



Intrinsically safe for potentially explosive environments.

IECEX



IP66  
IP67

## Shaft Alignment

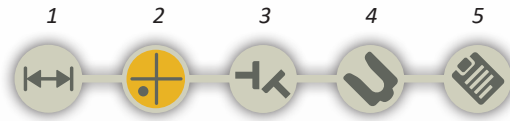
# XT550

# THIS IS EASY ALIGNMENT

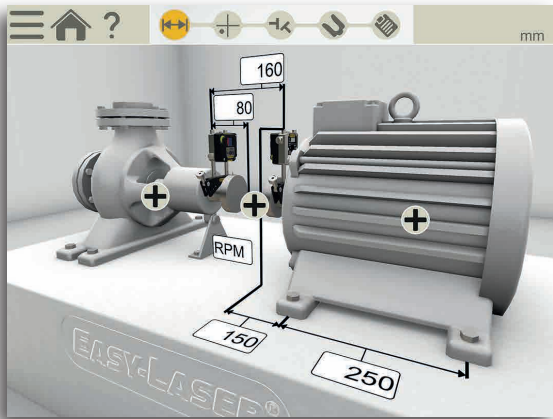
## HORIZONTAL PROGRAM



The user interface is intuitive and guides you through the measurement process. It is animated and zooms in to the relevant element for each step. You can save the measurements of a machine for *As found* and *As left* in the same file. The procedure for the other alignment programs in the XT app is equally intuitive and guided.



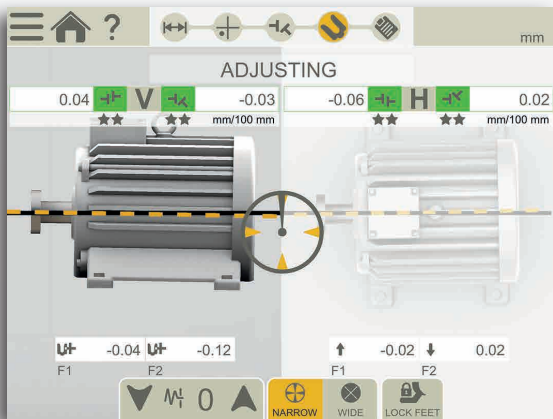
The interactive workflow indicator lets you easily jump to any part in the measurement process.



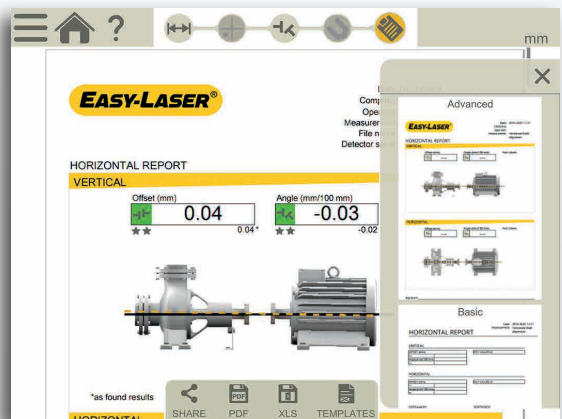
1. Enter dimensions



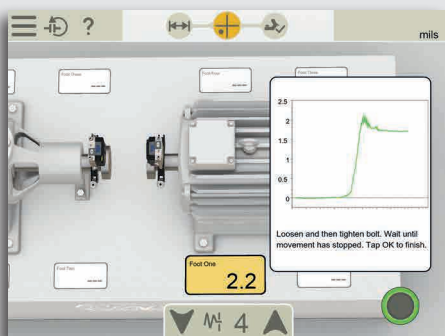
2. Measure (Four methods available, explained to the right)



3. View result, As found  
4. Adjust



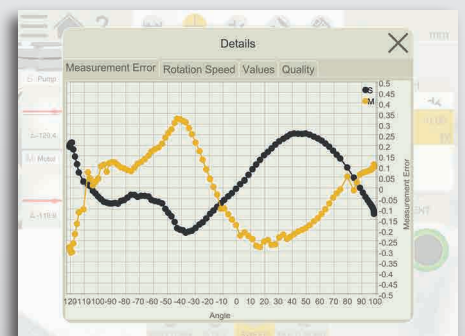
5. View report as it will look



Soft Foot check on both machines



Tolerance check (pre-set or custom)



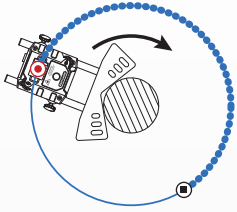
Quality check view for measurements

# MEASUREMENT METHODS

● Measuring points

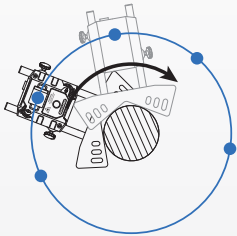
● Start recording

■ Stop recording



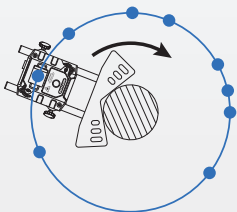
## CONTINUOUS SWEEP

Automatic recording of measurement values during continuous sweeping of the shaft. Hundreds of points are registered. You can start anywhere on the turn. Quality check of measurement is provided (see example down left).



