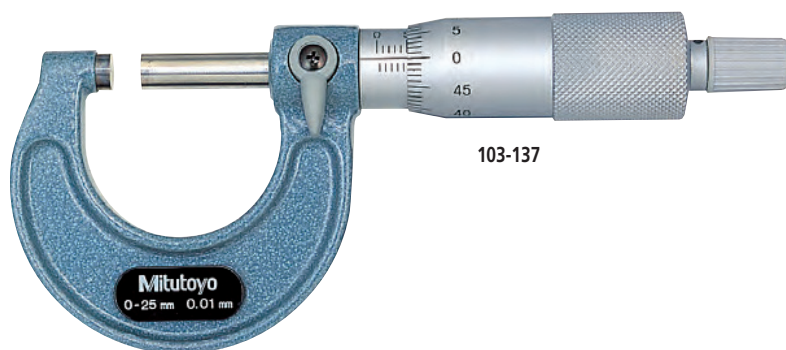


Outside Micrometers

SERIES 103

FEATURES

- Hammertone, baked-enamel-finished frame.
- Ratchet Stop for exact repetitive readings.
- With a standard bar except for 0-25mm model.



103-137



Technical Data

Graduation: 0.01mm, 0.001mm
 Flatness: 0.6 μ m for models up to 300mm
 1 μ m for models over 300mm
 Parallelism: (2+R/100) μ m, R=max, range (mm)
 Measuring faces: Carbide tipped

SPECIFICATIONS

Metric With ratchet stop

Range	Order No.	Accuracy	Mass (g)
0 - 25mm	103-137	$\pm 2\mu$ m	175
	103-129*	$\pm 2\mu$ m	175
25 - 50mm	103-138	$\pm 2\mu$ m	215
	103-130*	$\pm 2\mu$ m	215
50 - 75mm	103-139-10	$\pm 2\mu$ m	315
75 - 100mm	103-140-10	$\pm 3\mu$ m	375
100 - 125mm	103-141-10	$\pm 3\mu$ m	515
125 - 150mm	103-142-10	$\pm 3\mu$ m	665
150 - 175mm	103-143-10	$\pm 4\mu$ m	720
175 - 200mm	103-144-10	$\pm 4\mu$ m	920
200 - 225mm	103-145-10	$\pm 4\mu$ m	1080
225 - 250mm	103-146-10	$\pm 5\mu$ m	1255
250 - 275mm	103-147-10	$\pm 5\mu$ m	1405
275 - 300mm	103-148-10	$\pm 5\mu$ m	1565
300 - 325mm	103-149	$\pm 6\mu$ m	1985
325 - 350mm	103-150	$\pm 6\mu$ m	2155
350 - 375mm	103-151	$\pm 6\mu$ m	2305
375 - 400mm	103-152	$\pm 7\mu$ m	2455
400 - 425mm	103-153	$\pm 7\mu$ m	2715
425 - 450mm	103-154	$\pm 7\mu$ m	2965
450 - 475mm	103-155	$\pm 8\mu$ m	3215
475 - 500mm	103-156	$\pm 8\mu$ m	3450

(Models with a range up to 1000mm are available.)

*0.001mm reading is obtained with vernier.

DIMENSIONS AND MASS

Up to 300mm / 12"					Over 300mm / 12"				
Range	L	a	b	c	Range	L	a	b	c
0 - 25mm / 0 - 1"	30.3	2.8	9	28	300 - 325mm / 12-13"	353	18	28	187
25 - 50mm / 1 - 2"	55.3	2.8	10	38	325 - 350mm / 13-14"	378	18	28	199
50 - 75mm / 2 - 3"	80.3	2.8	12	49	350 - 375mm / 14-15"	403	18	28	212
75 - 100mm / 3 - 4"	105.3	2.8	14	60	375 - 400mm / 15-16"	428	18	28	224
100 - 125mm / 4 - 5"	132.8	5.3	17	79	400 - 425mm / 16-17"	453	18	28	236
125 - 150mm / 5 - 6"	158.2	5.7	19	94	425 - 450mm / 17-18"	478	18	28	248
150 - 175mm / 6 - 7"	183.6	6.1	20	106	450 - 475mm / 18-19"	503	18	28	261
175 - 200mm / 7 - 8"	208.8	6.3	19	118	475 - 500mm / 19-20"	528	18	28	273
200 - 225mm / 8 - 9"	234.2	6.7	18	130					
225 - 250mm / 9 - 10"	258	5.5	18	143					
250 - 275mm / 10 - 11"	284	6.5	18	156					
275 - 300mm / 11 - 12"	309	6.5	18	169					

Metric Micrometer set

Range	Order No.	Included in set	Mass (g)
0 - 75mm (3 mikes/set)	103-927-10	103-137, 103-138, 103-139-10 , 2 micrometer standards	750
0 - 150mm (6 mikes/set)	103-913-50	103-137, 103-138, 103-139-10, 103-140-10, 103-141-10, 103-142-10 , 5 micrometer standards	2260
150 - 300mm (6 mikes/set)	103-915-10	103-143-10, 103-144-10, 103-145-10, 103-146-10, 103-147-10, 103-148-10 , 6 micrometer standards	7695
0 - 300mm (12 mikes/set)	103-915-50	All micrometers of 103-913-50 and 103-915-10 in one set, 11 micrometer standards	9300

