

WELD SHOPS

ALO 123

ALO 126

ALO 127

ALO 177

AUTOMATIC CAPPING MACHINE FOR WELDED BAND SAW LOOPS

GRINDING FIXTURE FOR BAND SAW WELDS

BAND LOOP WELD TESTER

CUT TO LENGTH MACHINE WITH MATCH FINDER SYSTEM

ALO 123

Automatic capping machine for welded band saw loops



ALO 123

Is a compact and easy operated machine for fitting U-shaped plastic tooth protection on welded band saw loops. After the loop is placed in the open fixture by the operator or by a robot, the machine automatically adds the plastic teeth protection and completes the loop.

For safety reasons the cycle is started with double buttons on a separate control cabinet.

Light curtain safety system can be used as an option to the dual button operation.

No adjustments needed for different band length, thickness or tooth pitch.

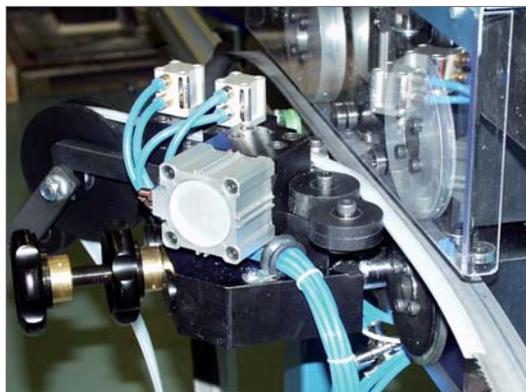
Parameters can be saved under product names and easily recalled from the control systems memory.

CAPACITY:

Band widths: 20 - 54 mm

Band thickness: 0.6 - 2 mm

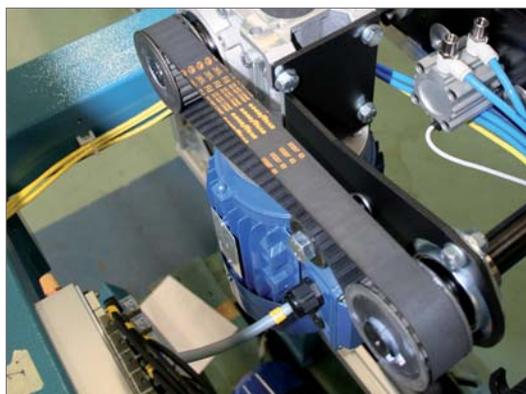




Band loop and plastic strip feeding units.



Shear and strip feeding unit.



Twin wheel driven band feed unit.

MACHINE DESCRIPTION

The tooth protection material is opened and pneumatically fed over the first teeth by the strip feeding unit. The frequency controlled feed wheels feed the loop and after a complete revolution the protection material is cut automatically by the shear unit. The feed speed and several other parameters can be easily be adjusted on the operator terminal, and saved for future use.

After loading a new loop in the open fixture by use of a floor pedal the machine is ready for the next cycle. The tooth protection material is fed from a coil that is driven by a frequency controlled motor.

The ALO 123 manages several different plastic types and sizes. A new coil of plastic strip are easily loaded when the strip coil are consumend.

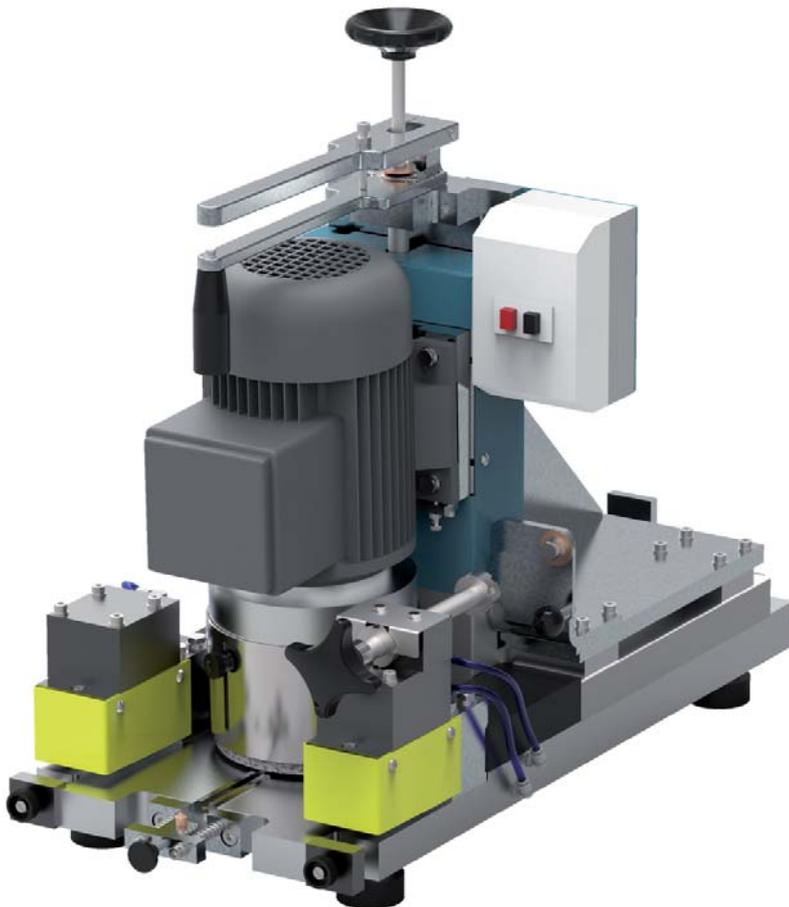
TECHNICAL SPECIFICATION:

