

# PowerStar 850

**Loroch**  
*sharp solutions!*

Sharpening, re-toothing and chamfering of metal-cutting circular saw blades with CBN-abrasive grinding



- + Semi-automatic chamfering of the saw blade
- + Adjustable chamfer angle
- + Attachment for cutting in chip breaker grooves

# PowerStar 850

The machine captivates through its versatility and ease of use as well as its rigidity and to achieve an exceptional grinding quality. The PowerStar 850 will therefore meet the highest expectations.

Programming is done through a large touch screen. Through a clear representation with the help of user friendly symbols, the operation is very simple and all settings are available at a glance. Changes can therefore be made quickly.

The machine indicates to the operator the optimal grinding speed necessary. Rake and clearance angles for all standard teeth are readily available.

The manual grinding wheel insertion is easy and safe for the operator.

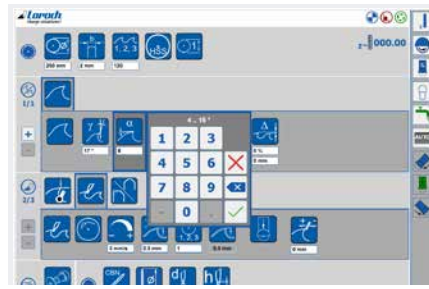
In most cases the sharpening is done in one saw blade revolution only.

Through the direct drive for the grinding spindle unwanted vibrations are avoided and lifetimes of the grinding wheels are improved.

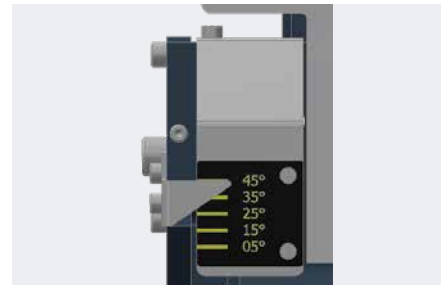
After sharpening saw blades or new-toothing of saw blades, the chamfering operation can be selected. The grinding head and the cooling nozzles will automatically move to the correct chamfering position. With the help of the cursor keys or an electronic hand wheel the tooth is put in position to slightly touch the rotating grinding wheel. Close the door and press START – the rest is done by the machine!

The machine allows adjustment of the chamfer angle in 5° steps from 0 – 45 degrees (standard value). A saw blade support at the point of grinding will ensure the chamfers are ground symmetrically.

# Features and accessories



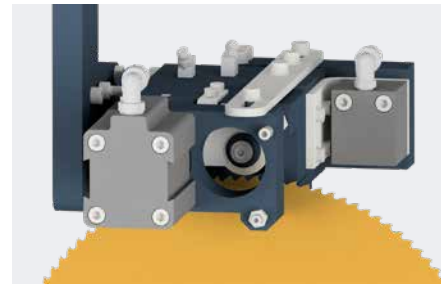
Operator interface with Icons



Adjustable chamfer angle



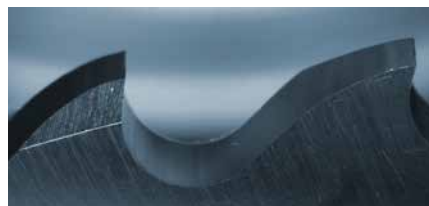
Electronic Hand Wheel



Attachment to grind in chip breaker grooves



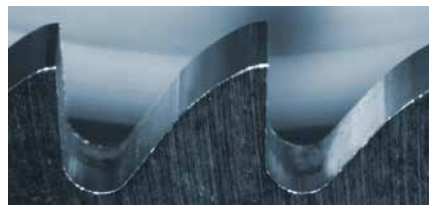
# Examples of tooth shapes



Curved back teeth with chamfer



Straight back teeth



Friction teeth



Peg teeth / Pendulum teeth



Solid carbide teeth



Curved back teeth with chip breaker grooves

The PowerStar 850 is a flexible, CNC controlled High-Tech-Grinding machine for the complete treatment of Metal Cutting Circular Saws.

