

Stand for Surface Plate with caster

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.)

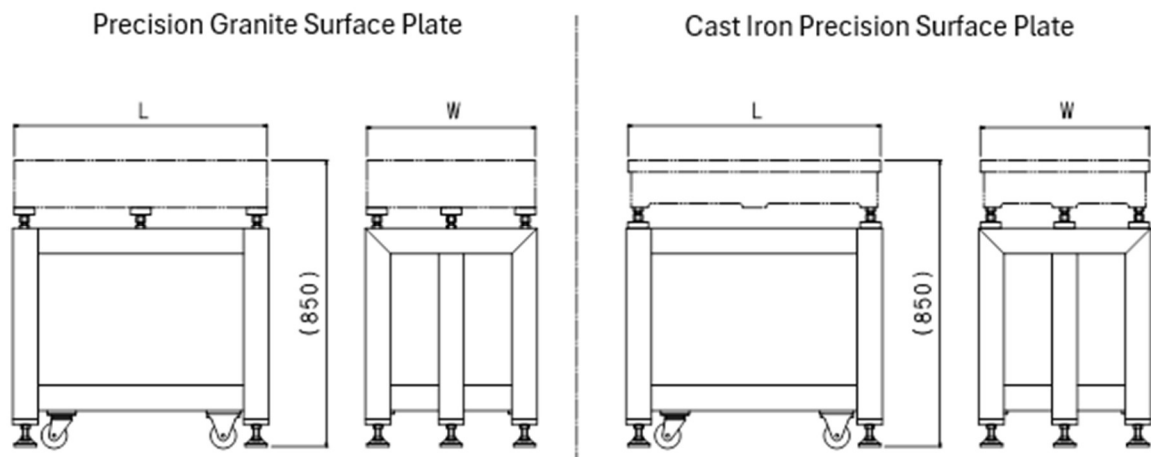
Stand for Surface Plate with caster Instruction Manual

1. Product Features

- It is equipped with casters for easy movement.
- This product is designed with square pipe material, emphasizing safety and ease of use.
- It has a rigid and stable structure to maintain the high precision of the surface plate over a long period of time.
- The standard height from the top surface of the surface plate to the floor is 850 mm, but custom dimensions can also be manufactured upon request.

Note: Special stands such as those with custom-size specifications or fall-prevention mechanisms can also be manufactured.

2. Names of Parts and External View



3. Specifications

Granite Surface Plate Stand with Caster

Surface Plate Size (mm)	Code No.	Square Pipe (mm)	Number of Support Legs	Adjustment Screw (mm)	Face Height (mm)	Mass (kg)	
750×500	BL203	75×75	5	M16	850	65	
1000×750	BL204					80	
1000×1000	BL205					95	
1500×1000	BL206	80×80		M20		105	
2000×1000	BL207					125	
2000×1500	BL208					145	
3000×1500	BL209					155	

Precision Surface Plate(Cast Iron)Stand with Caster

Surface Plate Size (mm)	Code No.	Square Pipe (mm)	Number of Support Legs	Adjustment Screw (mm)	Face Height (mm)	Mass (kg)
750×500	BL403	75×75	5	M16	850	65
1000×750	BL404					80
1000×1000	BL405					95
1500×1000	BL406	80×80	7			105
2000×1000	BL407					125
2000×1500	BL408					145
3000×1500	BL409					185

4. Installation

【Installation Location】

- A place with minimal temperature change and humidity.
- A place with little dust and vibration.
- A location with a solid foundation that will not deform or twist under the weight of the surface plate.

- © When using the plate as a precision inspection surface plate, either construct a concrete installation base isolated from other areas and place the plate on it, or place the plate on a rigid and stable stand installed on a concrete floor that is isolated from other areas.

