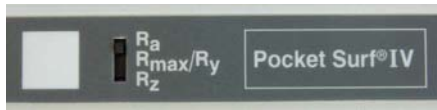


Pocket Surf® IV Portable Surface Roughness Gage



A pocket-sized, economically priced, completely portable instrument which performs traceable surface roughness measurements on a wide variety of surfaces; can be used confidently in production, on the shop floor and in the laboratory.



▲ Easy, single button operation



▲ Built-in measurement output



▲ Economical and simple to replace battery

FEATURES

- Durable cast aluminum housing provides accurate and reliable surface finish gaging
- Measures four switch selectable parameters: Ra, Rmax/Ry, Rz
- Reviews parameters after measurement is complete
- Selectable traverse length 1, 3 or 5 cut-offs of 0,8 mm / 0.030 in
- Operates in horizontal, vertical, and upside down positions
- Four switchable probe positions - axial (folded) or at 90°, 180° or 270°
- Difficult-to-reach surfaces (inside and outside diameters)
- MarConnect data output for SPC-processing that is compatible with common data processing systems
- Easy-to-read LCD readout
- Roughness within half a second after the surface is traversed
- Out-of-range (high or low) and battery low signals displayed
- Improved digital calibration process eliminate scandrivers and potentiometers to simplify and enhance the calibration process
- Improved battery life and easy-to-replace standard 9V battery

TECHNICAL DATA

Dimensions	140 mm x 76 mm x 25 mm / 5.5 in x 3 in x 1 in	
Weight	435 g / 14 oz	
Measuring Ranges	Ra	0,03 µm to 6,35 µm / 1 µin to 250 µin
	Ry	0,2 µm to 25,3 µm / 8 µin to 999 µin
	Rmax	0,2 µm to 25,3 µm / 8 µin to 999 µin
	Rz	0,2 µm to 25,3 µm / 8 µin to 999 µin
Display Resolution	0,01 µm / 1 µin	
Measurement Accuracy	Meets ASME-B46.1, ISO, DIN standards and MIL specifications	
Digital Readout	LCD with, "Battery low" signal; "H" and "L" (measured values out-of-range)	

TECHNICAL DATA

POCKET SURF SETS		
Order No.	2191800	2191802
Description	90° probe, 10 µm radius, PMD-90101 certified specimen, including test certificate	90° probe, 5 µm radius, PMD-90101 certified specimen, including test certificate
Model No.	EGH-1019	EGH-1026

A Pocket Surf Kit is furnished complete in a fitted case, and includes a Pocket Surf unit with a general purpose probe** and a 3,2 µm/125 µin (nominal) reference specimen**, 9 Volt battery and riser plate.

** Part numbers listed in table above



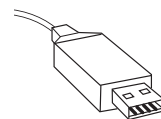
▲ Pocket surf set

PROBING AND TRAVERSE LENGTHS			
Parameters	Traverse Length (Nominal)	Evaluation Length	Number of Cutoffs/Switch Position*
R _a /R _y	2,0 mm/ 0.075 in	0,8 mm/ 0.030 in	1
	3,5 mm/ 0.135 in	2,4 mm/ 0.090 in	3
R _a /R _z /R _{max}	5,0 mm/ 0.195 in	4,0 mm/ 0.150 in	5
Traverse Speed	5,08 mm/ 0.2 in per second		
Cutoff	0,8 mm/ 0.030 in ASME 2 RC-filter		
Probe Type	Piezoelectric		
Maximum Stylus Force	15.0 mN / 1500 mgf		
Power	Consumer type alkaline battery 9 Volt		
Battery Capacity	Approx. 2,500 measurements, depending on frequency of use and output option		
Operating Temperature	10° C to 45° C / 50° F to 113° F		
Storage Temperature	-20 °C to 65 °C / -4 °F to 149 °F		

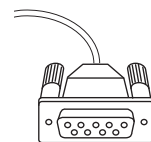
* Other cutoff/switch positions may be used



▲ Easy to use switchable settings



4346023



4346020

MarConnect – USB ready

The Pocket Surf IV® employs the MarConnect interface from Mahr. MarConnect simplifies data transmission to a PC and enables quick and universal assembly of a multiple measuring station.

Order No.	Description	Model No.
4346023	Data connection cable USB (2 m) incl. MarCom Standard Software	2000 USB
4346020	Data connection cable Opto RS232C (2 m), with SUB-D jack 9-pin	2000 r
4102552	MarCom Professional 4.0 Software allows for up to 68 wired devices	-
4102551	Marcom Standard 3.1 Software allows for 1 wired device	-

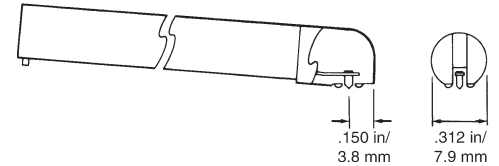
Accessories for data processing: see Dimensional Metrology Catalog, Chapter 11

Pocket Surf® IV Portable Surface Roughness Gage

Probes

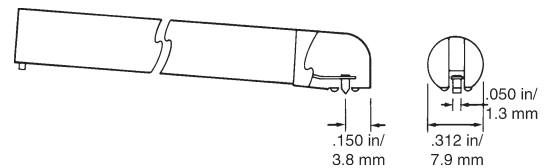
General Purpose Probes

Order No.	Description	Application
EGH-1019	With a 90° conical diamond stylus, 10 µm/ 0.0004 in radius	For most surface roughness applications
EGH-1026	With a 90° conical diamond stylus, 5 µm/ 0.0002 in radius*	
EGH-1029	With a 90° conical diamond stylus 10 µm/ 0.0004 in radius, stainless steel skid	



