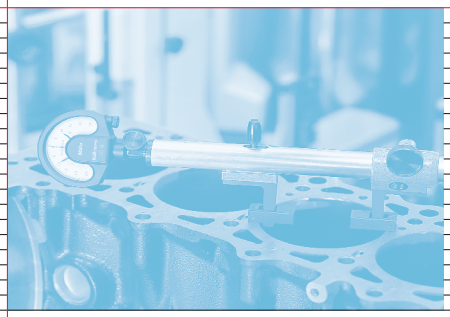
MULTIMAR I UNIVERSAL MEASURING INSTRUMENTS



UNIVERSAL GAGE 844 T

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Mahr

EXACTLY

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

► | 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 Gage 844 T

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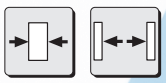
Applications



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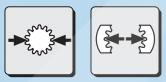

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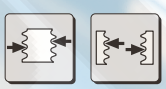

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Multimar. Universal Gage 844 T for external and internal dimensions

OVERVIEW

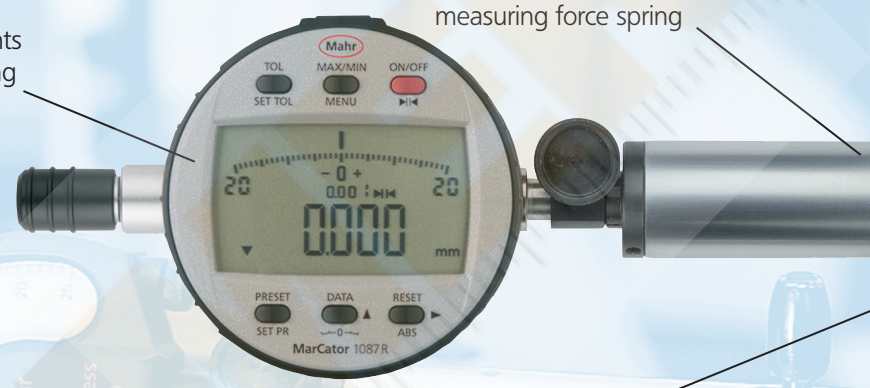
►I The Universal Gage **Multimar** 844 T. Easy to use and versatile; ideal for all your measuring requirements in dimensional metrology. I◄

Applications

- 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

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

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



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

Technical Data

Application range* mm	(inch)	Extended range of application mm / inch	Measuring force N	Distance of movable anvil mm / inch	Weight g / lbs	Order no.**	Order no. Wooden case
25 - 110	(1 - 4.33")	25 - 185 / 1 - 7.28"	5	10 / .4"	775 / 1.71	4500001***	4500010
100 - 260	(4 - 10.24")	100 - 335 / 4 - 13.18"	5	10 / .4"	1010 / 2.23	4500002***	4500011
250 - 610	(10 - 24.02")	250 - 685 / 10 - 26.96"	5	10 / .4"	1580 / 3.48	4500003***	4500012
600 - 1010	(24 - 39.75")	600 - 1085 / 24 - 42.71"	5	10 / .4"	2225 / 4.91	4500004***	4500013
1000 - 1500	(39.37 - 59.06")	1000 - 1575 / 39.37 - 62.01"	5	10 / .4"	2460 / 5.42	4500005***	–
1500 - 2000	(59.06 - 78.74")	1500 - 2075 / 59.06 - 81.69"	5	10 / .4"	2620 / 5.78	4500006***	–
2000 - 2500	(78.74 - 98.43")	2000 - 2575 / 78.74 - 101.38"	5	10 / .4"	2800 / 6.17	4500007***	–

* *These application ranges only apply to internal measurements. For external measuremenst the range of application is reduced by 25 mm (1").*
The extension of the application range takes place when the measuring elements are rotated through 180°.
All application ranges depend upon which anvil is being used.
From 1000 mm (range of application) a lightweight CRP tube is used.

** *Excludes indicating instrument*

*** *Supplied with a wooden case*

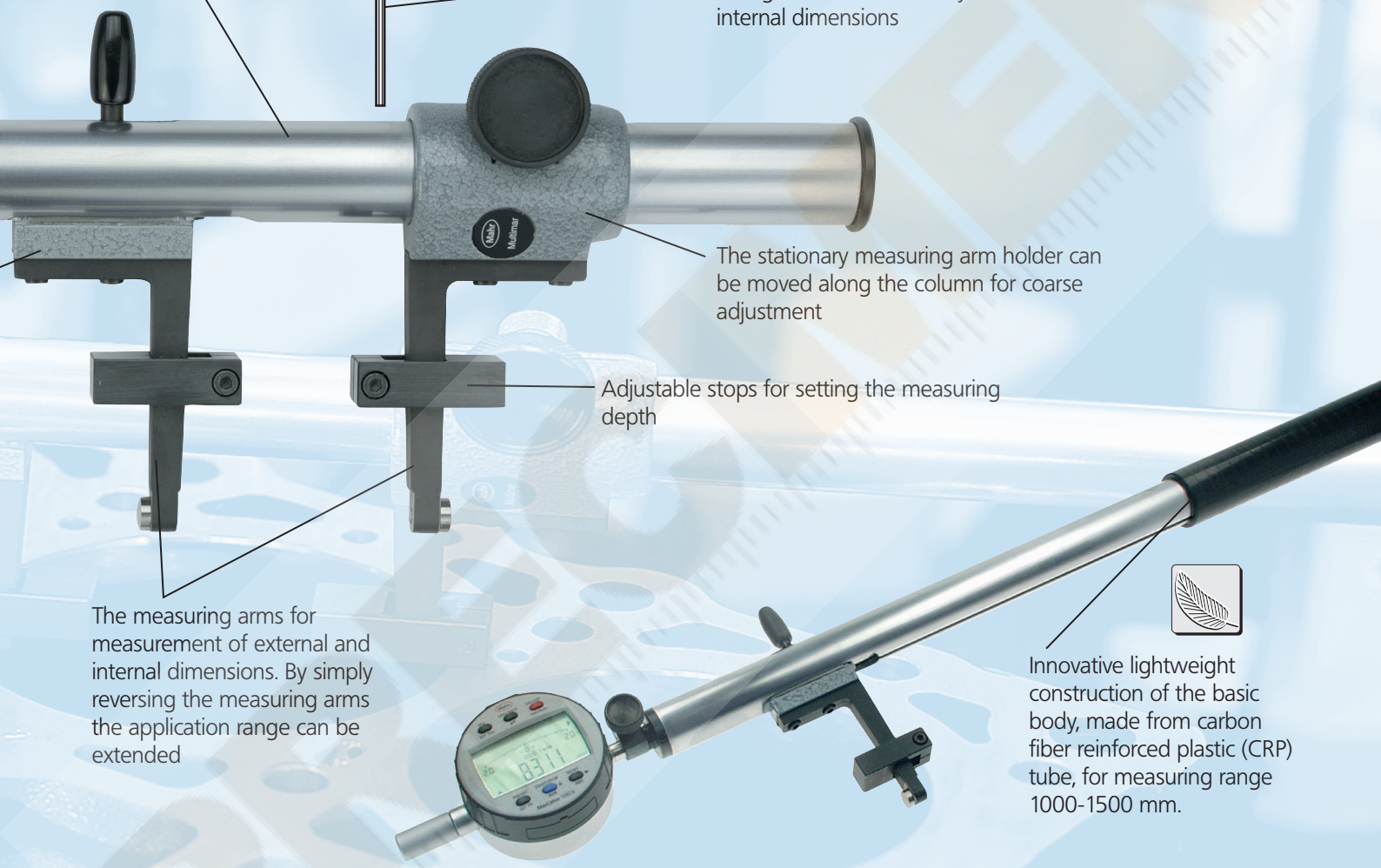
The basic Multimar 844 T gage is made from a rugged, ground and hard chrome plated column

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

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

Adjustable stops for setting the measuring depth

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



Innovative lightweight construction of the basic body, made from carbon fiber reinforced plastic (CRP) tube, for measuring range 1000-1500 mm.

