

# MEASUREMENT AND ALIGNMENT SYSTEMS

# PRODUCT CATALOGUE



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www.easylaser.com

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Note!

**D D D D D D D D E X I**: Indicates which product range the part is compatible with. If no letter is present, the part fits all ranges.

**XT**\*: If there is an asterisk \*, the bracket will need an adapter to fit.

**Note:** If there are other compatibility limitations these are mentioned for each product. For more information see next page.



- Main product picture 1

#### Detector E5 Part No: 12-0509

Description: Detector for the E [0.79"x0.79"]. Built-in 360° eler making it possible to connect t ly mounted on rods, but has m thanks to threads on two sides Note: With Dual Detection Tecl fixed point laser and spinning I.

#### Additional pictures 1

Can show the system/product in an application, a product function or another view.

# WHAT THE PICTURES SHOW

*System picture*. Does only show the main parts of the system, not all items that are included. Always read the Part list for complete system specification.



#### Easy-Laser<sup>®</sup> E915 Flange Spin Part No: 12-0526

Measure flatness easily with spinning laser This system is mainly for wind turbine tower producers who want measure flatness of flanges. Similar applications can be e.g. slewin bearings. You can see the result as a true 30 image in the display u directly after measuring. Then evaluate the result easily with differ calculation settings, for example three point reference, best fit or a positive. This can also be done directly on site without having to st to go to a PC with separate analysis programs, which was the case previously. This makes production much more efficient.

The system includes laser transmitter D23 Spin with power rotatin, head. This is how it works in brief: The laser beam from the transm ter rotates constantly and creates a reference plane over the entir, measurement object. Measurements are performed quicker as yon on thave to align the beam for each new measurement position. W place the detector at the desired measurement points and register reading by a push of a button. In principle, one person can perform the measurement themselves. It is then possible to generate a PDI

#### NOTE!

2 AXIS

20 m / 66'

We reserve the right to make modifications of the product design and technical specifications without prior notification. <sup>1</sup>Be aware that these pictures may show items that are not included for the specific part number.

# STRAIGHTFORWARD BY ALL MEASURES

Easy-Laser<sup>®</sup> is one of the world's leading manufacturers and suppliers of laser measurement systems for all types of industry. We provide extreme accuracy and precision. But that's not what sets us apart. Today, when virtually anyone with a decent laser can do "straight", to get ahead, you need to be a bit more forward-thinking.

Because, in the long run, what really counts is neither the absolute straightness of an individual component nor the precise alignment of shafts. It's what these measures add up to: Increased productivity and the saving of resources. Those are the things we ultimately deliver. And from that perspective our most important task is to help you make the road leading there as free from bumps and bends as possible.

That means developing user-friendly measurement and alignment systems that are as easy to get your head around, as they are versatile and scalable. It also means shortening delivery times, extending warranties and optimizing training and support.

Moreover, you can always expect us, or any of our partners, to give you an honest opinion on which of our products are crucial to your operations and which you can do without. What really needs to be aligned and what not. So that what we offer you is a solution perfectly aligned with your needs – and your budget.

Regardless of whether you're a service technician, a purchaser or the CFO of a multinational industrial group, you'll find Easy-Laser<sup>®</sup> truly easy to deal with. Or as we like to put it – straightforward by all measures.



#### LONG WARRANTY

The systems come with a 3 year limited warranty. The manufacturing and quality systems are ISO9001 approved.

#### **OUR SERVICE CONCEPT**

Our service department usually takes care of servicing or calibration within seven working days. All this makes Easy-Laser<sup>®</sup> a safer working partner for your operation. As an extra service, we provide a 48 hour express service for when accidents occur and time is of the essence. Contact us for further information about terms and conditions.

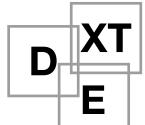
## COMPATIBILITY BETWEEN D, E AND XT

Easy-Laser<sup>®</sup> measurement systems are extremely versatile in their standard form. By using clever accessories, you can adapt the systems for your own needs, now and in the future as your measurement requirements change. You can also combine parts from one system with another. This is cost-effective! However, there are some differences you need to know:

**Note1:** The D-series, E-series and XT-series detectors and display units can only be used within its own product series. This is due to software communication. Laser transmitters are no problem, because they do not communicate with measurement software.

**Note2:** Brackets for D- and E-series has a rod C–C of 40 mm, XT-series rod C–C is 56 mm. The XT offset bracket (12-1008) function as an adaptor for these two measures, but doesn't fit all older brackets.

**Note3:** Brackets for D550Ex has a rod C–C of 70 mm. These brackets are marked |D550|. Please note that D550Ex is discontinued, and replaced by **XT**550Ex (rod C–C 56 mm).



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CERTIFIED

#### LEARN MORE ABOUT A SPECIFIC MEASUREMENT SYSTEM OR APPLICATION

In our measurement system brochures you can find technical specifications and more information on the systems and products in this Product overview. Available for download in different languages from: www.easylaser.com



Easy-Laser® E980



Easy-Laser® E970/E975



Easy-Laser® E960



Easy-Laser® E950



Easy-Laser® E940



Easy-Laser® E930



Easy-Laser® E920



Easy-Laser® E910/E915



Easy-Laser® E710/E720



Easy-Laser® E540



Easy-Laser® XT770



Easy-Laser® XT660



Easy-Laser® XT550 Ex



Easy-Laser® XT440



Easy-Laser® E420



Easy-Laser® E290



Easy-Laser® XT280



Easy-Laser® XT190



Easy-Laser<sup>®</sup> D90





# Emba Machinery AB uses Easy-Laser<sup>®</sup> throughout its production

Emba Machinery is a Swedish manufacturer of converting machines for the corrugated board industry. They acquired a measurement system from Easy-Laser in 2015. Their machines can be found within the packaging industry all over the world. Thanks to their reliable function, short set-up time and high manufacturing speed, Emba's machines are renowned for high productivity and product quality.

#### What do Emba's machines do?

Stefan Stålhandske (pictured above), Production technician at Emba Machinery, answers: To put it simply, they supply a sheet of corrugated board with flexographic printing, before creating slots, punching, gluing and folding the sheet to produce a flat box. The final packaging has to be of the very best quality, as it is often the first thing you see when you purchase goods. The quality demands mean that the packaging also has to be strong, i.e. the corrugated board has to retain its strength through the conversion process. It must be able to be produced quickly, and changing over the machines to a different format must also take place rapidly. Some of Emba's machine models produce up to 440 sheets per minute. Try to picture that!



A few examples of products produced in Emba's machines.

There are stringent demands regarding product quality, machine availability and manufacturing speed. How does this influence the importance of the machines' quality? The machines are made up of many mechanical parts, both fixed and moving parts in the form of linear guides and rotating components. Many parts are dependent on one another. Emba places stringent demands on itself and its suppliers. A separate measurement department checks machined components. Installation procedures are based on combined experience as well as generally applied requirements and tolerances. Many machine parts were previously manufactured in our own production premises in Örebro, which entailed a very high level of control of manufactured components and traceability to the machines in which they were produced. We now have a number of suppliers who have to manufacture to the same high level of accuracy, which has meant that we have been forced to develop new procedures and find new control tools.

#### Why was the decision taken to acquire laser instruments?

The equipment was principally procured in order to qualityassure and guarantee that all machine units are installed correctly with regard to the alignment of the stands hole centre to hole centre, as well as with regard to their squareness and parallelism.

#### Why did you choose Easy-Laser?

Emba's development department got to know the product at an earlier meeting at an industrial fair. The way we were received by Easy-Laser, along with the versatility the instruments have to offer, made it an easy decision, I would say.



Checking roll parallelism using the Easy-Laser Roll alignment kit.

#### What measurements do you carry out?

Flatness measurements on large, heavy components, as well as straightness measurements on long beams with linear guides. During installation, we align machine ends with the aid of hole centering/shaft alignment. We also measure straightness and squareness at this time, as well as parallelism between various linear movements. These measurements are performed with an E720 supplemented with brackets. To measure parallelism between rolls, we have opted to supplement the system with the Roll alignment kit E975.

This is a short version. Read the full story published on our web site

Here you can learn more about EMBA: www.emba.com

## **USER STORIES**



#### **Bilfinger first XT550 customer**

Bilfinger Maintenance is Germany's leading maintenance service provider. They decided to make a leap into the future of laser alignment – the app based intrinsically safe XT550 Ex system.

#### The leading maintenance service provider

In the 'Industriepark Höchst' in Frankfurt/M. alone, the Bilfinger Machine and Drive Technology Division attend most of the manufacturing companies and a growing number of customers outside of the chemical park. When it comes to shaft alignment, experts from Bilfinger rely on the co-operation with the Swedish company Easy-Laser for nearly two decades. Shortly after Easy-Laser had officially launched their XT550 EX shaft alignment system at the Hannover trade show in April 2018, the innovative measurement system was delivered to Bilfinger, who was the first customer.

#### **Explosion protection is essential**

A big plus for the intrinsically safe XT550 EX is its ATEX and IECEx-certification: The system can be used in the explosive atmospheres of zone 1 and 2, without the customer needing a separate 'hot permit' and having to shut down his production, which always means significant financial and time-consuming expenditure. "Earlier, the entire facility would have to come to a complete standstill. Today, there are more and more only partial shutdowns of only one section while the adjacent production carries on running. This is a big advantage, saving considerable time for both us and the customer", says Mr. Karl-Heinz Bank, head of Machine Technology and Service Technicians at Bilfinger.

#### Smart documentation shortens downtime

With the XT alignment systems, the user is on-site to carry out measurements and then creates a measurement report within the system, including graphs in a PDF or Excel format, before sending it off electronically. "This saves a lot of time and makes it easier for the customer because he has the documentation on his desk straight away and can start operating the machine again straight away", says Bank.

This is a short version. Read the full story published on our web site, <u>www.easylaser.com</u>

Bilfinger is a leading international industrial service provider. With around 36,000 employees, in 2017, Bilfinger generated a sales revenue of around 4.044 billion euros. Learn more about Bilfinger services worldwide: <u>www.bilfinger.com</u>

#### LEARN SOME MORE

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#### Alignment tolerances guiding your work >>

Recently a new standard was published in the U.S. by the Acoustical Society of America (ASA) and the American National Standards Institute (ANSI) called ANSI/ASA S2.75-2017/Part 1. This new standard is a great thing for our industry and will help us with all of our installation work and more. It is written following the core technical components of Measure, Analyze, Correct and Documentation.



#### Making the impossible possible >>

We got an urgent call from one of our long time contacts at a contracting company based in Brazil. They were on site, working on getting one out of four gas turbines quickly back online after an unscheduled shut down. This is the story of how a complicated alignment job was solved by a clever Easy-Laser® alignment technician.



# The challenges of on ship alignment >>

On Site Alignment is a Dutch company with a focus on alignment onboard ships. They offer high-end services, which doesn't prevent their work from being physically challenging, sometimes including complicated crawling through narrow and dirty areas. Alignment on ships comes with other challenges as well. There are a lot of parameters to take into consideration. A ship on the water is moving, and it has different loading and ballast conditions. On Site need to consider all of this to calculate the correct alignment targets.



# COMPLETE SYSTEMS





**20** m / 66'









#### A complete system contains:

- Display unit E51 12-0418 1 12-0168 Laser transmitter D23 1 12-0509 Detector E5 1
- 12-0436 1 Wireless unit
- 03-0833 2 Electronic target
- 12-0074 1 Cable 2 m
- 12-0108 1 Cable 5 m, extension
- Magnet base with turnable head 12-0045 1
- 12-0016 Shaft bracket 1
- 12-0624
- Bracket for electronic target 2 1
- 12-0169 Rod bracket with turnable head 12-0485 Magnet bracket short, with turnable head 1
- Magnet bracket long, with turnable head 12-0484 1
- 12-0483 Bracket for tilt table 1
- 12-0482 Index table 90° 1
- 12-0059 1 Set of Rods 4x60 mm
- 12-0324 Rods (8x120 mm) 1
- 01-0565 2 Large targets
- Manual (Note: Refers to English manual) 05-0685 1
- 03-0842 Measuring tape 5 m 1
- 03-0914 USB memory stick with documentation 1
- 03-0822 USB cable 1
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0967 1 Hexagon wrench set (incl. with 12-0168)
- Rod tightening tool 4 mm (incl. with 12-0168) 01-0048 1 Shoulder strap for Display unit
- 12-0495 1 **Cleaning cloth for optics** 03-0878 1
- Transportation case, with wheels 12-1007 1

8

#### Easy-Laser<sup>®</sup> E980 Sawmill Part No: 12-0727

#### Measurement and alignment of sawmill machinery

Easy-Laser<sup>®</sup> E980 is a laser based measurement and alignment system that helps sawmills to make optimal use of their machines. By setting the machines up correctly it is possible to maintain a high rate of production with the highest quality end products hour after hour.

With Easy-Laser<sup>®</sup> E980 measuring and adjustment of reducers, counterholds, saw blades and discs become a simple and quick task. The laser line works as an absolutely straight ruler for 40 metres, and is very practical for the demanding and dusty environment of a sawmill. It replaces the long wire used traditionally, and gives many more possibilities for aligning the saw equipment. Thanks to the user friendliness of a laser measurement system the alignment work is properly done when necessary. The investment is quickly returned through fewer production stoppages and more even quality in the sawn timber. It can be used equally well for circular saws and band saws.

Benefits of using Easy-Laser® E980 are:

- Higher production speed
- Less unplanned downtime
- Better product quality
- Longer lifetime for blades
- Longer lifetime for bearings
- Less vibration
- Less waste material





20 m / 66









# 

#### A complete system contains:

- 12-0418 1 Display unit E-series E51
- 12-0022 1 Laser transmitter D22 incl. tilt table
- 12-0845 1 Detector E2
- 12-0849 1 Roll bracket
- 12-0846 1 Digital Precision Level E290
- 12-0013 1 Magnet base
- 12-0874 1 Adapter plate for tilt table to magnet base
- 01-0044 2 Rods 240 mm
- 01-0873 2 Rods 120 mm
- 01-0043 2 Rods 60 mm
- 12-0915 1 Safety strap for laser transmitter 05-0685 1 Manual (Note: Refers to English manual)
- 05-0685 1 Manual (Note: Refers to 03-0842 1 Measuring tape 5 m
- 03-0914 1 USB memory stick with documentation
- 03-0822 1 USB cable
- 03-1243 1 Battery charger (100-240 V AC)
- 12-0989 1 DC charging cable
- 12-0751 1 DC to USB adapter
- 03-0967 1 Hexagon wrench set
- 12-0495 1 Shoulder strap for Display unit
- 03-0878 1 Cleaning cloth for optics
- 12-0870 1 Carrying case

#### Complete system:

Weight: 15.0 kg [33.1 lbs] WxHxD: 550x450x210 mm [21.6x17.7x8.3"]

#### Easy-Laser<sup>®</sup> E975 Roll Alignment Part No: 12-0854

#### For fast exchange of rolls

System E975 is designed mainly for roll alignment. It is well suited when just one or two rolls are to be replaced or adjusted at the same time. For rolls with diameters 80–400 mm [3.1–15.8"], and a minimum length of 300 mm [11.8"]. The large roll kit (Accessory, Part No. 12-0885) makes it possible to measure diameters 400–1300 mm [15.7–51.2"]. Accessory brackets for other dimensions available on request.

Measurement distance between transmitter and detector up to 20 m (in each direction) [66 feet].

Thanks to the fact that the system is quick to set up on the machine it can be used during short stoppages to check and if necessary adjust or replace a roll. Where more advanced methods might require that the measuring service is scheduled some time in advance and use contracted personnel, with Easy-Laser® E975 you can do the job yourself.

The system can be expanded with other detectors and brackets for more geometric measurement possibilities.

Note: The E2 detector that is included reads angles, not positions. This means that if you want to take full advantage of the measurement program package of system E975, you will also need a positional detector like e.g. the E7.

A. With legs from Large Roll Kit mounted (accessory).

Alternative mounting of units: B: Top attachment C: Front attachment. If space on top is limited.

#### Examples of accessories:

12-0885 Large Roll kit 1 12-0752 **Detector E7 XT190 BTA** 12-1053 1 12-0619 Barcode reader 1 12-0585 Charger 12-36V 1 12-0434 Measuring unit EM 1 Measuring unit ES 12-0433 12-0016 V-bracket with chain 01-1165 Offset bracket 1 12-0597 Splitter box 1 03-1004 Thermal printer 12-0455 Slide bracket Min. Ø120 mm 1 12-0543 Slide bracket Min. Ø200 mm 1 12-0510 Slide bracket Min. Ø300 mm 1 12-0269 Tripod 1 12-0046 1 Angular prism















- 12-0418 **Display unit E-series E51** 1
- 12-0022 Laser transmitter D22 incl. tilt table 1
- 12-0752 Detector F7 1
- 12-0436 1 Wireless unit for E7
- 12-0846 E290 Digital Precision Level 1
- 12-0901 1 Extension Kit for E290
- 12-0074 1 Cable 2 m
- 12-0108 Cable 5 m, extension 1
- 12-0046 Angular prism 1
- 12-0203 Parallelity kit 1
- 12-0269 2 Tripod
- 12-0060 Set of Rods 4x240 mm 1
- Set of Rods 4x60 mm 12-0059 1
- 12-0915 Safety strap for laser transmitter D22 1
- Safety strap for E290 12-0915 1
- 05-0685 1 Manual (Note: Refers to English manual)
- 03-0842 Measuring tape 5 m 1
- USB memory stick with documentation 03-0914 1
- 03-0822 1 USB cable
- Battery charger (100-240 V AC) 03-1243 1
- 12-0989 DC charging cable 1
- DC to USB adapter 12-0751 1
- 03-0967 1 Hexagon wrench set
- 12-0495 1 Shoulder strap for Display unit
- 03-0878 1 Cleaning cloth for optics
- 12-0869 1 Carrying case

#### Easy-Laser<sup>®</sup> E970 Parallelism Part No: 12-0853

## For parallelism measurement

For parallelism measurement of rolls and other objects in numerous applications. The E970 is especially suitable when many objects are to be measured and aligned, and when the distances are long. This system use the traditional method where the laser beam (reference) is pointed alongside the machine, and then deflected 90° towards the detector on the measurement object by a penta prism. Measurement values for the horizontal position are registered in both ends of the object. The included precision level is used for the vertical position. Any chosen object or the baseline can be used as a reference. For rolls with diameter 40 mm [1.6"] and larger. Maximum measurement distance with a standard system is 80 metres [260 feet] (40 metres in each direction from the transmitter).

Easy-Laser® E970 is a very versatile system. You can also use it to measure level, straightness and flatness on wire sections (suction boxes), flatness on bases and straightness on rolls. With a few accessories you can also perform shaft alignment. This makes Easy-Laser® a very cost effective solution for your maintenance department.

#### Examples of accessories:

- XT190 BTA 12-1053 1
- 12-0618 Battery pack with wireless technology
- Barcode reader 12-0619 1
- 12-0585 Charger 12-36V 1
- 12-0434 Measuring unit EM 1
- Measuring unit ES 12-0433 1
- 12-0016 1 V-bracket with chain
- 01-1165 Offset bracket 1
- 12-0597 Splitter box
- 03-1004 Thermal printer 1
- 12-0455 Slide bracket Min. Ø120 mm 1
- 12-0543 Slide bracket Min. Ø200 mm 1
- 12-0510 Slide bracket Min. Ø300 mm 1
- 12-0269 1 Tripod 12-0046
  - 1 Angular prism

Note: always check number of items included for each Part No. before ordering.

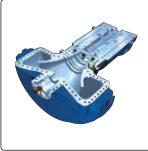
#### Complete system:

Weight: 18.9 kg [41.7 lbs] WxHxD: 620x490x220 mm [24.4x19.3x8.7"] Tripod: Weight: 7.9 kg [17.4 lbs] Transport length: 1110 mm [44"]





40 m /132' BARCODE







#### A complete system contains:

12-0418	1	Display unit E-series E51
12-0075	1	Laser transmitter D75
12-0752	1	Detector E7
12-0436	1	Wireless unit
12-0074	1	Cable 2 m
12-0108	1	Cable 5 m, extension
12-0385	1	Laser transmitter bracket
12-0661	1	Offset hub for Laser transmitter
12-0438	1	Detector bracket Short stroke
12-0443	2	Centering target
12-0495	1	Shoulder strap for Display unit
05-0685	1	Manual (Note: Refers to English manual)

- 03-0842 1 Measuring tape 5 m
- 03-0914 1 USB Memory stick with documentation
- 03-0822 1 USB Cable
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0878 1 Cleaning cloth for optics
- 12-0724 1 Carrying case with wheels

#### Complete system:

Weight: 30.3 kg [66.8 lbs] WxHxD: 1220x460x170 mm [48.0x18.1x6.7"]

#### Easy-Laser<sup>®</sup> E960-A Turbine alignment Part No: 12-0710

#### **Reliability and precision**

Easy-Laser® E960-**A** has a measuring probe with a stroke of 10 mm (Short stroke). The slidable tube makes it possible to measure several positions in a row without moving the bracket. Suitable for gas turbines and smaller steam turbines. Makes the measurement and adjustment work of diapraghms and bearings easier thanks to the wireless detector unit and measurement programs that guides you through the measurement process. All of the parts included in the systems are designed and built for even the most demanding workplace and for easy setup on any machinery. The versatile design solves the straightness measurement problems quickly and with precision for any kind of application. Objects up to 40 m [132 feet] can be measured. The detector reads measurement values with a resolution of 0.001 mm [0.05 mils]. Measures diameters 150–1700 mm [5.9–67"].

#### Versatile programs

The straightness programs of system E960 are very versatile, and let you work in the way that suits every job best. You can add, remove and remeasure measurement points at any time during the measurement. Up to 999 points can be handled by the program. You can include both full bores and half bores in any possible combination in one measurement, the program will calculate the correct centre line in all cases. The measurement program includes many different methods for straightness measurement: 1-point measurement, 4-point measurement, Multipoint measurement (also ovality measurement), 3-point measurement, 3-point measurement with arbitrary angles. Optionally a reference detector can be used to monitor the laser transmitter position at long distances.

#### The measurement result

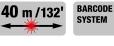
Thanks to the large colour display with clear graphs and measurement data you can evaluate the result directly on site. Any point can be set as reference and you can set an offset to which the centre line will be recalculated. You can also calculate waviness (short and long) and best-fit for the points. If you want, the result can also be checked against a tolerance value. The measurement system takes care of all these complicated calculations for you.

#### Examples of accessories:

- 12-0805 1 Measuring probe ruby, diameter 5 mm
- 12-0801 1 Measuring probe ruby, diameter 2.5 mm
- 12-1047 1 Measuring probe cylindrical
- 12-1048 1 Measuring probe cylindrical, with magnet
- 12-0618 1 Battery pack with wireless technology
- 12-0707 1 Offset hub arm kit for diameters 100-500 mm
- 12-0752 1 E7 (as reference detector)
- 12-0585 1 Charger 12–36V
- 12-0434 1 Measuring unit M
- 12-0433 1 Measuring unit S
- 12-0016 1 V-bracket with chain
- 01-1165 1 Offset bracket
- 12-0187 1 Magnetic bracket for D75
- 12-0282 1 Set of extension arms
- 12-0597 1 Splitter box
- 03-1004 1 Thermal printer
- 12-0022 1 Laser transmitter D22
- 12-0706 1 Laser transmitter D25











12-0418	1	Display unit E-series E51
12-0075	1	Laser transmitter D75
12-0752	1	Detector E7
12-0436	1	Wireless unit

- 12-0074 Cable 2 m 1
- 12-0108 1 Cable 5 m, extension
- 12-0385 1 Laser transmitter bracket
- Offset hub for Laser transmitter 12-0661 1
- 12-0715 Detector bracket Long stroke 1
- 12-0443 Centering target 2
- 12-0495 1
- Shoulder strap for Display unit 05-0685 Manual (Note: Refers to English manual) 1
- 03-0842 1 Measuring tape 5 m
- USB Memory stick with documentation 03-0914 1
- 03-0822 USB Cable 1
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0878 Cleaning cloth for optics 1
- 12-0724 1 Carrying case with wheels

#### **Complete system:**

Weight: 31.5 kg [69.4 lbs] WxHxD: 1220x460x170 mm [48.0x18.1x6.7"]

#### Easy-Laser<sup>®</sup> E960-B Turbine alignment Part No: 12-0711

#### **Reliability and precision**

Easy-Laser<sup>®</sup> E960-B has a measuring probe with a stroke of 60 mm (Long stroke). Suitable for larger turbines. The system makes the measurement and adjustment work of diapraghms and bearings easier thanks to the wireless detector unit and measurement programs that guides you through the measurement process. All of the parts included in the systems are designed and built for even the most demanding workplace and for easy setup on any machinery. The versatile design solves the straightness measurement problems quickly and with precision for any kind of application. Objects up to 40 m [132 feet] can be measured. The detector reads measurement values with a resolution of 0.001 mm [0.05 mils]. Measures diameters 200-1700 mm [7.8–67"] as standard, and up to 4000 mm [157"] with accessory brackets.

#### Versatile programs

The straightness programs of system E960 are very versatile, and let you work in the way that suits every job best. You can add, remove and remeasure measurement points at any time during the measurement. Up to 999 points can be handled by the program. You can include both full bores and half bores in any possible combination in one measurement, the program will calculate the correct centre line in all cases. The measurement program includes many different methods for straightness measurement: 1-point measurement, 4-point measurement, Multipoint measurement (also ovality measurement), 3-point measurement, 3-point measurement with arbitrary angles. Optionally a reference detector can be used to monitor the laser transmitter position at long distances.

#### The measurement result

Thanks to the large colour display with clear graphs and measurement data you can evaluate the result directly on site. Any point can be set as reference and you can set an offset to which the centre line will be recalculated. You can also calculate waviness (short and long) and best-fit for the points. If you want, the result can also be checked against a tolerance value. The measurement system takes care of all these complicated calculations for you.

#### Examples of accessories:

- 12-0805 Measuring probe ruby, diameter 5 mm 1
- 12-0801 Measuring probe ruby, diameter 2.5 mm
- 12-1047 Measuring probe cylindrical 1
- 12-1048 Measuring probe cylindrical, with magnet 1
- 12-0618 Battery pack with wireless technology 1
- Offset hub arm kit for diameters 100-500 mm 12-0707 1
- 12-0752 E7 (as reference detector)
- 12-0585 Charger 12-36V
- 12-0434 Measuring unit M
- Measuring unit S 12-0433 1
- 12-0016 V-bracket with chain
- 01-1165 Offset bracket 1
- Magnetic bracket for D75 12-0187 1
- 12-0282 Set of extension arms 1
- 12-0597 Solitter box 1
- 03-1004 1 Thermal printer
- 12-0022 Laser transmitter D22 1
- 12-0706 1 Laser transmitter D25













- 12-0418 1 Display unit E-series E51
- 12-0075 1 Laser transmitter D75
- 12-0752 1 Detector E7
- 12-0436 1 Wireless unit
- 12-0074 1 Cable 2 m
- 12-0108 1 Cable 5 m, extension
- 12-0661 1 Offset hub for Laser transmitter
- 12-0384 1 Set of offset hub arms for diameters 100–500 mm
- 12-0154 1 Set of magnets for offset hub arms
- 12-0455 1 Slide bracket Min. Ø120 mm
- 12-0543 1 Slide bracket Min. Ø200 mm
- 12-0510 1 Slide bracket Min.  $\varnothing$ 300 mm
- 12-0588 1 Large target E-series
- 12-0013 1 Magnet base
- 12-0059 1 Set of rods (4x60 mm)
- 01-0938 2 Rods 30 mm
- 01-0873 4 Rods 120 mm
- 01-0044 2 Rods 240 mm
- 12-0495 1 Shoulder strap for Display unit
- 05-0685 1 Manual (Note: Refers to English manual)
- 03-0842 1 Measuring tape 5 m
- 03-0914 1 USB Memory stick with documentation
- 03-0822 1 USB Cable
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0967 1 Hexagon wrench set
- 03-0878 1 Cleaning cloth for optics
- 12-0684 1 Carrying case Linebore A

#### Easy-Laser<sup>®</sup> E950-A Bore alignment Part No: 12-0676

#### Bore alignment with the highest reliability and precision

Easy-Laser<sup>®</sup> E950-**A** is primarily designed for diesel engines (for example crank and camshaft bearings), gearboxes, compressors and similar applications. Positioning workpieces in machine tools is also an appropriate application.

