

MULTIMAR | UNIVERSAL MEASURING INSTRUMENTS



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Mahr

EXACTLY

DO YOU HAVE DIVERSE MEASURING TASKS? MULTIMAR MASTERS THEM WITH FLYING COLORS.



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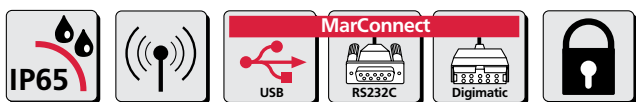
► | Regardless of whether gears, threads, cones or grooves are to be measured; the versatility of Multimar Universal Measuring Instruments combined with a broad range of accessories ensures a perfect solution for nearly all your internal and external measuring requirements. | ◀

► | Multimar. Universal Measuring Instruments

Multimar 25 EWR Digital Universal Caliper	4
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Multimar 36 B Indicator Gage for Internal (I.D.) and External (O.D.) Measurements	23



Digital Universal Caliper 25 EWR



REFERENCE



Illustration is shown with accessories, these are sold separately

Applications

- For measuring:
- Outside and inside dimensions
 - Centering shoulders
 - Narrow collars
 - External and internal tapers
 - Dovetails
 - Grooves
 - Distances between hole centers
 - For scribing of work pieces

Features

Functions:

AUTO-ON / OFF
 DATA (Data transmission via connection cable)
 ON/OFF
 PRESET (for entering a numerical value)
 RESET (set display to zero)
 Lock/Unlock
 mm/inch

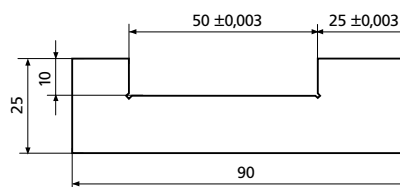
- Interchangeable measuring arms
- Due to the patented mounting fixture of the measuring arms and of measuring attachments provided on both the upper and lower longitudinal face of the arm holders, the digital display is always in the operator's line of vision

- The application range can be easily extended by reversing the measuring arms
- Both measuring arms can be moved along the beam thus having a well balanced weight distribution even with small dimensions
- Slide and beam are made of hardened stainless steel

- Data output: USB, Digimatic, Opto RS232C, Wireless
- Energy supply: Battery, life span ca. 3 years
- IP protection category: IP 65
- Supplied with: Battery, Instruction manual, Mounting and resting blocks, wooden case

Technical Data

Measuring range outside		Resolution	Order no.
mm	(inch)		
0 - 300	(0 - 12")	0.01 / .0005"	4119000
0 - 600	(0 - 24")	0.01 / .0005"	4119001
0 - 1000	(0 - 40")	0.01 / .0005"	4119002
0 - 1250	(0 - 50")	0.01 / .0005"	4119003



25 Eel

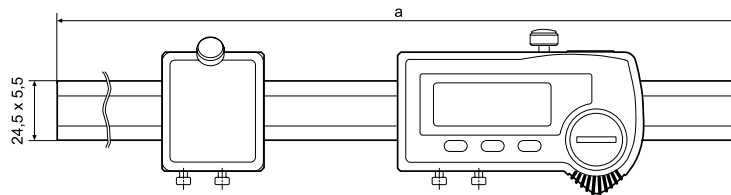
Accessories

	Order no.		Order no.
Mounting Attachments for outside dimensions	844 Tma	4503030	Depth Stops for 844 Tma, 844 Tmi, 844 Te
Mounting Attachments for inside dimensions	844 Tmi	4503031	Measuring Tips for drill hole intervals, Ø 2-20 mm
Measuring Arms , 25 mm	844 Te	4503024	Measuring Tips for drill hole intervals, Ø 10-40 mm
Measuring Arms , 35 mm	844 Te	4503025	Setting Gage , hardened steel
Measuring Arms , 70 mm	844 Te	4503026	Battery 3 V, CR 2032
Measuring Arms , 100 mm	844 Te	4503027	Case for accessories

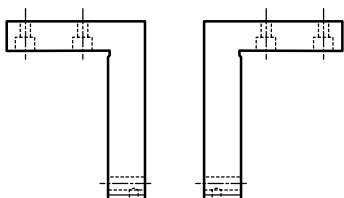
Accessories for Data Processing see Chapter 11

Dimensions

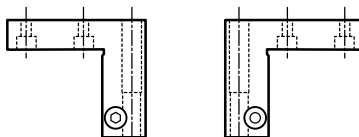
Range of application		a	
mm	(inch)	mm	inch
0 - 300	(0 - 12")	480	18.89"
0 - 600	(0 - 24")	780	31.11"
0 - 1000	(0 - 40")	1200	47.24"
0 - 1250	(0 - 50")	1450	57.09"



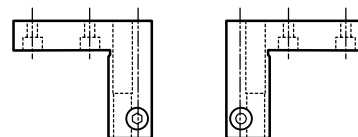
844 Te



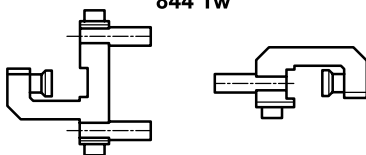
844 Tma



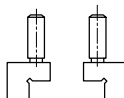
844 Tmi



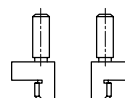
844 Tw



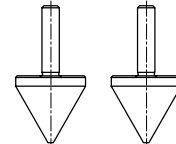
844 Ta



844 Ti



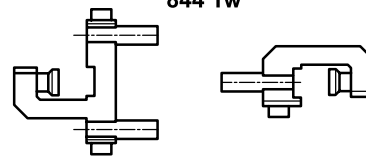
25 Eba



844 Tad



844 Tw



844 Tp



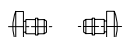
901 H



906 H



844 Ts



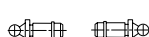
902 H



907



844 Tk



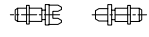
903 H



908



844 Tr



904 H



911 H



844 Tg



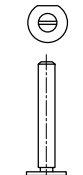
912



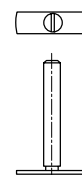
844 Tz



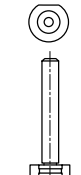
844 Tb



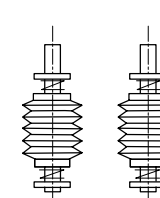
844 Tc



844 Td



844 Tv



Multimar. Universal Gage 844 T for external and internal dimensions

OVERVIEW

► | The Universal Gage **Multimar** 844 T. Easy to use and versatile; ideal for all your measuring requirements in dimensional metrology.

