AHB Tooling & Machinery, Inc.
Complete Metalworking Solutions
Roseville Saginaw & Jackson, MI
ISO Certified
(800) 991-4225
www.ahbinc.com
customerservice@ahbinc.com

CATALOG | MARAMETER. INDICATING SNAP GAGES

Mahr FEDERAL

EXACTLY

MaraMeter. Indicating Snap Gages 300P-1 / 301P-1

Overview

► | **MaraMeter** 300P1. The Indicating Snap Gage is ideal for highly accurate and reliable results on cylindrical work pieces with a narrow tolerance. | ◄

Features

- All Series 300P Snap Gages are fully adjustable with positive position locking at any point within the range.
- Snap Gages available over a wide range of sizes, styles, and readout configurations.
- Optional lift-lever model (301P) available for retracting the upper anvil.
- All adjustments accomplished using a single hex wrench (furnished).

EDI-301P-2
BA-26 Bench Stand
(not included)

300P-1

Indicator can be rotated to read from front or rear of the gage.

Patented "Channel Lock" design assures precisely parallel anvil surfaces throughout the full 25 mm/ 1" range of adjustment.

0.50 mm/ .020" Range of Sensitive Contact

Large 15.5 mm/ .61" square tungsten carbide anvils provide flat, parallel, long-lasting working surfaces ensuring precision that lasts.

Technical Data

Style	Normally Furnished Indicating Instruments Readings	Snap Style	Separately, Order no.
12I/22I	.0001"	Flat Anvil	**IDT-102/IDT-106**
O1I/P1I	0.002 mm	Flat Anvil	**IDS-206/IDS-208**
Maxμm®/// (1)	selectable (3)	Flat Anvil	**2033109**
Maxμm®/// (2)	selectable (3)	Flat Anvil	**2033119**
EDI-20102	0.0005 mm/.00002"	Flat Anvil	**EDI-20102**
B5M/C5M	.0005"	Groove Anvil	**IDS-101/IDS-105**
O6I/P6I	0.010 mm	Groove Anvil	**IDS-207/IDS-209**
Maxμm®/// (1)	selectable (3)	Groove Anvil	**2033109**
Maxμm®/// (2)	selectable (4)	Groove Anvil	**2033119**
with Air Probe for 2500:1		All	**
with Electronic Gage Heads		All	**

** *Call Mahr Federal.*

(1) With no Data Output

(2) With Data Output (6 pin)

(3) Selectable Readings – 0.001 mm / 0.005 mm / 0.0005 mm /.0001" / .0005" / .00002"

300P Snap Gages for Outside Diameters

Ordering Information

Plain Anvils (Anvils included in price – choose from list below)

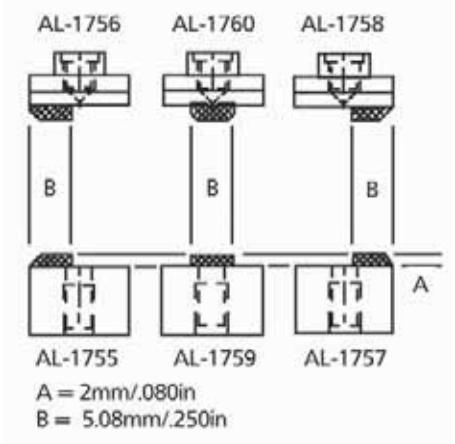
No Indicator	No Indicator 8 mm Adaptor	With Maxμm®*III* Indicator	With Maxμm Indicator	With AirProbe®	No Indicator with 8 mm Adaptor & Lift Lever	With Dial Indicator No Lift Lever	With Dial Indicator With Lift Lever	Capacity
OMI-300P-1	2003100	EMD-300P-1	EDI-300P-1	A300P-1	2003110	300P-1	301P-1	0-25 mm/ ***0-1"***
OMI-300P-2	2003101	EMD-300P-2	EDI-300P-2	A300P-2	2003111	300P-2	301P-2	25-50 mm/ ***1-2"***
OMI-300P-3	2003102	EMD-300P-3	EDI-300P-3	A300P-3	2003112	300P-3	301P-3	50-76 mm/ ***2-3"***
OMI-300P-4	2003103	EMD-300P-4	EDI-300P-4	A300P-4	2003113	300P-4	301P-4	76-100 mm/ ***3-4"***
OMI-300P-5	2003104	EMD-300P-5	EDI-300P-5	A300P-5	2003114	300P-5	301P-5	100-127 mm/ ***4-5"***
OMI-300P-6	2003105	EMD-300P-6	EDI-300P-6	A300P-6	2003115	300P-6	301P-6	127-152 mm/ ***5-6"***
OMI-300P-7	2003106	EMD-300P-7	EDI-300P-7	A300P-7	2003116	300P-7	301P-7	152-178 mm/ ***6-7"***
OMI-300P-8	2003107	EMD-300P-8	EDI-300P-8	A300P-8	2003117	300P-8	301P-8	178-203 mm/ ***7-8"***
OMI-300P-9	2003108	EMD-300P-9	EDI-300P-9	A300P-9	2003118	300P-9	301P-9	203-229 mm/ ***8-9"***

