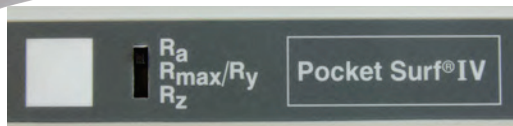


Pocket Surf® IV the portable surface roughness gage



Nothing is easier than Pocket Surf IV's single button operation

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.



Built in measurement output



Economical and simple to replace battery

Features

- Solidly built, with a durable cast aluminum housing, to provide years of accurate, reliable surface finish gaging.
- Can be used to measure any one of four, switch selectable, parameters: R_a , R_{max}/R_y , R_z
- Then review any of the parameters after the measurement is complete
- Selectable traverse length 1, 3 or 5 cut-offs of 0.8 mm/0.030"
- Operates in any position – horizontal, vertical, and upside down
- Four switchable probe positions – axial (folded) or at 90°, 180° or 270°
- Even difficult-to-reach surfaces such as inside and outside diameters are accessible
- MarConnect data output for easy SPC-processing that is compatible with the most common data processing systems
- Easy-to-read LCD readout presents the measured roughness value, in microinches or micrometers, within half a second after the surface is traversed.
- Out-of-range (high or low) and "battery low" signals are also displayed
- Improved digital calibration process eliminate scandrivers and potentiometers to simplify and enhance the calibration process
- Improved battery life with easy to replace standard 9V battery

Technical Data

Dimensions	140 x 76 x 25 mm / 5.5" x 3" x 1"
Weight	435 g / 14 oz
Measuring Ranges	R_a 0.03 μm to 6.35 μm / 1 μinch to 250 μinch R_y 0.2 μm to 25.3 μm / 8 μinch to 999 μinch R_{max} 0.2 μm to 25.3 μm / 8 μinch to 999 μinch R_z 0.2 μm to 25.3 μm / 8 μinch to 999 μinch
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

Probing and Traverse Lengths

Parameters	Traverse Length (Nominal)	Evaluation Length	Number of Cutoffs/ Switch Position*
R_a/R_y	2.0 mm/ .075"	0.8 mm/ .030"	1
	3.5 mm/ .135"	2.4 mm/ .090"	3
$R_a/R_z/R_{max}$	5.0 mm/ .195"	4.0 mm/ .150"	5
Traverse Speed	5.08 mm/ .2" per second		
Cutoff	0.8 mm/ .030" 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. 2500 measurements, depending on frequency of use and output option		
Operating Temperature	10° to 45°C / 50° to 113° F		
Storage Temperature	-20° to 65°C / -4° to 149° F		

* Other cutoff/switch positions may be used

Pocket Surf Sets

Order no.		
2191800	EGH-1019	Probe, 90°, 10 µm radius, PMD-90101 Certified Specimen, incl. Test Certificate
2191802	EGH-1026	Probe, 90°, 5 µm radius, EMD-90101 Certified Specimen, incl. Test Certificate

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 µinch** (nominal) Reference Specimen**, 9 Volt battery and Riser Plate.

** Part Numbers listed in table above.

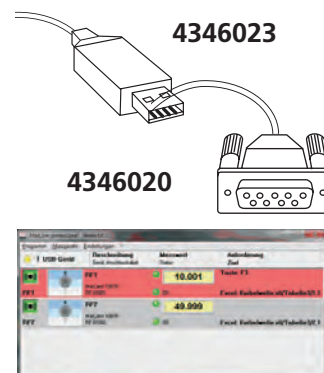


MarConnect - USB ready

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.	
Data Connection Cable USB (2 m) incl. MarCom Standard	16 EXu	4346023
Data Connection Cable Opto RS232C (2 m), with SUB-D jack 9-pin	16 EXr	4346020
Software MarCom Professional 4.0 Allows for up to 68 wired devices		4102552
Software MarCom Standard 3.1 Allows for 1 wired device		4102551

Accessories for Data Processing, see Dimensional Metrology Catalog Chapter 11



Pocket Surf® IV the portable surface roughness gage

Probes

General Purpose Probes

EGH-1019/EGH-1026

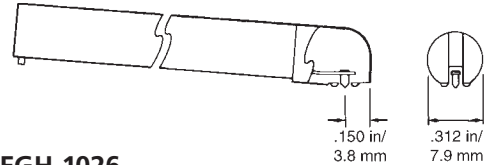
For most surface roughness applications.

EGH-1026

With a 90° conical diamond stylus, 5 μm / .0002" radius*.

EGH-1019

With a 90° conical diamond stylus, 10 μm / .0004" radius.