Applications

For measuring:

- External and internal dimensions
- External and internal threads
- Centering shoulders, narrow collars, recesses and grooves
- External and internal tapers, external and internal tooth profiles / gears and lots more



Constant measuring force due to the built-in measuring force spring

All indicating instruments with an 8 mm mounting shank can be used

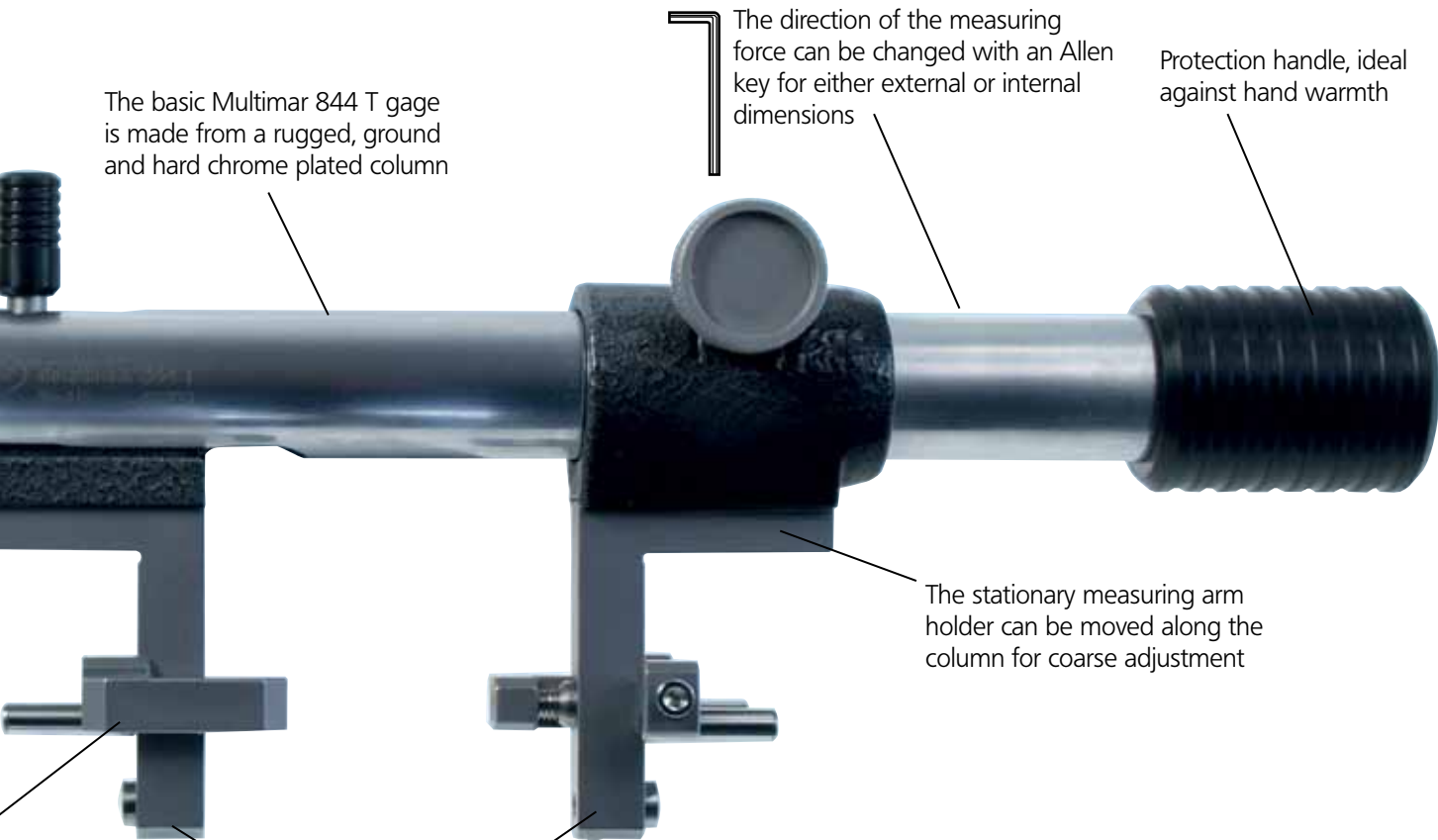


The moveable measuring arm holder is mounted in a high precision ball guideway to eliminate both play and friction; it also has an extreme measuring sensitivity and accuracy due to the optimal stability and ease of movement

Stop with non-tilting 3-point support for adjusting the measuring depth

Features

- Extreme measuring sensitivity and accuracy due to the optimal stability and ease of movement of the moveable measuring arm holder
- Constant measuring force due to the built-in measuring force spring
- The direction of the measuring force can be changed for either external or internal dimensions
- Rugged, ground and hard chrome plated column
- The moveable measuring arm holder is mounted in a highly precision ball guide to eliminate both play and friction
- Lightweight construction of the basic body, made from carbon fiber reinforced plastic (CRP) tube, for measuring range 1000 - 1500 mm.
- The stationary measuring arm holder can be moved along the column for coarse adjustment
- The direction of the measuring force can be changed with an Allen key for either external or internal dimensions
- Supplied with: Battery, Instruction manual, Mounting and resting blocks, wooden case



The basic Multimar 844 T gage is made from a rugged, ground and hard chrome plated column

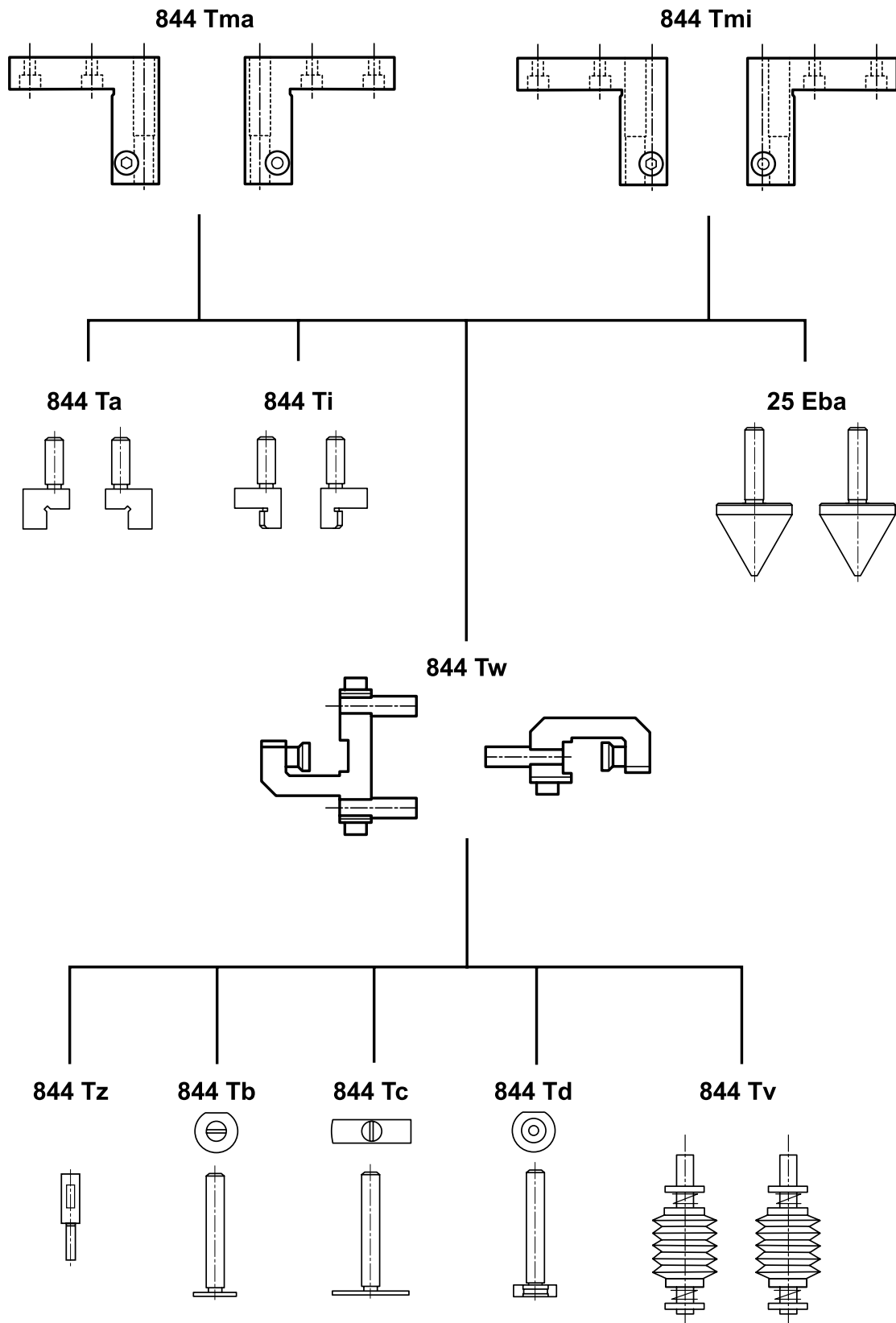
The direction of the measuring force can be changed with an Allen key for either external or internal dimensions

