 mm
Coolant tank	cca 15 l
Machine dimensions (min.)	1640 × 750 × 1400 mm
Machine dimensions (max.)	1930 × 1610 × 2000 mm
Machine weight	290 kg

PACKING: is non-returnable and invoiced separately. Machines are fixed on pallets or balks and packed in a stretch foil.

Upgraded version of the historically best selling model series ARG 220 with entirely new shoulder blade and unique design. Enlarged has been the maximum diameter of the split material from 220 mm to 235 mm and by rectangular cross sections from 270 x 150 mm to 280 x 180 mm.

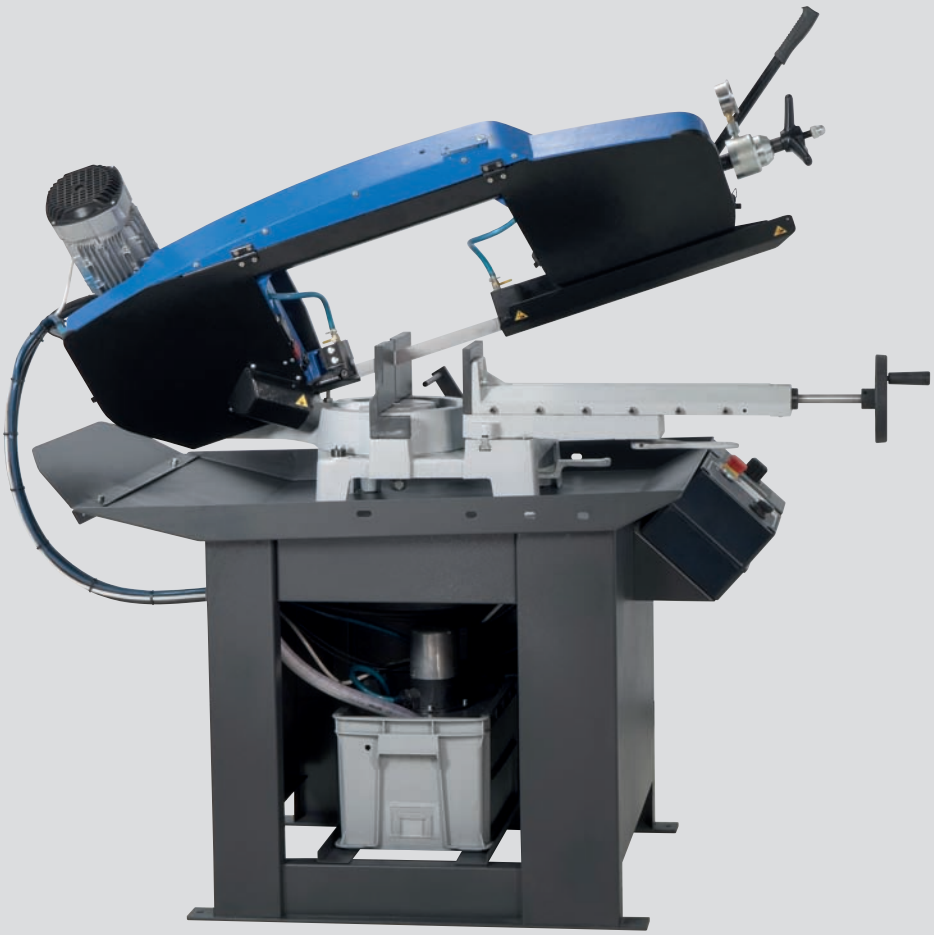
The most up to date concept of the cast arm guarantees outstanding stiffness of the entire system, maximum accuracy during cutting and a long service life of the saw bands. All of electrical wiring and coolant distribution are concealed in hollow parts of the arm, which means they are protected from damage. The new concept of the arm also brings a great simplification when changing the saw band or when cleaning the inside of the arm. You just need to open the hinged back cover of the arm and it will stay locked in the upper position. Apart from the new saw arm design, there are many technological adjustments that improve user comfort as well as the quality and durability of the machine. New is also the height-adjustable lever of the arm stroke leading to more ergonomic operation of the machine. As an accessory, it is possible to use the cleaning brush of the saw band that is synchronously driven by the driving wheel.