Indicating Instruments

All indicating instruments with a 8 mm mounting shank can be used.
Recommended are:

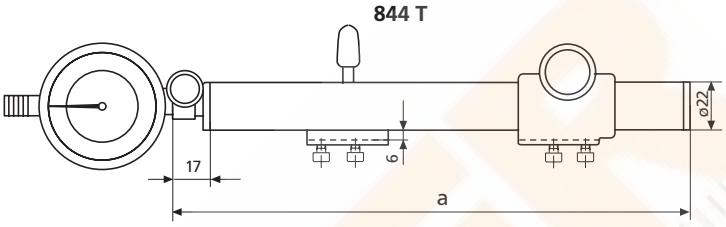
Indicating Instrument	Readings mm / *inch*	Order no. mm / *inch*
MarCator 810 S	0.01 mm	**4311000**
Zentimess 1010	0.01 mm */.0005"*	**4332000** / ***4332900***
Compramess 1004	5 µm */.0001"*	**4333000** / ***4333900***
Digital Indicator MarCator 1087 BR	0.001 mm* */.00005"*	**4337162**
Digital Indicator MarCator 1087 BRi	0.001 mm* */.00005"*	**4337164**
µMaxµm® II XL	1 µm */.00005"*	**2034258**

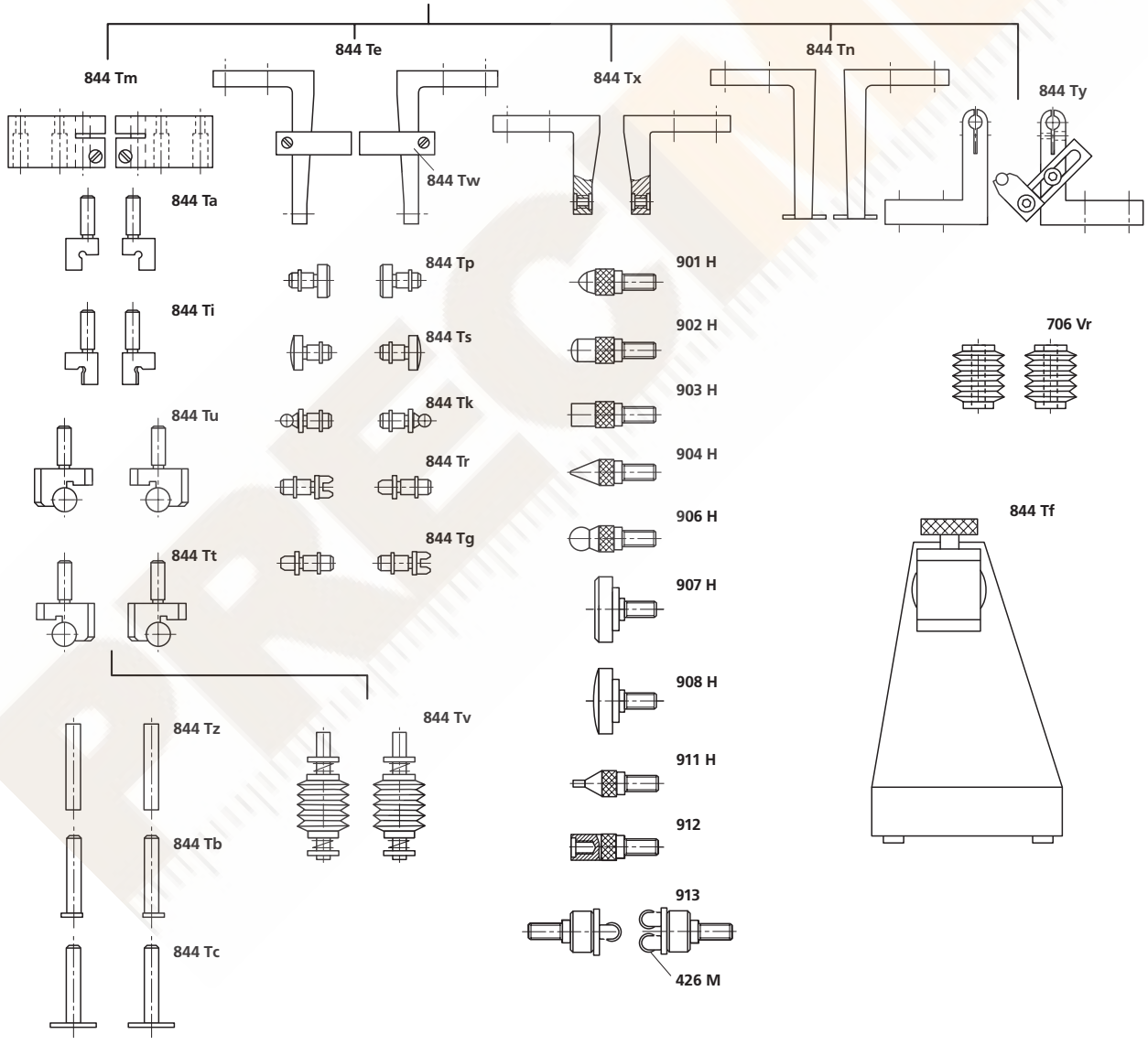
* Resolution
For further Digital Indicators please refer to our Dimensional Metrology catalog, Chapter 5

Overview. Measuring Arms, Stops, Mounting Attachments and Anvils

Dimensions

Range of application mm		(inch)		a mm / inch
25 -	110	(1	- 4.33“)	245 / 9.6“
100 -	260	(4	- 10.24“)	395 / 15.5“
250 -	610	(10	- 24.02“)	745 / 29.3“
600 -	1010	(24	- 39.75“)	1145 / 45.0“
1000 -	1500	(39.37	- 59.06“)	1675 / 65.9“
1500 -	2000	(59.06	- 78.74“)	2175 / 85.6“
2000 -	2500	(78.74	- 98.43“)	2675 / 105.3“



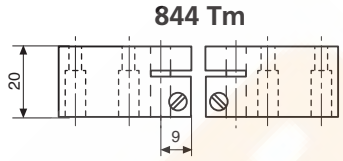


Overview. Measuring Arms, Stops and Mounting Attachments

Mounting Attachments 844 Tm

- Accommodates the following anvils 844 Ta, 844 Ti, 844 Tu, 844 Tt, 844 Tz, 844 Tb und 844 Tc
- Faces can also be used as stops
- Reversible arm holders for extending measuring range

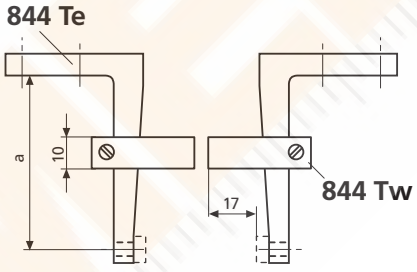
Order no. **4500030**



Measuring Arms 844 Te

- For external and internal diameters
- With a 3.5 mm (0.138") diameter mount, accommodates the interchangeable anvils 844 Tp, 844 Ts, 844 Tk, 844 Tr and 844 Tg
- Reversible arm holders for extending measuring range

