

# Bore Gages

## Bore Gages SERIES 511 — for Blind Holes

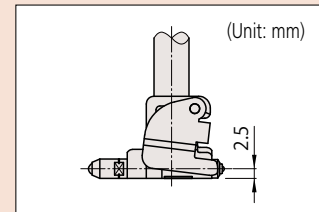
- Capable of ID (inside diameter) measurement close to the bottom of a hole.
- The contact point and anvil have a carbide ball tip that is highly durable and abrasion-resistant.
- Optional Extension Rods can be attached for measuring deep holes. (For details, refer to page C-49)



511-415

Note: The dial indicator and the dial protection cover are optional.

### Measurement example



### The dial protection cover, recommended indicators

Refer to page C-50.

## SPECIFICATIONS

### Metric

| Order No.  | Range (mm) | Stroke of contact point (mm) | Accuracy* (μm) | Repeatability* (μm) | Adjacent error* (μm) | Measuring force (N) | Guide force (N) | Content of set |                                     |                       |         |        | Probing depth (mm) |
|------------|------------|------------------------------|----------------|---------------------|----------------------|---------------------|-----------------|----------------|-------------------------------------|-----------------------|---------|--------|--------------------|
|            |            |                              |                |                     |                      |                     |                 | Bore gage      | Dial indicator                      | Dial protection cover | Anvil   | Washer |                    |
| 511-415    | 15 - 35    | 1.2                          | 4              | 1                   | 1                    | 4 or less           | 6 or less       | 511-415        | Not supplied                        | Not supplied          | 11 pcs. | 1 pc.  | 150                |
| 511-416    | 35 - 60    |                              |                |                     |                      |                     |                 | 511-416        |                                     |                       | 6 pcs.  | 4 pcs. |                    |
| 511-417    | 50 - 150   | 1.2                          | 4              | 1                   | 1                    | 5 or less           | 10 or less      | 511-417        | 2046AB<br>(Graduation: 0.01 mm)     | 21DZA000              | 11 pcs. | 1 pc.  | 150                |
| 511-425-20 | 15 - 35    |                              |                |                     |                      |                     |                 | 511-415        |                                     |                       | 6 pcs.  | 4 pcs. |                    |
| 511-426-20 | 35 - 60    | 1.2                          | 4              | 1                   | 1                    | 5 or less           | 10 or less      | 511-417        | 2109AB-10<br>(Graduation: 0.001 mm) | 21DZA000              | 11 pcs. | 1 pc.  | 150                |
| 511-427-20 | 50 - 150   |                              |                |                     |                      |                     |                 | 511-415        |                                     |                       | 6 pcs.  | 4 pcs. |                    |
| 511-435-20 | 15 - 35    | 1.2                          | 4              | 1                   | 1                    | 4 or less           | 6 or less       | 511-415        | 2109AB-10<br>(Graduation: 0.001 mm) | 21DZA000              | 11 pcs. | 1 pc.  | 150                |
| 511-436-20 | 35 - 60    |                              |                |                     |                      |                     |                 | 511-416        |                                     |                       | 6 pcs.  | 4 pcs. |                    |
| 511-437-20 | 50 - 150   | 1.2                          | 4              | 1                   | 1                    | 5 or less           | 10 or less      | 511-417        | 2109AB-10<br>(Graduation: 0.001 mm) | 21DZA000              | 11 pcs. | 1 pc.  | 150                |
| 511-438-20 | 15 - 35    |                              |                |                     |                      |                     |                 | 511-415        |                                     |                       | 6 pcs.  | 4 pcs. |                    |

