

# TESA RUGOSURF 90G Roughness Gauge

Small-size, versatile roughness tester providing maximum ease of use – Ideally suited for high-precision measurements on the shop floor or in the measurement laboratory.

- Measure roughness parameters according to ISO 4287, 12085 (CNOMO), 13565, DIN 4776 and JIS B060:2001.
- TFT tactile colour display, 3,5".
- Three straight function keys.
- Graphical interface.
- Direct displaying of the measured values and computed profiles.
- Measuring range 50 mm / 2 in.
- Measuring span 1000  $\mu\text{m}$ .
- Intechangeable probe stylus, with or without contact skid.
- Possible tolerancing of parameters.
- RS 232 digital output for data transmission to a PC running TESA Measurement Studio (software available as an option).



10°C to 40°C



-10°C to +50°C



270 x 140 x 90 mm  
(gauge unit alone)



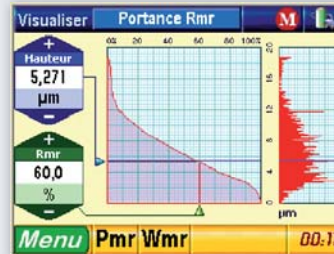
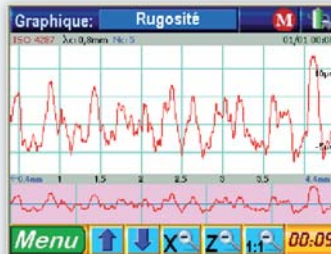
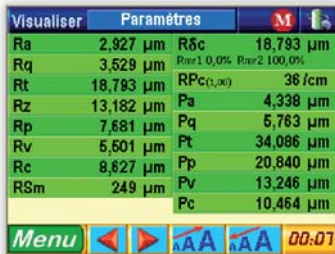
3 kg



Suited plastic case



Declaration of conformity



**06930012 TESA RUGOSURF 90G roughness gauge**

Supplied with the following standard accessories:

Roughness standard, Ra = 2,97  $\mu\text{m}$  / 117  $\mu\text{in}$

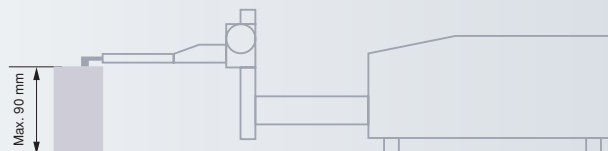
Rechargeable built-in battery, 12 V

SB60/10 standard probe, with or without contact skid

Probe holder with two positions – Locked for probe without skid  
– Unlocked for probe with skid

Guiding column, measuring travel 90 mm

Battery charger, 110 to 240V, 50/60 Hz



Technical data

	<b>06930012</b>
	<b>RUGOSURF 90G</b>
Display	TFT tactile colour display, size 3,5" Resolution 320 x 240 pixels, 256 colours
Roughness parameters	according to ISO 4287:1997/JIS B0601:2001 Ra – Rq – Rt – Rz – Rp – Rv – Rc – RSm – Rδc Pa – Pq – Pt – Pq – Pv – Pc – PSm – Pδc Wa – Wq – Wt – Wz – Wp – Wv – Wc – WSm – Wδc Rk – Rpk – Rvk – Mr1 – Mr2 according to PrEN 10049 PPc - RPC- WPC according to DIN 4776 Rmax according to DB N31007 R3z – R3zm according to ISO 12085 (CNOMO) Pt – R – AR – Rx – Wte – Aw – Wx – Rke – Rpke - Rvke
Measuring span	
X-axis	50 mm
Z-axis	1000 µm
Unit system	mm / in
Resolution	0,001 µm (0.01 µin)
Cut-offs	0,08 - 0,25 - 0,8 - 2,5 - 8 mm
Numerical filter	Gaussian as per ISO 11562
Traversing length l <sub>t</sub>	(number of cut-offs + 1) x λ <sub>c</sub> (max. 50 mm)
Cut-off l <sub>c</sub>	number of cut-offs x λ <sub>c</sub>
Probing speed	0,5 mm/s – 1 mm/s
Number of selectable cut-offs	1 ÷ 19 = 0,08; 0,25; 0,8; 2,5 mm 1 ÷ 5 = 8 mm
Keypad	3-key pad, membrane-type, protected against dust particles and liquids
Probe type	inductive probe
Probe tip	diamond-type
Tip radius	5 µm, 90° angle
Measuring force	0,75 mN (ISO 3274)
Available languages	English, French, German, Spanish, Italian, Portuguese
Autonomy	200 profiles, up to 60 000 measurements.
Power supply	integrated battery pack, 12V – Battery charger 100 to 240 Vac, 50/60 Hz
Power consumption	20 VA max. at 220 V
Overall dimensions	270 x 140 x 90 mm (gauge unit alone)
Weight	3 kg

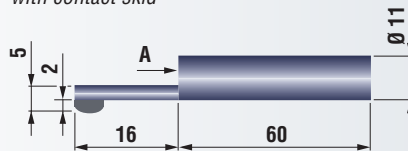


## Optional Probes

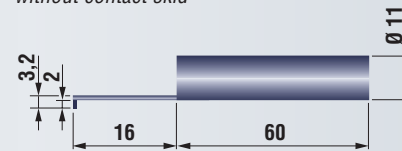
<b>06960049</b>	SB60/10	<b>Probe with contact skid</b> For surfaces and bores with diameter to >10 mm (external) or from > 6 mm (internal). <b>Probe without contact skid</b> For surfaces, profiles and small bores with diameter from 4 mm.
<b>06960050</b>	SB20 P	Probe for grooves, max. depth 5 mm.
<b>06960051</b>	SB30 P	Probe for small bores from $\varnothing$ 4 mm.
<b>06960052</b>	SB40P	Probe with V-skid for cables with external diameter to >1 mm.
<b>06960053</b>	SB50P	Probe with contact skid for concave surfaces. Ideal for 90° measurement.
<b>06960054</b>	SB120P	Probe for grooves, max. depth 20 mm.
<b>06960058</b>	SB120S	Probe for grooves, without skid, max. depth 15 mm.

### SB60/10 Probe

*with contact skid*



*without contact skid*

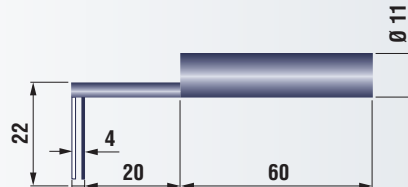


A To remove the skid, both screws on the front face need to be unscrewed. If so, use the probe very carefully for any further measurement (see Fig. 1).

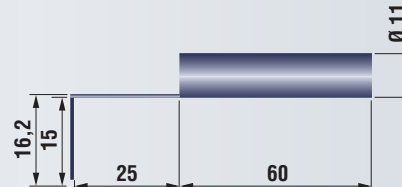


Fig. 1

### SB120P Probe



### SB120S Probe



## Additional Accessories

<b>06960041</b>	Roughness standard, Ra = 2,97 $\mu$ m / 117 $\mu$ in
<b>06960048</b>	TESA Measurement Studio software
<i>Supplied with:</i>	
	CD including all instructions for installation in 6 languages
	Instruction manual plus on-line help (included on the CD)
	RS 232 connecting cable
<b>06960055</b>	Support with granite base, 630 x 400 mm