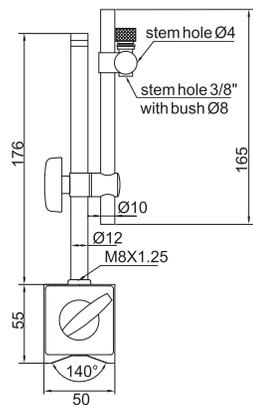


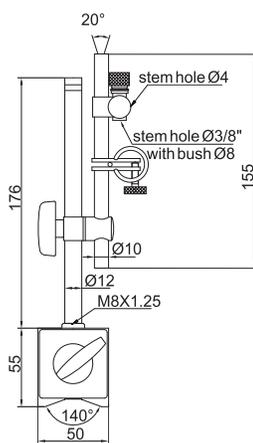
MAGNETIC STAND

SERIES 281

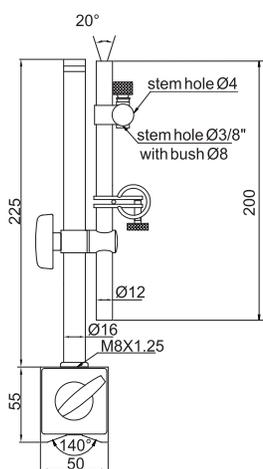
unit: mm



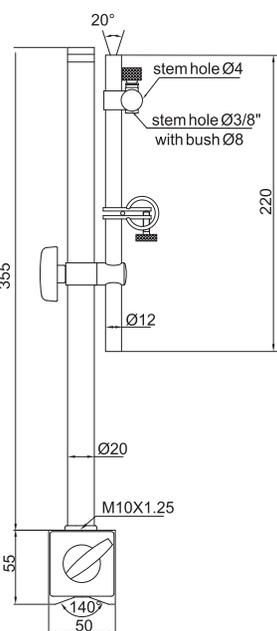
281-060-02



281-060-01



281-080-01



281-100-01



281-060-02



281-060-01

- ◆ For dial/digital indicators and dial test indicators
- ◆ V-block base



Code	Stem hole	Magnetic force	Fine adjustment
281-060-01	Ø8mm, Ø4mm, 3/8"	60kgf	With
281-060-02	Ø8mm, Ø4mm, 3/8"	60kgf	Without
281-080-01	Ø8mm, Ø4mm, 3/8"	80kgf	With
281-100-01	Ø8mm, Ø4mm, 3/8"	100kgf	With

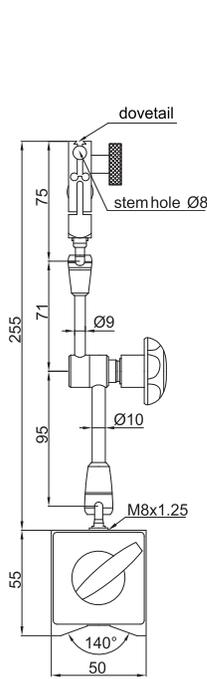
SERIES 282

UNIVERSAL MAGNETIC STAND

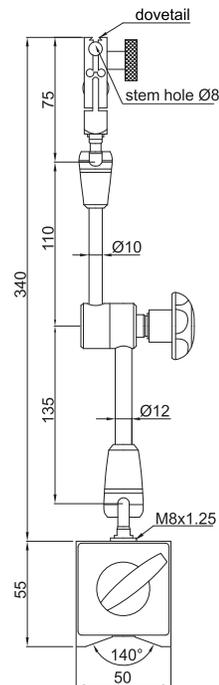
- ◆ For dial/digital indicators and dial test indicators
- ◆ Stem hole: $\varnothing 8\text{mm}$
- ◆ With find adjustment and dovetail
- ◆ V-block base



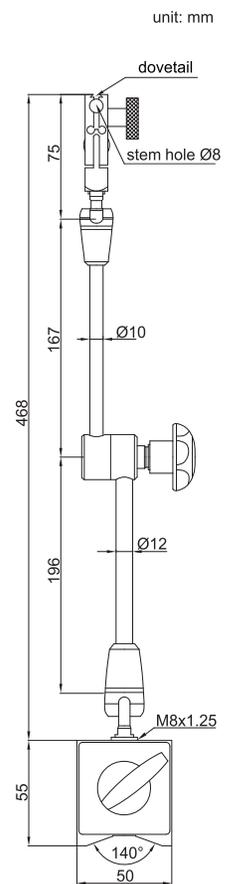
282-080-01



282-080-01



282-080-02



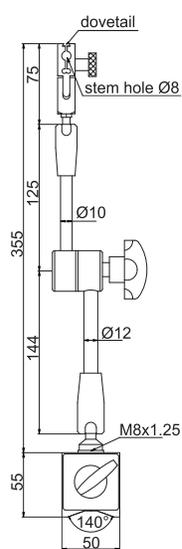
282-100-01

unit: mm

Code	Magnetic force
282-080-01	80kgf
282-080-02	80kgf
282-100-01	100kgf

UNIVERSAL MAGNETIC STAND

283



unit: mm



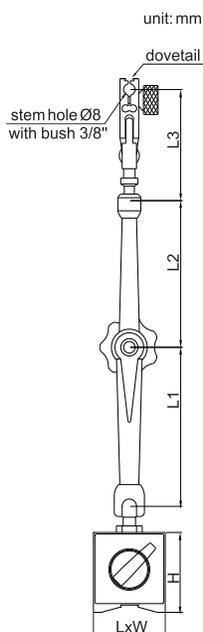
- ◆ Economic type
- ◆ For dial/digital indicators and dial test indicators
- ◆ Stem hole: Ø8mm
- ◆ With fine adjustment and dovetail
- ◆ V-block base



Code	Magnetic force
283-080-01	80kgf

UNIVERSAL MAGNETIC STAND

SERIES 279



unit: mm



279-080-01

- ◆ For dial/digital indicators and dial test indicators
- ◆ Aluminum arm
- ◆ With fine adjustment and dovetail
- ◆ V-block base

Code	Magnetic force	Base (LxWxH)	L1	L2	L3
279-030-01	30kgf	35x30x35	56	51	73
279-080-01	80kgf	60x50x55	110	101	76
279-100-01	100kgf	73x50x55	147	225	76

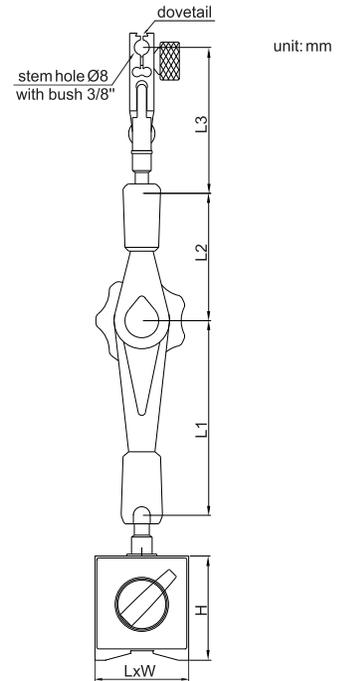
SERIES 278

UNIVERSAL MAGNETIC STAND

- ◆ For dial/digital indicators and dial test indicators
- ◆ Super strong arm
- ◆ With fine adjustment and dovetail
- ◆ V-block base



278-080-01

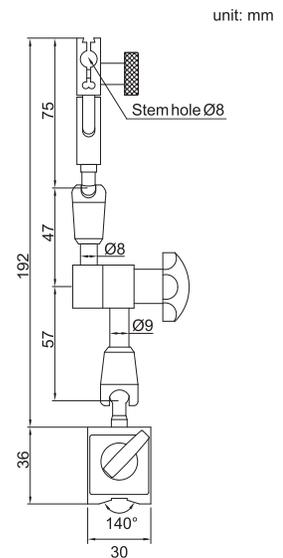


Code	Magnetic force	Base (LxWxH)	L1	L2	L3
278-050-01	50kgf	40x40x40	62	52	79
278-080-01	80kgf	60x50x55	100	67	81
278-100-01	100kgf	73x50x55	145	95	81

286

MINI MAGNETIC STAND

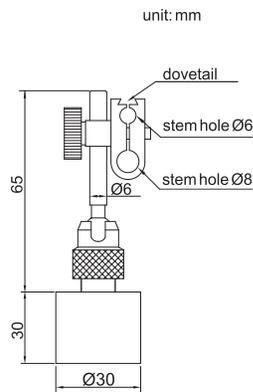
- ◆ For dial test indicators
- ◆ Stem hole: Ø8mm
- ◆ With find adjustment and dovetail
- ◆ V-block base



Code	Magnetic force	Stem hole
286-040-01	40kgf	Ø8mm

MINI MAGNETIC STAND

288



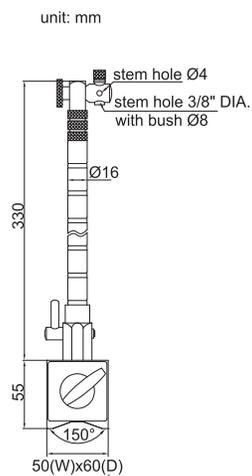
- ◆ For dial test indicators



Code	Magnetic force	Stem hole
288-010-01	10kgf	Ø8mm, Ø6mm

FLEX ARM MAGNETIC STAND

285



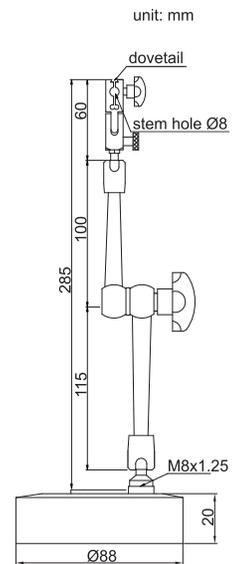
- ◆ For dial test indicators

Code	Magnetic force	Applicable holding stem
285-080-01	80kgf	Ø8mm, Ø4mm, 3/8" DIA.

284

VACUUM STAND

- ◆ To be used on granite plates
- ◆ For digital/dial indicators and dial test indicators

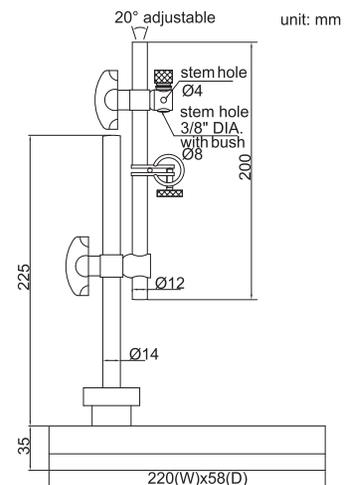


Code	Applicable holding stem	Remark
284-080-01	Ø8mm	with fine adjustment and dovetail groove

287

UNIVERSAL STAND

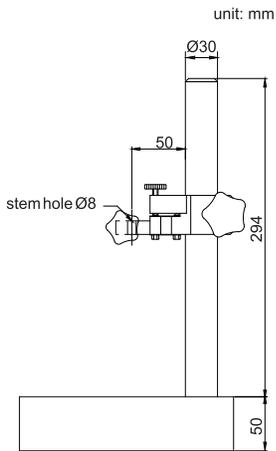
- ◆ For dial/digital indicators and dial test indicators



Code	Applicable holding stem	Remark
287-001-01	Ø8mm, Ø4mm, 3/8" DIA.	with fine adjustment

INDICATOR STAND WITH GRANITE BASE

SERIES 289



289-008-01

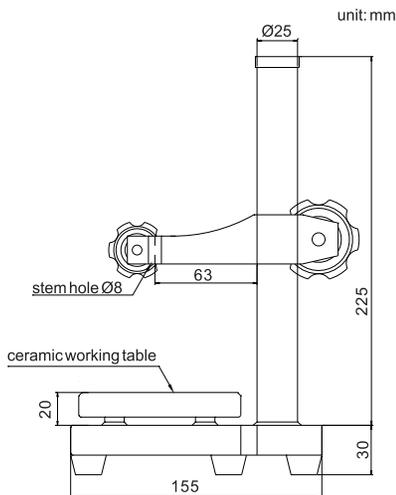
- ◆ Holder vertical travel: 150mm
- ◆ Fine adjustment range: 2mm



Code	Stem hole	Base flatness	Base size
289-008-01	Ø8mm	3.2µm	200x150mm
289-012-01	Ø8mm	3.2µm	300x200mm

INDICATOR STAND WITH CERAMIC BASE

SERIES 290



290-100-01

- ◆ Working table is made of ceramic
- ◆ Holder vertical travel: 150mm

Code	Stem hole	Ceramic flatness	Ceramic size
290-080-01	Ø8mm	1.5µm	Ø80mm
290-100-01	Ø8mm	1.5µm	100x100mm

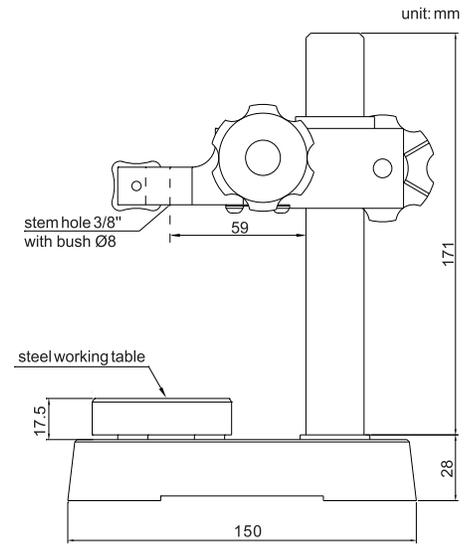
SERIES 294

INDICATOR STAND

- ◆ Working table is made of steel
- ◆ Holder vertical travel: 100mm
- ◆ With fine adjustment: $\pm 1.5\text{mm}$
- ◆ Working table surface hardness is $60\pm 2\text{HRC}$



294-060-11

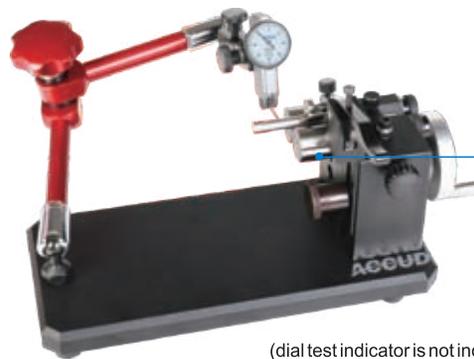


Code	Working table flatness	Working table size
294-060-11	1.5 μm	$\varnothing 60\text{mm}$
294-080-12	1.5 μm	80x80mm

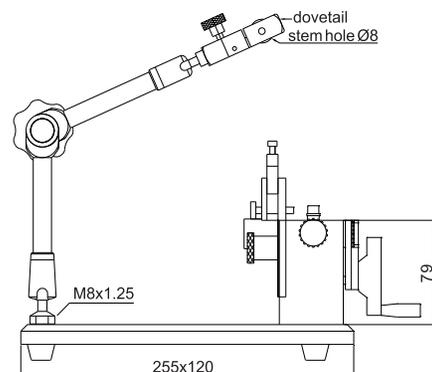
660

CONCENTRICITY GAUGE

- ◆ Optional accessories: dial test indicator (code: 261-002-01 or 261-002-02) and mini magnetic stand (code: 286-040-01)



(dial test indicator is not included)



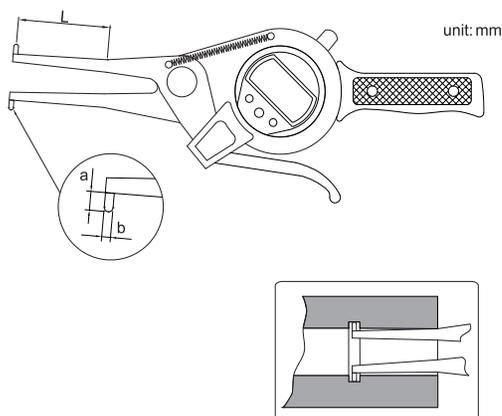
Code	Applicable diameter	Accuracy
660-001-01	$\varnothing 3\text{-}35\text{mm}$	0.002mm

DIGITAL INTERNAL CALIPER GAUGE

SERIES 410



410-035-11



- ◆ Measure the internal dimension
- ◆ Resolution: 0.01mm/0.0005"

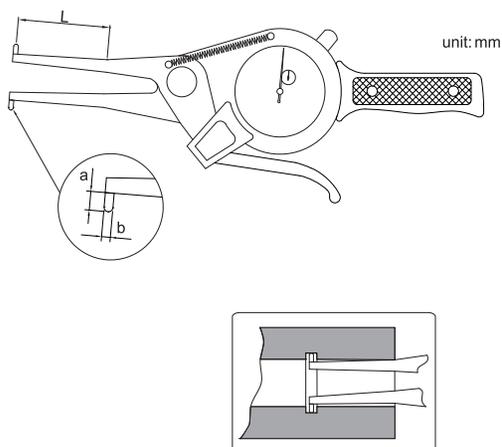
Code	Range	Accuracy	a	b	L
410-035-11	15-35mm	±0.04mm	3	Ø3	50
410-035-11L	15-35mm	±0.04mm	3	Ø3	200
410-055-11	35-55mm	±0.04mm	6	Ø3	80
410-055-11L	35-55mm	±0.04mm	6	Ø3	250
410-075-11	55-75mm	±0.04mm	8	Ø3	90
410-075-11L	55-75mm	±0.04mm	8	Ø3	250
410-095-11	75-95mm	±0.04mm	8	Ø3	100
410-115-11	95-115mm	±0.04mm	10	Ø3.2	120
410-135-11	115-135mm	±0.04mm	10	Ø3.2	120

INTERNAL DIAL CALIPER GAUGE

SERIES 411



411-035-11



- ◆ Measure the internal dimension
- ◆ Graduation: 0.01mm

Code	Range	Accuracy	a	b	L
411-035-11	15-35mm	±0.04mm	3	Ø3	50
411-035-11L	15-35mm	±0.04mm	3	Ø3	200
411-055-11	35-55mm	±0.04mm	6	Ø3	80
411-055-11L	35-55mm	±0.04mm	6	Ø3	250
411-075-11	55-75mm	±0.04mm	8	Ø3	90
411-075-11L	55-75mm	±0.04mm	8	Ø3	250
411-095-11	75-95mm	±0.04mm	8	Ø3	100
411-115-11	95-115mm	±0.04mm	10	Ø3.2	120
411-135-11	115-135mm	±0.04mm	10	Ø3.2	120



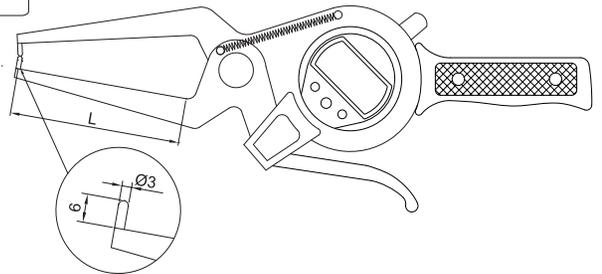
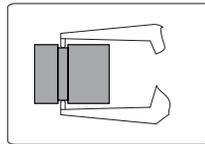
SERIES 420

DIGITAL EXTERNAL CALIPER GAUGE

- ◆ Measure the external dimension
- ◆ Resolution: 0.01mm/0.0005"



420-020-11



unit: mm

Code	Range	Accuracy	L
420-020-11	0-20mm	±0.04mm	60
420-040-11	20-40mm	±0.04mm	60
420-060-11	40-60mm	±0.04mm	55
420-080-11	60-80mm	±0.04mm	55
420-100-11	80-100mm	±0.04mm	55

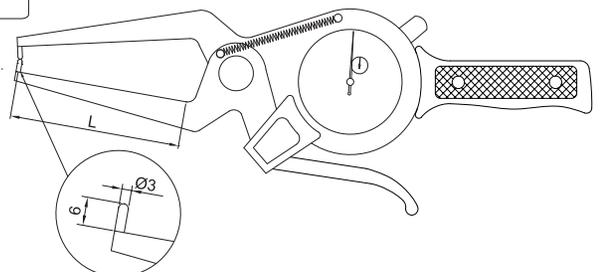
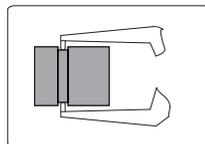
SERIES 421

EXTERNAL DIAL CALIPER GAUGE

- ◆ Measure the external dimension
- ◆ Graduation: 0.01mm



421-020-11

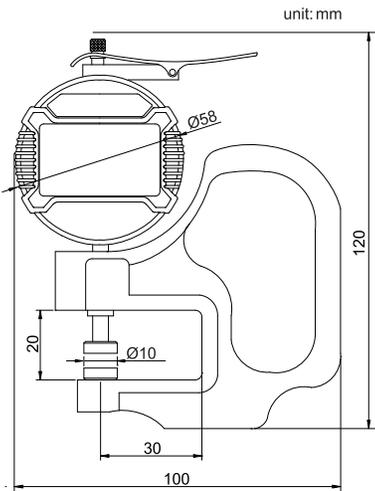


unit: mm

Code	Range	Accuracy	L
421-020-11	0-20mm	±0.04mm	60
421-040-11	20-40mm	±0.04mm	60
421-060-11	40-60mm	±0.04mm	55
421-080-11	60-80mm	±0.04mm	55
421-100-11	80-100mm	±0.04mm	55

THICKNESS GAUGE

SERIES 441



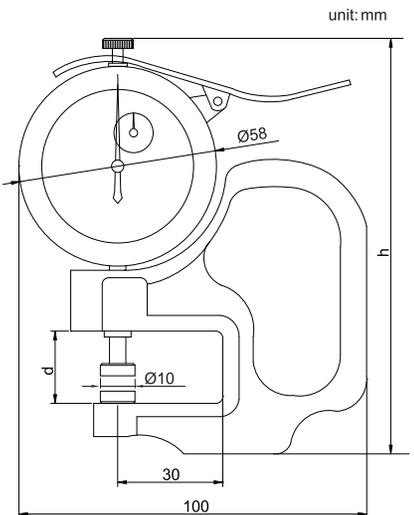
441-010-11

- ◆ Ceramic anvil
- ◆ Buttons: on/off, zero, mm/inch
- ◆ Automatic power off
- ◆ Data output

Code	Range	Resolution	Accuracy
441-010-01	0-10mm/0-0.4"	0.001mm/0.00005"	±0.005mm
441-010-11	0-10mm/0-0.4"	0.01mm/0.0005"	±0.02mm

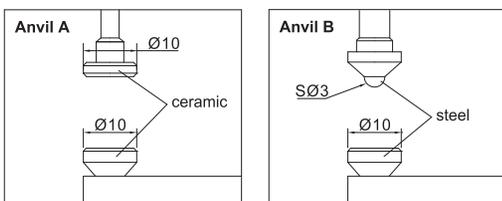
THICKNESS GAUGE

SERIES 443



443-010-11

- ◆ Graduation: 0.01mm



Code	Range	Accuracy	Anvil	d	h
443-010-11	0-10mm	±0.02mm	A	20	120
443-010-12	0-10mm	±0.02mm	B	20	120
443-030-11	0-30mm	±0.035mm	A	38	140



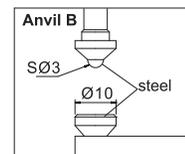
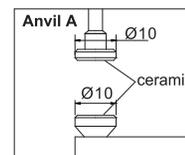
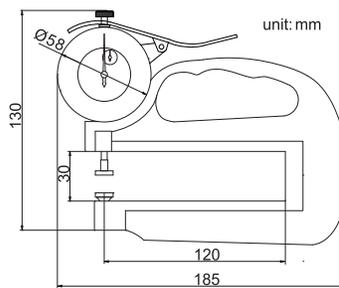
SERIES 444

THICKNESS GAUGE

- ◆ Large throat depth, for large workpiece measurement
- ◆ Graduation: 0.01mm



444-010-11



Code	Range	Accuracy	Anvil
444-010-11	0-10mm	±0.02mm	A
444-020-11	0-20mm	±0.03mm	A
444-010-12	0-10mm	±0.02mm	B
444-020-12	0-20mm	±0.03mm	B

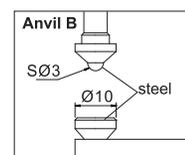
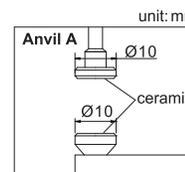
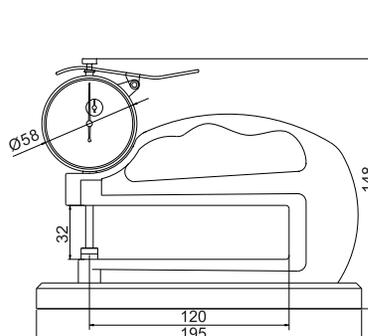
SERIES 444

THICKNESS GAUGE

- ◆ Large throat depth, for large workpiece measurement
- ◆ Graduation: 0.01mm



444-010-11B

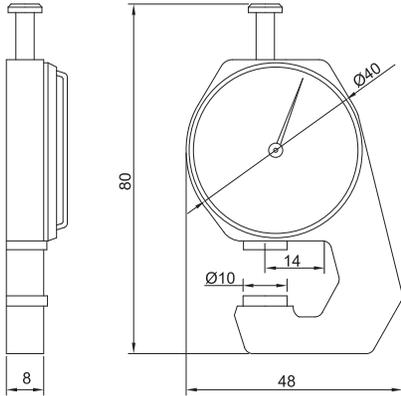


Code	Range	Accuracy	Anvil
444-010-11B	0-10mm	±0.02mm	A
444-020-11B	0-20mm	±0.03mm	A
444-010-12B	0-10mm	±0.02mm	B
444-020-12B	0-20mm	±0.03mm	B

THICKNESS GAUGE

446

unit: mm



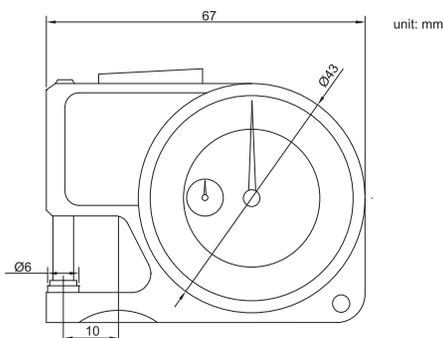
Code	Range	Graduation	Accuracy
446-010-11	0-10mm	0.1mm	±0.05mm

THICKNESS GAUGE

447



- ◆ Stainless steel spindle tip and anvil



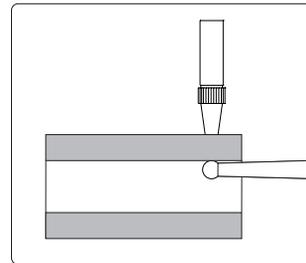
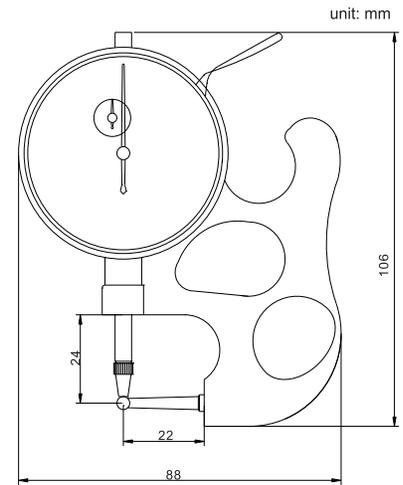
Code	Range	Graduation	Accuracy
447-010-11	0-10mm	0.01mm	±0.02mm



448

THICKNESS GAUGE

- ◆ Measure the wall thickness of tube

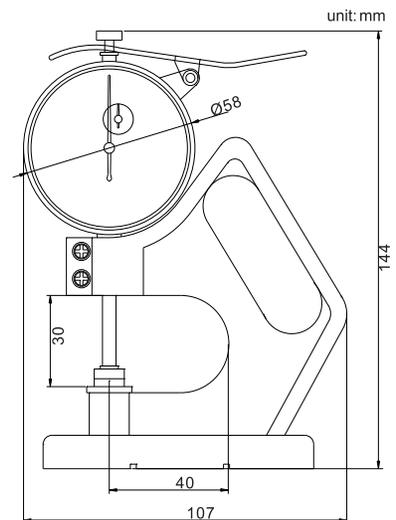


Code	Range	Accuracy	Graduation
448-010-11	0-10mm	±0.02mm	0.01mm

449

THICKNESS GAUGE

- ◆ Graduation: 0.01mm
- ◆ Steel tip, diameter: Ø10mm



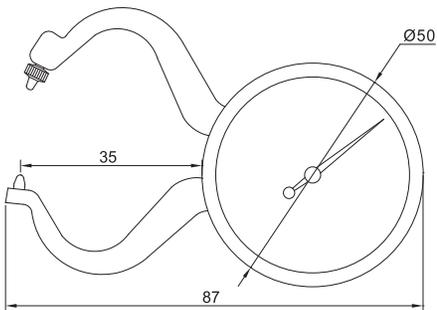
Code	Range	Accuracy
449-010-11	0-10mm	±0.02mm

