

EasyLink™

MANUAL
English



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EASYLINK

With EasyLink you can easily transfer measuring results from the Display unit to the PC and generate reports, or export the results to an Excel chart for further analysis.

The screenshot shows the EasyLink software interface. At the top, there are tabs for 'Display unit', 'Settings', 'Measurement', 'Report', and 'Help'. Below the tabs is a toolbar with icons for 'Scan', 'Back up', 'Restore', and 'Sync'. The main area is divided into two panes: 'Display units are listed here' on the left and 'Files' on the right. The 'Display units' pane shows a list of units with columns for 'long 6', 'apold', 'mt 5machines', '250', 'a', 'b', 'Long', 'test', 'tjal', '2', '3', and '120403'. The 'Files' pane shows a tree structure starting with 'Factory', followed by 'Backup', and then two backup folders with dates. Below the panes are two information panels: 'File information / Display unit' and 'File information / Level information'. The 'Display unit' panel shows fields for Operator, Date, Program, Name, Metric/Imperial, Barcode, and Display unit ID. The 'Level information' panel shows fields for Operator, User, Date, Program, Name, Metric/Imperial, Barcode, and Display unit ID. A small image of a blue machine is shown in the bottom right. Annotations with yellow arrows point to various parts of the interface: 'Tabs' points to the top menu; 'Display units are listed here' points to the left pane; 'Files' points to the right pane; 'Levels' points to the 'Add new level' button; 'Drag and drop to move single files.' points to the file list in the right pane; 'Information regarding selected file or Display unit.' points to the 'Display unit' information panel; and 'Depending on what is selected in the file structure, file or level information is displayed here.' points to the 'Level information' panel.

Drag and drop to move single files.

Information regarding selected file or Display unit.

Depending on what is selected in the file structure, file or level information is displayed here.

Import files

E-series

1. Start EasyLink.
2. Start the Display unit.
3. Connect the Display unit to the PC using the USB cable. The connected Display units are automatically presented.

D-series

1. Click  to start a manual scan for Display units.
2. EasyLink will scan for available COM ports. All Display units are listed.

Import CSD

Select to import data from earlier versions of EasyLink.

Import file

Select to import single measurement files. For example files sent to you via e-mail. The imported file is automatically saved in the folder "Temporary".

Back-up, Restore and Sync

Back up

All files in the selected Display unit are copied and backed up in the Backup folder.

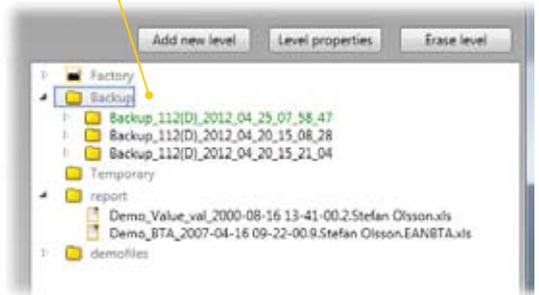
Restore

Select a back up file and click . The connected Display unit is restored with the earlier version.

Sync

1. Save a measurement with a barcode.
2. Click .
3. The system searches for existing files with the same barcode and will copy the new files to the same folder.

Back up files



Open file

Double click on a file to open. All measurement files have the following buttons in common.

Reset view

Return to the default settings.

Copy image to clipboard

Copy the image. You can for example paste the image in an e-mail.

Save image

Save the image on your PC.

Create report

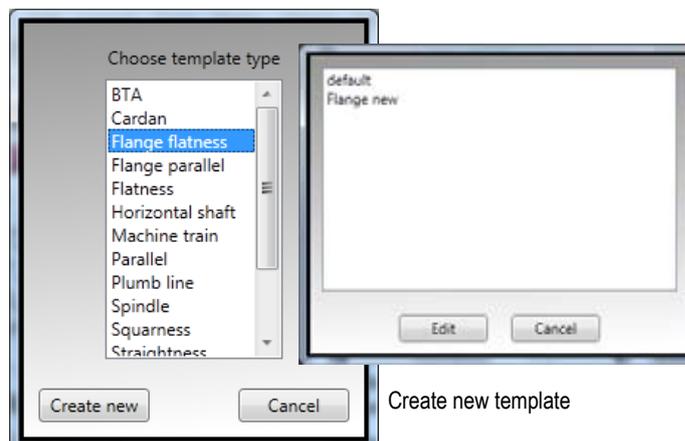
Create an Excel report. For more information *see Report files*.

Exit

Close window.

Report files

- Edit existing.
- Create new. Select a name. The new template will be visible in the list when you select Edit existing or Create report from a program.
- Import



Help

- Log file.
- Register. See *User settings below*.
- Help.
- Support. Click to send an e-mail to Damalini AB.
- About

Settings

Program settings

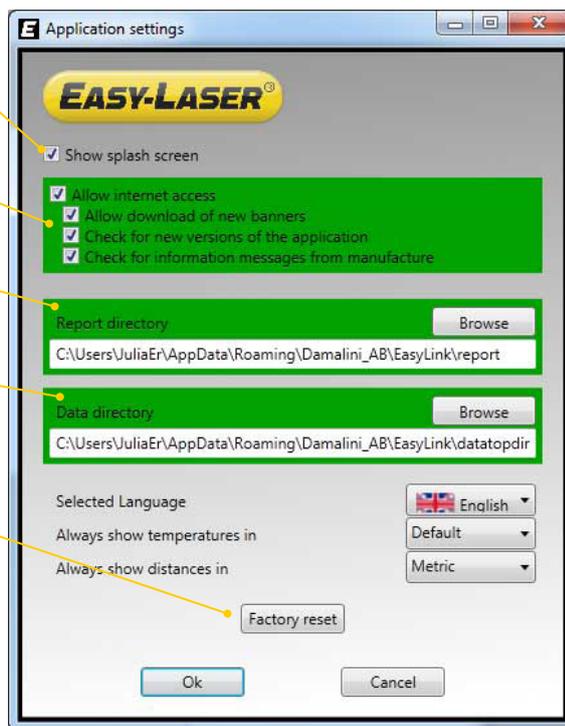
Splash screen is the image shown when you start EasyLink.

