

HOW TO USE (Axial Runout)

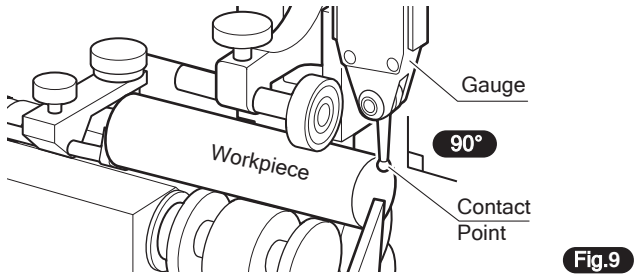
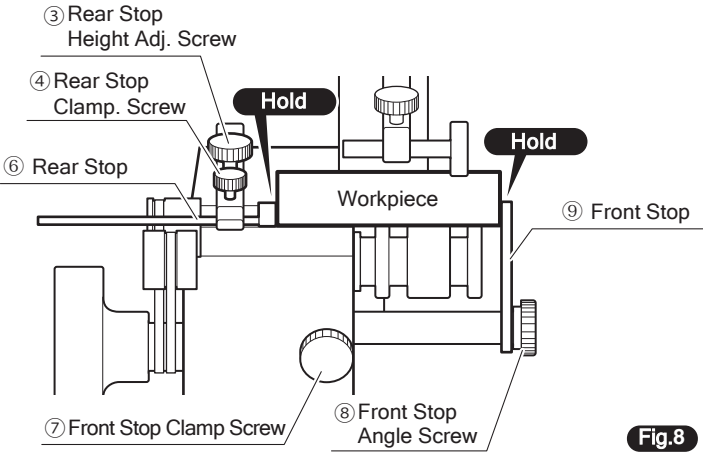
- ① Position the Workpiece on the Rollers as in step ① to ③ in the section above for "Radial Runout"
- ② Position the workpiece with the Front and Rear Stops. (ROG-581S only)

Due to the configuration of the ROG-581S, the Workpiece can move side to side as the Roller is turned. To prevent this motion, set up the Front and Back Stops to secure the Workpiece.

- Loosen the Front Stop Adj. Screw and Angle Screw, position the Front Stop to hold the Workpiece, and secure the Stop by tightening the screws. (Fig. 8)
- Loosen the Rear Stop Adj. Screw and Angle Screw, position the Rear Stop to hold the Workpiece, and secure the Stop by tightening the screws. (Fig. 8)

※For the Rear Stop Height Screw, the height of the Rear Stop can be adjusted by changing the number of washers underneath. Use one or two washers as necessary.

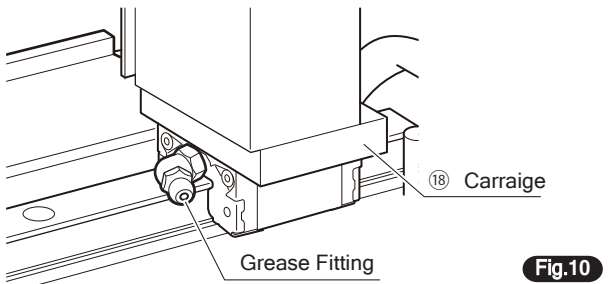
- ③ Position the Gauge Contact Point and turn the Hand Wheel to measure.
- Position the Gauge Contact point so that it is perpendicular to the Workpiece end face and read the runout as the part is rotated. (Fig.9)



CARRIAGE LUBRICATION (ROG-581S only)

The Carriage must be kept lubricated to keep it working smoothly.  
Regularly apply lubricant to the Grease Fitting using a standard grease gun. (Fig. 10)

- Recommended Lubricant : ISO VG32 ~150
- Recommended Frequency : Every 3 months



WORKPIECE REQUIREMENTS

Make sure any workpiece to be measured meets the following conditions.  
Improper workpiece may result in damage to workpiece or Rollers.

- ① The size and Shape must conform to the "Workpiece Dimensions" in the table below.
  - ② The reference surface for rotation must be long enough to fit on the rollers.
  - ③ The material should not be easily deformed.
- ※Soft materials such as aluminum or plastic may deform during measurement resulting in measurement inaccuracies.

SPECIFICATIONS

Model	Roller Type	Mass	Workpiece Dimensions		
ROG-581S	Straight Roller	13kg	OD : $\phi 4 \sim 30\text{mm}$	Length : $5 \sim 300\text{mm}$	Cylindrical
ROG-307S	Flat Roller	13kg	OD : $\phi 10 \sim 110\text{mm}$	Length : $5 \sim 80\text{mm}$	Cylindrical

※Accuracy decreases the further the measurement point is from the end of the Main Rollers.  
※Soft materials such as aluminum or plastic may deform during measurement resulting in measurement inaccuracies.