Throat depth a in mm	25	50	100
Order no.	**4500020**	**4500021**	**4500022**



Stops 844 Tw

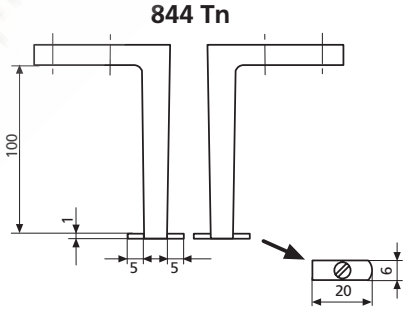
- To set the measuring depth limit. Can be attached and relocated on the following measuring arms 844 Te, 844 Tn, 844 Tx. Reversible for external and internal measurements

Order no. **4500109**

Measuring Arms 844 Tn

- Hardened steel
- To measure external and internal diameters on recesses and grooves at a greater measuring depth

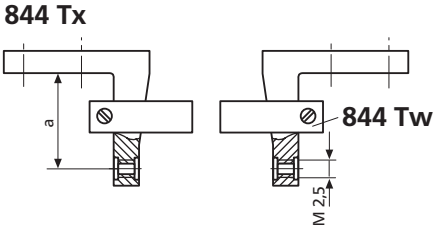
Throat depth a in mm	100
Order no.	**4500036**



Measuring Arms 844 Tx

- With an M 2.5 connection thread to screw in interchangeable anvils
- For internal and external dimensions on specially formed work pieces
- Measuring arms in conjunction with the measuring arms holder is reversible thus extending the range of measurement / application

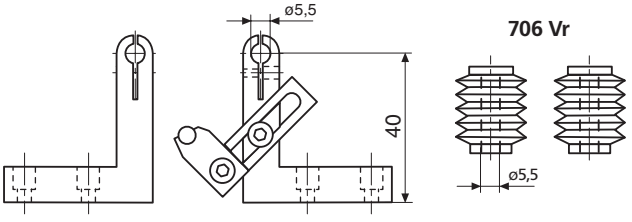
Throat depth a in mm	25	50	100
Order no.	**4500080**	**4500081**	**4500082**



Holder for Measuring Rollers 844 Ty

- With location bolts for the Measuring Rollers 706 Vr, plus a stop and stop pin

Order no. **4502463**



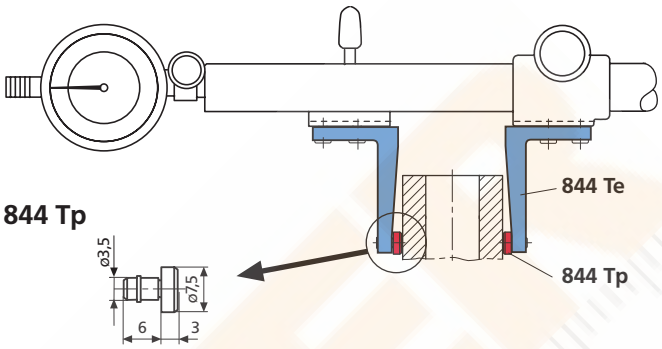
Measuring external and internal dimensions

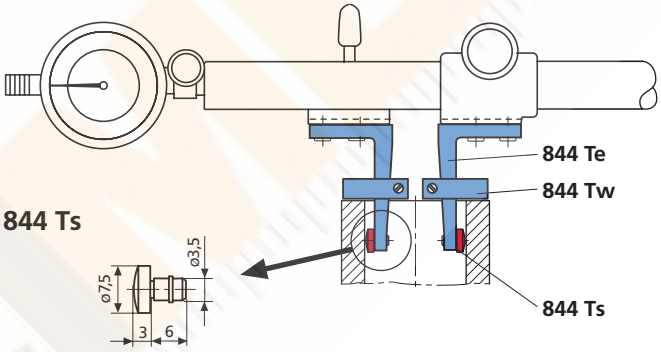
Anvils for Measuring Arms 844 Te

- Hardened steel
- With a cylindrical mounting shank and retainer ring that allows free rotation in the bore of measuring arms 844 Te

Cat. no.		Order no.
844 Tp	Flat; for external diameters, distance and widths	**4500040***
844 Ts	Spherical; for internal diameters	**4500045***

** 2 pieces are required*

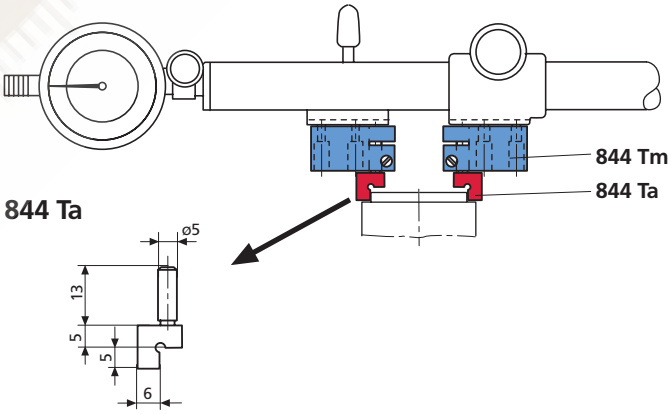


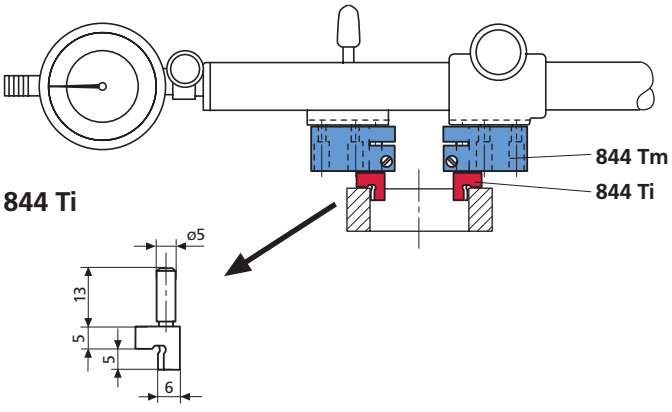


Shoulder anvils for mounting attachments 844 Tm

- Made from hardened steel
- For measuring narrow collars such as centering shoulders and other similar measuring tasks
- With cylindrical mounting shaft to attach into the mounting attachments 844 Tm

Cat. no.		Order no.
844 Ta	Flat; for external diameters	**4500050**
844 Ti	Semi-cylindrical, for internal diameters	**4500055**





Measuring tapers and distances

Roller Anvils 844 Tu*
for Mounting Attachments 844 Tm

- To measure the diameter of **outside tapers and dovetail guides**
- Roller is made of hardened steel

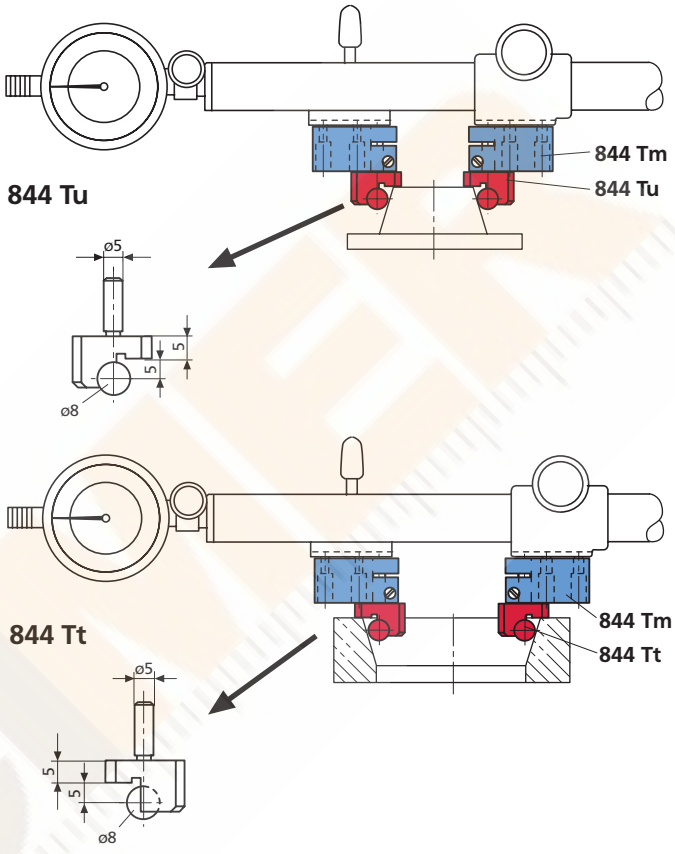
Cat. no.			Order no.
844 Tu*	Roller dia. Roller length Distance of the roller to the stop face	8 mm 14 mm 5 mm ±3 µm	**4500047**

