

# Micrometers

## SERIES 103 – Economy Micrometer

- Baked-enamel-finished frame.
- Equipped with Ratchet Stop for constant measuring force.
- Measuring faces: carbide.
- Setting standard included on models measuring above 25 mm / 1" maximum measuring range.



103-138

### Specifications

Metric				
Code No.	Range	Graduation	Accuracy	
With ratchet stop				
103-137	0 - 25 mm	0.01 mm	±2 μm	
103-129		0.001 mm		
103-138	25 - 50 mm	0.01 mm		
103-130		0.001 mm		
103-139-10	50 - 75 mm	0.01 mm		±3 μm
103-140-10	75 - 100 mm			
103-141-10	100 - 125 mm			
103-142-10	125 - 150 mm			
103-143-10	150 - 175 mm			
103-144-10	175 - 200 mm			±4 μm
103-145-10	200 - 225 mm			
103-146-10	225 - 250 mm			
103-147-10	250 - 275 mm			
103-148-10	275 - 300 mm			
103-149	300 - 325 mm	0.01 mm	±5 μm	
103-150	325 - 350 mm			
103-151	350 - 375 mm			
103-152	375 - 400 mm			
103-153	400 - 425 mm			
103-154	425 - 450 mm		±6 μm	
103-155	450 - 475 mm			
103-156	475 - 500 mm			
103-157	500 - 525 mm			
103-158	525 - 550 mm			
103-159	550 - 575 mm	0.01 mm	±7 μm	
103-160	575 - 600 mm			
103-161	600 - 625 mm			
103-162	625 - 650 mm			
103-163	650 - 675 mm			
103-164	675 - 700 mm		±8 μm	
103-165	700 - 725 mm			
103-166	725 - 750 mm			
103-167	750 - 775 mm			
103-168	775 - 800 mm			
103-169	800 - 825 mm	0.01 mm	±9 μm	
103-170	825 - 850 mm			
103-171	850 - 875 mm			
103-172	875 - 900 mm			
103-173	900 - 925 mm			
103-174	925 - 950 mm		±10 μm	
103-175	950 - 975 mm			
103-176	975 - 1000 mm			

Inch				
Code No.	Range	Graduation	Accuracy	
With ratchet stop				
103-177	0 - 1"	.001"	±.0001"	
103-131		.0001"		
103-178	1 - 2"	.001"		
103-132		.0001"		
103-179	2 - 3"	.001"		±.00015"
103-180	3 - 4"			
103-181	4 - 5"			
103-182	5 - 6"			
103-183	6 - 7"			
103-184	7 - 8"			±.0002"
103-185	8 - 9"			
103-186	9 - 10"			
103-187	10 - 11"			
103-188	11 - 12"			
103-189	12 - 13"	.001"	±.00025"	
103-190	13 - 14"			
103-191	14 - 15"			
103-192	15 - 16"			
103-193	16 - 17"			
103-194	17 - 18"		±.0003"	
103-195	18 - 19"			
103-196	19 - 20"			
103-197	20 - 21"			
103-198	21 - 22"			
103-199	22 - 23"	.001"	±.00035"	
103-200	23 - 24"			
103-201	24 - 25"			
103-202	25 - 26"			
103-203	26 - 27"			
103-204	27 - 28"		±.0004"	
103-205	28 - 29"			
103-206	29 - 30"			
103-207	30 - 31"			
103-208	31 - 32"			
103-209	32 - 33"	.001"	±.00045"	
103-210	33 - 34"			
103-211	34 - 35"			
103-212	35 - 36"			
103-213	36 - 37"			
103-214	37 - 38"		±.0005"	
103-215	38 - 39"			
103-216	39 - 40"			

With friction thimble			
Code No.	Range	Graduation	Accuracy
103-135	0 - 1"	.001" *1	±.0001"
103-136	1 - 2"		

\*1 .0001 reading is obtained with vernier.

### Technical Data

Flatness: 0.6 μm / .000024" for models up to 300 mm / 12", 1 μm / 0.0004" for models over 300 mm / 12"

Parallelism\*2: (2+R/100) μm / [.00008+.00004 (R/4)]"

\*2 R = max. range (mm/inch)

Note: Fractions rounded down



103-904-10



103-905-10



103-906



## Set Specifications

Metric		
Code No.	Range	Models included
103-927-10	0 - 75 mm (3 pcs./set)	103-137, 103-138, 103-139-10, 2 micrometer setting standards
103-913-50	0 - 150 mm (6 pcs./set)	103-137, 103-138, 103-139-10, 103-140-10, 103-141-10, 103-142-10, 5 micrometer setting standards
103-915-10	150 - 300 mm (6 pcs./set)	103-143-10, 103-144-10, 103-145-10, 103-146-10, 103-147-10, 103-148-10, 6 micrometer setting standards
103-914-50	0 - 300 mm (12 pcs./set)	All micrometers in 103-913-50 and 103-915-10 in one set, 11 micrometer setting standards

  

Inch		
Code No.	Range	Models included
103-929	0 - 3" (3 pcs./set)	103-177, 103-178, 103-179, 2 micrometer setting standards
103-904-10	0 - 6" (6 pcs./set)	103-177, 103-178, 103-179, 103-180, 103-181, 103-182, 5 micrometer setting standards
103-906	6 - 12" (6 pcs./set)	103-183, 103-184, 103-185, 103-186, 103-187, 103-188, 6 micrometer setting standards
103-905-10	0 - 12" (12 pcs./set)	All micrometers in 103-904-10 and 103-906 in one set, 11 micrometer setting standards

## Dimensions

Range	L	a	b	c	
0 - 25 mm	0	2.5	9	28	
25 - 50 mm	25		10	38	
50 - 75 mm	50		12	49	
75 - 100 mm	75		14	60	
100 - 125 mm	100	5.3	16.7	79	
125 - 150 mm	125	5.7	18.8	94	
150 - 175 mm	150	6.1	19.1	106	
175 - 200 mm	175	6.3	18.2	118	
200 - 225 mm	200	6.7	16.8	130	
225 - 250 mm	225	5.5	18	143	
250 - 275 mm	250	6.5		156	
275 - 300 mm	275	6.5		169	
300 - 325 mm	300	18	18	187	
325 - 350 mm	325			199	
350 - 375 mm	350			212	
375 - 400 mm	375			224	
400 - 425 mm	400			236	
425 - 450 mm	425			248	
450 - 475 mm	450			261	
475 - 500 mm	475			273	
500 - 525 mm	500			40	307
525 - 550 mm	525			15	28
550 - 575 mm	550	40	355		
575 - 600 mm	575	15	382		
600 - 625 mm	600	40	405		
625 - 650 mm	625	15	430		
650 - 675 mm	650	40	455		
675 - 700 mm	675	15	480		
700 - 725 mm	700	40	505		
725 - 750 mm	725	15	530		
750 - 775 mm	750	40			
775 - 800 mm	775	15			
800 - 825 mm	800	40	28	455	
825 - 850 mm	825	15		480	
850 - 875 mm	850	40		505	
875 - 900 mm	875	15		530	
900 - 925 mm	900	40		530	
925 - 950 mm	925	15			
950 - 975 mm	950	40			
975 - 1000 mm	975	15			

