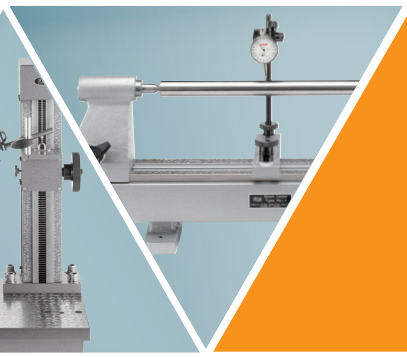





GENERAL CATALOG

RSK

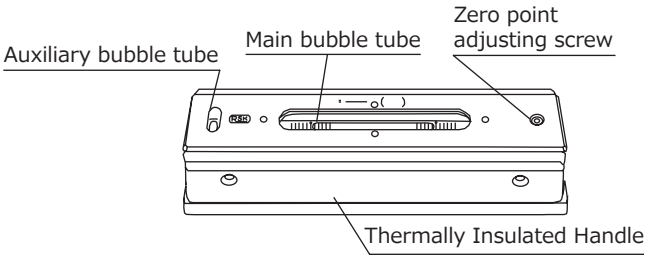
NIIGATA RIKEN SOKUHAN CO.,LTD.

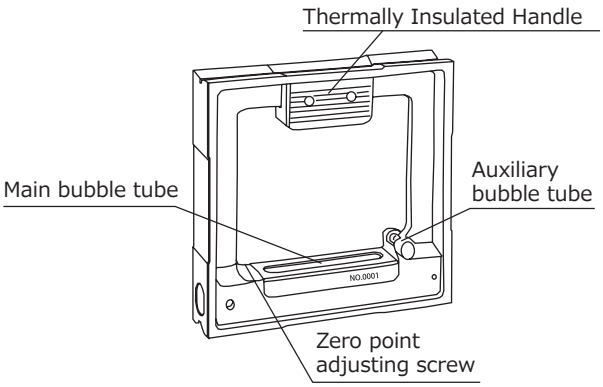
INDEX

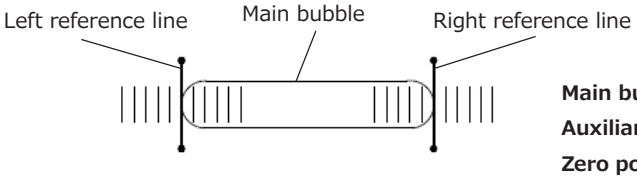
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-----	Adjustment of bubble length		4
-----	JIS B 7510 Accuracy Standards		5
-----	Packaging Case		6
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		S	
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Description







Main bubble tube: A bubble tube in which indicate the angle of the level.
Auxiliary bubble tube: A bubble tube thattion in the Y-axis direction.
Zero point adjusting screw: A screw used for zero point adjustment of a level (centering of the main bubble) before use

Accuracy

Accuracy indicates how closely the bubble position corresponds to the actual angle of inclination of the surface on which the level is placed.The accuracy of a level is classified into two grades: Grade A and Grade B.(For details of each accuracy grade, please refer to page 5.)

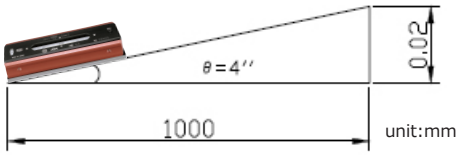
Full Range Accuracy refers to the permissible indication error over the entire graduated range of the bubble tube.

Adjacent Accuracy refers to the permissible difference in indication errors between adjacent graduations, as specified in JIS B 7510.

	Sensitivity category	Grade A	Grade B
Full range accuracy	class 1	± 0.5 graduations or less	± 0.7 graduation or less
	class 2	± 0.3 graduations or less	± 0.5 graduations or less
	class 3		
Adjacent accuracy	class 1	0.2 graduations or less	0.5 graduations or less
	class 2		
	class 3		

Sensitivity

JIS B 7510 prescribes that the sensitivity of a level is indicated with an inclination (a height or angle of a right triangle whose base is 1m) that moves the bubble in the main bubble tube by one graduation when the base is 1m. (Refer to the figure on the right.) Basically, levels are classified into three classes per sensitivity.

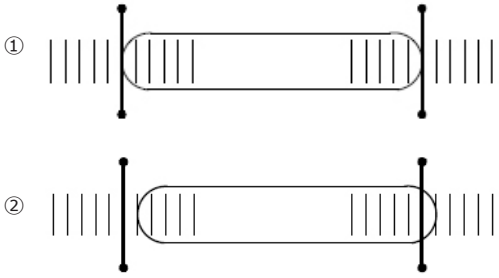


Class 1: 4 s (0.02 mm/m)
Class 2: 10 s (0.05 mm/m)
Class 3: 20 s (0.1 mm/m)

The measurable range of a level differs depending on the sensitivity.
If an inclination of an item to be measured exceeds the measurable range of level, thebubble goes outside the graduations and therefore the inclination cannot be measured.
Select an appropriate level according to your measurement requirements.
If five graduations are drawn on both sides of the left and right reference lines, themeasurable range of the level is as follows:

	Class 1 (0.02mm/m)	Class 2 (0.05mm/m)	Class 3 (0.1mm/m)
Measurable range	± 0.1mm/m	± 0.25mm/m	± 0.5mm/m

Ex:
When the bubble in a class-1 level moves from the position shown in Fig. (1) to the position shown in Fig. (2), the bubble indicates an inclination of 4 seconds (a height difference of 0.02mm at a distance 1 m from the edge of the level).

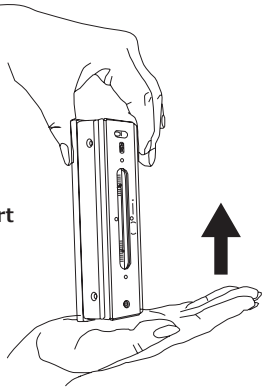


Adjustment of bubble length

The length of the bubble in a level may vary depending on temperatures and vibrations.
If the length of the bubble changes, an inclination cannot be measured accurately. Adjust the length with respect to the reference lines before use in accordance with the following procedure:

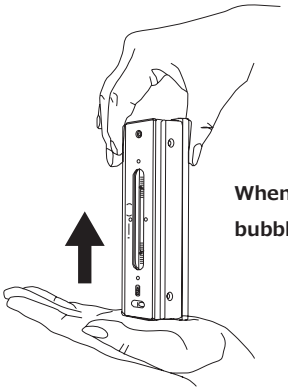
* Levels whose bubble length can be adjusted are as follows: Precision square level (Grade AA and A), Precision flat level (Grade AA and A), Mini level and qlines.

When the bubble is short



Face down the zero point adjusting screw and tap the side of a level. Small bubbles rise and therefore the main bubble is lengthened.

When the bubble is long



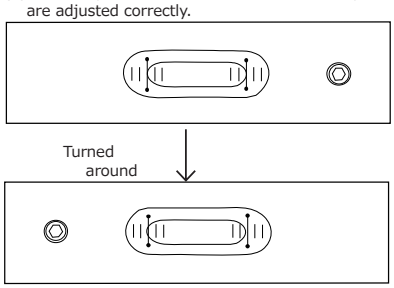
With the zero-point adjusting screw facing upward, gently tap the side of the cover. Moving the body up and down at the same time may help.

Zero point adjustment (Centering of bubble)

Be sure to check the zero point of a precision level before use.
Turn around the level by 180° and then check whether the bubble stays in the same position.
In cases (3) and (4), zero point adjustment is required.
In case (3), the position of the bubble differs by four graduations before and after the level is turned. Adjust the bubble position by turning the adjusting screw until the bubble moves back by two graduations (a half of the displacement).
Repeat this procedures until the bubble stays in the same position when the level is turned around.
* Note that an inclination cannot be indicated correctly when the temperature changes drastically or the measuring plane does not function normally (due to poor cleaning or the flatness of a surface plate).

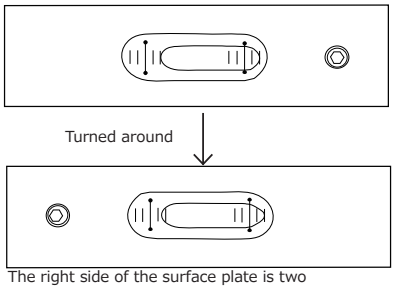
For an explanation of the zero point, please scan the QR code.
You can also check it in the video.

(1)The zero points of the level and the surface plate are adjusted correctly.



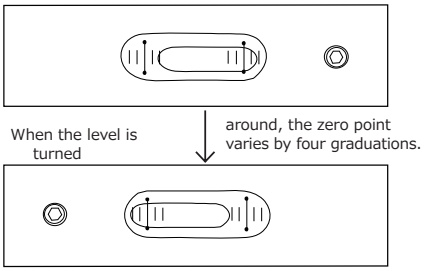
The bubble is centered with respect to the reference lines.

(2)The zero point of the level is adjusted correctly. However, the zero point of the surface plate is not correct.

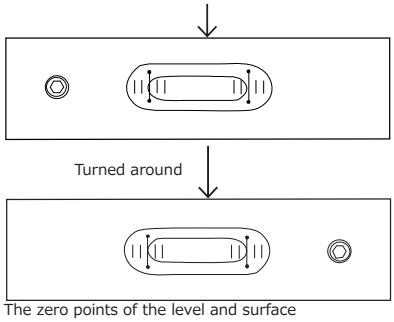


The right side of the surface plate is two graduations higher than the left side.

(3)The zero point of the surface plate is adjustedcorrectly. However, the zero point of the level is not correct.

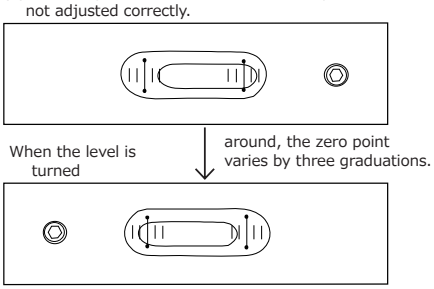


In this case, adjust the position of the bubble by turning the adjusting screw until the bubble moves back by two graduations (a half of the variation).

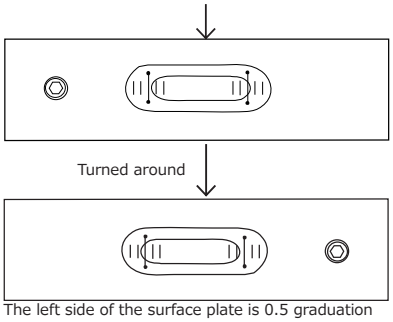


The zero points of the level and surface plate are adjusted correctly.

(4)The zero points of a level and a surface plate are not adjusted correctly.



In this case, adjust the position of the bubble by turning the adjusting screw until the bubble moves back by 1.5 graduations (a half of the variation).



The left side of the surface plate is 0.5 graduation higher than the right

Accuracy standards for precision level

Under the JIS standard, guarantee level is diffrent from each grades.

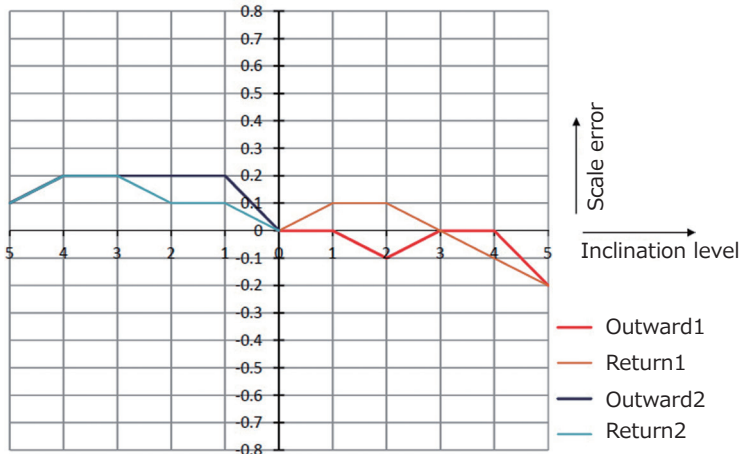
Precision square level

Item	Grade	Grade AA			Grade A (JIS B 7510)			Grade B (JIS B 7510)		
	Sensitivity	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3
Accuracy	Total range	± 0.2 graduations or less			± 0.5 graduations or less	± 0.3 graduations or less		± 0.7 graduations or less	± 0.5 graduations or less	
	Adjacent	0.2 graduations or less			0.2 graduations or less			0.5 graduations or less		
Squareness of the bottom to the both sides		0.015 mm /m or less	0.025 mm /m or less		0.015 mm /m or less	0.025 mm /m or less		0.02 mm /m or less	0.035 mm /m or less	
Parallelism v groove to surface with v groove		0.5 graduations or less			0.5 graduations or less			0.5 graduations or less		
Parallelism bottom to top side		0.5 graduations or less			0.5 graduations or less			0.5 graduations or less		
Flatness of the bottom, side and top surfaces		0.003 mm or less	0.005 mm or less		0.003 mm or less	0.005 mm or less		0.003 mm or less	0.005 mm or less	

Precision flat level

Item	Grade	Grade AA			Grade A (JIS B 7510)			Grade B (JIS B 7510)		
	Sensitivity	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3	Class 1	Class 2	Class 3
Accuracy	Total range	± 0.2graduations or less			± 0.5 graduations or less	± 0.3 graduations or less		± 0.7 graduations or less	± 0.5 graduations or less	
	Adjacent	0.2 graduations or less			0.2 graduations or less			0.5 graduations or less		
Parallelism v groove to surface with v groove		0.5 graduations or less			0.5 graduations or less			0.5 graduations or less		
Flatness bottom surface		0.003 mm or less	0.005 mm or less		0.003 mm or less	0.005 mm or less		0.003 mm or less	0.005 mm or less	

■ Bubble tube accuracy inspection sheet



・Grade AA, A and B levels are manufactured and inspected in accordance with JIS B 7510.

The figure on the left is an accuracy inspection sheet for bubble tubes.

For the grade-A precision square levels and precision flat levels (size: 200, 250 and 300 mm), models with a sensitivity of 0.01 mm/m (2 seconds) are available.

Case

Starting in 2025, we have been gradually replacing the traditional wooden cases for our precision levels with EVA cases. EVA cases are also available for purchase separately.Customers who already own our precision levels are welcome to purchase an EVA case as a replacement for their existing case.

Product No	Compatible Levels	Compatible Level Sizes (mm)	Compatible Level Product Codes
72-1-100	Sauare level	100	04-(02/05/10)-100
72-2-100	Flat level,Mini level	100	08-(02/05/10)-100 , 10-(02/05)
72-4-100	Qlines		584S-10P , 584S-10S
72-1-150	Sauare level	150	01-(02/05/10)-150 , 02-(02/05/10)-150 03-(02/05/10)-150 , 04-(02/05/10)-150
72-2-150	Flat level	150	05-(02/05/10)-150 , 06-(02/05/10)-150 07-(02/05/10)-150 , 08-(02/05/10)-150
72-3-150	Magnetic square level	150	09-(02/05/10)-150
72-1-200	Sauare level	200	01-(02/05/10)-200 , 02-(02/05/10)-200 03-(02/05/10)-200 , 04-(02/05/10)-200
72-2-200	Flat level	200	05-(02/05/10)-200 , 06-(02/05/10)-200 07-(02/05/10)-200 , 08-(02/05/10)-200
72-3-200	Magnetic square level	200	09-(02/05/10)-200
72-1-250	Sauare level	250	01-(02/05/10)-250 , 02-(02/05/10)-250 03-(02/05/10)-250 , 04-(02/05/10)-250
72-2-250	Flat level	250	05-(02/05/10)-250 , 06-(02/05/10)-250 07-(02/05/10)-250 , 08-(02/05/10)-250
72-3-250	Magnetic square level	250	09-(02/05/10)-250
72-1-300	Sauare level	300	01-(02/05/10)-300 , 02-(02/05/10)-300 03-(02/05/10)-300 , 04-(02/05/10)-300
72-2-300	Flat level	300	05-(02/05/10)-300 , 06-(02/05/10)-300 07-(02/05/10)-300 , 08-(02/05/10)-300

Configuration of stock number

72 – 1 – 100

- 1 → Square level
- 2 → Flat level
- 3 → Magnetic square level
- 4 → Qlines

size







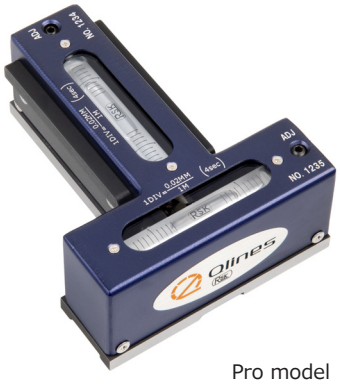


■ Dimensional drawing Unit : mm

Qlines®

Qlines® Traceability can be issued. Small 2-axis spirit level

- This single unit can perform high-precision measurements in both the X and Y axes with a sensitivity of 0.02 mm/m.
- Its compact size makes it highly portable, allowing it to be placed in confined spaces such as the tool post of a lathe, allowing use in a wide range of measurement locations.
- The top-of-the-line Pro model offers full-range accuracy and adjacent error accuracy equivalent to JIS Class B.
- The Standard model offers full-range accuracy within 1.0 division.
- Both the Pro and Standard models are equipped with a secondary bubble chamber, allowing for accurate measurements by manually adjusting the bubble length if it changes due to temperature fluctuations. (Please refer to page 4 for bubble length adjustment instructions.)