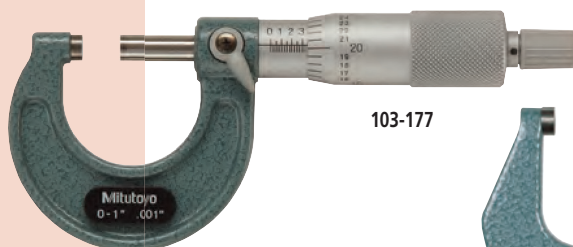


Outside Micrometers

SERIES 103— Inch Models

FEATURES

- Hammertone, baked-enamel-finished frame.
- Ratchet Stop or Friction Thimble for exact repetitive readings.
- With a standard bar except for 0-1" model.



103-177



103-260

Technical Data (Inch Model)

Accuracy: Refer to the list of specifications.

Graduation: .001" or .0001"

Flatness: .000024" for models up to 12"

.00004" for models over 12"

Parallelism: [.00008 + .00004 (L/4)]" L= max range (inch)

Measuring faces: Carbide tipped

SPECIFICATIONS

Inch With ratchet stop

Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 1"	.001"	103-177	±.0001"	175
		103-259	±.0001"	175
1 - 2"	.001"	103-178	±.0001"	215
2 - 3"	.001"	103-179	±.0001"	315
3 - 4"	.001"	103-180	±.00015"	375
4 - 5"	.001"	103-181	±.00015"	515
5 - 6"	.001"	103-182	±.00015"	665
6 - 7"	.001"	103-183	±.0002"	720
7 - 8"	.001"	103-184	±.0002"	920
8 - 9"	.001"	103-185	±.0002"	1080
9 - 10"	.001"	103-186	±.00025"	1255
10 - 11"	.001"	103-187	±.00025"	1405
11 - 12"	.001"	103-188	±.00025"	1565
12 - 13"	.001"	103-189	±.0003"	1985
13 - 14"	.001"	103-190	±.0003"	2155
14 - 15"	.001"	103-191	±.0003"	2305
15 - 16"	.001"	103-192	±.00035"	2455
16 - 17"	.001"	103-193	±.00035"	2715
17 - 18"	.001"	103-194	±.00035"	2965
18 - 19"	.001"	103-195	±.0004"	3215
19 - 20"	.001"	103-196	±.0004"	3450
20 - 21"	.001"	103-197	±.0004"	4060
21 - 22"	.001"	103-198	±.00045"	4080
22 - 23"	.001"	103-199	±.00045"	4500
23 - 24"	.001"	103-200	±.00045"	4525
24 - 25"	.001"	103-201	±.0005	4915
25 - 26"	.001"	103-202	±.0005"	4930
26 - 27"	.001"	103-203	±.0005"	5200
27 - 28"	.001"	103-204	±.00055"	5215
28 - 29"	.001"	103-205	±.00055"	5835
29 - 30"	.001"	103-206	±.00055"	5860
30 - 31"	.001"	103-207	±.0006"	6385
31 - 32"	.001"	103-208	±.0006"	6410
32 - 33"	.001"	103-209	±.0006"	6925
33 - 34"	.001"	103-210	±.00065"	6940
34 - 35"	.001"	103-211	±.00065"	7565
35 - 36"	.001"	103-212	±.00065"	7590
36 - 37"	.001"	103-213	±.0007"	8215
37 - 38"	.001"	103-214	±.0007"	8240
38 - 39"	.001"	103-215	±.0007"	8860
39 - 40"	.001"	103-216	±.00075"	8880

Inch With friction thimble

Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 1"	.001"	103-127	±.0001"	175
	.0001"	103-135	±.0001"	175
1 - 2"	.001"	103-128	±.0001"	215
	.0001"	103-136	±.0001"	215

Inch With ratchet stop

Range	Graduation	Order No.	Accuracy	Mass (g)
0 - 1"	.0001"	103-260*	±.0001"	175
0 - 1"	.0001"	103-131*	±.0001"	175
1 - 2"	.0001"	103-262*	±.0001"	215
1 - 2"	.0001"	103-132*	±.0001"	215
2 - 3"	.0001"	103-217*	±.0001"	315
3 - 4"	.0001"	103-218*	±.00015"	375
4 - 5"	.0001"	103-219*	±.00015"	515
5 - 6"	.0001"	103-220*	±.00015"	665
6 - 7"	.0001"	103-221*	±.0002"	720
7 - 8"	.0001"	103-222*	±.0002"	920
8 - 9"	.0001"	103-223*	±.0002"	1080
9 - 10"	.0001"	103-224*	±.00025"	1255
10 - 11"	.0001"	103-225*	±.00025"	1405
11 - 12"	.0001"	103-226*	±.00025"	1565

*.0001" Reading is obtained with vernier

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