Ball Anvils 844 Tt*
for Mounting Attachments 844 Tm

- To measure the diameter of **inside tapers** with a distance of 5 mm from the taper face
- Ball is made of hardened steel

Cat. no.			Order no.
844 Tt*	Ball dia. Distance of the ball to the stop face	8 mm 5 mm ±3 µm	**4500046**

** Outer and inner surfaces that are parallel to one another a combination sets (pair) consisting of a Roller Anvil 844 Tu and a Ball Anvil 844 Tt, are recommended.*



Measuring recesses

Anvils with Measuring Blades
for Mounting Attachments 844 Tm

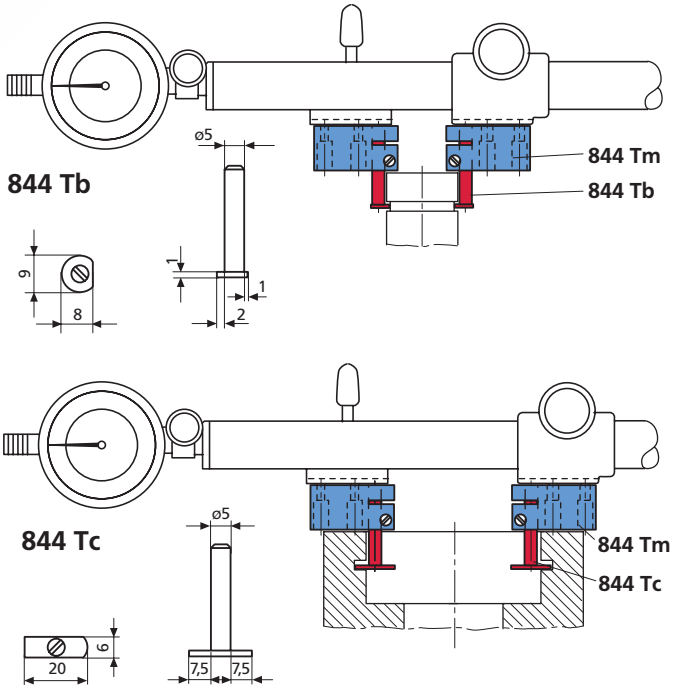
- For measuring centering shoulders and recesses on internal and external diameters; consists of a pin type holder, which is be moved to set the measuring depth in Mounting Attachment 844 Tm and a mounted measuring blade
- The face of the Mounting Attachment 844 Tm serves as stop

844 Tb
- With round measuring blades
- Ideal for workpieces that have a recess up to 2 mm in depth

844 Tc
- With long measuring blades
- Ideal for workpieces that have a recess up to 7.5 mm in depth

Cat. no.	Blade Length mm	Blade dia. mm	Range of adjustment mm	Order no.
844 Tb	–	9	0 – 10	**4500015***
844 Tc	20	–	0 – 10	**4500114***
	20	–	40 – 50	**4500115***

** 2 pieces are required*



Measuring external and internal tooth profiles

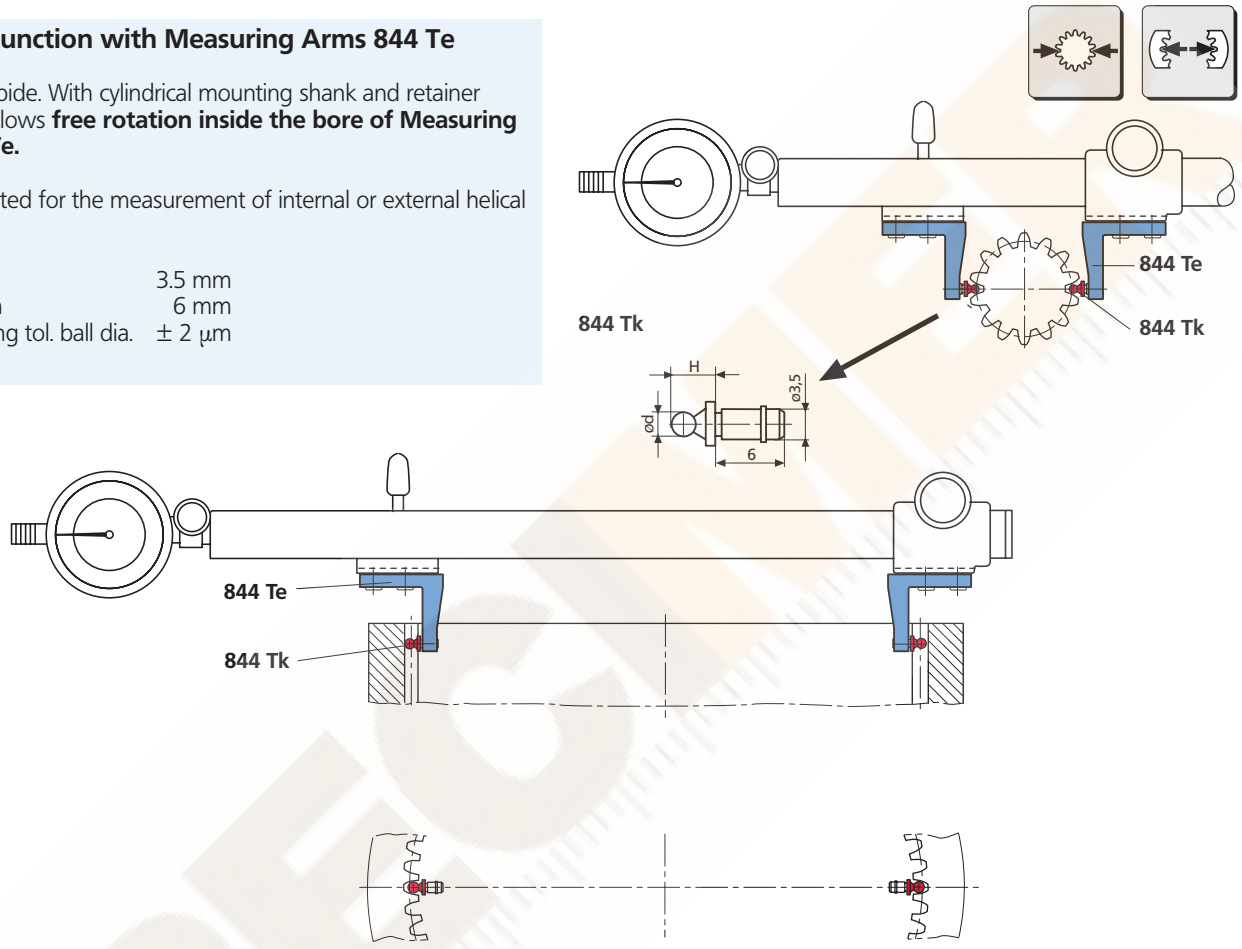
Ball Anvils 844 Tk

Use in conjunction with Measuring Arms 844 Te

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

Especially suited for the measurement of internal or external helical gear wheels.

