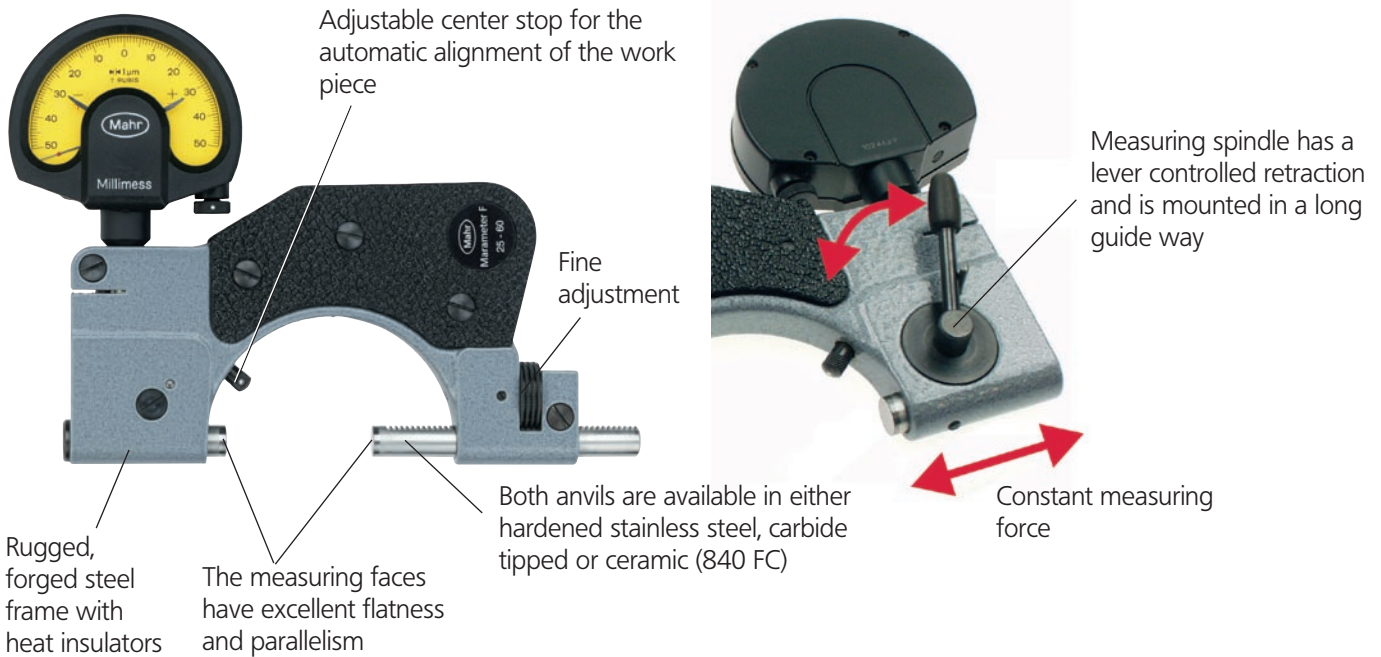


MaraMeter. Indicating Snap Gages

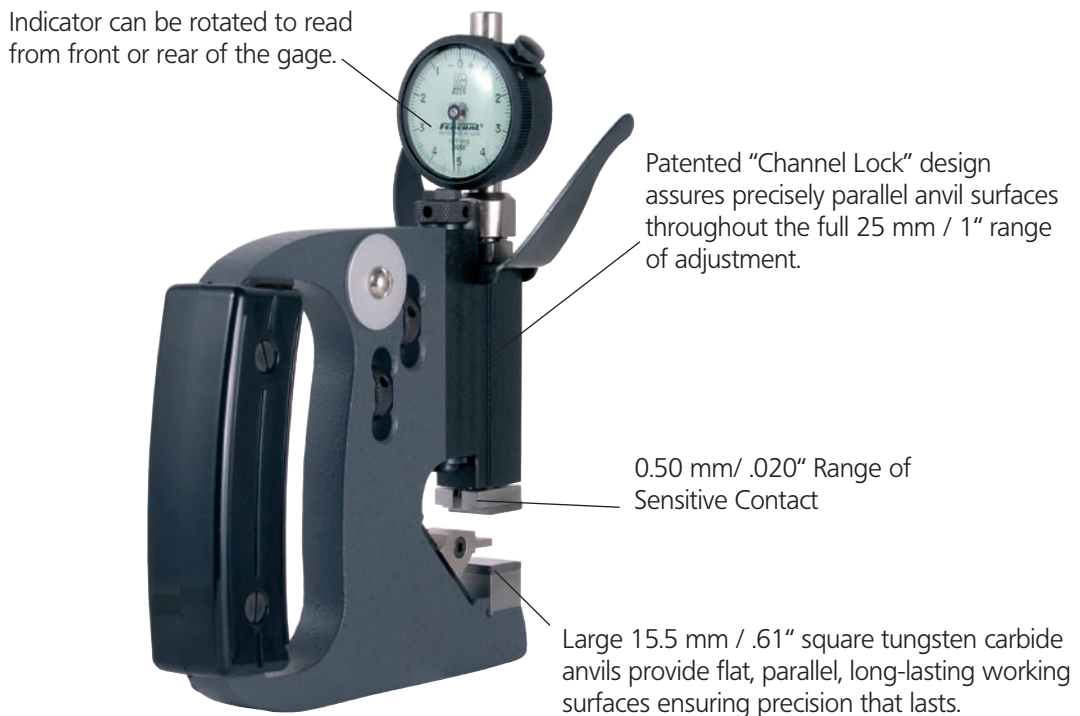
Overview

▶ | **MaraMeter.** The Indicating Snap Gage is ideal for highly accurate and reliable results on cylindrical work pieces with a narrow tolerance. | ◀

MaraMeter 840 F



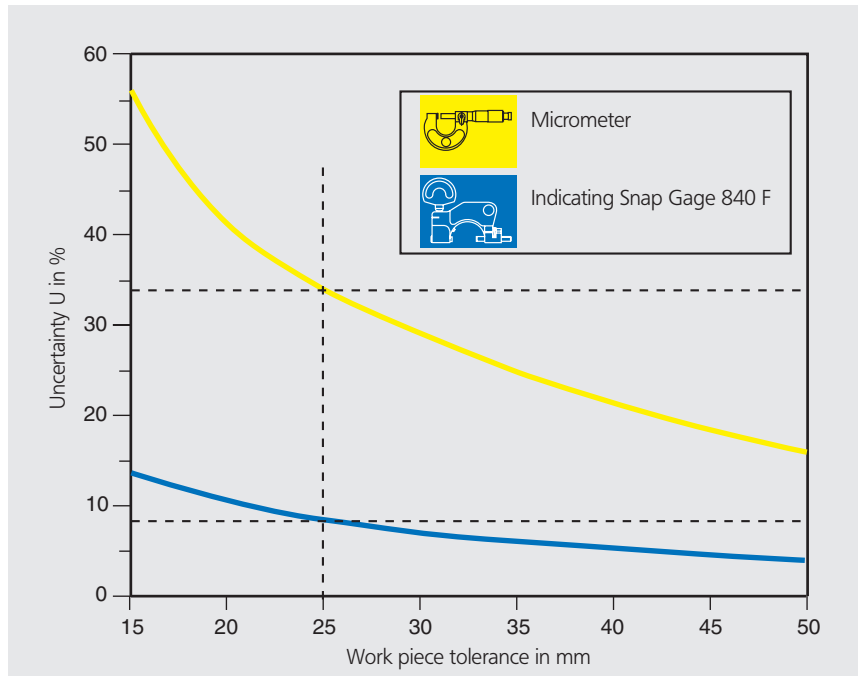
