

Squareness Tester

Squareness Quick

Instruction Manual

To ensure correct use, please read this instruction manual carefully before use. After reading, keep it in a safe place where the user can always refer to it.



OBISHI KEIKI SEISAKUSHO Co., Ltd.

Safety Precautions

- ※Before use, please read this instruction manual carefully and use the product correctly.
- ※The precautions shown here are intended to ensure the safe and proper use of the product and to prevent any potential hazards to the user.
- ※The precautions are categorized into three levels — **Danger, Warning, and Caution** — to clearly indicate the severity and urgency of potential harm or damage that may occur if the product is mishandled.

For Safe and Proper Use		
This instruction manual includes various symbols and pictograms throughout the text to ensure correct use of the product and to prevent harm or damage to the user. The symbols and their meanings are as follows. ● Please read the text after fully understanding the symbols and their meanings. ● After reading, be sure to keep this manual in a place where anyone using the product can easily refer to it at any time. ● All of these are safety-related instructions, so please be sure to follow them.		
	Danger	This indicates situations where incorrect handling could result in imminent risk of death or serious injury.
	Warning	This indicates situations where incorrect handling could potentially result in death or serious injury.
	Caution	This indicates situations where incorrect handling may result in injury to persons or only property damage.
Examples of symbols		The △ symbol indicates the presence of danger, warning, or caution messages, with specific precautions described within the figure. (The left figure is used to indicate general danger, warning, or caution without specifying details.)
		The ○ symbol indicates prohibited actions, with specific precautions described within or below the figure. (The figure on the left is used for general prohibition notices without specifying particular actions.)
		The ● symbol indicates mandatory actions, with specific instructions detailed within the figure. (The figure on the left is used for general mandatory actions or instructions without specifying details.)

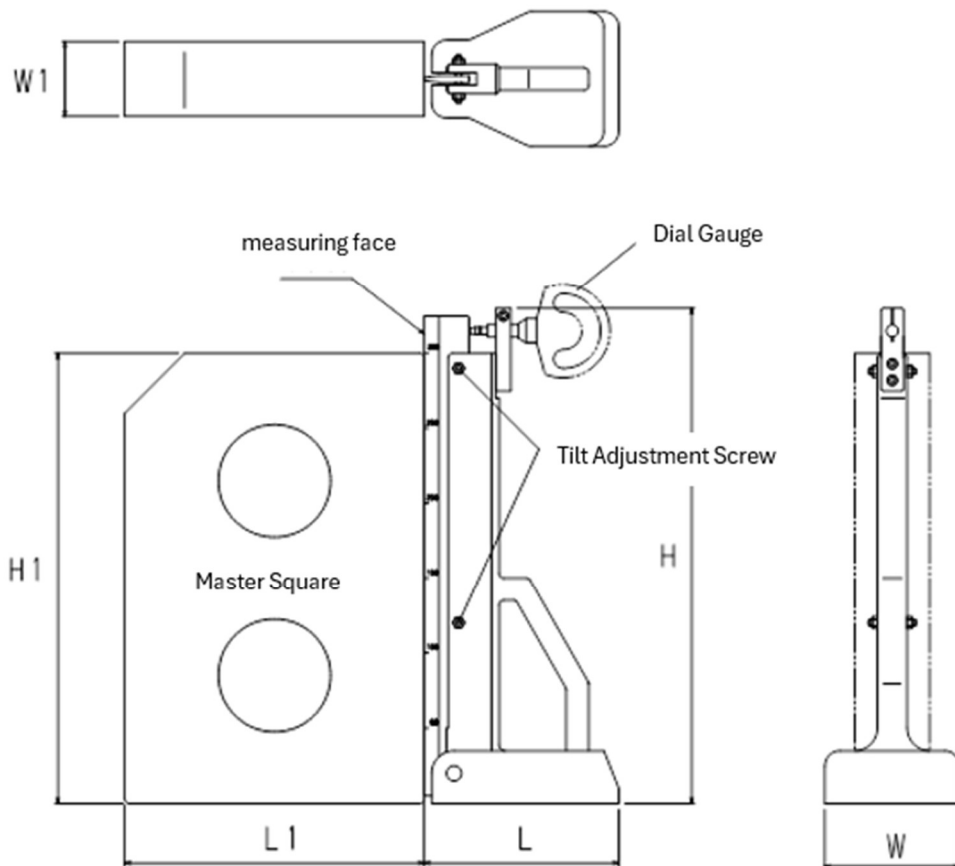
Squareness Quick Instruction Manual

1. Product Features

- Supplied as a set with a stone master square.
- Allows one-touch verification of squareness error, making it ideal for measuring large quantities of workpieces.
- Squareness measurement can be performed easily by anyone using the dial gauge reading.

Note: The dial gauge is not included.

