

Indicating Thread Snap Gage 852



Features

- For measuring pitch, root and outside diameters of all kinds of external threads as well as serrations
- Rugged, forged steel frame with heat insulators
- Measuring spindle is mounted in long guide way with lever-controlled retraction
- Anvil spindle can easily be fine adjusted
- Measuring spindle and anvil spindle are both made of hardened stainless steel, with mounting bore for insertion of interchangeable anvils
- Adjustable center stop for automatic alignment
- Maximum wear resistance due to non-contact positioning
- Constant measuring force as a result of built-in spring, thus eliminating user influence
- Universally applicable and extremely versatile, each instrument spans a broad measuring range

Technical Data

Measuring range* mm (inch)	Meas.force N	Order no.**	Order no. wooden case
0 - 45 (0 - 1.77")	7.5	4510000	4510010
45 - 85 (1.77 - 3.34")	7.5	4510001	4510011
85 - 140 (3.34 - 5.51")	9	4510002	4510012
140 - 190 (5.51 - 7.48")	9	4510003	4510013

* Depending upon which anvils are being used, purchase separately

** Excludes indicating instrument and anvils

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"	4346000*
	0.5 µm / .00002"	
	1 µm / .00005"	
Extramess 2001	0.2 µm / .00001"	4346100*
	0.5 µm / .00002"	
	1 µm / .00005"	
µMaxµm	0.5 µm / .00002"	EDI-20302**

Digital Indicators see Chapter 5

Electrical Indicating Instruments see Chapter 7

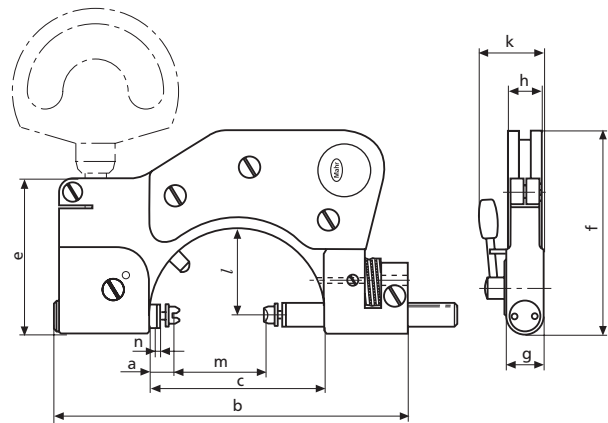
* 230 V, for 115 V please refer to page 6-5 ** requires contact 4360107

Accessories

Interchangeable Anvils please refer to Pages 9-21 to 9-23

Thread Setting Plug Gages see Page 13-14

Holder 840 Fk and Stand 840 Ff (for 0-45 mm) see Page 9-15



Meas. range m (mm)	0-45	45-85	85-140	140-190
Dist mov. anvil n (mm)	2	2.5	2.5	2.5
a*	13	8	10	6
b	140	193	258	316
c	68	110	162	212
e	60	60	70	75
f	77	103	141	171
g	13	14	16	16
h	13	13	12	12
k	25	28	31	31
l	34	59	87	112

a* = in initial position

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



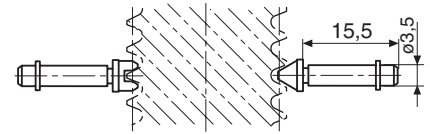
Stand 840 Ff

- 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

Interchangeable Anvils for 852, 852 TS and 853

For pitch, root and outside diameters. Special wear-resistant hardened steel. With cylindrical mounting shank and retainer ring which ensures locking while permitting rotation in bore of indicating snap gages.



Sets consist of:

For pitch diameters

852 - 1 V-anvil and 1 blade
853 - 1 V-anvil and 2 radiused blades

For root diameters

852 - 1 V-anvil and 1 blade
853 - 1 V-anvil and 2 blades

For outside diameters

852 - 2 flat-face anvils
853 - 3 flat-face anvils

Anvils for pitch diameters for 852 and 852 TS

Metric thread (60°)			Whitworth thread (55°)			American UST thread (60°)		
Pitch	V-anvil	Blade	Pitch range	V-anvil	Blade	Pitch range	V-anvil	Blade
mm	Order no.	Order no.	tpi	Order no.	Order no.	tpi	Order no.	Order no.
0.2*	4173007	4173707	40 - 32	4173043	4173743	60 - 48	4173113	4173813
0.25*	4173008	4173708	32 - 24	4173044	4173744	48 - 40	4173114	4173814
0.3*	4173009	4173709	24 - 18	4173045	4173745	40 - 32	4173115	4173815
0.35*	4173010	4173710	18 - 14	4173046	4173746	32 - 24	4173116	4173816
0.4*	4173011	4173711	14 - 10	4173047	4173747	24 - 18	4173117	4173817
0.45*	4173012	4173712	10 - 7	4173048	4173748	18 - 14	4173118	4173818
0.5 - 0.7	4173000	4173700	7 - 4.5	4173049	4173749	14 - 10	4173119	4173819
0.7 - 1	4173001	4173701	4.5 - 3	4173050	4173750	10 - 7	4173120	4173820
1.25 - 2	4173002	4173702	3 - 2.5	4179408	4179410	7 - 4.5	4173121	4173821
2 - 3.5	4173003	4173703				4.5 - 3	4173122	4173822
3.5 - 5	4173004	4173704						
5 - 7	4173005	4173705						
7 - 9	4173006	4173706						

Anvils for pitch diameters for Indicating Thread Snap Gage 853

Metric thread (60°)			Whitworth thread (55°)			American UST thread (60°)		
Pitch	V-anvil	Blade	Pitch range	V-anvil	Blade	Pitch range	V-anvil	Blade
mm	Order no.	Order no.	tpi	Order no.	Order no.	tpi	Order no.	Order no.
0.2	4173051	4174007	40 - 32	4173043	4176043	60 - 48	4173124	4176113
0.25	4173052	4174008	32 - 24	4173044	4176044	48 - 40	4173125	4176114
0.3	4173053	4174009	24 - 18	4173045	4176045	40 - 32	4173115	4176115
0.35	4173054	4174010	18 - 14	4173046	4176046	32 - 24	4173116	4176116
0.4	4173055	4174011	14 - 10	4173047	4176047	24 - 18	4173117	4176117
0.45	4173056	4174012	10 - 7	4173048	4176048	18 - 14	4173118	4176118
0.5 - 0.7	4173000	4174000	7 - 4.5	4173049	4176049	14 - 10	4173119	4176119
0.7 - 1	4173001	4174001	4.5 - 3	4173050	4176050	10 - 7	4173120	4176120
1.25 - 2	4173002	4174002	3 - 2.5	4179408	4179411	7 - 4.5	4173121	4176121
2 - 3.5	4173003	4174003				4.5 - 3	4173122	4176122
3.5 - 5	4173004	4174004						
5 - 7	4173005	4174005						
7 - 9	4173006	4174006						

Carbide anvils for 852, 852TS and 853

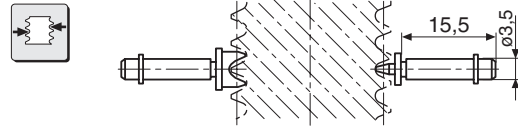
1.25 - 2	4511105	4511104
2 - 3.5	4511108	4511107
3.5 - 5	4511140	4511139
5 - 7	4511142	4511141

* V-anvil covers 3 pitches

Interchangeable Anvils for 852, 852 TS and 853

For root diameters

Each pitch requires a separate V-anvil.
Blade can be used for several pitches.



Anvils for root diameters

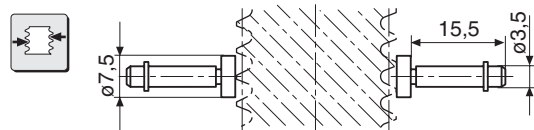
Metric thread (60°)			Whitworth thread (55°)			American UST-thread (60°) The same anvils are to be used as with the Whitworth-thread (55°).
Pitch mm	V-anvil Order no.	Blade Order no.	Pitch range tpi	V-anvil Order no.	Blade Order no.	
0.5	4173213	4173719	40	4173331	4173833	
0.6	4173214		36	4173321		
0.7	4173215		32	4173332		
0.75	4173216		28	4173333		
0.8	4173217		26	4173335		
0.9	4173218	24	4173336	4173840		
1	4173219	22	4173337			
1.25	4173221	20	4173338			
1.5	4173222	4173723	19	4173339	4173843	
1.75	4173223		18	4173340		
2	4173225	4173727	16	4173342	4173847	
2.5	4173226		14	4173343		
3	4173227		12	4173345		
3.5	4173229	4173731	11	4173346	4173851	
4	4173230		10	4173347		
4.5	4173231	4173735	9	4173349	4173855	
5	4173233		8	4173350		
5.5	4173234	4173739	7	4173451	4173860	
6	4173235		6	4173453		
7	4173237	5	4173454			
8	4173238	4.5	4173455			
9	4173239	4	4173457			
		3.5	4173458			
		3.25	4173459			
		3	4173460			

