# We Make It Easy!

# **PRODUCT CATALOGUE**

Precision laser measurement systems









Blog articles



ompany site

Version 05-0444 Rev 12. Released 5 June 2015.

CONTENT Easy-Laser® Product overview

INTRODUCTION / DOCUMENTATION	3
GEOMETRIC MEASUREMENT SYSTEMS	6
SHAFT ALIGNMENT SYSTEMS	19
SHEAVE/PULLEY ALIGNMENT SYSTEMS	24
INTRINSICALLY SAFE PRODUCTS	26
SPECIAL SYSTEMS	27
MEASUREMENT PROGRAMS D AND E SERIES	28
DISPLAY UNITS	32
LASER TRANSMITTERS	33
DETECTORS AND OTHER RECEIVERS	35
MEASURING UNITS	38
BRACKETS AND MISCELLANEOUS PRODUCTS	40
SPARE PARTS	68
APPAREL / GIVE AWAYS	73
DISCONTINUED PRODUCTS	75
TECHNICAL SPECIFICATIONS AND DRAWINGS	82
PART NUMBER PAGE LIST	102

SYSTEM	PAGE
E980 Sawmill	6
E975 Roll Alignment	7
E970 Parallelism	8
E960-A Turbine alignmer	nt 9
E960-B Turbine alignmer	nt 10
E950-A Bore alignment	11
E950-B Bore alignment	12
E950-C Bore alignment	13
E940 Machine tool	14
E930 Extruder	15
E920 Geometric	16
E915 Flange Spin	17
E910 Flange	18
E710 Shaft	19
E540 Shaft	20
E530 Shaft	21
E420 Shaft	22
E180 BTA	24
E170 BTA	24
D160 BTA	25
D90 BTA	25
D550 Shaft Ex	26
E130 BTA Ex	26
Wind Shaft System	27

Read this first!

# 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® E915 Flange Spin

Measure with spinning laser. Evaluate dirk See the result as a true 3D image in the dis measuring. Then evaluate the result easily settings, for example three point reference can also be done directly on site without h with separate analysis programs, which wa makes production much more efficient.

The system includes laser transmitter D23 head. This is how it works in brief: The lase ter rotates constantly and creates a referer measurement object. Measurements are p not have to align the beam for each new m place the detector at the desired measurer

|D| or |E|: Indicates if the product is exclusively compatible with either the D or E product range. If no letter is present, the part fits both D and E ranges. If there are other compatibility limitations within each range these are mentioned for each product.

*Product picture*. Can sometimes show items that are not included for the specific Part No. See Note.



**Detector E5** 

Part No: 12-0509

Description: Detector for the E

[0.79"x0.79"]. Built-in 360° elec

[0.79"x0.79"]. Built-in 360° elemaking 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 l

*NOTE!* We reserve the right to make modifications of the product design and technical specifications without prior notification.

 Additional pictures. Can show the system/product in an application, a product function or another view.
 Be aware that these pictures may show items that are not included.



# MAKE A CHOICE WITH PRECISION

Measurement and alignment should be easy! That is the fundamental philosophy behind our measurement systems. When we talk about simplicity we mean several things, for example, simple to install the measurement equipment on the measurement object, easy to perform the measurement and easy to interpret the measurement result. Simple to use = quick and easy!

It is good to have Easy-Laser® to rely on. High product quality and a personal touch are givens. We have short delivery times, fast service and the best product warranty on the market. The measurement systems are also versatile and expandable, which makes them easy to adapt to your needs. Our aim with Easy-Laser® is to make sure that you always get the most comprehensive measurement system for your money!

We take care of the entire chain internally, from idea to the end product. Our development department consists of designers who specialise in mechanics, electronics, optics and programming. They continuously strives to simplify the user's work through innovative and clever solutions. It is the collaboration between laser transmitter, detector and software that is the key to a quick and easy measurement. This is where Easy-Laser® shines.

In addition to our already versatile standard system we can also specially adapt measurement systems to suit your needs, something we are proud of being able to offer. Using our own CNC machines we can quickly manufacture brackets just for you. Don't hesitate to contact us!



# **LONG WARRANTY**

The Easy-Laser® systems have evolved over more than 25 years, through field experience in solving measurement and alignment problems. The systems come with a 2 year limited warranty (Easy-Laser® D550: 4 years extended warranty period.). The manufacturing and quality systems are ISO9001 approved. We offer the user to extend the warranty from 2 to 3 years by registering their system on the Internet: www.damalini.com





# **OUR SERVICE CONCEPT**

Our service department usually takes care of servicing or calibration within five working days. All this makes Easy-Laser® 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.



# **EXPANDABILITY MAKES EASY-LASER® FUTURE PROOF**

Easy-Laser® measurement systems are already 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. It is cost-effective.

Note1: The D-series and E-series detectors and display units can only be used within its own product series. Note2: All D-series systems except D550 and BTA products are discontinued.



# 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.easy-laser.com and www.damalini.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® Wind Power Shaft Alignment



Easy-Laser® D550 Ex



Easy-Laser® E710



Easy-Laser® E540



Easy-Laser® E530



Easy-Laser® E420



Easy-Laser® E290



Easy-Laser® E180



Easy-Laser® E170



Easy-Laser® D160



Easy-Laser® D130



Easy-Laser® D90

**EASY-LASER®** 

# **COMPLETE SYSTEMS**





















# Easy-Laser® E980 Sawmill

Part No: 12-0727

# Measurement and alignment of sawmill machinery

Easy-Laser® 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® 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

### A complete system contains:

- 12-0418 1 Display unit E51
- 12-0168 1 Laser transmitter D23
- 12-0509 1 Detector E5
- 12-0436 1 Bluetooth® unit
- 03-0833 2 Electronic target
- 12-0074 1 Cable 2 m
- 12-0108 1 Cable 5 m, extension
- 12-0045 1 Magnet base with turnable head
- 12-0016 1 Shaft bracket
- 12-0624 2 Bracket for electronic target
- 12-0169 1 Rod bracket with turnable head
- 12-0485 1 Magnet bracket short, with turnable head
- 12-0484 1 Magnet bracket long, with turnable head
- 12-0483 1 Bracket for tilt table
- 12-0482 1 Index table 90°
- 12-0059 1 Set of Rods 4x60 mm
- 12-0324 1 Rods (8x120 mm)
- 01-0565 2 Large targets
- 05-0602 1 Manual (Note: Refers to English manual)
- 03-0914 1 USB memory stick with documentation
- 03-0822 1 USB cable
- 03-0821 1 Battery charger (100-240 V AC)
- 03-0967 1 Hexagon wrench set (incl. with 12-0168)
- 01-0048 1 Rod tightening tool 4 mm (incl. with 12-0168)
- 12-0495 1 Shoulder strap for Display unit
- 03-0878 1 Cleaning cloth for optics
- 12-0736 1 Carrying case

### Most common accessories:

12-0294 1 AC adaptor for laser transmitter

12-0227 1 Profile measurement unit for blade wheels



# **Bluetooth**





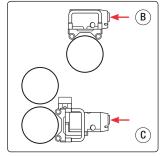












# Easy-Laser® E975 Roll Alignment

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.

### A complete system contains:

Display unit E-series E51 12-0418

12-0022 Laser transmitter D22 incl. tilt table

12-0845 Detector E2 1

12-0849 1 Roll bracket

12-0846 **Digital Precision Level E290** 1

12-0013 1 Magnet base

Adapter plate for tilt table to magnet base 12-0874

Rods 240 mm 01-0044 2

01-0873 Rods 120 mm

01-0043 2 Rods 60 mm

12-0554 Safety strap for laser transmitter

05-0685 Manual (Note: Refers to English manual)

03-0842 1 Measuring tape 5 m

03-0914 USB memory stick with documentation

03-0822 1 USB cable

03-0821 Battery charger (100-240 V AC)

12-0750 DC charging cable 1

12-0751 1 DC to USB adapter

03-0967 Hexagon wrench set

12-0495 Shoulder strap for Display unit 1

03-0878 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"]

# Most common accessories:

12-0885 1 Large Roll kit

**Detector E7** 12-0752

12-0796 E180 BTA

12-0619 Barcode reader

12-0585 Charger 12-36V Measuring unit EM 12-0434

Measuring unit ES 12-0433

12-0016 V-bracket with chain

01-1165 Offset bracket

12-0597 Splitter box

03-1004 Thermal printer

12-0455 Slide bracket Min. Ø120 mm

12-0543 Slide bracket Min. Ø200 mm 1 Slide bracket Min. Ø300 mm

12-0510

12-0269 Tripod 1

12-0046 Angular prism





















# Easy-Laser® 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.

### A complete system contains:

12-0418 1 Display unit E-series E51

12-0022 Laser transmitter D22 incl. tilt table

12-0752 **Detector E7** 1

12-0436 1 Bluetooth® unit for E7

12-0846 E290 Digital Precision Level 1

12-0901 1 Extension Kit for E290

12-0074 Cable 2 m

12-0108 Cable 5 m, extension

12-0046 Angular prism

12-0203 Parallelity kit 1

12-0269 2 Tripod

12-0060 Set of Rods 4x240 mm

Set of Rods 4x60 mm 12-0059 1

12-0554 Safety strap for laser transmitter

Safety strap for E290 12-0915

05-0685 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) 03-0821 1

12-0750 DC charging cable

DC to USB adapter 12-0751 1

03-0967 Hexagon wrench set

12-0495 1 Shoulder strap for Display unit

03-0878 1 Cleaning cloth for optics

12-0869 Carrying case

# Most common accessories:

E180 BTA 12-0796 1

Battery pack with Bluetooth® technology 12-0618

12-0619 Barcode reader

12-0585 Charger 12-36V 12-0434 Measuring unit EM

12-0433

Measuring unit ES 12-0016 V-bracket with chain

01-1165 Offset bracket

12-0597 Splitter box

03-1004 Thermal printer

12-0455 Slide bracket Min. Ø120 mm

12-0543 Slide bracket Min. Ø200 mm

12-0510 Slide bracket Min. Ø300 mm

12-0269 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"]



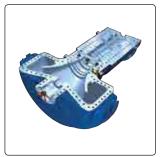


















# Easy-Laser® E960-A Turbine alignment

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.

### 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	Bluetooth® unit

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

05-0601 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

03-0821 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"]

### Most common accessories:

12-0618 1 Battery pack with Bluetooth® 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



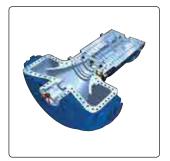


















# Easy-Laser® E960-B Turbine alignment

Part No: 12-0711

### Reliability and precision

Easy-Laser® 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 4500 mm [177"] 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.

### A complete system contains:

10 0410	4	Display well Coopies CC
12-0418	1	Display unit E-series E5
12-0075	1	Laser transmitter D75
12-0752	1	Detector E7
12-0436	1	Bluetooth® unit
12-0074	1	Cable 2 m
12-0108	1	Cable 5 m, extension
12_0385	1	Lacar transmitter brack

12-0385 1 Laser transmitter bracket 12-0661 1 Offset hub for Laser transmitter 12-0715 1 Detector bracket Long stroke

12-0443 2 Centering target

12-0495 1 Shoulder strap for Display unit

05-0601 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

03-0821 1 Battery charger (100–240 V AC) 03-0878 1 Cleaning cloth for optics

12-0724 1 Carrying case with wheels

Complete system:

Weight: 31.5 kg [69.4 lbs]

WxHxD: 1220x460x170 mm [48.0x18.1x6.7"]

### Most common accessories:

12-0618 1 Battery pack with Bluetooth® technology Offset hub arm kit for diameters 100-500 mm 12-0707 12-0752 E7 (as reference detector) 12-0585 Charger 12-36V 1 12-0434 Measuring unit M 12-0433 1 Measuring unit S 12-0016 V-bracket with chain 01-1165 Offset bracket 12-0187 Magnetic bracket for D75 12-0282 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



# **Bluetooth**

















# Easy-Laser® E950-A Bore alignment

Part No: 12-0676

### Bore alignment with the highest reliability and precision

Easy-Laser® 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® 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.

One new 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.

### A complete system contains:

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

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. Ø300 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

05-0543 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

03-0821 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

# Most common accessories:

12-0618 1 Battery pack with Bluetooth® 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"]





















# Easy-Laser® E950-B Bore alignment

Part No: 12-0677

# Bore alignment with the highest reliability and precision

Easy-Laser® 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.

One new 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.

Note! The design of the Self centering bracket is as on the picture to the left, not as on the overview picture.

### A complete system contains:

12-0418	1	Display unit E-series E51
12-0075	1	Laser transmitter D75
12-0752	1	Detector E7
40 0400	-	DI

12-0436 Bluetooth® unit

12-0074 Cable 2 m 1

12-0108 1

Cable 5 m, extension 12-0661 1

Offset hub for Laser transmitter Laser transmitter bracket for sterntube 12-0385 1

12-0341 Self centering detector bracket for Ø250-500 mm

12-0588 Large target F-series 1

12-0013 Magnet base

12-0059 Set of rods (4x60 mm)

01-0938 Rods 30 mm 2

01-0873 Rods 120 mm

Rods 240 mm 01-0044 2

12-0495 Shoulder strap for Display unit

05-0543 Manual (Note: Refers to English manual)

03-0842 Measuring tape 5 m

03-0914 **USB Memory stick with documentation** 

**USB Cable** 03-0822 1

03-0821 Battery charger (100-240 V AC)

Hexagon wrench set 03-0967 1

03-0878 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"]

# Most common accessories:

Battery pack with Bluetooth® technology 12-0618 1

12-0619 Barcode reader

12-0585 Charger 12-36V

12-0434 Measuring unit M

12-0433 Measuring unit S V-bracket with chain 12-0016

01-1165 Offset bracket

Magnetic bracket for D75 12-0187

12-0282 Set of extension arms

12-0597 Splitter box

03-1004 Thermal printer

12-0022 Laser transmitter D22

Slide bracket Min. Ø120 mm 12-0455

12-0543 Slide bracket Min. Ø200 mm

Slide bracket Min. Ø300 mm 12-0510





















# Easy-Laser® E950-C Bore alignment

Part No: 12-0772

### Bore alignment with the highest reliability and precision

Easy-Laser® 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® 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.

One new 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. 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.