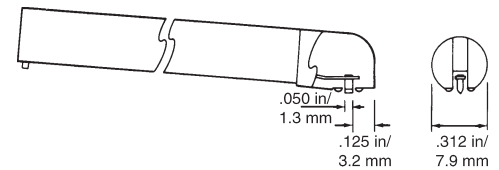
Transverse Chisel Probe

Order No.	Description
EGH-1020-W1	For gaging sharp edges or small OD's where probe is aligned (in 180° or closed position) to axis of traverse, 90° sapphire chisel, 10 µm/ 0.0004 µin radius



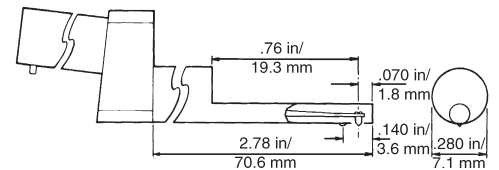
Parallel Chisel Probe

Order No.	Description
EGH-1020-W2	For gaging sharp edges or small OD's where probe is perpendicular (in 90° or 270° position) to axis of traverse. 90° sapphire chisel, 10 µm / 0.0004 µin radius.
EAS-2421	Also used with V-Block fixture for OD's smaller than 6,35 mm / 0.25 in



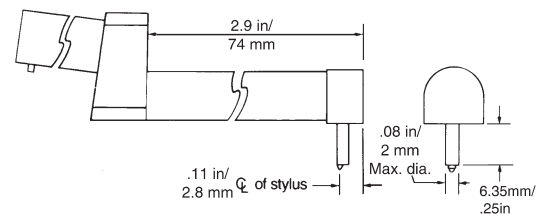
Small Bore Probe

Order No.	Description	Application
EGH-1021	With a 90° conical diamond stylus, 10 µm / 0.0004 in radius	For gaging small bores (3,2 mm / 0.125 in minimum ID) up to a depth of 19 mm / 0.75 in
EGH-1027	With a 90° conical diamond stylus, 5 µm / 0.0002 radius*	



Groove Bottom Probe

Order No.	Description
EGH-1028	Measuring the bottom of grooves, recesses and small holes to depths of 6,35 mm/ 0.25 in, used for short lands and shoulders 90° conical diamond stylus, 10 µm / 0.0004 µin radius



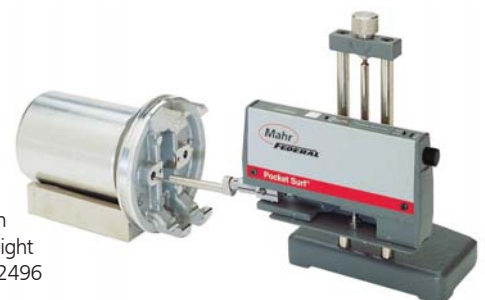
Note: Small bore and groove bottom probes can only be used in 180° position with the Pocket Surf unit supported in a height stand or other fixture

* Yellow dot at connector end signifies 5 µm/ 0.0002 µin radius

▶ Using the groove bottom probe to check an "O" ring groove



▶ Shown with optional height stand EAS-2496



Applications and Accessories

Height Stand**Order No.** EAS-2496

A compact, convenient fixture with a bracket to hold the Pocket Surf gage; designed for making measurements on a granite surface plate or on any suitable, flat working surface to a maximum height of about 111 mm / 4.375 in

**Portable V-Block Fixture****Order No.** EAS-2421

For measuring small parts with outside diameters from 3,1 mm / 0.125 in to 25 mm / 1 in for lengths of 25 mm / 1 in minimum - includes PS-145 setting pin

**Bore Adapter Kit****Order No.** EAS-2839

For timesaving handheld measurement of bores without having to fix the workpiece; accommodates all inside diameters from: 25 mm / 1 in to 150 mm / 6 in; depths from 25 mm / 1 in to 60 mm / 2.4 in

**Bottom Plate****Order No.** EAS-2584

For measuring cylindrical workpieces too short (less than 89 mm / 3.5 in long) for the closed probe position; for workpieces with short OD's from 6,35 mm / 0.25 in (minimum 38 mm / 1.5 in long)

**V-Block Adapter Kit****Order No.** EAS-2739

Attaches to bottom of Pocket Surf unit, permitting convenient, handheld measurements of hard-to-reach cylindrical surfaces, such as crankshaft journals without having to fix the work piece; suitable for parts with diameters from 5,0 mm / 0.19 in to 125 mm / 5 in

**Mounting Bracket for Height Gages****Order No.** EAS-3048

For mounting the Pocket Surf to most standard height gages; the bracket includes a rectangular bar that is 11,5 mm x 6,35 mm (0.45 in x 0.25 in) to fit the holder of the height gage and a swivel feature is included to permit the Pocket Surf to be set anywhere within a 360° rotation

**Universal Stand****Order No.** EAS-2426

A heavy-duty stand equipped with an adjustable bracket to hold the Pocket Surf for measuring of workpieces, up to 213 mm / 8.37 in tall

**Height Stand with Swivel****Order No.** 2236687

A compact, convenient fixture with an adjustable bracket to hold the Pocket Surf, anywhere within a 360° rotation, for making measurements on a surface plate or on any suitable, flat working surface

