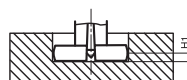
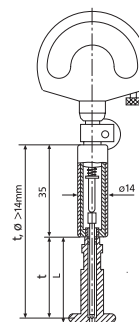


# MaraMeter 844 K

## Self-Centering Dial Bore Gage

### FEATURES

- Maximum wear resistance due to **hard chrome plating**
- Constant measuring force as a result of built-in spring, eliminating user influence
- Highly versatile
  - Each gage covers a broad range
  - Quickly and easily adjustable to any size and type of measuring application (within the limits)
- Extensive modular system is composed of measuring probe, holder, depth extensions, Right angle attachments and depth stops
- **Package contains:** measuring holder, probe, expanding pin, wooden case, excludes indicator



### Application:

- Measuring the diameter, roundness and conicity of bores
- Spring loaded halves of measuring probe are split via expanding pin with precision lapped taper; this movement is transferred to indicating instrument

### TECHNICAL DATA

Order no.	Product type	Nominal size	Individual probe measuring range	Measuring range	Design	Number of measuring probes	Linearity deviation $f_e$	Repeatability $f_w$
		mm	mm	mm		Stück		$\mu\text{m}$
4470000	844 K	0.50	0.47 - 0.53	0.47 - 0.97	Standard	6	2%, min. 1 $\mu\text{m}$	1
		0.55	0.52 - 0.58					
		0.60	0.57 - 0.67					
		0.70	0.65 - 0.77					
		0.80	0.75 - 0.87					
		0.90	0.85 - 0.97					
4470001	844 K	1.00	0.95 - 1.15	0.95 - 1.55	Standard	5	2%, min. 1 $\mu\text{m}$	1
		1.10	1.07 - 1.25					
		1.20	1.17 - 1.35					
		1.30	1.27 - 1.45					
		1.40	1.37 - 1.55					
4470002	844 K	1.75	1.50 - 1.90	1.5 - 4.2	Standard	10	1%, min. 1 $\mu\text{m}$	1
		2.00	1.80 - 2.20					
		2.25	2.05 - 2.45					
		2.50	2.30 - 2.70					
		2.75	2.55 - 2.95					
		3.00	2.80 - 3.20					
		3.25	3.05 - 3.45					
		3.50	3.30 - 3.70					
		3.75	3.55 - 3.95					
		4.00	3.80 - 4.20					
4470003	844 K	4.00	3.70 - 4.30	3.7 - 7.3	Standard	7	1%, min. 1 $\mu\text{m}$	1
		4.50	4.20 - 4.80					
		5.00	4.70 - 5.30					
		5.50	5.20 - 5.80					
		6.00	5.70 - 6.30					
		6.50	6.20 - 6.80					
		7.00	6.70 - 7.30					
4470004	844 K	7.50	7.20 - 7.80	6.7 - 10.3	Standard	7	1%, min. 1 $\mu\text{m}$	1
		8.00	7.70 - 8.30					
		8.50	8.20 - 8.80					
		9.00	8.70 - 9.30					
		9.50	9.20 - 9.80					
		10.00	9.70 - 10.30					
4470005	844 K	10.00	9.40 - 10.60	9.4 - 18.6	Standard	9	1%, min. 1 $\mu\text{m}$	1
		11.00	10.40 - 11.60					
		12.00	11.40 - 12.60					
		13.00	12.40 - 13.60					
		14.00	13.40 - 14.60					
		15.00	14.40 - 15.60					
		16.00	15.40 - 16.60					
		17.00	16.40 - 17.60					
		18.00	17.40 - 18.60					

# MaraMeter 844 K

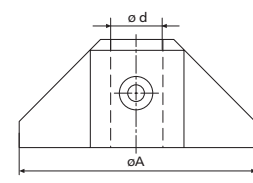
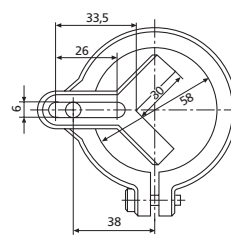
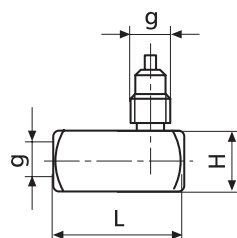
## Self-Centering Dial Bore Gage

Order no.	Nominal size	Individual probe measuring range	Dimension H1	L	Measuring depth
	mm	mm		mm	mm
4470000	0.50	0.47 - 0.53	0.25	19.50	1.25
	0.55	0.52 - 0.58	0.27	19.50	1.5
	0.60	0.57 - 0.67	0.29	19.50	1.7
	0.70	0.65 - 0.77	0.31	19.50	2.2
	0.80	0.75 - 0.87	0.33	19.50	2.55
	0.90	0.85 - 0.97	0.35	19.50	2.65
4470001	1.00	0.95 - 1.15	0.6	19.50	10.5
	1.10	1.07 - 1.25	0.6	19.50	10.5
	1.20	1.17 - 1.35	0.6	19.50	10.5
	1.30	1.27 - 1.45	0.6	19.50	10.5
	1.40	1.37 - 1.55	0.6	19.50	10.5
4470002	1.75	1.50 - 1.90	0.9	25.30	16
	2.00	1.80 - 2.20	0.9	25.30	16
	2.25	2.05 - 2.45	0.9	25.30	16
	2.50	2.30 - 2.70	1.2	30.60	21
	2.75	2.55 - 2.95	1.2	30.60	21
	3.00	2.80 - 3.20	1.2	30.60	21
	3.25	3.05 - 3.45	1.2	30.60	21
	3.50	3.30 - 3.70	1.2	30.60	21
	3.75	3.55 - 3.95	1.2	30.60	21
	4.00	3.80 - 4.20	1.2	30.60	21
4470003	4.00	3.70 - 4.30	2.0	47.30	38
	4.50	4.20 - 4.80	2.0	47.30	38
	5.00	4.70 - 5.30	2.0	47.30	38
	5.50	5.20 - 5.80	2.0	47.30	38
	6.00	5.70 - 6.30	2.0	47.30	38
	6.50	6.20 - 6.80	2.0	47.30	38
	7.00	6.70 - 7.30	2.0	47.30	38

Order no.	Nominal size	Individual probe measuring range	Dimension H1	L	Measuring depth
	mm	mm		mm	mm
4470004	7.50	7.20 - 7.80	2.0	47.30	38
	8.00	7.70 - 8.30	2.0	47.30	38
	8.50	8.20 - 8.80	2.0	47.30	45
	9.00	8.70 - 9.30	2.0	47.30	45
	9.50	9.20 - 9.80	2.0	47.30	45
	10.00	9.70 - 10.30	2.0	47.30	45
4470005	10.00	9.40 - 10.60	3.3	48.50	45
	11.00	10.40	3.3	48.50	45
	12.00	-11.60	3.3	48.50	45
	13.00	11.40	3.3	48.50	45
	14.00	-12.60	3.3	48.50	45
	15.00	12.40	3.3	48.50	45
	16.00	-13.60	3.3	48.50	80
	17.00	13.40	3.3	48.50	80
	18.00	-14.60	3.3	48.50	80
			14.40		
		-15.60			
		15.40			
		-16.60			
		16.40			
		-17.60			
		17.40 - 18.60			

### ACCESSORIES

Order no.	g	Product name	Product type
4335000		Millimess 0.5 µm, ± 25 µm	1002
4334000		Millimess 1 µm, ± 50 µm	1003
4333000		Millimess 5 µm, ± 130 µm	1004
4337662		Digital indicator, 0.0005 mm, 12.5 mm	1087 BR
4337664		Digital indicator, 0.0005 mm, 12.5 mm	1087 BRi
4470115		Depth stop, mounting-ø d = 8 mm, A = 24 mm, h = 60 mm	844 Dt
4470120		Clampable angle stop for 844 Kst measuring stand	844 Ka
4470160		Ring gage sets, 0.5 / 0.55 / 0.6 / 0.7 / 0.8 / 0.9 mm	844 Ke
4470161		Ring gage sets, 1 / 1.1 / 1.2 / 1.3 / 1.4 mm	844 Ke
4470162		Ring gage sets, 1.75 / 2 / 2.25 / 2.5 / 2.75 / 3 / 3.25 / 3.5 / 3.75 / 4 mm	844 Ke
4470163		Ring gage sets, 4 / 4.5 / 5 / 5.5 / 6 / 6.5 / 7 mm	844 Ke
4470164		Ring gage sets, 7 / 7.5 / 8 / 8.5 / 9 / 9.5 / 10 mm	844 Ke
4470165		Ring gage sets, 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 mm	844 Ke
4470100		Measuring stand for quick measurements, table diameter 58 mm, Max. object height approx. 100 mm	844 Kst
4470105		Floating holder for 844 Kst measuring stand	844 Ksts
4470070	M6 x 0.75	Extensions, D = 8 mm, L = 64 mm	844 Kv
4470110	M6 x 0.75	Right angle attachment, L = 26.5 mm, H = 22.5 mm	844 Kw

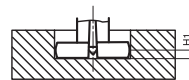
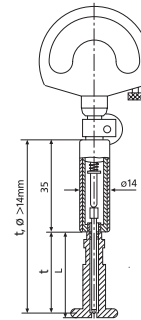


# MaraMeter 844 KH

## Self-Centering Dial Bore Gage

### FEATURES

- Maximum wear resistance due to carbide tipped faces
- Constant measuring force as a result of built-in spring, eliminating user influence
- Highly versatile
  - Each gage covers a broad range
  - Quickly and easily adjustable to any size and type of measuring application (within the limits)
- Extensive modular system is composed of measuring probe, holder, depth extensions, Right angle attachments and depth stops
- **Package contains:** measuring holder, probe, expanding pin, wooden case, excludes indicator



### Application:

- Measuring the diameter, roundness and conicity of bores
- Spring loaded halves of measuring probe are split via expanding pin with precision lapped taper; this movement is transferred to indicating instrument

### TECHNICAL DATA

Order no.	Product type	Nominal size	Individual probe measuring range	Measuring range	Design	Number of measuring probes	Linearity deviation $f_e$	Repeatability $f_w$
		mm	mm	mm		Stück		$\mu\text{m}$
4471002	844 KH	1.75	1.50 - 1.90	1.5 - 4.2	Standard	10	1%, min. 1 $\mu\text{m}$	1
		2.00	1.80 - 2.20					
		2.25	2.05 - 2.45					
		2.50	2.30 - 2.70					
		2.75	2.55 - 2.95					
		3.00	2.80 - 3.20					
		3.25	3.05 - 3.45					
		3.50	3.30 - 3.70					
		3.75	3.55 - 3.95					
		4.00	3.80 - 4.20					
4471003	844 KH	4.00	3.70 - 4.30	3.7 - 7.3	Standard	7	1%, min. 1 $\mu\text{m}$	1
		4.50	4.20 - 4.80					
		5.00	4.70 - 5.30					
		5.50	5.20 - 5.80					
		6.00	5.70 - 6.30					
		6.50	6.20 - 6.80					
		7.00	6.70 - 7.30					
4471004	844 KH	7.50	7.20 - 7.80	7.2 - 10.3	Standard	7	1%, min. 1 $\mu\text{m}$	1
		8.00	7.70 - 8.30					
		8.50	8.20 - 8.80					
		9.00	8.70 - 9.30					
		9.50	9.20 - 9.80					
		10.00	9.70 - 10.30					
4471005	844 KH	10.00	9.40 - 10.60	9.4 - 18.6	Standard	9	1%, min. 1 $\mu\text{m}$	1
		11.00	10.40 - 11.60					
		12.00	11.40 - 12.60					
		13.00	12.40 - 13.60					
		14.00	13.40 - 14.60					
		15.00	14.40 - 15.60					
		16.00	15.40 - 16.60					
		17.00	16.40 - 17.60					
		18.00	17.40 - 18.60					

# MaraMeter 844 KH

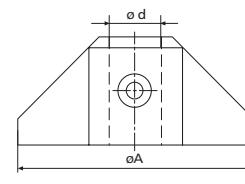
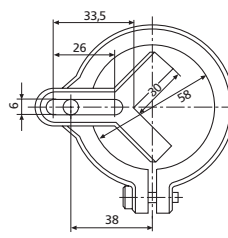
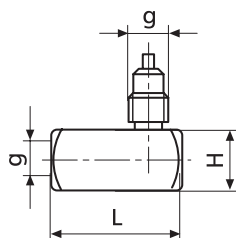
## Self-Centering Dial Bore Gage

Order no.	Nominal size	Individual probe measuring range	Dimension H1	L	Measuring depth
	mm	mm		mm	mm
4471002	1.75	1.50 - 1.90	0.9	25.30	16
	2.00	1.80 - 2.20	0.9	25.30	16
	2.25	2.05 - 2.45	0.9	25.30	16
	2.50	2.30 - 2.70	1.2	30.60	21
	2.75	2.55 - 2.95	1.2	30.60	21
	3.00	2.80 - 3.20	1.2	30.60	21
	3.25	3.05 - 3.45	1.2	30.60	21
	3.50	3.30 - 3.70	1.2	30.60	21
	3.75	3.55 - 3.95	1.2	30.60	21
	4.00	3.80 - 4.20	1.2	30.60	21
4471003	4.00	3.70 - 4.30	2.0	47.30	38
	4.50	4.20 - 4.80	2.0	47.30	38
	5.00	4.70 - 5.30	2.0	47.30	38
	5.50	5.20 - 5.80	2.0	47.30	38
	6.00	5.70 - 6.30	2.0	47.30	38
	6.50	6.20 - 6.80	2.0	47.30	38
	7.00	6.70 - 7.30	2.0	47.30	38
4471004	7.50	7.20 - 7.80	2.0	47.30	38
	8.00	7.70 - 8.30	2.0	47.30	38
	8.50	8.20 - 8.80	2.0	47.30	45
	9.00	8.70 - 9.30	2.0	47.30	45
	9.50	9.20 - 9.80	2.0	47.30	45
	10.00	9.70 - 10.30	2.0	47.30	45

