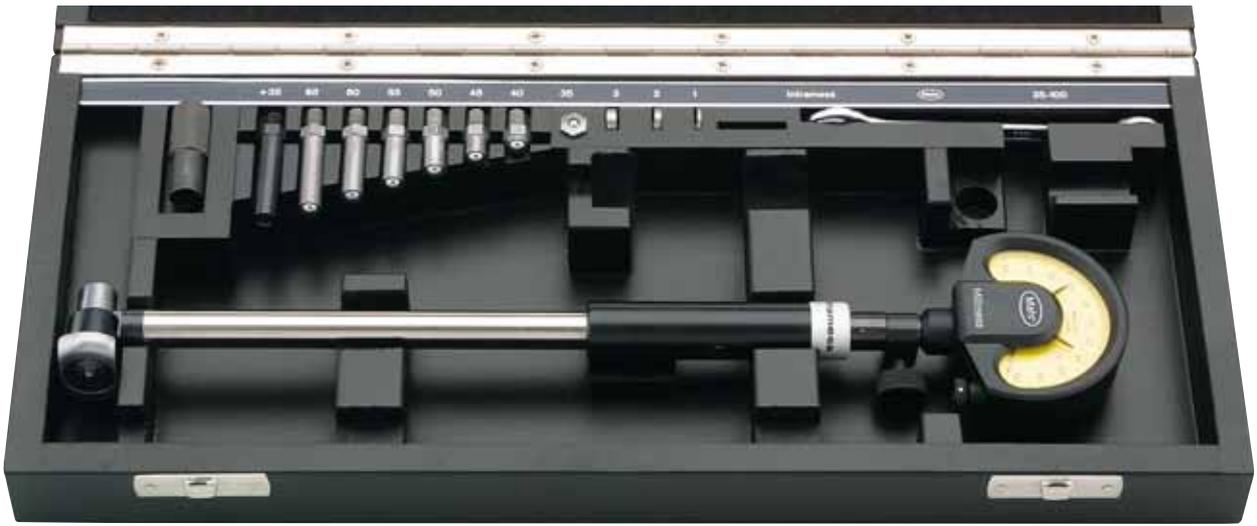


Self-Centering Dial Bore Gages 844 N / 844 NH Intramess



Features

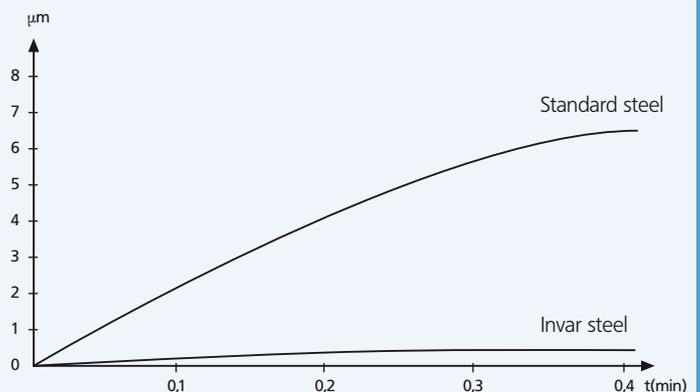
- Measuring the diameter, roundness and conical form of a bore as well as the distances of plane-parallel surfaces
- Measuring head consists of a carbide-tipped moving anvil and an interchangeable stationary anvil which has a hardened steel ball; alternatively a carbide ball is available
- Transmission lever system transfers movement of the movable anvil to indicating instrument
- The broad centering bridge ensures automatic centering in the bore
- Insensitive to temperature due to both the shank and transfer rod being made from heat resistant **Invar steel**
- Highly resistant to wear and tear due to the carbide tipped moving anvil
- Constant measuring force due to built-in spring thus eliminating user influence
- Universally applicable and extremely versatile as every instrument spans a broad measuring range, within this range it is quick and easy to adjust to any size
- Measuring head, holder, extensions, right-angle attachments and depth stops are all part of this extensive modular system
- Supplied with: Holder, measuring head, stationary anvil, wooden case, excludes an indicating instrument

The comparison between Invar and Standard steel

Invar steel has a particularly low expansion coefficient and thus makes the instrument totally insensitive to any kind of heat. Body heat from the user, increases in ambient temperature have no influence on the measuring results.

The graph on the right compares the Invar steel version to a standard type. Both gages were hand-held and thus influenced by body heat. The deviation when using Invar steel is negligible.