Shank dia.	3.5 mm
Shank length	6 mm
Manufacturing tol. ball dia.	± 2 µm



dia. **d** mm	**H** mm	**Order no.***	dia. **d** mm	**H** mm	**Order no.***	dia. **d** mm	**H** mm	**Order no.***	dia. **d** mm	**H** mm	**Order no.***
0.5	3	**4502620**	1.385	3.9	**4502634**	2.3	4.8	**4502544**	4	6.5	**4500359**
0.551	3.1	**4502621**	1.5	4	**4500352**	2.386	4.9	**4502645**	4.5	7	**4500360**
0.62	3.1	**4502622**	1.524	4	**4502635**	2.438	4.9	**4502646**	4.835	7.3	**4502655**
0.623	3.1	**4502623**	1.54	4	**4502636**	2.5	5	**4500356**	5	7.5	**4500361**
0.63	3.1	**4502624**	1.6	4.1	**4502637**	2.667	5.2	**4502647**	5.25	7.8	**4502656**
0.722	3.2	**4502625**	1.65	4.2	**4502638**	2.704	5.2	**4502648**	5.486	8	**4502657**
0.862	3.4	**4502626**	1.7	4.2	**4502639**	2.713	5.2	**4502649**	5.5	8	**4500362**
0.895	3.4	**4502627**	1.75	4.3	**4500353**	2.721	5.2	**4502650**	6	8.5	**4500363**
0.965	3.5	**4502628**	1.782	4.3	**4502640**	2.743	5.2	**4502651**	6.096	8.6	**4502658**
1	3.5	**4500350**	1.8	4.3	**4502641**	2.75	5.3	**4500618**	6.35	8.9	**4502545**
1.1	3.6	**4502629**	1.829	4.3	**4502642**	3	5.5	**4500357**	6.5	9	**4502542**
1.118	3.6	**4502630**	1.9	4.4	**4502643**	3.048	5.5	**4502652**	7	9.5	**4502547**
1.125	3.6	**4502631**	2	4.5	**4500354**	3.25	5.8	**4502541**	8	10.5	**4502548**
1.25	3.8	**4500351**	2.032	4.5	**4502543**	3.4	5.9	**4502653**	9	11.5	**4502549**
1.35	3.9	**4502632**	2.25	4.8	**4502540**	3.5	6	**4500358**	10	12.5	**4502550**
1.372	3.9	**4502633**	2.284	4.8	**4502644**	3.658	6.2	**4502654**			

* *2 pieces are required*

Further sizes are available upon request (material: Steel)

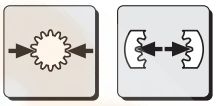
Measuring external and internal tooth profiles

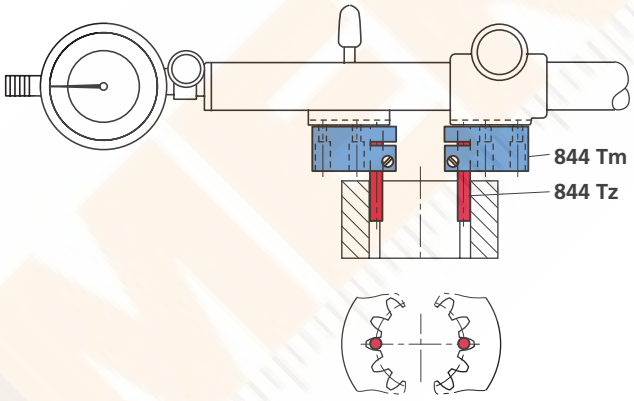
Cylindrical Measuring Pins 844 Tz

Use in conjunction with Mounting Attachments 844 Tm

- Made from steel, with shank for mounting into the Mounting Attachment 844 Tm.

Manufacturing tol. ± 2 µm

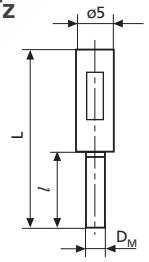




dia. D_M mm	Length l mm	Length L mm	Order no.
1	6	19.5	**4500500**
1.25	6	19.5	**4500501**
1.5	6	19.5	**4500502**
1.75	10	23.5	**4500503**
2	10	23.5	**4500504**
2.5	10	23.5	**4500506**
3	15	28.5	**4500507**
3.5	15	28.5	**4500508**
4	15	28.5	**4500509**
4.5	20	33.5	**4500510**
5	20	33.5	**4500511**
5.5	20	33.5	**4500512**
6	20	33.5	**4500513**

Further sizes are available upon request (material: Steel)

844 Tz



Measuring external threads

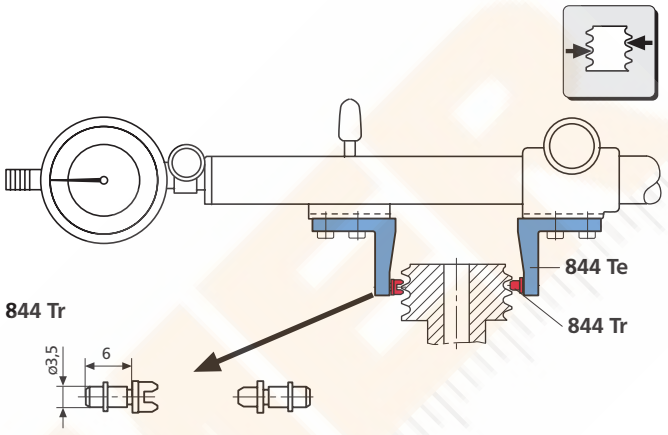
Interchangeable Anvils 844 Tr

Used in conjunction with Measuring Arms 844 Te

- Pair consists of V-anvil and blade

For pitch diameters

Shank dia.	3.5 mm
Shank length	6 mm



Metric external thread (60°)

Pitch mm	V-anvil Order no.	Blade Order no.
0.5 - 0.7	**4501000**	**4501200**
0.7 - 1	**4501001**	**4501201**
1.25 - 2	**4501002**	**4501202**
2 - 3.5	**4501003**	**4501203**
3.5 - 5	**4501004**	**4501204**
5 - 7	**4501005**	**4501205**
7 - 9	**4501006**	**4501206**

Whitworth external thread (55°)

Pitch range tpi	V-anvil Order no.	Blade Order no.
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**
3 - 2.5	**4501015**	**4501215**

American UST external thread (60°)

Pitch range tpi	V-anvil Order no.	Blade Order no.
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**

For pitch diameters

Trapezoid external thread acc. to DIN 103

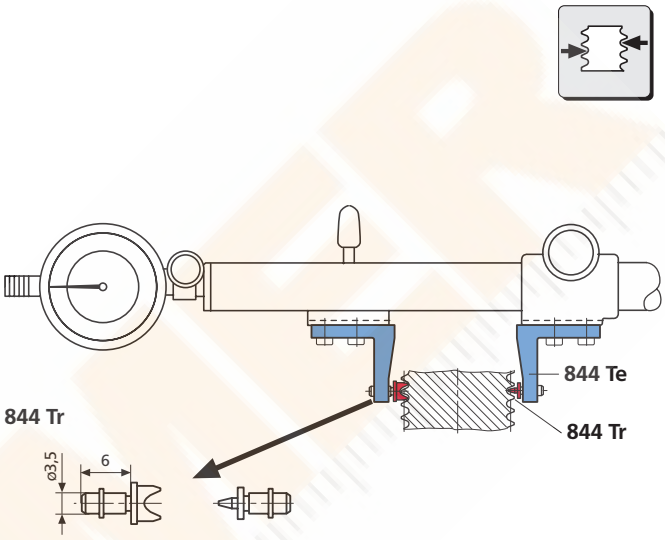
Pitch mm	V-anvil Order no.	Blade Order no.
1	**4501150**	**4501350**
1.5	**4501151**	**4501351**
2	**4501152**	**4501352**
3	**4501153**	**4501353**
4	**4501154**	**4501354**
5	**4501155**	**4501355**
6	**4501156**	**4501356**
7	**4501157**	**4501357**
8	**4501158**	**4501358**
9	**4501159**	**4501359**
10	**4501160**	**4501360**
12	**4501161**	**4501361**
14	**4501162**	**4501362**
16	**4501163**	**4501363**
18	**4501164**	**4501364**
20	**4501165**	**4501365**