Order no.	Nominal size	Individual probe measuring range	Dimension H1	L	Measuring depth	
	mm	mm		mm	mm	
4471005	10.00	9.40	3.3	48.50	45	
	11.00	-10.60	3.3	48.50	45	
	12.00	10.40	3.3	48.50	45	
	13.00	-11.60	3.3	48.50	45	
	14.00	11.40	3.3	48.50	45	
	15.00	-12.60	3.3	48.50	45	
	16.00	12.40	3.3	48.50	80	
	17.00	-13.60	3.3	48.50	80	
	18.00	13.40	3.3	48.50	80	
			-14.60			
			14.40			
			-15.60			
			15.40			
		-16.60				
		16.40				
		-17.60				
		17.40 - 18.60				

### ACCESSORIES

Order no.	g	Product name	Product type
4335000		Millimess 0.5 µm, ± 25 µm	1002
4334000		Millimess 1 µm, ± 50 µm	1003
4333000		Millimess 5 µm, ± 130 µm	1004
4337662		Digital indicator, 0.0005 mm, 12.5 mm	1087 BR
4337664		Digital indicator, 0.0005 mm, 12.5 mm	1087 BRi
4470115		Depth stop, mounting-ø d = 8 mm, A = 24 mm, h = 60 mm	844 Dt
4470120		Clampable angle stop for 844 Kst measuring stand	844 Ka
4470162		Ring gage sets, 1.75 / 2 / 2.25 / 2.5 / 2.75 / 3 / 3.25 / 3.5 / 3.75 / 4 mm	844 Ke
4470163		Ring gage sets, 4 / 4.5 / 5 / 5.5 / 6 / 6.5 / 7 mm	844 Ke
4470164		Ring gage sets, 7 / 7.5 / 8 / 8.5 / 9 / 9.5 / 10 mm	844 Ke
4470165		Ring gage sets, 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 mm	844 Ke
4470100		Measuring stand for quick measurements, table diameter 58 mm, Max. object height approx. 100 mm	844 Kst
4470105		Floating holder for 844 Kst measuring stand	844 Ksts
4470070	M6 x 0.75	Extensions, D = 8 mm, L = 64 mm	844 Kv
4470110	M6 x 0.75	Right angle attachment, L = 26.5 mm, H = 22.5 mm	844 Kw

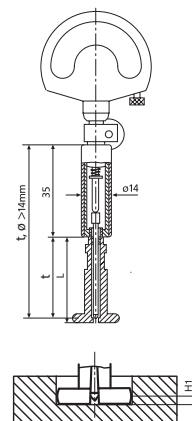


# MaraMeter 844 KS

## Self-Centering Dial Bore Gage

### FEATURES

- Maximum wear resistance due to hard chrome plating
- Constant measuring force as a result of built-in spring, thus eliminating user influence
- Highly versatile
  - Each gage covers a broad range
  - Quickly and easily adjustable to any size and type of measuring application (within the limits)
- Extensive modular system is composed of measuring probe, holder, depth extensions, Right angle attachments and depth stops
- **Package contains:** measuring holder, probe, expanding pin, wooden case, excludes indicator



### Application:

- Measuring the diameter, roundness and conicity of bores
- Spring loaded halves of measuring probe are split via expanding pin with precision lapped taper; this movement is transferred to indicating instrument

### TECHNICAL DATA

Order no.	Product type	Nominal size	Individual probe measuring range mm	Measuring range	Design	Number of measuring probes	Linearity deviation $f_e$	Repeat-ability $f_w$
4482163	844 KS	mm	mm	mm	For blind bores	Stück	1%, min. 1 $\mu\text{m}$	1
		1.75	1.50 – 1.90	1.5 – 4.2				
		2.00	1.80 – 2.20					
		2.25	2.05 – 2.45					
		2.50	2.30 – 2.70					
		2.75	2.55 – 2.95					
		3.00	2.80 – 3.20					
		3.25	3.05 – 3.45					
		3.50	3.30 – 3.70					
		3.75	3.55 – 3.95					
4.00	3.80 – 4.20							
4482164	844 KS	mm	mm	mm	For blind bores	7	1%, min. 1 $\mu\text{m}$	1
		4.00	3.70 – 4.30	3.7 – 7.3				
		4.50	4.20 – 4.80					
		5.00	4.70 – 5.30					
		5.50	5.20 – 5.80					
		6.00	5.70 – 6.30					
4482165	844 KS	mm	mm	mm	For blind bores	7	1%, min. 1 $\mu\text{m}$	1
		7.50	7.20 – 7.80	6.7 – 10.3				
		8.00	7.70 – 8.30					
		8.50	8.20 – 8.80					
		9.00	8.70 – 9.30					
		9.50	9.20 – 9.80					
4482166	844 KS	mm	mm	mm	For blind bores	9	1%, min. 1 $\mu\text{m}$	1
		10.00	9.40 – 10.60	9.4 – 18.6				
		11.00	10.40 – 11.60					
		12.00	11.40 – 12.60					
		13.00	12.40 – 13.60					
		14.00	13.40 – 14.60					
		15.00	14.40 – 15.60					
		16.00	15.40 – 16.60					
		17.00	16.40 – 17.60					
18.00	17.40 – 18.60							

# MaraMeter 844 KS

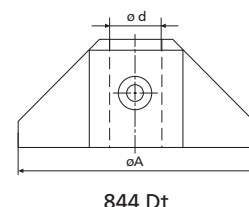
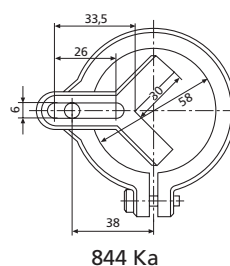
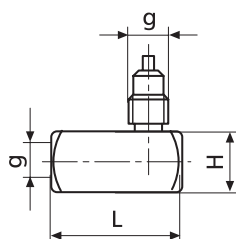
## Self-Centering Dial Bore Gage

Order no.	Nominal size	Individual probe measuring range	Dimension H1	L	Measuring depth
	mm	mm		mm	mm
4482163	1.75	1.50 - 1.90	0.3	25.30	16
	2.00	1.80 - 2.20	0.3	25.30	16
	2.25	2.05 - 2.45	0.3	25.30	16
	2.50	2.30 - 2.70	0.3	30.60	21
	2.75	2.55 - 2.95	0.3	30.60	21
	3.00	2.80 - 3.20	0.3	30.60	21
	3.25	3.05 - 3.45	0.3	30.60	21
	3.50	3.30 - 3.70	0.3	30.60	21
	3.75	3.55 - 3.95	0.3	30.60	21
	4.00	3.80 - 4.20	0.3	30.60	21
	4482164	4.00	3.70 - 4.30	0.5	47.30
4.50		4.20 - 4.80	0.5	47.30	38
5.00		4.70 - 5.30	0.5	47.30	38
5.50		5.20 - 5.80	0.5	47.30	38
6.00		5.70 - 6.30	0.5	47.30	38
6.50		6.20 - 6.80	0.5	47.30	38
7.00		6.70 - 7.30	0.5	47.30	38
4482165		7.50	7.20 - 7.80	0.5	47.30
	8.00	7.70 - 8.30	0.5	47.30	38
	8.50	8.20 - 8.80	0.5	47.30	45
	9.00	8.70 - 9.30	0.5	47.30	45
	9.50	9.20 - 9.80	0.5	47.30	45
	10.00	9.70 - 10.30	0.5	47.30	45

Order no.	Nominal size	Individual probe measuring range	Dimension H1	L	Measuring depth	
	mm	mm		mm	mm	
4482166	10.00	9.40 - 10.60	1.0	48.50	45	
	11.00	10.40	1.0	48.50	45	
	12.00	-11.60	1.0	48.50	45	
	13.00	11.40	1.0	48.50	45	
	14.00	-12.60	1.0	48.50	45	
	15.00	12.40	1.0	48.50	45	
	16.00	-13.60	1.0	48.50	80	
	17.00	13.40	1.0	48.50	80	
	18.00	-14.60	1.0	48.50	80	
		14.40				
		-15.60				
		15.40				
		-16.60				
	16.40					
	-17.60					
	17.40 - 18.60					

### ACCESSORIES

Order no.	g	Product name	Product type
4335000		Millimes 0.5 µm, ± 25 µm	1002
4334000		Millimes 1 µm, ± 50 µm	1003
4333000		Millimes 5 µm, ± 130 µm	1004
4337662		Digital indicator, 0.0005 mm, 12.5 mm	1087 BR
4337664		Digital indicator, 0.0005 mm, 12.5 mm	1087 BRi
4470115		Depth stop, mounting-ø d = 8 mm, A = 24 mm, h = 60 mm	844 Dt
4470120		Clampable angle stop for 844 Kst measuring stand	844 Ka
4470162		Ring gage sets, 1.75 / 2 / 2.25 / 2.5 / 2.75 / 3 / 3.25 / 3.5 / 3.75 / 4 mm	844 Ke
4470163		Ring gage sets, 4 / 4.5 / 5 / 5.5 / 6 / 6.5 / 7 mm	844 Ke
4470164		Ring gage sets, 7 / 7.5 / 8 / 8.5 / 9 / 9.5 / 10 mm	844 Ke
4470165		Ring gage sets, 10 / 11 / 12 / 13 / 14 / 15 / 16 / 17 / 18 mm	844 Ke
4470100		Measuring stand for quick measurements, table diameter 58 mm, Max. object height approx. 100 mm	844 Kst
4470105		Floating holder for 844 Kst measuring stand	844 Ksts
4470070	M6 x 0.75	Extensions, D = 8 mm, L = 64 mm	844 Kv
4470110	M6 x 0.75	Right angle attachment, L = 26.5 mm, H = 22.5 mm	844 Kw



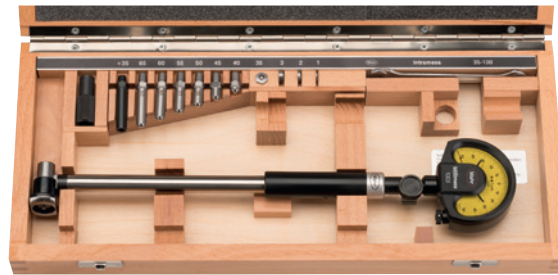


# MaraMeter 844 N

## Self-Centering Dial Bore Gage

### FEATURES

- Measuring head consists of a carbide tipped moving anvil and an interchangeable stationary anvil with a hardened steel ball
- Transmission lever system transfers movement of movable anvil to indicating instrument
- The broad centering bridge ensures automatic centering in the bore
- Resistant to temperature because the shank and transfer rod are made of heat resistant Invar steel
- Highly resistant to wear and tear because of carbide tipped moving anvil
- Constant measuring force due to built-in spring, eliminating user influence
- Universally applicable and extremely versatile
  - Each instrument spans a broad measuring range
  - Quick and easy to adjust to any size (within its range)
- Extensive modular system is composed of measuring head, holder, extensions, Right angle attachments and depth stops
- Invar steel has a particularly low expansion coefficient
  - instrument totally insensitive to any kind of heat (including user body heat and increased ambient temperature)
- **Package contains:** measuring holder, measuring head, anvil spindle, wooden case, excludes indicator



### Application:

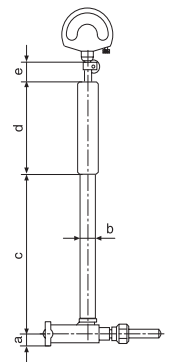
- Measuring the diameter, roundness and conical form of a bore as well as the distances of parallel plane surfaces



### TECHNICAL DATA

Order no.	Product type	Measuring range		Design	Probe path	Measuring depth	Error limit G <sub>e</sub>	Repeat-ability f <sub>w</sub>
		mm	inch					
4474000	844 N	18 – 50	.7 – 2"	Standard, moveable anvil carbide-tipped	1.3	115	2	0.5
4474001	844 N	35 – 100	1.4 – 4"	Standard, moveable anvil carbide-tipped	1.3	148	2	0.5
4474002	844 N	100 – 250	4 – 10"	Standard, moveable anvil carbide-tipped	1.6	230	2	0.5
4474003	844 N	250 – 400	10 – 16"	Standard, moveable anvil carbide-tipped	2.6	366	3	1.5
4474004	844 N	400 – 800	16 – 32"	Standard, moveable anvil carbide-tipped	2.6	366	3	1.5
4474005	844 N	250 – 800	10 – 32"	Standard, moveable anvil carbide-tipped	2.6	366	3	1.5

Order no.	a	b	c	d	e
	mm	mm	mm	mm	mm
4474000	5.3	8	115	63	22
4474001	8.5	12	148	80	22
4474002	11.5	18	230	100	25
4474003	16	24	366	110	28
4474004	17.5	24	366	110	28
4474005	17.5	24	366	110	28



# MaraMeter 844 N

## Self-Centering Dial Bore Gage

### ACCESSORIES



1004



1003



1002



1087 BR



1087 BRi

Order no.	Product name	Product type
4335000	Millimess 0.5 $\mu\text{m}$ , $\pm$ 25 $\mu\text{m}$	1002
4334000	Millimess 1 $\mu\text{m}$ , $\pm$ 50 $\mu\text{m}$	1003
4333000	Millimess 5 $\mu\text{m}$ , $\pm$ 130 $\mu\text{m}$	1004
4337662	Digital indicator, 0.0005 mm, 12.5 mm	1087 BR
4337664	Digital indicator, 0.0005 mm, 12.5 mm	1087 BRi
4800120	Holder, measuring span 0 –70 mm	420 h
4800121	Holder, measuring span 0 –120 mm	420 h
4800122	Holder, measuring span 100 –220 mm	420 h
4800123	Holder, measuring span 100 –420 mm	420 h
4800124	Holder, measuring span 400 –820 mm	420 h
4474080	Adjustment bridge (70 x 12 mm), for measuring range 18 –250 mm (for 844 N)	844 Neb
4474081	Adjustment bridge (165 x 17 mm), for measuring range 18 –400 mm (for 844 N)	844 Neb
4474082	Adjustment bridge (320 x 20 mm), for measuring range 18 –800 mm (for 844 N)	844 Neb
4474050	Short holder (18 –50 mm)	844 Ngk
4474051	Short holder (35 –100 mm)	844 Ngk
4474052	Short holder (100 –250 mm)	844 Ngk
4474053	Short holder (250 –800 mm)	844 Ngk
4474060	Measuring depth extension (250 mm) for measuring range 35 –100 mm	844 Nv
4474061	Measuring depth extension (250 mm) for measuring range 100 –250 mm	844 Nv
4474062	Measuring depth extension (500 mm) for measuring range 100 –250 mm	844 Nv
4474063	Measuring depth extension (250 mm) for measuring range 250 –800 mm	844 Nv
4474064	Measuring depth extension (500 mm) for measuring range 250 –800 mm	844 Nv
4474066	Measuring depth extension (250 mm) for measuring range 18 –50 mm	844 Nv
4474070	Right angle attachment, bore depth 45mm, for measuring range 18 –50 mm	844 Nw
4474071	Right angle attachment, bore depth 55mm, for measuring range 35 –100 mm	844 Nw
4474072	Right angle attachment, bore depth 70mm, for measuring range 100 –250 mm	844 Nw
4470098	Base for mounting holder 420 h up to 420 mm	844 ef
4470095	Measuring jaw (60 x 9.5 x 9 mm), for measuring range 18 –800 mm (for 844 N)	844 em



