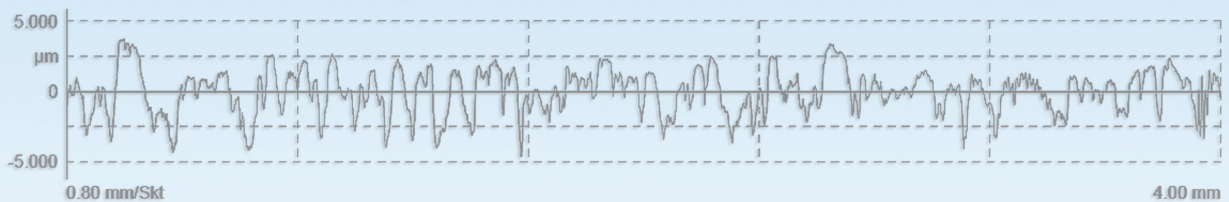


# MarSurf



 **Bluetooth®**

## MarSurf M 400

The best of the "mobiles"!

Easy. Fast. Innovative.

With skidless tracing and automatic zero setting.

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**Mahr**

EXACTLY

## MarSurf M 400. The Best of the "Mobiles"

High performance with high mobility

### Evaluation Unit MarSurf M 400



#### Easy. Fast. Innovative

Not only needed in the measuring room but also more and more often in the production area: Surface evaluation that requires skidless tracing.

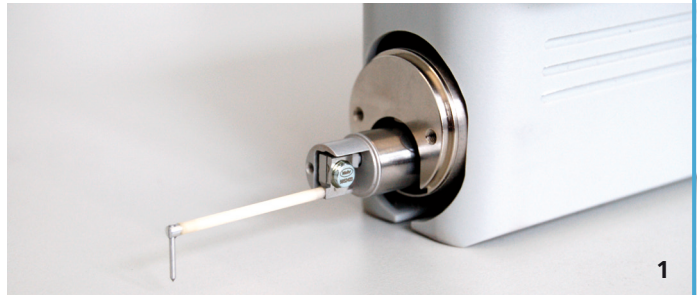
This generally means higher demands of the operator qualification, more time, more adjustments.

**MarSurf M 400** offers this required performance scope in its line of mobile surface metrology – with easy and fast operation.

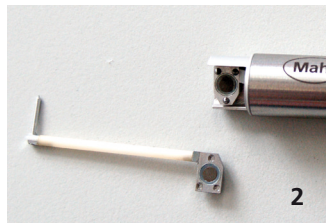
### Drive Unit SD 26



### Probe System BFW 250



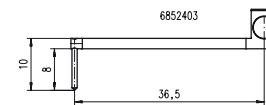
1



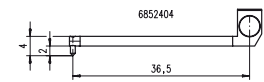
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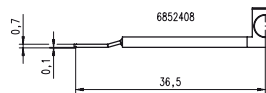
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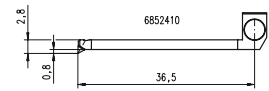
6852403



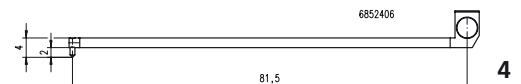
6852404



6852408



6852410



6852406

4

### Features

- **Skidless tracing** with high precision probe system (1)
- **Fast probe arm change** due to magnetic probe arm holder (2, 3, 4)
- **Protection from damage**
- **Only a few seconds of setting time required** due to motorized height adjustment of the drive unit with automatic zero setting
- **Flexible handling** with cable-free *Bluetooth* connection
- **Concise, clear and easy** due to brilliant color display for the depiction of results and operator guidance
- **Mobile use** due to operation with AC adapter or built-in battery
- **Internationally up to date** with all common parameters as per ISO, JIS, ASME, many integrated languages
- **Documentation with quality** with integrated thermal printer for printout of profile and results
- **Standardized measuring point** density despite increased measuring speed

