

Know your machine from every angle. Shaft Alignment

**XT770** 

# MEASUREMENT INDEPENDENCE

#### **EASY-LASER® GENERATION XT**

Easy-Laser® XT770 is the most powerful of our Generation XT shaft alignment systems. Built upon our groundbreaking cross-platform technology, it gives you the freedom to work with the display unit that suits you and the job best. Simply download our straightforward XT application for free and you have all the measurement programs you need.

#### **SAME INTERFACE**

The XT app interface and basic functionality is identical for all levels of Generation XT systems. Easy to learn and use!

#### **NO LICENSE HASSLE**

Your Generation XT measuring units determine what functions are available. No hassle with licenses, just connect the units to the app, on any of your display devices, and start measuring. That is straightforward!



IP66 and IP67 rated units

(Note: Photo shows XT40 measuring units.)



## HIGHLIGHTS

#### **MAXIMUM FLEXIBILITY**



#### **ALL XT PROGRAMS IN ONE FREE APP**

All XT measurement programs included in one straightforward application available for free.



#### **DISPLAY DATA ON MULTIPLE PLATFORMS**

Functionality for iOS, Android and Easy-Laser® XT display units.



#### **NO LOCK-INS**

Buy with or without the new user-friendly Easy-Laser® display unit.



#### **MAXIMUM FLEXIBILITY**

Combine several measuring units with the display unit of your choice, or use different display units with one set of measuring units.

No license hassle!



#### **RUGGED DESIGN**

The XT products are rugged, rated IP66 and IP67 water and dust proof. For superior durability in harsh environments.



#### LONG OPERATING TIMES

The long operating times of up to 16 hours for the display unit and 24 hours for the measuring units mean even the toughest jobs will be finished on time with no interruptions.



#### **SEND THE REPORTS**

Share the reports via email. Possible on all platforms.

**X**7770

## THIS IS EASY ALIGNMENT

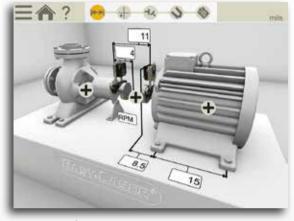
#### **HORIZONTAL PROGRAM**



The user interface is intuitive and guides you through the measurement process. You can save the measurements of a machine for *As found* and *As left* in the same file.

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





1. Enter dimensions



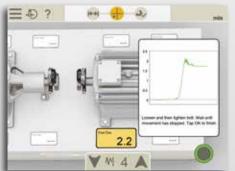
2. Measure



- 3. View result, As found
- 4. Adjust, As left



5. Documentation (Send PDF report to USB or by WiFi)



Soft Foot check on both machines.

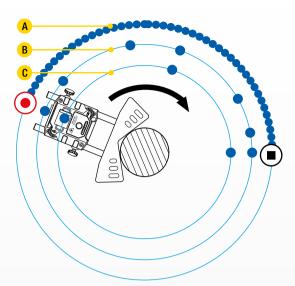


Tolerance check. Pre-set or custom.



Quality check view for measurements

## **MEASUREMENT METHODS**



Measuring points



Start recording  $(\blacksquare)$ 



Stop recording



#### **CONTINUOUS SWEEP**

Automatic recording of measurement values during continuous sweeping of the shafts. Hundreds of points are registered. You can start and stop anywhere on the turn.



#### **MULTIPOINT**

Multipoint measurement lets you take readings at any rotational position. Great for uncoupled shafts, hard-to-turn shafts, and high vibration environments.



#### **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 to register the measurement values.



#### 9-12-3

Measurement points are recorded at fixed points 9, 12 and 3 o'clock. Useful for shafts oriented vertically or wall-mounted machines.

## **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.



#### **MEASUREMENT VALUE FILTER**

Improve readings when vibration or poor measuring conditions present a challenge.



#### **MULTIPLE SETS OF FEET**

Align machines with more than two pairs of feet.



#### **LOCKED FEET**

Lock any pair of feet on the machine. Helps with 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.



#### **360° LIVE ADJUSTMENT**

Adjust both vertically and horizontally at the same time with measuring units in any position.



#### **SELECT MACHINE IMAGE**

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



#### **SELECT COUPLING TYPE**

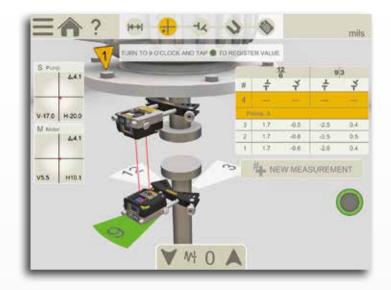
Choose measurement method depending on coupling type: short flex or spacer shaft.



