

Time TR200 Plus Advanced Surface Roughness Tester



Features:

- Measures metal and non-metal processing parts
- Measures flat, outer cylinder and sloping surface
- Electronic, digital, OLED display
- 20 different roughness parameters: Ra, Rz, Ry, Rq, Rt, Rp, Rpc, Rk, Rpk, Rvk, Rv, R3z, R3y, RzJIS, Rsk, Rku, Rsm, Rs, Rmax and Mr1/Mr2.
- Roughness profile graphic display
- Rmr curve (material ratio, C%) display
- Selectable languages: English, German, French, Italian, Spanish and Dutch
- This unit can be used together with a measuring platform.
- Applicable in production site, laboratory and workshop in factor.
- Conform to ISO standards, compatible with DIN, ANSI and JIS standards
- Measures in both Metric (μm) and Imperial units (μinch)
- Built-in lithium ion rechargeable battery; 20 hours of continuous working time.
- Large capacity data memory, can store 100 groups of original data and wave profiles.
- Real-time clock settings and display, convenient data recording and storage.
- Automatic dormancy, automatic shutdown and power saving functions
- Data output: RS-232 to printer TA-230 or PC
- Optional transducers for curved surfaces, bores, inside pipe and groove, measuring platform and extension rod and other accessories.

NDT Supply.com, Inc.

7952 Nieman Road
Lenexa, KS 66214-1560 USA



Specifications:

Roughness Parameters:	Ra, Rz, Ry, Rq, Rt, Rp, Rpc, Rk, Rpk, Rvk, Rv, R3z, R3y, RzJIS, Rsk, Rku, Rsm, Rs, Rmax & Mr1/Mr2.
Standards:	ISO, ANSI, DIN, JIS
Assessed Profiles:	Roughness profile, Material ratio profile (Rmr curve)
Measuring Units:	Both Metric (μm) and Imperial (μinch)
Measuring Range:	The Z axis (Vertical): 160 μm
	Ra: 0.01 - 10 μm , Rq: 0.01 - 40 μm
	Rz, Ry, Rp, Rt, R3z: 0.02 - 160 μm
The Max./Min. driving tip:	0.7" (17.5mm) / 0.03" (0.75mm)
Display Resolution:	0.001 μm / 0.04 μinch
Filter:	RC, PC-RC, Gauss, D-P
Cut-off length (lr):	0.01" (0.25mm), 0.03" (0.8mm), 0.1" (2.5mm)
Internal storage capacity:	100 groups of original data
Evaluation length (ln):	$L_n = l_r \times n$ n=1-5
Pick up transducer:	Inductive, Diamond stylus with Radius 5 μm
Tolerance:	$\leq \pm 10\%$
Repeatability:	$\leq 6\%$
Display Features:	OLED display, transducer stylus position indicator, battery level indication, Measured parameters and profile showing, Rmr (T-P) curve showing
Output:	USB
Power:	Li-ion rechargeable battery. More than 20 working hours per full charging
Dimensions:	5.6" x 2.2" x 1.7" (143 x 55 x 42 mm)
Weight:	14 oz. (400 g)

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Standard accessories:

- TR200 Plus Main Unit
- TS100+ Pick up Transducer
- Roughness Test Plate Ra
- Steel protective Support for stand-alone use
- Battery Charger 220V / 50 Hz
- Software with USB Cable
- Manual
- Calibration Certificate
- Carrying Case
- Warranty Card

Optional accessories

- TS110+ pick-up for curved surfaces
- TS120+ pick-up for ID surfaces
- TS130+ pick-up for groove depths of 0.12" / 3mm
- TS131+ pick-up for groove depths of 0.4" / 10mm
- TS140+ right-angled pick-up
- TSE-A extension rod
- TSE-B 90° extension rod
- TA610 measuring stand
- Steel L Shaped adapter for connection for T610 stand
- Roughness Standard
- Roughness Standard for TS110 probe