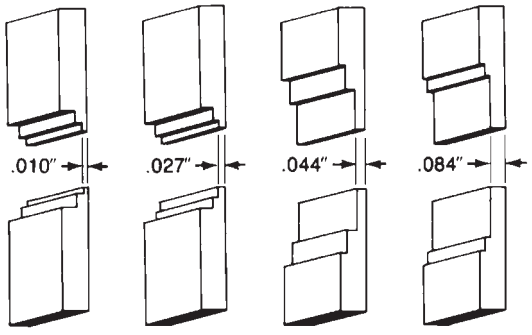
Blade Anvils (Anvils included in price – choose from list below)

OMI-300P-31	EMD-300P-31	EDI-300P-31	A300P-31		300P-31	301P-31	0-25 mm/ ***0-1"***
OMI-300P-32	EMD-300P-32	EDI-300P-32	A300P-32		300P-32	301P-32	25-50 mm/ ***1-2"***
OMI-300P-33	EMD-300P-33	EDI-300P-33	A300P-33		300P-33	301P-33	50-76 mm/ ***2-3"***
OMI-300P-34	EMD-300P-34	EDI-300P-34	A300P-34		300P-34	301P-34	76-100 mm/ ***3-4"***
OMI-300P-35	EMD-300P-35	EDI-300P-35	A300P-35		300P-35	301P-35	100-127 mm/ ***4-5"***

Larger capacities available on request.
To specify Metric models, add suffix "M" to the Model number. To specify Digital Output, add suffix "D" to Model numbers of EMD-300P and EMD-301P Series Gages. To specify both, add suffix "MD" to Model numbers of EMD-300P and EMD-301P Series Gages.

Examples: 300P-2 specifies a Snap Gage with a 12I (.0001" grad.) Dial Indicator, 25-50 mm/ 1-2" capacity.
EMD-301P-33D specifies a Groove Diameter Snap Gage with lift lever, 50-76 mm/ 2-3" capacity, AL-110 Blade Anvils, 2033119 (selectable units and resolution) MaxμmIII Indicator with Digital Output





