

Borematic

SERIES 568 — ABSOLUTE Digimatic Snap Bore Gages

The Borematic enables the operator to take measurements more accurately and quicker than ever before. Once the origin point is set with the ORIGIN button, the Borematic retains the setting for the entire battery life, therefore, no longer repeated origin setting (presetting) is necessary.

FEATURES

- TiN-coated measuring contact points provide excellent durability and impact resistance and allow the instrument to measure to the bottom of a blind hole.
- Large LCD digits of 8.5mm height for easy reading.
- 330-degree rotatable display unit for easy reading at any angle.
- Go/no-go judgment function.
- The ABSOLUTE linear encoder eliminates over-speed errors.
- With SPC data output.
- Setting rings for origin point setting are optional.
- Measure deep holes by attaching an optional extension rod.
- Measurement can be taken closer to the bottom of a blind bore.
- Supplied in fitted wooden case.



TiN-coated contact points (" -10" suffix models only)

SPECIFICATIONS

Metric Individual

Range	Order No.	Accuracy	Mass (g)
6 - 8mm	568-361	±5μm	480
8 - 10mm	568-362	±5μm	485
10 - 12mm	568-363	±5μm	485
12 - 16mm	568-364	±5μm	475
16 - 20mm	568-365	±5μm	480
20 - 25mm	568-366	±6μm	540
25 - 30mm	568-367	±6μm	555
30 - 40mm	568-368	±6μm	565
40 - 50mm	568-369	±6μm	610
50 - 63mm	568-370	±6μm	730
62 - 75mm	568-371	±6μm	740
75 - 88mm	568-372	±6μm	790
87 - 100mm	568-373	±6μm	800
100 - 113mm	568-374	±6μm	900
112 - 125mm	568-375	±6μm	910

Inch/Metric

Range	Order No.	Accuracy	Mass (g)
.275 - .350" / 6.985 - 8.89mm	568-461	±.00025"	480
.350 - .425" / 8.89 - 10.795mm	568-462	±.00025"	485
.425 - .5" / 10.795 - 12.7mm	568-463	±.00025"	485
.50 - .65" / 12.7 - 16.51mm	568-464	±.00025"	475
.65 - .80" / 16.51 - 20.32mm	568-465	±.00025"	480
.8 - 1.0" / 20.32 - 25.4mm	568-466	±.0003"	540
1.0 - 1.2" / 25.4 - 30.48mm	568-467	±.0003"	555
1.2 - 1.6" / 30.48 - 40.64mm	568-468	±.0003"	565
1.6 - 2.0" / 40.64 - 50.8mm	568-469	±.0003"	610
2.0 - 2.5" / 50.8 - 63.5mm	568-470	±.0003"	730
2.5 - 3.0" / 63.5 - 76.2mm	568-471	±.0003"	740
3.0 - 3.5" / 76.2 - 88.9mm	568-472	±.0003"	790
3.5 - 4.0" / 88.9 - 101.6mm	568-473	±.0003"	800
4.0 - 4.5" / 101.6 - 114.3mm	568-474	±.0003"	900
4.5 - 5.0" / 114.3 - 127mm	568-475	±.0003"	910

SPC



ABSOLUTE®

Absolute System Patented by MITUTOYO

Technical Data

Accuracy: Refer to the list of specifications.

Resolution: 0.001mm or .00005"/0.001mm

Contact point: Carbide or TiN coating*
(*over 12mm/.5" models)

Measuring method: Three-point method

Display: LCD

Battery: SR44 (1 pc.) **(938882)**

Battery life: Approx. 7,000 hours

Functions

Zero/ABS, presetting, go/no-go judgment, power on/off, inch/mm conversion (on inch/metric models only), SPC data output, data hold

Optional Accessories

905338: SPC cable (1m / 40")

905409: SPC cable (2m / 80")

952322: Extension rod 100mm / 3.94"
For range 6-12mm / .275-.5" models

952621: Extension rod 150mm / 5.9"
For range 12-20mm / .5" - .8" models

952622: Extension rod 150mm / 5.9"
For range 20-50mm / .8" - 2" models

952623: Extension rod 150mm / 5.9"
For range 50-300mm / 2"-12" models

----: Setting ring (See page C-29.)



Complete Unit Set

Each set includes complete gage display units and measuring heads for each size and extension rod.

