

Dial Snap Gage



Safety Precautions

To ensure operator safety, use this product according to the directions, functions and specifications given in this User's Manual.
Use under other conditions may compromise safety.

CAUTION Shows risks that could result in minor or moderate injury.
Always handle the measuring faces and other sharp parts of this product with care to avoid injury.

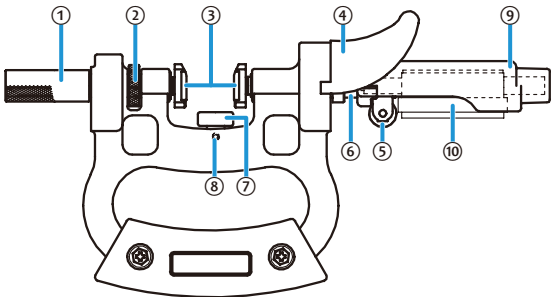
NOTICE Shows risks that could result in property damage.

- Do not use this product for purposes other than measurement.
- Do not disassemble or modify. Doing so will void the warranty.
- Do not use or store the product in a place with sudden temperature changes. Adapt the product to ambient temperature before use.
- Do not store the product in a place with high humidity or a lot of dust.
- Do not use the product in a place where it may contact water, etc.
- Apply anti-rust treatment after use if the product is used in a place where it is directly exposed to splashes of coolant, etc. Rust may cause malfunction.
- Do not apply excessive force or subject to sudden impacts such as dropping.
- Remove dust, cutting chips, etc. and apply anti-rust oil after use.
- Remove any dirt on the product by wiping gently with a soft non-linty cloth. Do not use organic solvents such as cleaning agents or thinner.
- When the indicated value exceeds the indication range, do not move the anvil any further forward. Otherwise, damage to the dial indicator may result.

Contents

1. Names of Components	Page 1
2. Precautions for Use.....	Page 1
3. Dial Indicator Mounting	Page 1
4. Reference Point Setting	Page 2
5. Measurement Method	Page 2
6. Specifications	Page 2
7. Paid Maintenance	Page 2

1.Names of Components



- | | |
|----------------------|---|
| ① Spindle clamp knob | ⑥ Indicator holder* |
| ② Spindle lead nut | ⑦ Workpiece stopper |
| ③ Anvil | ⑧ Hexagon socket setscrew |
| ④ Support plate | ⑨ Protection cover (available as an option) |
| ⑤ Clamp screw | ⑩ Dial indicator (available as an option) |

*Indicator holder mounting diameter: $\phi 8^{+0.015}_0$ mm (Metric model)/ $\phi 9.53^{+0.015}_0$ mm (Inch model)

2.Precautions for Use

■ Precautions and Cleaning after Use

- After use, clean the entire anvils with a soft, non-linty cloth and check that none of the parts are damaged.
- If oil, cutting fluid, or liquid itself has adhered to the product, or if the product is very dirty, clean it with a soft, lint-free cloth dipped in a volatile solvent (cleaning alcohol, etc.).
- After use, apply anti-rust treatment to the anvils, using Micrometer Oil (Part No. 207000).
- If using in places exposed to water-based cutting fluid, always apply anti-rust treatment after cleaning.
- If Micrometer Oil is unavailable and the only option is a commercial product, we recommend low-viscosity anti-rust oil of ISO VG10 or so.

3.Dial Indicator Mounting

Important

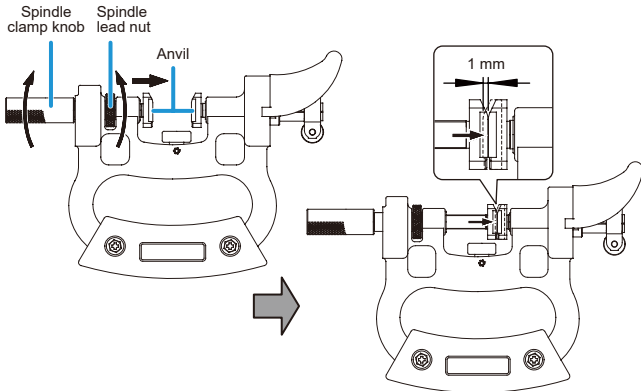
When mounting the dial indicator, do not tighten the clamp screw more than necessary. Otherwise, malfunctions may result.

The figure shows an example with the dial indicator mounted.

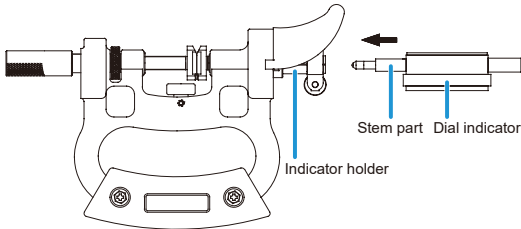
- 1 Loosen the spindle clamp knob, rotate the spindle lead nut, and push the anvil in so that the anvil position is around the midpoint of the operating range (about 1 mm away from contact between the anvils).

Tips

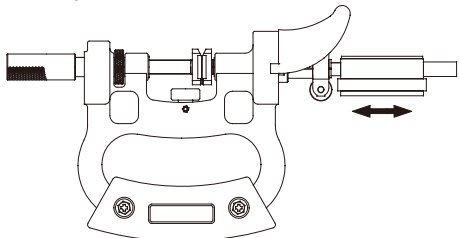
The spindle lead nut rotation is deliberately stiff.