Blade Anvils

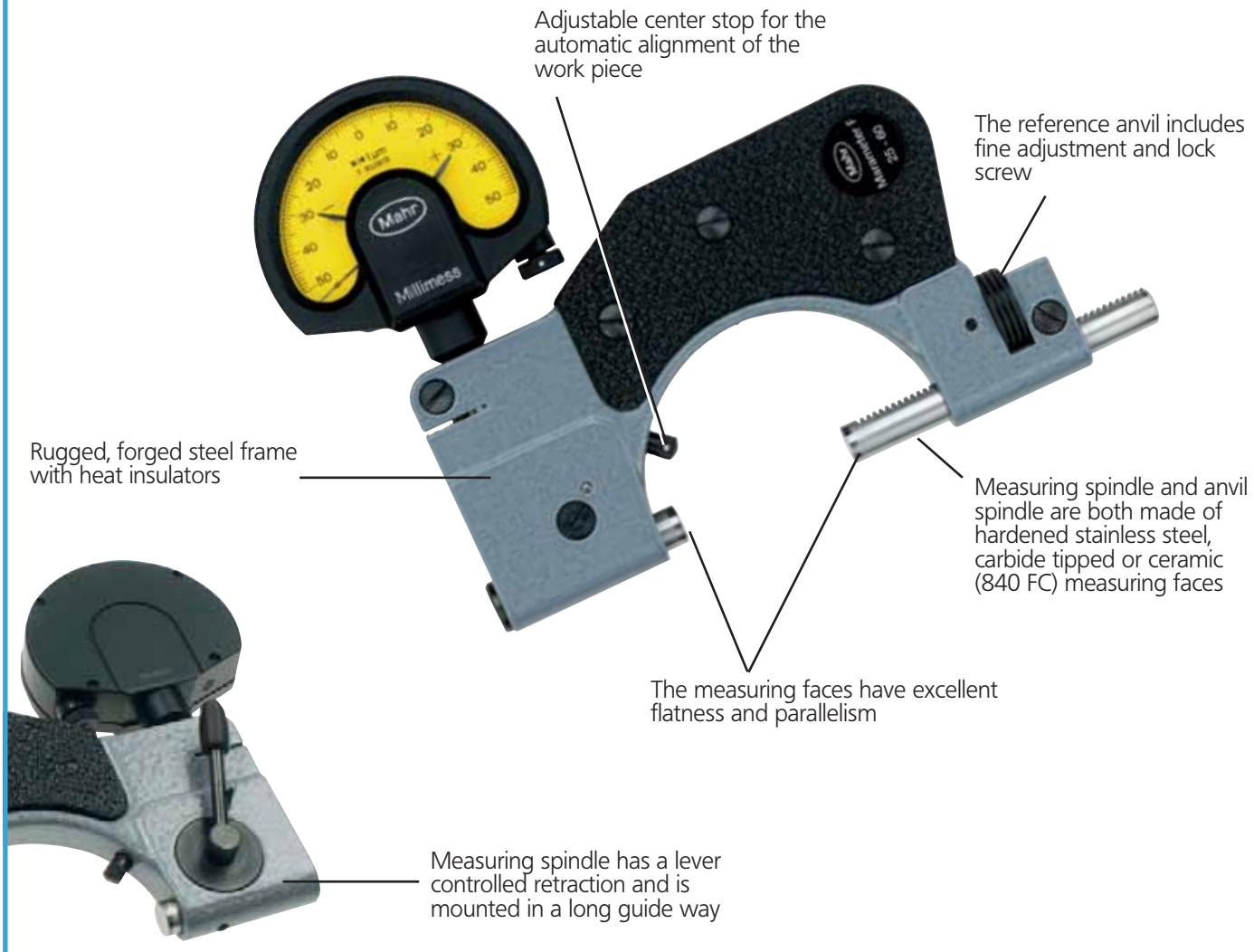
Width mm / *inch*	Depth mm / *inch*	Order no. Steel	Order no. T.C.
0.25 / ***.010"***	0.76 / ***.030"***	**AL-107**	**AL-1741**
0.69 / ***.027"***	1.02 / ***.040"***	**AL-108**	**AL-1742**
1.12 / ***.044"***	4.83 / ***.19"***	**AL-109**	**AL-1743**
2.13 / ***.084"***	6.35 / ***.25"***	**AL-110***	**AL-1744**

* *normally provided*

MaraMeter. Indicating Snap Gages 840 F / 840 FC

Overview

►| **MaraMeter** 840 F. The Indicating Snap Gage is ideal for highly accurate and reliable results on cylindrical work pieces with a narrow tolerance. |◄