Internet settings

Directory where report files are saved

Directory where measurement files are saved

The original demofiles are recreated



User settings

For full EasyLink™ Flange functionality, you need the activation code. Select the check box *Request activation code*. Your local supplier will provide you with the code.



Levels

In the file structure, you can add new levels to organize your measurement files and reports.

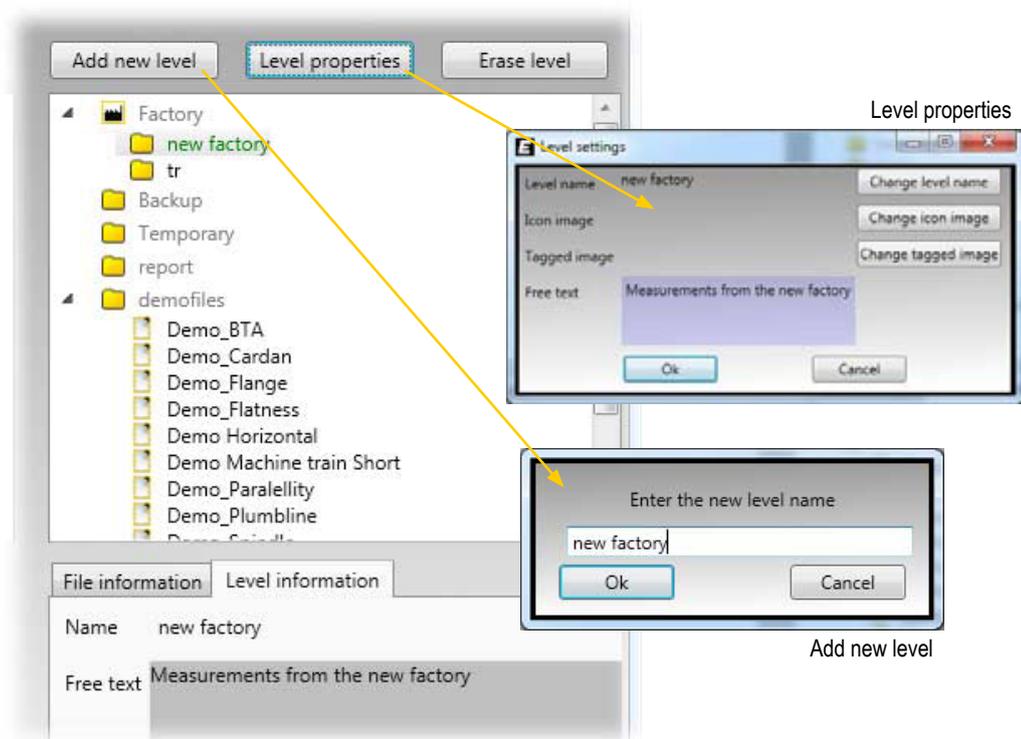
Add new level

1. Select the top level where you want to add a new level.
2. Select “Add new level” and enter a name for the new level. The new level is added to the file structure.

Level properties

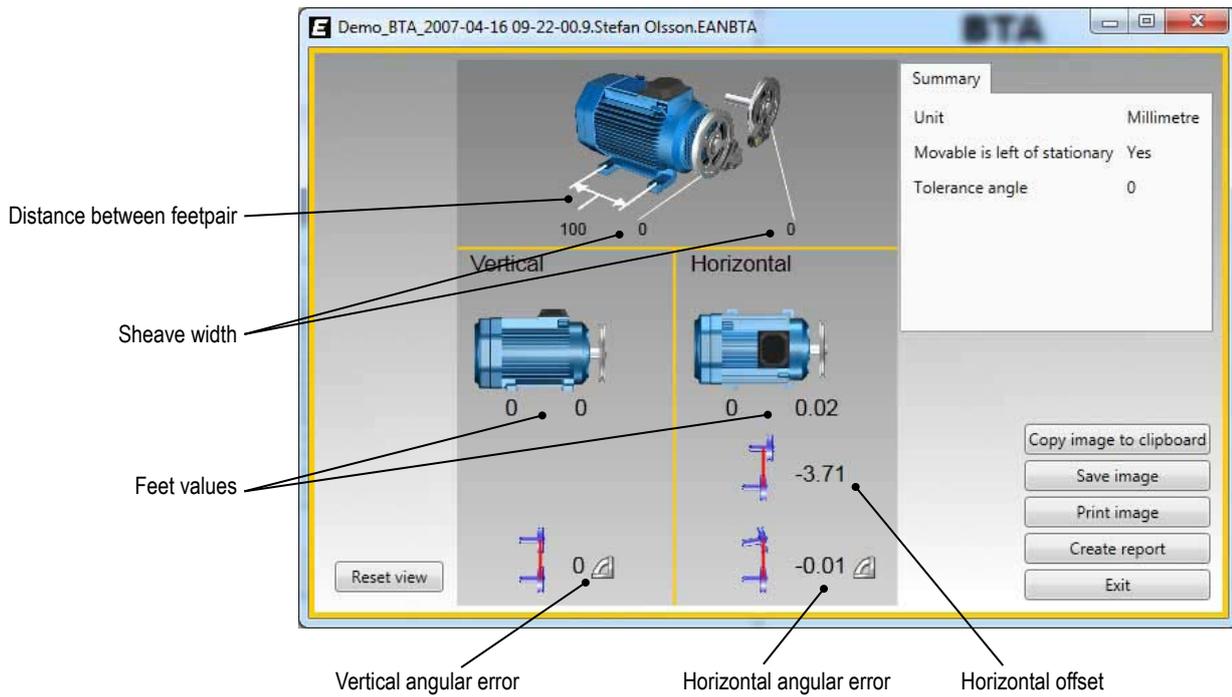
You can change the image used for the level and also add “Free text”. The comments are visible under the tab “Level information”.