TSE-A



TS-100/TS-110/TS-120



TSE-B



TA-230 MICRO PRINTER



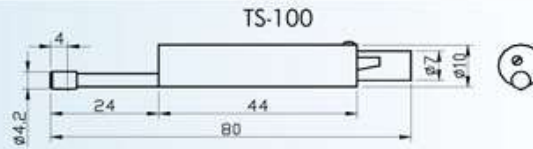
Phone: 913-685-0675
Fax: 913-685-1125

sales@ndtsupply.com
www.ndtsupply.com

Pick-ups for TR-200/210/220/300

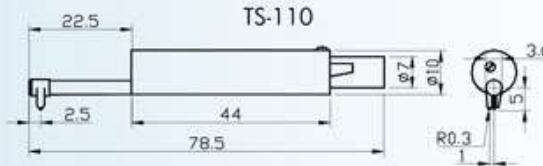
TS100 standard pick-up

Standard pick-up. General use.
With skid for plane surfaces, Shafts and
in bores from $\varnothing 5\text{mm}$.
Maximum depth 22mm.



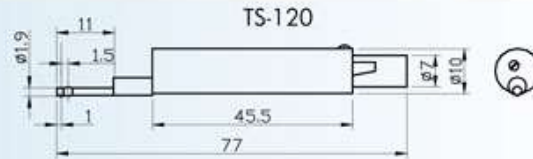
TS110 for curved surface

Pick-up with side skid. For measuring on
convex and concave surfaces. Minimum
curvature radius 3mm. To be used with
measuring stand/platform



TS120 for small holes

Pick-up with mini skid. for measuring in
bores from $\varnothing 2\text{mm}$. maximum bore depth
20mm.



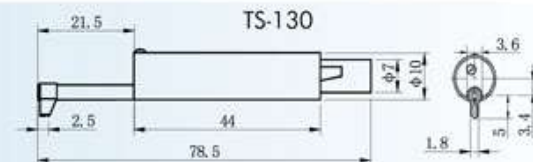
TS140 right-angled pick-up

Comprising right-angled pick-up and
right-angled transmit rod, used for roughness
testing of groove and crank with min. width
7.5~mm20mm and of steps with max.
height 2.5mm, working with TA-610/620

TS-140

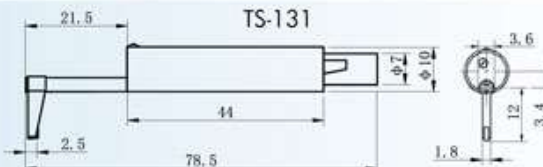
TS130 for deep groove

Pick-up for measuring grooves or steps
below 3mm. Maximum width 2mm. To
be used with measuring stand/platform.



TS131 for deep groove

Pick-up for measuring deep grooves or
steps below 10mm.
Maximum width 2mm. To be used with
measuring stand/platform.



TSE-A extension

Extension rod for all pick-ups.
Length 50mm. Diameter 10mm.

TSE-A



TSE-B extension 90°

Extension rod with angle 90°, to cre-
ate a configuration for finish test on for
instance crankshafts.
Length 70mm x 25mm, diameter 10mm.

TSE-B



Measuring platforms

TA-610 Measuring platform

Features: Lifting the table through rack and the column can be rotate, it is suitable for testing the workpiece which is not convenient to place for improve accuracy.

Specifications: Surface dimensions: 400×250×70mm
Y-axial range: 270mm

TA-610
Granite stand



TA-620 Measuring platform

Elevating the table through screw, and V shape groove is available, it is suitable for testing tiny workpiece to improve the accuracy.

Specifications: Dimensions: 400×250×70mm
Y-axial range: 300mm±1mm

Measuring supports

TA-630 Micro measuring support

Specifications: X-axial range: ±12.5mm
Y-axial range: ±12.5mm
Rotate range: coarse adjustment 360, fine adjustment ±5

TA-630



TA-631 Micro measuring support

Specifications: X-axial range: ±12.5mm
Y-axial range: ±12.5mm
Rotate range: coarse adjustment 360, fine adjustment ±5

TA-631

