

METROLOGY®



Small Bore Gauge

Bore Gauge

Granite Measuring Stand

■ Small Bore Gauge (Split Ball Probes)

For comparison in measuring dimensions and form error of holes.



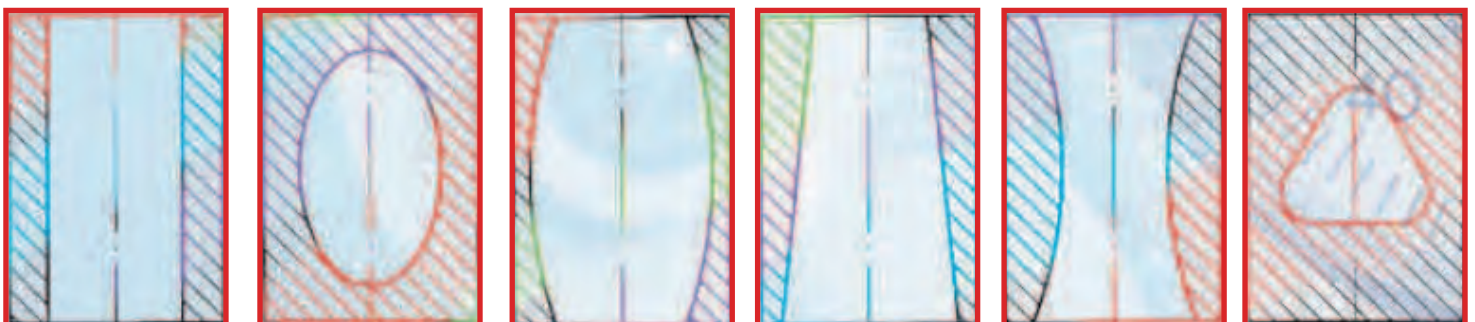
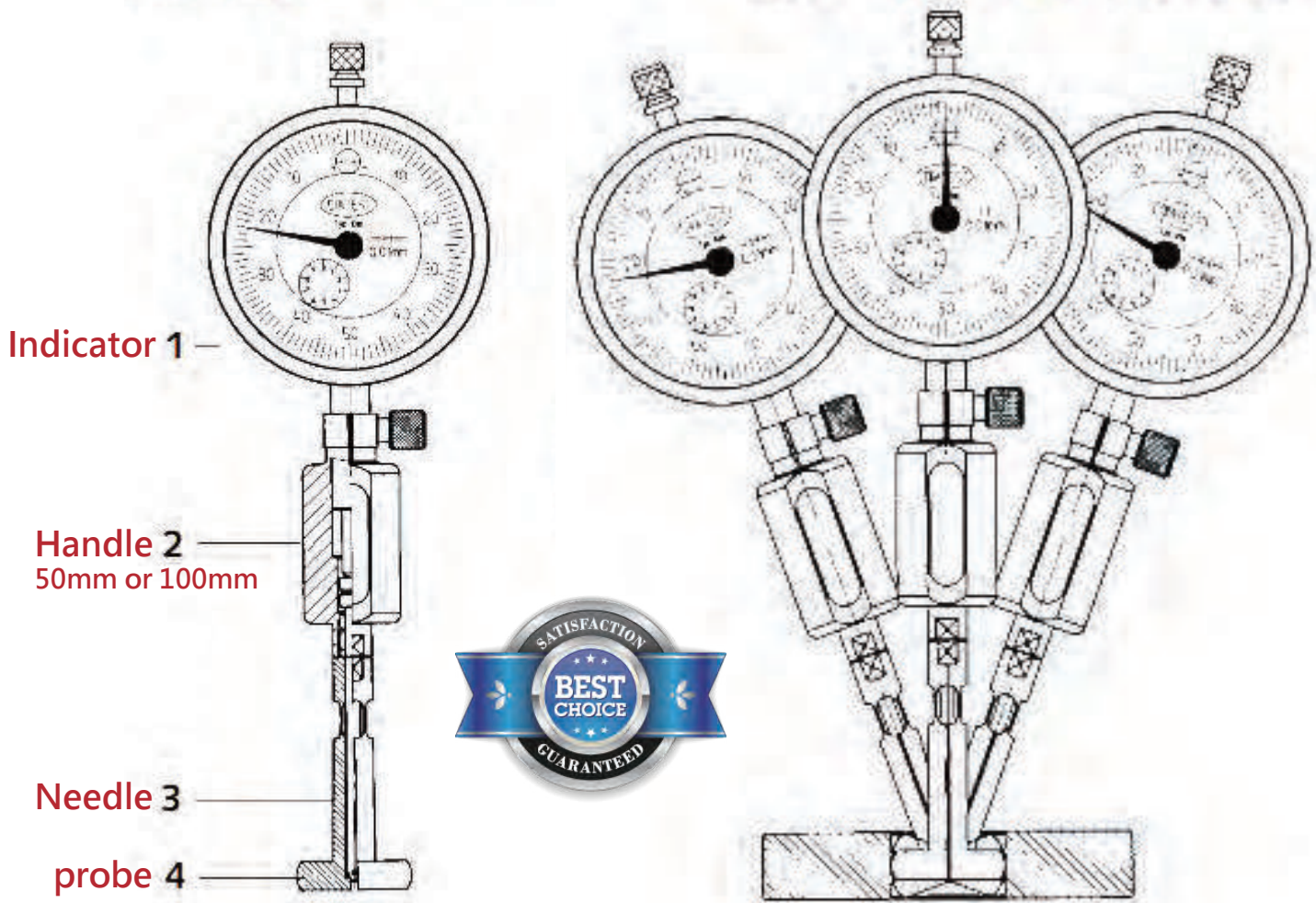
Technic Combination