The tagged image is shown beside the level information.

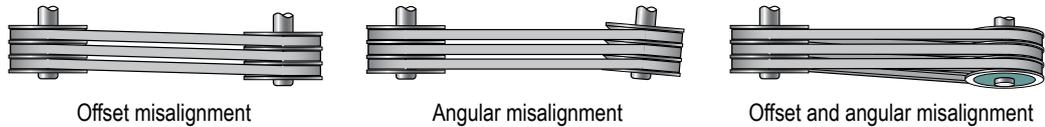


BTA

Easy-Laser® BTA system consists of a laser transmitter and a detector.

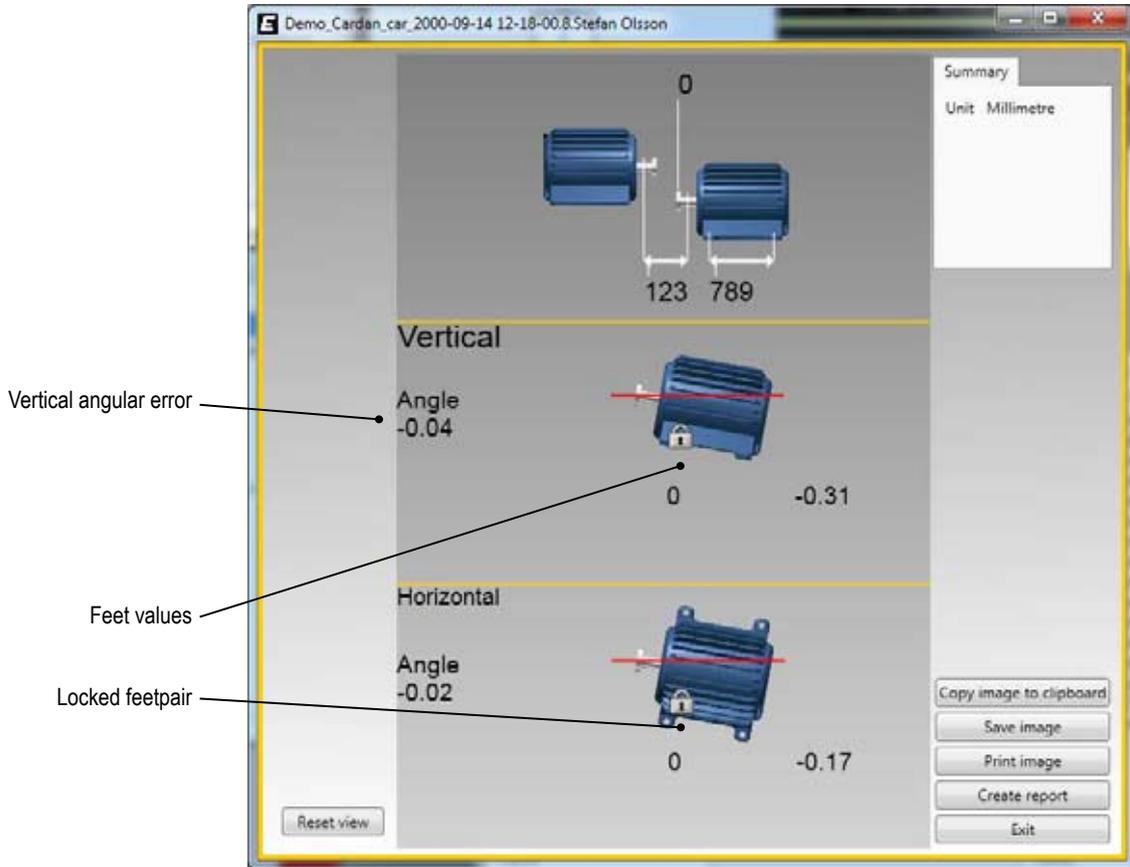


The misalignment can be offset or angular. It can also be a combination of both.

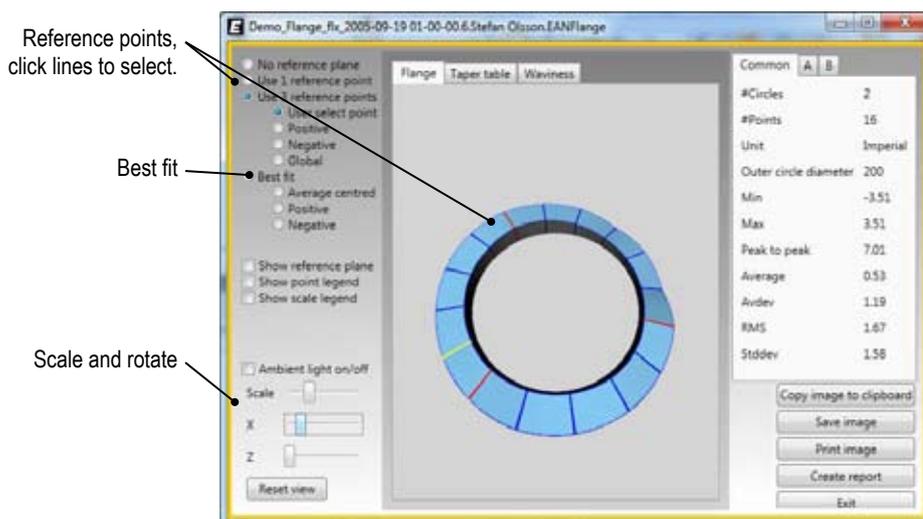


Cardan

The Cardan program is used for alignment of cardan-shaft-coupled/centre-offset machines.