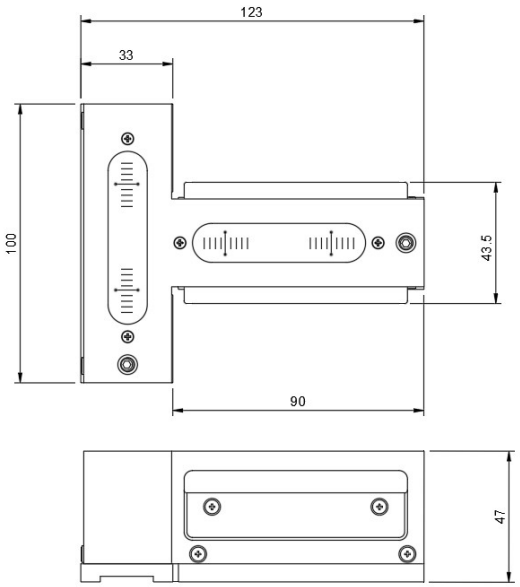
Pro model



Standard Mdel

Product No	Full range accuracy	sensitivity (mm/m)	Weight (kg)
584S-10P	± 0.7scale	0.02	2.1
584S-10S	± 1.0scale		

Material: Steel (base,HRC50) A5052(housing)
Storage: EVA case, Paperboard Box
Accessories: Hex wrench, inspection report, instruction manual



Qlines is a registered trademark of Niigata Riken Sokuhan Co., Ltd.

■ Dimensional drawing Unit : mm

ZERO PLATE™

ZERO PLATE

Patent and design applications pending.

- This is a dedicated base that allows you to adjust the zero point (centering) of a spirit level anywhere.
- The main body is electroless nickel-plated and heat-treated, ensuring long-lasting and reliable use.
- We offer two models, depending on the size of your spirit level (150mm or less and 200mm).

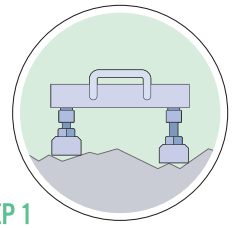
Product No	Size (mm)	Recommended load capacity Level size	Weight (kg)
502-150	150	~150mm	3.8
502-200	200	~ 200mm	4.4

Material: Iron (HRC50)
Storage: EVA case
Accessories: Hex wrench, spanner, Instruction manual, leveling jack, Hex socket head bolt M5 x 10, handle





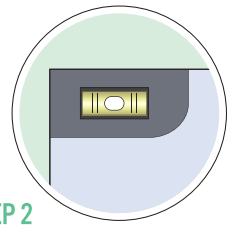
Leveling jack



STEP 1

Set

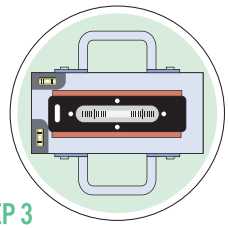
Place the ZERO PLATE on top of the leveling jack.



STEP 2

horizontal adjustment

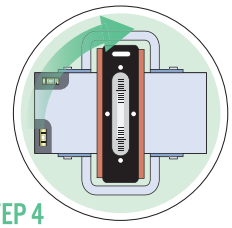
While checking the built-in spirit level, operate the leveling jack to roughly adjust the surface to a horizontal position.



STEP 3

Fine adjustment

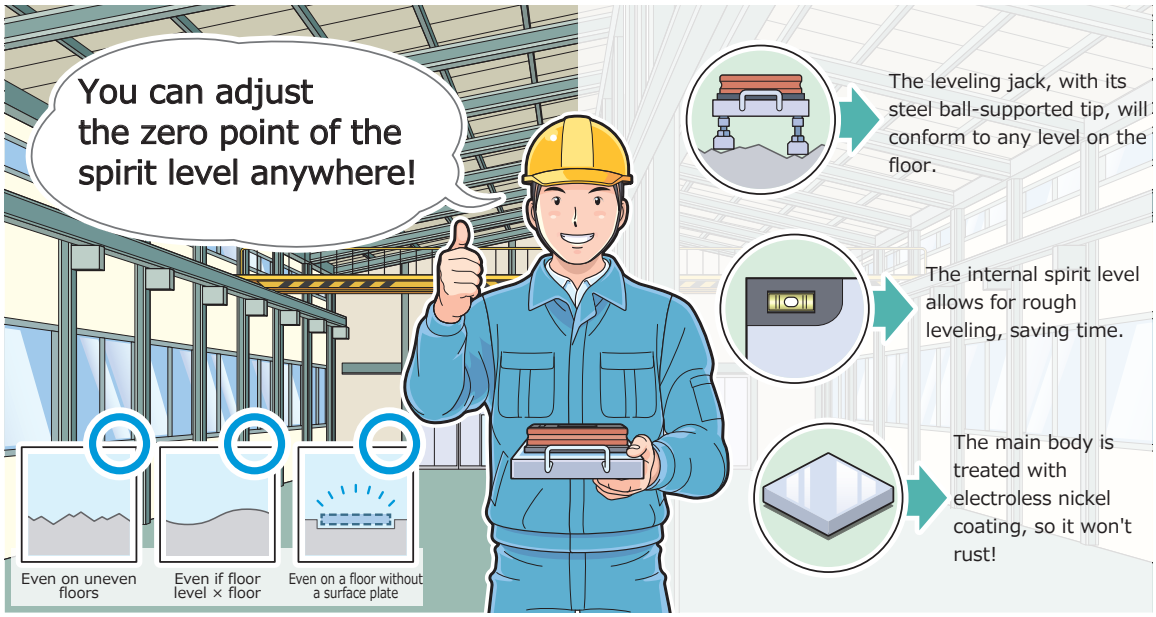
Place a spirit level on top and adjust the leveling jack so that the bubble is in the center.



STEP 4

Zero point adjustment

Rotate the spirit level 180° and confirm that the bubble is not misaligned.The process is now complete.



■ Dimensional drawing Unit : mm

Stock No.541AA

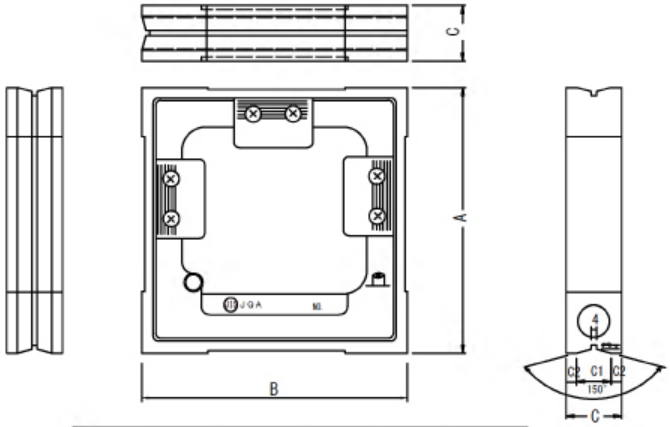
Precision square |eve| (Grade AA)|

Measuring Parallelism of Cylindrical Objects	◯
Bubble Length Adjustment	◯

Traceability can be issued.

- These levels have highly accurate squareness. They are ideal measurement standards for squareness measurements.
- Grade AA is our original standard. The measurement accuracy of Grade AA is better than JIS Grade A.
- These levels can measure the horizontality of cylindrical items.





Size	A	B	C	C1	C2
150	150	150	40	24	8
200	200	200	42	26	8
250	250	250	48	34	8
300	300	300	50	34	8

*This product does not conform to JIS standards and therefore does not bear the JIS mark.

Features

- These levels are manufactured and inspected in accordance with JIS B 7510.
- These levels have an "air chamber" to adjust the length of the bubbles. Even if the bubbles are shortened or legthened due to temperature changes, an inclination can be measured correctly by adjusting the length manually.

Material : Cast iron
Package : EVA case,Paperboard Box
Accessories : Hexagonal wrench,Certificateo fin spection, and Instruction manual

Configuration of stock number

541 - 150 (Size) 2 (Sensitivity) AA (Grade)

2 → 0.02mm/m
5 → 0.05mm/m
1 → 0.1mm/m

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Squareness (±μ m)	Weight (kg)
01-02-150	541-1502AA	150	0.02	2.2	2.1
01-02-200	541-2002AA	200		3.0	3.8
01-02-250	541-2502AA	250		3.7	5.8
01-02-300	541-3002AA	300		4.5	7.5
01-05-150	541-1505AA	150	0.05	3.7	2.1
01-05-200	541-2005AA	200		5.0	3.8
01-05-250	541-2505AA	250		6.2	5.8
01-05-300	541-3005AA	300		7.5	7.5
01-10-150	541-1501AA	150	0.1	3.7	2.1
01-10-200	541-2001AA	200		5.0	3.8
01-10-250	541-2501AA	250		6.2	5.8
01-10-300	541-3001AA	300		7.5	7.5

■ Dimensional drawing Unit : mm

Stock No.541A

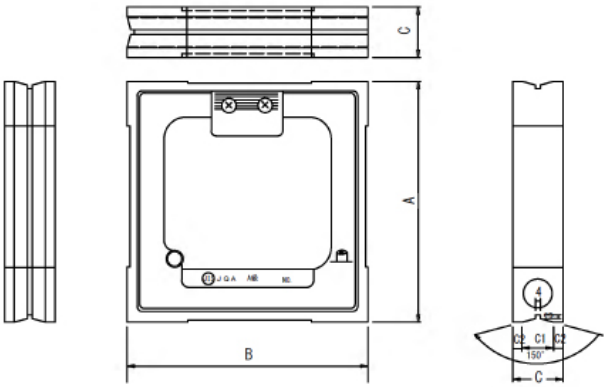
Precision square Level (Grade A)

Traceability can be issued.

Measuring Parallelism of Cylindrical Objects	◯
Bubble Length Adjustment	◯

- They are ideal measurement standards for angularity measurements.
- Grade A is the highest accuracy grade among all grades prescribed by JIS.
- These levels can measure the horizontality of cylindrical items





Size	A	B	C	C1	C2
150	150	150	40	24	8
200	200	200	42	26	8
250	250	250	48	34	8
300	300	300	50	34	8

Features

- These levels are manufactured and inspected in accordance with JIS B 7510.
- These levels have an "air chamber" to adjust the length of the bubbles. Even if the bubbles are shortened or lengthenedd due to temperature changes, an inclination can be measured correctly by adjusting the length manually.

Material : Cast iron
Package : EVA case,Paperboard Box
Accessories : Hexagonal wrench,
Certificate of inspection, and Instruction manual

Configuration of stock number

541 - 150 (Size) 2 (Sensitivity) A (Grade)

2 → 0.02mm/m
5 → 0.05mm/m
1 → 0.1mm/m

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Squareness (±μm)	Weight (kg)
02-02-150	541-1502A	150	0.02	2.2	2.1
02-02-200	541-2002A	200		3.0	3.8
02-02-250	541-2502A	250		3.7	5.8
02-02-300	541-3002A	300		4.5	7.5
02-05-150	541-1505A	150	0.05	3.7	2.1
02-05-200	541-2005A	200		5.0	3.8
02-05-250	541-2505A	250		6.2	5.8
02-05-300	541-3005A	300		7.5	7.5
02-10-150	541-1501A	150	0.1	3.7	2.1
02-10-200	541-2001A	200		5.0	3.8
02-10-250	541-2501A	250		6.2	5.8
02-10-300	541-3001A	300		7.5	7.5

■ Dimensional drawing Unit : mm

Stock No.541B

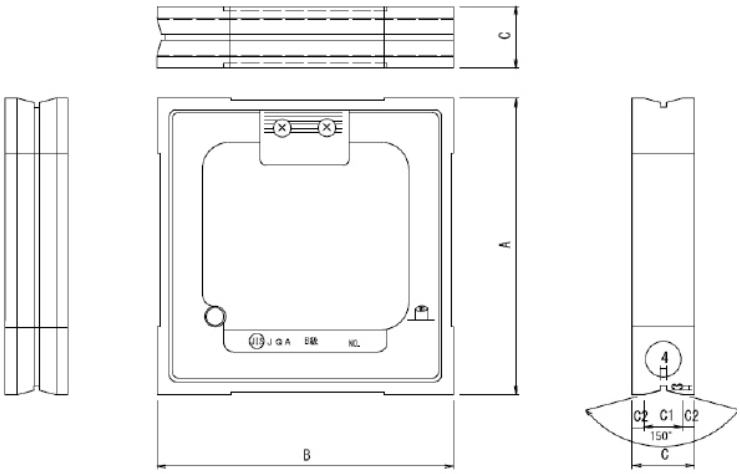
Precision square Level (Grade B)

Traceability can be issued.

Measuring Parallelism of Cylindrical Objects	◯
Bubble Length Adjustment	×

• These levels can measure the horizontality of cylindrical items.





Size	A	B	C	C1	C2
150	150	150	40	24	8
200	200	200	42	26	8
250	250	250	50	34	8
300	300	300	50	34	8

Features

• These levels are manufactured and inspected In accordance with JIS B 7510.

*Levels of JIS Grade B do not have an air chamber.

Material : Cast iron
Package : EVA case,Paperboard Box
Accessories : Hexagonal wrench,Certificate of inspeciton, and Instruction manual

Configuration of stock number

541 - 150 (Size) 2 (Sensitivity) B (Grade)

2 → 0.02mm/m
5 → 0.05mm/m
1 → 0.1mm/m

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Squareness (±μm)	Weight (kg)
03-02-150	541-1502B	150	0.02	3.0	2.1
03-02-200	541-2002B	200		4.0	3.8
03-02-250	541-2502B	250		5.0	5.8
03-02-300	541-3002B	300		6.0	7.5
03-05-150	541-1505B	150	0.05	5.2	2.1
03-05-200	541-2005B	200		7.0	3.8
03-05-250	541-2505B	250		8.7	5.8
03-05-300	541-3005B	300		10.5	7.5
03-10-150	541-1501B	150	0.1	5.2	2.1
03-10-200	541-2001B	200		7.0	3.8
03-10-250	541-2501B	250		8.7	5.8
03-10-300	541-3001B	300		10.5	7.5

■ Dimensional drawing Unit : mm

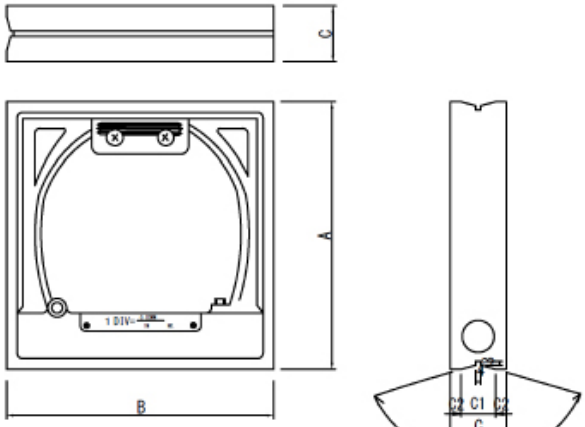
Stock No.541

Precision square level (Standard type)

Measuring Parallelism of Cylindrical Objects	×
Bubble Length Adjustment	×

Traceability can be issued.





Size	A	B	C	C1	C2
100	100	100	38	24	7
150	150	150	42	26	8
200	200	200	42	26	8
250	250	250	45	29	8
300	300	300	48	29	8

Features

- These levels are manufactured in accordance with our company's standards.
- A level ofa s maller size (100 mm) than JIS-standard products is also available.
- Full Range Accuracy: ± 2.0graduations or less

*The accuracy of the V-shaped planes is not guaranteed.

Material : Cast iron
Package : EVA case, Paperboard Box
Accessories : Hexagonal wrench,
Certincate of conformity

Configuration of stock number

541 - 150 (Size) 2 (Sensitivity)

2 → 0.02mm/m
5 → 0.05mm/m
1 → 0.1mm/m

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Weight (kg)
04-02-100	541-1002	100	0.02	1.0
04-02-150	541-1502	150		2.1
04-02-200	541-2002	200		3.8
04-02-250	541-2502	250		5.8
04-02-300	541-3002	300		7.5
04-05-100	541-1005	100	0.05	1.0
04-05-150	541-1505	150		2.1
04-05-200	541-2005	200		3.8
04-05-250	541-2505	250		5.8
04-05-300	541-3005	300		7.5
04-10-100	541-1001	100	0.1	1.0
04-10-150	541-1501	150		2.1
04-10-200	541-2001	200		3.8
04-10-250	541-2501	250		5.8
04-10-300	541-3001	300		7.5

■ Dimensional drawing Unit : mm

Stock No.542AA

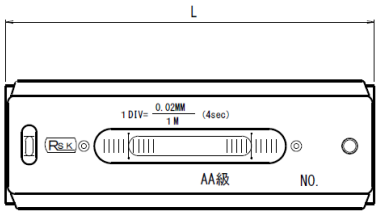
Precision flat level (Grade AA)

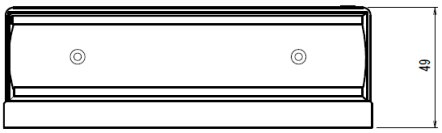
Traceability can be issued.