#### **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 answers to your questions.

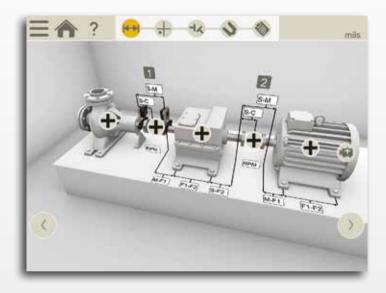
## **MORE POSSIBILITIES**



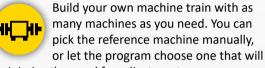
#### **VERTICAL/FLANGE MOUNTED MACHINES**



For measurement and alignment of vertically and flange mounted machines.



#### **MACHINE TRAIN**



 $\label{eq:minimize} \mbox{minimize the need for adjustments.}$ 

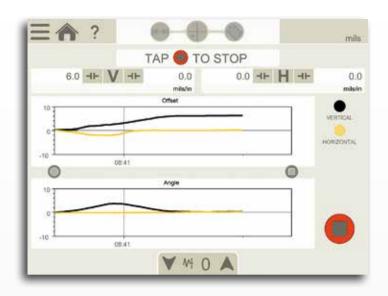
- The easiest and most intuitive machine train interface available.
- See the complete picture of the machine train alignment to quickly determine corrections.
- Instantaneous live movement of your machines during corrections.

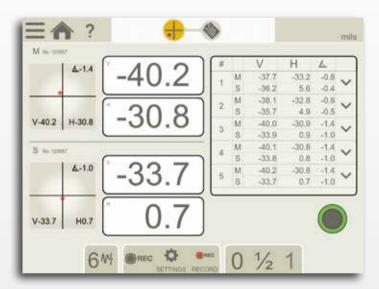


#### TWIST MEASUREMENT OF MACHINE BASE



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







#### **EASYTREND**



With EasyTrend you can keep track of machine movement over time. For example you can check for thermal expansion and pipe strain issues. Requires optional DM-brackets.



DM-bracket for Dynamic measurements.

#### **VALUES – DIGITAL DIAL INDICATOR**

V 0.00 H 0.00 With the Values program you measure as with dial gauges, but with laser precision and the capability to document the measurement result. It can also be used to "manually"

calculate straightness, flatness and dynamic movements of machine components. Automatic recording possible (set the interval and duration). XT770 records Vertical and Horizontal coordinates simultaneously. You can make individual notes for each measurement point.

#### **CHECK BEARING CLEARANCE**



With the Values program you can check bearing clearance or shaft load.

























Customize your machine set up in Machine Train and Horizontal programs with corresponding 3D machine icons.

## **SYSTEM PARTS**





#### **XT11 DISPLAY UNIT**

Rugged, robust, with wear resistant rubberized protective coating. IP66 and 67, dustwater- and shockproof. As standard a 13 MP camera for documentation is built-in, and you can also choose to add an IR camera to the XT11; shoot a thermal image before and after alignment and include in your report! A large 8", glove-enabled touch-screen makes the information clear and the app easy to use. A small OLED display shows battery status of both measuring units and display unit. You can check battery status also when the unit is turned off.

The clever lock-screen button prevents unintentional clicks, for instance when moving around on the job.

Four fastening points for shoulder strap or customized solutions. Heavy-duty battery for very long operating times; up to 16 hours.



#### **GLOVE-ENABLED TOUCH SCREEN**

Navigate the screen with or without work gloves.

#### XT70-M/S MEASURING UNITS

The XT70 measuring units have a dot-type laser and 2-axis square PSD surfaces. A state-of-theart OLED display 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 aluminum housing provides maximum stability. IP66 and 67, dust- water- and shockproof. Builtin wireless technology.

#### SHAFT BRACKET

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



#### LONG OPERATING TIMES

Heavy-duty battery for very long operating times; up to 24 hours.

#### **DOT-TYPE LASER TECHNOLOGY**



The dot laser technology makes it possible to measure larger machines and longer spans. 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. With 2 axis PSD you can read off and record values for both vertical and horizontal directions.

#### **DUAL LASERS, PSD, INCLINOMETERS**



With electronic inclinometers in both meas-**DUAL** uring units the system knows exactly how **TECH** 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 measure very misaligned machines. This is particularly good for new installations, where the machines are not yet in the correct position. With the Dual Technology, measurement accuracy is retained even over longer distances.

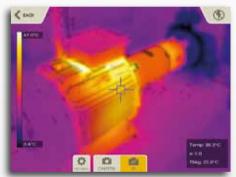
## **DOCUMENTATION**

# A B C



#### FLIR® IR CAMERA (A)

Shoot a thermal image before and after alignment and include in your report! (Optional)





#### 13 MP CAMERA (B)

Take pictures to identify your machines and include with your report. (The camera can be removed if security concerns require it.)



#### LED LIGHT (C)

Light up the work area when ambient light is not enough.



#### **HDMI VIDEO OUTPUT**

Interface with an external video display — ideal for training or to present to large groups.

#### SAVE!



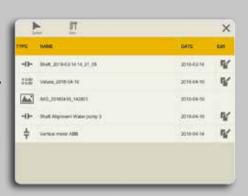
#### **INTERNAL MEMORY**

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



#### **VERSATILE FILE TYPES**

Both a PDF and an Excel file are generated.