MAINTENANCE & STORAGE

- Keep the Main Roller, Top Roller, and Carriage areas free of dirt and protected with rust inhibitor.  
Roller and Carriage are easily corroded. Corrosion on the Rollers will affect accuracy.
- Store in a cool, dry location in the provided storage case.  
Protect from direct sunlight or high humidity and keep away from unauthorized personnel.

SPECIFICATIONS

- Accuracy : within  $4\mu\text{m}$   
※  $4\mu\text{m}$  for  $\phi 20\text{mm}$  workpiece (factory measurements)
- Operating Temp. :  $0 \sim 40^{\circ}\text{C}$
- Storage Temp. :  $-10 \sim 50^{\circ}\text{C}$
- Storage case included.

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MANUAL	
Model No.	ROG-581S ROG-307S

ECCENTRICITY MEASUREMENT  
RUN-OUT GAUGE SYSTEM

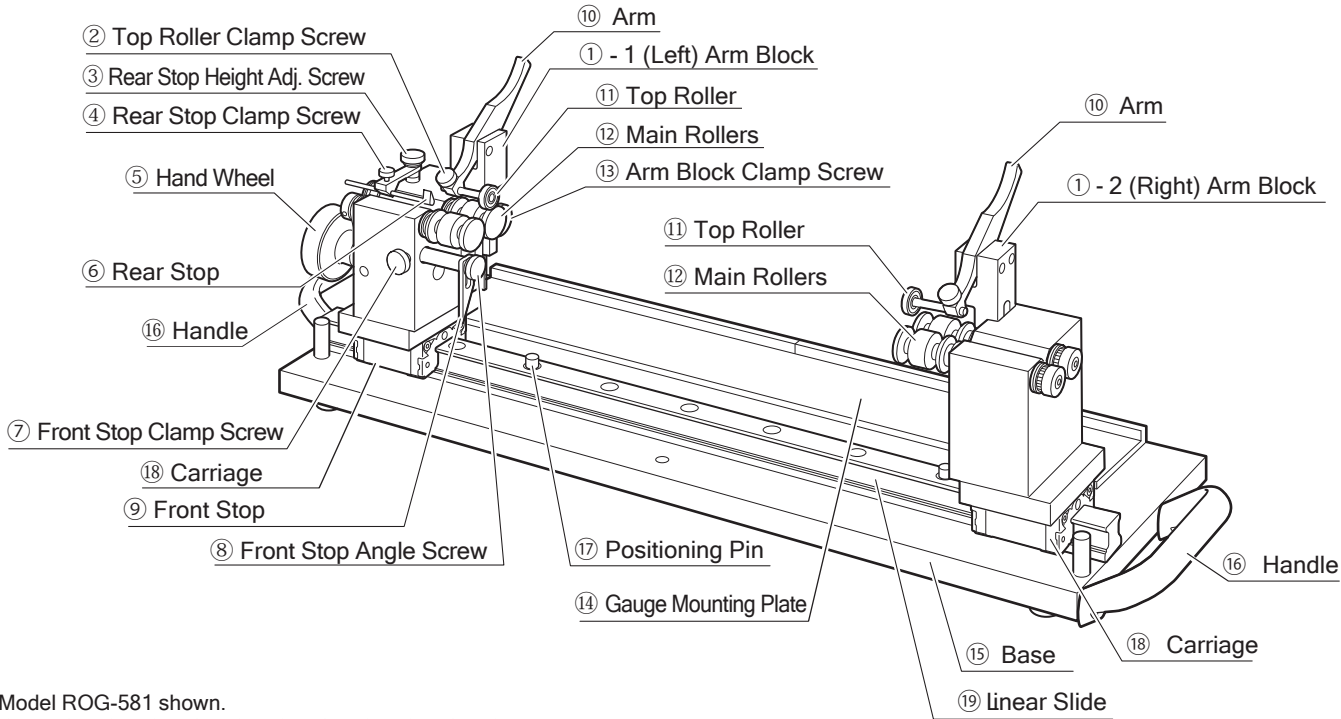
Precision Bench Center for measuring runout and eccentricity of workpieces.  
Thank you for purchasing the Niigata Seiki Run-Out Gauge System. This precision measurement jig, used with an Indicator Gauge, supports and rotates the workpiece for measuring radial ID and OD runout, as well as axial runout.

- For safe and proper use of this product, 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 dealer or Niigata Seiki at the address listed on the following page.