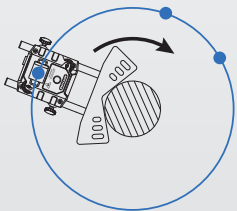
## UNCOUPLED SWEEP

Rotate one shaft/unit at a time to pass with the beam over the other (stationary). Repeat alternately until enough measurement points are recorded. You can start and stop anywhere on the turn.



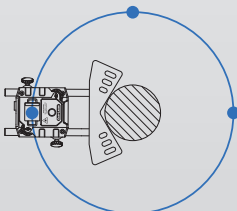
## MULTI POINT

Multi point is basically the same as EasyTurn™, but instead you can record multiple points on the sector rotated. This will provide an optimized calculation basis. Perfect for e.g. turbine and sliding bearing applications.



## EASYTURN

The EasyTurn™ function allows you to begin the measurement process from anywhere on the turn. You can turn the shaft to any three positions with as little as 20° between each position to register the measurement values. An easier-to-use version of the three-point method (see 9–12–3).



## 9–12–3

Measurement points are recorded at fixed points 9, 12 and 3 o'clock. This is the classic three-point method which can be used in most cases.

# SMART FUNCTIONS



## THERMAL GROWTH

Automatically compensate for thermal expansion of the machines.



## SWAP VIEW

Understand adjustment directions more intuitively.



## CONTINUE SESSION

Your latest measurement is always available, automatically saved.



## TEMPLATES

Save measurement files as templates, with machine data and settings, to quickly start measurements.



## MEASUREMENT VALUE FILTER

Improve readings when measuring conditions are poor.



## MULTIPLE SETS OF FEET

Align machines with more than two pairs of feet.



## LOCKED FEET

Lock any pair of feet on the machine. Used when aligning base-bound or bolt-bound machines.



## WIDE LIVE ADJUSTMENT

Adjust with live values using expanded sensor position ranges in the H and V position.



## SELECT MACHINE IMAGE

Choose from different 3D machines to portray your machinery on either side of coupling.



## SELECT COUPLING TYPE

Choose measurement method depending on coupling type: short flex, spacer shaft.



## ADJUSTMENT GUIDE

The adjustment guide helps you decide optimum adjustment by simulating shimming and move. For programs Horizontal and Machine train.

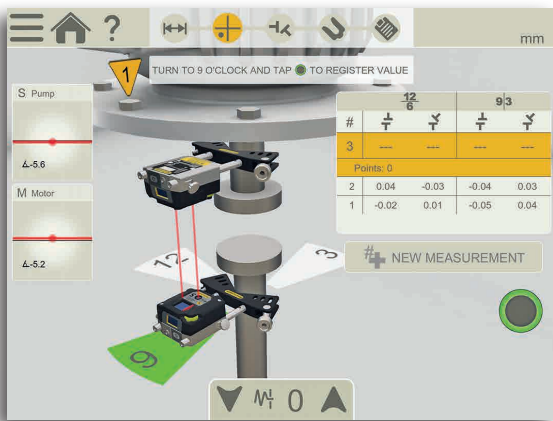


## BUILT-IN HELP

The app includes a searchable *Users Manual* which opens the relevant chapter depending where in the process you are. This makes it quick and easy to find the answer to your questions.

