evolution K850-M

Loroch sharp solutions!

Compact Service Center for
economical grinding of metal cutting saw blades

+ Fully automatic grinding, recutting and chamfering of the HSS saw blades
+ Additional capacity due to unmanned running
+ Consistent grinding quality with tight cost control
+ Ideal solution for small to medium-sized companies

The goal of the powerfull as well as inexpensive Service Center evolution K850-M was achieved through consistent application of proven Loroch solutions.

The new innovative machine control with a 19” touch screen enables intuitive programming, which avoids faulty inputs and reduced set-up time.

In addition to HSS saws and segmental saws, the evolution K850-M is also prepared to grind solid carbide saws and friction saw blades. The machine is also equipped for re-sharpening of thin kerf metal cutting saw blades with chip guiding notches (for carbide-tipped and CERMET type saw blades – including grinding of the spoon face). Although produced as a disposable tool, these saw blades may be re-sharpened. After sharpening or recutting, the saw blade teeth can be chamfered automatically.

Just as with all new LOROCH CNC-machine models, the evolution K850-M has a direct drive of the grinding wheel in order to reduce power loss and undesired vibrations.

An additional saw support device at the grinding point ensures symmetrical chamfering even on saw blades that are not perfectly flat.

The saw blades to be sharpened are programmed in only a few minutes. Data entry is done directly at the machine control panel on a large color touch screen with clear symbols, inspired by modern smartphones.

The operator loads the saw blade directly on the arbor in the magazine. Saw blades from 130 – 520 mm can be loaded into the magazine in any order necessary. To accommodate different bore sizes reducing rings, which are easily pressed in and out, are used to create a common bore size. Acting as a mechanical spring, the reducing rings ensure optimal concentricity of the saw blade at all times. Sorting by saw blade diameters and bores is not necessary. The saw blades can be sharpened in automatic loading without being in any specific order.

Next, close the magazine door and start the machine – then everything runs automatically.

If saw blade data, such as diameter or number of teeth, has been entered incorrectly, the machine recognizes the error. The saw blade will be put back into the magazine without being ground and a corresponding report will be created. The next saw blade will be handled without interruption to the automatic operation.

The operator will be informed by email through an optional alarm function as soon as the machine is finished with all saw blades or if an error occurs.

The standard machine includes capabilities for remote diagnostics, new software installation, new tooth shapes, as well as online training through an internet connection.

The saw blades are loaded vertically in a hanging position so the coolant can drip off and return to the coolant reservoir, leaving saw blades that do not need to be wiped dry.

evolution K850-M – Online Video

VIDEOLINK

Recommendation:
Appliance to determine the saw blade diameter and saw blade thickness.

„Our goal was the development of an efficient, powerful, and economical Service Center option for small to medium sized companies.“

Advantages of the evolution K850-M

Fully automatic grinding

+ Sharpening, cutting off existing teeth, re-toothing

Short non-productive and grinding times

+ Magazine loading, no sorting required
+ Only one flange required for saw blades ranging from 130 – 850 mm
+ Desired hook and clearance angles adjusted quickly and easily
+ New tooth shapes can be installed via internet or by use of an CAD software which must be installed on a standard PC.
+ No need to wipe dry the finished saw blades due to vertical loading plus no waste of oil.

High reliability and excellent grinding quality

+ Rigid machine, low-vibration direct drive grinding spindle, CBN- abrasive grinding and effective cooling and coolant filtration
+ High reliability through application of simple and proven design principles
+ Integrated internet connection for remote Diagnostics with optional alarm management

The machine is available for use with water-based emulsion or oil

Low space requirement

Optimally matched peripheral units and consumables

(from one source!)

Advantageous price-performance ratio

Doubling of the production capacity through unmanned shift

7 controlled axes, including
2 simultaneous CNC controlled axes

Features and accessories

User-friendly programming

Automatic saw blade handling

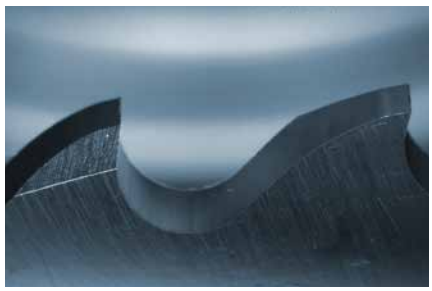
Reduction ring to create a bore size siutable to the arbor in use

