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# ALO 486-490

## Setting and induction tooth hardening of hand saws



## **CAPACITY:**

Max blade length:650 mmBlade thickness:0.5 - 1.6 mmOverall setting accuracy: $\pm 0.02 \text{ mm}$ Symmetry accuracy: $\pm 0.02 \text{ mm}$ Tooth pitch:2 - 20 tpiMax. group length150 mm

## THE SYSTEM COMPRISES:

Setting unit

Hardening generator and inductor

Closed cooling system

### **OPTIONS / ACCESSORIES:**



Set gauge







ALO 61201
Grinding fixture

ALO 61207
Grinding fixture





Pick and place unit and setting unit

#### **MACHINE DESCRIPTION**

#### **Setting unit**

The setter consist of a mechanical and powered setting head mounted on welded stand of sturdy construction equipped with a linear feeder driven by a servo motor. Both setter and induction unit are fully automatic and all functions are controlled by a programmable controller. The whole length of the blade can be set, or portions of the blade ends can be left unset. Setting symmetry and over all set is easy to adjust with micrometers. During the setting operation the blade is clamped by a pair of mechanically timed clamping jaws. Blades are set in sections up to 150 mm/feeding, depending on the length of blades and setting tools.

#### Hardening unit

Blades are automatically by a integrated pick and place unit transferred from setter to the hardening unit. The conveyer belt, that is built into a welded stand of sturdy construction, feeds the blades through the hardening inductor that is located at the front side of the feeder. Blades are transported with the teeth towards front, operator side. The conveyer feeder is, before and by the inductor, equipped with a blade hold down system to assure perfect blade alignment during the hardening process. Teeth are air quenched immediately after hardening.

The heat treated blade is transported out to a "pick up" position where blade is to be picked up by a customer supplied device. "Device" is customers design and responsibility.

#### Generator

The hardening generator are enclosed in separate aluminium cabinet, equipped with a separate oscillating circuit connected to the cabinet via a coaxial cable. The generator are air cooled, thus limiting the cooling water requirements to inductors and oscillating circuit only. The hardening generator is equipped with an automatic anode current regulator, thus ensuring a stable power during the hardening operation and a chopper for infinitely variable control of the output power.

#### **TECHNICAL SPECIFICATION:**

Max blade length: 650 mm Blade thickness: 0.5 - 1.6 mm Overall setting accuracy: ± 0.02 mm Symmetry accuracy: ± 0.02 mm Tooth pitch: 2 - 20 tpi Max. set length/set cycle: 150 mm Weight: 1500 Ka Air pressure: 6.3 bar

Standard voltage: 400VAC ±10% 3-phase, 50-60 Hz ±1% directly earthed system,

other voltages available upon request.