Easy-Laser<sup>®</sup> E950 makes checking and aligning bearings and bearing journals easier thanks to wireless detectors and versatile brackets. A large colour display with clear graphics and software that guides the user through the entire measurement process contributes to simple operation. The system automatically calculates the bearing journals positions in relation to each other, both horizontally and vertically. You can then evaluate the results directly on-site with different calculation methods such as Best fit around zero and Waviness. It is also possible to analyse the different choices of reference points and set the offset and tolerance values.

A great feature is the check of ovality, for example, to analyse the wear rate. The measurement system takes care of all these complicated calculations for you. You measure and align both full and half bearing journals with equal simplicity. The wireless detector eliminates uncertain factors such as cable pull. All parts are designed for maximum accuracy and stability, and measure with a resolution of 0.001 mm [0.05 mils]. Measurement distance up to 40 m [130 feet]. Easy-Laser® E950 is suitable for use both in production and out in the field.

#### Also straightness of shafts and coupling alignment

With the systems, you can also measure the straightness of shafts, foundations, etc. without any additional accessories. With the measuring devices for shaft alignment (accessories), you have the most complete measurement system to align the entire drive train on the market. Programs for all types of measurements are included as standard, you then adapt the measurement system with brackets and detectors for your needs now and in the future.

#### Examples of accessories:

- 12-0618 1 Battery pack with wireless technology
- 12-0619 1 Barcode reader
- 12-0585 1 Charger 12–36V
- 12-0434 1 Measuring unit M
- 12-0433 1 Measuring unit S
- 12-0016 1 V-bracket with chain
- 01-1165 1 Offset bracket
- 12-0187 1 Magnetic bracket for D75
- 12-0282 1 Set of extension arms
- 12-0580 1 Axial extension arms
- 12-0597 1 Splitter box
- 03-1004 1 Thermal printer
- 12-0022 1 Laser transmitter D22

Note: always check number of items included for each Part No. before ordering.

Complete system: Weight: 14.0 kg [30.8 lbs], WxHxD: 550x450x210 mm [21.6x17.7x8.3"]















12-0418	1	Display unit E-series E51

- 12-0075 1 Laser transmitter D75
- 12-0752 1 Detector E7
- 12-0436 1 Wireless unit
- 12-0074 1 Cable 2 m
- 12-0108 1 Cable 5 m, extension
- 12-0661 1 Offset hub for Laser transmitter
- 12-0385 1 Laser transmitter bracket for sterntube
- 12-0341 1 Self centering detector bracket for Ø300–500 mm
- 12-0588 1 Large target E-series
- 12-0013 1 Magnet base
- 12-0059 1 Set of rods (4x60 mm)
- 01-0938 2 Rods 30 mm
- 01-0873 4 Rods 120 mm
- 01-0044 2 Rods 240 mm 12-0495 1 Shoulder strap
- 12-0495 1 Shoulder strap for Display unit 05-0685 1 Manual (Note: Refers to English manual)
- 03-0842 1 Measuring tape 5 m
- 03-0914 1 USB Memory stick with documentation
- 03-0822 1 USB Cable
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0967 1 Hexagon wrench set
- 03-0878 1 Cleaning cloth for optics
- 12-0685 1 Carrying case Linebore B

Complete system:

Weight: 27.0 kg [59.5 lbs] WxHxD: 1220x460x170 mm [48.0x18.1x6.7"]

#### Easy-Laser® E950-B Bore alignment Part No: 12-0677

#### Bore alignment with the highest reliability and precision

Easy-Laser<sup>®</sup> E950-**B** is primarily designed for propeller shaft installations on ships with stern tubes, support bearings, gearboxes and engines.

Easy-Laser® E950 makes checking and aligning bearings and bearing journals easier thanks to wireless detectors and versatile brackets. A large colour display with clear graphics and software that guides the user through the entire measurement process contributes to simple operation. The system automatically calculates the bearing journals positions in relation to each other, both horizontally and vertically. You can then evaluate the results directly on-site with different calculation methods such as Best fit around zero and Waviness. It is also possible to analyse the different choices of reference points and set the offset and tolerance values.

A great feature is the check of ovality, for example, to analyse the wear rate. The measurement system takes care of all these complicated calculations for you. You measure and align both full and half bearing journals with equal simplicity. The wireless detector eliminates uncertain factors such as cable pull. All parts are designed for maximum accuracy and stability, and measure with a resolution of 0.001 mm [0.05 mils]. Measurement distance up to 40 m [130 feet]. The included aluminium beams for the laser transmitter bracket are 1100 mm [43.31"] (main beam) and 500 mm [19.86"] (vertical support beam). Easy-Laser<sup>®</sup> E950 is suitable for use both in production and out in the field.

#### Also straightness of shafts and coupling alignment

With the systems, you can also measure the straightness of shafts, foundations, etc. without any additional accessories. With the measuring devices for shaft alignment (accessories), you have the most complete measurement system to align the entire drive train on the market. Programs for all types of measurements are included as standard, you then adapt the measurement system with brackets and detectors for your needs now and in the future.

#### Examples of accessories:

- 12-0618 1 Battery pack with wireless technology
- 12-0619 1 Barcode reader
- 12-0585 1 Charger 12-36V
- 12-0434 1 Measuring unit M
- 12-0433 1 Measuring unit S
- 12-0016 1 V-bracket with chain
- 01-1165 1 Offset bracket
- 12-0187 1 Magnetic bracket for D75
- 12-0282 1 Set of extension arms
- 12-0597 1 Splitter box
- 03-1004 1 Thermal printer
- 12-0022 1 Laser transmitter D22
- 12-0455 1 Slide bracket Min. Ø120 mm
- 12-0543 1 Slide bracket Min.  $\emptyset$ 200 mm
- 12-0510 1 Slide bracket Min.  $\emptyset$ 300 mm
- 03-0769 1 Aluminium extension beam L=500 mm
- 03-0770 1 Aluminium extension beam L=600 mm
- 03-0771 1 Aluminium extension beam L=1100 mm







BARCODE SYSTEM





#### A complete system contains:

- **Display unit E-series E51** 12-0418 1
- 12-0075 Laser transmitter D75 1
- 12-0759 Detector F9, 2-axis 1
- 12-0074 1 Cable 2 m
- 12-0108 Cable 5 m, extension 1
- 12-0661 1 Offset hub for Laser transmitter
- 12-0384 1 Set of offset hub arms for diameters 100-500 mm
- 12-0154 Set of magnets for offset hub arms 1
- 12-0768 Slide bracket, Width 25 mm, Min. Ø80 mm 1
- 12-0767 Rod adapter with built in target 1
- 12-0455 1 Slide bracket Min. Ø120 mm
- 12-0543 Slide bracket Min. Ø200 mm 1
- 12-0510 Slide bracket Min. Ø300 mm 1
- 12-0013 1 Magnet base
- Set of rods (4x60 mm) 12-0059 1
- 01-0938 2 Rods 30 mm 4
- 01-0873 Rods 120 mm 2
- 01-0044 Rods 240 mm
- Shoulder strap for Display unit 12-0495 1 05-0685 Manual (Note: Refers to English manual) 1
- 03-0842 Measuring tape 5 m 1
- USB Memory stick with documentation 03-0914 1
- 03-0822 1 **USB** Cable
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0967 1 Hexagon wrench set
- 03-0878 1 Cleaning cloth for optics
- 12-0782 1 Carrying case

#### Easy-Laser<sup>®</sup> E950-C Bore alignment Part No: 12-0772

#### Bore alignment with the highest reliability and precision

Easy-Laser<sup>®</sup> E950-C is primarily designed for diesel engines, compressors, gearboxes and similar applications. This system is much like the E950-A, but has for example instead the round detector E9. One of the brackets has a width of 25 mm [0.99"] to fit in narrow bearing journals. Measures bores diameter 80–500 mm [3.15–19.68"] as standard, and down to 50 mm [2.00"] with customized brackets.

Easy-Laser<sup>®</sup> E950 makes checking and aligning bearings and bearing journals easier thanks to wireless detectors and versatile brackets. A large colour display with clear graphics and software that guides the user through the entire measurement process contributes to simple operation. The system automatically calculates the bearing journals positions in relation to each other, both horizontally and vertically. You can then evaluate the results directly on-site with different calculation methods such as Best fit around zero and Waviness. It is also possible to analyse the different choices of reference points and set the offset and tolerance values.

A great feature is the check of ovality, for example, to analyse the wear rate. The measurement system takes care of all these complicated calculations for you. You measure and align both full and half bearing journals with equal simplicity. The wireless detector eliminates uncertain factors such as cable pull. All parts are designed for maximum accuracy and stability, and measure with a resolution of 0.001 mm [0.05 mils]. Measurement distance up to 40 m [130 feet]. Easy-Laser<sup>®</sup> E950 is suitable for use both in production and out in the field.

#### Also straightness of shafts and coupling alignment

With the systems, you can also measure the straightness of shafts, foundations, etc. without any additional accessories. With the measuring devices for shaft alignment (accessories), you have the most complete measurement system to align the entire drive train on the market. With additional accessories extruder machines can also be measured. Programs for all types of measurements are included as standard, you then adapt the measurement system with brackets and detectors for your needs now and in the future.

#### Examples of accessories:

- 12-0553 Bore bracket adapter plate 1
- 12-0314 **Detector arms Linebore**
- 12-0343 1
  - Slide bracket Min. Ø100 mm **Detector E7 reference detector**
- 12-0752 1 12-0436 Wireless unit 1
- Tube adapters (manufactured on request to specified diameter) 01-0777 1
- 12-0214 Set of extension rods for Tube measurements
- 12-0434 Measuring unit EM 1
- 12-0433 Measuring unit ES
- V-bracket with chain 12-0016 1
- 01-1165 Offset bracket 1
- 12-0187 Magnetic bracket for D75 1
- Set of extension arms 12-0282 1 12-0580 Axial extension arms 1
- 12-0597 Splitter box 1
- 12-0585 1 Charger 12-36V
- 12-0619 Barcode reader 1
- 03-1004 1 Thermal printer
- 12-0022 1 Laser transmitter D22

Note: always check number of items included for each Part No. before ordering.

Complete system: Weight: 14.3 kg [31.5 lbs] WxHxD: 550x450x210 mm [21.6x17.7x8.3"]

















- 12-0418 1 Display unit E-series E51
- 12-0075 1 Laser transmitter D75
- 12-0752 1 Detector E7
- 12-0436 1 Wireless unit
- 12-0074 1 Cable 2 m
- 12-0108 1 Cable 5 m, extension
- 12-0661 1 Offset hub for Laser transmitter 12-0707 1 Arm kit with magnets
- 12-0707 1 Ann kit with magnets 12-0282 1 Extension arms Linebore
- 12-0341 1 Self centering detector bracket for  $\emptyset$  300–500 mm
- 12-0588 1 Large target E-series
- 12-0495 1 Shoulder strap for Display unit
- 05-0685 1 Manual (Note: Refers to English manual)
- 03-0842 1 Measuring tape 5 m
- 03-0914 1 USB Memory stick with documentation
- 03-0822 1 USB Cable
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0792 1 Toolbox
- 03-0967 1 Hexagon wrench set
- 03-0878 1 Cleaning cloth for optics
- 12-0986 1 Carrying case Linebore D

#### Complete system:

Weight: 18.3 kg [40.3 lbs] WxHxD: 550x450x210 mm [21.6x17.7x8.3"]

#### Easy-Laser<sup>®</sup> E950-D Bore alignment Part No: 12-0954

#### Bore alignment with the highest reliability and precision

Easy-Laser<sup>®</sup> E950-**D** is primarily designed for propeller shaft installations on ships with stern tubes, support bearings, gearboxes and engines.

Easy-Laser<sup>®</sup> E950 makes checking and aligning bearings and bearing journals easier thanks to wireless detectors and versatile brackets. A large colour display with clear graphics and software that guides the user through the entire measurement process contributes to simple operation. The system automatically calculates the bearing journals positions in relation to each other, both horizontally and vertically. You can then evaluate the results directly on-site with different calculation methods such as Best fit around zero and Waviness. It is also possible to analyse the different choices of reference points and set the offset and tolerance values.

A great feature is the check of ovality, for example, to analyse the wear rate. The measurement system takes care of all these complicated calculations for you. You measure and align both full and half bearing journals with equal simplicity. The wireless detector eliminates uncertain factors such as cable pull. All parts are designed for maximum accuracy and stability, and measure with a resolution of 0.001 mm [0.05 mils]. Measurement distance up to 40 m [130 feet]. Easy-Laser® E950 is suitable for use both in production and out in the field.

#### Also straightness of shafts and coupling alignment

With the systems, you can also measure the straightness of shafts, foundations, etc. without any additional accessories. With the measuring devices for shaft alignment (accessories), you have the most complete measurement system to align the entire drive train on the market. Programs for all types of measurements are included as standard, you then adapt the measurement system with brackets and detectors for your needs now and in the future.

#### Examples of accessories:

- 12-0618 1 Battery pack with wireless technology
- 12-0823 1 E30 Long Range laser
- 12-0625 1 ESO Long Range
- 12-0585 1 Charger 12-36V
- 12-0434 1 Measuring unit M
- 12-0433 1 Measuring unit M
- 12-0016 1 V-bracket with chain
- 01-1165 1 Offset bracket
- 12-0187 1 Magnetic bracket for D75
- 12-0282 1 Set of extension arms
- 12-0597 1 Splitter box
- 03-1004 1 Thermal printer
- 12-0022 1 Laser transmitter D22
- 12-0455 1 Slide bracket Min. Ø120 mm
- 12-0543 1 Slide bracket Min. Ø200 mm
- 12-0510 1 Slide bracket Min. Ø300 mm





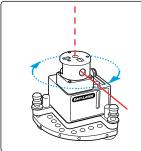
# **X HyperPSD™**













#### A complete system contains:

- 12-0418 1 Display unit E51 (with HyperPSD™ support)
- 12-1064 1 Laser transmitter D26 incl. tilt table
- 12-0789 1 Measuring unit ESH (HyperPSD™)
- 12-0790 1 Measuring unit EMH (HyperPSD™)
- 12-0436 2 Wireless units
- 12-0074 2 Cable 2 m
- 12-0108 2 Cable 5 m, extension
- 01-1333 1 Machine/magnet base pin for D26
- 12-0787 2 Spindle bracket for measuring unit
- 12-0013 1 Magnet base
- 12-0045 1 Magnet base with turnable head
- 01-1165 2 Offset bracket
- 12-0324 1 Rods (8x120 mm)
- 12-0059 1 Set of Rods 4x60 mm
- 12-0915 1 Safety strap for laser transmitter 05-0685 1 Manual (Note: Refers to English manual)
- 05-0686 1 Machine Tools Guide (Note: English version)
- 03-0842 1 Measuring tape 5 m
- 03-0914 1 USB memory stick with documentation
- 03-0822 1 USB cable
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0967 1 Hexagon wrench set
- 12-0495 1 Shoulder strap for Display unit
- 03-0878 1 Cleaning cloth for optics
- 12-0760 1 Carrying case

#### Easy-Laser® E940 Machine tool Part No: 12-0761

#### For measuring and aligning machine tools

Easy-Laser<sup>®</sup> E940 Machine tool system is the market's most complete measurement system for measuring and aligning machine tools. You can measure straightness, flatness, squareness, spindle pointing direction, level and much more. The measurement programs guide the user step-by-step through the measurement process with clear graphics and instructions on the large 5.7" colour display. The system can handle most tasks in this field, despite the fact that there is considerable variation in machine design: different types of lathe, milling machines, automatic drills, presses, water cutting machines etc. Compared to conventional methods, such as dial gauges, mandrels and stones, work can be carried out much more quickly with the use of a laser measurement system. And not to forget, the measurement result can be documented and compared to ISO10791-1 and 10791-2 used for machine tools.

There are many good reasons for investing in a laser system. One is that because it is so quick to set up, the operator can check the machine much more often, for example if there has been an accidential collision in the machine. Then compare with the machine documentation and see if everything is ok before continuing production. This can prevent costly production of parts that are out of tolerance. It can also prolong the life of the tools.

With E940 the user can perform almost any kind of measurement thanks to the very versatile design of the D26 laser transmitter, the EMH- and ESH-units and brackets. For example, the ESH-unit can also act as a compact and light-weight transmitter. Mounted on the cleverly designed spindle bracket it can even point the laser through the clamping pin, through the spindle (see picture to the left).

The measuring units delivered with system Easy-Laser<sup>®</sup> E940 has got our new HyperPSD<sup>™</sup> precision detectors, making it possible to display a resolution of 0.0001 mm [0.000005"/0.005 mils].

#### Examples of accessories:

12-0846 E290 Digital Precision Level 1 12-0901 Extension Kit for E290 12-0146 Laser transmitter D146 1 12-0988 Bar bracket 1 12-0759 Detector E9, 2-axis 1 12-1053 **XT190 BTA** 1 12-0619 Barcode reader 12-0016 V-bracket with chain 1 12-0413 Magnetic bracket 12-1012 Thin shaft bracket 1 12-1010 Sliding bracket 12-0585 Charger 12-36V 12-0618 Battery pack with wireless technology 1 12-0597 1 Splitter box 12-0059 Rods (4x60 mm) 1 12-0324 Rods (8x120 mm) 12-0060 Rods (4x240 mm) 1 Extension chain (2x900 mm) 12-0128 1 03-1004 1 Thermal printer

Note: always check number of items included for each Part No. before ordering.

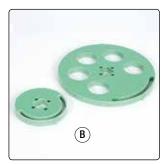
Complete system: Weight: 15 kg [33 lbs] WxHxD: 550x450x210 mm [21.6x17.7x8.3"]











# C C

#### A complete system contains:

- 12-0418 1 Display unit E-series E51
- 12-0075 1 Laser transmitter D75
- 12-0759 1 Detector E9
- 12-0074 1 Cable 2 m
- 12-0108 1 Cable 5 m, extension
- 12-0187 1 Bracket for D75 with magnets
- 01-0777 1 Set of brackets for detector
- 12-0792 1 Set of extension rods for detector (6.3 m)
- 12-0810 1 Target for extruder
- 12-0495 1 Shoulder strap for Display unit
- 05-0685 1 Manual (Note: Refers to English manual)
- 03-0842 1 Measuring tape 5 m
- 03-0914 1 USB Memory stick with documentation
- 03-0822 1 USB Cable
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0967 1 Hexagon wrench set
- 03-0878 1 Cleaning cloth for optics
- 12-0811 1 Carrying case

#### Easy-Laser<sup>®</sup> E930 Extruder alignment Part No: 12-0788

## For aligning extrusion machines

Easy-Laser<sup>®</sup> E930 is designed to measure straightness and pointing direction, primarily on extruder pipes. Another application can be hydraulic pipes for example. With the system, pipes with diameters down to 50 mm can be measured, at a range of up to 40 m. The transmitter's laser beam can be compared to an absolutely straight and weightless ruler, that is to say a perfect starting point for precision measurement.

During the alignment procedure both detector and spindle are rotated, thus self calibrating the system. This way you can determine how the centre line of the spindle is, relative to the tube's centre at the inlet end.

#### Document your measurement results

The detector's measurement value is transferred to the display unit wirelessly, which means that you can measure more freely. The measurement system has programs that guide you step-by-step, using clear graphics on a large 5.7" colour screen. You can also produce full documentation for your measurement job, with direct generation of PDF reports, and database programs for PC for example.

#### Complete system with all the measuring programs

Easy-Laser<sup>®</sup> E930 is a complete system in itself, with laser transmitter, detector and display unit. You can also add other parts from our extensive range to build a system that suits your specific needs and requirements, because all the measurement programs are included as standard. For example add shaft alignment equipment for other rotating machines, and lasers for flatness measurement.

A. Detector with tube brackets mounted

- B. The brackets are manufactured on order to specified diameter
- C. Special brackets with metal points available on request.

#### Examples of accessories:

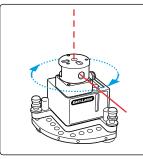
- 12-0767 1 Rod adapter with built in target
- 12-0022 1 Laser transmitter D22
- 12-0436 1 Wireless unit
- 12-0434 1 Measuring unit EM
- 12-0433 1 Measuring unit ES
- 12-0016 1 V-bracket with chain
- 12-0013 1 Magnet base
- 12-1011 1 Magnetic bracket
- 12-1012 1 Thin shaft bracket
- 12-1010 1 Sliding bracket
- 01-1165 1 Offset bracket
- 12-0125 1 Cardan bracket
- 12-0553 1 Bore bracket adapter plate
- 12-0314 1 Detector arms Linebore 12-0597 1 Splitter box
  - -0597 1 Splitter box
- 12-0585 1 Charger 12–36V 12-0619 1 Barcode reader
- 03-1004 1 Thermal printer











-		-
12-0418	1	Display unit E51
12-0022	1	Laser transmitter D22 incl. tilt table
12-0752	1	Detector E7
12-0436	1	Wireless unit
12-0074	1	Cable 2 m
12-0108	1	Cable 5 m, extension
01-1333	1	Machine/magnet base pin for D22
12-0045	1	Magnet base with turnable head
12-0544	2	Targets for rough alignment

- 01-1165 1 Offset bracket
- 01-0043 6 Rods 60 mm
- 01-0873 6 Rods 120 mm 12-0915 1 Safety strap for la
- 12-0915 1 Safety strap for laser transmitter 05-0685 1 Manual (Note: Refers to English manual)
- 03-0842 1 Measuring tape 5 m
- 03-0914 1 USB memory stick with documentation
- 03-0822 1 USB cable
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0967 1 Hexagon wrench set
- 12-0495 1 Shoulder strap for Display unit
- 03-0878 1 Cleaning cloth for optics
- 12-0781 1 Carrying case

#### Complete system:

Weight: 12.3 kg [27.1 lbs] WxHxD: 550x450x210 mm [21.6x17.7x8.3"]

#### Easy-Laser<sup>®</sup> E920 Geometric Part No: 12-0771

#### Measurement system for all types of geometric measurement

This system can be used to carry out all the most common geometric measurements; straightness, flatness, squareness, plumb and level. Measurement is quick and precise. Displayed resolution is 0.001 mm [0.05 mils]. The laser transmitter is our well known big seller, the D22 with levelling table, strong magnetic feet, and a range of up to 40 m. The transmitter's laser beam can be compared to an absolutely straight and weightless ruler, that is to say a perfect starting point for precision measurement. The swivelling laser head gives a laser plane parallel to the measured object and can also angle the laser beam 90° to the sweep for squareness measurement.

The display unit has a large and clear 5.7" colour screen. The programs guide you step-by-step through the measuring process, which makes it easy even for inexperienced users. The system can provide full documentation, with direct generation of PDF reports, and database programs for PC for example. The detector transfers the measurement data to the display unit wirelessly, or by cable if required. The advantages of wireless are especially clear on mechanical constructions and objects where cables can snag or get in the way.

The most common method is to fix the laser transmitter to the measurement object using the mounting magnets, or mounting it on a tripod (accessory) to one side. A pin is also provided to secure the laser transmitter to a machine spindle or equivalent, to check straightness and spindle alignment for example.

Easy-Laser<sup>®</sup> E920 is a complete system in itself, with laser transmitter, detector and display unit. But it is also an excellent starting point for creating a measurement system that suits your specific needs and requirements, because all the measurement programs are included as standard! Add extra laser transmitters, measuring units and brackets as well as other accessories from the wide Easy-Laser<sup>®</sup> range. Now or in the future.

#### Examples of accessories:

- 12-0759 1 Detector E9, 2-axis
- 12-0759 1 Detector E9, 12-1053 1 XT190 BTA
- 12-0618 1 Battery pack with wireless technology
- 12-0619 1 Barcode reader
- 12-0585 1 Charger 12-36V
- 12-0434 1 Measuring unit EM
- 12-0433 1 Measuring unit ES
- 12-0016 1 V-bracket with chain
- 01-1165 1 Offset bracket
- 12-0597 1 Splitter box
- 03-1004 1 Thermal printer 12-0455 1 Slide bracket Min. ∅120 mm
- 12-0543 1 Slide bracket Min.  $\emptyset$  120 mm
- 12-0545 1 Slide bracket Min. Ø200 mm
- 12-0269 1 Tripod
- 12-0046 1 Angular prism





Sectional flatness program

#### A complete system contains:

- **Display unit E-series E51** 12-0418 1
- 12-0168 Laser transmitter D23 incl. tilt table
- 12-0509 Detector E5 1
- 12-0436 1 Wireless unit
- 12-0074 Cable 2 m 1
- 12-0108 1 Cable 5 m, extension
- 12-0321 Cable support 1
- Targets for rough alignment 12-0544 3
- 12-0045 Magnet base with turnable head 1
- 01-0043 6 Rods 60 mm 6
- 01-0873 Rods 120 mm 12-0495 1
- Shoulder strap for Display unit Safety strap for laser transmitter 12-0915 1
- Manual (Note: Refers to English manual) 05-0400 1
- Quick manual (Note: Refers to English manual) 05-0545 1
- 03-0842 1 Measuring tape 5 m
- 03-0914 USB Memory stick with documentation 1
- 03-0822 1 USB Cable
- Battery charger (100-240 V AC) 03-1243 1
- 03-0967 Hexagon wrench set 1
- 03-0878 **Cleaning cloth for optics** 1
- 1 12-0781 Carrying case

#### Easy-Laser<sup>®</sup> E915 Flange Spin Part No: 12-0526

#### Measure flatness easily with spinning laser

This system is mainly for wind turbine tower producers who want to measure flatness of flanges. Similar applications can be e.g. slewing bearings. You can see the result as a true 3D image in the display unit directly after measuring. Then evaluate the result easily with different calculation settings, for example three point reference, best fit or all positive. This can also be done directly on site without having to stop to go to a PC with separate analysis programs, which was the case previously. This makes production much more efficient.

The system includes laser transmitter D23 Spin with power rotating head. This is how it works in brief: The laser beam from the transmitter rotates constantly and creates a reference plane over the entire measurement object. Measurements are performed quicker as you do not have to align the beam for each new measurement position. You place the detector at the desired measurement points and register the reading by a push of a button. In principle, one person can perform the measurement themselves. It is then possible to generate a PDF report containing graphs and measurement data directly from the measurement system's display unit. All information about the measurement object is documented.

Includes the sectional measurement flatness program\*. A tower section with diameter over 4 meters represents a significant weight. This weight causes the flanges to deform when the sections are manufactured. With sectional measurement program the flatness is measured in four sections which are mathematically merged into a full circle, which solves this measurement problem. The program also makes it possible to perform the complete measurement on ground. No climbing on ladders or skylift is therefore required. With traditional methods the operator has to work on hazardous high levels, and often more men are needed.

\*The sectional measurement flatness program is patented in Sweden, Germany, China and USA.

#### Examples of accessories:

12-0618 Battery pack with wireless unit 1 12-0619 Barcode reader 12-0585 Charger 12-36V 1 12-0434 Measuring unit EM 1 12-0433 Measuring unit ES 1 12-0016 V-bracket with chain 1 01-1165 Offset bracket 1 12-0597 Solitter box 1 03-1004 Thermal printer 1 12-0455 Slide bracket Min. Ø120 mm 1 12-0543 Slide bracket Min. Ø200 mm 1 12-0510 1 Slide bracket Min. Ø300 mm

Note: always check number of items included for each Part No. before ordering.

Complete system: Weight: 12.1 kg [26.7 lbs] WxHxD: 550x450x210 mm [21.6x17.7x8.3"]

#### **GEOMETRIC MEASUREMENT SYSTEMS**



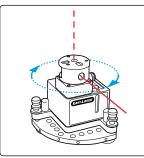


**40** m /132'











#### A complete system contains:

- 12-0418 1 Display unit E-series E51
- 12-0022 1 Laser transmitter D22 incl. tilt table
- 12-0752 1 Detector E7
- 12-0436 1 Wireless unit
- 12-0074 1 Cable 2 m
- 12-0108 1 Cable 5 m, extension
- 12-0321 1 Cable support
- 12-0544 3 Targets for rough alignment
- 12-0045 1 Magnet base with turnable head
- 01-0043 6 Rods 60 mm
- 01-0873 6 Rods 120 mm
- 12-0495 1 Shoulder strap for Display unit 12-0915 1 Safety strap for laser transmitte
- 12-0915 1 Safety strap for laser transmitter 05-0400 1 Manual (Note: Refers to English manual)
- 05-0545 1 Quick manual (Note: Refers to English manual)
- 03-0842 1 Measuring tape 5 m
- 03-0914 1 USB Memory stick with documentation
- 03-0822 1 USB Cable
- 03-1243 1 Battery charger (100-240 V AC)
- 03-0967 1 Hexagon wrench set
- 03-0878 1 Cleaning cloth for optics
- 12-0781 1 Carrying case

#### Easy-Laser<sup>®</sup> E910 Flange Part No: 12-0525

#### Measurement system for flange measurements

This system is mainly for wind turbine tower producers who want to measure flatness and parallelism of flanges. Similar applications can be e.g. slewing bearings. You can see the result as a true 3D image in the display unit directly after measuring. Then evaluate the result easily with different calculation settings, for example three point reference, best fit or all positive. This can also be done directly on site without having to stop to go to a PC with separate analysis programs, which was the case previously. This makes production much more efficient.

