

Bore Gages

For easy and accurate measurement of inside diameters

Bore Gages SERIES 526 — for Extra Small Holes

- These gages are designed to measure the diameters of very small holes.
- Alternative indicators may be used in place of those recommended*.
 - * Some indicators and protection covers cannot be used with these bore gages. Contact a Mitutoyo sales office if considering the use of dial or digimatic indicators other than the recommended models.
- An optional stand (215-120-10) is available for efficient measurement of multiple small holes. Refer to page C-30 for details.



526-170-11

* The dial indicator and the protection cover are optional.

SPECIFICATIONS

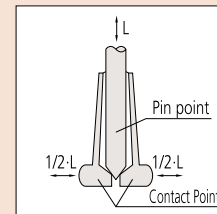
Metric							
Order No.	Range	Accuracy	Repeatability	Bore gage	Dial indicator	Dial protection cover	Setting ring
526-170-10	0.95 - 1.55 mm	4 μm	1 μm	526-170-10	Not supplied	Not supplied	Not supplied
526-160-10	1.50 - 3.95 mm	4 μm		526-160-10			
526-150-10	3.70 - 7.30 mm	6 μm		526-150-10			
526-172-10	0.95 - 1.55 mm	4 μm		526-170-10	2109SB-10 (Graduation: 0.001 mm)	21DZA000	
526-162-10	1.50 - 3.95 mm	4 μm		526-160-10			
526-152-10	3.70 - 7.30 mm	6 μm		526-150-10			
526-173-10	0.95 - 1.55 mm	4 μm		526-170-10	2046SB (Graduation: 0.01 mm)	21DZA000	
526-163-10	1.50 - 3.95 mm	4 μm		526-160-10			
526-153-10	3.70 - 7.30 mm	6 μm		526-150-10			
526-170-11	0.95 - 1.55 mm	4 μm		526-170-10	Not supplied	Not supplied	Supplied
526-160-11	1.50 - 3.95 mm	4 μm		526-160-10			
526-150-11	3.70 - 7.30 mm	6 μm		526-150-10			
526-172-11	0.95 - 1.55 mm	4 μm		526-170-10	2109SB-10 (Graduation: 0.001 mm)	21DZA000	
526-162-11	1.50 - 3.95 mm	4 μm		526-160-10			
526-152-11	3.70 - 7.30 mm	6 μm		526-150-10			
526-173-11	0.95 - 1.55 mm	4 μm		526-170-10	2046SB (Graduation: 0.01 mm)	21DZA000	
526-163-11	1.50 - 3.95 mm	4 μm	526-160-10				
526-153-11	3.70 - 7.30 mm	6 μm	526-150-10				

Inch							
Order No.	Range	Accuracy	Repeatability	Bore gage	Dial indicator	Dial protection cover	Setting ring
526-175-10	0.037 - 0.061 in	0.00016 in	0.00004 in	526-175-10	Not supplied	Not supplied	Not supplied
526-165-10	0.059 - 0.156 in	0.00016 in		526-165-10			
526-155-10	0.146 - 0.287 in	0.00024 in		526-155-10			
526-176-10	0.037 - 0.061 in	0.00016 in		526-175-10	2923SB-10 (Graduation: 0.0001 in)	21DZA000	
526-166-10	0.059 - 0.156 in	0.00016 in		526-165-10			
526-156-10	0.146 - 0.287 in	0.00024 in		526-155-10			
526-175-11	0.037 - 0.061 in	0.00016 in		526-175-10	Not supplied	Not supplied	Supplied
526-165-11	0.059 - 0.156 in	0.00016 in		526-165-10			
526-155-11	0.146 - 0.287 in	0.00024 in		526-155-10			
526-176-11	0.037 - 0.061 in	0.00016 in		526-175-10	2923SB-10 (Graduation: 0.0001 in)	21DZA000	
526-166-11	0.059 - 0.156 in	0.00016 in		526-165-10			
526-156-11	0.146 - 0.287 in	0.00024 in		526-155-10			

Setting rings are not supplied with some models. Please purchase them separately if necessary. For details of setting rings, refer to page C-47.