### Inch

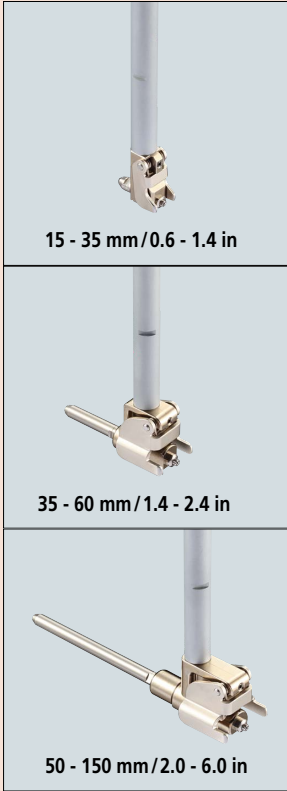
| Order No.  | Range (in) | Stroke of contact point (in) | Accuracy* (in) | Repeatability* (in) | Adjacent error* (in) | Measuring force (N) | Guide force (N) | Content of set |                                      |                       |         |        | Probing depth (in) |
|------------|------------|------------------------------|----------------|---------------------|----------------------|---------------------|-----------------|----------------|--------------------------------------|-----------------------|---------|--------|--------------------|
|            |            |                              |                |                     |                      |                     |                 | Bore gage      | Dial indicator                       | Dial protection cover | Anvil   | Washer |                    |
| 511-418    | 0.6 - 1.4  | 0.047                        | 0.00016        | 0.00004             | 0.00004              | 4 or less           | 6 or less       | 511-418        | Not supplied                         | Not supplied          | 11 pcs. | 1 pc.  | 6                  |
| 511-419    | 1.4 - 2.4  |                              |                |                     |                      |                     |                 | 511-419        |                                      |                       | 6 pcs.  | 4 pcs. |                    |
| 511-420    | 2.0 - 6.0  | 0.047                        | 0.00016        | 0.00004             | 0.00004              | 5 or less           | 10 or less      | 511-420        | 2922AB<br>(Graduation: 0.0005 in)    | 21DZA000              | 11 pcs. | 1 pc.  | 6                  |
| 511-428-20 | 0.6 - 1.4  |                              |                |                     |                      |                     |                 | 511-418        |                                      |                       | 6 pcs.  | 4 pcs. |                    |
| 511-429-20 | 1.4 - 2.4  | 0.047                        | 0.00016        | 0.00004             | 0.00004              | 5 or less           | 10 or less      | 511-419        | 2923AB-10<br>(Graduation: 0.0001 in) | 21DZA000              | 11 pcs. | 1 pc.  | 6                  |
| 511-430-20 | 2.0 - 6.0  |                              |                |                     |                      |                     |                 | 511-420        |                                      |                       | 6 pcs.  | 4 pcs. |                    |
| 511-438-20 | 0.6 - 1.4  | 0.047                        | 0.00016        | 0.00004             | 0.00004              | 4 or less           | 6 or less       | 511-418        | 2923AB-10<br>(Graduation: 0.0001 in) | 21DZA000              | 11 pcs. | 1 pc.  | 6                  |
| 511-439-20 | 1.4 - 2.4  |                              |                |                     |                      |                     |                 | 511-419        |                                      |                       | 6 pcs.  | 4 pcs. |                    |
| 511-440-20 | 2.0 - 6.0  | 0.047                        | 0.00016        | 0.00004             | 0.00004              | 5 or less           | 10 or less      | 511-420        | 2923AB-10<br>(Graduation: 0.0001 in) | 21DZA000              | 11 pcs. | 1 pc.  | 6                  |
| 511-441-20 | 1.4 - 2.4  |                              |                |                     |                      |                     |                 | 511-419        |                                      |                       | 6 pcs.  | 4 pcs. |                    |

\* Accuracy of the bore gage alone.

Note 1: A 10 mm (0.4 in) sub-anvil is supplied with 511-415/425-20/435-20/418/428-20/438-20 and a 50 mm (2 in) sub-anvil is supplied with 511-417/427-20/437-20/420/430-20/440-20.

Note 2: It is not permissible to use a sub-anvil other than as supplied as a standard accessory, or widen a measuring range by using multiple sub-anvils. (The measurement accuracy in such cases is not guaranteed.)