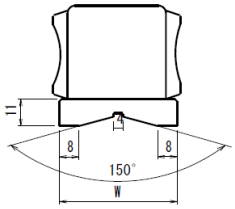
Measuring Parallelism of Cylindrical Objects	◯
Bubble Length Adjustment	◯

- Grade AA is our company's standard. The measurement accuracy of Grade AA is better than JIS Grade A.
- These levels can be used as measurement standards for various horizontality checks.
- These levels can measure the horizontality of cylindrical items.









呼び	150	200	250	300
L	150	200	250	300
W	45	48	48	50

*This product does not conform to JIS standards and therefore does not bear the JIS mark.

Features

- These levels are manufactured and inspected in accordance with JIS B 7510.
- These levels have an "air chamber" to adjust the length of the bubbles. Even if the bubbles are shortened or lengthened due to temperature changes, an inclination can be measured correctly by adjusting the length manually.
- The bottom ofth ese levels (measuringp lanes) are hardened toi ncrease wear resistance so thatth eyc an be used for a long time.l

Material : Steel (base,HRC50)
Package : EVA case,Paperboard Box
Accessories : Hexagonal wrench,Certificate of inspection, and Instruction manual

Configuration of stock number

542 - 150 (Size) 2 (Sensitivity) AA (Grade)

2 → 0.02mm/m
5 → 0.05mm/m
1 → 0.1mm/m

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Weight (kg)
05-02-150	542-1502AA	150	0.02	1.3
05-02-200	542-2002AA	200		1.7
05-02-250	542-2502AA	250		2.3
05-02-300	542-3002AA	300		2.8
05-05-150	542-1505AA	150	0.05	1.3
05-05-200	542-2005AA	200		1.7
05-05-250	542-2505AA	250		2.3
05-05-300	542-3005AA	300		2.8
05-10-150	542-1501AA	150	0.1	1.3
05-10-200	542-2001AA	200		1.7
05-10-250	542-2501AA	250		2.3
05-10-300	542-3001AA	300		2.8

■ Dimensional drawing Unit : mm

Stock No.542A

Precision flat level (Grade A)

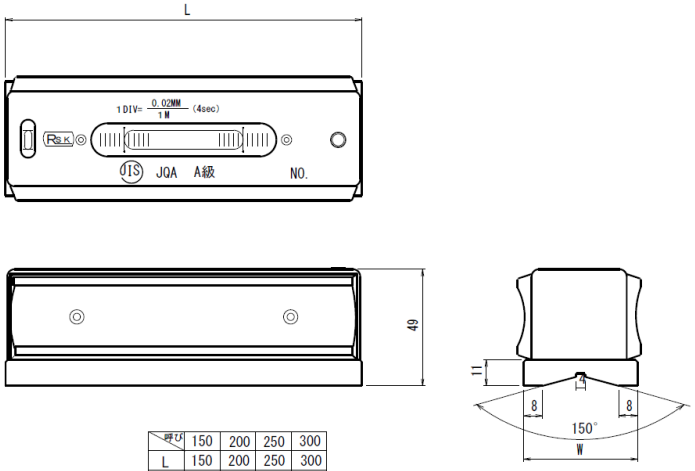
Traceability can be issued.

Measuring Parallelism of Cylindrical Objects	◯
Bubble Length Adjustment	◯

- They are ideal measurement standards for angularity measurements.
- Grade A is the highest accuracy grade among all grades prescribed by JIS.
- These levels can measure the horizontality of cylindrical items.



■ Dimensional drawing Unit : mm



	150	200	250	300
L	150	200	250	300
W	45	48	48	50

Features

- These levels are manufactured and inspected in accordance with JIS B 7510.
- These levels have an "air chamber" to adjust the length of the bubbles. Even if the bubbles are shortened or lengthened due to temperature changes, an inclination can be measured correctly by adjusting the length manually.
- The bottom of these levels (measuring planes) are hardened to increase wear resistance so that they can be used for a long time .

Configuration of stock number

542 - 150 (Size) 2 (Sensitivity) A (Grade)

2 → 0.02mm/m
5 → 0.05mm/m
1 → 0.1mm/m

Material : Steel (base,HRC50)
Package : EVA case,Paperboard Box
Accessories : Hexagonal wrench,
Certificate of inspection, and Instruction manual.

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Weight (kg)
06-02-150	542-1502A	150	0.02	1.3
06-02-200	542-2002A	200		1.7
06-02-250	542-2502A	250		2.3
06-02-300	542-3002A	300		2.8
06-05-150	542-1505A	150	0.05	1.3
06-05-200	542-2005A	200		1.7
06-05-250	542-2505A	250		2.3
06-05-300	542-3005A	300		2.8
06-10-150	542-1501A	150	0.1	1.3
06-10-200	542-2001A	200		1.7
06-10-250	542-2501A	250		2.3
06-10-300	542-3001A	300		2.8

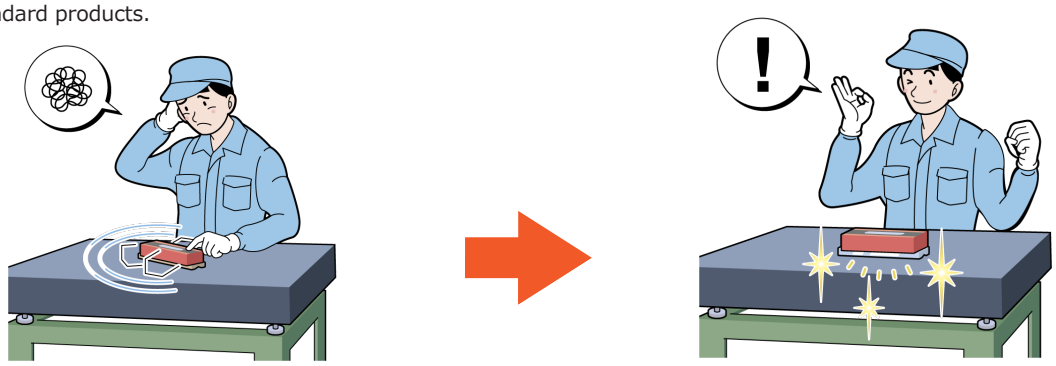
Rustproof spirit level - electroless nickel plating specification -

Most inaccuracies in spirit levels are caused by wear and rust.
Our flat spirit levels use iron as the base material, allowing for surface treatment.
Electroless nickel plating not only improves wear resistance but also allows for processing while maintaining the accuracy after grinding.
This enables us to provide spirit levels that are highly resistant to rust and wear while maintaining high-precision flatness.



*This instrument is not a JIS-compliant product, therefore the JIS mark cannot be affixed.
However, the bubble level accuracy is equivalent to that of JIS standard products.

Product No	Size (mm)	Sensitivity (mm/m)	Flatness (mm)	Weight (kg)
06-020-150	150	0.02	0.005	1.3
06-020-200	200			1.7



We observed the effects of a salt spray test on bases of the same shape.
When comparing cast iron (FC250) and iron (SK-3 + electroless nickel plating), slight corrosion was observed on the electroless nickel plated base after 24 hours, but there was almost no change in flatness compared to before the test.
This suggests that electroless nickel plating can be expected to maintain a long and stable level of flatness.

Three hours after the start of the exam



Cast iron (FC250) | Electroless nickel plating (SK-3)

24 hours after the start of the test



Cast iron (FC250) | Electroless nickel plating (SK-3)

■ Dimensional drawing Unit : mm

Stock No.542B

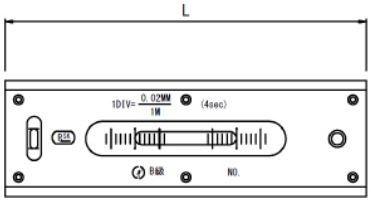
Precision flat level (Grade B)

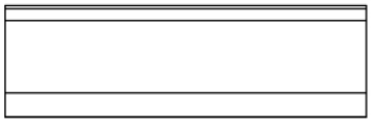
Traceability can be issued.

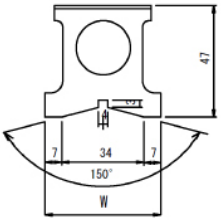
Measuring Parallelism of Cylindrical Objects	◯
Bubble Length Adjustment	×

• These levels can measure the horizontality of cylindrical items.









Size	150	200	250	300
L	150	200	250	300
W	45	48	48	50

Features

• These levels are manufactured and inspected in accordance with JIS B 7510.

* Levels of JIS Grade B do not have an air chamber.

Configuration of stock number

542 - 150 (Size) 2 (Sensitivity) B (Grade)

2 → 0.02mm/m
5 → 0.05mm/m
1 → 0.1mm/m

Material : Cast iron
Package : EVA case,Paperboard Box
Accessories : Hexagonal wrench,Certificate of inspection, and Instruction manual.

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Weight (kg)
07-02-150	542-1502B	150	0.02	1.3
07-02-200	542-2002B	200		1.7
07-02-250	542-2502B	250		2.3
07-02-300	542-3002B	300		2.8
07-05-150	542-1505B	150	0.05	1.3
07-05-200	542-2005B	200		1.7
07-05-250	542-2505B	250		2.3
07-05-300	542-3005B	300		2.8
07-10-150	542-1501B	150	0.1	1.3
07-10-200	542-2001B	200		1.7
07-10-250	542-2501B	250		2.3
07-10-300	542-3001B	300		2.8

■ Dimensional drawing Unit : mm

Stock No.542

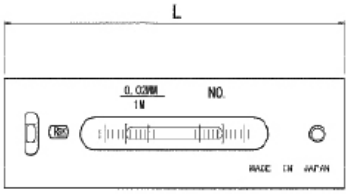
Precision flat level (Standard type)

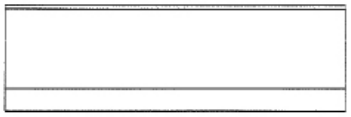
Traceability can be issued.

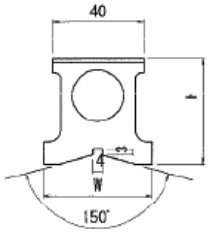
Measuring Parallelism of Cylindrical Objects	×
Bubble Length Adjustment	×

• These are the most general-purpose levels for horizontality adjustment.









Size #号	100	150	200	250	300	450	600
L	100	150	200	250	300	450	600
W	45	48	48	48	50	52	52
H	47	47	47	47	47	50	50

Features

• These levels are manufactured in accordance with our company' s standards.
• A level of a smaller size (100 mm) and bigger size (450mm and 600 mm) than JIS-standard products is also available.
• Full Range Accuracy: ± 2.0 graduations or less

* The accuracy of the V-shaped planes is not guaranteed.

Material : Cast iron
Package : EVA case,Paperboard Box(100 ～ 300mm)
Wooden box(450,600mm)
Accessories : Hexagonal wrench,Certincate of conformity

Configuration of stock number

542 - 150 (Size) 2 (Sensitivity)

2 → 0.02mm/m
5 → 0.05mm/m
1 → 0.1mm/m

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Weight (kg)
08-02-100	542-1002	100	0.02	0.8
08-02-150	542-1502	150		1.3
08-02-200	542-2002	200		1.7
08-02-250	542-2502	250		2.3
08-02-300	542-3002	300		2.8
08-02-450	542-4502	450		4.5
08-02-600	542-6002	600		6.0
08-05-100	542-1005	100	0.05	0.8
08-05-150	542-1505	150		1.3
08-05-200	542-2005	200		1.7
08-05-250	542-2505	250		2.3
08-05-300	542-3005	300		2.8
08-05-450	542-4505	450		4.5
08-05-600	542-6005	600		6.0
08-10-100	542-1001	100	0.1	0.8
08-10-150	542-1501	150		1.3
08-10-200	542-2001	200		1.7
08-10-250	542-2501	250		2.3
08-10-300	542-3001	300		2.8
08-10-450	542-4501	450		4.5
08-10-600	542-6001	600		6.0

■ Dimensional drawing Unit : mm

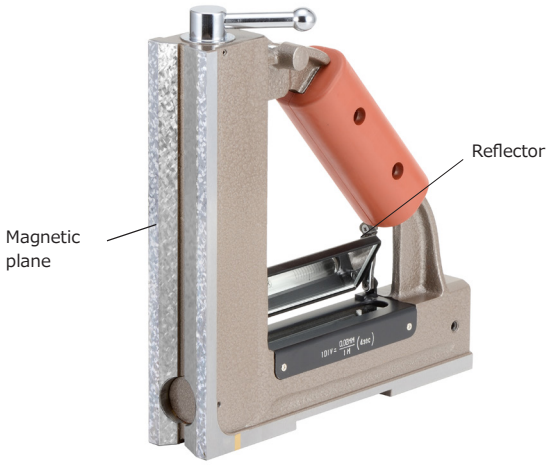
Stock No.583

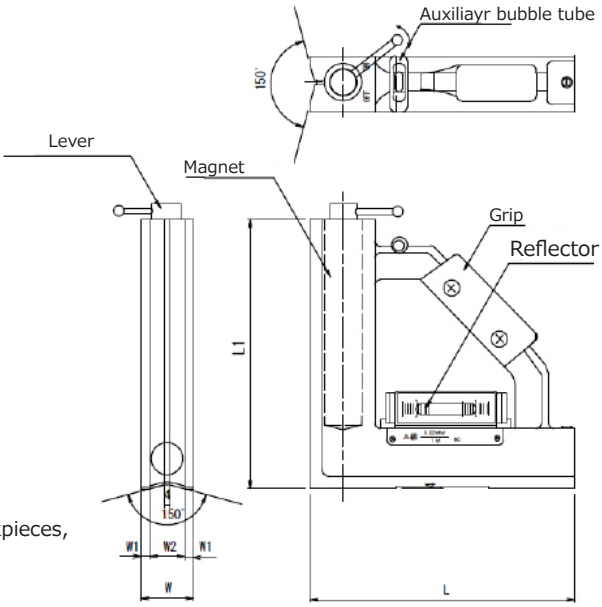
Magnetic square precision level

Traceability can be issued.

Measuring Parallelism of Cylindrical Objects	◯
Bubble Length Adjustment	×

- These levels can measure an inclination of columnar items.
- These levels have accuracy equivalent to JIS Grade A.





Size	L	L 1	W	W1	W2
150	160	153	35	6.5	22
200	200	200	40	6.5	27
250	250	250	41	6.5	28

Features

- The magnetic contact surface securely attaches to cylindrical workpieces, enabling highly accurate perpendicularity measurements.
- The magnetic attachment allows hands-free reading of the bubble tube, ensuring safer operation when taking measurements at elevated locations.
- The bubble position can be easily observed using the built-in mirror.





Material : Cast iron(Bottom) , SS (Magnetic plane)
Package : EVA case,Paperboard Box
Accessories : Hexagonal wrench, Certificate of inspection, and Instruction manual

Configuration of stock number

583 - 150 2

150 → Size

2 → Sensitivity
2 → 0.02mm/m
5 → 0.05mm/m
1 → 0.1mm/m

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Squareness (±μm)	Weight (kg)
09-02-150	583-1502	150	0.02	2.2	2.2
09-02-200	583-2002	200		3.0	3.2
09-02-250	583-2502	250		3.7	4.9
09-05-150	583-1505	150	0.05	3.7	2.2
09-05-200	583-2005	200		5.0	3.2
09-05-250	583-2505	250		6.2	4.9
09-10-150	583-1501	150	0.1	3.7	2.2
09-10-200	583-2001	200		5.0	3.2
09-10-250	583-2501	250		6.2	4.9

* For the smallest model (150 mm), a reflector is not provided.
* This level do not have an air chamber.

■ Dimensional drawing Unit : mm

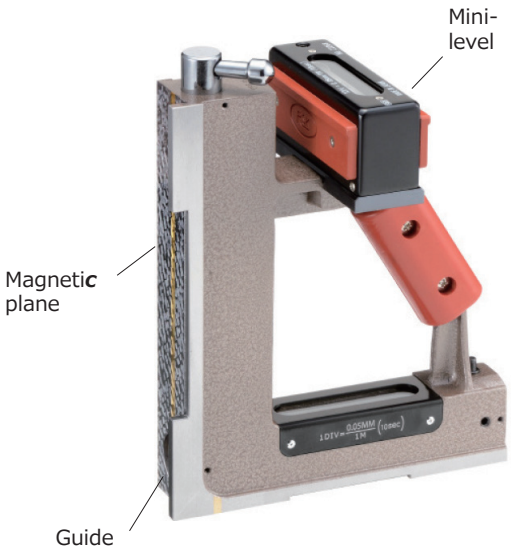
Stock No.583LM

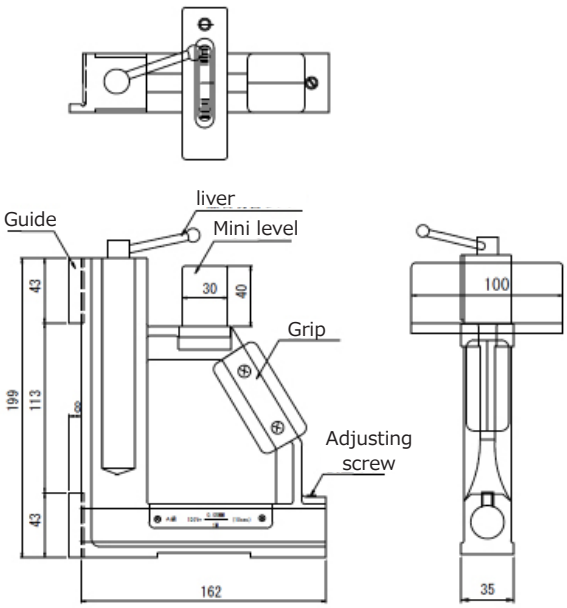
Magnetic square precision level for LM guide

Measuring Parallelism of Cylindrical Objects	×
Bubble Length Adjustment	×

Traceability can be issued.