Installation Method

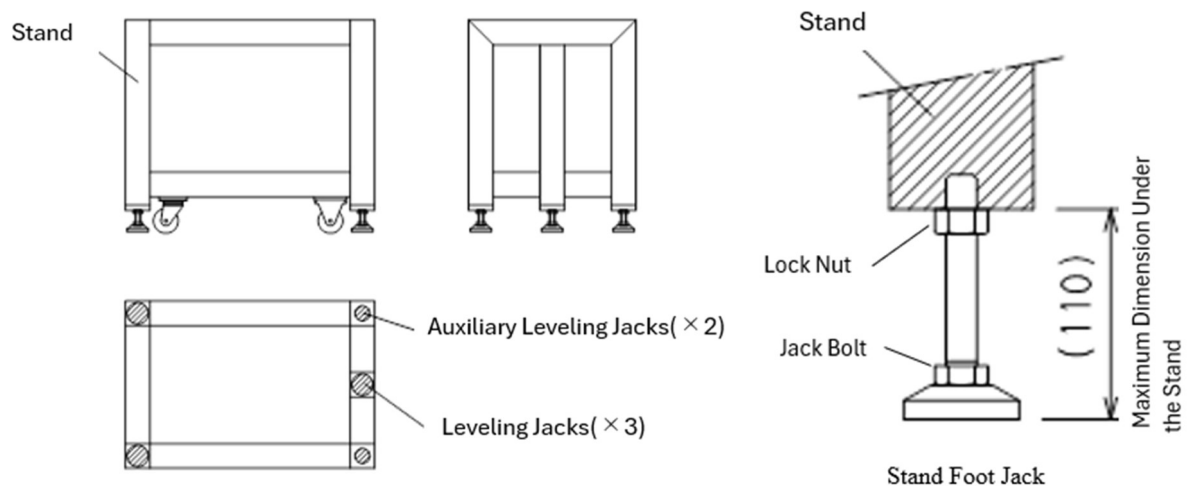
- Install the surface plate level on a flat and solid floor.
- The accuracy of the surface plate is maintained when it is supported at three points and kept level.
- Install the surface plate and stand with three-point support (two points on the left and one point on the right) as shown in the procedure below, and adjust the level accordingly.

Note: Always support the plate at three points, and use two auxiliary supporting points to prevent overturning.

[Step 1] Rough Leveling Procedure for the Stand

- ① Loosen all lock nuts, retract the jack bolts of the auxiliary supporting points, and set the stand on three-point support.
Note: Adjust the height so that the casters do not make contact, and check that the casters rotate freely in the air.
- ② Place the level on the stand and turn the jack bolts to roughly adjust the level (strict accuracy is not required).
 - Adjust so that the bubble remains within the graduation range.
 - Check and adjust the level in both longitudinal and transverse directions.
 - Only the three supporting jack bolts are used for this leveling adjustment.
 - Ensure that the auxiliary supporting points do not contact the floor during adjustment.
- ③ While holding the jack bolts to prevent them from turning, tighten the lock nuts.
- ④ Check again to ensure that the stand remains level. Note that tightening the lock nuts may cause a slight shift in the level.
- ⑤ Turn the jack bolts of the auxiliary supporting points by hand until they approach the floor to prevent overturning.
- ⑥ Place the surface plate on the stand. Check the position of the adjustment bolts and install it carefully.

Note: Use sufficient safety measures and appropriate lifting equipment during installation. Refer to the instruction manual of the surface plate.



[Step 2] Leveling Procedure for the Surface Plate

- ⑦ Loosen all lock nuts, retract the adjustment bolts of the auxiliary supporting points, and set the plate on three-point support.
- ⑧ As shown in Figure a, place the level at the center of the left supporting points and turn the adjustment bolts to level the plate.
- ⑨ As shown in Figure b, place the level at the center of the plate and turn the adjustment bolts to level it.
- ⑩ Repeat steps 8 and 9 until the plate is level.
 - Only the three adjustment bolts at the supporting points are used for this leveling adjustment.
 - Ensure that the auxiliary supporting points do not contact the floor during adjustment.
- ⑪ While holding the adjustment bolts to prevent them from turning, tighten the lock nuts.
- ⑫ Check again to ensure that the plate remains level. Note that tightening the lock nuts may cause a slight shift in the level.
- ⑬ After leveling, turn the adjustment bolts of the auxiliary supporting points by hand to prevent overturning.
- ⑭ Turn the jack bolts of the auxiliary supporting points of the stand by hand to prevent overturning.

