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ALO 491

Induction tooth hardening and tempering for hand saws

CAPACITY:

Blade lenght:	250 - 812 mm
Blade width:	50 - 155 mm
Blade thickness:	0.5 - 1.6 mm
Tooth pitch:	4 - 12 tpi

THE SYSTEM COMPRISES:

Hardening generator and inductor
Tempering generator and inductor
Blade feeder
Closed cooling system

- High efficiency and low energy consumption generators with air-cooled oscillator tubes.
- Automatic anode current control keep the anode current constant during the whole coil.
- Automatic flash guard protect the system against damage from flash-overs.
- Band feeder with servo drive system designed for accurate speed and guiding.
- Electromagnetic brake for optimal control of band tension.
- High reproducibility due to accurate digital/analogue settings of power, speed and work coils.
- Fast and easy start up and change over.

OPTIONS / ACCESSORIES:

ALO 81-60
Set gauge

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MACHINE DESCRIPTION

GENERATORS

Hardening inductor with flash guard and air quench

The Generators are enclosed in an aluminium cabinet and equipped with a separate oscillating circuit connected to the cabinet via coaxial cables. The rear of the generator cabinet can be opened for service and maintenance. The generator are air cooled, thus limiting the cooling water requirement to inductors only.

INDUCTORS

The inductors are made of copper tubing and can be custom made for different pitches and blade gauges. They are horisontally and vertically adjustable by means of a micrometer system. The inductors are interchangeable and can easily be replaced. Changing from one inductor type to another is very simple and fast.

Tempering inductor and air cooling

BLADE FEEDER

The blade feeder consists of a conveyor belt built into a welded stand of sturdy construction. The conveyor belt is driven by an AC-motor.
The speed is controlled by a frequency controller in order to achieve an accurate and constant speed. The inductors are located at the rear side of the feeder. The conveyor belt feeds the blade teeth correctly positioned through the hardening inductor, after which the teeth are quenched in air or liquid quenchant and then tempered in the tempering inductor. The heat treated blades drops into a bin or similar.

LOADING DEVICE

For Machine 490-A and 491-A a pneumatic pick and place device takes the blades from a stacking magazine and places them against a fixed position on a feeder.

AVAILABLE MODELS:

ALO 491-A	Automatic loading
ALO 491-M	Manual loading
ALO 490-A	Without tempering, automatic loading
ALO 490-M	Without tempering, manual loading

TECHNICAL SPECIFICATION:

Blade lenght:	250 - 812 mm
Blade width:	50 - 155 mm
Blade thickness:	0.5 - 1.6 mm
Tooth pitch:	4 - 12 tpi
Approx feed speed:	8 m / min
Air pressure:	6.3 bar
Voltage:	400 VAC, ± 5%, 3-phase, 50 – 60 Hz ± 1%
Power consumption (at max output power):	20 kVA
Space requirement (l x w):	3 x 2 m

Other customer requirements may be discussed between customer and ALO.

CE

SWEDISH QUALITY
WITH RESPECT FOR THE ENVIRONMENT AND SAFETY REGULATIONS