### A complete system contains:

12-0418 12-0075	1	Display unit E-series E51 Laser transmitter D75
12-0759	1	Detector E9, 2-axis
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
12-0768	1	Slide bracket, Width 25 mm, Min. ∅80 mm
12-0700	- 1	Silve bracket, width 25 min, with. 200 min

	-	,,
12-0767	1	Rod adapter with built in target
12-0455	1	Slide bracket Min. Ø120 mm
12-0543	1	Slide bracket Min. Ø200 mm
12-0510	1	Slide bracket Min. Ø300 mm
12-0013	1	Magnet base
12-0059	1	Set of rods (4x60 mm)

12-0310		Silue bracket Will. 2500 Hill
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

Manual (Note: Refers to English manual) 05-0543 1 03-0842 Measuring tape 5 m

03-0914 1

**USB Memory stick with documentation** 03-0822 **USB Cable** 

03-0821 1 Battery charger (100-240 V AC) 03-0967 1 Hexagon wrench set Cleaning cloth for optics 03-0878

12-0782 1 Carrying case

# Most common accessories:

12-0553 1 Bore bracket adapter plate

		20.0 Diagnot adapto. Piato
12-0314	1	Detector arms Linebore
12-0343	1	Slide bracket Min. ∅100 mm
12-0752	1	Detector E7 reference detector
12-0436	1	Bluetooth® unit
01-0777	1	Tube adapters (manufactured on request to specified diameter)
12-0214	1	Set of extension rods for Tube measurements
12-0434	1	Measuring unit EM
12-0433	1	Measuring unit ES
12-0016	1	V-bracket with chain
01-1165	1	Offset bracket
12-0187	1	Magnetic bracket for D75
12-0282	1	Set of extension arms
12-0580	1	Axial extension arms
12-0597	1	Splitter box
12-0585	1	Charger 12–36V
12-0619	1	Barcode reader
03-1004	1	Thermal printer

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"]

12-0022 1 Laser transmitter D22











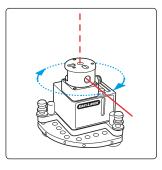
BARCODE ||

SYSTEM











# Easy-Laser® E940 Machine tool

Part No: 12-0761

### For measuring and aligning machine tools

Easy-Laser® 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 D22 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® E940 has got our new HyperPSD™ precision detectors, making it possible to display a resolution of 0.0001 mm [0.000005"/0.005 mils].

### A complete system contains:

12-0418	1	Display unit E51	(with HyperPSD™	support)
---------	---	------------------	-----------------	----------

12-0022 1 Laser transmitter D22 incl. tilt table

12-0789 1 Measuring unit ESH (HyperPSD™)

12-0790 1 Measuring unit EMH (HyperPSD™)

12-0436 2 Bluetooth® unit

12-0656 1 E285 Vibrometer probe

12-0074 2 Cable 2 m

12-0108 2 Cable 5 m, extension

01-1333 1 Machine/magnet base pin for D22

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

12-0554 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

03-0821 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

# Most common accessories:

12-0846 1 E290 Digital Precision Level

12-0901 1 Extension Kit for E290

12-0146 1 Laser transmitter D146

12-0759 1 Detector E9, 2-axis (\*)

12-0619 1 Barcode reader

12-0019 1 Balcode reader

12-0413 1 Magnetic bracket

12-0412 1 Thin shaft bracket

12-0039 1 Sliding bracket

12-0585 1 Charger 12–36V

12-0618 1 Battery pack with Bluetooth® technology

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)

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"]



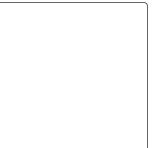




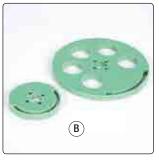














# Easy-Laser® E930 Extruder alignment

Part No: 12-0788

# For aligning extrusion machines

Easy-Laser® 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 via Bluetooth®, which means that one can measure more freely. The measurement system has programs that guide you step-bystep, 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® 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.

### 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
04 0777	-	0-4-41

Set of brackets for detector 01-0777 Set of extension rods for detector (6.3 m) 12-0792

12-0810 Target for extruder Shoulder strap for Display unit

05-0685 Manual (Note: Refers to English manual)

03-0842 Measuring tape 5 m

**USB Memory stick with documentation** 03-0914 1

1

12-0495

03-0822 **USB Cable** 

Battery charger (100-240 V AC) 03-0821 1 03-0967 Hexagon wrench set 03-0878 Cleaning cloth for optics 1

12-0811 1 Carrying case

### Most common accessories:

12-0767	1	Rod adapter with built in target
12-0022	1	Laser transmitter D22
12-0436	1	Bluetooth® 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
12-0413	1	Magnetic bracket
12-0412	1	Thin shaft bracket
12-0039	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
12-0585	1	Charger 12-36V
12-0619	1	Barcode reader
03-1004	1	Thermal printer
		•



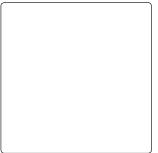
# **Bluetooth**°

















# Easy-Laser® 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® 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® range. Now or in the future.

### A complete system contains:

12-0418	1	Display unit E51
---------	---	------------------

12-0022 1 Laser transmitter D22 incl. tilt table

12-0752 1 Detector E7

12-0436 1 Bluetooth® unit

12-0074 1 Cable 2 m

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

12-0554 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

03-0821 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

12-0512 1 Carrying case

# Complete system:

Weight: 12.3 kg [27.1 lbs]

WxHxD: 550x450x210 mm [21.6x17.7x8.3"]

# Most common accessories:

12-0759 1 Detector E9, 2-axis

12-0758 1 Detector E8, 1-axis

12-0796 1 E180 BTA

12-0618 1 Battery pack with Bluetooth® technology

12-0619 1 Barcode reader

12-0585 1 Charger 12-36V 12-0434 1 Measuring unit EM

12-0434 1 Measuring unit EN

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. Ø200 mm

12-0510 1 Slide bracket Min. Ø300 mm

12-0269 1 Tripod

12-0046 1 Angular prism



# **Bluetooth**









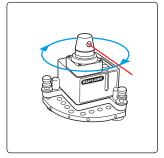


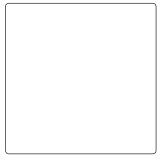












# Easy-Laser® E915 Flange Spin

Part No: 12-0526

### Measure with spinning laser. Evaluate directly in true 3D.

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.

### A complete system contains:

12-0418 1 Display unit E-series E51

12-0168 1 Laser transmitter D23 incl. tilt table

12-0509 1 Detector E5

12-0436 1 Bluetooth® 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

12-0554 1 Safety strap for laser transmitter

05-0434 1 Manual (Note: Refers to English manual)

05-0435 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

03-0821 1 Battery charger (100-240 V AC)

03-0967 1 Hexagon wrench set

03-0878 1 Cleaning cloth for optics

12-0512 1 Carrying case

### Most common accessories:

12-0618 1 Battery pack with Bluetooth® unit

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. Ø200 mm

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"]



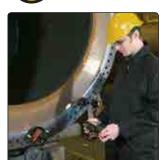
# **Bluetooth**°



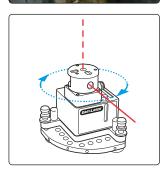


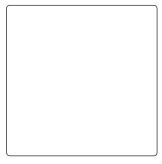












# Easy-Laser® E910

Part No: 12-0525

### Evaluate directly in true 3D.

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.

### A complete system contains:

12-0/18	1	Dienlay unit	F-ceries	F51

12-0022 1 Laser transmitter D22 incl. tilt table

12-0752 1 Detector E7

12-0436 1 Bluetooth® 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

12-0554 1 Safety strap for laser transmitter

05-0434 1 Manual (Note: Refers to English manual)

05-0435 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

03-0821 1 Battery charger (100-240 V AC)

03-0967 1 Hexagon wrench set

03-0878 1 Cleaning cloth for optics

12-0512 1 Carrying case

# Most common accessories:

12-0618 1 Battery pack with Bluetooth® unit

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

12-0597 1 Splitter box 03-1004 1 Thermal printer

12-0455 1 Slide bracket Min. ⊘120 mm

12-0543 1 Slide bracket Min. Ø200 mm

12-0510 1 Slide bracket Min. Ø300 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"]







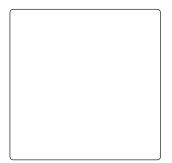


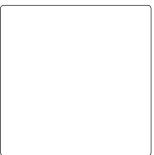












# Easy-Laser® E710 Shaft

Part No: 12-0440

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

Easy-Laser® 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 and check vibration levels. 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	Bluetooth® unit
12-0074	2	Cables 2 m

12-0016 2 Shaft bracket with chain 12-0319 Extension chain

12-0013 2 Magnet base

Offset bracket 01-1165

Rods 120 mm 01-0873 4

12-0059 Set of Rods 4x60 mm

05-0400 Manual (Note: Refers to English manual)

05-0486 Quick manual (Note: Refers to English manual) 1

03-0824 Measuring tape 3 m

USB memory stick with documentation 03-0914 1

03-0822 **USB** cable

03-0821 Battery charger (100-240 V AC) 1

03-0792 1 Toolbox

Battery R14 1.5 V 03-0242 1

12-0495 Shoulder strap for Display unit 1

03-0878 Cleaning cloth for optics

12-0442 1 Carrying case

### Complete system:

Weight: 10.0 kg [22.0 lbs]

WxHxD: 500x400x200 mm [19.7x15.7x7.9"]

### Most common accessories:

E285 Vibrometer probe 12-0656 1

**E180 BTA** 12-0796

12-0619 Barcode reader 1

12-0413 Magnetic bracket 1

12-0412 Thin shaft bracket 12-0039 1

Sliding bracket 12-0615 Cardan bracket

12-0585 Charger 12-36V

12-0617 Battery pack

Battery pack with Bluetooth® technology 12-0618

12-0597 Splitter box

12-0059 Rods (4x60 mm)

12-0324 Rods (8x120 mm) 1

12-0060 Rods (4x240 mm)

Extension chain (2x900 mm) 12-0128

12-0022 Laser transmitter D22



# **Bluetooth**°















# Easy-Laser® E540 Shaft

Part No: 12-0775

### 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 Bluetooth® 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, Vibrometer.

# 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. With Vibrometer E285\* it is possible to check the vibration level and bearing condition of the machine. Using E180 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 case is pre-cut for accessories:

A. Barcode reader/B. Magnetic brackets/C. E180 BTA/D. E285 Vibrometer/

E. Magnet bases/F. Offset brackets

### A complete system contains:

12-0700 Display unit E52 1 Measuring unit ELS40 12-0777 12-0776 Measuring unit ELM40 1 12-0016 2 Shaft bracket with chain Extension chain 12-0319 2 01-0873 4 Rods 120 mm [4.72"] 12-0059 1 Set of Rods 4x60 mm [2.36"]

05-0567 1 Quick manual (Note: Refers to English manual)

03-0824 1 Measuring tape 3 m

03-0914 1 USB Memory stick with documentation

03-0822 1 USB cable

03-0821 1 Battery charger (100-240 V AC)

12-0750 1 DC charging cable

12-0751 1 DC to USB adapter

03-0792 1 Toolbox

12-0495 1 Shoulder strap for Display unit

03-1007 1 Carrying case

# Complete system:

Weight: 7.2 kg [15.9 lbs]

WxHxD: 500x415x170 mm [19.7x16.3x6.7"]

### Most common accessories:

12-0619 1 Barcode reader E285 Vibrometer probe 12-0656 12-0796 F180 BTA 1 12-0074 Cable 2 m [78.7"] 12-0013 Magnet base 01-1165 Offset bracket 12-0413 Magnetic bracket 12-0412 Thin shaft bracket 12-0039 Sliding bracket 12-0585 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)



# Bluetooth<sup>®</sup>



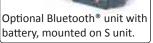














# Easy-Laser® E530 Shaft

Part No: 12-0695

### Simple and efficient shaft alignment

Easy-Laser® E530 is a very powerful shaft alignment system, with the ideal balance between performance and price. Program that guides step-by-step with both icons and text makes the system very easy to use for everyone, regardless of prior knowledge. 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. 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!

# 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. The wireless units (accessories) have a very long operating time and give full freedom of movement around the machine. 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. With Vibrometer E285 it is possible to check the vibration level and bearing condition of the machine. Using E180 BTA you can check and align sheaves and pulleys with digital precision.

\*At the first measurement, save the downloaded machine data and attach the barcode label to the machine.

The case is pre-cut for accessories:

A. Magnetic brackets/B. E180 BTA/C. Splitter box/D. Bluetooth® units/ E. E285 Vibrometer/F. Magnet bases/G. Offset brackets

### A complete system contains:

Display unit E52

Measuring unit ELS30 12-0697 12-0698 Measuring unit ELM30 1 12-0619 1 Barcode reader incl. 25 stickers Cables 2 m [78.7"] 12-0074 2 12-0016 2 Shaft bracket with chain 12-0319 2 Extension chain 01-0873 Rods 120 mm [4.72"] 12-0059 Set of Rods 4x60 mm [2.36"] 05-0567 Quick manual (Note: Refers to English manual) 1 03-0824 1 Measuring tape 3 m

03-0914 1

**USB Memory stick with documentation** USB cable 03-0822 1

03-0821 1

Battery charger (100-240 V AC)

03-0792 1 Toolbox

12-0700

1

12-0495 1 Shoulder strap for Display unit

03-1007 1 Carrying case

# Complete system:

Weight: 7.3 kg [16.0 lbs]

WxHxD: 500x415x170 mm [19.7x16.3x6.7"]

### Most common accessories:

Bluetooth® Wireless units Kit 12-0739 1 12-0656 E285 Vibrometer probe 12-0796 F180 BTA 1 12-0013 Magnet base 01-1165 Offset bracket 12-0413 Magnetic bracket 12-0412 Thin shaft bracket 12-0039 Sliding bracket 12-0585 Charger 12-36V 12-0618 Battery pack with Bluetooth® technology 12-0597 Splitter box 12-0059 Rods (4x60 mm) 12-0324 Rods (8x120 mm) 1 12-0060 Rods (4x240 mm) Extension chain (2x900 mm) 12-0128



# **Bluetooth**°















# Easy-Laser® E420 Shaft

Part No: 12-0745

### Entry level redefined!

The Easy-Laser® E420 sets a new standard in entry level laser systems for shaft alignment. Wireless measuring units, a large 5.7" colour display and an IP65-rated design that withstands harsh environments. These are the features you would normally only find in more expensive systems!

The measuring units are incredibly compact featuring Bluetooth® 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. You can use our barcode reader\* to enter all machine data in one single operation. 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.

\*Barcode reader is accessory.

### A complete system contains:

A complete system contains.			
12-0748	1	Display unit 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 t	

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 12-0750 1 DC charging cable 12-0751 1 DC to USB adapter

03-0821 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"]

### Most common accessories:

12-0013	1	Magnet base
01-1165	1	Offset bracket
12-0413	1	Magnetic bracket
12-0412	1	Thin shaft bracket
12-0039	1	Sliding bracket
12-0619	1	Barcode reader
12-0585	1	Charger 12-36V
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

[ Blank page ]







### A system contains:

12-0309 1 Laser transmitter

12-0791 1 Detector unit with built-in display, wireless

12-0394 2 Target

03-0821 1 Charger (100-240 V AC) and cable

03-0247 1 Battery R6 (AA) 1.5 V

05-0728 1 Manual

12-0804 1 Carrying case

# Easy-Laser® E180 BTA digital Wireless

Part No: 12-0796

Part No: 12-0850, Laser transmitter 12-0309 excluded.

### "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 (via Bluetooth®) the detector 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: There is no separate display unit included. The detector connects wireless to the E51 and E52 display units with BTA program, which for example is included in systems E710, E540 and E530 and most E9xx systems.)

(Note 2: The E180 detector unit cannot be connected to the D-series display units or other equipment.)

(Note 3: Available also without the laser transmitter 12-0309 if this is already in your tool box. Part No: 12-0850.)







# A system contains:

12-0309 1 Laser transmitter

12-0657 1 Detector unit E-series

12-0394 2 Target

03-0247 1 Battery R6 (AA) 1.5 V

12-0658 1 Carrying case

# Easy-Laser® E170 BTA digital

Part No: 12-0659

# "Live" digital read outs where making adjustments

With the Easy-Laser® E170 you can read and follow the alignment from where you are standing and making adjustments, instead of only where the detector is mounted. The detector reads off the position in relation to the laser plane and digitally displays the parallel and angular misalignment "live". This makes alignment of the adjustable machine very easy. 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.