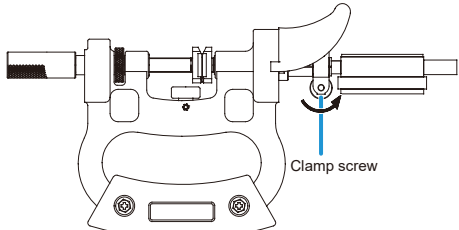
- 2 Insert the dial indicator stem part into the indicator holder.



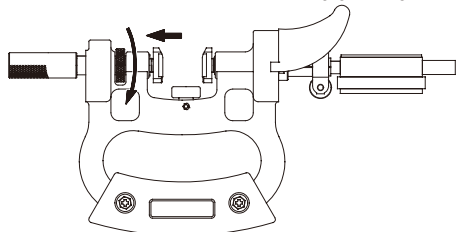
- 3 Adjust the insertion amount of the dial indicator so that its indicated value is around the midpoint of the measurement range.



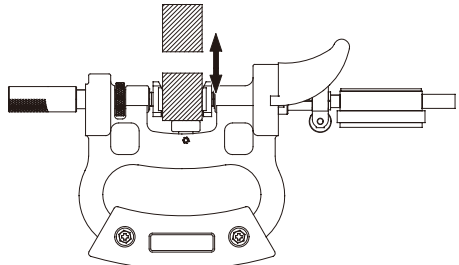
- 4 At the adjusted position, tighten the clamp screw to fix the dial indicator.



- 5 Rotate the spindle lead nut and move the anvil back until the gage is caught.



- 6 Insert the gage several times and confirm that the dial indicator operates normally.



4.Reference Point Setting

Important

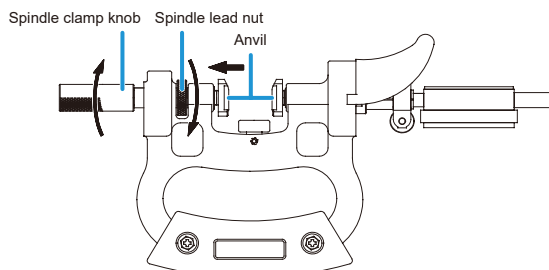
- Be sure to follow the procedure below to confirm and adjust the reference point prior to measuring.
- When setting the reference point for this product, use a calibrated gage (a gauge block, a micrometer standard bar, or a master gage dedicated for the workpiece).
- Remove any dirt or oil from the measuring surfaces of the gage and product prior to setting the reference point.
- Use the same orientation and conditions when measuring and setting the reference point.

The figure shows an example with the dial indicator mounted.

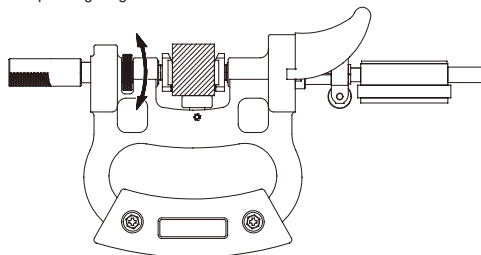
- 1 Remove any dirt or dust from the measuring surfaces of the gage and the product.
- 2 Loosen the spindle clamp knob, rotate the spindle lead nut, and move the anvil back until the gage is caught.

Tips

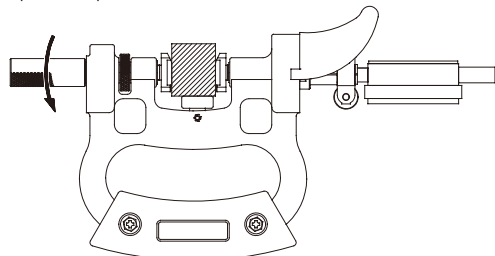
The spindle lead nut rotation is deliberately stiff.



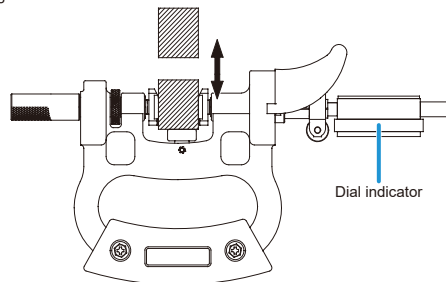
- 3 Catch the gage between the measurement surfaces.
- 4 Rotate the spindle lead nut and adjust the position so that the dial indicator pointer is near the midpoint of the operating range.



- 5 Tighten the spindle clamp knob and fix the anvil.



- 6 Insert the gage several times to stabilize the dial indicator value.



- 7 Use the dial indicator zero set function for zero setting of the displayed value.

Tips

For details on the dial indicator zero set function, see the instruction manual for the dial indicator mounted on this product.

5.Measurement Method

Measure with the same orientation and conditions as when setting the reference point.

- 1 Adjust the workpiece stopper height so that the top of the workpiece is in the center of the anvil.
- 2 Insert the product until the workpiece touches the workpiece stopper and conduct measurement.
- 3 Read the measured value.

Tips

For details on reading measured values, see the instruction manual for the dial indicator mounted on this product.

6.Specifications

- Anvil operating range : 2 mm [0.078 in]
- Adjustment range with spindle lead nut : 25 mm
- Measuring force : 15 ±3 N
- Operating temperature : 5 °C to 40 °C
- Storage temperature : -10 °C to 60 °C

7.Paid Maintenance

We recommend periodic inspections to check and maintain the product's accuracy. Also, if any of the following defects occur, please contact the agent where you purchased the product or a Mitutoyo sales office.

- Inconsistent measured values
Burr or nicks generated by an impact on the measurement surfaces may affect measurement repeatability.