THICKNESS GAUGE

451



unit: mm



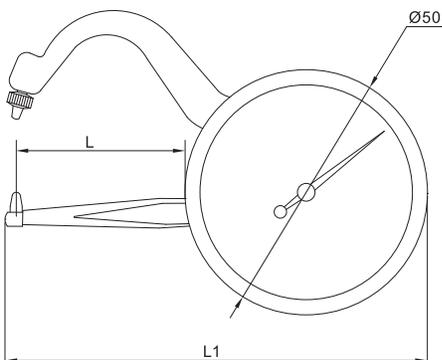
Code	Range	Graduation	Accuracy
451-010-11	0-10mm	0.05mm	±0.1mm

THICKNESS GAUGE

SERIES 452



452-010-11



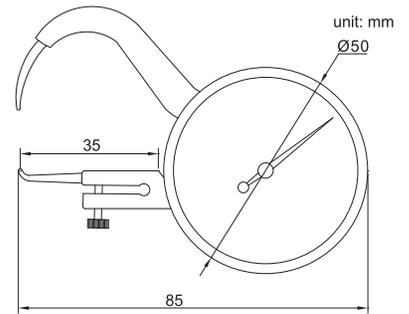
Code	Range	Graduation	Accuracy	L	L1
452-010-11	0-10mm	0.05mm	±0.1mm	35	85
452-010-12	0-10mm	0.05mm	±0.1mm	60	110



453

THICKNESS GAUGE WITH POINTED TIPS

- ◆ Pointed tips can be used for small grooves and recesses

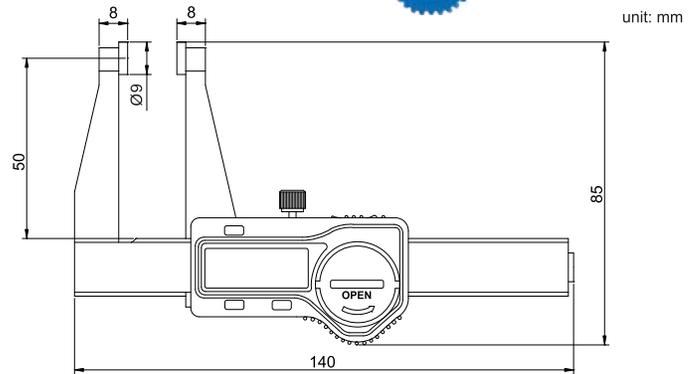


Code	Range	Graduation	Accuracy
453-010-11	0-10mm	0.05mm	±0.1mm

433

DIGITAL SNAP GAUGE

- ◆ Resolution: 0.01mm/0.0005"
- ◆ Buttons: on/off, zero, mm/inch
- ◆ Automatic power on/off
- ◆ Data output
- ◆ Made of stainless steel

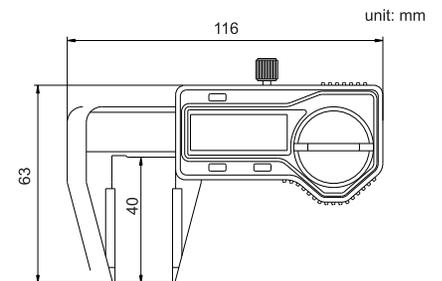


Code	Range	Accuracy
433-002-11	0-50mm/0-2"	±0.03mm

435

DIGITAL SNAP GAUGE

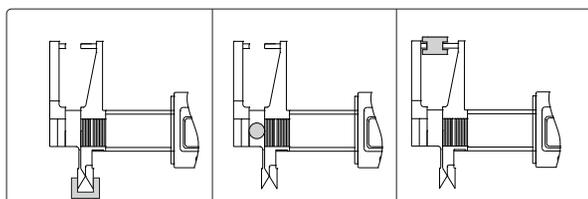
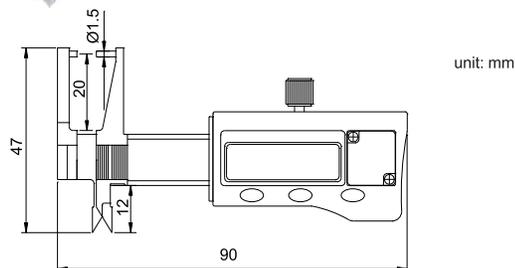
- ◆ Resolution: 0.01mm/0.0005"
- ◆ Buttons: on/off, zero, mm/inch
- ◆ Automatic power on/off
- ◆ Data output
- ◆ Made of stainless steel



Code	Range	Accuracy
435-001-11	0-25mm/0-1"	±0.03mm

DIGITAL 3-PURPOSE SNAP GAUGE

436

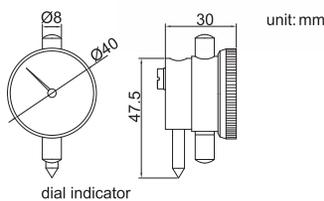


- ◆ Resolution: 0.01mm/0.0005"
- ◆ Buttons: on/off, zero, mm/inch
- ◆ Made of stainless steel

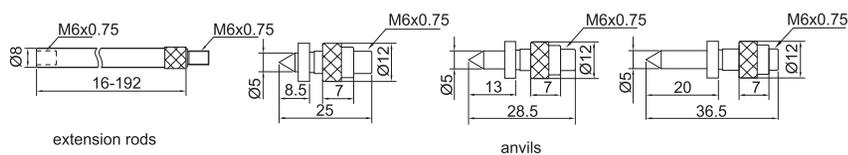
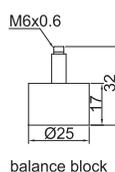
Code	Range	Accuracy
436-001-11	0-25mm/0-1"	±0.03mm

CRANKSHAFT TESTER

SERIES 298



298-020-11



- ◆ To test crankshaft deflection
- ◆ The balance block is mounted on the back of dial indicator to keep the dial indicator facing up

Code	Range	Dial indicator Range	Graduation	Accuracy	Extension rods
298-012-11	60-300mm	3mm	0.01mm	±0.016mm	16mm, 32mm, 64mm, 128mm
298-020-11	60-500mm	3mm	0.01mm	±0.016mm	16mm, 32mm, 64mm, 96mm, 128mm, 192mm

SERIES 511

CERAMIC GAUGE BLOCK SET

- ◆ Made of ceramic
- ◆ Meet ISO 3650
- ◆ With calibration certificate
- ◆ Code explanation

511-□□□-□X
 →0: grade0
 →1: grade1

Example:

Code	Quantity	Grade
511-112-00	112	0
511-112-01	112	1



511-087-00

Code	Blocks per set	Block allocation		
		Size(mm)	Step(mm)	Quantity
511-112-0X	112	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-24.5	0.5	49
		25-100	25	4
511-103-0X	103	1.005		1
		1.01-1.49	0.01	49
		0.5-24.5	0.5	49
		25-100	25	4
511-088-0X	88	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
511-087-0X	87	1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
		10-100	10	10
511-076-0X	76	1.005		1
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
		10-40	10	4
		50-100	25	3
511-056-0X	56	0.5		1
		1.001-1.009	0.001	9
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-24	1	24
		25-100	25	4

Code	Blocks per set	Block allocation		
		Size(mm)	Step(mm)	Quantity
511-047-0X	47	1.005		1
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-24	1	24
		25-100	25	4
511-047-1X	47	1.005		1
		1.01-1.19	0.01	19
		1.2-1.9	0.1	8
		1-9	1	9
511-046-0X	46	1.001-1.009	0.001	9
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-9	1	9
		10-100	10	10
511-034-0X	34	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-5	1	5
511-032-0X	32	10		1
		1.005		1
		1.01-1.09		9
		1.1-1.9	0.01	9
		1-9	0.1	9
		10-30	1	3
		50	10	1

STEEL GAUGE BLOCK SET

SERIES 512



512-087-02

- ◆ Made of steel
- ◆ Meet ISO 3650
- ◆ With calibration certificate
- ◆ Code explanation

512-□□□-□X

- 0: grade0
- 1: grade1
- 2: grade2

Example:

Code	Grade	Quantity
512-112-00	0	112
512-112-01	1	112
512-112-02	2	112

Code	Blocks per set	Block allocation		
		Size(mm)	Step(mm)	Quantity
512-122-0X	122	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		1.6-1.9	0.1	4
		0.5-24.5	0.5	49
		30-100	10	8
		25-75	50	2
512-112-0X	112	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-24.5	0.5	49
		25-100	25	4
512-103-0X	103	1.005		1
		1.01-1.49	0.01	49
		0.5-24.5	0.5	49
		25-100	25	4
512-088-0X	88	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
512-087-0X	87	1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
		10-100	10	10
512-083-0X	83	0.5		1
		1		1
		1.005		1
		1.01-1.49	0.01	49
		1.5-1.9	0.1	5
		2-9.5	0.5	16
		10-100	10	10
512-076-0X	76	1.005		1
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
		10-40	10	4
		50-100	25	3

Code	Blocks per set	Block allocation		
		Size(mm)	Step(mm)	Quantity
512-056-0X	56	0.5		1
		1.001-1.009	0.001	9
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-24	1	24
		25-100	25	4
		512-047-0X	47	1.005
512-047-1X	47	1.001-1.09	0.01	9
		1.1-1.9	0.1	9
		1-24	1	24
		25-100	25	4
512-046-0X	46	1.005		1
		1.01-1.19	0.01	19
		1.2-1.9	0.1	8
		1-9	1	9
		10-100	10	10
512-034-0X	34	1.001-1.009	0.001	9
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-5	1	5
		10		1
512-032-0X	32	1.005		1
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-9	1	9
		10-30	10	3
		50		1
512-008-0X	8	125-175	25	3
		200-250	50	2
		300-500	100	3



SERIES 512

CARBIDE GAUGE BLOCK SET

- ◆ Made of carbide
- ◆ Meet ISO 3650
- ◆ With calibration certificate
- ◆ Code explanation

512-□□□-□XT
 ↳>0: grade0
 ↳>1: grade1

Example:

Code	Grade	Quantity
512-112-00T	0	112
512-112-01T	1	112



512-087-01T



Code	Blocks per set	Block allocation		
		Size(mm)	Step(mm)	Quantity
512-122-0XT	122	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		1.6-1.9	0.1	4
		0.5-24.5	0.5	49
		30-100	10	8
		25-75	50	2
512-112-0XT	112	1.0005		1
		1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-24.5	0.5	49
		25-100	25	4
512-103-0XT	103	1.005		1
		1.01-1.49	0.01	49
		0.5-24.5	0.5	49
		25-100	25	4
512-087-0XT	87	1.001-1.009	0.001	9
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
		10-100	10	10
512-083-0XT	83	0.5		1
		1		1
		1.005		1
		1.01-1.49	0.01	49
		1.5-1.9	0.1	5
		2-9.5	0.5	16
		10-100	10	10

Code	Blocks per set	Block allocation		
		Size(mm)	Step(mm)	Quantity
512-076-0XT	76	1.005		1
		1.01-1.49	0.01	49
		0.5-9.5	0.5	19
		10-40	10	4
		50-100	25	3
512-047-0XT	47	1.005		1
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-24	1	24
512-047-1XT	47	1.005		1
		1.01-1.19	0.01	19
		1.2-1.9	0.1	8
		1-9	1	9
512-046-0XT	46	1.001-1.009	0.001	9
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-9	1	9
		10-100	10	10
512-032-0XT	32	1.005		1
		1.01-1.09	0.01	9
		1.1-1.9	0.1	9
		1-9	1	9
		10-30	10	3
		50		1

CERAMIC INDIVIDUAL GAUGE BLOCK (<10MM)



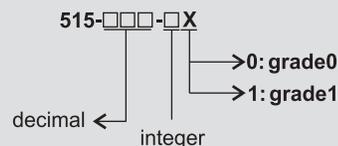
515-700-70

Supplied below size, unit:mm

0.5	1.01	1.13	1.25	1.37	1.49	5.1
1	1.02	1.14	1.26	1.38	1.5	5.5
1.0005	1.03	1.15	1.27	1.39	1.6	6
1.001	1.04	1.16	1.28	1.4	1.7	6.5
1.002	1.05	1.17	1.29	1.41	1.8	7
1.003	1.06	1.18	1.3	1.42	1.9	7.5
1.004	1.07	1.19	1.31	1.43	2	7.7
1.005	1.08	1.2	1.32	1.44	2.5	8
1.006	1.09	1.21	1.33	1.45	3.5	8.5
1.007	1.1	1.22	1.34	1.46	4	9
1.008	1.11	1.23	1.35	1.47	4.5	9.5
1.009	1.12	1.24	1.36	1.48	5	

SERIES 515

- ◆ Made of ceramic
- ◆ Meet ISO 3650
- ◆ With calibration certificate
- ◆ Code explanation



Example:

Code	Grade	Size(mm)
515-500-00	0	0.5
515-500-01	1	0.5
515-000-10	0	1
515-0005-11	1	1.0005
515-400-11	1	1.4
515-480-11	1	1.48

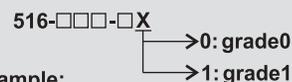
CERAMIC INDIVIDUAL GAUGE BLOCK (≥10MM)



516-800-01

SERIES 516

- ◆ Made of ceramic
- ◆ Meet ISO 3650
- ◆ With calibration certificate
- ◆ Code explanation



Example:

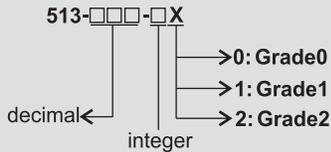
Code	Grade	Size(mm)
516-200-00	0	20
516-200-01	1	20

Code	Size(mm)								
516-100-0X	10	516-140-0X	14	516-185-0X	18.5	516-228-0X	22.8	516-600-0X	60
516-103-0X	10.3	516-145-0X	14.5	516-190-0X	19	516-230-0X	23	516-700-0X	70
516-105-0X	10.5	516-150-0X	15	516-195-0X	19.5	516-235-0X	23.5	516-750-0X	75
516-110-0X	11	516-155-0X	15.5	516-200-0X	20	516-240-0X	24	516-800-0X	80
516-115-0X	11.5	516-160-0X	16	516-202-0X	20.2	516-245-0X	24.5	516-900-0X	90
516-120-0X	12	516-165-0X	16.5	516-205-0X	20.5	516-250-0X	25	516-004-1X	100
516-125-0X	12.5	516-170-0X	17	516-210-0X	21	516-300-0X	30	516-005-1X	125
516-129-0X	12.9	516-175-0X	17.5	516-215-0X	21.5	516-400-0X	40	516-006-1X	150
516-130-0X	13	516-176-0X	17.6	516-220-0X	22	516-413-0X	41.3		
516-135-0X	13.5	516-180-0X	18	516-225-0X	22.5	516-500-0X	50		



SERIES 513

- ◆ Made of steel
- ◆ Meet ISO 3650
- ◆ With calibration certificate
- ◆ Code explanation



Example:

Code	Size(mm)	Grade
513-500-00	0.5	0
513-500-01	0.5	1
513-500-02	0.5	2
513-000-10	1	0
513-0005-11	1.0005	1
513-400-12	1.4	2
513-480-11	1.48	1

STEEL INDIVIDUAL GAUGE BLOCK(<10MM)



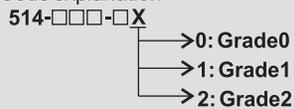
513-700-70

Supplied below size, unit:mm

0.5	0.69	0.88	0.998	1.07	1.26	1.45	2.008	2.19	2.38	4
0.51	0.7	0.89	0.999	1.08	1.27	1.46	2.009	2.2	2.39	4.5
0.52	0.71	0.9	1	1.09	1.28	1.47	2.01	2.21	2.4	5
0.53	0.72	0.91	1.0005	1.1	1.29	1.48	2.02	2.22	2.41	5.1
0.54	0.73	0.92	1.001	1.11	1.3	1.49	2.03	2.23	2.42	5.5
0.55	0.74	0.93	1.002	1.12	1.31	1.5	2.04	2.24	2.43	6
0.56	0.75	0.94	1.003	1.13	1.32	1.6	2.05	2.25	2.44	6.5
0.57	0.76	0.95	1.004	1.14	1.33	1.7	2.06	2.26	2.45	7
0.58	0.77	0.96	1.005	1.15	1.34	1.8	2.07	2.27	2.46	7.5
0.59	0.78	0.97	1.006	1.16	1.35	1.9	2.08	2.28	2.47	7.7
0.6	0.79	0.98	1.007	1.17	1.36	2	2.09	2.29	2.48	8
0.61	0.8	0.99	1.008	1.18	1.37	2.0005	2.1	2.3	2.49	8.5
0.62	0.81	0.991	1.009	1.19	1.38	2.001	2.11	2.31	2.5	9
0.63	0.82	0.992	1.01	1.2	1.39	2.002	2.12	2.32	2.6	9.5
0.64	0.83	0.993	1.02	1.21	1.4	2.003	2.13	2.33	2.7	
0.65	0.84	0.994	1.03	1.22	1.41	2.004	2.14	2.34	2.8	
0.66	0.85	0.995	1.04	1.23	1.42	2.005	2.15	2.35	2.9	
0.67	0.86	0.996	1.05	1.24	1.43	2.006	2.16	2.36	3	
0.68	0.87	0.997	1.06	1.25	1.44	2.007	2.17	2.37	3.5	

SERIES 514

- ◆ Made of steel
- ◆ Meet ISO 3650
- ◆ With calibration certificate
- ◆ Code explanation



Code	Size(mm)	Code	Size(mm)
514-100-0X	10	514-155-0X	15.5
514-103-0X	10.3	514-160-0X	16
514-105-0X	10.5	514-165-0X	16.5
514-110-0X	11	514-170-0X	17
514-115-0X	11.5	514-175-0X	17.5
514-120-0X	12	514-176-0X	17.6
514-125-0X	12.5	514-180-0X	18
514-129-0X	12.9	514-185-0X	18.5
514-130-0X	13	514-190-0X	19
514-135-0X	13.5	514-195-0X	19.5
514-140-0X	14	514-200-0X	20
514-145-0X	14.5	514-202-0X	20.2
514-150-0X	15	514-205-0X	20.5

STEEL INDIVIDUAL GAUGE BLOCK (≥ 10MM)



514-004-1X

Code	Size(mm)	Code	Size(mm)	Code	Size(mm)
514-210-0X	21	514-413-0X	41.3	514-010-1X	250
514-215-0X	21.5	514-450-0X	45	514-012-1X	300
514-220-0X	22	514-500-0X	50	514-016-1X	400
514-225-0X	22.5	514-600-0X	60	514-020-1X	500
514-228-0X	22.8	514-700-0X	70	514-024-1X	600
514-230-0X	23	514-750-0X	75	514-028-1X	700
514-235-0X	23.5	514-800-0X	80	514-030-1X	750
514-240-0X	24	514-900-0X	90	514-032-1X	800
514-245-0X	24.5	514-004-1X	100	514-036-1X	900
514-250-0X	25	514-005-1X	125	514-040-1X	1000
514-300-0X	30	514-006-1X	150		
514-350-0X	35	514-007-1X	175		
514-400-0X	40	514-008-1X	200		

GAUGE BLOCK SET FOR CALIPER INSPECTION

SERIES 517



517-005-01

- ◆ For checking calipers accuracy
- ◆ With ring gauges
- ◆ Meet ISO 3650
- ◆ Gauge blocks are made of alloy steel
- ◆ With inspection certificate

Code	Gauge block allocation	Quantity	Grade	Ring gauge
517-005-01	30, 41.3, 131.4mm	5pcs	1	Ø4, Ø25mm
517-006-01	30, 41.3, 131.4, 243.5mm	5pcs	1	Ø4, Ø25mm

GAUGE BLOCK SET FOR CALIPER INSPECTION

SERIES 517



517-012-01

- ◆ For checking calipers accuracy
- ◆ Meet ISO 3650
- ◆ Gauge blocks are made of alloy steel
- ◆ With inspection certificate

Code	Gauge block allocation	Quantity	Grade
517-012-01	10, 20, 20, 41.2, 51.2, 81.5, 101.2, 121.5, 121.8, 191.8, 201.5, 291.8mm	12pcs	0
517-012-02	10, 20, 20, 41.2, 51.2, 81.5, 101.2, 121.5, 121.8, 191.8, 201.5, 291.8mm	12pcs	1
517-012-03	10, 20, 20, 41.2, 51.2, 81.5, 101.2, 121.5, 121.8, 191.8, 201.5, 291.8mm	12pcs	2



SERIES 518

GAUGE BLOCK SET FOR MICROMETER INSPECTION

- ◆ For checking micrometers accuracy
- ◆ With optical parallel
- ◆ Grade 0
- ◆ Meet ISO 3650
- ◆ With inspection certificate



518-001-03

(mm)

Code	For micrometers	Quantity	Material	Block allocation
518-001-02	0-25	11pcs	ceramic	2.5, 5.1, 7.7, 10.3, 12.9, 15, 17.6, 20.2, 22.8, 25
518-001-03	0-25	11pcs	alloy steel	2.5, 5.1, 7.7, 10.3, 12.9, 15, 17.6, 20.2, 22.8, 25

SERIES 518

GAUGE BLOCK SET FOR MICROMETER INSPECTION

- ◆ For checking micrometers accuracy
- ◆ Grade 0
- ◆ Meet ISO 3650
- ◆ With inspection certificate



518-001-01

(mm)

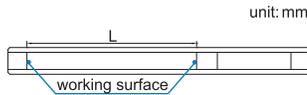
Code	For micrometers	Quantity	Material	Block allocation
518-001-01	0-25	10pcs	alloy steel	2.5, 5.1, 7.7, 10.3, 12.9, 15, 17.6, 20.2, 22.8, 25
518-002-01	25-50	11pcs	alloy steel	25, 27.5, 30.1, 32.7, 35.3, 37.9, 40, 42.6, 45.2, 47.8, 50
518-003-01	50-75	11pcs	alloy steel	50, 52.5, 55.1, 57.7, 60.3, 62.9, 65, 67.6, 70.2, 72.8, 75
518-004-01	75-100	11pcs	alloy steel	75, 77.5, 80.1, 82.7, 85.3, 87.9, 90, 92.6, 95.2, 97.8, 100

GAUGE BLOCK ACCESSORIES

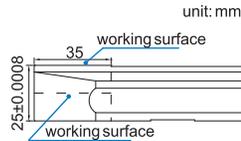
SERIES 520



520-004-11



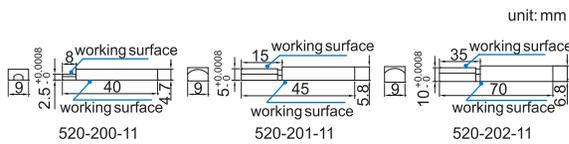
Code	Name	Clamping range (L)
520-002-11	holder	0-50mm
520-004-11	holder	50-100mm
520-008-11	holder	100-200mm
520-012-11	holder	200-300mm
520-016-11	holder	300-400mm
520-020-11	holder	400-500mm



Code	Name
520-100-11	base



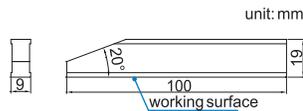
supplied a pair



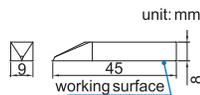
Code	Name	Size	Material
520-200-11	half round jaw	2mm	carbide
520-201-11	half round jaw	5mm	carbide
520-202-11	half round jaw	10mm	carbide



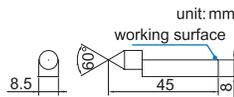
supplied a pair



Code	Name	Material
520-300-11	plain jaw	carbide



Code	Name	Material
520-400-11	scriber	carbide



Code	Name	Tip Material
520-500-11	center point	carbide

Application

<p>(plain jaw+holder) set zero</p>	<p>(half round jaw+holder) set a standard inside length L</p>	<p>(half round jaw+holder) measure inside diameter</p>
<p>(base+holder+scriber) measure height or scribe</p>	<p>(scriber+centre point+holder) scribe circle</p>	



SERIES 519

GAUGE BLOCK ACCESSORY

- ◆ To expand gage block applications



Code	Total quantity	Accessory allocation
519-016-01	17pcs	3pcs holder (50mm, 100mm, 200mm) 6pcs half round jaw (2mm, 5mm, 10mm, 2pcs each) 1pc holder base, 2pcs 100mm plain jaws, 1pc scriber point, 1pc center point, 2pcs triangular straight edge jaw 60mm 1pc 100mm straight edge

SERIES 571

ANGLE GAUGE BLOCK SET

- ◆ For angle comparison
- ◆ One angle can be as used in triangle blocks
four angles can be as used in rectangle blocks

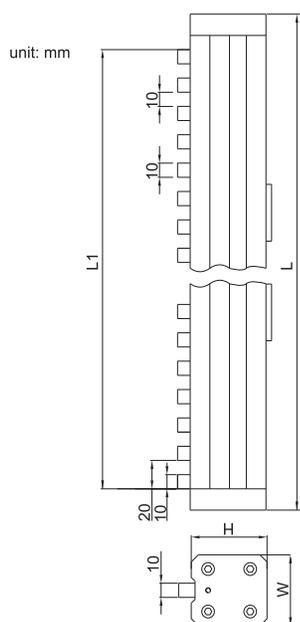


571-007-01

Code	Blocks per set	Accuracy	Sharp	Angle
571-007-01	7	±10"	triangle	15°10', 30°20', 45°30', 50°, 60°40', 75°50', 90°
571-036-01	36	±10"	triangle	10°, 11°, 12°, 13°, 14°, 15°, 16°, 17°, 18°, 19°, 20°
				30°, 40°, 45°, 50°, 60°, 70°
				15°1', 15°2', 15°3', 15°4', 15°5', 15°6', 15°7', 15°8', 15°9'
				15°10', 15°20', 15°30', 15°40', 15°50', 10°00'30"
			rectangle	80°/81°/100°/99°
				89°10'/89°20'/90°50'/90°40'
				89°30'/89°40'/90°30'/90°20'
				90°/90°/90°/90°

CHECK MASTER

SERIES 561



561-024-01

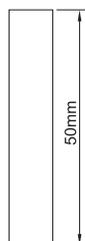
- ◆ For checking the accuracy of measuring tools like calipers, height gage and so on
- ◆ Can be used in vertical and horizontal orientation
- ◆ Supplied with inspection certificate

Code	Range	Parallelism of blocks	Accuracy	W	H	L1	L
561-012-01	300mm	1.2 μ m	\pm 2.5 μ m	45	49	310	350
561-018-01	450mm	1.5 μ m	\pm 3.5 μ m	50	54	470	510
561-024-01	600mm	1.5 μ m	\pm 3.5 μ m	50	54	610	650



PIN GAUGE

SERIES 522



522-06933-2

- ◆ Supplied diameter from 0.10 to 40mm, above 40mm are available upon request
- ◆ Accuracy:
 - \pm 1 μ m (range:0.1-13mm)
 - \pm 2 μ m (range:13-40mm)
- ◆ Made of alloy steel
- ◆ Hardness HRC62-65
- ◆ Code explanation:

522-□□□□-2

diameter

Example:

Code	Size(mm)	Accuracy
522-00125-2	0.125	\pm 1 μ m
522-09125-2	9.125	\pm 1 μ m
522-19125-2	19.125	\pm 2 μ m

SERIES 523

PIN GAUGE SET

- ◆ Made of alloy steel
- ◆ Hardness HRC62-65
- ◆ Accuracy:
 - ±1µm (range:0.1-13mm)
 - ±2µm (range:13-40mm)