(Note 1! The E170 detector unit cannot be connected to the D-series display units or other equipment.)

(Note 2! There is no separate display unit included or available. The detector connects to the E51 and E52 display units with BTA program, which for example is included in systems E710, E540 and E530.)

(Note 3! For systems E710 and E530 the red cable of the main system is used for connection. For system E540 a cable has to be added. Wireless connection is not available.)





### A complete system contains:

12-0404 1 Display unit

12-0309 Laser transmitter 1

12-0403 **Detector unit D-series** 

12-0394 2 **Target** 

Cable 2 m 12-0074 1

05-0364 1 Manual

03-0247 1 Battery R6 (AA) 1.5 V

03-0642 2 Battery LR61 9V

12-0410 1 Carrying case

# Easy-Laser® D160 BTA digital

Part No: 12-0411

# "Live" digital read outs where making adjustments

Easy-Laser® D160 has a separate detector unit and display unit. This means you can read and follow the alignment from where you are standing and making adjustments. The backlit display also makes it easier to read in poor light conditions.

The detector reads off the position in relation to the laser plane and digitally displays the parallel and angular misalignment "live". This makes alignment of the adjustable machine extremely easy. 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.

(Note! The D160 detector unit must not be connected to the E-series display unit or other equipment.)







A complete system contains: 1 Laser transmitter

12-0309 12-0394

2 Target

05-0352 1 Manual

Battery R6 (AA) 1.5 V 03-0247 1

03-0591 1

Padded cover

# Easy-Laser® D90 BTA

Part No: 12-0415

# For quick and easy alignment of sheaves/pulleys

Easy-Laser® 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:

- 1 Display unit D336
- 2 Measuring units (S: D335, M: D334)
- 3 Cables with Push/Pull connectors, L=2m
- 1 Extension cable with Push/Pull connectors, L=5m
- 2 Shaft brackets with chains
- 2 Extension chains
- 8 Rods
- 1 Manual
- 1 Measuring tape

# Easy-Laser® D550 Extreme™ Ex / ATEX / IECEx

Part No: 12-0340

### Extremely durable and ATEX / Ex approved

Easy-Laser® Extreme™ is one of the toughest and most robust measurement and alignment systems on the market for work in potentially explosive environments. Easy-Laser® Extreme™ is intrinsically safe and complies with the latest ATEX standards for work in such environ-

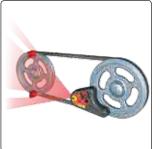
With Easy-Laser® Extreme™ we have gone one step further. The entire construction is extremely durable with regard to external influences, not just shockproof, but also resistant to corrosion and leaks. This is because we know that measurement systems are all too often used in environments that are anything but clean and dry. This could involve anything from water to oil or solvents. The measurement system is therefore naturally IP66 and IP67 approved. In other words, system D550 is not just for those who need an Ex-approved system, but also for those who want a little extra from their tools. Viewed as a whole, with its robust construction, its software and its generous warranty period of 4 years, you get a measurement and alignment system that is extremely hard to beat!

- 2 Sets of batteries for display unit
- 1 EasyLink™ Windows® program and PC cable
- 1 Transport case (Drop tested)

Fulfils the requirements according to: Ex ib op is IIC T4 Gb,  $0^{\circ}C \le Ta \le +40^{\circ}C$ ATEX code: II 2 G

EX certificate number: Presafe 14ATEX5726X, IECEx PRE 14.0062X







# Easy-Laser® D130 BTA Ex / ATEX / IECEx Part No: 12-0400

Quick and easy alignment of sheaves in ATEX / Ex environments Intrinsically safe and approved for use in potentially explosive environments. The tool is fitted in a few seconds, and the laser line projected on the targets clearly shows how you need to adjust the machines. Compact and light. Suitable for most types of drive, such as V-belt,

timing belt, flat belt and chain drives.

Fulfils the requirements according to:

EEx ib IIC T3 Ta: 10-50 °C / Ex ib IIC T3 Ta: 10-50 °C

ATEX code: II 2 G

EX certificate number: Nemko 06ATEX1235X IECEx certificate number: IECEx NEM 06.0003X

# A complete system contains:

12-0390 1 Laser transmitter

12-0394 2 Target

05-0307 1 Manual

03-0730 Battery R6 (AA) 3.6 V Lithium 1

03-0736 1 Carrying case



SPECIAL SYSTEMS

Easy-Laser® Product overview



# **Bluetooth**°









Pre-defined machine templates for different turbines.





# 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® 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".

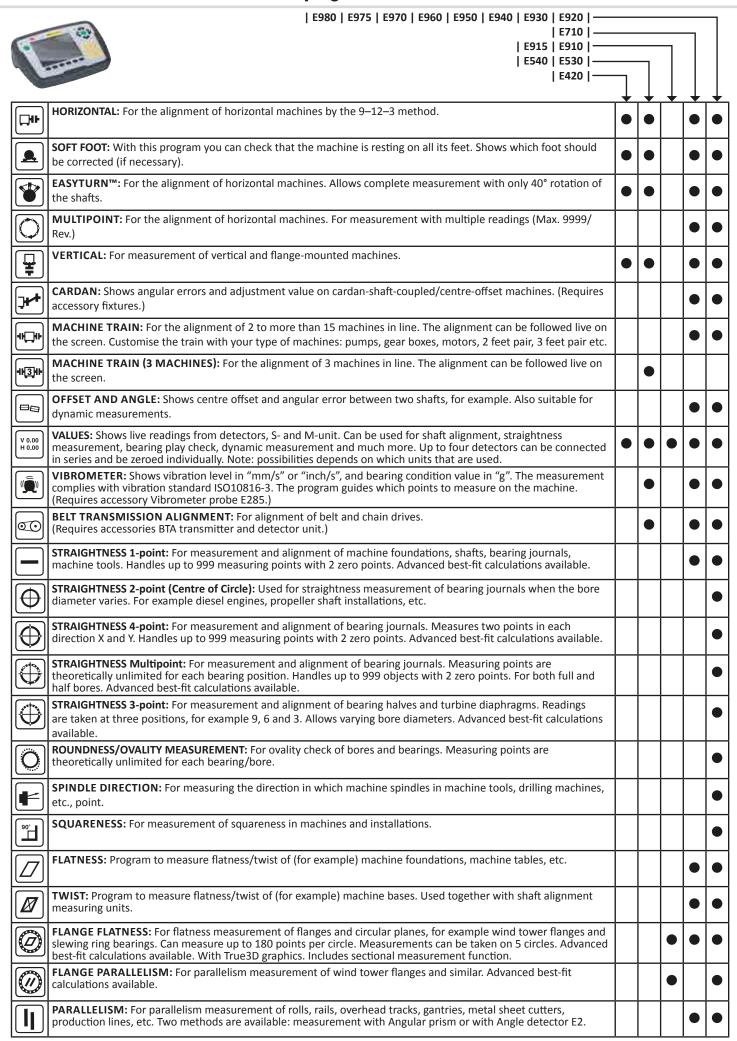
# A Vestas 4 system contains:

12-0700 1 Display unit E52

Built-in battery and Bluetooth® wireless functionality.

- 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
- 03-0821 1 Battery charger (100-240 V AC)
- 12-0750 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.)



150 measuring points with two zero points.



| D550 | -**HORIZONTAL:** For the alignment of horizontal machines by the 9–12–3 method. SOFT FOOT: With this program you can check that the machine is resting on all its feet. Shows which foot should be corrected (if EASYTURN™: For the alignment of horizontal machines. Allows complete measurement with only 40° rotation of the shafts. **VERTICAL:** For measurement of vertical and flange-mounted machines. CARDAN: Shows angular errors and adjustment value on cardan-shaft-coupled/centre-offset machines. (Requires accessory fixtures.) MACHINE TRAIN: For the alignment of between two and ten machines in line (nine couplings). The entire alignment can be followed 41|||41 live on the screen. OFFSET AND ANGLE: Shows centre offset and angular error between two shafts, for example. Also suitable for dynamic VALUES: Shows live readings from, detectors, S- and M-unit. Can be used for shaft alignment, straightness measurement and dynamic measurement. Up to four detectors can be connected in series and be zeroed individually. STRAIGHTNESS: For straightness measurement of machine foundations, shafts, bearing journals, machine tools, etc. Can handle up to

# THE NEW EASYLINK™ PROGRAM

With EasyLink™ 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. The new version of our database program has undergone major changes, not just in the graphic interface but also handling, with a new report generator. This means that 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™ 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® XP, Vista, 7, 8. For the export function, Excel 2003 or newer must also be installed on the computer. EasyLink™ 3.0 functions with both the D and E series in Easy-Laser®.

Export formats: Excel, XML.

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





# **PARTS**





# 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® equipment, Charger.

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





# 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® 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.





# Display unit D-series: D279

Part No: 12-0279

**Description:** Available in different measurement program configurations. Which programs are available depends on in which system the display unit is included.

Note: -





# Display unit Extreme™ EX: D336

Part No: 12-0336

**Description:** Intrinsically safe display unit. IP66/IP67/Ex/ATEX/IECEx. **Note:** Only for use together with measuring units 12-0334/12-0335.





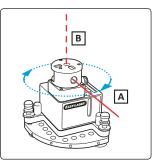
# Display unit for sheave/pulley alignment

**Part No:** 12-0404

Description: Included in system D160.

Note: This display unit cannot be connected to E-series equipment.





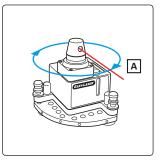
# Laser transmitter D22 Swivel

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. The laser beam can be angled 90° to the sweep, within 0.01 mm/m [0.5 mils/INCH]. Tilt table included.

**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**

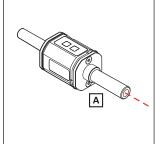
Part No: 12-0168

**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 posi-

tion. Tilt table included.

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





# **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, making it possible to align, for example, bar feed-

ers.





# **Laser transmitter D75**

**Part No: 12-0075** 

**Description:** For measuring straightness and spindle direction. M6 threads on ends and sides offer alternative mounting options. Mea-

surement 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 (03-0821), 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.)





# Laser transmitter for sheave/pulley alignment Ex

Part No: 12-0390

**Description:** Laser transmitter producing a laser line parallel to the object it is mounted to. For use in potentially explosive environments. **Note:** Only transmitter as pictured, no targets included. (Complete

system, see Part No. 12-0400.)





# **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 Bluetooth® 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 E8, 1-axis PSD**

Part No: 12-0758

**Description:** Detector diameter 45 mm [1.77"]. 1 axis PSD, 20x20 mm [0.79"x0.79"]. Built-in 360° electronic inclinometer. Built-in Bluetooth® 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 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: 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 with one and the same detector.





# **Detector E4**

Part No: 12-0702

**Description:** Detector for the E-series. 1 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: -





### Detector E3

Part No: 12-0799

**Description:** Detector for the E-series. 2 axis PSD, 30x30 mm [1.18"x1.18"]. Built-in Bluetooth® 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.





### **Detector D5**

Part No: 12-0005

Description: 2 axis PSD, 18x18 mm [0.71"x0.71"]. Built-in 360° electronic inclinometer. Connectors on top and back side; versatile and also makes it possible to series connect two or more detectors. Normally mounted on rods, but has many additional mounting possibilities thanks to threads on three sides.

Note: -





# **Detector D157**

Part No: 12-0157

**Description:** 2 axis PSD, 20x20mm [0.79"x0.79"]. Minimum measuring diameter 42 mm. Built-in 360° electronic inclinometer. Connectors on side and back (useful for different bracket designs and applications). Mounting threads on both ends, for tube adapters (01-0777) or other suitable brackets (e.g. 12-0476, 12-0320, 12-0553).

Note: -





# **D-series Detector for belt alignment**

Part No: 12-0403

Description: Detector that reads off the sheaves position in two direc-

tions (horizontal+vertical) at the same time.

Note: For connection to display unit 12-0404, or D279 with BTA digital

program. Must not be connected to the E-series equipment! A. Super magnets x 4, for attachment to sheave side.





# **E-series Detector for belt alignment**

Part No: 12-0657

Description: Detector that reads off the sheaves position in two direc-

tions (horizontal+vertical) at the same time.

Note: For connection to display units with BTA digital program. For connection, a standard "red cable" is used. If your system doesn't include one, be sure to order this too.

Cannot be connected to the D-series equipment!

A. Super magnets x 4, for attachment to sheave side.





# **E-series wireless Detector for belt alignment**

Part No: 12-0791

**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: Also for Bluetooth® wireless connection to separate display units which have the BTA digital program.

A. Super magnets x 4, for attachment to sheave side.





# **Detector for sheave/pulley alignment**

Part No: 12-0308

**Description:** Detector unit that reads off the sheaves position in one

direction (horizontal/vertical) at a time. With built-in display. **Note:** For use together with BTA transmitter 12-0309.

A. Magnets inside, for attachments to sheave side.





#### **Digital Precision Level E290**

Part No: 12-0846

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

able battery

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





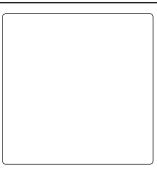
## Digital Precision Level E290, complete kit

Part No: 12-0857

**Description:** Digital precision level (12-0846), complete kit with Battery charger 100–240 V AC (03-0821), safety strap (12-0915) and USB

memory stick with documentation (03-0914). **Note:** Delivered in plastic case (12-0873).





#### **E-series Vibrometer probe E285**

Part No: 12-0656

**Description:** For measuring vibration level (mm/s, inch/s) and bearing

condition value (g-value).

Note: Requires measurement program Vibrometer in the display unit.

For connection, one of the red cables of the system is used.

Cannot be connected to the D-series equipment!





#### **D-series Vibrometer probe D283**

Part No: 12-0283

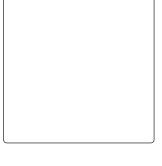
**Description:** For measuring vibration level (mm/s, inch/s) and bearing

condition value (g-value).

**Note:** Requires measurement program Vibrometer in the display unit. Standard "red cable" also needed to be able to connect to display unit.

Must not be connected to the E-series equipment!





## 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 (03-0821), DC charging cable (12-0750), 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.





# Measuring unit EM, PSD 20x20 mm, inclinometer

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, inclinometer

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, inclinometer

Part No: 12-0776

**Description:** Laser diode and PSD detector in one housing. Built-in Bluetooth® 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, inclinometer

Part No: 12-0777

**Description:** Laser diode and PSD detector in one housing. Built-in Bluetooth® 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 unit ELM30, PSD 30 mm, inclinometer

Part No: 12-0698

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. For shaft alignment. PSD 30 mm [1.18"]. **Note:** To be used in pair with S unit 12-0697. E-series measuring unit.





# Measuring unit ELS30, PSD 30 mm, inclinometer

Part No: 12-0697

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. For shaft alignment. PSD 30 mm [1.18"]. **Note:** To be used in pair with M unit 12-0698. E-series measuring unit.