844 em



844 Neb



844 ef

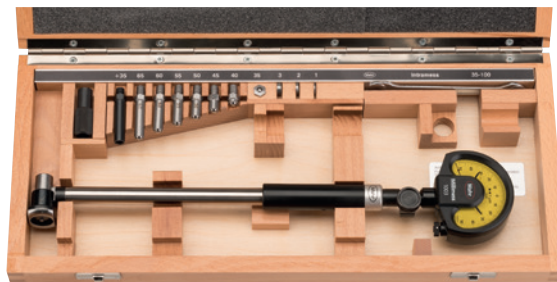


# MaraMeter 844 NH

## Self-Centering Dial Bore Gage

### FEATURES

- Measuring head consists of a carbide tipped moving anvil and an interchangeable stationary anvil with a carbide ball
- Transmission lever system transfers movement of movable anvil to indicating instrument
- The broad centering bridge ensures automatic centering in the bore
- Resistant to temperature because the shank and transfer rod are made of heat resistant Invar steel
- Highly resistant to wear and tear due to the carbide tipped moving anvil
- Constant measuring force because of built-in spring, eliminating user influence
- Universally applicable and extremely versatile
  - Each instrument spans a broad measuring range
  - Quick and easy to adjust to any size (within its range)
- Extensive modular system is composed of measuring head, holder, extensions, Right angle attachments and depth stops
- Invar steel has a particularly low expansion coefficient
  - instrument totally insensitive to any kind of heat (including user body heat and increased ambient temperature)
- **Package contains:** measuring holder, measuring head, anvil spindle, wooden case, excludes indicator



### Application:

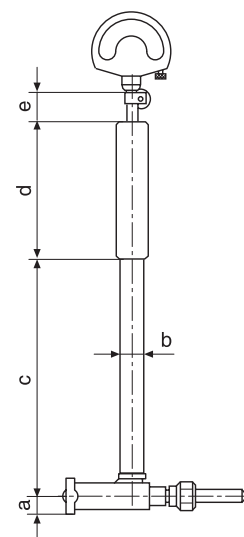
- Measuring the diameter, roundness and conical form of a bore as well as the distances of parallel plane surfaces



### TECHNICAL DATA

Order no.	Product type	Measuring range mm	Measuring range inch	Design	Probe path mm	Measuring depth mm	Error limit G <sub>e</sub> μm	Repeatability f <sub>w</sub> μm
4475000	844 NH	18 – 50	.7 – 2"	Standard, moveable anvil and stationary anvil carbide-tipped	1.3	115	2	0.5
4475001	844 NH	35 – 100	1.4 – 4"	Standard, moveable anvil and stationary anvil carbide-tipped	1.3	148	2	0.5
4475002	844 NH	100 – 250	4 – 10"	Standard, moveable anvil and stationary anvil carbide-tipped	1.6	230	2	0.5
4475003	844 NH	250 – 400	10 – 16"	Standard, moveable anvil and stationary anvil carbide-tipped	2.6	336	3	1.5
4475004	844 NH	400 – 800	16 – 32"	Standard, moveable anvil and stationary anvil carbide-tipped	2.6	336	3	1.5
4475005	844 NH	250 – 800	10 – 32"	Standard, moveable anvil and stationary anvil carbide-tipped	2.6	336	3	1.5

Order no.	a	b	c	d	e
	mm	mm	mm	mm	mm
4475000	5.3	8	115	63	22
4475001	8.5	12	148	80	22
4475002	11.5	18	230	100	25
4475003	16	24	366	110	28
4475004	17.5	24	366	110	28
4475005	17.5	24	366	110	28



# MaraMeter 844 NH

## Self-Centering Dial Bore Gage

### ACCESSORIES



1004



1003



1002



1087 BR



1087 BRi

Order no.	Product name	Product type
4335000	Millimess 0.5 $\mu\text{m}$ , $\pm 25 \mu\text{m}$	1002
4334000	Millimess 1 $\mu\text{m}$ , $\pm 50 \mu\text{m}$	1003
4333000	Millimess 5 $\mu\text{m}$ , $\pm 130 \mu\text{m}$	1004
4337662	Digital indicator, 0.0005 mm, 12.5 mm	1087 BR
4337664	Digital indicator, 0.0005 mm, 12.5 mm	1087 BRi
4800120	Holder, measuring span 0 –70 mm	420 h
4800121	Holder, measuring span 0 –120 mm	420 h
4800122	Holder, measuring span 100 –220 mm	420 h
4800123	Holder, measuring span 100 –420 mm	420 h
4800124	Holder, measuring span 400 –820 mm	420 h
4474080	Adjustment bridge (70 x 12 mm), for measuring range 18 –250 mm (for 844 N)	844 Neb
4474081	Adjustment bridge (165 x 17 mm), for measuring range 18 –400 mm (for 844 N)	844 Neb
4474082	Adjustment bridge (320 x 20 mm), for measuring range 18 –800 mm (for 844 N)	844 Neb
4474050	Short holder (18 –50 mm)	844 Ngk
4474051	Short holder (35 –100 mm)	844 Ngk
4474052	Short holder (100 –250 mm)	844 Ngk
4474053	Short holder (250 –800 mm)	844 Ngk
4474060	Measuring depth extension (250 mm) for measuring range 35 –100 mm	844 Nv
4474061	Measuring depth extension (250 mm) for measuring range 100 –250 mm	844 Nv
4474062	Measuring depth extension (500 mm) for measuring range 100 –250 mm	844 Nv
4474063	Measuring depth extension (250 mm) for measuring range 250 –800 mm	844 Nv
4474064	Measuring depth extension (500 mm) for measuring range 250 –800 mm	844 Nv
4474066	Measuring depth extension (250 mm) for measuring range 18 –50 mm	844 Nv
4474070	Right angle attachment, bore depth 45mm, for measuring range 18 –50 mm	844 Nw
4474071	Right angle attachment, bore depth 55mm, for measuring range 35 –100 mm	844 Nw
4474072	Right angle attachment, bore depth 70mm, for measuring range 100 –250 mm	844 Nw
4470098	Base for mounting holder 420 h up to 420 mm	844 ef
4470095	Measuring jaw (60 x 9.5 x 9 mm), for measuring range 18 –800 mm (for 844 N)	844 em



844 em



844 Neb



844 ef

# MaraMeter 844 NR

## Self-centering Dial Bore Gage

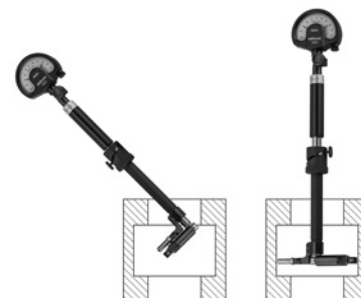
### FEATURES

- Measuring head consists of a carbide tipped, movable measuring bolt and an opposing interchangeable stationary anvil with carbide ball
- Stationary measuring bolt can pivot through 180°, giving rise to a very long return travel path of up to 40% of the measured bore
- Movements of the measuring bolt are transmitted to the indicating instrument via the ring segment
- The broad centering bridge ensures automatic centering in the bore
- Resistant to temperature because the shaft and transfer rod are made of heat resistant Invar steel
- Carbide tipped measuring contacts for high wear resistance
- Constant measuring force thanks to built-in and independent measuring force spring preventing external interference
- Universally applicable and extremely versatile
  - Each instrument spans a broad measuring range
  - Quick and easy to adjust to any size (within its range)
- Invar steel has a particularly low expansion coefficient
  - instrument totally insensitive to any kind of heat (including user body heat and increased ambient temperature)
- **Package contains:** measuring holder, measuring head, anvil spindle, wooden case, excludes indicator



### Application:

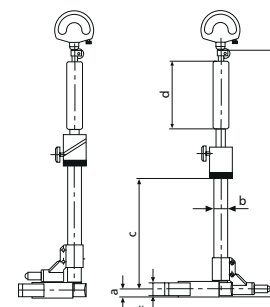
- For measuring poorly accessible bore diameters, grooves and recesses



### TECHNICAL DATA

Order no.		4474580	4474590	4474600	4474610	4474620	4474630
Product type		844 NR					
Measuring range	mm	50 – 70	60 – 100	80 – 150	120 – 220	180 – 360	290 – 530
Measuring range	inch	2 – 2.8"	2.4 – 4"	3.2 – 6"	4.7 – 8.7"	7.1 – 14.2"	11.4 – 20.7"
Design		• For measuring poorly accessible bore diameters, grooves and recesses					
Measuring depth	mm	60	95	107	148	170	
Error limit G <sub>e</sub>	µm	2		3			
Repeatability f <sub>w</sub>	µm	1		1.5			

Order no.	a	b	c	d	e	f
	mm	mm	mm	mm	mm	mm
4474580	5	12	60	60	203	6
4474590	7	15	110	80	264	8
4474600	7	15	110	80	264	8
4474610	7.5	15	110	80	264	10
4474620	11	23	150	90	343	10
4474630	15	30	170	90	409	10



### ACCESSORIES

Order no.	Product name	Product type
4333000	Millimess 5 µm, ± 130 µm	1004
4334000	Millimess 1 µm, ± 50 µm	1003
4335000	Millimess 0.5 µm, ± 25 µm	1002
4337662	Digital indicator, 0.0005 mm, 12.5 mm	1087 BR
4337664	Digital indicator, 0.0005 mm, 12.5 mm	1087 BRi



1004



1003



1002



1087 BR



1087 BRi

# MaraMeter 844 NB

## Self-centering Dial Bore Gage

### FEATURES

- Measuring head consists of a carbide tipped moving anvil and an interchangeable stationary anvil with a carbide ball
- Transmission lever system transfers movement of movable anvil to indicating instrument
- The broad centering bridge ensures automatic centering in the bore
- Resistant to temperature because the shank and transfer rod are made of heat resistant Invar steel
- Highly resistant to wear and tear because of carbide tipped moving anvil
- Constant measuring force due to built-in spring, eliminating user influence
- Universally applicable and extremely versatile
  - Each instrument spans a broad measuring range
  - Quick and easy to adjust to any size (within its range)
- Invar steel has a particularly low expansion coefficient
  - instrument totally insensitive to any kind of heat (including user body heat and increased ambient temperature)
- **Package contains:** measuring holder, measuring head, anvil spindle, wooden case, excludes indicator



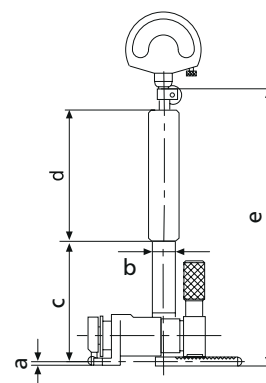
### Application:

- For blind holes, to measure almost to the base of a bore

### TECHNICAL DATA

Order no.		4474179	4474180	4474186
Product type			844 NB	
Measuring range	mm	20 –50	50 –110	110 –300
Measuring range	inch	0.79 –2"	2 –4.33"	4.33 –11.81"
Design		For blind bores. Moveable anvil and stationary anvil carbide-tipped		
Error limit $G_e$	$\mu\text{m}$	4	3	2.5
Repeatability $f_w$	$\mu\text{m}$		1	

Order no.	a	b	c	d	e
	mm	mm	mm	mm	mm
4474179	1.5	10	77	60	163
4474180	1.5	12	60	60	144
4474186	2	18	90	90	163



### ACCESSORIES

Order no.	Product name	Product type
4333000	Millimess 5 $\mu\text{m}$ , $\pm$ 130 $\mu\text{m}$	1004
4334000	Millimess 1 $\mu\text{m}$ , $\pm$ 50 $\mu\text{m}$	1003
4335000	Millimess 0.5 $\mu\text{m}$ , $\pm$ 25 $\mu\text{m}$	1002
4337662	Digital indicator, 0.0005 mm, 12.5 mm	1087 BR
4337664	Digital indicator, 0.0005 mm, 12.5 mm	1087 BRI



1004



1003



1002



1087 BR



1087 BRI



# Marameter | Self-centering inner measuring device 844 K

## High-precision comparative measurements of holes

Inside measuring probes from the 844 K family are 2-point comparative measuring instruments used to determine a reversing point in a hole by oscillation. This reversal point equates to the minimum and thus the exact bore diameter.

### Measuring process

The measuring value is displayed via analog dial comparators or electronic dial indicators.

### Practical tip

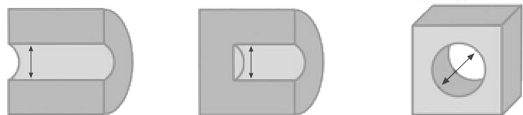
An electronic dial indicator such as type 1087 BR or 1087 BRi, offers the major advantage of being able to automatically record the reversing point using the MIN function and display an absolute measuring value on the screen thanks to the PRESET setting. In addition, you can conveniently and reliably transfer the measuring data to a PC or a CAQ system by data cable or Integrated Wireless technology.