- These levels can be used to measure the squareness of devices with a linear-motion guideway.
- In the Y-axis direcition, a mini - level that is equivalent to JIS Grade A is mounted to read correctly.
- These levels have accuracy equivalent to JIS Grade A.

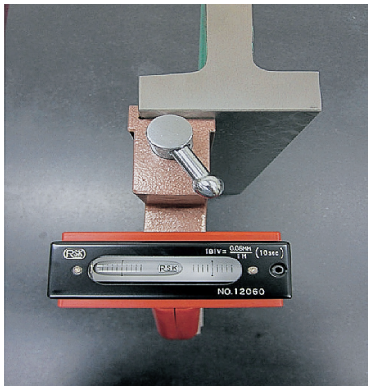


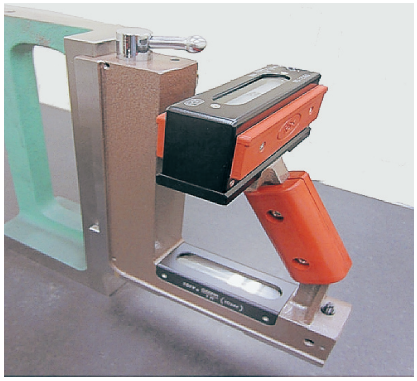


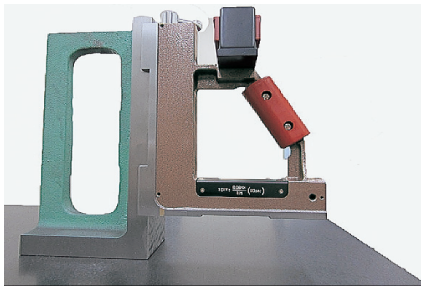
Features

- By applying the guide of the level to the side of a workpiece, the squareness can be measured correctly and easily.
- The magnetic plane is flat and does not have a V-groove to measure the squareness and straightness of devices with a linearmotion guideway.

* This level do not have an air chamber.







Configuration of stock number

583 - 150 5 LM

Sensitivity
5 → 0.05mm/m

Material : Cast iron(Bottom), SS (Magnetic plane)
Package : EVA case,Paperboard Box
Accessories : Hexagonal wrench,Certificate of inspection, and Instruction manual

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Squareness (±μm)	Weight (kg)
090-05-150	583-1505LM	150	0.05	3.7	3.4

■ Dimensional drawing Unit : mm

Stock No.584

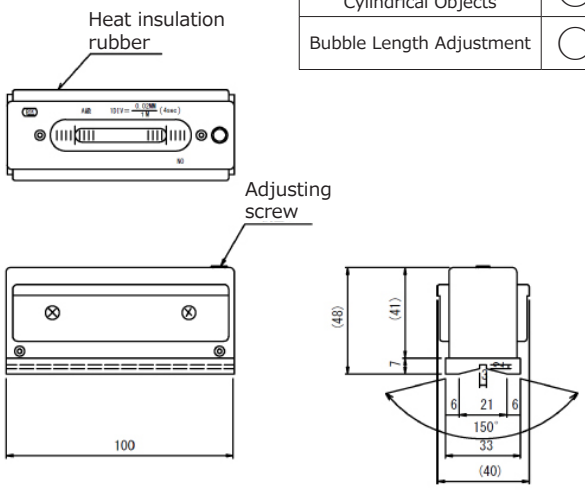
Mini-level

Traceability can be issued.

Measuring Parallelism of Cylindrical Objects	◯
Bubble Length Adjustment	◯

- Despite their small size of 100mm, these levels have accuracy equivalent to JIS Grade A.





Features

- The bubble chamber allows manual adjustment of the bubble length, helping to reduce measurement errors caused by temperature changes.
- The base surface is hardened to HRC 50 for improved wear resistance.

Material : Cast iron(Bottom) ,S50C (Magnetic plane)
Package : EVA case,Paperboard Box
Accessories : Hexagonal wrench, Certificate of inspection, and Instruction manual

Configuration of stock number

10 - 2
Size　Sensitivity
2 → 0.02mm/m
5 → 0.05mm/m

Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Weight (kg)
10-02	584-1002	100	0.02	0.5
10-05	584-1005		0.05	

Stock No.740

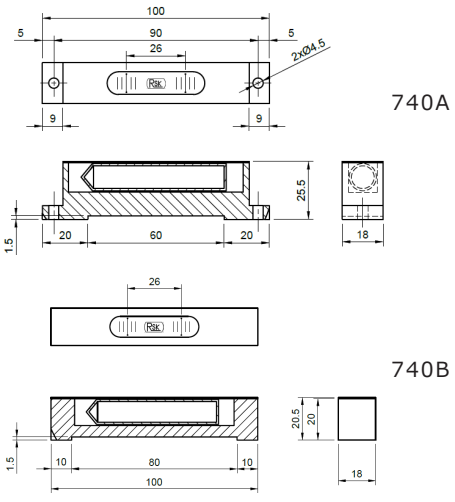
High-level

Measuring Parallelism of Cylindrical Objects	×
Bubble Length Adjustment	×

- These levels do not require centering of the bubbles. Just putting them on a place to measure, and the horizontality can be measured.
- These levels are the smallest of our products.
  They are optimal for measuring horizontality in a narrow space.



740A　740B



Features

- Model 740A has a hole (cp4) in both ends. It can be used with it fixed.
- Models 740A and 740B have accuracy equivalent to the flat-type levels for general works.

Material : Cast iron
Package : Paperboard Box
Accessories : Certificate of conformity

Configuration of stock number

740 A - 05
Size　Sensitivity
2 → 0.02mm/m
5 → 0.05mm/m
10 → 0. 1mm/m

Product No	Stock No	Sensitivity (mm/m)	Weight (kg)
22-740A-05	740A05	0.05	0.19
22-740A-10	740A01	0.1	
22-740B-02	740B02	0.02	0.15
22-740B-05	740B05	0.05	
22-740B-10	740B01	0.1	

■ Dimensional drawing Unit : mm

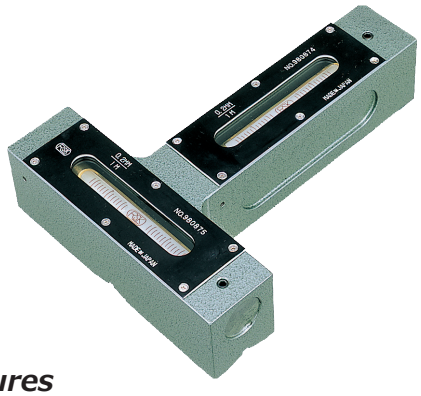
Stock No.600

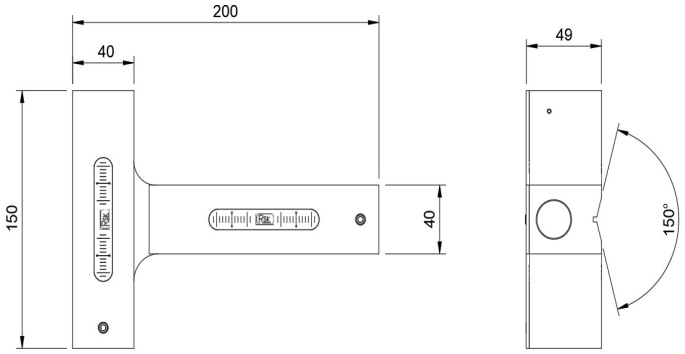
Cross-test precision level(T-type)

Traceability can be issued.

Measuring Parallelism of Cylindrical Objects	×
Bubble Length Adjustment	×

- The horizontality in the X-axis and Y-axis directions can be measured simultaneously only with these levels.





Features

- The horizontality of the X-axis and Y-axis on the same plane can be measured simultaneously.
- The vertical and horizontal bubble tubes have an adjusting screw, respectively, to center the bubbles

Material : Cast iron
Package : EVA case,cardboard box
Accessories : Hexagonal wrench, Certificate of inspection, and Instruction manual

Configuration of stock number

600 20 - 5

Sensitivity
05 → 0.05mm/m
10 → 0. lmm/m
20 → 0.2mm/m

Product No	Stock No	Sensitivity (mm/m)	Weight (kg)
12-05	600-2005	0.05	2.7
12-10	600-2001	0.1	
12-20	600-2002	0.2	

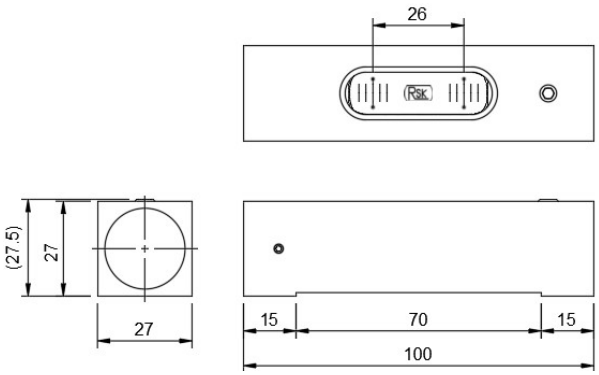
Stock No.252

Portable level

Measuring Parallelism of Cylindrical Objects	×
Bubble Length Adjustment	×

- Small level with emphasis on portability.





Features

- Despite their small size, these levels have an adjusting screw to center the bubbles.
- These levels have accuracy equivalent to the flat-type levels for standard type.

Material : Cast iron
Package :Paperboard Box
Accessories : Certificate of conformity

Configuration of stock number

252 - 02

Sensitivity
02 → 0.02mm/m
05 → 0.05mm/m
10 → 0.lmm/m

Product No	Stock No	Sensitivity (mm/m)	Weight (kg)
15-02	252-02	0.02	0.34
15-05	252-05	0.05	
15-10	252-10	0.1	

■ Dimensional drawing Unit : mm

Stock No.543

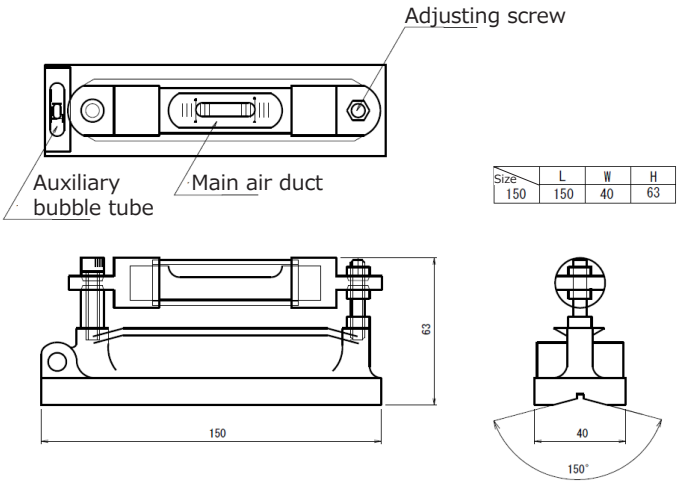
Adjustable bench level

Traceability can be issued.

Measuring Parallelism of Cylindrical Objects	×
Bubble Length Adjustment	×

• The bubble tubes are exposed for ease of reading.





Size	L	W	H
150	150	40	63

Features

• The sensitivity of these levels can be selected from among 0.05 mm/m and 0.1 mm/m.

Material : Cast iron
Package : Wooden box ,Paperboard Box
Accessori es : Certificate of conformity

Configuration of stock number

543 15 - 05

15 → Size

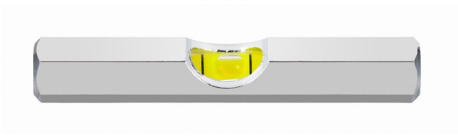
05 → Sensitivity
05 → 0.05mm/m
10 → 0. 1mm/m

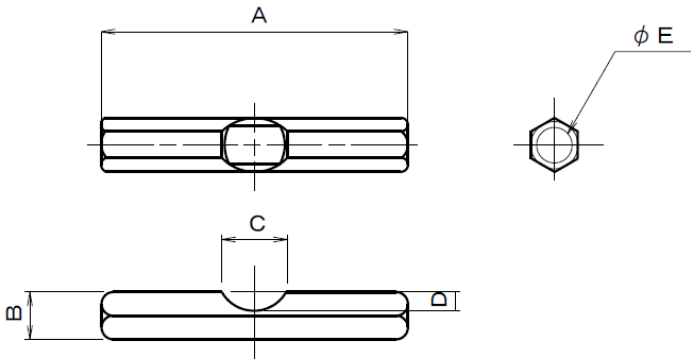
Product No	Stock No	Size (mm)	Sensitivity (mm/m)	Weight (kg)
11-05-150	543-1505	150	0.05	0.9
11-10-150	543-1501		0.1	

■ Dimensional drawing Unit : mm

Stock No.572

Pockt level





Features

• The surfaces of these levels are plated with nickel.

記号 / Size	A	B	C	D	ϕ E
65	65	10	14	4	7. 5

Configuration of stock number

17 - 65
Size

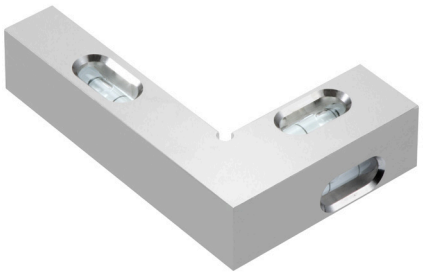
Material : C3604
Package : Paperboard Box

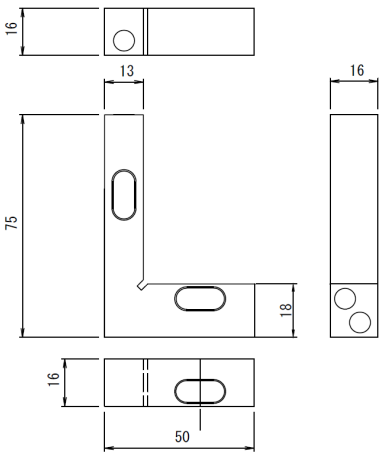
Product No	Stock No	Size (mm)	Weight (kg)
17-65	572-65	65	0.04

Stock No.574

Cross test level with vertical measurement

• A simplified level that is useful to measure the horizontality in the X-axis and Y-axis directions.





Features

• The body is made of steel with an electroless nickel-plated finish
• Both the external and internal right-angle surfaces are precision-ground to ensure accurate measurements.

Material : SS
Package : Paperboard Box

Product No	Stock No	Weight (kg)
19-75	574-75HV	0.18

■ Dimensional drawing Unit : mm

Stock No.576

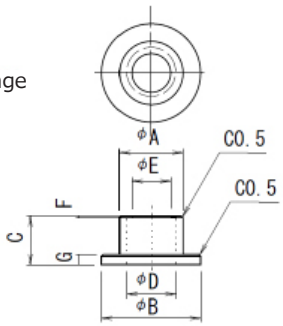
Round level

• Horizontality in all directions can be measured with the bubble under the circular glass.

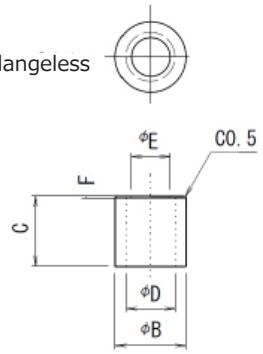




Flange



Flangeless



Size	A	B	C	D	E	F	G
With brim18	18	28	14	14	11	0.5	3
〃 20	20	30	15	14	11	0.5	3
〃 24	24	35	18	17.5	15	0.5	3
〃 25	25	38	18	17.5	15	0.5	3
No brim 20		20	20	14	11	0.5	
〃 24		24	20	17.5	15	0.5	

Features

• Two types of circular levels (flanged and flangeless types) are available.

• By making holes in the flange, the flanged types can be fixed to various devices. (Making holes in the flange is also available by request.)

Configuration of stock number

576 $\frac{18}{\text{Size}}$ - $\frac{1}{\begin{array}{l}1 \rightarrow \text{Frange}\\0 \rightarrow \text{Frangeless}\end{array}}$

Material : C3604
Package : Bubble wrap

Product No	Stock No	Size (mm)	Weight (kg)
21-1-18	576-181	18	0.02
21-1-20	576-201	20	0.03
21-1-24	576-241	24	0.05
21-1-25	576-251	25	0.08
21-2-20	576-200	20	0.04
21-2-24	576-240	24	0.05

■ Dimensional drawing Unit : mm

Stock No.546-1,546-2

Precision square with base (JIS B 7526 standard dimensions)

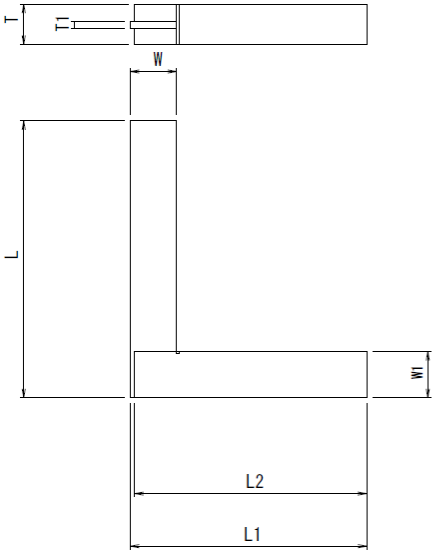
Traceability can be issued.

