

PCSAW 430 X/AX band saw machine

Fully automatic with pulse cutting technology



PCSAW 430 X/AX

The innovative AMADA pulse cutting technology sets new standards

The new, innovative machine concept of the AMADA PCSAW 430 model series has many advantages especially for the professional user.



PULSE CUTTING TECHNOLOGY

The pulse cutting technology developed by AMADA provides the ideal conditions for bandsawing.

The predefined pulsation of the band saw blade in the feed direction generates a wave-like up-and-down motion of the band saw blade that has a positive effect on the cutting behaviour of the sawteeth and at the same time, considerably reduces the cutting resistance. Compared to a conventional band saw machine, sawing is possible with a considerably higher cutting performance.

A further advantage of the pulsation is the lower thermal load on the sawteeth. On the one side, the up-and-down motion of the band allows the cooling lubricant to reach the tips of the teeth much more easily and therefore improves the cooling action. On the other side, the chips are particularly short due to the pulsation.

The PCSAW 430 models are intended as robust CNC fully automatic machines for heavy-duty operation in the metal distribution and in production.

It is possible to use either carbide tipped or bimetal band saw blades on both machines. The corresponding sawing parameters are stored in the CNC controller for both band types.

The AX version is recommended for use with materials that are very difficult to machine such as Hastelloy or Inconel. In contrast to the PCSAW 430 X that operates with the proven servo-hydraulic AMADA saw feed, the saw feed of the AX model is operated via a precision servo-electric ball screw drive.

OTHER FEATURES

Because of the larger quantities of saw chips resulting from the enormous cutting performance, AMADA paid special attention to perfect chip removal with the PCSAW series.

On the one side, the new „3D double wire brush unit“ resulted in the development of a very effective and user-friendly chip brush-out device. On the other side, an exceptionally extensive dimensioned scraper-type chip conveyor for optimum removal of the chips can be used that expels all of the chippings safely and reliably to the side.

The new AMADA solution for manual sawing of small remnants is particularly interesting for many users.

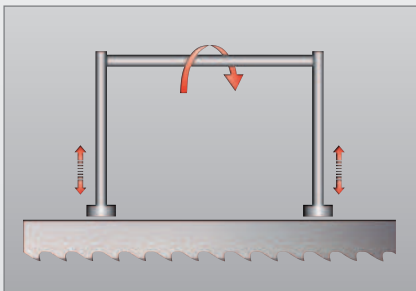
Shorter material lengths can be inserted into the machine from the front. After entering the desired cutting length into the CNC controller, a robust stopping plate attached to the feeding vice is positioned to the corresponding cutting length, against which the material to be sawed can be pushed. The otherwise essential and time-consuming measuring of the material is no longer necessary.

A further user-friendly solution to be emphasised is the new concept for easy maintenance. All corresponding parts of the machine are easily accessible. For example, this allows the chip filter to be removed for cleaning and subsequently replaced without the use of a tool.

A large number of innovative ideas were realised during conception of the new PCSAW 430 models. The result speaks for itself:

- Maximum cutting performance
- Maximum operating convenience
- Increased bandsaw blade lifetime

OVERVIEW OF THE ADVANTAGES



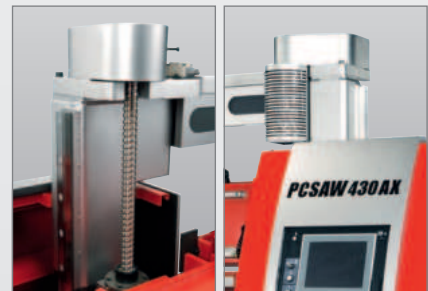
Pulse Cutting technology

The pulsation moves the saw up and down rapidly, generating a wave-like motion that has a positive effect on the cutting behaviour of the sawteeth, therefore reduces the cutting resistance and guides to increased blade lifetime.



User-friendly CNC machine controller

- Interactive menu control
- Integrated material database for bimetal and carbide tipped band saw blades



Servo-electric ball screw drive

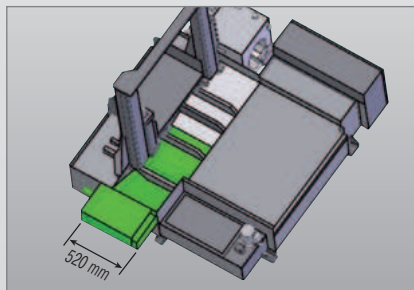
In the case of the PCSAW 430 AX, the saw feed takes place via a precision, servo-electric ball screw drive.