Technical Specs

Repeatability : 0.001mm(by hand) 0.0005mm(by measuring stand)

Travel error : 0.5~1.5mm Max 2% of the travel 1.75~40mm Max 1% of the travel

Material : hardened steel needle hardness 62-64HRC / chrome harden steel probe hardness HV1000



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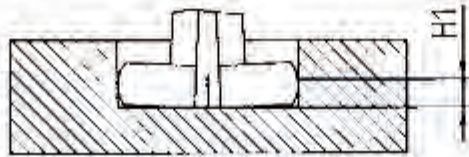
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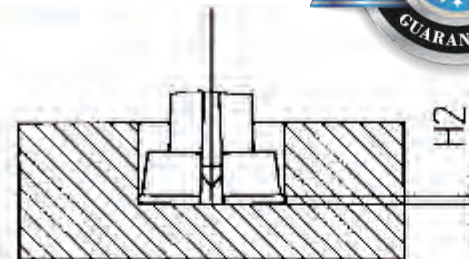
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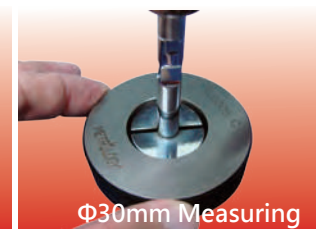
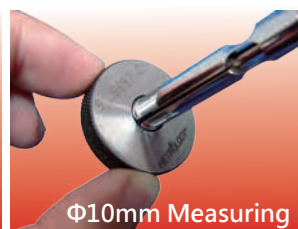
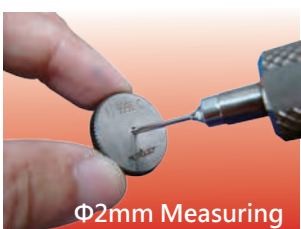
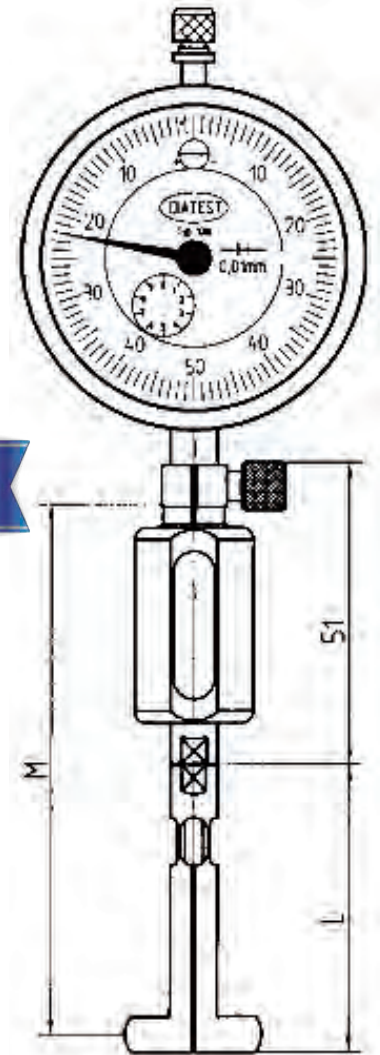
Standard-Tastkopf
Standard probe