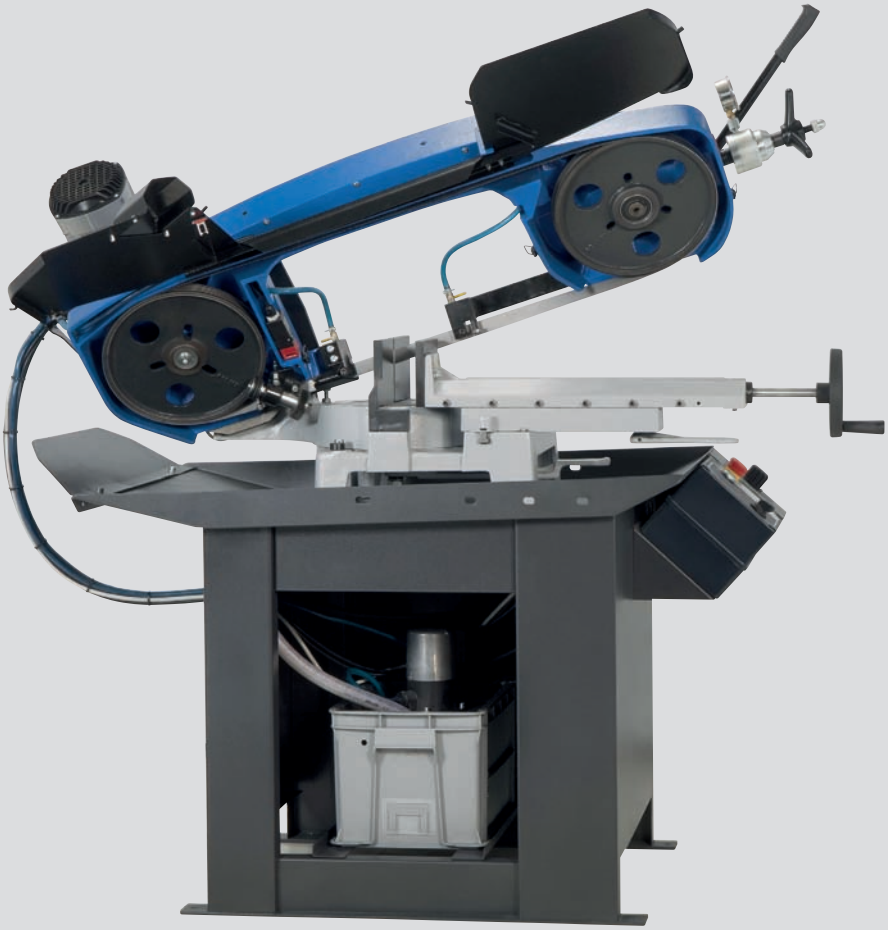
Universal band saw is appraised for general use in continuous uninterrupted production plants and in workshops (work on locks, maintenance) as well. Industrial band 27 x 0.9 mm is manufactured in many versions and allows for cutting of wide range of materials, including stainless steel or tool steel. The band saw arm uplift is manual; the feed into cut is carried out by the weight of the arm, with the possibility of continuous regulation by the oil damper relief valve. When the cut is finished the band saw drive automatically switches off. To facilitate easy arm uplift the machine is equipped with adjustable tension spring that allow for setting of optimumforce required for the arm uplift according to characteristics of the material to be cut.

- Robust machine framework composes of castings from grey cast iron and therefore ensures vibration absorption.
- Modern concept of the band saw arm allows for large cutting ranges in upright and angular cuts.
- Simple locking and adjusting of the desired cutting angle on the angle scale with stops fixed at 45°, 60° and 90°.
- Massive quick-clamping vice ensures easy 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.
- Three-phase two-speed motor (400 V) allows for the selection of band speed between 40 and 80 m/min.
- 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. Coolant tank with a pump is placed in the base of the machine.
- Easy control by ergonomically placed controls (electrical and hydraulics) on the base of the machine.
- The machine is equipped with a 250 mm workpiece stop.