3-D double wire brush

The two automatically adjusting wire brushes of the new „3-D double-brush unit“ guarantee thorough brushing of the sawed chips.

- Automatic positioning of the brushes
- Wear monitoring
- Wear indication on the screen



Chip conveyor

An extensively dimensioned scraper conveyor ensures smooth removal of the chips.

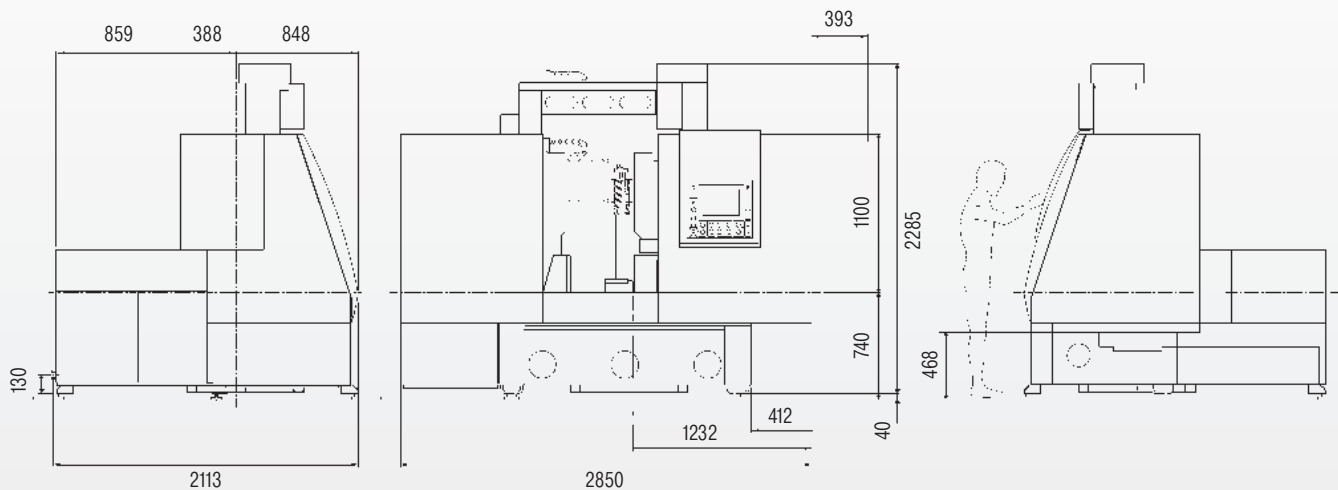
- Conveyor width = 520 mm



Stop plate

Enables easy manual sawing up of remnants. A robust stop plate fixed to the feeding vice allows CNC-controlled positioning to the desired cutting length. The minimum length is only 35 mm.

TECHNICAL DATA



PCSAW 430 X / 430 AX technical data		
Sawing capacity	Round material	○ 30 mm ~ ○ 430 mm
	Square material	□ 30 mm ~ □ 430 mm
Motor power	Saw Blade Motor	11 kW x 4P
	Hydraulic Pump Motor	2.2 kW x 4P
Bandsaw blade dimension	(H x W x L)	54 x 1.6 x 6100 mm
Band speed		15-120 m/min continuously variable
Vice	Hydr. cylinder	shared vice
	Positioning	zero stop (standard)
Chip brush		3-D double wire brush system with automatic adjustment
Chip conveyor		Large surface scraper conveyor
Material feed	Type	hydraulic feed vice
	Feed length	pro stroke 500 mm
	Cut-off length	10 mm - 9999.9 mm
	Min. residual length	95 mm in automatic mode
CNC controller		automatic parameter setting
Table height above floor		740 mm
Maximum work load		3000 kg
Machine dimensions	(W x D x H)	2850 x 2113 x 2285 mm
Machine weight		4700 kg
Special accessories		Bundle clamping unit, pressure reducing unit, roller conveyors, external chip conveyor

Subject to technical modifications / Illustrations partially with special accessories

