

# 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.

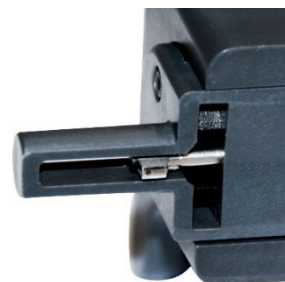
These values include peak-to-valley profile measurement in combination with an assessment of the frequency of peaks within the sample area.

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\* Standards not in bold have been superseded but are still recognised in some industries.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

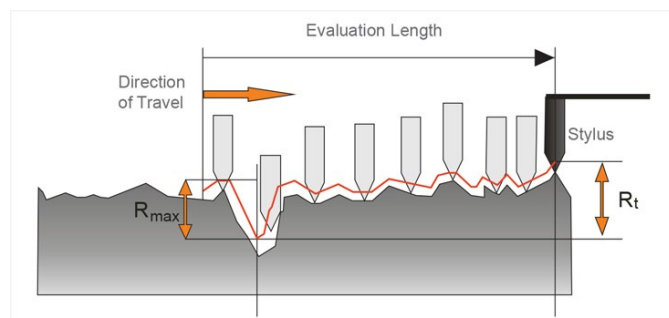
Surface roughness testers consist of a stylus which is mechanically drawn across the surface recording an 'image' of the surface roughness across a pre-defined sample length. The measurement technique provides several measurement parameters including:

**R<sub>max</sub>:** The greatest distance between the highest peak and lowest valley over the sampling length.

**R<sub>a</sub>:** The average surface roughness over the sampling length.

**R<sub>t</sub>:** The distance between the highest peak and the lowest valley within any given sampling length.

**R<sub>z</sub>:** 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 - R <sub>a</sub> , R <sub>q</sub> , R <sub>z</sub> , R <sub>max</sub> , R <sub>p</sub> , R <sub>pk</sub> , R <sub>k</sub> , R <sub>vk</sub> , Mr1, Mr2, A1, A2, Vo, R <sub>t</sub> , R3z, R <sub>Pc</sub> , R <sub>mr</sub> , R <sub>Sm</sub> , R <sub>sk</sub> , CR, CF, CL, R, AR, Rx JIS - R <sub>a</sub> , R <sub>q</sub> , R <sub>y</sub> , R <sub>z</sub> JIS, tp, R <sub>Sm</sub> , S ASME - R <sub>p</sub> , R <sub>pm</sub> , R <sub>Pc</sub> , R <sub>sk</sub> , 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 lc	0.25mm, 0.8mm, 2.5mm; automatic	
Traversing length Lt	1.5mm, 4.8mm, 15mm; automatic	
Traversing length (acc. to MOTIF)	1mm, 2mm, 4mm, 8mm, 12mm, 16mm	
Short cutoff	Selectable	
Evaluation length ln	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