#### SHOW!



#### **CUSTOM PDF REPORT TEMPLATES**

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



#### **ADD NOTES**

Add additional details so they appear in the alignment report.



#### **ADD PHOTO**

Show what you mean.



#### **ADD THERMAL IMAGE**

See the difference after alignment.

(Note: Add-on to the XT11)



### SHARE!



#### **SEND THE REPORTS**

Share the reports via WIFI email. Possible on all platforms.



#### **SAVE TO USB**

Save your files to USB stick and copy to other devices.

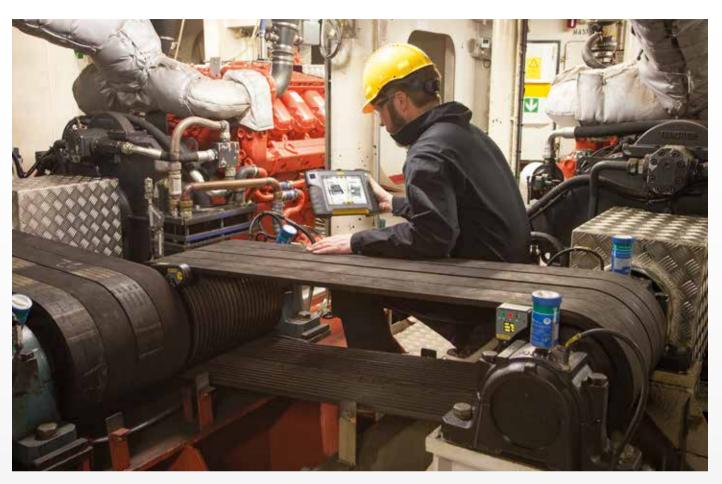


-11-

INC. THE MANAGE

O

## **BELT ALIGNMENT TOOL**



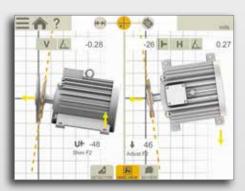
#### FOR PULLEY ALIGNMENT



With the Belt alignment tool XT190 BTA you can align most types of radially mounted drives. The transmitter and detector attach magnetically to the sheave edge. A digital display unit gives the advantage of checking against belt manufac-

turer tolerances.

When connected to the *XT Alignment App* on your iOS or Android device\*, or the XT11, you can also read off the alignment "live" at the position on the machine where the actual alignment is made. You get adjustment values for both horizontal and vertical direction (shim value), resulting in a more accurate alignment in a shorter time. The XT190 is the perfect addition to your XT770 system, but you can also use it as a separate tool, with or without a separate display device.



0.15 " 0.35 °H 0.45 °V

OLED display on detector unit. Live values.



**SYSTEM XT190 BTA, PART NO. 12-1053** 

Align machine in live mode, document result with PDF. (XT Alignment app Belt application.)

## **VIBROMETER TOOL**





#### FOR QUICK VIBRATION ANALYSIS



Easy-to-use vibration analyzer that quickly diagnoses vibration level, unbalance, misalignment and looseness. The direct readout of 1x, 2x, 3x RPM, total level as

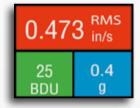
well as bearing condition provide necessary information during installation and alignment.

The XT280 connects to the XT Alignment App, making it possible to document the result as PDF.

Note: On left picture accessory magnet probe is used.

**SYSTEM XT280 VIB PART NO. 12-1090** 





Display on vibrometer unit. Live values.

Register values with notes for each point, add photo of machine, document result with PDF.

## **GEOMETRIC MEASUREMENTS**



gram, you will be able to take flatness and straightness measurements with the highest reliability and precision. The kit includes the very versatile and long proven laser transmitter D22 (pictured) plus geo brackets.





## **EASY-LASER® GENERATION XT**

The age of measurement independence is here!

XT11









**Android** 







iOS















#### **NO LOCK-INS**

With Generation XT you decide if you want the rugged and userfriendly Easy-Laser® XT11 display unit to be included or not. The app also runs on your iOS or Android device\*, be it a tablet or a phone, meaning you are never locked in to a specific way of working.

#### 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.

\*Conditions apply

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 © 2018 Easy-Laser AB. We reserve the right to make changes without prior notification. Easy-Laser® is a registered trademark of Easy-Laser AB. Android, Google Play, and the Google Play logo are trademarks of Google Inc. Apple, the Apple logo, iPhone, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Other trademarks belong to their respective owners. This product complies with: EN60825-1, 21 CFR 1040.10 and 1040.11. Contains FCC ID: QOQBGM111, IC: 5123A-BGM111 and FCC ID: 2AFDI-ITCNFA324 IC: 9049A-ITCNFA324. Documentation ID: 05-0945 Rev1





IS0 9001





LUDECA Inc. 1425 N.W. 88th Avenue Doral, FL 33172 Phone: (305) 591-8935 Fax: (305) 591-1537 info@ludeca.com www.ludeca.com