SAFETY NOTIFICATIONS

In this manual, ⚠ indicates RISK OF PERSONAL INJURY OR PROPERTY DAMAGE if not followed. The ⚡ symbol indicates something which is PROHIBITED, and the Ⓢ symbol indicates REQUIRED step or necessary condition.

PART IDENTIFICATION & FUNCTION



※Model ROG-581 shown.  
※①-2、③、④、⑥、⑦、⑧、⑨、⑭、⑮、⑰、⑱ - Not on Model ROG-307S.

- |                               |  |                         |  |
|-------------------------------|--|-------------------------|--|
| ① Left Arm Block              | Supports Top Roller Arm.   | ⑩ Arm                   | Positions the Top Roller to hold Workpiece.            |
| ② Top Roller Clamp Screw      | For setting Top Roller position.                                       | ⑪ Top Roller            | Holds Workpiece secure to Main Rollers.                |
| ③ Rear Stop Height Adj. Screw | For setting Rear Stop height.  | ⑫ Main Roller           | Supports the Workpiece.                                |
| ④ Rear Stop Clamp. Screw      | For setting Rear Stop position.  | ⑬ Arm Block Clamp Screw | For setting Arm Block Height.                          |
| ⑤ Hand Wheel                  | Rotates Main Roller.   | ⑭ Gauge Mounting Plate  | For mounting gauge magnetic base. (ROG-307S)           |
| ⑥ Rear Stop                   | Used when measuring axial runout.                                      | ⑮ Base                  | Steel. For mounting gauge magnetic base. (ROG-307S)    |
| ⑦ Front Stop Clamp Screw      | For setting the Front Stop position.                                   | ⑯ Handle                | For carrying the instrument.                           |
| ⑧ Front Stop Angle Screw      | For setting the Front Stop angle.                                      | ⑰ Positioning Pin       | Insert into one of the holes to set carriage position. |
| ⑨ Front Stop                  | Holds the Workpiece from lateral movement when measuring axial runout. | ⑱ Carriage              | Slide to adjust for workpiece length.                  |
|                               |  | ⑲ Linear Slide          | Carriage slide.  |

# SAFETY PRECAUTIONS

## Please Observe

Always follow the procedures specified below in order to prevent harm to yourself or others, and to prevent damage to property.

■ To prevent accident or injury, please observe the information identified with the following notices:

**CAUTION** Items where there is potential of injury or property damage.

■ The following icons indicate information which must be observed.

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

⊙ Denotes a requirement  
- You **MUST** do

## WARNING

⊙ Read the instruction manual and follow the instructions.  
• Use of product other than as described in the manual may cause accident.

⊙ Use only for measuring runout.  
• Misuse may cause damage, wear, or result in accident.

⊙ Use in an environment which meets the following conditions:

- Dry location protected from rain and water.
- Protect from direct sunlight.
- Stable surface, and free from vibration.
- A flat and secure surface.
- Location not accessible to children and unauthorized users.
- Location contrary to the above may cause poor accuracy, damage to the product, or may result in accident or injury.

⊙ Handle with Care  
• Do not drop or shock product. Do not place under heavy object or subject product to strong force. Improper use may cause inaccuracy or damage.

⊙ Use with care and attentiveness.  
• Misuse can damage or deform rollers.

⊘ Do not disassemble or modify.  
• Improper use may cause inaccuracy or damage.  
• Disassembly of parts, such as Main Roller, not intended for removal will void accuracy specifications.

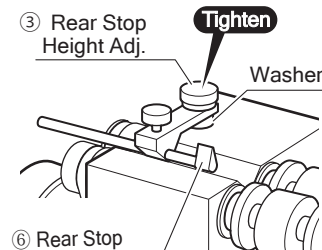
⊙ After use, apply corrosion inhibitor and store in a dry place away from direct sunlight.  
• Main Roller, Top Roller, and Carrier regions are sensitive to corrosion. Apply corrosion protection after use.

# ASSEMBLY

Before use, connect the detachable parts as shown.

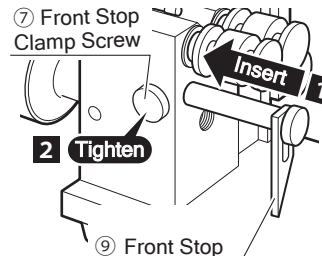
## ① Attach the Rear Work Stop. (ROG-581S only)

Attach the Rear Stop to the Main Unit using the Rear Stop Height Adj. Screw. Adjust the height of the Stop using (thick) Washers under the screw.