- It can stand on its own, allowing for stable measurements.
- Grade 1 models are all hardened, while Grade 2 models are made without hardening.

formula Grade1 $\pm\left(10+\frac{\ell}{20}\right)\mu m$ Grade2 $\pm\left(20+\frac{\ell}{10}\right)\mu m$ ℓ = Size



Grade 1 (Hardened)
Grade 2 (Without hardened)



Dimensions list (unit: mm)

	L	L1	L2	W	W1	T	T1
100	100	70	67	20	18	15	2.5
150	150	100	97	24	22	18	3
200	200	130	126	29	26	22	4
250	250	164	160	30	26	22	4
300	300	200	196	35	32	27	4
400	400	204	200	40	40	30	5
450	450	280	276	45	40	30	5
500	500	300	295	46	45	35	5
600	600	325	318	50	55	35	6
750	750	400	393	58	63	50	8
1000	1000	550	540	65	80	65	10

Configuration of stock number

546 0050 - C Q

0050: Size

Q → Grade 1 (Hardened)
2 → Grade 2 (Without hardened)

Product No	Stock No	Size (mm)	Tolerance for deviation from right angles (±μm)	Weight (kg)
23-1-0100	546-0100CQ	※100	15.0	0.18
23-2-0100	546-0100C2		30.0	
23-1-0150	546-0150CQ	※150	17.5	0.4
23-2-0150	546-0150C2		35.0	
23-1-0200	546-0200CQ	※200	20.0	0.74
23-2-0200	546-0200C2		40.0	
23-1-0250	546-0250CQ	250	22.5	1.0
23-2-0250	546-0250C2		45.0	
23-1-0300	546-0300CQ	※300	25.0	1.7
23-2-0300	546-0300C2		50.0	
23-1-0400	546-0400CQ	400	30.0	2.5
23-2-0400	546-0400C2		60.0	
23-1-0450	546-0450CQ	450	32.5	3.2
23-2-0450	546-0450C2		65.0	
23-1-0500	546-0500CQ	※500	35.0	4.6
23-2-0500	546-0500C2		70.0	
23-1-0600	546-0600CQ	600	40.0	6.7
23-2-0600	546-0600C2		80.0	
23-1-0750	546-0750CQ	※750	47.5	12.3
23-2-0750	546-0750C2		95.0	
23-1-1000	546-1000CQ	※1000	60.0	29.6
23-2-1000	546-1000C2		120.0	

* Dimensions indicated with an asterisk are compliant with JIS specifications.
Custom-made squares are also available by special order.

■ Dimensional drawing Unit : mm

Stock No.547-1,No.547-2

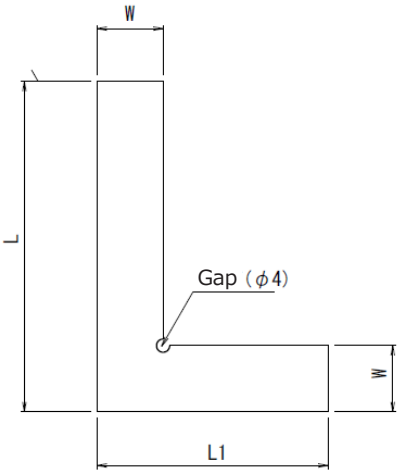
Flat-type square (JIS B 7526 standard dimensions)

Traceability can be issued.

- These squares can be used laid down.
- All Grade-1 models are hardened. Grade-2 models are manufactured without hardening.

formula Grade1 $\pm\left(10+\frac{\ell}{20}\right)\mu m$ Grade2 $\pm\left(20+\frac{\ell}{10}\right)\mu m$ ℓ = Size







Manufacturing dimensions

	L	L1	W	T
100	100	70	20	4
150	150	100	25	5
200	200	130	25	6
250	250	165	30	6
300	300	200	30	6
400	400	200	40	8
450	450	235	40	8
500	500	300	40	8
600	600	300	50	10
750	750	400	50	10
1000	1000	550	60	12

Grade 1 (Hardened)
Grade 2 (Without hardened)

Material : S50C (both Grade 1 and Grade 2)
Package : Grade 1 Paperboard Box(100 ~ 400mm) Wooden box (450mm ~)
Grade 2 Paperboard Box(100 ~ 450mm) Wooden box (500mm ~)

Configuration of stock number

547 0050 - C Q

0050 → Size

Q → Grade 1 (Hardened)
2 → Grade 2 (Without hardened)

Product No	Stock No	Size (mm)	Tolerance for deviation from right angles (±μ m)	Weight (kg)
26-1-0100	547-0100Q	※ 100	15.0	0.08
26-2-0100	547-01002		30.0	
26-1-0150	547-0150Q	※ 150	17.5	0.22
26-2-0150	547-01502		35.0	
26-1-0200	547-0200Q	※ 200	20.0	0.35
26-2-0200	547-02002		40.0	
26-1-0250	547-0250Q	250	22.5	0.54
26-2-0250	547-02502		45.0	
26-1-0300	547-0300Q	※ 300	25.0	0.66
26-2-0300	547-03002		50.0	
26-1-0400	547-0400Q	400	30.0	1.4
26-2-0400	547-04002		60.0	
26-1-0450	547-0450Q	450	32.5	1.62
26-2-0450	547-04502		65.0	
26-1-0500	547-0500Q	※ 500	35.0	1.91
26-2-0500	547-05002		70.0	
26-1-0600	547-0600Q	600	40.0	3.3
26-2-0600	547-06002		80.0	
26-1-0750	547-0750Q	※ 750	47.5	4.3
26-2-0750	547-07502		95.0	
26-1-1000	547-1000Q	※ 1000	60.0	8.4
26-2-1000	547-10002		120.0	

* Dimensions indicated with an asterisk are compliant with JIS specifications.
Custom-made squares are also available by special order.

■ Dimensional drawing Unit : mm

Stock No.548-1,548-2

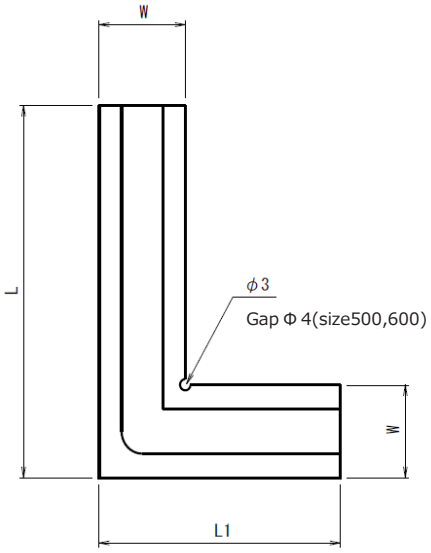
I - type precision square (JIS B 7526 standard dimensions)

Traceability can be issued.

- These squares have the highest accuracy of any squares.
- All models are hardened.
- Use these squares as measurement standards for precision machines and measuring instruments.

formula Grade1 $\pm\left(2+\frac{\ell}{100}\right)\mu m$ Grade2 $\pm\left(5+\frac{\ell}{50}\right)\mu m$ ℓ = Size





Size	L	L1	W	T
100	100	70	25	6
150	150	100	30	8
200	200	130	35	10
250	250	165	40	10
300	300	200	40	15
500	500	300	55	20
600	600	350	60	23

Grade 1 (Hardened)
Grade 2 (Hardened)

Material:S45C(100～200mm), SK-3(250 mm～)
Package :Paperboard Box(100 ～ 300 mm) Wooden box （500 ～)
Accessories: Certificate of inspection, and Instruction manual (Grade 1)

Configuration of stock number

548 0050 1

0050 → Size

1 → Grade 1
2 → Grade 2

Product No	Stock No	Size (mm)	Tolerance for deviation from right angles （±μ m)	Weight (kg)
27-1-100	548-01001	※ 100	3.0	0.25
27-2-100	548-01002		7.0	
27-1-150	548-01501	※ 150	3.5	0.5
27-2-150	548-01502		8.0	
27-1-200	548-02001	※ 200	4.0	1.0
27-2-200	548-02002		9.0	
27-1-250	548-02501	250	4.5	1.5
27-2-250	548-02502		10.0	
27-1-300	548-03001	※ 300	5.0	2.5
27-2-300	548-03002		11.0	
27-1-500	548-05001	※ 500	7.0	5.2
27-2-500	548-05002		15.0	
27-1-600	548-06001	600	8.0	7.5
27-2-600	548-06002		17.0	

* Dimensions indicated with an asterisk are compliant with JIS specifications.
Custom-made squares are also available by special order.

■ Dimensional drawing Unit : mm

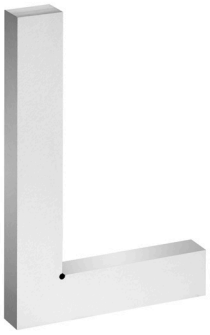
Stock No.549

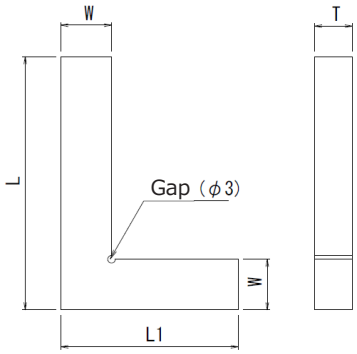
Precision thick type square

Traceability can be issued.

- The solid squares ensure stable measurement.
- All models are hardened.

formula $\pm\left(10+\frac{\ell}{20}\right)\mu m$ ℓ = Size





	L	L1	W	T
100	100	70	20	15
125	125	80	20	15
150	150	100	25	20
200	200	130	30	20
250	250	145	35	25
300	300	170	35	25

Configuration of stock number

549 - 100
Size

Product No	Stock No	Size (mm)	Tolerance for deviation from right angles (±μm)	Weight (kg)
28-100	549-100	100	15.0	0.4
28-125	549-125	125	16.2	0.5
28-150	549-150	150	17.5	0.9
28-200	549-200	200	20.0	1.4
28-250	549-250	250	22.5	2.5
28-300	549-300	300	25.0	3.0

Material :S50C
Package : Paperboard Box

Stock No.550

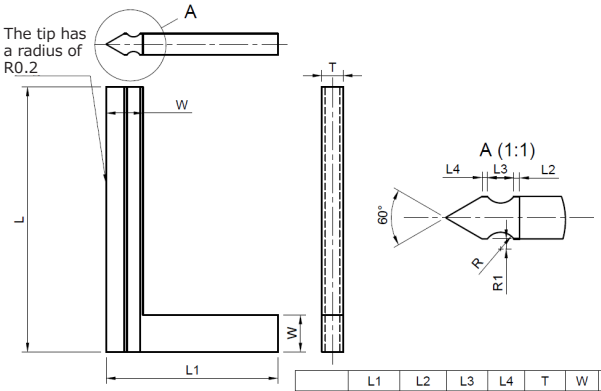
Knife edged standard square (type - 1)

Traceability can be issued.

- The outside edges of these squares are formed into an inverted-V shape. These squares are used to check dimensional errors of workpieces by applying the triangular parts against the workpieces and checking light that passes through gaps between the squares and the workpieces.
- All models are hardened.

formula $\pm\left(2+\frac{\ell}{100}\right)\mu m$ ℓ = Size





	L1	L2	L3	L4	T	W	R	R1
100	100	2.5	6	1.5	12	20	3.2	1.2
150	150	2.8	8	1.5	14	24	5	3
200	200	2.1	10	2	16	28	6	3.7
250	250	3.1	13	2	16	32	19	7.2
300	300	2.7	13	2	20	35	17	5.5

Configuration of stock number

550 - 100
Size

Product No	Stock No	Size (mm)	Tolerance for deviation from right angles (±μm)	Weight (kg)
29-1-100	550-100	100	3.0	0.35
29-1-150	550-150	150	3.5	0.7
29-1-200	550-200	200	4.0	1.2
29-1-250	550-250	250	4.5	2.0
29-1-300	550-300	300	5.0	2.5

Material : S50C
Package : Paperboard box

■ Dimensional drawing Unit : mm

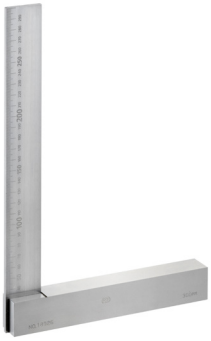
Stock No.569

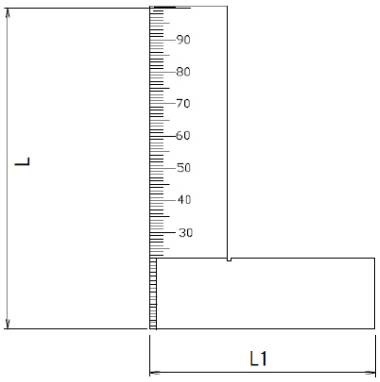
Graduated precision square (type - C)

Traceability can be issued.

• Grade-1 squares with a stand. They are graduated in millimeters.
• All models are without hardened.
*Only one side of the squares is graduated.

formula $\pm\left(10+\frac{\ell}{20}\right)\mu m$ ℓ = Size





Size	L	L1
100	100	70
150	150	100
200	200	130
250	250	165
300	300	200
400	400	200
600	600	300
1000	1000	550

Material : SS
Package : Wooden box

Configuration of stock number

569 0100 C
Size

Product No	Stock No	Size (mm)	Tolerance for deviation from right angles (±μm)	Weight (kg)
31-0100	569-0100C	100	15.0	0.18
31-0150	569-0150C	150	17.5	0.4
31-0200	569-0200C	200	20.0	0.74
31-0250	569-0250C	250	22.5	1.0
31-0300	569-0300C	300	25.0	1.7
31-0400	569-0400C	400	30.0	2.5
31-0600	569-0600C	600	40.0	6.7
31-1000	569-1000C	1000	60.0	29.6

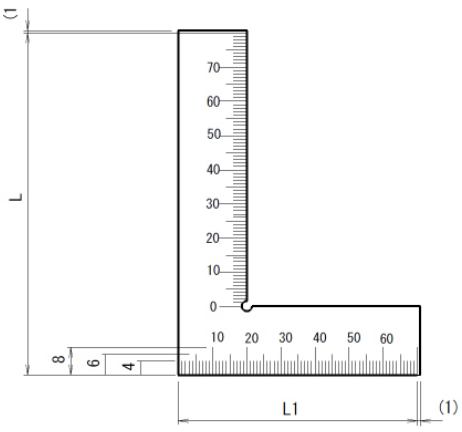
Stock No.570

Graduated precision square (type - E)

Traceability can be issued.

• Grade-1 flat-type squares graduated in millimeters.
• All models are without hardened.
*Only one side of the squares is graduated.

formula $\pm\left(10+\frac{\ell}{20}\right)\mu m$ ℓ = Size



Size	L	L1
100	100	70
150	150	100
200	200	130
250	250	165
300	300	200
400	400	200
500	500	300
600	600	300
750	750	450
1000	1000	550

Material : S50C
Package : Paperboard Box(100 ~ 400)
Wooden Box(500 ~ 1000)

Configuration of stock number

570 0100 E
Size

Product No	Stock No	Size (mm)	Tolerance for deviation from right angles (±μm)	Weight (kg)
32-0100	570-0100E	100	15.0	0.08
32-0150	570-0150E	150	17.5	0.22
32-0200	570-0200E	200	20.0	0.35
32-0250	570-0250E	250	22.5	0.54
32-0300	570-0300E	300	25.0	0.66
32-0400	570-0400E	400	30.0	1.4
32-0500	570-0500E	500	35.0	1.91
32-0600	570-0600E	600	40.0	3.3
32-0750	570-0750E	750	47.5	4.3
32-1000	570-1000E	1000	60.0	8.4

■ Dimensional drawing Unit : mm

Stock No.551

Cylindrical square

Traceability can be issued.

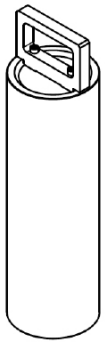
- These squares have the highest angularity of any squares.
- These squares are provided with a grip to prevent any effect from body heat when they are used.
- All models are hardened.

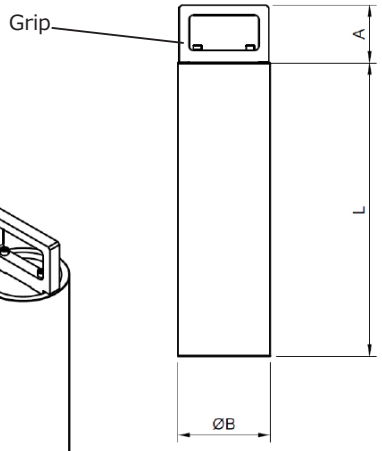
formula $\pm\left(2+\frac{\ell}{200}\right)\mu m$ ℓ = Size





Cylindrical Square 100 only
The handle shape is as shown above.





