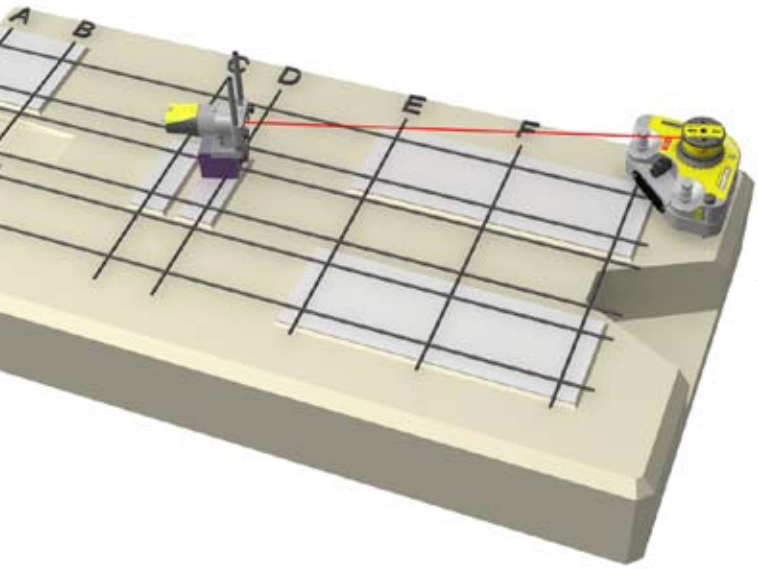
Fixturlaser

Geometry XA

FLATNESS STRAIGHTNESS







Fixturlaser's laser based geometry system is characterized by its user friendliness.
An animated display screen combined with color coded values and icons result in a graphical user interface which is unequalled.
With live values, it will guide you throughout the geometry measurement and adjustment process.

Geometric Measurements by Fixturlaser

FIXTUR LASER



The Fixturlaser Geometry^{XA} package

shares many of the advanced technology components and functions with the much appreciated Fixturlaser XA alignment system.

The graphical user interface is icon based facilitating interpretation. It has the same Flash animated color screen with color coded values and results, and the green arrows showing in which direction to move the machine or the measurement object.

The system is available with wireless units for data transfer; i.e. no cables between transmitters, detectors and the display box, so that you can move around in full freedom when recording measurement points or during adjustments.

The documentation of measurement reports is handled via the USB ports for transfer to a PC or other storage media of your choice, i.e. no need for additional external software or hardware.

EXPRESS GEOMETRY FUNCTIONS FOR YOUR BENEFIT



Best fit: You have the option to allow the system to calculate a reference line or plane, which illustrates the best fit, i.e. the least deviation for each measurement point in relation to the reference line or plane that has the least deviation of the measurement points.



The Touch and Release: The system gives you full freedom to record your measurements in any order you want. The touch and release function makes it easy to select the point to measure. Touch the screen, slide your finger across the display and release the finger at the point you want to measure. Together with the color screen and the graphical interface you can very quickly maneuver in your configuration even if many measuring points have to be registered.

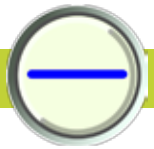


Express Navigation: When you select which points to measure, you will find that the highlighted measurement point is surrounded by its neighbor points enabling you to choose them without exiting the measurement point screen.

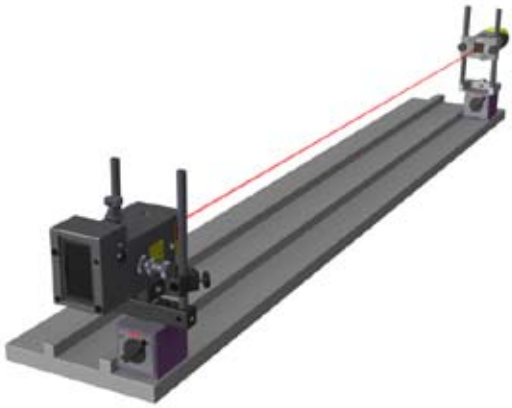


Use of Reference Receiver: With an additional receiver, you can use it as a reference receiver and zero it at the start of the measurement process. You are then able to control, without exiting the measurement screen, that the transmitter has not been moved during the actual measurement, which would cause incorrect measurement values.

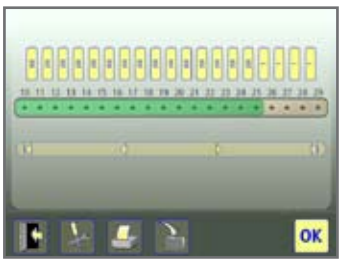
Straightness



The program allows for up to 99 points to be measured. Typical applications are measurements of machine guides, machine beds, machine ways, and guide rails.



