

Elcometer 7062 MarSurf PS10 Surface Roughness Tester

Can be used in accordance with:

ASTM D7127, ASME B46, DIN 4768*, EN 10049, ISO 4287, ISO 4287/1*, JIS B 0601, SSPC PA 17



The Elcometer 7062 surface roughness tester is a light weight and portable measuring solution for the range of surface roughness measurements required for compliance to International Standards.

In protective coating applications there is a requirement to measure surface roughness.

With 31 surface parameter settings available the Elcometer 7062 surface roughness tester can display all parameters that comply to National & International Standards.

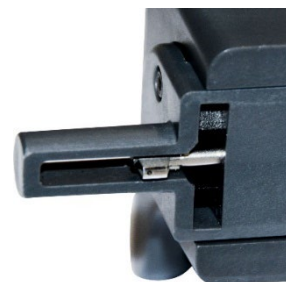
These values include peak-to-valley profile measurement in combination with an assessment of the frequency of peaks within the sample area.

The Elcometer 7062 surface roughness tester is a light weight and portable measuring solution for the range of surface roughness measurements required for compliance to International Standards.

The unit is also suitable for assessing surface roughness conditions in a wide range of general industrial applications; particularly where the sample is too large to bring to the laboratory.

Features

- Multi-Lingual Display: All the required information is displayed on screen in a choice of 17 languages.
- Flexible: Can be used in virtually any position; horizontally, vertically, upside down. A height adjustment accessory to accommodate various sample sizes is supplied with each gauge as standard.
- Integrated Calibration Standard: No external calibration standard is required; provides greater ease of use.
- Removable Drive Unit: Drive unit can be removed from main unit and used with an extension cable (included) to allow for measurement in hard to reach areas.
- Stylus pick-up with removable protection: 2µm diamond stylus tip with a measuring force of 0.7 mN. Different stylus' are available for various applications.



* Standards not in bold have been superseded but are still recognised in some industries.

How to use a surface roughness tester

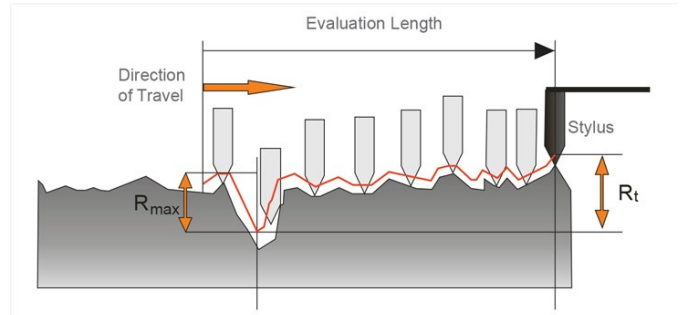
Surface roughness testers consist of a stylus which is mechanically drawn across the surface recording an 'image' of the surface roughness across a pre-defined sample length. The measurement technique provides several measurement parameters including:

R_{max}: The greatest distance between the highest peak and lowest valley over the sampling length.

R_a: The average surface roughness over the sampling length.

R_t: The distance between the highest peak and the lowest valley within any given sampling length.

R_z: The average distance between the highest peak and the lowest valley over a number of sampling lengths.



Technical Specifications

| Part Number | Description | Certificate |
|-----------------------------------|---|-------------|
| K7062M001 | Elcometer 7062 MarSurf PS10 Surface Roughness Tester | • |
| Unit of Measurement | Metric, imperial | |
| Measuring Principle | Stylus Method | |
| Stylus Pick-Up Supplied | Inductive skidded stylus pick-up, 2µm stylus tip, measuring force approx. 0.7 mN (Other stylus pick-ups are available) | |
| Parameters | DIN/ISO - Ra, Rq, Rz, R _{max} , Rp, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Vo, Rt, R3z, R _{Pc} , R _{mr} , R _{Sm} , R _{sk} , CR, CF, CL, R, AR, Rx JIS - Ra, Rq, Ry, RzJIS, tp, R _{Sm} , S ASME - Rp, R _{pm} , R _{Pc} , R _{sk} , tp MOTIF - R, AR, Rx, CR, CF, CL | |
| Measuring range | 350µm | |
| Profile resolution | 8nm | |
| Filter | Phase-correct profile filter (Gaussian filter) according to DIN EN ISO 16610-21 (formerly ISO 11562), special filter according to DIN EN ISO 13565-1, Is filter according to DIN EN ISO 3274 (can be switched off) | |
| Cutoff l _c | 0.25mm, 0.8mm, 2.5mm; automatic | |
| Traversing length L _t | 1.5mm, 4.8mm, 15mm; automatic | |
| Traversing length (acc. to MOTIF) | 1mm, 2mm, 4mm, 8mm, 12mm, 16mm | |
| Short cutoff | Selectable | |
| Evaluation length l _n | 1.25mm, 4.0mm, 12.50mm | |
| Number n of sampling lengths | Selectable: 1 to 16 | |
| Calibration function | Dynamic | |
| Memory capacity | 3,900 profiles, 500,000 results | |
| Other functions | Blocking of settings (code-protected), date/time | |
| Battery | Rechargeable battery 100V to 264V power supply | |
| Interfaces | USB, MarConnect (RS232) | |
| Dimensions | 160mm × 77mm × 50mm | |
| Weight | 500g | |
| Long-range power supply | 100V to 264V | |

• Calibration Certificate supplied as standard

Packing List

| |
|--|
| Elcometer 7062 MarSurf PS10 Base Unit |
| Drive Unit |
| Drive Unit Extension Cable |
| 1 x Standard Stylus Pick-up - Inductive skidded stylus pick-up, 2µm stylus tip, measuring force approx. 0.7 mN |
| Built-in Battery |
| Roughness Standard Integrated into Casing |
| Height Adjustment Accessory |
| Stylus pick-up Protection |
| Universal Charger / Mains Adapter |
| USB cable for downloading pdf documents from the unit |
| Carry Case with Shoulder Strap and Belt Loop |
| Calibration Certificate |
| Operating Instructions |

Accessories

| Part Number | Description |
|--------------|--|
| KT007061P001 | Stylus pick-up Extension; 80mm Ideal for measuring points located deep within cylinders |
| KT007061P002 | Stylus pick-up PHT 3-350 For measurements in bores from 3mm diameter |
| KT007061P003 | Stylus pick-up PHT 11-100 For measurements at recessed measuring points, e.g. in grooves from 2.5mm wide and up to 7.5mm deep |
| KT007061P004 | Stylus pick-up PHTR 100 For measurements on concave and convex surfaces |
| KT007061P005 | Stylus pick-up PHTF 0.5-100 For measurements on tooth flanks |
| KT007061P006 | Stylus pick-up PT 150 Dual-skid stylus pick-up for measurements on metal sheets and roller surfaces according to DIN EN 10049 (SEP) |
| KT007061P007 | Stylus pick-up PHT 6-350 |
| KT007061P008 | Stylus pick-up PHT 6-350, 5µm Probe Tip For measurements on flat planes, in bores from 6mm, 17mm deep and in grooves from 3mm wide |
| KT007061P010 | Measuring Stand ST-D |
| KT007061P012 | Measuring Stand Mount - Required to fix the Elcometer 7061 to the measuring stand |
| KT007061P011 | End Face Vee-Block - For measuring on flat faces of cylindrical and planar components |
| KT007061P013 | Adapter Set for Transverse Tracing, Comprising of Adapter for Transverse Tracing and Vee-Block Holder with Vee-Block - For hand-held transverse tracing of cylindrical measuring objects |