Elcometer 7062  MarSurf PS10 Surface Roughness Tester

The Elcometer 7062 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.

Measurements of Surface Roughness are expressed in terms of Ra, Rz or Rt.

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

- Multilingual Display
- Integrated Calibration Standard

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

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 a number of measurement parameters including:

- **Rmax**: The greatest distance between the highest peak and lowest valley over the sampling length
- **Ra**: The average roughness over the sampling length
- **Rt**: The distance between the highest peak and the lowest valley within any given sampling length.
- **Rz**: The average distance between the highest peak and lowest valley over a number of sampling lengths
### Technical Specification

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<tr>
<th>Part Number</th>
<th>Description</th>
<th>Certificate</th>
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<tr>
<td>K7062M001</td>
<td>Elcometer 7062 MarSurf PS10 Surface Roughness Tester</td>
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#### Unit of Measurement
- Metric, Imperial

#### Stylus pick-up
- Inductive skidded stylus pick-up, 2μm (80μin) stylus tip, measuring force approx. 0.7 mN

#### Parameters
- DIN/ISO - Ra, Rq, Rz, Rmax, Rp, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Vo, Rt, R3z, RPc, Rmr, RSm, Rsk, CR, CF, CL, R, AR, Rx
- JIS - Ra, Rq, Ry, RzJIS, tp, RSm, S
- ASME - Rp, Rpm, RPc, Rsk, tp
- MOTIF - R, AR, Rx, CR, CF, CL

#### Measuring Range
- 0-350μm (0-13.78mils)

#### Resolution
- 8nm (0.315μin)

#### 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 (lc)
- 0.25mm, 0.8mm, 2.5mm; automatic (0.010", 0.030", 0.100")

#### Traversing Length (Lt)
- 1.5mm, 4.8mm, 15mm; automatic (0.06", 0.192", 0.6")

#### Traversing Length (acc. to MOTIF)
- 1mm, 2mm, 4mm, 8mm, 12mm, 16mm (0.040", 0.080", 0.160", 0.320", 0.480", 0.640")

#### Evaluation Length (ln)
- 1.25mm, 4.0mm, 12.50mm (0.050", 0.15", 0.50")

#### Number (n) of Sampling Lengths
- Selectable: 1 to 16 sampling lengths

#### Memory Capacity
- 3,900 profiles, 500,000 results

#### Battery
- Rechargeable battery 100V to 264V power supply

#### Dimensions
- 160mm × 77mm × 50mm (6.29" × 3.03" × 1.97")
- Weight: 500g (1.10lbs)

#### Packing List
- Elcometer 7062 MarSurf PS10 base unit, drive unit, drive unit extension cable, 1 x standard stylus pick-up, built-in battery, roughness standard integrated into casing, height adjustment accessory, stylus pick-up protection, universal charger / mains adapter, USB cable, carry case with shoulder strap and belt loop, calibration certificate and operating instructions

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* Calibration Certificate supplied as standard.

* Other stylus pick-ups are available

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<tr>
<td>KT007061P001</td>
<td><strong>Stylus pick-up Extension; 80mm (3.15”)</strong>, ideal for measuring points located deep within cylinders</td>
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<tr>
<td>KT007061P002</td>
<td><strong>Stylus pick-up PHT 3-350</strong>, for measurements in bores from 3mm (0.12”) diameter</td>
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<tr>
<td>KT007061P003</td>
<td><strong>Stylus pick-up PHT 11-100</strong>, for measurements at recessed measuring points, e.g. in grooves from 2.5mm (0.10”) wide and up to 7.5mm (0.30”) deep</td>
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<tr>
<td>KT007061P004</td>
<td><strong>Stylus pick-up PHTR 100</strong>, for measurements on concave and convex surfaces</td>
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<tr>
<td>KT007061P005</td>
<td><strong>Stylus pick-up PHTF 0.5-100</strong>, for measurements on tooth flanks</td>
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<tr>
<td>KT007061P006</td>
<td><strong>Stylus pick-up PT 150</strong>, Dual-skid stylus pick-up for measurements on metal sheets and roller surfaces according to DIN EN 10049 (SEP)</td>
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<td>KT007061P007</td>
<td><strong>Stylus pick-up PHT 6-350</strong></td>
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<td>KT007061P008</td>
<td><strong>Stylus pick-up PHT 6-350, 5μm Probe Tip</strong>, for measurements on flat planes, in bores from 6mm (0.24”), 17mm (0.67”) deep and in grooves from 3mm (0.12”) wide</td>
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<tr>
<td>KT007061P010</td>
<td>Measuring Stand ST-D</td>
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<td>KT007061P012</td>
<td>Measuring Stand Mount - Required to fix the Elcometer 7061 to the measuring stand</td>
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<tr>
<td>KT007061P011</td>
<td>End Face Vee-Block - For measuring on flat faces of cylindrical and planar components</td>
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<tr>
<td>KT007061P013</td>
<td>Adaptor Set for Transverse Tracing; Comprising of Adaptor for Transverse Tracing and Vee-Block Holder with Vee-Block - For hand-held transverse tracing of cylindrical measuring objects</td>
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