

NEW PRODUCT INFORMATION

Locking-screw Type Micrometer Heads



Simple and secure spindle locking



The spindles in these new micrometer heads can be quickly locked in any position by simply tightening a locking screw, which is a more secure method compared to the conventional locking ring device. These heads are well suited for use in jig applications where the spindle cannot be allowed to rotate unintentionally, even when subject to sustained vibration.

Three basic types are available

		Thimble Diameter	Stroke
	Extra-small type	9.3mm	6.5mm
	Widely-used compact type	13mm	13mm
	Space-saving type	15mm	6.5mm

Two forms of spindle face



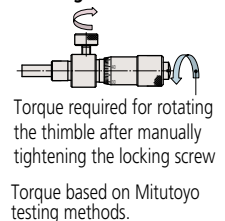
Two attachment schemes



Efficiency comparison of spindle locking methods

Mitutoyo's testing shows that the locking screw method is much more efficient at holding the spindle at any required position than the locking ring method. Approximately three times more torque is needed to overcome the locking screw than the locking ring when both are tightened using the same finger strength.

•Locking effect



Specifications

Metric		Inch		Accuracy	Stem dia.	Stem	Spindle face
Range	Order No.	Range	Order No.				
6.5mm	148-220	.25"	148-230	±5µm	6mm / .25"	Plain	Flat
6.5mm	148-221	.25"	148-231	±5µm	6mm / .25"	with clamp nut	Flat
6.5mm	148-222	.25"	148-232	±5µm	6mm / .25"	Plain	Spherical (SR3)
6.5mm	148-223	.25"	148-233	±5µm	6mm / .25"	with clamp nut	Spherical (SR3)
13mm	148-150	.5"	148-160	±2µm	9.5mm / .375"	Plain	Flat
13mm	148-151	.5"	148-161	±2µm	9.5mm / .375"	with clamp nut	Flat
13mm	148-152	.5"	148-162	±2µm	9.5mm / .375"	Plain	Spherical (SR3)
13mm	148-153	.5"	148-163	±2µm	9.5mm / .375"	with clamp nut	Spherical (SR3)
6.5mm	148-316	.25"	148-326	±2µm	9.5mm / .375"	Plain	Flat
6.5mm	148-317	.25"	148-327	±2µm	9.5mm / .375"	with clamp nut	Flat
6.5mm	148-318	.25"	148-328	±2µm	9.5mm / .375"	Plain	Spherical (SR3)
6.5mm	148-319	.25"	148-329	±2µm	9.5mm / .375"	with clamp nut	Spherical (SR3)

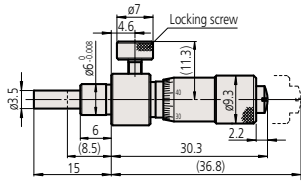
*Graduations: 0.01mm or .001"



Dimensions

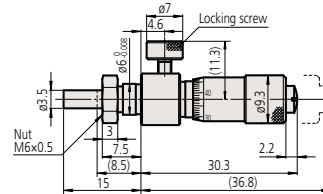
Unit: mm

Flat-face plain stem



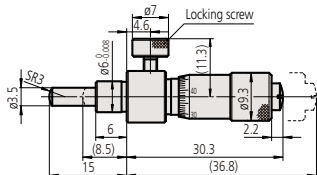
148-220 Mass: 16g

Flat-face stem with clamp nut



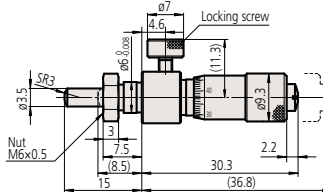
148-221 Recommended mounting plate thickness: 4mm Mass: 17g

Spherical-face plain stem



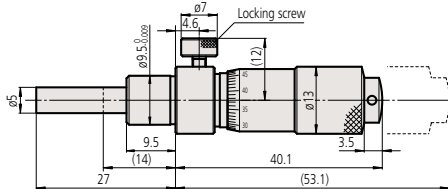
148-222 Spherical face (SR3) Mass: 16g

Spherical-face stem with clamp nut



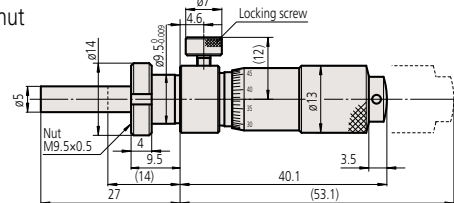
148-223 Spherical face (SR3) Recommended mounting plate thickness: 4mm Mass: 17g

Flat-face plain stem



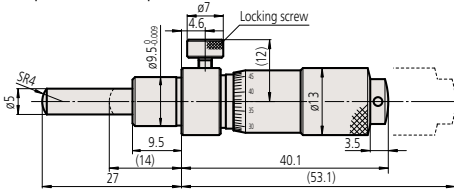
148-150 Mass: 40g

Flat-face stem with clamp nut



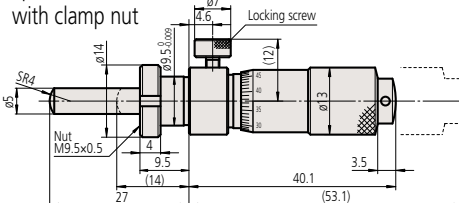
148-151 Recommended mounting plate thickness: 6mm Mass: 43g

Spherical-face plain stem



148-152 Spherical face (SR4) Mass: 40g

Spherical-face stem with clamp nut

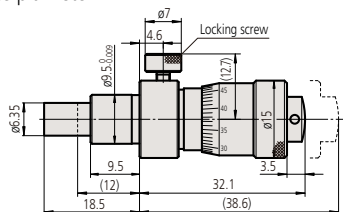


148-153 Spherical face (SR4)
Recommended mounting plate thickness: 6mm Mass: 43g

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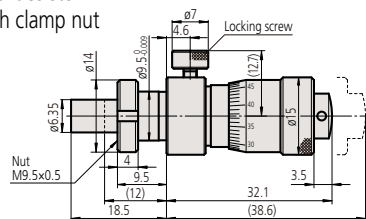
- Coordinate Measuring Machines
- Vision Measuring Systems
- Form Measurement
- Optical Measuring
- Sensor Systems
- Test Equipment and Seismometers
- Digital Scale and DRO Systems
- Small Tool Instruments and Data Management

Flat-face plain stem



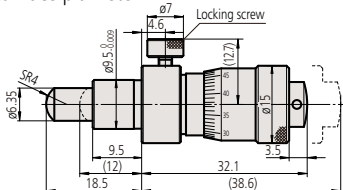
148-316 Mass: 40g

Flat-face stem with clamp nut



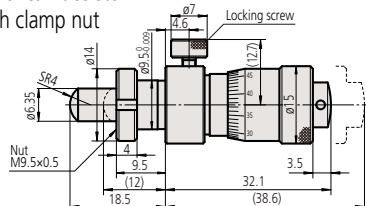
148-317 Recommended mounting plate thickness: 6mm Mass: 43g

Spherical-face plain stem



148-318 Spherical face (SR4) Mass: 40g

Spherical-face stem with clamp nut



148-319 Spherical face (SR4)
Recommended mounting plate thickness: 6mm Mass: 43g

The dimensions in parentheses apply when the spindle is in the retracted position.

Note: All information regarding our products, and in particular the illustrations, drawings, dimensional and performance data contained in this pamphlet, as well as other technical data are to be regarded as approximate average values. We therefore reserve the right to make changes to the corresponding designs, dimensions and weights. The stated standards, similar technical regulations, descriptions and illustrations of the products were valid at the time of printing. Only quotations submitted by ourselves may be regarded as definitive.

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