Protection handle, ideal against hand warmth

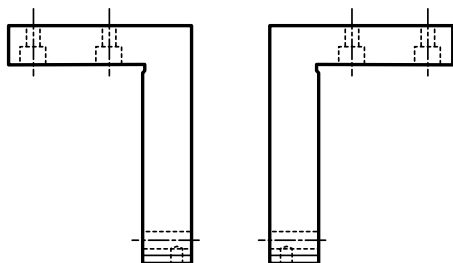
The stationary measuring arm holder can be moved along the column for coarse adjustment

The measuring arms for measurement of external and internal dimensions. By simply reversing the measuring arms the application range can be extended

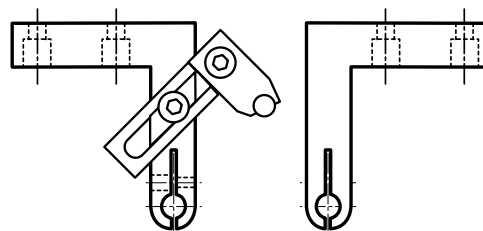
Universal Gage 844 T



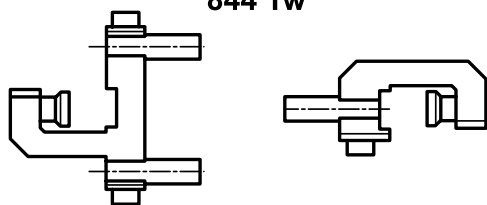
844 Te



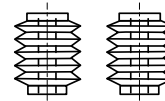
844 Ty



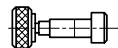
844 Tw



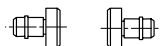
706 Vr



844 Tad



844 Tp



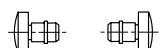
901 H



906 H



844 Ts



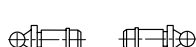
902 H



907



844 Tk



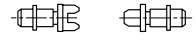
903 H



908



844 Tr



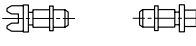
904 H



911 H



844 Tg



912



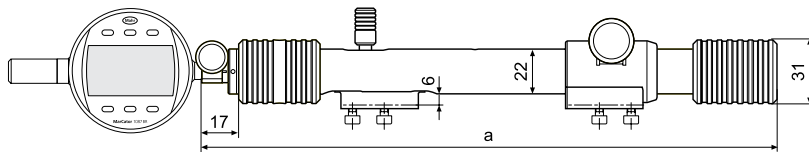
Universal Gage 844 T



Illustration is shown with accessories, these are sold separately

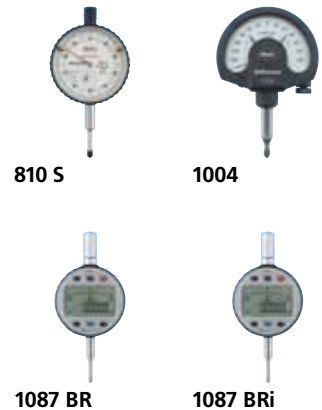
Technical Data

Application range outside		Application range inside		Measuring force	Distance of movable anvil	Dimension a		Weight	Order no.
mm	inch	mm	inch			mm	inch		
0-85	(0-3.35")	30-115	(1.18-4.52")	5	12 / 0.47	280 / 11.02"	0,78 / 1.72	4503001	
80-235	(3.15-9.25")	110-265	(4.33-10.43")	5	12 / 0.47	430 / 16.92"	1,01 / 2.20	4503002	
230-585	(9.06-23.03")	260-615	(10.23-24.21")	5	12 / 0.47	740 / 29.13"	1,59 / 3.50	4503003	
580-985	(22.83-38.78")	610-1015	(24.02-39.96")	5	12 / 0.47	1140 / 44.88"	2,22 / 4.89	4503004	
970-1470	(38.19-57.87")	1000-1500	(39.37-59.05")	10	12 / 0.47	1680 / 66.14"	2,52 / 5.55	4503005	
1470-1970	(57.87-77.56")	1500-2000	(59.05-78.74")	10	12 / 0.47	2180 / 85.83"	2,68 / 5.90	4503006	
1970-2470	(77.56-97.24")	2000-2500	(78.74-98.42")	10	12 / 0.47	2690 / 105.91"	2,86 / 6.30	4503007	



Accessories

	Unit quantity	Order no.	
Precision Dial Indicator MarCator, 0.01 mm, 10 mm	810 S	4311000	
Mechanical Dial Comparator Millimess 5 µm	1004	4333000	
Mechanical Dial Comparator Millimess 0.01 mm, ±0.25 mm	1010	4332000	
Digital Indicator MarCator, 0.0005 mm, 12.5 mm	1087 BR	4337662	
Digital Indicator MarCator, 0.0005 mm, 12.5 mm	1087 BRi	4337664	
Mounting attachments for outside dimensions	Pair	844 Tma	4503030
Mounting attachments for inside dimensions	Pair	844 Tmi	4503031
Measuring Arms, 25 mm	Pair	844 Te	4503024
Measuring Arms, 35 mm	Pair	844 Te	4503025
Measuring Arms, 70 mm	Pair	844 Te	4503026
Measuring Arms, 100 mm	Pair	844 Te	4503027
Depth Stops for 844 Tma, 844 Tmi, 844 Te	Pair	844 Tw	4503109
Protection for indicator		844 Tsb	4503012
Case for accessories		844 Tzb	4503020
Stand		844 Tf	4450512



