

Inside Micrometers

Tubular Inside Micrometers
SERIES 133 — Single-Rod Type

- Standard Single-rod Type inside micrometer.
- Carbide-tipped measuring faces.
- A reference gage is necessary for reference point setting.
- An optional reference gage, such as Gauge Block Accessory Set, CERA inside Micro Checker or a setting ring, is required for accurately setting the micrometer before measuring. (refer to pages 01-19 to 01-22, 08-30, and 08-53 for details)



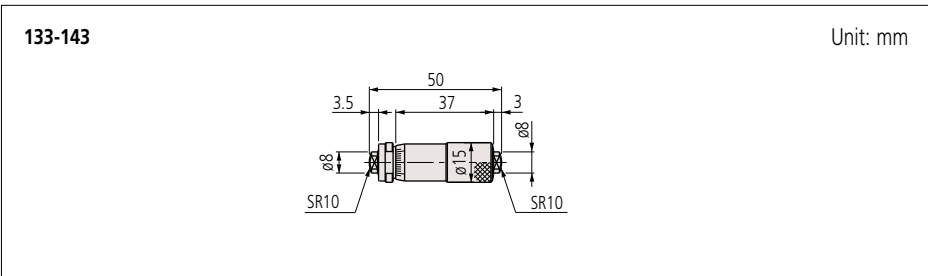
133-143

SPECIFICATIONS

Metric Individual			
Code No.	Range (mm)	Graduation (mm)	Maximum permissible error <i>J_{MPE}</i> (μm)
133-143	50 - 75	0.01	±3

Inch Individual			
Code No.	Range (in)	Graduation (in)	Maximum permissible error <i>J_{MPE}</i> (in)
133-223	2 - 3	0.001	±0.00015

DIMENSIONS



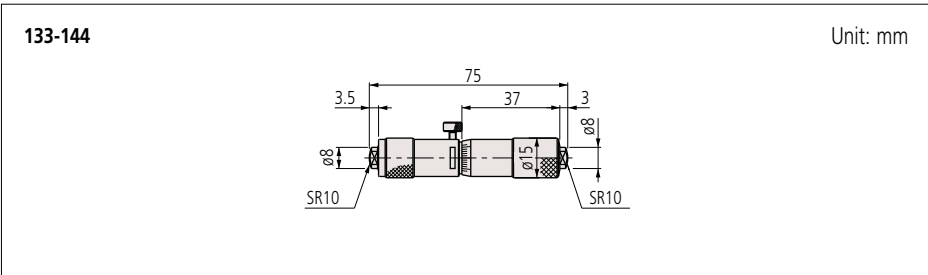
133-144

SPECIFICATIONS

Metric Individual			
Code No.	Range (mm)	Graduation (mm)	Maximum permissible error <i>J_{MPE}</i> (μm)
133-144	75 - 100	0.01	±4

Inch Individual			
Code No.	Range (in)	Graduation (in)	Maximum permissible error <i>J_{MPE}</i> (in)
133-224	3 - 4	0.001	±0.0002

DIMENSIONS



Measurement example



Micrometer Set



- 133-901 (Metric)**
• Range: 50 - 150 mm (4 heads/set)
• Models included:
133-143 133-144
133-145 133-146
with fitted case



- 133-902 (Metric)**
• Range: 50 - 300 mm (10 heads/set)
• Models included:
133-143 133-144
133-145 133-146
133-147 133-148
133-149 133-150
133-151 133-152
with fitted case

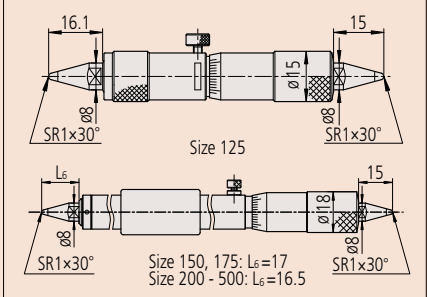
- 133-903 (Inch)**
• Range: 2 - 6 in (4 heads/set)
• Models included:
133-223 133-224
133-225 133-226
with fitted case

- 133-904 (Inch)**
• Range: 2 - 12 in (10 heads/set)
• Models included:
133-223 133-224
133-225 133-226
133-227 133-228
133-229 133-230
133-231 133-232
with fitted case

Special sizes and specifications other than standard can be custom-made by special order. Please contact your local Mitutoyo Sales Office for more information.

Example

Measuring face: point
For models with a measuring range 100 - 500 mm



133-152

SPECIFICATIONS

Metric				Inch			
Individual				Individual			
Code No.	Range (mm)	Graduation (mm)	Maximum permissible error J_{MPE} (μ m)	Code No.	Range (in)	Graduation (in)	Maximum permissible error J_{MPE} (in)
133-145	100 - 125	0.01	± 5	133-225	4 - 5	0.001	± 0.00025
133-146	125 - 150			133-226	5 - 6		
133-147	150 - 175			133-227	6 - 7		
133-148	175 - 200			133-228	7 - 8		
133-149	200 - 225		± 6	133-229	8 - 9		± 0.0003
133-150	225 - 250			133-230	9 - 10		
133-151	250 - 275			133-231	10 - 11		
133-152	275 - 300			133-232	11 - 12		
133-153	300 - 325		± 7				
133-154	325 - 350						
133-155	350 - 375		± 8				
133-156	375 - 400						
133-157	400 - 425		± 9				
133-158	425 - 450						
133-159	450 - 475		± 10				
133-160	475 - 500						
133-161	500 - 525		± 11				
133-162	525 - 550						
133-163	550 - 575		± 12				
133-164	575 - 600						
133-165	600 - 625		± 13				
133-166	625 - 650						
133-167	650 - 675		± 14				
133-168	675 - 700						
133-169	700 - 725		± 15				
133-170	725 - 750						
133-171	750 - 775		± 16				
133-172	775 - 800						
133-173	800 - 825						
133-174	825 - 850						
133-175	850 - 875						
133-176	875 - 900						
133-177	900 - 925						
133-178	925 - 950						
133-179	950 - 975						
133-180	975 - 1000						

DIMENSIONS

133-145 to 133-180				Unit: mm			
Code No.	L ₁	L ₆	L ₇	Code No.	L ₁	L ₆	L ₇
133-145	100	5	3	133-146	125	5	3
133-147	150	18	15	133-148	175	18	15
133-149	200	18	15	133-150	225	18	15
133-151	250	18	15	133-152	275	18	15
133-153	300	18	15	133-154	325	18	15
133-155	350	18	15	133-156	375	18	15
133-157	400	18	15	133-158	425	18	15
133-159	450	18	15	133-160	475	18	15
133-161	500	18	15	133-162	525	18	15
133-163	550	18	15	133-164	575	18	15
133-165	600	18	15	133-166	625	18	15
133-167	650	18	15	133-168	675	18	15
133-169	700	18	15	133-170	725	18	15
133-171	750	18	15	133-172	775	18	15
133-173	800	18	15	133-174	825	18	15
133-175	850	18	15	133-176	875	18	15
133-177	900	18	15	133-178	925	18	15
133-179	950	18	15	133-180	975	18	15