The straightness application is measured in two axis, where the laser beam is used as reference. The deviation in distance between the laser beam and the measurement object is measured in two or more positions with the use of a receiver.



1. express Configuration

Quick and easy to configure

Pre-defined configuration



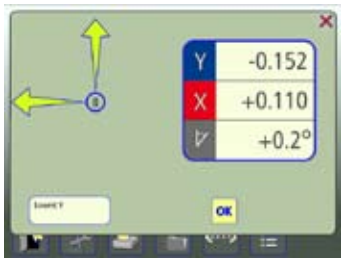
2. express Measurement

Distinct overall view of the measurement

Instant display of measurement object's position

Color coded measurement points

Measurement points can be registered in any order you prefer



3. express Adjustment

Live values during the adjustment phase

The angle guide displays the accepted (green) measurement point registration area

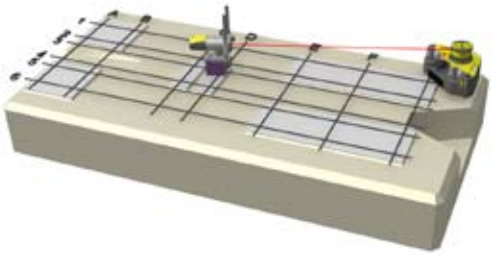
Green arrows show you in which direction to adjust towards zero

Color coded measurement values

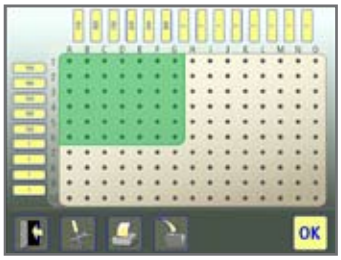
Flatness

rectangular

The program allows for up to 150 points (10 x 15) to be measured. Typical applications are measurements of e.g. machine beds and machine foundations. For the latter application, it is particularly beneficial to combine flatness measurement with shaft alignment when installing rotating machinery. First you check the foundation's surface for possible irregularities, a so called pre-alignment check. If any, adjust these. Install the machine and check for possible misalignment with a laser based shaft alignment tool like the Fixturlaser XA system.



This application uses a laser plane as reference. The deviation in distance between the laser plane and the measurement object is measured in one or more positions wit the use of the receiver.



1. express Configuration

Quick and easy to configure

Pre-defined configuration



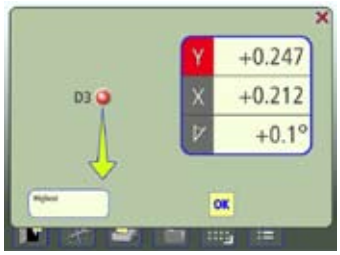
2. express Measurement

Distinct overall view of the measurement

Instant display of measurement object's position

Color coded measurement points

Measurement points can be registered in any order you prefer



3. express Adjustment

Live values during the adjustment phase

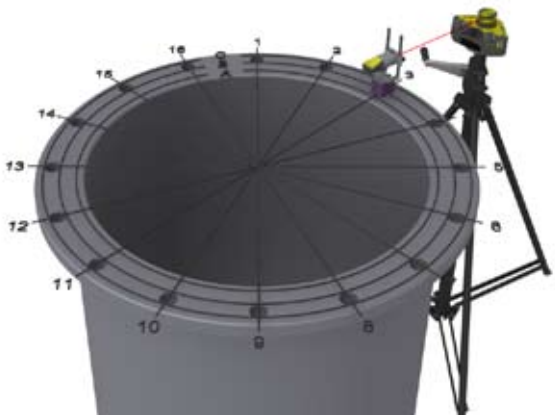
The angle guide displays the accepted (green) measurement point registration area

A green arrow show you in which direction to adjust towards zero

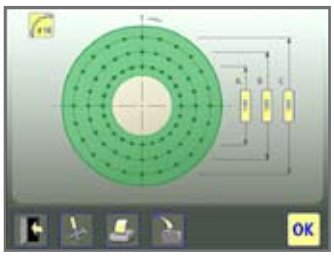
Color coded measurement values

circular

The program allows for up to three circles with 99 points on each circle to be measured. A typical application is the measurement of flanges.