### Setting the comparative measuring instrument

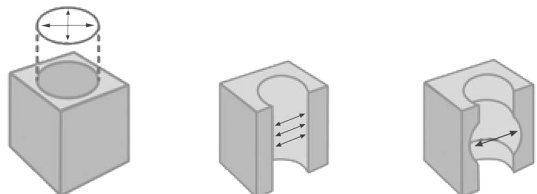
Setting rings are used to set the instrument to the respective nominal

### Typical applications of self-centering inside measuring probes

- Rapid testing of hole diameters



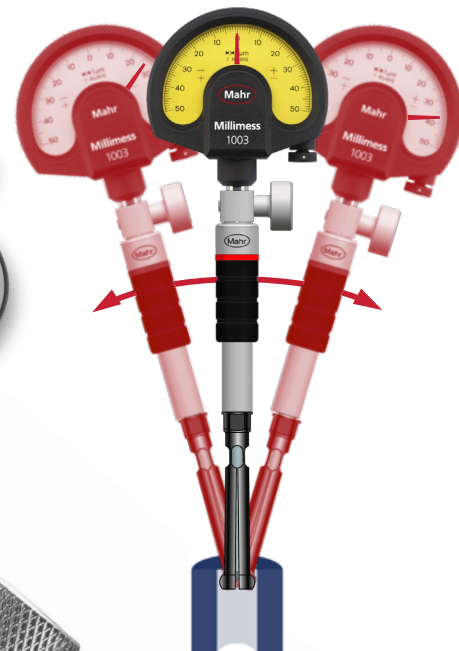
- Determining roundness and cylindricity deviations by rotating and moving to other bore depths



### Special advantages

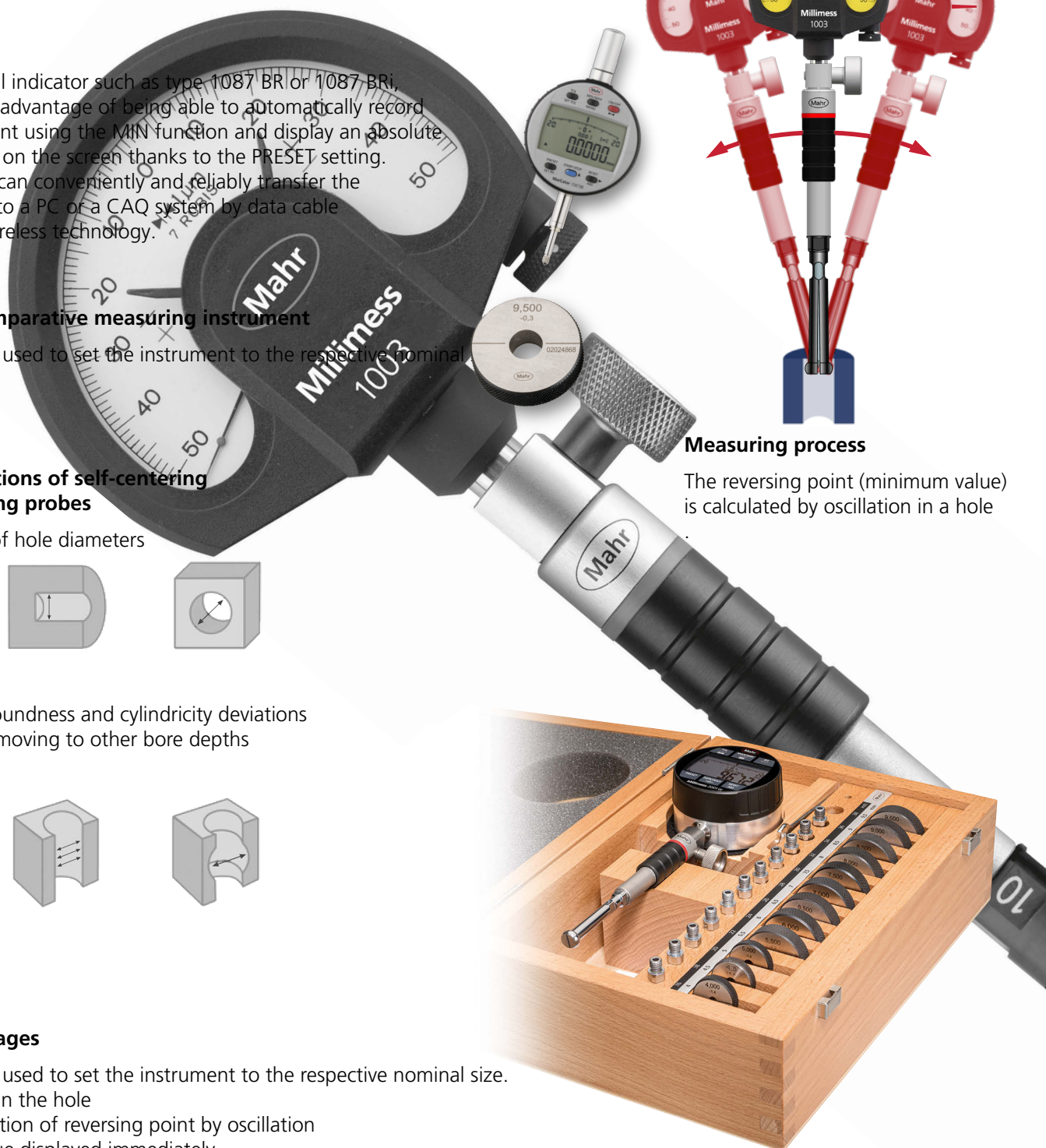
Setting rings are used to set the instrument to the respective nominal size.

- Self-centering in the hole
- Fast determination of reversing point by oscillation
- Measuring value displayed immediately
- Ideal for processing measuring values directly especially when used with digital indicating instruments



### Measuring process

The reversing point (minimum value) is calculated by oscillation in a hole

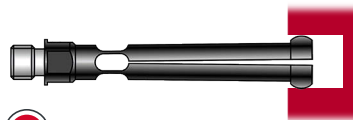
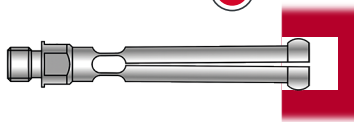


# Marameter | Self-centering inner measuring device 844 K

## Inside measuring probe models (split-ball probe)

### 844 K Standard for common hole shapes

- Split-ball probe made of hardened steel
- Hard chrome-plated measuring surfaces

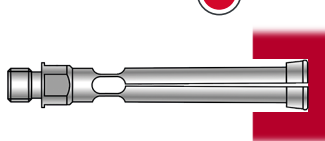


### 844 KC for common hole shapes with DLC coating

- Split-ball probe made of hardened steel
- Measuring surfaces and inner edges coated with DLC (hard diamond-like coating)
- Enhanced wear protection and very low friction coefficients, therefore
- ideal for measurements in sensitive or abrasive surfaces
- For common hole shapes

### 844 KS split-ball probe for bore measurements close to the bottom of the hole

- Split-ball probe made of hardened steel
- Hard chrome plated measuring surfaces



### Particular advantages of DLC coating

- **DLC coating** (diamond-like carbon)
- Extremely hard coating for **very high wear resistance**
- **Extremely low friction coefficient, thus preventing** e.g.
  - streaking on precision-machined non-ferrous metal surfaces
  - increased wear in abrasive materials
- DLC coating over entire measuring surfaces including inner contact point of driving needle, for **very high long-term accuracy (Linearity)**
- **Visual wear display:** Visible light spot once coating is worn out
- **Excellent corrosion prevention**

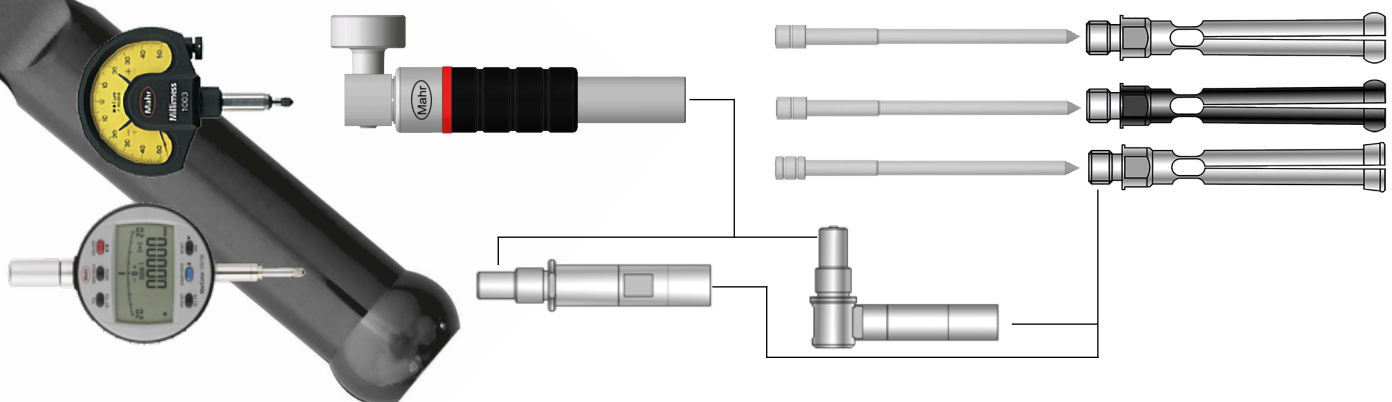
### Ideal equipment for long-term accuracy

Driving needles are inserted in the probe to transfer the measuring movement of the probe head to the indicating instrument. To ensure **maximum service life** and thus **high linearity** in the **long term**, **Mahr driving needles are usually made of solid carbide.**



### Modular system

When combined with extensive accessories (indicating instruments, inside measuring probes with driving needle, holders, extensions and right-angle attachments), inside measuring probes become precision measuring instruments customized to the measuring task.





# Marameter 844 KC

## Self-centering dial bore gage

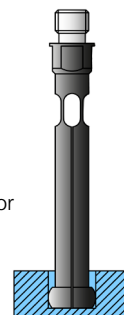
### FEATURES

- Measuring head made in harden steel, DLC coated
- Constant measuring force as a result of built-in spring, eliminating user influence
- Extensive modular system is composed of measuring head, transfer needle, holder, depth extension, right angle attachments and setting rings



**Application:**  
Standard model with DLC-coated surface

- For indicating measurement of diameter and testing for roundness and conicity of bores
- Especially suitable for testing batches
- Determine the reversal point per rocking in the bore



- **Benefits of DLC-Coating**
  - Explanation DLC = Diamond Like Carbon
  - Extremely high wear resistance, for long service life even on hard or abrasive surfaces
  - Reduction of friction, ideal for sensitive surfaces such as non-ferrous metals and aluminium alloys
  - Wear indicator, worn areas appear as bright spots in the dark DLC coating

- **The minimum set of a measuring instrument consists of:** Measuring head, transfer needle and holder plus indicator unit

- **Package contains:** Measuring holder 844 Kg, probe, expanding pin, wooden case, excludes indicator

### TECHNICAL DATA

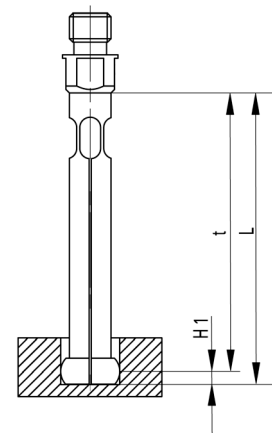
Order no.	Type	Nominal size mm	Individual probe measuring range mm mm	Number of measuring probes Piece	Linearity deviation fe	Repeatability f <sub>w</sub> µm
4473105	844 KC	1,00	0,95 - 1,15	5	2 %, min. 1 µm	1
		1,10	1,07 - 1,25			
		1,20	1,17 - 1,35			
		1,30	1,27 - 1,45			
		1,40	1,37 - 1,55			
4473106	844 KC	1,75	1,50 - 1,90	9	1 %, min. 1 µm	1
		2,00	1,80 - 2,20			
		2,25	2,05 - 2,45			
		2,50	2,30 - 2,70			
		2,75	2,55 - 2,95			
		3,00	2,80 - 3,20			
		3,25	3,05 - 3,45			
		3,50	3,30 - 3,70			
4473107	844 KC	3,75	3,55 - 3,95	12	1 %, min. 1 µm	1
		4,00	3,70 - 4,30			
		4,50	4,20 - 4,80			
		5,00	4,70 - 5,30			
		5,50	5,20 - 5,80			
		6,00	5,70 - 6,30			
		6,50	6,20 - 6,80			
		7,00	6,70 - 7,30			
		7,50	7,20 - 7,80			
		8,00	7,70 - 8,30			
		8,50	8,20 - 8,80			
		9,00	8,70 - 9,30			
4473108	844 KC	9,50	9,20 - 9,80	21	1 %, min. 1 µm	1
		1,75	1,50 - 1,90			
		2,00	1,80 - 2,20			
		2,25	2,05 - 2,45			
		2,50	2,30 - 2,70			
		2,75	2,55 - 2,95			
		3,00	2,80 - 3,20			
		3,25	3,05 - 3,45			
		3,50	3,30 - 3,70			
		3,75	3,55 - 3,95			
		4,00	3,70 - 4,30			
		4,50	4,20 - 4,80			
		5,00	4,70 - 5,30			
		5,50	5,20 - 5,80			
		6,00	5,70 - 6,30			
6,50	6,20 - 6,80					
7,00	6,70 - 7,30					
7,50	7,20 - 7,80					
8,00	7,70 - 8,30					
8,50	8,20 - 8,80					
9,00	8,70 - 9,30					
4473109	844 KC	9,50	9,20 - 9,80	11	1 %, min. 1 µm	1
		10,00	9,40 - 10,60			
		11,00	10,40 - 11,60			
		12,00	11,40 - 12,60			
		13,00	12,40 - 13,60			
		14,00	13,40 - 14,60			
		15,00	14,40 - 15,60			
		16,00	15,40 - 16,60			
		17,00	16,40 - 17,60			
		18,00	17,40 - 18,60			
		19,00	18,40 - 19,60			
20,00	19,40 - 20,60					

