



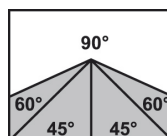
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Xpert 5.2 3D



5770 x 34 x 1,1

Max. width and height of the printing plate	400 x 400 mm
Main motor	400 V, 50 Hz, 4 kW
Hydraulic unit motor	400 V / 50 Hz / 0,55 kW
Saw blade speed	20-130 m/min.
Operating vice height	920 mm
Oil in the hydraulic system	cca 25 l (ISO 6743/4-HM, DIN 51 524 part 2-HLP)
Machine dimensions	1020 x 2980 x 2330 mm
Machine weight	1620 kg

DESCRIPTION

THE BAND SAW MACHINE IS THE FASTEST, CHEAPEST AND MOST EFFECTIVE SOLUTION DESIGNED FOR THE DIVISION OF 3D PRINTED METAL PARTS FROM THE BASE PLATE.

This single-purpose robust two-column band saw ensures a fast and precise division of the 3D printer product from the printing plate. The cutting accuracy is 0.2 mm in all directions, the cutting width is approximately 1.7 mm.

A special adjustable printing plate clamping system ensures optimal fixation. It is equipped with a tipping mechanism with stops. This allows easy and fast clamping of the printing plate in the horizontal position and simple tipping to the vertical working position via hydraulic power. Precise clamping of the printing plate ensures a cut setting with minimum allowances, which saves material when printing. The distance between the cut and the base plate is set automatically. The printing plate moves on the linear guiding using a hydraulic cylinder. The complete cutting process with printing plate folding and feeding is made automatically.

The maximum printing plate size is 400 x 400 mm.

The continuously adjustable jaw of the clamping system allows the installation of a 10 - 60 mm thick printing plate.

The machine is seated on an innovative base, which was designed with an emphasis not only on sufficient stability but also on minimum size (the base width is only 980 mm).

The machine is characterized by its overall robust design. Its base consists of a stable machine pedestal with the printing plate clamping system and a two-column fitting system of the arm that moves on linear guiding. The saw blade arm moves on the linear guiding using a hydraulic cylinder driven by a powerful hydraulic unit. The unique saw blade arm is fitted with orbital cast-iron wheels with a massive fit, driven by an industrial motor with a worm gearbox. All this guarantees long-term cutting precision and the service life of the machine. The machine features simple operation on a central control panel and an infinitely adjustable feed rate into the cut. After the execution of the cut, the saw blade automatically turns off and its arm moves up to the original, adjustable position.

The cutting tool used is an industrial Bi-metal saw blade of the size 34 x 1.1 mm. The precision of the cut is guaranteed by a three-sided hard metal guiding. Maximum cutting efficiency is maintained also thanks to the possibility of setting optimum saw band speed by a frequency converter in the range between 20-130 m/min., which significantly contributes to cutting accuracy and service life of the saw bands.

The lighting of cutting is solved by an LED lamp.

The machine can be modified according to the customer's requests.

All pictures shown are for illustration purpose only. Actual product may vary due to product enhancement.

ACCESSORIES



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.



CD

Saw band tension indicator

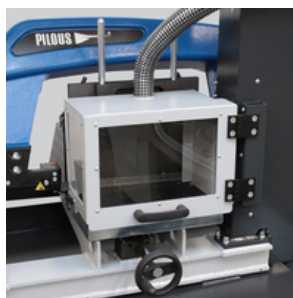
Ensures accurate tensioning of the saw band to a required value according to the pressure gauge and its control during the use of the machine. Optimum tensioning of the saw band is essential for its service life and cutting accuracy.



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.



Suction box

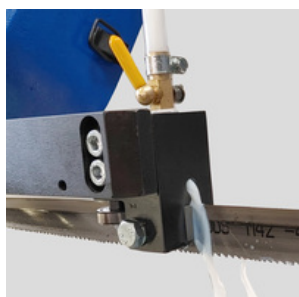
Suction box

The suction box helps to exclude dust and chips from the cutting area. Suctioning is divided into two branches. The connection hole for powerful suction device has a diameter of 50 mm.

With a printing plate size of 250x250x20mm, the maximum printing height is 300mm

With a printing plate size of 300x300x20mm, the maximum printing height is 250mm

This accessory cannot be combined with the following accessories: Cooling of the saw blade and Cleaning brush



Cooling Xpert

Cooling of the saw blade

Cooling of the saw blade prolongs the lifetime of the blade, removes chips, and contributes to a higher cut quality. The coolant pump starts up together with the saw blade. The amount of emulsion is dosed by a valve on the guiding heads. The emulsion is returned to the system through the waste container.

This accessory cannot be combined with the following accessories:
Suction box



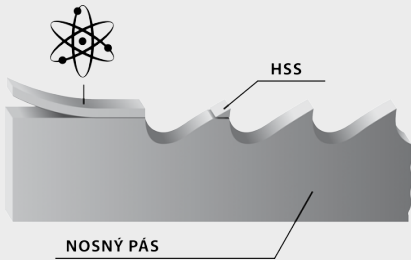
3D Print Trolley

Handling table

Table enables easy manipulation with heavy print plates between 3D printer and saw. Electric drive ensures adjusting of the table height.



- 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 tooling 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.



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.