# XT550

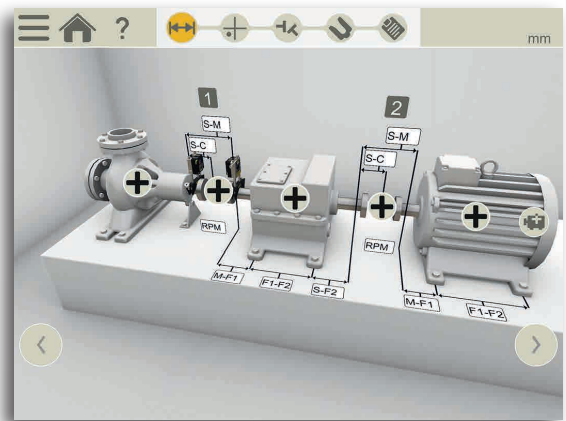
# MORE POSSIBILITIES



## VERTICAL/FLANGE MOUNTED MACHINES



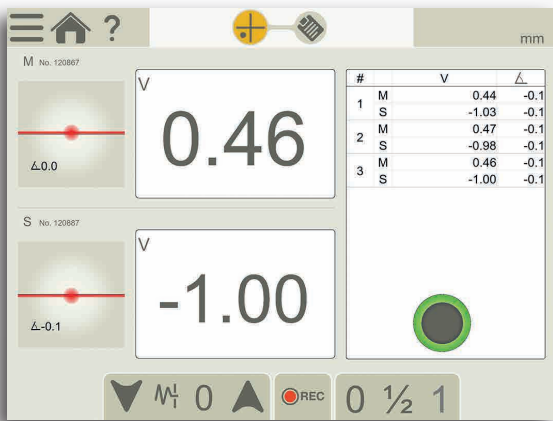
For measurement and alignment of vertically and flange mounted machines. Handles machines with 4, 6, 8 and 10 bolts.



## MACHINE TRAIN



Build your own machine train without limits. You can pick the reference machine manually, or let the program choose one that will minimize the need for adjustments.



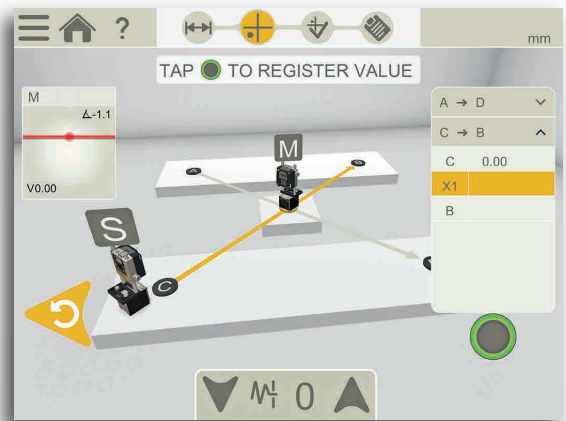
## VALUES – DIGITAL DIAL INDICATOR

With the Values program you measure as with dial gauges, but with laser precision and the possibility to document the measurement result. Automatic recording possible (set the interval and duration). You can make individual notes for each measurement point.

## CHECK BEARING CLEARANCE etc.



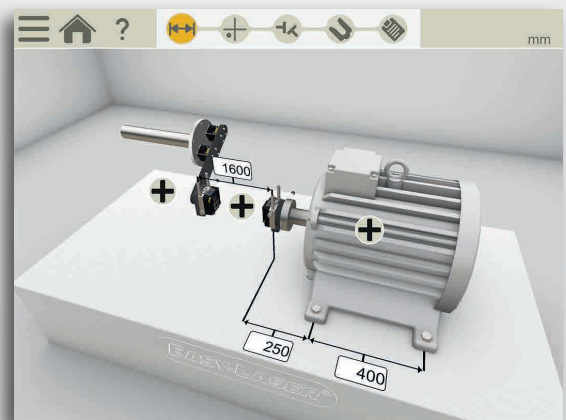
With the Values program you can check bearing clearance or shaft load. It can also be used to "manually" calculate straightness, flatness and dynamic movements of machine components.



## TWIST MEASUREMENT OF MACHINE BASE



The twist measurement program allows you to check the flatness or twist of the machine foundation using only the measuring units in the system.



## CARDAN/OFFSET MOUNTED MACHINES



For alignment of cardan/offset mounted machinery. (Requires additional Cardan bracket Kit.)

# DOCUMENTATION

## SAVE!



### INTERNAL MEMORY

Save your measurement files, photos and reports to the internal memory.



### VERSATILE FILE TYPES

Both a PDF and an Excel file are generated.



### READ QR AND BAR CODES

Assign a specific code to a specific machine, then use the built-in camera of your device to open assigned program.

(Note: camera resolution requirements applicable.)

TYPE	NAME	DATE	Edit
↔	Shaft_2018-02-14 14_21_05	2018-02-14	✎
V 0.00 H 0.00	Values_2018-04-10	2018-04-10	✎
📷	IMG_20180410_142801	2018-04-10	
↔	Shaft Alignment Water pump 3	2018-04-10	✎
⊥	Vertical motor ABB	2018-04-14	✎

## SHOW!



### CUSTOM PDF REPORT TEMPLATES

Use one of the two formats included, or design your own.