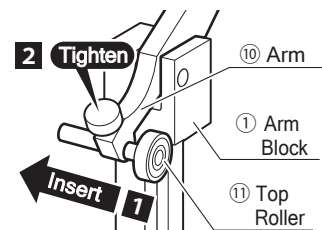
## ② Attach the Front Work Stop. (ROG-581S, Front Stop only)

Attach the Front Stop to the Main Unit using the Front Stop Clamp Screw. Make sure the Stop does not contact the Rollers.



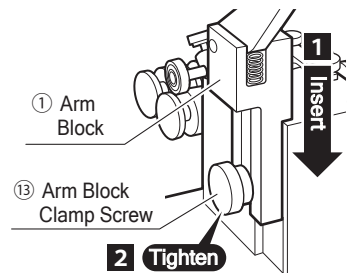
## ③ Attach the Top Roller.

Attach the Top Roller to the Top Roller Arm and secure using the Clamp Screw.



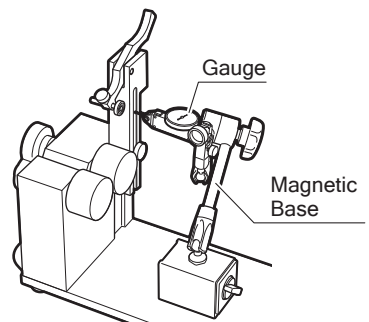
## ④ Attach the Arm Blocks.

- Insert the Arm Blocks into the rear grooves, and secure using the Clamp Screws.
- There are LH and RH versions of the blocks, Be sure to use correct ones. (ROG-581S only)



## ⑤ Attach the Measuring Instrument.

Use a Magnetic Base to support the Gauge.

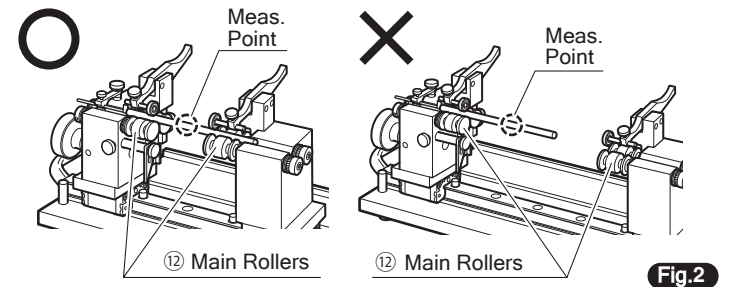


## ROG-581S Setup (continued)

※ Support the Workpiece on both the Left and Right Rollers, even for short Workpieces.

If supported by only one Roller, the accuracy decreases as the measurement point is further from the Roller. (Fig. 2)

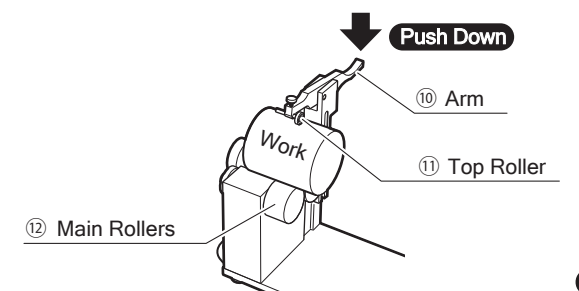
※ Roller has groove for flanged workpieces. Align the Flange into the Roller Groove.



## ROG-307S Setup ※For ROG-581S, see prev. page

Place the Workpiece on the two Main Rollers. Press down on the Arms to lift the Top Rollers before placement (Fig. 3)

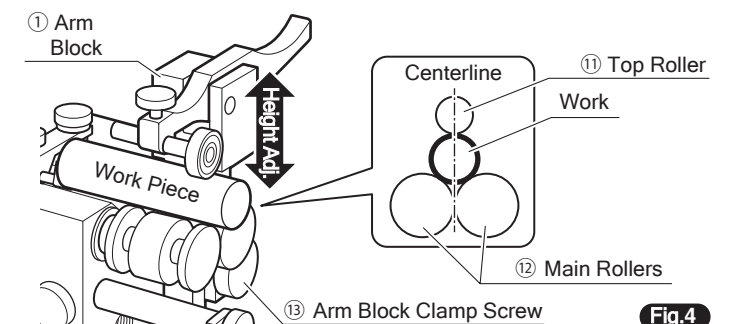
※ Highest accuracy is achieved on the Roller. Position the Workpiece so that the measurement point is as close to the Roller as possible.