523-650-51

Code	Diameter(mm)	Step	Quantity	Code	Diameter(mm)	Step	Quantity	Code	Diameter(mm)	Step	Quantity
523-010-41	0.10-0.50	0.01mm	41	523-700-51	7.00-7.50	0.01mm	51	523-1350-51	13.50-14.00	0.01mm	51
523-020-31	0.20-0.50	0.01mm	31	523-750-51	7.50-8.00	0.01mm	51	523-1400-51	14.00-14.50	0.01mm	51
523-050-51	0.50-1.00	0.01mm	51	523-800-51	8.00-8.50	0.01mm	51	523-1450-51	14.50-15.00	0.01mm	51
523-100-51	1.00-1.50	0.01mm	51	523-850-51	8.50-9.00	0.01mm	51	523-1500-51	15.00-15.50	0.01mm	51
523-150-51	1.50-2.00	0.01mm	51	523-900-51	9.00-9.50	0.01mm	51	523-1550-51	15.50-16.00	0.01mm	51
523-200-51	2.00-2.50	0.01mm	51	523-950-51	9.50-10.00	0.01mm	51	523-1600-51	16.00-16.50	0.01mm	51
523-250-51	2.50-3.00	0.01mm	51	523-500-41	1.0-5.0	0.1mm	41	523-1650-51	16.50-17.00	0.01mm	51
523-300-51	3.00-3.50	0.01mm	51	523-500-51	5.0-10.0	0.1mm	51	523-1700-51	17.00-17.50	0.01mm	51
523-350-51	3.50-4.00	0.01mm	51	523-1000-51	10.00-10.50	0.01mm	51	523-1750-51	17.50-18.00	0.01mm	51
523-400-51	4.00-4.50	0.01mm	51	523-1050-51	10.50-11.00	0.01mm	51	523-1800-51	18.00-18.50	0.01mm	51
523-450-51	4.50-5.00	0.01mm	51	523-1100-51	11.00-11.50	0.01mm	51	523-1850-51	18.50-19.00	0.01mm	51
523-500-01	5.00-5.50	0.01mm	51	523-1150-51	11.50-12.00	0.01mm	51	523-1900-51	19.00-19.50	0.01mm	51
523-550-51	5.50-6.00	0.01mm	51	523-1200-51	12.00-12.50	0.01mm	51	523-1950-51	19.50-20.00	0.01mm	51
523-600-51	6.00-6.50	0.01mm	51	523-1250-51	12.50-13.00	0.01mm	51	523-1000-01	10.0-15.0mm	0.1mm	51
523-650-51	6.50-7.00	0.01mm	51	523-1300-51	13.00-13.50	0.01mm	51	523-1500-01	15.0-20.0mm	0.1mm	51



SERIES 524

BOX FOR PIN GAUGE SET

- ◆ For containing pin gauges

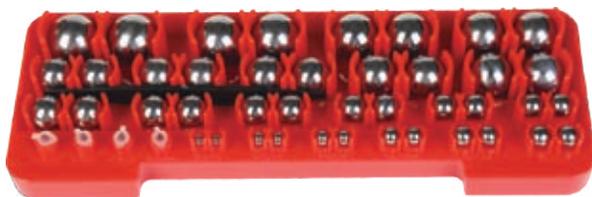


524-001-01

Code	Gauge range	Max. packed QTY
524-001-01	0.10-10mm	51
524-001-02	10-13mm	72
524-001-03	13-20mm	50
524-001-04	20-34mm	32

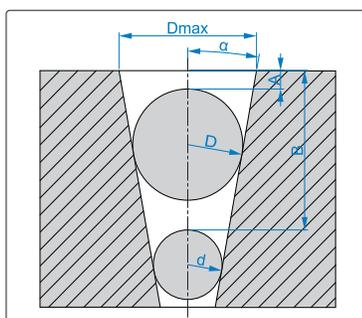
STEEL BALL SET

526



- ◆ To measure diameter and angle of taper holes
- ◆ Each size has a pair of steel ball
- ◆ Material: tool steel
- ◆ Hardness: HRC63
- ◆ Diameter accuracy: $\pm 2\mu\text{m}$
- ◆ Roundness: $0.6\mu\text{m}$

Calculate angle (α) and diameter (D_{max}) according to the ball diameter (D, d), height (A) and depth (B)



Code	Steel balls per set	diameter(mm)
526-025-01	25 pairs	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25

MASTER SETTING DISC

SERIES 525



525-020-01

- ◆ Hardness: HRC60-62
- ◆ Conforms to standard ASME B89.1.5

Diameter	Supplied difference	Roundness and conicity
3-21mm	$\pm 0.8\mu\text{m}$	0.5 μm
21-30mm	$\pm 0.8\mu\text{m}$	0.7 μm
30-40mm	$\pm 1.1\mu\text{m}$	0.7 μm
40-65mm	$\pm 1.5\mu\text{m}$	1.0 μm
65-110mm	$\pm 1.9\mu\text{m}$	1.2 μm
110-120mm	$\pm 1.9\mu\text{m}$	1.6 μm
120-130mm	$\pm 2.4\mu\text{m}$	1.6 μm

other sizes are available upon request

Code	Size(mm)								
525-003-01	Ø3	525-016-01	Ø16	525-029-01	Ø29	525-042-01	Ø42	525-075-01	Ø75
525-004-01	Ø4	525-017-01	Ø17	525-030-01	Ø30	525-043-01	Ø43	525-080-01	Ø80
525-005-01	Ø5	525-018-01	Ø18	525-031-01	Ø31	525-044-01	Ø44	525-085-01	Ø85
525-006-01	Ø6	525-019-01	Ø19	525-032-01	Ø32	525-045-01	Ø45	525-090-01	Ø90
525-007-01	Ø7	525-020-01	Ø20	525-033-01	Ø33	525-046-01	Ø46	525-095-01	Ø95
525-008-01	Ø8	525-021-01	Ø21	525-034-01	Ø34	525-047-01	Ø47	525-100-01	Ø100
525-009-01	Ø9	525-022-01	Ø22	525-035-01	Ø35	525-048-01	Ø48	525-105-01	Ø105
525-010-01	Ø10	525-023-01	Ø23	525-036-01	Ø36	525-049-01	Ø49	525-110-01	Ø110
525-011-01	Ø11	525-024-01	Ø24	525-037-01	Ø37	525-050-01	Ø50	525-115-01	Ø115
525-012-01	Ø12	525-025-01	Ø25	525-038-01	Ø38	525-055-01	Ø55	525-120-01	Ø120
525-013-01	Ø13	525-026-01	Ø26	525-039-01	Ø39	525-060-01	Ø60	525-125-01	Ø125
525-014-01	Ø14	525-027-01	Ø27	525-040-01	Ø40	525-065-01	Ø65	525-130-01	Ø130
525-015-01	Ø15	525-028-01	Ø28	525-041-01	Ø41	525-070-01	Ø70		



SERIES 529

- ◆ Made of alloy steel
- ◆ One unit includes 3pcs same size
- ◆ Hardness HRC60-62
- ◆ Accuracy:
 - ±0.25μm (grade 0), ±0.5μm (grade 1)
- ◆ Roundness:
 - 0.25μm (grade 0), 0.5μm (grade 1)
- ◆ Code explanation

529-□□□□-0X

- 0: grade 0
- 1: grade 1

Example:

Code	Size(mm)	Grade
529-2886-00	2.886	0
529-2886-01	2.886	1

Supplied all 55 size as a set

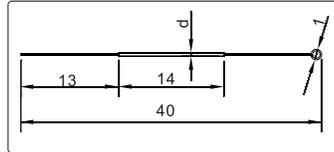
Code	Quantity	Grade
529-055-00	55 × 3pcs	0
529-055-01	55 × 3pcs	1

THREE WIRE MEASURING UNITS

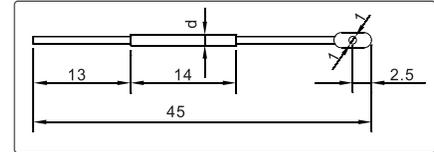


529-4773-01

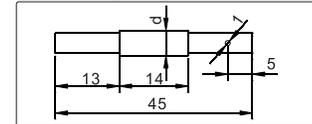
$d \leq 0.572\text{mm}$



$0.572\text{mm} < d < 1.591\text{mm}$



$d \geq 1.591\text{mm}$



Supplied 55 different size, unit:mm

0.118	0.260	0.572	1.302	2.020	2.886	3.580	4.773
0.142	0.291	0.724	1.441	2.050	3.106	3.666	5.150
0.170	0.343	0.796	1.553	2.071	3.177	4.091	5.176
0.185	0.402	0.866	1.591	2.217	3.287	4.120	5.493
0.201	0.433	1.008	1.732	2.311	3.310	4.141	6.212
0.232	0.461	1.047	1.833	2.595	3.468	4.211	6.585
0.250	0.511	1.157	1.883	2.866	3.550	4.400	

SERIES 531

- ◆ For inside micrometer and bore gage setting
- ◆ Deviation (difference between the order size and the size marked on supplied setting ring)
 - Ø3-100: ±3.0μm Ø100-300: ±5.0μm
- ◆ Accuracy: Ø3-100: ±1.0μm
 - Ø100-250: ±2.0μm Ø250-300: ±2.5μm
- ◆ Range: Ø3-300mm
- ◆ Other sizes are available upon request

SETTING RING



531-040-01

Code	Size(mm)								
531-003-01	Ø3	531-017-01	Ø17	531-031-01	Ø31	531-045-01	Ø45	531-087-01	Ø87
531-004-01	Ø4	531-018-01	Ø18	531-032-01	Ø32	531-046-01	Ø46	531-090-01	Ø90
531-005-01	Ø5	531-019-01	Ø19	531-033-01	Ø33	531-047-01	Ø47	531-095-01	Ø95
531-006-01	Ø6	531-020-01	Ø20	531-034-01	Ø34	531-048-01	Ø48	531-100-01	Ø100
531-007-01	Ø7	531-021-01	Ø21	531-035-01	Ø35	531-049-01	Ø49	531-125-01	Ø125
531-008-01	Ø8	531-022-01	Ø22	531-036-01	Ø36	531-050-01	Ø50	531-150-01	Ø150
531-009-01	Ø9	531-023-01	Ø23	531-037-01	Ø37	531-055-01	Ø55	531-175-01	Ø175
531-010-01	Ø10	531-024-01	Ø24	531-038-01	Ø38	531-060-01	Ø60	531-200-01	Ø200
531-011-01	Ø11	531-025-01	Ø25	531-039-01	Ø39	531-062-01	Ø62	531-225-01	Ø225
531-012-01	Ø12	531-026-01	Ø26	531-040-01	Ø40	531-065-01	Ø65	531-250-01	Ø250
531-013-01	Ø13	531-027-01	Ø27	531-041-01	Ø41	531-070-01	Ø70	531-275-01	Ø275
531-014-01	Ø14	531-028-01	Ø28	531-042-01	Ø42	531-075-01	Ø75	531-300-01	Ø300
531-015-01	Ø15	531-029-01	Ø29	531-043-01	Ø43	531-080-01	Ø80		
531-016-01	Ø16	531-030-01	Ø30	531-044-01	Ø44	531-085-01	Ø85		

PLAIN PLUG GAUGE

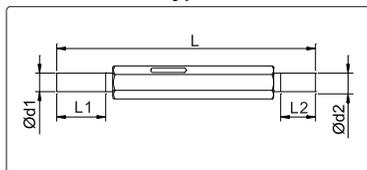
SERIES 541



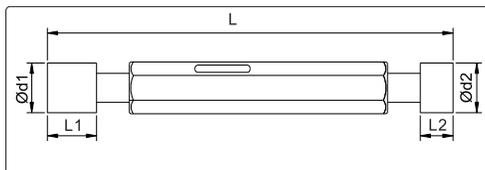
541-010-17

- ◆ Grade H7
- ◆ Hardness HRC 60±2
- ◆ Confirms to standard GB/T 1957-2006
- ◆ Supplied range from 1mm to 100mm, step: 1mm, other sizes or grade are available upon request

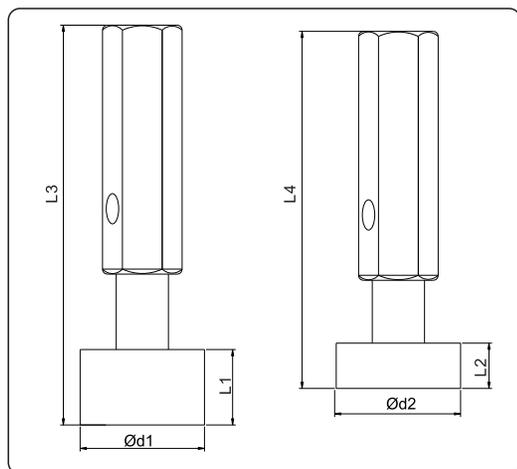
Type A



Type B



Type C



Diameter Ød (mm)	Ød1 size tolerance of Go gage (mm)	Ød2 size tolerance of Go gage (mm)	L1	L2	L	L3	L4
≥2 ≤3	+0.0010, +0.0022	+0.0088, +0.010	6.5	4.5	62		
>3 ≤6	+0.0013, +0.0027	+0.0106, +0.012	8	6	74		
>6, ≤10	+0.0015, +0.0033	+0.0132, +0.015	10	7	87		
>10, ≤14	+0.0018, +0.0038	+0.0160, +0.018	12	8	99		
>14, ≤18	+0.0018, +0.0038	+0.0160, +0.018	14	10	114		
>18, ≤24	+0.0023, +0.0046	+0.0186, +0.021	16	12	132		
>24, ≤30	+0.0023, +0.0046	+0.0186, +0.021	18	14	136		
>30, ≤40	+0.0023, +0.0055	+0.0220, +0.025	20	15	155		
>40, ≤50	+0.0023, +0.0055	+0.0220, +0.025	25	18	169		
>50, ≤65	+0.0028, +0.0064	+0.0264, +0.030	30	18		164	165
>65, ≤80	+0.0028, +0.0064	+0.0264, +0.030	35	25		169	159
>80, ≤100	+0.0032, +0.0075	+0.0308, +0.035	35	25		169	159

Code	Diameter Ød (mm)	Type									
541-002-17	2	A	541-017-17	17	B	541-032-17	32	B	541-047-17	47	B
541-003-17	3	A	541-018-17	18	B	541-033-17	33	B	541-048-17	48	B
541-004-17	4	A	541-019-17	19	B	541-034-17	34	B	541-049-17	49	B
541-005-17	5	A	541-020-17	20	B	541-035-17	35	B	541-050-17	50	B
541-006-17	6	A	541-021-17	21	B	541-036-17	36	B	541-052-17	52	C
541-007-17	7	A	541-022-17	22	B	541-037-17	37	B	541-055-17	55	C
541-008-17	8	A	541-023-17	23	B	541-038-17	38	B	541-060-17	60	C
541-009-17	9	B	541-024-17	24	B	541-039-17	39	B	541-065-17	65	C
541-010-17	10	B	541-025-17	25	B	541-040-17	40	B	541-070-17	70	C
541-011-17	11	B	541-026-17	26	B	541-041-17	41	B	541-075-17	75	C
541-012-17	12	B	541-027-17	27	B	541-042-17	42	B	541-080-17	80	C
541-013-17	13	B	541-028-17	28	B	541-043-17	43	B	541-085-17	85	C
541-014-17	14	B	541-029-17	29	B	541-044-17	44	B	541-090-17	90	C
541-015-17	15	B	541-030-17	30	B	541-045-17	45	B	541-095-17	95	C
541-016-17	16	B	541-031-17	31	B	541-046-17	46	B	541-100-17	100	C



532/533/534/535

THREAD RING GAUGE

- ◆ Grade 6g
- ◆ Meet ISO1502
- ◆ Hardness HRC60-62
- ◆ Other sizes are available upon request



532-020-01



533-020-01

STANDARD THREAD

Code(GO)	Code(NOGO)	Size(mm)	Code(GO)	Code(NOGO)	Size(mm)	Code(GO)	Code(NOGO)	Size(mm)
532-002-01	533-002-01	M2x0.4	532-010-01	533-010-01	M10x1.5	532-030-01	533-030-01	M30x3.5
532-002-21	533-002-21	M2.2x0.45	532-012-01	533-012-01	M12x1.75	532-033-01	533-033-01	M33x3.5
532-002-51	533-002-51	M2.5x0.45	532-014-01	533-014-01	M14x2	532-036-01	533-036-01	M36x4
532-003-01	533-003-01	M3x0.5	532-016-01	533-016-01	M16x2	532-042-01	533-042-01	M42x4.5
532-003-51	533-003-51	M3.5x0.6	532-018-01	533-018-01	M18x2.5	532-048-01	533-048-01	M48x5
532-004-01	533-004-01	M4x0.7	532-020-01	533-020-01	M20x2.5	532-052-01	533-052-01	M52x5
532-005-01	533-005-01	M5x0.8	532-022-01	533-022-01	M22x2.5	532-060-01	533-060-01	M60x5.5
532-006-01	533-006-01	M6x1	532-024-01	533-024-01	M24x3			
532-008-01	533-008-01	M8x1.25	532-027-01	533-027-01	M27x3			

FINE THREAD

Code(GO)	Code(NOGO)	Size(mm)	Code(GO)	Code(NOGO)	Size(mm)	Code(GO)	Code(NOGO)	Size(mm)
534-002-01	535-002-01	M2x0.25	534-018-01	535-018-01	M18x0.5	534-039-01	535-039-01	M39x1
534-002-21	535-002-21	M2.2x0.25	534-018-02	535-018-02	M18x0.75	534-039-02	535-039-02	M39x1.5
534-002-51	535-002-51	M2.5x0.35	534-018-03	535-018-03	M18x1	534-039-03	535-039-03	M39x2
534-003-01	535-003-01	M3x0.35	534-018-04	535-018-04	M18x1.5	534-039-04	535-039-04	M39x3
534-003-51	535-003-51	M3.5x0.35	534-018-05	535-018-05	M18x2	534-042-01	535-042-01	M42x1
534-004-01	535-004-01	M4x0.5	534-020-01	535-020-01	M20x0.5	534-042-02	535-042-02	M42x1.5
534-005-01	535-005-01	M5x0.5	534-020-02	535-020-02	M20x0.75	534-042-03	535-042-03	M42x2
534-006-01	535-006-01	M6x0.5	534-020-03	535-020-03	M20x1	534-042-04	535-042-04	M42x3
534-006-02	535-006-02	M6x0.75	534-020-04	535-020-04	M20x1.5	534-042-05	535-042-05	M42x4
534-007-01	535-007-01	M7x0.5	534-020-05	535-020-05	M20x2	534-045-01	535-045-01	M45x1
534-007-02	535-007-02	M7x0.75	534-022-01	535-022-01	M22x0.5	534-045-02	535-045-02	M45x1.5
534-008-01	535-008-01	M8x0.5	534-022-02	535-022-02	M22x0.75	534-045-03	535-045-03	M45x2
534-008-02	535-008-02	M8x0.75	534-022-03	535-022-03	M22x1	534-045-04	535-045-04	M45x3
534-008-03	535-008-03	M8x1	534-022-04	535-022-04	M22x1.5	534-045-05	535-045-05	M45x4
534-009-01	535-009-01	M9x0.5	534-022-05	535-022-05	M22x2	534-048-01	535-048-01	M48x1
534-009-02	535-009-02	M9x0.75	534-024-01	535-024-01	M24x0.75	534-048-02	535-048-02	M48x1.5
534-009-03	535-009-03	M9x1	534-024-02	535-024-02	M24x1	534-048-03	535-048-03	M48x2
534-010-01	535-010-01	M10x0.5	534-024-03	535-024-03	M24x1.5	534-048-04	535-048-04	M48x3
534-010-02	535-010-02	M10x0.75	534-024-04	535-024-04	M24x2	534-048-05	535-048-05	M48x4
534-010-03	535-010-03	M10x1	534-027-01	535-027-01	M27x0.75	534-052-01	535-052-01	M52x1
534-010-04	535-010-04	M10x1.25	534-027-02	535-027-02	M27x1	534-052-02	535-052-02	M52x1.5
534-011-02	535-011-02	M11x0.75	534-027-03	535-027-03	M27x1.5	534-052-03	535-052-03	M52x2
534-011-03	535-011-03	M11x1	534-027-04	535-027-04	M27x2	534-052-04	535-052-04	M52x3
534-012-01	535-012-01	M12x0.5	534-030-01	535-030-01	M30x0.75	534-052-05	535-052-05	M52x4
534-012-02	535-012-02	M12x0.75	534-030-02	535-030-02	M30x1	534-056-01	535-056-01	M56x1
534-012-03	535-012-03	M12x1	534-030-03	535-030-03	M30x1.5	534-056-02	535-056-02	M56x1.5
534-012-04	535-012-04	M12x1.25	534-030-04	535-030-04	M30x2	534-056-03	535-056-03	M56x2
534-012-05	535-012-05	M12x1.5	534-030-05	535-030-05	M30x3	534-056-04	535-056-04	M56x3
534-014-01	535-014-01	M14x0.5	534-033-01	535-033-01	M33x0.75	534-056-05	535-056-05	M56x4
534-014-02	535-014-02	M14x0.75	534-033-02	535-033-02	M33x1	534-060-01	535-060-01	M60x1
534-014-03	535-014-03	M14x1	534-033-03	535-033-03	M33x1.5	534-060-02	535-060-02	M60x1.5
534-014-04	535-014-04	M14x1.25	534-033-04	535-033-04	M33x2	534-060-03	535-060-03	M60x2
534-014-05	535-014-05	M14x1.5	534-033-05	535-033-05	M33x3	534-060-04	535-060-04	M60x3
534-016-01	535-016-01	M16x0.5	534-036-01	535-036-01	M36x1	534-060-05	535-060-05	M60x4
534-016-02	535-016-02	M16x0.75	534-036-02	535-036-02	M36x1.5			
534-016-03	535-016-03	M16x1	534-036-03	535-036-03	M36x2			
534-016-04	535-016-04	M16x1.5	534-036-04	535-036-04	M36x3			



THREAD PLUG GAUGE

SERIES 542



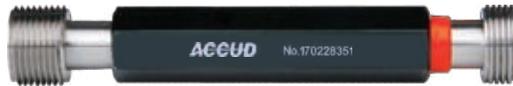
542-010-01

- ◆ Grade 6H
- ◆ Meet ISO1502
- ◆ Hardness HRC60-62
- ◆ Other sizes are available upon request

Code	Size(mm)	Code	Size(mm)	Code	Size(mm)	Code	Size(mm)
542-002-01	M2x0.4	542-007-01	M7x1	542-018-01	M18x2.5	542-039-01	M39x4
542-002-21	M2.2x0.45	542-008-01	M8x1.25	542-020-01	M20x2.5	542-042-01	M42x4.5
542-002-51	M2.5x0.45	542-009-01	M9x1.25	542-022-01	M22x2.5	542-045-01	M45x4.5
542-003-01	M3x0.5	542-010-01	M10x1.5	542-024-01	M24x3	542-048-01	M48x5
542-003-02	M3.5x0.6	542-011-01	M11x1.5	542-027-01	M27x3	542-052-01	M52x5
542-004-01	M4x0.7	542-012-01	M12x1.75	542-030-01	M30x3.5	542-056-01	M56x5.5
542-005-01	M5x0.8	542-014-01	M14x2	542-033-01	M33x3.5	542-060-01	M60x5.5
542-006-01	M6x1	542-016-01	M16x2	542-036-01	M36x4		

FINE THREAD PLUG GAUGE

SERIES 543



543-020-01

- ◆ Grade 6H
- ◆ Meet ISO1502
- ◆ Hardness HRC60-62, good wear resistance
- ◆ Other sizes are available upon request

Code	Size(mm)	Code	Size(mm)	Code	Size(mm)	Code	Size(mm)	Code	Size(mm)
543-002-01	M2x0.25	543-011-02	M11x0.75	543-020-02	M20x0.75	543-033-01	M33x0.75	543-045-05	M45x4
543-002-21	M2.2x0.25	543-011-03	M11x1	543-020-03	M20x1	543-033-02	M33x1	543-048-01	M48x1
543-002-31	M2.5x0.35	543-012-01	M12x0.5	543-020-04	M20x1.5	543-033-03	M33x1.5	543-048-02	M48x1.5
543-003-01	M3x0.35	543-012-02	M12x0.75	543-020-05	M20x2	543-033-04	M33x2	543-048-03	M48x2
543-003-02	M3.5x0.35	543-012-03	M12x1	543-022-01	M22x0.5	543-033-05	M33x3	543-048-04	M48x3
543-004-01	M4x0.5	543-012-04	M12x1.25	543-022-02	M22x0.75	543-036-01	M36x1	543-048-05	M48x4
543-005-01	M5x0.5	543-012-05	M12x1.5	543-022-03	M22x1	543-036-02	M36x1.5	543-052-01	M52x1
543-006-01	M6x0.5	543-014-01	M14x0.5	543-022-04	M22x1.5	543-036-03	M36x2	543-052-02	M52x1.5
543-006-02	M6x0.75	543-014-02	M14x0.75	543-022-05	M22x2	543-036-04	M36x3	543-052-03	M52x2
543-007-01	M7x0.5	543-014-03	M14x1	543-024-01	M24x0.75	543-039-01	M39x1	543-052-04	M52x3
543-007-02	M7x0.75	543-014-04	M14x1.25	543-024-02	M24x1	543-039-02	M39x1.5	543-052-05	M52x4
543-008-01	M8x0.5	543-014-05	M14x1.5	543-024-03	M24x1.5	543-039-03	M39x2	543-056-01	M56x1
543-008-02	M8x0.75	543-016-01	M16x0.5	543-024-04	M24x2	543-039-04	M39x3	543-056-02	M56x1.5
543-008-03	M8x1	543-016-02	M16x0.75	543-027-01	M27x0.75	543-042-01	M42x1	543-056-03	M56x2
543-009-01	M9x0.5	543-016-03	M16x1	543-027-02	M27x1	543-042-02	M42x1.5	543-056-04	M56x3
543-009-02	M9x0.75	543-016-04	M16x1.5	543-027-03	M27x1.5	543-042-03	M42x2	543-056-05	M56x4
543-009-03	M9x1	543-018-01	M18x0.5	543-027-04	M27x2	543-042-04	M42x3	543-060-01	M60x1
543-010-01	M10x0.5	543-018-02	M18x0.75	543-030-01	M30x0.75	543-042-05	M42x4	543-060-02	M60x1.5
543-010-02	M10x0.75	543-018-03	M18x1	543-030-02	M30x1	543-045-01	M45x1	543-060-03	M60x2
543-010-03	M10x1	543-018-04	M18x1.5	543-030-03	M30x1.5	543-045-02	M45x1.5	543-060-04	M60x3
543-010-04	M10x1.25	543-018-05	M18x2	543-030-04	M30x2	543-045-03	M45x2	543-060-05	M60x4
543-011-01	M11x0.5	543-020-01	M20x0.5	543-030-05	M30x3	543-045-04	M45x3		



SERIES 537/538

AMERICAN STANDARD THREAD RING GAUGE

- ◆ Class 2A
- ◆ Conforms to standard ANSI B1.2
- ◆ Made of Oil Hardened Non-shrinking steel
- ◆ Hardness HRC60-62