Metric			
Range	Set Order No.	Individual Order No.	Setting rings included
6 - 12mm	568-955	568-361, 568-362 568-363	177-125 (ø8mm) 177-126 (ø10mm)
12 - 25mm	568-956	568-364, 568-365 568-366	177-177 (ø16mm) 177-286 (ø20mm)
25 - 50mm	568-957	568-367, 568-368 568-369	177-139 (ø25mm) 177-290 (ø40mm)
50 - 75mm	568-958	568-370 568-371	177-314 (ø62mm)
75 - 100mm	568-959	568-372 568-373	177-318 (ø87mm)

Inch/Metric

Range	Set Order No.	Individual Order No.	Setting rings included
.275" - .5" / 6.985 - 12.7mm	568-965	568-461, 568-462 568-463	177-179 (.35" DIA.) 177-283 (.425" DIA.)
.5" - 1" / 12.7 - 25.4mm	568-966	568-464, 568-465 568-466	177-182 (.65" DIA.) 177-287 (.8" DIA.)
1" - 2" / 25.4 - 50.8mm	568-967	568-467, 568-468 568-469	177-289 (1.2" DIA.) 177-291 (1.6" DIA.)
2" - 3" / 50.8 - 76.2mm	568-968	568-470 568-471	177-315 (2.5" DIA.)
3" - 4" / 76.2 - 101.6mm	568-969	568-472 568-473	177-319 (3.5" DIA.)

Interchangeable Head Set

Each set includes one display unit with interchangeable measuring heads of the sizes specified and extension rod.

Metric					
Range	Set Order No.	Display Unit	Adaptor Supplied	Individual Head No.	Setting rings included
6 - 12mm	568-924	568-014	954595	04AZB136 04AZB137 04AZB138	177-125 (ø8mm) 177-126 (ø10mm)
12 - 25mm	568-925	568-014	216556 216557	04AZA719 04AZA720 04AZA728	177-177 (ø16mm) 177-286 (ø20mm)
25 - 50mm	568-926	568-014	216557	04AZA729 04AZA737 04AZA738	177-288 (ø30mm) 177-290 (ø40mm)
50 - 100mm	568-927	568-014	216558	04AZA750, 04AZA751, 04AZA752 04AZA753	177-314 (ø62mm) 177-318 (ø87mm)

Inch/Metric

Range	Set Order No.	Display Unit	Adaptor Supplied	Individual Head No.	Setting rings included
.275" - .5" / 6.985 - 12.7mm	568-928	568-015	954595	04AZB139 04AZB140 04AZB141	177-179 (.35" DIA.) 177-283 (.425" DIA.)
.5" - 1" / 12.7 - 25.4mm	568-929	568-015	216556 216557	04AZA721 04AZA722 04AZA730	177-182 (.65" DIA.) 177-287 (.8" DIA.)
1" - 2" / 25.4 - 50.8mm	568-930	568-015	216557	04AZA731 04AZA739 04AZA740	177-289 (1.2" DIA.) 177-291 (1.6" DIA.)
2" - 4" / 50.8 - 101.6mm	568-936	568-015	216558	04AZA754 04AZA755 04AZA756 04AZA757	177-315 (2.5" DIA.) 177-319 (3.5" DIA.)

Interchangeable Contact Head Set



568-924

Complete Unit Set



568-959

DIMENSIONS

Measuring a Blind Hole

The measuring pins held in the jaws permit measuring the diameter of a blind hole right down to the bottom.

Unit: mm

Range	L	a	b	c
6 - 12mm / .275 - .5"	83	2	—	2.5
12 - 20mm / .5 - .8"	53	0.3	5.6	3.5
20 - 30mm / .8 - 1.2"	59	0.3	8.3	5.2
30 - 50mm / 1.2 - 2"	67	0.3	13	10
50 - 125mm / 2 - 5"	75	0.3	17	14

