

Precision Measuring Instruments

Model No. WDT-10SPS / WDT-10SPC

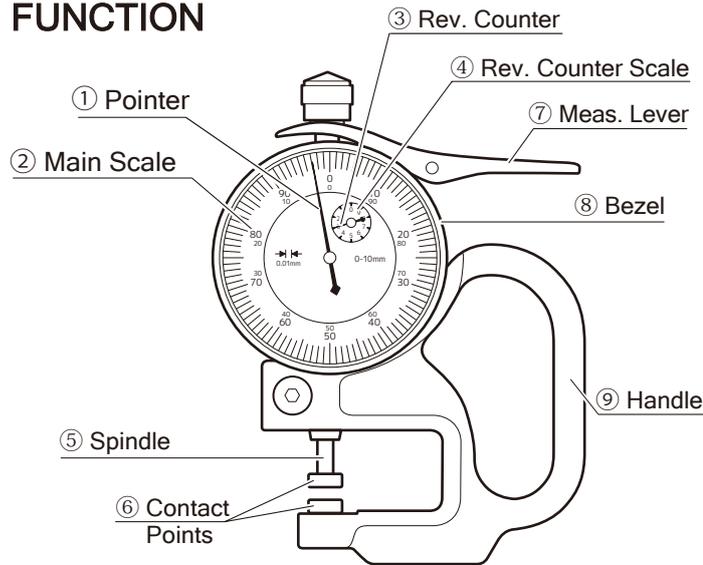
# DIAL THICKNESS GAUGE

Thank you for purchasing Niigata Seiki Dial Thickness Gauge.

This product is a precision gauge for measuring a thickness of material inserted between the contact points.

- For safe and proper use, please read this instruction manual before use and follow the procedures described. Please keep manual where it is accessible to user for future reference.
- Keep this manual with the instrument if transferred or leased to a third party.
- For inquiries about this product, please contact distributor or place of purchase.

## ■ PART IDENTIFICATION & FUNCTION



- ① Pointer ..... Shows measurement on Main Scale.
- ② Main Scale ..... Main Scale, rotate Bezel (⑧) to turn.
- ③ Rev. Counter ..... Pointer indicates Main Scale x100.
- ④ Rev. Counter Scale .. Each division is Main Scale x100.
- ⑤ Spindle ..... Shaft moves up and down with measurement.
- ⑥ Contact points ... Surfaces which contact workpiece.
- ⑦ Meas. Lever ..... Push down to take measurement.
- ⑧ Bezel ..... Rotate to turn Main Scale (②).
- ⑨ Handle ..... Hold instrument here during measurement.

## SAFETY PRECAUTIONS

Please Observe

To prevent harm to yourself or others, and to prevent damage to property, always follow the procedures marked with the symbols shown.

Denotes a prohibition - You **MUST NOT** do

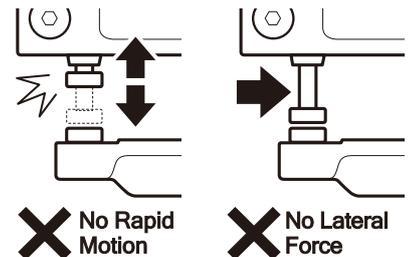
Denotes a requirement - You **MUST** do

**WARNING:** Indicates risk of **personal injury** or **property damage** if not followed.

- Read the manual and follow the directions.**
  - Use of product other than as described in this manual may cause accident.
- Use only for measuring small parts and sheet material.**
  - Using for other than intended purpose may cause damage and wear, or unforeseen accident.
- Handle with Care.**
  - Do not drop or subject to excessive shock. Do not place under heavy objects. Improper handling may cause damage or poor accuracy.
- Do not disassemble or modify.**
  - May cause damage or inaccuracy.

- Use in environments meeting the following conditions:**
  - Temperature within range of 0-40°C, humidity 30-70% (non-condensing.)
  - Protect from use by children and unauthorized people.
  - Protect from use by children and unauthorized people.
  - Use in places contrary to the above may affect accuracy or cause damage to the product resulting in accident or injury.

- Do not shock Spindle.**
  - Rapid motion or lateral force on Spindle may damage Instrument and cause poor accuracy.