## MarSurf M 400. The Best of the "Mobiles"

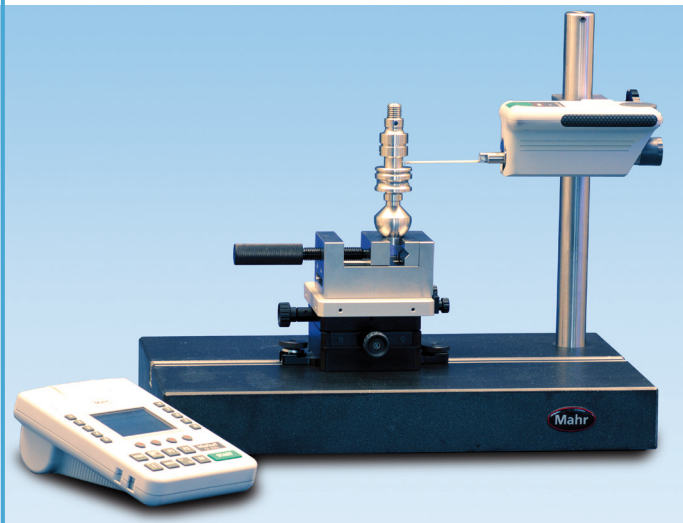
### Applications MarSurf M 400



Upside down measurement with vee-block  
Automatic zero setting of the BFW 250



Measurement in production

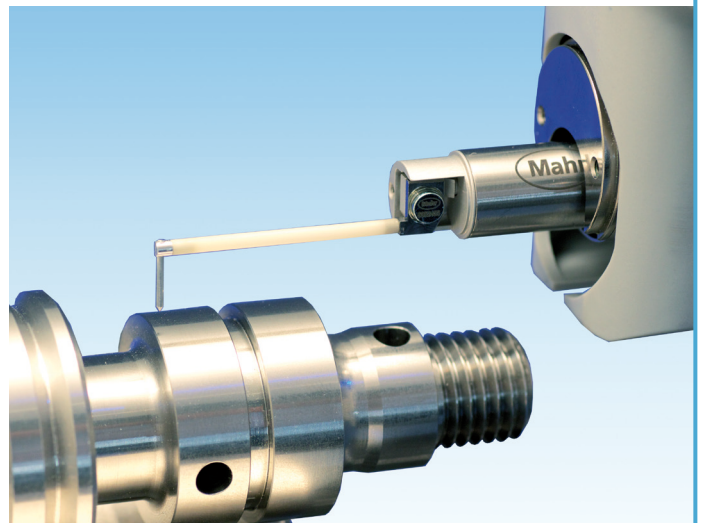


MarSurf measuring station with measuring stand ST-G

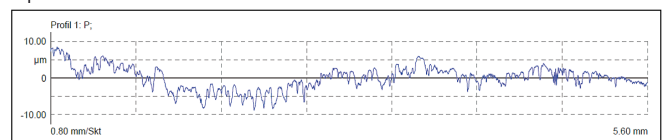
The possibility to expand the mobile surface measuring unit to a small stationary work station can be easily and quickly realized by adding only a few components from the line of MarSurf accessories.

Fast and easy alignment of the drive unit relative to the testpiece thanks to the inclination adjustment option.

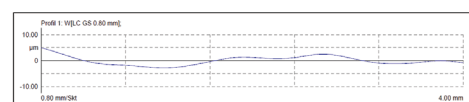
The MarSurf M 400 enables the evaluation of parameters from the P, W and R profiles.



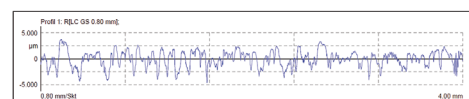
P profile



W profile



R profile



## MarSurf M 400. The Best of the "Mobiles"

### MarSurf M 400 Set



#### Scope of delivery

- Evaluation unit MarSurf M 400
- Drive unit MarSurf SD 26 incl. probe system BFW 250
- Standard probe arm (6852403)
- 1 thermo paper roll
- Wide-range AC adapter mit 3 adapters
- 2 x USB cables (to connect to PC and for use with cable)
- Operating instructions

All items are delivered in a practical carrying case.

**MarSurf M 400 set:**

**Order no. 6910404**

### Technical Data

#### MarSurf M 400 Set

Profile determination	Primary, waviness and roughness profile
Probe	Inductive skidless probe system with exchangeable probe inserts, 2 $\mu\text{m}$ probe arm, measuring force approx. 0.7 mN (standard)
Filters (as per DIN/JIS)	Gaussian filter, Ls filter
Standards	DIN/ISO/JIS/ASME/MOTIF
Parameters	DIN/ISO: Ra, Rq, Rz, Rmax, Rp, Rv, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Vo, Rt, R3z, R <sub>Pc</sub> , Rmr (3x), HSC, RSm, Rsk, Rdc, Rdq, Rku, Pa, Pt, Pmr (3x), Pdc, Wa, Wq, Wt, WSm, Wsk, JIS: Ra, Rz, RzJIS94, Sm, S, ASME: R <sub>pA</sub> , R <sub>pm</sub> MOTIF: R, AR, Rx, W, AW, Wx, Wte, CR, CF, CL, NR, NCRX, NW, CPM
Cutoff $l_c$ (as per ISO/JIS):	0.25 mm, 0.8 mm, 2.5 mm, automatic,
Traversing lengths $l_t$ (as per ISO/JIS)	1.75 mm, 5.6 mm, 17.5 mm, automatic, free entry
Traversing lengths (as per MOTIF)	1 mm, 2 mm, 4 mm, 8 mm, 12 mm, 16 mm
Evaluation lengths $l_m$ (as per ISO/JIS)	1.25 mm, 4.0 mm, 12.5 mm
Number $n$ of sampling lengths (as per ISO/JIS):	selectable: 1 to 5
Short cutoff (as per ISO/JIS)	selectable
Measuring speed	0.2 mm/s; 1 mm/s
Profile resolution	Measuring range: $\pm 250 \mu\text{m} = 8 \text{ nm}$ , $\pm 25 \mu\text{m} = 0.8 \text{ nm}$
Languages	15, 3 of them Asian
Memory	Max. 30 profiles, max. 40,000 results
Other	lock/code number protection, date/time, integrated printer, dynamic calibration function

#### Drive Unit SD 26

Traversing length	26 mm
Measuring speed	0.2 mm/s; 1 mm/s
Positioning speed in X	5 mm/s
Height adjustment in Z	7.5 mm, motorized
Positioning speed in Z	2 mm/s
Zero setting of probe system	Automatically to zero value or to specified value in the probe measuring range
Inclination adjustment	$\pm 1.5^\circ$ (alignment function with user guidance in the evaluation unit)
Temperature (storage)	$-15^\circ \text{C}$ to $+55^\circ \text{C}$
Temperature (operation)	$+5^\circ \text{C}$ to $+40^\circ \text{C}$
Rel. humidity	30% to 85%, non-condensing
Weight	M 400: approx. 1.0 kg SD 26: approx. 0.9 kg
Interfaces	USB Slave, MarConnect (RS232)
Wide-range AC adapter	90 V to 264 V

### Mahr GmbH Göttingen

Carl-Mahr-Str. 1, 37073 Göttingen  
Telephone: +49 (0)551 7073-800, Fax: +49 (0)551 7073-888,  
info@mahr.com

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