Measuring external and internal dimensions

Depth Stops 844 Tw

- Depth Stops for 844 Tma, 844 Tmi and 844 Te Measuring Arms
- Equipped with non-tilting 3-point support
- Hardened stop pins, interchangeable and can be adjusted
- Supplied with:
One pair of Depth Stops with three $\text{Ø}5 \times 20$ mm depth pins, also one $\text{Ø}5 \times 16$ mm and one $\text{Ø}5 \times 10$ mm depth pin for a 1-point stop block

Application:

- To set the exact measuring depth in the horizontal measurement position
- Precise support on the reference plane surface for repetitive accuracy when conducting comparison measurements in the second axis
- The Measuring Arms 844 Tma, 844 Tmi and 844 Te have a mm scale, which simplifies the positioning and adjustment of the measurement depth
- For highly accurate setting of the measuring depth (required for example with cone measurements) use a Rectangular Gage Block between the measuring anvil and the stop (see Illustration 1)

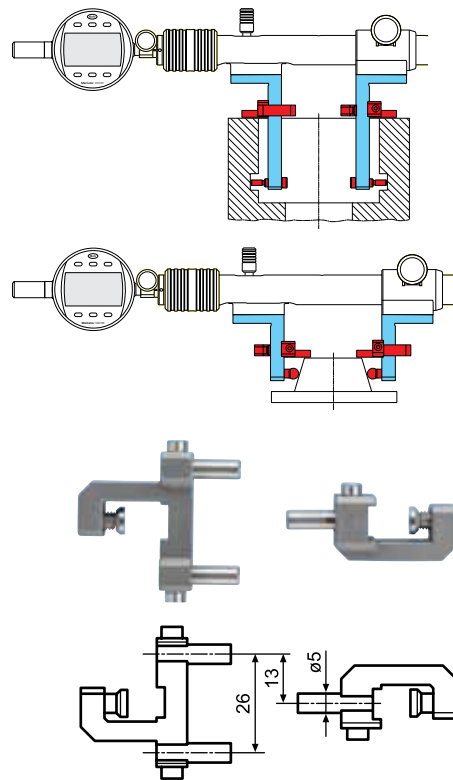


Illustration 1

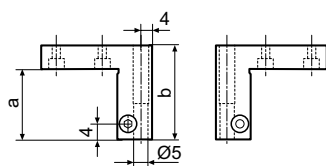
Accessories

		Unit quantity	Order no.
844 Tw	Depth Stops for 844 Tma, 844 Tmi, 844 Te	Pair	4503109

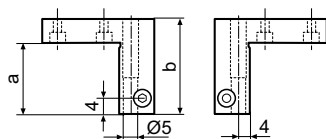
Measuring external and internal dimensions

Mounting Attachments 844 Tma / 844 Tmi

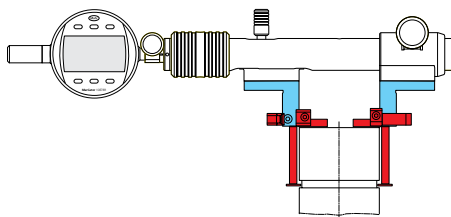
- Made from special stainless steel
- Lateral mm scale, for easy positioning and adjustable of the depth stops
- Measuring arms on the measuring arm holder are reversible, therefore extending the measuring range
- With a \varnothing 5 mm mount, accommodates the interchangeable anvils 844 Ta, 844 Ti, 844 Tb, 844 Tc, 844 Td, 844 Tz and 844 Tv



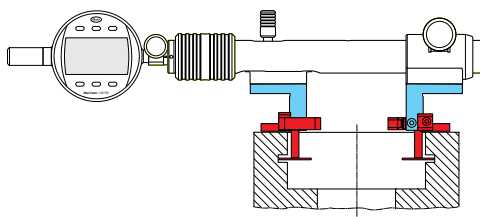
844 Tma



844 Tmi



844 Tma



844 Tmi

Technical Data

	Mounting hole mm	a mm	b mm	Unit quantity	Order no.	
844 Tma	5	24	32	Pair	4503030	For Outside Diameter
844 Tmi	5	24	32	Pair	4503031	For Inside Diameter

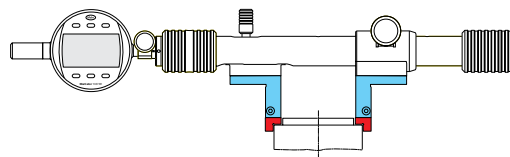
Accessories

		Unit quantity	Order no.	
844 Ta	Shoulder Anvils, flat, hardened steel	Pair	4500050	For Outside Diameter
844 Ti	Shoulder Anvils, spherical, hardened steel	Pair	4500055	For Inside Diameter
844 Tb	Measuring Anvils with measuring blades, Platelet diameter 11 mm, Adjustment range 0-20 mm	Piece	4503015	
844 Tb	Measuring Anvils with measuring blades, Platelet diameter 11 mm, Adjustment range 20-40 mm	Piece	4503016	
844 Tc	Measuring Anvils with measuring blades, Platelet length 20 mm, Adjustment range 0-20 mm	Piece	4503114	
844 Tc	Measuring Anvils with measuring blades, Platelet length 20 mm, Adjustment range 20-40 mm	Piece	4503115	
844 Td	Anvils with round measuring faces, diameter 11 mm, Adjustment range 0-20 mm	Piece	4503017	
844 Td	Anvils with round measuring faces, diameter 11 mm, Adjustment range 20-40 mm	Piece	4503018	
844 Tw	Depth Stops for 844 Tma, 844 Tmi, 844 Te	Pair	4503109	

Measuring external dimensions

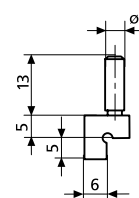
Shoulder Anvils 844 Ta

- For measuring narrow collars such as centering shoulders and other similar measuring tasks
- With cylindrical mounting shaft to attach into the mounting attachments 844 Tma / 844 Tmi
- Made from hardened steel
- Flat, for external diameters



Technical Data

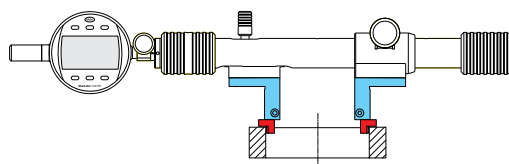
Mounting shaft diameter	Unit quantity	Order no.
mm		
5	Pair	4500050