Measurement Principle



Setting Rings (Metric models)

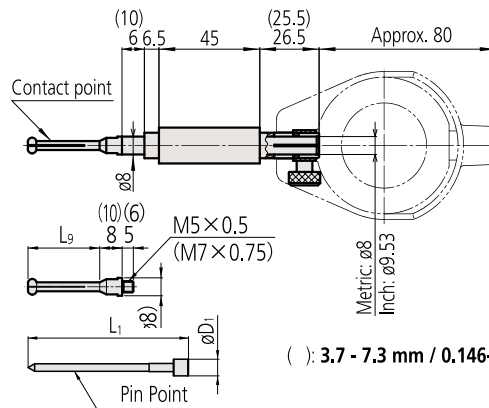
- Nominal size
- Order No. 526-170-11 etc.
 - 177-220: 1.0 mm
 - 177-222: 1.1 mm
 - 177-225: 1.2 mm
 - 177-227: 1.3 mm
 - 177-230: 1.4 mm
 - Order No. 526-160-11 etc.
 - 177-236: 1.75 mm
 - 177-239: 2.00 mm
 - 177-242: 2.25 mm
 - 177-208: 2.50 mm
 - 177-246: 2.75 mm
 - 177-248: 3.00 mm
 - 177-250: 3.25 mm
 - 177-252: 3.50 mm
 - 177-255: 3.75 mm
 - Order No. 526-150-11 etc.
 - 177-204: 4.0 mm
 - 177-257: 4.5 mm
 - 177-205: 5.0 mm
 - 177-263: 5.5 mm
 - 177-267: 6.0 mm
 - 177-271: 6.5 mm
 - 177-275: 7.0 mm

Setting Rings (Inch models)

- Nominal size
- Order No. 526-175-11 etc.
 - 177-350: 0.040 in
 - 177-351: 0.045 in
 - 177-352: 0.050 in
 - 177-353: 0.055 in
 - 177-354: 0.060 in
 - Order No. 526-165-11 etc.
 - 177-355: 0.07 in
 - 177-356: 0.08 in
 - 177-357: 0.09 in
 - 177-358: 0.10 in
 - 177-359: 0.11 in
 - 177-360: 0.12 in
 - 177-361: 0.13 in
 - 177-362: 0.14 in
 - 177-363: 0.15 in
 - Order No. 526-155-11 etc.
 - 177-364: 0.16 in
 - 177-365: 0.18 in
 - 177-366: 0.20 in
 - 177-367: 0.22 in
 - 177-368: 0.24 in
 - 177-369: 0.26 in
 - 177-370: 0.28 in

DIMENSIONS

Unit: mm



(): 3.7 - 7.3 mm / 0.146-0.287 in range model

Optional Accessories

- : Dial indicator (See Chapter F)
- 21DZA000**: Dial protection cover
- 215-120-10**: Stand for small holes

Recommended Dial Indicators (see Chapter F)

- Metric models: **2046SB** (0.01 mm)
2972TB (0.01 mm - One-revolution type)
2109SB-10 (0.001 mm)
2900SB-10 (0.001 mm - One-revolution type)
 Inch models: **2922SB** (0.0005 in)
2977TB (0.0005 in - One-revolution type)
2923SB-10 (0.0001 in)
2910SB-10 (0.0001 in - One-revolution type)

Recommended Digimatic Indicators (see Chapter F)

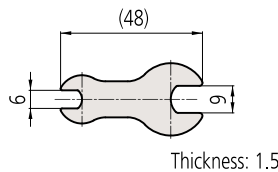
- Metric models: **543-310B** (ID-C112GXB: 0.001 mm)
 Inch models: **543-312B** (ID-C112GEXB: 0.001 mm/0.00005 in)
 Note: Indicators equipped with rubber bellows, such as water-proof types, cannot be used.