537-71620-UNF

Code(GO)	Code(NOGO)	Size	Code(GO)	Code(NOGO)	Size	Code(GO)	Code(NOGO)	Size
537-00440-UNC	538-00440-UNC	4-40UNC	537-51618-UNC	538-51618-UNC	5/16-18UNC	537-05811-UNC	538-05811-UNC	5/8-11UNC
537-04048-UNF	538-04048-UNF	4-48UNF	537-51624-UNF	538-51624-UNF	5/16-24UNF	537-05818-UNF	538-05818-UNF	5/8-18UNF
537-00632-UNC	538-00632-UNC	6-32UNC	537-03816-UNC	538-03816-UNC	3/8-16UNC	537-03410-UNC	538-03410-UNC	3/4-10UNC
537-06040-UNF	538-06040-UNF	6-40UNF	537-03824-UNF	538-03824-UNF	3/8-24UNF	537-03416-UNF	538-03416-UNF	3/4-16UNF
537-00832-UNC	538-00832-UNC	8-32UNC	537-71614-UNC	538-71614-UNC	7/16-14UNC	537-07809-UNC	538-07809-UNC	7/8-9UNC
537-08036-UNF	538-08036-UNF	8-36UNF	537-71620-UNF	538-71620-UNF	7/16-20 UNF	537-07814-UNF	538-07814-UNF	7/8-14UNF
537-01024-UNC	538-01024-UNC	10-24UNC	537-01213-UNC	538-01213-UNC	1/2-13 UNC	537-01080-UNC	538-01080-UNC	1-8 UNC
537-01032-UNF	538-01032-UNF	10-32UNF	537-01220-UNF	538-01220-UNF	1/2-20 UNF	537-01012-UNF	538-01012-UNF	1-12UNF
537-01420-UNC	538-01420-UNC	1/4-20UNC	537-91612-UNC	538-91612-UNC	9/16-12UNC			
537-01428-UNF	538-01428-UNF	1/4-28UNF	537-91618-UNF	538-91618-UNF	9/16-18UNF			

SERIES 547

AMERICAN STANDARD THREAD PLUG GAUGE

- ◆ Class 2B
- ◆ Conforms to standard ANSI B1.2
- ◆ Made of Oil Hardened Non-shrinking steel
- ◆ Hardness HRC60-62



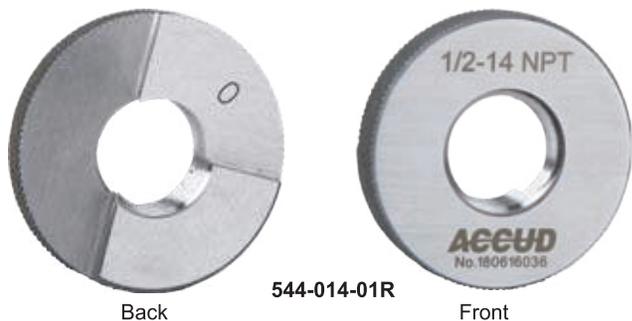
547-71620-UNF

Code(GO)	Size	Code(GO)	Size	Code(GO)	Size
547-00440-UNC	4-40UNC	547-51618-UNC	5/16-18UNC	547-05811-UNC	5/8-11UNC
547-04048-UNF	4-48UNF	547-51624-UNF	5/16-24UNF	547-05818-UNF	5/8-18UNF
547-00632-UNC	6-32UNC	547-03816-UNC	3/8-16UNC	547-03410-UNC	3/4-10UNC
547-06040-UNF	6-40UNF	547-03824-UNF	3/8-24UNF	547-03416-UNF	3/4-16UNF
547-00832-UNC	8-32UNC	547-71614-UNC	7/16-14UNC	547-07809-UNC	7/8-9UNC
547-08036-UNF	8-36UNF	547-71620-UNF	7/16-20 UNF	547-07814-UNF	7/8-14UNF
547-01024-UNC	10-24UNC	547-01213-UNC	1/2-13 UNC	547-01080-UNC	1-8 UNC
547-01032-UNF	10-32UNF	547-01220-UNF	1/2-20 UNF	547-01012-UNF	1-12UNF
547-01420-UNC	1/4-20UNC	547-91612-UNC	9/16-12UNC		
547-01428-UNF	1/4-28UNF	547-91618-UNF	9/16-18UNF		

NPT THREAD GAUGE

SERIES 544

RING GAUGE



544-014-01R

- ◆ Conforms to standard ANSI/ASME B1.20.1
- ◆ Taper: 1:16
- ◆ Made of Oil Hardened Non-shrinking steel

Code	Size	Code	Size
544-027-04R	NPT 1/16" x 27	544-11D5-12R	NPT1-1/4"x11.5
544-027-03R	NPT 1/8" x 27	544-11D5-11R	NPT1-1/2"x11.5
544-018-02R	NPT1/4" x 18	544-11D5-20R	NPT2"X11.5
544-018-33R	NPT3/8"x18	544-008-21R	NPT2-1/2"X8
544-014-01R	NPT1/2" x 14	544-008-30R	NPT3"X8
544-014-32R	NPT3/4"x14	544-008-32R	NPT3-1/2"X8
544-11D5-10R	NPT1"x11.5	544-008-40R	NPT4"X8

PLUG GAUGE



544-014-01

- ◆ Conforms to standard ANSI/ASME B1.20.1
- ◆ Taper: 1:16
- ◆ Made of Oil Hardened Non-shrinking steel

Code	Size	Code	Size
544-027-04	NPT 1/16" x 27	544-11D5-12	NPT1-1/4"x11.5
544-027-03	NPT 1/8" x 27	544-11D5-11	NPT1-1/2"x11.5
544-018-02	NPT1/4" x 18	544-11D5-20	NPT2"X11.5
544-018-33	NPT3/8"x18	544-008-21	NPT2-1/2"X8
544-014-01	NPT1/2" x 14	544-008-30	NPT3"X8
544-014-32	NPT3/4"x14	544-008-32	NPT3-1/2"X8
544-11D5-10	NPT1"x11.5	544-008-40	NPT4"X8

WITHWORTH PIPE THREAD GAUGE (G SERIES)

SERIES 535/536/545

RING GAUGE



535-0250-01

536-0250-01

- ◆ Conforms to standard ISO228
- ◆ Class B

Code(GO)	Code(NOGO)	Size	Code(GO)	Code(NOGO)	Size
535-0125-01	536-0125-01	G1/8-28	535-1125-01	536-1125-01	G1-1/8-11
535-0250-01	536-0250-01	G1/4-19	535-1250-01	536-1250-01	G1-1/4-11
535-0375-01	536-0375-01	G3/8-19	535-1500-01	536-1500-01	G1-1/2-11
535-0500-01	536-0500-01	G1/2-14	535-1750-01	536-1750-01	G1-3/4-11
535-0625-01	536-0625-01	G5/8-14	535-2000-01	536-2000-01	G2-11
535-0750-01	536-0750-01	G3/4-14	535-2500-01	536-2500-01	G2-1/2-11
535-0875-01	536-0875-01	G7/8-14	535-3000-01	536-3000-01	G3-11
535-1000-01	536-1000-01	G1-11	535-4000-01	536-4000-01	G4-11

PLUG GAUGE



- ◆ Conforms to standard ISO228

Code	Size	Code	Size
545-0125-01	G1/8-28	545-1250-01	G1-1/4-11
545-0250-01	G1/4-19	545-1500-01	G1-1/2-11
545-0375-01	G3/8-19	545-1750-01	G1-3/4-11
545-0500-01	G1/2-14	545-2000-01	G2-11
545-0625-01	G5/8-14	545-2500-01	G2-1/2-11
545-0750-01	G3/4-14	545-3000-01	G3-11
545-0875-01	G7/8-14	545-4000-01G	G4-11(GO)
545-1000-01	G1-11	545-4000-01NG	G4-11(NOGO)
545-1125-01	G1-1/8-11		

811

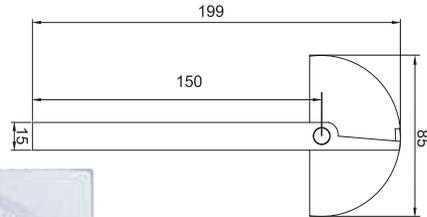
PROTRACTOR

- ◆ Graduation : 1°
- ◆ Made of stainless steel
- ◆ Satin chrome plated scale
- ◆ With locking screw

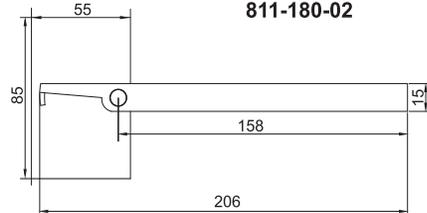


811-180-01

unit: mm



811-180-02



Code	Size	Range	Accuracy
811-180-01	85x150mm	0 - 180°	±0.3°
811-180-02	85x158mm	0 - 180°	±0.3°

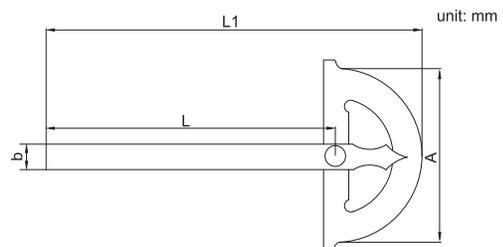
SERIES 812

PROTRACTOR

- ◆ Graduation : 1°
- ◆ Satin chrome plated scale
- ◆ With locking screw



812-003-01



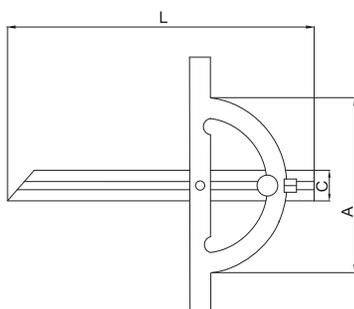
Code	Size(AxL)	Range	Accuracy	b	L1
812-003-01	80x120mm	0 - 180°	±0.3°	12	158
812-005-01	120x150mm	0 - 180°	±0.3°	12	205
812-006-01	150x200mm	0 - 180°	±0.3°	16	280
812-008-01	200x300mm	0 - 180°	±0.3°	20	413

PROTRACTOR

SERIES 813



813-006-01

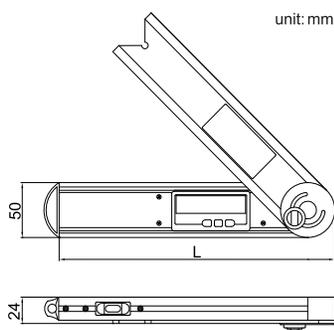


- ◆ Graduation : 1°
- ◆ Made of stainless steel
- ◆ Satin chrome plated scale
- ◆ The blade is moveable

Code	Size (AxL)	Range	Accuracy	C
813-006-01	100x150mm	10 - 170°	±0.3°	18
813-012-01	150x300mm	10 - 170°	±0.3°	18
813-016-01	200x400mm	10 - 170°	±0.3°	20
813-020-01	250x500mm	10 - 170°	±0.3°	20
813-024-01	300x600mm	10 - 170°	±0.3°	20

DIGITAL PROTRACTOR

726



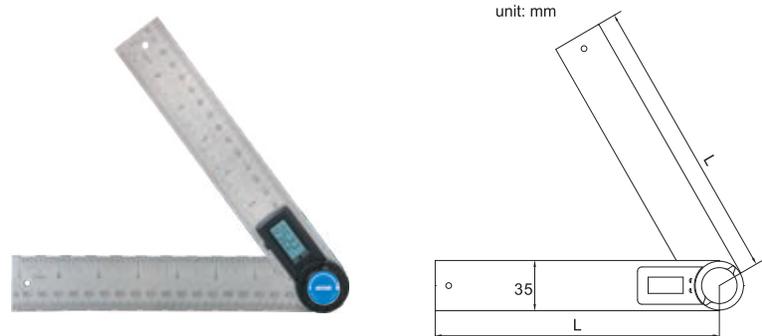
- ◆ Buttons: ON/OFF, HOLD, ZERO, ABS
- ◆ Measuring ranges can be set 0°~225°, -225°~0°, -45°~180°, -180°~45°
- ◆ Remove the locking screw for 360° range
- ◆ With level vial
- ◆ Automatic power off

Code	Range	Resolution	Accuracy	Size (L)
726-360-01	0 - 360°	0.05°	±0.15°	250mm

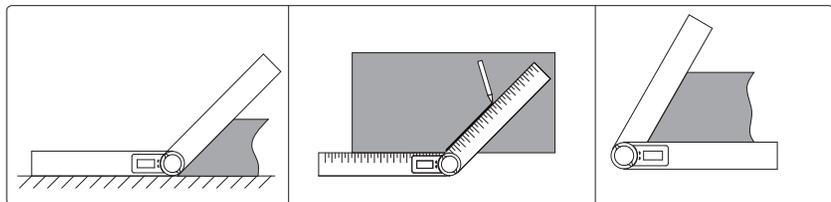
SERIES 821

DIGITAL PROTRACTOR

- ◆ Resolution: 0.1°
- ◆ Buttons: on/off, zero
- ◆ With locking attachment
- ◆ Rule graduation: 1mm and 1/32"
- ◆ Auto power off



821-008-01

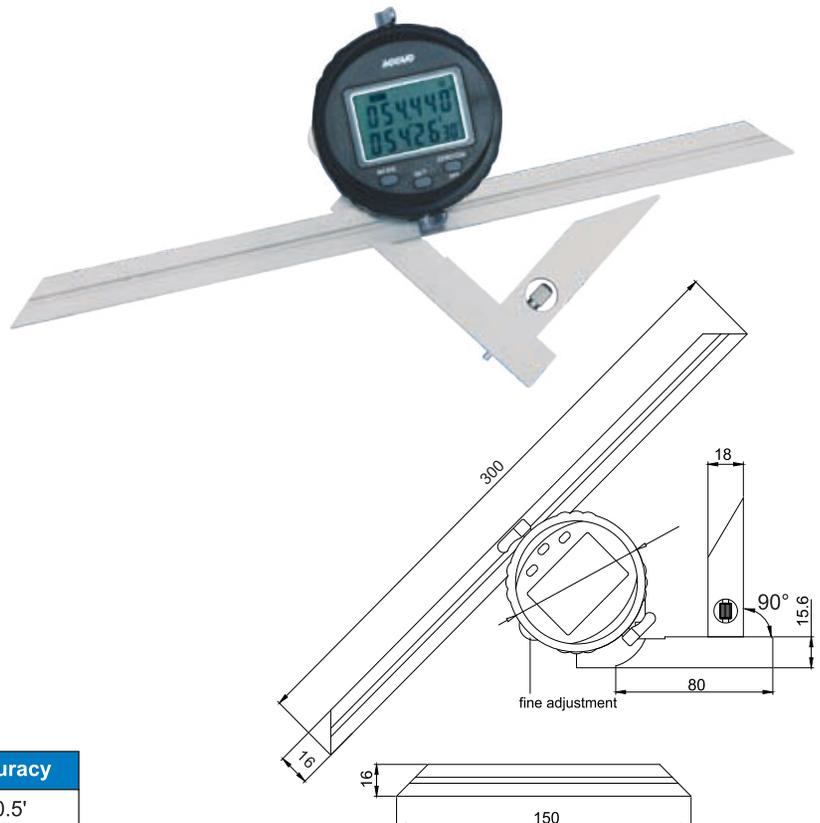


Code	Size(L)	Range	Accuracy
821-008-01	200mm	0 - 360°	±0.3°
821-012-01	300mm	0 - 360°	±0.3°

822

DIGITAL PROTRACTOR

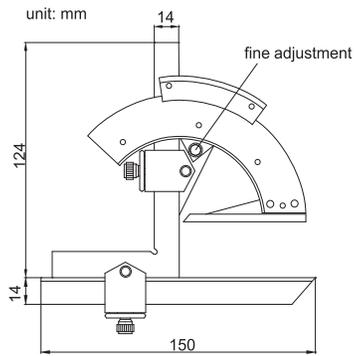
- ◆ Button function:
 - SET: preset the reading and change the measuring direction
 - MODE: choose range 90°, 180°, 360°
 - ZERO/ON/OFF: set zero and power on/off
- ◆ Data output
- ◆ With a 150mm blade and a 90° square
- ◆ Made of stainless steel



Code	Range	Resolution	Accuracy
822-360-01	0 - 360°	0.1°	±0.5'

UNIVERSAL PROTRACTOR

814

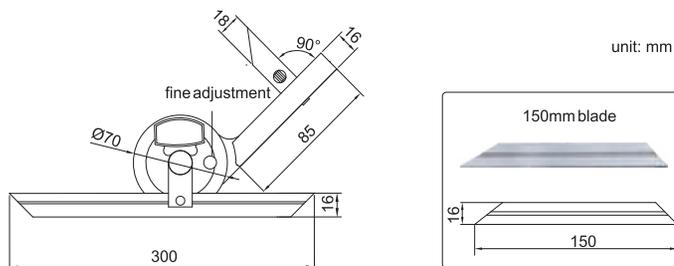
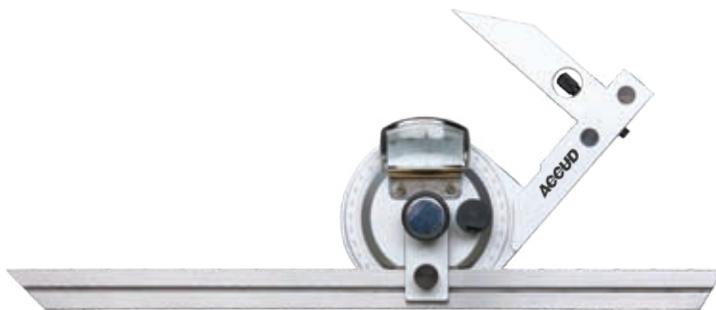


- ◆ Graduation : 2'
- ◆ Made of stainless steel
- ◆ Satin chrome plated scale

Code	Range	Accuracy
814-320-01	0 - 320°	±2'

UNIVERSAL PROTRACTOR

815



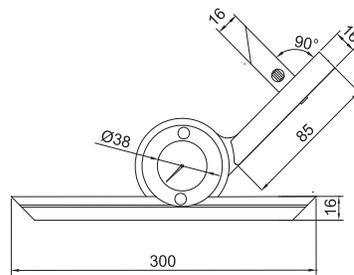
- ◆ Graduation : 5'
- ◆ Parallax-free reading
- ◆ With one blade: 150mm
- ◆ Made of stainless steel
- ◆ Optional accessory: clamp for height gages

Code	Range	Accuracy
815-360-01	0 - 360°	±5'

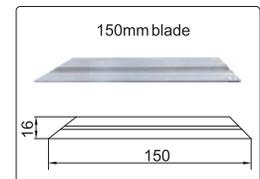
816

UNIVERSAL PROTRACTOR

- ◆ Graduation : 5'
- ◆ With one blade: 150mm
- ◆ Made of carbon steel
- ◆ Optional accessory: clamp for height gages



unit: mm

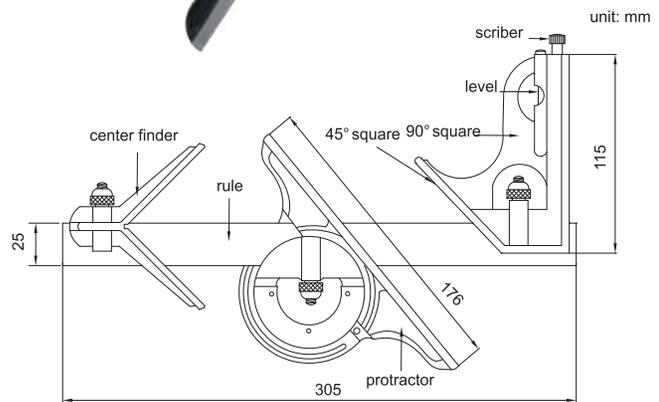
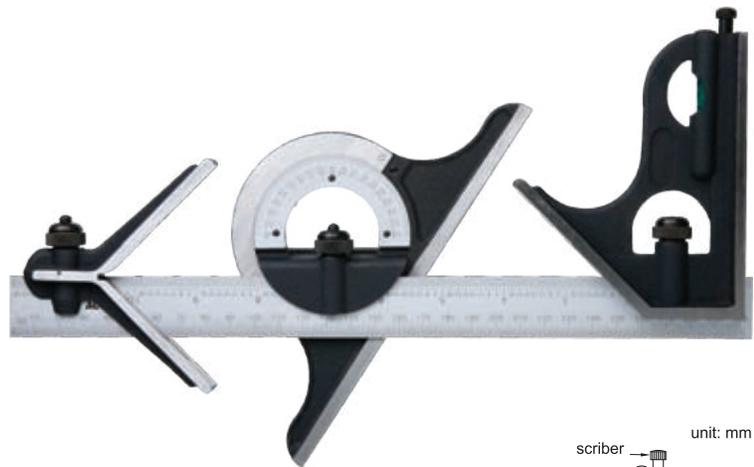


Code	Range	Accuracy
816-360-01	0 - 360°	±5'

817

COMBINATION SQUARE SET

- ◆ Protractor:
Used to set an angle or angle measurement,
measuring range: 0-180°, accuracy: ±7'
- ◆ Square:
Used as 90° square or 45° square
accuracy of 90° square: ±8',
accuracy of 45° square: ±10'
- ◆ Rule:
Used as rule, measuring range: 300mm/12"
front side graduation: 0.5mm and 1/32"
reverse side graduation: 1mm and 1/64"
- ◆ Center finder:
Used to find the cylinder center,
accuracy: ±0.15mm

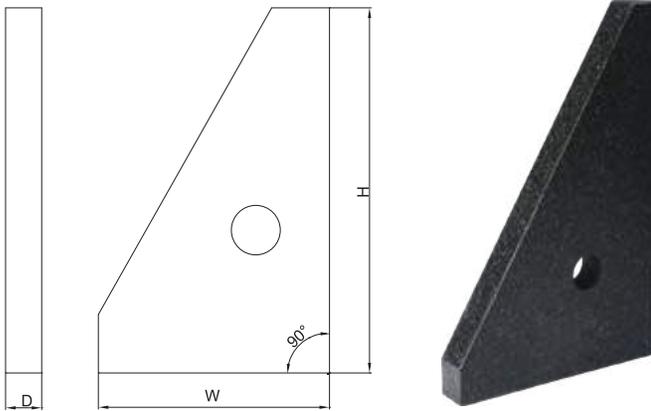


unit: mm

Code
817-180-02

GRANITE SQUARE

SERIES 643

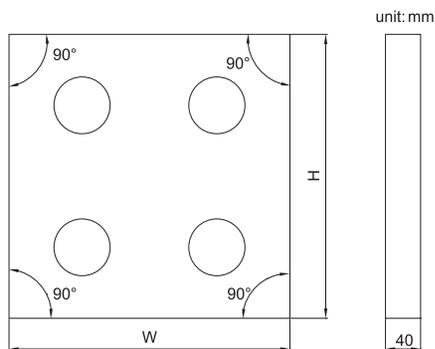


643-010-01

Code	Size(HxW)	Squareness	D
643-010-01	250x160mm	2.5μm	25mm
643-016-01	400x250mm	3.5μm	40mm
643-024-01	630x400mm	4.5μm	63mm

GRANITE SQUARE

644

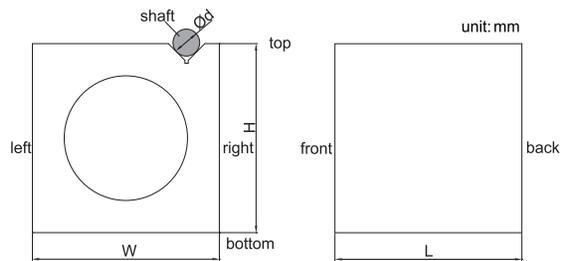


Code	Size(HxW)	Squareness
644-012-01	315x315mm	2.6μm

645

GRANITE SQUARE AND V-BLOCK

◆ Thread holes: M8



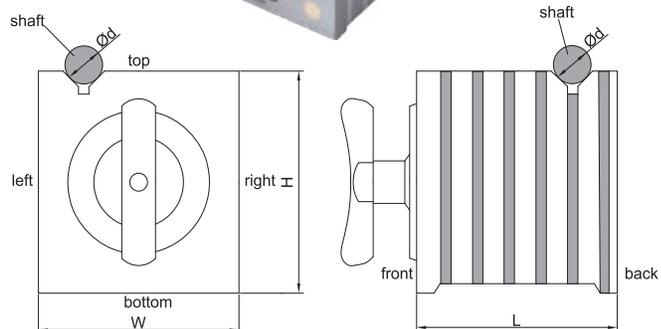
Code	Size(LxWxH)	Range of shafts (Ød)	Parallelism or squareness between top, bottom, left, right and back sides	Parallelism of V groove to left, right, top and bottom sides	Squareness of V groove to back side
645-006-01	160x160x160mm	6 - 42mm	8µm	8µm	8µm

SERIES 649

MAGNETIC SQUARE AND V-BLOCK



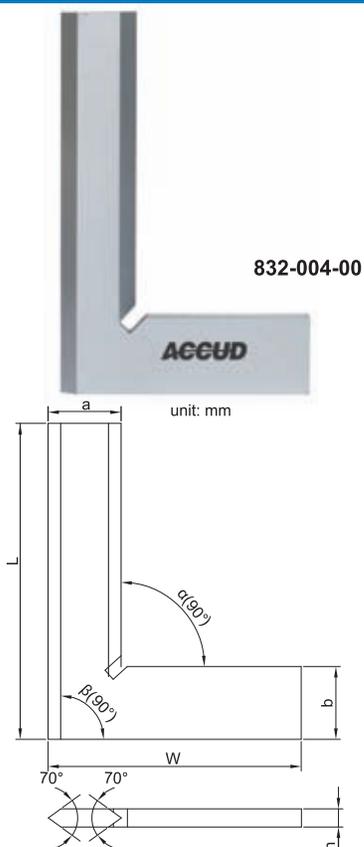
649-004-01



Code	Size(LxWxH)	Magnetic force	Range of shafts (Ød)	Parallelism or squareness between top, bottom, left, right and back sides	Parallelism or squareness of both V grooves to top, bottom, left, right and back sides
649-004-01	100x100x100mm	30kgf	6 - 36mm	10µm	10µm
649-006-01	150x150x150mm	40kgf	6 - 44mm	15µm	15µm

90° BEVELED EDGE SQUARE

SERIES 832



- ◆ Two beveled measuring faces
- ◆ Made of hardened stainless steel
- ◆ Satin chrome plating

Grade 0

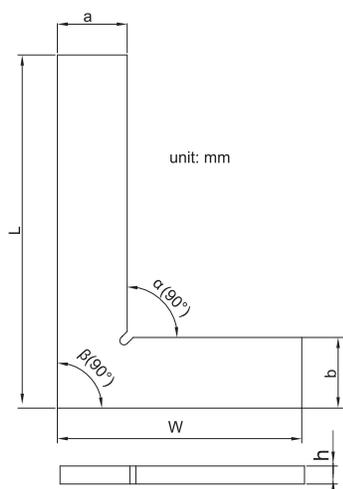
Code	Size(LxW)	Squareness(α)	Squareness(β)	a	b	h
832-002-10	50x40mm	6 μ m	6 μ m	13	13	4
832-003-10	75x50mm	6 μ m	7 μ m	15	15	4
832-004-10	100x70mm	7 μ m	7 μ m	20	20	5
832-006-10	150x100mm	7 μ m	8 μ m	30	30	6
832-008-10	200x130mm	8 μ m	9 μ m	34	34	7
832-010-10	250x165mm	9 μ m	10 μ m	35	35	7
832-012-10	300x200mm	10 μ m	11 μ m	40	40	8

Grade 00

Code	Size(LxW)	Squareness(α)	Squareness(β)	a	b	h
832-002-00	50x40mm	2.4 μ m	2.5 μ m	13	13	4
832-003-00	75x50mm	2.6 μ m	2.8 μ m	15	15	4
832-004-00	100x70mm	2.8 μ m	3.0 μ m	20	20	5
832-006-00	150x100mm	3.2 μ m	3.5 μ m	30	30	6
832-008-00	200x130mm	3.7 μ m	4.0 μ m	34	34	7
832-010-00	250x165mm	4.2 μ m	4.5 μ m	35	35	7
832-012-00	300x200mm	4.6 μ m	5.0 μ m	40	40	8

90° FLAT EDGE SQUARE

SERIES 841



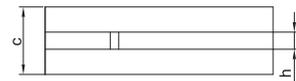
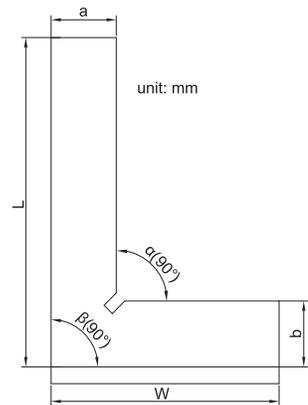
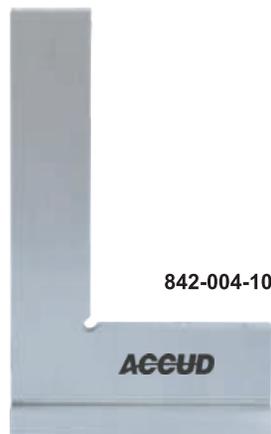
- ◆ DIN875 grade 0
- ◆ Made of hardened stainless steel

