

MarSurf VD 140 / VD 280

Roughness and Contour Measuring Station

DESCRIPTION

MarSurf VD Series - The MarSurf family is complemented:

The easy change between roughness and contour tracing system Depending on the measuring task, either the BFW roughness probe system for surface roughness or the C 11 contour probe system for contour measurements can be changed by the operator (hot-plug capable). The new system offers the advantages of combining the highly dynamic C 11 contour probe system with the high-precision BFW probe system, which is particularly suitable for fine surfaces.

The new measuring station concept combines speed, reliability and flexibility.

The aim is to increase the profitability of the system for your company.

The measuring stations are operated with the user-friendly MarWin software (MarWin Easy Roughness & Contour or MarWin Professional Roughness & Contour).

Innovative technologies:

- **Fast axes**
- Positioning speeds up to 200 mm/s in X
- Contour measurements are 25 x faster than with its predecessor MarSurf PCV or MarSurf CD 120
- Surface measurements are 40 x faster than with the MarSurf GD 120
- By default, the Z-axis is fully CNC-capable
- The Z-axis is approx. twice as fast as previous Mahr Z-axes
- Up to 5 times faster than standard Z-axes on the market

Two reference probe systems for your measuring tasks

Contour probe system C 11

- Probe arm recognition via integrated chip
- Standard measuring range up to 70 mm; Max. 100 mm with 490 mm probe arm length
- Magnetic probe arm holder, probe arm change without tools
- The touch probe combines robustness with dynamics
- Optional: Possibility to extend the roughness value determination to contours



TECHNICAL DATA

MarSurf VD 140 / 280	
Measuring range	with probe system BFW 250 500 μm ($\pm 250 \mu\text{m}$) for probe arm length 45 mm 1500 μm ($\pm 750 \mu\text{m}$) for probe arm length 135 mm
Guide deviation	with probe system C 11 70 mm with probe arm length 350 mm max. 100 mm with probe arm length 490 mm 0.07 μm / 20 mm (with probe system BFW 250) 0.35 μm / 60 mm 0.4 μm / 140 mm
Measuring speed	Up to 10 mm/s
Positioning speed	0.02 – 200 mm/s (in X)

Roughness probe system BFW

- Easy probe arm change and probe arm protection by means of magnetic probe arm holder
- Probe arm mount allows the change from standard to transverse measurement without tools or adapter
- Extensions for the probe system possible

Innovative workpiece clamping system

- Mounting plate 390 x 430 mm with hole dimension 50 mm
- Integrated 60 mm TY adjustment
- The combination of mounting plate and integrated TY adjustment makes an additional XY table superfluous
- Low workpiece setup supports a favorable short measurement loop, which has a positive effect on the measurement results

APPLICATIONS

Machine building

- Bearings, threads, threaded rods, ball screws, shafts, racks

Metrology close to production

- Contour measurement in a semi-automatic process

Automotive industry

- Steering, brake system, gearbox, crankshaft, camshaft, cylinder head

Medicine

- Contour measurement for hip and knee endoprostheses, medical screws, dental implants

ACCESSORIES

Optional

- Manual control panel with joystick and display
- Motor-driven TY axis
- Parallel vice
- Prism block
- Equipment table
- Vibration damping system

General software options

- Option - MeasurementPlus
- Option - RoughnessPlus
- Option - ContourPlus
- Option - Dominant Waviness (Wdc) for MarWin
- Option - ISO 13565-3 surface parameters
- Option - QS-STAT / QS-STAT Plus
- Option - Profile processing
- Option - User-defined parameters
- Option - Topography



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