Change in length due to heat



Technical Data

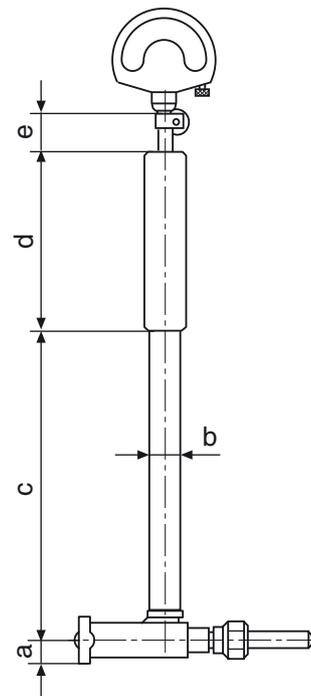
Measuring range		Error limit	Repeatability	Hysteresis	Order no* 844 N	Order no* 844 NH
mm	(inch)	G_e μm	f_w μm	f_u μm		
18 - 50	(.7 - 2")	2	0.5	2.5	4474000	4475000
35 - 100	(1.4 - 4")	2	0.5	2.5	4474001	4475001
100 - 250	(4 - 10")	2	0.5	2.5	4474002	4475002
250 - 400	(10 - 16")	3	1.5	3.5	4474003	4475003
400 - 800	(16 - 32")	3	1.5	3.5	4474004	4475004
250 - 800	(10 - 32")	3	1.5	3.5	4474005	4475005

* Excludes indicating instrument

Complete Instrument

844 N Carbide-tipped moving anvil;
stationary anvil with steel ball

844 NH Moving anvil **and** stationary anvil are carbide-tipped



Measuring range mm	(inch)	a	b	c	d	e
18 - 50	(.7 - 2")	5.35	8	115	63	22
35 - 100	(1.4 - 4")	8.5	12	148	80	22
100 - 250	(4 - 10")	11.5	18	230	100	25
250 - 400	(10 - 16")	16	24	366	110	28
400 - 800	(16 - 32")	17.5	24	366	110	28

Indicating Instruments

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

Indicator	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 2001	0.2 μm / .00001"	
	0.5 μm / .00002"	4346100*
	1 μm / .00005"	
$\mu\text{Max}\mu\text{m II}$.0005 mm / .00002"	2034207**
	.001mm / .00005"	
MarCator 1087 BR	.002mm / .0001"	4337162
	.004mm / .0005"	
	.010mm / .001"	



Digital Indicators see Chapter 5

Electrical Indicating Instruments see Chapter 7

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

** requires contact 4360045

Accessories to set and adjust Dial Bore Gages

1. Setting Device

Uses standard gage blocks for setting any bore diameter and any tolerance. Replaces ring gages and is universally applicable.

2. Ring Gage 355 E

Special wear-resistant gage steel. Hardened and lapped. With actual deviation engraved

Dimensions: DIN 2250, type C
 Manufacturing tolerance: DIN 2250
 Available diameters: see page 13-19



355 E

Components

Measuring Jaw 844 em

Measuring range mm	(inch)	Dimensions mm/inch	Order no.
18 - 800	(.7 - 32")	60 x 9.5 x 9 / 2.36 x .37 x .35"	4470095

Setting Bridge 844 Neb

Measuring range mm	(inch)	Width mm/inch	Height mm/inch	Order no.
18 - 250	(.7 - 10")	70 / 2.75"	12 / .47"	4474080
18 - 400	(.7 - 16")	165 / 6.49"	17 / .67"	4474081
18 - 800	(.7 - 32")	320 / 12.59"	20 / .78"	4474082