Measuring internal dimensions

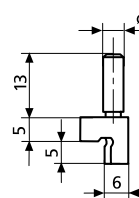
Shoulder Anvils 844 Ti

- For measuring narrow collars such as centering shoulders and other similar measuring tasks
- With cylindrical mounting shaft to attach into the mounting attachments 844 Tma / 844 Tmi
- Made from hardened steel
- Semi-cylindrical, for internal diameters



Technical Data

Mounting shaft diameter	Unit quantity	Order no.
mm		
5	Pair	4500055



Measuring external and internal dimensions

Measuring anvils with measuring blades 844 Tb, 844 Tc, 844 Td

- With round measuring blades
- **844 Tb**
Ideal for workpieces that have a narrow recess up to 3 mm in depth
- **844 Tc**
Ideal for workpieces that have a narrow recess up to 7.5 mm in depth
- **844 Td**
Ideal for workpieces that have a recess up to 3 mm in depth



844 Tb



844 Tc



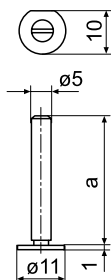
844 Td

Application:

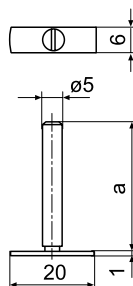
For measuring centering shoulders and recesses on internal and external diameters. For mounting into the Mounting Attachment 844 Tma / 844 Tmi.

Technical Data

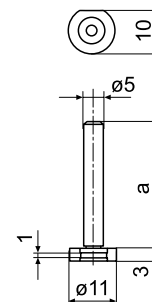
	Adjustment range		Mounting shaft diameter	Length a	Unit quantity	Order no.
	mm					
844 Tb	0	- 20	5	30	Piece	4503015
844 Tb	20	- 40	5	50	Piece	4503016
844 Tc	0	- 20	5	30	Piece	4503114
844 Tc	20	- 40	5	50	Piece	4503115
844 Td	0	- 20	5	30	Piece	4503017
844 Td	20	- 40	5	50	Piece	4503018



844 Tb



844 Tc

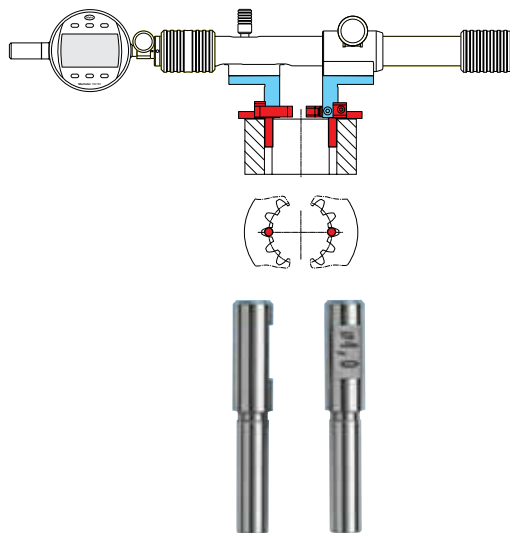


844 Td

Measuring external and internal tooth profiles

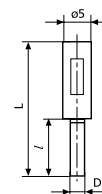
Cylindrical Measuring Pins 844 Tz

- Determination of the dimension over 2 pins for inner and outer gears
- Made from steel, with shank for mounting into the Mounting Attachment 844 Tma / 844 Tmi



Technical Data

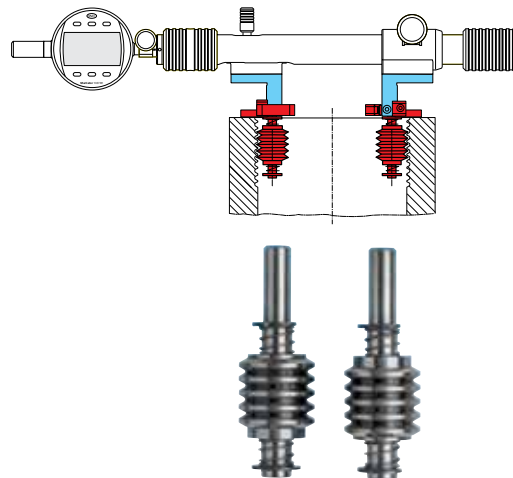
D	Mounting shaft diameter	Manufacturing tolerance +/-	L	l	Unit quantity	Order no.
mm	mm	μm	mm	mm		
1	5	2	19.5	6	Piece	4500500
1.25	5	2	19.5	6	Piece	4500501
1.5	5	2	19.5	6	Piece	4500502
1.75	5	2	23.5	10	Piece	4500503
2	5	2	23.5	10	Piece	4500504
2.5	5	2	23.5	10	Piece	4500506
3	5	2	28.5	15	Piece	4500507
3.5	5	2	28.5	15	Piece	4500508
4	5	2	28.5	15	Piece	4500509
4.5	5	2	33.5	20	Piece	4500510
5	5	2	33.5	20	Piece	4500511
5.5	5	2	33.5	20	Piece	4500512
6	5	2	33.5	20	Piece	4500513



Measuring external and internal dimensions

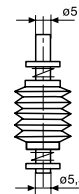
Interchangeable Measuring Rollers 844 Tv

- Determining the pitch diameter of outer and inner threads
- Mounting shank fits into Mounting Attachment 844 Tma / 844 Tmi
- Each has two springs to alleviate the positioning on the correct pitch thread
- Interchangeable Measuring Rollers for further thread pitches (metric 60°) as well as Whitworth and UST threads are also available upon request



Technical Data

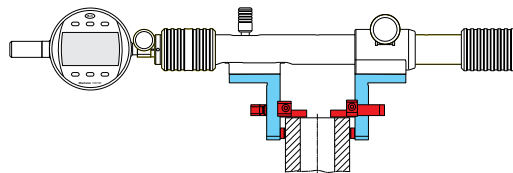
Flank angle	Type of thread	Thread pitch mm	Unit quantity	Order no.
60°	Metric thread	1	Pair	4501711
60°	Metric thread	2	Pair	4501715
60°	Metric thread	2.5	Pair	4501716
60°	Metric thread	3.5	Pair	4501718
60°	Metric thread	4	Pair	4501719
60°	Metric thread	5	Pair	4501721
60°	Metric thread	6	Pair	4501723



Measuring external and internal dimensions

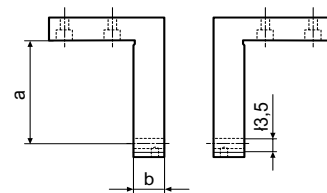
Measuring Arms 844 Te

- For internal and external diameters
- Measuring arms on the measuring arm holder are reversible, therefore extending the measuring range
- Lateral mm scale, for easy positioning and adjustment of the depth stops 844 Tw
- With a 3.5 mm (0.138") diameter mount, accommodates the interchangeable anvils 844 Tp, 844 Ts, 844 Tk, 844 Tr and 844 Tg