MEASURING UNITS

Easy-Laser® Product overview





# Measuring unit ELM20, PSD 20 mm, inclinometer

Part No: 12-0746

**Description:** Laser diode and PSD detector in one housing. Built-in Bluetooth® wireless communication. Battery status indicator. Built-in electronic 360° inclinometer. For shaft alignment. 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, inclinometer

Part No: 12-0747

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





## Measuring unit M, Extreme™

Part No: 12-0334

**Description:** Intrinsically safe and ATEX/Ex/IECEx approved units. Water, dust and shock proof according to both IP66 and IP67. Built-in electronic 360° inclinometer. 2 axis PSD.

**Note:** For use with display unit D336 and in pair with measuring unit

12-0335.





#### Measuring unit S, Extreme™

Part No: 12-0335

**Description:** Intrinsically safe and ATEX/Ex/IECEx approved units. Water, dust and shock proof according to both IP66 and IP67. Built-in electronic 360° inclinometer. 2 axis PSD.

**Note:** For use with display unit D336 and in pair with measuring unit

12-0334.





# Magnet base

Part No: 12-0013

Description: Versatile magnet base with On/Off function and many

optional rod mounting possibilities. **Note:** Three sides are magnetic.





### 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: -





## 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

Note: Magnet base and rods included as pictured.

detector, mounted on a regular magnet base.





#### **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.





## 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. Espe-

cially useful on flywheels.

Note: -





## Magnet base with adapter Ex

Part No: 12-0579

**Description:** For e.g. straightness measurement with the Ex measuring

units.

Note: Magnet base, adapter, screws and two rods 140 mm included.





#### Height adjustment bracket for D6

Part No: 12-0417

**Description:** For fine adjustment of detector D6 on rods.

Note: -





### Pointing bracket on magnet base

Part No: 12-0583

**Description:** Makes it possible to measure near the edge of a surface.

Note: Rods and detector not included.





#### **Magnetic bracket**

Part No: 12-0413

**Description:** For axial mounting on flanges or shafts. With M6 screws

working as radial supports, and four super magnets.

Note: -



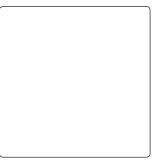


#### V-bracket with chain

**Part No:** 12-0016

Description: For mounting on shaft or coupling.





### **Standard chains**

Part No: 12-0625

**Description:** Standard chains for shaft alignment brackets.

Note: 2 pcs. Includes plastic box.



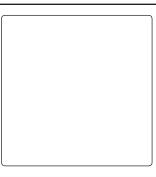


### Extension chain, set

Part No: 12-0128

**Description:** For standard chains. **Note:** 2 pcs. included, with plastic box





#### **Extension chain**

**Part No:** 12-0319

**Description:** For standard chains.

Note: 1 pc. included.





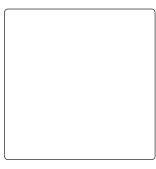
#### Thin chain bracket

Part No: 12-0412

Description: For use for example when the space between coupling

and machine is limited. Width: 12 mm [0.5"]. **Note:** Includes thin chains and tightening tool.





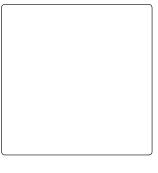
#### Shaft bracket with chain, stainless steel

Part No: 12-0337

**Description:** Bracket mainly for use with the D550 system, but can also be used with any other measuring units. Pre-mounted chain and rods.

Note: -





#### **Extension chain, stainless steel**

Part No: 12-0363

**Description:** For use together with 12-0337. **Note:** Does not fit with standard chains.





#### Offset bracket

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 M6x14 also needed (Part No. 03-0061). V-bracket and rods not included.





### **Sliding bracket**

Part No: 12-0039

**Description:** For shaft alignment. The spherical feet can be placed in two different positions for adaption to small or large shaft diameters. Used when the shafts cannot be rotated. Mounted with standard chains (not included).

Note: -





#### 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

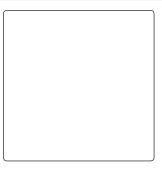
Part No: 12-0137

**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 transfer of the control of the

dard chains (not included).

Note: -





#### Cardan bracket set

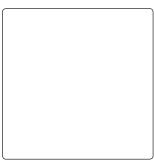
Part No: 12-0125

**Description:** For alignment of cardan/offset mounted machines.

Note: Delivered in plastic case. For D-series.

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





#### Cardan bracket set

**Part No: 12-0615** 

**Description:** For alignment of cardan/offset mounted machines.

Note: Delivered in plastic case. For E-series.





### 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, 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.





#### **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.





# Tube adapters for detector D157 and E9/E8

Part No: 01-0777

**Description:** Adapters mainly for mounting of detector D157, E8 or E9 and 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

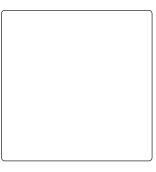
Part No:

**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: -

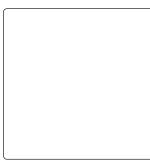
**Description:** Adapters mainly for mounting of detector D157, E8 or E9

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:** -





#### Large roll kit

Part No: 12-0885

**Description:** Accessories for roll diameter 400–1300 mm [15.7–51.2"].

Note: Only legs as on picture to the left included.





#### **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.





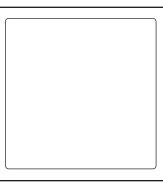
### Rod adapter with built in target

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.





#### Cam shaft bracket

Part No: 12-0476

**Description:** Bracket for straightness measurement. For detector

D157. For bores  $\emptyset$ 80- mm [3.15"-].

Note: -





#### Adapter bracket for 40 mm rod distance

Part No: 12-0815

Description: Bracket for Cam shaft bracket 12-0476. Makes it possible

to also mount a D5, E4, E5 or E7.

Note: Only bracket with screws and rods, as pictured leftmost.





#### Magnet base with turnable head, for D157

Part No: 12-0608

**Description:** Magnet base with turnable head. The C–C measure of the rods is 54 mm to fit with the upper part of the 12-0476 bracket. **Note:** Bracket 12-0476 and rods also needed. Detector not included.





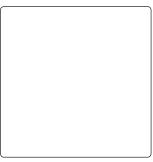
# Slide bracket min. Ø100 mm [3.94"]

Part No: 12-0343

Description: For bore straightness measurement. Hard anodised sur-

face. For bores Ø100-200 mm [3.94"-7,88"].





# Slide bracket min. **⊘120** mm [4.72"]

Part No: 12-0455

**Description:** For bore straightness measurement. With magnetic feet.

For bores Ø120–250 mm [4.72"–9.84"].

Note: -





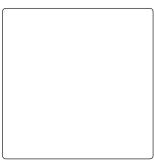
#### Slide bracket min. \( \infty 200 \] [7.87"]

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. \( \sigma 300 \text{ mm} \quad [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

 $\textbf{Description:} \ \textbf{Bracket for use with detector D5, D157, E8 or E9}.$ 

**Note:** Detector and arm set not included. Suitable Arm set is Part No.

12-0314.





#### **Detector arms Linebore**

Part No: 12-0314

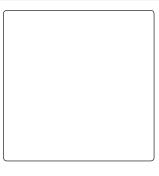
**Description:** For detector 12-0032 and bracket 12-0553. For bores  $\varnothing$ 100–500 mm [3.94"–19.68"], with the possibility to use the longest three arms as extension arms reaching diameters as large as xxxx mm

["].

Note: Also includes Foot set 12-0134 and 12-0143 (the rightmost

picture).



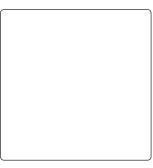


#### Foot set for linebore arms

**Part No:** 12-0134

**Description:** For use with linebore detector arms. Included in 12-0314.





#### Foot set for 2100-150 mm

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: -





#### Offset hub with counterlock and tilt function

Part No: 12-0537

**Description:** For laser transmitter 12-0594.

Note: -





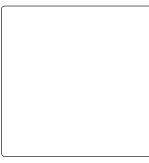
# Offset hub with counterlock and tilt function for transmitter E30

Part No: 12-0828

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

Note: -





## Arm kit with magnets

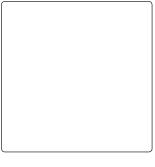
Part No: 12-0707

Description: For offset hub 12-0661 and 12-0537. Arms for bores

Ø100-500 mm [3.94"-19.68"].

Note: -





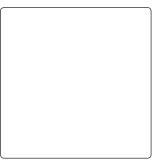
#### Offset hub arms

Part No: 12-0384

**Description:** For offset hub 12-0661 and 12-0537. For bores  $\varnothing$ 100–

500 mm [3.94"-19.68"]. Also includes centering plug.





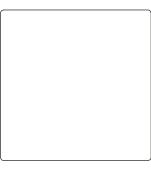
#### **Extension arms Linebore**

Part No: 12-0282

**Description:** For extension of the Linebore offset hub arms.

Note: -





### Magnets for offset hub arms

Part No: 12-0154

Description: For arms 12-0384. With plastic holder.

Note: -





#### **Axial extension arms, Linebore**

Part No: 12-0580

Description: Used for making it possible to reach the Linebore detec-

tor 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, D662 and D664. 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 D22 and D23, but can

also be used together with transmitter D75, for example.

Note: Tool kit also included (see below).





#### Tilt table, turnable

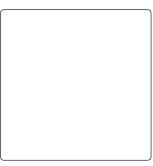
Part No: 12-0864

**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

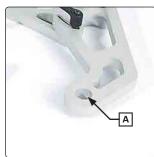
Part No: 12-0622

**Description:** Safety strap (12-0915), Machine/magnet base pin (01-0139), set of Hexagon wrenches, Rod tightening tool (03-0048), Feet

with 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.





# 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.





#### Machine/magnet base pin for D22, short

Part No: 01-0139

**Description:** For mounting the transmitter in a spindle or on a magnet base, for example. Clamping pin  $\varnothing$  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, 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

Ø20 mm [0.79"].

Note: -





#### Self centering bracket, Linebore

Part No: 12-0341

**Description:** For sterntube measurement. Smallest diameter 250 mm [9.84"]. 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

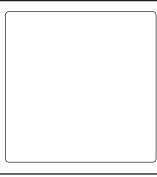
Part No: 12-0438

**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.





# Detector bracket "long stroke", Turbine

Part No: 12-0715

Description: Measures diameters 200-1700 mm [7.8"-67"] as stan-

dard. 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  $\emptyset$  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.





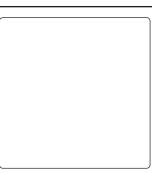
#### **Tube bracket**

Part No: 12-0814

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

Note: -





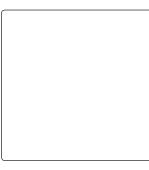
#### Ball top probe

Part No: 12-0439

**Description:** Probe for turbine measurement.

Note: -





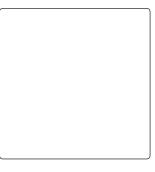
# Short ball top probe

**Part No: 12-0490** 

**Description:** Probe for turbine measurement.

Note: -



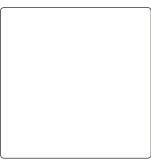


# Measuring probe Ruby ∅5 mm

Part No: 12-0805

Description: Probe for turbine measurement. With ruby top.





# Measuring probe Ruby **⊘2.5** mm

Part No: 12-0801

**Description:** Probe for turbine measurement. With ruby top.

Note: -





### **Centering target, Turbine**

Part No: 12-0443

**Description:** For rough alignment of laser beam. 1 m + 0.5 m exten-

sion. Note: -





# Side support for D5 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: -





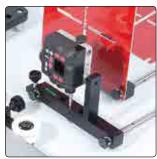
#### Tripod

Part No: 12-0269

Description: For use with D22 and D46.

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.





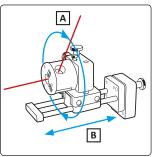
## Sliding table for tripod

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

Part No: 01-1352

Description: To use in very sunny conditions when light causes un-

stable values. Fits detector D6.

Note: -





#### **Sun visor E-series**

Part No: 12-0587

**Description:** To use in very sunny conditions when light causes unstable values. Fits detector 12-0509 and measuring units 12-0433/12-

0434. With magnet attachment.

Note: -





#### Sun visor Ex

Part No: 12-0592

**Description:** To use in very sunny conditions when light causes unstable values. Fits measuring units 12-0334 and 12-0335. Clamps onto the front of the unit.





## 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.



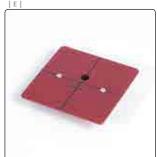


#### Target Ex cardan

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

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 measur-

ing 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.





#### Bluetooth® 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.





#### Bluetooth® Wireless unit for E530

Part No: 12-0738

**Description:** For wireless connection of measuring units 12-0697 and

12-0698. With attachment screw.

**Note:** With built-in chargeable battery. Does only work with units 12-0697 and 12-0698. Also available as a kit (12-0739) with 2 wireless

units and splitter charger cable.





#### Bluetooth® Wireless units kit for E530

Part No: 12-0739

Description: Includes 2 wireless units with battery, Part No. 12-0738,

and 1 splitter cable Part No. 12-0728 for charging.

**Note:** Measuring unit not included.





#### Battery pack with built-in Bluetooth® unit

Part No: 12-0618

**Description:** Chargeable battery pack which gives extra operating time. With battery status indicator and On/Off button. Built-in Bluetooth® 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 Bluetooth®, Kit

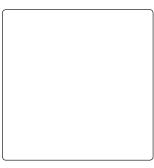
Part No: 12-0740

Description: Kit including two Batterypack units with Bluetooth® (12-

0618) and one splitter cable B (12-0725).

Note: The cable cannot be used for data transfer, only for charging.





# **Splitter box**

Part No: 12-0597

**Description:** Used for connection of up to four Easy-Laser® units when

charging them.

Note: Standard "red" cables also needed.





### Splitter cable B, for charging

Part No: 12-0725

**Description:** To connect two Easy-Laser® units when charging.

Note: Only for charging, the cable cannot be used to transfer any mea-

surement data. Not for use with 12-0738.





# Splitter cable A, for charging two 12-0738

Part No: 12-0728

Description: For charging two Bluetooth® 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 split cable for charging

Part No: 12-0750

**Description:** Cable for charging the units of system E420 and E540.

**Note:** This cable cannot transfer any measurement data.





#### DC cable extension 1.5 m

Part No: 03-1203

**Description:** For extension of the DC split cable Part No. 12-0750.

Note: -





## DC to USB adapter

Part No: 12-0751

**Description:** Adaptor to be used with cable 12-0750. **Note:** Cannot transfer any measurement data.





# "Red cable", 0.16 m [6.3"]

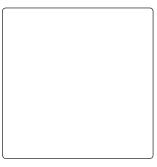
Part No: 12-0494

**Description:** For connecting Easy-Laser® measurement equipment.

With Push-Pull connectors.

Note: -





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

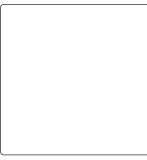
Part No: 12-0289

**Description:** For connecting Easy-Laser® 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", 2.0 m [78.7"]

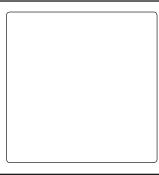
Part No: 12-0074

**Description:** For connecting Easy-Laser® measurement equipment.

With Push-Pull connectors.