## ③ Position the Top Roller

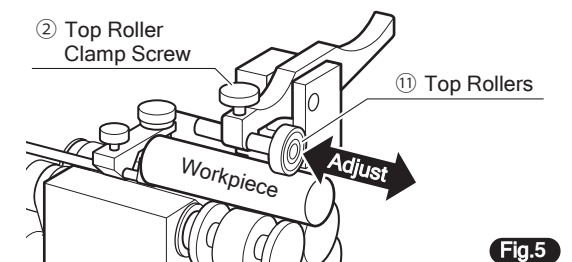
Loosen the Arm Block Clamp Screw and adjust the height of the Arm Block.

Adjust the vertical position to place the Roller on the center of the Workpiece and tighten the Arm Block Clamp Screw (Fig. 4)



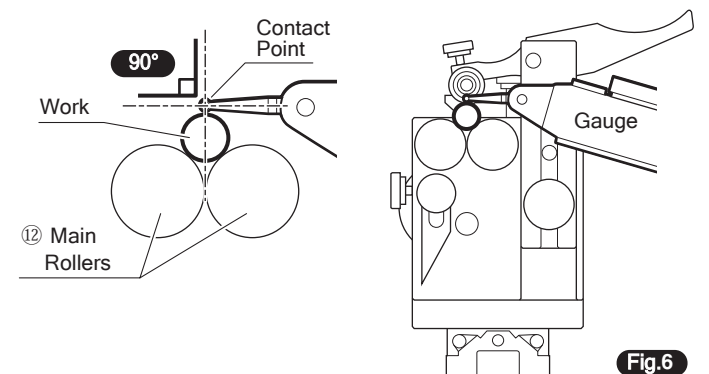
## ④ Adjust the Top Roller position (L-R)

Loosen the Top Roller Position Screw and adjust so that the Workpiece is secure between the Rollers. Tighten the Top Roller Position Screw. (Fig. 5)

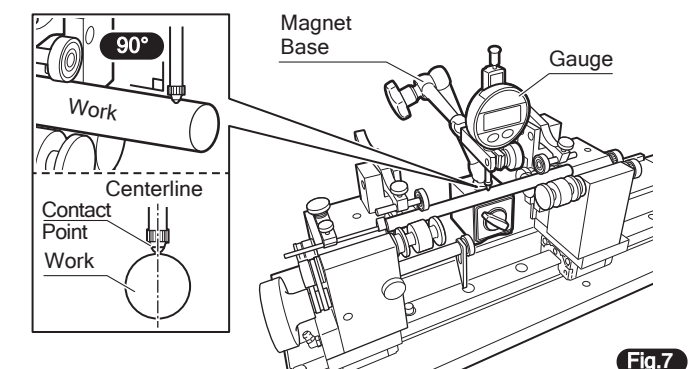


## ⑤ Position the Gauge Contact Point.

※ Position the Contact Point arm so that it is perpendicular to the measurement direction (Fig. 6)



※ For Dial Gauge, position the contact point so that the shaft is at right angle to the workpiece (perpendicular to the measurement direction.) (Fig. 7)



## ⑥ Turn the Hand Wheel to measure.

When the Hand Wheel is turned, it turns the Main Rollers, which turns the workpiece. The Gauge will indicate the surface deflection.

# HOW TO USE (RUN-OUT)

※ Main Roller and Top Roller are easily corroded which will cause inaccuracy. Please be sure to wear gloves when working.

## ① Installation

For accurate measurements, place the system on a flat and stable surface.

## ② Position the Workpiece on the Rollers.

ROG-581S setup ※For ROG-307S, see next page

Place the Workpiece on the two Main Rollers (Left and Right side.) Press down on the Arms to lift the Top Rollers before placement. (Fig. 1)

Workpiece to be measured must meet the conditions listed in the back of the manual under the section "Workpiece Requirements."

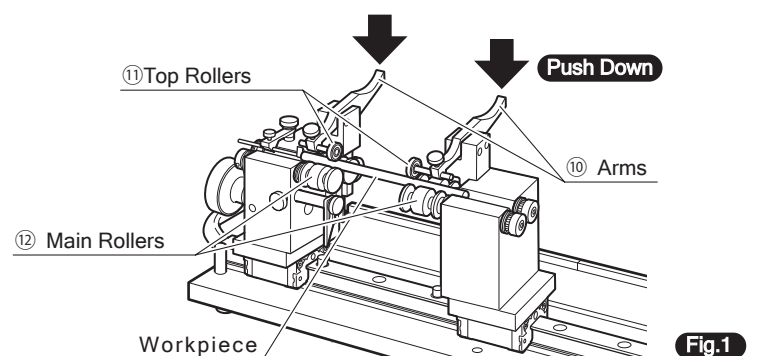


Fig.1