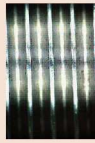


Spindle Pitch



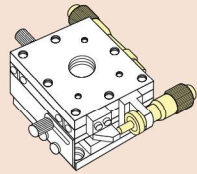
Pitch=0.1 mm



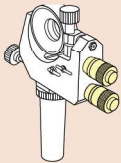
Pitch=0.5 mm

Typical Applications

- Semiconductor-wafer positioning machinery and optical component alignment units, etc.
- Precision X-Y table positioning



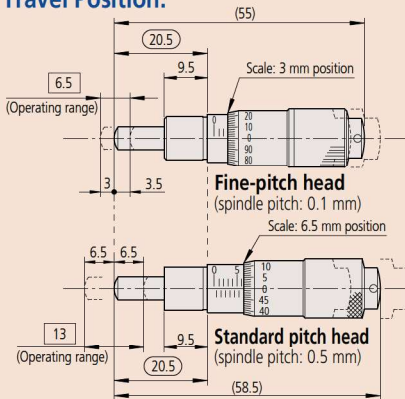
- Precision adjustment of mirror in holder



Precision adjustment of mirror in holder



Comparison of Mounting Dimensions Between a Fine-pitch Head and a Standard-pitch Head at the Mid-range Travel Position.



Note: While the fine-pitch micrometer head has a measuring range of 6.5 mm, the standard head has a larger range of 13 mm. When replacing a standard head, the fine-pitch type can use the common range in the middle of the spindle travel. The standard and compact types of fine-pitch head are otherwise completely interchangeable.

Micrometer Heads  
SERIES 148 — Fine Spindle Feed of 0.1 mm/rev

- Fine spindle feeding of just 0.1 mm/rev (one fifth compared with standard model). Suitable for extra-fine adjustment and positioning.
- External dimensions are compatible with standard 0.5 mm pitch heads.
- Suitable for the fine feeding of precision stages on semiconductor equipment and optical-axis alignment device.

SPECIFICATIONS

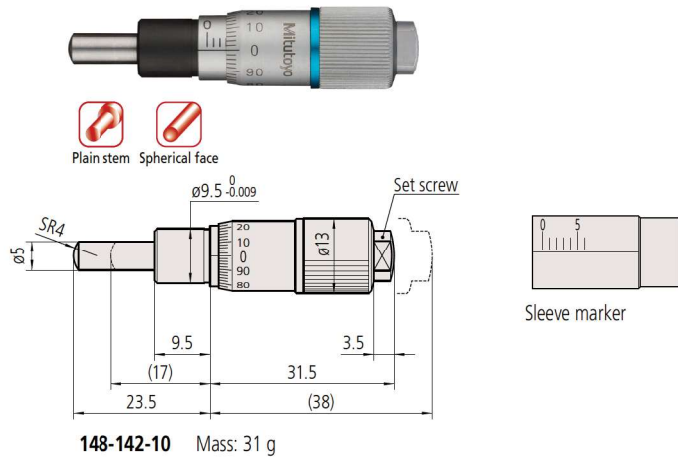
Metric								
Code No.	Range (mm)	Graduation (mm)	Stem dia. (mm)	Stem	Spindle end	Spindle pitch (mm)	Maximum permissible error $J_{MPE}$ ( $\mu\text{m}$ )	Special features
148-142-10	0 - 6.5	0.002	9.5	Plain	Spherical (SR4)	0.1	$\pm 2$	—
148-143-10				W/clamp nut				
148-342-10				Plain				
148-343-10			W/clamp nut					
148-242-10			Plain					
148-243-10	W/clamp nut							
148-244	0 - 5	0.004	3.5	Plain	Spherical (SR3)	$\pm 5$	Small thimble diameter	
148-245				W/clamp nut	Spherical (SR1.5)			

- Measuring face: Material/Alloy tool steel, Hardness/60 HRC or more, Lapped
  - Scale finishing: Satin-chrome plated
- Note: Refer to page 03-49 for details of the recommended maximum loading limit.