### Contact Points

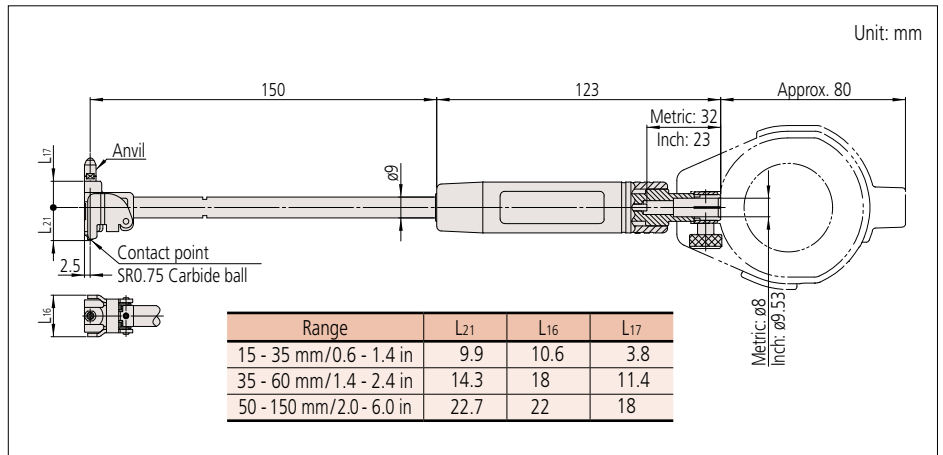


15 - 35 mm / 0.6 - 1.4 in

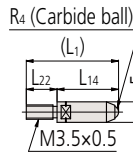
35 - 60 mm / 1.4 - 2.4 in

50 - 150 mm / 2.0 - 6.0 in

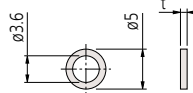
### DIMENSIONS



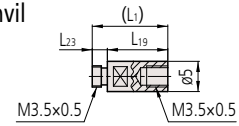
#### Anvil



#### Interchangeable washer

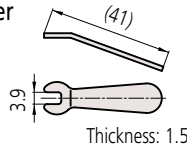


#### Sub-anvil

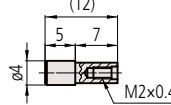


Note: It is not permissible to use a sub-anvil other than as supplied as a standard accessory, or widen a measuring range by using multiple sub-anvils. (The measurement accuracy in such cases is not guaranteed.)

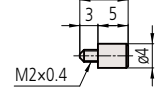
#### Spanner 204354



#### Washer holder 212202



#### Locking screw 212203



### Recommended Digimatic Indicators

Refer to page C-36.

### STANDARD ACCESSORIES

| Bore gage<br>(Main body)                                       | Anvil         |           |                                     |      |     |       |     |           | Interchangeable<br>washer |           | Sub-Anvil |                |    |
|--|---------------|-----------|-------------------------------------|------|-----|-------|-----|-----------|---------------------------|-----------|-----------|----------------|----|
|  | Marked<br>No. | Order No. | Indication of measuring size        | L1   | L22 | R4    | L14 | Order No. | t                         | Order No. | L23       | L19            |    |
| 511-415<br>511-418<br>( ) Using<br>10 mm / 0.4 in<br>Sub-Anvil | 1             | 21DZA376A | 15 mm (25 mm) / 0.59 in (0.98 in)   | 4.5  | 2.5 | SR1   | 2   | 212127    | 0.5 mm / 0.02 in          | 21DAA563  | 2.5       | 10 mm / 0.4 in |    |
|  | 2             | 21DZA376B | 16 mm (26 mm) / 0.63 in (1.02 in)   | 5.5  |     |       |     |           |                           |           |           |                | 3  |
|  | 3             | 21DZA376C | 17 mm (27 mm) / 0.67 in (1.06 in)   | 6.5  |     |       |     |           |                           |           |           |                | 4  |
|  | 4             | 21DZA376D | 18 mm (28 mm) / 0.71 in (1.10 in)   | 7.5  |     |       |     |           |                           |           |           |                | 5  |
|  | 5             | 21DZA376E | 19 mm (29 mm) / 0.75 in (1.14 in)   | 8.5  |     |       |     |           |                           |           |           |                | 6  |
|  | 6             | 21DZA376F | 20 mm (30 mm) / 0.79 in (1.18 in)   | 9.5  |     |       |     |           |                           |           |           |                | 7  |
|  | 7             | 21DZA376G | 21 mm (31 mm) / 0.83 in (1.22 in)   | 10.5 |     |       |     |           |                           |           |           |                | 8  |
|  | 8             | 21DZA376H | 22 mm (32 mm) / 0.87 in (1.26 in)   | 11.5 |     |       |     |           |                           |           |           |                | 9  |
|  | 9             | 21DZA376J | 23 mm (33 mm) / 0.91 in (1.30 in)   | 12.5 |     |       |     |           |                           |           |           |                | 10 |
|  | 10            | 21DZA376L | 24 mm (34 mm) / 0.94 in (1.34 in)   | 13.5 |     |       |     |           |                           |           |           |                | 11 |
|  | 11            | 21DZA376M | 25 mm (35 mm) / 0.98 in (1.38 in)   | 14.5 |     |       |     |           |                           |           |           |                | 12 |
| 511-416<br>511-419   | 1             | 21DZA404A | 35 mm / 1.38 in                     | 17.5 | 7.5 | SR1.5 | 10  | 212127    | 0.5 mm / 0.02 in          | 21DAA596  | 7.5       | 50 mm / 2 in   |    |
|  | 2             | 21DZA404B | 40 mm / 1.57 in                     | 22.5 |     |       |     |           |                           |           |           |                | 15 |
|  | 3             | 21DZA404C | 45 mm / 1.77 in                     | 27.5 |     |       |     |           |                           |           |           |                | 20 |
|  | 4             | 21DZA404D | 50 mm / 1.97 in                     | 32.5 |     |       |     |           |                           |           |           |                | 25 |
|  | 5             | 21DZA404E | 55 mm / 2.17 in                     | 37.5 |     |       |     |           |                           |           |           |                | 30 |
|  | 6             | 21DZA404F | 60 mm / 2.36 in                     | 42.5 |     |       |     |           |                           |           |           |                | 35 |
| 511-417<br>511-420<br>( ) Using<br>50 mm / 2 in<br>Sub-Anvil   | 1             | 21DZA404A | 50 mm (100 mm) / 1.97 in (3.94 in)  | 17.5 | 7.5 | SR1.5 | 10  | 212127    | 0.5 mm / 0.02 in          | 21DAA596  | 7.5       | 50 mm / 2 in   |    |
|  | 2             | 21DZA404B | 55 mm (105 mm) / 2.17 in (4.13 in)  | 22.5 |     |       |     |           |                           |           |           |                | 15 |
|  | 3             | 21DZA404C | 60 mm (110 mm) / 2.36 in (4.33 in)  | 27.5 |     |       |     |           |                           |           |           |                | 20 |
|  | 4             | 21DZA404D | 65 mm (115 mm) / 2.56 in (4.53 in)  | 32.5 |     |       |     |           |                           |           |           |                | 25 |
|  | 5             | 21DZA404E | 70 mm (120 mm) / 2.76 in (4.72 in)  | 37.5 |     |       |     |           |                           |           |           |                | 30 |
|  | 6             | 21DZA404F | 75 mm (125 mm) / 2.95 in (4.92 in)  | 42.5 |     |       |     |           |                           |           |           |                | 35 |
|  | 7             | 21DZA404G | 80 mm (130 mm) / 3.15 in (5.12 in)  | 47.5 |     |       |     |           |                           |           |           |                | 40 |
|  | 8             | 21DZA404H | 85 mm (135 mm) / 3.35 in (5.31 in)  | 52.5 |     |       |     |           |                           |           |           |                | 45 |
|  | 9             | 21DZA404J | 90 mm (140 mm) / 3.54 in (5.51 in)  | 57.5 |     |       |     |           |                           |           |           |                | 50 |
|  | 10            | 21DZA404L | 95 mm (145 mm) / 3.74 in (5.71 in)  | 62.5 |     |       |     |           |                           |           |           |                | 55 |
|  | 11            | 21DZA404M | 100 mm (150 mm) / 3.94 in (5.91 in) | 67.5 |     |       |     |           |                           |           |           |                | 60 |