Note: -





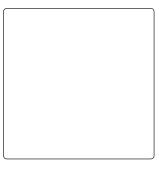
## "Red cable", extension, 5.0 m [16.4']

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® 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: -





#### **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

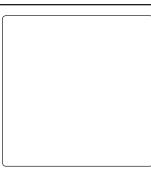
Part No: 12-0362

**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.

Note: -





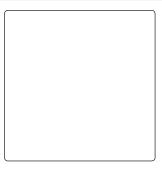
#### PC cable ("null modem")

**Part No:** 03-0333

Description: Length 1.8 m [71"]

Note: -





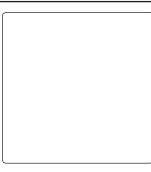
# USB/RS232 adaptor

Part No: 03-0722

**Description:** Adaptor and cable extension.

Note: Requires internet connection and Windows update.





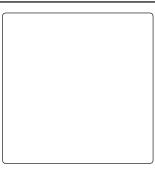
#### **USB A - USB B cable**

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: 03-0821

Part No: 03-0821 Description: -

Note: Wall socket connection cable also needed, choose part depend-

ing on country of use.



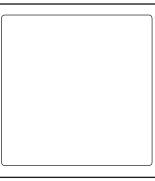


### Charger cable, EUR

Part No: 03-0892 Description: -

Note: Charger unit also needed.





## Charger cable, USA

Part No: 03-0893 Description: -

**Note:** Charger unit also needed.



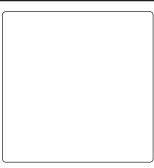


## Charger cable, UK

Part No: 03-0894 Description: -

Note: Charger unit also needed.



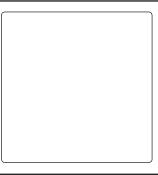


# Charger cable, AUS

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: -





#### VGA kit

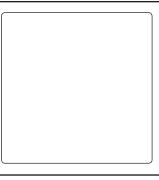
Part No: 12-0573

**Description:** Makes it possible to show the display unit screen on a TV or projector. Includes cable 03-0901, cable 03-0902, 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 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, cable 03-0902, 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.





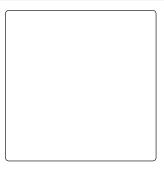
### **HDMI to HDMI cable**

Part No: 03-0901

Description: Length 3 m.

Note: -





#### VGA to VGA cable

Part No: 03-0902 Description: Length 3 m.





#### Barcode reader

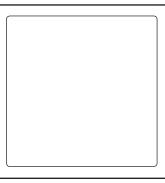
Part No: 12-0619

**Description:** For registration of machine data. Connected to the USB

port

Note: Includes 25 pcs bar code stickers.





#### **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.



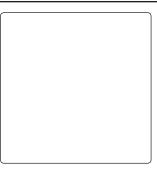


#### Printer 220 V

Part No: 03-0032

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



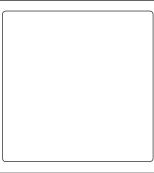


#### Printer 110 V

Part No: 03-0341

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





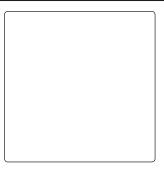
## Tool kit for system D550, complete

Part No: 12-0360

Description: With 4 rods 120 mm, 4 extension chains, rod tightening

tool and hexagon tool. **Note:** Antistatic fabric.





# Carrying case for system E710

Part No: 12-0442

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





## Carrying case for system E540 and E530

Part No: 03-1007

**Description:** Carrying case with interior for system E540 and E530. Pre-cut also for accessories, just remove foam blocks (please see measurement system page for example). Divided in upper and lower compartment as pictured.

Note: For exterior view, please see E420 carrying case.





# **Carrying case for system E420**

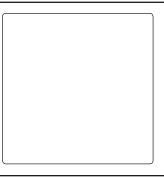
Part No: 03-1059

Description: Carrying case with interior for system E420. Only lower

compartment as pictured.

Note: -





#### Transportation case, Cardan

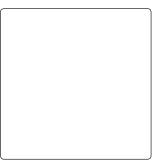
Part No: 12-0237

**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**

Part No: 03-0909

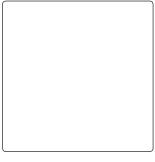
Description: Rigid case for D22 or D23, or other accessories. To use

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.





#### Transportation case Ex Large

Part No: 12-0456

**Description:** Larger case for system D550 Extreme<sup>™</sup> with place for accessory brackets: sliding brackets, magnet bases, magnet brackets and

thin chain brackets.

Note: Antistatic padding.





# **Back Pack System Medium**

Part No: 03-1044

**Description:** For easy carrying of your system case.

**Note:** Fits the following cases: E540, E530, E420, D525, D505, D480, D450. Does not fit D600, D650, D670, D800. Case not included.





# **Back Pack System Large**

Part No: 03-1045

**Description:** For easy carrying of your system case.

**Note:** Fits the following cases: E980, E940, E930, E920, E915, E910, E710, D550. Does not fit D600, D650, D670, D800. Case not included.





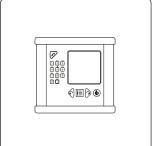
#### **Luggage trolley**

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].





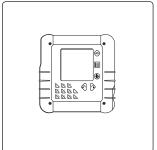
### Protective case for older display units

Part No: 03-0042

Description: With strap.

Note: -





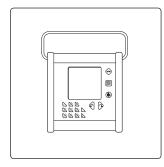
### Protective case for display unit D279

**Part No:** 03-0592

**Description:** With strap.

Note: -





#### Protective case for display unit D336

**Part No:** 03-0799

**Description:** Made of antistatic materials. With strap.

Note: -

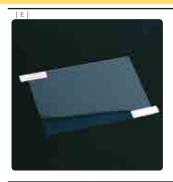


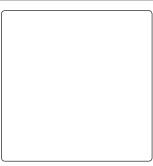


# Protective case for display unit E51, E52 and E53

Part No: 01-1379

**Description:** With strap.





# LCD display protection film

Part No: 03-0972

Description: Thin film for scratch protection of the LCD display.

Note: -





#### **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: -





# Shoulder strap for display unit E-series

Part No: 12-0495 Description: -

Note: -





## Safety strap

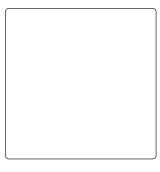
Part No: 12-0915

**Description:** For use with laser transmitter D22, D23 and Digital Level

E290.

Note: -



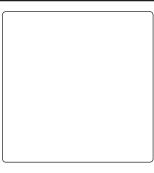


# Measuring tape, 3 m [9.8']

Part No: 03-0824

**Description:** Fits the cases for the E-systems.





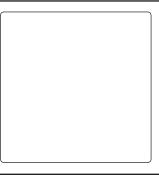
# Measuring tape, 5 m [16.4']

Part No: 03-0842

**Description:** Fits the cases for the E-series geometry systems.

Note: -





#### AC adaptor for D22 and D75

Part No: 12-0205

**Description:** For continuous power supply of laser transmitters D22

and D75.

Note: Only 230V AC, 50-60 Hz, 30 mA / 1.5-9V DC, Max. 1.8W,

250mA.





## AC adaptor for D23

Part No: 12-0294

**Description:** For continuous power supply of the laser transmitter

D23.

**Note:** 100–240V AC, 50–60 Hz, 180 mA / 5V DC, 1A.





# AC adaptor for Display unit D279

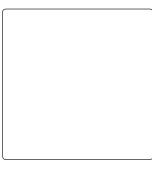
Part No: 12-0590

**Description:** For unbroken power supply of the Display unit.

**Note:** Wall socket connection cable also needed, choose part depending on country of use (Part Numbers: 03-0892, 03-0893, 03-0894 or

03-0895). 100-240V AC, 50-60 Hz, 30 mA / 12V DC, 1.5A.





#### **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.

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





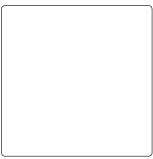
#### **Demo unit Sheave**

Part No: 12-0236

**Description:** Can be placed standing or lying down.

WxHxD: 660x200x100 mm. Weight: 8 kg. **Note:** BTA and targets not included.





### **Shim remover**

Part No: 01-0847

**Description:** Tool for safer shim removal.

Note: -





# 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.





# Battery lid for older display units

Part No: 12-0284 Description: -Note: -





# **Battery lid for display unit D279**

Part No: 12-0354 Description: -Note: -

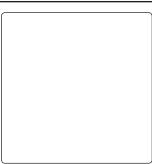




# Battery lid for display unit D336

Part No: 12-0546 Description: -Note: -

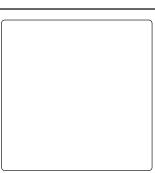




# Bottom part for old display unit

Part No: 01-0062 Description: -Note: -

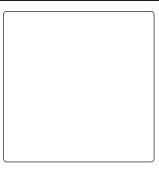




## Side part for display unit D279

Part No: 01-0752 Description: -Note: -



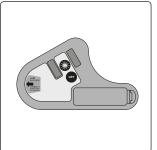


#### Top for D23

**Part No:** 01-0618 + 03-0505

**Description:** For protection of the rotating head. **Note:** Top and screw are separate articles.





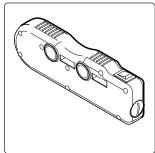
# Target for BTA, 18 mm

Part No: 12-0394

**Description:** Suitable for laser transmitter 12-0309 and 12-0390.

Note: 1 pc.





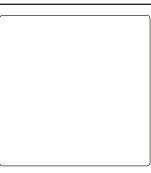
# Target for BTA, 15 mm

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: -



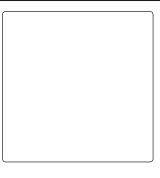


#### Standard chain

Part No: 12-0033 Description: -

Note: -



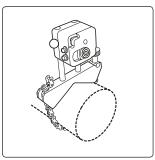


# Chain, stainless steel

Part No: 12-0386

**Description:** For use with 12-0337. **Note:** Does not fit with standard chains.



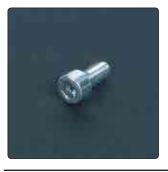


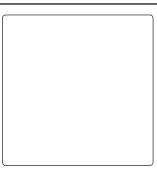
# V-bracket

Part No: 12-0130

**Description:** For mounting on shaft or coupling.

Note: Just bracket, no chain.

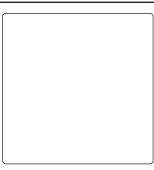




#### Screw M6x14

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

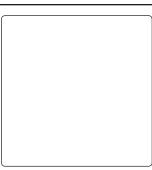




### Rod tightening tool, 4 mm

Part No: 01-0048 Description: -Note: -





# **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, 12-0776, 12-0777, 12-0698, 12-0697, 12-0776, 12-0777, 12-0698, 12-0697, 12-0776, 12-0777, 12-0698, 12-0697, 12-0776, 12-0777, 12-0698, 12-0697, 12-0776, 12-0777, 12-0698, 12-0697, 12-0776, 12-0777, 12-0698, 12-0697, 12-0776, 12-0777, 12-0698, 12-0697, 12-0776, 12-0777, 12-0698, 12-07777, 12-07777, 12-07777, 12-07777, 12-07777, 12-07777, 12-07

0746, 12-0747. Detectors; 12-0005, 12-0201, 12-0255.

Note: -





#### **Locking screw**

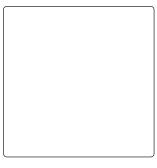
Part No: 03-0810

Description: Fits measuring units; 12-0434, 12-0433. Detectors; 12-

0702, 12-0509, 12-0752.

Note: -





## **Spare locks for carrying cases**

Part No: -

**Description:** Spare locks for different models of Easy-Laser® carrying

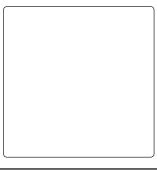
cases.

Note: Ask us for more details on pricing and availability.

SPARE PARTS

Easy-Laser® Product overview





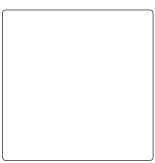
# **Cleaning cloth**

**Part No:** 03-0878

Description: For cleaning of optical surfaces such as laser aperture and

PSD window. **Note:** -





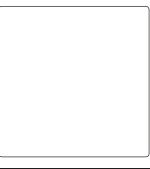
#### Thermo paper roll

**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

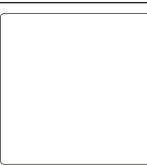
B. 1.5 V, LR6 Alkaline, Part Nr 03-0247

C. 1.5 V, LR14 Alkaline, Part Nr 03-0242

D. 9V, 6LR61 Alkaline, Part Nr 03-0642

Note: -





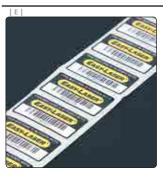
### Sticker "This machine is aligned with"

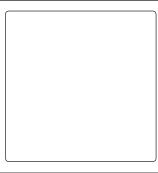
Part No: 04-0053

Description: To stick on aligned machines. With writable surface for

date and operator signature.

Note: 25 stickers.





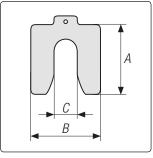
#### Barcode sticker

Part No: 04-0147

**Description:** To stick on aligned machines. With barcode.

Note: 25 stickers.





#### Shims case 1, 180 shims

Part No: 12-0258

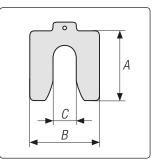
**Description:** 180 shims, 10 pcs of each shim included. Weight 3.9 kg.

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 SPARE PARTS

Easy-Laser® Product overview





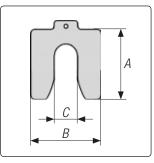
## Shims case 2, 360 shims

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





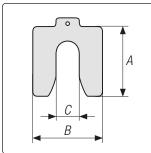
#### Shims case 3, shims of your choice

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





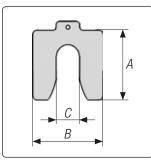
# Shims case 4, shims of your choice

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.

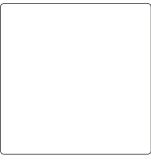
Type 4, thickness [mm] 0.05, 0.10, 0.20, 0.40, 0.50, 0.70, 1.00, 2.00, 3.00.

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.





## Cap

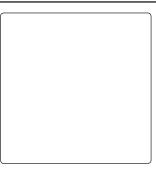
Part No: 13-0004

**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:** 2 GB memory stick USB. Easy-Laser® logo engraved on

one side as on picture. **Note:** Price upon request.





#### Pen

Part No: 13-0006

**Description:** With blue ink. Easy-Laser® logo and web address "www.

easy-laser.com" printed.

Note: Not always in stock. Price upon request.





## Pen, engraved

Part No: 13-0011

**Description:** With blue ink. Engraved Easy-Laser® logo. Delivered in

paper envelope as pictured.

Note: Not always in stock. Price upon request.





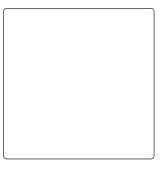
## **Playing cards**

Part No: 13-0007

**Description:** Deck of cards. International symbols. Easy-Laser® logo and web address "www.easy-laser.com" printed as on picture.

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





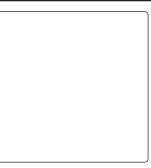
### Key holder

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. This is the 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.





### 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 with QR code link to blog.easy-laser.com.

Note: -





## Laser transmitter D246 (Discontinued)

Part No: 12-0246

**Description:** For measuring straightness primarily in turbine applications. The laser beam can sweep 360° (rods will hinder the beam at three positions, see picture), and can be angled 90° to the sweep.

Measurement distance 40 m [130'].

Note: This product is discontinued and replaced by 12-0706.





### Offset hub for D75 (Discontinued)

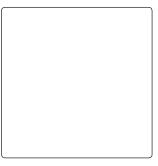
Part No: 12-0132

Description: For offset adjustment of the laser transmitter in two per-

pendicular axes. Adjustment ±5 mm in each direction.

