



CNBS 80

▮ The new generation of a low-cost, high-tech sharpening machine for band saws.

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The CNBS 80 is the ideal machine for sharpening CV, bimetal and carbide-tipped band saws with widths of 8 – 80 mm.

It operates with CBN or diamond grinding wheels using water cooling.

Function

The saw tooth to be sharpened is pushed into the grinding position via a feed pawl. Here the band saw is clamped in place by hold-down devices and a pressure roller. It is then possible to regrind the contour or face of the saw tooth for example. The contour to be ground is generated by an exact, computer-controlled 2-axis movement of the grinding head. The contour is pre-defined by the operator by means of a few extremely simple inputs in the CNC control system. The desired stock removal can be effected in one or more partial infeeds. Once the saw tooth is complete, the next saw tooth is ground, i.e. the band saw is generally sharpened in one revolution.

The CBN deep grinding technique also guarantees a high cutting rate and optimal surface quality. The coolant prevents the tooth from getting hot, thus avoiding temperature-induced structural changes.

Control

The operation and programming of the machine is simplicity itself. All relevant data such as tooth shape, hook and clearance angle, infeed, working speed, etc. are entered via a display. The feed speed of the grinding wheel can be steplessly adjusted. The same grinding wheel can be used to grind a variety of pitches. In fact, it is possible to cover all permissible pitch ranges with just 2 different wheels.

Programming

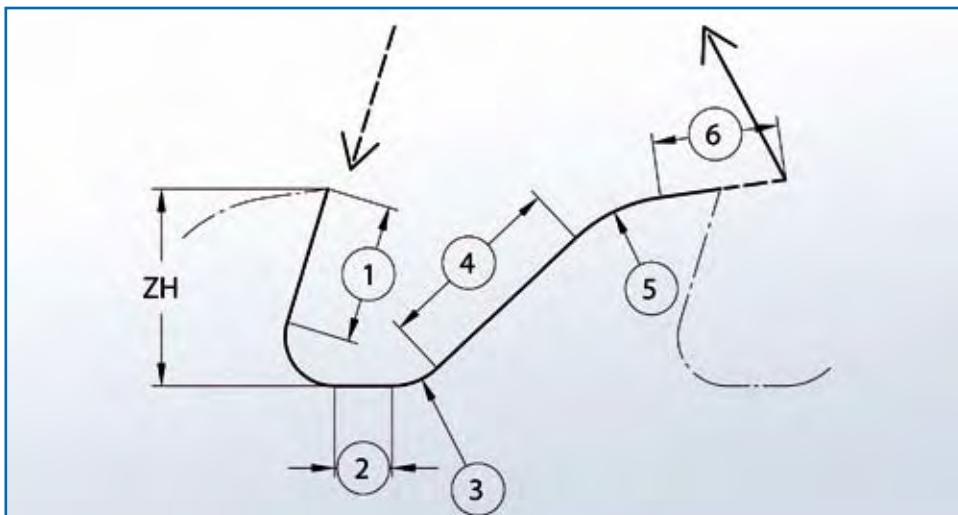
First, a tooth type is selected, e.g. "Type1" would be a rounded tooth. It is then possible to define up to 6 different degrees of freedom consisting of straight lines and radii, as well as the hook and clearance angle. The tooth contour of the band saw is now defined.



Control



Detail



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The next task is to enter the additional parameters necessary for grinding. These are for example the tooth pitch, the radius of the grinding wheel, the grinding wheel feed speed and the desired grinding wheel infeeds. The newly designed tooth shape is saved together with the machining parameters under a program number. The first digit describes the tooth type. For example, program "1 00" would be the first stored program of the tooth type "rounded". In order to grind the same band saw again in future, the operator then simply enters the program number.

It is possible to store a total of 4 different tooth types and 80 different programs.

Compact and sturdy design

The machine has an extremely space-saving design. The coolant tank is integrated in the machine stand and is easily accessible from the front. The sturdy band saw roller cross is also readily accessible and easy to adjust, thus ensuring user-friendly loading of the band saw. The saw blade holder can be conveniently adjusted to the relevant band saw width via a lever.

Advantages at a glance

- Simple operation
- Excellent surface finish thanks to CBN or DIA grinding wheel plus water cooling
- Low noise and dirt generation
- A variety of tooth pitches can be ground with the same grinding wheel
- Short setup times
- Good cost/performance ratio
- Coolant tank integrated in machine stand with good access
- Robust design



Closure hood

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Technical Data

Working range

Band saw width	8 – 80 mm
Tooth pitch	approx. 3 – 34 mm
Blade body thickness	ca. 0.5 – 3 mm
Band saw length	min. 2800 mm, max. 7000 mm (longer lengths possible on request!) Standard programs for pointed and rounded teeth
Hook angle	freely selectable from 0 to +25 degrees
Working speed	approx. 100 – 1000 mm/min.

Grinding wheels

Radius wheel (14F1)	CBN or DIA
Diameter	Ø 200 mm
Width	max. 3 mm
Bore size	Ø 32 mm

Cooling

Water emulsion at approx. 0.5 bar pressure

Required compressed air connection

approx. 40 l/min at 6 bar

Electrical installation

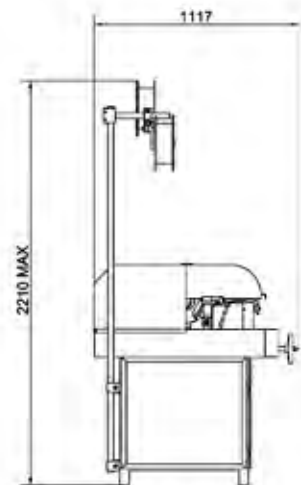
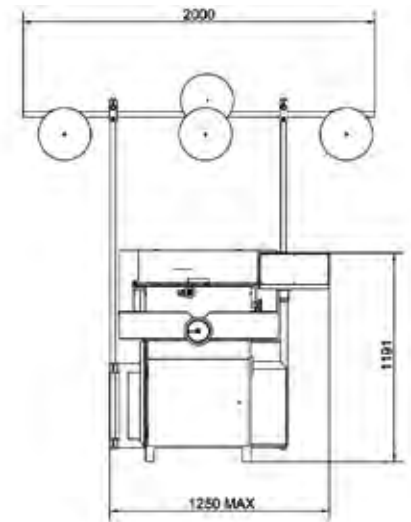
Grinding motor	0.5 kW
Total connected load	approx. 1.5 kW

Weight

Machine	350 kg
Roller cross	20 kg

Dimensions (W x D x H)

Without roller cross	1250 x 1117 x 1191 mm
With roller cross	2000 x 1117 x 2210 mm



Contact

Loroch GmbH
Josef-Loroch-Str. 1
69509 Mörlenbach, Germany

phone: +49 (0)6209 7159-50
+49 (0)700 56762433
+49 (0)700 lorochde

fax: +49 (0)6209 7159-38
e-mail: info@loroch.de
web: www.loroch.de