−45°

+60°



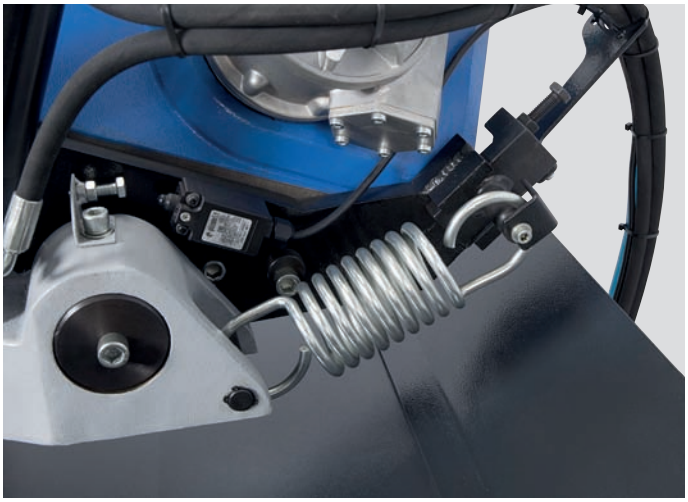


Vice

The robust cast iron vice moves on a linear dovetail guiding and is equipped with quick material clamping system.

Workpiece stop

Machine includes a 250 mm workpiece stop.

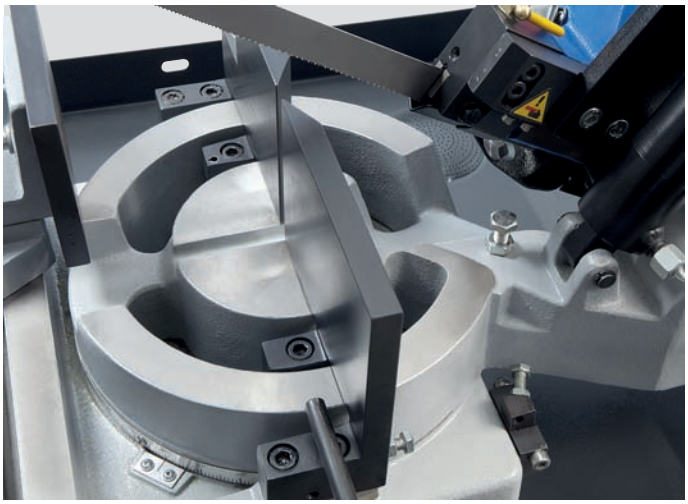


Setting the spring rate

This system allows setting of the spring rate and thus also the setting of the saw blade pressure on the material during the cut. Full and tough materials of larger diameters require higher pressure of the saw blade in order to produce optimum chips and, vice versa, when cutting thin-walled sections, it is ideal to use less pressure and lift the arm easily.

Electric drive

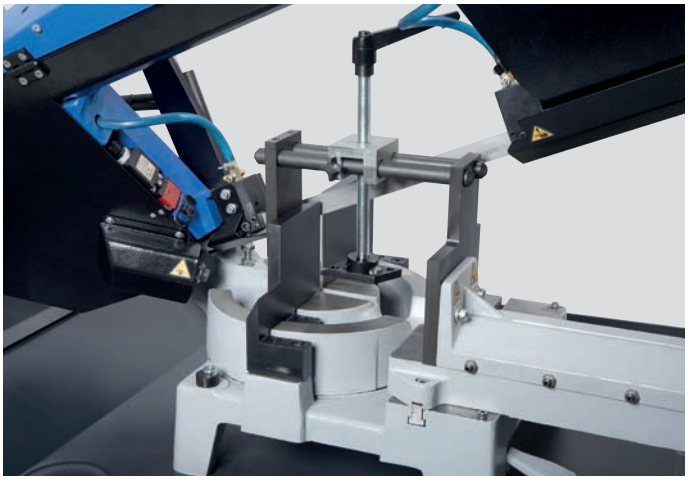
Quiet and maintenance-free sawblade drive is ensured by industrial electric motor with worm gearbox.