The system includes laser transmitter D22 with manual rotatable head, and with the option of deflecting the laser beam 90°. With a few more accessories the system can also be used to check the parallelism of the two tower flanges. In the measurement system's display unit it is possible to generate a PDF report containing graphs and measurement data. All information about the measurement object is documented.

Includes the sectional measurement flatness program\*. A tower section with diameter over 4 meters represents a significant weight. This weight causes the flanges to deform when the sections are manufactured. With sectional measurement program the flatness is measured in four sections which are mathematically merged into a full circle, which solves this measurement problem. The program also makes it possible to perform the complete measurement on ground. No climbing on ladders or skylift is therefore required. With traditional methods the operator has to work on hazardous high levels, and often more men are needed.

\*The sectional measurement flatness program is patented in Sweden, Germany, China and USA.

#### Examples of accessories:

- 12-06181Battery pack with wireless unit12-06191Barcode reader
- 12-0585 1 Charger 12-36V
- 12-0434 1 Measuring unit EM
- 12-0433 1 Measuring unit ES
- 12-0016 1 V-bracket with chain
- 01-1165 1 Offset bracket
- 12-0597 1 Splitter box
- 03-1004 1 Thermal printer 12-0455 1 Slide bracket M
- 12-0455 1 Slide bracket Min. ∅120 mm 12-0543 1 Slide bracket Min. ∅200 mm
- 12-0510 1 Slide bracket Min.  $\emptyset$ 300 mm
- 12-0269 1 Tripod
- 12-0046 1 Angular prism

Note: always check number of items included for each Part No. before ordering.

Complete system: Weight: 12.1 kg [26.7 lbs] WxHxD: 550x450x210 mm [21.6x17.7x8.3"]











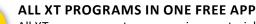






Easy-Laser® XT11 was awarded the iF DESIGN AWARD 2017 and Red Dot 2018 for its design, ergonomics and innovative features.





All XT measurement programs in one straightforward application available for free. Functionality for iOS, Android and Easy-Laser® XT display units.



#### NO LOCK-INS

Buy with or without the user-friendly, shockproof and waterproof Easy-Laser<sup>®</sup> XT11 display unit. Awarded both the RedDot2018 and IF Design 2017 for its ergonomics, features and looks.



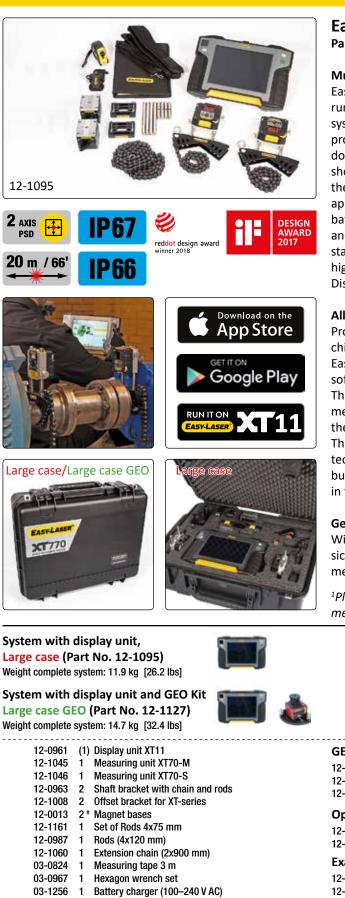
#### MAXIMUM FLEXIBILITY AND TRAINABILITY!

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.



#### 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.



#### Easy-Laser® XT770 Shaft

Part No: See below. Four combinations available.

#### Multi-platform alignment system

Easy-Laser<sup>®</sup> XT770 is a crossover multi-platform system. The system runs on your iOS and Android unit<sup>1</sup>. You can also choose a complete system with our ergonomic and rugged, IP66/67 approved shock proof Easy-Laser® XT11 display unit. As standard a 13 MP camera for documentation is built-in. You can also add an IR camera to the XT11; shoot a thermal image before and after alignment and include with the documentation! The measuring units are also rugged and IP66/67 approved, featuring wireless technology, an integrated rechargeable battery and large 20x20 mm [0.79"x 0.79"] 2 axis TruePSD detectors and dot type laser technology. A built-in OLED display shows battery status and the angular value of the unit for easy positioning. Thanks to high capacity rechargeable batteries the operating times are very long: Display unit: 16 h, Measuring units: 24 h.

#### All functions are available in one app

Programs for alignment of horizontal, vertical/flange mounted machines, machine trains and cardan/offset mounted machines\* plus EasyTrend for dynamic measurements\* are included. Functions for soft foot check, thermal growth compensation and tolerance check. The XT70-M/S units allow for multipoint and continuous sweep measurements. They also support the 360°LIVE move feature. With the Twist measurement program you easily check the base flatness. The very versatile Values program, together with the dot-type laser technology adds functionality for e.g. checking bearing clearance. The built-in Users Manual opens the relevant chapter depending on where in the process you are. (\*requires accessories)

#### **Geometric measurements**

With the GEO kit added to your XT770 you will, using the Values or Basic Flatness program, be able to do flatness and straightness measurements with the highest reliability and precision.

<sup>1</sup>Please see our web site for a complete list of which tablets we recommend: easylaser.com > lifecycle support > software download

> System without display unit, Large case (Part No. 12-1096) Weight complete system: 10.4 kg [22.9 lbs]

System without display unit, with GEO Kit Large case GEO (Part No. 12-1128) Weight complete system: 13.2 kg [29.1 lbs]

GEO Kit for XT includes:

- 12-0022 1 Laser transmitter D22
- 12-1133 1 Magnet base with turnable head ( # replaces one of the regular magnet bases)
- 12-0987 1 Rods (4x120 mm)

#### Options for XT11: (Note! Cannot be retrofitted.)

- 12-0968 1 IR Camera added to XT11
- 12-0985 1 Camera (and LED light) removed from XT11

#### **Examples of accessories for XT770:**

- 12-1151 1 Cardan bracket kit
- Dynamic measurement brackets (complete kit) 12-1130 1
- 12-1011 Magnetic bracket for XT-series 1
- 12-1012 Thin shaft bracket for XT-series 1 Sliding bracket for XT-series
- 12-1010 1 12-1161 Rods (4x75 mm) 1
- 12-0324 1 Rods (8x120 mm)
- 12-0060 1 Rods (4x240 mm)
- 12-1053 XT190 BTA Digital belt alignment tool 1
- XT280 Vibrometer 12-1090 1
- Note: Always check number of items included for each Part No. before ordering. Accessories not included in the specified system weight above.

(1) = Included depending on system Part No.

(1) Carrying case Large

DC split cable for charging

**Cleaning cloth for optics** 

Carrying case Large GEO

Documentation folder

DC to USB adapter, for charging

Shoulder strap for display unit

Quick manual (Note: Refers to English manual)

WxHxD: 565x455x210 mm [22.2x17.9x8.2"]

USB memory stick with documentation

03-1256

12-0989

12-0751

12-0997

05-0913

03-0878

03-0914

12-0991

12-1049

12-1132

1

1

1

1

1

1

1

(1)

(1)



#### Easy-Laser® XT660 Shaft

Part No: See below. Four combinations available.

#### Multi-platform alignment system

Easy-Laser® XT660 is a crossover multi-platform system. The system runs on your iOS and Android unit<sup>1</sup>. You can also choose a complete system with our ergonomic and rugged, IP66/67 approved shock proof Easy-Laser® XT11 display unit. 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 with the documentation!

The measuring units are also rugged and IP66/67 approved, featuring wireless technology, an integrated rechargeable battery and large 20x20 mm [0.79"x 0.79"] 1 axis TruePSD detectors and dot type laser technology. A built-in OLED display shows battery status and the angular value of the unit for easy positioning. Thanks to high capacity rechargeable batteries the operating times are very long: Display unit: 16 h, Measuring units: 24 h.

#### All functions are available in one app

Programs for alignment of horizontal, vertical/flange mounted machines and machine trains (3 machines) are included. Added to that are functions for soft foot check, thermal growth compensation and tolerance check. The XT60-M/S units allow for multipoint and continuous sweep measurements. With the Twist measurement program you easily check the base flatness. As always, Easy-Laser® comes with the very versatile Values program, which together with the dot-type laser technology adds functionality for eg. checking bearing clearance. The app has a built-in Users Manual, which opens the relevant chapter depending on where in the process you are.

<sup>1</sup>Please see our web site for a complete list of which tablets we recommend: easylaser.com > lifecycle support > software download

Note: the system can be delivered in two different carrying cases, model Large with space also for accessories. See pictures to the left.

#### System without display unit, Large case (Part No. 12-1059) Weight complete system: 8.2 kg [18.1 lbs] (without accessories)

System without display unit, Medium case (Part No. 12-1058) Weight complete system: 5.8 kg [11.0 lbs]

Options for XT11: (Note! Cannot be retrofitted.)

- 12-0968 1 IR Camera added to XT11
- Camera (and LED light) removed from XT11 12-0985 1

#### **Examples of accessories for XT660:**

- Magnet base (Note: offset bracket also needed.) 12-0013 1
- 12-1008 1 Offset bracket for XT-series
- 12-1011 Magnetic bracket for XT-series 1
- 12-1012 Thin shaft bracket for XT-series 1 12-1010 1 Sliding bracket for XT-series
- 12-1161 1 Rods (4x75 mm)
- 12-0324 1 Rods (8x120 mm)
- 12-0060 1 Rods (4x240 mm)

Note: always check number of items included for each Part No. before ordering.

Weight complete system: 9.8 kg [21.6 lbs] (without accessories)

#### System with display unit, Medium case (Part No. 12-1051)

Weight complete system: 7.2 kg [15.9 lbs]

12-0961	(1)	Display unit XT11
12-1028	1	Measuring unit XT60-M
12-1029	1	Measuring unit XT60-S
12-0963	2	Shaft bracket with chain and rods
12-1161	1	Set of Rods 4x75 mm
12-1060	1	Extension chain (2x900 mm)
03-0824	1	Measuring tape 3 m
03-0967	1	Hexagon wrench set
03-1256	1	Battery charger (100–240 V AC)
12-0989	1	DC split cable for charging
12-0751	1	DC to USB adapter, for charging
12-0997	(1)	Shoulder strap for display unit
05-0863	1	Quick manual (Note: Refers to English manual)
03-0878	1	Cleaning cloth for optics
03-0914	1	USB memory stick with documentation
12-0991	1	Documentation folder
12-0973	(1)	Carrying case Medium
		WxHxD: 460x350x175 mm [18.1x13.8x6.9"]
12-1049	(1)	Carrying case Large
		WxHxD: 565x455x210 mm [22.2x17.9x8.2"]

(1) = Included depending on system Part No.







System with ECOM display unit, Ex approved case (Part No. 12-1097) Weight complete system: 8.4 kg [18.5 lbs]



12-1086	(1)	Display unit ECOM Tab-Ex-01
12-1026	1	Measuring unit XT50-M Ex/ATEX
12-1027	1	Measuring unit XT50-S Ex/ATEX
12-1040	2	Shaft bracket Ex/ATEX, with chain and rods
12-1161	1	Set of Rods 4x75 mm
01-0873	2	Rods 120 mm
12-1038	2	Extension chain (900 mm)
03-0824	1	Measuring tape 3 m
03-0967	1	Rod tool
03-1256	1	Battery charger (100–240 V AC)
12-0989	1	DC split cable for charging
05-0889	1	Quick manual (Note: Refers to English manual)
03-0878	1	Cleaning cloth for optics
03-0914	1	USB memory stick with documentation
12-1063	1	Carrying case
		WxHxD: 450x300x180 mm [17.7x11.8x7.1"]

(1) = Included depending on system Part No.

# Easy-Laser® XT550 Ex/ATEX Shaft

Part No: See below.

#### Intrinsically safe shaft alignment system

Easy-Laser<sup>®</sup> XT550 is designed for use in potentially explosive environments. You can choose a complete system with the zone 1 approved ECOM display unit. It has a 3 MP camera for documentation built-in. The XT Alignment app also runs on other iOS and Android units.<sup>12</sup> The measuring units are rugged and IP66/67 approved, featuring wireless technology, an integrated rechargeable battery and large 20x20 mm [0.79"x 0.79"] 1 axis TruePSD detectors and dot type laser technology. A built-in OLED display shows battery status and the angular value of the unit for easy positioning. Using high capacity rechargeable batteries the operating times are very long; 20 hours.

#### All functions are available in one app

Programs for alignment of horizontal, vertical/flange mounted machines and machine trains are included. Added to that are functions for soft foot check, thermal growth compensation and tolerance check. The XT50-M/S units allow for multipoint and continuous sweep measurements. With the Twist measurement program you easily check the base flatness. As always, Easy-Laser® comes with the very versatile Values program, which together with the dot-type laser technology adds functionality for eg. checking bearing clearance. The app has a built-in Users Manual, which opens the relevant chapter depending on where in the process you are.

Note: the system can be delivered with or without the ECOM tablet. For local purchase, find your ECOM reseller here: https://www.ecom-ex.com/company/locations/

<sup>1</sup>Please see our web site for a complete list of which tablets we recommend: easylaser.com > lifecycle support > software download

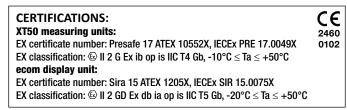
<sup>2</sup>For use in potentially explosive environments, the display device you use has to be at least approved for the same level of Ex/ATEX requirements as your work zone. Note that the XT11 isn't ATEX approved.

System without display unit, EX approved case (Part No. 12-1031) Weight complete system: Weight: 6.9 kg [15.2 lbs]

#### Examples of accessories for XT550:

- 12-0013 1 Magnet base (Note: offset bracket also needed.)
- 12-1008 1 Offset bracket for XT-series
- 12-1011 1 Magnetic bracket for XT-series
- 12-1012 1 Thin shaft bracket for XT-series
- 12-1010 1 Sliding bracket for XT-series
- 12-1161 1 Rods (4x75 mm)
- 12-0324 1 Rods (8x120 mm)
- 12-0060 1 Rods (4x240 mm)

Note: always check number of items included for each Part No. before ordering.





IR Camera is optional

Small case

System with display unit (Part No. 12-0967):

- 12-0961 1 **Display unit XT11**
- 12-0943 Measuring unit XT40-M 1
- 12-0944 Measuring unit XT40-S 1
- 12-0963 2 Shaft bracket with chain and rods
- 12-1161 Set of Rods 4x75 mm 1
- 03-0824 1 Measuring tape 3 m
- 03-0967 1 Hexagon wrench set
- Battery charger (100-240 V AC) 03-1256 1
- 12-0989 DC split cable for charging 1
- 12-0751 DC to USB adapter, for charging 1
- 12-0997 1 Shoulder strap for display unit
- 05-0833 Quick manual (Note: Refers to English manual) 1
- 03-0878 **Cleaning cloth for optics** 1
- USB memory stick with documentation 03-0914 1
- Documentation folder 12-0991 1
- 12-0973 1 Carrying case Medium Weight complete system: 7.2 kg [15.9 lbs]
  - WxHxD: 460x350x175 mm [18.1x13.8x6.9"]

#### Options for XT11: (Note! Cannot be retrofitted.)

- 12-0968 1 IR Camera added to XT11
- 12-0985 1 Camera (and LED light) removed from XT11

#### Easy-Laser® XT440 Shaft

Part No: 12-0967 (with Display unit XT11, in medium sized case) Part No: 12-0966 (without Display unit, in small case)

#### Multi-platform alignment system

Easy-Laser® XT440 is a crossover multi-platform system. The system runs on your iOS and Android unit<sup>1</sup>. You can also choose a complete system with our ergonomic and rugged, IP66/67 approved shock proof Easy-Laser® XT11 display unit. 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 with the documentation!

The measuring units are also rugged and IP66/67 approved, featuring wireless technology, an integrated rechargeable battery and large 30 mm [1.2"] TruePSD detectors. A built-in OLED display shows battery status and the angular value of the unit for easy positioning. Thanks to high capacity rechargeable batteries the operating times are very long: Display unit: 16 h, Measuring units: 24 h.

#### All functions are available in one app

Programs for alignment of both horizontal and vertical machines are included. Added to that are functions for soft foot check, thermal growth compensation and tolerance check. As always, Easy-Laser® comes with the very versatile Values program.

The app has a built-in Users Manual, which opens the relevant chapter depending on where in the process you are.

<sup>1</sup>Please see our web site for a complete list of which tablets we recommend: easylaser.com > lifecycle support > software download

Note: the system is delivered in different carrying cases depending on if the Display unit is included or not. See pictures to the left.

#### System without display unit (Part No. 12-0966):

- 12-0943 Measuring unit XT40-M 1
- 12-0944 Measuring unit XT40-S
- 12-0963 Shaft bracket with chain and rods 2
- 12-1161 Set of Rods 4x75 mm 1
- 03-0824 Measuring tape 3 m 1
- 03-0967 Hexagon wrench set 1
- 03-1256 Battery charger (100-240 V AC)
- 12-0989 DC split cable for charging
- 12-0751 DC to USB adapter, for charging
- Quick manual (Note: Refers to English manual) 05-0833 1
- 03-0878 **Cleaning cloth for optics**
- 03-0914 USB memory stick with documentation 1 12-0972
  - 1 **Carrying case Small** Weight complete system: 3.8 kg [8.4 lbs]
    - WxHxD: 335x280x130 mm [13.2x11.0x5.1"]

#### Examples of accessories for XT440:

- 12-0013 Magnet base (Note: offset bracket also needed.) 1
- 12-1008 1 Offset bracket for XT-series
- 12-1011 Magnetic bracket for XT-series 1
- 12-1012 1 Thin shaft bracket for XT-series
- 12-1010 1 Sliding bracket for XT-series
- 12-1161 Rods (4x75 mm) 1
- 12-0324 1 Rods (8x120 mm)
- 12-0060 Rods (4x240 mm) 1
- 12-1060 1 Extension chain (2x900 mm). For diameters up to 450 mm [12.7"].



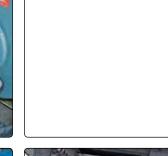






BARCODE

SYSTEM





A complete system contains: 12-0418 1 Display unit E51 12-0433 Measuring unit ES 1 12-0434 Measuring unit EM 1 12-0436 2 Wireless units 12-0022 Laser transmitter D22 1 12-0074 2 Cables 2 m Shaft bracket with chain 12-0016 2 Extension chain 12-0319 2 12-0013 Magnet base 1 Magnet base with turnable head 12-0045 1 01-1165 2 Offset bracket 12-1011 Magnetic bracket 2 Set of Rods 8x120 mm 12-0324 1 12-0059 Set of Rods 4x60 mm 1 05-0685 Manual (Note: Refers to English manual) 1 05-0486 1 Quick manual (Note: Refers to English manual) 03-0824 Measuring tape 3 m 1 USB memory stick with documentation 03-0914 1 USB cable 03-0822 1 Battery charger (100-240 V AC) 03-1243 1 03-0792 1 Toolbox 12-0495 Shoulder strap for Display unit 1 03-0878 1 **Cleaning cloth for optics** 

Carrying case

1

12-0981

Complete system: Weight: 14.8 kg [32.6 lbs] WxHxD: 550x450x210 mm [21.6x17.7x8.3"]

#### Easy-Laser<sup>®</sup> E720 Shaft/Geo Part No: 12-0955

#### The complete alignment solution

Easy-Laser<sup>®</sup> E720 gives you all the functions for shaft alignment plus the opportunity to check the machine base and any bearing play using the standard equipment. The system includes the very versatile lasertransmitter D22.

Programs for Horizontal machines, soft foot checks, Machine trains, vertical/flange mounted and cardan/offset mounted\* machines are included. Furthermore all geometry programs such as Straightness, Flatness/Twist and Parallelism measurement are included. Using accessories you can also align sheaves/pulleys with digital precision. No other system on the market can offer this flexibility!

The keys to the system flexibility and wide range of use are the measuring units with 2-axis TruePSD detectors and dual laser beams, and the laser transmitter D22. Together with the included measurement programs they make the Easy-Laser<sup>®</sup> E720 a Total Alignment Solution!

Large, clear colour screen, wireless measuring units (included as standard), long operating life and robust design give a measurement system that is both reliable and easy to use.

The measurement values can be registered with only 40° rotation of the shafts. You then align the machine "live" using the measuring units in any position around the shaft.

The display unit program is available in several different languages which facilitates use; English, German, French, Spanish, Portuguese, Swedish, Finnish, Russian, Polish, Dutch, Italian, Japanese, Korean and Chinese, Our unique Endurio<sup>™</sup> power management system gives up to 30 hours of operating time for the display unit. Expandable for more measurement applications.

The case is pre-cut for accessories: A. E290 Digital Precision Level, B. E285 Vibrometer case

\*Cardan bracket is optional equipment.

#### Examples of accessories:

- E290 Digital Precision Level 12-0846 1
- 12-1053 XT190 BTA 1
- 12-0619 Barcode reader 1
- 12-1012 1 Thin shaft bracket
- 12-1010 Sliding bracket 1
- Cardan bracket 12-0615 1
- 12-0585 Charger 12-36V 1
- 12-0617 Battery pack 1
- 12-0618 Battery pack with wireless technology 1
- 12-0597 Solitter box 1
- 12-0059 Rods (4x60 mm) 1
- 12-0324 Rods (8x120 mm) 1
- 12-0060 Rods (4x240 mm) 1
- Extension chain (2x900 mm). For diameters up to 450 mm [12.7"]. 12-1060 1





20 m / 66







#### Easy-Laser<sup>®</sup> E710 Shaft Part No: 12-0440

#### The measurement system for all stages of machine set-up

Easy-Laser<sup>®</sup> E710 gives you all the functions for shaft alignment plus the opportunity to check the machine base and any bearing play using the standard equipment! Programs for Horizontal machines, soft foot checks, Machine trains, vertical/flange mounted and cardan/offset mounted\* machines are included. Furthermore programs for Straightness, Flatness/Twist and Parallelism measurement are included. Using accessories you can also align sheaves/pulleys with digital precision. No other system on the market can offer this flexibility! The keys to the system flexibility and wide range of use are the measuring units with 2-axis TruePSD detectors, and the dual laser beams. Together with the included measurement programs they make the Easy-Laser® E710 a Total Alignment Solution!

Large, clear colour screen, wireless measuring units (included as standard), long operating life and robust design give a measurement system that is both reliable and easy to use. A clever feature is the barcode reader\*, which enters the machine dimensions with literally one swipe!

The measurement values can be registered with only 40° rotation of the shafts. You then align the machine "live" using the measuring units in any position around the shaft. The display unit program is available in several different languages which facilitates use; English, German, French, Spanish, Portuguese, Swedish, Finnish, Russian, Polish, Dutch, Italian, Japanese, Korean and Chinese. Our unique Endurio™ power management system gives up to 30 hours of operating time for the display unit. Expandable for more measurement applications.

\*Barcode reader and cardan bracket are optional equipment.

#### A complete system contains:

12-0418	1	Display unit E51
12-0433	1	Measuring unit ES
12-0434	1	Measuring unit EM
12-0436	2	Wireless units
12-0074	2	Cables 2 m
12-0016	2	Shaft bracket with chain
12-0319	2	Extension chain
12-0013	2	Magnet base
01-1165	2	Offset bracket
01-0873	4	Rods 120 mm
12-0059	1	Set of Rods 4x60 mm
05 0461	-1	Manual (Nata, Dafara ta F

- Manual (Note: Refers to English manual) 05-0461 1
- 05-0486 Quick manual (Note: Refers to English manual) 1 03-0824 Measuring tape 3 m 1
- USB memory stick with documentation 03-0914 1
- 03-0822 1 USB cable
- 03-1243 Battery charger (100-240 V AC) 1
- 03-0792 2 Toolbox
- 12-0495 1 Shoulder strap for Display unit
- 03-0878 Cleaning cloth for optics 1
- 12-0442 1 Carrying case

#### **Complete system:**

Weight: 10.0 kg [22.0 lbs] WxHxD: 500x400x200 mm [19.7x15.7x7.9"]

#### Examples of accessories:

12-1053 XT190 BTA 1 12-0619 Barcode reader 1 Magnetic bracket 12-1011 1 12-1012 Thin shaft bracket 1 12-1010 Sliding bracket 1 12-0615 Cardan bracket 1 12-0585 Charger 12-36V 12-0617 Battery pack 1 12-0618 Battery pack with wireless technology 12-0597 Solitter box 1 12-0059 Rods (4x60 mm) 1 12-0324 Rods (8x120 mm) 1 12-0060 1 Rods (4x240 mm) 12-1060 Extension chain (2x900 mm). For diameters up to 450 mm [12.7"]. 1 12-0022 Laser transmitter D22 1













Small case



Built-in battery and wireless functionality.

12-0700 1

12-0319 2

1

1

2

4

1

1

1

1

1

1

1

1

1

1

Complete system: Weight: 6.6 kg [14.5 lbs]

12-0777

12-0776

12-0016

01-0873

12-0059

05-0689

03-0824

03-0914

03-0822

03-1243

12-0989

12-0751

12-0495

12-1025

System E540-A (Part No. 12-1043):

WxHxD: 460x350x175 mm [18.1x13.8x6.9"]



#### Easy-Laser<sup>®</sup> E540 Shaft

Part No: 12-0775, E540-B (with Large case) Part No: 12-1043, E540-A (with Small case)

#### Simple and efficient shaft alignment

Easy-Laser® E540 is a very powerful shaft alignment system, with the ideal balance between performance and price. The measuring units are incredibly compact featuring wireless technology, an integrated rechargeable battery and TruePSD detectors. This means that they are easy to install on most types of machines, even where there is limited space. The wireless technology gives you full freedom of movement around the machine that is to be aligned. Start with the measuring units positioned anywhere through 360° around the shaft, then take any three readings down to 20° in-between. Then adjust the machine with the live-values in both horizontal and vertical directions. Simple and efficient! Programs included: Horizontal, Vertical, 3-Machine train, Values, Belt transmission alignment.

#### Technology that gives the best performance

The shaft alignment system has a large 5.7", bright colour display. The measuring units have TruePSD-technology, which gives unlimited resolution. Twin laser beams, twin PSDs (30 mm [1.2"]) and twin inclinometers give you superb control of the measurement in all situations. Display unit, measuring units and fixtures are all very robust for the highest accuracy in demanding industrial environments.

#### Large expansion possibilities

It is possible to connect two very useful accessories to the system. Using XT190 BTA\* you can check and align sheaves and pulleys with digital precision. With the barcode reader\* the user can save many key operations where all machine dimensions, tolerances and compensation values are entered in one single operation, and the measurement can be started directly.

\*Accessories.

