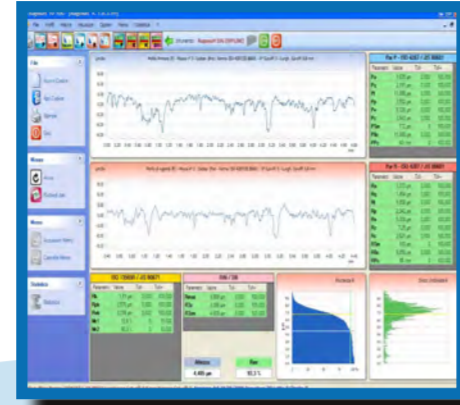# ACCESSORIES

**Granite stand ST2**
Granit stand 630x400 and column for the positioning. Maximun measurable height, referred to the measurement plane: h250mm.
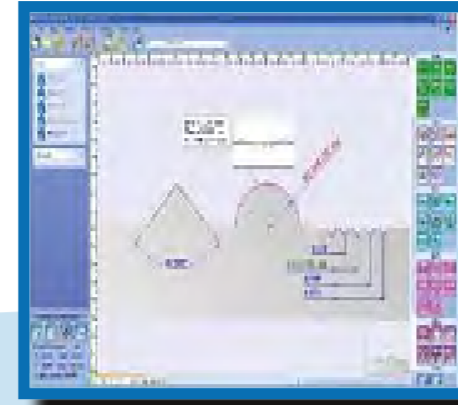
**Printer PR11**
Termal printer, 24 column, for printing parameters and graphics.
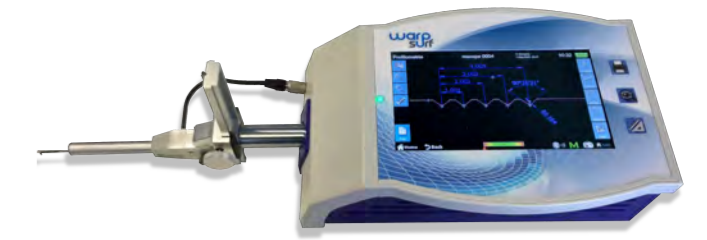
**Software MS full**
Software Measurement Studio Full, for downloading measurements and profiles, store them and do the statistics. It is possible to print custom reports.

**Software Profile Studio**
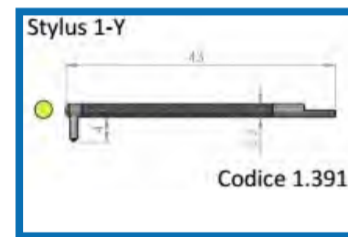The software Profile Studio extends the functionality of the warpsurf profilometry.
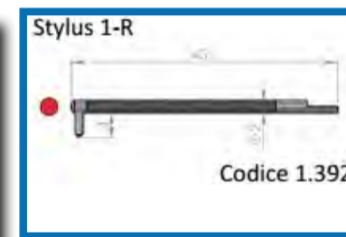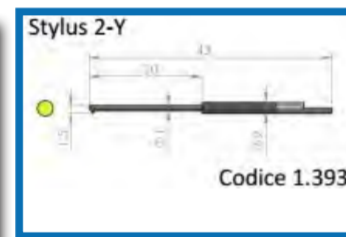
**SM Metrology Systems**

# warp surf

# Portable roughness tester

# PROBES

Stylus 1-Y — Codice 1.391
Stylus 1-R — Codice 1.392
Stylus 2-Y — Codice 1.393
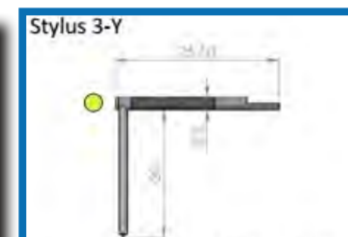Stylus 3-Y — Codice 1.394
Stylus 4-S — Codice 1.395

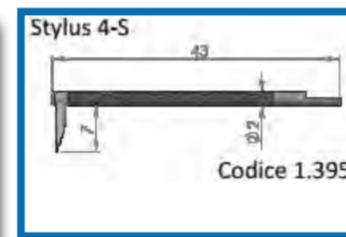**1 - Y -** Interchangeable stylus with 90° diamond - 2 μm Range of measure 3 mm

