

## Surface Roughness Tester TIME3200 (TR200)



- Meet roughness standards: ISO/DIN/JIS/ANSI
- High accuracy
- Profile display
- Special stylus for tiny holes, grooves and more
- Software for real time downloading
- User-friendly

### Specifications:

Roughness parameters: Ra, Rz, Ry, Rq, Rt, Rp, Rmax, Rm, R3z, S, Sm, Sk, tp

Measures flat, outer cylinder and sloping surfaces

Measures grooves and recessions: wider than 0.16 in (4 mm)

Measures curved surfaces: radius >25 mm (TS110), radius >45 mm(TS100)

Measures holes: radius  $\geq 1.5$  mm, depth  $\leq 9$  mm when radius=1.5 mm (TS120)

Assess profiles: primary profile (P), roughness profile (R), tp curve (material ratio Mr)

Display resolutions: 0.001  $\mu\text{m}$ /0.04  $\mu\text{inch}$

Display languages: English, German, French, Italian, Spanish, and Dutch

Measuring accuracy:  $\leq \pm 4\%$

Maximum drive range: 0.7 in (17.5 mm)

Cut-off length: 0.009/0.03/0.09 inch (0.25/0.8/2.5 mm)

Sensor: inductance type

Sensor-stylus: diamond, radius 5  $\mu\text{m}$

Filter: RC, PC-RC, GAUSSIAN, D-P

Data output: RS-232

Optional micro printer is available

Operating temperature: 41 °F-104 °F (5 °C-40 °C)

Weight: 0.97 lb (440 g)

Dimensions: 5.6"×2.2"×1.9" (141×56×48 mm)

Power: Li-Ion rechargeable battery

Auto shut-off

Measuring range:

Ra, Rq: 0.01-40 μm

Rz, Ry, Rp, Rt, R3z, Rm: 0.02-160 μm

Sm, S: 2-4000 μm

Tp: 1-100% (%Ry)

Sk: 0-100%

Tracing speeds:

Speed 1 mm/s (sampling length 2.5 mm)

Speed 0.5 mm/s (sampling length 0.8 mm)

Speed 0.135 mm/s (sampling length 0.25 mm)

### **Specifications of optional accessory ETA620 measuring platform:**

Marble base roughness:	3 μm
Surface Dimension:	400×250 mm
X-axial range:	28 mm
Y-axial range:	270 mm
Z-axial range:	40 mm
Level rotate range:	less or equal to ±25°
Vertical rotate range:	less or equal to ±90°

#### **Standard accessories:**

Main unit

TS100 standard pickup

Specimen Ra

Charger

Protection nose

Steel support

#### **Optional accessories:**

NIST calibration certificate for test plate

Mini printer TA230

Straight extension rod for stylus

90° extension rod for stylus

TS110 pickup for curved surface

TS120 pickup for small holes

Screwdriver

Software, USB key, & comm. cable

Instruction manual

NIST calibration certificate

Carrying case

TS130 pickup for deep grooves

TS140 right-angled pickup

Measuring platform ETA620

Steel adapter ( $\Phi 8$ )

Steel adapter (L-attachment) for platform



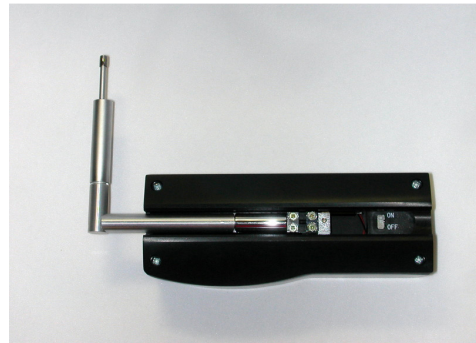
Bottom view of stylus without extension



Bottom view of straight extension



Top view of tester with straight extension



Bottom view of 90° extension



Sample application of 90° extension

