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ALO 490-L

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Inductive tooth hardening and tempering of wood hand saws



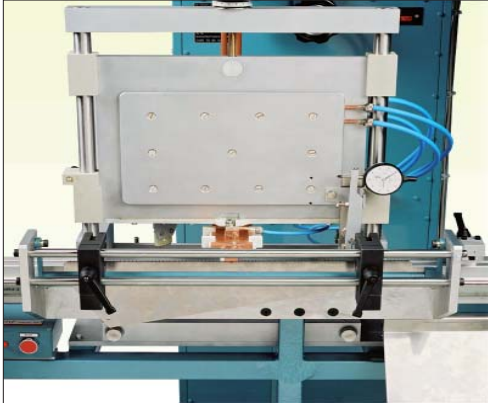
THE SYSTEM COMPRISES:

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

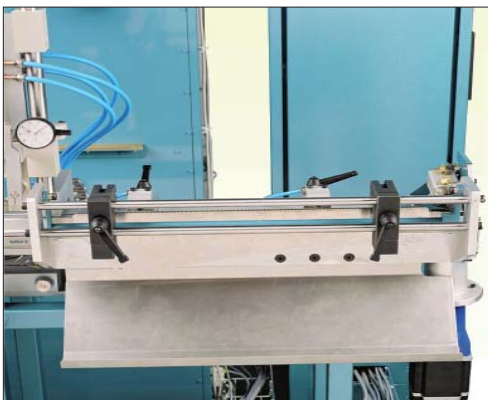
CAPACITY:

Blade length: 250 - 812mm
Blade width: 50 - 150mm
Blade thickness: 0.5 - 1.6mm
Tooth pitch: 4 - 12 TPI
Feedspeed: 5 - 8 m/min





Oscillating circuit with hardening/tempering inductor



Loading / unloading position with receiving magazine

MACHINE DESCRIPTION

Generator

The generator are enclosed in separate aluminium cabinet, equipped with separate oscillating circuit connected to the cabinet via coaxial cables. The generator are air cooled, thus limiting the cooling water requirements to inductor and oscillating circuit only. The generator is equipped with an automatic anode current regulator, thus ensures a stable power during the hardening operation, and a chopper to control the output power during the tempering sequence.

Inductor

The inductor are made of copper tubing and can be custom made for different pitches and band gauges. The inductor are adjustable in height for different blade widths and sideways for different blade gauges. The inductor can easily be replaced.

Blade feeder

The blade feeder unit consists of a linear feeder driven by a servo motor and are equipped with a blade holder adjustable for different blade lengths, and a leveling device for correct positioning of the blade in relation to the inductor. The blades are manually loaded with the teeth up in the blade holder and the blade feeder feeds the blades through the hardening inductor, after which the teeth are quenched with air. The feed direction of the linear feeder is then converted and the blades are tempered on the return movement.

The heat treated blades are then automatically dropped into a receiving magazine for 10-15 blades.

TECHNICAL SPECIFICATION:

Blade length:	250 - 812mm
Blade width:	50 -155 mm
Blade thickness:	0.5 - 1.6 mm
Tooth pitch:	4 -12 TPI
Air pressure:	6 bar
Standard voltage:	400VAC \pm 10% 3-phase, 50-60 Hz \pm 1% directly earthed system, other voltages available upon request.
Max output power Hardening generator:	5 kW
Power consumption (at max output power):	10 kVA
Space requirement:	3 x 2 m