Technical Data

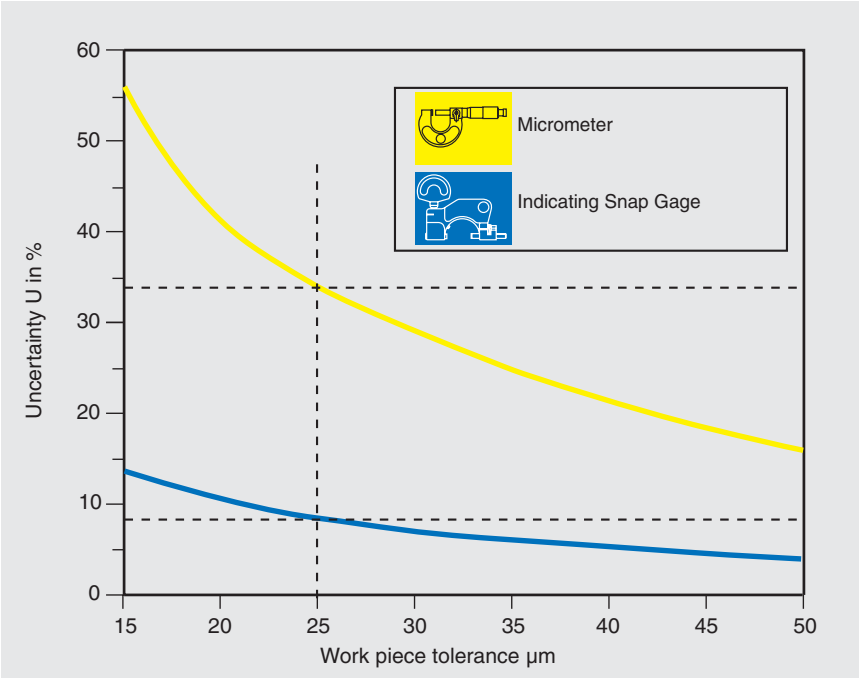
	Measuring range mm	*(inch)*	Measuring** force N	Distance of moveable anvil mm	*(inch)*	Measuring face Flatness µm	Parallelism µm	Order no.*	Order no. Wooden case
840 F	0 - 25	*(0 - 1")*	7.5	2	*(0.079")*	≤ 0.2	≤ 1	**4450000**	**4450010**
	25 - 60	*(1 - 2.36")*	7.5	2	*(0.079")*	≤ 0.2	≤ 2	**4450001**	**4450011**
	50 - 100	*(2 - 4")*	7.5	2.5	*(0.098")*	≤ 0.2	≤ 2	**4450002**	**4450012**
	100 - 150	*(4 - 6")*	7.5	2.5	*(0.098")*	≤ 0.2	≤ 2	**4450003**	**4450013**
	150 - 200	*(6 - 8")*	7.5	2.5	*(0.098")*	≤ 0.2	≤ 2	**4450004**	**4450014**
840 FC	0 - 25	*(0 - 1")*	7.5	2	*(0.079")*	≤ 0.2	≤ 1	**4450100**	**4450010**
	25 - 60	*(1 - 2.36")*	7.5	2	*(0.079")*	≤ 0.2	≤ 2	**4450101**	**4450011**

** Excludes indicating instrument ** Further measuring forces are available on request*

Advantages of a Snap Gage

- **Reduced Measuring Uncertainity**

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

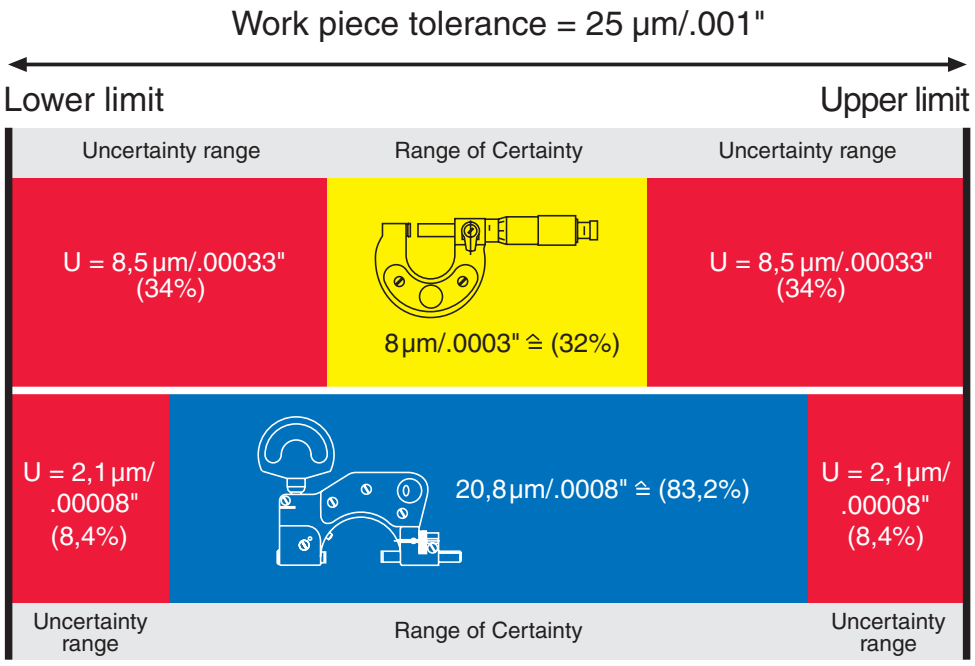


Measuring Uncertainty U is dependent upon the tolerance of the work piece

- **Better utilization of the tolerance zone**

Example:
Work piece tolerance 25 µm/.001“

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)/.0003“.
With a Snap Gage 83% (20,8 µm/.0008“) 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.

