

SW 450

Loroch
sharp solutions!

Conventional sharpening machine for grinding HSS and segmental circular saw blades with straight back tooth and curved back tooth



+ Sharpening, retooling and chamfering of metal circular saw blades

The SW 450 has been especially designed for sharpening HSS and segmental circular saw blades with the tooth configurations A, B and C according to DIN Standards 1837 to 1840.

Capacity range: saw blades 22 – 550 mm

The SW grinder allows full service on metall cutting circular saws: re-sharpening, side bevelling or chamfering, recutting by means of master index plates. All these operations may be done on the same machine!

Operation of the SW 450 Grinder: Quick, Simple, Functional.

All control elements of the grinder are clear and of easy access. Its short setup times mean high productivity and economical effectiveness.

The saw blade diameter is adjusted according a clear diameter scale. The tooth profile desired (straight back or round back teeth) is simply selected by a shift lever mechanism. Tooth pitch, tooth depth and the stock removal or grinding action on the tooth face and the tooth back are set by means of the respective adjusting screws.

Setting of the face angle or hook is carried out directly by swivelling the saw carrier arm to the desired position according to a graduated degree scale. The adjustment of the saw blade thickness is done by means of a dial indicator attachment with clear read-out of the value set. The horizontal mounting of the saw blade on the grinder means additional ease of set up and excellent sight control of what you are doing.

The SW 450 Grinder in Operation

The grinder has been set up by the operator. Pressing the start push button, the grinding head will carry out a cam controlled horizontal movement and in conjunction with the saw blade feed the desired tooth shape will be generated.

The saw blade feed is effected by a feed finger engaging the saw teeth.

A double feed finger system ensures positive movement of saws with broken off or damaged teeth. Such defective blades may, however, also be ground by means of master index plates.

An incorporated control gear allows grinding the lead and raker teeth (high and low teeth) in one single pass.

For side bevelling or chamfering the grinding head is simply tilted up or down according to the diameter of the grinding wheel mounted.

The SW 450 operates using the dry grinding method and can be optionally equipped with an efficient dust extraction system.

Standard tooth shapes

The tooth profile desired (straight back or round back teeth) is simply selected by a lever mechanism



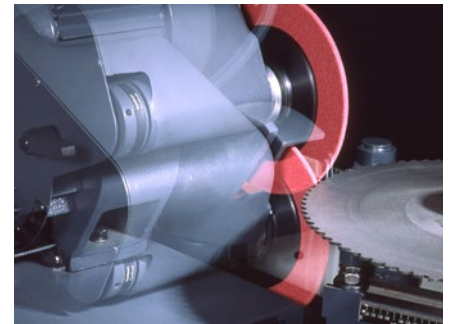
Straight back tooth or pointed tooth



Round back tooth



Resharpener



Side bevelling or chamfering (grinding head can be simply tilted up and down by the operator)



Sharpening by means of master index plate, recutting or cutting teeth into blanks

The automatic saw grinding machine SW 450 offers you a large range of application possibilities and will convince you by its functional design, easy operation and quick set up facilities

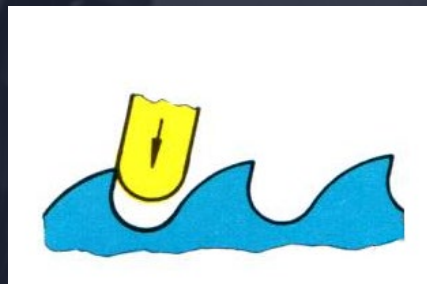
Advantages of the SW 450

- + The main drive and the grinding shaft have separate motors
- + The grinding shaft is mounted several times in precision roller bearings
- + Proven, completely wear-resistant and maintenance-free grinding head guide
- + Simple cam changeover for straight back tooth and curved back tooth
- + Gearbox of the machine runs in oil bath

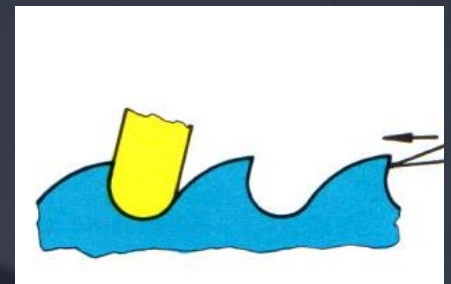
Following features are already included in the basic machine

- + Indexing device for grinding the leader and follower teeth in a single work cycle with steplessly adjustable tooth height difference.
- + Feed controller for stepless adjustment of working speed upto 180 teeth per minute.
- + Dial gauge for setting blade thickness.

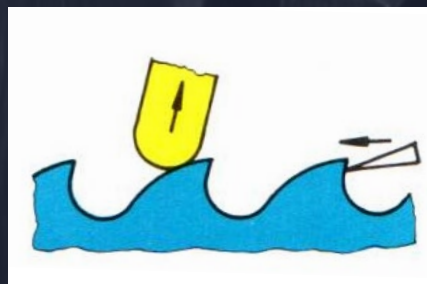
The Grinding Process



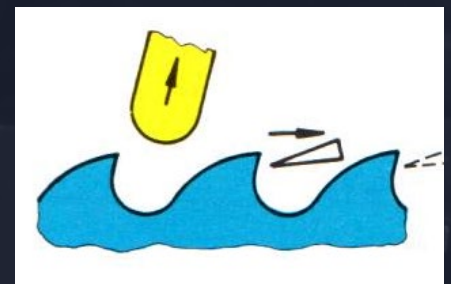
1. The grinding wheel moves into the tooth and contacts slightly the tooth face



2. As soon as the grinding wheel has reached the tooth gullet, the saw blade is pushed forward by means of the feed finger and the round part of the bottom is being ground



3. The blade continues being fed forward whereas the wheel retracts to grind the tooth back



4. After the tooth back has been completed, the feed finger slides back to engage the next tooth

Technical Data

Working range for Circular saw blades

Outside diameter	22 – 450 (550) mm
Blade thickness	up to 8 mm
Tooth pitch	up to 25 mm
Tooth height	up to 8 (12) mm
Tooth shapes	Curved back tooth (Form B, Bw, C according to DIN 1840) Straight back tooth (Form A according to DIN 1840) Friction tooth (optional)

Operating speed

45 – 180 teeth/min

Grinding wheels

Ø 150 mm x 25 mm

Electrical installation

Machine input power approx. 1 kVA

Weight

Maschine approx. 140 kg

Dimensions (W x D x H)

680 x 655 x 1205 mm