### ADD NOTES

Explain it a little more.



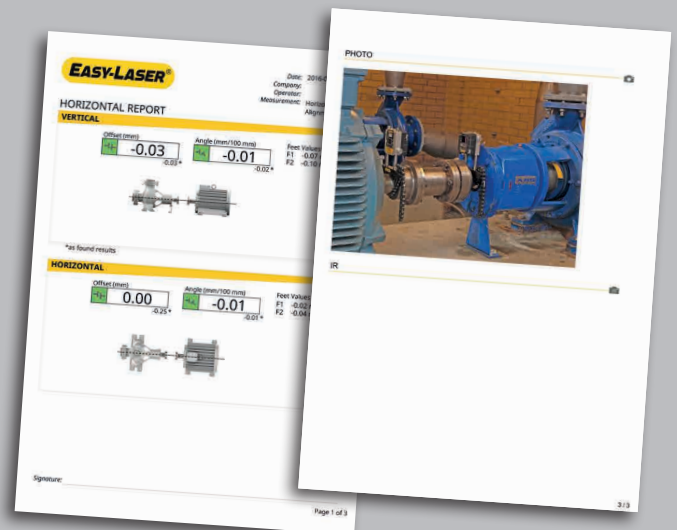
### ADD PHOTO

Show what you mean.



### SIGN REPORTS ELECTRONICALLY

Sign-on screen to verify your job.  
Signature is saved with the PDF file.



## SHARE!



### SEND THE REPORTS

Share the reports via email.  
Possible on all platforms.



# XT550

# SYSTEM PARTS

## XT50-M/S MEASURING UNITS

The XT50 measuring units utilize dot-type laser and 1-axis square PSD surfaces. A state-of-the-art OLED display (D) shows the angle of the unit, making it easier to position it on the shaft.

The diagonally positioned locking knobs securely lock the unit on the rods. Rigid aluminium housing provide maximum stability. IP66 and 67, dust- water- and shockproof. Heavy-duty battery for very long operating times; up to 20 hours. Built-in wireless technology.



- A. PSD aperture
- B. Laser aperture
- C. Laser angle adjustment
- D. OLED display: battery status/unit angle
- E. Chain tightening knob
- F. Charger connector
- G. Extendable stainless steel rods
- H. Locking knob
- I. Slidable target/dust cover

## SHAFT BRACKET

The V-bracket is both light yet rigid, with two rods for maximum stability in all directions. Pre-mounted chain for quick setup on the machine.

## DOT-TYPE LASER TECHNOLOGY



The dot laser technology makes it possible to measure larger machines and longer spans than line laser systems. It also provides higher accuracy when backlash in the coupling is present. In addition, dot laser allows you to check more things when installing a machine, e.g. twist of foundation and bearing clearance.



## DUAL LASERS, PSD, INCLINOMETERS

With electronic inclinometers in both measuring units the system knows exactly how they are positioned. This also makes it very easy to align uncoupled shafts. The so called reversed measurement method with two laser beams and two PSD makes it possible to also measure very incorrectly set machines. This is particularly good for new installations, where the machines are not yet in the correct position. Compared to many other methods, the Dual Technology will retain the measurement accuracy also when distances increase.

## ECOM Tab-Ex® DISPLAY UNIT

Based on Samsung GALAXY Tab Active, ecom's hazardous area tablet is certified for use in Zone 1/ 21 & DIV 1 hazardous areas. System XT550 comes in two configurations; with or without the ecom display. The app runs on most iOS and Android units, as well as our own display unit XT11. However, those are not allowed in potentially explosive areas, but makes for a perfect complement for use in other places.



- A. Rubber coated housing
- B. Large and clear 8" TFT display, glove-enabled

# RUGGED DESIGN

## IP66 AND IP67 APPROVED

Easy-Laser® XT50 is waterproof, dustproof and shockproof. The units have been tested and approved to an Ingress Protection rating of IP66 and IP67, which means that they are dustproof and waterproof to a depth of 1 metre, and also protected against powerful water jets.



## ATEX APPROVED

The Easy-Laser® XT50 measuring units and the ecom Tab-Ex® tablet are approved in accordance with the latest ATEX directives.



