

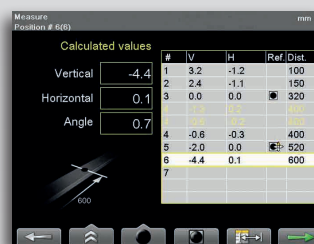
## HIGH PRECISION GEOMETRIC MEASUREMENT AND ALIGNMENT

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 system can provide full documentation, with direct generation of PDF reports, and database programs for PC. 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.

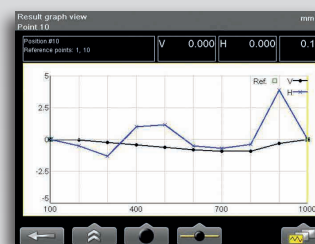


## STRAIGHTNESS MEASUREMENT

With our program for measuring straightness, you can easily measure long shafts, rolls, bearings, bases, machine structures etc. All you have to do is define a number of measuring points, in advance or while measuring. You will be able to get the result for both the horizontal and vertical alignment, graphically as well as digitally.



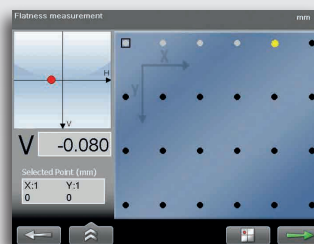
Straightness program. Measuring.



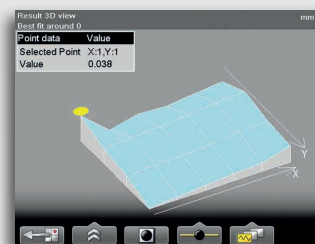
Straightness program. Result graph.

## FLATNESS MEASUREMENT

Flatness can be measured on a rectangular or circular plane. The user can select a method according to the type of measurement required. Position the detector at selected measurement points and record the values. After measuring, set three of the measurement points as references (0), then the remaining points are recalculated to the new reference plane formed.



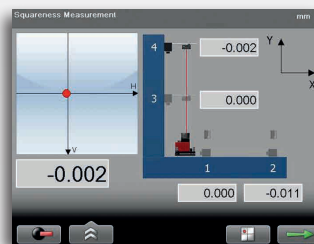
Flatness program. Measuring.



Flatness program. Result graph.

## SQUARENESS MEASUREMENT

When measuring squareness, first record two measurement values on a single object to create a reference for the angle. Then use the built-in angular prism in laser transmitter D22, which deflects the laser beam 90°, and record two new measurement values on the second object.



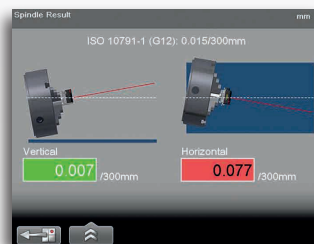
Squareness program. Measuring.



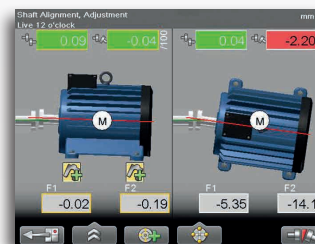
Squareness program. Result.

## ALL PROGRAMS ARE INCLUDED

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.



Spindle program. Result.



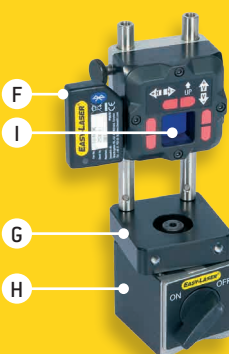
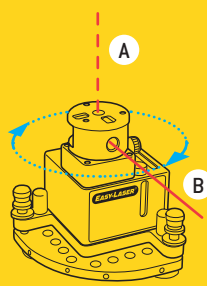
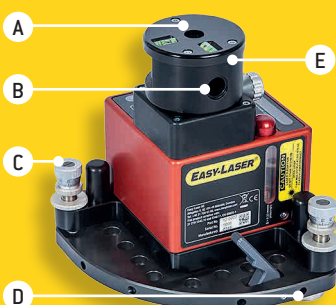
Shaft alignment program.  
Note! Accessories required.