Note: This product is discontinued and replaced by 12-0661.





## Offset hub with arms (Discontinued)

Part No: 12-0364

**Description:** For laser transmitter D75. Offset adjustment possible of the laser transmitter in two perpendicular axes (±5 mm in each direc-

tion). Arms for bores  $\emptyset$ 100–500 mm [3.94"–19.68"].

Note: This product includes offset hub 12-0132, which is discontinued.





## Detector Extruder, diameter 20 mm [0.79"]

(Discontinued)

Part No: 12-0538

**Description:** PSD 10x10 mm [0.39"x0.39"]

Note: Tube adaptors also needed.





## **Detector D6 (Discontinued)**

Part No: 12-0201

**Description:** Detector that can read the position of a rotating laser beam from the D23 laser transmitter. 1 axis PSD, 18x18 mm [0.71"x0.71"]. Connectors on top and back side; versatile and also makes it possible to series connect two or more detectors. Normally mounted on rods, but has many additional mounting possibilities thanks to threads on two sides.

Note: -





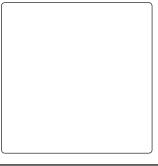
## **Detector Linebore (Discontinued)**

Part No: 12-0032

**Description:** Detector for linebore applications. PSD 18x18 mm [0.71"x0.71"]. Built-in 360° electronic inclinometer. Connector on back

side. Slots for mounting arms. **Note:** Arm set 12-0314 also needed.





## Detector bracket "long stroke", Turbine

## (Discontinued)

Part No: 12-0248

**Description:** Includes Part No. 12-0178 and 12-0302. Two aluminium beams 1100 and one 600 mm included. For  $\varnothing$  200–1700mm [7.8"–

66.9"].

Note: Detector not included.



## System D800 Machine Spin (Discontinued)

Part No: 12-0220

**Description:** This system is no longer in stock as a standard system.

Please see system E915 instead.



## System D670 Parallelism (Discontinued)

Part No: 12-0224

**Description:** This system is no longer in stock as a standard system.

Please see system E970 instead.



## System D664 Turbine (Discontinued)

Part No: 12-0664

**Description:** This system is no longer in stock as a standard system.

Please see system E960 instead.

[ NO PICTURE AVAILABLE ]

## **System D663 Turbine (Discontinued)**

Part No: 12-0663

**Description:** This system is no longer in stock as a standard system.

Please see system E960 instead.



## System D662 Turbine (Discontinued)

Part No: 12-0662

**Description:** This system is no longer in stock as a standard system.

Please see system E960 instead.

| D

[ NO PICTURE AVAILABLE ]

## System D660 Turbine (Discontinued)

**Part No: 12-0185** 

**Description:** This system is no longer in stock as a standard system.

Please see system E960 instead.



## **System D652 Linebore (Discontinued)**

Part No: 12-0652

**Description:** This system is no longer in stock as a standard system.

Please see system E950 instead.



## System D650 Linebore (Discontinued)

Part No: 12-0034

**Description:** This system is no longer in stock as a standard system.

Please see system E950 instead.



## System D640 Machine tool (Discontinued)

Part No: 12-0552

**Description:** This system is no longer in stock as a standard system.

Please see system E940 instead.



## System D630 Extruder (Discontinued)

Part No: 12-0193

**Description:** This system is no longer in stock as a standard system.

Please see system E930 instead.



### System D600 Machine (Discontinued)

Part No: 12-0133

**Description:** This system is no longer in stock as a standard system.

Please see system E920 instead.



## System D525 Shaft (Discontinued)

Part No: 12-0231

**Description:** This system is no longer in stock as a standard system.

Please see system E710 instead.



## System D525 B Shaft (Discontinued)

Part No: 12-0235

**Description:** This system is no longer in stock as a standard system.

Please see system E710 instead.



## System D505 Shaft (Discontinued)

Part No: 12-0207

**Description:** This system is no longer in stock as a standard system.

Please see system E540 or E710 instead.



## System D480 Shaft (Discontinued)

Part No: 12-0422

**Description:** This system is no longer in stock as a standard system.

Please see system E540 or E710 instead.



## System D450 Shaft (Discontinued)

Part No: 12-0300

**Description:** This system is no longer in stock as a standard system.

Please see system E420 instead.



## System D150 BTA digital (Discontinued)

**Part No:** 12-0310

**Description:** This system is no longer in stock as a standard system.

Please see system E180 instead.





## Measuring unit M, PSD 10x10 mm (Discontinued)

Part No: 12-0001

Description: Laser diode and PSD detector in one housing. Mainly for

shaft alignment. PSD 10x10 mm [0.39"x0.39"]. **Note:** To be used in pair with S unit 12-0002.





### Measuring unit S, PSD 10x10 mm (Discontinued)

Part No: 12-0002

Description: Laser diode and PSD detector in one housing. Mainly for

shaft alignment. PSD 10x10 mm [0.39"x0.39"]. **Note:** To be used in pair with M unit 12-0001.





# Measuring unit M, PSD 18x18 mm, inclinometer (Discontinued)

Part No: 12-0119

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 18x18

mm [0.71"x0.71"].

Note: To be used in pair with S unit 12-0120.





# Measuring unit S, PSD 18x18 mm, inclinometer (Discontinued)

Part No: 12-0120

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 18x18

mm [0.71"x0.71"].

Note: To be used in pair with M unit 12-0119.





# Measuring unit M, PSD 10x10 mm, inclinometer (Discontinued)

Part No: 12-0423

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 10x10

mm [0.39"x0.39"].

Note: To be used in pair with S unit 12-0424.





# Measuring unit S, PSD 10x10 mm, inclinometer (Discontinued)

Part No: 12-0424

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 10x10

mm [0.39"x0.39"].

Note: To be used in pair with M unit 12-0423.





# Measuring unit M, PSD 30x30 mm, inclinometer (Discontinued)

Part No: 12-0256

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 30x30

mm [1.18"x1.18"].

Note: To be used in pair with S unit 12-0260.





# Measuring unit S, PSD 30x30 mm, inclinometer (Discontinued)

Part No: 12-0260

**Description:** Laser diode and PSD detector in one housing. Built-in electronic 360° inclinometer. Mainly for shaft alignment. PSD 30x30

mm [1.18"x1.18"].

Note: To be used in pair with M unit 12-0256.





# Measuring unit M, 2 axis, PSD 18x18 mm, inclinometer (Discontinued)

Part No: 12-0116

**Description:** Laser diode and PSD detector in one housing. For shaft alignment and many geometrical applications, thanks to the 2 axis PSD

(18x18 mm [0.71"x0.71"]).

Note: -





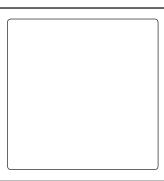
### **Detector 30 mm, D-series (Discontinued)**

Part No: 12-0255

**Description:** 2 axis PSD, 30 x 30 mm [1.18"x1.18"]. Built-in 360° electronic inclinometer. Connectors on top and back side; versatile and also makes it possible to series connect two or more detectors. Normally mounted on rods, but has many additional mounting possibilities thanks to threads on two sides.

Note: -





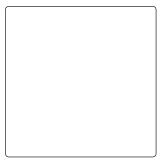
## Offset bracket (Discontinued)

Part No: 01-0076

Description: Please see 01-1165 instead.

Note: -

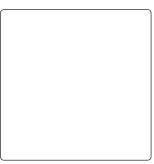




## Measuring tape, 2 m [6.5'] (Discontinued)

Part No: 12-0012 Description: -Note: -





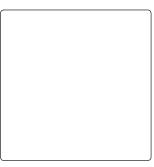
## Large target extruder (Discontinued)

**Part No:** 12-0199

**Description:** Please see 12-0810 instead.

Note: -





# CD (Discontinued) Part No: 06-0001

Part No: 06-0001 Description: -Note: -





# Magnet base bracket for Linebore detector (Discontinued)

Part No: 12-0329

Description: With this bracket the Linebore detector (Part No. 12-

0032) can be mounted on a magnet base.

**Note:** Screws not included.

**READ THIS:** 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® 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.

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

Damalini Part No.	Туре	Voltage	Output	Capacity	Included in Part No.
03-0757	Li-lon	3.7 V	43 Wh	11600 mAh	12-0418, 12-0700
03-0765	Li-Po	3.7 V	2.5 Wh	680 mAh	12-0433, 12-0434, 12-0509, 12-0688, 12-0702, 12-0738, 12-0752, 12-0759, 12-0758, 12-0846
03-0971	Li-lon	3.7 V	8.5 Wh	2300 mAh	12-0617, 12-0618, 12-0823, 12-0845
03-1052	Li-Po	3.7 V	1.5 Wh	380 mAh	12-0746, 12-0747, 12-0776, 12-0777, 12-0791
03-1055	Li-lon	3.7 V	34 Wh	9200 mAh	12-0748



#### Display unit D336, Part No. 12-0336

Display unit D330, Fait No. 12-0330		
Type of display	Dot matrix LCD	
Display size	73x73 mm	
Displayed resolution	Changeable: 0.1; 0.01; 0.001 mm. 5; 0.5; 0.05 mils/thou	
Battery	4 Duracell Procell Alkaline Mn1400 LR14 1.5 V	
Output port	RS232 with USB adapter. For printer+PC communication	
Keyboard	Membrane keys with alphanumeric multifunction	
Storage memory	Space for 1,000 shaft alignment measurements	
Settings	For Measurement value filtering, Unit (mil/thou/mm) etc.	
Protection	IP66/IP67: Shockproof, Waterproof, Dustproof	
Housing material	Anodised aluminium/Chrome-plated aluminium	
Dimensions	WxHxD: 177x180x43 mm	
Weight	1000 g	



#### Bluetooth® Wireless unit, Part No. 12-0436

Wireless communication	Class I Bluetooth® 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 Bluetooth® Wireless unit, Part No. 12-0618

batterypaok with bant in biactothie wireless and, Tart No. 12 0010				
Wireless communication	Class I Bluetooth® wireless technology			
Internal battery	Li lon			
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]			



#### Bluetooth® Wireless unit with battery, Part No. 12-0738

Bluetooth® Wireless unit with battery, Part No. 12-0738		
Wireless communication	Class I Bluetooth® wireless technology	
Internal battery	Li Po	
Temperature range	-10–50 °C	
Housing material	ABS + stainless steel	
Dimensions	WxHxD: 55x65x37 mm [2.2"x2.6"x1.4"]	
Weight	70 g [2.5 oz]	



#### Vibrometer probe D283, Part No. 12-0283

Probe sensitivity	100 mV/g ±10%
Dimensions	Magnet: L=20 mm [4/5"], Ø=15 mm [19/32"]
	Gauge tip: L=65 mm [2 1/2"]



#### Vibrometer probe E285, Part No. 12-0656

Probe sensitivity	100 mV/g ±10%
Dimensions	Magnet: L=20 mm [4/5"], Ø=15 mm [19/32"]
	Gauge tip: L=65 mm [2 1/2"]

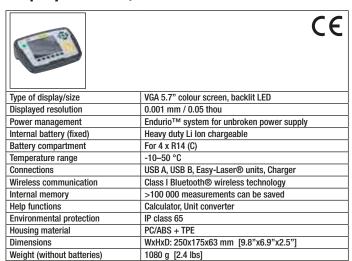




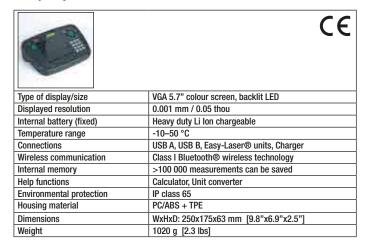
#### Measuring unit Extreme. M: Part No. 12-0334, S: Part No. 12-0335

Type of laser	Diode laser
Laser wavelength	635–670 nm, visible red light
Laser safety class	Class 2
Laser output power	< 1 mW
Resolution	0.001 mm
Type of detector	2-axis PSD 20x20 mm
Inclinometers	Electronic inclinometers, 0.1° resolution
Thermal sensors	±1°C accuracy
Protection	No influence from ambient light
Protection	IP66/IP67: Shockproof, Waterproof, Dustproof
Housing material	Hard anodised aluminium
Dimensions	WxHxD: 75x65x52 mm
Weight	220 g

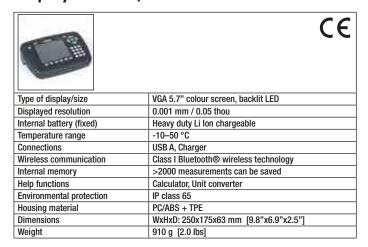
## Display unit E51, Part No. 12-0418



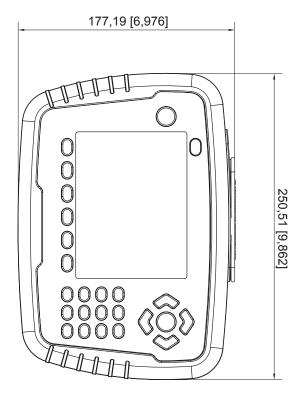
## Display unit E52, Part No. 12-0700

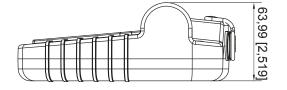


## Display unit E53, Part No. 12-0748



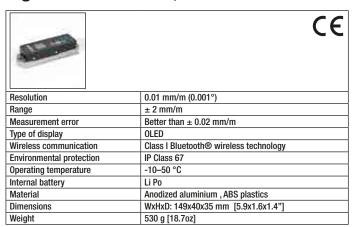




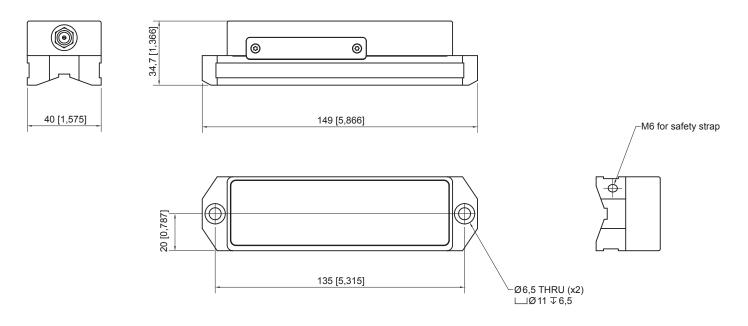




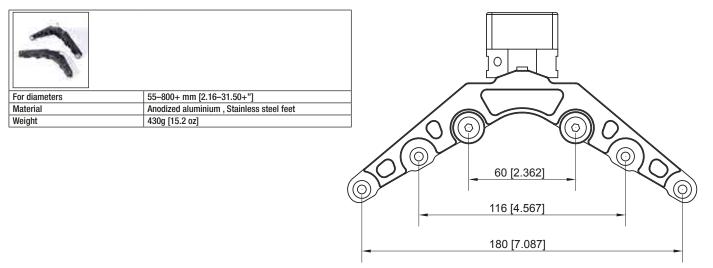
## Digital Precision Level, Part No. 12-0846



mm [inch]



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

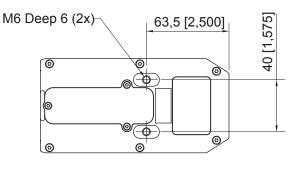




## Laser transmitter E30 Long range, Part No. 12-0823



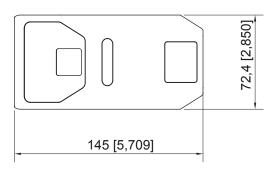
mm [inch]