Measuring external threads

Interchangeable Anvils 844 Tr

Used in conjunction with Measuring Arms 844 Te

- Pair consists of V-anvil and blade
- Each pitch requires a separate V-anvil
- Blade can be used for several pitches



For root diameters

Shank dia.	3.5 mm
Shank length	6 mm

Metric external thread **(60°)** American UST external thread **(60°)**			Whitworth external thread **(55°)**		
Pitch	V-anvil	Blade	Pitch range	V-anvil	Blade
mm	**Order no.**	**Order no.**	tpi	**Order no.**	**Order no.**
0.5	**4501026**		40	**4501083**	
0.6	**4501027**		36	**4501108**	**4501284**
0.7	**4501028**		32	**4501084**	
0.75	**4501029**	**4501232**	28	**4501085**	
0.8	**4501030**		26	**4501086**	
0.9	**4501031**		24	**4501087**	
1	**4501032**		22	**4501088**	**4501290**
1.25	**4501033**		20	**4501089**	
1.5	**4501034**	**4501235**	19	**4501090**	
1.75	**4501035**		18	**4501091**	
2	**4501036**		16	**4501092**	**4501293**
2.5	**4501037**	**4501238**	14	**4501093**	
3	**4501038**		12	**4501094**	**4501296**
3.5	**4501039**		11	**4501095**	
4	**4501040**	**4501241**	10	**4501096**	
4.5	**4501041**		9	**4501097**	**4501299**
5	**4501042**		8	**4501098**	
5.5	**4501043**	**4501244**	7	**4501099**	
6	**4501044**		6	**4501100**	
7	**4501045**		5	**4501101**	**4501302**
8	**4501046**	**4501247**	4.5	**4501102**	
9	**4501047**		4	**4501103**	
			3.5	**4501104**	**4501306**
			3.25	**4501105**	
			3	**4501106**	

Measuring internal threads

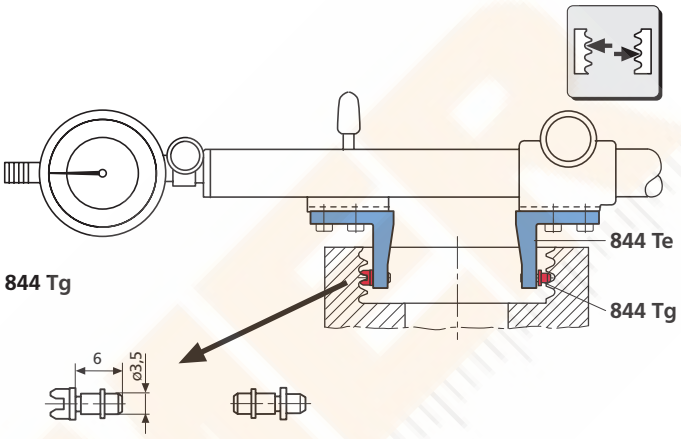
Interchangeable Anvils 844 Tg

Used in conjunction with Measuring Arms 844 Te

• Pair consists of V-anvil and tapered anvil.

For pitch diameter

Shank dia.	3.5 mm
Shank length	6 mm



Metric internal thread (60°)

Pitch mm	V-anvil Order no.	Tapered anvil Order no.
0.5 - 0.7	**4174300**	**4174600**
0.7 - 1	**4174301**	**4174601**
1.25 - 2	**4174302**	**4174602**
2 - 3.5	**4174303**	**4174603**
3.5 - 5	**4174304**	**4174604**
5 - 7	**4174305**	**4174605**
7 - 9	**4174306**	**4174606**

Whitworth internal thread (55°)

Pitch range tpi	V-anvil Order no.	Tapered anvil Order no.
40 - 32	**4174343**	**4174643**
32 - 24	**4174344**	**4174644**
24 - 18	**4174345**	**4174645**
18 - 14	**4174346**	**4174646**
14 - 10	**4174347**	**4174647**
10 - 7	**4174348**	**4174648**
7 - 4.5	**4174349**	**4174649**
4.5 - 3	**4174350**	**4174650**
3 - 2.5	**4174351**	**4174651**

American UST internal thread (60°)

Pitch range tpi	V-anvil Order no.	Tapered anvil Order no.
40 - 32	**4174415**	**4174615**
32 - 24	**4174416**	**4174616**
24 - 18	**4174417**	**4174617**
18 - 14	**4174418**	**4174618**
14 - 10	**4174419**	**4174919**
10 - 7	**4174420**	**4174620**
7 - 4.5	**4174421**	**4174621**
4.5 - 3	**4174422**	**4174622**

Trapezoid external thread acc. to DIN 103

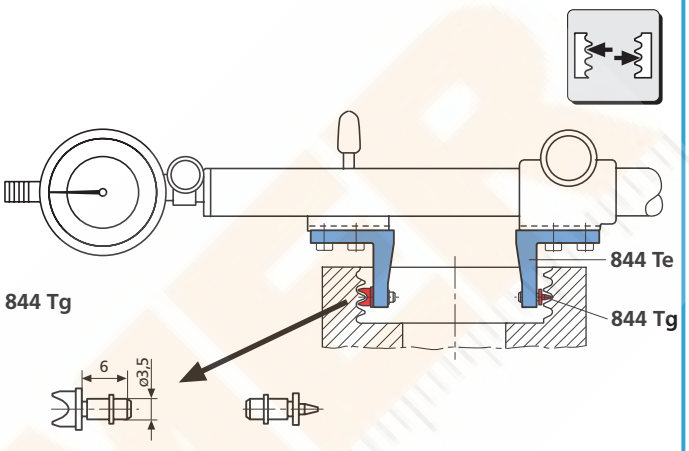
Pitch mm	V-anvil Order no.	Tapered anvil Order no.
1	**4501830**	**4501831**
1.5	**4501832**	**4501833**
2	**4501834**	**4501835**
3	**4501836**	**4501837**
4	**4501838**	**4501839**
5	**4501840**	**4501841**
6	**4501842**	**4501843**
7	**4501844**	**4501845**
8	**4501846**	**4501847**
9	**4501848**	**4501849**
10	**4501850**	**4501851**
12	**4174961**	**4174981**
14	**4174962**	**4174982**
16	**4174963**	**4174983**
18	**4174964**	**4174984**
20	**4174965**	**4174985**

Measuring internal threads

Interchangeable Anvils 844 Tg

Used in conjunction with Measuring Arms 844 Te

- Pair consists of V-anvil and pointed anvil
- Each pitch requires a separate V-anvil
- Pointed anvil can be used for several pitches.