# Advantages of the PowerStar 850

## Complete Processing

- + Including sharpening, cutting off existing teeth, re-toothings
- + Semi-automatic chamfering
- + Cutting in chip breaker grooves with additional attachment
- + Additional tooth shapes and tooth geometries available

## Short non-productive and grinding times

- + The next grinding program can be entered in advance while machine is in operation.
- + Only one flange required for saw blades ranging from 130 – 850 (920) mm

## Flexible Use

- + Hook and clearance angle freely adjustable
- + Adjustable chamfer angle
- + Additional tooth shapes and tooth geometries available
- + Vario-Tooth Shapes

- + Precision Grinding (ability to grind multiple saw blades to the exact same outside diameter)
- + Changing of grinding speed between diamond grinding wheels or CBN grinding wheels
- + Large saw blade diameter range from 40 – 850 (920) mm

## High grinding quality

- + CBN deep grinding and extra fine filtration of the coolant
- + Precision spacing for tooth pitch accuracy
- + Rigid machine, low-vibration direct drive grinding spindle, CBN-abrasive grinding and effective cooling and coolant filtration
- + Saw blade bracket at the point of grinding

Machine available for use with water-based emulsion or oil coolant

Low space requirement – integrated coolant tank and high pressure coolant pump

Advantageous price-performance ratio

## Optional Accessories:

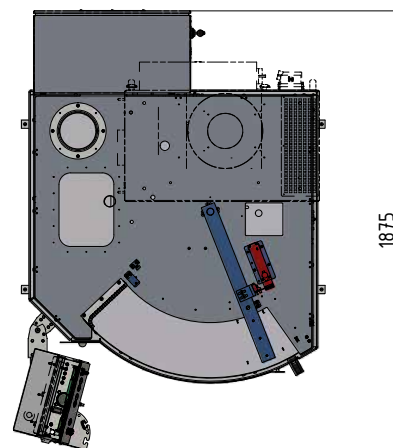
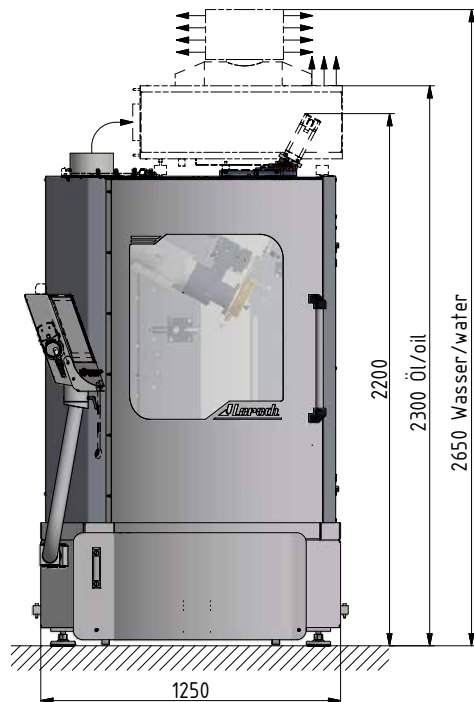
- + Effective exhaust filters for oil or water based emulsion
- + External, maintenance friendly fine filter system for HSS or Carbide chips in addition to the integrated coarse filtration.
- + Internet connection for remote diagnostic system



4 controlled axes,  
including 2 simultaneous CNC controlled axes

# Technical Data

Range of Operation	
Saw blade grinding	Ø (40) 130 – 850 (920) mm
Saw blade chamfering	Ø (105) 145 – 850 (920) mm
Cutting in chip breaker grooves	Ø (115) 180 – 710 mm
Tooth pitch	1 – 40 mm
Tooth height	max. 17 mm
Number of teeth	2 – 998
Saw blade thickness	up to 8 mm
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. 1250 kg
Dimensions (W x D x H)	
Machine	1250 x 1875 x 2200 mm
Height with air extractor (oil)	approx. 2300 mm (approx. 2650 mm with type 3001)
Height with air extractor (water)	approx. 2650 mm
Required door opening size for transportation (H)	min. 2020 mm



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