# Marameter 844 KC

## Self-centering dial bore gage

Order no.	Nominal size	H1 mm	L mm	Measuring depth mm
	mm			mm
4473005	1,00	0,6	19,50	10,5
	1,10	0,6	19,50	10,5
	1,20	0,6	19,50	10,5
	1,30	0,6	19,50	10,5
	1,40	0,6	19,50	10,5
4473006	1,75	0,9	25,30	16
	2,00	0,9	25,30	16
	2,25	0,9	25,30	16
	2,50	1,2	30,60	21
	2,75	1,2	30,60	21
	3,00	1,2	30,60	21
	3,25	1,2	30,60	21
	3,50	1,2	30,60	21
	3,75	1,2	30,60	21
	4473007	4,00	2,0	47,30
4,50		2,0	47,30	38
5,00		2,0	47,30	38
5,50		2,0	47,30	38
6,00		2,0	47,30	38
6,50		2,0	47,30	38
7,00		2,0	47,30	38
7,50		2,0	47,30	38
8,00		2,0	47,30	38
8,50		2,0	47,30	38
9,00		2,0	47,30	38
9,50		2,0	47,30	38

Order no.	Nominal size	H1 mm	L mm	Measuring depth mm
	mm			mm
4473008	1,75	0,9	25,30	16
	2,00	0,9	25,30	16
	2,25	0,9	25,30	16
	2,50	1,2	30,60	21
	2,75	1,2	30,60	21
	3,00	1,2	30,60	21
	3,25	1,2	30,60	21
	3,50	1,2	30,60	21
	3,75	1,2	30,60	21
	4,00	2,0	47,30	38
	4,50	2,0	47,30	38
	5,00	2,0	47,30	38
	5,50	2,0	47,30	38
	6,00	2,0	47,30	38
	6,50	2,0	47,30	38
	7,00	2,0	47,30	38
	7,50	2,0	47,30	38
8,00	2,0	47,30	38	
8,50	2,0	47,30	38	
9,00	2,0	47,30	38	
9,50	2,0	47,30	38	
4473009	10,00	3,3	48,50	45
	11,00	3,3	48,50	45
	12,00	3,3	48,50	45
	13,00	3,3	48,50	45
	14,00	3,3	48,50	45
	15,00	3,3	48,50	45
	16,00	3,3	48,50	45
	17,00	3,3	48,50	45
	18,00	3,3	48,50	45
	19,00	3,3	48,50	45
	20,00	3,3	48,50	45



### ACCESSORIES

Order no.	Description	Type
4333000	Millimess 5 µm, ± 130 µm	1004
4334000	Millimess 1 µm, ± 50 µm	1003
4335000	Millimess 0,5 µm, ± 25 µm	1002
4337662	Digital indicator, 0,0005 mm, 12,5 mm	1087 BR
4337664	Digital indicator, 0,0005 mm, 12,5 mm	1087 BRi
4473375	844 Ke Setting rings in Set for measuring range 1 –1,4 mm	844 Ke
4473400	844 Kg Holder for indicator, Ø 8 mm / M6 x 0.75	844 Kg
4473401	844 Kga Holder for indicator, Ø 8 mm / M6 x 0.75	844 Kga
4473402	844 KgZ Holder for indicator, Ø .375" / M6 x 0.75	844 KgZ
4473405	844 Kv Extension for measuring depth, length 50 mm	844 Kv
4473406	844 Kv Extension for measuring depth, length 100 mm	844 Kv
4473407	844 Kv Extension for measuring depth, length 250 mm	844 Kv
4473409	844 Kw Angle attachment 90°, M6 x 0.75	844 Kw
4473376	844 Ke Setting rings in Set for measuring range 1,75 –3,75 mm	844 Ke
4473377	844 Ke Setting rings in Set for measuring range 4 –9,5 mm	844 Ke
4473378	844 Ke Setting rings in Set for measuring range 1,75 –9,5 mm	844 Ke
4473379	844 Ke Setting rings in Set for measuring range 10 –20 mm	844 Ke



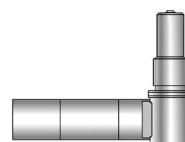
1003



1087 BRi



844 Ke



844 Kw



844 Kv

# Marameter 844 K

## Self-centering dial bore gage

### FUNCTIONS

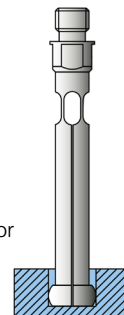
Measuring head made in harden steel, hard chrome plated

- Constant measuring force as a result of built-in spring, eliminating user influence
- Extensive modular system is composed of measuring head, transfer needle, holder, depth extension, right angle attachments and setting rings



Application:  
Standard model

- For indicating measurement of diameter and testing for roundness and conicity of bores
- Especially suitable for testing batches
- Determine the reversal point per rocking in the bore



- The minimum set of a measuring instrument consists of: Measuring head, transfer needle and holder plus indicator unit

- Package contains: Measuring holder 844 Kg, probe, expanding pin, wooden case, excludes indicator

### TECHNICAL DATA

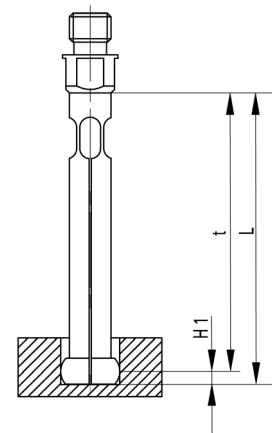
Order no.	Type	Nominal size mm	Individual probe measuring range mm	Number of measuring probes Piece	Linearity deviation fe	Repeatability f <sub>w</sub> µm
4473005	844 K	1,00	0,95 - 1,15	5	2 %, min. 1 µm	1
		1,10	1,07 - 1,25			
		1,20	1,17 - 1,35			
		1,30	1,27 - 1,45			
		1,40	1,37 - 1,55			
4473006	844 K	1,75	1,50 - 1,90	9	1 %, min. 1 µm	1
		2,00	1,80 - 2,20			
		2,25	2,05 - 2,45			
		2,50	2,30 - 2,70			
		2,75	2,55 - 2,95			
		3,00	2,80 - 3,20			
		3,25	3,05 - 3,45			
		3,50	3,30 - 3,70			
4473007	844 K	3,75	3,55 - 3,95	12	1 %, min. 1 µm	1
		4,00	3,70 - 4,30			
		4,50	4,20 - 4,80			
		5,00	4,70 - 5,30			
		5,50	5,20 - 5,80			
		6,00	5,70 - 6,30			
		6,50	6,20 - 6,80			
		7,00	6,70 - 7,30			
		7,50	7,20 - 7,80			
		8,00	7,70 - 8,30			
		8,50	8,20 - 8,80			
4473008	844 K	9,00	8,70 - 9,30	21	1 %, min. 1 µm	1
		9,50	9,20 - 9,80			
		1,75	1,50 - 1,90			
		2,00	1,80 - 2,20			
		2,25	2,05 - 2,45			
		2,50	2,30 - 2,70			
		2,75	2,55 - 2,95			
		3,00	2,80 - 3,20			
		3,25	3,05 - 3,45			
		3,50	3,30 - 3,70			
		3,75	3,55 - 3,95			
		4,00	3,70 - 4,30			
		4,50	4,20 - 4,80			
		5,00	4,70 - 5,30			
		5,50	5,20 - 5,80			
6,00	5,70 - 6,30					
6,50	6,20 - 6,80					
7,00	6,70 - 7,30					
7,50	7,20 - 7,80					
8,00	7,70 - 8,30					
8,50	8,20 - 8,80					
9,00	8,70 - 9,30					
9,50	9,20 - 9,80					
4473009	844 K	10,00	9,40 - 10,60	11	1 %, min. 1 µm	1
		11,00	10,40 - 11,60			
		12,00	11,40 - 12,60			
		13,00	12,40 - 13,60			
		14,00	13,40 - 14,60			
		15,00	14,40 - 15,60			
		16,00	15,40 - 16,60			
		17,00	16,40 - 17,60			
		18,00	17,40 - 18,60			
		19,00	18,40 - 19,60			
		20,00	19,40 - 20,60			

# Marameter 844 K

## Self-centering dial bore gage

Order no.	Nominal size	H1 mm	L mm	Measuring depth mm
	mm			mm
4473005	1,00	0,6	19,50	10,5
	1,10	0,6	19,50	10,5
	1,20	0,6	19,50	10,5
	1,30	0,6	19,50	10,5
	1,40	0,6	19,50	10,5
4473006	1,75	0,9	25,30	16
	2,00	0,9	25,30	16
	2,25	0,9	25,30	16
	2,50	1,2	30,60	21
	2,75	1,2	30,60	21
	3,00	1,2	30,60	21
	3,25	1,2	30,60	21
	3,50	1,2	30,60	21
	3,75	1,2	30,60	21
	4473007	4,00	2,0	47,30
4,50		2,0	47,30	38
5,00		2,0	47,30	38
5,50		2,0	47,30	38
6,00		2,0	47,30	38
6,50		2,0	47,30	38
7,00		2,0	47,30	38
7,50		2,0	47,30	38
8,00		2,0	47,30	38
8,50		2,0	47,30	38
9,00		2,0	47,30	38
9,50		2,0	47,30	38

Order no.	Nominal size	H1 mm	L mm	Measuring depth mm
	mm			mm
4473008	1,75	0,9	25,30	16
	2,00	0,9	25,30	16
	2,25	0,9	25,30	16
	2,50	1,2	30,60	21
	2,75	1,2	30,60	21
	3,00	1,2	30,60	21
	3,25	1,2	30,60	21
	3,50	1,2	30,60	21
	3,75	1,2	30,60	21
	4,00	2,0	47,30	38
	4,50	2,0	47,30	38
	5,00	2,0	47,30	38
	5,50	2,0	47,30	38
	6,00	2,0	47,30	38
	6,50	2,0	47,30	38
	7,00	2,0	47,30	38
	7,50	2,0	47,30	38
8,00	2,0	47,30	38	
8,50	2,0	47,30	38	
9,00	2,0	47,30	38	
9,50	2,0	47,30	38	
4473009	10,00	3,3	48,50	45
	11,00	3,3	48,50	45
	12,00	3,3	48,50	45
	13,00	3,3	48,50	45
	14,00	3,3	48,50	45
	15,00	3,3	48,50	45
	16,00	3,3	48,50	45
	17,00	3,3	48,50	45
	18,00	3,3	48,50	45
	19,00	3,3	48,50	45
	20,00	3,3	48,50	45



### ACCESSORIES

Order no.	Description	Type
4333000	Millimess 5 µm, ± 130 µm	1004
4334000	Millimess 1 µm, ± 50 µm	1003
4335000	Millimess 0,5 µm, ± 25 µm	1002
4337662	Digital indicator, 0,0005 mm, 12,5 mm	1087 BR
4337664	Digital indicator, 0,0005 mm, 12,5 mm	1087 BRi
4473375	844 Ke Setting rings in Set for measuring range 1 –1,4 mm	844 Ke
4473400	844 Kg Holder for indicator, Ø 8 mm / M6 x 0.75	844 Kg
4473401	844 Kga Holder for indicator, Ø 8 mm / M6 x 0.75	844 Kga
4473402	844 KgZ Holder for indicator, Ø .375" / M6 x 0.75	844 KgZ
4473405	844 Kv Extension for measuring depth, length 50 mm	844 Kv
4473406	844 Kv Extension for measuring depth, length 100 mm	844 Kv
4473407	844 Kv Extension for measuring depth, length 250 mm	844 Kv
4473409	844 Kw Angle attachment 90°, M6 x 0.75	844 Kw
4473376	844 Ke Setting rings in Set for measuring range 1,75 –3,75 mm	844 Ke
4473377	844 Ke Setting rings in Set for measuring range 4 –9,5 mm	844 Ke
4473378	844 Ke Setting rings in Set for measuring range 1,75 –9,5 mm	844 Ke
4473379	844 Ke Setting rings in Set for measuring range 10 –20 mm	844 Ke



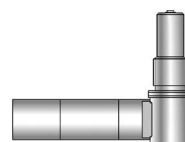
1003



1087 BRi



844 Ke



844 Kw



844 Kv

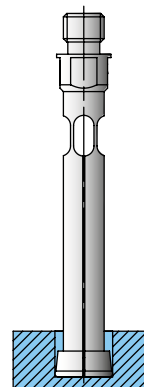
# Marameter 844 KS

## Self-centering dial bore gage

### FEATURES

Measuring head made in harden steel, hard chrome plated

- Constant measuring force as a result of built-in spring, eliminating user influence
- Extensive modular system is composed of measuring head, transfer needle, holder, depth extension, right angle attachments and setting rings



- The minimum set of a measuring instrument consists of: Measuring head, transfer needle and holder plus indicator unit
- Package contains: Measuring holder 844 Kg, probe, expanding pin, wooden case, excludes indicator

### Application: Model for Blind Holes

For measurements near to the ground of bores

- For indicating measurement of diameter and testing for roundness and conicity of bores
- Especially suitable for testing batches
- Determine the reversal point per rocking in the bore

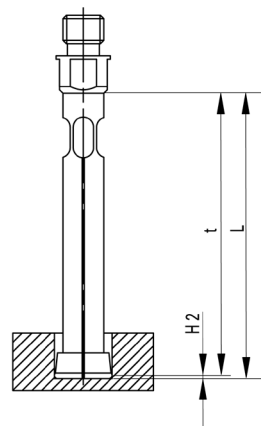
### TECHNICAL DATA

Order no.	Type	Nominal size	Individual probe measuring range	Number of measuring probes	Linearity deviation fe	Repeatability f <sub>v</sub>
		mm	mm	Piece		µm
4473207	844 KS	4,00	3,70 - 4,30	12	1 %, min. 1 µm	1
		4,50	4,20 - 4,80			
		5,00	4,70 - 5,30			
		5,50	5,20 - 5,80			
		6,00	5,70 - 6,30			
		6,50	6,20 - 6,80			
		7,00	6,70 - 7,30			
		7,50	7,20 - 7,80			
		8,00	7,70 - 8,30			
		8,50	8,20 - 8,80			
		9,00	8,70 - 9,30			
		9,50	9,20 - 9,80			
4473209	844 KS	4,00	9,40 - 10,60	11	1 %, min. 1 µm	1
		4,50	10,40 - 11,60			
		5,00	11,40 - 12,60			
		5,50	12,40 - 13,60			
		6,00	13,40 - 14,60			
		6,50	14,40 - 15,60			
		7,00	15,40 - 16,60			
		7,50	16,40 - 17,60			
		8,00	17,40 - 18,60			
		8,50	18,40 - 19,60			
		9,00	19,40 - 20,60			
		9,50				