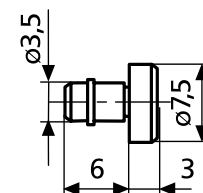
Technical Data

Mounting hole mm	Throat depth a mm	b mm	Unit quantity	Order no.
3.5	25	6	Pair	4503024
3.5	35	10	Pair	4503025
3.5	70	10	Pair	4503026
3.5	100	12	Pair	4503027

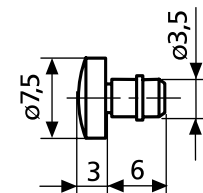


Accessories

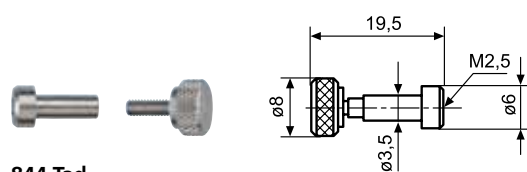
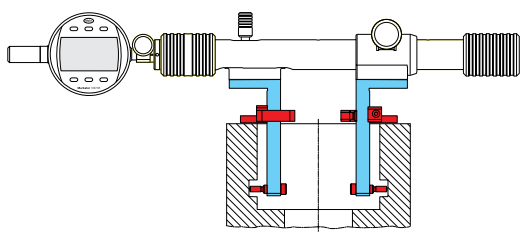
	Unit quantity	Order no.
844 Tp Anvils for Measuring Arms, flat, hardened steel for OD	Piece	4500040
844 Ts Measuring Anvils, spherical, hardened steel for ID	Piece	4500045
844 Tad Adaptor \varnothing 3.5 - M2.5 for measuring arms 844 Te	Piece	4503080
844 Tw Depth Stops for 844 Tma, 844 Tmi, 844 Te	Pair	4503109



844 Tp



844 Ts



844 Tad

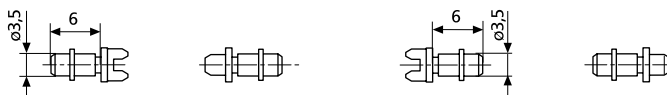


844 Tw

Measuring external and internal threads

Interchangeable Anvils 844 Tr / 844 Tg

- For pitch diameters
- Hardened, wear-resistant special steel
- With cylindrical mounting shank and retainer ring which ensures locking while permitting rotation in bore



844 Tr Anvils for external threads

844 Tg Anvils for internal threads

Accessories

Thread pitch in mm	Taper Order no.	V-anvil Order no.	Blade Order no.	Thread pitch in mm	Taper Order no.	V-anvil Order no.	Blade Order no.
Pitch diameter, external thread				Pitch diameter, internal thread			
metric 60°				Trapezoid 30°			
0.5 - 0.7		4501000	4501200	1	4501831	4501830	
0.7 - 1		4501001	4501201	1.5	4501833	4501832	
1.25 - 2		4501002	4501202	2	4501835	4501834	
2 - 3.5		4501003	4501203	3	4501837	4501836	
3.5 - 5		4501004	4501204	4	4501839	4501838	
5 - 7		4501005	4501205	5	4501841	4501840	
7 - 9		4501006	4501206	6	4501843	4501842	
Pitch diameter, internal thread							
metric 60°							
0.5 - 0.7	4174600	4174300		7	4501845	4501844	
0.7 - 1	4174601	4174301		8	4501847	4501846	
1.25 - 2	4174602	4174302		9	4501849	4501848	
2 - 3.5	4174603	4174303		10	4501851	4501830	
3.5 - 5	4174604	4174304		12	4174981	4174961	
5 - 7	4174605	4174305		14	4174982	4174962	
7 - 9	4174606	4174306		16	4174983	4174963	
Pitch diameter, external thread							
Trapezoid 30°							
1		4501150	4501350	18	4174984	4174964	
1.5		4501151	4501351	20	4174985	4174965	
2		4501152	4501352				
3		4501153	4501353				
4		4501154	4501354				
5		4501155	4501355				
6		4501156	4501356				
7		4501157	4501357				
8		4501158	4501358				
9		4501159	4501359				
10		4501160	4501360				
12		4501161	4501361				
14		4501162	4501362				
16		4501163	4501363				
18		4501164	4501364				
20		4501165	4501365				

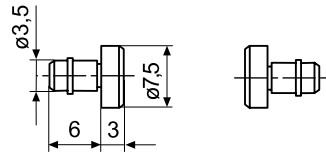
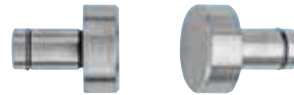
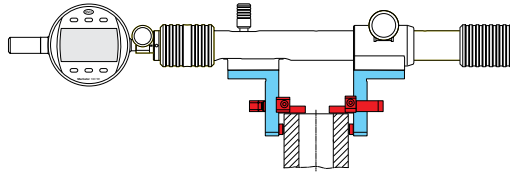
Accessories

Thread pitch in TPI	Taper Order no.	V-anvil Order no.	Blade Order no.
Pitch diameter, external thread			
UST 60°			
40 –32		4501018	4501418
32 –24		4501019	4501419
24 –18		4501020	4501420
18 –14		4501021	4501421
14 –10		4501022	4501422
10 –7		4501023	4501423
7 –4.5		4501024	4501424
4.5 –3		4501025	4501425
Whitworth 55°			
40 –32		4501007	4501207
32 –24		4501008	4501208
24 –18		4501009	4501209
18 –14		4501010	4501210
14 –10		4501011	4501211
10 –7		4501012	4501212
7 –4.5		4501013	4501213
4.5 –3		4501014	4501214
Pitch diameter, internal thread			
UST 60°			
40 –32	4174615	4174415	
32 –24	4174616	4174416	
24 –18	4174617	4174417	
18 –14	4174618	4174418	
14 –10	4174919	4174419	
10 –7	4174620	4174420	
7 –4.5	4174621	4174421	
4.5 –3	4174622	4174422	
Whitworth 55°			
40 –32	4174643	4174343	
32 –24	4174644	4174344	
24 –18	4174645	4174345	
18 –14	4174646	4174346	
14 –10	4174647	4174347	
10 –7	4174648	4174348	
7 –4.5	4174649	4174349	
4.5 –3	4174650	4174350	

Measuring external and internal dimensions

Measuring Anvils 844 Tp

- Flat; for external diameters, distances and widths
- Made of hardened steel
- With cylindrical mounting shank and retainer ring which allows free rotation inside the bore of Measuring Arms 844 Te



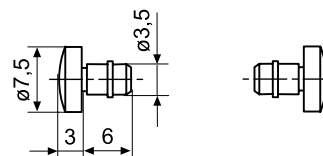
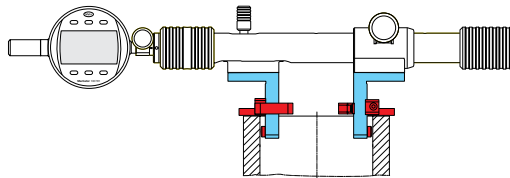
Technical Data

