

# MarSurf PS 10 Set

## Entry Level Device in Surface Measurement Technology

Mahr's entry-level surface metrology instrument is intuitive and simple to use. The **4.3" TFT touch display** can be turned in any direction.

The **removable drive unit** makes the MarSurf PS 10 flexible in production and manufacturing. One new feature is the integrated but **removable calibration standard**.

Measuring records can be saved in the instrument itself as PDF files. Alternatively, they can be **transferred using MarCom**.



On-site roughness measurement.  
Measuring in production with the MarSurf PS 10



Other practical examples using the MarSurf PS 10



# MarSurf PS 10 Set

## Extremely easy to operate with detailed profile display

The large 4.3" high-resolution and backlit TFT touch display allows intuitive operation (just like a smartphone) and precise representation of the measuring profile.



## Flexible use

The removable drive unit, in conjunction with the optional hand-held support, lends this instrument added versatility where space is limited, e.g. in holes or when measuring small parts.



## Perfect evaluation and documentation

The PS 10 automatically creates a PDF measuring record without the need for any additional software. The measuring record can be easily transferred to a PC via the USB port.

Alternatively, measuring data can be evaluated in the MarSurf XR 1 and XR 20 roughness software or the measurements can be sent to Excel or SPC programs using the Mar-Com software.

Mahr		Mahr GmbH	MarSurf PS 10 1.00-12
Erstellungsdatum:	18.05.2016 14:46	Lt:	4,8 mm
Geräte:	MarSurf PS 10 (1126)	Lic:	2,5 µm
Tester:	PHT 350	Vb:	-/- 200,0 µm
		Vt:	1,0 mm/s
		Punkte:	9600
R(L)C ISO 16610-21 0,8 mm			
Ver 10,0 µm/5sk; Hor 0,8 mm/5sk; 4,0 mm			
R(L)C ISO 16610-21 0,8 mm			
Ra	2,513 µm	0,000	5,400
Rz	18,292 µm	0,000	8,000
Rmax	24,525 µm	0,000	12,000
Rv	5,160 µm	0,000	8,000
Rv	12,123 µm	0,000	13,000
Rt	25,510 µm	0,000	27,000



## Always at hand

The calibration standard stays in the instrument and can be checked at any time.



# MarSurf PS 10 "SMAHRT Surf"

Easy, smart and mobile



## Applications

- On-site surface roughness measurement
- Measuring during the production process
- Universal use on processing machinery
- For incoming goods inspection

Additional version with transverse drive unit MarSurf PS 10 C2 available.



## Features

- Small and lightweight; ideal as mobile surface roughness measuring instruments
- Large illuminated 4.3" TFT touch display
- Display can be rotated
- Simple to operate (smart-phone!)
- Increased flexibility due to the removable drive unit
- Start button is simultaneously the home button for direct access to the start screen
- Direct access to your customized functions with favorites
- 31 parameters: offer the same range of functions as a laboratory instrument
- Data is saved in the device, e.g. TXT, X3P, CSV and PDF file
- Evaluation of most common parameters conforming to standards and in accordance to ISO /JIS as well as parameter lists
- Integrated, removable roughness standard for the standard pick-up PHT 6-350
- Dynamic calibration function
- Select standards (DIN-ISO/ JIS/ASME /MOTIF )
- Automatic cutoff selection (patented) to ensure correct measuring results
- Individual sampling lengths and shortened cutoff can be selected
- Setting of unsymmetric intersection lines for peak count calculation
- Phase-correct profile filter (Gaussian filter) acc. to DIN EN ISO 16610-21 (before DIN EN ISO 11562), special filter acc. to DIN EN ISO 13565-1, Is-filter acc. to DIN EN ISO 3274 (disengageable )
- Tolerance monitoring

- Lock settings and/or password protection
- Date and/or time of measurement
- Integrated memory to store approx. 500000 results, 3900 profiles and 1500 PDF files
- Data transmission via the USB interface to a PC or via microSD-Card
- MarConnect interface, to connect e.g. a PC via the MarCom Software
- Main free operation: the built-in rechargeable battery can be used for up to 1200 measurements before being recharged

## Supplied with:

- MarSurf PS 10 base unit
- Drive unit (removable)
- 1 standard pick-up PHT 6-350 (conforming to standards)
- Built-in battery
- Roughness standard integrated (removable) into base unit incl. Mahr calibration certificate
- Pick-up protection
- Charger / mains adapter with 3 mains power adapters
- Operating instructions
- Carrying case with shoulder strap
- USB cable
- Extension cable drive unit
- Height adjustment accessory (integrated)

# MarSurf PS 10 "SMAHRT Surf"

## Technical Data

MarSurf PS 10		
Unit of measurement		Metric / inch
Measuring principle		Stylus method
Pick-up		Inductive skidded pick-up, 2 µm (80 µin) stylus tip, measuring force ca. 0.7 mN
Parameters	DIN / ISO	Ra, Rq, Rz, Rmax, Rp, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Vo, Rt, R3z, RPC, Rmr, RSm, Rsk, CR, CF, CL, R, AR, Rx, R3z
	JIS	Ra, Rq, Ry (equiv. to Rz), RzJIS, tp (equiv. to Rmr), RSm, S
	ASME	Rp, Rpm, RPC, Rsk, tp (enquir. to Rmr)
	MOTIF	R, AR, Rx, CR, CF, CL
Languages		English, German, French, Italian, Spanish, Portuguese, Dutch, Swedish, Czech, Polish, Russian, Japanese, Chinese, Korean, Turkish, Hungary, Romanian
Measuring range		350 µm
Profile resolution		8 nm
Filter*		Phase-correct profile filter (Gaussian filter) according to DIN EN ISO 16610-21 (before ISO 11562) Special filter according to DIN EN ISO 13565-1, Is filter according to DIN EN ISO 3274 (can be disabled)
Cutoff lc*	mm (inch)	0.25 / 0.8 / 2.5 (0.010" / 0.030" / 0.100"); automatic
Traversing length Lt*	mm (inch)	1.5/ 4.8 /15 (0.06" / 0.192" / 0.6"); automatic
Traversing length (according to MOTIF)	mm (inch)	1 / 2 / 4 / 8 / 12 / 16 (0.040" / 0.080" / 0.160" / 0.320" / 0.480" / 0.640")
Short cutoff*		Selectable
Evaluation length ln*	mm (inch)	1.25 / 4.0 / 12.5 (0.050", 0.15", 0.50")
Number n of sampling lengths*		Selectable: 1 to 16
Calibration function		Dynamic
Memory		3900 profiles, 500000 results, 1500 pdf-files, memory can be extended with microSD-Card up to 32 GB
Additional functions		Lock settings / password protection, Date/Time
Dimensions	mm (inch)	160 × 77 × 50 (6.29" × 3.03" × 1.97")
Weight		500 g (1.10 lbs)
Rechargeable battery		Li-ion battery, 3,7 V, rating 11,6 Wh
Interfaces		USB-Device, MarConnect (RS232, USB), micro SD Slot for SD™ / SDHC-Cards up to 32 GB
Long-range power supply		100 V to 264 V
Order no.	PS 10 Set	6910230
Order no.	PS 10 (5 µm probe tip)	6910232
Order no.	PS 10 C2 Set	6910235

\* in accordance with ISO/JIS