Flange



Max	The highest value.
Min	The lowest value.
Peak-peak	Difference between Max and Min value
Stddev	Standard deviation. Average difference between Max and Min value.
RMS	Root Mean Square (Numerical Flatness)

Reference points

You can use one or three reference points. Click the lines on the flange to select reference points.

Best fit

By default best fit is calculated on the selected circle in the table. You can also select all measurement points on a certain position. When you perform a best fit calculation, the flange is tilted to the lowest peak to peak value. It is fitted as flat as possible between two planes where the average value is zero.

- All positive
The flange is tilted as in a Best fit calculation, but the reference line is moved to the lowest measurement point.
- All negative
The flange is tilted as in a Best fit calculation, but the reference line is moved to the highest measurement point.

Scale and rotate

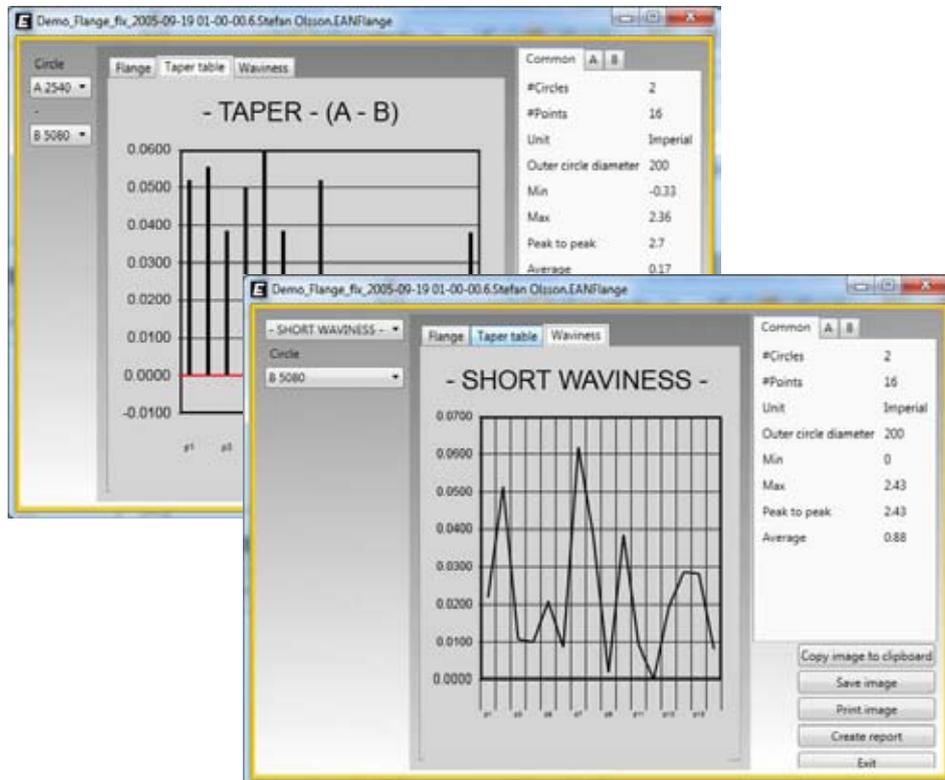
Drag the handles to scale or rotate the flange. You can also use the arrow keys on your keyboard.

Taper

View the inclination of the flange, between the measured circles.

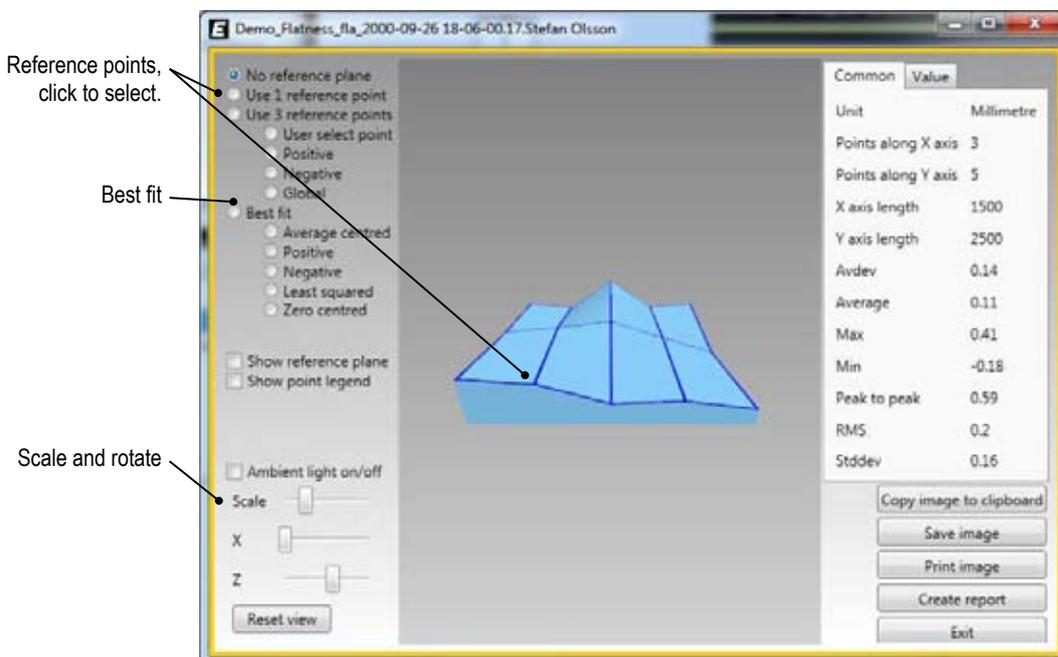
Waviness

The difference between two adjacent measurement points. This is measured on the outer circle.



