

Angle Plate Sine Bar

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.

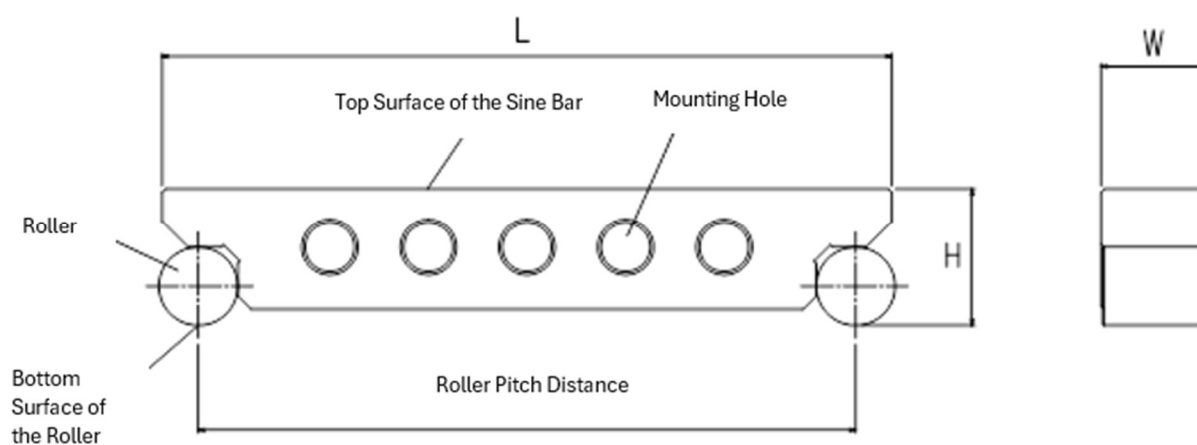
For Safe and Proper Use		
This instruction manual includes various symbols and pictograms throughout the text to ensure correct use of the product and to prevent harm or damage to the user. The symbols and their meanings are as follows. ● Please read the text after fully understanding the symbols and 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.)

Sine Bar Instruction Manual

1. Product Features

- This is a high-accuracy sine bar.
- The top surface has a lapped finish.
- Use gauge blocks to set the angle.

2. Appearance Diagram



3. Specifications

Code No.	Nominal	Size ($L \times W \times H$ mm)	Roller Pitch Distance (mm)	Parallelism (μ m)	Mass (kg)
NH101	100	$118 \times 28 \times 35$	100 ± 0.0015	1.5	0.8
NH102	200	$222 \times 32 \times 42$	200 ± 0.003	3.0	2.0
NH103	300	$328 \times 34 \times 50$	300 ± 0.004	4.0	3.5

4. Instructions for Use

[4.1 When Not Using the Mounting Holes]

- ① Wipe the top surface of the sine bar, the rollers, and other parts clean, and place the sine bar on the surface plate.
- ② Attach the gauge blocks by wringing them together to the required angle dimension.
- ③ Wipe the workpiece clean and place it on the Sine Bar.
- ④ Lift the sine bar and place the gauge blocks under the rollers as shown in Figure 1.
Always place the gauge blocks at the center of the rollers. If they are not centered, the sine bar may tilt and fall.
- ⑤ Bring the stylus of the dial gauge into contact with the workpiece and slide the stand over the surface plate to take the measurement.
- ⑥ Lift the sine bar and remove the gauge blocks.
- ⑦ Remove the workpiece from the sine bar.

[4.2 When Using the Mounting Holes]

- ① Wipe the top surface of the sine bar, the rollers, and other parts clean, and place the sine bar on the surface plate.
- ② Attach the gauge blocks by wringing them together to the required angle dimension.
- ③ Lightly mount the sine bar onto the mounting base using the mounting holes.
- ④ Lift the sine bar and place the gauge blocks under the rollers as shown in Figure 1.
Always place the gauge blocks at the center of the rollers. If they are not centered, the sine bar may tilt and fall.
- ⑤ Tighten the sine bar onto the mounting base. When mounting the sine bar, make sure that no distortion or twisting occurs on the top surface of the Sine Bar.
- ⑥ Wipe the workpiece clean and place it on the Sine Bar.
- ⑦ Bring the stylus of the dial gauge into contact with the workpiece and slide the stand over the surface plate to take the measurement.
- ⑧ Remove the workpiece from the sine bar.
- ⑨ Loosen the mounting screws of the sine bar and remove the gauge blocks from under the sine bar.
- ⑩ Remove the sine bar.

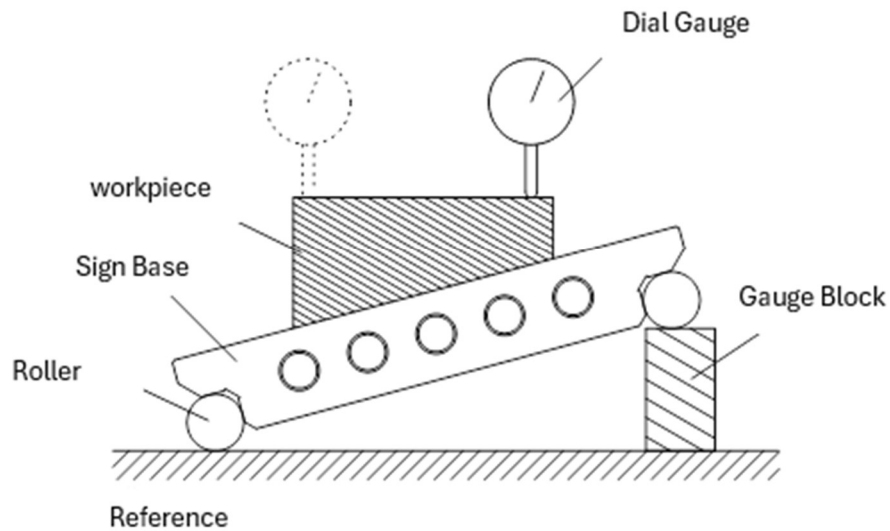


Figure 1

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 Check the accuracy regularly before using the product.
- △ ⑧ If the product has sharp edges, handle it carefully to avoid injuring your fingers or other parts of your body.
- △ ⑨ Wear protective gloves and safety glasses as necessary to prevent injury while working.
- △ ⑩ Do not use this product if it is damaged or deteriorated, as it may cause injury or accidents.
- △ ⑪ 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



ISO9001 Certified (JQA-QMA11294)

Head Office and Factory

ISO9001
JQA-QMA11294

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).