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ALO 191-CP

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Induction tooth hardening and hot straightening of bandsaw blades



THE SYSTEM COMPRISES:

Feed unit

Hardening generator and inductor Straightening generator and inductor Closed coolant system Closed quench system

CAPACITY:

Band width 12 - 38 mm (other widths on request) Band thickness 0.6 - 1.4 mm Tooth pitch 0.5 - 14 tpi Hardening generator frequency 3 MHz. Straightening generator frequency 1.5 MHz. Tempering generator frequency 1.5 Mhz. (option)

- 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.



ALO 90915/16/17/18 Collapsible coil center

OPTIONS / ACCESSORIES:



ALO 831 Double coiler



ALO 880 Electric coiler



ALO 106 CUBE Coil handeling system



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Tooth hardening generator



Inductors



Quench 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

Generators

The hardening and straightening 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.

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.

Quench system

The system is designed for liquid quenching, such as oil or polymer quenchants. It consists of quenching device for the teeth, quenchant tank built into the feeder, circulation pump, thermostat, heat exchanger, magnetic filter and a heating device for preheating of the quenchant.

TECHNICAL SPECIFICATION:

Band width: Band thickness: Tooth pitch: Capacity: Air pressure: Standard voltage: 12 - 38 mm(other widths on request)0.6 - 1.4 mm0.5 - 14 tpi5 - 15 m/min6.3 bar91 psi400VAC ±10% 3-phase, 50-60 Hz ±1% directly earthed system,
other voltages available upon request.

Power consumption (at max output power): 20 kVA

ALO 191 CP is also available with a inline tempering generator ALO 191 - CPT

Other customer requirements may be discussed between customer and ALO.

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SWEDISH QUALITY WITH RESPECT FOR THE ENVIRONMENT AND SAFETY REGULATIONS