2. Names of Parts and External View



3. Specifications

Squareness Quick

Code No.	Nominal	Size (H×L×W mm)	Mass (kg)
HB101	300	320×130×90	4.5

Master Square

Code No.	Nominal	Size (H×L×W mm)	Squareness (μ m)	Mass (kg)
HB201	300	300×200×50	2.0	8

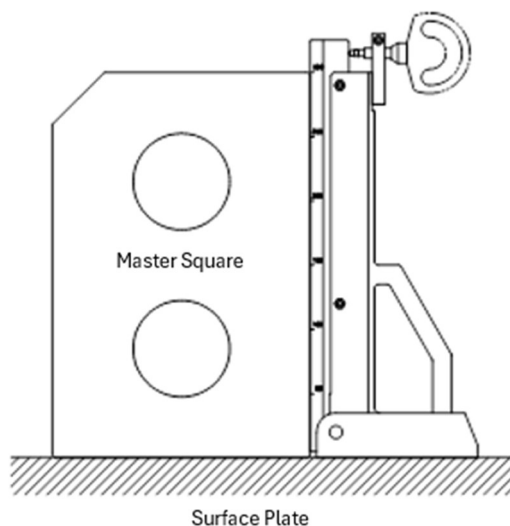
4. Instructions for Use

【Preparation Before Measurement】

- ① Remove the Squareness Quick and the Master Square from the storage box, and wipe the measuring surfaces clean.
- ② Attach the dial gauge to the Squareness Quick.
- ③ Place the Squareness Quick on the reference surface plate and set its measuring surface against the Master Square as shown in the figure.
- ④ Adjust the dial gauge scale. Correct the zero setting according to the squareness error of the Master Square.

(Example: If the error of the Master Square is “ $-2\text{ }\mu\text{m}$,” set the dial gauge to “ -2 .”)

Note: If the measuring surface tilts excessively, adjust it with the tilt adjustment screw.



【Measurement】

- Measurement Example 1: When the workpiece height is 300 mm (same as the Squareness Quick)

The dial gauge reading indicates the squareness error of the workpiece.

- Measurement Example 2: When the workpiece height is 200 mm

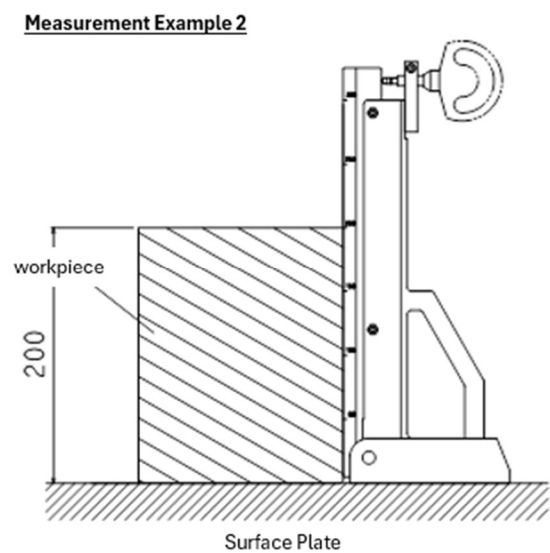
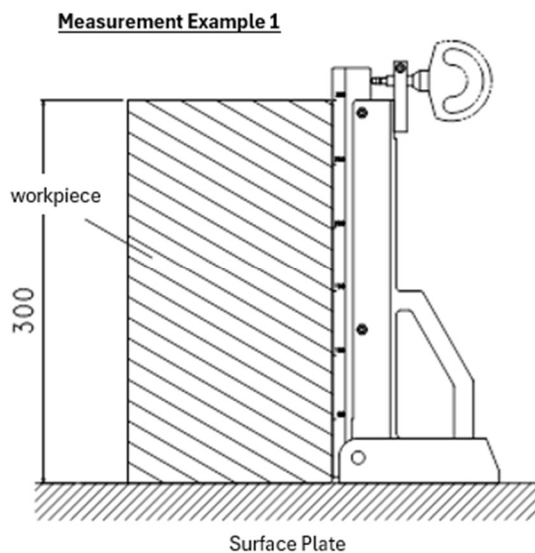
Since there is a difference between the Squareness Quick height (300 mm) and the workpiece height, convert the value using the following formula:

Formula :

$$\text{Squareness } (\mu\text{m}) = \text{Dial gauge reading} \times (\text{Workpiece height} \div \text{Squareness Quick height})$$

Example: When the dial gauge reading is +15 μm

$$\text{Squareness} = 15 \times (200 \div 300) = +10 \mu\text{m}$$



5. Precautions for Use

- ① Clean the Precision Surface and the measurement surface of the workpiece before use.
- ② Allow the instrument to acclimate to the ambient temperature before use.
- ③ Do not use or store the instrument in places with drastic temperature changes.
- ④ When using the instrument in a location subject to temperature variations, frequently check it with a master angle or an equivalent reference.
- ⑤ Be careful not to apply excessive load or impact.
- ⑥ Do not place this instrument in locations subject to vibration or other similar conditions.
- ⑦ After use, always apply rust prevention treatment and store the instrument in its storage case.
- ⑧ Check the instrument for abnormalities before use in the following cases:
 - When the instrument has been dropped.
 - When an object has been dropped onto the instrument.
- ⑨ Check the accuracy regularly before using the product.
- △ ⑩ If the product has sharp edges, handle it carefully to avoid injuring your fingers or other parts of your body.
- △ ⑪ Wear protective gloves and safety glasses as necessary to prevent injury while working.
- △ ⑫ Do not use this product if it is damaged or deteriorated, as it may cause injury or accidents.
- △ ⑬ If an injury occurs, give first aid immediately and seek medical attention if necessary.

Contact Information



JIS Certified Factory

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Head Office and Factory

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Design, development, manufacturing, and calibration services for precision measuring instruments (levels, surface plates, straight edges, reference measuring instruments, square rulers, blocks, dial gauge stands, comparators, angle measuring instruments, bench centers, squareness measuring instruments).