Size(L)	φ B	A
100	60	40
150	70	50
200	80	60
250	90	75
300	100	71
350	110	72
400	120	72
500	130	87
600	160	89

Configuration of stock number

551 0100 Q

Size

Material : S45C
Package : Reinforced cardboard case
Accessories:Certificate of inspection

Product No	Stock No	Size (mm)	Squareness (μ m)	Weight (kg)
35-0100	551-0100Q	100	2.5	2.5
35-0150	551-0150Q	150	2.7	4.9
35-0200	551-0200Q	200	3.0	8.3
35-0250	551-0250Q	250	3.3	13
35-0300	551-0300Q	300	3.5	17
35-0350	551-0350Q	350	3.8	19.4
35-0400	551-0400Q	400	4.0	21
35-0500	551-0500Q	500	4.5	30.5
35-0600	551-0600Q	600	5.0	48

■ Dimensional drawing Unit : mm

■ *About the accuracy of square*

ℓ = Size

High accuracy



Type	Grade	Squareness calculation formula
Cylindrical square	—	± (2 + ℓ /200) μm
Knife edged standard square	—	± (2 + ℓ /100) μm
I- type square	1	
I- type square	2	± (5 + ℓ /50) μm
Flat type square	1	± (10+ ℓ /20) μm
Precision square with base		
Graduated precision square (type - C)	—	
Graduated precision square (type - E)		
Precision thick type square		
Flat type square	2	± (20+ ℓ /10) μm
Precision square with base		

■ Dimensional drawing Unit : mm

Stock No.553

I - beam type straight edge

Traceability can be issued.

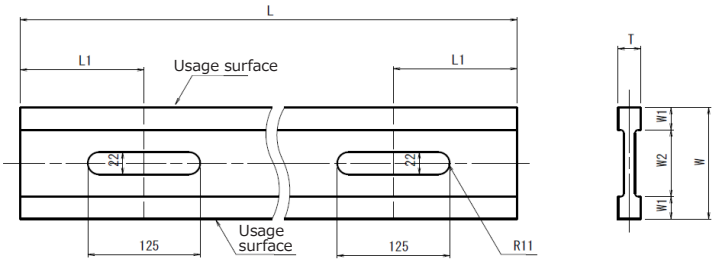
- These straightedges can be used for measurements of flatness, parallelism, and straightness.
- Two types (Hardened,Without hardening) are available.

*This product is only available in "Grade A" only.

formula $\pm\left(2+\frac{\ell}{100}\right)\mu m$ ℓ = Size



* For models of size 1500 mm or more, slots are made in the main bodies to hold them easily.



Size	L	W	T	T1	W1	W2	L1
500	500	50	10	6	10	30	——
750	750	50	10	6	10	30	——
1000	1000	60	12	8	12	36	——
1500	1500	70	15	8	12	46	335
2000	2000	90	18	10	16	58	446

Material : S50C
Package : Cardboard Box(500 ～ 1000)
Wooden Box(1500 ～)
Accessories : Certificate of inspection, and Instruction manual

Configuration of stock number

553 05000 Q

05000 → Size

Q → Hardened
A → Without hardening

Product No	Stock No	Size (mm)	Straightness (μ m)	Weight (kg)
36-1-0500	553-0500Q	500	7.0	1.5
36-2-0500	553-0500A			
36-1-0750	553-0750Q	750	9 .5	3.2
36-2-0750	553-0750A			
36-1-1000	553-1000Q	1000	12.0	5.0
36-2-1000	553-1000A			
36-1-1500	553-1500Q	1500	17.0	8.5
36-2-1500	553-1500A			
36-1-2000	553-2000Q	2000	22.0	18.5
36-2-2000	553-2000A			

■ Dimensional drawing Unit : mm

Stock No.554A,554B

Wide type straight edge

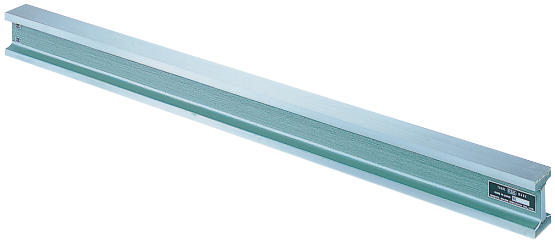
Traceability can be issued.

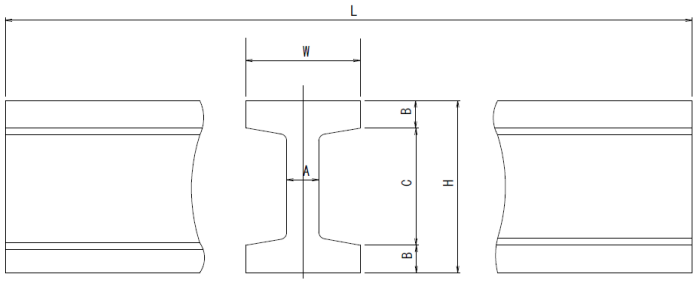
- These straightedges have end panels 50 mm in width.
- By putting a level on them, the horizontality between two points can be measured.
- Two accuracy grades (Grades A and B) are available.
- Two types (Hardened,Without hardening) are available.

ℓ = Size

Straightness formula JIS A class $\pm\left(2+\frac{\ell}{250}\right)\mu m$

Straightness formula JIS B class $\pm\left(4+\frac{\ell}{50}\right)\mu m$





* For models of size 1500 mm or more, slots are made in the main bodies to hold them easily.

	L	H	W	A	B	C
1000	1000	75	50	14	12	51
1500	1500	90				66
2000	2000	120		15	13	94

Material : S50C
Package : Cardboard Box(1000)
Wooden Box(1500 ～)
Accessories : Certincate of inspection, and Instruction manual

Configuration of stock number

554 - 1000 (Size) A (A → Grade A, B → Grade B) Q (Q → Hardened)

Product No	Stock No	Size (mm)	squareness (μ m)	Weight (kg)
37-1-1000	554-1000AQ	1000	6.0	16
37-2-1000	554-1000A			
37-3-1000	554-1000BQ		24.0	
37-4-1000	554-1000B			
37-1-1500	554-1500AQ	1500	8.0	26
37-2-1500	554-1500A			
37-3-1500	554-1500BQ		34.0	
37-4-1500	554-1500B			
37-1-2000	554-2000AQ	2000	10.0	43
37-2-2000	554-2000A			
37-3-2000	554-2000BQ		44.0	
37-4-2000	554-2000B			

■ Dimensional drawing Unit : mm

Stock No.594

Precision staright edge (type - I)

Traceability can be issued.

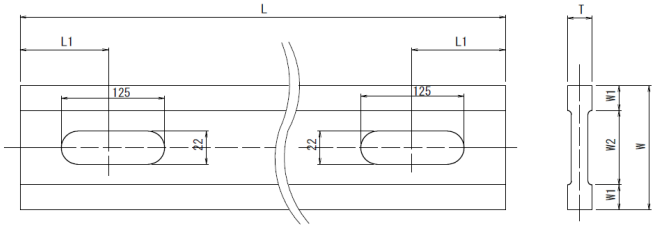
- These straightedges can be used for measurements of flatness, parallelism, and straightness.
- Two types (Hardened,Without hardening) are available.
- Two accuracy grades (Grades A and B) are available.

Straightness formula ℓ = effective length

A class $\left(2 + \frac{\ell}{250}\right)\mu m$ B class $\left(4 + \frac{\ell}{50}\right)\mu m$

(Reference) Special grade $\left(1 + \frac{\ell}{500}\right)\mu m$





Size	L	W	T	T1	W1	W2	L1
300	340	50	10	6	10	30	—
500	540	50	10	6	10	30	—
1000	1040	60	12	8	12	36	—
1500	1540	70	15	8	12	46	335
2000	2040	90	20	10	16	58	446

- The actual length of these straightedges is the effective length plus 40 mm. When using them, take a 20-mm margin on both sides into consideration.
- A special grade with accuracy better than Grade A is also available by request.

* Exclude the 20-mm margin on both sides from the measured values.

* For models of size 1500 mm or more, slots are made in the main bodies to hold them easily.

Material : SKS3
Package : Cardboard Box(300 ~ 1500)
Wooden box(2000)
Accessories : Certincate of inspection, and Instruction manual

Configuration of stock number

594 - 0300 A Q

- 0300 → Size
- A → Grade A, B → Grade B
- Q → Hardened

Product No	Stock No	Size (mm)	squareness (μ m)	Weight (kg)
38-1-0300	594-0300AQ	300	3.2	1.3
38-2-0300	594-0300A			
38-3-0300	594-0300BQ		10.0	
38-4-0300	594-0300B			
38-1-0500	594-0500AQ	500	4.0	2.1
38-2-0500	594-0500A			
38-3-0500	594-0500BQ		14.0	
38-4-0500	594-0500B			
38-1-1000	594-1000AQ	1000	6.0	5.8
38-2-1000	594-1000A			
38-3-1000	594-1000BQ		24.0	
38-4-1000	594-1000B			
38-1-1500	594-1500AQ	1500	8.0	12.6
38-2-1500	594-1500A			
38-3-1500	594-1500BQ		34.0	
38-4-1500	594-1500B			
38-1-2000	594-2000AQ	2000	10.0	28.8
38-2-2000	594-2000A			
38-3-2000	594-2000BQ		44.0	
38-4-2000	594-2000B			

■ Dimensional drawing Unit : mm

Stock No.595

Rectangular shape straight edge

Traceability can be issued.

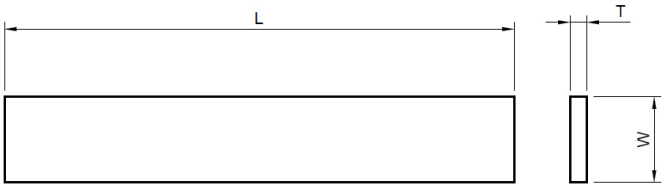
- These straightedges can be used for measurements of flatness, parallelism, and straightness.
- Two types (Hardened, Without hardening) are available.
- Two accuracy grades (Grades A and B) are available.

Straightness formula ℓ = effective length

A class $\left(2 + \frac{\ell}{250}\right)\mu m$ B class $\left(4 + \frac{\ell}{50}\right)\mu m$

(Reference) Special grade $\left(1 + \frac{\ell}{500}\right)\mu m$





- The actual length of these straightedges is the effective length plus 40 mm. When using them, take a 20-mm margin on both sides into consideration.
- A special grade with accuracy better than Grade A is also available by request.

* Exclude the 20-mm margin on both sides from the measured values.

size	L	W	T
300	340	50	10
500	540	50	10
1000	1040	60	12
1500	1540	70	15
2000	2040	90	20

Material : SKS3
Package : Cardboard Box(300 ～ 1500)
Wooden box(2000)
Accessories : Certificate of inspection, and Instruction manuali

Configuration of stock number

595 - 0300 A Q

- 0300 → Size
- A → Grade A, B → Grade B
- Q → Hardened

Product No	Stock No	Size (mm)	squareness (μ m)	Weight (kg)
39-1-0300	595-0300AQ	300	3.2	1.3
39-2-0300	595-0300A			
39-3-0300	595-0300BQ		10.0	
39-4-0300	595-0300B			
39-1-0500	595-0500AQ	500	4.0	2.1
39-2-0500	595-0500A			
39-3-0500	595-0500BQ		14.0	
39-4-0500	595-0500B			
39-1-1000	595-1000AQ	1000	6.0	5.8
39-2-1000	595-1000A			
39-3-1000	595-1000BQ		24.0	
39-4-1000	595-1000B			
39-1-1500	595-1500AQ	1500	8.0	12.6
39-2-1500	595-1500A			
39-3-1500	595-1500BQ		34.0	
39-4-1500	595-1500B			
39-1-2000	595-2000AQ	2000	10.0	28.8
39-2-2000	595-2000A			
39-3-2000	595-2000BQ		44.0	
39-4-2000	595-2000B			

■ Dimensional drawing Unit : mm

Stock No.555

Normal-form straightedge

Traceability can be issued.

- These Straightedges are optimal for scribing.
- Two types (Hardened, Without hardening) are available.
- The accuracy of one side is guaranteed.(Side A)

ℓ = Size

Straightness formula $\left(10 + \frac{\ell}{50}\right)\mu m$



Material : S50C(hardened) SS400(unhardened)
Package : Paperboard Box (150～1000 mm)
Wooden box(1500mm～)

Configuration of stock number

555 0150 Q

0150 → Size

Q → Hardened

Blank → Without hardening

Product No	Stock No	length (mm)	Width (mm)	thickness (mm)	squareness (μm)	weight (kg)
41-1-0150	555-0150Q	150	25	3	13.0	0.08
41-2-0150	555-0150					
41-1-0200	555-0200Q	200	25	3	14.0	0.11
41-2-0200	555-0200					
41-1-0250	555-0250Q	250	30	4	15.0	0.3
41-2-0250	555-0250					
41-1-0300	555-0300Q	300	35	5	16.0	0.4
41-2-0300	555-0300					
41-1-0450	555-0450Q	450	40	5	19.0	0.7
41-2-0450	555-0450					
41-1-0500	555-0500Q	500	40	5	20.0	0.8
41-2-0500	555-0500					
41-1-0600	555-0600Q	600	40	5	22.0	0.9
41-2-0600	555-0600					
41-1-0750	555-0750Q	750	50	6	25.0	1.7
41-2-0750	555-0750					
41-1-1000	555-1000Q	1,000	50	6	30.0	2.6
41-2-1000	555-1000					
41-1-1500	555-1500Q	1,500	75	6	40.0	5.8
41-2-1500	555-1500					
41-1-2000	555-2000Q	2,000	90	9	50.0	11.0
41-2-2000	555-2000					

■ Dimensional drawing Unit : mm

Stock No.556

Steel straight edge normal form

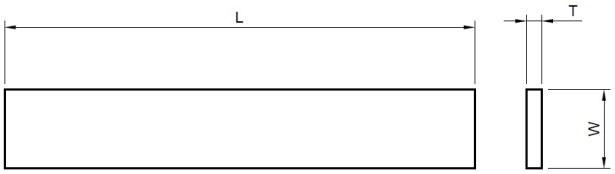
Traceability can be issued.

- These straightedges can be used for measurements of flatness.
- Two types (Hardened,Without hardening) are available.

ℓ = Size

Straightness formula $\left(2 + \frac{\ell}{100}\right)\mu m$





Size	L	W	T
500	500	50	10
750	750	50	10
1000	1000	60	12
1500	1500	70	15
2000	2000	90	18

Material : S50C
Package : Cardboard Box(150 ～ 1500)
Wooden box(2000)
Accesories : Certificate of inspection,
and Instruction manual

Product No	Stock No	Size (mm)	squareness (μ m)	Weight (kg)
42-1-0500	556-0500Q	500	7.0	2.0
42-2-0500	556-0500			
42-1-0750	556-0750Q	750	9.5	2.9
42-2-0750	556-0750			
42-1-1000	556-1000Q	1000	12.0	5.7
42-2-1000	556-1000			
42-1-1500	556-1500Q	1500	17.0	12.4
42-2-1500	556-1500			
42-1-2000	556-2000Q	2000	22.0	22.6
42-2-2000	556-2000			

Configuration of stock number

556 0500 Q

0500 → Size

Q → Hardened

A → Without hardening

Stock No.578

Triangle straight edge for inspection

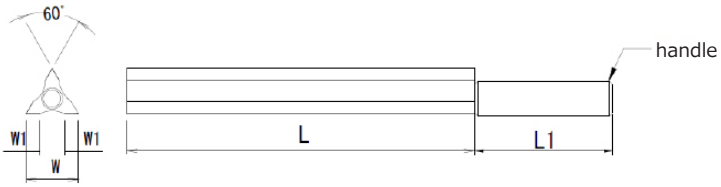
Traceability can be issued.

- • Each edge has high straightness.
- The grips of these straight edges are made of nonconductive material to prevent any effect from body heat.
- All models are hardened.

ℓ = Size

Straightness formula $\left(1 + \frac{\ell}{250}\right)\mu m$





呼び	L	L1	W	W1
100	100	25	15	4
150	150	30	18	4
200	200	30	20	5
300	300	35	25	6

Configuration of stock number

578 050

050 → Size

Material : S50C
Package : Cardboard Box

Product No	Stock No	Size (mm)	squareness (μ m)	Weight (kg)
45-100	578-100	100	1.4	0.09
45-150	578-150	150	1.6	0.19
45-200	578-200	200	1.8	0.29
45-300	578-300	300	2.2	0.56

■ Dimensional drawing Unit : mm

Stock No.552

Knife type straight edge

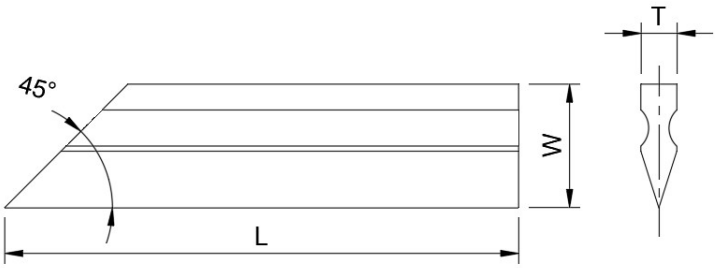
Traceability can be issued.

- The edges of these straightedges are knife-edged.
- These straightedges can be applied to a workpiece straightly, so the straightness and flatness of the workpiece
- can be measured correctly.
- By lighting up workpieces, they can be measured more accurately.
- All models are hardened.