Flatness

The reference points are marked in a coordinate system in X- and Y-direction.



Reference points

You can use one or three reference points. Click the measurement points to select reference points.

Best fit

By default best fit is calculated on the selected circle in the table. You can also select all measurement points on a certain position. When you perform a best fit calculation, the flange is tilted to the lowest peak to peak value. It is fitted as flat as possible between two planes where the average value is zero.

All positive

The flange is tilted as in a Best fit calculation, but the reference line is moved to the lowest measurement point.

All negative

The flange is tilted as in a Best fit calculation, but the reference line is moved to the highest measurement point.

Scale and rotate

Drag the handles to scale or rotate the flange. You can also use the arrow keys on your keyboard.

Horizontal

Offset, angle and feet values are clearly displayed.

Vertical

Offset -0.69 !

Angle -1.92 !

Horizontal

Offset -2.78 !

Angle -4.64 !

Summary

Unit	Millimetre
Movable feet	2
Soft foot performed	No
Movable is left of stationary	No
Tolerance angle	0
Tolerance offset	0
Vertical Tolerance angle within limit	No
Vertical Tolerance offset within limit	No
Horizontal Tolerance angle within limit	No
Horizontal Tolerance offset within limit	No

Copy image to clipboard

Save image

Print image

Create report

Exit

Reset view

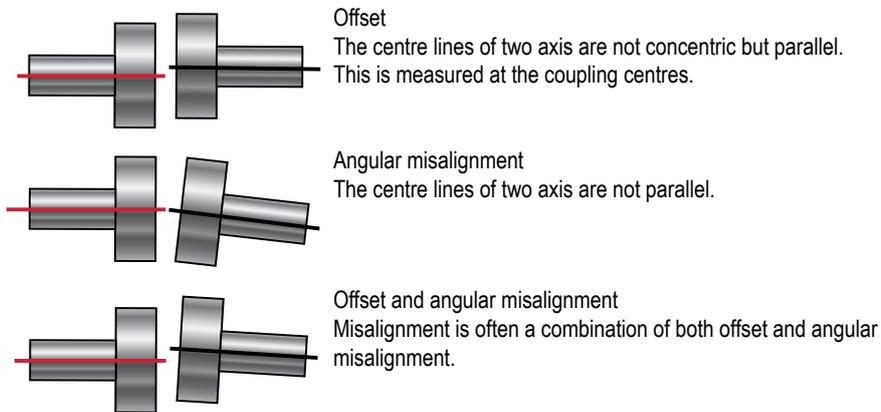
Vertical offset and angular error

Not within tolerance

Feet values

Offset and angle values

The offset and angle value indicate how well the machine is aligned at the coupling. They appear in both horizontal and vertical direction.



Feet values

The feet values show the position of the machine where the adjustment is made.

Machine train

Click tabs to see more information regarding each machine

The screenshot shows the 'Demo_MachineTrain_mac' application window. At the top, there are tabs for 'Summary', 'A', and 'B'. The main workspace displays two blue motor icons labeled 'A' and 'B' connected by a yellow line. Below the workspace are two graphs showing vertical and horizontal profiles. At the bottom, there are input fields for vertical (V) and horizontal (H) values, along with a 'Reset view' button. On the right side, there is a 'Summary' panel with a table of statistics and a set of control buttons.

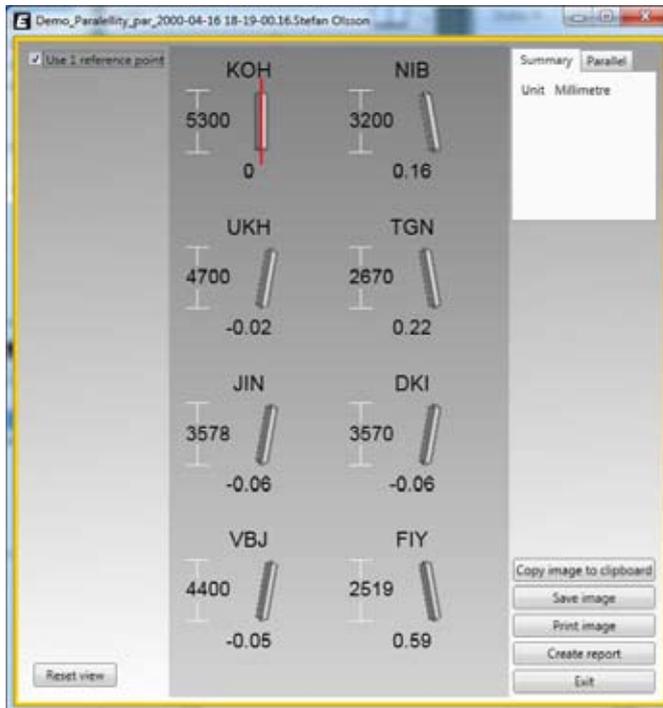
Unit	Millimetre
Number of machines	2
Vertical Max	0
Vertical Max	2148
Vertical Peak to peak	2148
Vertical Average	690.67
Horizontal Min	0
Horizontal Max	6446
Horizontal Peak to peak	6446
Horizontal Average	2073

Labels and their corresponding elements in the interface:

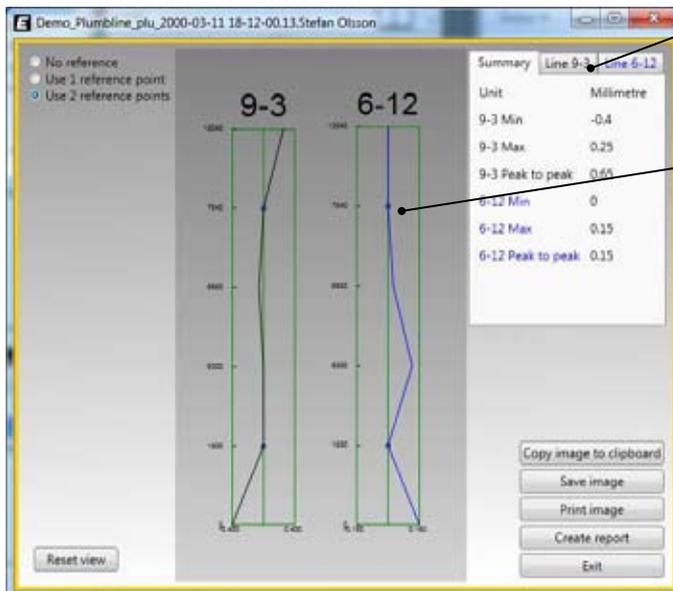
- Click to select machine: Points to the 'A' machine icon.
- Selected machine: Points to the 'A' machine icon.
- Offset and angle values: Points to the input fields for V (-2) and H (-4).
- Vertical and horizontal values: Points to the input fields for V (100) and H (300).
- Feet values: Points to the input fields for V (100) and H (300).
- Locked feet pair: Points to the lock icons on the V and H input fields.
- Click tabs to see more information regarding each machine: Points to the 'A' and 'B' tabs.

Paralellity

1. Select check box to use reference object. Object with red line is reference.
2. Click an object to make it the new reference object. Any of the objects can be chosen as reference.



Plumbline

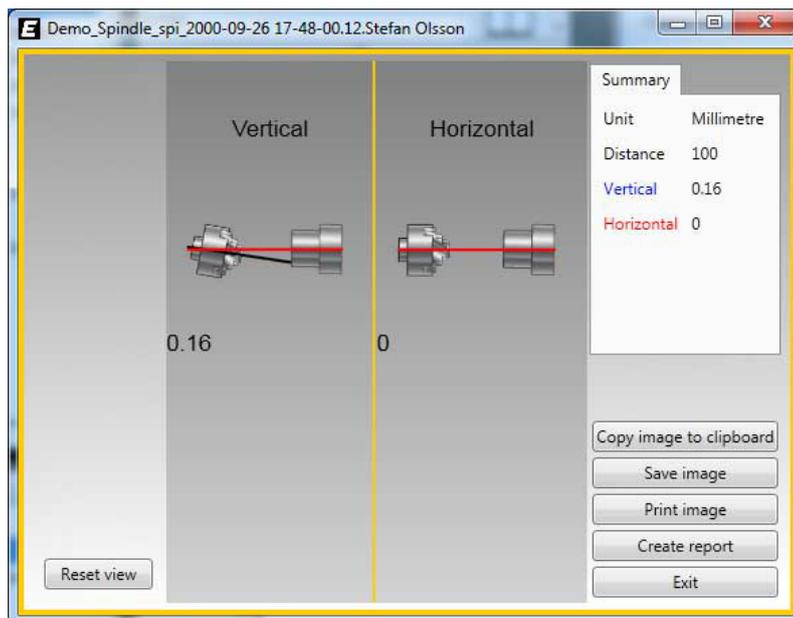
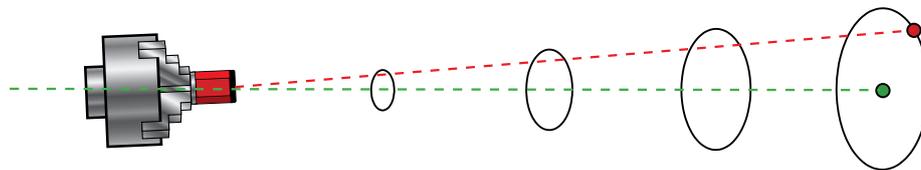