- BG-M00 : 0.25-0.33mm
- BG-M0 : 0.6mm
- BG-M1 : 0.9-1.2mm
- BG-M2 : 2.0mm
- BG-M3 : 3.3mm
- BG-M4 : 3.6mm
- BG-M5 : 4.0mm



Sackloch-Tastkopf
Blind bore probe

- BG-M1 : 0.3mm
- BG-M2 : 0.5mm
- BG-M3 : 1.0mm
- BG-M4 : 1.2mm
- BG-M5 : 1.5mm



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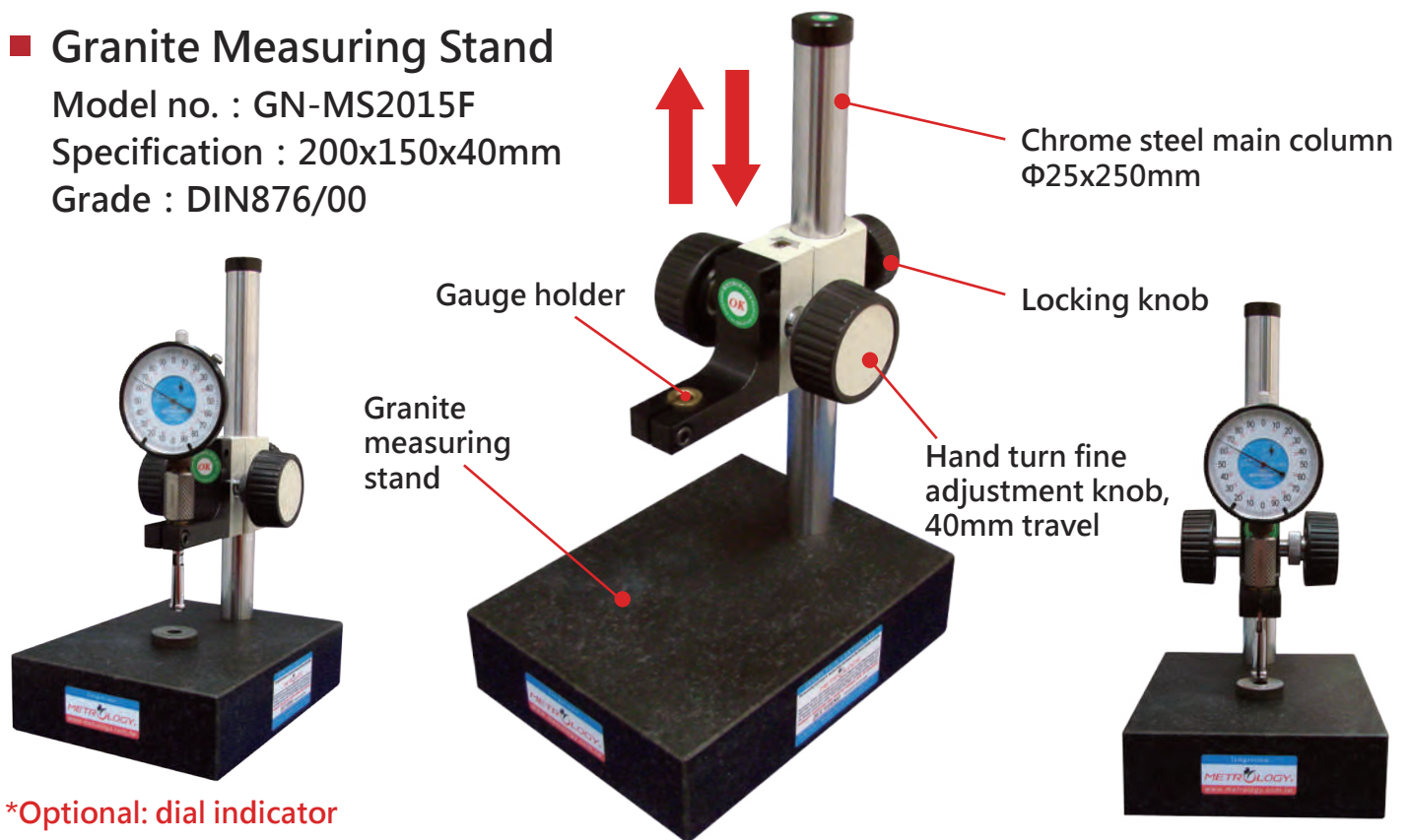


Technic Combination



■ Granite Measuring Stand

Model no. : GN-MS2015F
 Specification : 200x150x40mm
 Grade : DIN876/00



*Optional: dial indicator



■ Small Bore Gauge (Split Ball Probes)

For comparison in measuring dimensions and form error of holes.