Turntable

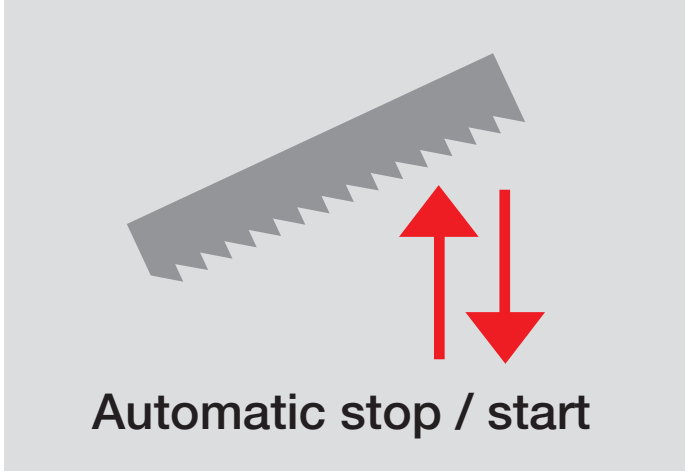
Solid cast iron system of a saw band arm swing. Saw band always cuts down in a groove of turntable, which prevents damage of the saw band.

ACCESSORIES



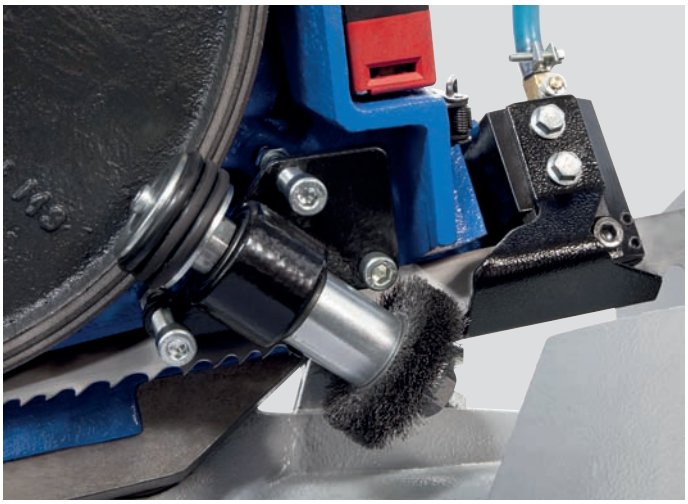
Pressure device

Used to clamp the bundles of material to be cut. Ensures simple and reliable material clamping using a vertical contact pressure.



Auto-start descent of the arm

In standard machines, the control valve of the arm descent has to be shut after the arm uplift and by the next arm descent, the descent speed has to be set again. In this version, the control valve is additionally fitted with an electro--hydraulic valve, which remains after the arm uplift in the set position. After saw blade start, it is automatically released and the arm descents into the cut at a set speed. Thus, setting of the descent speed for each cut falls off. This significantly eliminates operator error and thus protects the saw blades, and increases also productivity of the machine. An ideal help when cutting material in larger series.



Cleaning brush

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

Halogen lamp

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

Saw band tension indicator

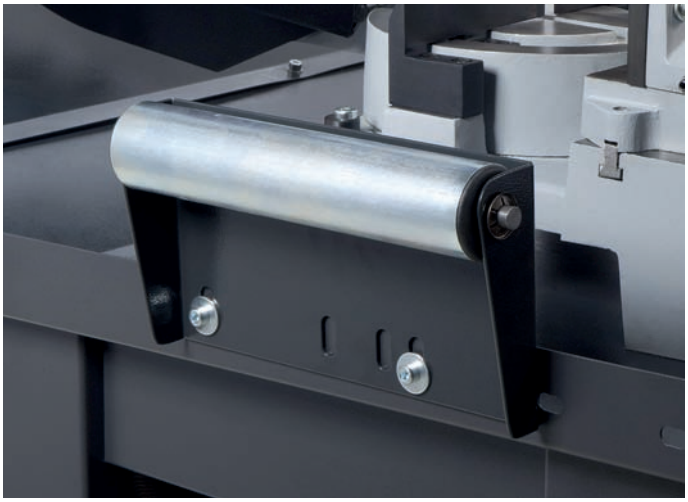
Ensures accurate tensioning of the saw band to a required value according to the pressure gauge and its control during the use of the machine. Optimum tensioning of the saw band is essential for its service life and cutting accuracy.

Frequency converter

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

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.



