

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



Features

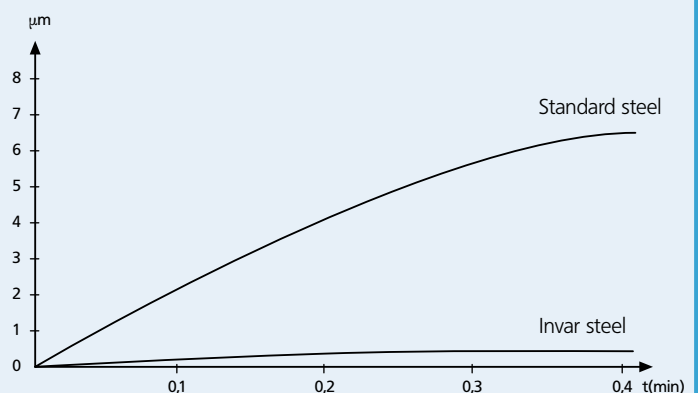
- Measuring the diameter, roundness and conical form of a bore as well as the distances of plane-parallel surfaces
- Measuring head consists of a carbide-tipped moving anvil and an interchangeable stationary anvil which has a hardened steel ball; alternatively a carbide ball is available
- Transmission 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

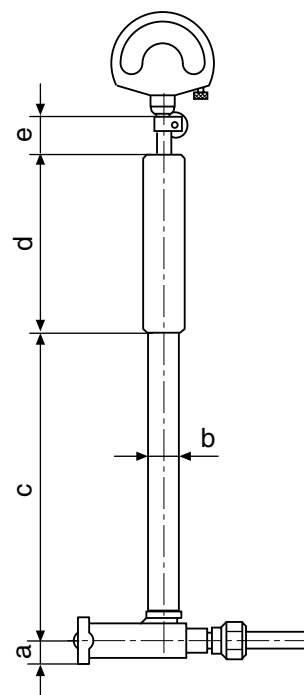
* Excludes indicating instrument

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		a	b	c	d	e
mm	(inch)					
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
Millimess	5 μm / .0001"	4333000/4333900
Millimess	1 μm / .00005"	4334000/4334900
Millimess	2 μm	4334001
Millimess	0.5 μm / .00002"	4335000/4335900
Extramess	2001	0.2 μm / .00001"
		0.5 μm / .00002"
		1 μm / .00005"
$\mu\text{Max}\mu\text{m II}$	0.0005 mm / .00002"	2034205**
	0.0005 mm / .00002"	
	0.001 mm / .00005"	
MarCator	1087 BR	0.002 mm / .0001"
		0.004 mm / .0005"
		0.010 mm / .001"
		0.0005 mm / .00002"
		0.001 mm / .00005"
MarCator	1087 BRi	0.002 mm / .0001"
		0.004 mm / .0005"
		0.010 mm / .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 4360043