Technic Combination

Model No. (set)	Model No. (probe)	Measuring Range (mm)	Model No. (Needle)	Model No. (Ring gauge / mm)	Probe Length (mm)	Measuring Depth (mm)	
BG-M00	BG-T0.50	0.47-0.53	BG-N00-030	RG-0.50	19.5	1.5	
	BG-T0.55	0.52-0.58		RG-0.55		1.8	
	BG-T0.60	0.57-0.67	BG-N00-040	RG-0.60		2.0	
	BG-T0.70	0.65-0.77		RG-0.70		2.5	
	BG-T0.80	0.75-0.87		RG-0.80		2.8	
	BG-T0.90	0.85-0.97		RG-0.90		3.0	
BG-M0	BG-T1.0	0.95-1.15	BG-N0-070	RG-1.0	19.5	11	
	BG-T1.1	1.07-1.25		RG-1.1			
	BG-T1.2	1.17-1.35		RG-1.2			
	BG-T1.3	1.27-1.45		RG-1.3			
	BG-T1.4	1.37-1.55		RG-1.4			
BG-M1	BG-T1.75	1.50-1.90	BG-N1-100	RG-1.75	25.3	17	
	BG-T2.00	1.80-2.20		RG-2.00			
	BG-T2.25	2.05-2.45		RG-2.25			
	BG-M1	BG-T2.50	2.30-2.70	BG-N1-150	RG-2.50	30.6	22
		BG-T2.75	2.55-2.95		RG-2.75		
		BG-T3.00	2.80-3.20		RG-3.00		
		BG-T3.25	3.05-3.45		RG-3.25		
		BG-T3.50	3.30-3.70		RG-3.50		
BG-M2	BG-T3.75	3.55-3.95	BG-N2-270	RG-3.75	47.3	40	
	BG-T4.0	3.70-4.30		RG-4.0			
	BG-T4.5	4.20-4.80		RG-4.5			
	BG-T5.0	4.70-5.30		RG-5.0			
	BG-T5.5	5.20-5.80		RG-5.5			
	BG-T6.0	5.70-6.30		RG-6.0			
	BG-T6.5	6.20-6.80		RG-6.5			
	BG-T7.0	6.70-7.30		RG-7.0			
	BG-T7.5	7.20-7.80		RG-7.5			
	BG-T8.0	7.70-8.30		RG-8.0			
	BG-T8.5	8.20-8.80		RG-8.5			
	BG-T9.0	8.70-9.30		RG-9.0		50	
BG-T9.5	9.20-9.80	RG-9.5					

Full set with probe, needle, ring gauge, handle, and wooden case.
Can be purchased individually



Technic Combination

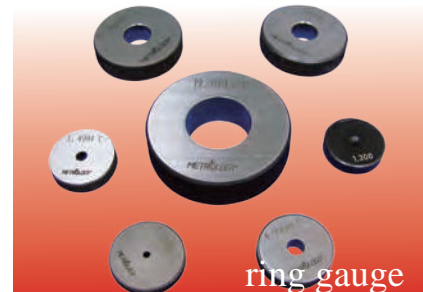
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BG-M3	BG-T10	9.40-10.60	BG-N3-310	RG-10	48.5	50
	BG-T11	10.40-11.60		RG-11		
	BG-T12	11.40-12.60		RG-12		
	BG-T13	12.40-13.60		RG-13		
	BG-T14	13.40-14.60		RG-14		
	BG-T15	14.40-15.60		RG-15		90
	BG-T16	15.40-16.60		RG-16		
	BG-T17	16.40-17.60		RG-17		
	BG-T18	17.40-18.60		RG-18		
	BG-T19	18.40-19.60		RG-19		
BG-T20	19.40-20.60	RG-20				
BG-M4	BG-T21	20.40-21.60	BG-N3-310	RG-21	48.5	90
	BG-T22	21.40-22.60		RG-22		
	BG-T23	22.40-23.60		RG-23		
	BG-T24	23.40-24.60		RG-24		
	BG-T25	24.40-25.60		RG-25		
	BG-T26	25.40-26.60		RG-26		
	BG-T27	26.40-27.60		RG-27		
	BG-T28	27.40-28.60		RG-28		
	BG-T29	28.40-29.60		RG-29		
	BG-T30	29.40-30.60		RG-30		
BG-M5	BG-T30/5	28.90-31.10	BG-N5-350	RG-30	48.5	100
	BG-T32	30.90-33.10		RG-32		
	BG-T34	32.90-35.10		RG-34		
	BG-T36	34.90-37.10		RG-36		
	BG-T38	36.90-39.10		RG-38		
	BG-T40	38.90-41.10		RG-40		