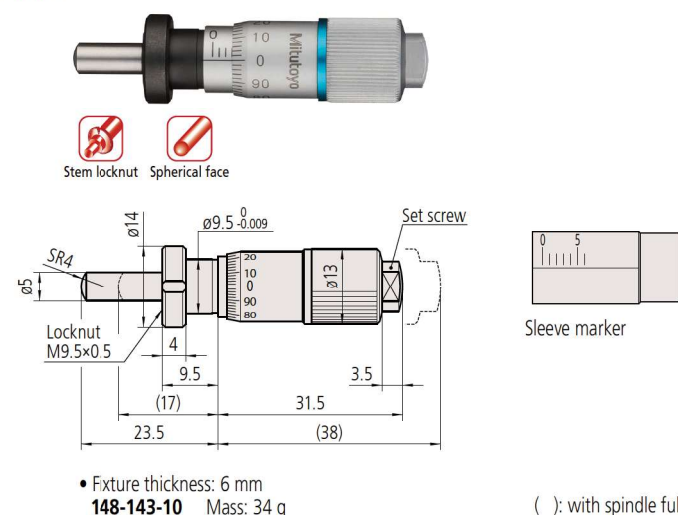
DIMENSIONS

Plain Stem

Unit: mm



Stem Locknut



- Fixture thickness: 6 mm
- 148-143-10 Mass: 34 g

( ) : with spindle fully retracted.

# Micrometer Head

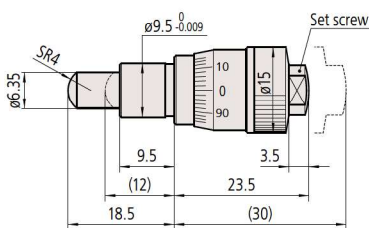
## Micrometer Heads SERIES 148 — Fine Spindle Feed of 0.1 mm/rev

### DIMENSIONS

#### Plain Stem



Plain stem Spherical face

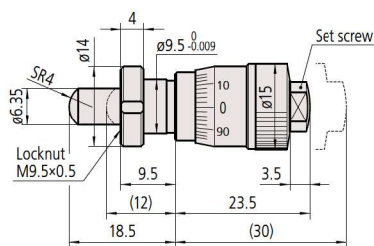


148-342-10 Mass: 29 g

#### Stem Locknut

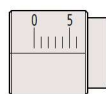


Stem locknut Spherical face



• Fixture thickness: 6 mm  
148-343-10 Mass: 31 g

Unit: mm

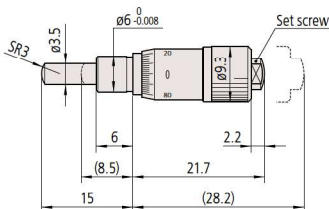


Sleeve marker

#### Plain Stem



Plain stem Spherical face

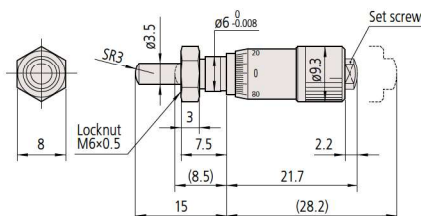


148-242-10 Mass: 10 g

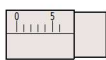
#### Stem Locknut



Stem locknut Spherical face



• Fixture thickness: 4 mm  
148-243-10 Mass: 10 g

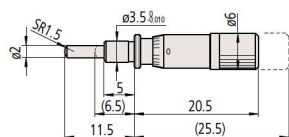


Sleeve marker

#### Plain Stem



Plain stem Spherical face

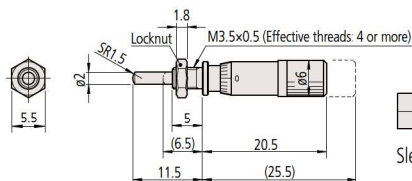


148-244 Mass: 4 g

#### Stem Locknut



Stem locknut Spherical face



• Fixture thickness: 3 mm  
148-245 Mass: 5 g



Sleeve marker

( ) : with spindle fully retracted.