#### The Large case (System E540-B) has pre-cut foam for accessories:

- A. Magnetic brackets kit
- B. Magnet bases (2 pcs)
- C. XT190 BTA (transmitter and detector)
- D. Offset brackets (2 pcs)

#### System E540-B (Part No. 12-0775):

	System			Exampl		
Display unit E52	12-0700	1	Display unit E52	12-0619	1	Barco
Measuring unit ELS40	12-0777	1	Measuring unit ELS40	12-1053	1	XT19
Measuring unit ELM40	12-0776	1	Measuring unit ELM40	12-0074	1	Cable
Shaft bracket with chain	12-0016	2	Shaft bracket with chain	12-0013	1	Magn
Extension chain	12-0319	2	Extension chain	01-1165	1	Offse
Rods 120 mm [4.72"]	01-0873	4	Rods 120 mm [4.72"]	12-1011	1	Magn
Set of Rods 4x60 mm [2.36"]	12-0059	1	Set of Rods 4x60 mm [2.36"]	12-1012	1	Thin s
Quick manual (Note: Refers to English manual)	05-0689	1	Quick manual (Note: Refers to English manual)	12-1010	1	Slidin
Measuring tape 3 m	03-0824	1	Measuring tape 3 m	12-0585	1	Charg
USB Memory stick with documentation	03-0914	1	USB Memory stick with documentation	12-0597	1	Splitt
USB cable	03-0822	1	USB cable	12-0059	1	Rods
Battery charger (100–240 V AC)	03-1243	1	Battery charger (100–240 V AC)	12-0324	1	Rods
DC charging cable	12-0989	1	DC charging cable	12-0060	1	Rods
DC to USB adapter	12-0751	1	DC to USB adapter	12-0128	1	Exten
Shoulder strap for Display unit	12-0495	1	Shoulder strap for Display unit			
Carrying case Small	12-1020	1	Carrying case Large	Note: alwa	ays	check
				included f	or c	ach Da

#### Complete system:

Weight: 7.7 kg [17.0 lbs] WxHxD: 500x400x200 mm [19.7x15.7x7.9"]

#### Example of accessories:

12-0619	1	Barcode reader
12-1053	1	XT190 BTA
12-0074	1	Cable 2 m [78.7"]
12-0013	1	Magnet base
01-1165	1	Offset bracket
12-1011	1	Magnetic bracket
12-1012	1	Thin shaft bracket
12-1010	1	Sliding bracket
12-0585	1	Charger 12–36V
12-0597	1	Splitter box
12-0059	1	Rods (4x60 mm)
12-0324	1	Rods (8x120 mm)
12-0060	1	Rods (4x240 mm)
12-0128	1	Extension chain (2x900 mm)

k number of items included for each Part No. before ordering.













#### Easy-Laser<sup>®</sup> E420 Shaft Part No: 12-0745

#### Entry level redefined!

The Easy-Laser<sup>®</sup> E420 has wireless measuring units, a large 5.7" colour display and an IP65-rated design that withstands harsh environments.

The measuring units are compact, featuring wireless technology, an integrated rechargeable battery and large 20 mm [0.78"] TruePSD detectors. This means that they are easy to install on most types of machines, even where there is limited space. The wireless technology gives you full freedom of movement around the machine that is to be aligned.

Programs for alignment of both horizontal and vertical machines are included. Added to that are functions for soft foot control, thermal growth compensation and tolerance control.

Pre-mounted units make it easy to install on the machine and the programs guide you step-by-step through the process. Start with the measuring units positioned anywhere on the shaft, recording three readings with as little as 20° of rotation between readings. Then adjust the machine with the live values, and save the measurements in the display unit memory. You can also transfer the results to the database EasyLink ™ program (included) for PC.





#### A complete system contains:

12-0748	1	Displ	ay unit	t E53

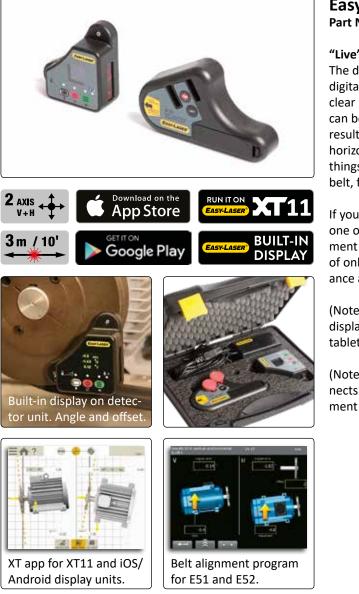
- 12-0747 1 Measuring unit ELS20 12-0746 1 Measuring unit ELM20
- 12-0016 2 Shaft bracket with chain
- 12-0319 2 Extension chain
- 01-0873 4 Rods 120 mm
- 12-0059 1 Set of Rods 4x60 mm
- 05-0640 1 Quick manual (Note: Refers to English manual)
- 03-0914 1 USB memory stick with documentation
- 03-0824 1 Measuring tape 3 m
- 12-0989 1 DC charging cable
- 12-0751 1 DC to USB adapter
- 03-1243 1 Battery charger (100–240 V AC) for Display unit
- 03-1059 1 Carrying case

#### Complete system:

Weight: 6.3 kg [13.9 lbs] WxHxD: 500x415x170 mm [19.7x16.3x6.7"]

#### Examples of accessories:

12-0013 Magnet base 1 01-1165 Offset bracket Magnetic bracket 12-1011 1 12-1012 Thin shaft bracket 1 12-1010 Sliding bracket 1 12-0619 1 Barcode reader 12-0585 Charger 12-36V 1 12-0059 Rods (4x60 mm) 1 12-0324 Rods (8x120 mm) 1 12-0060 Rods (4x240 mm) 1 Extension chain (2x900 mm) 12-0128 1



#### Easy-Laser<sup>®</sup> XT190 BTA digital Wireless Part No: 12-1053

#### "Live" digital read outs on clear OLED display

The detector reads off the position in relation to the laser plane and digitally displays the parallel and angular misalignment "live" on the clear built-in OLED display. The accuracy of the reading means that you can be within the prescribed alignment tolerances and rely upon the result. With this system there is no need to move the detector to read horizontal respectively vertical values, which saves time and makes things easier. Suitable for most types of drive, such as V-belt, timing belt, flat belt and chain drives.

If you connect the detector wirelessly to a separate display unit, e.g. one of our shaft alignment systems, you can read and follow the alignment from where you are standing and making adjustments, instead of only where the detector is mounted. Then you can also set a tolerance and document the result of the alignment.

(Note 1: The XT190 detector unit connects to both the E- and XT-series display units. You can also use it with your iOS and Android phone/ tablet. Please see our web site for compatible models.)

(Note2: There is no separate display unit included. The detector connects wireless to the E51, E52 and XT11 display units with Belt alignment program.)

#### A complete system contains:

- 12-0309 1 Laser transmitter
- 12-1054 1 Detector unit with built-in display, wireless
- 12-0394 2 Targets
- 03-1243 1 Charger (100-240 V AC) and cable
- 03-0247 1 Battery R6 (AA) 1.5 V
- 03-0914 1 USB memory stick with documentation
- 05-0865 1 Quick manual (Note: Refers to English manual)
- 12-0804 1 Carrying case

# **SHEAVE / PULLEY ALIGNMENT SYSTEMS**



3 m / 10'

#### Easy-Laser® D90 BTA Part No: 12-0415

#### For quick and easy alignment of sheaves/pulleys

Easy-Laser<sup>®</sup> D90 is installed in a few seconds, and the laser line that is projected on the targets clearly shows how to adjust the machines. The tool has targets that can be read out "visually" and which give excellent degrees of accuracy that are sufficient for most users. If, in the future, you wish to have the option of digital readouts with the corresponding advantages, you can add a digital detector (see system D150 and D160).

D90 BTA is compact and light. Suitable for most types of drive, such as V-belt, timing belt, flat belt and chain drives.



#### A complete system contains:

- 12-0309 1 Laser transmitter
- 12-0394 2 Target
- 05-0352 1 Manual
- 03-0247 1 Battery R6 (AA) 1.5 V
- 03-0591 1 Padded cover

## **VIBRATION MEASUREMENT TOOL**



#### A complete system contains:

- 12-1050 1 Vibrometer (with short tip)
- 05-0934 Quick manual 1
- 03-0914 1 USB memory stick with documentation
- 03-1336 1 Padded case

#### **XT280** Vibrometer Part No: 12-1090

#### FOR QUICK VIBRATION ANALYSIS

Easy-Laser<sup>®</sup> XT280 is an easy-to-use vibration monitoring and analysis tool that allows easy display of vibration signals. The XT280 automatically performs vibration analysis functions based on machine running speed to help diagnose faults such as unbalance, misalignment and looseness. The system is designed to enable you to take vibration measurements from assets like pumps, motors, fans and bearings. The unit displays vibration frequency plots and allows vibration severity and bearing condition to be monitored.

For documentation purpose, you can connect the XT280 to the XT Alignment App. Run the app on your phone or tablet\*, or the XT11 display unit.

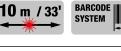
\* Please see our web site for compatible models.

#### Examples of accessories:

- 03-1327 1 Accelerometer magnet
  - 03-1326 1 Stinger (100 mm)









Pre-defined machine templates for different turbines.





Built-in battery and wireless functionality.

#### A Vestas 4 system contains:

A vesta	5 4	system contains.
12-0700	1	Display unit E52
12-0777	1	Measuring unit ELS40
12-0776	1	Measuring unit ELM40
12-0619	1	Barcode reader
01-0815	3	Plunges
01-0816	3	Plunges
01-0817	3	Plunges
01-0818	3	Plunges
01-1520	4	Centering plunges
03-0613	1	Distance gauge
03-1034	1	Extender
12-0703	1	Generator bracket
12-0718	1	Gear box bracket
12-0713	2	Bracket V112
03-0914	1	USB Memory stick
03-0822	1	USB cable
03-1243	1	Battery charger (100-240 V AC)
12-0989	1	DC charging cable
12-0751	1	DC to USB adapter
03-1004	1	Printer
01-1379	1	Protective case for Displayunit
12-0495	1	Shoulder strap for Display unit
12-0798	1	Carrying case

(Plus miscellaneous fastening items and user manual.)

#### Shaft alignment system for Vestas wind turbines

Part No: 12-0797 (Vestas 4) Part No: 12-0825 (Vestas 3)

#### For shaft alignment with the rotor locked.

Large forces are in action in a wind turbine. The safety of the maintenance technicians is therefore of the utmost importance. With the Easy-Laser<sup>®</sup> shaft alignment system the generator and gearbox can be aligned with the coupling dismounted and the brake locked. The system pictured is designed especially for one turbine manufacturer, and fits all their turbine sizes.

Using the barcode reader, you scan the appropriate tag and the correct measures for that specific machine are entered automatically. Or open the settings with the pre-defined machine templates. Quick and easy! The measurement programs are easy to learn and to use, and there are numerous options for documenting and saving the result of the work (e.g. to printer or PC).

• The Vestas 3 system has brackets for turbines V47, V52, V66, V80 2MW Mark1–7, V90 3MW.

• The Vestas 4 has additional brackets also for turbines V80 1.8MW, 2MW Mark8 and V112.

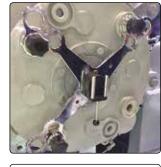
Note! The system pictured is "Vestas 4".

Price upon request.





10 m / 33'







Built-in battery and wireless functionality.

#### System 12-1113 contains:

- 12-0700 1 Display unit E52
- 01-1379 1 Protective case for display unit
- 12-0777 1 Measuring unit ELS40
- 12-0776 1 Measuring unit ELM40
- 12-0016 1 Shaft bracket with chain
- 12-0626 1 Chain 900 mm complete
- 12-0059 1 Rods Ø10x60 mm, set of 4 pcs
- 01-0873 4 Rods Ø10x120 mm
- 12-0987 1 Rods  $\oslash$ 10x120 mm, set of 4 pcs
- 12-1011 1 Magnetbracket thin
- 01-1165 1 Offset bracket
- 03-0045 1 Screw MC6S M6x16 mm 05-0689 1 Quick manual
- 05-0809 1 Manual GA1
- 03-0824 1 Measuring tape 3.0 m
- 03-0914 1 USB memory stick 2GB
- 03-0822 1 USB cable A to B 1.8 m
- 03-1243 1 Battery charger (100-240 V AC)
- 12-0750 1 DC Split cable, for charging
- 12-0751 1 DC to USB adapter, for charging
- 03-0792 1 Toolbox
- 03-0967 1 Hexagon wrench set
- 01-0048 1 Rod tightening tool, 4 mm
- 12-0495 1 Strap to display unit
- 12-1020 1 Plastic carrying case for 12-1113

Weight: 8.0 kg [17.6 lbs] WxHxD: 500x400x200 mm [19.7x15.7x7.9"]

#### System 12-1114 contains:

- 12-0975 **Detector-fixture Generator flange GA1** 1 01-1889 Adapters to Generator flange GA1 M24 2 01-1892 Adapters to Generator flange GA1 Ø40 2 01-1891 2 Adapters to Generator flange GA1 Ø31 01-1890 2 Adapters to Generator flange GA1 Ø25 Screw to Adapters L=120mm 12-0974 2 12-0712 Nut to adapters with magnet M6 2 12-0976 **Detector-fixture Gearbox flange GA1** 1 12-0977 Screw M24 for Gearbox fixture 3
- 12-0978 3 Screw M30 for Gearbox fixture
- 01-1884 3 Adapters for M24 Screw to Gearbox fixture
- 01-1885 3 Adapters for M30 Screw to Gearbox fixture
- 03-0613 1 Distance Gauge (coupling flanges), incl. adapter
- 03-1034 2 Ext. adapter distances gauge
- 12-1116 1 Plastic carrying case for 12-1114

Weight: 17.0 kg [37.5 lbs] WxHxD: 565x455x210 mm [22.2x17.9x8.2"]

35

Shaft alignment system GA1 for wind turbines

Part No: 12-1118 (Includes 12-1113+12-1114)

#### For shaft alignment with the rotor locked.

Large forces are in action in a wind turbine. The safety of the maintenance technicians is therefore of the utmost importance. With the Easy-Laser® shaft alignment system the generator and gearbox can be aligned with the coupling dismounted or in place. This system is designed especially for Gamesa turbines, and fits all their turbine sizes. The measurement programs are easy to learn and to use, and there are numerous options for documenting and saving the result of the work.

#### NOTE:

Complete system GA1, Part No. 12-1118 consist of Part No. 12-1113+12-1114, but still come in two separate carrying cases. 12-1113 and 12-1114 also sold separately.

12-1118

Prices upon request.