**1 - R -** Interchangeable stylus with 60° diamond - 2 μm Range of measure 3 mm

**2 - Y -** Interchangeable stylus for little hole, minimun 2 mm with 90° diamond - 2 μm

**3 - Y -** Interchangeable stylus for deep gorges (max 20 mm) with 90° diamond - 2 μm

**4 - S -** Interchangeable stylus for profile, with hard metal chisel. Range of measure 3 mm

| TECHNICAL DATA | |
|---|---|
| Display | 7 inches ( 18 cm ) touch screen with 16 million colors |
| Measure range | X= 60 mm<br>Z =3 mm (roughness probe)<br>Z = 3 mm (profile probe) |
| Resolution | 0,1 nm (0,0001 μm) of 3 mm |
| Printer | - Commercial desktop printer via USB<br>- PR11 printer via Bluetooth direct<br>- PDF creation on a USB stick |
| Micrometric positioning | -10 mm to 110 mm with the fine provided |
| Roughness | Ra, Rq, Rt, Rz, Rp, Rv, Rc, Rsk, Rku, RSm, Rdq, Rda, Rmax, Rdc, Rmr, RPc, RLo, Rlr, Rzjis, RHSC<br>PA, Pq, Pt, Pv, Pc, Psk, Pku, PSm, Pdq, PPc, PLo, Plr, PHSC<br>Wa, Wq, Wt, Wz, Wp, Wv, Wc, Wsk, Wku, WSm, Wdq, Wdc, WPc, Wlr, WHSC<br>Rk, RPk, RVk, Mr1, Mr2, A1, A2, WDSm, WDc, WDt<br>R, AR, Rx, W, Aw, Wx, Wte, Rke, Mr1e, Mr2e, A1e, A2e |
| Profile analisis | CAD integrated for the analysis of the profile |
| Archive | - Automatic saving of the last 6 measures<br>- Saving up to 1000 measurements ( more graphics parameters) |
| Database | - Possibilità di archiviare le misure secondo la filosofia dei codici, sessioni, operatori<br>- Possibilità di eseguire l'analisi statistica dei dati nel database |
| Connectivity | - 1 USB Type A port ( connection to USB pens )<br>- 1 USB Type B port ( connection to PC )<br>- Bluetooth connection to the printer PR10 |