## Bore Gages SERIES 511 — with Micrometer Head

### Measurement example



### The dial protection cover, recommended indicators

Refer to page C-50.

- This series includes models for measuring  $\varnothing 60$  to 800 mm inside diameters.
- The micrometer head is used for dimensional setting. The dimension can be easily changed without replacing the anvil and washer.
- The contact point has a carbide ball tip that is highly durable and abrasion-resistant.
- The grip minimizes the variation of indicator values affected by heat transfer from the operator's hand.



Note: The dial indicator and the dial protection cover are optional.

511-803

### SPECIFICATIONS

| Metric     |            |                              |                             |                                  |                                   |                     |                 |
|------------|------------|------------------------------|-----------------------------|----------------------------------|-----------------------------------|---------------------|-----------------|
| Order No.  | Range (mm) | Stroke of contact point (mm) | Accuracy* ( $\mu\text{m}$ ) | Repeatability* ( $\mu\text{m}$ ) | Adjacent error* ( $\mu\text{m}$ ) | Measuring force (N) | Guide force (N) |
| 511-803    | 60 - 100   | 1.6                          | 2                           | 0.5                              | 1                                 | 5 or less           | 10 or less      |
| 511-804    | 100 - 160  |                              |                             |                                  |                                   | 6 or less           | 15 or less      |
| 511-805    | 150 - 250  |                              |                             |                                  |                                   |                     |                 |
| 511-806    | 250 - 400  |                              |                             |                                  |                                   |                     |                 |
| 511-807    | 400 - 600  |                              |                             |                                  |                                   |                     |                 |
| 511-808    | 600 - 800  | 1.6                          | 2                           | 0.5                              | 1                                 | 5 or less           | 10 or less      |
| 511-823-20 | 60 - 100   |                              |                             |                                  |                                   | 6 or less           | 15 or less      |
| 511-824-20 | 100 - 160  |                              |                             |                                  |                                   |                     |                 |
| 511-825-20 | 150 - 250  |                              |                             |                                  |                                   |                     |                 |
| 511-826-20 | 250 - 400  |                              |                             |                                  |                                   |                     |                 |
| 511-827-20 | 400 - 600  | 1.6                          | 2                           | 0.5                              | 1                                 | 5 or less           | 10 or less      |
| 511-828-20 | 600 - 800  |                              |                             |                                  |                                   | 6 or less           | 15 or less      |
| 511-813-20 | 60 - 100   |                              |                             |                                  |                                   |                     |                 |
| 511-814-20 | 100 - 160  |                              |                             |                                  |                                   |                     |                 |
| 511-815-20 | 150 - 250  |                              |                             |                                  |                                   |                     |                 |
| 511-816-20 | 250 - 400  | 6 or less                    | 15 or less                  |                                  |                                   |                     |                 |
| 511-817-20 | 400 - 600  |                              |                             |                                  |                                   |                     |                 |
| 511-818-20 | 600 - 800  |                              |                             | 20 or less                       |                                   |                     |                 |

