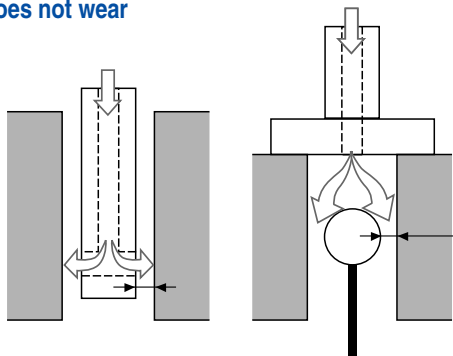


GAP JET Automatic Measuring Unit (patent pending)

New Type of High Precision Inner Diameter Measuring Unit



Ball and workpiece do not touch during measuring because of centripetal effect. Workpiece is not scratched/measuring ball does not wear

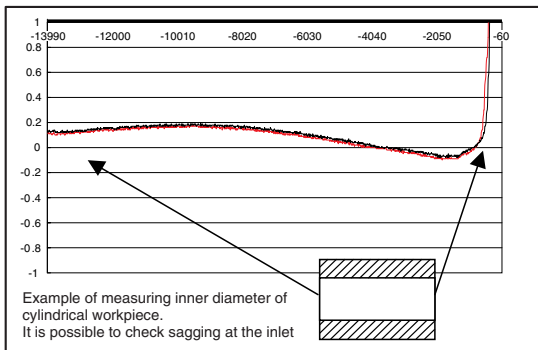


Conventional air jet

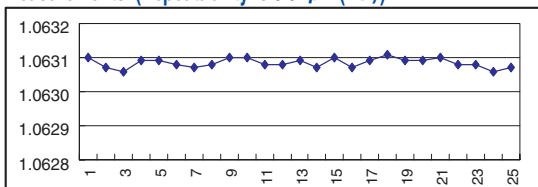
GAP JET

Detects gap between ball and workpiece with high sensitivity using change in pressure of flowing air.

GAP-JET200A model can check sagging at inlet/outlet.



Actual sample data for precise measuring: 1 mm inner diameter 25 measurements. (Repeatability is 0.04 μm(2σ))



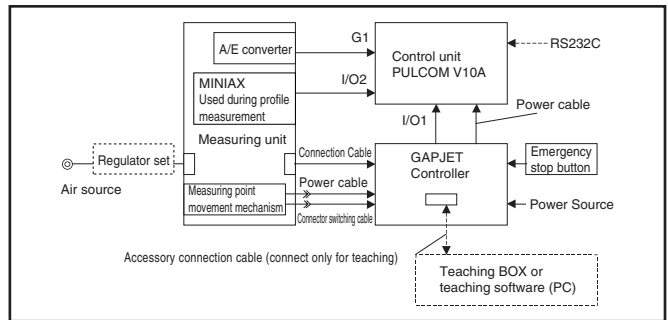
Sample of suitable applications

- Injector: Inner diameter measuring, inner diameter profile measuring
- Fluid bearing: Inner diameter measuring, inner diameter profile measuring
- Ultra small diameter bearings: Inner diameters of 1 mm

Features

- High precision measuring of inner diameters. Repeatability is 0.1 μm (2σ)
- Inner diameters between φ1 and φ5 mm can be measured.
- Maximum of 14 measuring positions of cross sections can be registered
- Workpieces only 0.5 mm thick can be measured.
- Sagging at inlet/outlet displayed as graph.
- No wear like air jet since the unit is non-contact.

Configuration Diagram



Specification

Model	GAP - JET 200A	
Product Code	0908040	0908050
Measured diameter (inner diameter)	Measured diameter at φ1 to φ5 (no notches in measured surface)	
Measuring range	10 μm or less	
Workpiece height	From 0.5mm to 20mm <small>However, it can measure continuously only if the probe is at least 0.25mm from the rim of the shaft being measured.</small>	
Display unit	0.01 μm	
Repeatability (guaranteed performance)	0.1 μm/2σ (25 times)	
Number of measured sections	Maximum of 14 sections	
Cycle Time (Section measurement time)	3 seconds per section (recommended value) Excluding when workpiece is mounted and when ball is moving	
Ball Positioning repeatability	± 0.02 mm (movement in one direction)	
Measuring position setting method (choose from the following)	Teaching BOX or teaching software (Installed on PC provided by customer)	
Profile measurement (Optional setup)	No	Yes (Scan speed: 0.08mm/second)
Power source	85 - 250V, 70VA	
Air source	0.6 - 0.7MPa	
Usage temperature range	0 - 40°C	
Humidity range	90% or less (no condensation)	

Options: Compatible with setup switching

Product code	Name	Remarks
0909080	Workpiece specific design cost	Required at time of order (workpiece diagram must be provided)
0909060	Mastering	Cost of one mastering
0909070	Ball assembly	Information (measured diameter) required, spare parts
4295153	Height measuring jig	Required for each type of workpiece
4288780	Teaching BOX	Choose one at purchase
4288238	Teaching software (cable included)	