Full set with probe, needle, ring gauge, handle, and wooden case.
Can be purchased individually

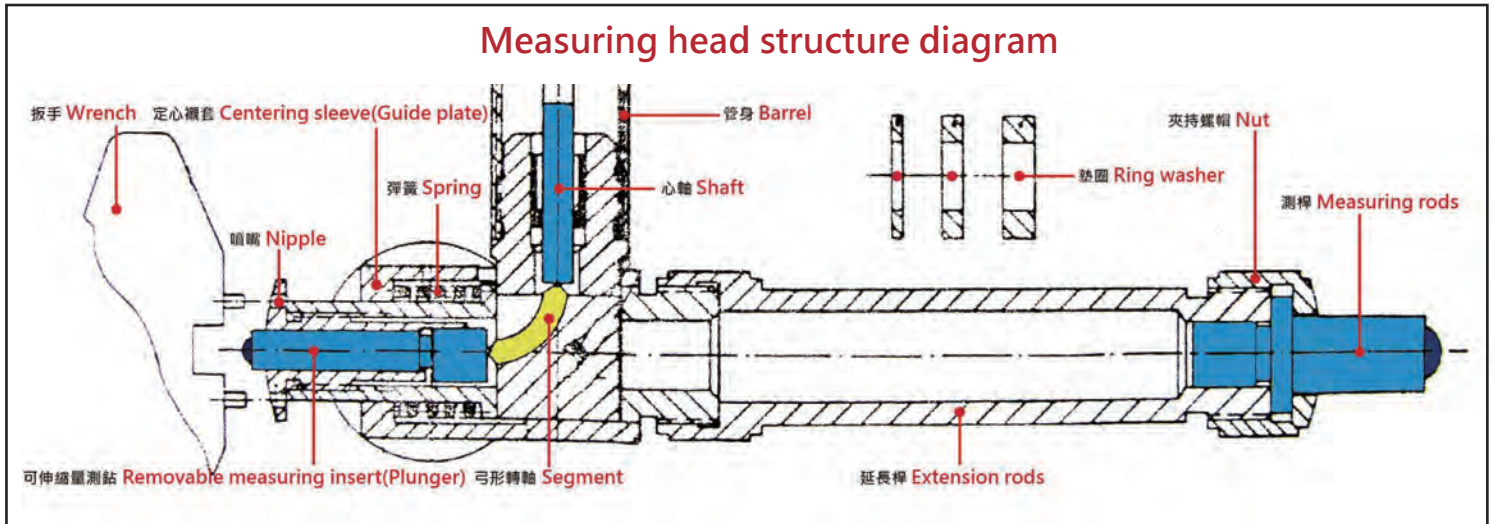
*Optional: dial indicator





■ Bore Gauge

For measuring bore diameter, roundness, shape and form error.