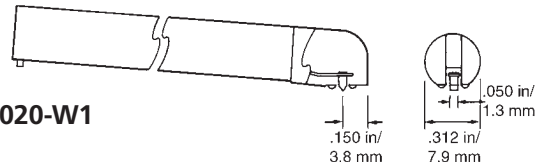


EGH-1019/EGH-1026

Transverse Chisel Probe

EGH-1020-W1

For gaging sharp edges or small O.D.'s where probe is aligned with (in 180° or closed position) to axis of traverse. 90° sapphire chisel, 10 μm / .0004" radius.

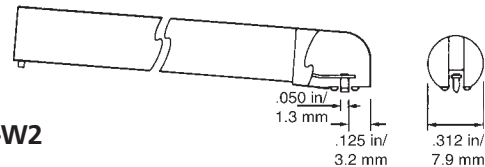


EGH-1020-W1

Parallel Chisel Probe

EGH-1020-W2

For gaging sharp edges or small O.D.'s where probe is perpendicular (in 90°- or 270° position) to axis of traverse. 90° sapphire chisel, 10 μm / .0004" radius. Also used with EAS-2421 Vee fixture for O.D.'s smaller than 6,35 mm / .25".



EGH-1020-W2

Small Bore Probe

EGH-1021/EGH-1027

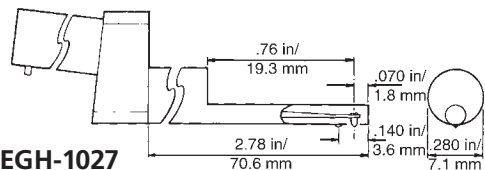
For gaging small bores (3,2 mm / .125" minimum I.D.) up to a depth of 19 mm / .75".

EGH-1027

With a 90° conical diamond stylus, 5 μm / .0002" radius*.

EGH-1021

With a 90° conical diamond stylus, 10 μm / .0004" radius.



EGH-1021/EGH-1027

Groove Bottom Probe

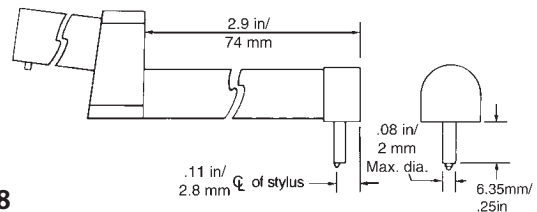
EGH-1028

For measuring the bottom of grooves, recesses and small holes to depths of 6.35 mm / .25".

Also used for short lands and shoulders.

With 90° conical diamond stylus, 10 μm / .0004" radius.

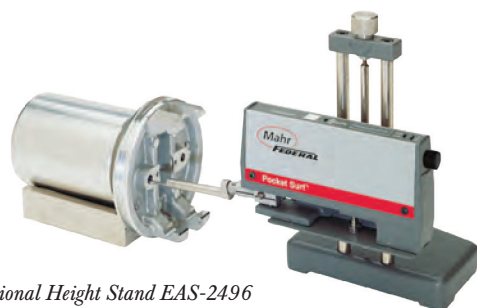
Note: Small Bore and Groove Bottom Probes can only be used in 180° position with the Pocket Surf unit supported in a height stand or other fixture.



EGH-1028

* Yellow dot at connector end signifies 5 μm / .0002" radius.

Using the Groove Bottom Probe to check an "O" ring groove.



Shown with optional Height Stand EAS-2496

Applications and Accessories

Height Stand 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".

Order no. EAS-2496



Portable vee fixture EAS-2421

For measuring small parts with outside diameters from 3.1 mm / .125" to 25 mm / 1" for lengths of 25 mm / 1" minimum - includes PS-145 setting pin.

Order no. EAS-2421



Bore Adapter Kit EAS-2839

For timesaving hand-held measurement of bores without having to fix the workpiece. Accommodates all inside diameters from: 25 mm / 1" to 150 mm / 6"; depths from 25 mm / 1" to 60 mm / 2.4".

Order no. EAS-2839



Bottom Plate EAS-2584

For measuring cylindrical workpieces too short (less than 89 mm / 3.5" long) for the "closed" probe position; for workpieces with short O.D.'s from 6.35 mm / .25" (minimum 38 mm / 1.5" long).

Order no. EAS-2584



Vee-Adapter Kit EAS-2739

Attaches to bottom of Pocket Surf unit, permitting convenient, hand-held measurements of hard-to-reach cylindrical surfaces, such as crankshaft journals without having to fix the workpiece. Suitable for parts with diameters from 5.0 mm / .19" to 125 mm / 5".

Order no. EAS-2739



EAS-3048 Mounting Bracket for use with height gages

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" x 0.25") to fit the holder of the height gage. A swivel feature is included to permit the Pocket Surf to be set anywhere within a 360° rotation.

Order no. EAS-3048



Universal Stand 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" tall.

Order no. EAS-2426



Height Stand with Swivel

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.

Order no. 2236687

