



# TIME Portable Roughness Tester

## TR3200 / TR3202



The TIME TR3200 / TR3202 Surface Roughness Tester (TR200) is a cost-effective roughness measuring instrument which supports a dozen of different parameters. It is small & light with high accuracy.

The TIME TR3200 / TR3202 can be equipped with several optional pickup styluses for different applications and is well suited for on-site roughness testing.

### Features

- Over a dozen measurement parameters applicable for roughness tests of various mechanical manufacturing processes in production lines, workshops and labs.
- High accuracy inductive pickup
- Easy operation manual and large LCD display with backlight
- Pickup stylus position indicator
- Transfer to PC via RS232 with advanced PC Software TIMESurf for more analysing management
- Connected with printer to print the data and graphs on-site.
- Storage and review function for up to 15 groups data and graphs
- Rk data and graphic are available.
- Digital filter: RC, PC-RC, Gauss, D-P
- Optional delicate accessories for more accurate results and easier operation e.g., measuring platform, steel support etc.
- Conforms to ISO Standard, as well as compatible with DIN, ANSI and JIS Standards
- Top quality Li-ion rechargeable battery

### Technical Specifications

Model	TIME 3200	TIME 3202
Roughness parameters	Ra, Rz, Ry, Rq, Rt, Rp, Rmax, Rv, R3z, RS, RSm, RSk, Rmr	Ra, Rz, Ry, Rq, Rt, Rp, Rmax, Rv, R3z, RS, RSm, RSk, Rmr, Rpc, Rk, Rpk, Rvk, Mr1, Mr2
Assessed profiles	Roughness profile (R) Primary profile (P)	Roughness profile (R) Primary profile (P)
Measuring system	Metric, Imperial	Metric, Imperial
Display resolution	0.001 $\mu$ m	0.001 $\mu$ m
Data output	RS232	RS232
Pickup measuring range	$\pm 20 \mu$ m, $\pm 40 \mu$ m, $\pm 80 \mu$ m	$\pm 20 \mu$ m, $\pm 40 \mu$ m, $\pm 80 \mu$ m
Cut-off length (L)	0.25mm / 0.8mm / 2.5mm/Auto	0.25mm / 0.8mm / 2.5mm/Auto
Evaluation length	1~5L (selectable)	1~5L (selectable)
Tracing length	3~7L (selectable)	3~7L (selectable)
Digital filter	RC, PC-RC, Gauss, D-P	RC, PC-RC, Gauss, D-P
Max. tracing length	17.5mm	17.5mm
Min. tracing length	1.3mm	1.3mm
Pick-up	Standard pickup TS100, inductive, diamond stylus radius 5 $\mu$ m, angle of stylus 90°	Standard pickup TS100, inductive, diamond stylus radius 5 $\mu$ m, angle of stylus 90°
Accuracy	$\leq \pm 10\%$	$\leq \pm 10\%$
Repeatability	$\leq 6\%$	$\leq 6\%$
Power	Li-ion battery rechargeable	Li-ion battery rechargeable
Dimensions (mm)	140 x 52 x 48	140 x 52 x 48
Weight (g)	440	440



## Packing List

TIME Portable Roughness Tester TR3200 / TR3202
TS100 standard pickup
Roughness test plate Ra
Charger
Protection nose
Steel support
Dataview
Communication cable
TIME certificate
Warranty card
Instruction manual

## Accessories

TS110 pickup for curved surface
TS120 pickup for small holes
TS130 pickup for deep grooves
TS140 right-angled pickup
Measuring platform TA620
Levelling table TA630/TA631
Magnetic stand
Steel adapter (Φ8)
Steel adapter (L-attachment)
Printer TA230



## Optional Pickup Styluses



### TS130/131 Pickup for deep grooves

TS130 used for roughness testing of deep groove with min. width 2mm, max depth 3mm or of step with max height 3mm.

TS131 used for roughness testing of deep groove with min width 3mm, max depth 10mm or of step with max height 10mm, working with measuring platform TA620



### TS100 standard pickup

With skid for roughness test on plane surface, shaft and inner surface of holes with max depth of 22mm, min diameter 5mm



### TS110 pickup for curved surfaces

Used for roughness testing of curved surfaces with min curvature radius of 3mm, working with measuring platform TA620



### TS120 pickup for small holes

Used for roughness testing of small holes with min 2mm diameter of inner surface, max depth 9mm



### TS140 right-angled pickup

Comprising right-angled pickup and right-angled transmitting rod, used for roughness testing of groove and crack with min width 7.5mm – 20mm, and steps with max height of 2.5mm, working with measuring platform TA620