# Marameter 844 KS

Self-centering dial bore gage

Order no.	Nominal size	H1 mm	L mm	Measuring depth mm
	mm			mm
4473207	4,00	0,5	47,30	38
	4,50	0,5	47,30	38
	5,00	0,5	47,30	38
	5,50	0,5	47,30	38
	6,00	0,5	47,30	38
	6,50	0,5	47,30	38
	7,00	0,5	47,30	38
	7,50	0,5	47,30	38
	8,00	0,5	47,30	38
	8,50	1,0	48,50	45
4473209	9,00	1,0	48,50	45
	9,50	1,0	48,50	45
	4,00	1,0	48,50	45
	4,50	1,0	48,50	45
	5,00	1,0	48,50	45
	5,50	1,0	48,50	45
	6,00	1,0	48,50	45
	6,50	1,0	48,50	45
	7,00	1,0	48,50	45
	7,50	1,0	48,50	45
8,00	1,0	48,50	45	
8,50	1,0	48,50	45	
9,00	1,0	48,50	45	
9,50	1,0	48,50	45	



## ACCESSORIES

Order no.	Description	Type
4333000	Millimes 5 $\mu\text{m}$ , $\pm 130 \mu\text{m}$	1004
4334000	Millimes 1 $\mu\text{m}$ , $\pm 50 \mu\text{m}$	1003
4335000	Millimes 0,5 $\mu\text{m}$ , $\pm 25 \mu\text{m}$	1002
4337662	Digital indicator, 0,0005 mm, 12,5 mm	1087 BR
4337664	Digital indicator, 0,0005 mm, 12,5 mm	1087 BRi
4473375	844 Ke Setting rings in Set for measuring range 4 –9,5 mm	844 Ke
4473400	844 Kg Holder for indicator, $\varnothing 8 \text{ mm}$ / M6 x 0.75	844 Kg
4473401	844 Kga Holder for indicator, $\varnothing 8 \text{ mm}$ / M6 x 0.75	844 Kga
4473402	844 Kgz Holder for indicator, $\varnothing .375''$ / M6 x 0.75	844 Kgz
4473405	844 Kv Extension for measuring depth, length 50 mm	844 Kv
4473406	844 Kv Extension for measuring depth, length 100 mm	844 Kv
4473407	844 Kv Extension for measuring depth, length 250 mm	844 Kv
4473409	844 Kw Angle attachment 90°, M6 x 0.75	844 Kw
4473376	844 Ke Setting rings in Set for measuring range 10 –20 mm	844 Ke
4473377	844 Ke Setting rings in Set for measuring range 4 –9,5 mm	844 Ke
4473378	844 Ke Setting rings in Set for measuring range 1,75 –9,5 mm	844 Ke
4473379	844 Ke Setting rings in Set for measuring range 10 –20 mm	844 Ke



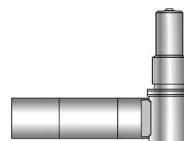
1003



1087 BR



844 Ke



844 Kw



844 Kv

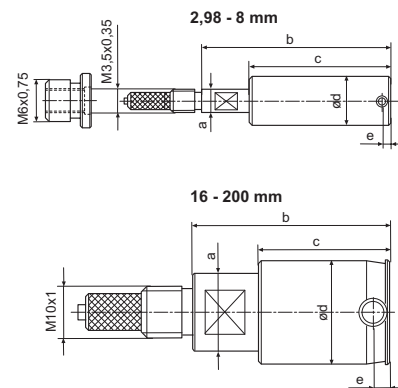




# MaraMeter 844 Dk

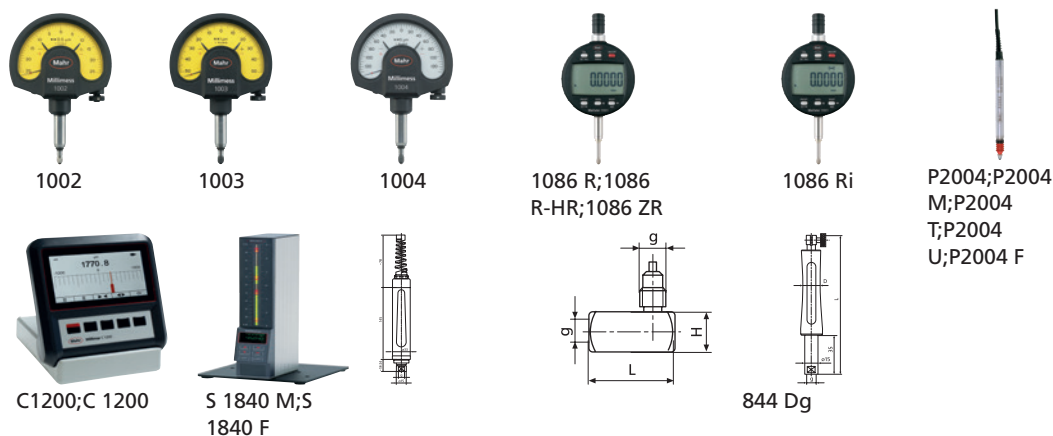
## Indicating Plug Gage

Order no.	a	b	c	e	g	Nominal size
	mm	mm	mm	mm		mm
4480184	4	31.3	23.3	1.5	M6 x 0.75	2.980 - 3.990
4478200	4	31.3	23.3	1.5	M6 x 0.75	3.991 - 8.000
4478201	7.9	33.5	25	3	M6 x 0.75	8.001 - 16.000
4478202	15	39	26	3.5	M10 x 1	16.001 - 25.000
4478204	15	39	26	3.5	M10 x 1	25.001 - 32.000
4478205	15	39	26	3.5	M10 x 1	32.001 - 44.000
4478206	20	39.5	26	4	M10 x 1	44.001 - 50.000
4478207	20	39.5	26	4	M10 x 1	50.001 - 60.000
4478208	20	39.5	26	4	M10 x 1	60.001 - 70.000
4478209	20	39.5	33	4	M10 x 1	70.001 - 80.000
4478210	20	39.5	33	4	M10 x 1	80.001 - 90.000
4478211	20	39.5	33	4	M10 x 1	90.001 - 100.000
4478212	20	39.5	33	4	M10 x 1	100.001 - 110.000
4478213	20	39.5	33	4	M10 x 1	110.001 - 120.000
4478214	20	39.5	33	4	M10 x 1	120.001 - 130.000
4478215	20	39.5	33	4	M10 x 1	130.001 - 140.000
4478216	20	39.5	33	4	M10 x 1	140.001 - 150.000
4478217	20	39.5	33	4	M10 x 1	150.001 - 160.000
4478218	20	39.5	33	4	M10 x 1	160.001 - 170.000
4478219	20	39.5	33	4	M10 x 1	170.001 - 180.000
4478220	20	39.5	33	4	M10 x 1	180.001 - 190.000
4478221	20	39.5	33	4	M10 x 1	190.001 - 200.000



### ACCESSORIES

Order no.	g	Product name	Product type
4335000		Millimess 0.5 $\mu\text{m}$ , $\pm 25 \mu\text{m}$	1002
4334000		Millimess 1 $\mu\text{m}$ , $\pm 50 \mu\text{m}$	1003
4333000		Millimess 5 $\mu\text{m}$ , $\pm 130 \mu\text{m}$	1004
4337620		Digital indicator, 0.0005 mm, 12.5 mm	1086 R
4337624		Digital indicator, 0.0005 mm, 12.5 mm	1086 Ri
4478851	M10 x 1	Standard holder - standard version	844 Dg
4478020	M6 x 0.75	Holder for inductive measuring probes	844 Dge
4478021	M10 x 1	Holder for inductive measuring probes	844 Dge
4478050	M10 x 1	Short holder - short version	844 Dgk
4478110	M10 x 1	Right angle attachment, L = 36.7 mm, H = 17 mm	844 Dw
4470851	M6 x 0.75	Standard measuring instrument holder	844 Kg
4470110	M6 x 0.75	Right angle attachment, L = 26.5 mm, H = 22.5 mm	844 Kw
5312010		Compact amplifier	C 1200
5323010	M 2.5	Inductive probe, $\pm 2 \text{ mm}$	P2004 M
5318400		Compact column amplifier	S 1840 M



# MaraMeter 844 Dkr

## Indicating Plug Gage

### FEATURES

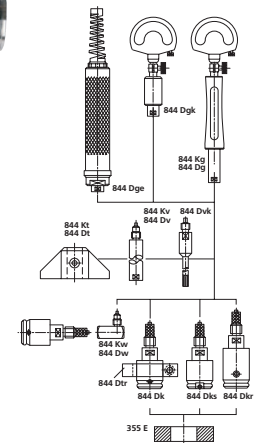
- Measuring head has a hardened chromium plated cylinder guide and carbide tipped anvils
- The carbide expanding pin transfers radial movement to indicating instrument
- Constant measuring force as a result of built-in spring, eliminating user influence
- Extensive modular system is composed of measuring head, holder, depth extension, Right angle attachments and depth stops



### Application:

#### Model for through holes

- With extended guide cylinder for measuring through holes from the edge of the hole
- For the rapid testing of diameter, roundness and conicity of bores
- Especially suitable for testing batches with tight tolerances (for tolerances <math><10\mu\text{m}</math> on request)
- Rocking in the bore is unnecessary to determine the reversal point
- Ideal for use in conjunction with digital display units and for subsequent processing of measured values



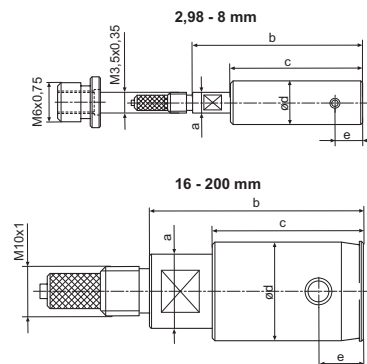
### TECHNICAL DATA

Order no.	Product type	Nominal size	Measuring span	Design	Manufacturing tolerance	Linearity deviation $f_e$	Repeatability $f_w$	Hysteresis $f_u$
		mm	mm		mm / mm	$\mu\text{m}$	$\mu\text{m}$	$\mu\text{m}$
4478272	844 Dkr	2.980 – 3.990	0.1	For through-bores	-0.02 / -0.04	1%, min. 1 $\mu\text{m}$	1	0.4
4478250	844 Dkr	3.990 – 8.000	0.1	For through-bores	-0.02 / -0.04	1%, min. 1 $\mu\text{m}$	1	0.4
4478251	844 Dkr	8.000 – 16.000	0.15	For through-bores	-0.02 / -0.04	1%, min. 1 $\mu\text{m}$	1	0.4
4478252	844 Dkr	16.000 – 25.000	0.2	For through-bores	-0.02 / -0.05	1%, min. 1 $\mu\text{m}$	1	0.4
4478254	844 Dkr	25.000 – 32.000	0.2	For through-bores	-0.02 / -0.05	1%, min. 1 $\mu\text{m}$	1	0.4
4478255	844 Dkr	32.000 – 44.000	0.2	For through-bores	-0.02 / -0.06	1%, min. 1 $\mu\text{m}$	1	0.4
4478256	844 Dkr	44.000 – 50.000	0.2	For through-bores	-0.03 / -0.06	1%, min. 1 $\mu\text{m}$	1	0.4
4478257	844 Dkr	50.000 – 60.000	0.2	For through-bores	-0.03 / -0.06	1%, min. 1 $\mu\text{m}$	1	0.4
4478258	844 Dkr	60.000 – 70.000	0.2	For through-bores	-0.03 / -0.06	1%, min. 1 $\mu\text{m}$	1	0.4
4478259	844 Dkr	70.000 – 80.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478260	844 Dkr	80.000 – 90.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478261	844 Dkr	90.000 – 100.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478262	844 Dkr	100.000 – 110.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478263	844 Dkr	110.000 – 120.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478264	844 Dkr	120.000 – 130.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478265	844 Dkr	130.000 – 140.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478266	844 Dkr	140.000 – 150.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478267	844 Dkr	150.000 – 160.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478268	844 Dkr	160.000 – 170.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478269	844 Dkr	170.000 – 180.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478270	844 Dkr	180.000 – 190.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4
4478271	844 Dkr	190.000 – 200.000	0.2	For through-bores	-0.04 / -0.07	1%, min. 1 $\mu\text{m}$	1	0.4

# MaraMeter 844 Dkr

## Indicating Plug Gage

Order no.	a	b	c	e	g	Nominal size
	mm	mm	mm	mm		mm
4478272	4	35.8	27.8	6	M6 x 0.75	2.980 - 3.990
4478250	4	35.8	27.8	6	M6 x 0.75	3.990 - 8.000
4478251	7.9	39.5	31	9	M 6 x 0.75	8.000 - 16.000
4478252	15	45	32	9.5	M10 x 1	16.000 - 25.000
4478254	15	45	32	9.5	M10 x 1	25.000 - 32.000
4478255	15	45	32	9.5	M10 x 1	32.000 - 44.000
4478256	20	46	26	10.5	M10 x 1	44.000 - 50.000
4478257	20	46	26	10.5	M10 x 1	50.000 - 60.000
4478258	20	46	26	10.5	M10 x 1	60.000 - 70.000
4478259	20	51	33	15	M10 x 1	70.000 - 80.000
4478260	20	51	33	15	M10 x 1	80.000 - 90.000
4478261	20	51	33	15	M10 x 1	90.000 - 100.000
4478262	20	51	33	15	M10 x 1	100.000 - 110.000
4478263	20	51	33	15	M10 x 1	110.000 - 120.000
4478264	20	51	33	15	M10 x 1	120.000 - 130.000
4478265	20	51	33	15	M10 x 1	130.000 - 140.000
4478266	20	51	33	15	M10 x 1	140.000 - 150.000
4478267	20	51	33	15	M10 x 1	150.000 - 160.000
4478268	20	51	33	15	M10 x 1	160.000 - 170.000
4478269	20	51	33	15	M10 x 1	170.000 - 180.000
4478270	20	51	33	15	M10 x 1	180.000 - 190.000
4478271	20	51	33	15	M10 x 1	190.000 - 200.000