For outside diameters

Anvil 40 Za, flat

Measuring face dia. 7.5 mm
with 853 smallest
measurable O.D. dia. 5 mm

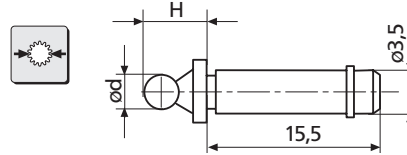
Hardened steel **Order no. 4173210**
Carbide tipped **Order no. 4511190**



Interchangeable Anvils for 852 and 852 TS

Ball Anvils

For measuring gears and for special applications. Carbide ball. With cylindrical mounting shank and retainer ring.
For mounting into mounting bores of thread micrometers 40 Z and 852.



Shank dia. 3.5 mm
Shank length 15.5 mm
Manufacturing tolerance
Ball dia. $\pm 2 \mu\text{m}$

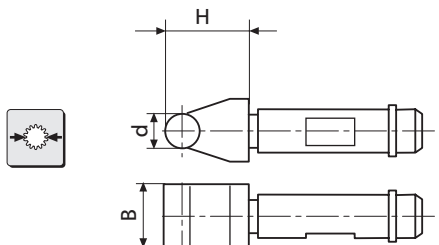
dia. d mm	H mm	Order no.	dia. d mm	H mm	Order no.	dia. d mm	H mm	Order no.
0.5	5.0	4179150	1.65	6.2	4179168	3.048	7.5	4179182
0.551	5.1	4179151	1.7	6.2	4179169	3.2	7.7	4170570
0.62	5.1	4179152	1.75	6.3	4170553	3.25	7.8	4170566
0.623	5.1	4179153	1.782	6.3	4179170	3.4	7.9	4179183
0.63	5.1	4179154	1.8	6.3	4179171	3.5	8.0	4170558
0.722	5.2	4179155	1.829	6.3	4179172	3.658	8.2	4179184
0.862	5.4	4179156	1.9	6.4	4179173	3.7	8.2	4170571
0.895	5.4	4179157	2	6.5	4170554	4	8.5	4170559
0.965	5.5	4179158	2.032	6.5	4170568	4.5	9.0	4170560
1	5.5	4170550	2.2	6.7	4170569	4.835	9.3	4179185
1.1	5.6	4179159	2.25	6.8	4170564	5	9.5	4170561
1.118	5.6	4179160	2.284	6.8	4179174	5.25	9.8	4179186
1.125	5.6	4179161	2.386	6.9	4179175	5.486	10.0	4179187
1.25	5.8	4170551	2.438	6.9	4179176	5.5	10.0	4170562
1.35	5.9	4179162	2.5	7.0	4170556	6	10.5	4170563
1.372	5.9	4179163	2.667	7.2	4179177	6.096	10.6	4179188
1.385	5.9	4179164	2.704	7.2	4179178	6.35	10.9	4179189
1.5	6.0	4170552	2.713	7.2	4179179	6.5	11.0	4170567
1.524	6.0	4179165	2.721	7.2	4179180	7	11.5	4170572
1.54	6.0	4179166	2.743	7.2	4179181	8	12.5	4170573
1.6	6.1	4179167	2.75	7.3	4170565	9	13.5	4170574
			3	7.5	4170557	10	14.5	4170575

Further sizes are available upon request (material: steel)

Roller Blades

For measuring gears and for special applications. The measuring roller is made of carbide.
To be mounted in the mounting bores of the 40 Z and 852.

Shank dia. 3.5 mm
Shank length 15.5 mm
Manufacturing tolerance
Ball dia. $\pm 2 \mu\text{m}$



dia. d mm	Dimension H mm	Dimension B ø mm	Order no.
1	5.5	5	4510200
1.25	5.8	5	4510201
1.5	6.0	5	4510202
1.75	6.3	5	4510203
2	6.5	5.5	4510204
2.5	7.0	5.5	4510206
3	7.5	5.5	4510207
3.5	8.0	5.5	4510208
4	8.5	5.5	4510209
4.5	9.0	5.5	4510210
5	9.5	6	4510211
5.5	10.0	6	4510212
6	10.5	6	4510213

Further sizes are available upon request (material: steel)