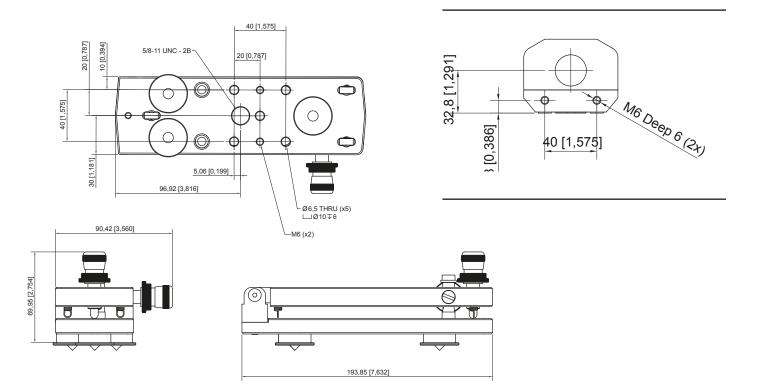




# Laser transmitter E30 Long range, with tilt table, Part No. 12-0858



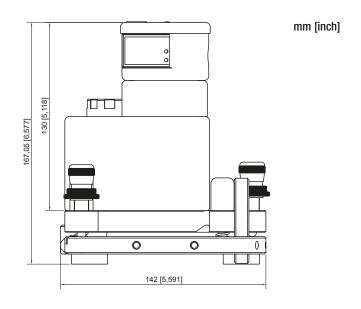


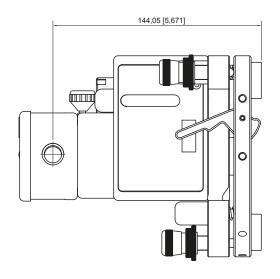


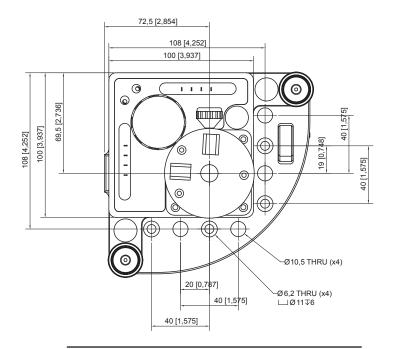


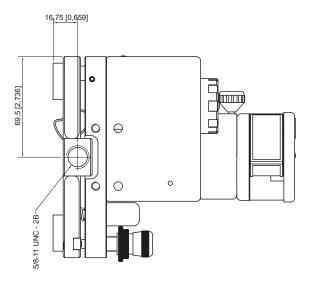
## Laser transmitter D22, Part No. 12-0022













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

#### **Examples of use**

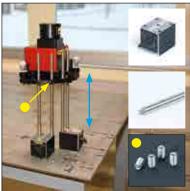
The D22 can be mounted in various ways. Below are just some examples. The important thing is to always tighten rods, screws and magnets firmly. Also be sure the surface where the magnets are attached is clean. If possible use the safety strap.



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.



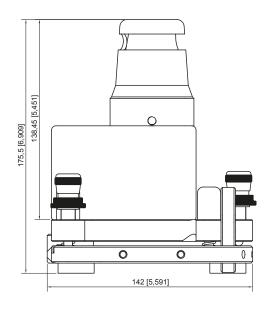
Rigid mounting, horizontal sweep.

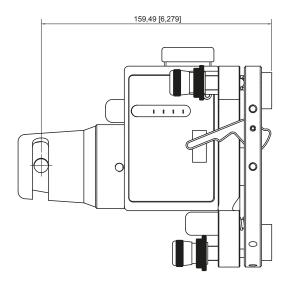


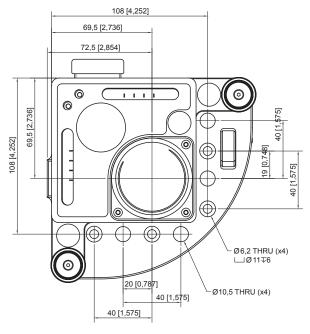
mm [inch]

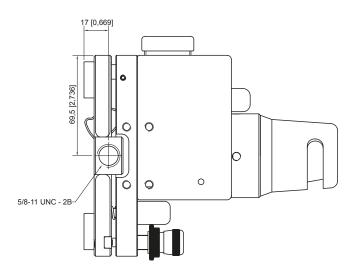
## Laser transmitter D23 Spin, Part No. 12-0168







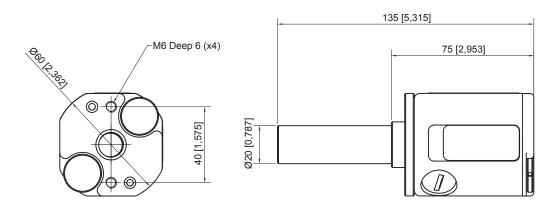


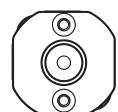




## Laser transmitter D146 Spindle, Part No. 12-0146





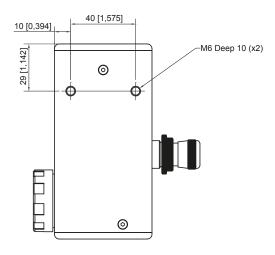


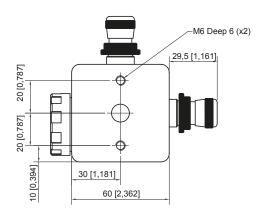


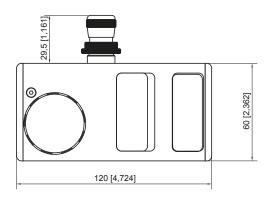
## Laser transmitter D75, Part No. 12-0075

CE CAUTION Type of laser Diode laser 635-670 nm, visible red light Laser wavelength Laser Safety Class Class 2 < 1 mW Output 6 mm [1/4"] at aperture Beam diameter 40-metre [130'] Working distance Type of battery 1 x R14 (C) Operating time/battery approx. 15 hours Operating temperature 0-50 °C D75: 2 ways  $\pm 2^{\circ}$  ( $\pm$  35 mm/m) Laser adjustment Housing material Aluminium Dimensions D75 WxHxD: 60x60x120 mm [2.36x2.36x4.72"] Weight 780 g [27.5 oz]

mm [inch]









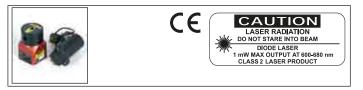
mm [inch]

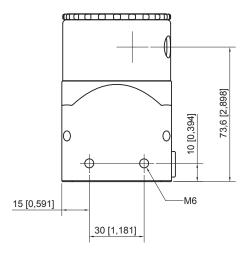
## Laser transmitter D25 with offset hub, Part No. 12-0706



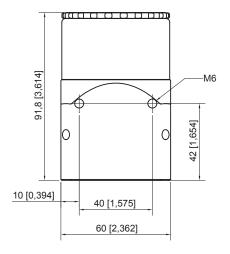
# 49 [1,929] -Ø4 -10 DEEP -Ø4 -10 DEEP -Ø4 -10 DEEP -Ø4 -10 DEEP

## Laser transmitter D25, Part No. 12-0594



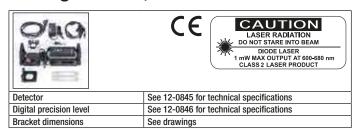


40 [1,575]

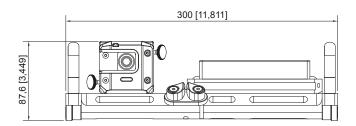




## Roll alignment kit, Part No. 12-0856

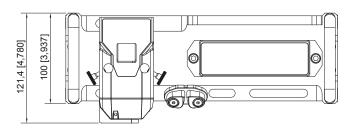


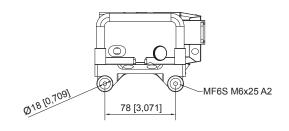
#### mm [inch]



## Roll bracket, Part No. 12-0849

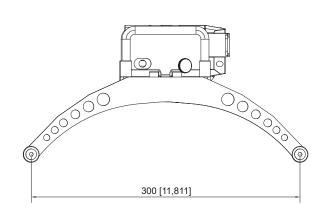




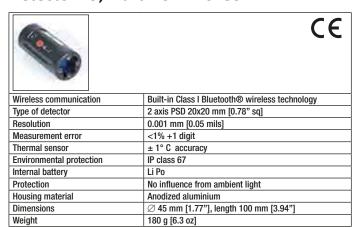


### Large roll kit, Part No. 12-0885





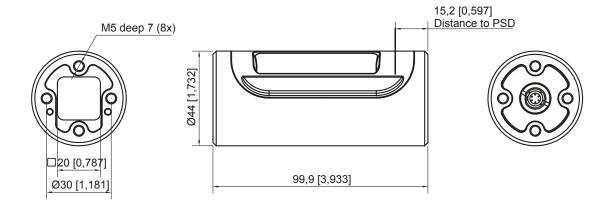
## Detector E9, Part No. 12-0759



mm [inch]

## Detector E8, Part No. 12-0758

	C€
Wireless communication	Built-in Class I Bluetooth® wireless technology
Type of detector	1 axis PSD 20x20 mm [0.78" sq]
Resolution	0.001 mm [0.05 mils]
Measurement error	<1% +1 digit
Thermal sensor	± 1° C accuracy
Environmental protection	IP class 67
Internal battery	Li Po
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]

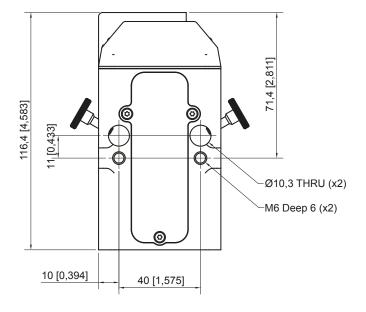


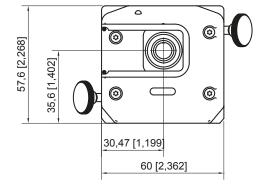


## Angle detector E2, Part No. 12-0845

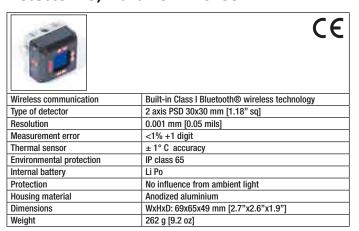


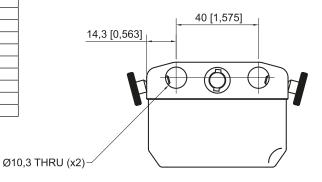
Type of detector	2 axis PSD 20x20 mm [0.78" sq]
Type of display	OLED
Wireless communication	Class I Bluetooth® wireless technology
Internal battery	Li lon
Resolution	0.01 mm/m (0.001°)
Measurement error	Better than ± 0.02 mm/m
Inclinometers	0.1° resolution
Environmental protection	IP Class 67
Operating temperature	-10–50 °C
Housing material	Anodized aluminium
Dimensions	WxHxD: 116x60x57 mm [4.6x2.4x2.2"]
Weight	530 g [18.7oz]

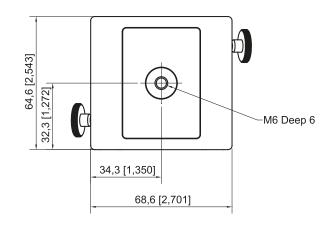


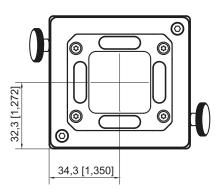


## Detector E3, Part No. 12-0799



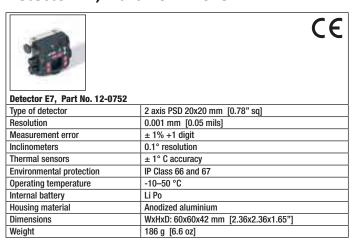




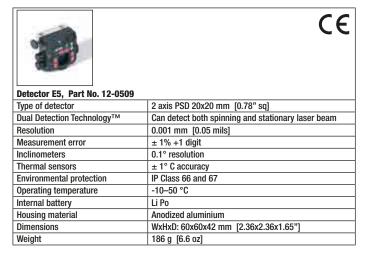




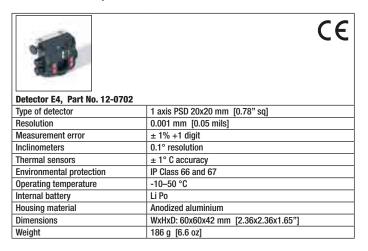
## Detector E7, Part No. 12-0752

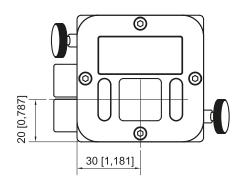


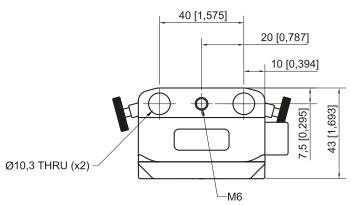
## Detector E5, Part No. 12-0509

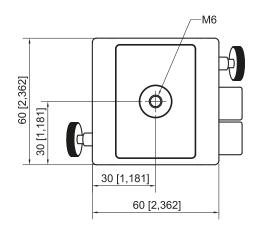


## Detector E4, Part No. 12-0702







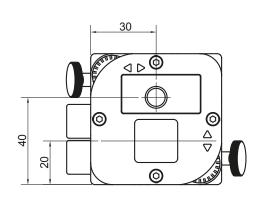


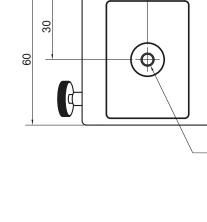


## Measuring unit M/S, Part No. 12-0434 / 12-0433

mm [inch]



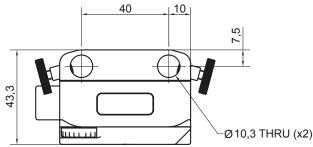




60

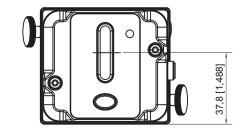
M6

30

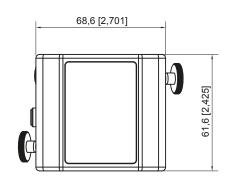


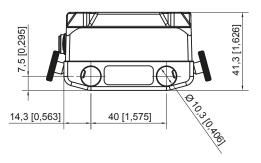
## Measuring unit ELM40 / ELS40, Part No. 12-0776 / 12-0777





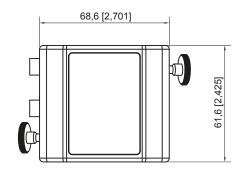
mm [inch]

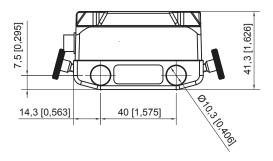




## Measuring unit ELM30 / ELS30, Part No. 12-0698 / 12-0697





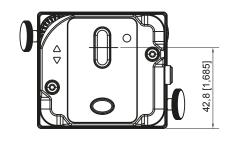


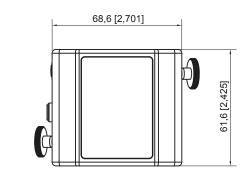


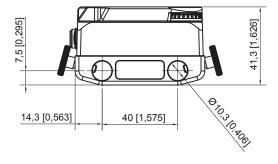
## Measuring unit ELM20 / ELS20, Part No. 12-0746 / 12-0747