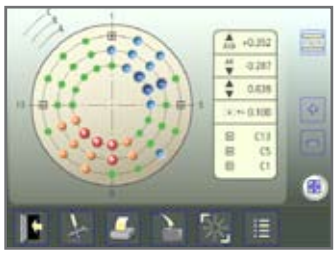
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1. express Configuration

Quick and easy to configure

Pre-defined configuration



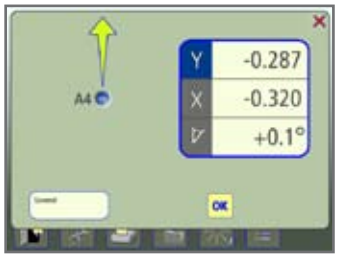
2. express Measurement

Distinct overall view of the measurement

Instant display of measurement object's position

Color coded measurement points

Measurement points can be registered in any order you prefer



3. express Adjustment

Live values during the adjustment phase

The angle guide displays the accepted (green) measurement point registration area

A green arrow show you in which direction to adjust towards zero

Color coded measurement values

Technical specification Fixturlaser XA Geometry

Receiver Movable 1-0833 / Receiver Stationary 1-0832

Housing Material:	Anodized aluminium
Operating Temp:	0 to 50°C (32 to 122°F)
Storage Temp:	-20 to 70°C (-4 to 158°F)
Relative humidity:	10 – 90%
Weight:	110 g (3.9oz)
Dimensions: (with cable attached)	57 x 50 x 40 mm (2.2 x 2.0 x 1.6 in)
Dimensions: (with wireless transmitter 1-0835 attached)	124 x 50 x 40 mm (4.9 in x 2.0 in x 1.6 in)
Environmental protection:	IP 65
Detector:	2-axis PSD
Detector size:	20 mm x 20 mm (0.8 in x0.8 in)
Detector resolution:	1 µm
Measurement accuracy:	1% ± 3 µm
Ambient light protection:	Optical filtering and ambient light signal rejection
Inclinometer resolution:	0.1°
Inclinometer accuracy:	±0.5

Transmitter T110 1-0390

Housing Material:	Anodized aluminium
Operating Temp:	0 to 50°C (2 to 122°F)
Storage Temp:	-20 to 70°C (-4 to 158°F)
Relative humidity:	10 – 90%
Weight:	1100 g
Dimensions:	60 x 60 x 140 mm (2.4 x 2.4 x 5.5 in)
Laser class:	Class 2
Measuring distance:	Up to 50 meters (164 feet)
Power supply:	2 batteries type LR6
Operating time:	15 hours continuously
Warming up time:	10 min

Transmitter T210 1-039

Housing Material:	Anodized aluminium
Operating Temp:	0 to 50°C (32 to 122°F)
Storage Temp:	-20 to 70°C (-4 to 158°F)
Relative humidity:	10 – 90%
Weight:	1030 g
Dimensions:	100 x 103 x 100 mm (3.9 x 4.1 x 3.9 in)
Laser class:	Class 2
Measuring distance:	Up to 20 meters (66 feet)
Laser sweep flatness:	±0,02mm
Angular prism accuracy:	±0,02 mm/m
Spirit level resolution:	0,3 mm/m
Power supply:	2 batteries type LR6
Operating time:	15 hours continuously
Warming up time:	10 min

Transmitter T220 1-0289

Housing Material:	Anodized aluminium
Operating Temp:	0 to 50°C (32 to 122°F)
Storage Temp:	-20 to 70°C (-4 to 158°F)
Relative humidity:	10 – 90%
Weight:	3500 g
Dimensions:	175 x 175 x 115 mm (6.9 x 6.9 x 4.5 in)
Laser class:	Class 2
Measuring distance:	Up to 50 meters (164 feet)
Beam deviation from levels:	<0,02 mm/m
Laser sweep flatness:	±0.02mm
Angular prism accuracy:	±0.02 mm/m
Spirit level resolution:	0.02 mm/m
Tilt adjustment from level:	±15 mm/m
Power supply:	4 batteries type LR6
Operating time:	20 hours continuously
Warming up time:	15 min

Wireless Transmitter/Battery Pack BT2 1-0835

Housing Material:	Anodized Aluminum and PC/ABS plastic
Operating Temp:	0 to 50°C (32 to 122°F)
Storage Temp:	-20 to 70°C (-4 to 158°F)
Weight:	190 g (6.7 oz) with batteries
Dimensions:	82 mm x 50 mm x 40 mm (3.2 in x 2.0 in x 1.6 in)
Wireless communication:	Class II Bluetooth transmitter
Communication range:	10 m (33 ft)
Power supply:	3 AA (LR6) batteries
Operating time:	10 hours continuously
LED indicators:	Transmitter and battery status indicators

Display Unit 1-0753



Receiver Movable 1-0833
Receiver Stationary 1-0832



Wireless Transmitter 1-0835



Transmitter T220 1-0289



Transmitter T210 1-0391



Transmitter T110 1-0390



ISO 9001
ISO 14001

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P-0228-GB Fixturlaser XA Geometry Straightness & Flatness

PdM

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