STANDARD ACCESSORIES

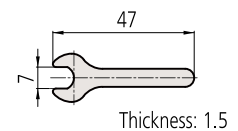
Bore gage (Main body)	Contact point				Pin point		
	Marked No.	Order No.	Measuring range	L ₉	L ₁	øD ₁	Order No.
526-170-10 526-175-10	1.0	21DAA601A	0.95 - 1.15 mm/0.037 - 0.045 in	11.5	27.5	2.5	201435
	1.1	21DAA601B	1.07 - 1.25 mm/0.042 - 0.049 in				
	1.2	21DAA601C	1.17 - 1.35 mm/0.046 - 0.053 in				
	1.3	21DAA601D	1.27 - 1.45 mm/0.050 - 0.057 in				
	1.4	21DAA601E	1.37 - 1.55 mm/0.054 - 0.061 in				
526-160-10 526-165-10	1.75	21DAA602A	1.50 - 1.90 mm/0.059 - 0.075 in	17.5	33.8	3.5	201436
	2.00	21DAA602B	1.80 - 2.20 mm/0.071 - 0.087 in				
	2.25	21DAA602C	2.05 - 2.45 mm/0.081 - 0.096 in				
	2.50	21DAA602D	2.30 - 2.70 mm/0.091 - 0.106 in				
	2.75	21DAA602E	2.55 - 2.95 mm/0.100 - 0.116 in				
	3.00	21DAA602F	2.80 - 3.20 mm/0.110 - 0.126 in				
	3.25	21DAA602G	3.05 - 3.45 mm/0.120 - 0.136 in				
	3.50	21DAA602H	3.30 - 3.70 mm/0.130 - 0.146 in				
526-150-10 526-155-10	3.75	21DAA602J	3.55 - 3.95 mm/0.140 - 0.156 in	22.5	39.3	3.5	201437
	4.0	21DAA603A	3.7 - 4.3 mm/0.146 - 0.169 in				
	4.5	21DAA603B	4.2 - 4.8 mm/0.165 - 0.189 in				
	5.0	21DAA603C	4.7 - 5.3 mm/0.185 - 0.209 in				
	5.5	21DAA603D	5.2 - 5.8 mm/0.205 - 0.228 in				
	6.0	21DAA603E	5.7 - 6.3 mm/0.224 - 0.248 in				
	6.5	21DAA603F	6.2 - 6.8 mm/0.244 - 0.268 in				
7.0	21DAA603G	6.7 - 7.3 mm/0.264 - 0.287 in					

Note: Pin point and contact point are consumable parts. Please replace them with new one when degrading of accuracy, operation, or measuring range.

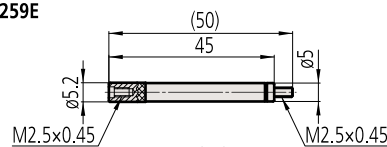
Spanner 210188



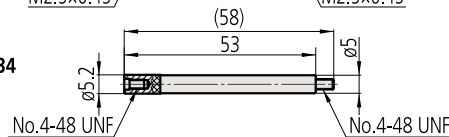
102148



Extension rod 21AAA259E



213634



(): 3.7 - 7.3 mm / 0.146-0.287 in range model

Bore gage	Spanner	Extension rod
526-170-10	210188	21AAA259E
526-160-10		
526-150-10	102148	213634
526-175-10	210188	
526-165-10	102148	
526-155-10		

* This is a standard accessory to be attached between the spindle of the indicator (dial indicator, etc.) and the contact point. This is not a component for extending the measuring length.

Bore Gages

For easy and accurate measurement of inside diameters

Bore Gages SERIES 526 — for Extra Small Holes

- These gages are designed to measure the diameters of very small holes.
- Alternative indicators may be used in place of those recommended*.
* Some indicators and protection covers cannot be used with these bore gages. Contact a Mitutoyo sales office if considering the use of dial or digimatic indicators other than the recommended models.
- An optional stand (215-120-10) is available for efficient measurement of multiple small holes. Refer to page C-30 for details.



526-101

The dial indicator and the protection cover are optional.