Specs. Repeatability : 0.002mm Measuring accuracy : refer to JIS B7515 standards

Performance of Cylinder Gauge

Unit: um

Measuring range (mm)	Permissible value for wide range accuracy		Permissible value for adjacent error		Permissible value for repeated accuracy		Permissible value for error due to rotation of plunger		Permissible value for error due to guide plate		Measuring force N(gf)
	Grade A	Grade B	Grade A	Grade B	Grade A	Grade B	Grade A	Grade B	Grade A	Grade B	
18 to 35	5	10	2	4	2	3	2	4	1	2	4 max (408)
35 to 60											5 max (510)
50 to 100											6 max (612)
100 to 160									2	3	5 max (510)
160 to 250											6 max (612)
250 to 400											6 max (612)

Remark : The values in this table are referred to 20°C temperature

- Standard kit with bore gauge handle, measuring head, full set measuring rod. (Indicator optional)



Precautions for use

1. Bore gauge is a measuring tool for comparative measurement, the measuring range should not be too large, the best way is to use the upper and lower limits within a circle of the indicator, otherwise the excessive measuring range will cause the cumulative error of spindle and indicator.
2. The pairing of the bore gauge and indicator is more important, and the instrument error values that are not in the same direction will cause the cumulative error of the two.

■ Bore Gauge (Insert Type)

For measuring bore diameter, roundness, shape and form error.

Remark: indicator optional
Please choose the matching indicator according to the product tolerance requirements and scale performance.



Standard digital indicator

Micro digital indicator

Micro indicator

Micro digital indicator

Standard indicator



6-10mm



18-35mm



50-100mm



160-250mm

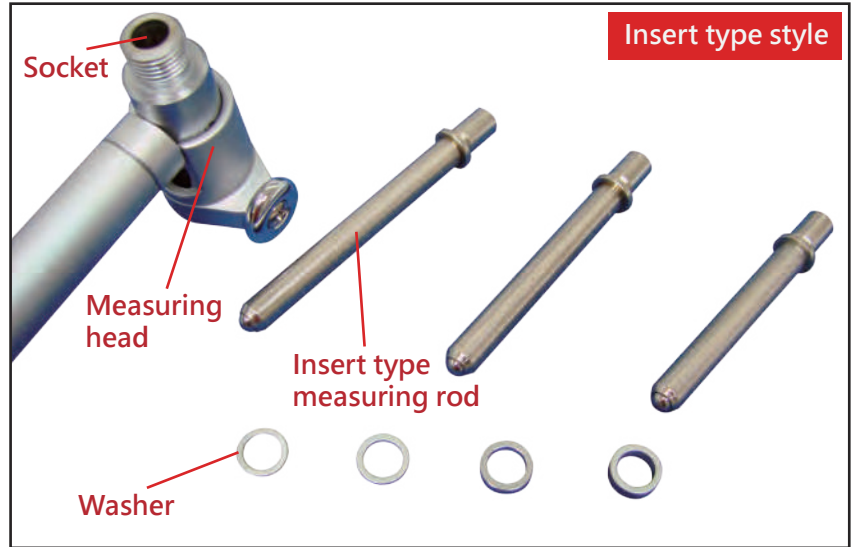


250-450mm

■ Bore Gauge (Insert Type)

For measuring bore diameter, roundness, shape and form error.

Model No.	Measuring Range	Measuring Depth
BG-9001N	6-10mm	40mm
BG-9002N	10-18mm	100mm
BG-9003N	18-35mm	125mm
BG-9004N	35-50mm	150mm
BG-9005N	50-100mm	150mm
BG-9006N	50-160mm	150mm
BG-9007N	160-250mm	400mm
BG-9008N	250-450mm	400mm
BG-9009N	250-600mm	400mm
BG-9010N	400-800mm	400mm