# SYSTEMS



## PART NO. 12-1097

### Display unit, Ex/ATEX case

Weight: 8.4 kg [18.5 lbs]  
Dimension WxHxD: 450x300x180 mm [17.7x11.8x7.1"]

## PART NO. 12-1031

### Same as above, but without display unit.

Weight: 6.9 kg [15.2 lbs]

# TECHNICAL DATA

## Measuring units XT50-M / XT50-S

Type of detector	1 axis TruePSD 20x20 mm [0.79x0.79"]
Communication	BT wireless technology
Battery type	Heavy duty Li Ion chargeable
Operating time	Up to 20 h continuously
Resolution	0.001 mm [0.05 mils]
Measurement accuracy	±1µm ±1%
Measurement range	Up to 20 m [66 feet]
Type of laser	Diode laser
Laser wavelength	630–680 nm
Laser class	Safety class 2
Laser output	<1 mW
Electronic inclinometer	0.1° resolution
Environmental protection	IP class 66 and 67
Operating temperature	-10–50 °C
Storage temperature	-20–50 °C
Relative humidity	10–95%
OLED display	128x64 pixels
Housing material	Anodized aluminium + PC/ABS + TPE
Dimensions	WxHxD: 76x76.5x50.9 mm [3.0x3.0x2.0"]
Weight	316 g [11.1 oz]
Ex classification	Ⓢ II 2 G Ex ib op is IIC T4 Gb, -10°C ≤ Ta ≤ +50°C
Ex certificate number	Presafe 17 ATEX 10552X, IECEx PRE 17.0049X

## Software (XT Alignment App)

Languages en / de / sv / es / pt / ru / ja / ko / zh / it / fr / pl

## Display unit ecom Tab-Ex® (For full technical specification, see www.ecom-ex.com)

Type of display/size	TFT 8" colour screen
Operating system	Android™ Oreo 8.1 or 9
Operating time	Up to 11 h continuously
Communication	Bluetooth® LE4.0 Wireless technology, WiFi
Camera	8 Mp with flash (rear), 5 Mp (front)
Operating temperature	-20–50 °C
Dimensions	WxHxD: 162x256x33 mm [6.4x10.1x1.3"]
Weight	1250 g [2.75 lbs]
Ex classification	Ⓢ II 2G Ex db ia op is IIC T5 Gb Ⓢ II 2D Ex tb ia op is IIIC T100°C Db -20°C ≤ Ta ≤ +50°C
IECEx classification	Ex db ia op is IIC T5 Gb Ex tb ia op is IIIC T100°C Db -20°C ≤ Ta ≤ +50°C
Ex certificate number	Sira 19 ATEX 1017X, IECEx SIR 19.0012X

## Cable

Charging cable (splitter cable) Length 1 m [39.4"]

## Brackets etc.

Type	V-bracket for chain, width 18 mm [0.7"].
Shaft diameters	20–150 mm [0.8–6.0"] With extension chain, diameters up to 450 mm [17.7"]
Bracket material	Anodised aluminium
Chain material	Stainless steel
Rod length	120 mm, 75 mm [4.72", 2.95"] (extendable)
Rod material	Stainless steel

## Easy-Laser® XT550 Shaft system (12-1031) includes:

- 1 Measuring unit XT50-M
- 1 Measuring unit XT50-S
- 2 Shaft brackets with chains and rods
- 4 Rods 75 mm [2.95"]
- 2 Rods 120 mm [4.72"]
- 2 Extension chains 900 mm [35.4"]
- 1 Measuring tape 3 m [9.8"]
- 1 Rod tool
- 1 Charger (100–240 V AC)
- 1 DC split cable for charging
- 1 Quick reference manual
- 1 Cleaning cloth for optics
- 1 USB memory with manuals
- 1 Carrying case Ex/ATEX

## System 12-1097 also includes:

- 1 Display unit ecom Tab-Ex®

# EASY-LASER® GENERATION XT

*The age of measurement independence is here!*



**Android**



**iOS**



**FLEXIBILITY**

The Generation XT app runs on iOS or Android devices\*, be it a tablet or a phone. For use in potentially explosive environments the unit has to be designed, approved and certified for that area\*\*. But for non-hazardous areas you have full freedom!

\*Conditions apply  
 \*\*Please note that the XT11 and standard iOS/Android devices normally are not ATEX approved.

**SAME INTERFACE**

Purchase multiple systems with various capabilities, train once! The training costs are minimized significantly since the app interface and basic functionality is identical for all systems.

Easy-Laser® is manufactured by Easy-Laser AB, Alfagatan 6, SE-431 49 Mölndal, Sweden  
 Tel +46 31 708 63 00, Fax +46 31 708 63 50, e-mail: info@easylaser.com, www.easylaser.com  
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