Band width:	20 - 54 mm
Band thickness:	0.6 - 2.0 mm
Min. band loop length:	2 m
Capacity:	10 sec for a 8 m / 26ft loop
Air pressure:	6.3 bar 91 psi
Voltage:	230 VAC \pm 10%, 1 or 2 phase, 50 - 60 Hz
Space requirement (l x w x h)	2300 x 1100 x 1800mm



ALO 126

Table top grinding fixture for welded band saw loops



ALO 126

Designed for quick and easy grinding of band saw welds. Pneumatic clamping pads activated by a foot pedal holds the blade. The blade is placed in the fixture with the tootinging towards an adjustable mechanical stop.

Stabil and easy horizontal and vertical movement of the grinding unit thanks to linear ball guides.

The horizontal axle is equipped with mechanical stop and fine tuning device to optimize the grinding result.

Options

126-1 Assembly for sharpening of grinding wheel

TECHNICAL SPECIFICATION:

Max band width:	100 mm
Max band thickness:	3 mm
Weight:	80 kg
Air pressure:	6.3 bar 91 psi
Grinding wheel quality:	Norton "SG" (3SG46P8VH 71) 150 mm Ø
Voltage:	220 VAC, ± 10%, 1-phase, 50 - 60 Hz ± 1%
Space requirement (l x w x h):	302 x 684 x 590 mm

ALO 127

Band and weld fatigue tester

ALO 127

Designed for quick, easy and safe testing of band loop welds. ALO 127 are built on an aluminium frame that can be mounted on the wall, table or similar. The whole assembly is protected by a easy open cover.

A welded bandsaw blade of 1200mm length is to be used, where the ends are placed in two locking devices that will hold the ends. The weld is bent over a wheel that is pneumatically pressured and the bandsaw blade will cycle back and forth over the wheel by the means of an electrical motor drive.

Once the band or the weld is broken by fatigue, the automatic cycle is stopped and the number of feeds or cycles can be read out on a counter display.



TECHNICAL SPECIFICATION:

Max band width:	67 mm
Max band thickness:	1,6 mm
Weight:	90 kg
Air pressure:	6.3 bar 91 psi
Voltage:	230 VAC, ± 10%, 1-phase, 50 - 60 Hz ± 1%
Space requirement (l x w x h):	1135 x 775 x 1350 mm

ALO 177

Cut to length machine with match finder system

The newest generation of ALO's cut to length machine is completely new and designed with the unique and innovative tooth matching system called "match finder". Never before has it been so easy to prepare band saw blades for welding thanks to our brand-new ALO 177 cut to length machine.

The new design makes it so easy to perform a setup, simply load an actual blade into the machine, activate the match finder feature, toggle matching preference on the screen and save. Now there is no need to manually adjust tooth detector in any axis. Simply specify the size from a tooth where the finished weld should be located and then

prepare the band saw blade for welding with compensation for weld burn off for perfect tooth and pattern match. The process is fully automatic and can repeat the same set up time after time with excellent results. Just choose length, band width and how many blades you need to cut and go!

MF+ (Match Finder Plus) is an option, which allows you to complete an intact loop of several shorter pieces that you weld together. This helps you to save material when, either of the coil reaching the end or if a band error is detected.

With this machine, ALO is changing the way band saw blades are cut to length, the new ALO 177 cuts your blades faster, more consistent and with higher accuracy than ever before.