Mounting shaft diameter mm	Unit quantity	Order no.
3.5	Piece	4500040

Measuring external and internal dimensions

Measuring Anvils 844 Ts

- Spherical; for internal diameters
- Made of hardened steel
- With cylindrical mounting shank and retainer ring which allows free rotation inside the bore of Measuring Arms 844 Te



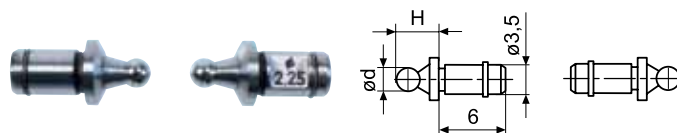
Technical Data

Mounting shaft diameter mm	Unit quantity	Order no.
3.5	Piece	4500045

Measuring external and internal dimensions

Ball Anvils 844 Tk

- Made of carbide. With cylindrical mounting shank and retainer ring which allows free rotation inside the bore of Measuring Arms 844 Te.



d mm	H mm	Order no.	d mm	H mm	Order no.
0.5	3	4502620	2.3	4.8	4502544
0.551	3.1	4502621	2.386	4.9	4502645
0.62	3.1	4502622	2.438	4.9	4502646
0.623	3.1	4502623	2.5	5	4500356
0.63	3.1	4502624	2.667	5.2	4502647
0.722	3.2	4502625	2.704	5.2	4502648
0.862	3.4	4502626	2.713	5.2	4502649
0.895	3.4	4502627	2.721	5.2	4502650
0.965	3.5	4502628	2.743	5.2	4502651
1	3.5	4500350	2.75	5.3	4500618
1.1	3.6	4502629	3	5.5	4500357
1.118	3.6	4502630	3.048	5.5	4502652
1.125	3.6	4502631	3.25	5.8	4502541
1.25	3.8	4500351	3.4	5.9	4502653
1.35	3.9	4502632	3.5	6	4500358
1.372	3.9	4502633	3.658	6.2	4502654
1.385	3.9	4502634	4	6.5	4500359
1.5	4	4500352	4.5	7	4500360
1.524	4	4502635	4.835	7.3	4502655
1.54	4	4502636	5	7.5	4500361
1.6	4.1	4502637	5.25	7.8	4502656
1.65	4.2	4502638	5.486	8	4502657
1.7	4.2	4502639	5.5	8	4500362
1.75	4.3	4500353	6	8.5	4500363
1.782	4.3	4502640	6.096	8.6	4502658
1.8	4.3	4502641	6.35	8.9	4502545
1.829	4.3	4502642	6.5	9	4502542
1.9	4.4	4502643	7	9.5	4502547
2	12.5	4502550	8	10.5	4502548
2	4.5	4500354	9	11.5	4502549
2.032	4.5	4502543			
2.25	4.8	4502540			
2.284	4.8	4502644			

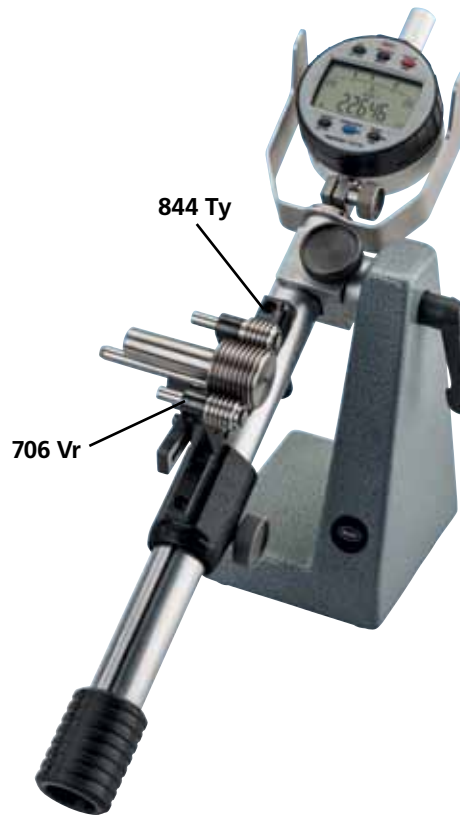
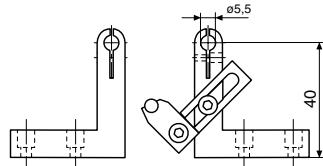
Measuring Roller Holder 844 Ty

Features

- Location bolts for the Measuring Rollers 706 Vr, with stop and stop pin
- Interchangeable Measuring Rollers for further thread pitches (metric 60°) as well as Whitworth and UST threads, available upon request

Application:

- Determining the pitch diameter of outer threads

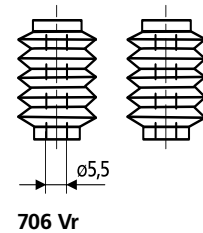


Technical Data

Unit quantity	Order no.
Pair	4502463

Accessories

	Unit quantity	Order no.
706 Vr Thread Measuring Rollers 60°, Thread pitch 1 mm	Pair	4521111
706 Vr Thread Measuring Rollers 60°, Thread pitch 2 mm	Pair	4521115
706 Vr Thread Measuring Rollers 60°, Thread pitch 3 mm	Pair	4521117
706 Vr Thread Measuring Rollers 60°, Thread pitch 4 mm	Pair	4521119
706 Vr Thread Measuring Rollers 60°, Thread pitch 5 mm	Pair	4521121
706 Vr Thread Measuring Rollers 60°, Thread pitch 6 mm	Pair	4521123
844 Tf Stand for 844T, Measuring Range 30 to 115mm		4450512



I.D./O.D. Indicator Gage 36 B for Internal and External Dimensions

The economical way to check outside diameters on the shop floor.



EMD-36B-10

Features

- Adjustable retraction of sensitive contact allows measurement of grooves and races. Retraction, normally set at 6 mm / 0.25", is adjustable to 10 mm / 0.40".
- Frictionless reed-spring (pantograph) motion transfer for repeatability.
- Gaging pressure is adjustable from 0 - 35 N / 0 - 8 lb.
- Two styles available. 2-point "T"-Plate or 3-point "V"-Plate.
- Two sizes available.
- Adjustable base: Gage can be positioned on any angle from horizontal to vertical.
- Variety of readout devices available.
- Reverse the top-plate to change from I.D. to O.D. measurement.
- Supplied with JW-9 Jaws.