| Order No.  | Bore gage | Dial indicator                      | Content of set        |                 |           |         | Probing depth (mm) |        |     |
|------------|-----------|-------------------------------------|-----------------------|-----------------|-----------|---------|--------------------|--------|-----|
|            |           |                                     | Dial protection cover | Micrometer head | Sub-Anvil | Spanner |                    |        |     |
| 511-803    | 511-803   | Not supplied                        | Not supplied          | 1 pc.           | 2 pcs.    | 3 pcs.  | 150                |        |     |
| 511-804    | 511-804   |                                     |                       |                 | 3 pcs.    | 2 pcs.  |                    |        |     |
| 511-805    | 511-805   |                                     |                       |                 | 4 pcs.    |         |                    |        |     |
| 511-806    | 511-806   |                                     |                       |                 | 3 pcs.    |         |                    |        |     |
| 511-807    | 511-807   |                                     |                       |                 | 2 pcs.    | 2 pcs.  | 250                |        |     |
| 511-808    | 511-808   | 2 pcs.                              |                       |                 |           |         |                    |        |     |
| 511-823-20 | 511-803   | 2109AB-10<br>(Graduation: 0.001 mm) | 21DZA000              | 1 pc.           | 2 pcs.    |         |                    | 3 pcs. | 150 |
| 511-824-20 | 511-804   |                                     |                       |                 | 3 pcs.    |         |                    | 2 pcs. |     |
| 511-825-20 | 511-805   |                                     |                       |                 | 4 pcs.    |         |                    |        |     |
| 511-826-20 | 511-806   |                                     |                       |                 | 3 pcs.    |         |                    |        |     |
| 511-827-20 | 511-807   |                                     |                       |                 | 2 pcs.    | 2 pcs.  | 250                |        |     |
| 511-828-20 | 511-808   | 2 pcs.                              |                       |                 |           |         |                    |        |     |
| 511-813-20 | 511-803   | 2046AB<br>(Graduation: 0.01 mm)     | 21DZA000              | 1 pc.           | 2 pcs.    |         |                    | 3 pcs. | 150 |
| 511-814-20 | 511-804   |                                     |                       |                 | 3 pcs.    |         |                    | 2 pcs. |     |
| 511-815-20 | 511-805   |                                     |                       |                 | 4 pcs.    |         |                    |        |     |
| 511-816-20 | 511-806   |                                     |                       |                 | 3 pcs.    |         |                    |        |     |
| 511-817-20 | 511-807   |                                     |                       |                 | 2 pcs.    | 2 pcs.  | 250                |        |     |
| 511-818-20 | 511-808   | 2 pcs.                              |                       |                 |           |         |                    |        |     |

\* Accuracy of the bore gage alone.

Note 1: Storage boxes for 511-807/808 models are made of wood. The boxes of other models are made of plastic.

Note 2: It is not permissible to expand measuring range using sub-anvils other than as supplied as standard accessories. (The measurement accuracy in such cases is not guaranteed.)

