

TESA RUGOSURF 20

Surface Roughness Testina

World first at Control 2011

www.tesabs.ch

THE NEW ROUGHNESS TESTER ADAPTED FOR EVERY WORKSHOP

- **COMPACT • ROBUST • EASY-TO-USE**
- **X-AXIS: 16 MM – Z-AXIS: 400 µM**
- **15 ROUGHNESS PARAMETERS
WITH TOLERANCES**
- **PORTABLE PRINTER OR USB
CONNECTION TO PC**
- **WIDE RANGE OF STANDARD
ACCESSORIES**
- **BUILT-IN MEMORY**

- **4 PROTECTED OPERATING KEYS**
- **MEASUREMENT WITH SKIDS**
- **INTEGRATED BATTERY**
- **PRECISION TO ISO 3274**

ISO 9001

EXCEPTIONALLY ROBUST

Dependable. powerful drive unit located in a light alloy basis. The interchangeable probe is inductive. therefore not subject to wear. Also fitted with a dedicated diamond stylus tip that can withstand any test.

Designed for various applications using the accessories included in the delivery scope for use with any universal support having a 8 mm diameter. Adjustable measuring height up to 35 mm. without the need for an additional support.

Technical Data to Ruosurf 20

Order number	06930013
Display	Black & White LCD Display. 2" (160x100 pixels)
Roughness parameters	As per ISO 4287-1997/JIS B0601/ASME B46-2002: Ra - Ra - Rt - Rz - Rc - Rsm - Rmr - Pt - Pmr As per DIN 4768: Rmax As per EN 10049: RPC - Ppc As per ISO 12085 (CNOMO): R - Rx - AR
Measuring spans	X-axis = 16 mm / Z-axis = 400 µm
Measurement units	mm/inch
Range of indication	Ra 0 ÷ 100 µm. Rt 0.05 ÷ 400 µm
Resolution	0.001 µm
Cut-off lengths	0.25-0.8-2.5 mm
Probing speed	1 mm/s
Number of cut-offs	1 to 5
Precision	ISO 3274, Class 1
Keypad	4 protected buttons
Stylus tip	R = 5 µm. 90° (optionally 2 µm. 60°)
Measuring force	0.75 mN (ISO 3274)
Languages	English, French, German, Italian, Spanish, Portuguese, Chinese
Memory capacity	20 Measurements with additional graphics or >1000 measurements with roughness parameters
Power supply	7.2 V integrated battery. 300 mAh. NiMH PP3
Battery life	~ 1000 measurements
Overall dimensions	122 x 60 x 62 mm
Weight	650 g
Delivery scope	Roughness standard. Ra = 2.97 µm (117 µin) Clamping shaft for the 8 mm dia. universal support Positioning holders Standard SB10 probe Rechargeable battery (already mounted) Charger. 220/110 V

Ruosoft. release 3.0

No. 06960034

Software for storing and printing out the measurement results, but also for saving any graphical representations. Can also be run for the control of all setting and measurement operations.

USB/Mini USB Cable

No. 04760099

Portable Printer

No. 06960033

Battery-powered matrix printer directly connected to used gauge from the Ruosurf family.

Capable of outputting all measurement results according to the selected print format, with or without graphics.

Optional Probes

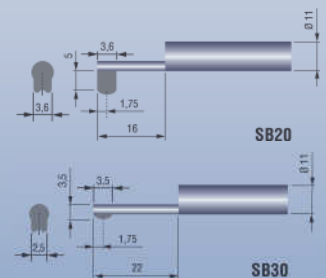
SB20 No. 06960037

Probe for deep grooves up to 5 mm.

SB30 No. 06960038

Probe for bores with diameters from 4 mm.

Additional accessories and probes available. (See the Product Info or our general catalogue for details.)



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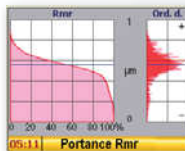
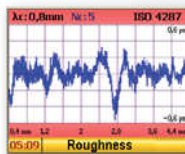
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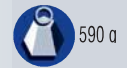
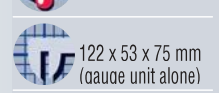
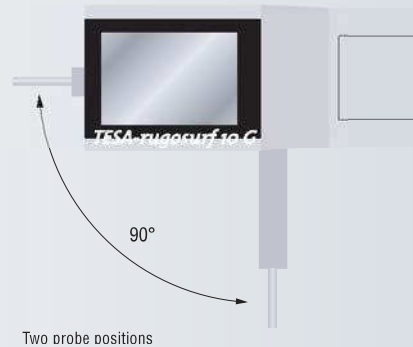
TESA RUGOSURF Roughness Gauge 10G

Portable, versatile gauge unit with compact design, well suited for receiving inspection or for use in the production area or the measurement laboratory.