### ACCESSORIES

Order no.	g	Product name	Product type
4335000		Millimes 0.5 µm, ± 25 µm	1002
4334000		Millimes 1 µm, ± 50 µm	1003
4333000		Millimes 5 µm, ± 130 µm	1004
4337620		Digital indicator, 0.0005 mm, 12.5 mm	1086 R
4337624		Digital indicator, 0.0005 mm, 12.5 mm	1086 Ri
4478851	M10 x 1	Standard holder - standard version	844 Dg
4478020	M6 x 0.75	Holder for inductive measuring probes	844 Dge
4478021	M10 x 1	Holder for inductive measuring probes	844 Dge
4478050	M10 x 1	Short holder - short version	844 Dgk
4478110	M10 x 1	Right angle attachment, L = 36.7 mm, H = 17 mm	844 Dw
4470851	M6 x 0.75	Standard measuring instrument holder	844 Kg
4470110	M6 x 0.75	Right angle attachment, L = 26.5 mm, H = 22.5 mm	844 Kw
5312010		Compact amplifier	C 1200
5323010	M 2.5	Inductive probe, ± 2 mm	P2004 M
5318400		Compact column amplifier	S 1840 M



1002



1003



1004



1086 R; 1086 R-HR; 1086 ZR



1086 Ri



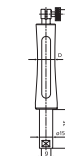
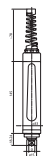
P2004; P2004 M; P2004 T; P2004 U; P2004 F



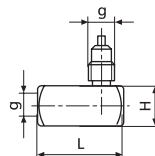
C1200; C 1200



S 1840 M; S 1840 F



844 Dg



# MaraMeter 844 Dks

## Indicating Plug Gage

### FEATURES

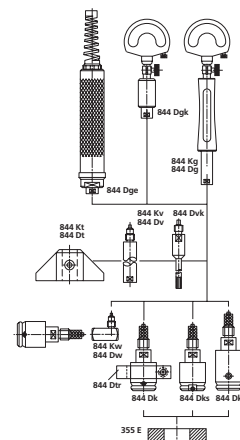
- Measuring head has a hardened chromium plated cylinder guide and carbide tipped anvils
- The carbide expanding pin transfers radial movement to indicating instrument
- Constant measuring force as a result of built-in spring, eliminating user influence
- Extensive modular system is composed of measuring head, holder, depth extension, Right angle attachments and depth stops



### Application:

#### Model for blind holes

- For measurements close to the base of the hole
- For the rapid testing of diameter, roundness and conicity of bores
- Especially suitable for testing batches with tight tolerances (for tolerances <math><10\mu\text{m}</math> on request)
- Rocking in the bore is unnecessary to determine the reversal point
- Ideal for use in conjunction with digital display units and for subsequent processing of measured values



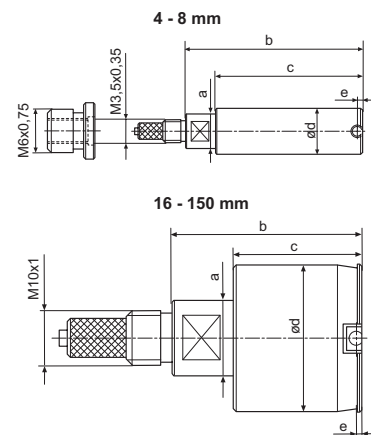
### TECHNICAL DATA

Order no.	Product type	Nominal size	Measuring span	Design	Manufacturing tolerance	Linearity deviation $f_e$	Repeatability $f_w$	Hysteresis $f_u$
		mm	mm		mm / mm		$\mu\text{m}$	$\mu\text{m}$
4478285	844 Dks	4.000 –8.000	0.1	For blind bores	-0.02 / -0.04	2%, min. 1 $\mu\text{m}$	1	0.4
4478245	844 Dks	8.000 –16.000	0.15	For blind bores	-0.02 / -0.04	2%, min. 1 $\mu\text{m}$	1	0.4
4478230	844 Dks	16.000 –25.000	0.15	For blind bores	-0.02 / -0.05	2%, min. 1 $\mu\text{m}$	1	0.4
4478232	844 Dks	25.000 –32.000	0.15	For blind bores	-0.02 / -0.05	2%, min. 1 $\mu\text{m}$	1	0.4
4478233	844 Dks	32.000 –44.000	0.15	For blind bores	-0.03 / -0.06	2%, min. 1 $\mu\text{m}$	1	0.4
4478234	844 Dks	44.000 –50.000	0.15	For blind bores	-0.03 / -0.06	2%, min. 1 $\mu\text{m}$	1	0.4
4478235	844 Dks	50.000 –60.000	0.15	For blind bores	-0.03 / -0.06	2%, min. 1 $\mu\text{m}$	1	0.4
4478236	844 Dks	60.000 –70.000	0.15	For blind bores	-0.03 / -0.06	2%, min. 1 $\mu\text{m}$	1	0.4
4478237	844 Dks	70.000 –80.000	0.15	For blind bores	-0.04 / -0.07	2%, min. 1 $\mu\text{m}$	1	0.4
4478238	844 Dks	80.000 –90.000	0.15	For blind bores	-0.04 / -0.07	2%, min. 1 $\mu\text{m}$	1	0.4
4478239	844 Dks	90.000 –100.000	0.15	For blind bores	-0.04 / -0.07	2%, min. 1 $\mu\text{m}$	1	0.4
4478240	844 Dks	100.000 –110.000	0.15	For blind bores	-0.04 / -0.07	2%, min. 1 $\mu\text{m}$	1	0.4
4478241	844 Dks	110.000 –120.000	0.15	For blind bores	-0.04 / -0.07	2%, min. 1 $\mu\text{m}$	1	0.4
4478242	844 Dks	120.000 –130.000	0.15	For blind bores	-0.04 / -0.07	2%, min. 1 $\mu\text{m}$	1	0.4
4478243	844 Dks	130.000 –140.000	0.15	For blind bores	-0.04 / -0.07	2%, min. 1 $\mu\text{m}$	1	0.4
4478244	844 Dks	140.000 –150.000	0.15	For blind bores	-0.04 / -0.07	2%, min. 1 $\mu\text{m}$	1	0.4

# MaraMeter 844 Dks

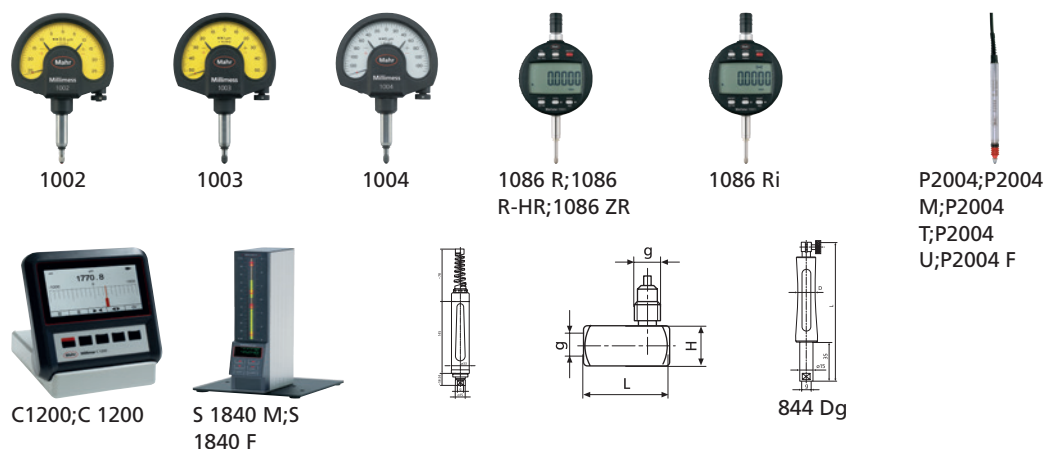
## Indicating Plug Gage

Order no.	a	b	c	e	g	Nominal size
	mm	mm	mm	mm		mm
4478285	7.9	30.4	22.4	0.6	M6 x 0.75	4.000 - 8.000
4478245	7.9	31.1	22.6	0.6	M6 x 0.75	8.000 - 16.000
4478230	15	39	26	1	M10 x 1	16.000 - 25.000
4478232	15	39	26	1	M10 x 1	25.000 - 32.000
4478233	15	39	26	1	M10 x 1	32.000 - 44.000
4478234	20	39	25.5	1	M10 x 1	44.000 - 50.000
4478235	20	39	25.5	1	M10 x 1	50.000 - 60.000
4478236	20	39	25.5	1	M10 x 1	60.000 - 70.000
4478237	20	39	32.5	1	M10 x 1	70.000 - 80.000
4478238	20	39	32.5	1	M10 x 1	80.000 - 90.000
4478239	20	39	32.5	1	M10 x 1	90.000 - 100.000
4478240	20	39	32.5	1	M10 x 1	100.000 - 110.000
4478241	20	39	32.5	1	M10 x 1	110.000 - 120.000
4478242	20	39	32.5	1	M10 x 1	120.000 - 130.000
4478243	20	39	32.5	1	M10 x 1	130.000 - 140.000
4478244	20	39	32.5	1	M10 x 1	140.000 - 150.000



### ACCESSORIES

Order no.	g	Product name	Product type
4335000		Millimess 0.5 µm, ± 25 µm	1002
4334000		Millimess 1 µm, ± 50 µm	1003
4333000		Millimess 5 µm, ± 130 µm	1004
4337620		Digital indicator, 0.0005 mm, 12.5 mm	1086 R
4337624		Digital indicator, 0.0005 mm, 12.5 mm	1086 Ri
4478851	M10 x 1	Standard holder - standard version	844 Dg
4478020	M6 x 0.75	Holder for inductive measuring probes	844 Dge
4478021	M10 x 1	Holder for inductive measuring probes	844 Dge
4478050	M10 x 1	Short holder - short version	844 Dgk
4478110	M10 x 1	Right angle attachment, L = 36.7 mm, H = 17 mm	844 Dw
4470851	M6 x 0.75	Standard measuring instrument holder	844 Kg
4470110	M6 x 0.75	Right angle attachment, L = 26.5 mm, H = 22.5 mm	844 Kw
5312010		Compact amplifier	C 1200
5323010	M 2.5	Inductive probe, ± 2 mm	P2004 M
5318400		Compact column amplifier	S 1840 M



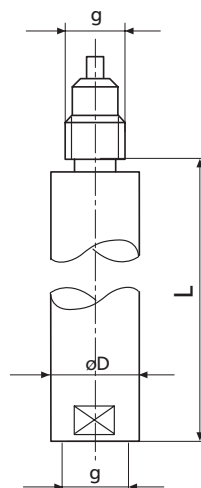


# MaraMeter 844 Dv / 844 Kv

## Extension

### FEATURES

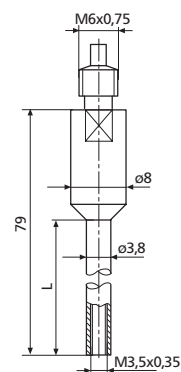
- For very deep bores
- Screws in between holder and measuring heads 844 Dk, 844 Dkr or 844 Dks
- Several extensions can be screwed together as of 8 mm
- Models 844 Dv and 844 Dvk made of Invar steel



### TECHNICAL DATA

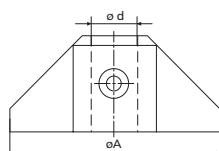
Order no.	Product type	Dimension L
		mm
4478080	844 Dv	64
4470070	844 Kv	64
4478070	844 Dv	64
4478071	844 Dv	80
4478072	844 Dv	100
4478073	844 Dv	125
4478074	844 Dv	250
4478075	844 Dv	500

Order no.	g	D	Dimension L	Produkt type
		mm	mm	
4478080	M6x0.75 / M3.5x0.35	3.8	64	844 Dv
4470070	M6 x 0.75	8	64	844 Kv
4478070	M10 x 1	15	64	844 Dv
4478071	M10 x 1	15	80	844 Dv
4478072	M10 x 1	15	100	844 Dv
4478073	M10 x 1	15	125	844 Dv
4478074	M10 x 1	15	250	844 Dv
4478075	M10 x 1	15	500	844 Dv



### ACCESSORIES

Order no.	Product name	Product type
4470115	Depth stop, mounting- $\varnothing d = 8$ mm, A = 24 mm, h = 60 mm	844 Dt
4478115	Depth stop, mounting- $\varnothing d = 15$ mm, A = 45 mm, h = 30 mm	844 Dt
4478116	Depth stop, mounting- $\varnothing d = 15$ mm, A = 75 mm, h = 30 mm	844 Dt
4478117	Depth stop, mounting- $\varnothing d = 15$ mm, A = 110 mm, h = 30 mm	844 Dt
4478118	Depth stop, mounting- $\varnothing d = 15$ mm, A = 160 mm, h = 30 mm	844 Dt
4478119	Depth stop, mounting- $\varnothing d = 15$ mm, A = 220 mm, h = 30 mm	844 Dt



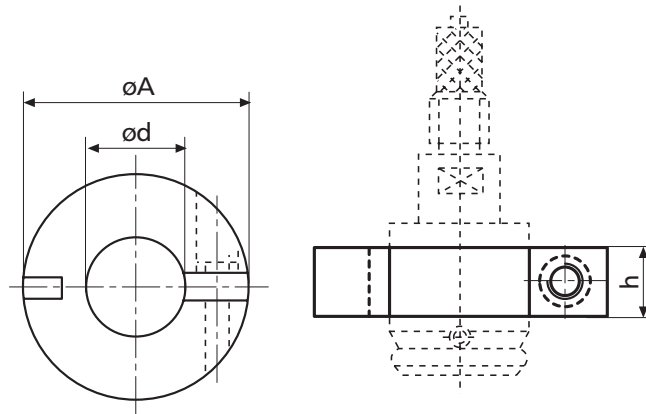
844 Dt

# MaraMeter 844 Dtr

## Depth Stop Ring

### FEATURES

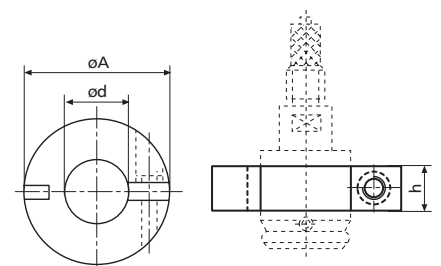
- For limiting depth of insertion of measuring head in bore
- Clamped onto the measuring head