# Bore Gages

## Bore Gages SERIES 511 — with Micrometer Head

### SPECIFICATIONS

### Recommended Digimatic Indicators

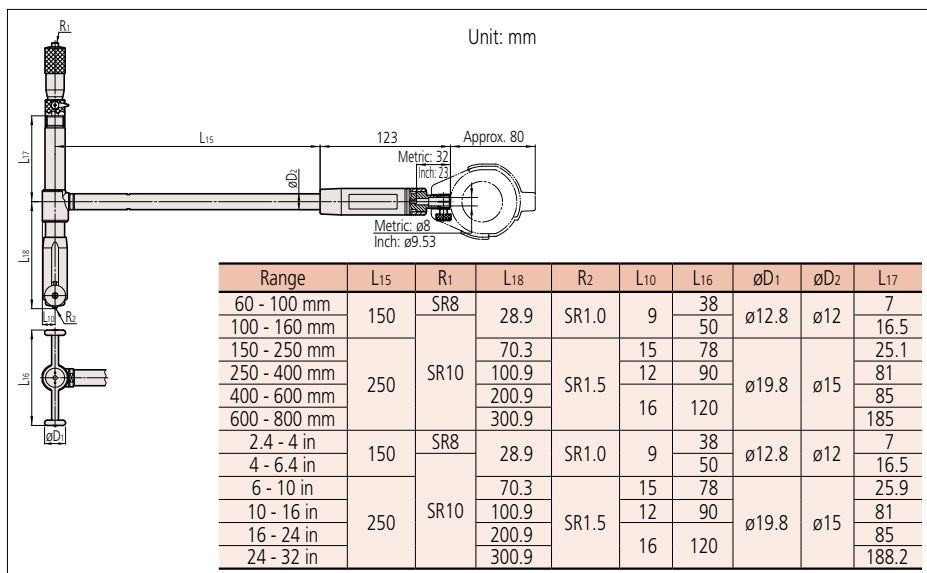
Refer to page C-36.

| Inch       |             |                              |                |                     |                      |                     |                 |
|------------|-------------|------------------------------|----------------|---------------------|----------------------|---------------------|-----------------|
| Order No.  | Range (in)  | Stroke of contact point (in) | Accuracy* (in) | Repeatability* (in) | Adjacent error* (in) | Measuring force (N) | Guide force (N) |
| 511-833    | 2.4 - 4.0   | 0.063                        | 0.00008        | 0.00002             | 0.00004              | 5 or less           | 10 or less      |
| 511-834    | 4.0 - 6.4   |                              |                |                     |                      |                     |                 |
| 511-835    | 6.0 - 10.0  |                              |                |                     |                      | 6 or less           | 15 or less      |
| 511-836    | 10.0 - 16.0 |                              |                |                     |                      |                     |                 |
| 511-837    | 16.0 - 24.0 |                              |                |                     |                      |                     |                 |
| 511-838    | 24.0 - 32.0 | 0.063                        | 0.00008        | 0.00002             | 0.00004              | 5 or less           | 10 or less      |
| 511-853-20 | 2.4 - 4.0   |                              |                |                     |                      |                     |                 |
| 511-854-20 | 4.0 - 6.4   |                              |                |                     |                      | 6 or less           | 15 or less      |
| 511-855-20 | 6.0 - 10.0  |                              |                |                     |                      |                     |                 |
| 511-856-20 | 10.0 - 16.0 |                              |                |                     |                      |                     |                 |
| 511-857-20 | 16.0 - 24.0 | 20 or less                   | 20 or less     |                     |                      |                     |                 |
| 511-858-20 | 24.0 - 32.0 |                              |                |                     |                      |                     |                 |
| 511-843-20 | 2.4 - 4.0   |                              |                | 0.063               | 0.00008              | 0.00002             | 0.00004         |
| 511-844-20 | 4.0 - 6.4   |                              |                |                     |                      |                     |                 |
| 511-845-20 | 6.0 - 10.0  | 6 or less                    | 15 or less     |                     |                      |                     |                 |
| 511-846-20 | 10.0 - 16.0 |                              |                |                     |                      |                     |                 |
| 511-847-20 | 16.0 - 24.0 |                              |                |                     |                      |                     |                 |
| 511-848-20 | 24.0 - 32.0 | 20 or less                   | 20 or less     |                     |                      |                     |                 |