ℓ = Size

Straightness formula $\left(1 + \frac{\ell}{250}\right)\mu m$





Size	L	W	T
100	100	24	7
125	125	25	7
150	150	25	7
200	200	30	8
250	250	30	8
300	300	32	9
400	400	35	9
500	500	40	10
600	600	40	10

Material : S50C
Package : Cardboard Box

Configuration of stock number

552 100

Size

Product No	Stock No	Size (mm)	squareness (μ m)	Weight (kg)
46-100	552-100	100	1.4	0.16
46-125	552-125	125	1.5	0.19
46-150	552-150	150	1.6	0.24
46-200	552-200	200	1.8	0.4
46-250	552-250	250	2.0	0.45
46-300	552-300	300	2.2	0.65
46-400	552-400	400	2.6	0.9
46-500	552-500	500	3.0	1.5
46-600	552-600	600	3.4	1.8

■ Dimensional drawing Unit : mm

■ *About the accuracy of straight edge*

ℓ = Size

High accuracy

Type	Grade	Straightness calculation formula
Triangle type inspection straight edge	—	(1 + ℓ /250) μm
Knife type straight edge		
Precision straight edge (type - I)	A	(2 + ℓ /250) μm
Rectangular sharp straight edge		
Wide rype highest grade straight edge		
I - beam type highest grade straight edge	A	(2 + ℓ /100) μm
Standard steel straight edge -	—	
Precision straight edge (type - I)	B	(4 + ℓ / 50) μm
Rectangular sharp straight edge		
Wide rype highest grade straight edge		
Steel straight edge normal form		(10+ ℓ / 50) μm

Straightness measurement method and deformation caused by weight of the straightedge

When a straightedge is placed on a plane as shown in Fig. (1), it deforms under its own weight, causing its surface to become slightly curved. With this method, the straightness of the plane cannot be measured correctly. To measure the straightness correctly, the measurement method shown in Fig. (2) is optimal.

Fig (1)

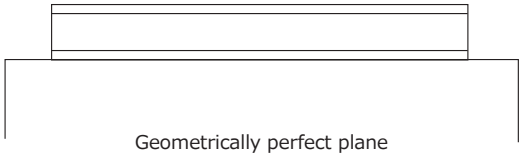
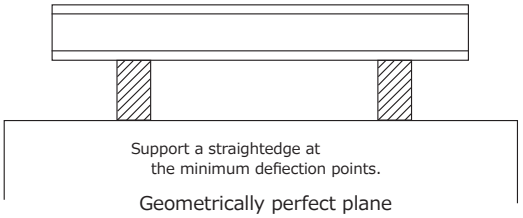


Fig (2)



■ Dimensional drawing Unit : mm

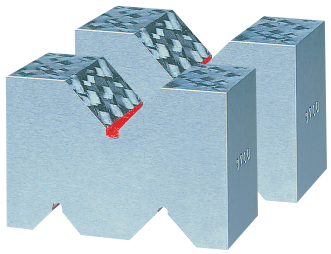
Stock No.557

Cast iron precision V-blocks

Traceability can be issued.

- These blocks are optimal for accurate scribing and can be used as a measurement jig. Two-piece set.
- Standard and special grades are available depending on accuracy.

Type - A Stock No.557A



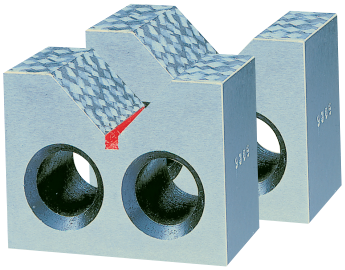
Product No	Stock No	Size (mm)	L (mm)	H (mm)	T (mm)	Weight (kg)
47-1-050	---	50	50	24	19	0.2
47-2-050	557-050A					
47-1-075	---	75	75	35	24	0.6
47-2-075	557-075A					
47-1-100	---	100	100	52	33	2.0
47-2-100	557-100A					
47-1-125	---	125	125	69	44	4.5
47-2-125	557-125A					
47-1-150	---	150	150	80	50	7.0
47-2-150	557-150A					
47-1-200	---	200	200	110	70	18.0
47-2-200	557-200A					

Type - A

Material : Cast iron
Package : Dedicated storage box

	Parallelism between bottom and V-plane(μm)	Parallelism and squareness of each plane(±μm)
GradeA	5	5
Standard	10	10

Type - B Stock No.557B



Product No	Stock No	Size	L (mm)	H (mm)	T (mm)	Weight (kg)
47-3-050	---	50	50	32	24	0.4
47-4-050	557-050B					
47-3-075	---	75	75	60	32	1.5
47-4-075	557-075B					
47-3-100	---	100	100	67	41	2.5
47-4-100	557-100B					
47-3-125	---	125	125	79	51	3.4
47-4-125	557-125B					
47-3-150	---	150	150	89	63	8.1
47-4-150	557-150B					
47-3-200	---	200	200	140	102	22.2
47-4-200	557-200B					

Type - B

Material : Cast iron
Package : Dedicated storage box

	Parallelism between bottom and V-plane(μm)	Parallelism and squareness of each plane(±μm)
GradeA	5	5
Standard	10	10

Configuration of stock number

557 - 050 - A A

050: Size
A: Type
A: Grade

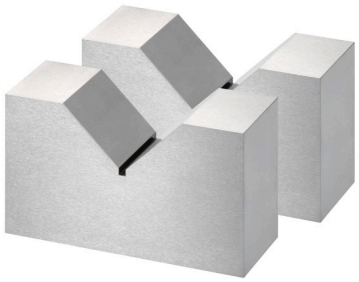
■ Dimensional drawing Unit : mm

Stock No.558

Precision steel V-blocks

Traceability can be issued.

- Compared with cast iron models, these products offer better dimensional stability, making them suitable for high-precision measurements.
- Supplied as a set of two pieces. All sizes are hardened.
- Available in two accuracy grades: AA Grade and A Grade.



Material : S50C
Package : Dedicated storage box

	Parallelism between bottom and V-plane(μm)	Parallelism and squareness of each plane(±μm)
Grade AA	3	3
Grade A	5	5

Product No	Stock No	Size	L (mm)	H (mm)	T (mm)	Weight (kg)
48-1-038	---	38	38	24	19	0.3
48-2-038	558-038Q					
48-1-050	---	50	50	28	22	0.5
48-2-050	558-050Q					
48-1-065	---	65	65	40	25	1.0
48-2-065	558-065Q					
48-1-075	---	75	75	50	35	1.9
48-2-075	558-075Q					
48-1-100	---	100	100	60	38	3.3
48-2-100	558-100Q					
48-1-125	---	125	125	70	45	6.0
48-2-125	558-125Q					
48-1-150	---	150	150	90	60	11.9
48-2-150	558-150Q					

Configuration of stock number

558 038 AQ

038 → Size

AQ → Grade AA
A → Grade A

■ Dimensional drawing Unit : mm

Stock No.561

PH-3

• These comparators are optimal for comparative measurements of the thickness of outer shapes.
• The base material can be selected from among cast iron and granite.
*Dial indicator is not included.

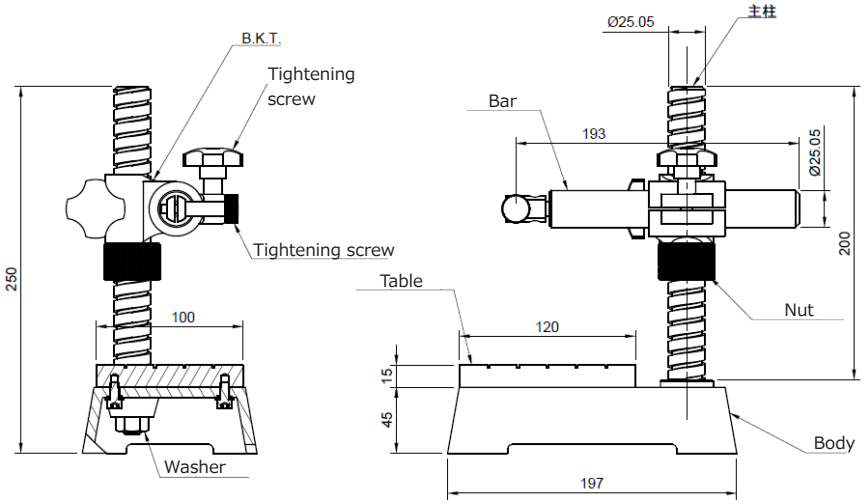


Cast iron type

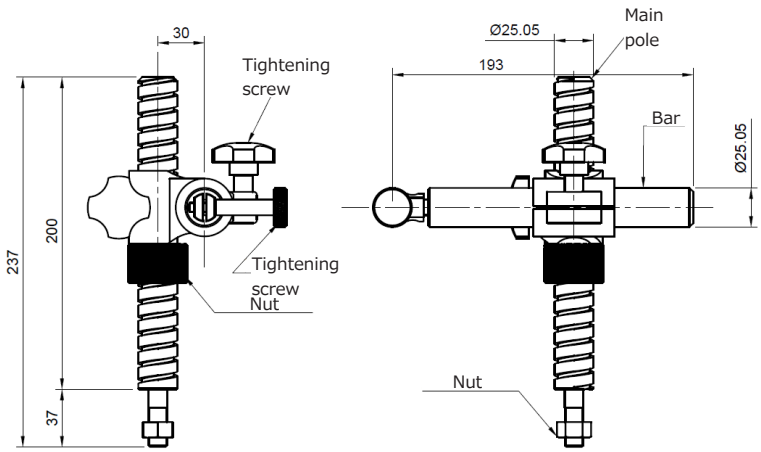


Granite type

■ PH-3 Dimensional drawing Unit: mm



■ PH-3(G) Upper fitting set dimensions diagram



We also accept orders for the upper fittings set separately.
Product Code: 561-PH3-2

Configuration of stock number

561 PH3

Blank → Cast iron
G → Gtanaite

Material : PH-3 Cast iron(Body, B.K.T.), S50C (Table)
PH-3G Granite(Body),Cast iron(B.K.T.)
Package : Cardboard Box

Product No	Stock No	Model	Bed size (mm)	Table size (mm)	Main post (mm)	Bar(mm)	Flatness (μ m)	Weight (kg)
53-1-3	561-PH3	PH-3	200 × 120	120 × 100	φ 25 × 200	φ 25 × 200	5.0	6
53-2-3	561-PH3G	PH-3G	210 × 110					4.6

■ Dimensional drawing Unit : mm

Stock No.610

Dial stand

- These dial stands are optimal for comparative measurements of workpiece thickness.
- The brackets of RS-2 and RS-3 have an inching mechanism.
- They are useful for measurements requiring fine adjustments.

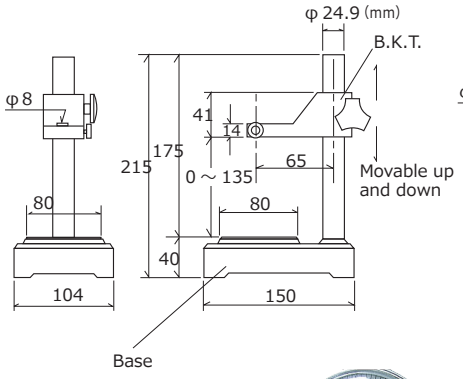
*Dial indicator is not included.

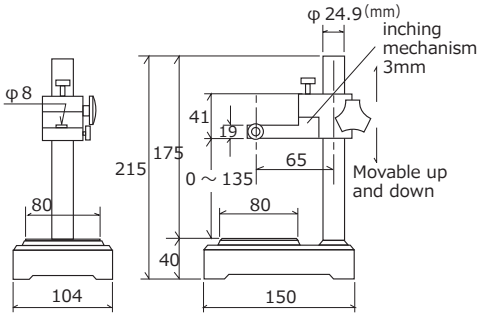


RS-1
(popular type)

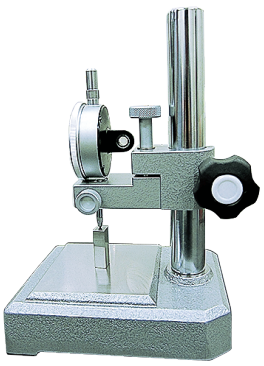


RS-2
(With fine adjustment mechanism)









Material : Cast iron (Base, B.K.T.)
Package : Dedicated storage box

Configuration of stock number

610 RS 1

1 → RS-1
2 → RS-2

Product No	Stock No	Model	Base size (mm)	Measurable range(mm)	Fine movement range (mm)	Weight (kg)
54-1	610-RS1	RS-1	80 × 80	0 ～ 135	---	3.4
54-2	610-RS2	RS-2			3	

■ Dimensional drawing Unit : mm

Stock No.562

Bench center standard model

Traceability can be issued.

• These checkers are optimal for measurements of eccentricity and circularity of shafts and crankpins.

*A dedicated stand is attached to all models. the dial indicator and a test bar are not attached.

* Custom-made eccentricity checkers are also available by special order to suit your dimensional requirements.

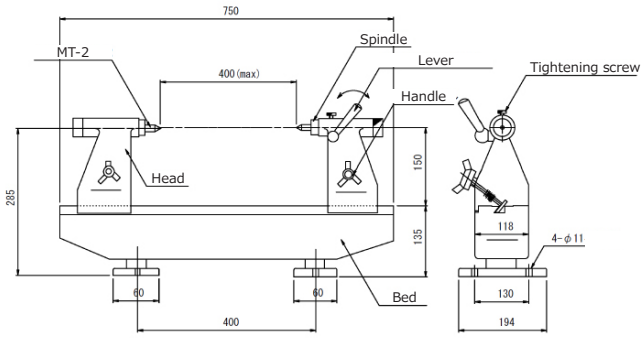




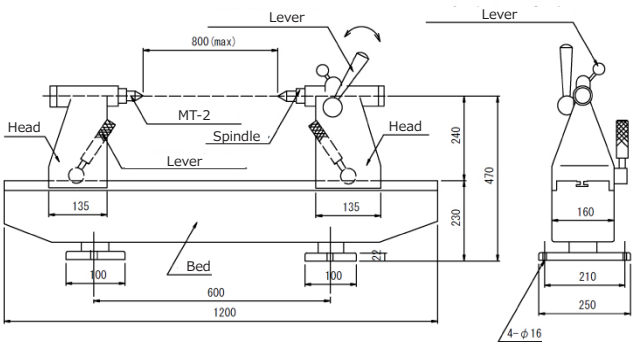
Packing type (NO-1)

■ Dimensional drawing (approximate) Unit: mm

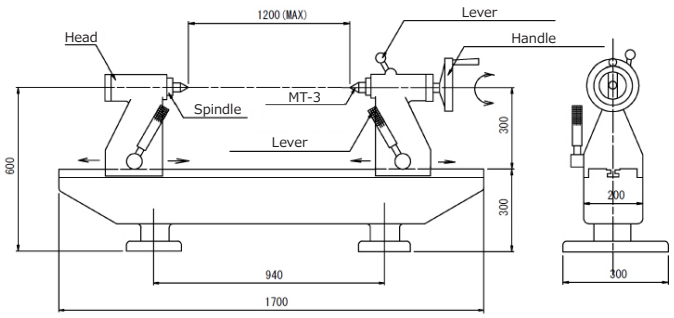
NO-1



NO-2



NO-3



Material : Cast iron (Bed, Head)
Package : Reinforced cardboard
Accessories: Certificate of inspection

Configuration of stock number

562 1

1 → NO-1
2 → NO-2
3 → NO-3

Product No	Stock No	Model	Center distance (mm)	Swing (mm)	Parallelism betwee ncenter (μm)	Applicable center	Weight (kg)
55-1-1	562-1	NO-1	400	150	5.0	MT-2	42
55-1-2	562-2	NO-2	800	240	8.0	MT-2	120
55-1-3	562-3	NO-3	1200	300	10.0	MT-3	250

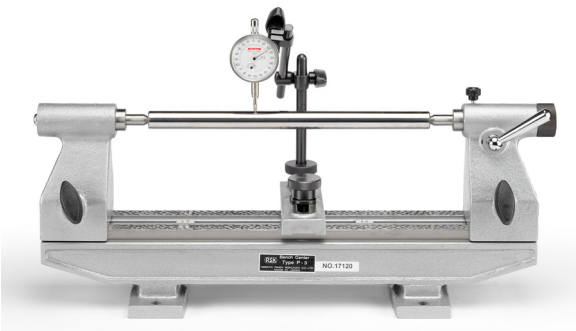
■ Dimensional drawing Unit : mm

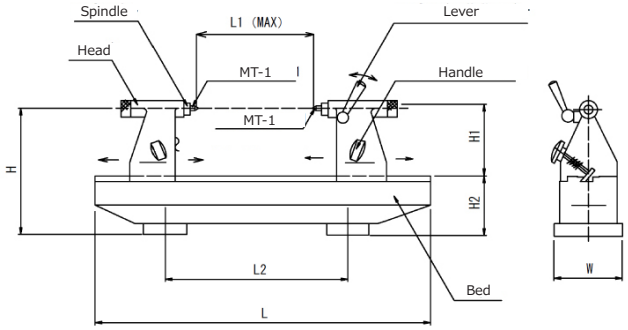
Stock No.563

Bench center (type-P)

Traceability can be issued.

- This compact runout tester can be used on a surface plate or workbench.
- A dedicated stand is included with each unit. However, the dial indicator and test bar are not included.
- Custom sizes are available to accommodate different workpiece lengths and diameters.