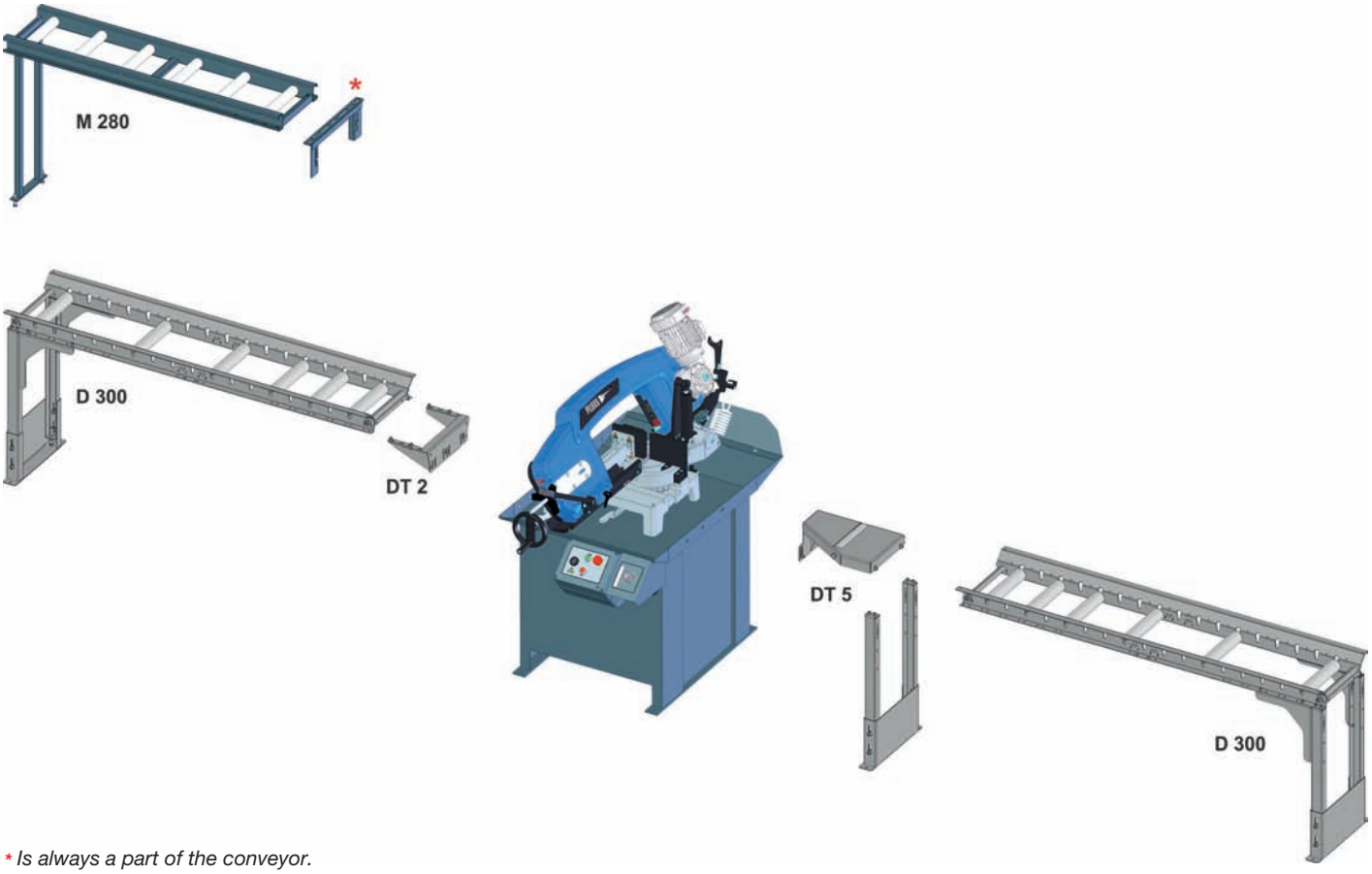
Material support roller

For an easier feed of material to the cut in case of no roller conveyor. It can be used in front of the cut as well behind the cut.

Workpiece stop

Massive cast iron workpiece stop with 500mm scale is equipped with a rebound function after the workpiece stop and clamping. This eliminates the „pinching“ of the material and a possible damage to the saw blade.

ROLLER CONVEYORS AND THEIR CONNECTION



* *Is always a part of the conveyor.*
Note: *You can connect M280 behind the cut as a conveyor only if angular cutting isn't required.*

System M

M	Light roller conveyors.
MR	Roller leg with adjustable height.
MB	Vertical idle rollers.
MA	Metal sheet cover between individual rollers.