Clear stack programming layout

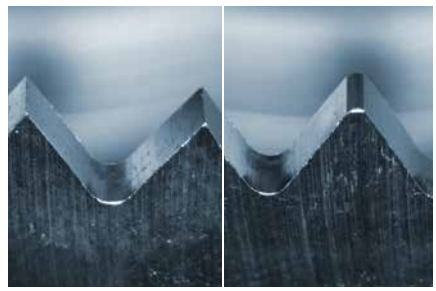
HM- und HSS-filter

Polar chiller with filter

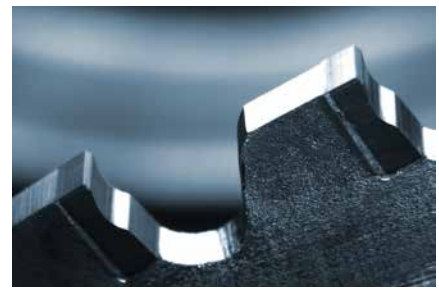
Examples of tooth shapes



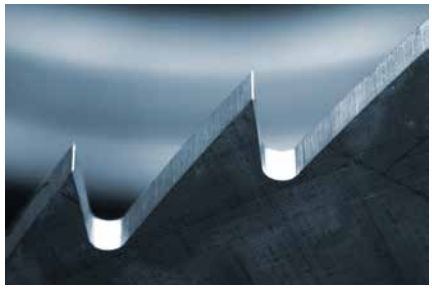
Curved back teeth with chamfers



Pendulum or negative V-shaped teeth

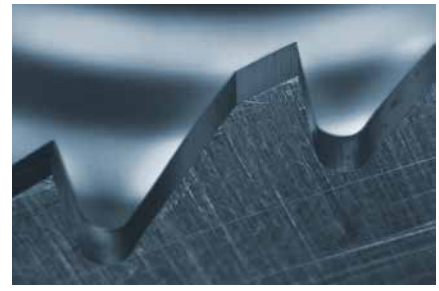


Carbide teeth of a thin kerf saw blade (TK-saw)



Straight back teeth

Friction teeth



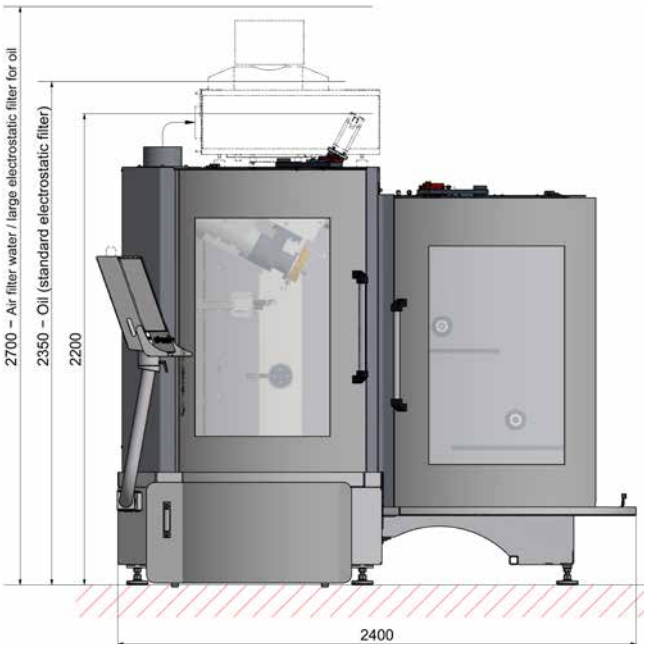
Solid carbide teeth

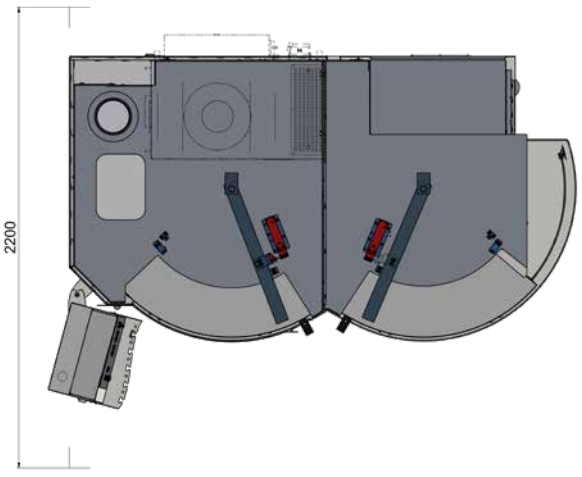
evolution K850-M

Well designed loadersystem for fully automatic grinding

Technical Data

Working range	
Saw blade grinding	Ø (40) 130 – 850 mm
Saw blade Grinding automatic	Ø (75) 130 – 520 mm
Saw blade chamfering	Ø (105) 145 – 850 mm
Tooth pitch	1 – 40 mm
Tooth height	max. 17 mm
Number of teeth	2 – 998
Saw blade thickness	up to 8 mm
Magazin loading capacity	40 saw blades
Grinding wheels	
CBN or DIA	Ø 200 mm (14F1)
Bore size	Ø 32 mm
Cooling	
Coolant pressure	approx. 6 bar
Coolant type	Water emulsion / Oil
Coolant quantity	300 l
Electrical installation	
Grinding motor power	3 kW
Machine input power	approx. 6.5 – 8.9 kVA
Weight	
net	approx. 2000 kg
Dimensions (W x D x H)	
Machine	2400 x 1700 x 2200 mm
Height with air extractor (oil)	approx. 2350 mm (2700 mm with large electrostatic filter)
Height with air extractor (water)	approx. 2700 mm
Required door opening size for transportation (W x H)	min. 1750 x 2100 mm





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