 12-1113
 12-1114

	E980   E975   E970   E960   E950   E940   E930   E920   E720					٦
C. C	E710					
	E513   E510     E540		_			
10	E420	-				
100		Ţ	Ţ	Ļ	↓	↓
	HORIZONTAL 9-12-3	•	•		•	
Q	SOFT FOOT				•	•
	EASYTURN™	•	•		•	•
	MULTIPOINT HORIZONTAL SHAFT				•	•
<b>-</b>					•	•
7					•	•
	MACHINE TRAIN				•	•
<b>+13</b> +	MACHINE TRAIN (3 MACHINES)		•			
	OFFSET AND ANGLE				•	•
V 0.00 H 0.00	VALUES (Digital Dial Indicator)	•	•	•	•	•
00	BELT TRANSMISSION ALIGNMENT		•		•	•
-	STRAIGHTNESS 1-point				•	•
$\bigcirc$	STRAIGHTNESS 2-point (Centre of Circle)					•
$\bigcirc$	STRAIGHTNESS 4-point					•
	STRAIGHTNESS Multipoint					•
$\bigcirc$	STRAIGHTNESS 3-point (Half circle)					•
0						•
F	SPINDLE DIRECTION					•
	SQUARENESS					•
	FLATNESS				•	•
	TWIST				•	•
Ø	FLANGE FLATNESS			•	•	•
	FLANGE PARALLELISM			•		•
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XT770   XT70-M/S   -					Г
	RUN IT ON XT11 Download on the App Store Geogle Play XT550   XT50-M/S   XT50   XT50   XT50-M/S				
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	XT440   XT40-M/S   -	٦			
	HORIZONTAL 9-12-3				
	MACHINE TRAIN (UNLIMITED)		•		•
-11311-	MACHINE TRAIN (3 MACHINES/2 COUPLINGS)		•	•	•
Q	SOFT FOOT	•	•	•	•
	EASYTURN™	•	•	•	•
۲	MULTIPOINT HORIZONTAL SHAFT		•	•	•
A REAL PROPERTY AND A REAL	CONTINUOUS SWEEP HORIZONTAL SHAFT		•	•	•
۲	WIDE LIVE Allows for live adjustment at larger angles, vertically and horizontally separately.	•	•	•	•
	<b>360 LIVE</b> Allows for live adjustment at any position, in both directions simultaneously.				•
Ţ	VERTICAL/FLANGE MOUNTED	•	•	•	•
7	CARDAN/OFFSET MOUNTED (NOTE: Requires the Cardan bracket kit.)				•
V 0.00 H 0.00	VALUES (Digital Dial Indicator)	•	•	•	•
	<b>TWIST</b> Check base twist and flatness with the M and S measuring units.		•	•	•
<mark>/</mark>	<b>BASIC FLATNESS</b> Measure two rows of points, 2 to 8 at each. To be used with separate laser transmitter like the D22.				•
	EASYTREND™ Monitor and record machine movement over time.				•
00	BELT TRANSMISSION ALIGNMENT (NOTE: The Belt alignment program requires XT190 BTA.)	•	•	•	•
~~~	VIBRATION MEASUREMENT (NOTE: The Vibration measurement program requires XT280 VIB.)	•	•	•	•
	<b>ONE FREE APP</b> All measurement programs in one app. Available functionality based on which measuring unit is connected.	•	•	•	•
	SHARE FILES Share via email directly from your display unit.	•	•	•	•
?	<b>BUILT-IN HELP</b> Searchable Users Manual which opens the relevant chapter depending where in the process you are.	•	•	•	•
	MULTI-LINGUAL The XT Alignment App is available in multiple languages: en / de / sv / es / pt / ru / ja / ko / zh / it / fr / pl	•	•	•	•
<b></b>	DOT LASER TECHNOLOGY – 2 AXIS				•
•	DOT LASER TECHNOLOGY – 1 AXIS		•	•	
	LINE LASER TECHNOLOGY	•			

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# EASYLINK<sup>™</sup> PROGRAM

With EasyLink<sup>™</sup> 3.0 you can save and organise all your measurements in one place, produce reports with both data and images and export to your maintenance systems. You can customise what your Excel reports should look like and what data should be visible and where it should be positioned. The program has a clear folder structure, where you drag and drop files from the display unit to the database, or vice versa if you wish to prepare a measurement before going out into the field to take measurements. Create your own structure with folders for manufacturer, department or machine type for example. With everything in one location you have a better overview of what actions have been carried out. The database can also be located on a common server and shared with other users. For extra safety you can use EasyLink<sup>™</sup> to make backups of what you have saved in the E-series' display unit. You can also simulate adjustments and test corrective actions in the program without any risk of losing the original data.

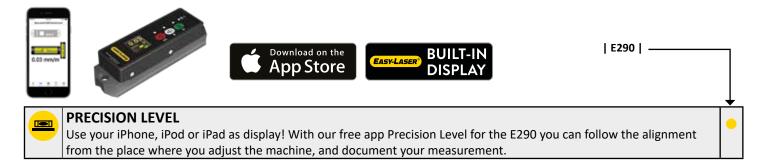


The program is supplied with all our measurement systems, but can also be downloaded by anyone for free.

System requirements: Windows<sup>®</sup> XP, Vista, 7, 8, 10. For the export function, Excel 2003 or newer must also be installed on the computer. EasyLink<sup>™</sup> 3.0 functions with both the D and E series in Easy-Laser<sup>®</sup>. Not with the XT series. Export formats: Excel, XML.

Download the program free of charge from www.easylaser.com.

# Easy-Laser® Precision Level App for E290



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I XT

I E I



#### XT11 – Display unit for Generation XT Part No: 12-0961

**Description:** Wireless display unit for Generation XT. Rugged design, shock proof, IP66 and IP67. Glove enabled touch screen. Water and dust proof connectors: USB A, USB B, HDMI, Charger.

Options: IR Camera (Part No. 12-0968), Camera removed for security reasons (Part No. 12-0985).

**Note:** Options cannot be retrofitted. Not approved for Ex/ATEX areas.



# ECOM Tab-Ex<sup>®</sup> – Display unit for Generation XT Intrinsically safe, EX/ATEX approved

Part No: 12-1086

**Description:** Wireless display unit for Generation XT, especially the XT50-M/S Ex/ATEX approved shaft alignment measuring units. Rugged design, with glove enabled touch screen.

**Note:** For more detailed information, please see the ecom web site: https://www.ecom-ex.com





#### Display unit E-series: E51 Part No: 12-0418

**Description:** Available in different measurement program configurations. Which programs are available depends on in which system the display unit is included. Connectors: USB A, USB B, Easy-Laser<sup>®</sup> equipment, Charger.

**Note:** Dust and splash guard for connectors open on picture to the right. The look of the display unit keyboard can vary depending on market.





#### Display unit E-series: E52 Part No: 12-0700

**Description:** Available in different measurement program configurations. Which programs are available depends on in which system the display unit is included. Connectors: USB A, USB B, Easy-Laser<sup>®</sup> equipment, charger.

**Note:** Dust and splash guard for connectors removed on upper right picture.

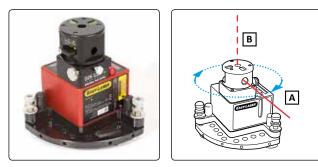


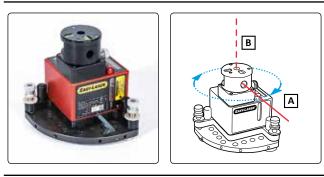


#### Display unit E-series: E53 Part No: 12-0748

**Description:** All wireless display unit for shaft alignment system. The unit can temporarily power measuring units ELS20/ELM20 via the USB connector as backup. Connectors: USB A, charger.

**Note:** Dust and splash guard for connectors removed on upper right picture. No connector for "red cable" equipment.





#### Laser transmitter D26 Swivel Part No: 12-1064

**Description:** Laser transmitter D26 can be used to measure flatness, straightness, squareness and parallelism. Mainly for use in machine tool applications. The laser beam can sweep 360° with a measurement distance of up to 30 metres [100'] in radius. For specifications, please see *Technical specifications* at the end of this catalogue. **Note:** Option A. The laser beam is used for a 360° sweep.

Option B. The laser beam is angled at 90° to the sweep.

# Laser transmitter D22 Swivel

#### Part No: 12-0022

**Description:** Laser transmitter D22 can be used to measure flatness, straightness, squareness and parallelism. The laser beam can sweep 360° with a measurement distance of up to 40 metres [130′] in radius. For specifications, please see *Technical specifications* at the end of this catalogue.

**Note:** Option A. The laser beam is used for a 360° sweep. Option B. The laser beam is angled at 90° to the sweep.

#### Laser transmitter D23 Spin Part No: 12-0168

**Description:** Laser transmitter D23 has a motor driven, rotating head that gives a 360° laser plane. Because the laser beam sweeps across the surface you do not need to align the beam for every detector position. Tilt table included.

Measurement distance up to 20 metres [65'] in radius. **Note:** A. The laser beam is used for a 360° sweep.



Α

#### Laser transmitter D146 Spindle Part No: 12-0146

**Description:** For measuring spindle direction and straightness. Can be used in a rotating spindle (max. 2000 rpm). Measurement distance 20 metres [65']. Mounting pin  $\emptyset$ 20 mm [0.79"].

**Note:** A. An extra mounting pin (Part No. 12-0568) can be fitted at the laser aperture side (A), making it possible to align, for example, bar feeders. (Be aware that the standard mounting pin displayed on the left image cannot be detached from the transmitter.)





# Laser transmitter D75

Part No: 12-0075

**Description:** For measuring straightness and spindle direction. M6 threads on ends and sides offer alternative mounting options. Measurement distance 40 m [130'].

Note: With tilting screws for laser beam adjustment.





# Laser transmitter D25

#### Part No: 12-0594

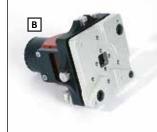
**Description:** For measuring straightness primarily in turbine applications. Measurement distance 40 m [130']. The laser beam can sweep 360°, and can be angled 90° to the sweep.

**Note:** Battery adaptor included. Brackets, arms and/or offset hub may also be needed, but are not included. See also 12-0706.

Option A. The laser beam is used for a 360° sweep.

Option B. The laser beam is angled at 90° to the sweep.





#### Laser transmitter D25 with offset hub Part No: 12-0706

**Description:** For measuring straightness primarily in turbine applications. Measurement distance 40 m [130']. The laser beam can be angled 90° to the sweep, within 0.01 mm/m [0.5 mils/INCH]. **Note:** Battery adaptor (not pictured) and offset hub included. Brackets/arms may also be needed, but are not included. See also 12-0594. A. Transmitter mounted to point laser through hub.

B. Transmitter mounted to point laser in opposite direction.

#### Laser transmitter E30 Long Range Part No: 12-0823

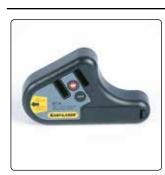
**Description:** For measuring straightness on long distances. Measurement distance 100 m [328'] with a 20 mm PSD, >200 m [656'] with 30 mm PSD. M6 threads on front and bottom offer alternative mounting options. Built-in rechargeable battery and Oled display. **Note:** Coordinate table or tilt table needed for accurate functionality. No charger or bracketing included (compare with Part No. 12-0858).





#### Laser transmitter E30 Long Range, with tilt table Part No: 12-0858

**Description:** For measuring straightness on long distances. Measurement distance 100 m [328'] with a 20 mm PSD, >200 m [656'] with 30 mm PSD. M6 threads on front and bottom offer alternative mounting options. Built-in rechargeable battery and Oled display. **Note:** With tilt table (12-0864), which can be used with magnets or mounted on tripod, Battery charger 100–240 V AC (03-1243), USB memory stick with documentation, and Carrying case (12-0872).





#### Laser transmitter for sheave alignment systems Part No: 12-0309

**Description:** Laser transmitter producing a laser line parallel to the object it is mounted to.

**Note:** Only transmitter as pictured, no targets included. (Complete system, see Part No. 12-0415 and 12-1053.)





# **Detector E9, 2-axis PSD**

#### Part No: 12-0759

Description: Detector diameter 45 mm [1.77"]. 2 axis PSD, 20x20 mm [0.79"x0.79"]. Built-in 360° electronic inclinometer. Built-in wireless communication and rechargeable battery. There is also a connector on the back side for standard "red cable" (charging and data transfer). Mounting threads on both ends, for tube adapters (01-0777) or other suitable brackets (e.g. 12-0767 and 12-0553). Note: Make sure you have a suitable bracket!

### Detector E7H, HyperPSD™

#### Part No: 12-0824

Description: Detector for the E-series. 2 axis PSD, 20x20 mm [0.79"x0.79"]. With HyperPSD<sup>™</sup> technology, which allows for a displayed resolution of 0.0001 mm [0.000005"/0.005 mils]. Built-in 360° electronic inclinometer. Two connectors for making it possible to connect two detectors or more in series. Normally mounted on rods, but has many additional mounting possibilities thanks to threads on two sides. Note: Optimised for fixed laser/does not detect a spinning laser.





# **Detector E7**

Part No: 12-0752

Description: Detector for the E-series. 2 axis PSD, 20x20 mm [0.79"x0.79"]. Built-in 360° electronic inclinometer. Two connectors for making it possible to connect two detectors or more in series. Normally mounted on rods, but has many additional mounting possibilities thanks to threads on two sides.

Note: Optimised for fixed point laser/does not detect a spinning laser.





# **Detector E5**

Part No: 12-0509

Description: Detector for the E-series. 2 axis PSD, 20x20 mm [0.79"x0.79"]. Built-in 360° electronic inclinometer. Two connectors for making it possible to connect two detectors or more in series. Normally mounted on rods, but has many additional mounting possibilities thanks to threads on two sides.

Note: With Dual Detection Technology, making it possible to read both fixed point laser and spinning laser, but is optimised for spinning laser.





# **Detector E3**

Part No: 12-0799

Description: Detector for the E-series. 2 axis PSD, 30x30 mm [1.18"x1.18"]. Built-in wireless communication. Battery status indicator. Built-in 360° electronic inclinometer. One connector on top side. Normally mounted on rods, but also has additional mounting threads on back side.

Note: Target/Dust cover for PSD included. Does not detect a spinning laser.





#### Angle detector E2 Part No: 12-0845

**Description:** Detector for angle measurements, e.g. roll parallelism measurement. Built-in OLED display and rechargeable battery. Note: The E2 detector reads angles, not positions. This means that if you want to take full advantage of the measurement program package of some geometric systems, you will also need a positional detector like e.g. the E7.

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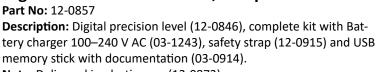
#### **Digital Precision Level E290** Part No: 12-0846

Description: Digital precision level. Built-in OLED display and rechargeable battery.

Note: For complete kit, see Part No. 12-0857 below.







Note: Delivered in plastic case (12-0873).



#### **Roll alignment kit** Part No: 12-0856

Description: Includes roll bracket (12-0849), detector E2 (12-0845), digital level E290 (12-0846), adapter plate (12-0874), charger (03-1243), DC charging cable (12-0989), DC to USB adapter (12-0751), USB memory stick with documentation (03-0914). Note: Delivered in plastic case (12-0871). As standard for roll diameters up to 400 mm. For larger roll diameters, please see Part No.

12-0885, Large Roll Kit.





#### **XT & E-series wireless Detector for belt alignment** Part No: 12-1054

Description: Detector that reads off the sheaves position in two directions (horizontal+vertical) at the same time. With built-in display showing offset and angular values. Note: Laser transmitter also needed. Note: Also for wireless connection to separate display units E51 and E52 which have the BTA digital program. Or connect it to the XT Alignment App on your iOS/Android display, or Easy-Laser XT11. A. Super magnets x 4, for attachment to sheave side.





#### Measuring unit EMH, PSD 20x20 mm Part No: 12-0790

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 20x20 mm [0.79″x0.79″]. With HyperPSD™ technology, which allows for a displayed resolution of 0.0001 mm [0.000005″/0.005 mils]. **Note:** To be used in pair with S unit 12-0789. E-series measuring unit.





#### Measuring unit ESH, PSD 20x20 mm Part No: 12-0789

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 20x20 mm [0.79″x0.79″]. With HyperPSD<sup>™</sup> technology, which allows for a displayed resolution of 0.0001 mm [0.000005″/0.005 mils]. **Note:** To be used in pair with M unit 12-0790. E-series measuring unit.





# Measuring unit EM, PSD 20x20 mm Part No: 12-0434

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 20x20 mm [0.79"x0.79"].

Note: To be used in pair with S unit 12-0433. E-series measuring unit.





#### Measuring unit ES, PSD 20x20 mm Part No: 12-0433

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 20x20 mm [0.79"x0.79"].

Note: To be used in pair with M unit 12-0434. E-series measuring unit.





#### Measuring unit ELM40, PSD 30 mm Part No: 12-0776

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. Battery status indicator. Built-in electronic 360° inclinometer. For shaft alignment. PSD 30 mm [1.18"]. **Note:** To be used in pair with S unit 12-0777. E-series measuring unit.





#### Measuring unit ELS40, PSD 30 mm Part No: 12-0777

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. Battery status indicator. Built-in electronic 360° inclinometer. For shaft alignment. PSD 30 mm [1.18"]. **Note:** To be used in pair with M unit 12-0776. E-series measuring unit.

#### **MEASURING UNITS**





#### Measuring unit ELM20, PSD 20 mm Part No: 12-0746

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. Battery status indicator. Built-in electronic 360° inclinometer. For shaft alignment. 1 axis PSD 20 mm [0.79"]. **Note:** To be used in pair with S unit 12-0747. E-series measuring unit.





#### Measuring unit ELS20, PSD 20 mm Part No: 12-0747

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. Battery status indicator. Built-in electronic 360° inclinometer. For shaft alignment. 1 axis PSD 20 mm [0.79″]. **Note:** To be used in pair with M unit 12-0746. E-series measuring unit.





#### Measuring unit XT40-M, line laser, PSD 30 mm Part No: 12-0943

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. OLED display shows battery status and angle of the unit on shaft. Built-in electronic 360° inclinometer. For shaft alignment. 1 axis PSD 30 mm [1.18″].

Note: To be used in pair with S unit 12-0944. XT-series measuring unit.





#### Measuring unit XT40-S, line laser, PSD 30 mm Part No: 12-0944

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. OLED display shows battery status and angle of the unit on shaft. Built-in electronic 360° inclinometer. For shaft alignment. 1 axis PSD 30 mm [1.18″].

**Note:** To be used in pair with M unit 12-0943. XT-series measuring unit.





#### Measuring unit XT60-M, dot laser, PSD 20x20 mm Part No: 12-1028

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. OLED display shows battery status and angle of the unit on shaft. Built-in electronic 360° inclinometer. For shaft alignment. 1 axis PSD 20x20 mm [0.79x0.79"].

Note: To be used in pair with S unit 12-1029. XT-series measuring unit.





#### Measuring unit XT60-S, dot laser, PSD 20x20 mm Part No: 12-1029

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. OLED display shows battery status and angle of the unit on shaft. Built-in electronic 360° inclinometer. For shaft alignment. 1 axis PSD 20x20 mm [0.79x0.79"].

**Note:** To be used in pair with M unit 12-1028. XT-series measuring unit.









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# Measuring unit XT50-M, EX/ATEX, dot laser, PSD 20x20 mm

#### Part No: 12-1026

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. OLED display shows battery status and angle of the unit on shaft. Built-in electronic 360° inclinometer. For shaft alignment. 1 axis PSD 20x20 mm [0.79x0.79"].

**Note:** Intrinsically safe design. To be used in pair with S unit 12-1027. XT-series measuring unit.

# Measuring unit XT50-S, Ex/ATEX, dot laser, PSD 20x20 mm

#### Part No: 12-1027

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. OLED display shows battery status and angle of the unit on shaft. Built-in electronic 360° inclinometer. For shaft alignment. 1 axis PSD 20x20 mm [0.79x0.79"].

**Note:** Intrinsically safe design. To be used in pair with M unit 12-1026. XT-series measuring unit.

# Measuring unit XT70-M, dot laser, PSD 20x20 mm, 2-axis

#### Part No: 12-1045

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. OLED display shows battery status and angle of the unit on shaft. Built-in electronic 360° inclinometer. For shaft alignment. 2 axis PSD 20x20 mm [0.79x0.79″].

**Note:** To be used in pair with S unit 12-1046. XT-series measuring unit.





# Measuring unit XT70-S, dot laser, PSD 20x20 mm, 2-axis

#### Part No: 12-1046

**Description:** Laser diode and PSD detector in one housing. Built-in wireless communication. OLED display shows battery status and angle of the unit on shaft. Built-in electronic 360° inclinometer. For shaft alignment. 2 axis PSD 20x20 mm [0.79x0.79"].

Note: To be used in pair with M unit 12-1045. XT-series measuring unit.





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#### Magnet base Part No: 12-0013

**Description:** Versatile magnet base with On/Off function and many optional rod mounting possibilities. Holding power 800N. **Note:** Three sides are magnetic. \*For use with XT-series offset bracket 12-1008 is also needed.

### Magnet base with turnable head

Part No: 12-0045 Description: Versatile magnet base with On/Off function and 360° turnable head with two rod mounting possibilities. Note: \*For use with XT-series offset bracket 12-1008 is also needed.





#### Magnet base with turnable head Part No: 12-1133

**Description:** Versatile magnet base with On/Off function and 360° turnable head with two rod mounting possibilities, for both C–C40 mm and C–C56 mm. It has a screw and washer with which you can lock the top rotation, and therefore still use it for jobs like shaft alignment. **Note:** -





#### Tilt table with magnet base Part No: 12-0742

**Description:** Tilt table for use with an ES-unit as transmitter, e.g. with the Twist measurement program. This tilt table simplifies and makes the rough alignment of the laser beam quicker. Use the EM-unit as detector, mounted on a regular magnet base. **Note:** Magnet base and rods included as pictured.

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#### Rotating detector bracket for rods Part No: 12-0169 Description: Allows for 360° swivel. Note: -



Small magnet base with turnable head Part No: 12-0696 Description: With On/Off function and 360° turnable head. Note: Includes 2 rods 60 mm [2.36"].





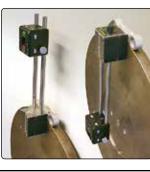
Magnet base with linear digital scale Part No: 12-0230 Description: -Note: The length of the linear guide can be adapted. Detector not included.





Height adjustment bracket for detector Part No: 12-0937 Description: For fine adjustment of detector on rods. Note: -





Radial support for magnet base Part No: 12-0508 Description: Can be used for supporting the magnet base in many different ways. Makes it easier to position the detector correctly. Especially useful on flywheels. Note: -





Magnet base with adapter for D550 Part No: 12-0579 Description: For e.g. straightness measurement with the D550 measuring units. Note: Magnet base, adapter, screws and two rods 140 mm included.





Pointing bracket on magnet base Part No: 12-0583 Description: For wind tower flanges. Makes it possible to measure near the edge of a surface. Note: Probe does not touch surface. Rods and detector not included.







#### Magnetic bracket Part No: 12-1011 Description: For axial mounting on flanges or shat

**Description:** For axial mounting on flanges or shafts. With M6 screws working as radial supports, and four super magnets. **Note:** -





#### Magnetic brackets and rods, kit Part No: 12-1017

Part No: 12-1017 Description: 2 magnetic brackets and 4pcs rods 120 mm [4.72"] in small case. Note: -





## V-bracket with chain

#### Part No: 12-0016

**Description:** For mounting on shaft or coupling. The V-bracket fits shafts with diameters 20–450 mm [0.8–17.7"]. The standard chain included can be used on shaft diameters up to 150 mm [6"]. Bracket width 18 mm [0.7"].

**Note:** Extension chains available for shafts larger than diameter 150 mm [6"]. Does not fit the XT series.





# V-bracket with chain and rods

Part No: 12-0963

**Description:** For mounting on shaft or coupling. The V-bracket fits shafts with diameters 20–450 mm [0.8–17.7"]. The standard chain included can be used on shaft diameters up to 150 mm [6"]. Chain is pre-mounted. Bracket width 18 mm [0.7"].

**Note:** Only for XT series. 2 pcs rods 120 mm [4.72"] included. Extension chains available [Part No. 12-1060] for shafts larger than diameter 150 mm [6"].





#### Standard chains Part No: 12-0625

**Description:** Standard chains for shaft alignment brackets. **Note:** 2 pcs. Includes plastic box.



FIXT



#### Extension chain, set Part No: 12-0128 Description: For standard chains. For

**Description:** For standard chains. For shaft diameters 150–450 mm [5.9–17.7"].

**Note:** 2 pcs. included, with plastic box. This one fits best in the system cases for E420 and D-series.





#### Extension chain, set Part No: 12-1060

**Description:** For standard chains. For shaft diameters 150–450 mm [5.9–17.7"].

**Note:** 2 pcs. included, with plastic box. This one fits best in XT and E system cases, except E420.

#### Easy-Laser® Product overview

#### **BRACKETS AND MISCELLANEOUS PRODUCTS**





#### Thin chain bracket Part No: 12-1012

**Description:** For use for example when the space between coupling and machine is limited. Width: 12 mm [0.5"]. For shaft diameters 20–450 mm [0.8–17.7"].

**Note:** Includes thin chain and tightening tool. Photos show old threadings, but are otherwise correct.



# Shaft bracket with chain, stainless steel

Part No: 12-0337 Description: Bracket mainly for use with the D550 system which has a rod C–C of 70 mm. Pre-mounted chain and rods. For shaft diameters 20–150 mm [0.8–5.9"]. Note: -



# Extension chain, stainless steel

Part No: 12-0363 Description: For use together with 12-0337. For shaft diameters 150– 320 mm [5.9–12.6"]. Two extension chains: –500 mm [–19.6"] Note: 1 pc. included. Does not fit with standard chains.





# Offset bracket

D550

Part No: 01-1165
Description: Allows axial displacement between measuring units to be able to rotate past projecting machine parts. For both E and D series.
Note: 2 screws M6x16 also needed (Part No. 03-0045). V-bracket and rods not included.