	M 280	
mm	1500	3000
	280	280
⌀	50	50
1 2 . . . x	6	12
1 2 . . x	1	2
1 2 . . . x	4	7
mm	875–915	

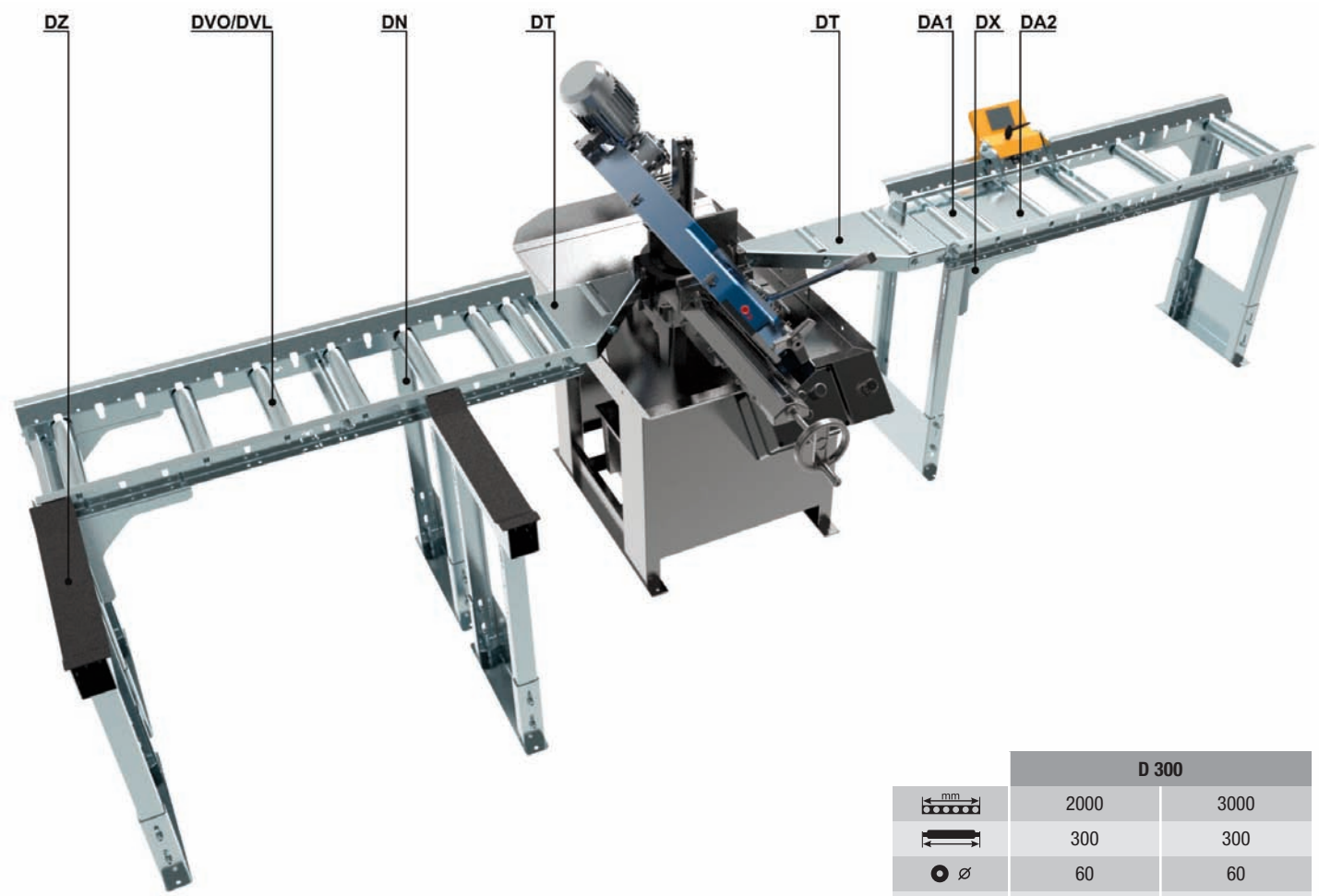
	MR 280
	280
⌀	50
mm	800–1120

M 280

MR 280

M 280 AB

System D



	D 300	
mm	2000	3000
	300	300
⌀	60	60
1 2 . . . x	6	10
mm	875 – 915	

D	Medium heavy roller conveyors.
DO	Manual measuring device.
DOD	Digital measuring device.
DVO	Additional steel rollers for increased carrying capacity.
DVL	Lightweight plastic rollers.
DVS	Heavy plastic rollers.
DA1	Metal sheet cover between individual rollers.
DA2	Metal sheet cover between individual rollers.
DK	Tiltable, detachable material chute.
DZ	Material magazine for easier handling.
DN	Additional conveyor leg.
DX	Additional corner reinforcement for detached conveyors.
DT	Intermediate piece for connecting of the conveyors to the individual machines.