Click tabs to see more information

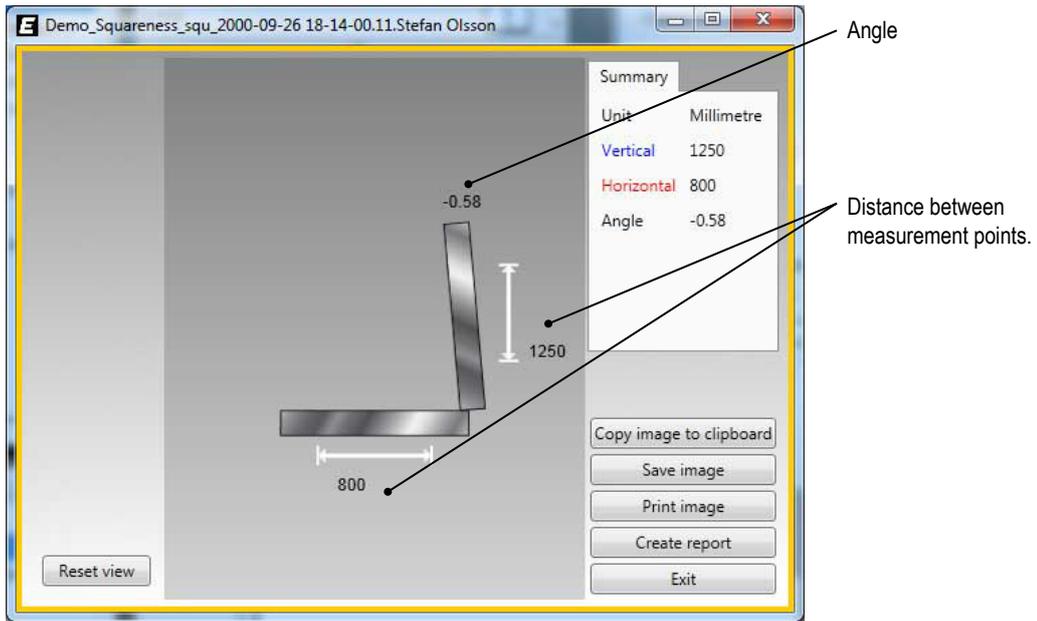
Click to select reference points

Spindle

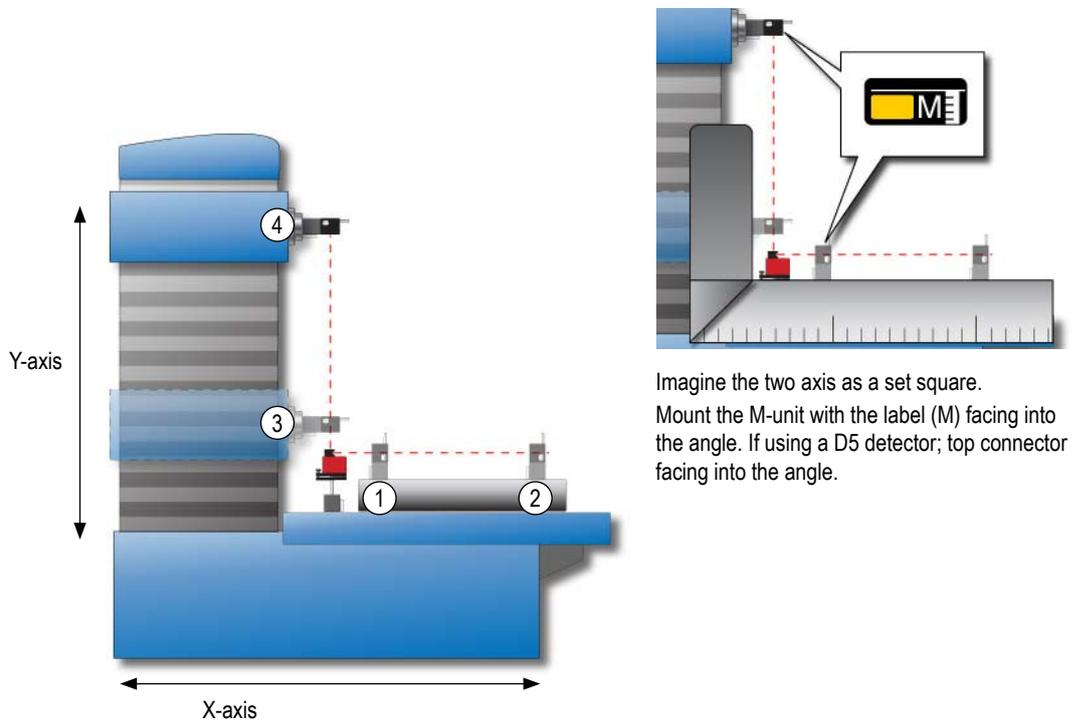
The laser beam projects concentric circles. A line through two centre points will show the pointing direction of the spindle.



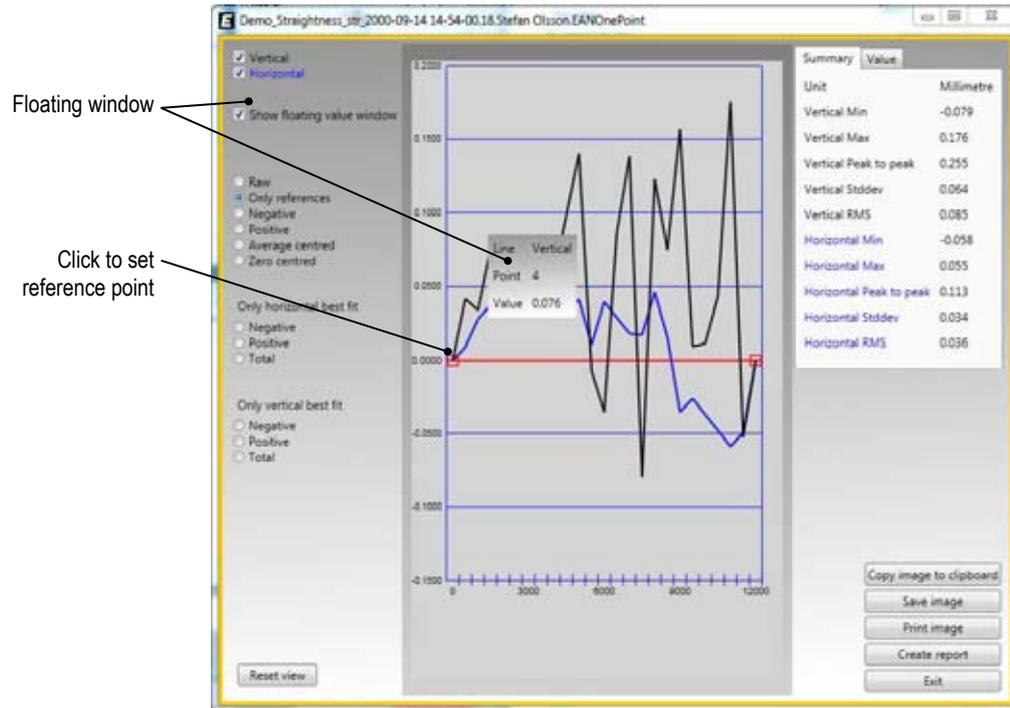
Squareness



An example showing squareness measurement on a milling machine. Squareness measurement of the Y-axis movement and machine table.