## CALIBRATION

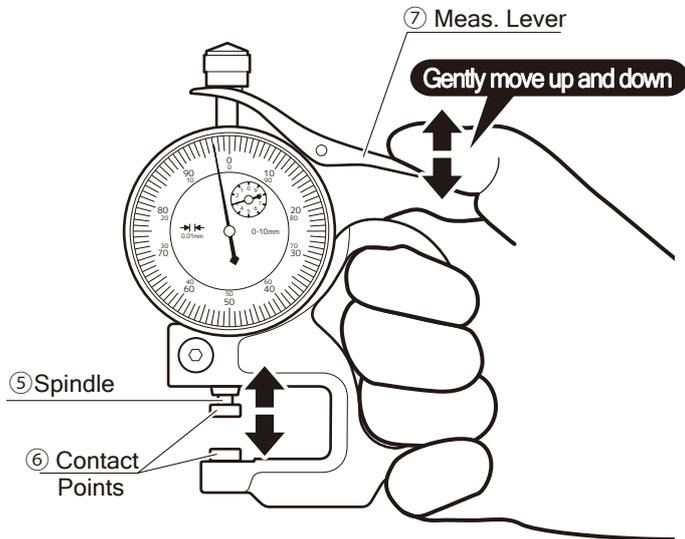
To maintain measurement accuracy, periodic calibration is recommended. (For reference, we recommend a calibration interval of 3-4 months when used in a factory.)

**Outside Japan,**  
Please contact distributor or place of purchase to inquire about calibrations services.

# BEFORE USE

Make the following preparations before taking measurements.

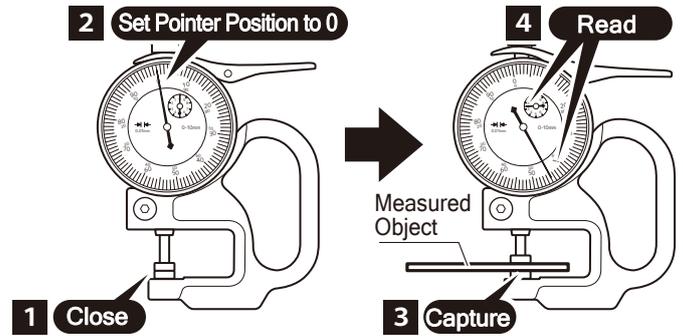
- **Check for smooth movement of Measurement Lever, Pointer, and Rev. Counter.**  
Move the Spindle up and down with Measurement Lever and verify Pointer movement.
- **Wipe off instrument to remove rust inhibitor and dirt.**  
Make sure gauge is clean for accurate measurements.



# HOW TO USE

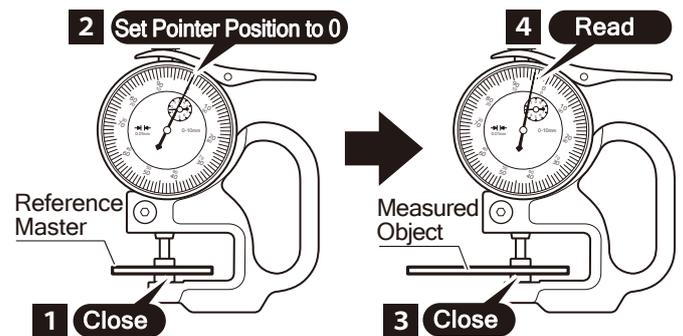
## Absolute Measurement

- ① **Set the Zero Point**  
With the Contact Points closed, rotate the Bezel to set the Pointer to zero.
- ② **Measure**  
Hold the gauge by the handle and open the Contact Points by pressing the Measurement Lever. Place the item to be measured between the Contact Points and gently release the Measurement Lever. Read the measurement off the scales for the Pointer and Revolution Counter.



## Comparative Measurement

- ① **Insert Reference Master**  
Hold the gauge by the handle and open the Contact Points by pressing the Measurement Lever. Insert the Reference part and gently release the Measurement Lever.
- ② **Set the Reference Point**  
Rotate the Bezel to set the Pointer to zero.
- ③ **Measure**  
Press the Lever to open the Points, remove the Reference Part, and Insert the item to be measured. Gently release the Measurement Lever and read the measurement off the scales



# TROUBLESHOOTING

- **Origin position shifts during measurement.**
  - Temperature changes during measurement can cause repeatability error. Please try the following solutions:
    - Use in location with stable temperature.
    - When taking measurements, periodically adjust zero point using a master reference to correct for temperature induced drift.
- **Poor accuracy may cause unstable measurements.**
  - Measuring Surfaces may be worn.  
If worn, measurement accuracy may be affected.  
Check for wear regularly and replace Contact Points as required.

# AFTER USE CARE, STORAGE

- **Remove any dust or dirt after use.**  
※ **Do not lubricate.**
  - Exterior surfaces may be cleaned by wiping with a soft cloth, moistened with mild detergent.
- **Check for wear of Contact Points.**
  - Worn measuring surfaces will affect accuracy.  
Regularly check for wear and replace if required.
- **Store in provided case in a cool, dark, and dry location.**
  - During storage, make sure there is no force on the Spindle (such as pushed in, or lateral force.)
  - Keep away from moisture and direct sunlight, and secure from unauthorized personnel.

# SPECIFICATIONS

Model No.	WDT-10SPS	WDT-10SPC
Graduation	0.01 mm	
Range	0~10mm	
Throat Depth	30mm	
Accuracy	±20μm	
Contact Points	φ10mm flat	
Point Material	Steel	Ceramic
Weight	260g	

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