DEXT





# Offset bracket

Part No: 12-1008

**Description:** Allows axial displacement between measuring units to be able to rotate past projecting machine parts. Also works as a converter between rod C–C 40 mm (D and E series) and C–C 56 mm (XT series) so older brackets can be used.

Note: 2 screws M6x16 included.





#### DM Bracket, complete set Part No: 12-1130

**Description:** For measuring dynamic movements. Includes 2 pcs DM brackets, 4 pcs mounting plates, glue Locktite 4070, 4 pcs screw M6x20, hexagon wrench 5 mm. Delivered in plastic case. **Note:** -





#### **DM Bracket** Part No: 12-1125 Description: For measuring dynamic movements. For complete set, please see Part No. 12-1130 instead.

Note: Measuring unit not included.





# DM Bracket extension

Part No: 12-1129 Description: Extension for bracket 12-1125. For complete set, please see Part No. 12-1130 instead. Note: Parts included as pictured on leftmost picture.

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# Sliding bracket

Part No: 12-1010

**Description:** For shaft alignment. The spherical feet can be placed in two different positions for adaption to small or large shaft diameters. Min./Max. diameters 90–600 mm [3.5–23.6"].

Used when the shafts cannot be rotated. Mounted with standard chains (not included).

Note: Photos show old threadings, but are otherwise correct.





#### Sliding bracket with magnets Part No: 12-0303

**Description:** The spherical feet can be placed in two different positions for adaption to small or large shaft diameters. With attachment magnets. Can also be mounted with standard chains (not included). **Note:** -







#### Sliding bracket with magnets and probe Part No: 12-0138

**Description:** For plumb measurement of e.g. generator shafts. The spherical feet can be placed in two different positions for adaption to small or large shaft diameters. With attachment magnets. Can also be mounted with standard chains (not included). **Note:** -





#### Sliding bracket with turnable head Part No: 12-0137

**Description:** For roll parallelism measurement. The spherical feet can be placed in two different positions for adaption to small or large roll diameters. With attachment magnets. Can also be mounted with standard chains (not included).

Note: -



**Cardan bracket set** Part No: 12-0125 **Description:** For alignment of cardan/offset mounted machines. Offset range 0–900 mm. **Note:** Delivered in plastic case. For D-series.



**Cardan bracket set** Part No: 12-0615 **Description:** For alignment of cardan/offset mounted machines. Offset range 0–900 mm. **Note:** Delivered in plastic case. For E-series.





Cardan bracket set Part No: 12-1151

**Description:** For alignment of cardan/offset mounted machines. Offset range 0–900 mm.

**Note:** Delivered in plastic carrying case. For XT- and E-series. Please see rightmost picture for example of attachment for E or XT unit.



Rod, 30 mm [1.18"] Part No: 01-0938 Description: Stainless steel. Diameter 10 mm. Extendable. Note: 1 pcs.



# Rods, 60 mm [2.36"]

Part No: 12-0059 Description: Stainless steel. Diameter 10 mm. Extendable. Plastic holder included. Note: 4 pcs.



Rods, 75 mm [2.95"] Part No: 12-1161 Description: Stainless steel. Diameter 10 mm. Extendable. Plastic holder included. Note: 4 pcs.



Rods, 120 mm [4.72"] Part No: 12-0987 Description: Stainless steel. Diameter 10 mm. Extendable. Plastic holder included. Note: 4 pcs.



Rods, 120 mm [4.72"] Part No: 12-0324 Description: Stainless steel. Diameter 10 mm. Extendable. Plastic holder included. Note: 8 pcs.



Rods, 240 mm [9.44"] Part No: 12-0060 Description: Stainless steel. Diameter 10 mm. Extendable. Plastic holder included. Note: 4 pcs.





#### Tube adapters for detector D157 and E9 Part No: 01-0777

**Description:** Adapters mainly for mounting of detector when used for extruder measurements.

**Note:** Manufactured on request to your specified diameter up to 250 mm. 2 pcs included. Includes items as pictured leftmost.





#### Tube adapters with metal points Part No: -

**Description:** Adapters mainly for mounting of detector D157, E8 or E9 and used for extruder measurements. With metal points of your choice and adapted for your application.

**Note:** Manufactured on request to your specified diameter. 2 pcs included.



#### Large extruder adapter/bracket Part No: -

**Description:** Adapters mainly for mounting of detector D157/E9 and used for extruder measurements.

**Note:** Manufactured on request to your specified diameter, from 250 mm and upwards.



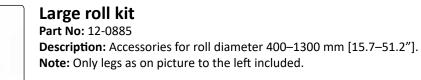
Roll bracket Part No: 12-0849 Description: For use with detector E2 and precision level E290 when aligning rolls. Note: -



### Angle bracket

Part No: 01-1768 Description: For use with roll bracket 12-0849. Note: -









Extension Kit for E290 for large diameters Part No: 12-0901 Description: For using the E290 Precision Level on diameters 55–800+ mm [2.16–31.50+ "]. Note: Includes 2 legs, 4 magnets and mounting screws.



#### Slide bracket Width 25 mm [0.99"] Part No: 12-0768

**Description:** Bracket for straightness measurement of bores with a width of down to 25 mm [0.99"]. For bores Ø80– mm [3.15"–]. Magnetic feet holds the bracket safely also upside down. With positioning guide (extended on picture to the right). Guide can be removed. **Note:** Designed to fit with rod adapter 12-0767 and detectors E8/E9. If used with other detectors and adapters, it is those which determines the minimum measurable diameter.





# Rod adapter with built in target

Part No: 12-0767

**Description:** For detector E8/E9. With slidable target. For mounting of the detector on regular rods with 40 mm centre-to-centre distance. Can be used on Slide bracket 12-0768 or any other suitable bracket. **Note:** Detector not included.



Slide bracket min. Ø100 mm [3.94"] Part No: 12-0343 Description: For bore straightness measurement. Hard anodised surface. For bores Ø100–200 mm [3.94"–7,88"]. Note: -



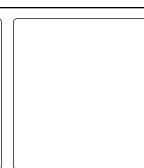


Slide bracket min. Ø120 mm [4.72"] Part No: 12-0455 Description: For bore straightness measurement. With magnetic feet. For bores Ø120–250 mm [4.72"–9.84"], width Min. 60 mm [2.36"]. Note: -

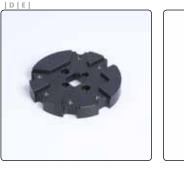


#### Slide bracket min. Ø200 [7.87"] Part No: 12-0543 Description: For bore straightness measurement. With magnetic feet. For bores Ø200–350 mm [7.87"–13.78"], width Min. 80 mm [3.15"]. Note: -





#### Slide bracket min. Ø300 mm [11.81"] Part No: 12-0510 Description: For bore straightness measurement. With magnetic feet. For bores Ø300–500 mm [11.81"–19.68"], width Min. 100 mm [3.94"]. Note: -





#### Bore bracket adapter plate Part No: 12-0553

**Description:** Bracket for use with detector D5, D157 or E9. **Note:** Detector and arm set not included. Suitable Arm set is Part No. 12-0314. Detector D5 and D157 is discontinued.





#### Rod adapter for D157 Part No: 12-0320

**Description:** For mounting of detector D157 on standard rods. **Note:** Includes items as pictured leftmost (adapter, hexagon wrench and screws). Magnet base, rods and detector not included.





#### Detector arms Linebore Part No: 12-0314

DIE

**Description:** For bracket 12-0553. For bores  $\emptyset$ 100–500 mm [3.94"–19.68"], with the possibility to use the longest three arms as extension arms.

**Note:** Also includes Foot set 12-0134 and 12-0143 (the rightmost picture).



Foot set for linebore arms Part No: 12-0134 Description: For use with linebore detector arms. Included in 12-0314. Note: -



#### Foot set for Ø100–150 mm Part No: 12-0143

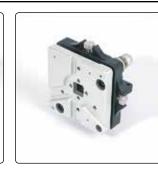
Part No: 12-0143 Description: For use with linebore detector 12-0032 and bracket 12-0553. Included in 12-0314. Note: -





#### Offset hub with counterlock Part No: 12-0661 Description: For laser transmitter 12-0075. Note: -

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Offset hub with counterlock and tilt function Part No: 12-0537 Description: For laser transmitter 12-0594. Note: -





# Offset hub with counterlock and tilt function for transmitter E30 Part No: 12-0828

Part No: 12-0828 Description: For laser transmitter E30, Part No. 12-0823. Note: -





#### Pin for hub Part No: 12-1039

**Description:** This pin is mounted on the hubs 12-0661, 12-0537 or 12-0828. The hub can then be mounted in a machine spindle or similar. Clamping diameter 20 mm [0.79"]. The pin is hollow so laser beam can be pointed also through it.

Note: 4 screws M5x8 also included.



#### Arm kit with magnets Part No: 12-0707 Description: For offset hub 12-

**Description:** For offset hub 12-0661 and 12-0537. Arms for bores Ø100–500 mm [3.94–19.68"]. **Note:** -



#### Offset hub arms

Part No: 12-0384 Description: For offset hub 12-0661 and 12-0537. For bores Ø100–500 mm [3.94–19.68"]. Also includes centering plug. Note: -



#### **Extension arms Linebore Part No:** 12-0282 **Description:** For extension of the Linebore offset hub arms. For bores

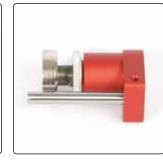
Linebore offset hub arms. For bores Ø500–1000 mm [19.68–39.36"] Note: -



# Magnets for offset hub

arms Part No: 12-0154 Description: For arms 12-0384. With plastic holder. Note: -





# Adjustable magnet for offset hub arms Part No: 12-0990

**Description:** To use when the mounting surfaces for the hub arms aren't in same level. Adjustable 0–14mm [0–0.55"] compared to standard magnet level.

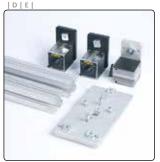






#### Axial extension arms, Linebore Part No: 12-0580

**Description:** Used for making it possible to reach the Linebore detector from the same side of the bore as the transmitter. **Note:** 3 arms with magnets etc. as pictured on the left picture.





#### Laser transmitter bracket Turbine/Bore alignment Part No: 12-0385

**Description:** For use with offset hub 12-0661 and laser transmitter D75. Included in system E950-B, E960-A, E960-B. 2 aluminium beams, length 1100 mm and 500 mm.

Note: Transmitter and hub not included.

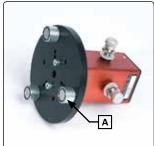




# Rod bracket for laser D75

Part No: 12-0149 Description: For mounting of laser transmitter D75 on standard rods. Laser beam can point from the bracket or through the bracket. Note: -





#### **Bracket for laser D75** Part No: 12-0187

Description: To use on shaft ends, flywheels etc. Laser beam can point from the bracket or through the bracket. Note: A. 3 super magnets.





#### Adapter plate for tilt table to magnet base Part No: 12-0874

Description: For mounting D22 laser transmitter on a magnet base, or a magnet base with turnable head. Note: 4 screws M6x16 also needed (not included).





#### Tilt table Part No: 12-0110 Description: Tilt table mainly for transmitter D26, D22 and D23, but can also be used together with transmitter D75, for example. Note: Tool kit also included (12-0622).

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#### Tilt table, turnable Part No: 12-0864

Description: Tilt table mainly for transmitter E30 Long Range. For fine adjustment of horizontal and vertical angle. Can be used with magnets or mounted on tripod.

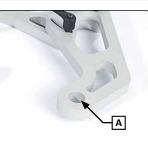
Note: -



#### Tool kit for tilt table Part No: 12-0622

Description: Safety strap (12-0915), Machine/magnet base pin (01-0139), set of Hexagon wrenches, Rod tightening tool (03-0048), Feet with flat points (3 pcs). Note: Tool kit included in Tilt table, Part No. 12-0110.





# Bracket for non-magnetic flanges, with handheld detector bracket

Part No: 12-0628 Description: For attachment of laser transmitter D22 or D23 outside flange, on non-magnetic flanges.

Note: A. Customer adaptable diameter (18–38 mm) on request.





# Handheld detector bracket

Part No: 12-0603 Description: For use on non-magnetic surfaces. Note: Use with rods (not included). Includes 2 screws M6x10 and rod tightening tool.





Bar bracket Part No: 12-0988 Description: For alignment of e.g. bar feeders. With super magnet. Note: Rotational centre of magnet is centre for PSD.



#### Spindle bracket for measuring unit Part No: 12-0787

**Description:** Bracket for use with an ES-unit as laser transmitter. Clamping pin  $\emptyset$  20 mm [0.79"], clamping length 40 mm [1.57"]. It is also possible to turn the measuring unit to point the laser beam through the pin. This is for example useful when aligning bar feeders. **Note:** Rods and measuring unit not included.

DEXT





#### Angular adapter for detector, 90° Part No: 12-1018

**Description:** Adapter positions detector exactly 90° to other direction. Mainly used for machine tool applications. **Note:** -







#### Machine/magnet base pin for D22 and D26, short Part No: 01-0139

**Description:** For mounting the transmitter in a spindle or on a magnet base, for example. Clamping pin  $\oslash$  16 mm[0.63"], clamping length 30 mm [1.18"].

Note: This pin is included in the tilt table tool kit.





# Machine/magnet base pin for D22 and D26, Long Part No: 01-1333

**Description:** For mounting the transmitter in a spindle (or on a magnet base), for example. Clamping pin  $\emptyset$  20 mm[0.79"], clamping length 60 mm [2.36"]. **Note:** -





#### Mounting pin for D146 Part No: 12-0568

**Description:** Accessory mounting pin for laser transmitter D146. Makes it possible to point the laser beam into e.g. the chuck. Clamping  $\emptyset$ 20 mm [0.79"]. **Note:** -





# Self centering bracket, Linebore

Part No: 12-0341

**Description:** For sterntube measurement. Smallest diameter 300 mm [11.81"]. Includes extension beams and rods for diameters up to 1200 mm [47.24"].

Note: Includes items as pictured leftmost. No detector included.





# Detector bracket "short stroke", Turbine Part No: 12-0438

**Description:** With slidable beam. Makes it possible to reach several measurement positions without moving the entire bracket. One aluminium beam 1100 and one 600 mm included. For  $\varnothing$  150–1700mm [5.9"–66.9"].

Note: Detector not included.



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#### Detector bracket "long stroke", Turbine Part No: 12-0715

**Description:** Measures diameters 200–1700 mm [7.8"-67"] as standard. Stroke: 60 mm [2.36"]. Two aluminium beams 1100 mm [43.3"], one 600 mm [23.6"], rods 5x240 mm [9.44"], 4x120 mm [4.72"], 2x60 mm [2.36"], 1x30 mm [1.18"] included. For  $\oslash$  200–1700mm [7.8"-66.9"]. **Note:** Detector not included.





# Upgrade kit Long stroke

Part No: 12-0855

**Description:** This kit is for upgrading of the long stroke brackets used in D650 with self center bracket, D660 Turbine, E950-B and E960-B. Makes it easier to adjust for different diameters, since the probe rod no longer has to be changed, instead the two other rods are extended when necessary.

Note: Only parts pictured on the left image included.





#### Tube bracket Part No: 12-0814

**Description:** Included with Part No. 12-0438 and 12-0715. **Note:** -

Note: -



#### Titanium rods, set of 3 Part No: 12-1019

**Description:** Very light, titanium rods. Mainly for use with the probe in turbine applications and similar. Diameter 10 mm. Extendable. **Note:** 3 lengths included: 1000 mm [39.37"] weight 150 g [5.29 oz], 700 mm [27.56"] weight 110 g [3.88 oz], 400 mm [15.75"] weight 64 g [2.26 oz]



#### Aluminium beam, 500 mm [19.68"] Part No: 03-0769 Description: Cross section measures 44x44 mm [1.73x1.73"].



#### Aluminium beam, 600 mm [23.62"] Part No: 03-0770

Part No: 03-0770 Description: Cross section measures 44x44 mm [1.73x1.73"]. Note: -



Aluminium beam, 1100 mm [43.31"] Part No: 03-0771 Description: Cross section measures 44x44 mm [1.73x1.73"]. Note: -



Ball top probe Part No: 12-0439 Description: Probe for turbine measurement. Note: -



Short ball top probe Part No: 12-0490 Description: Probe for turbine measurement. Note: -



# Measuring probe Ruby $\varnothing$ 5 mm

Part No: 12-0805 Description: Probe for turbine measurement. With ruby top. Note: -



Measuring probe Ruby Ø2.5 mm Part No: 12-0801 Description: Probe for turbine measurement. With ruby top. Note: -



Gauge block Part No: 03-1291 Description: For use mainly in turbine applications. Note: -



#### Measuring probe, cylindrical Part No: 12-1047 Description: For use in turbine applications. Note: -



Measuring probe, cylindrical, with magnet Part No: 12-1048 Description: For use in turbine applications. Note: With neodym magnet in the cylinder probe.



**Centering target, Turbine** Part No: 12-0443 **Description:** For rough alignment of laser beam. 1 m + 0.5 m extension. Note: -







Side support for E5, E7 and other detectors Part No: 12-0188 Description: For straightness measurement of engine bed plate. For use together with 12-0189. Note: -





Side support for D75 Part No: 12-0189 Description: For straightness measurement of engine bed plate. For use together with 12-0188. Note: -





**Tripod Part No:** 12-0269 **Description:** For use with e.g. D22 and D46. Min./Max. height 500– 2730 mm [ 19.7–107.5"] **Note:** -





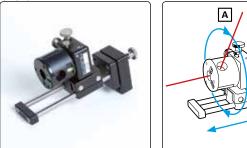
Parallelity kit Part No: 12-0203 Description: For parallelism measurement of rolls. Includes Magnet base D45, Sliding bracket 12-0137, Sliding table 12-0202, 2 x Large target base line. Delivered in plastic case. Note: Detector not included.

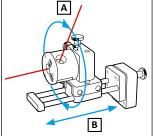




#### Sliding table for tripod Part No: 12-0202

**Description:** Sliding table for D22 and D46 to mount on a tripod. Allows for 150 mm slide of the unit, for example to point the laser beam to a detector on a rod or flange without moving the tripod. **Note:** -





# Angular prism D46

#### Part No: 12-0046

Description: Angular prism with built-in penta prism which deflects the beam 90°.

Note: A. With the rotatable angular prism you can reach the detector at any height on a flange, or on a roll at any height.

B. The beam is aligned with the detector using the sled.





#### Measuring unit holder for Angular prism Part No: 12-0709

Description: Makes it possible to mount a measuring unit in front of the angular prism D46. Used for precision aligning the prism. Note: A. Support screws, only used with some detectors to put the PSD at the correct height/centre in front of the prism. B. Screws for mounting on the D46.

Hexagon wrench and two rods 60 mm also included as pictured.





# Sun visor E-series

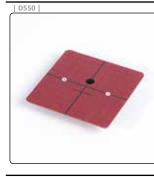
Part No: 12-0587 Description: To use in very sunny conditions when light causes unstable values. Fits detector 12-0509, 12-0752, 12-0824 and measuring units 12-0433/12-0434. With magnet attachment. Note: -





# Target 100x100 mm Part No: 12-0544

Description: Rough alignment target for flatness measurement. Adjustable height (to align with either D22 or D23) and magnet base.





# Target D550 cardan

Part No: 12-0402 Description: Large target for use when aligning cardan/offset mounted machines. The target clamps onto the front of the D550 measuring units. Note: -





# Large target E-series

Part No: 12-0588 Description: The target is mounted with magnet attachment onto the front of detectors 12-0509, 12-0752 and 12-0702, as well as measuring units 12-0433 and 12-0434. Note: -



#### Target E-series 20 x 20 Part No: 12-0794

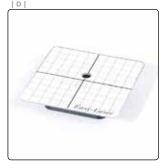
**Description:** Rough alignment target for measuring units ES/EM, detectors E4, E5 and E7. Can be mounted to cover laser opening, functioning as dust cover and protection. With reflective centre point. **Note:** Only one target included per Part No., i.e. if you order targets for a pair of measuring units, you will need two 12-0794.





#### Large target extruder Part No: 12-0810

**Description:** Transparent target with adjustable magnets for mounting on tube end. Splits in two, to fit in the transportation case. **Note:** -





#### Target cardan Part No: 12-0139 Description: Large target for use when aligning cardan/offset mounted machines. The target clamps onto the front of the D-series measuring units. Note: -





# Wireless unit

Part No: 12-0436

**Description:** The unit for wireless communication is inserted into the connector on the detector or measuring unit. No internal battery. **Note:** Fits both E-series detector and measuring units which have an internal battery; 12-0509, 12-0702, 12-0752, 12-0434 and 12-0433.





#### Battery pack with built-in wireless unit Part No: 12-0618

**Description:** Chargeable battery pack which gives extra operating time. With battery status indicator and On/Off button. Built-in unit for wireless measurement data transfer to the display unit. **Note:** Only for the E-series. Includes "red cable" 0.16 m [6.3"].





#### Battery pack Part No: 12-0617

**Description:** Chargeable battery pack which gives extra operating time. With battery status indicator and On/Off button. **Note:** Only for the E-series. Includes "red cable" 0.16 m [6.3"].



#### Batterypack with wireless technology, Kit Part No: 12-0740

**Description:** Kit including two Batterypack units with wireless technology (12-0618) and one splitter cable B (12-0725). **Note:** The cable cannot be used for data transfer, only for charging.

#### Splitter cable B, for charging Part No: 12-0725 Description: To connect two Easy-Laser® units w Note: Only for charging, the cable cannot be use

**Description:** To connect two Easy-Laser<sup>®</sup> units when charging. **Note:** Only for charging, the cable cannot be used to transfer any measurement data. Not for use with 12-0738.





#### Splitter cable A, for charging two 12-0738 Part No: 12-0728 Description: For charging two wireless units with battery, Part No. 12-0738. Note: Only for charging 12-0738, the cable cannot be used to transfer any measurement data.





DC cable extension 1.5 m [59"] Part No: 03-1203 Description: For extension of the DC split cables Part No. 12-0989 and 12-0750. Note: -





# DC to USB adapter

Part No: 12-0751 Description: Adaptor to be used with cable 12-0989 and 12-0750. Note: Cannot transfer any measurement data.



#### Splitter box Part No: 12-0597 Description: Used for connection of up to four Easy-Laser® units when

up to four Easy-Laser<sup>®</sup> units when charging them. **Note:** Standard "red" cables also needed.



# DC split cable for charging

Part No: 12-0989 Description: Cable for charging the units of system E420, E540 and XT440, XT550, XT660. Note: This cable cannot transfer any measurement data.

Note: -





# "Red cable", 2.0 m [78.7"]

Part No: 12-0074 Description: For connecting Easy-Laser<sup>®</sup> measurement equipment. With Push-Pull connectors. Note: -

#### "Red cable", 0.16 m [6.3"] Part No: 12-0494 Description: For connecting Easy-Laser® measurement equipment. With Push-Pull connectors.



# "Red cable", 0.4 m [15.7"]

Part No: 12-0289 Description: For connecting Easy-Laser<sup>®</sup> measurement equipment. With Push-Pull connectors. Note: -



"Red cable", 1.0 m [39.3"] Part No: 12-0179 Description: For connecting Easy-Laser® measurement equipment. With Push-Pull connectors. Note: -



"Red cable", extension, 0.5 m [1.6'] Part No: 12-0762

**Description:** For connecting Easy-Laser<sup>®</sup> measurement equipment. With Push-Pull connectors. **Note:** Extension cable.



### "Red cable", extension, 5.0 m [16.4'] Part No: 12-0108 Description: For connecting Easy-

Part No: 12-0108 Description: For connecting Easy-Laser® measurement equipment. With Push-Pull connectors. Note: Extension cable.



# "Red cable", extension, 10.0 m [32.8']

Part No: 12-0180 Description: For connecting Easy-Laser® measurement equipment. With Push-Pull connectors. Note: Extension cable.





# "Red cable", 2.0 m [78.7"] with angled connector Part No: 12-0735

**Description:** For connecting Easy-Laser<sup>®</sup> measurement equipment. With Push-Pull connector on one end, and angled connector on the other. For use when there is limited space for the cable, e.g. small bore diameters. **Note:** -

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# Cable support

**Part No:** 12-0321 **Description:** If the cable is accidentially pulled with great force, this support will prevent the connector from damage. It will also minimise the risk of moving the detector out of position. **Note:** -



Cable tester Part No: 12-0362 Description: Easily check the cables for connection problems. The diodes indicates broken threads. Note: -



**Printer cable** Part No: 03-0241 **Description:** For connection of the thermal printers 03-0341 and 03-0032 to display unit D279.



PC cable ("null modem") Part No: 03-0333 Description: Length 1.8 m [71"] Note: -



USB/RS232 adaptor

Part No: 03-0722 Description: Adaptor and cable extension. Note: Requires internet connection and Windows update.



USB A - USB B cable Part No: 03-0822 Description: Cable with USB A to USB B connectors. Note: -



USB cable for Streaming values

Part No: 03-1043 Description: Null modem cable for use with E-series display units to stream values directly to a PC. Note: -



Charger for E-series display unit Part No: 03-1243

**Description:** -**Note:** Wall socket connection cable also needed, choose part depending on country of use.



Charger for XT-series Part No: 03-1256 Description: -Note: Wall socket connection cable also needed, choose part depending on country of use.



Charger cable, EUR Part No: 03-0892 Description: -Note: Charger unit also needed.



Charger cable, USA Part No: 03-0893 Description: -Note: Charger unit also needed.



Charger cable, UK Part No: 03-0894 Description: -Note: Charger unit also needed.



Charger cable, AUS Part No: 03-0895 Description: -Note: Charger unit also needed.



#### Charger 12–36V for car Part No: 12-0585

**Description:** For charging the display unit via a 12–36V outlet, in for example a car. The red adapter can be detached for use with newer (smaller) types of connectors. **Note:** -



#### HDMI to HDMI cable Part No: 03-0901 Description: Length 3 m.

Description: Lengt Note: -



