

Holtest

SERIES 368 — Three-Point/Two-Point Internal Micrometers

These Holtests are versatile, self-centering three-point micrometers for the accurate and efficient direct-measurement of internal diameters. Three anvils, evenly spaced at 120° apart, contact the hole surface and find true alignment with the axis of a hole for accurate measurement.



- ### FEATURES
- Titanium-coated measuring pins (over 6mm range models) provide excellent durability and impact resistance and allow the instrument to measure right to the bottom of a blind hole.
 - Can measure deep holes using an Extension rod (optional) which is available on models over 6mm (.275") measuring range.
 - With Ratchet Stop for constant force.
 - Setting Rings for accurately setting the instrument are optional.



Titanium-coated contact surfaces for durability (excluding models up to 6mm/.24")

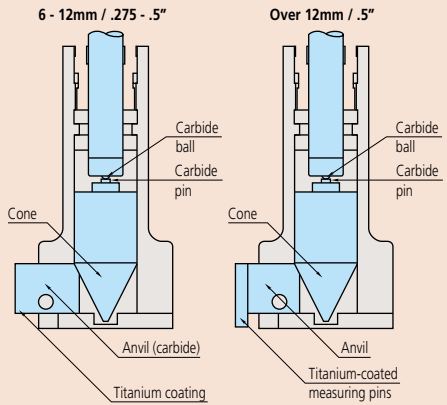


(Refer to page IX for details.)

Technical Data

Accuracy: Refer to the list of specifications.
 Graduation: 0.001mm, 0.005mm (models over 12mm), .0001" or .0002" (models over .5")

Range	Measuring method	Measuring-surface material
2 - 3mm .08 - .12"	Two-point	Carbide
3 - 6mm .12 - .28"	Two-point	Carbide
6 - 12mm .275 - .5"	Three-point	Titanium coating (1700-2000Hv)
over 12mm over .5"	Three-point	Titanium coating (1700-2000Hv)



- ### Optional Accessories
- : Extension rod (Refer to the list of specifications.)
 - : Setting ring (See page C-28.)

DIMENSIONS

Unit: mm

Measuring a Blind Hole

The measuring pins fixed to the anvils permit measuring the diameter of a blind hole right down to the bottom.

Range	L	Range	L
2 - 2.5mm	12	40 - 50mm	102
2.5 - 3mm	12	50 - 63mm	105
3 - 4mm	22	62 - 75mm	105
4 - 5mm	22	75 - 88mm	105
5 - 6mm	22	87 - 100mm	105
6 - 8mm	59	100 - 125mm	161
8 - 10mm	59	125 - 150mm	161
10 - 12mm	59	150 - 175mm	161
12 - 16mm	82	175 - 200mm	161
16 - 20mm	82	200 - 225mm	161
20 - 25mm	94	225 - 250mm	161
25 - 30mm	94	250 - 275mm	161
30 - 40mm	102	275 - 300mm	161

Range	a	b	c
2 - 6mm	—	—	2
6 - 12mm	2	—	2.5
12 - 20mm	0.3	5.6	3.5
20 - 30mm	0.3	8.3	5.2
30 - 50mm	0.3	13	10
50 - 100mm	0.3	17	14
100 - 300mm	12.4	21	13.8