### Laser transmitter

- A. The laser beam is angled at 90° to the sweep
- B. The laser beam is used for a 360° sweep
- C. Leveling screws (x2)
- D. Magnetic feet (x3)
- E. Swivelling head

### Detector

- F. Wireless unit
- G. Rotatable head
- H. Magnet base
- I. PSD (2 axis)



# Geometric measurements E920

# TECHNICAL DATA

System	
Relative humidity	10–95%
Weight (complete system)	12.3 kg [27.1 lbs]
Carrying case	WxHxD: 550x450x210 mm [21.6x17.7x8.3"] Drop tested. Water and dust tight.

Laser transmitter D22	
Type of laser	Diode laser
Laser wavelength	630–680 nm, visible red light
Laser Safety Class	Class 2
Output	< 1 mW
Beam diameter	6 mm [1/4"] at aperture
Working area, range	40-metre radius [130']
Type of battery	1 x R14 (C) 1.5V
Operating time/battery	approx. 24 hours
Operating temperature	0–50 °C
Levelling range	± 30 mm/m [± 1.7°]
3 x spirit vials' scaling	0.02 mm/m
Squareness between laser beams	± 0.01 mm/m [2 arc sec.]
Flatness of sweep	± 0.01 mm/m
Fine turning	± 0.1 mm/m [20 arc sec.]
2 x spirit vials for rotation	± 5 mm/m
Housing material	Aluminium
Dimensions	WxHxD: 139x169x139 mm [5.47x6.64x5.47"]
Weight	2650 g [5.8 lbs]

Detector E7	
Type of detector	2 axis PSD 20x20 mm [0.78" sq]
Resolution	0.001 mm [0.05 mils]
Measurement accuracy	±1 µm ±1%
Inclinometers	0.1° resolution
Thermal sensors	±1°C accuracy
Environmental protection	IP Class 66 and 67
Operating temperature	-10–50 °C
Internal battery	Heavy duty Li Ion chargeable
Housing material	Anodized aluminium
Dimensions	WxHxD: 60x60x42 mm [2.36x2.36x1.65"]
Weight	186 g [6.6 oz]

Display unit E51	
Measuring programs	Complete set
Type of display/size	VGA 5.7" colour
Displayed resolution	0.001 mm / 0.05 thou
Internal battery	Heavy duty Li Ion chargeable
Operating time	Appr. 30 hours (Normal operating cycle)
Operating temperature	-10–50 °C
Connections	USB A, USB B, Easy-Laser® units
Communication	BT Wireless Technology
Storage memory	>100,000 measurements
Help functions	Calculator, Unit converter
Environmental protection	IP Class 65
Housing material	PC/ABS + TPE
Dimensions	WxHxD: 250x175x63 [9.8x6.9x2.5"]
Weight (without batteries)	1030 g [2.3 lbs]

Wireless connection unit	
Communication	BT Wireless Technology
Operating temperature	-10–50 °C
Environmental protection	IP Class 66 and 67
Housing material	ABS
Dimensions	53x32x24 mm [2.1x1.2x0.9"]
Weight	25 g [0.9 oz]

Cables	
Type	With Push/Pull connectors

System cable	Length 2 m [78.7"]
Extension system cable	Length 5 m [196.8"]
USB cable	Length 1.8 m [70.8"]

Magnet base with turnable head (for detector)	
Holding power	800 N

Rods for detector	
Length	60 mm / 120 mm (extendable) [2.36"/4.72"]

EasyLink™ data base software for PC	
System requirements	Windows® XP, Vista, 7, 8, 10. For the export functions, Excel 2003 or newer must be installed on the PC.



#### A complete system contains

- 1 Laser transmitter D22
- 1 Detector E7
- 1 Display unit E51
- 1 Wireless unit
- 1 Cable 2 m
- 1 Cable 5 m (extension)
- 1 Cable support
- 1 Machine spindle pin
- 1 Safety strap for laser transmitter
- 2 Targets for rough alignment
- 1 Magnet base with turnable head
- 1 Offset bracket
- 1 Set of rods (6x60 mm, 6x120 mm)
- 1 Manual
- 1 Measuring tape 5 m
- 1 USB memory stick (with EasyLink™ program)
- 1 USB cable
- 1 Battery charger (100–240 V AC)
- 1 Toolbox
- 1 Cleaning cloth for optics
- 1 Carrying case

System Easy-Laser® E920 Geometric, Part No. 12-0771