For root diameters

Shank dia.	3.5 mm
Shank length	6 mm

Metric internal thread (60°)

Pitch mm	V-anvil Order no.	Pointed anvil Order no.
0.5	**4174313**	
0.6	**4174314**	
0.7	**4174315**	
0.75	**4174316**	**4174619**
0.8	**4174317**	
0.9	**4174318**	
1	**4174319**	
1.25	**4174321**	
1.5	**4174322**	**4174623**
1.75	**4174323**	
2	**4174325**	
2.5	**4174326**	**4174627**
3	**4174327**	
3.5	**4174329**	
4	**4174330**	**4174631**
4.5	**4174331**	
5	**4174333**	
5.5	**4174334**	**4174635**
6	**4174335**	
7	**4174337**	
8	**4174338**	**4174639**
9	**4174339**	

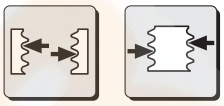
Whitworth internal thread (55°)
American UST internal thread (60°)

Pitch range tpi	V-anvil Order no.	Pointed anvil Order no.
40	**4174431**	
36	**4174427**	**4174632**
32	**4174432**	
28	**4174433**	
26	**4174435**	
24	**4174436**	
22	**4174437**	**4174939**
20	**4174438**	
19	**4174439**	
18	**4174440**	
16	**4174442**	**4174943**
14	**4174443**	
12	**4174445**	**4174947**
11	**4174446**	
10	**4174447**	
9	**4174449**	**4174949**
8	**4174450**	
7	**4174451**	
6	**4174453**	
5	**4174454**	**4174655**
4.5	**4174455**	
4	**4174457**	
3.5	**4174458**	**4174660**
3.25	**4174459**	
3	**4174460**	

Measuring external and internal threads

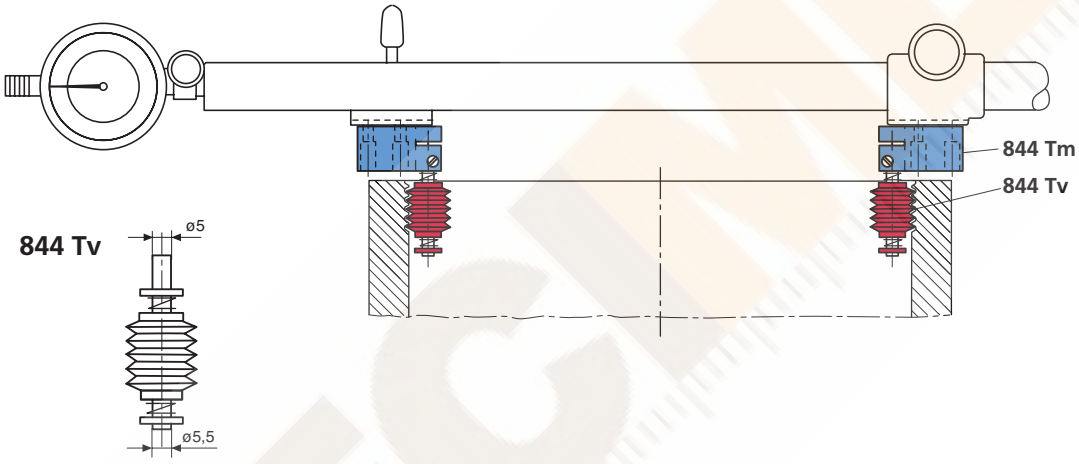
Interchangeable Measuring Rollers 844 Tv

Used in conjunction with Mounting Attachment 844 Tm



- Mounting shank fits into Mounting Attachment 844 Tm
- Each has two springs to alleviate the positioning on the correct pitch thread

Mounting Shank dia.: 5 mm



Metric Thread (60°)		Whitworth Thread (55°)		American UST Thread (60°)	
Pitch mm	**Order no.**	Range tpi	**Order no.**	Range tpi	**Order no.**
0.5	**4501705**	40	**4501769**	40	**4501819**
0.6	**4501706**	36	**4501768**	36	**4501818**
0.7	**4501707**	32	**4501767**	32	**4501817**
0.75	**4501708**	30	**4501766**	30	**4501816**
0.8	**4501709**	28	**4501765**	28	**4501815**
0.9	**4501710**	24	**4501764**	24	**4501814**
1	**4501711**	22	**4501763**	22	**4501813**
1.25	**4501712**	20	**4501762**	20	**4501812**
1.5	**4501713**	19	**4501761**	19	**4501811**
1.75	**4501714**	18	**4501760**	18	**4501810**
2	**4501715**	16	**4501759**	16	**4501809**
2.5	**4501716**	14	**4501758**	14	**4501808**
3	**4501717**	13	**4501757**	13	**4501807**
3.5	**4501718**	12	**4501756**	12	**4501806**
4	**4501719**	11	**4501755**	11	**4501805**
4.5	**4501720**	10	**4501754**	10	**4501804**
5	**4501721**	9	**4501753**	9	**4501803**
5.5	**4501722**	8	**4501752**	8	**4501802**
6	**4501723**	7	**4501751**	7	**4501801**
		6	**4501750**	6	**4501800**

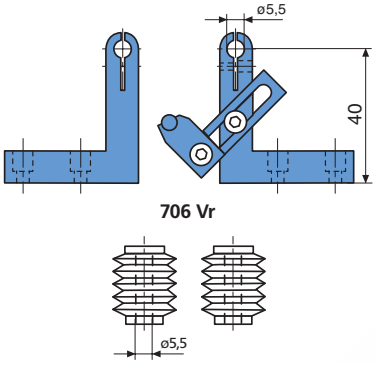
Special Threads. Interchangeable Measuring Rollers for special threads are also available on request.

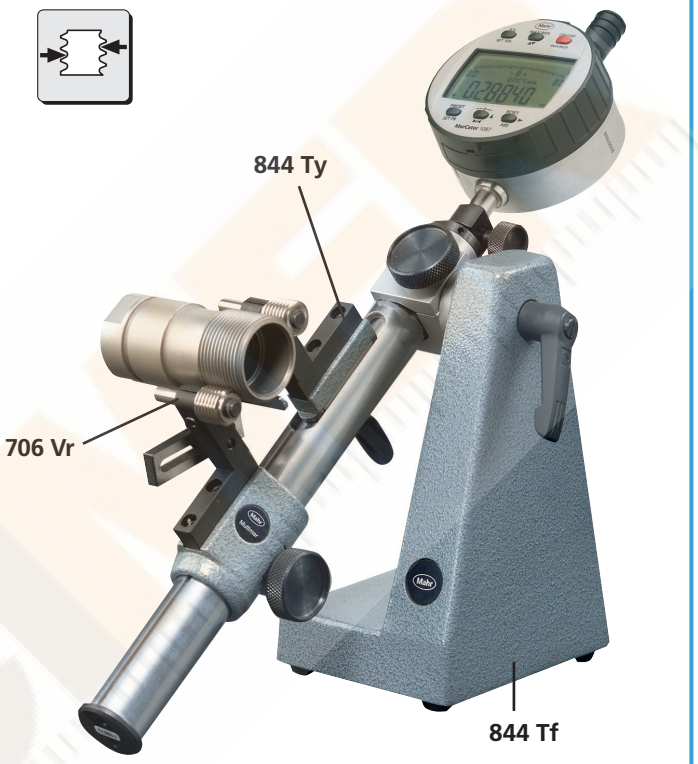
Measuring external threads

Measuring Roller Holder 844 Ty

- With location bolts for the Measuring Rollers 706 Vr
- With stop and stop pin

Order no. **4502463**





Stand 844 Tf

- For stationary use of the Universal Measuring Instrument 844 T Measuring range 25 - 110 mm
- User has both hands free for insertion of work piece
- The indicating instrument is always in the operator's line of vision
- Strong, stable cast base with clamping device for Universal Measuring Instrument