Using the optional extension rod

Complete-Unit Sets



368-906



368-907



368-911



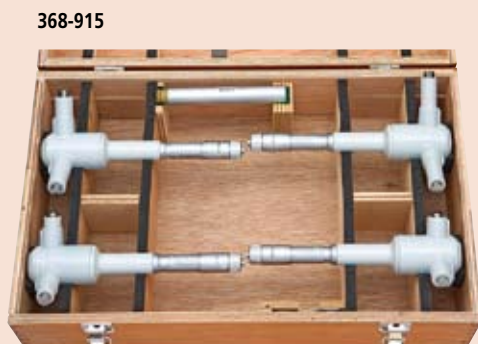
368-912



368-913



368-914



368-915



SPECIFICATIONS

Metric		Individual	Inch		Individual		
Range	Order No.		Range	Order No.		Accuracy*	Extension Rod (optional)
2 - 2.5mm	368-001		.08" - .1"	368-021		±2µm (within 2µm) ±.0001" (within .0001")	—
2.5 - 3mm	368-002		.1" - .12"	368-022		±2µm (within 2µm) ±.0001" (within .0001")	—
3 - 4mm	368-003		.12" - .16"	368-023		±2µm (within 2µm) ±.0001" (within .0001")	—
4 - 5mm	368-004		.16" - .2"	368-024		±2µm (within 2µm) ±.0001" (within .0001")	—
5 - 6mm	368-005		.2" - .24"	368-025		±2µm (within 2µm) ±.0001" (within .0001")	—
—	—		.24" - .28"	368-026		±2µm (within 2µm) ±.0001" (within .0001")	—
6 - 8mm	368-161		.275" - .35"	368-261		±2µm (within 2µm) ±.0001" (within .0001")	100mm (952322)
8 - 10mm	368-162		.35" - .425"	368-262		±2µm (within 2µm) ±.0001" (within .0001")	100mm (952322)
10 - 12mm	368-163		.425" - .5"	368-263		±2µm (within 2µm) ±.0001" (within .0001")	100mm (952322)
12 - 16mm	368-164		.5" - .65"	368-264		±2µm (within 2µm) ±.0001" (within .0001")	150mm (952621)
16 - 20mm	368-165		.65" - .8"	368-265		±2µm (within 2µm) ±.0001" (within .0001")	150mm (952621)
20 - 25mm	368-166		.8" - 1"	368-266		±3µm (within 3µm) ±.00015" (within .00015")	150mm (952622)
25 - 30mm	368-167		1" - 1.2"	368-267		±3µm (within 3µm) ±.00015" (within .00015")	150mm (952622)
30 - 40mm	368-168		1.2" - 1.6"	368-268		±3µm (within 3µm) ±.00015" (within .00015")	150mm (952622)
40 - 50mm	368-169		1.6" - 2"	368-269		±3µm (within 3µm) ±.00015" (within .00015")	150mm (952622)
50 - 63mm	368-170		2" - 2.5"	368-270		±3µm (within 3µm) ±.00015" (within .00015")	150mm (952623)
62 - 75mm	368-171		2.5" - 3"	368-271		±3µm (within 3µm) ±.00015" (within .00015")	150mm (952623)
75 - 88mm	368-172		3" - 3.5"	368-272		±3µm (within 3µm) ±.00015" (within .00015")	150mm (952623)
87 - 100mm	368-173		3.5" - 4"	368-273		±3µm (within 3µm) ±.00015" (within .00015")	150mm (952623)
100 - 125mm	368-174		4" - 5"	368-274		±5µm (within 5µm) ±.00025" (within .00025")	150mm (952623)
125 - 150mm	368-175		5" - 6"	368-275		±5µm (within 5µm) ±.00025" (within .00025")	150mm (952623)
150 - 175mm	368-176		6" - 7"	368-276		±5µm (within 5µm) ±.00025" (within .00025")	150mm (952623)
175 - 200mm	368-177		7" - 8"	368-277		±5µm (within 5µm) ±.00025" (within .00025")	150mm (952623)
200 - 225mm	368-178		8" - 9"	368-278		±5µm (within 5µm) ±.00025" (within .00025")	150mm (952623)
225 - 250mm	368-179		9" - 10"	368-279		±5µm (within 5µm) ±.00025" (within .00025")	150mm (952623)
250 - 275mm	368-180		10" - 11"	368-280		±5µm (within 5µm) ±.00025" (within .00025")	150mm (952623)
275 - 300mm	368-181		11" - 12"	368-281		±5µm (within 5µm) ±.00025" (within .00025")	150mm (952623)

*Instrumental error (maximum error)

with titanium-coated contact surfaces

Complete-Unit Sets

Each set includes complete gages (micrometer head units and measuring heads for each size).

Metric				
Range	Order No.	Individual ranges	Setting rings included	Remarks
2 - 3mm	368-906	2-2.5, 2.5-3mm	ø2.5mm	—
3 - 6mm	368-907	3-4, 4-5, 5-6mm	ø4mm, ø5mm	—
6 - 12mm	368-911	6-8, 8-10, 10-12mm	ø8mm, ø10mm	with extension rod
12 - 20mm	368-912	12-16, 16-20mm	ø16mm	with extension rod
20 - 50mm	368-913	20-25, 25-30, 30-40, 40-50mm	ø25mm, ø40mm	with extension rod
50 - 100mm	368-914	50-63, 62-75, 75-88, 87-100mm	ø62mm, ø87mm	with extension rod
100 - 200mm	368-915	100-125, 125-150, 150-175, 175-200mm	ø125mm, ø175mm	with extension rod

with titanium-coated contact surfaces

Inch				
Range	Order No.	Individual ranges	Setting rings included	Remarks
.08" - .12"	368-926	.08-.1", .1-.12"	.1" DIA.	—
.12" - .28"	368-927	.12-.16", .16-.2", .2-.24", .24-.28"	.16" DIA., .24" DIA.	—
.275" - .5"	368-916	.275-.35", .35-.425", .425-.5"	.35" DIA., .5" DIA.	with extension rod
.5" - .8"	368-917	.5-.65", .65-.8"	.65" DIA.	with extension rod
.8" - 2"	368-918	.8-1", 1-1.2", 1.2-1.6", 1.6-2"	1" DIA., 1.6" DIA.	with extension rod
2" - 4"	368-919	2-2.5", 2.5-3", 3-3.5", 3.5-4"	2.5" DIA., 3.5" DIA.	with extension rod
4" - 8"	368-920	4-5", 5-6", 6-7", 7-8"	5" DIA., 7" DIA.	with extension rod

with titanium-coated contact surfaces