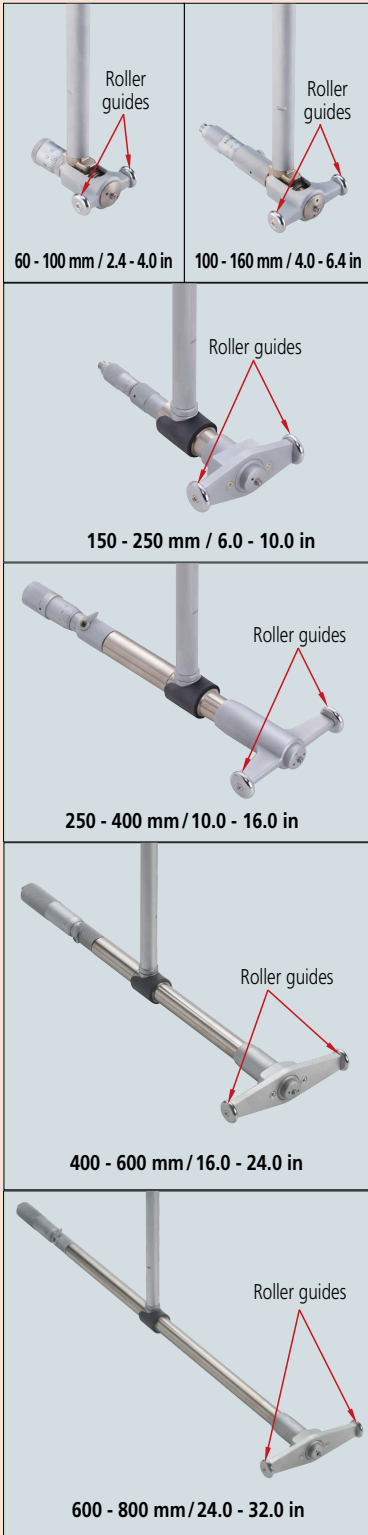
| Order No.  | Content of set |                                      |                       |                 |           |         | Probing depth (in) |
|------------|----------------|--------------------------------------|-----------------------|-----------------|-----------|---------|--------------------|
|            | Bore gage      | Dial indicator                       | Dial protection cover | Micrometer head | Sub-Anvil | Spanner |                    |
| 511-833    | 511-833        | Not supplied                         | Not supplied          | 1 pc.           | 2 pcs.    | 3 pcs.  | 6                  |
| 511-834    | 511-834        |                                      |                       |                 | 3 pcs.    | 2 pcs.  |                    |
| 511-835    | 511-835        |                                      |                       |                 | 4 pcs.    |         |                    |
| 511-836    | 511-836        |                                      |                       |                 | 3 pcs.    |         |                    |
| 511-837    | 511-837        |                                      |                       |                 | 2 pcs.    |         |                    |
| 511-838    | 511-838        | 2 pcs.                               | 3 pcs.                | 4               |           |         |                    |
| 511-853-20 | 511-833        | 2923AB-10<br>(Graduation: 0.0001 in) |                       |                 | 21DZA000  | 1 pc.   | 2 pcs.             |
| 511-854-20 | 511-834        |                                      |                       |                 |           |         | 3 pcs.             |
| 511-855-20 | 511-835        |                                      |                       |                 |           |         | 4 pcs.             |
| 511-856-20 | 511-836        |                                      |                       |                 |           |         | 3 pcs.             |
| 511-857-20 | 511-837        |                                      | 2 pcs.                |                 |           |         |                    |
| 511-858-20 | 511-838        | 2 pcs.                               | 2 pcs.                | 10              |           |         |                    |
| 511-843-20 | 511-833        | 2922AB<br>(Graduation: 0.0005 in)    |                       |                 | 21DZA000  | 1 pc.   | 2 pcs.             |
| 511-844-20 | 511-834        |                                      |                       |                 |           |         | 3 pcs.             |
| 511-845-20 | 511-835        |                                      |                       |                 |           |         | 4 pcs.             |
| 511-846-20 | 511-836        |                                      |                       |                 |           |         | 3 pcs.             |
| 511-847-20 | 511-837        |                                      | 2 pcs.                |                 |           |         |                    |
| 511-848-20 | 511-838        | 2 pcs.                               | 3 pcs.                | 4               |           |         |                    |

\* Accuracy of the bore gage alone.  
 Note 1: Storage boxes for 511-837/838 models are made of wood. The boxes of other models are made of plastic.  
 Note 2: It is not permissible to expand measuring range using sub-anvils other than as supplied as standard accessories.  
 (The measurement accuracy in such cases is not guaranteed.)

### DIMENSIONS

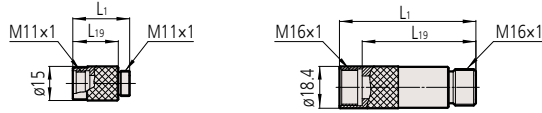


## Contact Points



## Sub-anvil

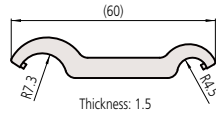
Unit: mm



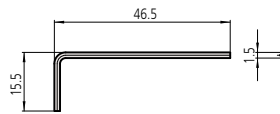
Note: It is not permissible to use a sub-anvil other than as supplied as a standard accessory, or widen a measuring range by using multiple sub-anvils. (The measurement accuracy in such cases is not guaranteed.)