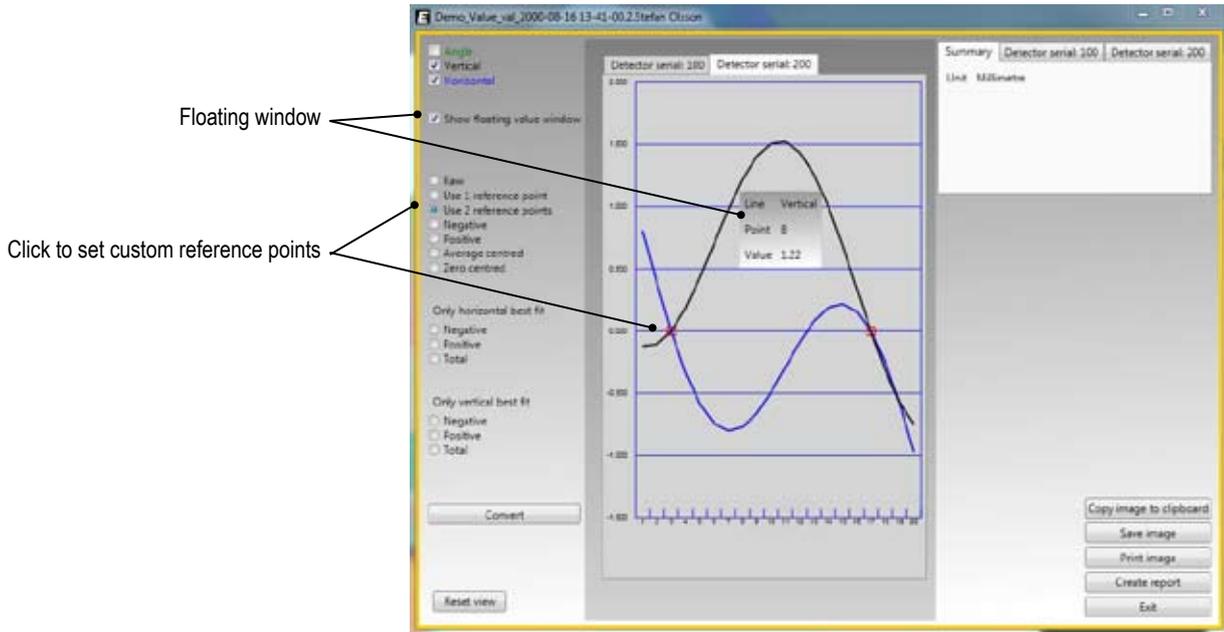
Straightness



Set custom reference points

1. Select "Only reference".
2. Click where you want to set the reference points.

Value

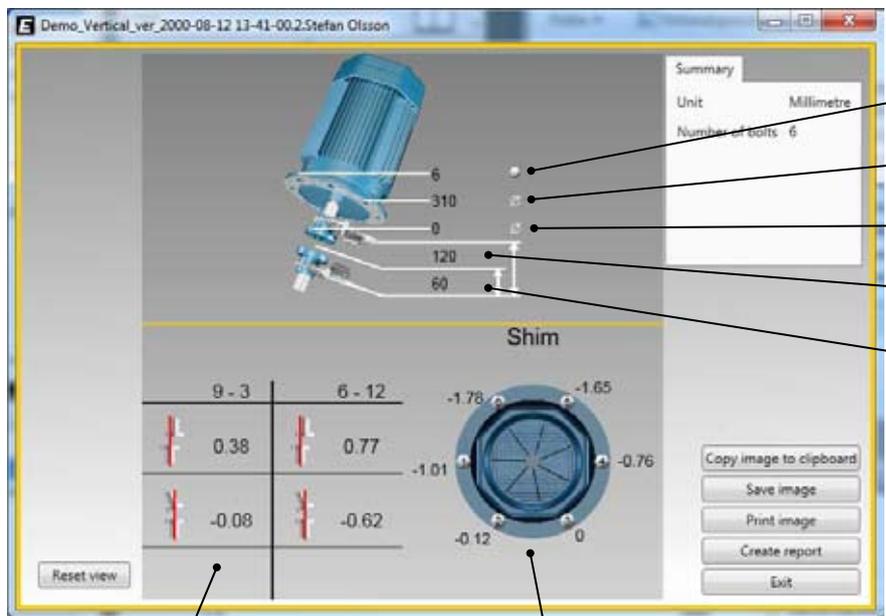


Convert

With the program Values, it is possible to make flatness and straightness measurements. The Convert function is used to transform these values measurements into straightness and flatness measurements.

Vertical

The program Vertical is used for vertical and/or flange mounted machines. The result is displayed as sideways offset in the coupling and angular error between shafts.



- Number of bolts (4, 6 or 8 bolts)
- Bolt circle diameter (centre of the bolts)
- Coupling diameter
- Distance between S-unit and M-unit
- Distance between S-unit and centre of coupling.

Offset and angle values in direction 9-3 and direction 6-12

Shim values for all bolts

Vibration

Easy-Laser® Vibrometer is used in preventive as well as active maintenance work on rotating machinery. It measures the vibration level and bearing condition of machinery. Bearing condition value is used for trend analysis.

LP: Low frequency (2–3200 Hz)
 HP: High frequency (10–3200 Hz)
 Acc: Acceleration

Click to view more information regarding this specific measurement point

