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.

368-168

368-174

368-001

Two-point contact type

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

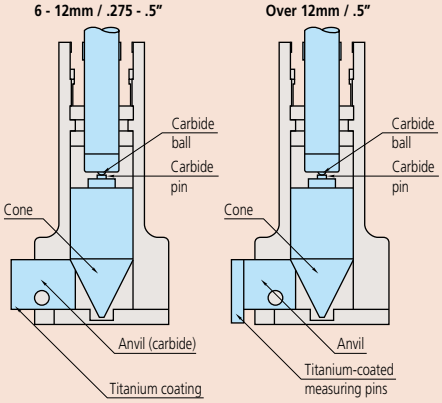
PROPRIETARY INSPECTION CERTIFICATE

(Refer to page IX for details.)

Technical Data

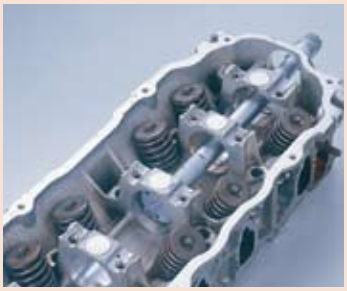
Accuracy: Refer to the list of specifications.
Graduation: 0.001mm, 0.005mm (models over 12mm), .0001" or .0002" (models over .5")

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

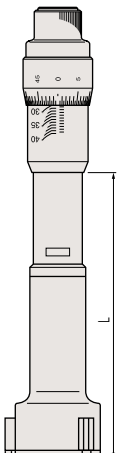
——— : Extension rod (Refer to the list of specifications.)
——— : Setting ring (See page C-28.)



Using the optional extension rod

DIMENSIONS

Unit: mm

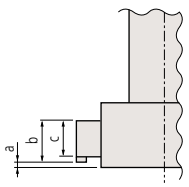


Range	L
2 - 2.5mm	12
2.5 - 3mm	12
3 - 4mm	22
4 - 5mm	22
5 - 6mm	22
6 - 8mm	59
8 - 10mm	59
10 - 12mm	59
12 - 16mm	82
16 - 20mm	82
20 - 25mm	94
25 - 30mm	94
30 - 40mm	102

Range	L
40 - 50mm	102
50 - 63mm	105
62 - 75mm	105
75 - 88mm	105
87 - 100mm	105
100 - 125mm	161
125 - 150mm	161
150 - 175mm	161
175 - 200mm	161
200 - 225mm	161
225 - 250mm	161
250 - 275mm	161
275 - 300mm	161

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	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

Complete-Unit Sets

368-906

368-907

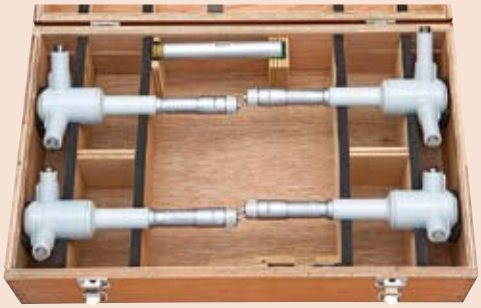
368-911

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

C