

Application Aids

Efficient application aids for manufacturing

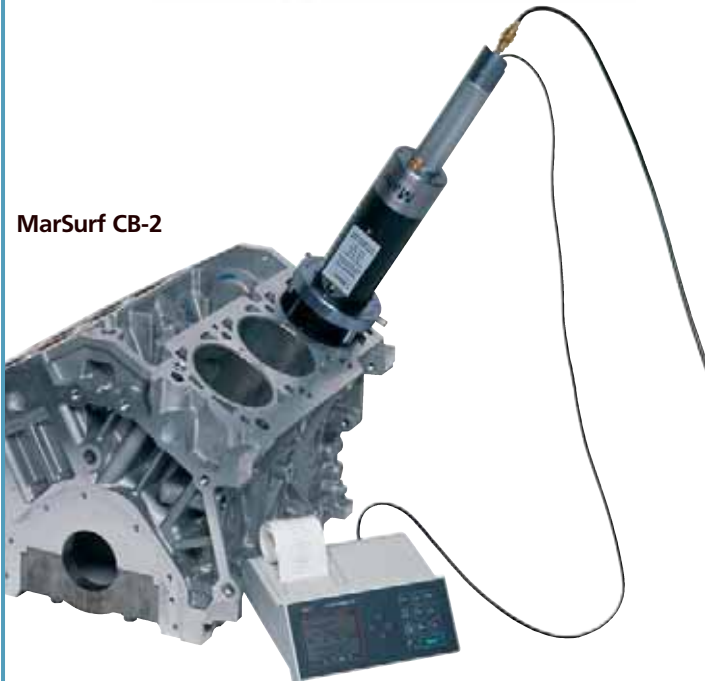
MarSurf BF-1



MarSurf TF-1



MarSurf CB-2



MarSurf DR-1



Description

Tough manufacturing environments require quick and easy roughness measurement. The shop floor is particularly demanding on measuring instruments. **Application aids** from **Mahr** are the perfect solution.

Features

Our application aids work with evaluation instruments in the **M1** or **M2 series**.

A calibration or storage station is included in the scope of delivery. Calibration standards are available, with a Calibration Certificate if required.

- Special design allows precise, easy positioning of measuring instrument
- Easy to use even without specialist metrological knowledge
- Device for protecting drive unit from environmental influences that might disrupt the measurement
- Pick-up protection, i.e. pick-up is only extended during measurement
- Surface protection material ensures measurement leaves no marks on the workpiece

Other Applications for use with the M1/M2 Surface Finish Measurement Systems

MarSurf CS 1

2190922

Measurement system for main and pin journals, oil seal and rod end surfaces on crankshafts. Designed to accommodate journals of 25mm through 125mm with a minimum width of .82" (20.8mm). Features include pneumatic clamping on the journal to be measured for stable measurements prior to data acquisition.

MarSurf DW 1

2190974

Waviness Fixture: Designed to protect and mount the GD-25/PGK-20 drive unit for surface roughness/waviness measurements. Features include probe protection, carrying handle, cable strain relief, stable base for use on areas with small surface area and calibration stand.

MarSurf CR 1

Camshaft/Crankshaft bore surface finish measurement system. Designed to measure all crankshaft/camshaft bores in an engine block. Designed to order and dedicated in size to a minimum bore size of 47mm. Features include pneumatic clamping within the bore for stable measurements and prior to data acquisition.

MarSurf VG 1

Valve Guide surface finish measurement system. Designed to measure surface finish of valve guides from the spring side of cylinder heads. Provides stable measurement without operator setup in harsh environments for in process inspection. 6mm minimum valve bore insert.

Applications not limited to those described. Please call your local Mahr representative for your surface finish measurement challenges.

MarSurf BF-1

Miscellaneous bore fixtures for the shop floor



Description

The **MarSurf BF 1** is designed for the measurement of bores on the shop floor. The fixture utilizes bore specific tooling which automatically positions the measurement probe relative to the surface to be measured. No operator setup is required.

Features

- Tooling can be designed to measure openings from 14.00mm to 150.00mm.
- Adjustable measuring depth of 10 mm through 75 mm.
- Automatic pick-up protection means the pick-up is only exposed during the measuring cycle.
- Calibration stand included in the scope of delivery.
- Used with M1 or M2 units.

Accessories

- The tooling is design-specific for the measuring task.
- Optional: The **MarSurf BF-1** can also be supplied without adjustable measuring depth, i.e. it is designed for just one measuring task.

MarSurf TF-1

Crankshaft thrust face measurement fixture



Description

The MarSurf TF 1 measurement system is designed to perform surface finish measurements of thrust wall surfaces on crankshafts. The tooling is applied to the thrust wall area and the measurement probe is automatically positioned over the surface to be measured. There is no need for operator setup.

Features

- Tooling can be designed to measure crankshaft journal widths of 17.5mm to 44.5mm
- Non-marring material leaves no traces on the workpiece
- Automatic pick-up protection means the pick-up is only exposed during the measuring cycle
- Calibration stand included in the scope of delivery
- Used with M1 or M2 units

MarSurf CB-2

Cylinder bore surface finish fixture



Description

MarSurf CB 2

Order No. 2190856

The **MarSurf CB 2** is designed for the measurement of cylinder walls, sleeves or any bores requiring surface roughness measurements. High clamping force supported by air pressure for stable measurements inside bores from 77mm through 105mm.

Features

- Auto sizing feature for bores from 77mm through 105 mm
- Mechanical stop with depth indicator
- Automatic probe protection means the pick-up is only exposed during the measurement cycle
- MarSurf CB-2 utilizes a pneumatically activated clamping mechanism
- Measurement depth capability of 25mm through 225mm
- Used with M1 or M2 units

Accessories and Options

The following Accessories/Options are available:

Expansion pads for bores available for 105mm through 133mm

Options:

MarSurf CB 3

Order No. 2190910

for bores ranging from **74mm** through 105mm

MarSurf CB 4

Order No. 2191022

for bores ranging from 77mm through 105mm (for skid type measurements with model S2/PZK surface finish evaluation system).

MarSurf DR-1

Deck face measurement fixture



Description

MarSurf DR 1 Fixture

Order No. 2190873

The **MarSurf DR 1** is designed for stable surface finish measurement on flat surfaces without the need for positional adjustment of the pick-up. Equipped with a magnetic base, the Marsurf DR 1 is ideal when measuring overhead or non-horizontal surfaces.

Features

- Wide range of applications
- Magnetic base provides for non-level mounting on ferrous surfaces
- Used with M1 or M2 units