

MarSurf

NEW



 **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



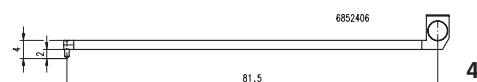
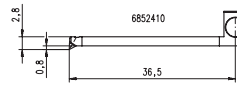
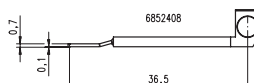
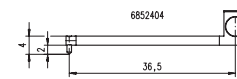
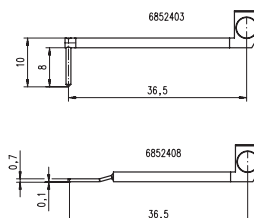
Easy. Fast. Innovative

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.

Probe System BFW 250



Drive Unit SD 26



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

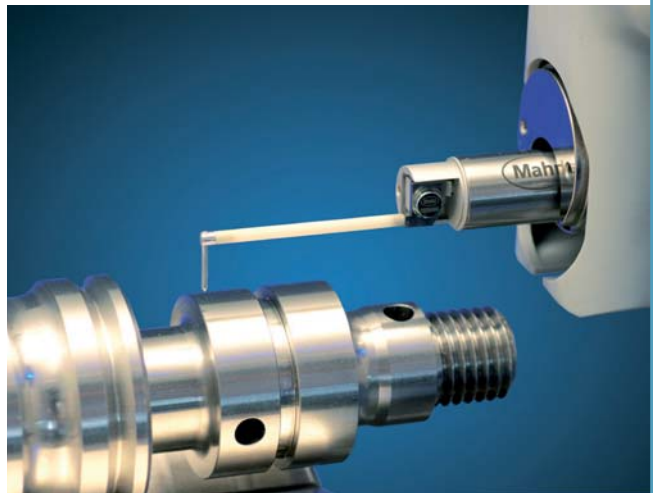


MarSurf measuring station with measuring stand ST-G

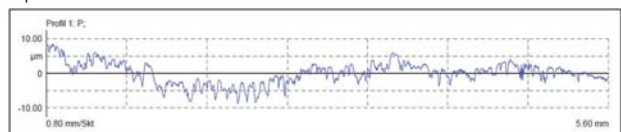
The possibility to expand the mobile surface measuring unit to a small stationary work station can be easily and quickly realized by adding only a few components from the line of MarSurf accessories.

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

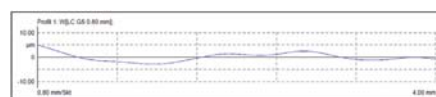
The MarSurf M 400 enables the evaluation of parameters from the P, W and R profiles.



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
Probe

Primary, waviness and roughness profile
Inductive skidless probe system with exchangeable probe inserts, 2 μm probe arm, measuring force approx. 0.7 mN (standard)

Filters (as per DIN/JIS)
Standards
Parameters

Gaussian filter, Ls filter
DIN/ISO/JIS/ASME/MOTIF
DIN/ISO: Ra, Rq, Rz, Rmax, Rp, Rv, Rpk, Rk, Rvk, Mr1, Mr2, A1, A2, Vo, Rt, R3z, RPe, Rmr (3x), HSC, RSm, Rsk, Rdc, Rdq, Rkn, Pa, Pt, Pmr (3x), Pdc, Wa, Wq, Wt, WSm, Wsk,
JIS: Ra, Rz, RzJIS94, Sm, S,
ASME: RpA, Rpm
MOTIF: R, AR, Rx, W, AW, Wx, Wte, CR, CF, CL, NR, NCRX, NW, CPM

Cutoff f_c (as per ISO/JIS):
Traversing lengths L_t (as per ISO/JIS)
Traversing lengths (as per MOTIF)
Evaluation lengths l_m (as per ISO/JIS)
Number n of sampling lengths (as per ISO/JIS):
Short cutoff (as per ISO/JIS)
Measuring speed
Profile resolution

0.25 mm, 0.8 mm, 2.5 mm, automatic,
1.75 mm, 5.6 mm, 17.5 mm,
automatic, free entry
1 mm, 2 mm, 4 mm, 8 mm, 12 mm, 16 mm

1.25 mm, 4.0 mm, 12.5 mm

selectable: 1 to 5
selectable
0.2 mm/s; 1 mm/s
Measuring range: $\pm 250 \mu\text{m} = 8 \text{ nm}$,
 $\pm 25 \mu\text{m} = 0.8 \text{ nm}$

Languages
Memory
Other

15, 3 of them Asian
Max. 30 profiles, max. 40,000 results
lock/code number protection, date/time,
integrated printer, dynamic calibration function

Drive Unit SD 26

Traversing length
Measuring speed
Positioning speed
in X
Height adjustment in Z
Positioning speed
in Z
Zero setting of probe system
Inclination adjustment
Temperature (storage)
Temperature (operation)
Rel. humidity
Weight
Interfaces
Wide-range AC adapter

26 mm
0.2 mm/s; 1 mm/s
5 mm/s
7.5 mm, motorized
2 mm/s
Automatically to zero value or to specified value in the probe measuring range
 $\pm 1.5^\circ$ (alignment function with user guidance in the evaluation unit)
 -15° C to $+55^\circ \text{ C}$
 $+5^\circ \text{ C}$ to $+40^\circ \text{ C}$
30% to 85%, non-condensing
M 400: approx. 1.0 kg
SD 26: approx. 0.9 kg
USB Slave, MarConnect (RS232)
90 V to 264 V

Mahr Inc.
1144 Eddy Street, Providence, RI 02905
1-800-343-2050

www.mahr.com