## Spanner

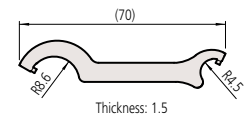
301336



202863



200154



## STANDARD ACCESSORIES

| Metric                   |                 |             |            |                    |                    |                     |                      |   |
|--------------------------|-----------------|-------------|------------|--------------------|--------------------|---------------------|----------------------|---|
| Bore gage<br>(Main body) | Micrometer head |             |            | Sub-Anvil          |                    |                     |                      | Spanner                                 |
|                          | Order No.       | Stroke (mm) | Screw size | Marked No.<br>(mm) | Order No.          | L <sub>1</sub> (mm) | L <sub>19</sub> (mm) | Order No.                               |
| 511-803                  | 21DZA267        | 10          | M11×1      | 10                 | 208892             | 15                  | 10                   | 301336<br>(2 pcs.)<br>202863<br>(1 pc.) |
|                          |                 |             |            | 20                 | 208894             | 25                  | 20                   |   |
| 511-804                  | 21DZA268        | 13          | M11×1      | 10                 | 208892             | 15                  | 10                   | 301336<br>(2 pcs.)                      |
|                          |                 |             |            | 20                 | 208894<br>(2 pcs.) | 25                  | 20                   |   |
| 511-805                  | 21DZA268        | 13          | M11×1      | 10                 | 208892             | 15                  | 10                   | 301336<br>(2 pcs.)                      |
|                          |                 |             |            | 20                 | 208894<br>(2 pcs.) | 25                  | 20                   |   |
|                          |                 |             |            | 50                 | 21DAA492           | 55                  | 50                   |   |
| 511-806                  | 953118          | 25          | M16×1      | 25                 | 208926             | 35                  | 25                   | 200154<br>(2 pcs.)                      |
|                          |                 |             |            | 50                 | 208928<br>(2 pcs.) | 60                  | 50                   |   |
| 511-807                  | 953120          | 50          | M16×1      | 50                 | 208928             | 60                  | 50                   | 200154<br>(2 pcs.)                      |
|                          |                 |             |            | 100                | 208932             | 110                 | 100                  |   |
| 511-808                  | 953120          | 50          | M16×1      | 50                 | 208928             | 60                  | 50                   | 200154<br>(2 pcs.)                      |
|                          |                 |             |            | 100                | 208932             | 110                 | 100                  |   |

| Inch                     |                 |             |            |                    |                    |                     |                      |   |
|--------------------------|-----------------|-------------|------------|--------------------|--------------------|---------------------|----------------------|---|
| Bore gage<br>(Main body) | Micrometer head |             |            | Sub-Anvil          |                    |                     |                      | Spanner                                 |
|                          | Order No.       | Stroke (in) | Screw size | Marked No.<br>(in) | Order No.          | L <sub>1</sub> (in) | L <sub>19</sub> (in) | Order No.                               |
| 511-833                  | 21DZA272        | 0.4         | M11×1      | 0.4                | 208893             | 0.6                 | 0.4                  | 301336<br>(2 pcs.)<br>202863<br>(1 pc.) |
|                          |                 |             |            | 0.8                | 208895             | 1.0                 | 0.8                  |   |
| 511-834                  | 21DZA273        | 0.5         | M11×1      | 0.4                | 208893             | 0.6                 | 0.4                  | 301336<br>(2 pcs.)                      |
|                          |                 |             |            | 0.8                | 208895<br>(2 pcs.) | 1.0                 | 0.8                  |   |
| 511-835                  | 21DZA273        | 0.5         | M11×1      | 0.4                | 208893             | 0.6                 | 0.4                  | 301336<br>(2 pcs.)                      |
|                          |                 |             |            | 0.8                | 208895<br>(2 pcs.) | 1.0                 | 0.8                  |   |
|                          |                 |             |            | 2                  | 21DAA493           | 2.2                 | 2                    |   |
| 511-836                  | 21DZA275        | 1.0         | M16×1      | 1                  | 208927             | 1.4                 | 1                    | 200154<br>(2 pcs.)                      |
|                          |                 |             |            | 2                  | 208929<br>(2 pcs.) | 2.4                 | 2                    |   |
| 511-837                  | 902313          | 2.0         | M16×1      | 2                  | 208929             | 2.4                 | 2                    | 200154<br>(2 pcs.)                      |
|                          |                 |             |            | 4                  | 208933             | 4.4                 | 4                    |   |
| 511-838                  | 902313          | 2.0         | M16×1      | 2                  | 208929             | 2.4                 | 2                    | 200154<br>(2 pcs.)                      |
|                          |                 |             |            | 4                  | 208933             | 4.4                 | 4                    |   |