Measures roughness parameters according to ISO 4287:1997/ JIS B0601:2001, DIN and ISO 12085:1998 (MOTIF or CNOMO).



- TFT graphic display for optimum visual representation of any measured parameters and workpiece profiles, size to 2".
- Direct displaying of all measured values and computed profiles.
- 31 roughness parameters available.
- Wide autonomy through mains adapter or battery pack.
- Output, storage or transfer to a PC of the results obtained from a number of measurements as high as 999.
- Possible tolerancing of all parameter values.
- Multilingual menu options.
- USB data output enabling a direct connection to the printer unit or a conventional PC equipped with RUGOSOFT 10 (both are optional).





06930011 TESA RUGOSURF roughness gauge 10G

Delivered with the following standard accessories:

- Roughness standard, nominal value $R_a = 2.97 \mu\text{m} / 117 \mu\text{in}$
- Rechargeable battery 7.2 V, 300 mAh, NiMH in PP3 format
- Standard probe, type **SB10**
- Battery charger
- Adapter for universal stand, 8 mm diameter
- Positioning support

Technical Data

	 06930010	06930011
	 RUGOSURF 10	RUGOSURF 10G
Display	LCD. 2 lines of 16 characters	TFT colour display. 2" in size
Roughness parameters	according to ISO 4287-1997/JIS B0601 / ASME B46-2002 Ra - Rq (RMS) - Rt - Rz - Rc - Rsm according to ISO 12085 (CNOMO) Pt - R - Rx - AR	according to ISO 4287-1997/JIS B0601:2001 ASME B46-2002 Ra - Rq (RMS) - Rt - Rz - Rp - Rc - Rv - Rsm - Rδc - Pa - Pq - Pt - Pp - Pc - Pv - Psm - Pδc according to PrEN 10049 R _{Pc} - P _{Pc} according to ISO 13565 Rk - Rpk - Rvk - Mr1 - Mr2 according to DIN 4776 R _{max} according to DB N31007 R3z - R3zm according to ISO 12085 (CNOMO) Pt - R - Rx - AR
Measuring span		
X-axis	16 mm (0.63 in)	16 mm (0.63 in)
Z-axis	160 μm (6300 μin)	300 μm (11810 μin)
Unit system	mm / in	mm / in
Range of indication	Ra 0 ÷ 40 μm (0 ÷ 1575 μin) Rt 0.05 ÷ 160 μm (0 ÷ 6300 μin)	Ra 0 ÷ 75 μm (0 ÷ 2952 μin) Rt 0.05 ÷ 300 μm (0 ÷ 11810 μin)
Resolution	0.01 μm (0.1 μin)	0.001 μm (0.01 μin)
Cut-off length	0.25-0.8-2.5 mm (0.01-0.03-0.1 inch)	0.25-0.8-2.5 mm (0.01-0.03-0.1 inch)
Numerical filter	Gaussian as per ISO 11562	Gauss as per ISO 11562
Traversing length l_t	(number of cut-offs + 1) × λ _c	(number of cut-offs + 1) × λ _c
Cut-off l_c	number of cut-offs × λ _c	number of cut-offs × λ _c
Number of selectable cut-offs	1 to 5	1 to 10 cut-offs of 0.25 and 0.8 mm 1 to 5 cut-offs of 2.5 mm
Probing speed	1 mm/s	1 mm/s
Reverse speed	2 mm/s	2 mm/s
Keypad	4-kev. membrane type kev pad. protected against dust particles and liquids	4-kev. membrane type kev pad protected against dust particles and liquids
Probe	Inductive probe	Inductive probe
Stylus	90° diamond tip	90° diamond tip
Tip radius	5 μm	5 μm
Measuring force	0.75 mN (ISO 3274)	0.75 mN (ISO 3274)
Languages	English, French, German, Spanish, Italian, Portuguese	English, French, German, Spanish, Italian, Portuguese
Memory capacity	max. 100 measured values	max. 999 measured values
Power supply	Battery pack. 8.4 V – 170 mAh	Battery pack. 7.2V – 300 mAh
Power consumption	max. 3 VA at 220 V	max. 6.5 VA at 220 V
Overall dimensions	122 x 53 x 81 mm (square unit alone)	122 x 53 x 75 mm (square unit alone)
Weight	590 g	590 g