Indicating Instruments ***

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

Catalog no.	Resolution switchable	Order no.
MarCator 1087 R	0.0005 / 0.001 / 0.002 /	4337660
MarCator 1087 R	0.005 / 0.01 mm .00002" / .00005" / .00001" / .0002" / .0005"	4337661

Technical Data

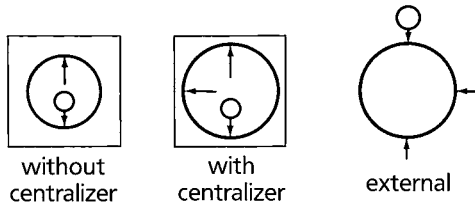
Style	Capacity		Order no. with .0001" Dial Indicator	Order no. with 0.002 mm Dial Indicator	Order no.* with Max μm [®] ///	Order no.* with Max μm [®] /// & Output	Order no.* with $\mu\text{Max}\mu\text{m}$ & Output	Order no.*** w/o Indicator, metric 8 mm mount shank
	I.D.	O.D.						
"T" Plate	.75 - 3.5" 19 - 89 mm	.25 - 5" 6 - 127 mm	36B-10	36B-10M	EMD-36B-10	EMD-36B-10D	EDI-36B-10	2003200
"T" Plate	.75 - 7.75" 19 - 197 mm	.25 - 8.75" 6 - 222 mm	36B-20	36B-20M	EMD-36B-20	EMD-36B-20D	EDI-36B-20	2003201
"V" Plate	.812 - 4.625" 21 - 117 mm	.312 - 5" 8 - 127 mm	36B-9	36B-9M		EMD-36B-9D	EDI-36B-9	
"V" Plate	.812 - 9" 21 - 229 mm	.312 - 9.5" 8 - 241 mm	36B-19	36B-19M		EMD-36B-19D	EDI-36B-19	

* Selectable Resolution

	Order no.
36B-10 with 1087B and Y & T Plate Sets	2061657
36B-20 with 1087B and Y & T Plate Sets	2061658

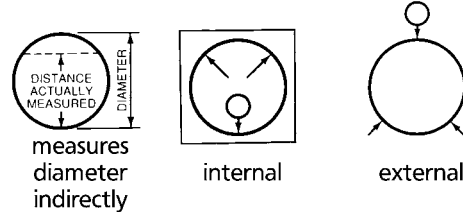
I.D./O.D. Indicator Gage 36 B for Internal and External Dimensions

"T" Plates



"T"-plates give a diameter reading directly across the diameter. A third contact may be used as a side-stop or centralizer.

"V" Plates



"V"-plates are self-centralizing. Three jaws are used and the measurement is of the distance between the sensitive contact and the chord formed by the two reference contacts. This measurement bears a direct relationship to the diameter and compensation is made by a special ratio indicator so diameter is read directly.

Used to inspect parts with odd number lobing conditions.

Jaw Sets

Model numbers on the preceding page include a set of **Model JW-9** Jaws. **Model JW-58** Jaws (tungsten carbide)



JW-9 Jaws (normally furnished)

Order no. (3 jaw set)	Adjustment Height	Material: Contact and Rest Surface	Replacement Contact Pins (3 required)
JW-9	0.79-19 mm / .031-.75"	Steel	PS-55
JW-58	0.79-18 mm / .031-.72"	Carbide	PS-226
2220461*	0.79-18 mm	Steel	2225694

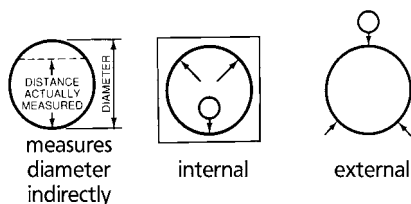
* Normally furnished with Metric Version. For special jaw configurations or for other indicators contact Mahr Federal Customer Resources Center.

Maxµm® III Indicator for "V"-Plate Models

Digital Range	Stem Length	Order no.
± 1 mm / ± .040" or ± .199 mm / ± .020"	17 mm / .670"	2033145*

* Maxµm® III 4:5 ratio model includes Data Output (6 pin) and user selectable setup for range, resolution, units and measuring direction.

EMD-36B-19D I.D./O.D. Gage



I.D./O.D. Indicator Gage 36 B for Internal and External Dimensions

Special Contacts: Steel

Special steel ball contacts can be made in a variety of different diameters for your measurement applications.



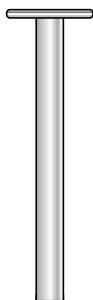
Special Contacts: Tungsten Carbide

Side mounted Tungsten Carbide spherical contacts can be made for measuring internal and external gears and splines.



Special Contacts: Doughnut

Specially designed Doughnut shaped contacts are used, as an example, in the bearing industry calling out for wider than normal contacts to reach into bearing raceways.



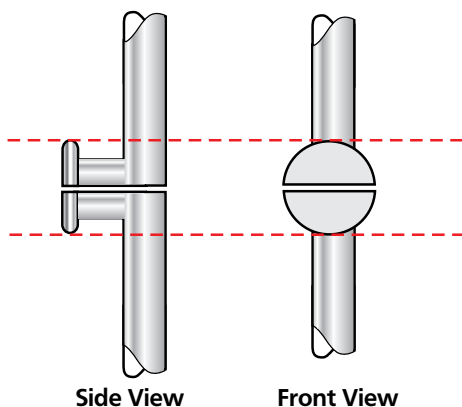
Special Contacts: TC Ball

Spherical diameter tips are ideal for measuring inside or outside radial formed recesses of precision parts.



Special Contacts: Pie Plate

Special jaws shaped like large half-discs, are used by the plastic industry to accurately measure semi-flexible round cups where reduced deflection is important.



Side View

Front View

JW-58 w/TC Wear Pads

Specially designed jaws supplied with Tungsten Carbide wear surfaces provide extra long jaw life.



Additional Contacts

844T Contact Points for use with 36B Gage

We have added to the list of standard contacts by modifying the JW-9 jaws to accept some of the Universal Gage 844T contacts. This modification was done by reaming out the jaws from .186" to .196" diameters so that they will accept the contacts that are used with 844 Ta, 844 Ti, 844 Tb, 844 Tc, 844 Td, 844 Tz and 844 Tv. With the added addition of the anvils below we have more measurement possibilities with the 36B gage such as Pitch Diameters of gears, Threads (Metric, Whitworth and American UST), Taper diameters and recesses.

For cylindrical pins please see catalog pages 10-13; for threads please refer to catalog page 10-14.

Flat shoulder anvils	Sold as a pair	4500050
Inside taper anvils	Sold as a pair	4500046
Measuring blades	Sold as a pair	4500114
Cylindrical Pins	Sold as a pair	See page 10-13
Semi-cylindrical anvils	Sold as a pair	4500055
Outside taper anvils	Sold as a pair	4500047
Measuring blades	Sold as each	4500015
External / internal threads	Sold as a pair	See page 10-14

Order no.



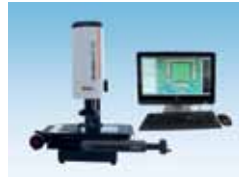
MarCal



Millimar



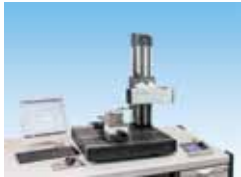
Digimar



MarVision



MarSurf



MarSurf



MarSurf



MarSurf



MarSurf



MarForm



MarForm



Precimar



Precimar



Precimar



MarShaft



MarGear



MarSolution



MarSolution



MarSolution



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