

ALO 191-MST1

Induction tooth hardening, mechanical straightening and tempering of bandsaw blades



THE SYSTEM COMPRISES:

Feed unit
Hardening generator and inductor
Mechanical straightening unit
Tempering generator and inductor
Closed coolant system

CAPACITY:

Band width 12 - 38 mm (other widths on request)
Band thickness 0.6 - 1.3mm
Tooth pitch 0,5-6 TPI
Hardening generator frequency 3 MHz.
Tempering generator frequency 1.5 Mhz.

- High efficiency and low energy consumption generators with air-cooled oscillator tubes.
- Band feeder with a pulling 4-wheel 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.
- Collapsible centre with auto band lock.

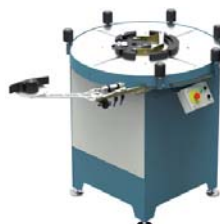
OPTIONS / ACCESSORIES:



ALO 90915/16/17/18
Collapsible coil center



ALO 831
Double coiler



ALO 880
Electric coiler



ALO 106 CUBE
Coil handling system

MACHINE DESCRIPTION

Band feeder

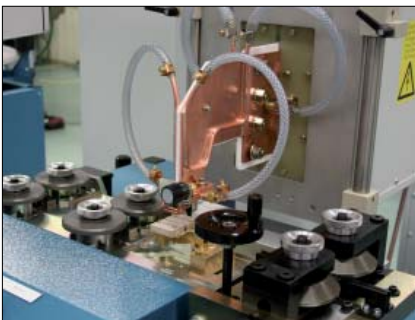
The band feeder consists of two units, one 4-wheel feed unit, the other as an adjustable brake to control the band tension by using a electro magnetic friction brake. Both units are equipped with two pairs of inclined rolls. The four rolls on the feed unit are driven by a servomotor, and the speed is controlled by a servo controller. The oscillating circuits with the inductors are located between the brake and the feed units such that the band is pulled through the inductors at a controlled tension



Tooth hardening inductor with air quench

Generators

The hardening and tempering generators are enclosed in separate aluminium cabinets, equipped with separate oscillating circuits connected to the cabinets via coaxial cables. The generators are air cooled, thus limiting the cooling water requirements to inductors and oscillating circuit only. The hardening and straightening generator is equipped with a chopper for infinitely variable control of the output power.



Mechanical straightening and tempering inductor

Inductors

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

Straightening device

The straightening device consists of a pair of rolls situated between the hardening and tempering inductors. The rolls are driven and are mechanically adjustable in height for different band widths. The straightening force is mechanically controlled by a fine threaded screw system.

TECHNICAL SPECIFICATION:

Band width:	12 - 38 mm	(other widths on request)
Band thickness:	0.6 - 1.3 mm	
Tooth pitch:	0.5 - 6 TPI	
Capacity:	5 - 15 m/min	
Coiler ID:	300 - 315 mm	
Coiler OD:	820 mm	
Max coil weight:	300 kg	
Air pressure:	6.3 bar	
Standard voltage:	400VAC $\pm 10\%$ 3-phase, 50-60 Hz $\pm 1\%$ directly earthed system, other voltages available upon request.	
Power consumption (at max output power):	20 kVA	

ALO 191-MST1 is also available without a inline tempering generator ALO 191-MS1

Other customer requirements may be discussed between customer and ALO.