D 300

DO 300

DOD 300

SAWBLADES

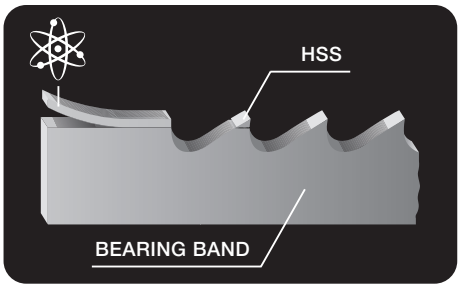
High-quality band saw is the second most important factor (just after the machine construction) for cutting speed and accuracy and maintenance of long service life. Choose your saw band from a wide selection of excellent professional Pilous MaxTech saw bands.

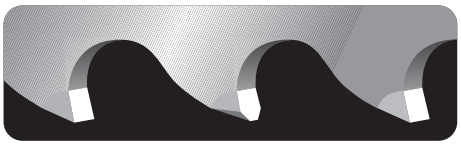
ARG 235 Plus uses the saw band sized 2710 × 27 × 0,9 mm. The band is manufactured in following versions:

Bi-metal blade M 42									
Variable toothing	10/14	8/12	8/11	6/10	5/8	5/7	4/6	3/4	2/3
Constant toothing	14	6	4	3	2				

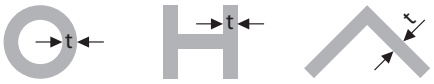
Bi-metal blade M 51									
Variable toothing	5/8	4/6	3/4	2/3					
Constant toothing									

Carbide blade M 42									
Variable toothing	2/3								
Constant toothing	4	3							





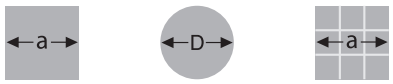
SOLID MATERIALS



VARIABLE TOOTHING	
t [mm]	
0–4	10 / 14
3–6	8 / 12 (8/11)
6–9	6 / 10
9–13	5 / 8 (5/7)
12–16	4 / 6
16–22	3 / 4
20–35	2 / 3

CONSTANT TOOTHING	
t [mm]	
0–3	14
8–11	6
12–15	4
16–20	3
21–30	2

PROFILED MATERIALS



VARIABLE TOOTHING	
a(D) [mm]	
0–25	10 / 14
20–40	8 / 12 (8/11)
30–60	6 / 10
40–70	5 / 8 (5/7)
60–110	4 / 6
80–140	3 / 4
120–350	2 / 3

CONSTANT TOOTHING	
a(D) [mm]	
5–20	14
40–80	6
80–120	4
120–200	3
200–400	2

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.

EMULSION

COOLcut Standard

***COOLcut Standard** – universal coolant and lubricant.*

– 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. ***Recommended concentration 5–10 %. 5 litres pack. Dilution 1:20.***

COOLcut Opti

***COOLcut Opti** – universal coolant and lubricant. Such machining fluid allows achievement of unique lubricating and cooling properties during the machining process.*

– 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. ***Recommended concentration 4–7 %. 1 and 5 litres pack. Dilution 1:20.***

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.*

– 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. ***Recommended concentration 4–7 %. 5 litres pack. Dilution 1:20.***

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.*

– 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. ***Recommended concentration 4–7 %. 5 litres pack. Dilution 1:20.***

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.*

– 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. ***Recommended concentration 4–7 %. 5 litres pack. Dilution 1:20.***

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.*

– 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.

5 litres pack. Dilution 1:20.

Optima Antifreeze	[%]	10	20	30	40	50
Flowability temperature	[°C]	–5	–10	–17	–26	–40

RECOMMEND

Deburring machine 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.

Deburring machine OHE 90

(Lighter version of 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