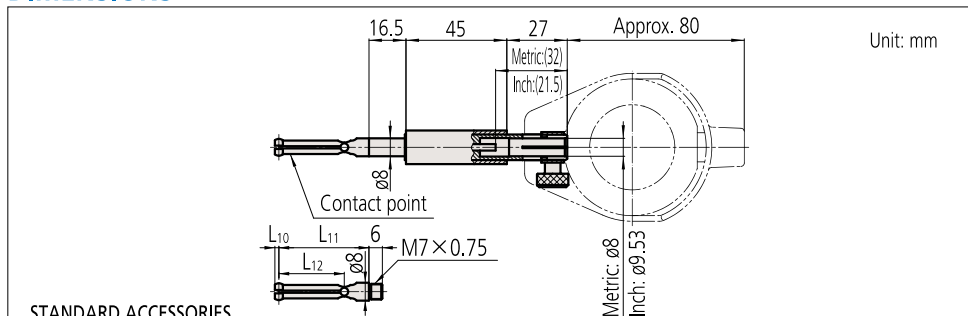
SPECIFICATIONS

Metric							
Order No.	Range	Accuracy	Repeatability	Bore gage	Dial indicator	Dial protection cover	Setting ring
526-101	7 - 10 mm	4 μm	2 μm	526-101	Not supplied	Not supplied	Not supplied
526-102	10 - 18 mm	6 μm		526-102			
526-124	7 - 10 mm	4 μm		526-101	2109SB-10 (Graduation: 0.001 mm)	21DZA000	
526-125	10 - 18 mm	6 μm		526-102			
526-126	7 - 10 mm	4 μm		526-101			
526-127	10 - 18 mm	6 μm		526-102			

Inch							
Order No.	Range	Accuracy	Repeatability	Bore gage	Dial indicator	Dial protection cover	Setting ring
526-103	0.3 - 0.4 in	0.00016 in	0.00008 in	526-103	Not supplied	Not supplied	Not supplied
526-104	0.4 - 0.7 in	0.00024 in		526-104			
526-122	0.3 - 0.4 in	0.00016 in		526-103	2923SB-10 (Graduation: 0.0001 in)	21DZA000	
526-123	0.4 - 0.7 in	0.00024 in		526-104			
526-119	0.3 - 0.4 in	0.00016 in		526-103			
526-120	0.4 - 0.7 in	0.00024 in		526-104			

Setting rings are not supplied.
Please purchase them separately if necessary. For details of the setting rings, refer to page C-47.

DIMENSIONS



Unit: mm

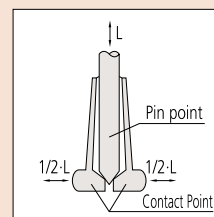
STANDARD ACCESSORIES

Bore gage (Main body)	Contact point						Spanner Order No.
	Marked No.	Order No.	Measuring range	L10	L11	L12	
526-101 526-103	1	102469	7.0 - 7.5 mm/0.28 - 0.30 in	1.8	40	29.2	102148
	2	102470	7.5 - 8.0 mm/0.30 - 0.32 in				
	3	102471	8.0 - 8.5 mm/0.32 - 0.34 in				
	4	102472	8.5 - 9.0 mm/0.34 - 0.36 in				
	5	102473	9.0 - 9.5 mm/0.36 - 0.38 in				
	6	102474	9.5 - 10.0 mm/0.38 - 0.40 in				
526-102 526-104	1	102454	10 - 11 mm/0.40 - 0.44 in	2.7	46	38	102148
	2	102455	11 - 12 mm/0.44 - 0.48 in				
	3	102456	12 - 13 mm/0.48 - 0.52 in				
	4	102457	13 - 14 mm/0.52 - 0.56 in				
	5	102458	14 - 15 mm/0.56 - 0.60 in				
	6	102459	15 - 16 mm/0.60 - 0.64 in				
	7	102460	16 - 17 mm/0.64 - 0.68 in				
	8	102461	17 - 18 mm/0.68 - 0.72 in				

Setting rings are not supplied.
Please purchase them separately if necessary. For details, refer to page C-47.
Note: Contact point is consumable part. Please replace it with new one when degrading of accuracy, operation, or measuring range.



Measurement Principle



Optional Accessories

- : Dial indicator (See Chapter F)
- 21DZA000: Dial protection cover
- : Setting ring (See page C-45)
- 215-120-10: Stand for small holes

Recommended Dial Indicators (see Chapter F)

- Metric models: 2046SB (0.01 mm)
2972TB (0.01 mm - One-revolution type)
2109SB-10 (0.001 mm)
2900SB-10 (0.001 mm - One-revolution type)
- Inch models: 2922SB (0.0005 in)
2977TB (0.0005 in - One-revolution type)
2923SB-10 (0.0001 in)
2910SB-10 (0.0001 in - One-revolution type)

Recommended Digimatic Indicators (see Chapter F)

- Metric models: 543-310B (ID-C112GXB, 0.001 mm)
Inch models: 543-312B (ID-C112GEXB, 0.001mm/0.00005 in)
Note: Indicators equipped with rubber bellows, such as water-proof types, cannot be used.

Spanner
102148

