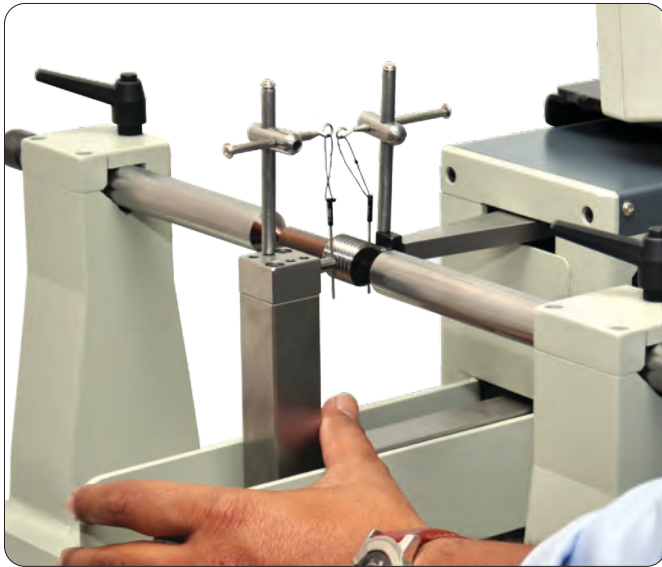


# Floating Carriage Diameter Measuring Machine

Precision Diameter Measuring System





Cy. Thread Plug Gauge measurement (2 wire method)

**Accessories :**



This is Octagon's latest development in Precision Screw Diameter Measuring Machine originally designed by National Physical Laboratory (NPL)- UK in 1940s. For enhancing the accuracies of the old design, Octagon has redesigned this machine with integration of the latest technologies of 21st Century and complying to the NPL specifications of MOY / SCMI/9 ( issue 7) 2001.

This measuring machine is specially designed for precision measurement of screw thread gauges and cylindrical shafts. In this machine design, the measuring axis is constantly held at the right angles to the axis of the centers. This design allows precision measurement of screw threads by two wire method. The component being measured is mounted between a pair of centers and the measuring carriage float freely in the right-angle to the axis of the centers, facilitates most accurate diametrical measurements. The measuring spindle is precisely guided in the measuring carriage and is maintained in the axis of the centers to ensure compliance with Abbe's Principle. In additions to the plain diametrical measurements, the measurements of pitch (effective), major and minor diameters of external screw threads can be measured on this machine.

**Features :**

- A model with latest technology of 21st century integrated for high performance capabilities over old design.
- Longest absolute measuring range 150mm, eliminates the requirement of pre-setting on different cylindrical setting standards, drastic reduction in measurement cycle time.
- High Precision Optical encoder system provides higher resolution 0.1µm with measurement uncertainties below 0.001 mm
- High precision measuring spindle guided by high precision LM Guides for best performance .
- Digital readout system helps to avoid calculation errors and facilities direct computerized data acquisition .
- Measuring axis is precisely maintained in the right-angle to the centre axis facilities correct measuring alignments.
- Compliance with Abbe's Comparator principle.
- Compliance to NPL UK Specifications MOY/SCMI/9.
- Rugged Cast Iron body , specially heat treated for structural stability. Centers provided with hardened high Carbon steel are guided in Tungsten carbide Vee guides ensures longer life.
- Specially designed for measurement of external screw thread diameters including pitch diameter , major and minor diameters of various forms including ISO Metric, Unified , with worth, Buttress, trapezoidal , ACME including taper threads of NPT & BSPT.
- Provided with accessories like threads measuring wire set for measurements of screw pitch diameter and prism set for minor diameter of screw threads.
- 'Two wire method' for measurement of pitch diameter of external screw threads.

<b>Technical Specifications:</b>	
Measuring capacity :	0-150mm/ 100-250mm
Absolute Measuring Range	150mm.
Accommodation between centers	300mm.
Weight holding capacity	5 Kg.
<b>Performance Data :</b>	
Resolution	0.1 µm
Measurement Uncertainty	0.7+ L/1000 µm
<b>Dimensions, weight and operational conditions</b>	
L x W x H	400X300X250mm
Weight (kg)	40 Kg
Power supply	230VAC, 50 Hz.
Display System	Digital Read Out ( DRO)