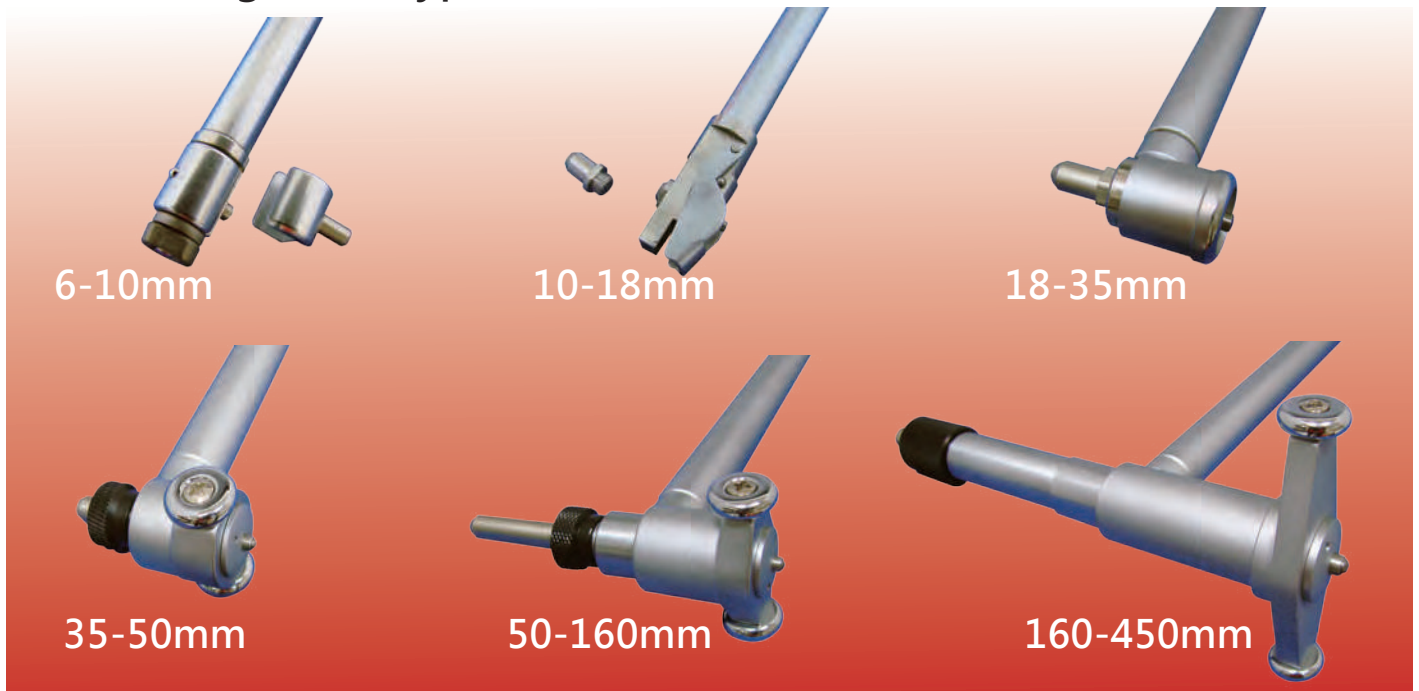


■ Extension Rods

For measuring range over 100mm



■ Measuring Head Type



■ Bore Gauge (Thread Type)

For measuring bore diameter, roundness, shape and form error.

Remark: indicator optional
Please choose the matching indicator according to the product tolerance requirements and scale performance.

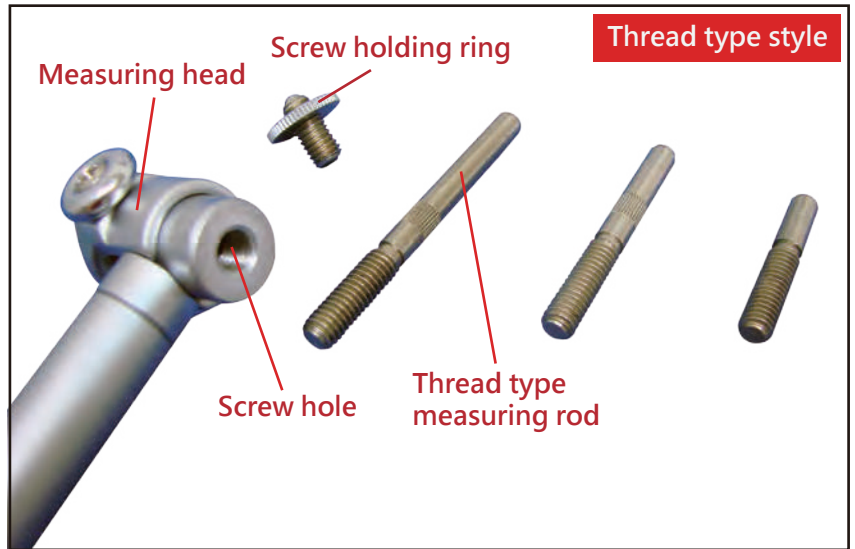


BG-9250S 250-450mm

■ Bore Gauge (Thread Type)

For measuring bore diameter, roundness, shape and form error.

Model No.	Measuring Range	Measuring Depth
BG-9035S	35-50mm	150mm
BG-9050S	50-100mm	150mm
BG-9100S	100-250mm	200mm
BG-9250S	250-450mm	400mm



■ Extension Rods

For measuring range over 100mm



■ Measuring Head Type