Order no. **4450512**

Thread Measuring Rollers 706 Vr

Used in conjunction with Measuring roller holder 844 Ty

Metric Thread (60°)		Whitworth Thread (55°)		American UST Thread (60°)	
Pitch mm	Order no.	Range tpi	Order no.	Range tpi	Order no.
0.5	**4521105**	40	**4521219**	40	**4521319**
0.6	**4521106**	36	**4521218**	36	**4521318**
0.7	**4521107**	32	**4521217**	32	**4521317**
0.75	**4521108**	30	**4521216**	30	**4521316**
0.8	**4521109**	28	**4521215**	28	**4521315**
0.9	**4521110**	24	**4521214**	24	**4521314**
1	**4521111**	22	**4521213**	22	**4521313**
1.25	**4521112**	20	**4521212**	20	**4521312**
1.5	**4521113**	19	**4521211**	19	**4521311**
1.75	**4521114**	18	**4521210**	18	**4521310**
2	**4521115**	16	**4521209**	16	**4521309**
2.5	**4521116**	14	**4521208**	14	**4521308**
3	**4521117**	13	**4521207**	13	**4521307**
3.5	**4521118**	12	**4521206**	12	**4521306**
4	**4521119**	11	**4521205**	11	**4521305**
4.5	**4521120**	10	**4521204**	10	**4521304**
5	**4521121**	9	**4521203**	9	**4521303**
5.5	**4521122**	8	**4521202**	8	**4521302**
6	**4521123**	7	**4521201**	7	**4521301**
		6	**4521200**	6	**4521300**

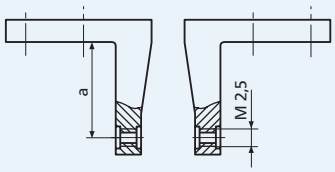
Special Threads. Interchangeable Measuring Rollers for special threads are also available on request.

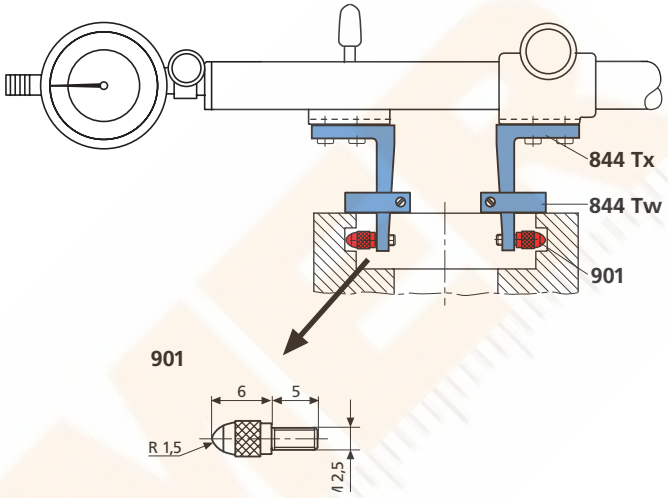
Measuring external and internal dimensions

Measuring Arms 844 Tx and associated Anvils

- With an M 2.5 connection thread to screw in the inter-changeable anvils
- For internal and external dimensions on specially formed work pieces
- Measuring arms on the measuring arm holder are reversible, therefore extending the range of measurement / application

844 Tx





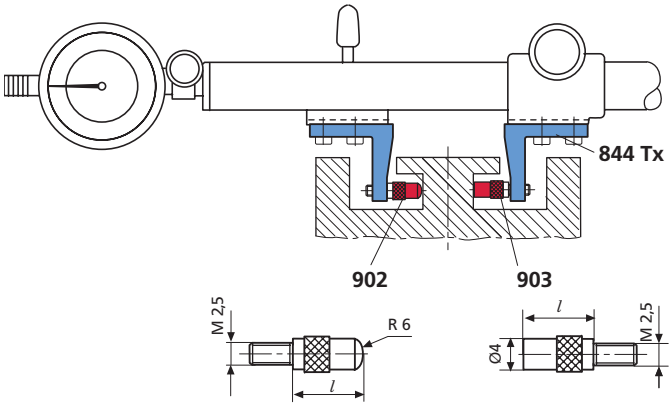
Throat depth a mm	25	50	100
Order no.	**4500080**	**4500081**	**4500082**

Standard **Contact Points / Anvils** 901, Ball dia. 3 mm

Cat. no.		**Order no.**
901	with Steel ball	**4360001**
901 H	with Carbide ball	**4360002**
901 R	with Ruby ball	**4360003**

Spherical Contact Points 902/Flat Contact Points 903

Length *l* mm	**902** Steel **Order no.**	**902 H** Carbide meas. face **Order no.**	**903** Steel **Order no.**	**903 H** Carbide-tipped **Order no.**
4	**4360007**	–	**4360070**	–
6	**4360009**	–	**4360071**	**4360101**
8	**4360010**	**4360040**	**4360072**	**4360102**
10	**4360011**	**4360041**	**4360073**	**4360103**
12	**4360012**	**4360042**	**4360074**	**4360104**
15	**4360013**	**4360043**	**4360075**	**4360105**
20	**4360014**	**4360044**	**4360076**	**4360106**
25	**4360015**	**4360045**	**4360077**	**4360107**
30	**4360016**	**4360046**	**4360300**	**4360110**
35	**4360017**	**4360047**	**4360078**	**4360108**
40	**4360019**	**4360049**	**4360310**	**4360111**
45	**4360026**	**4360050**	**4360303**	–
50	**4360018**	**4360048**	**4360079**	**4360109**
55	**4360031**			
65	**4360035**			
75	**4360020**			
85	**4360036**			
95	**4360029**			



Measuring external and internal dimensions

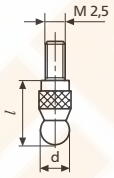
Measuring Arms 844 Tx and associated Anvils

Ball Contact Points 906 H

With carbide ball. manufacturing tolerance ball dia. 0/-6 µm

Ball dia. d mm	l mm	Order no.	Ball dia. d mm	l mm	Order no.
1	8.5	**4360150**	5.5	9	**4360161**
1.25	8.5	**4360151**	6	9	**4360162**
1.5	8.5	**4360152**	6.35 (1/4")	9	**4360163**
1.75	8.5	**4360153**	6.5	10	**4360164**
2	8.5	**4360154**	7	10	**4360165**
2.5	8.5	**4360155**	7.5	11	**4360166**
3	8.5	**4360156**	8	11	**4360167**
3.5	8.5	**4360157**	8.5	12	**4360168**
4	8.5	**4360158**	9	12	**4360169**
4.5	8.5	**4360159**	10	13	**4360170**
5	9	**4360160**			

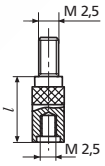
906 H



Measuring Spindle Extensions 912

Length l mm	Order no.	Length l mm	Order no.
10	**4360250**	35	**4360254**
15	**4360251**	50	**4360255**
20	**4360252**	75	**4360256**
25	**4360253**	100	**4360257**

912



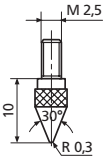
Special Contact Points / Anvils

		Order no.
Conical Contact Points, carbide tip	**904 H**	**4360131**
Flat Contact Points*, steel, A = 1 cm²	**907**	**4360200**
carbide tipped, dia. 7 mm	**907 H**	**4360201**
Spherical Contact Points, steel	**908**	**4360210**
carbide tipped	**908 H**	**4360211**
Pin Contact Point, carbide tipped, dia. 1 mm, flat	**911 H**	**4360240**
Flat Contact Point, for mounting a pin gage holder 426 M for measuring threads using the 3 wire method	**913**	**4360400**

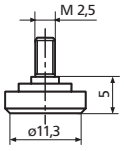
* *When using an anvil with a flat contact face the opposite anvil must have a spherical contact face.*

Note:
The Order no's on pages18 and 19 only relate to one piece.

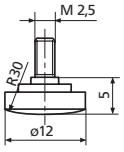
904 H



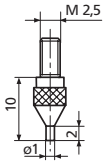
907



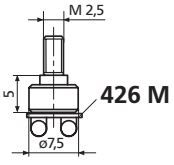
908 H



911 H



913



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