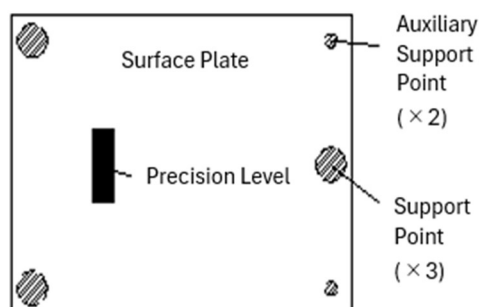


Figure a

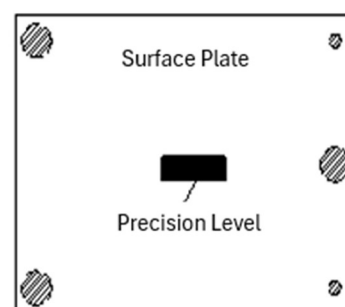
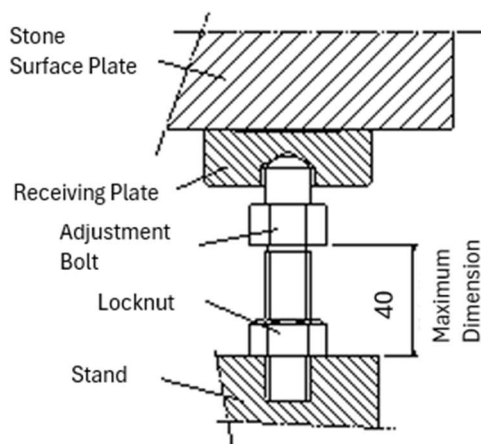
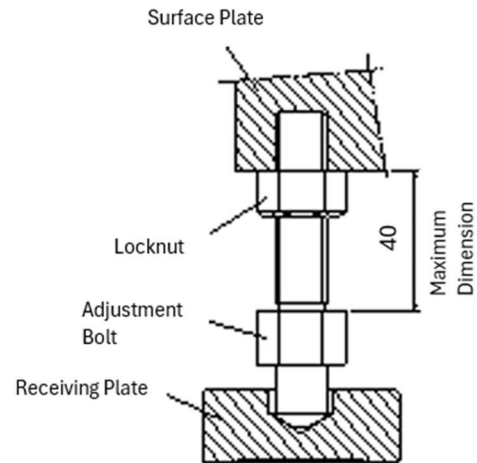


Figure b



Granite Precision Surface Plate



Cast Iron Precision Surface Plate

【Notes】

- **Leveling of the surface plate is an extremely important process that directly affects measurement accuracy. Always perform the work carefully and take sufficient time.**
- **After installation, regularly check the levelness and readjust as necessary.**

5. Precautions for Use

- ① Before use, clean the working surface.
- 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 Install this instrument on a solid foundation in a stable location free from twisting or tilting.
- ⑥ Do not place this instrument in locations subject to vibration or other similar conditions.
- ⑦ Do not apply excessive load or impact.
- △ ⑧ If the product has sharp edges, handle it carefully to avoid injuring your fingers or other parts of your body.
- ⑨ For heavy products, handle placement and other operations with two or more people, and take care to avoid injury.
- ⑩ Use cloth or nylon sleeves for lifting. Do not use hard materials such as metal chains or wires, as they may cause scratches or cracks on the product and pose a risk of injury to the operator.
- △ 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



OBISHI KEIKI SEISAKUSHO Co., Ltd.

Head Office: 1-1216-1 Nanyo, Nagaoka City, Niigata 940-1164

TEL: (0258)22-1100 FAX: (0258)22-0014

Tokyo Office: 3-5, Kanda Surugadai, Chiyoda-ku, Tokyo 101-0062

TEL: (03)3293-8881 FAX: (03)3293-8884

Nagoya Office: 2F Nichiju Bldg., 3-15 Oimachi, Naka-ku, Nagoya City, Aichi 460-0015

TEL: (052)322-4031 FAX: (052)322-5647



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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).