

WARPsurf RUGO-PROFILOMETER

Roughness and profile together, when and where you want



Bluetooth, USB and Wi-Fi connection



Magnetic arm holder



The WARPsurf roughness tester marks a turning point in the world panorama of the instruments for surface analysis, because it combines with its all-in-one construction philosophy the possibility of analyzing both the roughness and the profile in a complete way, all with a single portable device and without the aid of a desktop PC.

The brilliant 7" color touch screen display combined with the modern icon interface allow anyone who uses it for the first time to be immediately operational with the same ease with which they use their smartphone.

Thanks to the powerful 1 GHz internal microprocessor, the instrument always has a fluid behavior and rapid processing of even the most complex profiles. Extremely compact and easy to handle, WARPsurf allows, with great simplicity, to position itself even on large parts thanks to its integrated micrometric positioning system with a useful stroke of 110 mm, in addition to the innovative interchangeable probe system with magnetic arm holder, both for the roughness and for the profile, guarantees reliability and safety, since in case of accidental impact they are automatically released, thus avoiding possible breakages.

The USB interface also allows you to connect any USB key to save images or print reports in PDF. If necessary, you can also connect a commercial desktop printer and print directly on an A4 sheet, or if you prefer to do a more detailed analysis, just connect the WARPsurf in Bluetooth mode to the computer and use the advanced analysis software Profile Studio.

NEW: It is possible to connect the WARPsurf to the company network, in Wi-Fi mode, to save measurement data and print reports wireless.



Positioning stands

A wide range of stands systems are available for WARPsurf.

- ST2 diabase stand, dimensions 630x400 mm; h300 mm - code: 1.401**
 Stand with manual positioning column, allows you to position the roughness tester, thus allowing to create a fixed control station. It is possible to complete the equipment of the stand with the sliding micrometric table (code: 1.425), on which it is possible to mount the centering "V" or the vice (code: 3.403).
- ST3 aluminum stand, dimensions 800x400 mm; h500 mm - code: 1.413**
 Stand with manual positioning column with useful range of 300mm. The top in oxidized aluminum allows, thanks to the integrated "T" slot, the use of the 3 and 4 axis positioners of the PGS100 and PGS200 profilometers (3 axis code: 3.400 and 4 axis code: 3.401)
- ST4 diabase stand, motorized column, dimensions 600x250 mm; h380 mm - code: 1.418**
 Stand with diabase top, integrated "T" slot and motorized positioning column. The instrument, once positioned on the support, is ergonomically very comfortable, because its position is inclined towards the operator, while the probe remains aligned and perpendicular to the plane of measure.

All stands are equipped with anti-vibration feet to isolate the measuring system from environmental noise.

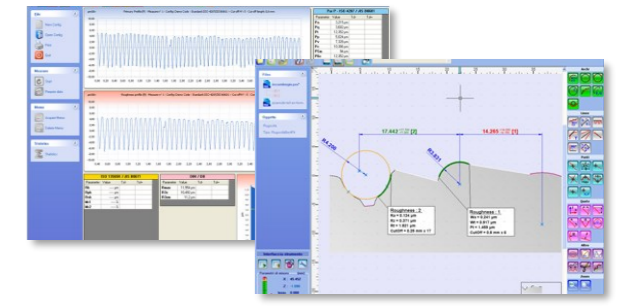
Flexibility

- Probe holder with rotatable magnetic coupling for lateral measurements, standard:**
 It is possible to rotate the measurement sensor in a position perpendicular to the translation movement. This allows to perform measurements in hardly reachable points. The micrometric positioning system guarantees a vertical positioning range of 110mm.
- Bluetooth thermal printer - code: 1.422:**
 Among the accessories we find the small and handy Bluetooth printer that allows you to print the values and graphs of the last roughness measurement, or of the memo saved in the instrument.
- Probes:**
 In addition to the standard one, stylus 1-Y for roughness (code: 1.721) custom probes are available for every need. On request, the chisel probe for measuring profiles (Stylus 4-S - code: 1.725) and the calibration specimen for micro geometries (code: 6.302).

