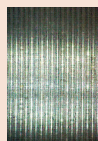
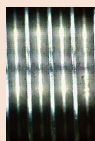


## Spindle Pitch



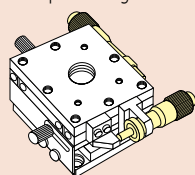
Pitch=0.1 mm



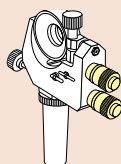
Pitch=0.5 mm

## Typical Applications

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



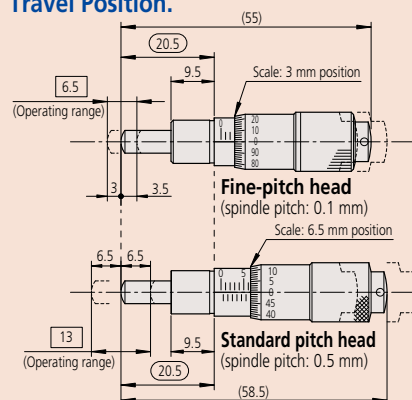
- Precision adjustment of mirror in holder



## 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

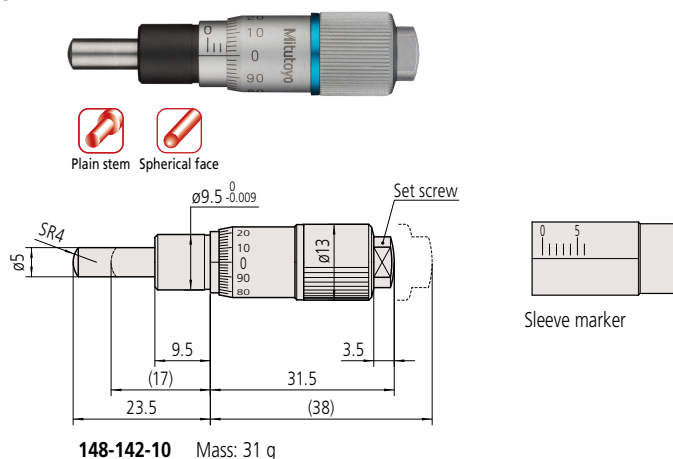
Metric								
Code No.	Range (mm)	Graduation (mm)	Stem dia. (mm)	Stem	Spindle end	Spindle pitch (mm)	Maximum permissible error $J_{MPE}$ (μm)	Special features
148-142-10	0 - 6.5	0.002	9.5	Plain	Spherical (SR4)	0.1	±2	—
148-143-10				W/clamp nut				
148-342-10			Plain	Spherical (SR3)	±5		Thicker & shorter thimble	
148-343-10			W/clamp nut					
148-242-10	6	Plain	Spherical (SR3)	Small thimble diameter				
148-243-10		W/clamp nut						
148-244	0 - 5	0.004	3.5		Plain	Spherical (SR1.5)	±5	
148-245					W/clamp nut			

- Measuring face: Material/Alloy tool steel, Hardness/60 HRC or more, Lapped
- Scale finishing: Satin-chrome plated

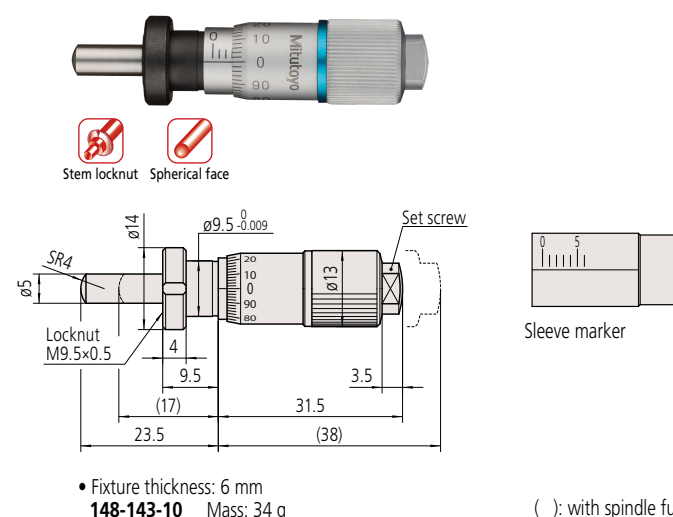
## DIMENSIONS

### Plain Stem

Unit: mm



### Stem Locknut



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

( ): with spindle fully retracted.