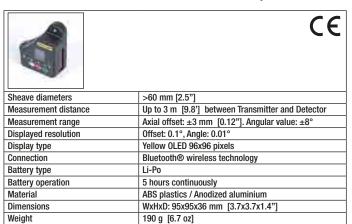
	DIODE LASER 1 mW MAX OUTPUT AT 600-680 nm CLASS 2 LASER PRODUCT			
Measuring unit PSD 20 mm. ELI	M20: Part No. 12-0746, ELS20: Part No. 12-0747			
Wireless communication	Built-in Class I Bluetooth® wireless technology			
Internal battery	Li Po			
Type of detector	True PSD 20 mm [0.79"]			
Resolution	0.01 mm [0.5 mils]			
Measuring errors	±1% +1 digit			
Measurement range	Up to 3 m [10 feet]			
Type of laser	Diode laser			
Laser wavelength	635–670 nm			
Laser class	Safety class II			
Laser output	<1 mW			
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]			

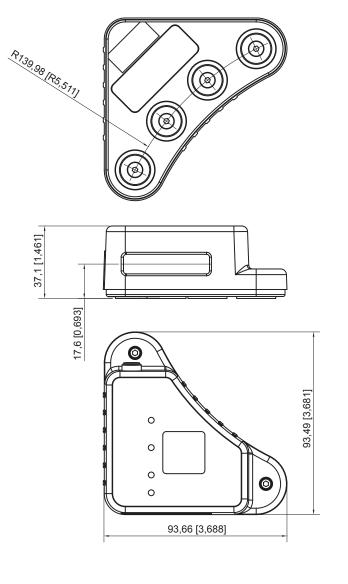






## E-series wireless detector for BTA, Part No. 12-0791







[ Blank page ]

Part No.	Description	Page	12-0002	Measuring unit S, D-series, PSD 10x10mm	79
01-0039	Locking screw	70	12-0005	Detector D5	36
01-0042	Nut (for chain)	69	12-0012	Measuring tape, 2m [6.5']	
01-0045	Barrel nut		12-0013	Magnet base	
01-0048	Rod tightening tool, 4 mm		12-0016	V-bracket with chain	
01-0062	Bottom part for old display unit		12-0022	Laser transmitter D22	
01-0076	Offset bracket, D-series		12-0032	Detector Linebore	
01-0139	Machine/Magnet base pin for D22, short		12-0033	Standard chain	
01-0618	Top for D23		12-0034	System D650 Linebore	
01-0752	Side part for display unit D279		12-0039	Sliding bracket	
01-0777	Tube adapters for E8/E9 and D157		12-0045	Magnet base with turnable head	
01-0847	Shim remover		12-0046	Angular prism D46	
)1-0047	Rod, 30 mm.		12-0040	Rods, 60 mm	
)1-0936	Key holder		12-0039	Rods, 240 mm	
	Offset bracket for E-series				
)1-1165			12-0074	Red cable 2.0m [78.7"]	
01-1333	Machine/Magnet base pin for D22, long		12-0075	Laser transmitter D75	
01-1352	Sunvisor for D6		12-0108	Red cable, extension, 5.0m [16.4"]	
)1-1379	Protective case for display unit E418	64	12-0110	Tilt table	
00.000	D: 1 000 V	00	12-0116	Measuring unit M, D-series, PSD 18x18mm, 2 axi	
03-0032	Printer 220 V		12-0119	Measuring unit M, D-series, PSD 18x18mm	
03-0041	Thermo paper roll		12-0120	Measuring unit S, D-series, PSD 18x18mm	
03-0042	Protective case for older display units		12-0125	Cardan bracket set D-series	
03-0061	Screw M6x14		12-0128	Extension chain, set	
03-0241	Printer cable		12-0130	V-bracket	
03-0341	Printer 110 V		12-0132	Offset hub for D75	
03-0333	PC cable		12-0133	System D600 Machine	
03-0505	Screw for D23 top cover		12-0134	Foot set for linebore arms	
)3-0591	Padded case for BTA		12-0137	Sliding bracket with turnable head	
03-0592	Protective case for display unit D279		12-0138	Sliding bracket with magnets and probe	
)3-0722	USB/RS232 adaptor		12-0139	Target Cardan	
03-0736	Case for BTA Ex		12-0143	Foot set for linebore for 100–150mm	
03-0799	Protective case for display unit D336		12-0146	Laser transmitter D146	
03-0810	Locking screw		12-0149	Rod bracket for laser D75	
03-0821	Charger for E-series display unit		12-0154	Magnets for offset hub arms	
03-0822	USB A – USB B cable	60	12-0157	Detector D157	
03-0824	Measuring tape, 3m [9.8']	65	12-0168	Laser transmitter D23	33
03-0842	Measuring tape, 5m [16.4']	66	12-0169	Rotating detector bracket for rods	40
03-0878	Cleaning cloth	71	12-0179	Red cable 1.0m [39.3"]	58
03-0892	Charger cable, EUR	60	12-0180	Red cable, extension, 10.0m [32.8']	58
03-0893	Charger cable, USA	60	12-0185	System D660 Turbine	77
03-0894	Charger cable, UK		12-0187	Bracket for laser D75	
03-0895	Charger cable, AUS	61	12-0188	Side support for D5	53
03-0901	HDMI to HDMI cable	61	12-0189	Side support for D75	
03-0902	VGA to VGA cable	61	12-0193	System D630 Extruder	77
03-0909	Transportation case	63	12-0199	Large target extruder	
03-0914	USB memory		12-0201	Detector D6	
03-0967	Hexagon wrench set		12-0202	Sliding table for tripod	54
03-0972	LCD display protection film		12-0203	Parallelity kit	
03-1004	Printer for E-series		12-0205	AC adaptor for D22 and D75	
03-1007	Carrying case for system E540 and E530		12-0207	System D505 Shaft	
03-1043	USB cable for streaming values		12-0213	Target for BTA, 15 mm	
03-1044	Back pack system, medium		12-0220	System D800 Spin	
03-1045	Back pack system, large		12-0224	System D670 Parallelism	
03-1046	Luggage trolley		12-0230	Magnet base with linear digital scale	
03-1059	Carrying case for system E420		12-0231	System D525 Shaft	
03-1203	DC cable extension 1.5 m		12-0235	System D525 B Shaft/Geometry	
.200			12-0236	Demo unit Sheave	
04-0053	Sticker "This machine is aligned with Easy-Lase	r®" 71	12-0237	Transportation case cardan	
04-0124	Easy-Laser® logo sticker, large		12-0246	Laser transmitter D246	
04-0125	Easy-Laser® logo sticker, small		12-0248	Detector bracket Long stroke for turbine	
04-0123	Bar code sticker		12-0255	Detector 30mm	
	24. 0040 040101		12-0256	Measuring unit M, D-series, PSD 30x30 mm	
05-0792	Notebook for the technician	74	12-0258	Shims case, 180 shims	
JJ 01 JL	110 CODOON TOT GIO COOTHIOIGH	т	12-0259	Shims case, 360 shims	
06-0001	CD	78	12-0260	Measuring unit S, D-series, PSD 30x30 mm	
JU UUU I	05	1 0	12-0269	Tripod	
12-0001	Measuring unit M, D-series, PSD 10x10mm	70	12-0209	Display unit D279	
_ 0001	inoacuming unit M, D contoc, I OD TOATOIIIII		12 0210	Diopidy drift DET U	۰۰۰۰۰ ۵۲

## **PART NUMBERS PAGE LIST**

12-0282	Extension arms linebore	49	12-0538	Detector Extruder 20mm	75
12-0283	Vibrometer probe D283	37	12-0543	Slide bracket 200mm	47
12-0284	Battery lid for older display units		12-0544	Target 100x100m	
12-0289	Red cable 0.4m [15.7"]		12-0546	Battery lid for display unit D336	
12-0294	AC adaptor for D23		12-0552	System D640 Machine tool	
12-0300	System D450 Shaft		12-0553	Bore bracket adapter plate	
12-0303	Sliding bracket with magnets		12-0568	Mounting pin for D146	
12-0308	Detector/display unit for belt alignment		12-0573	VGA kit	
12-0309	Laser transmitter for sheave alignment systems		12-0579	Magnet base with adapter Ex	
12-0310	System D150 BTA		12-0580	Axial extension arms, linebore	
12-0314	Detector arms Linebore		12-0583	Pointing bracket on magnet base	
12-0319	Extension chain		12-0585	Charger 12–36 V for car	
12-0320	Rod adapter for D157		12-0587	Sun visor for E-series	
12-0321	Cable support		12-0588	Target E-series	
12-0324	Rods, 120 mm	44	12-0590	AC adaptor for display unit D279	66
12-0329	Magnet base bracket for linebore detector	81	12-0592	Sun visor for Ex units	54
12-0334	Measuring unit M, Ex	39	12-0594	Laser transmitter D25	33
12-0335	Measuring unit S, Ex		12-0597	Splitter box	57
12-0336	Display unit D336 Ex		12-0603	Handheld detector bracket	50
12-0337	Shaft bracket with chain, stainless steel		12-0608	Magnet base with turnable head, for D157	
12-0340	System D550 Shaft Extreme™		12-0615	Cardan bracket for E-series	
12-0341	Self centering bracket		12-0617	Battery pack	
12-0343	Slide bracket 100mm		12-0618	Battery pack with built-in Bluetooth® unit	
12-0343			12-0619	Barcode reader	
	Battery lid for display unit D279		12-0619	Tool kit for tilt table	
12-0360	Tool kit for system D550				
12-0362	Cable tester		12-0625	Standard chains	
12-0363	Extension chain, stainless steel		12-0628	Bracket for non-magnetic flanges, with handheld det.	
12-0364	Offset hub with arms		12-0652	System D652 Linebore	
12-0384	Offset hub arms		12-0656	Vibrometer probe E285	
12-0385	Laser transmitter bracket turbine		12-0657	Detector for belt alignment E-series	
12-0386	Chain, stainless steel		12-0659	E170 BTA	
12-0390	Laser transmitter for sheave alignment Ex	34	12-0661	Offset hub with counterlock, for D75	48
12-0394	Target for BTA, 18 mm	69	12-0662	System D662 Turbine	76
12-0400	System D130 BTA Ex	26	12-0663	System D663 Turbine	76
12-0402	Target Ex cardan		12-0664	System D664 Turbine	
12-0403	Detector for belt alignment D-series		12-0676	System E950-A	
12-0404	Display unit for sheave/pulley alignment		12-0677	System E950-B	
12-0411	System D160 BTA		12-0695	System E530 Shaft	
12-0412	Thin chain bracket		12-0696	Small magnet base with turnable head	
12-0413	Magnetic bracket		12-0697	Measuring unit ELS 30	
12-0415	System D90 BTA		12-0698	Measuring unit ELM 30	
12-0416	Demo unit Shaft	66	12-0700	Display unit E52	33
12-0410	Height adjustment bracket for detector D6		12-0700	Detector E4	
				Laser transmitter D25 with offset hub	
12-0418	Display unit E51 (formerly E418)		12-0706		
12-0422	System D480 Shaft		12-0707	Arm kit with magnets	
12-0423	Measuring unit M, D-series, PSD 10x10mm, Incl		12-0709	Measuring unit holder for Angular prism	
12-0424	Measuring unit S, D-series, PSD 10x10mm, Incl		12-0710	System E960-A	
12-0433	Measuring unit S, E-series, PSD 20x20mm		12-0711	System E960-B	
12-0434	Measuring unit M, E-series, PSD 20x20mm		12-0715	Detector bracket "Long stroke" Turbine	
12-0436	Bluetooth® wireless unit		12-0725	Splitter cable for charging	
12-0438	Detector bracket Short stroke for turbine	51	12-0727	System E980 Sawmill	
12-0439	Ball top probe	52	12-0728	Splitter cable for charging two 12-0738	
12-0440	System E710 Shaft	19	12-0735	Red cable with angled connector	59
12-0442	Carrying case for system E710	62	12-0738	Bluetooth® wireless unit with battery	56
12-0443	Centering target for turbine		12-0739	Bluetooth® wireless units kit for E530	
12-0455	Slide bracket 120mm		12-0740	Batterypack with Bluetooth®, Kit	
12-0456	Transportation case Ex large		12-0742	Tilt table with magnet base	
12-0476	Cam shaft bracket		12-0743	Shim case 3	
12-0490	Short ball top probe		12-0745	System E420 Shaft	
12-0490	Red cable 0.16m [6.3"]		12-0745	Measuring unit ELM 20	
12-0494	Shoulder strap for display unit E418		12-0740	Measuring unit ELIVI 20	
12-0508	Radial support for magnet base		12-0748	Display unit E53	
12-0509	Detector E5		12-0750	DC split cable	
12-0510	Slide bracket 300mm		12-0751	DC to USB adapter	
12-0525	System E910 Flange		12-0752	Detector E7	
12-0526	System E915 Flange Spin		12-0755	Shim case 4	
12-0537	Offset hub with counterlock and tilt function	48	12-0758	Detector E8, 1-axis PSD	35

12-0759	Detector E9, 2-axis PSD	35
12-0761	System E940 Machine tool	
12-0767	Rod adapter with built-in target	46
12-0768	Slide bracket, width 25 mm [0.99"]	46
12-0771	System E920 Geometric	16
12-0772	System E950-C	13
12-0775	System E540	
12-0776	Measuring unit ELM 40	38
12-0777	Measuring unit ELS 40	38
12-0787	Spindle bracket for measuring unit	50
12-0788	System E930 Extruder	15
12-0791	E-series wireless detector for belt alignment	36
12-0794	Target E-series 20x20	55
12-0796	System E180 BTA	24
12-0797	System Vestas 4	27
12-0799	Detector E3	35
12-0801	Measuring probe Ruby diameter 2.5mm	53
12-0805	Measuring probe Ruby diameter 5mm	52
12-0810	Large target extruder	55
12-0814	Tube bracket	52
12-0815	Adapter bracket for rod distance 40 mm	
12-0823	Laser transmitter E30 Long Range	34
12-0825	System Vestas 3	27
12-0828	Offset hub with counterlock and tilt function	
12-0840	VGA kit, for serial number 94177 and newer	61
12-0845	Detector E2	36
12-0846	Digital Precision Level E290	37
12-0849	Roll bracket	45
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	34
12-0864	Tilt table, turnable	
12-0874	Adapter plate for tilt table to magnet base	
12-0885	Large roll kit	
12-0901	Extension kit for large diameters	45
12-0915	Safety strap	65
13-0004	Сар	73
13-0006	Pen	
13-0007	Playing cards	
13-0011	Pen, engraved	73





Easy-Laser® is manufactured by Damalini AB, Alfagatan 6, 431 49 Mölndal, Sweden, Phone +46 31 708 63 00, Fax +46 31 708 63 50, email: info@damalini.se, www.damalini.com © 2015 Damalini AB. We reserve the right to make modifications without prior notification. Easy-Laser® is a registered trademark of Damalini AB. Withdows® and Excel® are registered trademarks of the Microsoft Corporation. These product complies with: EN60825-1:2007, 21 CFR 1040.10 and 1040.11 The wireless devices contain FCC ID: PVH0946, IC: 5325A-0946.