Advantages of a Snap Gage compared to a Go - No Go Snap Gage

The Measuring Result is displayed as a Value . . .

(Shown with optional bench stand)

. . . which enables:

- Statistical Process Control

- Setting up and/or adjusting a processing machine
- Well timed tool change, for example the replacement of a grinding wheel.

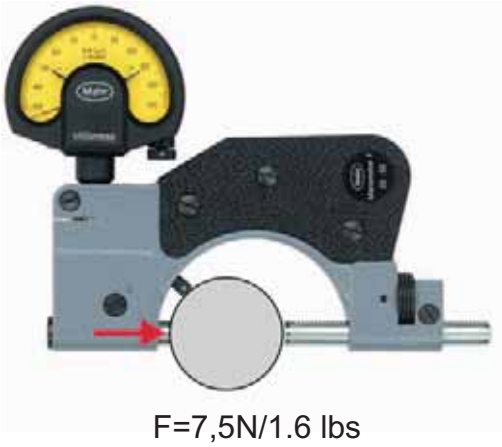
Advantage: Reliable production processes reduces costs

Results are either GO- NO GO

- No numerical value or measurement is obtained, therefore the manufacturing process cannot be steered appropriately.

- Changes to manufacturing processes cannot be identified in time.

There is no influence caused by the worker upon the measuring results



- With the constant measuring force eliminates the influence of the worker upon the measuring results.

Advantage: the results permit reliable manufacturing processes, these lower production costs

The worker can influence the accuracy of the measuring results

- The influence of the worker on a test / inspection results can be substantially affected through incorrect handling (bending upwards).

Advantages of Snap Gage compared to a Go - No Go Snap Gage

(Shown with optional dial comparator)

- Minimum wear due to non-contact positioning of the work piece with the retracting sensitive anvil
- Reduced wear due to the carbide tipped measuring faces

Advantage: Cost saving due to long service life

High wear and tear

- High abrasion of the measuring faces due to the actual physical strain upon the measuring faces

Universal Application

25 - 50 mm/1-2“

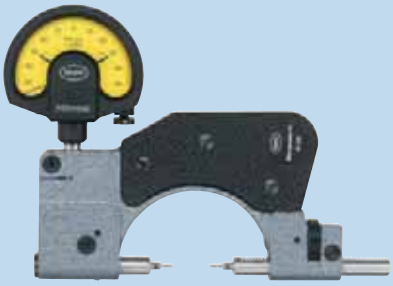
- Can be quickly adjusted within the dimension and fit of the measuring range
- Additional costs are reduced (administration of measuring equipment, calibration)

Advantage: Cost saving due to the universal application

For every dimension another snap gage is required

- Requires more storage, money is tied up in having a broader selection of snap gages
- Additional costs are thus higher (administration of measuring equipment, calibration, storage).

An Indicating Snap Gage for every application



840 FH with interchangeable anvils

1000P low cost Snap Gage for general shop applications

840 FM with jaws for gear tooth span and thickness

Large Snap and custom designs for all gaging solutions.

852 for measuring threads and serrations

853 for threads and taps

- Our yardstick is your success. As one of the world's largest and most innovative manufacturers of measuring equipment, we make it our task to ensure that your results are accurate.

Our Catalog - Dimensional Metrology is available upon request!

Your Mahr Partner:

We reserve the right to make changes to our products, especially due to technical improvements and further developments.

All illustrations and technical data are therefore without guarantee.

© by Mahr Federal, Inc.

www.mahr.com

Mahr Federal, Inc. • 1144 Eddy Street, Providence, RI 02905 • Tel. 1-800-343-2050, Fax 1-401-7843246 • E-mail: information@mahr.com

A-225 1205 5M