## Micrometer Head

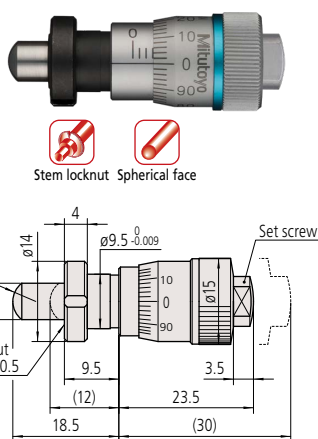
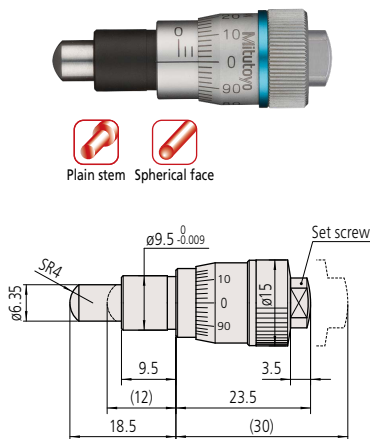
### Micrometer Heads SERIES 148 — Fine Spindle Feed of 0.1 mm/rev

#### DIMENSIONS

##### Plain Stem

##### Stem Locknut

Unit: mm

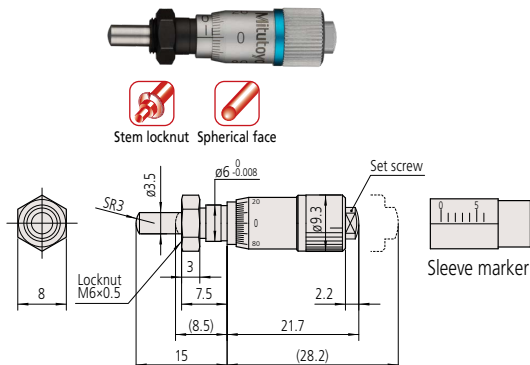
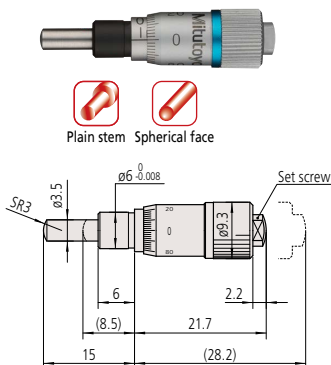


**148-342-10** Mass: 29 g

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

##### Plain Stem

##### Stem Locknut

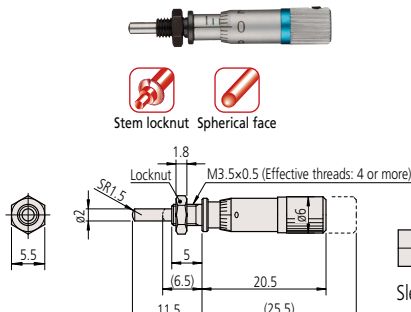
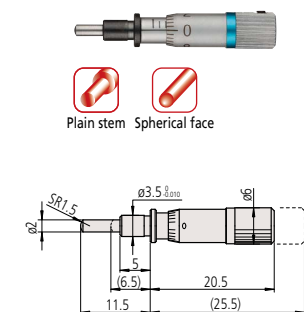


**148-242-10** Mass: 10 g

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

##### Plain Stem

##### Stem Locknut



**148-244** Mass: 4 g

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

( ): with spindle fully retracted.