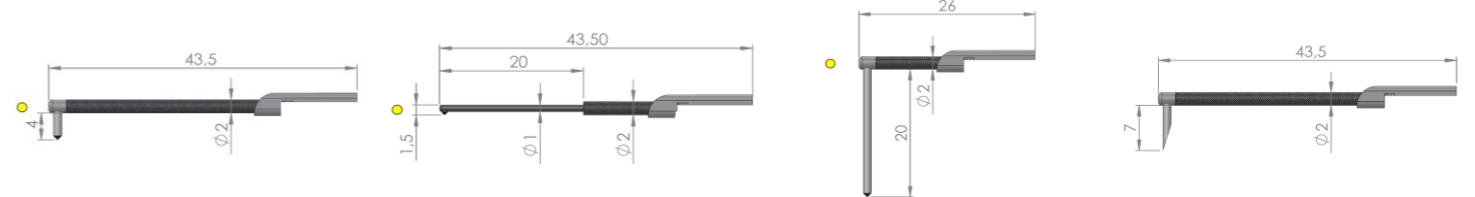
Roughness and profile analysis on board



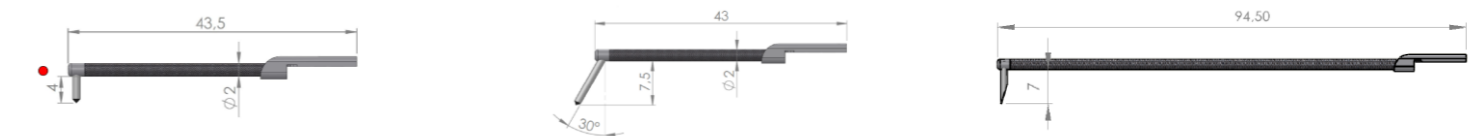
Profile Studio software for advanced analysis - code: 1.407



Roughness - Stylus 1-Y - code: 1.721 Roughness - Stylus 2-Y - code: 1.723 Roughness - Stylus 3-Y - code: 1.724 Profilometry - Stylus 4-S - code: 1.725



Roughness - 2µm/60° - Stylus 1-R - code: 1.722 Roughness - Stylus 5-Y - code: 1.728 Profilometry 5mm - Stylus 7-S - code: 1.733



Technical data and dimensions

Product code:	WARPsurf (code: 1,105)
Measuring range:	±1500µm (±2500µm on request)
Resolution:	0,0001 µm - (0,1nm)
Accuracy class:	1° ISO/DIN
Cut-off length:	0,08 - 0,25 - 0,8 - 2,5 - 8 mm
Number of cut-offs:	Selectable from 1 to 20 (for cut-off 8 mm from 1 to 6)
Exploration ride:	Up to 60 mm
Probe:	Inductive, rotatable by 90° for lateral measurements and interchangeable magnetic styles
Measurement parameters:	81 roughness parameters Ra, Rq, Rt, Rz, Rp, Rv, Rc, Rsk, Rku, RSm, RΔq, RΔa, Rmax, Rōc, Rmr, Rmr(c), RPC, RLo, Rlr, Rzjis, RHSC, R3z, hp, Ep, Pa, Pq, Pt, Pq, Pv, Pc, Psk, Pku, PSm, PΔq, Pōc, Ppc, PLo, Plr, PHSC Wa, Wq, Wt, Wz, Wp, Wv, Wc, Wsk, Wku, WSm, WΔq, Wōc, Wpc, WLo, Wlr, WHSC Rk, Rpk, Rvk, Mr1, Mr2, A1, A2, Rpk*, Rvk*, WDSm, WDC, WDT R, AR, Rx, W, Aw, Wx, Wte, Rke, Rpk, Rvke, Mr1e, Mr2e, A1e, A2e
Graphs displayed:	Roughness, undulation, dominant, primary, total undulation, lift curve and ordinate distribution.
Unit of measure:	Millimeters and inches
Interface:	7-inch TFT touch screen color graphic display and 3 waterproof membrane buttons
Languages:	Italian, French, English, German, Spanish, Portuguese, Japanese, Chinese, Korean
Memory:	Up to 4000 in roughness - Up to 1000 in profilometry
CAD:	Integrated profile processing functions: - Points: Cartesian - on the profile - of intersection - extreme - maximum - minimum - Lines: best-fit - polar - interrupted - between two or more points - parallel - Arcs: best-fit - interrupted - for three or more points - center and radius - tangent - Dimensions: Aligned - vertical - horizontal - radius - angle - point line distance - Advanced: Alignment - Scale in Z - Display: Pan - Zoom
Printer:	Integrated PDF creator, optional printer: standard A4 printer* or thermal printer (code: 1.422)
Standard equipment:	WARPsurf roughness tester with SB300 magnetic sensor and Stylus 1-Y for roughness, 110-230V battery charger, roughness specimen, transport case, touch pen, user manual.