VGA to VGA cable Part No: 03-0902 Description: Length 3 m. Note: -



#### **Barcode reader**

Part No: 12-0619 Description: For registration of machine data. Connected to the USB port. Note: Includes 25 pcs bar code stickers.



# VGA/HDMI kit

Part No: 12-0573

**Description:** Makes it possible to show the display unit screen on a TV or projector. Includes cable 03-0901 (HDMI), cable 03-0902 (VGA), converter and VGA circuit board.

**Note:** Only for Display unit 12-0418 (E51) with serial number 94176 and lower. The VGA kit (the circuit board) must be ordered at system purchase for factory installation, it cannot be mounted afterwards.



# VGA/HDMI kit, for serial number 94177

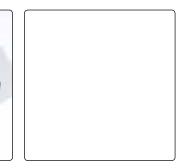
#### and newer

Part No: 12-0840

**Description:** Makes it possible to show the display unit screen on a TV or projector. Includes cable 03-0901 (HDMI), cable 03-0902 (VGA), converter and VGA circuit board.

**Note:** Only for Display unit 12-0418 (E51) with serial number 94177 and higher. The VGA kit (the circuit board) must be ordered at system purchase for factory installation, it cannot be mounted afterwards.





## **Printer for E-series**

Part No: 03-1004

**Description:** Battery operated thermal printer. With USB cable and 110–220V charger. For connection to all systems with E-series display units.

Note: 1 paper roll included. Spare rolls, Part No. 03-0041.





# Printer for D-series

Part No: 03-1323

**Description:** Battery operated thermal printer. With cable and 110-220V charger. For connection to all systems with display unit D279. **Note:** Cable D-Sub 9-pole included. 1 paper roll included. Spare rolls, Part No. 03-0041.

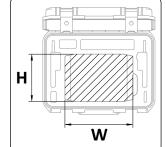


#### Carrying case Small for system XT440 Part No: 12-0972

**Description:** Carrying case with pre-shaped interior for system XT440. **Note:** No place for display unit.

Note 2: No system name sticker is included if not asked for.





# Carrying case Medium for system XT440/XT660

Part No: 12-0973

**Description:** Carrying case with pre-shaped interior for system XT440 and XT660.

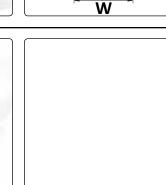
**Note:** The interior has space for display unit XT11. If other display unit is to be placed in the case, please note the shape and dimension of the cutout (picture to the left). W=280 mm [11"], H= 195 mm [7.6"]. **Note 2:** No system name sticker is included if not asked for.



#### Carrying case Large for XT440/XT660/XT770 Part No: 12-1049

**Description:** Carrying case with pre-shaped interior for system XT440, XT660 and XT770. This case also carries some accessories, please see system XT660 and XT770 brochures for more information. **Note:** The interior has space for display unit XT11. If other display unit is to be placed in the case, please note the shape and dimension of the cutout (picture to the left). W=280 mm [11"], H= 195 mm [7.6"]. **Note 2:** No system name sticker is included if not asked for.





#### Carrying case for system E710 Part No: 12-0442

**Description:** Carrying case with pre-shaped interior for system E710. **Note:** -





#### Carrying case Large for system E540 Part No: 12-1020 Description: Carrying case with interior for system E540.

**Note:** Pre-cut also for accessories, just remove foam blocks (blocks removed on picture).





Carrying case Small for system E540 Part No: 12-1025 Description: Carrying case with interior for system E540. Note: -





Carrying case for system E420 Part No: 03-1059 Description: Carrying case with interior for system E420. Only lower compartment as pictured. Note: -







#### Transportation case, Cardan Part No: 12-0237 Description: Rigid case for Cardan bracket set, or other accessories. To use e.g. when there isn't place in the system case. Note: The foam is cut for Cardan brackets.





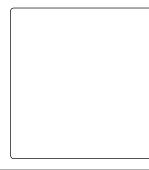
Transportation case for system E180 and XT190 Part No: 12-0804 Description: Carrying case with interior for belt alignment units. Note: No system name sticker is included if not asked for.





Plastic case for small items Part No: 03-0792 Description: Transportation case with foam interior. Note: This is the standard case included with Easy-Laser systems.





# Transportation case

Part No: 03-0909

**Description:** Rigid case for D22 or D23, or other accessories. To use e.g. when there isn't place in the system case. **Note:** The foam is cut to order. Specify what the case will be used for. Otherwise it will be delivered with foam uncut.





#### Luggage trolley Part No: 03-1046

**Description:** Luggage trolley for easier transportation of system cases. **Note:** Max. load 75 kg [165 lbs]. Dimensions WxHxD: 500x1070x455 mm [19.7x42.1x17.9"]. Dimensions folded WxHxD: 485x790x70 [19.1x31.1x2.8]. Weight 4.4 kg [9.7 lbs].





Protective case for display unit E51, E52 and E53 Part No: 01-1379 Description: With strap. Note: -





Shoulder strap for display unit E-series Part No: 12-0495 Description: -Note: -



Safety strap Part No: 12-0915 Description: For use with laser transmitter D22, D23 and Digital Level E290. Note: -



Measuring tape, 3 m [9.8'] Part No: 03-0824 Description: Fits the cases for the E- and XT-systems. Note: -



Measuring tape, 5 m [16.4'] Part No: 03-0842 Description: Fits the cases for the E-series systems.

#### Demo unit Shaft Part No: 12-0416

**Description:** For shaft alignment training. Can simulate both coupled and uncoupled shafts. With two shims 1.00 mm included. Dimensions: appr. 400x200x200 mm [ 15.7x7,8x7.8"]. **Note:** To simulate an actual alignment, shims (Type A) of different thicknesses can be used. Measuring units and brackets not included.

Note: -



| D | E | XT





#### Demo unit Shaft, steel Part No: 03-1332

**Description:** For shaft alignment training. Can simulate both coupled and uncoupled shafts. Two units or more can be connected in series to simulate machine train. With two shims 1.00 mm included. Dimensions: appr. 400x200x200 mm [ 15.7x7,8x7.8"].

**Note:** To simulate an actual alignment, shims (Type A) of different thicknesses can be used. Measuring units and brackets not included.





Demo unit Sheave Part No: 12-0236 Description: Can be placed standing or lying down. WxHxD: 660x200x100 mm. Weight: 8 kg. Note: BTA and targets not included.





Hexagon wrench set Part No: 03-0967 Description: Hexagon wrench set with dimensions 1.27, 1.5, 2, 2.5, 3, 4, 5 and 6 mm. Ball end. Note: -





Stinger for XT280 Part No: 03-1326 Description: Accessory probe for the XT280 Vibrometer. Note: Length 100 mm.





Accelerometer magnet for XT280 Part No: 03-1327 Description: Accessory probe for the XT280 Vibrometer. Note: -

#### **SPARE PARTS**



Battery lid for display unit D279 Part No: 12-0354 Description: -Note: -



Battery lid for display unit D336 Part No: 12-0546 Description: -



Side part for display unit D279 Part No: 01-0752 Description: -Note: -



Top for D23

Note: -

Part No: 01-0618 + 03-0505 Description: For protection of the rotating head. Note: Top and screw are separate articles.



Target for BTA, 18 mm Part No: 12-0394 Description: Suitable for laser transmitter 12-0309 and 12-0390. Note: 1 pc.





Target for BTA, 15 mm Part No: 12-0213 Description: Suitable for Easy-Laser® D80. Note: 1 pc.





Barrel nut Part No: 01-0045 Description: For the standard chain. Note: -



Nut Part No: 01-0042 Description: For the standard chain. Note: -



Standard chain Part No: 12-0033 Description: -Note: -



**Chain, stainless steel** Part No: 12-0386 Description: For use with 12-0337. Note: Does not fit with standard chains.



V-bracket Part No: 12-0130 Description: For mounting on shaft or coupling. Note: Just bracket, no chain.



Screw M6x14 Part No: 03-0061 Description: -Note: -



Rod tightening tool, 4 mm Part No: 01-0048 Description: -



#### Locking screw

Part No: 01-0039 Description: Fits measuring units; 12-0001, 12-0002, 12-0119, 12-0120, 12-0114, 12-0116, 12-0776, 12-0777, 12-0698, 12-0697, 12-0746, 12-0747. Detectors; 12-0005, 12-0201, 12-0255. Note: -



Locking screw Part No: 01-1953 Description: Fits measuring units; 12-0434, 12-0433. Detectors; 12-0702, 12-0509, 12-0752. Note: -



Locking screw Part No: 01-1866 Description: Fits measuring units; 12-0943, 12-0944, 12-1028, 12-1029, 12-1026, 12-1027. Note: -



### Spare locks for carrying cases

Part No: -

**Description:** Spare locks for different models of Easy-Laser<sup>®</sup> carrying cases.

**Note:** Ask us for more details on pricing and availability. *Always measure width before ordering!* 



Padded case for BTA Part No: 03-0591 Description: Padded case with belt strap. Note: -



Case for BTA Ex Part No: 03-0736 Description: Case for Ex environments. Made of antistatic material. With belt strap. Note: -



Protective case for older display units Part No: 03-0042

Description: With strap.





Protective case for display unit D279 Part No: 03-0592 Description: With strap. Note: -





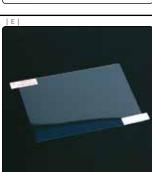
D550

Protective case for display unit D336 Part No: 03-0799 Description: Made of antistatic materials. With strap. Note: -





Cleaning cloth Part No: 03-0878 Description: For cleaning of optical surfaces such as laser aperture and PSD window. Note: -



LCD display protection film for E51/E52/E53 Part No: 03-0972 Description: Thin film for scratch protection of the LCD display. Note: -

#### **SPARE PARTS**



LCD display protection film for XT11 Part No: 01-1945 **Description:** Thin film for scratch



Thermo paper roll Part No: 03-0041 Description: Paper roll for printer 03-0032 and 03-0341. Note: -



**Batteries Description:** A. 3.6 V, Lithium (for BTA Ex), Part Nr 03-0730 B. 1.5 V, LR6 Alkaline, Part Nr 03-0247 C. 1.5 V, LR14 Alkaline, Part Nr 03-0242 D. 9V, 6LR61 Alkaline, Part Nr 03-0642



#### White Vaseline

Part No: 03-1193 **Description:** Protects metals against rust and corrosion. Note: Weight 40 g.



Vapor capsule Zerust VC2-2 Part No: 03-1184 **Description:** Protects metals against rust and corrosion. Estimated life span 2 years. Note: For use in system cases. With adhesive backing.



Sticker "This machine is aligned with" Part No: 04-0053

Description: To stick on aligned machines. With writable surface for date and operator signature. Note: 25 stickers.



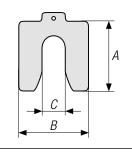
**Barcode sticker** Part No: 04-0147 Description: To stick on aligned machines. With barcode. Note: 25 stickers.



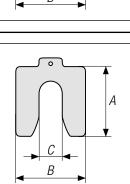
#### Tool kit for system D550, complete

Part No: 12-0360 Description: With 4 rods 120 mm, 4 extension chains, rod tightening tool and hexagon tool. Note: Antistatic fabric.









#### Shims case 1, 180 shims

Part No: 12-0258

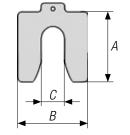
Description: 180 shims, 10 pcs of each shim included. Weight 3.9 kg. Shims type 1, thickness 0.05, 0.10, 0.20, 0.50, 0.70, 1.00 mm. Shims type 2, thickness 0.05, 0.10, 0.20, 0.50, 0.70, 1.00 mm. Shims type 3, thickness 0.05, 0.10, 0.20, 0.50, 0.70, 1.00 mm. Note: Shims type 1, A: 55 mm, B: 50 mm, C: 15 mm Shims type 2, A: 75 mm, B: 70 mm, C: 23 mm Shims type 3, A: 90 mm, B: 80 mm, C: 32 mm

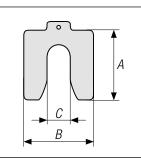
#### Shims case 2, 360 shims

#### Part No: 12-0259

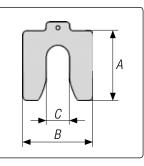
Description: 360 shims, 20 pcs of each shim included. Weight 6.1 kg. Shims type 1, thickness 0.05, 0.10, 0.20, 0.50, 0.70, 1.00 mm. Shims type 2, thickness 0.05, 0.10, 0.20, 0.50, 0.70, 1.00 mm. Shims type 3, thickness 0.05, 0.10, 0.20, 0.50, 0.70, 1.00 mm. Note: Shims type 1, A: 55 mm, B: 50 mm, C: 15 mm Shims type 2, A: 75 mm, B: 70 mm, C: 23 mm Shims type 3, A: 90 mm, B: 80 mm, C: 32 mm







# Restance (Constrained)



## Shims case 3, shims of your choice Part No: 12-0743

**Description:** For this case you choose number of shims yourself, from type 1, 2, 3, 4. We recommend minimum 10pcs/model. Please see price list for dimensions. Weight, case without shims 3.2 kg. **Note:** Shims type 1, A: 55 mm, B: 50 mm, C: 15 mm Shims type 2, A: 75 mm, B: 70 mm, C: 23 mm Shims type 3, A: 90 mm, B: 80 mm, C: 32 mm Shims type 4, A: 125 mm, B: 105 mm, C: 44 mm

#### Shims case 4, shims of your choice

Part No: 12-0755

**Description:** For this case you choose number of shims yourself, from type 2, 3, 4, 5. We recommend minimum 10pcs/model. Please see price list for dimensions. Weight, case without shims 3.2 kg. **Note:** Shims type 2, A: 75 mm, B: 70 mm, C: 23 mm Shims type 3, A: 90 mm, B: 80 mm, C: 32 mm Shims type 4, A: 125 mm, B: 105 mm, C: 44 mm Shims type 5, A: 200 mm, B: 200 mm, C: 85 mm

#### Shims

Part No: See price list.

**Description:** Blister packs of 10 pcs/size. Type 1, thickness [mm] 0.05, 0.10, 0.20, 0.40, 0.50, 0.70, 1.00, 2.00, 3.00. Type 2, thickness [mm] 0.05, 0.10, 0.20, 0.40, 0.50, 0.70, 1.00, 2.00, 3.00. Type 3, thickness [mm] 0.05, 0.10, 0.20, 0.40, 0.50, 0.70, 1.00, 2.00, 3.00. Type 4, thickness [mm] 0.05, 0.10, 0.20, 0.40, 0.50, 0.70, 1.00, 2.00, 3.00. Type 5, thickness [mm] 0.05, 0.10, 0.20, 0.40, 0.50, 0.70, 0.80, 1.00, 2.00, 3.00. **Dimensions [mm]:** Type 1, *A: 55, B: 50, C: 15.* Type 2, *A: 75, B: 70, C: 23.* Shims type 3, *A: 90, B: 80, C: 32.* Type 4, *A: 125, B: 105, C: 44.* Type 5, *A: 200, B: 200, C: 85.* 

#### **APPAREL / GIVE AWAYS**



#### Сар

Part No: 13-0004 Description: Cap made of 100% cotton. Easy-Laser® embroidery on front. With strap for size adjustment.

**Note:** Not always in stock. Price upon request.



#### **USB** memory

Part No: 03-0914 Description: 4 GB memory stick USB. Easy-Laser<sup>®</sup> logo engraved on one side as on picture. Note: Price upon request.



Pen Part No: 13-0006 Description: With blue ink. Easy-Laser® logo as pictured. Good quality pen. Note: Not always in stock. Price upon request.



#### Key holder

Part No: 01-1095 Description: With snap-hook and string for mobile phone. Note: Not always in stock. Price upon request.



Logo sticker Part No: 04-0125 (small), 04-0124

(large) **Description:** Durable sticker with strong adhesive. Same sticker as on the system cases. Available in two sizes: 200x44 mm [7.87x1.73"] and 305x67 mm [12.01x2.64"]. **Note:** Price upon request.



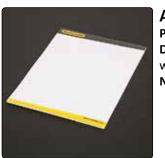
Easy-Laser<sup>®</sup> logo stickers Part No: 04-0252 Description: Sheet with laminated logo stickers with the following

lengths: 100 mm (2 pcs), 85 mm (2 pcs), 60 mm (3 pcs) and 40 mm (4 pcs) / [3.94" (2 pcs), 3.35" (2 pcs), 2.36" (3 pcs), 1.57" (4 pcs)] Note: -



#### Keychain with spirit level Part No: 13-0013

Description: Keychain with spirit level (plastic block 40x15x15 mm). Easy-Laser<sup>®</sup> logo as pictured. For give-away purpose/not calibrated. Note: Not always in stock. Price upon request.



#### A5 Notes

Part No: 13-0012 Description: 25 note papers, glued with cardboard back. Note: -





#### Playing cards Part No: 13-0007

**Description:** Deck of cards. International symbols. Easy-Laser<sup>®</sup> logo and web address "www.easylaser.com" printed as on picture. **Note:** Not always in stock. Price upon request.



anterna -	NOTE: SING	
	<b></b>	

#### Notebook for the technician

Part No: 05-0792

**Description:** Notebook measuring 90x140 mm that fits easily into a pocket in your work clothes, with an insert comprising 38 pages of graph paper and conversion tables on the inside of the cover. Laser facts on back cover.

Note: Not always in stock. Price upon request.

#### **DISCONTINUED PRODUCTS**



#### Laser transmitter D246 (Discontinued)

Part No: 12-0246 Description: -Note: This product is discontinued and replaced by 12-0706.



#### Offset hub for D75 (Discontinued)

Part No: 12-0132 Description: -Note: This product is discontinued and replaced by 12-0661.



Detector Extruder, diameter 20 mm [0.79"] (Discontinued) Part No: 12-0538



# Offset hub with arms (Discontinued)

Part No: 12-0364 Description: -Note: Replaced by 12-0707 + 12-0661.



Detector Linebore (Discontinued) Part No: 12-0032



Detector D6 (Discontinued) Part No: 12-0201



Detector bracket "long stroke", Turbine (Discontinued) Part No: 12-0248 Note: Replaced by 12-0715.



Magnet base bracket for Linebore detector (Discontinued) Part No: 12-0329



System D670 Parallelism (Discontinued) Part No: 12-0224 Note: Please see system E970



System D800 Machine Spin (Discontinued) Part No: 12-0220 Note: Please see system E915 instead.



System D660 Turbine (Discontinued)

Part No: 12-0185 Note: Please see system E960 instead.



System D662 Turbine (Discontinued) Part No: 12-0662

Part No: 12-0662 Note: Please see system E960 instead.

#### **DISCONTINUED PRODUCTS**



System D663 Turbine (Discontinued)

Part No: 12-0663 **Note:** Please see system E960 instead.



System D664 Turbine (Discontinued) Part No: 12-0664

**Note:** Please see system E960 instead.



System D630 Extruder (Discontinued) Part No: 12-0193



System D640 Machine tool (Discontinued) Part No: 12-0552 **Note:** Please see system E940 instead.



System D652 Linebore (Discontinued) Part No: 12-0652 Note: Please see system E950 instead.



System D650 Linebore (Discontinued) Part No: 12-0034 Note: Please see system E950 instead.



System D600 Machine (Discontinued) Part No: 12-0133 Note: Please see system E920



System D525 Shaft (Discontinued) Part No: 12-0231 Note: Please see system E710

System D525 B Shaft (Discontinued) Part No: 12-0235 Note: Please see system E710 instead.



System D505 Shaft (Discontinued) Part No: 12-0207 Note: Please see system E540 or E710 instead.



System D480 Shaft (Discontinued)

Part No: 12-0422 Note: Please see system E540 or E710 instead.



System D450 Shaft (Discontinued) Part No: 12-0300 **Note:** Please see system E420 instead.



System E530 Shaft (Discontinued)

Part No: 12-0695 Note: Please see system E710 or E540 instead.



Easy-Laser<sup>®</sup> D550 Extreme<sup>™</sup> Ex/ATEX/IECEx (Discontinued) Part No: 12-0340



Easy-Laser<sup>®</sup> D130 BTA Ex (Discontinued) Part No: 12-0400



#### System D150 BTA digital (Discontinued)

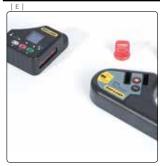
Part No: 12-0310 Note: Please see system XT190 instead.



System D160 BTA (Discontinued) Part No: 12-0411 Note: Please see system XT190 instead.



System E170 BTA (Discontinued) Part No: 12-0659 Note: Please see system XT190 instead.



System E180 BTA (Discontinued) Part No: 12-0796 + (12-0850: system without laser transmitter)

Note: Please see system XT190

instead.



Laser transmitter Ex for sheave/pulley alignment (Discontinued) Part No: 12-0390



#### Detector for sheave/pulley alignment (Discontinued)

Part No: 12-0308 Note: Please see system XT190 instead.



#### D-series Detector for belt alignment (Discontinued)

Part No: 12-0403 Note: Please see system XT190 instead.



#### E-series Detector for belt alignment

#### (Discontinued)

Part No: 12-0657 Note: Please see system XT190 instead.



#### E-series wireless Detector for belt alignment (Discontinued)

Part No: 12-0791 Note: Please see system XT190 instead.

#### **DISCONTINUED PRODUCTS**



DISCONTINUED FRU		
	Measuring unit ELS30, PSD 30 mm (Discontinued) Part No: 12-0697	Measuring unit ELS30, PSD 30 mm (Discontinued) Part No: 12-0698
	Detector D157 (Discontinued) Part No: 12-0157	Detector E8, 1-axis PSD (Discontinued) Part No: 12-0758 Note: Please see Detector E9 instead.
	Measuring unit M, Ex- treme™ (Discontinued) Part No: 12-0334	Measuring unit M, Ex- treme™ (Discontinued) Part No: 12-0335
	Display unit Extreme™ EX: D336 (Discontinued) Part No: 12-0336	<b>Display unit D-series:</b> <b>D279 (Discontinued)</b> Part No: 12-0279
	AC adaptor for Display unit D279 (Discontinued) Part No: 12-0590	Display unit for sheave/ pulley alignment (Discontinued) Part No: 12-0404
	Offset bracket (Discontinued) Part No: 01-0076 Note: Please see 01-1165 instead.	Magnetic bracket (Discontinued) Part No: 12-0413 Note: Replaced by 12-1011.

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#### **DISCONTINUED PRODUCTS**



DISCONTINUED PRO	DUCTS	Easy-Laser® Product overview
	Sliding bracket (Discontinued) Part No: 12-0039 Note: Please see 12-1010 instead.	Back Pack System Large (Discontinued) Part No: 03-1044 Note: -
	Back Pack System Large (Discontinued) Part No: 03-1045 Note: -	E-series Vibrometer probe E285 (Discontinued) Part No: 12-0656 Note: -
	D-series Vibrometer probe D283 (Discontinued) Part No: 12-0283 Note: -	Wireless units kit for E530 (Discontinued) Part No: 12-0739 Note: -
	Wireless unit for E530 (Discontinued) Part No: 12-0738 Note: -	Adapter bracket for 40 mm rod distance (Discontinued) Part No: 12-0815 Note: -
	Magnet base with turn- able head, for D157 (Discontinued) Part No: 12-0608 Note: -	Cam shaft bracket (Discontinued) Part No: 12-0476 Note: -





# TECHNICAL SPECIFICATIONS

#### **READ THIS INFORMATION CAREFULLY**

- On the following pages technical specifications for the most common units can be found. We will not list all products here.
- You should always also read the complete product description to find out about compatibility with other Easy-Laser<sup>®</sup> products.
- Please note that the measurement range for laser transmitters is the maximum range, and in reality depends on the detector used and the application.
- Operating times also depends on the actual application, therefore it is not specified for all products. See system specifications in each brochure for more detailed information.
- The drawings show the most important measures. Because of limited space we cannot always place the projections according to Europen drawing projection, but that is otherwise the method used.
- Specifications are quoted to 95% confidence level (coverage factor *k*=2).

#### COMPATIBILITY BETWEEN D, E AND XT

- The D-series, E-series and XT-series detectors and display units can only be used within its own product series.
   Note! One exception is the sheave alignment detector 12-1054, which can be con-
- nected to XT11, E51 and E52.
  Brackets for D- and E-series has a rod C–C of 40 mm, XT-series rod C–C is 56 mm. The new XT offset bracket (12-1008) function as an adaptor for these two measures, but doesn't fit all older brackets. We will of course continue the developement and adaptation of brackets.

Note! The discontinued system D550 has a rod C–C of 70 mm.

Software communication





Brackets



#### **SPECIFICATIONS FOR BUILT-IN RECHARGEABLE BATTERIES:**

Easy-Laser	Туре	Voltage	Output	Capacity	Included in Part No.
Part No.					
03-0757	Li-lon	3.65 V	41.61 Wh	10400 mAh	12-0418, 12-0700, 12-0748
03-0765	Li-lon	3.7 V	2.5 Wh	660 mAh	12-0433, 12-0434, 12-0509, 12-0688, 12-0702,
					12-0738, 12-0752, 12-0759, 12-0758, 12-0799,
					12-0846
03-0971	Li-lon	3.6 V	9.36 Wh	2600 mAh	12-0617, 12-0618, 12-0823, 12-0845
03-1052	Li-lon	3.7 V	1.22 Wh	330 mAh	12-0746, 12-0747, 12-0776, 12-0777, 12-0791,
					12-1054
12-0953	Li-lon	3.7 V	7.4 Wh	2000 mAh	12-0944, 12-0943, 12-1028, 12-1029
12-0952	Li-lon	7.3 V	41.61 Wh	5700 mAh	12-0961 (2 pcs)
12-0983	Li-lon	3.7 V	7.4 Wh	2000 mAh	12-1026, 12-1027
N/A	Li-lon	3.8 V	16.91 Wh	4450 mAh	12-1086



#### Miscellaneous



Wireless unit, Part No. 12-0436	
Communication	BT wireless technology
Temperature range	-10–50 °C
Environmental protection	IP class 66 and 67
Housing material	ABS
Dimensions	WxHxD: 53x32x24 mm [2.1"x1.2"x0.9"]
Weight	25 g [0.9 oz]



Batterypack with built-in wireless unit, Part No. 12-0618		
Communication	BT wireless technology	
Internal battery	Li Ion	
Temperature range	-10–50 °C	
Connection cable	0.16 m [6.3"], included	
Housing material	Anodized aluminium + POM	
Dimensions	WxHxD: 60x85x43 mm [2.36"x3.35"x1.69"]	
Weight	180 g [6.3 oz]	



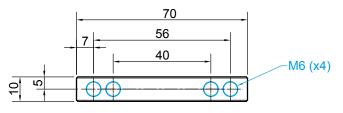
Vibrometer probe XT280, Part I	No. 12-1090 (system)
Frequency range	2 Hz to 1kHz (ISO) 1 kHz to 10 kHz (BDU)
Max frequency resolution	1.25 Hz @ 800 lines FFT setting
Displayed amplitude units	Acceleration in g
	Velocity in mm/s (or inch/s)
	Bearing noise in BDU (bearing damage units)
Displayed Frequency Units	Hertz (Hz), RPM or CPM
Input range	User selectable with accelerometer sensitivity
Dynamic range	96 dB (0.01g resolution)
VA diagnostic bands	
(RPM=run speed)	Unbalance 1x RPM
	Alignment 2x RPM
	Looseness 3x RPM
Operating temperature	0°C to 50°C
Storage temperature	-20°c to 70°C
Battery type	2 x AA batteries
Battery operation	20 hours continuously (depending on brightness setting)
Environmental protection	IP67
Material	ABS plastics / Hard anodized aluminium
Dimensions	WxHxD: 200 mm x 60mm x 26mm [7.8 x 2.4 x 1.0"]
Weight	280 g [9.8 oz]

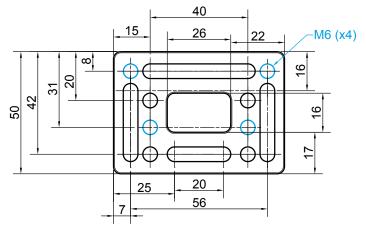
#### Offset bracket, Part No. 12-1008



#### Blue circles are threaded holes.

mm



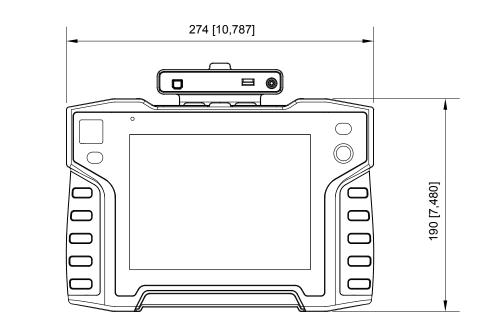




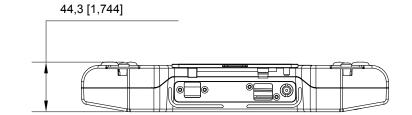
Easy-Laser® is manufactured by Easy-Laser AB, Alfagatan 6, 431 49 Mölndal, Sweden, +46 31 708 63 00, info@easylaser.com, www.easylaser.com © Easy-Laser AB. We reserve the right to make modifications without prior notification. Easy-Laser® is a registered trademark of Easy-Laser AB. Contains FCC ID: PVH0946, IC: 5325A-0946. XT280: FCC ID: Q0QBT121.

#### Display unit XT11, Part No. 12-0961

	CE
Type of display/size	SVGA 8" colour screen, backlit LED, multitouch
Battery type	Heavy duty Li Ion chargeable
Operating time	Up to16 h continuously
Connections	USB A, USB B, Charger, AV (HDMI)
Communication	Wireless technology, WiFi
Camera, with diode lamp	13 Mp
IR camera (optional)	FLIR LEPTON® 0-450° [32-842°F]
Help functions	Built-in manual
Environmental protection	IP class 66 and 67
Operating temperature	-10–50 °C
Storage temperature	-20–50 °C
Relative humidity	10–95%
OLED display	96x96 pixels
Housing material	PC/ABS + TPE
Dimensions	WxHxD: 274x190x44 mm [10.8x7.5x1.7"]
Weight	1450 g [3.2 lbs]









#### Display unit E51, Part No. 12-0418

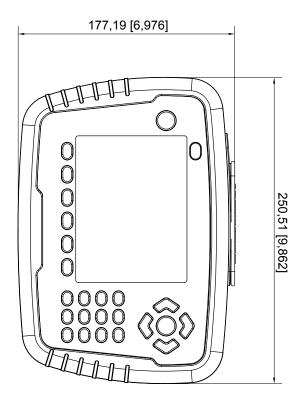
	CE
Type of display/size	VGA 5.7" colour screen, backlit LED
Displayed resolution	0.001 mm / 0.05 thou
Power management	Endurio <sup>™</sup> system for unbroken power supply
Internal battery (fixed)	Heavy duty Li lon chargeable