MaraMeter 300 P-1



Advantages of the Snap Gage compared to a Micrometer

• Reduced Measuring Uncertainty

The MaraMeter Indicating Snap Gages have a notably reduced measuring uncertainty in comparison to a Micrometer.



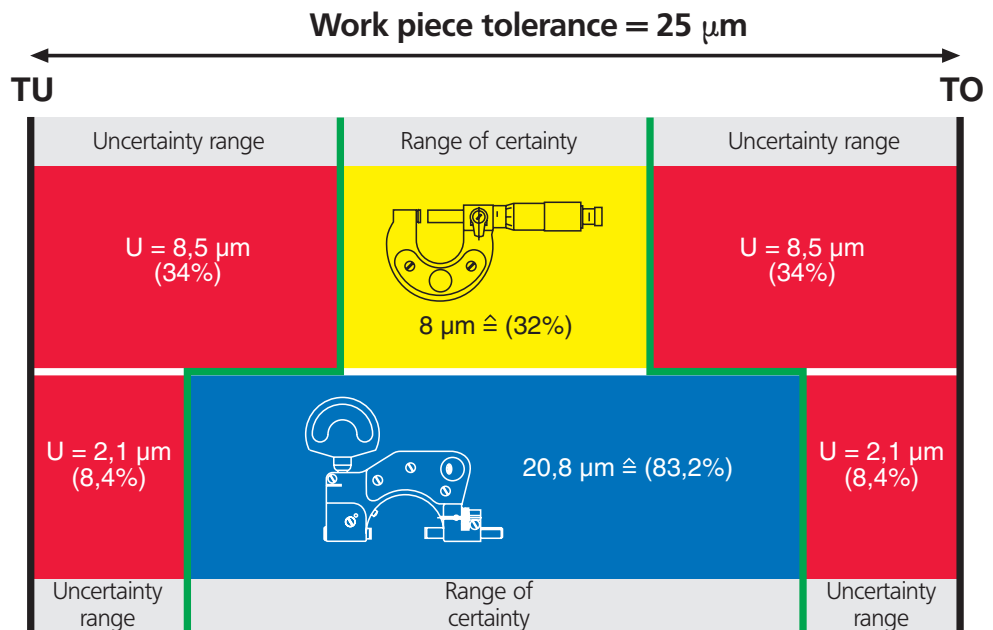
Measuring Uncertainty U is dependent upon the tolerance of the work piece