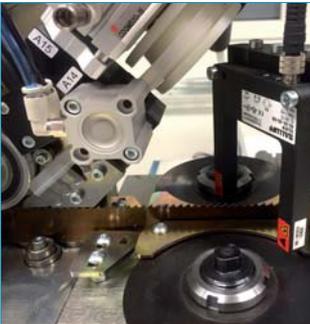


ALO 177 fully equipped with all options

HIGHLIGHTS

- *Tooth matching are now easier than ever with the new system "Match finder"*
- *Several different automatic cutting modes for band saw material or edge material*
- *A fully manual cut to length mode for quick process of single or small batch orders*
- *VIP patterns as well as regular patterns can automatically be cut to length*
- *New cut to length mode for set pattern match of band saw blades with regular pitch*
- *Band ends fully prepared for welding with perfect tooth match after welding process*
- *Blade pattern are compared to program pattern before auto start*
- *Completely new mechanical design of feed and drive unit*
- *New and improved shear unit design that warrant for trouble free cutting*





The match finder system

Band length is measured by a metering wheel and a pulse transducer to eliminate band slipping faults.

Tooth pitch, band width, length with tolerance and number of bands are chosen from a drop down bar in the HMI panel. The machine will compare the actual blade loaded into the machine to the saved group pattern. If they match, the machine will execute the cut to length job fully automatic.

With no match the machine will alarm the operator, this will minimize the risk for human errors by loading wrong band type or size. ALO 177 also has a detector for pre-marked band faults that will stop automatic mode.

The cut are made by a new powerful pneumatic shear unit with blades made of high speed steel. The slide is forcibly guided and will follow the cylinders wedge back on the return stroke. The shear cuts widths between 6-100mm.

The machine are available both with left to right, or right to left band feed direction and with different useful options.



The new improved shear unit

Match finder legend:



First priority cut, e.g. start a new blade at this gullet



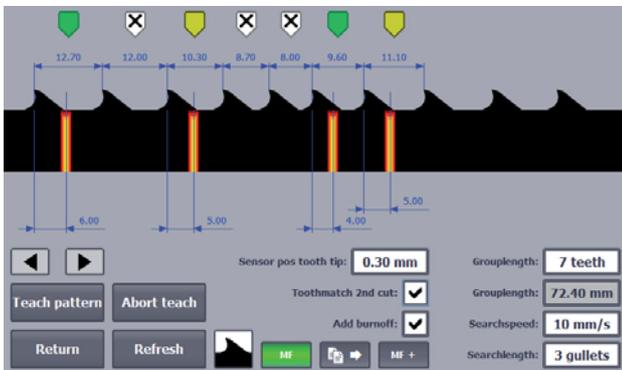
This gullet(s) not allowed to be used for tooth match



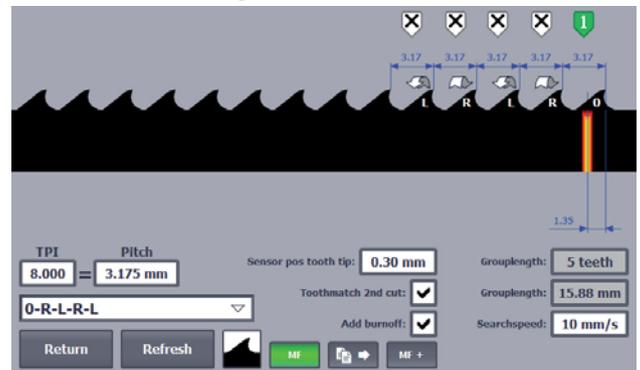
This gullets are ok to match with each other, also in combination with first priority cut



This gullets are ok to match with each other



Actual HMI screen shot from VIP group definition



Actual HMI screen shot from set match definition

TECHNICAL SPECIFICATION:

Band width:	6 -100 mm
Band thickness:	0.3 - 1.6 mm
Band length:	0.25 - 20 m
Air pressure:	6.3 bar
Voltage:	400 VAC ±10% 3-phase, 50-60 Hz ±1% directly earthed system
Space requirement (LxWxH)	0.7 x 0.8 x 1.4 m

REMARKS:

Band width between 6-10 mm requires a band guide, 200674-L or 200674-LV. Tooth match is possible from 10mm.

OPTIONS:

177-BAR:	Barcode scanner
177-CAP:	Tooth protection applier
177-CBD:	Color band detector
177-DBD:	Double band detector
177-INK-KIT:	Mounting kit for inkjet printer
177-MF+:	Match finder plus
177-OCU:	Oil cleaning unit for the band

177-TCL:	Tooth protection lift unit
200674:	Band guide
200674-V:	Band guide



SWEDISH QUALITY
 WITH RESPECT FOR THE
 ENVIRONMENT AND
 SAFETY REGULATIONS