Battery compartment	For 4 x R14 (C)
Temperature range	-10–50 °C
Connections	USB A, USB B, Easy-Laser® units, Charger
Communication	BT wireless technology and cable
Internal memory	>100 000 measurements can be saved
Help functions	Calculator, Unit converter
Environmental protection	IP class 65
Housing material	PC/ABS + TPE
Dimensions	WxHxD: 250x175x63 mm [9.8"x6.9"x2.5"]
Weight (without batteries)	1080 g [2.4 lbs]

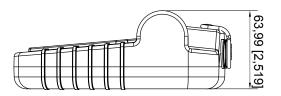
#### Display unit E52, Part No. 12-0700

	CE
Type of display/size	VGA 5.7" colour screen, backlit LED
Displayed resolution	0.001 mm / 0.05 thou
Internal battery (fixed)	Heavy duty Li Ion chargeable
Temperature range	-10–50 °C
Connections	USB A, USB B, Easy-Laser® units, Charger
Communication	BT wireless technology
Internal memory	>100 000 measurements can be saved
Help functions	Calculator, Unit converter
Environmental protection	IP class 65
Housing material	PC/ABS + TPE
Dimensions	WxHxD: 250x175x63 mm [9.8"x6.9"x2.5"]
Weight	1020 g [2.3 lbs]

#### Display unit E53, Part No. 12-0748

	CE
Type of display/size	VGA 5.7" colour screen, backlit LED
Displayed resolution	0.001 mm / 0.05 thou
Internal battery (fixed)	Heavy duty Li Ion chargeable
Temperature range	-10–50 °C
Connections	USB A, Charger
Communication	BT wireless technology
Internal memory	>2000 measurements can be saved
Help functions	Calculator, Unit converter
Environmental protection	IP class 65
Housing material	PC/ABS + TPE
Dimensions	WxHxD: 250x175x63 mm [9.8"x6.9"x2.5"]
Weight	910 g [2.0 lbs]

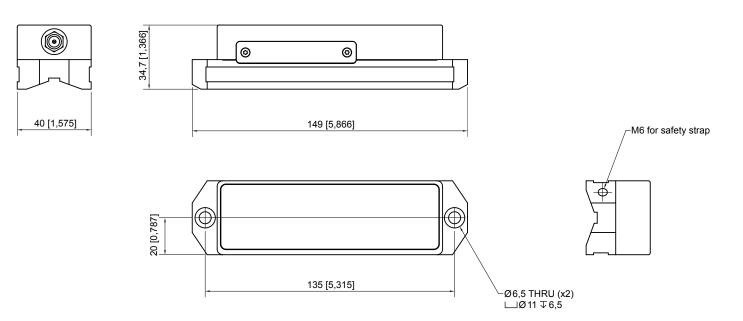




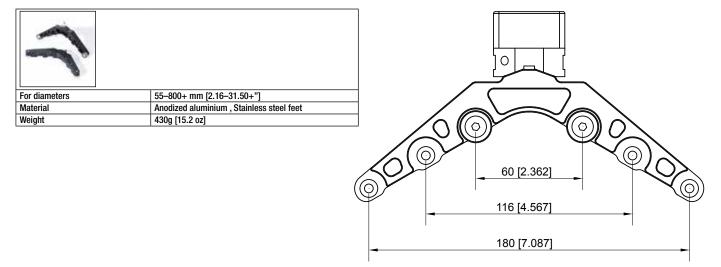


#### Digital Precision Level, Part No. 12-0846

	CE
Displayed resolution	OLED: 0.01 mm/m (0.001°)/App: 0.001 mm/m (0.001°)
Range	± 2 mm/m
Measurement error	Better than $\pm$ 0.02 mm/m
Type of display	OLED
Communication	BT wireless technology Contains FCC ID: PVH0946, IC: 5325A-0946.
Environmental protection	IP Class 67
Operating temperature	-10–50 °C
Internal battery	Li Ion
Material	Anodized aluminium , ABS plastics
Dimensions	WxHxD: 149x40x35 mm [5.9x1.6x1.4"]
Weight	530 g [18.7oz]



#### Extension kit for Precision Level, Part No. 12-0901



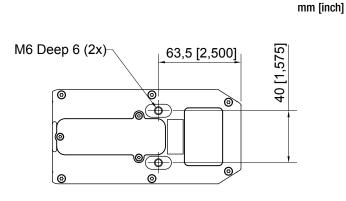


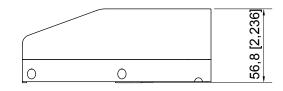
#### Laser transmitter E30 Long range, Part No. 12-0823

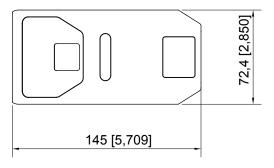
	CE LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT
Laser	Diode laser
Laser wave length	630–680 nm
Adjustable modulation	0, 5, 32, 40, 100 KHz
Output power	AVERAGE POWER < 1 mW. PULSE ENERGY < 12-132nJ (pulsed mode). PULSE DURATION 10-110 us (pulsed mode).
Beam diameter	12 mm (1/2") at aperture
Working area with 20mm detector	0-100 meter [328 ft]
Working area with 30mm detector	0->200 meter [656 ft]
Type of battery	Li Ion
Operating time	>24 h
Operating temperature	-10 to 50 °C
Environmental protection	IP67
Wireless communication	BT wireless technology (passive). Contains FCC ID: PVH0946, IC: 5325A-0946.
Chock sensor	6 axis mems gyro with inclinometer
Type of display	0-led 96x96 pixel
Charging power	5–12 V DC
Housing material	Anodized aluminium T6060
Dimensions	WxHxD: 145.0x72.4x56.8 mm [5.71x2.85x2.24"]
Weight	620g [21.7 oz]

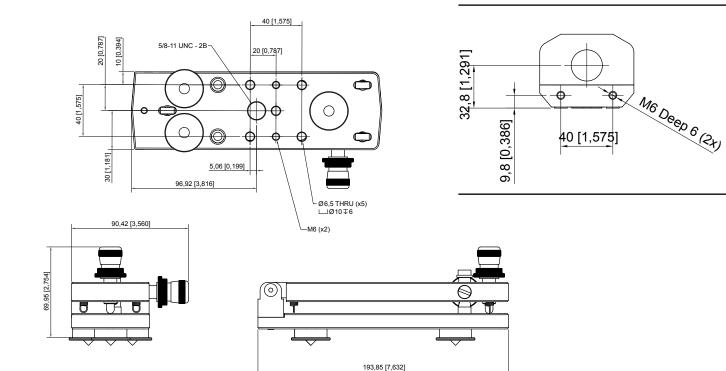
# Laser transmitter E30 Long range, with tilt table, Part No. 12-0858







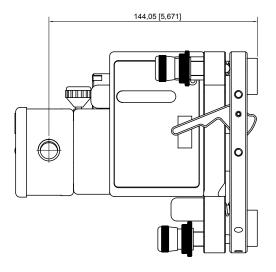


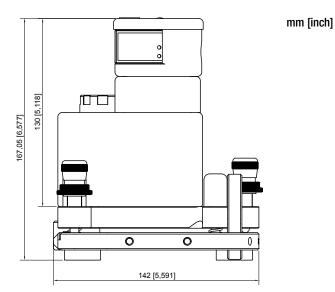


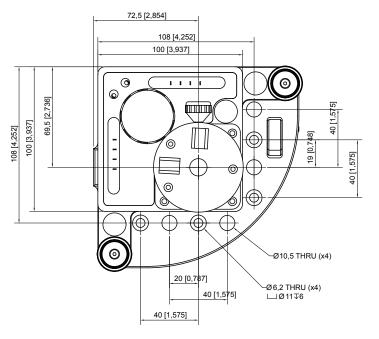


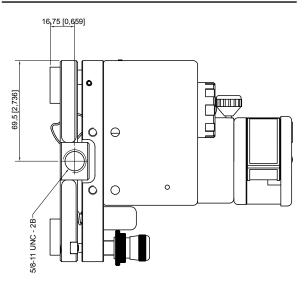
#### Laser transmitter D22, Part No. 12-0022

	CE ASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT
Type of laser	Diode laser
Laser wavelength	630–680 nm
Laser Safety Class	Class 2
Output power	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 20 nJ. PULSE DURATION 10-17 $\mu s.$
Beam diameter	6 mm [1/4"] at aperture
Working area, range	40-metre radius [130"]
Type of battery	1 x R14 (C)
Operating time/battery	approx. 24 hours
Levelling range	± 30 mm/m [± 1.7°]
3 x spirit vials' scaling	0.02 mm/m
Squareness between laser beams	±0.01 mm/m [±0.01 mils/inch] [2 arc sec.]
Flatness of sweep	±0.01 mm/m
Fine turning of laser head	±0.1 mm/m [20 arc sec.]
2 x spirit vials for rotation of head	±5 mm/m
Housing material	Aluminium
Dimensions	WxHxD: 139x169x139 mm [5.47x6.64x5.47"]
Weight	2650 g [5.8 lbs]











CAUTION

INTO BEAM

#### Laser transmitter D22, Part No. 12-0022

#### Examples of use

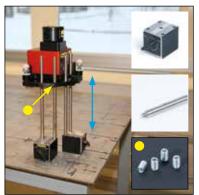
The D22 can be mounted in various ways. Below are just some examples. The important thing is to always tighten rods, screws and magnets firmly. Also be sure the surface where the magnets are attached is clean. If possible use the safety strap.



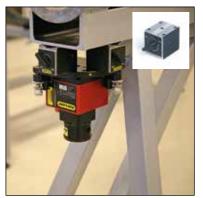
On tripod (Part No. 12-0269).



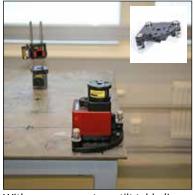
On sliding table for tripod Part No. 12-0202. For easy alignment to detector.



Rigid mounting, still easy to height adjust. Use rods of suitable length.



With magnet bases, very rigid mounting.



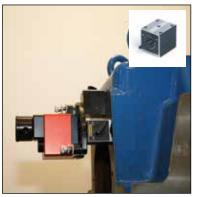
With super magnets on tilt table (included) directly on surface.



When surface is too small for three super magnets. Pin included with D22.



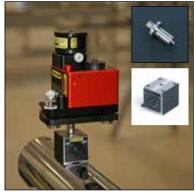
In a machine spindle. Spindle/magnet base pin Part No. 01-1333.



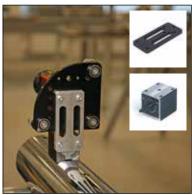
With magnet bases, very rigid mounting.



Feet with points (included), on non magnetic surface.



On round surfaces, horizontal sweep. Pin included with D22.



Vertical mounting on roll. Adapter plate Part No. 12-0874.

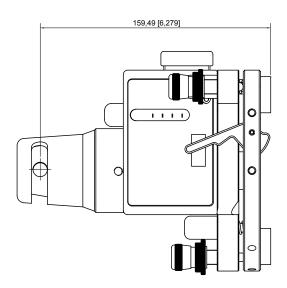


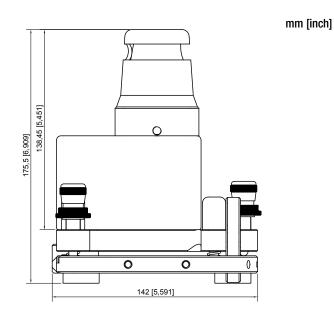
Rigid mounting, horizontal sweep.

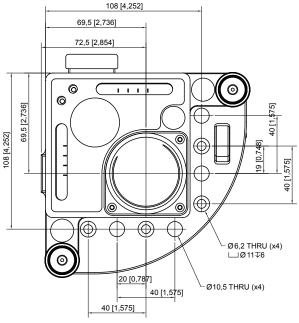


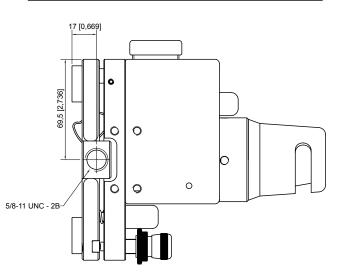
#### Laser transmitter D23 Spin, Part No. 12-0168

	CE LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT
Type of laser	Diode laser
Laser wavelength	630–680 nm
Laser Safety Class	Class 2
Output power	AVERAGE POWER < 1 mW. PULSE ENERGY 2-9 $\mu$ J (spin mode) or < 20 nJ (stationary mode). PULSE DURATION 2-9 ms (spin mode) or 10-17 $\mu$ s (stationary mode).
Beam diameter	6 mm [1/4"] at aperture
Working area, range	20-metre radius [65']
Type of battery	2 x R14 (C)
Operating time/battery	approx. 15 hours
Operating temperature	0–50 °C
Levelling range	± 30 mm/m [± 1.7°]
3 x spirit vials' scaling	0.02 mm/m
Flatness of sweep	0.02 mm/m
Housing material	Aluminium
Dimensions	WxHxD: 139x169x139 mm [5.47x6.64x5.47"]
Weight	2650 g [5.8 lbs]





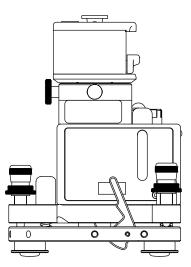


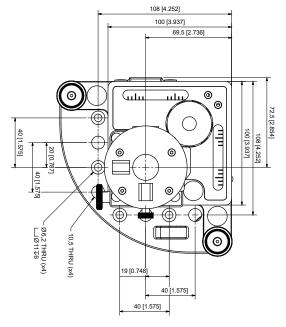


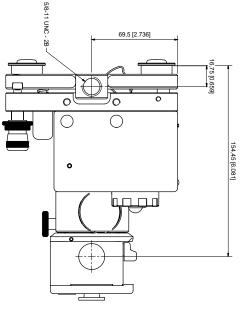


#### Laser transmitter D26, Part No. 12-1064

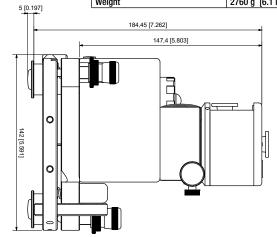
mm [inch]







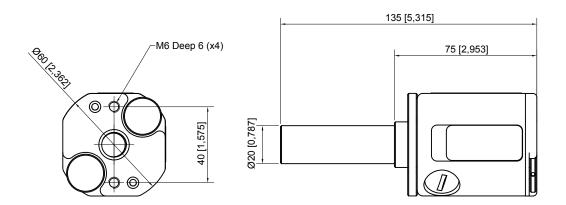
	CE <u>CAUTION</u> LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT
Type of laser	Diode laser, fiber coupled
Laser wavelength	630–680 nm
Laser Safety Class	Class 2
Output power	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 20 nJ. PULSE DURATION 10-17 $\mu s.$
Beam diameter	6 mm [1/4"] at aperture
Working area, range	30-metre radius [99']
Type of battery	1 x R14 (C)
Operating time/battery	approx. 24 hours
Levelling range	±30 mm/m [± 1.7°]
3 x spirit vials' scaling	0.02 mm/m
Squareness between laser beams	±0.01 mm/m [±0.01 mils/inch] [2 arc sec.]
Flatness of sweep, 360° sector	±0.0081 ±0.0055M mm [ ±0.32 ±0.066F mils ] *
Flatness of sweep, 90° sector	±0.0025 ±0.0012M mm [ ±0.10 ±0.015F mils ] *
	* M is the measurement range in meters [m].
	F is the measurement range in feet [ft].
Fine turning of laser head	±0.1 mm/m [20 arc sec.]
2 x spirit vials for rotation of head	±5 mm/m
Housing material	Aluminium
Dimensions	WxHxD: 142x184x139 mm [5.59x7.24x5.47"]
Weight	2760 g [6.1 lbs]

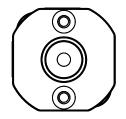


EASY-LASER

#### Laser transmitter D146 Spindle, Part No. 12-0146

	CE LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT
Type of laser	Diode laser
Laser wavelength	630–680 nm
Laser Safety Class	Class 2
Output power	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 20 nJ. PULSE DURATION 10-17 μs.
Beam diameter	3 mm [1/8"] at aperture
Measurement distance	20 m [65´]
Type of battery	1 x R6 (AA)
Operating time/battery	approx. 6 hours
Clamping pin	Ø 20 mm, L= 60 mm [Ø 0.78", L=2.36"]
Housing material	Anodized aluminium
Dimensions (without pin)	Ø 60 mm, L=98 mm [Ø 2.36", L=3.86"]
Weight (with pin)	470 g [16.5 oz]

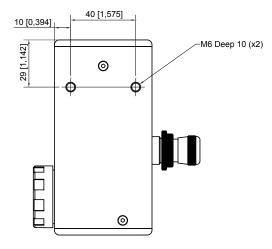


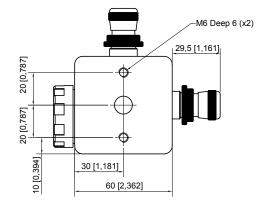


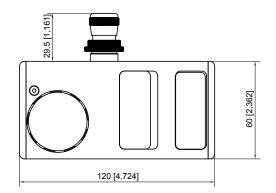


#### Laser transmitter D75, Part No. 12-0075

	CE
Type of laser	Diode laser
Laser wavelength	630–680 nm
Laser Safety Class	Class 2
Output power	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 20 nJ. PULSE DURATION 10-17 $\mu s.$
Beam diameter	6 mm [1/4"] at aperture
Working distance	40-metre [130']
Type of battery	1 x R14 (C)
Operating time/battery	approx. 15 hours
Operating temperature	0–50 °C
Laser adjustment	D75: 2 ways ±2° (± 35 mm/m)
Housing material	Aluminium
Dimensions D75	WxHxD: 60x60x120 mm [2.36x2.36x4.72"]
Weight	780 g [27.5 oz]









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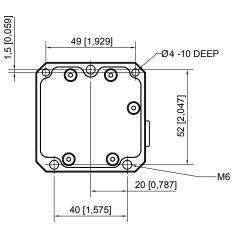
mm [inch]

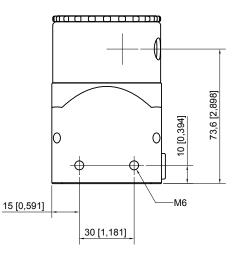
#### Laser transmitter D25 with offset hub, Part No. 12-0706

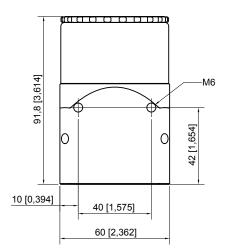
	CE LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT
Type of laser	Diode laser
Laser wavelength	630–680 nm
Laser Safety Class	Class 2
Output power	AVERAGE POWER $<$ 0.6 mW. PULSE ENERGY $<$ 20 nJ. PULSE DURATION 10-17 $\mu s.$
Beam diameter	6 mm at aperture [1/4"]
Measurement range	40 m radius [130']
Battery type	1 x 1.5 V R14 (C)
Operating time / battery	>24 hours
Levelling range	±1.7° (±30 mm/m) in two directions [±30 mils/inch]
Perpendicularity between beams	2 arc sec. (0.01 mm/m) [0.5 mils/inch]
Flatness of sweep	±0.01 mm/m (10µ)
Housing material	Anodised aluminium
Dimensions (transmitter down)	137x137x142 mm [5.4x5.4x5.6"]
Dimensions (transmitter up)	137x137x150 mm [5.4x5.4x5.9"]
Weight	2124 g (battery adaptor excluded) [4.7 lbs]

#### Laser transmitter D25, Part No. 12-0594











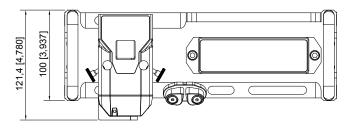
#### Roll alignment kit, Part No. 12-0856

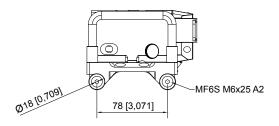
		CE
Detector	See 12-0845 for technical specifications	
Digital precision level	See 12-0846 for technical specifications	
Bracket dimensions	See drawings	

#### Roll bracket, Part No. 12-0849



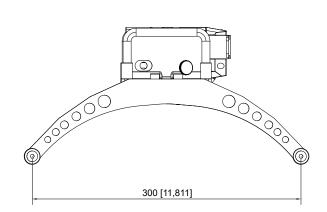
300 [11,811]





Large roll kit, Part No. 12-0885



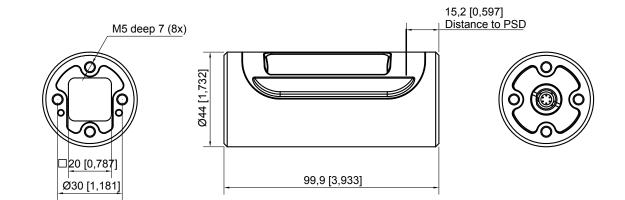




#### Detector E9, Part No. 12-0759

		CE
Wireless communication	BT wireless technology.	
	Contains FCC ID: PVH0946 / IC:5325A-0946	
Type of detector	2 axis PSD 20x20 mm [0.78" sq]	
Resolution	0.001 mm [0.05 mils]	
Measurement accuracy	±1µm ±1%	
Thermal sensor	± 1° C accuracy	
Environmental protection	IP class 67	
Internal battery	Li lon	
Protection	No influence from ambient light	
Housing material	Anodized aluminium	
Dimensions	Ø 45 mm [1.77"], length 100 mm [3.94"]	
Weight	180 g [6.3 oz]	

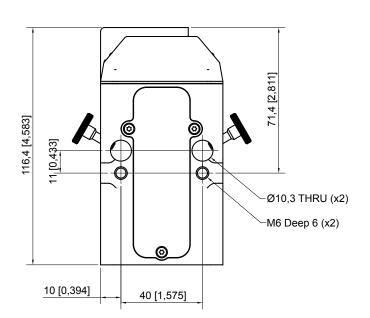
mm [inch]

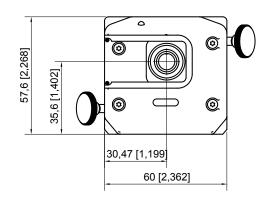




#### Angle detector E2, Part No. 12-0845

Type of detector	2 axis PSD 20x20 mm [0.78" sq]
Type of display	OLED
Wireless communication	BT wireless technology
	Contains FCC ID: PVH0946 / IC:5325A-0946
Internal battery	Li lon
Resolution	0.01 mm/m (0.001°)
Measurement error	Better than ± 0.02 mm/m
Inclinometers	0.1° resolution
Environmental protection	IP Class 67
Operating temperature	-10–50 °C
Housing material	Anodized aluminium
Dimensions	WxHxD: 116x60x57 mm [4.6x2.4x2.2"]
Weight	530 g [18.7oz]

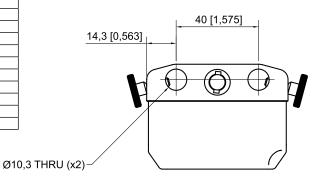


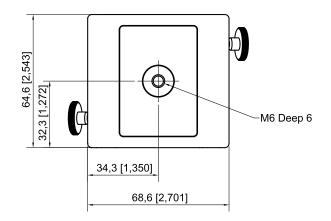


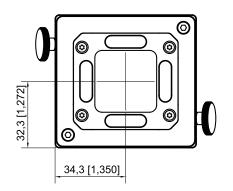


#### Detector E3, Part No. 12-0799

		CE
Wireless communication	BT wireless technology	
	Contains FCC ID: PVH0946 / IC:5325A-0946	
Type of detector	2 axis PSD 30x30 mm [1.18" sq]	
Resolution	0.001 mm [0.05 mils]	
Measurement accuracy	±1µm ±1%	
Thermal sensor	± 1° C accuracy	
Environmental protection	IP class 65	
Internal battery	Li lon	
Protection	No influence from ambient light	
Housing material	Anodized aluminium	
Dimensions	WxHxD: 69x65x49 mm [2.7x2.6x1.9"]	
Weight	262 g [9.2 oz]	









#### Detector E7H, HyperPSD<sup>™</sup>, Part No. 12-0824

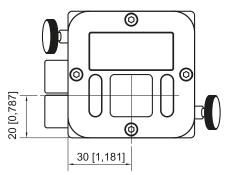
Detector E7H, Part No. 12-0824	CE
Type of detector	2 axis PSD 20x20 mm [0.78" sq]
Resolution	0.0001 mm [0.005 mils]
Measurement accuracy	±1µm ±0.5%
Inclinometers	0.1° resolution
Thermal sensors	± 1° C accuracy
Environmental protection	IP Class 66 and 67
Operating temperature	-10–50 °C
Internal battery	Li Po
Housing material	Anodized aluminium
Dimensions	WxHxD: 60x60x42 mm [2.36x2.36x1.65"]
Weight	186 g [6.6 oz]

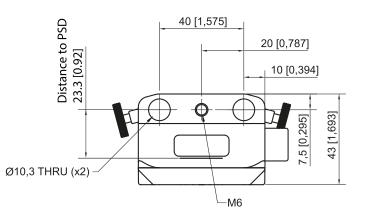
#### Detector E7, Part No. 12-0752

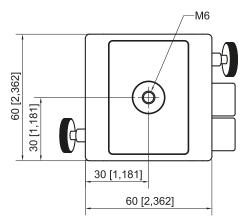
Detector E7, Part No. 12-0752	CE
Type of detector	2 axis PSD 20x20 mm [0.78" sq]
Resolution	0.001 mm [0.05 mils]
Measurement accuracy	±1µm ±1%
Inclinometers	0.1° resolution
Thermal sensors	± 1° C accuracy
Environmental protection	IP Class 66 and 67
Operating temperature	-10–50 °C
Internal battery	Li Po
Housing material	Anodized aluminium
Dimensions	WxHxD: 60x60x42 mm [2.36x2.36x1.65"]
Weight	186 g [6.6 oz]

#### Detector E5, Part No. 12-0509

Detector E5, Part No. 12-0509	CE
Type of detector	2 axis PSD 20x20 mm [0.78" sq]
Dual Detection Technology™	Can detect both spinning and stationary laser beam, but
	is optimised for spinning laser.
Resolution	0.001 mm [0.05 mils]
Measurement accuracy	Spin $\pm 10\mu m \pm 1\%$ / Stationary beam $\pm 10\mu m \pm 2\%$
Inclinometers	0.1° resolution
Thermal sensors	± 1° C accuracy
Environmental protection	IP Class 66 and 67
Operating temperature	-10–50 °C
Internal battery	Li Po
Housing material	Anodized aluminium
Dimensions	WxHxD: 60x60x42 mm [2.36x2.36x1.65"]
Weight	186 g [6.6 oz]





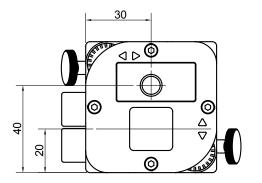


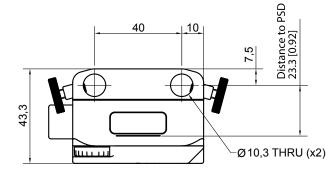


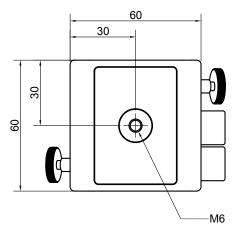
#### Measuring unit M/S, Part No. 12-0434 / 12-0433



Environmental protection	
Temperature range	-10–50 °C
Internal battery	Li Po
Housing material	Anodized aluminium
Dimensions	WxHxD: 60x60x42 mm [2.36"x2.36"x1.65"]
Weight	202 g [7.1 oz]







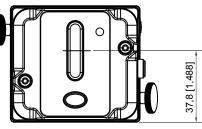


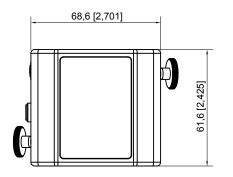
#### Measuring unit ELM40 / ELS40, Part No. 12-0776 / 12-0777

	LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT CE
Wireless communication	BT wireless technology
	Contains FCC ID: PVH0946 / IC:5325A-0946
Internal battery	Li Po
Type of detector	True PSD 30 mm [1.2"]
Resolution	0.001 mm [0.05 mils]
Measurement accuracy	±5μm ±1%
Measurement range	Up to 10 m [33 feet]
Type of laser	Diode laser
Laser wavelength	630–680 nm
Laser class	Safety class 2
Laser output	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 8 nJ. PULSE DURATION 4-6 μs.
Electronic inclinometer	0.1° resolution
Thermal sensors	-20–60 °C
Environmental protection	IP class 65
Temperature range	-10–50 °C
Housing material	Anodized aluminium / ABS plastics
Dimensions	WxHxD: 69.0x61.5x41.5 mm [2.72"x2.42"x1.63"]
Weight	164 g [5.8 oz]

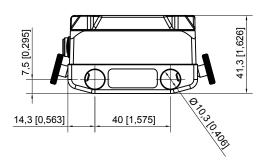
ELM40/ELS40

mm [inch]





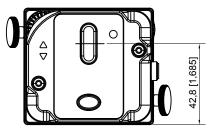
ELM40/ELS40 ELM20/ELS20



#### Measuring unit ELM20 / ELS20, Part No. 12-0746 / 12-0747

Measuring unit PSD 20 mm. ELM2	20: Part No. 12-0746, ELS20: Part No. 12-0747
Wireless communication	BT wireless technology
	Contains FCC ID: PVH0946 / IC:5325A-0946
Internal battery	Li Po
Type of detector	True PSD 20 mm [0.79"]
Resolution	0.01 mm [0.5 mils]
Measurement accuracy	±5μm ±1%
Measurement range	Up to 3 m [10 feet]
Type of laser	Diode laser
Laser wavelength	630–680 nm
Laser class	Safety class 2
Laser output	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 8 nJ. PULSE DURATION 4-6 μs.
Electronic inclinometer	0.1° resolution
Thermal sensors	-20–60 °C
Environmental protection	IP class 65
Temperature range	-10–50 °C
Housing material	Anodized aluminium / ABS plastics
Dimensions	WxHxD: 69.0x61.5x41.5 mm [2.72"x2.42"x1.63"]
Weight	176 g [6.2 oz]

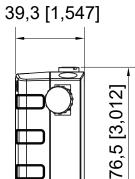
ELM20/ELS20

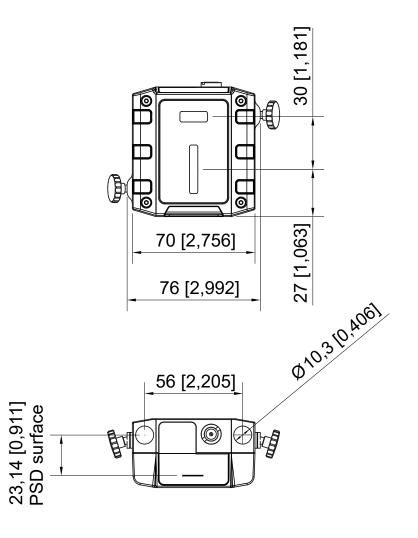


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#### Measuring unit XT40-M, XT40-S, Part No. 12-0943 / 12-0944

Measuring unit PSD 30 mm. XT40	ASER RADIATION LASER RADIATION CLASS 2 LASER PRODUCT CE -M: Part No. 12-0943, XT40-S: Part No. 12-0944
Type of detector	TruePSD 30 mm [1.2"]
Communication	BT wireless technology
	Contains FCC ID: QOQBGM111 / IC:5123A-BGM111
Battery type	Heavy duty Li Ion chargeable
Operating time	Up to 24 h continuously
Resolution	0.001 mm [0.05 mils]
Measurement accuracy	±5µm ±1%
Measurement range	Up to 10 m [33 feet]
Type of laser	Diode laser
Laser wavelength	630–680 nm
Laser class	Safety class 2
Laser output	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 8 nJ.
	PULSE DURATION 4-6 µs.
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: 76x76.5x39.3 mm [3.0x3.0x1.5"]
Weight	245 g [8.6 oz]

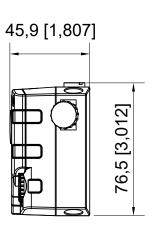






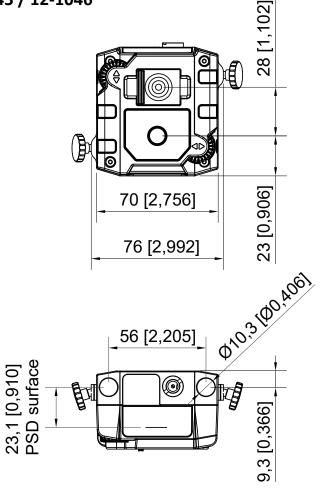
#### Measuring unit XT60-M, XT60-S, Part No. 12-1028 / 12-1029

Measuring unit PSD 20x20 mm. >	CAUTION LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT CE
Type of detector	1-axis TruePSD 20x20 mm [0.79x0.79"]
Communication	BT wireless technology
	Contains FCC ID: Q0QBGM111 / IC:5123A-BGM111
Battery type	Heavy duty Li Ion chargeable
Operating time	Up to 24 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	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 20 nJ.
	PULSE DURATION 10-17 µs. WAVELENGTH 630-680 nm.
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: 76x76.5x45.9 mm [3.0x3.0x1.8"]
Weight	272 g [9.6 oz]



#### Measuring unit XT70-M, XT70-S, Part No. 12-1045 / 12-1046

Measuring unit PSD 20x20 mm. X	LASER RADIATION DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT CE
Type of detector	2-axis TruePSD 20x20 mm [0.79x0.79"]
Communication	BT wireless technology
	Contains FCC ID: QOQBGM111 / IC:5123A-BGM111
Battery type	Heavy duty Li Ion chargeable
Operating time	Up to 24 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	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 20 nJ.
	PULSE DURATION 10-17 µs. WAVELENGTH 630-680 nm.
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: 76x76.5x45.9 mm [3.0x3.0x1.8"]
Weight	272 g [9.6 oz]





#### Measuring unit XT50-M, XT50-S, Part No. 12-1026 / 12-1027





Measuring unit PSD 20x20 mm.	KT50-M: Part No. 12-1026, XT50-S: Part No. 12-1027
Type of detector	TruePSD 1 axis 20x20 mm [0.79x0.79"]
Communication	BT wireless technology
	Contains FCC ID: QOQBGM111 / IC:5123A-BGM111
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	AVERAGE POWER < 0.6 mW. PULSE ENERGY < 20 nJ.
	PULSE DURATION 10-17 µs. WAVELENGTH 630-680 nm.
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]

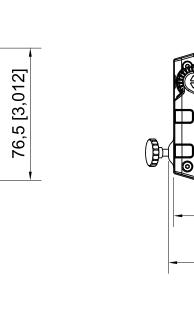
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#### Easy-Laser® XT50 measuring units are approved in accordance with the latest ATEX directive.

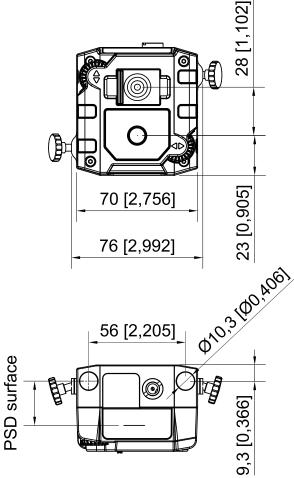
EX certificate number: Presafe 17 ATEX 10552X, IECEx PRE 17.0049X ATEX code: II 2 G EX classification: Ex ib op is IIC T4 Gb,  $-10^{\circ}C \le Ta \le +50^{\circ}C$ II=Indicates that the instrument is approved for all areas except mines 2=Unit category. Intrinsically safe equipment for zones 1 and 2 (likely occurrence of explosive atmosphere) G=Indicates atmosphere: Gas, Vapours, Mists ib=Type of protection from an explosion

IIC=Explosion group T4=Temperature class



[1,009]

25,6 |

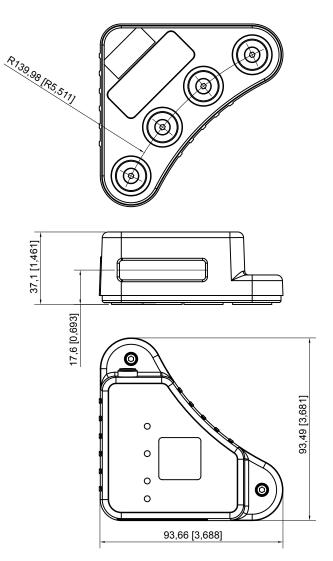




**EASY-LASER®** 

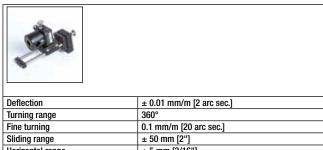
#### E- and XT-series wireless detector for BTA, Part No. 12-1054

	CE
Sheave diameters	>60 mm [2.5"]
Measurement distance	Up to 3 m [9.8'] between Transmitter and Detector
Measurement range	Axial offset: ±3 mm [0.12"]. Angular value: ±8°
Displayed resolution	Offset: 0.1°, Angle: 0.01°
Display type	Yellow OLED 96x96 pixels
Connection	BT wireless technology
	Contains FCC ID: Q0QBT121 / IC: 5123A-BGTBT121
Battery type	Li lon
Battery operation	5 hours continuously
Material	ABS plastics / Anodized aluminium
Dimensions	WxHxD: 95x95x36 mm [3.7x3.7x1.4"]
Weight	190 g [6.7 oz]

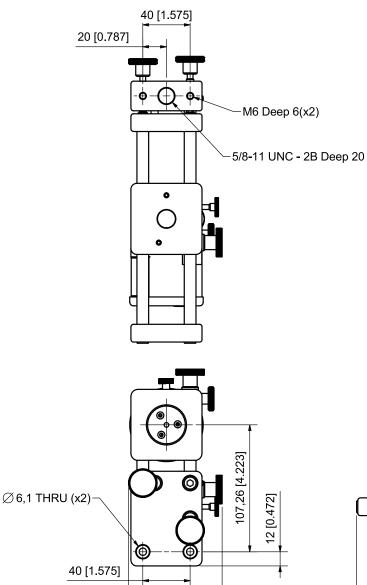




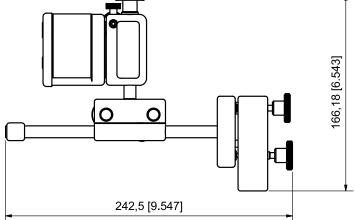
#### Angular prism D46, Part No. 12-0046



Sliding range	± 50 mm [2"]
Horizontal range	± 5 mm [3/16"]
Vertical range	± 5 mm [3/16"]
Tilting range	± 2°
Aperture size	Diameter 20 mm [3/4"]
Vials scaling	5 mm/m [0.3°]
Threads	5/8 UNC and M6
Housing material	Anodized aluminium, stainless steel
Weight	1800 g [4 lbs]



79 [3.110]



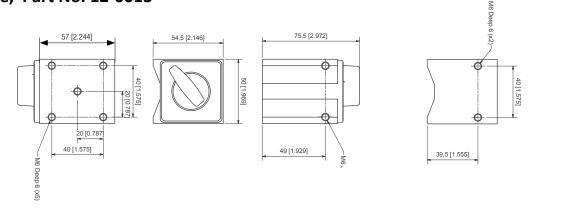


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#### Magnet base, Part No. 12-0013

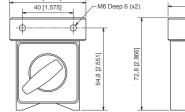


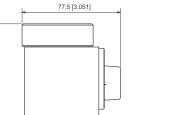


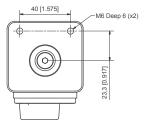
#### Magnet base with turnable head, Part No. 12-0045

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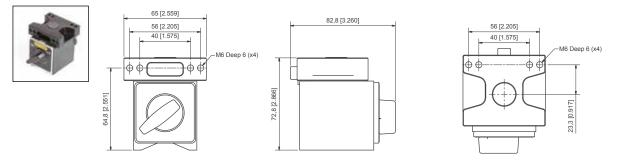






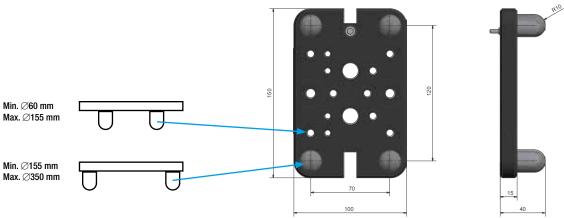


#### Magnet base with turnable head, Part No. 12-1133



#### Sliding bracket, Part No. 12-1010







#### Note: New products in rev19 marked with **Bold** letters.

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12-0201	Detector D678
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12-0203	Parallelity kit
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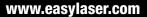
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12-0762	Rod adapter with built-in target	
12-0768	Slide bracket, width 25 mm [0.99"]	
12-0700	System E920 Geometric	10
12-0772	System E950-C	15
12-0775	System E540-B	
12-0776	Measuring unit ELM 40	
12-0777	Measuring unit ELS 40	
12-0787	Spindle bracket for measuring unit	
12-0788	System E930 Extruder	
12-0789	Measuring unit ESH, HyperPSD <sup>™</sup>	45
12-0790	Measuring unit EMH, HyperPSD™	
12-0791	E-series wireless detector for belt alignment	
12-0794	Target E-series 20x20	
12-0796	System E180 BTA	
12-0797	System Vestas 4	
12-0799	Detector E3	
12-0801	Measuring probe Ruby diameter 2.5mm	
12-0804	Transportation case for BTA systems	
12-0805	Measuring probe Ruby diameter 5mm	.61
12-0810	Large target extruder	.64
12-0814	Tube bracket	
12-0815	Adapter bracket for rod distance 40 mm	. 84
12-0823	Laser transmitter E30 Long Range	
12-0824	Detector E7H, HyperPSD <sup>™</sup>	. 43
12-0825	System Vestas 3	
12-0828	Offset hub with counterlock and tilt function	
12-0840	VGA kit, for serial number 94177 and newer	
12-0845	Detector E2	
12-0846	Digital Precision Level E290	
12-0849	Roll bracket	.54
12-0850	System E180 without laser transmitter 12-0309	
12-0853	System E970 Parallelism	
12-0854	System E975 Roll Alignment	
12-0855	Upgrade kit Long stroke	
12-0856	Roll alignment kit.	
12-0857	Digital Precision Level, complete kit	
12-0858	Laser transmitter E30 Long Range, with tilt table	
12-0864	Tilt table, turnable	
12-0874	Adapter plate for tilt table to magnet base	
12-0885 12-0901	Large roll kit Extension kit for large diameters	.04 54
12-0901	-	
12-0915	Safety strap Height adjustment bracket for detector	
12-0937	Measuring unit XT40-M	
12-0943	Measuring unit XT40-M	
12-0949	Replaced by 12-1118	
12-0954	System E950-D Bore alignment	
	- ,	. 0

12-0955	System E720 Shaft/Geo	27
12-0961	XT11 Display unit for Generation XT	
12-0963	Shaft bracket with chain and rods	50
12-0966	System XT440 without display unit	26
12-0967	System XT440 with display unit XT11	26
12-0972	Carrying case Small for system XT440	69
12-0973	Carrying case Medium for system XT440/XT660	69
12-0987	Rods, 120 mm [4.72"], 4 pcs	53
12-0988	Bar bracket	
12-0989	DC split cable for charging	65
12-0990	Adjustable magnet for offset hub arms	58
12-0992	Replaced by 12-1017	50
12-1008	Offset bracket	
12-1010	Sliding bracket	52
12-1011	Magnetic bracket	49
12-1012	Thin chain bracket	51
12-1017	Magnetic brackets and rods, kit	50
12-1018	Angular adapter for detector, 90°	59
12-1019	Titanium rods, set of 3	61
12-1020	Carrying case Large for system E540	69
12-1025	Carrying case Small for system E540	69
12-1026	Measuring unit XT50-M Ex/ATEX	47
12-1027	Measuring unit XT50-S Ex/ATEX	47
12-1028	Measuring unit XT60-M	46
12-1029	Measuring unit XT60-S	
12-1031	System XT550 Ex/ATEX without Display unit	25
12-1039	Pin for hub	56
12-1043	System E540-A	29
12-1045	Measuring unit XT70-M	
12-1046	Measuring unit XT70-S	
12-1047	Measuring probe, cylindrical	
12-1048	Measuring probe, cylindrical, with magnet	
12-1049	Carrying case L for system XT440/XT660/XT770	
12-1051	System XT660 with display unit, case M	24
12-1052	System XT660 with display unit, case L	
12-1053	System XT190 BTA	
12-1054	Detector unit for system XT190 BTA	
12-1058	System XT660 without display unit XT11, case M	
12-1059	System XT660 without display unit XT11, case L	
12-1060	Extension chain, set for E- and XT-series	
12-1064	Laser transmitter D26	
12-1086	ECOM Tab Display unit	
12-1090	XT280 Vibrometer, complete set	
12-1095	System XT770 with Display unit	
12-1096	System XT770 without Display unit	
12-1097	System XT550 Ex/ATEX with Display unit	
12-1113	GA1 system+brackets for coupling assembled	
12-1114	GA1 brackets for coupling removed	
12-1118	System Easy-Laser® GA1	
12-1125	DM-bracket	
12-1027	System XT770, with GEO Kit, with Display unit	
12-1028	System XT770, with GEO Kit, without Display unit	
12-1129	Extension for DM-bracket	
12-1130	DM-bracket, complete set	
12-1133	Magnet base with turnable top	
12-1151	Cardan bracket set	
12-1161	Rods, 75 mm [2.95"], 4 pcs	53
10.0004	0	
13-0004	Cap	
13-0006	Pen	
13-0007	Playing cards	
13-0012	A5 Notes	
13-0013	Keychain with spirit level	/ /

Note: New products in rev19 marked with **Bold** letters.



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