

## ALO 185

### Automatic set gauge for band saw blades



#### THE SYSTEM COMPRISES:

Measuring fixture  
Camera  
PC and SGS software

#### CAPACITY:

Blade width: 12 - 100 mm  
Blade thickness: 0,4 - 1.6 mm  
Tooth pitch: 0.5 - 14 tpi  
Measure width max: 5 mm

#### OPTIONS / ACCESSORIES:



ALO 81-60  
Set gauge



ALO 185-011 / 185-012  
Band symmetry control kit



## MACHINE DESCRIPTION

The set gauge will measure each set tooth on a band saw blade and check against user defined tolerances.

The individual setting of each tooth as well as average, imbalance and overall set can be displayed on the PC monitor. Control of the set gauge and programming of all parameters and tolerances are done interactive by the menu driven software. The user can freely choose metric or inch as measuring units.

The software supports all Western languages. A special set gauge computer equipped with a CCD line camera scanning the teeth of the saw blade does the measuring. The analysis of the incoming data is done in real-time and the result is transmitted online to the PC. The gauge can be placed in line with any ALO band saw setting machine.

If the 185 stand together with an ALO band saw setting machine, a kit that automatically will control and adjust the set symmetry can be added, making it possible to keep a very tight tolerance without any unnecessary stops for manual adjustments.

## OPTIONS:

- 185 - 001A PC monitor stand
- 185 - 003 Laser printer
- 185 - 011 Automatic symmetry adjustment kit for 181 machine
- 185 - 012 Automatic symmetry adjustment kit for 182 and 183 machines
- 185 - 181 Kit with all necessary parts, including a free standing coiler type 820 - 6, for connecting ALO 185 to an existing ALO 181 setting machine.
- 185 - 182 Kit with all necessary parts for connecting ALO 185 to an existing ALO 182 or ALO 183 setting machine.

## TECHNICAL SPECIFICATION:

Blade width:	12 - 100 mm
Blade thickness:	0,4 - 1.6 mm
Tooth pitch:	0.5 - 14 tpi
Measure width max:	5 mm
Resolution:	0.002 mm
Resolution on screen(user selectable):	.01, 0.001 mm
Camera:	High speed, high resolution CCD line camera
PC:	Actual market standard with monitor, keyboard and SGS software



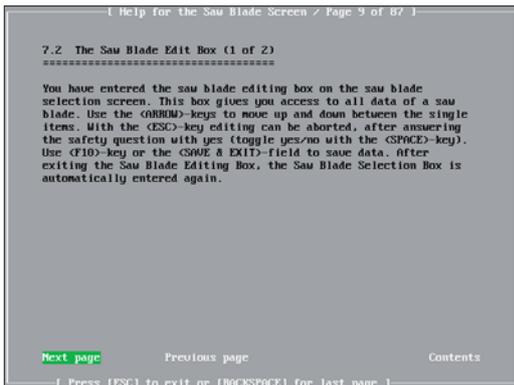
SCREENSHOTS FROM SGS SOFTWARE:



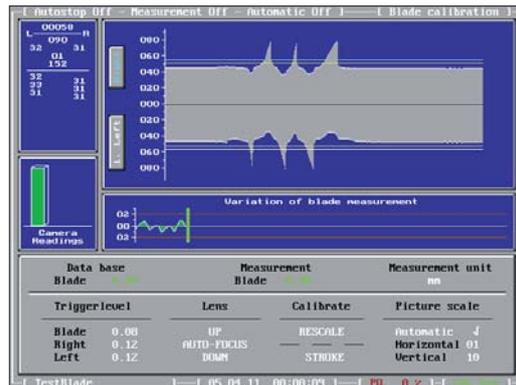
**MAIN MENU:**  
 Choose mode of operation in a simple interactive menu system. The program handles all European languages and works with metric or Imperial readings.



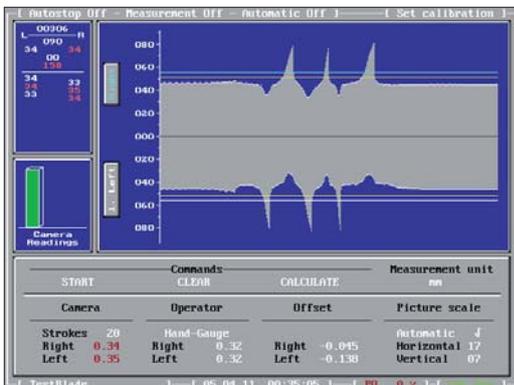
**EDIT SAW BLADE:**  
 Pre-programming of all band and system parameters makes it easy for the operator to select the actual blade from the library at set up. The use of passwords prevents tampering with band or system parameters.