• Better utilization of the tolerance zone

Example:
Work piece tolerance 25 μm

The measured value in the uncertainty range can lie outside of the tolerance range, therefore the utilized tolerance of the micrometer is reduced to only 32% (8 μm).

With a MaraMeter Indicating Snap Gage 83% (20.8 μm) of the work piece tolerance can be utilized.



Advantage:

With the Indicating Snap Gage the tolerance zone can be used to far greater extent, thus reducing the production costs.

Indicating Snap Gages 840 FG with interchangeable anvils



840 FG

Features

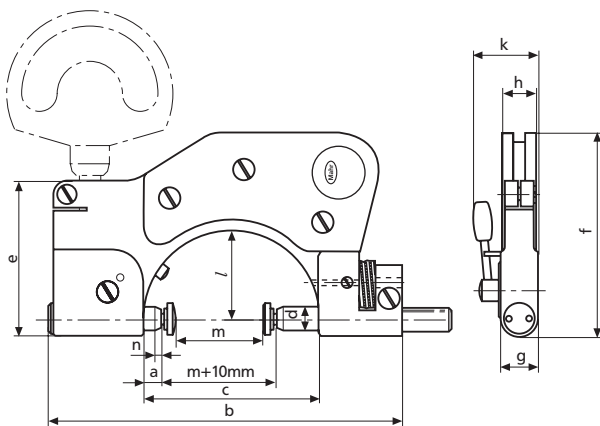
- Measuring spindle and anvil spindle have a M 2.5 connection thread, thus enabling the use of interchangeable anvils that are also used in dial indicators and dial comparators
- Measuring spindle and anvil spindle and both made from hardened stainless steel
- Maximum wear resistance due to non-contact positioning
- For cylindrical parts such as shafts, bolts and spindles
- Constant measuring force as a result of built-in spring, thus eliminating user influence
- Rugged, forged steel frame with heat insulators
- Universally applicable
- Measuring spindle is mounted in long guide way with lever-controlled retraction
- All kinds of measurement problems can be solved with the broad range of interchangeable anvils
- Anvil spindle can easily be fine adjusted

Technical Data

Catalog no.	Measuring range*		Distance of moveable anvil mm	Meas. force N	Order no.**	Order no. Wooden case
	mm	(inch)				
840 FG	0 - 50	(0 - 2")	2	7.5	4454000	4450011
	30 - 90	(1.57 - 3.57")	2.5	7.5	4454001	4450012

* Measuring is dependent upon the length of the anvils being used

** Excludes indicating instrument



Meas. range 840 FG

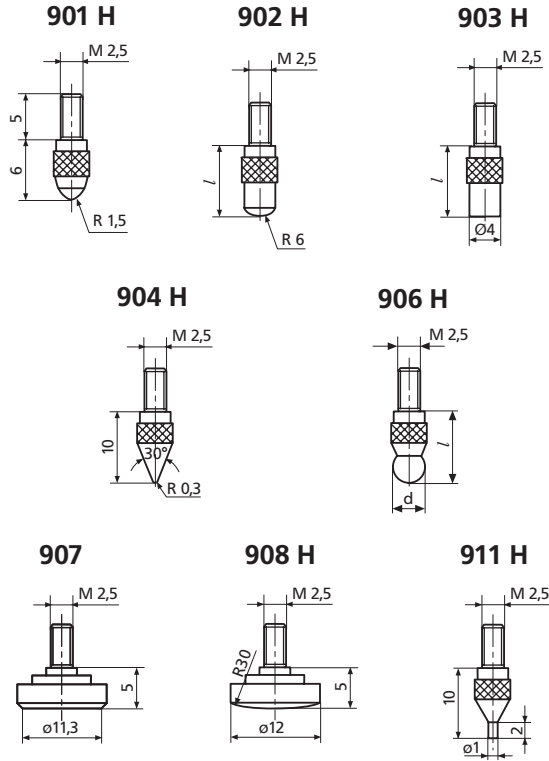
m (mm)	0 - 50	40 - 90
a*	5	6.5
b	140	193
c	68	110
d	9	10
e	60	60
f	77	103
g	13	14
h	13	13
k	25	28
l	34	59
n**	2	2.5