Code	Size(LxW)	Squareness(α)	Squareness(β)	a	b	h
841-002-10	50x40mm	6 μ m	6 μ m	15	15	4
841-003-10	75x50mm	6 μ m	7 μ m	15	15	4
841-004-10	100x70mm	7 μ m	7 μ m	20	20	5
841-006-10	150x100mm	7 μ m	8 μ m	30	30	6
841-008-10	200x130mm	8 μ m	9 μ m	34	34	7
841-010-10	250x165mm	9 μ m	10 μ m	35	35	7
841-012-10	300x200mm	10 μ m	11 μ m	40	40	8

SERIES 842

90° FLAT EDGE SQUARE WITH WIDE BASE

- ◆ DIN875 grade 0
- ◆ Made of hardened stainless steel



Code	Size(LxW)	Squareness(α)	Squareness(β)	a	b	c	h
842-002-10	50x40mm	6 μ m	6 μ m	13	13	13	4
842-003-10	75x50mm	6 μ m	6 μ m	15	15	15	4
842-004-10	100x70mm	7 μ m	7 μ m	20	20	20	5
842-006-10	150x100mm	7 μ m	7 μ m	30	30	30	6
842-008-10	200x130mm	8 μ m	8 μ m	34	34	30	7
842-010-10	250x165mm	9 μ m	9 μ m	35	35	35	7
842-012-10	300x200mm	10 μ m	10 μ m	40	40	40	8

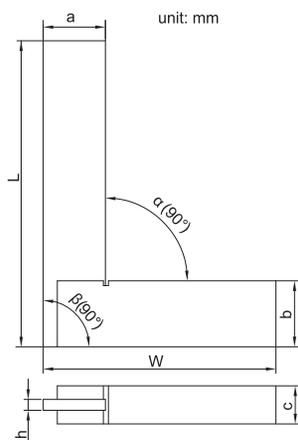
SERIES 843

90° FLAT EDGE SQUARE WITH WIDE BASE

- ◆ DIN875 grade 0
- ◆ Made of hardened stainless steel



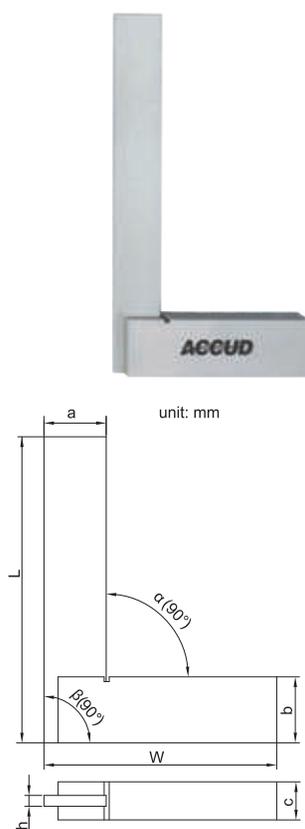
843-004-10



Code	Size(LxW)	Squareness(α)	Squareness(β)	a	b	c	h
843-002-10	50x40mm	6 μ m	6 μ m	12	12	10	3
843-003-10	75x50mm	6 μ m	6 μ m	14	14	10	3
843-004-10	100x70mm	7 μ m	7 μ m	18	18	10	3
843-006-10	150x100mm	7 μ m	7 μ m	22	22	12	4
843-008-10	200x130mm	8 μ m	8 μ m	25	25	12	4

MACHINIST SQUARE WITH WIDE BASE

SERIES 845



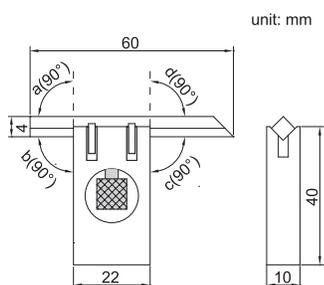
845-004-02

- ◆ DIN875 grade 2
- ◆ Made of carbon steel

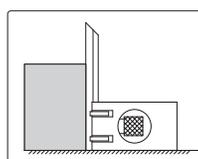
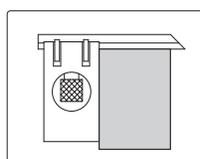
Code	Size(LxW)	Squareness(α)	Squareness(β)	a	b	c	h
845-002-02	50x40mm	24μm	25μm	16	12	9	3
845-003-02	75x50mm	26μm	28μm	16	16	9	3
845-004-02	100x70mm	28μm	30μm	19	19	12	3
845-006-02	150x100mm	33μm	35μm	25	25	16	3
845-008-02	200x130mm	37μm	40μm	30	32	16	4
845-010-02	250x165mm	42μm	45μm	30	32	19	4
845-012-02	300x200mm	47μm	50μm	32	32	19	4
845-016-02	400x250mm	56μm	60μm	38	38	22	5
845-020-02	500x300mm	65μm	70μm	45	50	25	6
845-024-02	600x350mm	75μm	80μm	50	50	30	6
845-030-02	750x400mm	90μm	95μm	55	55	50	6

ADJUSTABLE SQUARE

831



- ◆ The straight edge can move and can be locked by the screw
- ◆ Made of hardened stainless steel

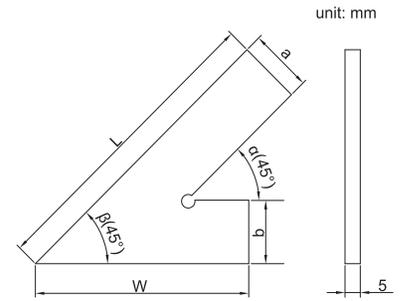


Code	Squareness (a, b, c, d)
831-002-10	7μm

SERIES 846

45° SQUARE

◆ Made of hardened stainless steel



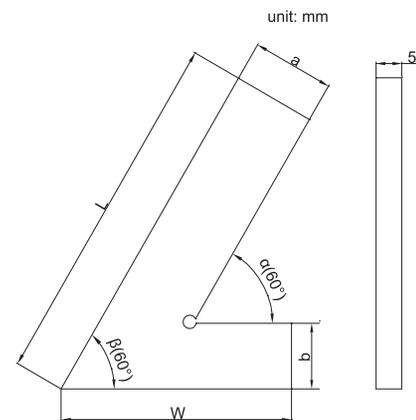
846-005-02

Code	Size(LxW)	Accuracy(α)	Accuracy(β)	a	b
846-004-02	100x70mm	27 μ m	30 μ m	20	20
846-005-02	120x80mm	29 μ m	32 μ m	20	20
846-006-02	150x100mm	32 μ m	35 μ m	20	20
846-008-02	200x130mm	36 μ m	40 μ m	25	25

SERIES 847

60° SQUARE

◆ Made of hardened stainless steel



847-004-02

Code	Size(LxW)	Accuracy(α)	Accuracy(β)	a	b
847-004-02	100x70mm	28 μ m	30 μ m	20	20
847-005-02	120x80mm	30 μ m	32 μ m	20	20
847-006-02	150x100mm	32 μ m	35 μ m	20	20
847-008-02	200x130mm	37 μ m	40 μ m	25	25

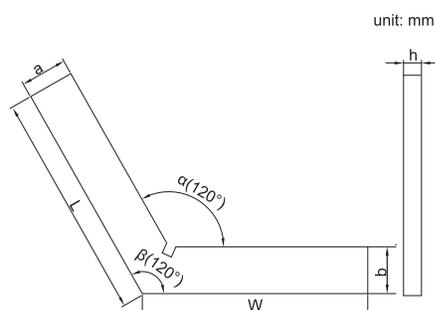
120° SQUARE

SERIES 848



848-004-02

◆ Made of hardened stainless steel



Code	Size(LxW)	Accuracy(α)	Accuracy(β)	a	b	h
848-002-02	50x50mm	24 μ m	25 μ m	15	15	5
848-003-02	75x75mm	26 μ m	28 μ m	20	20	5
848-004-02	100x100mm	29 μ m	30 μ m	20	20	5
848-006-02	150x150mm	34 μ m	35 μ m	25	25	5
848-008-02	200x200mm	38 μ m	40 μ m	30	30	7

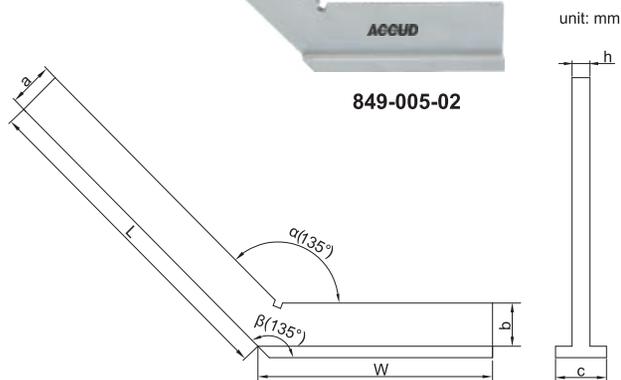
135° SQUARE WITH WIDE BASE

SERIES 849



849-005-02

◆ Made of hardened stainless steel



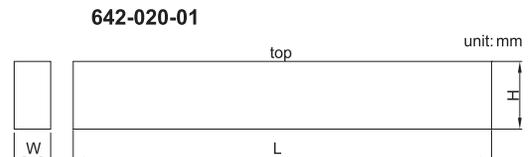
Code	Size(LxW)	Accuracy(α)	Accuracy(β)	a	b	c	h
849-004-02	100x70mm	29 μ m	31 μ m	20	20	20	5
849-005-02	120x80mm	31 μ m	33 μ m	20	20	20	5
849-006-02	150x100mm	34 μ m	36 μ m	20	20	20	5
849-008-02	200x130mm	39 μ m	41 μ m	30	30	30	7

SERIES 642

GRANITE STRAIGHT EDGE



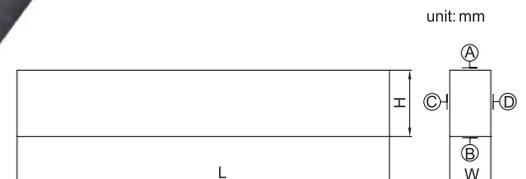
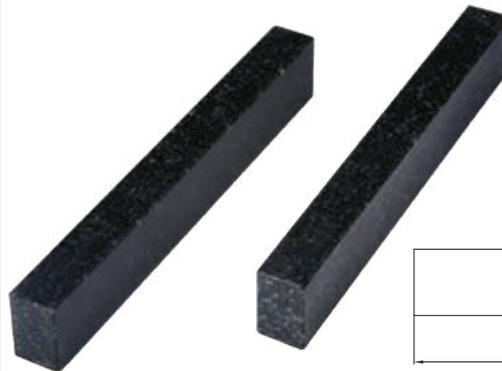
Code	Length(L)	Flatness of top side	W	H
642-020-01	500mm	2.8μm	55	100
642-040-01	1000mm	3.3μm	60	120



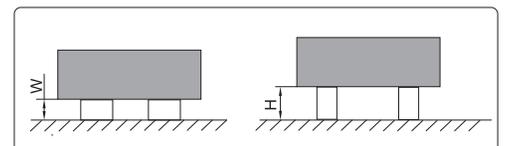
648

GRANITE PARALLEL SET

- ◆ Made of granite
- ◆ Hard and no rusty, no dimensional change over time or temperature change
- ◆ Two parallels per set



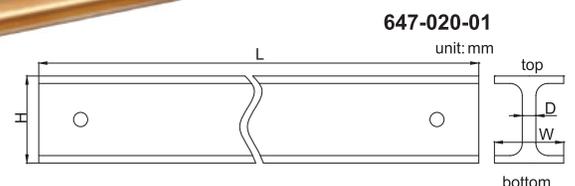
Code	Size(LxWxH)	Parallelism between A and B	Parallelism between C and D	Height difference of a matched pair
648-250-01	250x25x40mm	5μm	5μm	5μm



SERIES 647

MAGNALIUM STRAIGHT EDGES

- ◆ Made of magnalium, light weight, non-deform, no rusty



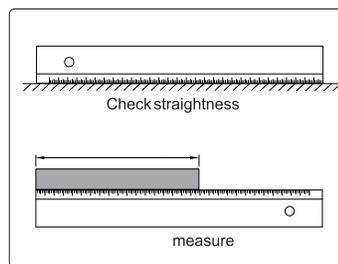
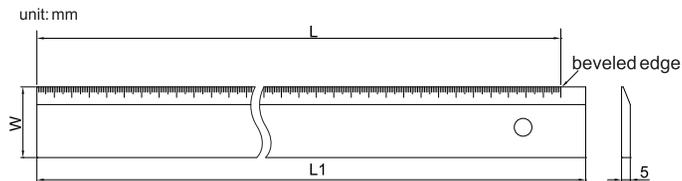
Code	Length(L)	Flatness of top and bottom	Parallelism between top and bottom	H	W	D
647-020-01	500mm	3μm	4μm	60	30	5
647-040-01	1000mm	5μm	8μm	60	30	5
647-060-01	1500mm	15μm	22μm	100	40	7
647-080-01	2000mm	18μm	27μm	100	40	7

STRAIGHT EDGE RULE

SERIES 991



991-012-01



- ◆ Check straightness, as well as for measurement
- ◆ Made of hardened tool steel, chrome plated

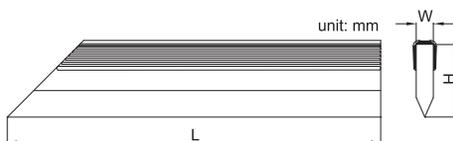
Code	Range(L)	Straightness	W	L1
991-012-01	300mm	0.02mm	40mm	320mm
991-020-01	500mm	0.03mm	40mm	520mm
991-040-01	1000mm	0.04mm	50mm	1020mm

STRAIGHT EDGE

SERIES 994



994-004-01



- ◆ Beveled edge to check the flatness DIN874
- ◆ Made of stainless steel
- ◆ Stain chrome plating

Code	Size (L)	Straightness	W	H
994-002-01	50mm	2.2μm	5	20
994-003-01	75mm	2.3μm	5	25
994-004-01	100mm	2.4μm	5	25
994-005-01	125mm	2.5μm	5	25
994-006-01	150mm	2.6μm	6	30
994-008-01	200mm	2.8μm	6	30
994-010-01	250mm	3.0μm	8	40
994-012-01	300mm	3.2μm	8	40
994-016-01	400mm	3.6μm	10	50
994-020-01	500mm	4.0μm	10	50

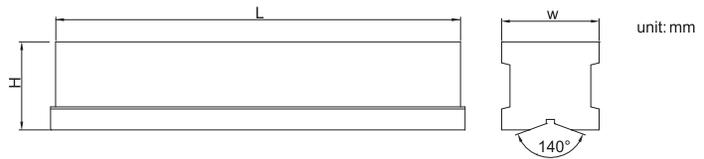
SERIES 713

BLOCK LEVEL

- ◆ For use in setting machined surfaces precisely horizontal
- ◆ Sensibility: 0.02mm/m per division
- ◆ Vee angle : 140°



713-006-02



Code	Size(L)	H	W
713-006-02	150mm	40	45
713-008-02	200mm	42	47
713-012-02	300mm	45	50

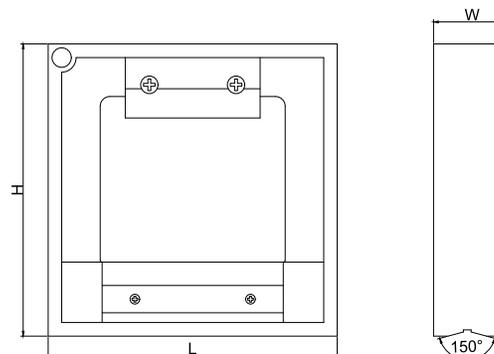
SERIES 711

FRAME LEVEL

- ◆ For using setting machined surfaces precisely horizontal and vertical
- ◆ Sensibility: 0.02mm/m per division
- ◆ With two vee and two flat referece faces



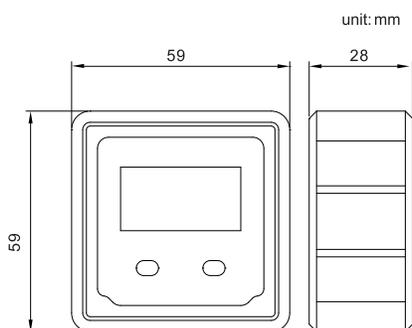
711-006-02



Code	Size(LxHxW)
711-006-02	150x150x35mm
711-008-02	200x200x42mm
711-012-02	300x300x42mm

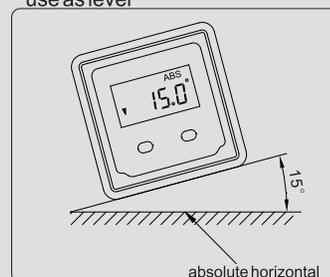
DIGITAL LEVEL

721

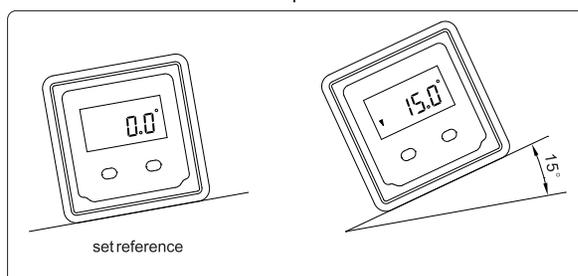


- ◆ Use as level or protractor
- ◆ Accuracy : $\pm 0.1^\circ$ (vertical and horizontal), $\pm 0.2^\circ$ (other direction)
- ◆ Absolute horizontal reference can save in memory for ever
- ◆ Button: on/off, zero
- ◆ Magnetic base
- ◆ Use in 4 directions
- ◆ Automatic power off

use as level



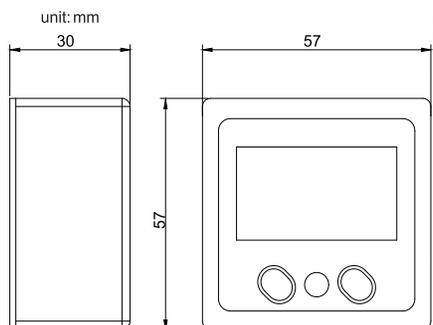
use as protractor



Code	Range	Resolution
721-180-01	0 - 360°(90°x4)	0.05°

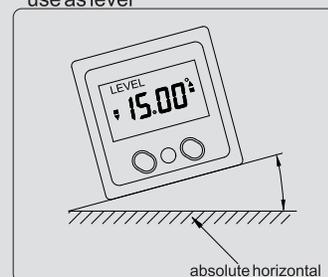
DIGITAL LEVEL

723

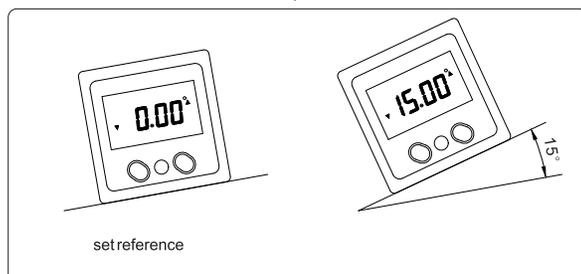


- ◆ Use as level or protractor
- ◆ Use in 4 directions
- ◆ Magnetic base
- ◆ Accuracy : $\pm 0.1^\circ$ (vertical and horizontal), $\pm 0.2^\circ$ (other direction)
- ◆ Metal cover
- ◆ Adjust the display direction automatically

use as level



use as protractor



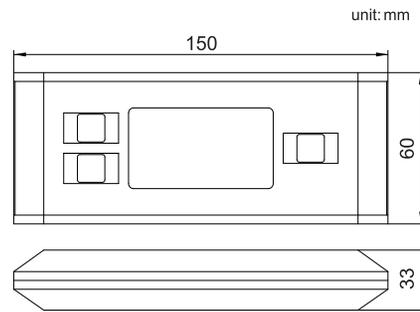
Code	Range	Resolution
723-360-01	0 - 360°(4x90°)	0.05°



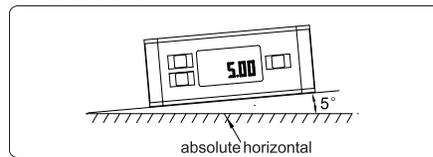
722

DIGITAL LEVEL

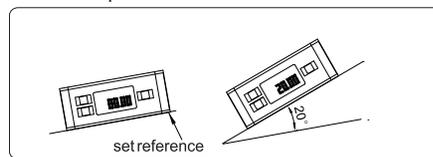
- ◆ Use as level or protractor
- ◆ Resolution: 0.05°
- ◆ Accuracy : $\pm 0.1^\circ$ (vertical and horizontal), $\pm 0.2^\circ$ (other direction)
- ◆ Magnetic base, with groove
- ◆ Aluminum frame provides with high rigidity and low weight
- ◆ Absolute horizontation reference can save in memory for ever



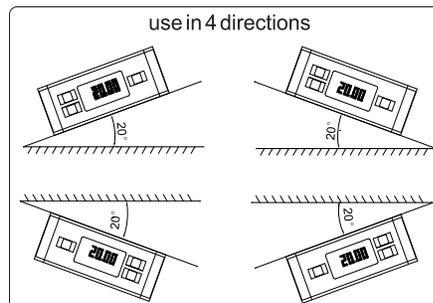
use as level



use as protractor



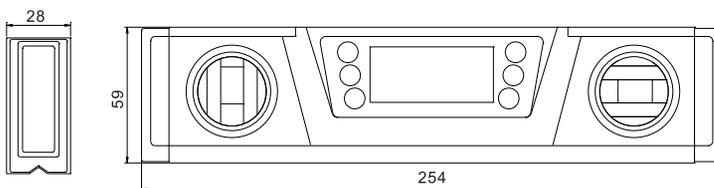
use in 4 directions



Code	Range	Dimension(LxWx H)
722-360-01	0-360° (90°x4)	150x60x33mm

DIGITAL LEVEL

724



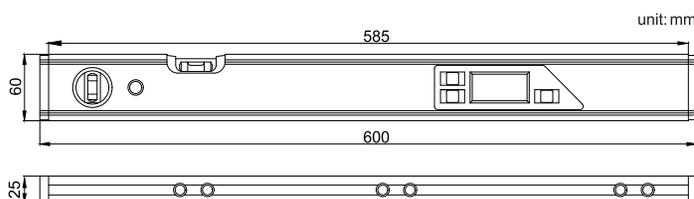
unit: mm

- ◆ Use as level or protractor
- ◆ Accuracy : $\pm 0.1^\circ$ (vertical and horizontal), $\pm 0.2^\circ$ (other direction)
- ◆ Buttons: on/off, CAL, hold, alarm, Mode, Ref
- ◆ With vertical and horizontal vials
- ◆ Magnetic base
- ◆ Adjust the display direction automatically

Code	Range	Resolution
724-360-01	0 - 360° (4x90°)	0.05°

DIGITAL LEVEL

725



unit: mm

- ◆ Use as level or protractor
- ◆ Accuracy : $\pm 0.1^\circ$ (vertical and horizontal), $\pm 0.2^\circ$ (other direction)
- ◆ Buttons: on/off, ABS, hold, alarm unit, backlight
- ◆ With vertical and horizontal vials
- ◆ Absolute horizon reference can save in memory for ever
- ◆ Magnetic base
- ◆ Adjust the display direction automatically

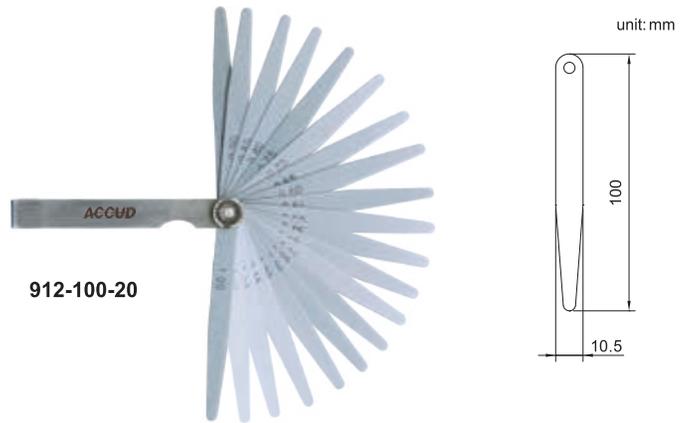
Code	Range	Resolution
725-360-01	0 - 360° (4x90°)	0.05°



SERIES 912

FEELER

- ◆ Meets DIN2275
- ◆ Accuracy: $\pm(3+T/80)\mu\text{m}$, T is the thickness of leaves, unit: μm

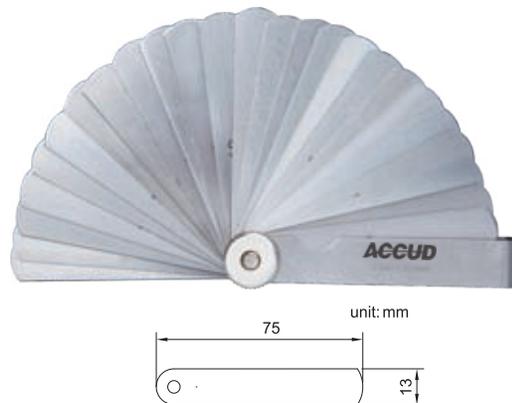


Code	Range	Quantity	Leaves thickness (mm)
912-050-13	0.03 - 0.50mm	13	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.30, 0.40, 0.50
912-100-13	0.05 - 1.00mm	13	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00
912-100-17	0.02 - 1.00mm	17	0.02, 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.75, 1.00
912-100-20	0.05 - 1.00mm	20	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00
912-100-32	0.03 - 1.00mm	32	0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.13, 0.15, 0.18, 0.20, 0.23, 0.25, 0.28, 0.30, 0.33, 0.35, 0.38, 0.40, 0.45, 0.50, 0.55, 0.60, 0.63, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 1.00

911

FEELER

- ◆ Meets DIN2275
- ◆ Accuracy: $\pm(3+T/80)\mu\text{m}$, T is the thickness of leaves, unit: μm

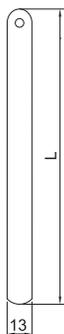


Code	Range	Quantity	Leaves thickness (mm)
911-100-25	0.04 - 1.00mm	25	0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00

FEELER

SERIES 913/914/915

unit: mm



913-100-20

- ◆ Meets DIN2275
- ◆ Accuracy: $\pm(3+T/80)\mu\text{m}$, T is the thickness of leaves, unit: μm

Code	Range	Quantity	Leaves thickness (mm)	L
913-100-13	0.05 - 1.00mm	13	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00	150
914-100-13	0.05 - 1.00mm	13		200
915-100-13	0.02 - 1.00mm	13		300
913-100-17	0.02 - 1.00mm	17	0.02, 0.03, 0.04, 0.05, 0.06, 0.07, 0.08, 0.09, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.75, 1.00	150
914-100-17	0.02 - 1.00mm	17		200
915-100-17	0.05 - 1.00mm	17		300
913-100-20	0.05 - 1.00mm	20	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	150
914-100-20	0.05 - 1.00mm	20		200
915-100-20	0.05 - 1.00mm	20		300

FEELER TAPE

SERIES 916



916-010-01

- ◆ Used to check the spacing thickness
- ◆ Made of hardened alloy steel
- ◆ Length 5m
- ◆ Width 13mm

Code	Thickness	Accuracy
916-002-01	0.02mm	$\pm 4\mu\text{m}$
916-003-01	0.03mm	$\pm 4\mu\text{m}$
916-004-01	0.04mm	$\pm 4\mu\text{m}$
916-005-01	0.05mm	$\pm 4\mu\text{m}$
916-006-01	0.06mm	$\pm 4\mu\text{m}$
916-007-01	0.07mm	$\pm 5\mu\text{m}$
916-008-01	0.08mm	$\pm 5\mu\text{m}$
916-009-01	0.09mm	$\pm 5\mu\text{m}$
916-010-01	0.10mm	$\pm 5\mu\text{m}$
916-020-01	0.20mm	$\pm 8\mu\text{m}$

