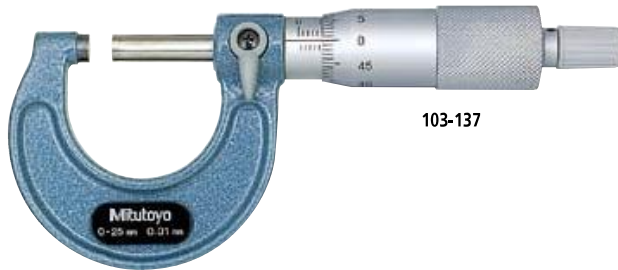


Outside Micrometers

SERIES 103

FEATURES

- Hammertone-green, baked-enamel-finished frame.
- Ratchet Stop or Friction Thimble for excellent repeatability.
- Supplied with a setting standard (except for 0-25mm/0-1" models).



103-137

SPECIFICATIONS

Metric	With ratchet stop	
Range	Order No.	Accuracy
0 - 25mm	103-137	±2µm
	103-129*	±2µm
25 - 50mm	103-138	±2µm
	103-130*	±2µm
50 - 75mm	103-139-10	±2µm
75 - 100mm	103-140-10	±3µm
100 - 125mm	103-141-10	±3µm
125 - 150mm	103-142-10	±3µm
150 - 175mm	103-143-10	±4µm
175 - 200mm	103-144-10	±4µm
200 - 225mm	103-145-10	±4µm
225 - 250mm	103-146-10	±5µm
250 - 275mm	103-147-10	±5µm
275 - 300mm	103-148-10	±5µm
300 - 325mm	103-149	±6µm
325 - 350mm	103-150	±6µm
350 - 375mm	103-151	±6µm
375 - 400mm	103-152	±7µm
400 - 425mm	103-153	±7µm
425 - 450mm	103-154	±7µm
450 - 475mm	103-155	±8µm
475 - 500mm	103-156	±8µm

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

*0.001mm reading is obtained with vernier.

Inch	With ratchet stop	
Range	Order No.	Accuracy
0 - 1"	103-177	±.0001"
	103-131*	±.0001"
1" - 2"	103-178	±.0001"
	103-132*	±.0001"
2" - 3"	103-179	±.0001"
3" - 4"	103-180	±.00015"
4" - 5"	103-181	±.00015"
5" - 6"	103-182	±.00015"
6" - 7"	103-183	±.0002"
7" - 8"	103-184	±.0002"
8" - 9"	103-185	±.0002"
9" - 10"	103-186	±.00025"
10" - 11"	103-187	±.00025"
11" - 12"	103-188	±.00025"
12" - 13"	103-189	±.0003"
13" - 14"	103-190	±.0003"
14" - 15"	103-191	±.0003"
15" - 16"	103-192	±.00035"
16" - 17"	103-193	±.00035"
17" - 18"	103-194	±.00035"
18" - 19"	103-195	±.0004"
19" - 20"	103-196	±.0004"

(Models with a range up to 40" are available.)

*.0001" reading is obtained with vernier.

Inch	With friction thimble	
Range	Order No.	Accuracy
0 - 1"	103-135*	±.0001"
1" - 2"	103-136*	±.0001"

*.0001" reading is obtained with vernier.

Metric	Micrometer set	
Range	Order No.	Models included
0 - 75mm (3 pcs./set)	103-927-10	103-137, 103-138, 103-139-10, 2 micrometer standards
0 - 150mm (6 pcs./set)	103-913-31	102-701*, 103-138, 103-139-10, 103-140-10, 103-141-10, 103-142-10, 5 micrometer standards
150 - 300mm (6 pcs./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
0 - 300mm (12 pcs./set)	103-914-31	All micrometers of 103-913-31 and 103-915-10 in one set, 11 micrometer standards

*Ratchet thimble micrometer

Inch	Micrometer set	
Range	Order No.	Models included
0 - 3" (3 pcs./set)	103-929	103-177, 103-178, 103-179, 2 micrometer standards
0 - 4" (4 pcs./set)	103-930	103-177, 103-178, 103-179, 103-180, 3 micrometer standards
0 - 6" (6 pcs./set)	103-904-10	103-177, 103-178, 103-179, 103-180, 103-181, 103-182, 5 micrometer standards
6" - 12" (6 pcs./set)	103-906	103-183, 103-184, 103-185, 103-186, 103-187, 103-188, 6 micrometer standards
0 - 12" (12 pcs./set)	103-905-10	All micrometers of 103-904-10 and 103-906 in one set, 11 micrometer standards

*Ratchet thimble micrometer



(Refer to page VIII for details.)

Technical Data

Accuracy: Refer to the list of specifications.
 Graduation: 0.01mm, 0.001mm, .001" or .0001"
 Flatness: 0.6µm/.000024" for models up to 300mm/12"
 1µm/.00004" for models over 300mm/12"
 Parallelism: (2+R/100)µm, R = max. range (mm)
 [.00008+.00004(R/4)]", R=max. range (inch)
*fraction rounded down
 Measuring faces: Carbide