(): 50-125mm model

Holtest/Digimatic Holtest/Borematic

SERIES 368, 468, 568 Replacement Head Assembly List

TiN-coated measuring contact head assembly

Head Assy Order No.	Measuring Range	HT(Type I)		HTD		SBM		
		Order No.	Model	Order No.	Model	Order No.	Model	Adaptor*
04AZB136	6 - 8mm	368-161	HT-8R	468-161	HTD-8R	568-361	SBM-8C	954595
04AZB137	8 - 10mm	368-162	HT-10R	468-162	HTD-10R	568-362	SBM-10C	
04AZB138	10 - 12mm	368-163	HT-12R	468-163	HTD-12R	568-363	SBM-12C	
04AZA719	12 - 16mm	368-164	HT-16R	468-164	HTD-16R	568-364	SBM-16C	216556
04AZA720	16 - 20mm	368-165	HT-20R	468-165	HTD-20R	568-365	SBM-20C	
04AZA728	20 - 25mm	368-166	HT-25R	468-166	HTD-25R	568-366	SBM-25C	216557
04AZA729	25 - 30mm	368-167	HT-30R	468-167	HTD-30R	568-367	SBM-30C	
04AZA737	30 - 40mm	368-168	HT-40R	468-168	HTD-40R	568-368	SBM-40C	
04AZA738	40 - 50mm	368-169	HT-50R	468-169	HTD-50R	568-369	SBM-50C	
04AZA750	50 - 63mm	368-170	HT-63R	468-170	HTD-63R	568-370	SBM-63C	216558
04AZA751	62 - 75mm	368-171	HT-75R	468-171	HTD-75R	568-371	SBM-75C	
04AZA752	75 - 88mm	368-172	HT-88R	468-172	HTD-88R	568-372	SBM-88C	
04AZA753	87 - 100mm	368-173	HT-100R	468-173	HTD-100R	568-373	SBM-100C	
04AZA775	100 - 125mm	368-174	HT-125R	468-174	HTD-125R	—	—	—
04AZA776	125 - 150mm	368-175	HT-150R	468-175	HTD-150R	—	—	—
04AZA777	150 - 175mm	368-176	HT-175R	468-176	HTD-175R	—	—	—
04AZA778	175 - 200mm	368-177	HT-200R	468-177	HTD-200R	—	—	—
04AZA779	200 - 225mm	368-178	HT-225R	468-178	HTD-225R	—	—	—
04AZA780	225 - 250mm	368-179	HT-250R	468-179	HTD-250R	—	—	—
04AZA781	250 - 275mm	368-180	HT-275R	468-180	HTD-275R	—	—	—
04AZA782	275 - 300mm	368-181	HT-300R	468-181	HTD-300R	—	—	—
04AZB139	.275 - .35"	368-261	HT-.35"R	468-261	HTD-.35"R	568-461	SBM-.35"C	954595
04AZB140	.35 - .425"	368-262	HT-.425"R	468-262	HTD-.425"R	568-462	SBM-.425"C	
04AZB141	.425 - .5"	368-263	HT-.5"R	468-263	HTD-.5"R	568-463	SBM-.5"C	
04AZA721	.5 - .65"	368-264	HT-.65"R	468-264	HTD-.65"R	568-464	SBM-.65"C	216556
04AZA722	.65 - .8"	368-265	HT-.8"R	468-265	HTD-.8"R	568-465	SBM-.8"C	
04AZA730	.8 - 1"	368-266	HT-1"R	468-266	HTD-1"R	568-466	SBM-1"C	216557
04AZA731	1 - 1.2"	368-267	HT-1.2"R	468-267	HTD-1.2"R	568-467	SBM-1.2"C	
04AZA739	1.2 - 1.6"	368-268	HT-1.6"R	468-268	HTD-1.6"R	568-468	SBM-1.6"C	
04AZA740	1.6 - 2"	368-269	HT-2"R	468-269	HTD-2"R	568-469	SBM-2"C	
04AZA754	2 - 2.5"	368-270	HT-2.5"R	468-270	HTD-2.5"R	568-470	SBM-2.5"C	216558
04AZA755	2.5 - 3"	368-271	HT-3"R	468-271	HTD-3"R	568-471	SBM-3"C	
04AZA756	3 - 3.5"	368-272	HT-3.5"R	468-272	HTD-3.5"R	568-472	SBM-3.5"C	
04AZA757	3.5 - 4"	368-273	HT-4"R	468-273	HTD-4"R	568-473	SBM-4"C	
04AZA783	4 - 5"	368-274	HT-5"R	468-274	HTD-5"R	—	—	—
04AZA784	5 - 6"	368-275	HT-6"R	468-275	HTD-6"R	—	—	—
04AZA785	6 - 7"	368-276	HT-7"R	468-276	HTD-7"R	—	—	—
04AZA786	7 - 8"	368-277	HT-8"R	468-277	HTD-8"R	—	—	—
04AZA787	8 - 9"	368-278	HT-9"R	468-278	HTD-9"R	—	—	—
04AZA788	9 - 10"	368-279	HT-10"R	468-279	HTD-10"R	—	—	—
04AZA789	10 - 11"	368-280	HT-11"R	468-280	HTD-11"R	—	—	—
04AZA790	11 - 12"	368-281	HT-12"R	468-281	HTD-12"R	—	—	—
04AZA941	100 - 113mm	—	—	—	—	568-374	SBM-113C	216558
04AZA942	112 - 125mm	—	—	—	—	568-375	SBM-125C	
04AZA943	4 - 4.5"	—	—	—	—	568-474	SBM-4.5"C	
04AZA944	4.5 - 5"	—	—	—	—	568-475	SBM-5"C	

* Adaptors are required to connect borematic head assemblies and borematic main body units.
Sets and complete units include the correct adapters for the included heads, while individual heads (purchased separately) do not.

Adaptors are not required for Vernier/Digimatic Holtests.

Separately purchased head assemblies are not covered by the guaranteed accuracy for holtests (368/468 series).