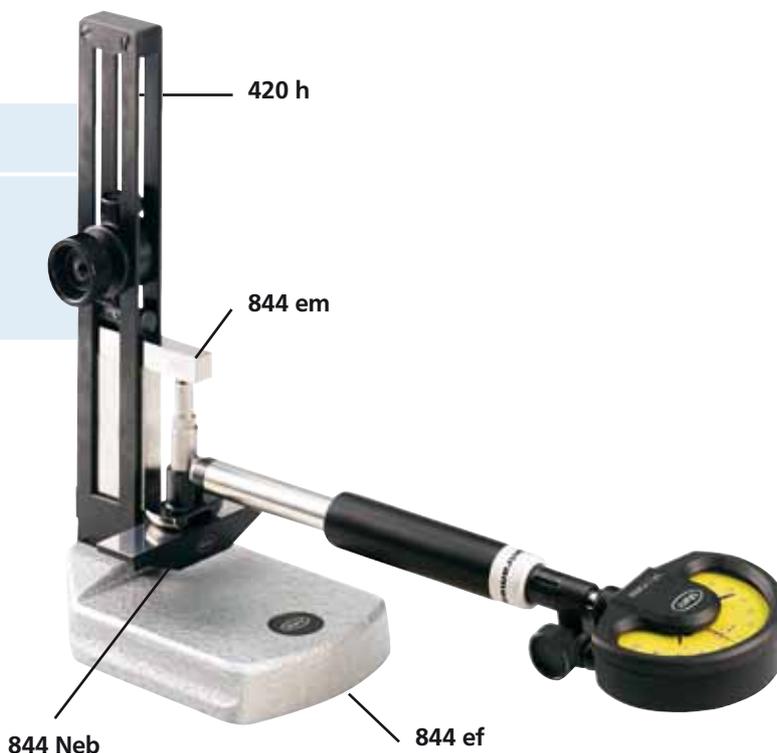
Gage Block Holder 420 h

Clamping range mm	(inch)	Order no.
0 - 70	(0 - 2.75")	4800120
0 - 120	(0 - 4.72")	4800121
100 - 220	(4 - 8.66")	4800122
100 - 420	(4 - 16.53")	4800123
400 - 820	(16 - 32.28")	4800124

Stand 844 ef

For mounting setting device up to 420 mm

Order no. 4470098



Modular Unit System 844 N

In addition to complete Dial Bore Gages 844 N, modular units can also be compiled as required to suit a individual measuring task and or application.

Measuring Head 844 Nk, steel

Measuring Head 844 NHk, carbide

With built-in lever transmission system, carbide-tipped anvil and extra-wide centering bridge. With interchangeable stationary anvil. Threaded connection for Holders 844 Ng and 844 Ngk.

Measuring range mm	(inch)	Order no. 844 Nk	Order no. 844 NHk
18 - 50	(.7 - 2")	4474151	4474156
35 - 100	(1.37 - 4")	4474152	4474157
100 - 250	(4 - 10")	4474153	4474158
250 - 400	(10 - 16")	4474154	4474159
400 - 800	(16 - 32")	4474155	4474160

Extension Set 844 Nes

For extending range of Measuring Head 844 Nk/NHk from 250-400 mm to 800 mm. Consists of additional centering bridge and two extensions.

Order no.: 4474010

Holder 844 Ng

Shank and transfer rod made of heat-resistant Invar steel. With a locking clamp for indicator.

For meas. range mm (inch)	L mm/inch	d1 mm/inch	d2 mm/inch	Order no.
18 - 50 (.7 - 2")	200/ 8"	14/ .6"	8/ .3"	4474040
35 - 100 (1.37 - 4")	250/ 10"	18/ .7"	12/ .5"	4474041
100 - 250 (4 - 10")	350/ 14"	26/ 1.0"	18/ .7"	4474042
250 - 800 (10 - 32")	500/ 20"	30/ 1.2"	24/ .9"	4474043

Short Holder 844 Ngk

Shank and transfer rod made of heat-resistant Invar steel. With a locking clamp for an indicator.

For meas. range mm (inch)	L mm/inch	d1 mm/inch	d2 mm/inch	Order no.
18 - 50 (.7 - 2")	120/ 5"	14/ .6"	8/ .3"	4474050
35 - 100 (1.37 - 4")	120/ 5"	18/ .7"	12/ .5"	4474051
100 - 250 (4 - 10")	150/ 6"	26/ 1.0"	18/ .7"	4474052
250 - 800 (10 - 32")	250/ 10"	30/ 1.2"	24/ .9"	4474053

Right Angle Attachment 844 Nw

For measuring difficult to reach bores, e.g. in tight spaces, inconveniently located or on machine tools. For screwing in between 844 Ng or 844 Ngk and 844 Nk/NHk.

For meas. ranges mm	Length* L mm/inch	Bore depth mm/inch	Order no.
18 - 50 (.7 - 2")	66/2.6"	45/1.8"	4474070
35 - 100 (1.37 - 4")	80/3.1"	55/2.2"	4474071
100 - 250 (4 - 10")	105/4.1"	70/2.8"	4474072

* With measuring heads 844 Nk/NHk

Extension 844 Nv

For extra deep bores. For screwing in between 844 Ng and 844 Nk/NHk. Shank and transfer rod made of Invar steel.

For instruments mm	Length L (mm/inch)	Order no.
18 - 50 (.7 - 2")	250 / 9.8"	4474066
35 - 100 (1.37 - 4")	250 / 9.8"	4474060
100 - 250 (4 - 10")	250 / 9.8"	4474061
	500 / 19.7"	4474062
250 - 800 (10 - 32")	250 / 9.8"	4474063
	500 / 19.7"	4474064