Code	Thickness	Accuracy
916-025-01	0.25mm	$\pm 9\mu\text{m}$
916-030-01	0.30mm	$\pm 9\mu\text{m}$
916-040-01	0.40mm	$\pm 12\mu\text{m}$
916-050-01	0.50mm	$\pm 14\mu\text{m}$
916-060-01	0.60mm	$\pm 14\mu\text{m}$
916-070-01	0.70mm	$\pm 17\mu\text{m}$
916-080-01	0.80mm	$\pm 19\mu\text{m}$
916-090-01	0.90mm	$\pm 22\mu\text{m}$
916-100-01	1.00mm	$\pm 24\mu\text{m}$

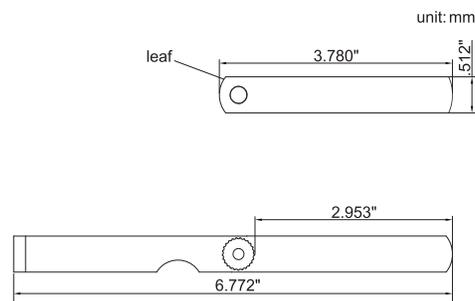
917

INCH FEELER GAUGE

- ◆ .010" is made of brass, others are made of hardened alloy steel
- ◆ Each blade is marked with inch/metric size

Code	Range	Quantity of Leaves
917-035-31	.0015" ~ .035"	32

Thickness of leaves included	Accuracy
.010" (brass)	±.00039"
.0015", .002"	±.0002"
.0025"~.007"	±.00028"
.008", .009"	±.00035"
.010", .011"	±.00039"
.012", .013"	±.00047"
.014", .015"	±.00051"
.016", .017"	±.00055"
.018", .019"	±.00059"
.020", .021"	±.00067"
.022", .023"	±.00071"
.024", .025", .026"	±.00075"
.028"	±.00091"
.030"	±.00094"
.032", .035"	±.00102"



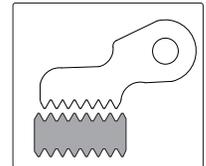
SERIES 922/923/924/925

PITCH GAUGE

- ◆ Measure the pitch of thread
- ◆ Accuracy: ±0.07mm



922-007-22



METRIC 60° SCREW

Code	Range	Quantity	Leaves pitch
922-007-22	0.4-7.0mm	22	0.4, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm
922-007-24	0.25-7.0mm	24	0.25, 0.3, 0.35, 0.4, 0.5, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7mm
922-006-24	0.25-6.0mm	24	0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1, 1.25, 1.5, 1.75, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6mm
922-025-28	0.25-2.5mm	28	0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.55, 0.6, 0.65, 0.7, 0.75, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9, 2.0, 2.5mm

UNIFIED 60° SCREW

Code	Range	Quantity	Leaves pitch
923-042-30	4-42TPI	30	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 11-1/2, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI

WHITWORTH 55° SCREW

Code	Range	Quantity	Leaves pitch
924-042-30	4-42TPI	30	4, 4-1/2, 5, 5-1/2, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42TPI
924-062-28	4-62TPI	28	4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 48, 60, 62TPI

METRIC 60° AND WHITWORTH 55° SCREW

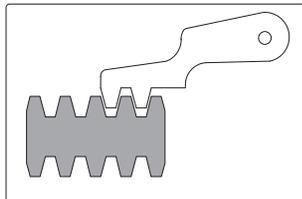
Code	Range	Quantity	Leaves pitch
925-062-52	0.25-6.0mm and 4-62TPI	52	pitch of 922-006-24 and 924-062-28

PITCH GAUGE

SERIES 921



- ◆ Measure the pitch of thread
- ◆ Accuracy: $\pm 0.07\text{mm}$



921-020-12

Code	Range	Thread	Quantity	Leaves pitch(mm)
921-020-12	2-20mm	Tr30°	12	2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 16, 20mm
921-012-16	1-12TPI	ACME29°	16	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 3-1/2, 4, 5, 6, 7, 8, 9, 10, 12TPI

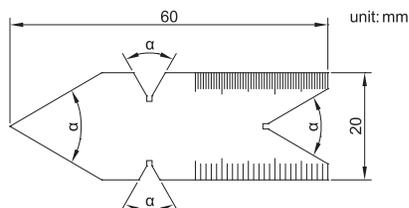
CENTER GAUGE

SERIES 926



926-060-02

- ◆ Check the screw angle and pitch
- ◆ Accuracy: $\pm 30'$



Code	Screw type	Angle(α)	Graduation
926-060-01	metric 60°	60°	0.5mm and 1mm
926-060-02	unified 60°	60°	front side: 1/14" and 1/20", reverse side: 1/24" and 1/32"
926-055-01	whitworth 55°	55°	front side: 1/14" and 1/20", reverse side: 1/24" and 1/32"

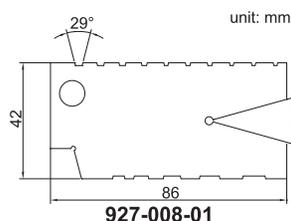
THREAD GAUGE

SERIES 927

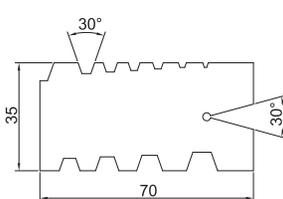


927-008-01

- ◆ To check and set screw cutting tools
- ◆ Angle accuracy: $\pm 10\text{min}$.



927-008-01



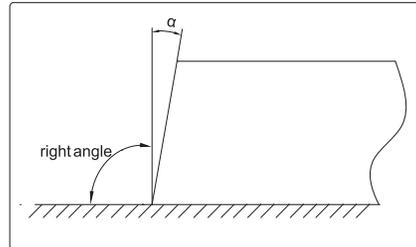
927-012-01

Code	Range	Thread type	Pitch
927-008-01	1-10TPI	ACME 29°	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9, 10TPI
927-012-01	2-12mm	Tr30°	2, 3, 4, 5, 6, 7, 8, 9, 10, 12mm

931

ANGLE GAUGE

- ◆ Check the coangle
- ◆ Accuracy: $\pm 30'$



Code	Range	Quantity	Leaves angle(α)
931-045-20	1° - 45°	20	1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°, 9°, 10°, 12°, 14°, 16°, 18°, 20°, 25°, 30°, 35°, 40°, 45°

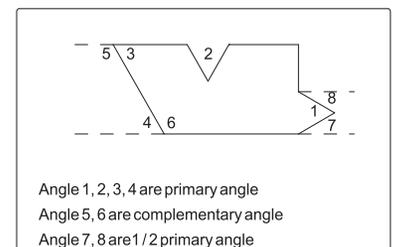
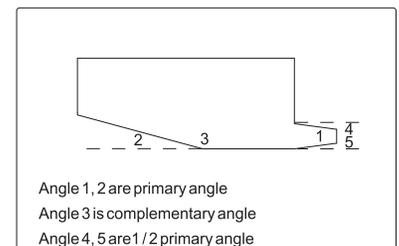
932

ANGLE GAUGE SET

- ◆ Each blade checks primary, 1/2 primary and complementary angles

Code	Quantity of leaves	Accuracy
932-018-01	18	$\pm 10'$

Primary angle	1/2 primary angle	Complementary angle
5°	2°30'	175°
10°	5°	170°
15°	7°30'	165°
20°	10°	160°
25°	12°30'	155°
30°	15°	150°
35°	17°30'	145°
40°	20°	140°
45°	22°30'	135°
50°	25°	130°
55°	27°30'	125°
60°	30°	120°
65°	32°30'	115°
70°	35°	110°
75°	37°30'	105°
80°	40°	100°
85°	42°30'	95°
90°	45°	90°

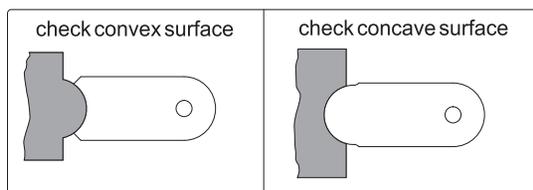


RADIUS GAUGE

SERIES 941



941-015-32

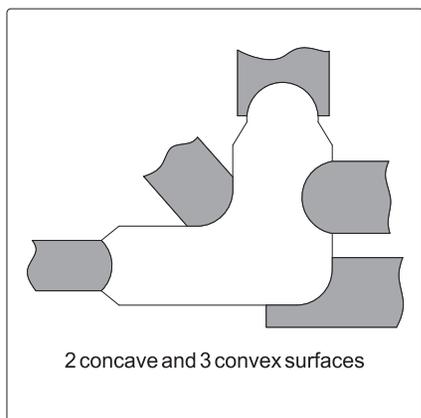


- ◆ Check the radius
- ◆ With concave and convex surface in each size

Code	Range	Quantity	Accuracy	Leaves radius (mm)
941-007-34	1-7mm	17x2	±0.03mm	1, 1.25, 1.5, 1.75, 2, 2.25, 2.5, 2.75, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7
941-015-32	7.5-15mm	16x2	±0.035mm	7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14, 14.5, 15
941-025-30	15.5-25mm	15x2	±0.042mm	15.5, 16, 16.5, 17, 17.5, 18, 18.5, 19, 19.5, 20, 21, 22, 23, 24, 25

RADIUS GAUGE

942



Handle



- ◆ Each piece has 2 concave and 3 convex surfaces
- ◆ With handle
- ◆ ±0.05mm

Code	Range	Quantity	Included radius(mm)
942-013-26	0.5-13mm	26	0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13

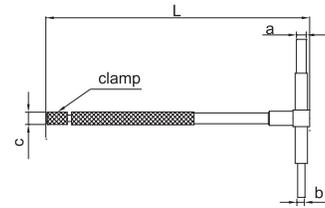
951

TELESCOPING GAUGE SET

- ◆ 6 gauges per set
- ◆ For quick measurement of inside diameter of holes and width of slots
- ◆ Satin chrome finish



unit: mm



Code	Each gauge range	L	a	b	c
951-006-01	8-12.7mm	115mm	Ø3.9mm	Ø2.9mm	Ø6.2mm
	12.7-19mm	115mm	Ø5.3mm	Ø3.8mm	Ø6.2mm
	19-32mm	115mm	Ø5.3mm	Ø3.8mm	Ø6.2mm
	32-54mm	137mm	Ø7.6mm	Ø6.1mm	Ø7.2mm
	54-90mm	137mm	Ø7.6mm	Ø6.1mm	Ø7.2mm
	90-150mm	137mm	Ø7.6mm	Ø6.1mm	Ø7.2mm

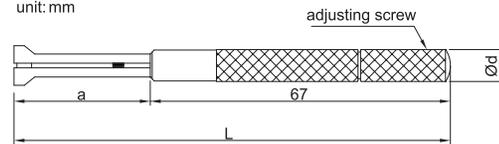
952

SMALL HOLE GAUGE SET

- ◆ 4 gauges per set
- ◆ For small holes, slots and grooves, etc.
- ◆ Satin chrome finish



unit: mm

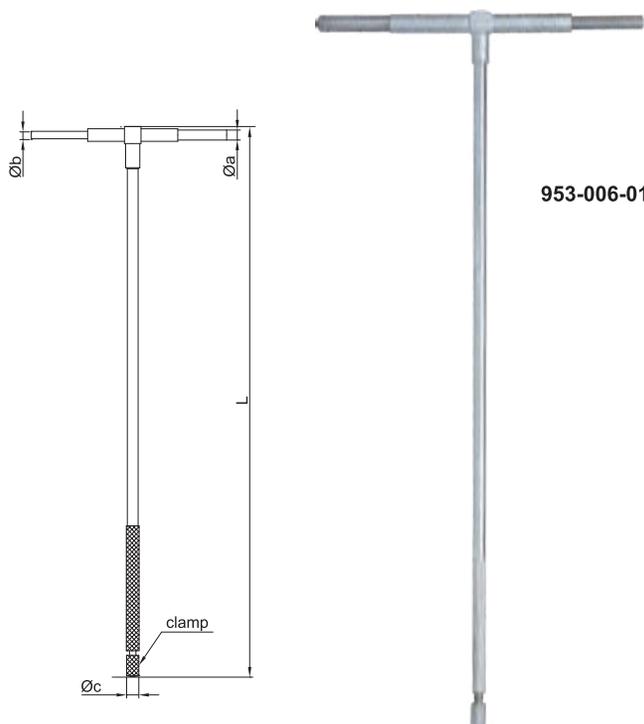


Code	Total Range	Set Included
952-004-01	3-13mm	3-5mm, 5-7.5mm 7.5-10mm, 10-13mm

Range	L	a	Ød
3-5mm	90	22.5	5.5
5-7.5mm	97.6	30	5.5
7.5-10mm	102.8	35	8.5
10-13mm	108	40	8.5

LONG HANDLE TELESCOPING GAUGE

SERIES 953



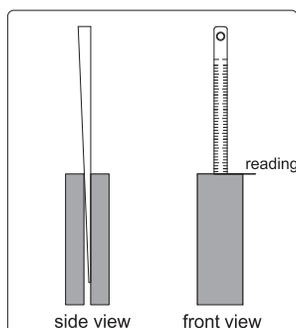
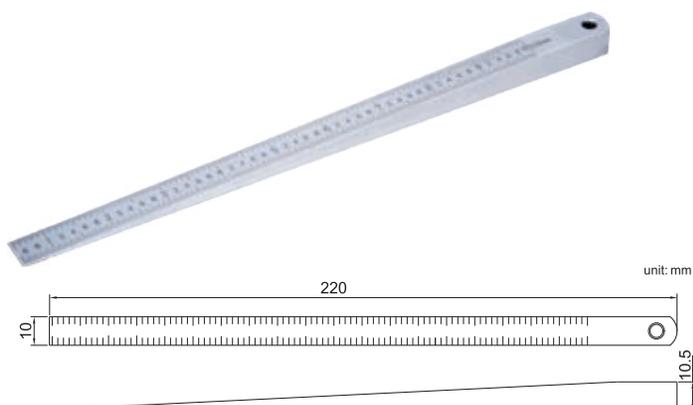
953-006-01

- ◆ For quick measuring inside diameter of deep holes and width of slots
- ◆ Satin chrome finish

Code	Range	L	Øa	Øb	Øc
953-001-01	8-12.7mm	250mm	3.9mm	2.9mm	6.2mm
953-002-01	12.7-19mm	250mm	5.3mm	3.8mm	6.2mm
953-003-01	19-32mm	250mm	5.3mm	3.8mm	6.2mm
953-004-01	32-54mm	300mm	7.6mm	6.1mm	7.2mm
953-005-01	54-90mm	300mm	7.6mm	6.1mm	7.2mm
953-006-01	90-150mm	300mm	7.6mm	6.1mm	7.2mm

TAPER GAUGE

961



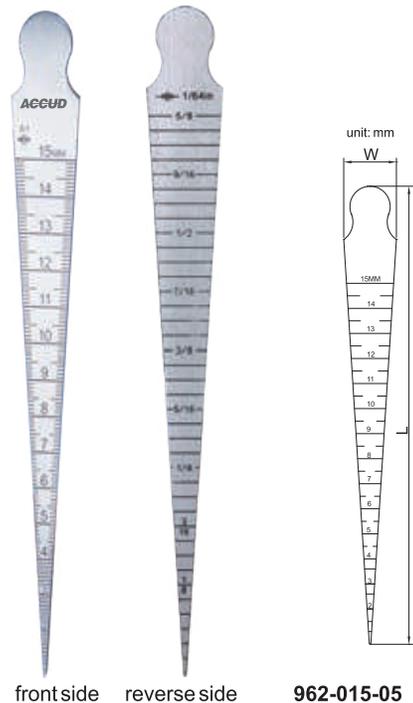
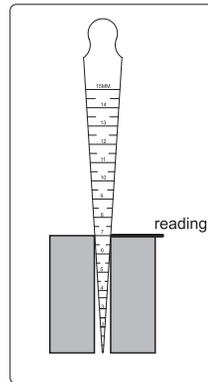
- ◆ Measure the gap width
- ◆ Stain chrome plated reading surface
- ◆ Made of the stainless steel

Code	Range	Graduation	Accuracy	L	W	H
961-004-05	0.2 - 4mm	0.05mm	±0.05mm	120	12.5	4.3
961-006-05	0.4 - 6mm	0.05mm	±0.05mm	166	11.5	6.5
961-010-05	0.5 - 10mm	0.05mm	±0.05mm	225	12.5	10.5
961-015-05	0.5 - 15mm	0.1mm	±0.05mm	184	11	16

SERIES 962

TAPER GAUGE

- ◆ Measure the groove width and hole size
- ◆ Made of the stainless steel

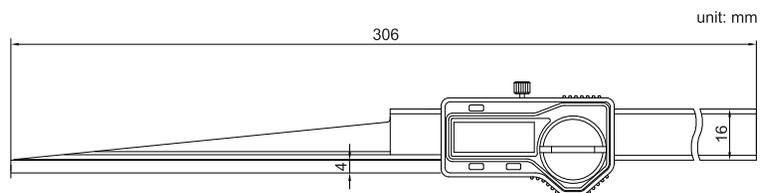


Code	Range	Graduation	Accuracy	L	W
962-015-05	0.8-15mm	0.1mm	±0.1mm	146	17
962-030-05	15-30mm	0.1mm	±0.1mm	159	30.4
962-045-05	30-45mm	0.1mm	±0.1mm	166	45.4
962-060-05	45-60mm	0.1mm	±0.1mm	170	60.5

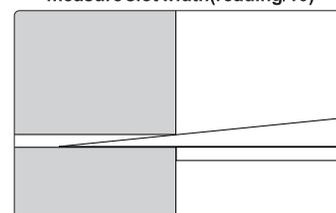
963

DIGITAL TAPER GAUGE

- ◆ Measuring opening, slot width
- ◆ Resolution: 0.01mm/0.0005"
- ◆ Buttons: on/off, zero, mm/inch
- ◆ Data output
- ◆ Automatic power on/off
- ◆ Made of stainless steel



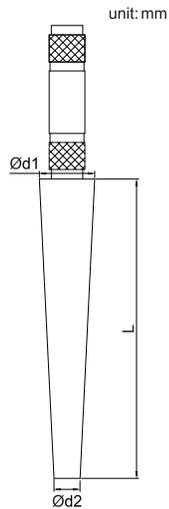
measure slot width(reading/10)



Code	Range	Accuracy
963-010-11	0.2-10mm/0.008-0.394"	±0.03mm

TAPER BORE GAUGE

SERIES 964



964-015-11

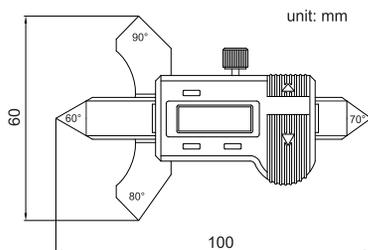


- ◆ Quick measuring diameter of the bore
- ◆ Graduation: 0.1mm
- ◆ Hardened steel, HRC50-58
- ◆ Satin chrome plated surface
- ◆ Aluminium oxidized handle

Code	Range	Accuracy	L	Ød1	Ød2
964-006-11	1-6.5mm	±0.05mm	61	7	0.8
964-015-11	3-15mm	±0.05mm	133	16	2.7
964-030-11	15-30mm	±0.05mm	162	31	14.8
964-045-11	30-45mm	±0.05mm	163	46	29.8

DIGITAL WELDING GAUGE

970



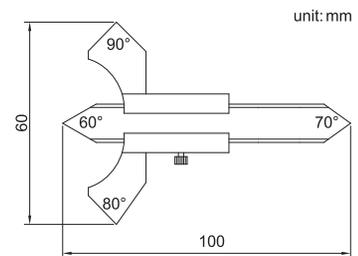
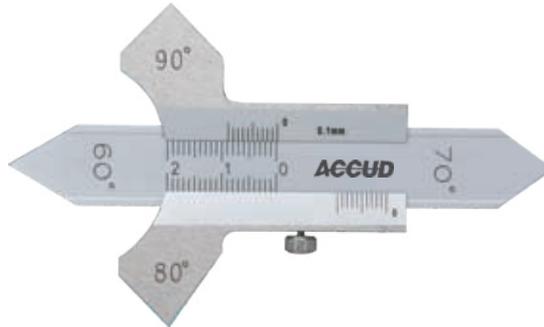
- ◆ Buttons: zero, mm/inch, on/off
- ◆ Made of stainless steel

Code	Range	Resolution	Accuracy	Application
970-010-11	0 - 10mm	0.01mm/0.0005"	±0.03mm	measure crown height
	0 - 20mm	0.01mm/0.0005"	±0.1mm	measure fillet weld throat size
	60°, 70°, 80°, 90°	—	±1°	measure angle

971

WELDING GAUGE

- ◆ Made of stainless steel
- ◆ Stain chrome plated reading surface

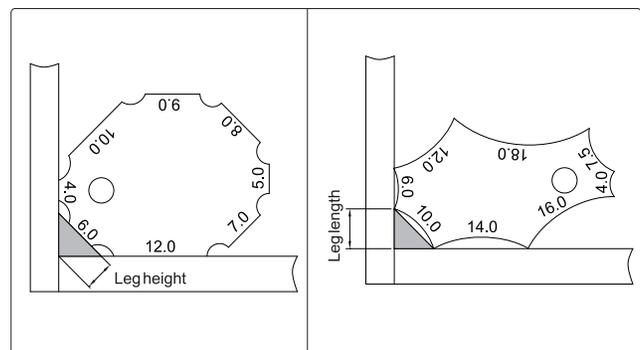
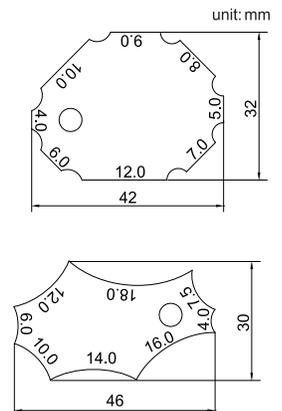


Code	Application	Range	Graduation	Accuracy
971-008-01	measure crown height	0 - 8mm	0.1mm	±0.1mm
	measure fillet weld throat size	0 - 20mm	0.1mm	±0.3mm
	measure angle	60°, 70°, 80°, 90°	—	±1°

972

WELDING GAUGE

- ◆ Double printing in front and reverse side
- ◆ Made of the stainless steel



Code	Leg height	Leg length	Accuracy
972-012-01	4, 5, 6, 7, 8, 9, 10, 12mm	4, 6, 7.5, 10, 12, 14, 16, 18mm	±0.5mm

WELDING GAUGE

973

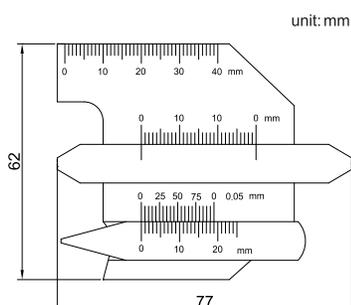


front side



reverse side

- ◆ Made of stainless steel



unit: mm

Code	Application	Range	Graduation	Accuracy
973-014-01	measure crown height	0 - 10mm	1mm	±0.5mm
	measure leg height	0 - 14mm	1mm	±0.5mm
	measure undercut depth	0 - 5mm	0.05mm	±0.05mm
	measure throat size	0 - 13mm	1mm	±0.5mm
	measure weld length	0 - 40mm	1mm	±1mm
	measure angle	90° - 150°	5°	±1°
	measure gap	0.5 - 5mm	1mm	±0.5mm
	measure length	0 - 40mm	1mm	±0.5mm

WELDING GAUGE

974

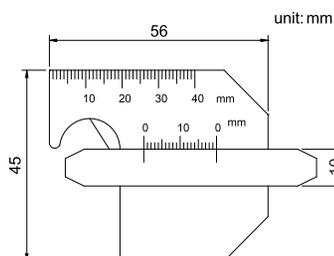


front side



reverse side

- ◆ Made of stainless steel
- ◆ Stain chrome plated surface



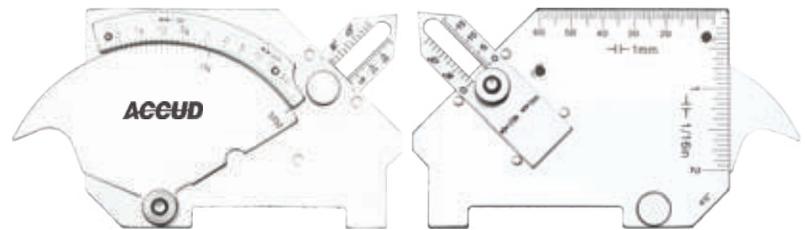
unit: mm

Code	Application	Range	Graduation	Accuracy
974-013-01	measure leg length	0 - 10mm	1mm	±0.1mm
	measure leg height	0 - 20mm	1mm	±0.5mm
	measure crown height	0 - 10mm	1mm	±0.1mm
	measure throat size	0 - 10mm	1mm	±0.1mm
	measure angle	0° - 60°	5°	±1°
	measure gap	1 - 3.5mm	0.5mm	±0.5mm
	measure length	0 - 40mm	1mm	±0.5mm

975

WELDING GAUGE

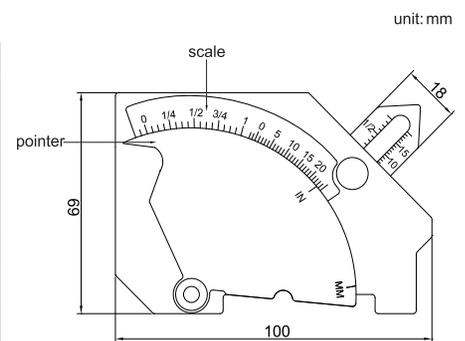
- ◆ Adjustable scale to compensate pointer wear
- ◆ Made of stainless steel



front side

reverse side

Code	Range	Graduation	Accuracy	Application
975-025-01	0 - 25mm (0 - 1")	1mm (1/16")	±0.5mm	measure crown height
	0 - 25mm (0 - 1")	1mm (1/16")	±0.5mm	measure fillet weld leg height
	0 - 25mm (0 - 1")	1mm (1/16")	±0.5mm	measure misalignment
	0 - 2mm (0 - 1/8")	1mm (1/16")	±0.5mm	measure undercut depth
	0 - 20mm (0 - 3/4")	1mm (1/16")	±0.5mm	measure fillet weld throat size
	0 - 60°	5°	±1°	measure angle of preparation
	0 - 60mm (0 - 2")	1mm (1/16")	±0.5mm	measure length
	—	—	±1°	measure 45° angle



976

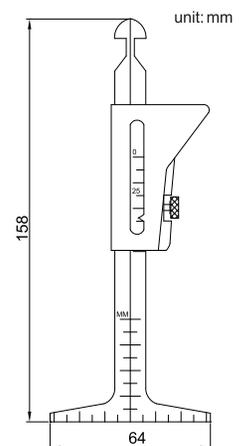
PIPE WELDING GAUGE

- ◆ Made of stainless steel



front side

reverse side



Code	Range	Graduation	Accuracy	Application
976-045-01	37.5°	—	±1°	measure bevel on end preparation
	0 - 45mm (0 - 1-3/4")	1mm (1/16")	±0.5mm	measure pipe wall thickness
	0 - 35mm (0 - 1-3/8")	1mm (1/32")	±0.5mm	measure internal misalignment
	1.6mm, 2.4mm	—	±0.1mm	measure fit-up gap
	0 - 35mm (0 - 1-3/8")	1mm (1/32")	±0.5mm	measure crown height
	0 - 60mm (0 - 2-3/8")	1mm (1/16")	±0.5mm	measure distance between two marking lines of socket weld
	0 - 30mm (0 - 1-1/4")	1mm (1/16")	±0.5mm	measure fillet weld length
	0 - 35mm (0 - 1-3/8")	1mm (1/32")	±0.5mm	measure fillet weld height

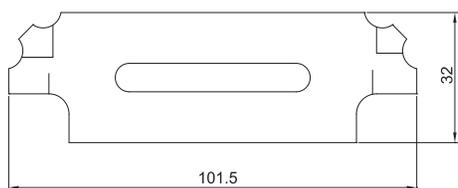
FILLET WELD GAUGE

SERIES 977



977-025-01

unit: mm



- ◆ Measure concave and convex weld sizes
- ◆ 7 blades are included
- ◆ Each blade measures two sizes of concave and convex weld
- ◆ Made of stainless steel

