

# 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 error-free 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.
- Can 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     | <b>568-361</b> | ±5μm     | 480      |
| 8 - 10mm    | <b>568-362</b> | ±5μm     | 485      |
| 10 - 12mm   | <b>568-363</b> | ±5μm     | 485      |
| 12 - 16mm   | <b>568-364</b> | ±5μm     | 475      |
| 16 - 20mm   | <b>568-365</b> | ±5μm     | 480      |
| 20 - 25mm   | <b>568-366</b> | ±6μm     | 540      |
| 25 - 30mm   | <b>568-367</b> | ±6μm     | 555      |
| 30 - 40mm   | <b>568-368</b> | ±6μm     | 565      |
| 40 - 50mm   | <b>568-369</b> | ±6μm     | 610      |
| 50 - 63mm   | <b>568-370</b> | ±6μm     | 730      |
| 62 - 75mm   | <b>568-371</b> | ±6μm     | 740      |
| 75 - 88mm   | <b>568-372</b> | ±6μm     | 790      |
| 87 - 100mm  | <b>568-373</b> | ±6μm     | 800      |
| 100 - 113mm | <b>568-374</b> | ±6μm     | 900      |
| 112 - 125mm | <b>568-375</b> | ±6μm     | 910      |

Inch/Metric

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

SPC



**ABSOLUTE®**  
Absolute System Patented by MTUTOTOYO

### 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.)



**02AZD790F:** Connection cable for **U-Wave-T standard** (160mm)  
Refer to page A-13 for details.

## Complete Unit Set

Each set includes complete gages 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<br>568-363 | 177-125 (ø8mm)<br>177-126 (ø10mm)  |
| 12 - 25mm  | 568-956       | 568-364, 568-365<br>568-366 | 177-177 (ø16mm)<br>177-286 (ø20mm) |
| 25 - 50mm  | 568-957       | 568-367, 568-368<br>568-369 | 177-139 (ø25mm)<br>177-290 (ø40mm) |
| 50 - 75mm  | 568-958       | 568-370<br>568-371          | 177-314 (ø62mm)                    |
| 75 - 100mm | 568-959       | 568-372<br>568-373          | 177-318 (ø87mm)                    |

### Inch/Metric

| Range                           | Set Order No. | Individual Order No.        | Setting rings included                      |
|---------------------------------|---------------|-----------------------------|---------------------------------------------|
| .275" - .5" /<br>6.985 - 12.7mm | 568-965       | 568-461, 568-462<br>568-463 | 177-179 (.35" DIA.)<br>177-283 (.425" DIA.) |
| .5" - 1" /<br>12.7 - 25.4mm     | 568-966       | 568-464, 568-465<br>568-466 | 177-182 (.65" DIA.)<br>177-287 (.8" DIA.)   |
| 1" - 2" /<br>25.4 - 50.8mm      | 568-967       | 568-467, 568-468<br>568-469 | 177-289 (1.2" DIA.)<br>177-291 (1.6" DIA.)  |
| 2" - 3" /<br>50.8 - 76.2mm      | 568-968       | 568-470<br>568-471          | 177-315 (2.5" DIA.)                         |
| 3" - 4" /<br>76.2 - 101.6mm     | 568-969       | 568-472<br>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<br>04AZB137<br>04AZB138         | 177-125 (ø8mm)<br>177-126 (ø10mm)  |
| 12 - 25mm  | 568-925       | 568-014      | 216556<br>216557 | 04AZA719<br>04AZA720<br>04AZA728         | 177-177 (ø16mm)<br>177-286 (ø20mm) |
| 25 - 50mm  | 568-926       | 568-014      | 216557           | 04AZA729<br>04AZA737<br>04AZA738         | 177-288 (ø30mm)<br>177-290 (ø40mm) |
| 50 - 100mm | 568-927       | 568-014      | 216558           | 04AZA750, 04AZA751, 04AZA752<br>04AZA753 | 177-314 (ø62mm)<br>177-318 (ø87mm) |

### Inch/Metric

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