**HELP MENU:**  
 Help is available at any place in the program by pressing the help function key. The help system also provides help with common setup mistakes.



**OPTICAL CALIBRATION:**  
 Real time vision showing the blade with set teeth, actual set readings, the database as well as quality of the camera readings.

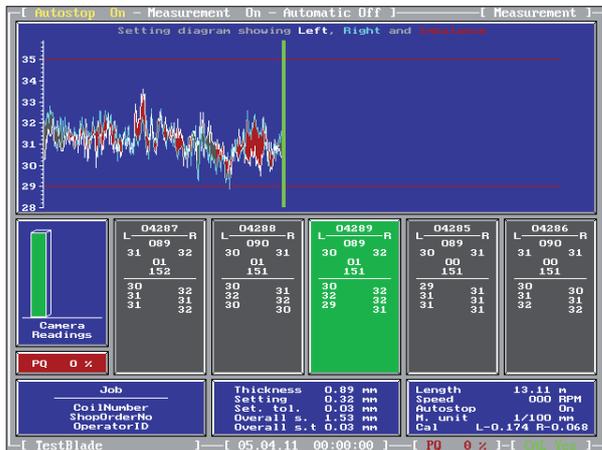


**SET CALIBRATION:**  
 A very simple calibration system makes it possible to calibrate the system to any other measuring system as well as fulfilling standards like ISO-9000



**AUTO SYMMETRY ADJUSTMENT:**  
 If the ALO 185 set gauge stands together with a ALO setting machine, a kit is available that will control and adjust the symmetry automatically.

During the actual measurement its possible to see the results of the set and several different statistical diagrams while the system keeps control of the set.

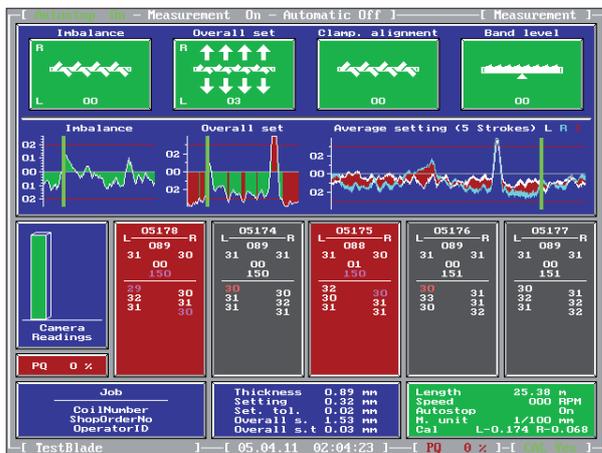


Top part of the screen is showing a setting diagram over the last 500 feedings.

Left side set = white  
 Right side set = blue  
 Imbalance = red

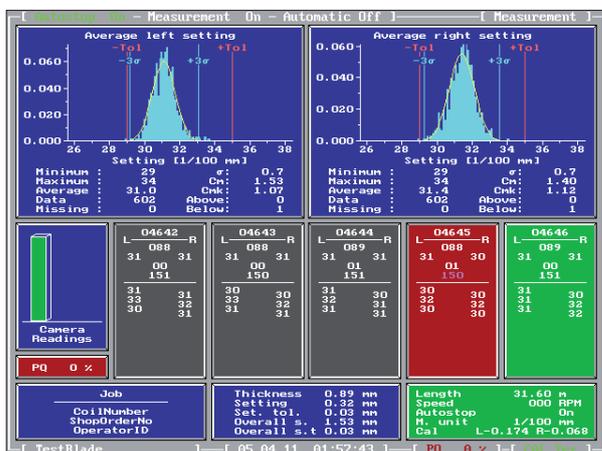
The red horizontal lines are the tolerance limits. The grey line in the middle represents the nominal set. Mid part of the screen is showing the last five groups of set/tooth, imbalance, average/side and the overall set. Each tooth is measured and the set value is displayed. The background colour is showing the status of the set; green yellow or red.

The change between these screens is done by a simple touch on a function key. The frame around all screens is always showing basic information like actual band name or number, auto stop on or off, video quality and calibration status.



The system can stop the setter if the set goes out of the tolerances and will give instructions how to adjust the setting machine to correct the set.

Low part of the screen is from left showing coil number, shop order and operators id. Mid part is showing the basic blade information. Right side is giving band length, speed, auto stop on or off, metering system and the actual offset.



Top part of the screen is showing a standard deviation diagram over left and right side set. Min, max, average set as well as standard deviations are shown. The set values with histogram can be printed out at any time or at the end of the measurement.

Automatic self-test of the set gauge computer and the camera at system start up. The system also displays the current speed and the produced length as well as speed and length counter.