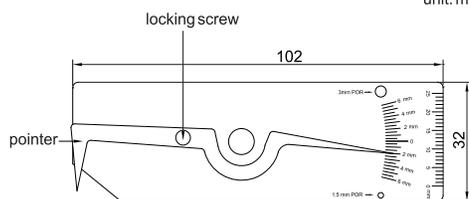
Code	Accuracy	Size
977-025-01	±0.5mm	3, 4, 5, 6, 8, 9, 10, 11, 12, 14, 16, 19, 22, 25mm
977-025-02	±0.02"	1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8", 3/4", 7/8", 1"

WELDING GAUGE

978



unit: mm



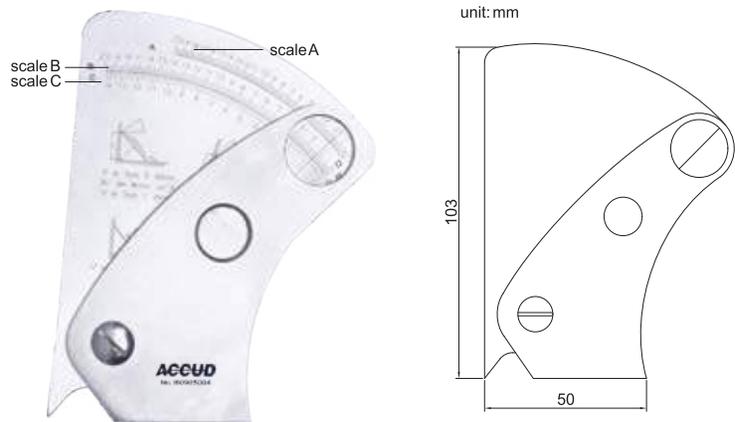
- ◆ Pointer can be locked for later reference
- ◆ Made of stainless steel

Code	Range	Graduation	Accuracy	Measurement
978-006-01	0 - 6mm	0.5mm	±0.5mm	undercut depth
	0 - 6mm	0.5mm	±0.5mm	crown height
	1.5mm, 3mm	—	±0.2mm	porosity size comparison
	25mm	1mm	—	amount of porosity per 25mm

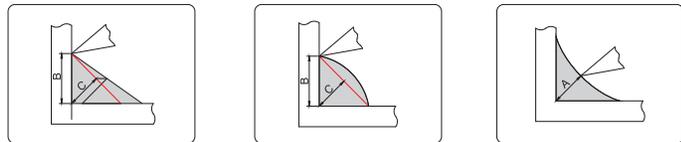
966

WELDING GAUGE

- ◆ Made of stainless steel



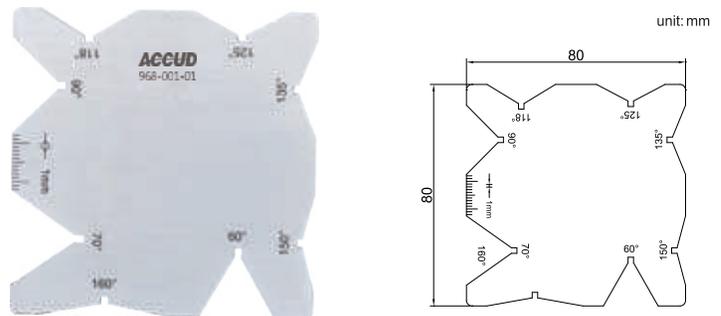
Code	Graduation	Accuracy
966-001-01	0.2mm	±0.3mm



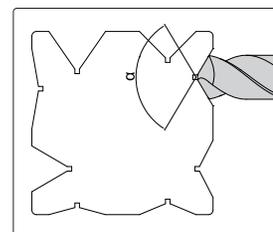
968

DRILL ANGLE GAGE

- ◆ Check drills with angle 60°, 70°, 90°, 118°, 125°, 135°, 150° or 160°
- ◆ Made of stainless steel

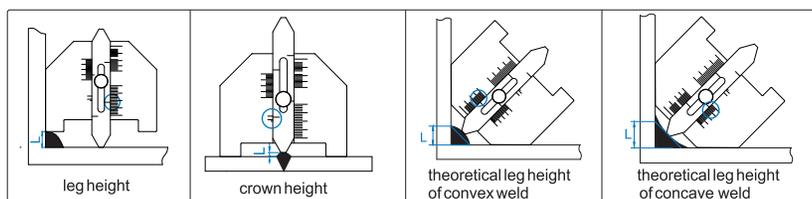
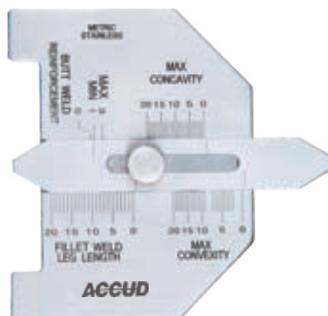
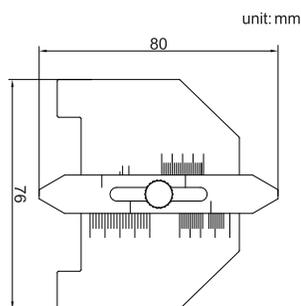


Code	Accuracy
968-001-01	±0.5°



WELDING GAUGE

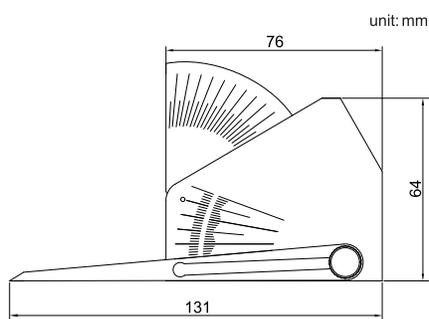
979



Code	Range	Graduation	Accuracy	Measurement
979-020-01	0-20mm	1mm	±0.5mm	leg height
	0-3mm	—	±0.5mm	crown height
	0-20mm	1mm	±0.5mm	theoretical leg height of convex weld
	0-20mm	1mm	±0.5mm	theoretical leg height of concave

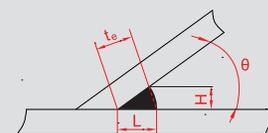
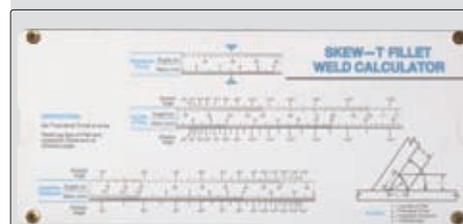
FILLET WELDING GAUGE

969

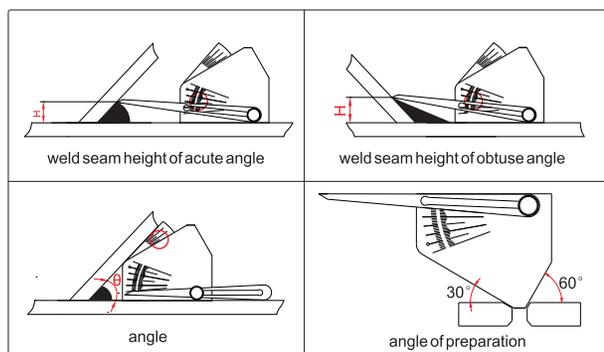


- ◆ Calculating card is included
- ◆ Made of stainless steel

calculating card (included)



measure weld seam height H and angle θ , calculate theoretical throat size t_e and leg height L according to H and θ .

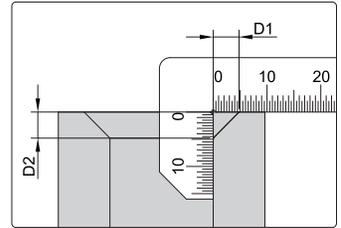
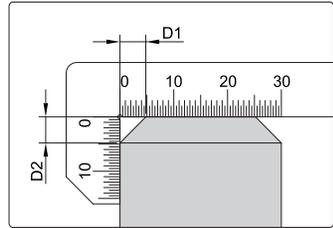
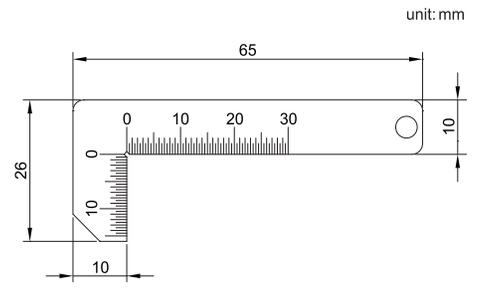
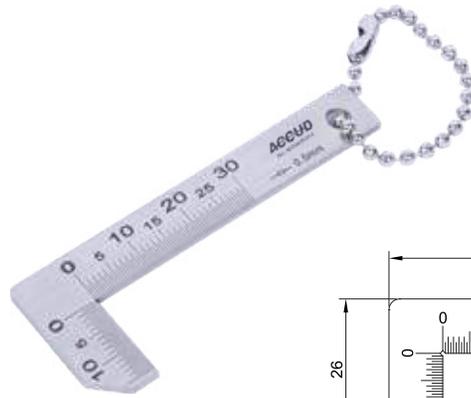


Code	Range	Graduation	Accuracy	Measurement
969-050-01	0 - 50mm / 0-2"	2mm/.050"	±1mm	weld seam height H
	30° - 90°	2.5°	±1°	angle θ
	—	—	±0.5°	90° angle

967

CHAMFER GAUGE

- ◆ To measure internal and external chamfers
- ◆ Made of stainless steel

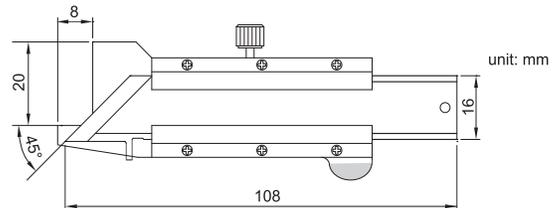


Code	Graduation	Accuracy
967-001-11	0.5mm	±0.25mm

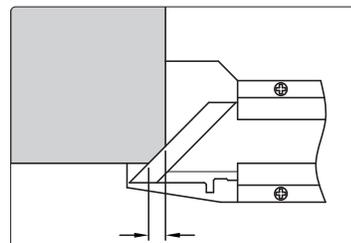
160

CHAMFER GAUGE

- ◆ Measure 45° chamfer dimension
- ◆ Graduation 0.02mm
- ◆ Made of stainless steel
- ◆ Satin chrome plated reading surface



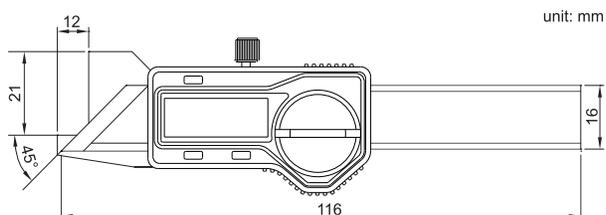
measure 45° chamfer dimension



Code	Range	Accuracy
160-001-11	0-6mm	±0.06mm

DIGITAL CHAMFER GAUGE

163



- ◆ Measure 45° chamfer dimension
- ◆ Resolution: 0.01mm/0.0005"
- ◆ Buttons: on/off, zero, mm/inch
- ◆ Automatic power on/off
- ◆ Data output
- ◆ Made of stainless steel

Code	Range	Accuracy
163-006-11	0-8mm/0-0.32"	±0.06mm

DIGITAL CHAMFER GAUGE

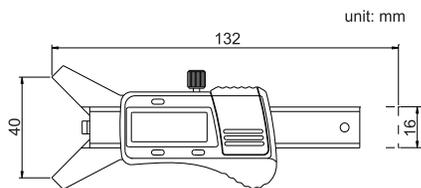
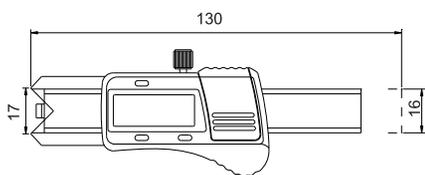
SERIES 164



164-001-11

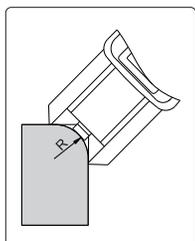


164-002-11

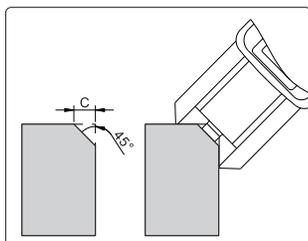


- ◆ Resolution: 0.01mm
- ◆ Made of stainless steel

Measure chamfer radius



Measure leg length of 45° chamfer

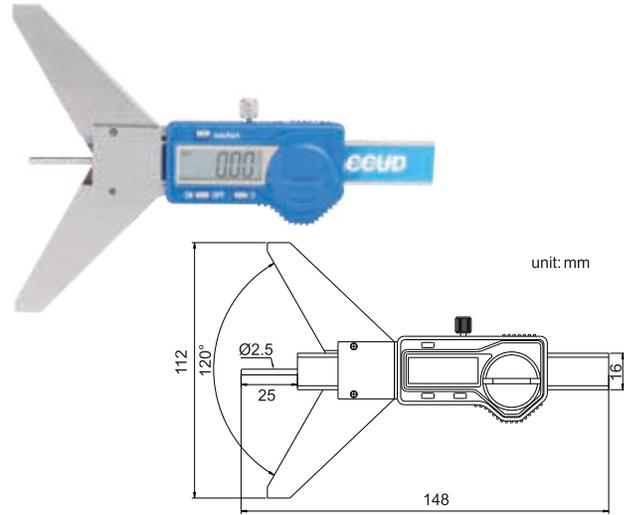


Code	Range of leg length (C)	Range of radius (R)	Accuracy
164-001-11	0-6mm	0-15mm	±0.05mm
164-002-11	0-18mm	0-30mm	±0.05mm

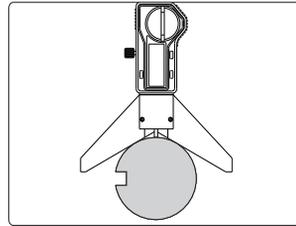
195

DIGITAL KEYWAY GAUGE

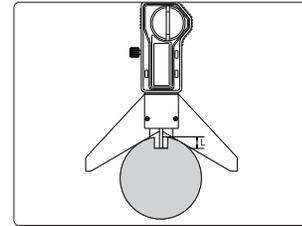
- ◆ Measure the depth of keyway
- ◆ Resolution: 0.01mm/0.0005"
- ◆ Buttons: on/off, zero, mm/inch
- ◆ Automatic power on/off
- ◆ Data output
- ◆ Made of stainless steel



step1: set zero



step2: measure depth of keyway

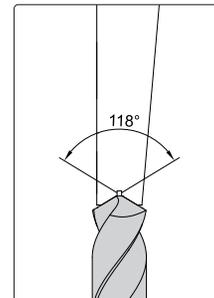
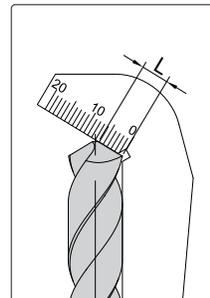


Code	Range	Accuracy
195-002-11	0-50mm/0-2"	±0.03mm

965

DRILL POINT GAUGE

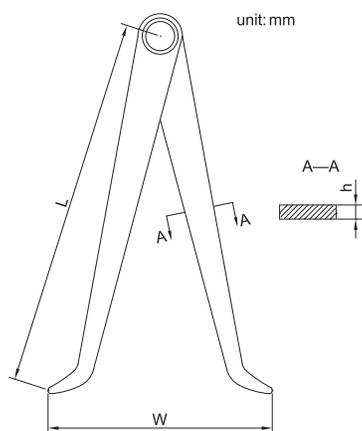
- ◆ For twist drills with 118° angle, to check if the center of tip is concentric with the drill body
- ◆ Made of stainless steel



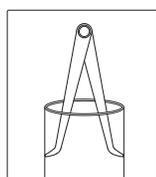
Code	Accuracy	
	Angle	Length
965-005-01	±0.5°	±0.5mm

INSIDE CALIPER

SERIES 981



981-006-01

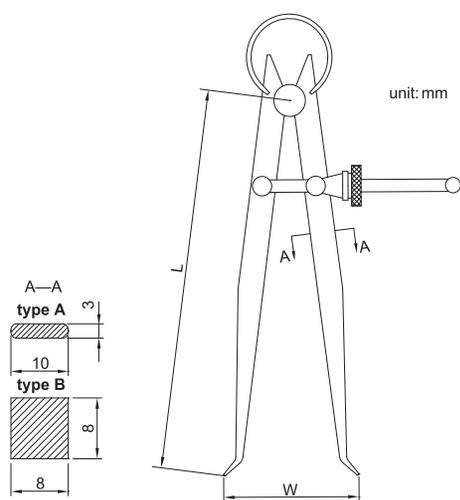


◆ Made of carbon steel

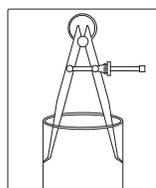
Code	Size(L)	Range(W)	h
981-006-01	150mm	15 - 150mm	2mm
981-008-01	200mm	15 - 200mm	2mm
981-010-01	250mm	15 - 250mm	3mm
981-012-01	300mm	15 - 300mm	3mm

INSIDE SPRING CALIPER

SERIES 982

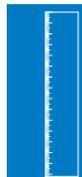


982-006-01



◆ Made of carbon steel

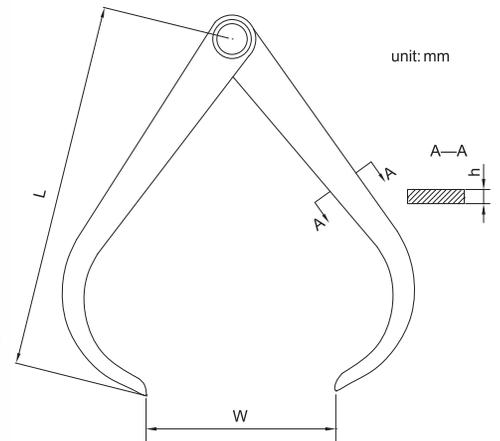
Code	Size(L)	Range(W)	Type
982-005-01	125mm	15 - 115mm	A
982-006-01	150mm	15 - 140mm	A
982-008-01	200mm	18 - 190mm	A
982-010-01	250mm	20 - 240mm	A
982-012-01	300mm	20 - 290mm	A
982-016-01	400mm	20 - 390mm	B
982-020-01	500mm	25 - 490mm	B
982-024-01	600mm	25 - 590mm	B



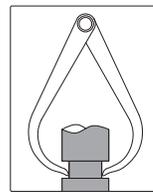
SERIES 983

OUTSIDE CALIPER

◆ Made of carbon steel



983-006-01

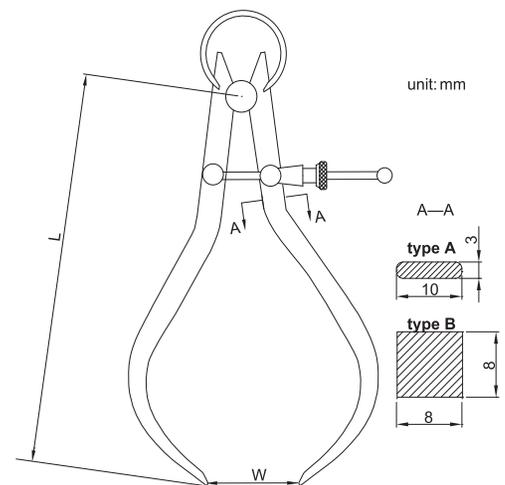


Code	Size(L)	Range(W)	h
983-006-01	150mm	0 - 150mm	2mm
983-008-01	200mm	0 - 200mm	2mm
983-010-01	250mm	0 - 250mm	3mm
983-012-01	300mm	0 - 300mm	3mm

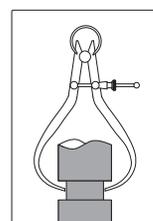
SERIES 984

OUTSIDE SPRING CALIPER

◆ Made of carbon steel



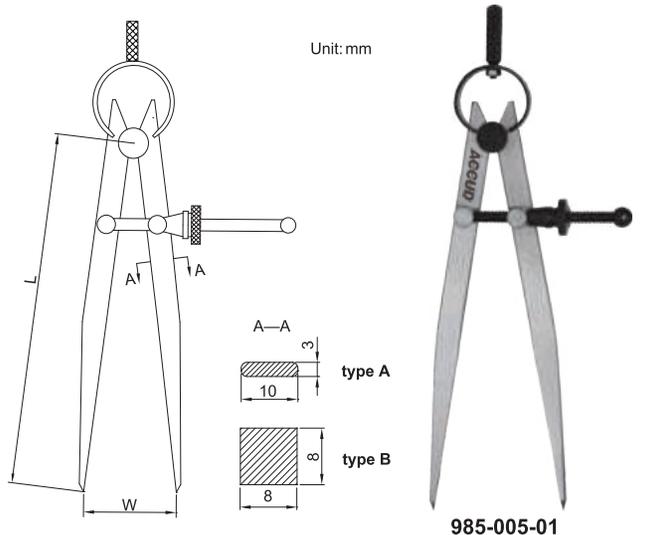
984-005-01



Code	Size(L)	Range(W)	Type
984-005-01	125mm	0 - 115mm	A
984-006-01	150mm	0 - 140mm	A
984-008-01	200mm	0 - 190mm	A
984-010-01	250mm	0 - 240mm	A
984-012-01	300mm	0 - 290mm	A
984-016-01	400mm	0 - 390mm	B
984-020-01	500mm	0 - 490mm	B
984-024-01	600mm	0 - 590mm	B

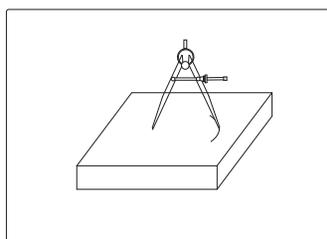
SPRING DIVIDER

SERIES 985



Unit: mm

985-005-01

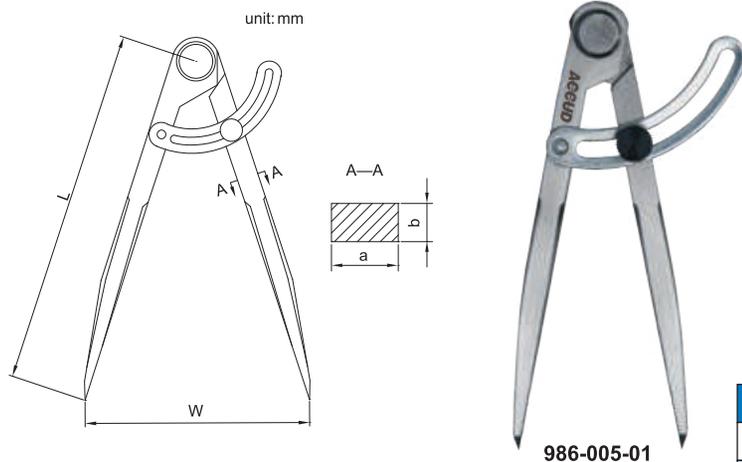


- ◆ Made of carbon steel
- ◆ Hardened points

Code	Size(L)	Range(W)	Type
985-005-01	125mm	0-115mm	A
985-006-01	150mm	0-140mm	A
985-008-01	200mm	0-190mm	A
985-010-01	250mm	0-240mm	A
985-012-01	300mm	0-290mm	B
985-016-01	400mm	0-390mm	B
985-020-01	500mm	0-490mm	B
985-024-01	600mm	0-590mm	B

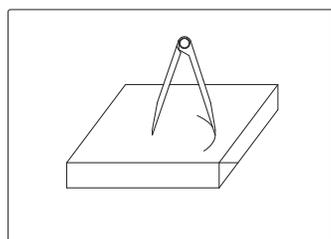
DIVIDER

SERIES 986



unit: mm

986-005-01



- ◆ Made of carbon steel
- ◆ Hardened points

Code	Size(L)	Range(W)	a	b
986-005-01	125mm	0-115mm	8.5	7
986-006-01	150mm	0-140mm	8.5	7
986-008-01	200mm	0-190mm	10	7
986-010-01	250mm	0-240mm	11	7
986-012-01	300mm	0-290mm	12	7
986-016-01	400mm	0-390mm	12	7
986-020-01	500mm	0-490mm	12	7
986-024-01	600mm	0-590mm	12	7
986-032-01	800mm	0-790mm	16	11
986-040-01	1000mm	0-990mm	16	11

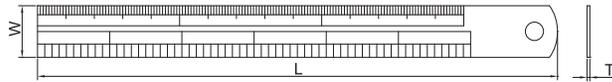
SERIES 990

STEEL RULE

- ◆ Graduation: 0.5mm, 1mm, 1/64", 1/32", 1/16"
- ◆ Semi-flexible rules
- ◆ Made of stainless steel



990-006-11



Code	Range	Accuracy	T	L	W
990-006-11	150mm/6"	±0.08mm	1mm	170mm	18mm
990-008-11	200mm/8"	±0.08mm	1mm	220mm	18mm
990-012-11	300mm/12"	±0.11mm	1mm	330mm	25mm
990-020-11	500mm/20"	±0.14mm	1mm	530mm	30mm
990-040-11	1000mm/40"	±0.24mm	1.5mm	1040mm	32mm

SERIES 989

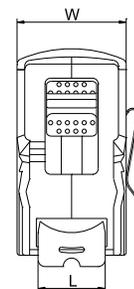
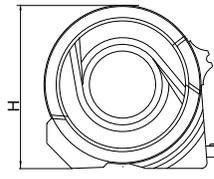
MEASURING TAPE

- ◆ Matt Nylon coating tape, wear resistance



989-005-01

unit: mm



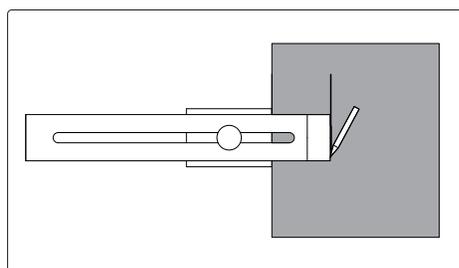
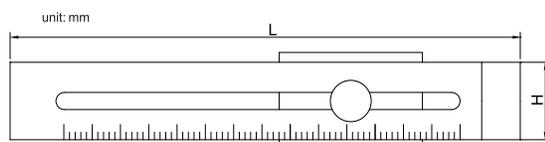
Code	Range	Graduation	Width of tape L	W	H
989-003-01	0-3m	1mm	16mm	33mm	60mm
989-005-01	0-5m	1mm	19mm	33mm	68mm

MARKING GAUGE

SERIES 992



992-010-01

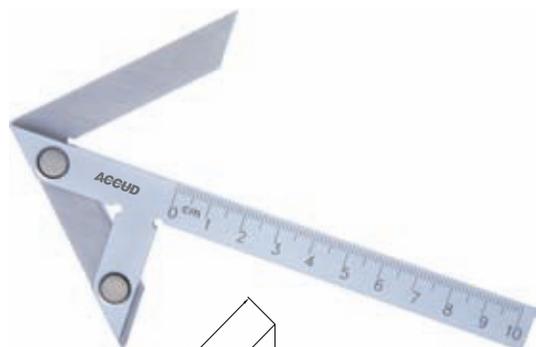


- ◆ Made of stainless steel
- ◆ Stain chrome finish

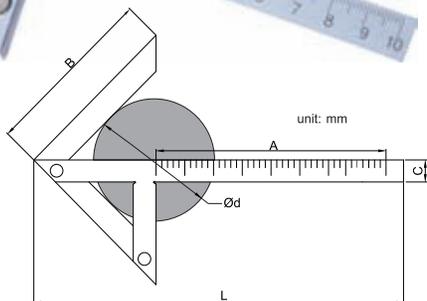
Code	Range	Graduation	Accuracy	H	L
992-008-01	0 - 200mm	0.1mm	±0.1mm	40mm	250mm
992-010-01	0 - 250mm	0.1mm	±0.1mm	40mm	300mm
992-012-01	0 - 300mm	0.1mm	±0.1mm	40mm	350mm