Material : Cast iron (Bed, Head)
Package : Reinforced ca rdboard
Accessories: Certificate of inspection

Configuration of stock number

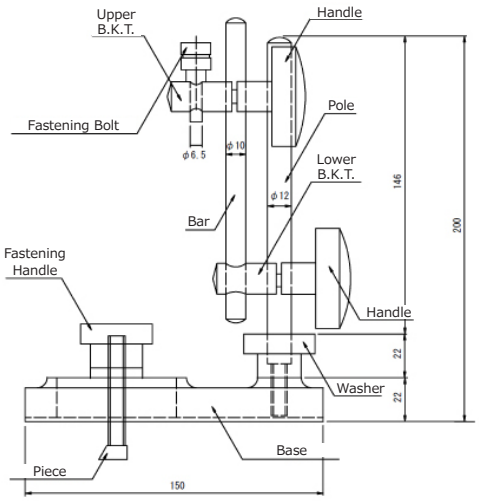
563 P1L

P1L → P-1
P2L → P-2
P3L → P-3

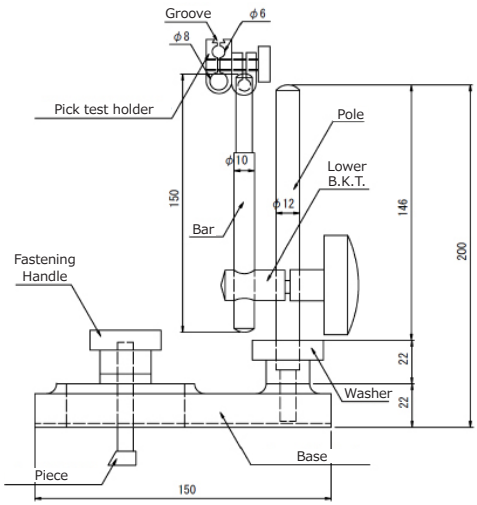
Product No	Stock No	Model	L (mm)	W (mm)	H2 (mm)	L1 (mm)	H1 (mm)	Parallelism betweencenter (μ m)	Applicable center	Weight (kg)
55-2-1	563-P1L	P-1	380	120	65	150	110	5.0	MT-1	14
55-2-2	563-P2L	P-2	430	120	72	200	110	5.0	MT-1	16
55-2-3	563-P3L	P-3	530	130	90	300	110	5.0	MT-1	20

About Dial Stand

Both the Standard Type and P Type come with one dedicated dial indicator stand. (The stand for the P Type is shown on the left.)
Depending on the inspection requirements, using multiple dial indicator stands allows for faster and more reliable measurements.
We also manufacture dedicated stands and mounting brackets for dial test indicators. (See the figure on the right.)



Dial stand for P



Dial stand for P-type pick testing

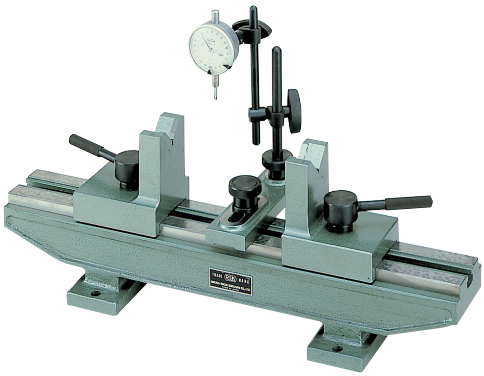
■ Dimensional drawing Unit : mm

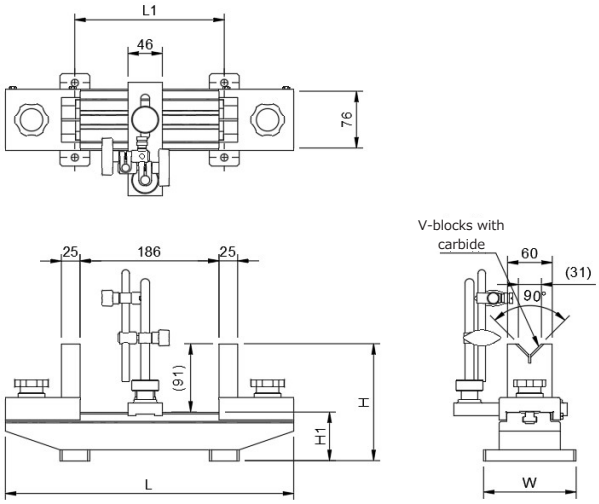
Stock No.591

Bench center with V-blocks carbide (Type-RV)

Traceability can be issued.

- The V-groove design allows measurement of workpieces without center holes.
- Carbide inserts are fitted to the V-groove contact surfaces for improved wear resistance.
- Accommodates workpiece diameters ranging from 5 to 40 mm.
- A dedicated dial indicator stand is included with each unit. However, the dial indicator is not included.





Model	L	L1	W	H	H1
RV-1	380	200	124	157	65
RV-2	420	240	124	164	72
RV-3	530	280	130	182	90

Material : Cast iron (Bed, Head)
Package : Reinforced cardboard
Accessori es :Certificate of inspection

Configuration of stock number

591 - RV1

RV1 → RV-1
RV2 → RV-2
RV3 → RV-3

Product No	Stock No	Model	Distance between heads(mm)	Parallelism between center(μm)	Weight (kg)
55-3-1	591-RV1	RV-1	180	5.0	11
55-3-2	591-RV2	RV-2	230		13
55-3-3	591-RV3	RV-3	330		15

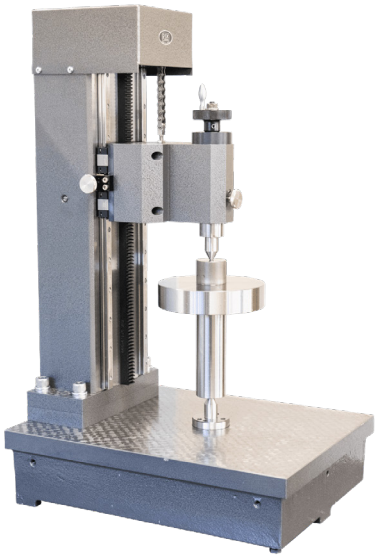
■ Dimensional drawing Unit : mm

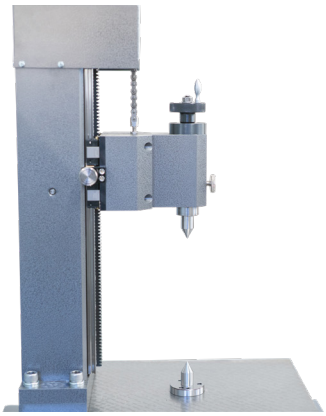
Stock No.592

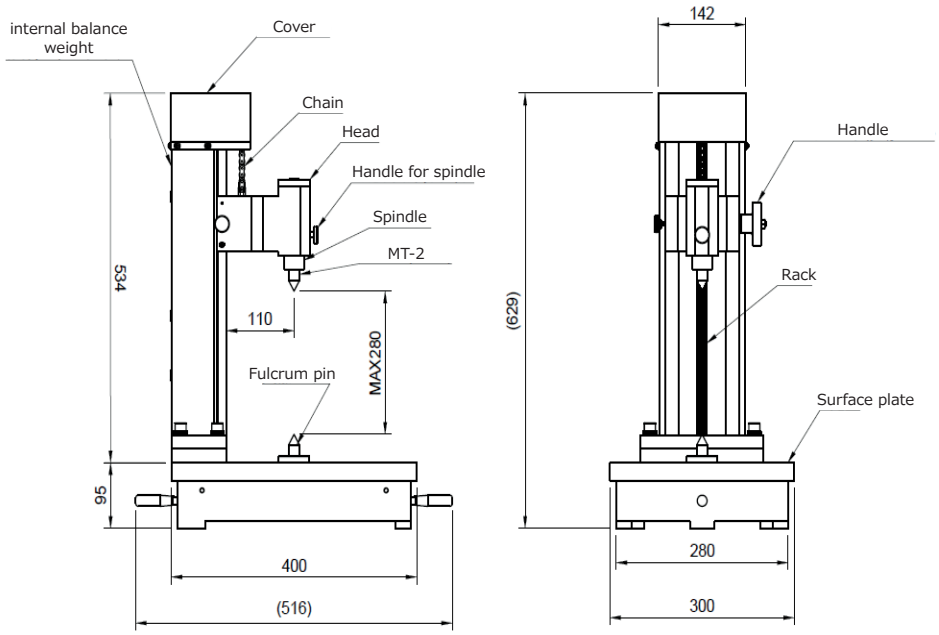
Bench center vertical type (Type-VB)

Traceability can be issued.

- This runout tester is specifically designed for vertical measurements.
- Unlike horizontal runout testers, it enables accurate measurements even with heavy workpieces.
- The measuring head moves along a linear roller guideway, minimizing backlash and ensuring high-precision measurements.
- Cylindrical workpieces are positioned on the center support for end-face measurements.
- The surface plate meets JIS Grade 1 flatness requirements.
- A counterweight built into the column prevents the measuring head from dropping and ensures smooth vertical movement.
- The test bar is not included.







Material : Cast iron (Surface plate, Head,Pillar)
Package : Reinforced cardboard .
Accessories :Certificate of inspection

Product No	Model	Size (mm)	Center distance (mm)	Squareness of center axis (±μ m)	Applicable center	Weight (kg)
55-4-3	VB-3	400 × 300	280	5	MT-2	70

■ Dimensional drawing Unit : mm

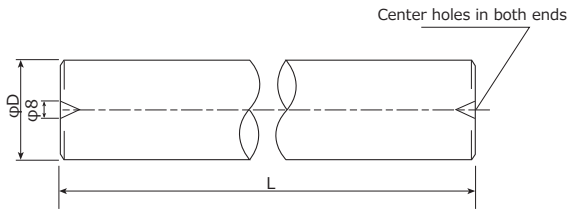
Stock No.600

Test bar

Traceability can be issued.

- These test bars can be used as measurement standards for eccentricity checks.
- All models are Hardened.

Material : SKS3
Package : Paperboard Box
Accessories:Certificate of inspection

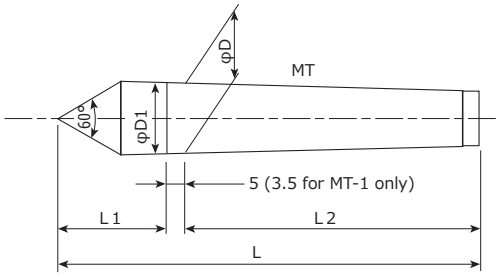


Product No	Stock No	Size (φ D × L)	Cylindricity	Applicable bench center
55-6-150	600-P1	φ 20 × 150	2.0	P-1
55-6-200	600-P2	φ 20 × 200	2.0	P-2
55-6-300	600-P3	φ 25 × 300	3.0	P-3
55-6-400	600-NO1	φ 30 × 400	3.0	NO-1
55-6-800	600-NO2	φ 50 × 800	3.0	NO-2

Stock No.601

Lathe center

- Center for eccentricity testing equipment.
- All sizes are hardened.
- Special dimensions and carbide-tipped versions are also available.



Material: SKS3
Package: Cardboard box

Product No	Presence of carbide	φ D	φ D 1	L	L 1	L 2	Compatible models of eccentricity testers
55-7-1	Without	12.065	12.2	82	25	53.5	P-1 ～P-3
55-8-MT-1	With						
55-7-2	Without	17.780	18.0	100	31	64.0	NO-1 , NO-2
55-8-MT-2	With						
55-7-3	Without	23.825	24.1	125	39	81.0	NO-3
55-8-MT-3	With						

■ Dimensional drawing Unit : mm

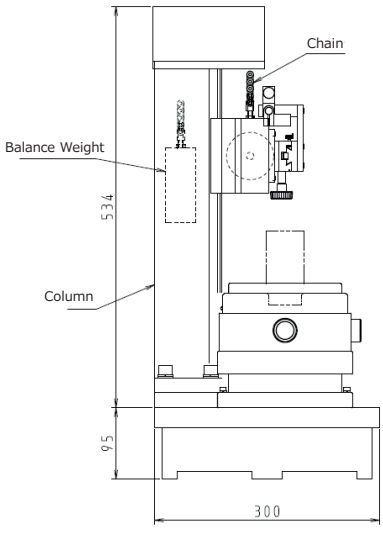
Runout tester (RT type)

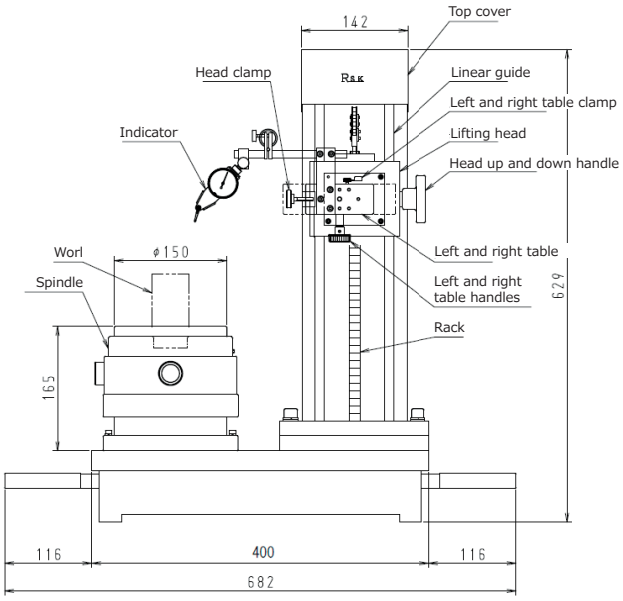
Traceability can be issued.

- The bearing-supported spindle allows cylindrical workpieces to be held in a chuck and rotated for runout measurement.
- Ideal for quick and simple runout inspections directly on the shop floor.
- Particularly suitable for measuring runout relative to the outer diameter of workpieces without center holes.
- A single unit enables measurement of roundness, cylindricity, and end-face flatness.
- The spindle unit is also available separately without the column.
- A counterweight built into the column prevents the measuring head from dropping and ensures smooth vertical movement.
- A master test bar for checking the accuracy of the instrument itself is also available separately.









Product No	Stock No	Model	Surface plate dimensions (mm)	Workpiece Clamping Capacity (Dia × Length)	Body vibration correction system	Weight (kg)	standard price
56-1-1	---	RT-1	400 × 300	Φ 60 × 300	≤ 5 μ m	79	---

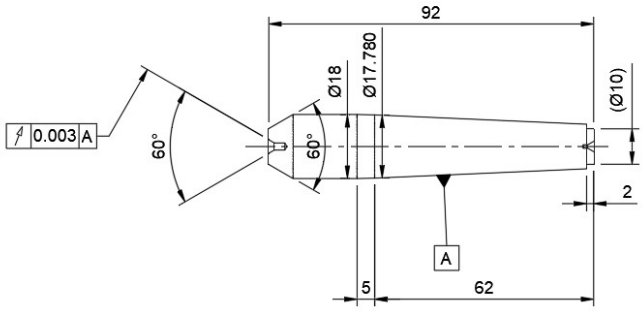
■ Dimensional drawing Unit : mm

Stock No.602

Center inverse type

- Suitable for small-diameter workpieces without center holes.
- Custom sizes are available upon request.

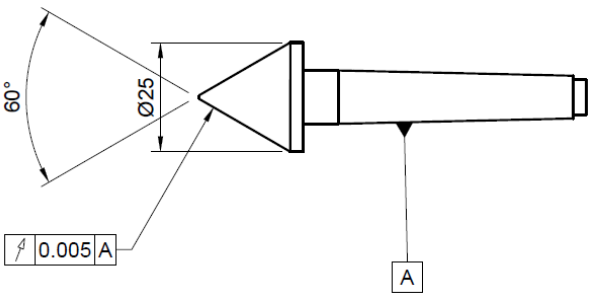
Reverse centers are also available upon request.
When placing an order or making an inquiry, please provide the following information:
・Workpiece shape and dimensions
・Cone angle
・Model of the runout tester to be used
・Whether carbide tips are required

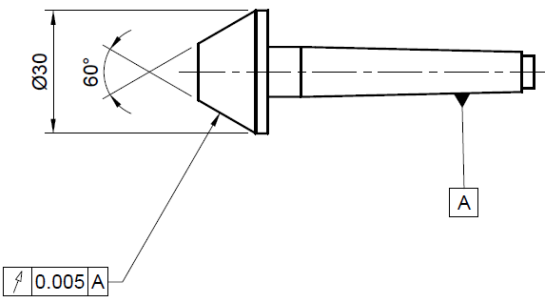


Material: SKS3, SUJ
Package: Cardboard box

Center umbrella type

When measuring runout on workpieces with internal diameters too large to be supported by standard lathe centers (Ø10 mm or larger for MT-1 and Ø15 mm or larger for MT-2), please use cone centers.
Cone centers are custom-made and are not available in standard sizes.
When placing an order or making an inquiry, please provide the following information:
・Workpiece shape and dimensions
・Cone angle
・Model of the runout tester to be used
・Whether carbide tips are required







About Us

Established in 1979 in Niigata, Japan, we specialize in the manufacturing of precision measuring instruments, including precision levels, squares, straightedges, and runout testers.
With decades of experience in precision manufacturing, we are committed to delivering reliable, high-quality products that support accurate measurement in manufacturing industries worldwide.

Company Name :NIIGATA RIKEN SOKUHAN Co.,Ltd.
Address: 700-41,Kawaguchi Nakayama, Nagaoka Shi, Niigata, 949-7503, JAPAN
Website: https://n-rsk.jp/

Product Appearance and Specifications

Please note that the specifications and appearance of the products listed in this catalog are subject to change without prior notice. Products may also be discontinued without prior notice.



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