

Square Granite Cylindrical Square

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.)

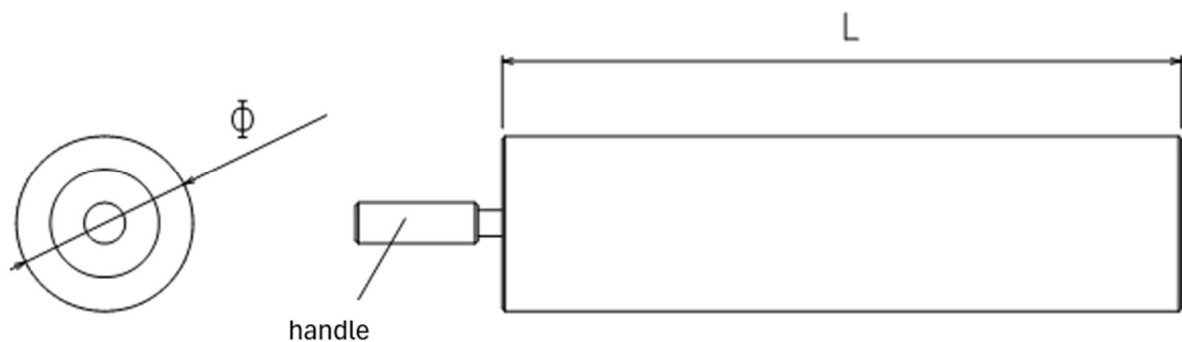
Granite Cylindrical Square Instruction Manual

1. Product Features

- The material is black granite.
- It maintains high precision as a master for right-angle measurement.
- It is used for mounting jigs and tools, as well as for measuring the squareness of products.
- Since the contact surface with the workpiece is a single circular line, highly accurate measurements are possible.

Note: Sizes of 300 mm and above are equipped with a handle.

2. Names of Parts and External View



3. Specifications

Code No.	Nominal	Size ($L \times \phi$ mm)	Squareness (μ m)	Mass (kg)
FP101	200	200×80	3.0	3.5
FP102	300	300×100	3.5	7.5
FP103	500	500×130	4.5	20.5
FP104	600	600×160	5.0	37

4. Instructions for Use

【Measurement of Squareness】

1) Measurement Using the Gap (Figure 1)

- ① Place the base of the square downward and stand it against the workpiece.
- ② Place the Precision Surface of the square against the measurement surface of the workpiece.
- ③ Visually check whether light passes between the square and the workpiece to determine the presence or absence of any gap.

2) Measurement Using a Dial Gauge (Figure 2)

- ① Place the base of the square downward and stand it beside the workpiece.
- ② Place the stand with the dial gauge attached against the workpiece.
- ③ Place the probe against the square and set the dial gauge to zero.

Measure values at two points—top and bottom—of the square, and define the difference as the squareness.

※A V-shaped cylindrical square stand may also be used.

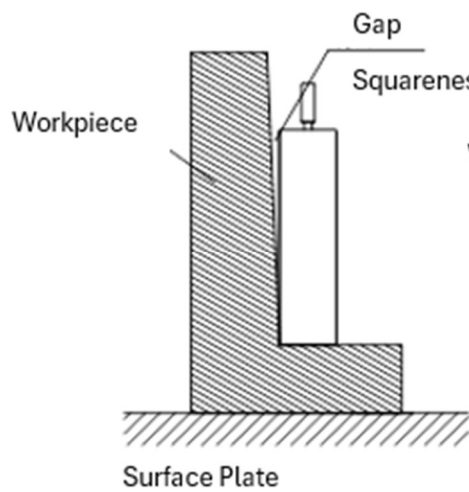


Figure 1

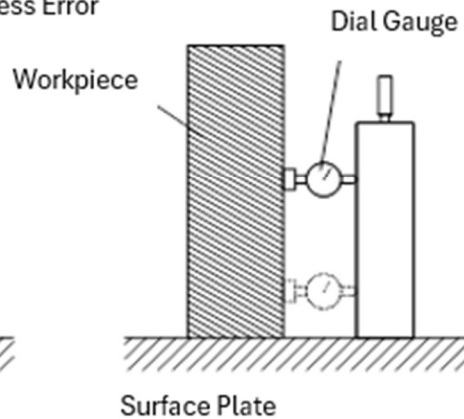


Figure 2

5. Precautions for Use

- ① Clean the Precision Surface and the measurement surface of the workpiece before use.
- ② Handle the instrument carefully during use and storage to avoid impact or shock.
- ③ Allow the instrument to acclimate to the ambient temperature before use.
- ④ Do not use or store the instrument in places with drastic temperature changes.
- ⑤ After use, always apply rust prevention treatment and store the instrument in its storage case.
- ⑥ 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.
- ⑦ If there are scratches or damage, have the instrument repaired and inspected.
- ⑧ Check the accuracy regularly before using the product.
- △ ⑨ If the product has sharp edges, handle it carefully to avoid injuring your fingers or other parts of your body.
- △ ⑩ Wear protective gloves and safety glasses as necessary to prevent injury while working.
- △ ⑪ Do not use this product if it is damaged or deteriorated, as it may cause injury or accidents.
- △ ⑫ If an injury occurs, give first aid immediately and seek medical attention if necessary.

Contact Information

JIS Certified 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).