### TECHNICAL DATA

Order no.	Product type	Mount diameter d	Stop surface diameter A
		mm	mm
4478130	844 Dtr	3 – 5	27
		>5 – 8	30
		>8 – 11	33
		>11 – 15	37
		>15 – 20	42
4478131	844 Dtr	>20 – 25	50
		>25 – 30	55
		>30 – 35	60
		>35 – 40	65
		>40 – 45	70
4478132	844 Dtr	>45 – 50	75
		>50 – 60	85
		>60 – 70	95
		>70 – 80	105
		>80 – 90	115
4478133	844 Dtr	>90 – 100	125

Order no.	Mount diameter d	Stop surface diameter A
	mm	mm
4478130	3 – 5	27
	>5 – 8	30
	>8 – 11	33
	>11 – 15	37
	>15 – 20	42
4478131	>20 – 25	50
	>25 – 30	55
	>30 – 35	60
	>35 – 40	65
	>40 – 45	70
4478132	>45 – 50	75
	>50 – 60	85
	>60 – 70	95
	>70 – 80	105
4478133	>80 – 90	115
	>90 – 100	125



# MaraMeter 844 Zk

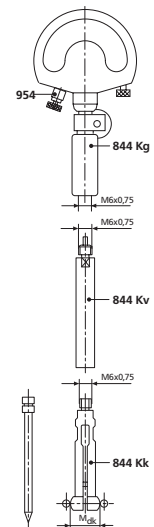
## Anvil for Internal Serration

### FEATURES

- Maximum wear resistance due to carbide ball anvils
- Constant measuring force due to built-in spring, eliminating user influence
- Anvils, measuring heads, holder, spacer (intermediate piece) and depth extensions form a very comprehensive modular system which can rapidly be converted to measure further gear sizes
- When ordering please state the required ball diameter Table (Dimensions in mm)  
0.5000.5510.6200.6230.6300.7220.8620.8950.9651.1001.1181.1251.2501.3501.3721.3851.5241.5401.6001.6501.7001.7501.7821.8001.8291.9002.0322.2502.2842.3862.4382.6672.7042.7132.7212.7432.7503.0483.2503.4003.6584.8355.2505.4865.5006.0006.0966.3506.5007.000

### Application:

- For diametrical two ball measurement MdK
- To obtain the pitch diameter and conical form of internal gears in any position and at any depth



### TECHNICAL DATA

Order no.	Product type	Ball diameter	Dimension over balls MdK	Increment	Expanding pin
		mm	mm	mm	
4482450	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	3.5 – 4.1	0.5	844 Kn6
4482451	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	4 – 4.6	0.5	844 Kn6
4482452	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	4.5 – 5.1	0.5	844 Kn6
4482453	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	5 – 5.6	0.5	844 Kn6
4482454	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	5.5 – 6.1	0.5	844 Kn6
4482455	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	6 – 6.6	0.5	844 Kn6
4482456	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	6.5 – 7.1	0.5	844 Kn6
4482457	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	7 – 7.6	0.5	844 Kn6
4482458	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	7.5 – 8.1	0.5	844 Kn6
4482459	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	8 – 8.6	0.5	844 Kn6
4482460	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	8.5 – 9.1	0.5	844 Kn6
4482461	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	9 – 9.6	0.5	844 Kn6
4482462	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	9.3 – 10.6	0.5	844 Kn7
4482463	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	10.3 – 11.6	0.5	844 Kn7
4482464	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	11.3 – 12.6	0.5	844 Kn7
4482465	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	12.3 – 13.6	0.5	844 Kn7
4482466	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	13.3 – 14.6	0.5	844 Kn7
4482467	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	14.5 – 16.1	0.5	844 Kn7
4482468	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	15.5 – 17.1	0.5	844 Kn7
4482469	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	16.5 – 18.1	0.5	844 Kn7
4482470	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	17.5 – 19.1	0.5	844 Kn7
4482471	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	18.5 – 20.1	0.5	844 Kn7
4482472	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	19.5 – 21.1	0.5	844 Kn7
4482473	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	20.5 – 22.1	0.5	844 Kn7

## MaraMeter 844 Zk

## Anvil for Internal Serration

Order no.	Product type	Ball diameter	Dimension over balls MdK	Increment	Expanding pin
		mm	mm	mm	
4482474	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	21.5 –23.1	0.5	844 Kn7
4482475	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	22.5 –24.1	0.5	844 Kn7
4482476	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	23.5 –25.1	0.5	844 Kn7
4482477	844 Zk	1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	24.5 –26.1	0.5	844 Kn7
4482550	844 Zk	acc. to table (0.5–7.0mm)	3.5 –4.1		844 Kn6
4482551	844 Zk	acc. to table (0.5–7.0mm)	4 –4.6		844 Kn6
4482552	844 Zk	acc. to table (0.5–7.0mm)	4.5 –5.1		844 Kn6
4482553	844 Zk	acc. to table (0.5–7.0mm)	5 –5.6		844 Kn6
4482554	844 Zk	acc. to table (0.5–7.0mm)	5.5 –6.1		844 Kn6
4482555	844 Zk	acc. to table (0.5–7.0mm)	6 –6.6		844 Kn6
4482556	844 Zk	acc. to table (0.5–7.0mm)	6.5 –7.1		844 Kn6
4482557	844 Zk	acc. to table (0.5–7.0mm)	7 –7.6		844 Kn6
4482558	844 Zk	acc. to table (0.5–7.0mm)	7.5 –8.1		844 Kn6
4482559	844 Zk	acc. to table (0.5–7.0mm)	8 –8.6		844 Kn6
4482560	844 Zk	acc. to table (0.5–7.0mm)	8.5 –9.1		844 Kn6
4482561	844 Zk	acc. to table (0.5–7.0mm)	9 –9.6		844 Kn6
4482562	844 Zk	acc. to table (0.5–7.0mm)	9.3 –10.6		844 Kn7
4482563	844 Zk	acc. to table (0.5–7.0mm)	10.3 –11.6		844 Kn7
4482564	844 Zk	acc. to table (0.5–7.0mm)	11.3 –12.6		844 Kn7
4482565	844 Zk	acc. to table (0.5–7.0mm)	12.3 –13.6		844 Kn7
4482566	844 Zk	acc. to table (0.5–7.0mm)	13.3 –14.6		844 Kn7
4482567	844 Zk	acc. to table (0.5–7.0mm)	14.5 –16.1		844 Kn7
4482568	844 Zk	acc. to table (0.5–7.0mm)	15.5 –17.1		844 Kn7
4482569	844 Zk	acc. to table (0.5–7.0mm)	16.5 –18.1		844 Kn7
4482570	844 Zk	acc. to table (0.5–7.0mm)	17.5 –19.1		844 Kn7
4482571	844 Zk	acc. to table (0.5–7.0mm)	18.5 –20.1		844 Kn7
4482572	844 Zk	acc. to table (0.5–7.0mm)	19.5 –21.1		844 Kn7
4482573	844 Zk	acc. to table (0.5–7.0mm)	20.5 –22.1		844 Kn7
4482574	844 Zk	acc. to table (0.5–7.0mm)	21.5 –23.1		844 Kn7
4482575	844 Zk	acc. to table (0.5–7.0mm)	22.5 –24.1		844 Kn7
4482576	844 Zk	acc. to table (0.5–7.0mm)	23.5 –25.1		844 Kn7
4482577	844 Zk	acc. to table (0.5–7.0mm)	24.5 –26.1		844 Kn7
4482662	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	9.3 –10.6	0.5	844 Kn7
4482663	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	10.3 –11.6	0.5	844 Kn7
4482664	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	11.3 –12.6	0.5	844 Kn7
4482665	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	12.3 –13.6	0.5	844 Kn7
4482666	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	13.3 –14.6	0.5	844 Kn7
4482667	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	14.5 –16.1	0.5	844 Kn7
4482668	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	15.5 –17.1	0.5	844 Kn7
4482669	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	16.5 –18.1	0.5	844 Kn7
4482670	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	17.5 –19.1	0.5	844 Kn7
4482671	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	18.5 –20.1	0.5	844 Kn7
4482672	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	19.5 –21.1	0.5	844 Kn7
4482673	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	20.5 –22.1	0.5	844 Kn7
4482674	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	21.5 –23.1	0.5	844 Kn7
4482675	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	22.5 –24.1	0.5	844 Kn7
4482676	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	23.5 –25.1	0.5	844 Kn7
4482677	844 Zk	7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	24.5 –26.1	0.5	844 Kn7



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## ACCESSORIES

Order no.	g	Product name	Product type
4334000		Millimess 1 $\mu\text{m}$ , $\pm 50 \mu\text{m}$	1003
4333000		Millimess 5 $\mu\text{m}$ , $\pm 130 \mu\text{m}$	1004
4372030		Lifting knob	954
4470851	M6 x 0.75	Standard measuring instrument holder	844 Kg
4470070	M6 x 0.75	Extensions, D = 8 mm, L = 64 mm	844 Kv
4470806		Expanding pin, steel	844 Kn6
4470808		Expanding pin, steel	844 Kn7

# MaraMeter 844 z1 / 844 z2

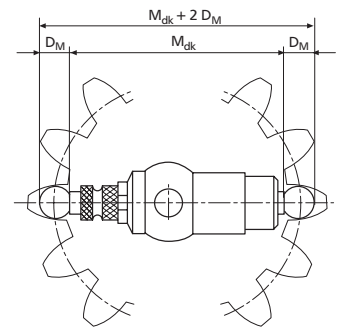
## Measuring Head

### FEATURES

- Maximum wear resistance due to carbide ball anvils
- Constant measuring force due to built-in spring, eliminating user influence
- Anvils, measuring heads, holder, spacer (intermediate piece) and depth extensions form a very comprehensive modular system which can rapidly be converted to measure further gear sizes
- When ordering please state the required ball diameter Table (dimensions in mm)  
0.5000.5510.6200.6230.6300.7220.8620.8950.965  
1.1001.1181.1251.2501.3501.3721.3851.5241.5401.6001.6501.7001.7501.7821.8001.8291.9002.0322.2502.2842.3862.4382.6672.7042.7132.7212.7432.7503.0483.2503.4003.6584.8355.2505.4865.5006.0006.0966.3506.5007.000

### Application:

- For diametrical two ball measurement  $M_{dk}$
- To obtain the pitch diameter and conical form of internal gears in any position and at any depth



### TECHNICAL DATA

Order no.	Product type	Measuring range	Dimension over balls $M_{dk}$	Error limit $G_e$	Repeat-ability $f_w$
		mm	mm	$\mu\text{m}$	$\mu\text{m}$
4485000	844 z1	23.5 – 26.5	26 – 130.5	6	1
4485001	844 z2	46 – 49	48.5 – 333	6	1

## MaraMeter 844 z1 / 844 z2

## Measuring Head

## ACCESSORIES

Order no.	g	Product name	Product type
4334000		Millimess 1 $\mu\text{m}$ , $\pm$ 50 $\mu\text{m}$	1003
4333000		Millimess 5 $\mu\text{m}$ , $\pm$ 130 $\mu\text{m}$	1004
4488300		Floating ball anvil with carbide ball, Ball diameter 1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	844 z3
4488301		Floating ball anvil with carbide ball, Ball diameter acc. to table (0.5–7.0mm)	844 z3
4488302		Floating ball anvil with carbide ball, Ball diameter 5.0 mm, 7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	844 z3
4488320		Ball anvils with carbide ball, Ball diameter 1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	844 z5
4488321		Ball anvils with carbide ball, Ball diameter acc. to table (0.5–7.0mm)	844 z5
4488322		Ball anvils with carbide ball, Ball diameter 7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	844 z5
4488330		Ball anvils with carbide ball, Ball diameter 1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	844 z6
4488331		Ball anvils with carbide ball, Ball diameter acc. to table (0.5–7.0mm)	844 z6
4488332		Ball anvils with carbide ball, Ball diameter 7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	844 z6
4488340		Ball anvils with carbide ball, Ball diameter 1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	844 z7
4488341		Ball anvils with carbide ball, Ball diameter acc. to table (0.5–7.0mm)	844 z7
4488342		Ball anvils with carbide ball, Ball diameter 7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	844 z7
4488350		Ball anvils with carbide ball, Ball diameter 1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	844 z8
4488351		Ball anvils with carbide ball, Ball diameter acc. to table (0.5–7.0mm)	844 z8
4488352		Ball anvils with carbide ball, Ball diameter 7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	844 z8
4488360		Ball anvils with carbide ball, Ball diameter 1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	844 z15
4488361		Ball anvils with carbide ball, Ball diameter acc. to table (0.5–7.0mm)	844 z15
4488362		Ball anvils with carbide ball, Ball diameter 7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	844 z15
4486501		Spacer (intermediate piece), 10 mm	844 z9
4486502		Spacer (intermediate piece), 20 mm	844 z10
4486503		Spacer (intermediate piece), 40 mm	844 z11
4486504		Spacer (intermediate piece), 80 mm	844 z12
4470851	M6 x 0.75	Standard measuring instrument holder	844 Kg
4470070	M6 x 0.75	Extensions, D = 8 mm, L = 64 mm	844 Kv
4488310		Floating ball anvil with carbide ball, Ball diameter 1.0 mm, 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 4.5 mm, 5.0 mm	844 z4
4488311		Floating ball anvil with carbide ball, Ball diameter acc. to table (0.5–7.0mm)	844 z4
4488312		Floating ball anvil with carbide ball, Ball diameter 7.5 mm, 8.0 mm, 8.5 mm, 9.0 mm, 9.5 mm, 10.0 mm	844 z4
4486505		Spacer (intermediate piece), 100 mm	844 z13



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