**ACCREDIA LABORATORY N° 041**

**www.sm-instruments.com**

# WARP SURF

## *Roughness and profile within reach of a finger!*

### Interchangeability
**Probe with interchangeable stylus by means of a plug-in connector**

### Clarity
**Wide 7" LCD TFT display with 16 milion colors**

### Connectivity
**USB interface for connection with PC equipped with Measurement Studio software or Profile Studio software, or to desktop printers. Bluetooth interface for connection with the PR-11 printer**
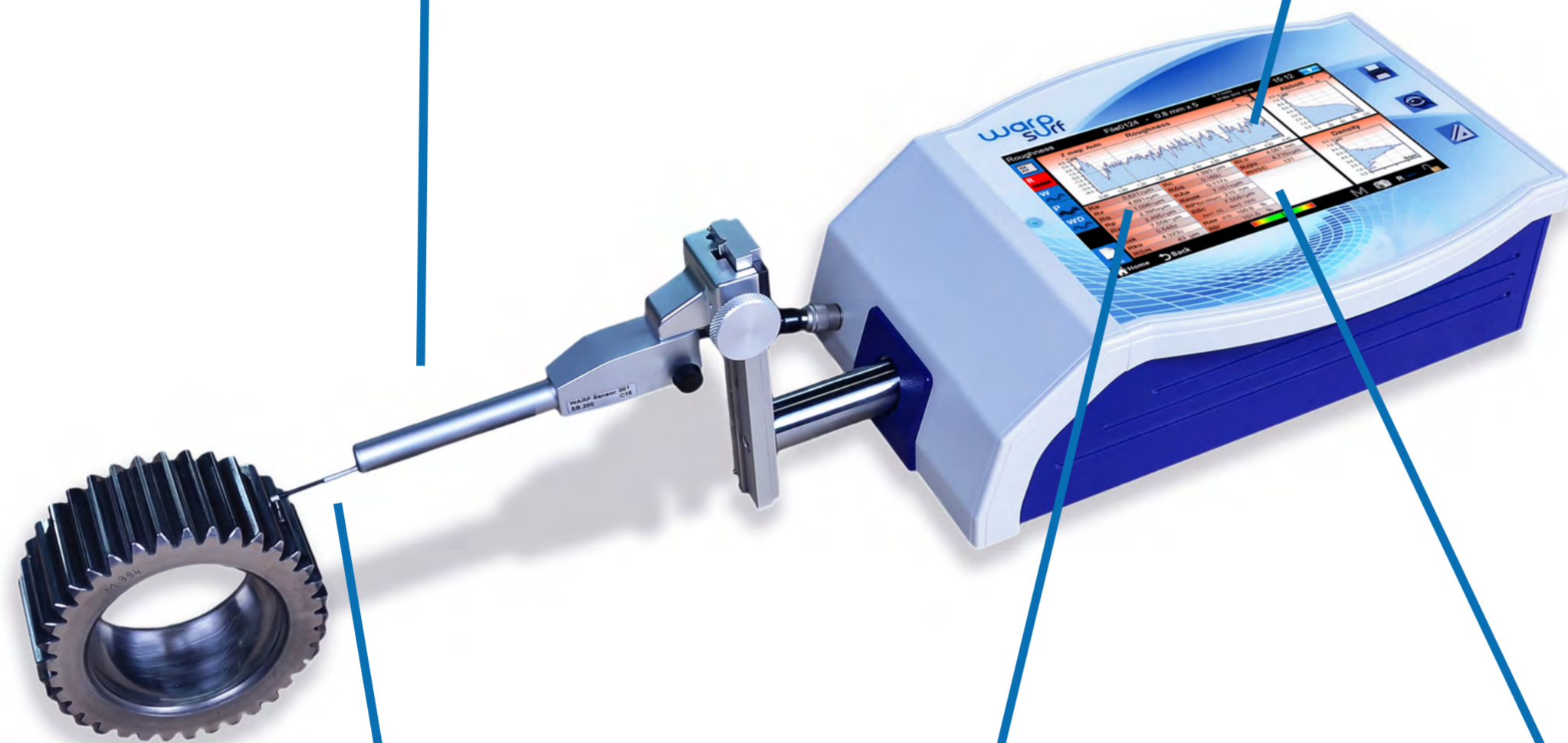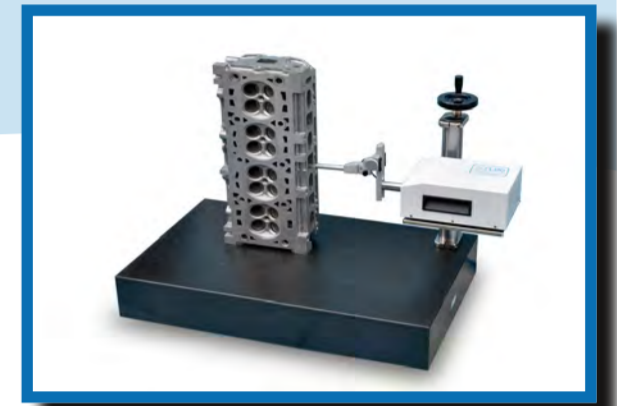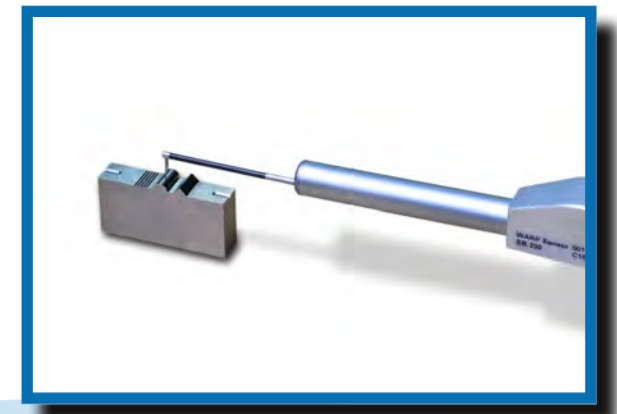
### Adaptability
**Up to 1.5 mm of useful field with a resolution of 1 nm**

### Versatility
**Analysis and evaluation of the roughness of the shape of the profile all in a single working environment**

### Easy to use
**Control via graphical menu, based on touchscreen icons**

## Warpsurf

The roughness Warpsurf is characterized by great handling and extreme ease of use. The wide range of colors TFT 7 "with touch screen technology allows the operator to interact with the surface roughness in an intuitive and easily display the parameters and graphics of roughness and the characteristics of the shape of the profile.
The instrument allows to measure surface roughness directly at the production site and is able to calculate a total of 75 roughness parameters provided by ISO 4287 / JIS B0601, ISO 12085 (MOTIF / CNOMO) / JIS B0621 and DIN standards, as well as It effects the characterization of the profile detected by using a convenient CAD that provides a complete set of functions.