* In initial position

** Distance of moveable anvil

Interchangeable Anvils for Indicating Snap Gage 840 FG

Catalog no.	Features	Order no.			
901 H	Standard contact point with carbide ball, ball dia. 3 mm	4360002			
902 H	Spherical contact point, with carbide face, R = 6 mm				
	Length <i>l</i> in mm				
	10	4360041			
	15	4360043			
	20	4360044			
903 H*	Flat contact point, carbide tipped	4360101			
	Length <i>l</i> in mm				
	6				
	10				
	15	4360103			
	20	4360105			
904 H	Conical contact point, carbide tipped	4360131			
906 H	Ball Contact Points				
	with carbide ball, manufacturing tolerance ball dia. 0/-6 µm				
Ball dia. d	<i>l</i>	Order no.	Ball dia. d	<i>l</i>	Order no.
mm	mm	no.	mm	mm	no.
1	8.5	4360150	5.5	9	4360161
1.25	8.5	4360151	6	9	4360162
1.5	8.5	4360152	6.35 (1/4")	9	4360163
1.75	8.5	4360153	6.5	10	4360164
2	8.5	4360154	7	10	4360165
2.5	8.5	4360155	7.5	11	4360166
3	8.5	4360156	8	11	4360167
3.5	8.5	4360157	8.5	12	4360168
4	8.5	4360158	9	12	4360169
4.5	8.5	4360159	10	13	4360170
5	9	4360160			



Catalog no.	Features	Order no.
907	Flat contact plates* steel, dia. 11.3 mm, A = 1 cm ²	4360200
907 H	Flat contact plates*, carbide tipped, dia. 7 mm	4360201
908	Spherical contact plates, steel	4360210
908 H	Spherical contact plates, carbide tipped	4360211
911 H	Pin contact point, carbide tipped, dia. 1 mm, plan	4360240

* When using a flat contact plate the opposite facing anvil must be a spherical contact plate.

Indicating Instruments

All indicating instruments that has a 8 mm mounting shank may be used. Recommended are:

Dial Comparator	Readings mm / inch	Order no. mm / inch
Compramess 1004 / 1004 Z	5 µm/ .0001"	4333000/4333900
Millimess 1003 / 1003 Z	1 µm/ .00005"	4334000/4334900
Millimess 1003 XL	2 µm	4334001
Supramess 1002 / 1002 Z	0.5 µm/ .00002"	4335000/4335900
Extramess 2000	0.2 µm/ .00001"	
	0.5 µm/ .00002"	4346000*
	1 µm/ .00005"	
Extramess 2001	0.2 µm/ .00001"	
	0.5 µm/ .00002"	4346100*
	1 µm/ .00005"	
µMaxµm	0.5 µm/ .00002"	EDI-20302**

Digital Indicators see Chapter 5

Electrical Indicating Instruments see Chapter 7

* 230 V, for 115 V please refer to page 6-5 ** requires contact 4360107

Accessories

Reference Discs 390 see Chapter 13

Gage Blocks see Chapter 13

Holder 840 Fk and **Stand 840 Ff** see Page 9-15

Accessories for Dial Indicators and Dial Comparators



Holder 840 Fk for Dial Indicators and Dial Comparators

- For attaching to the following measuring instruments **840 F/FC, 840 FH, 840 FG, 840 FM** and **852**
- Straight transfer of the spindle movement to the indicator
- Following the Abbe principle allows an even higher degree of accuracy than the already excellent level obtained with the standard set-up employing 90° transmission
- When the indicating instrument is in the shown position it is often easier to read
- For stationary application when in conjunction with the **Stand 840 Ff**

Catalog no.	Suitable for instruments with measuring ranges (mm)					Order no.
	840 F/FC	840 FH	840 FG	840 FM	852	
840 Fk/1	0 - 25					4450050
840 Fk/2	25 - 60	0 - 30	0 - 50	0 - 40	0 - 45	4450051
840 Fk/3	50 - 100	30 - 80	40 - 90	40 - 80	45 - 85	4450052
840 Fk/4	{ 100 - 150 150 - 200			80 - 130 130 - 180	{ 85 - 140 140 - 190 }	4450053



Stand 840 Ff

- For stationary application in conjunction with the following measuring instruments **840 F/FC, 840 FH, 840 FG, 840 FM, 840 E** and **852**
- User has both hands free for insertion of work piece and retraction of moving spindle
- Indicating instrument is always in operator's field of vision
- Rugged, rigid cast-iron stand with clamp for locking the indicating snap gage
- Indicating snap gage is locked in mounting hole for dial comparator
- Only in conjunction with **Holder 840 Fk**

Catalog no.	Suitable for instruments with measuring ranges (mm)						Order no.
	840 F/FC	840 FH	840 FG	840 FM	840 E	852	
840 Ff	{ 0 - 25 25 - 60	0 - 30	0 - 50	0 - 40	0 - 25	0 - 45	4450020