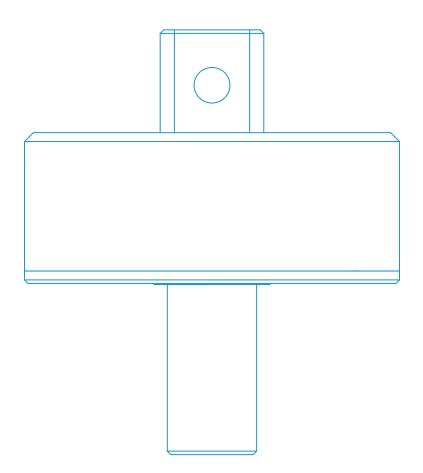


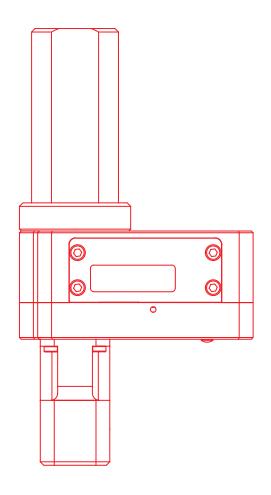






# **Lathe Measurement System**







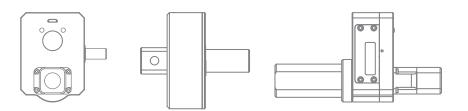
L

Lathe Measurement System LMS-5 is a laser based device for complete characterization of various lathes. The measurement is performed on the basis of the laser beam position detection. The source of the laser beam is a fibre pigtailed and intensity stabilized laser

diode. Special, proprietary, beam detection algorithms implemented into the optical detector guarantee unrivalled accuracy of the whole measurement system. The results are displayed on a PC computer with a Windows operating system and a Bluetooth module. LMS-5 is

a Safety Class I product designed and tested in accordance with international safety standards. It is also a Class II Laser product conforming to international laser safety regulations. The system does not require any additional protective equipment during use.





### Standard set





- **Specification**
- Convenient and very quick setup method
- Complete characterisation of lathe's geometry
- Supplementary milling machines geometry measurements like: straightness, squareness, head displacement
- Safety Class I, according to PN-91/T-06700 Not required warm up the device
- Small weight of all equipment: 3,5 kg
- Compact case with dimensions: length: 27 cm, width: 25 cm, depth: 18 cm
- Possibility of carrying equipment as hand luggage

Laser type

Wavelength (vacuum)

**Output power of laser radiation** 

Diameter of the laser beam

**Laser Head dimensions** 

Measurement range

**Measurement resolution** 

Measurement accuracy

**Detector / Dimensions** 

**Battery operation time** 

Laser / Detector

Operating temperature range

Measuring distance

Intensity stabilized diode laser

635 nm

< 1 mW

4 mm

130 mm x 115 mm

± 2 mm

 $< 0,1 \mu m$ 

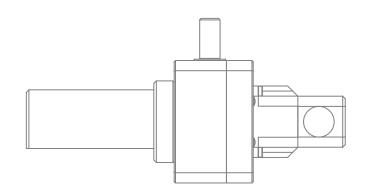
< 5 µm

65 mm x 85 mm x 70 mm

> 12 hours / > 12 hours

0 - 40 °C

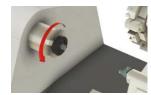
0 - 5 m



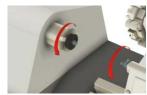
#### **Application**







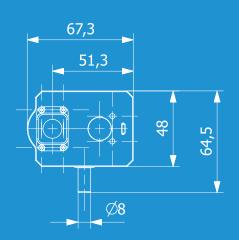


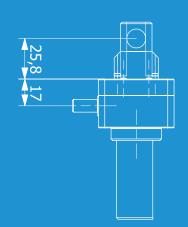


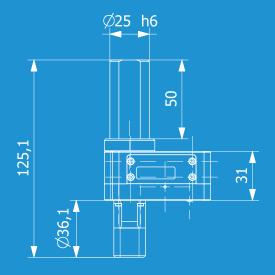
- Relative position between axes of rotation of two spindles
- Spindle rotation axis positioning against the tool trajectory
- Spindle run-out measurement
- Tool movement straightness perpendicular to the spindle axis
- Tool movement straightness parallel to the spindle axis
- Tail-stock movement straightness
- Tail-stock positioning of against the spindle
- Squareness of the tool movement

# **Dimensions**

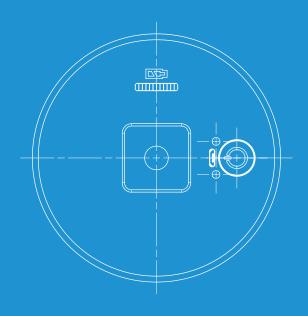
## LMS-5



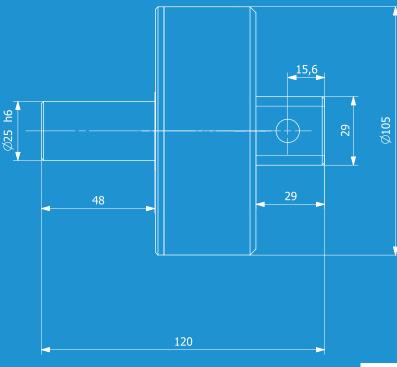




#### **Detector**



\* The scale is consistent within one part. The dimensions are metrical and presented in millimetres.



**Laser Head** 





### **Contacts in Italy**



#### **Newton Srl**

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