CENTER MARKING GAUGE

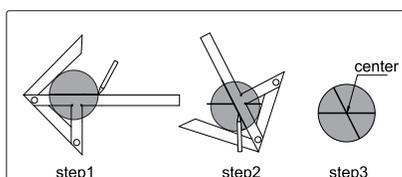
SERIES 993



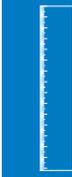
993-004-01



- ◆ Find the center of round plates and shafts
- ◆ Made of stainless steel
- ◆ Stain chrome plated



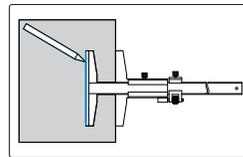
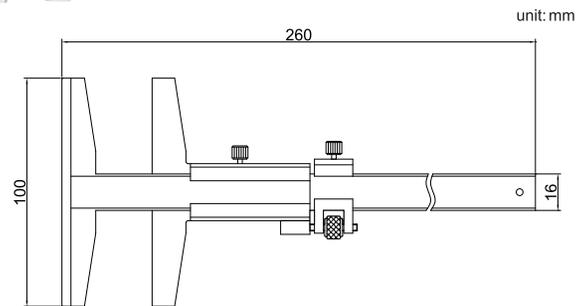
Code	Size (AxB)	Diameter(Ød)	Accuracy	C	L
993-004-01	100x70mm	4 - 90mm	±0.15mm	12	153
993-006-01	150x130mm	4 - 190mm	±0.15mm	15	245
993-008-01	200x150mm	6 - 220mm	±0.15mm	15	310



902

T-SHAPE MARKING GAUGE

- ◆ Made of stainless steel
- ◆ Satin chrome plated reading surface

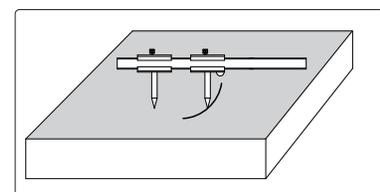
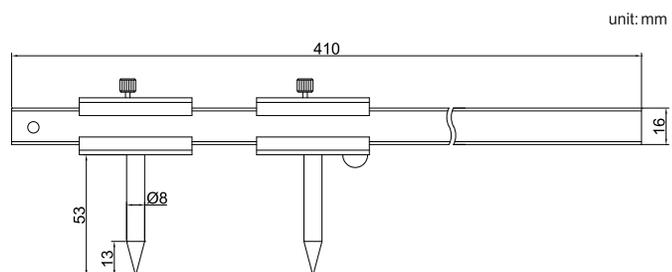


Code	Range	Graduation	Accuracy
902-006-51	0-150mm	0.05mm	±0.05mm

901

SCRIBER CALIPER

- ◆ Graduation: 0.1mm
- ◆ Made of stainless steel
- ◆ Satin chrome plated reading surface
- ◆ Hardened scriber tips



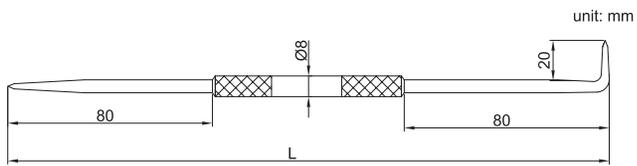
Code	Range	Accuracy
901-012-11	51-300mm	±0.1mm

SCRIBER

995



◆ Nickel plated



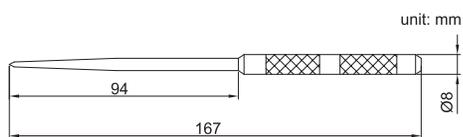
Code	Tips	L
995-009-01	hardened tips	250mm

SCRIBER

995



◆ Nickel plated



Code	Tips	L
995-007-01	hardened tips	167mm



SERIES 996

DIGITAL HORIZONTAL SCALE

Type A

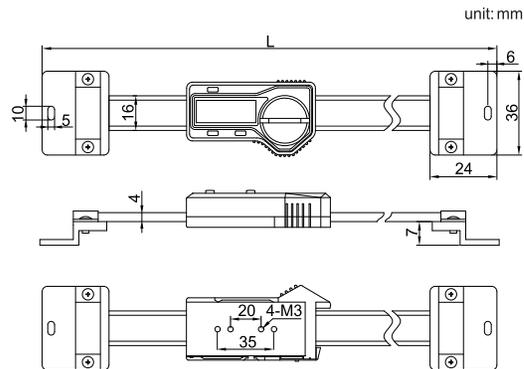
- ◆ Resolution: 0.01mm/0.0005"
- ◆ Buttons: on/off, zero, mm/inch
- ◆ Automatic power off
- ◆ Data output
- ◆ Made of stainless steel
- ◆ Supplied with bracket
- ◆ Optional accessory: SPC cable

Type B

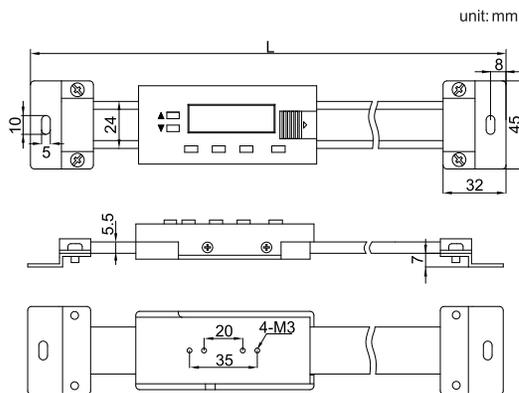
- ◆ Resolution: 0.01mm/0.0005"
- ◆ Absolute and incremental measurement
- ◆ Data output
- ◆ Made of stainless steel
- ◆ Supplied with bracket



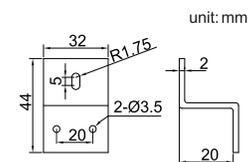
996-006-11



996-020-11



bracket



Code	Range	Accuracy	Type	L
996-004-11	100mm	±0.03mm	A	209mm
996-006-11	150mm	±0.03mm	A	259mm
996-008-11	200mm	±0.03mm	A	310mm
996-012-11	300mm	±0.04mm	A	444mm
996-020-11	500mm	±0.05mm	B	682mm
996-024-11	600mm	±0.08mm	B	790mm
996-032-11	800mm	±0.10mm	B	990mm
996-040-11	1000mm	±0.10mm	B	1240mm

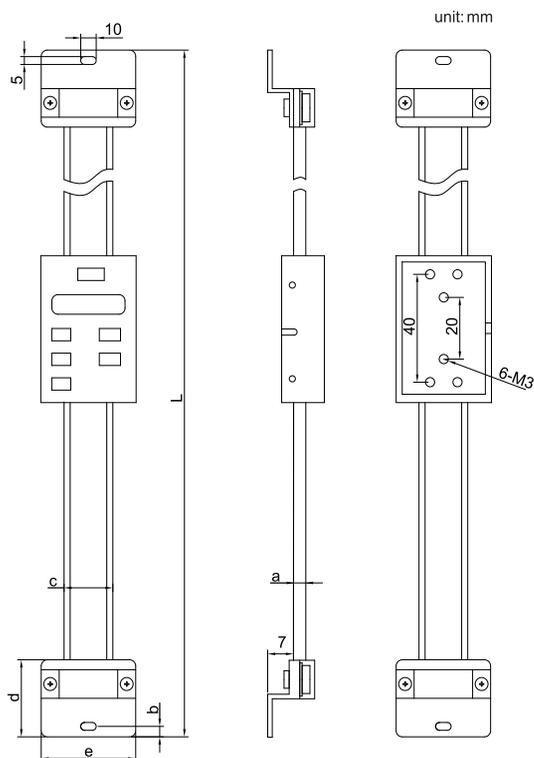
DIGITAL VERTICAL SCALE

SERIES 997

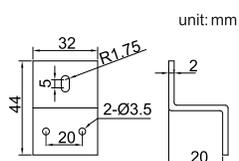
- ◆ Resolution: 0.01mm/0.0005"
- ◆ Data output
- ◆ Made of stainless steel
- ◆ Supplied with bracket



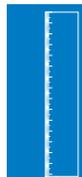
997-012-11



bracket



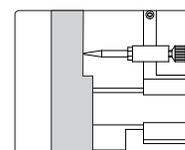
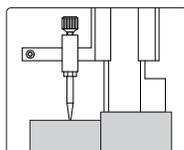
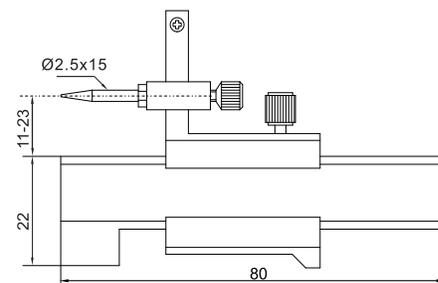
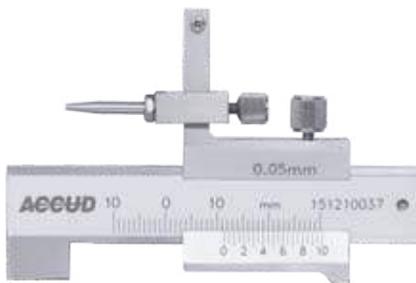
Code	Range	Accuracy	a	b	c	d	e	L
997-004-11	100mm	±0.03mm	4	6	20	40	24	209mm
997-006-11	150mm	±0.03mm	4	6	20	40	24	259mm
997-008-11	200mm	±0.03mm	4	6	20	40	24	310mm
997-012-11	300mm	±0.04mm	4	6	20	40	24	444mm
997-020-11	500mm	±0.05mm	5.5	8	24	40	32	682mm
997-024-11	600mm	±0.08mm	5.5	8	24	51	32	790mm
997-032-11	800mm	±0.10mm	5.5	8	24	51	32	990mm
997-040-11	1000mm	±0.10mm	5.5	8	24	51	40	1240mm



998

VERNIER STEP GAUGE

- ◆ Measure the height difference of two surface
- ◆ Resolution: 0.05mm

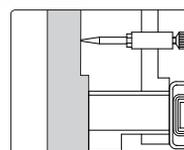
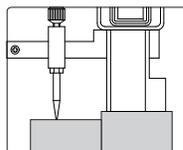
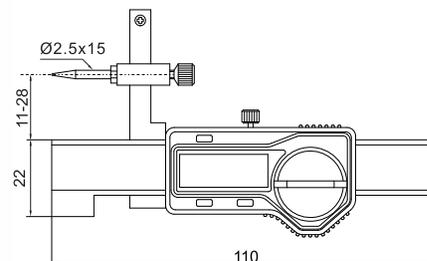


Code	Range	Accuracy
998-010-11	-10~+10mm	±0.05mm

999

DIGITAL STEP GAUGE

- ◆ Measure the height difference of two surface
- ◆ Resolution: 0.01mm

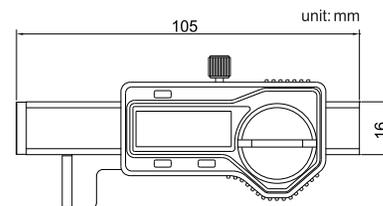


Code	Range	Accuracy
999-010-11	-10~+10mm	±0.05mm

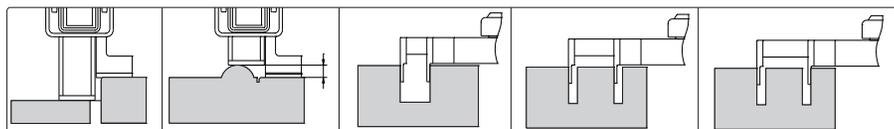
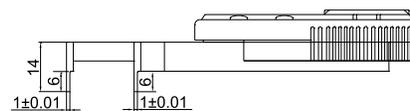
437

STEP AND GAP GAUGE

- ◆ Measure step height and gap width
- ◆ Resolution: 0.01mm/0.0005"
- ◆ Buttons: on/off, zero, mm/inch
- ◆ Automatic power on/off
- ◆ Data output
- ◆ Made of stainless steel
- ◆ Supplied with zero setting block



zero setting block



Code	Range	Accuracy
437-001-11	0-12.7mm/0-0.5"	±0.03mm

GRANITE SURFACE PLATE

SERIES 611



611-032-00

- ◆ Made of fine-grained granite
- ◆ With calibration certificate
- ◆ Customized size can be ordered

Grade 00

Code	Size(LxWxH)	Flatness	Weight(Kg)
611-032-00	300x200x60mm	2.7μm	11
611-042-00	400x250x60mm	2.9μm	18
611-044-00	400x400x60mm	3.1μm	29
611-053-00	500x315x70mm	3.2μm	33
611-064-00	630x400x80mm	3.5μm	60
611-066-00	630x630x100mm	3.8μm	119
611-085-00	800x500x100mm	3.9μm	120
611-106-00	1000x630x140mm	4.4μm	265
611-101-00	1000x1000x150mm	4.8μm	450
611-121-00	1200x800x160mm	4.9μm	461
611-161-00	1600x1000x180mm	5.8μm	864
611-201-00	2000x1000x220mm	6.5μm	1320
611-215-00	2000x1500x250mm	7.0μm	2250

Grade 0

Code	Size(LxWxH)	Flatness	Weight(Kg)
611-032-10	300x200x60mm	5.4μm	11
611-042-10	400x250x60mm	5.9μm	18
611-044-10	400x400x60mm	6.3μm	29
611-053-10	500x315x70mm	6.4μm	33
611-064-10	630x400x80mm	7.0μm	60
611-066-10	630x630x100mm	7.6μm	119
611-085-10	800x500x100mm	7.8μm	120
611-106-10	1000x630x140mm	8.7μm	265
611-101-10	1000x1000x150mm	9.7μm	450
611-121-10	1200x800x160mm	9.8μm	461
611-161-10	1600x1000x180mm	11.5μm	864
611-201-10	2000x1000x220mm	12.9μm	1320
611-215-10	2000x1500x250mm	14.0μm	2250

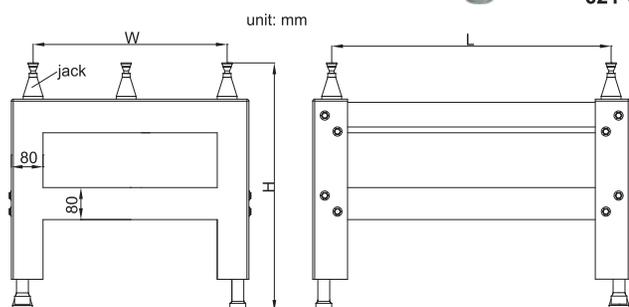
STAND FOR GRANITE SURFACE PLATE

SERIES 621



621-064-01

- ◆ For medium size granite surface plates
- ◆ Adjusting range of jacks: 25mm
- ◆ One foot on the bottom is adjustable
- ◆ The height can be made under customer requirement



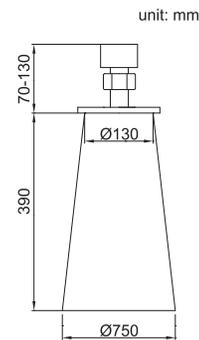
Code	L	W	H	For granite surface plate
621-064-01	352	224	640-660	630x400x80mm
621-066-01	352	352	675-695	630x630x100mm
621-085-01	448	280	665-685	800x500x100mm
621-106-01	560	352	630-650	1000x630x140mm
621-101-01	560	560	630-650	1000x1000x150mm
621-121-01	672	448	630-650	1200x800x160mm
621-161-01	896	560	585-605	1600x1000x180mm



SERIES 625

JACK SET FOR GRANITE SURFACE PLATE

- ◆ 5 jacks per set
- ◆ Adjustable height
- ◆ For large granite surface plates:
 - 2000x1000mm
 - 2000x1500mm
 - 2500x1500mm
 - 3000x2000mm



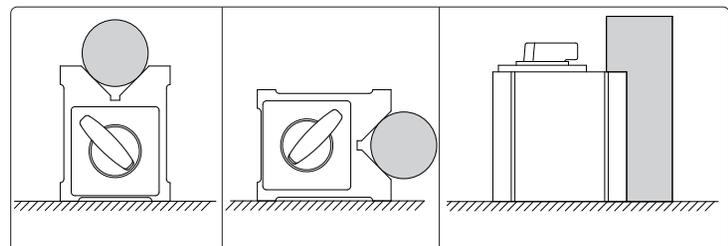
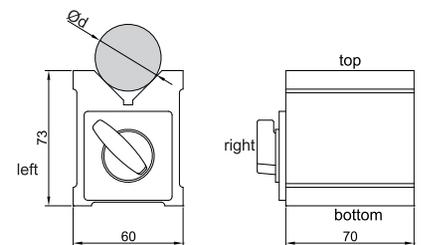
Code

625-000-00

SERIES 633

MAGNETIC V-BLOCK

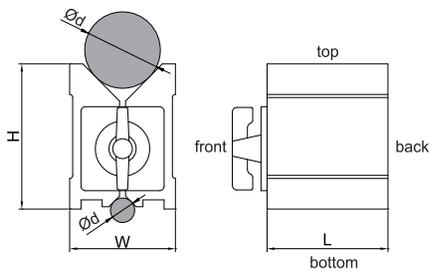
- ◆ Hold cylindrical workpiece for inspection and machining



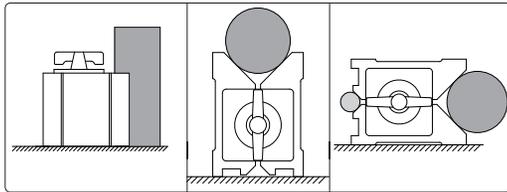
Code	For shaft range(Ød)	Magnetic force	Top and bottom, left and right parallelism	V-grooves and back side squareness
633-044-01	6-44mm	56kgf	10µm	10µm

MAGNETIC V-BLOCK

SERIES 634



634-067-01

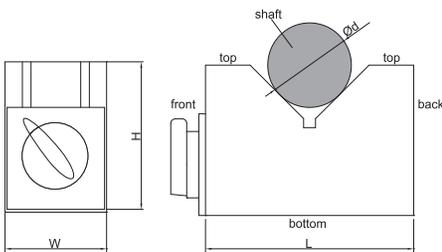


- ◆ Hold cylindrical workpiece for inspection and machining
- ◆ Top groove for large shafts
- ◆ Bottom grooves for small shafts

Code	Size(LxWxH)	For shaft range (Ød)	Magnetic force	V-grooves and back side squareness	Top side and bottom side parallelism
634-067-01	80x70x95mm	6-67mm	64kgf	10µm	10µm
634-067-02	100x70x95mm	6-67mm	80kgf	10µm	10µm
634-067-03	120x70x95mm	6-67mm	96kgf	10µm	10µm

MAGNETIC V-BLOCK SET

SERIES 635



635-150-01

- ◆ Hold cylindrical workpieces for inspection, not suitable for machining due to weak magnetic force
- ◆ Two V-blocks per set



Code	Size(LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V groove to bottom and back sides	Height difference of a matched pair
635-070-01	70x40x50mm	6-46mm	8kgf	10µm	10µm
635-150-01	150x50x100mm	6-125mm	14kgf	10µm	10µm

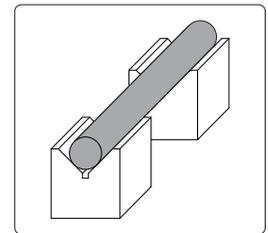
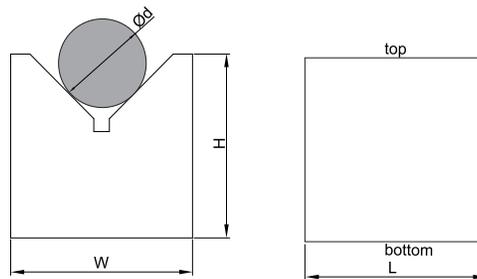
SERIES 631

GRANITE V-BLOCK SET

- ◆ Supplied a pair, for holding long cylindrical workpiece



631-075-01

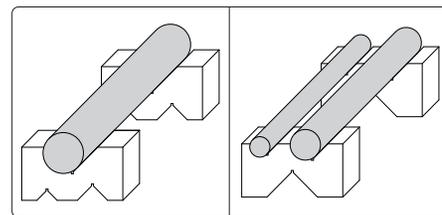
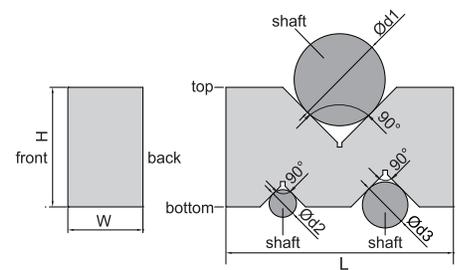
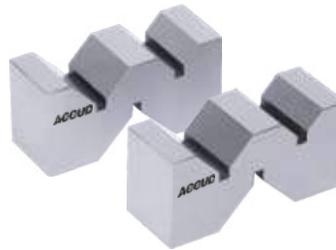


Code	Size(LxWxH)	For shaft range(Ød)	Parallelism between top and bottom, left and right	Height difference between a pair
631-075-01	50x70x70mm	6 - 75mm	5µm	5µm
631-099-01	50x100x70mm	6 - 99mm	5µm	5µm

SERIES 632

V-BLOCK SET

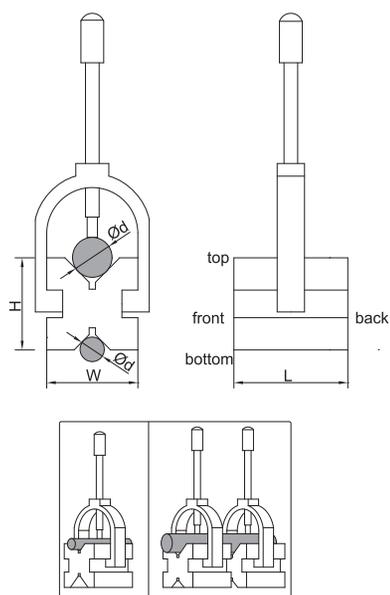
- ◆ Two V blocks per set
- ◆ Made of hardened tool steel



Code	Size (LxWxH)	Range of shafts(Ød1)	Range of shafts(Ød2)	Range of shafts(Ød3)	Parallelism of V grooves to top and bottom sides	Squareness of V grooves to front and back sides	Height difference of a matched pair
632-002-01	50x19x24	3 - 32	3 - 16	3 - 22	5µm	5µm	5µm
632-003-01	75x24x35	3 - 50	3 - 20	3 - 32	5µm	5µm	5µm
632-004-01	100x33x52	3 - 68	3 - 26	3 - 40	5µm	5µm	5µm
632-006-01	150x50x80	6 - 100	5 - 40	5 - 60	5µm	5µm	5µm

V-BLOCK SET

SERIES 636



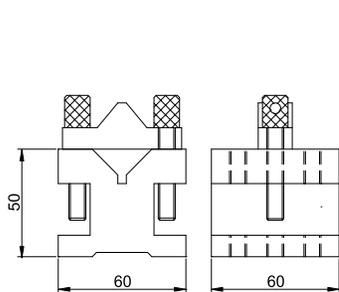
636-045-01

- ◆ Hold cylindrical workpieces for inspection and machining
- ◆ Two V-blocks per set
- ◆ V groove on the top for large shafts
- ◆ V groove on the bottom for small shafts

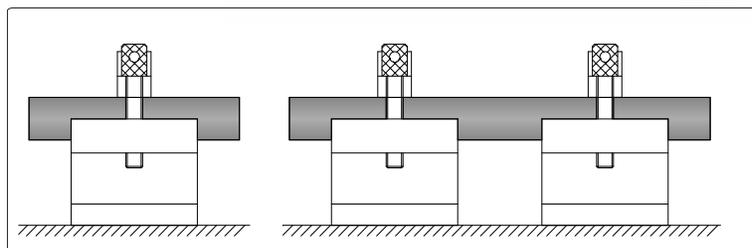
Code	Size(LxWxH)	For shaft range($\varnothing d$)	V grooves to top and bottom sides parallelism	V grooves to front and back sides squareness	Height difference of a matched pair
636-045-01	45x41x35mm	5 - 40mm	5 μ m	5 μ m	5 μ m
636-070-01	70x63x44mm	7 - 60mm	5 μ m	5 μ m	5 μ m
636-125-01	125x90x70mm	7 - 90mm	5 μ m	5 μ m	5 μ m

V-BLOCK SET

SERIES 637



637-035-01



- ◆ Hold cylindrical workpieces for inspection and machining
- ◆ Two V-blocks per set
- ◆ V groove on the top for large shafts

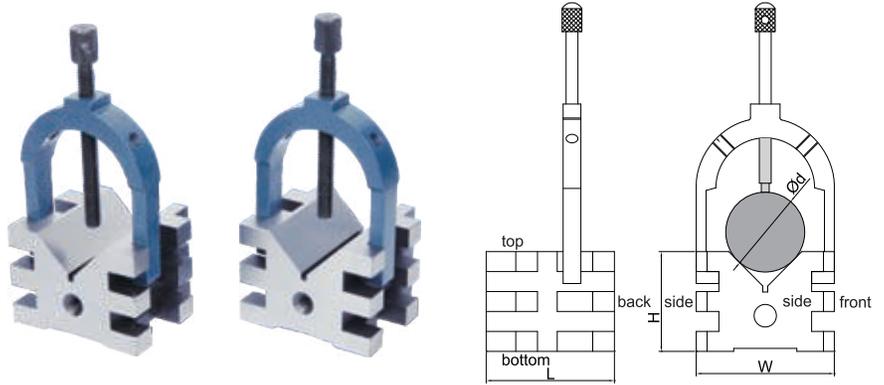
Code	Size(LxWxH)	For shaft range($\varnothing d$)	V grooves to top and bottom sides parallelism	V grooves to front and back sides squareness	Height difference of a matched pair
637-035-01	35x35x30mm	3 - 16mm	5 μ m	5 μ m	5 μ m
637-060-01	60x60x50mm	5 - 34mm	5 μ m	5 μ m	5 μ m
637-105-01	105x105x78mm	8 - 66mm	5 μ m	5 μ m	5 μ m



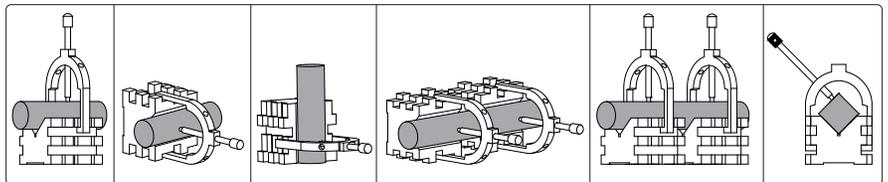
638

V-BLOCK SET

- ◆ Hold cylindrical or rectangular workpieces for inspection and machining
- ◆ Two V-blocks per set
- ◆ Hardened to HRC60±2
- ◆ Applicable for cylinder with diameter (Ød): 5 - 50mm
- ◆ Applicable for rectangular workpieces with thickness: ≤35mm



Application

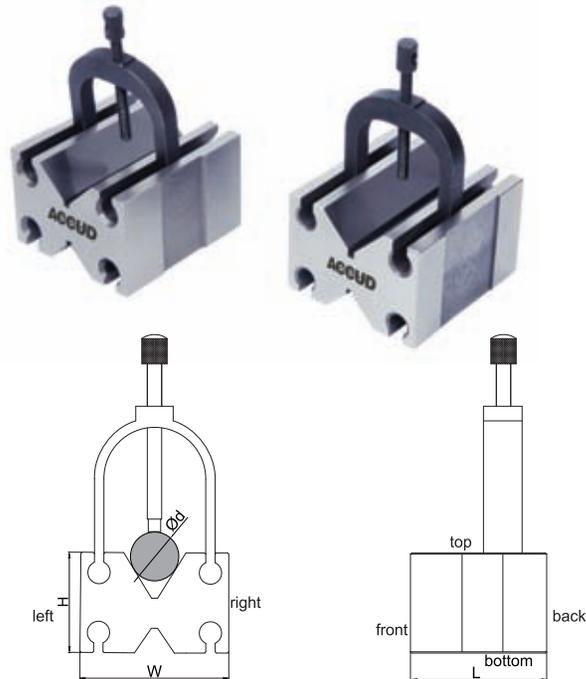


Code	Size (LxWxH)	Parallelism of V groove to top and bottom sides	Squareness of V groove to front and back sides	Height difference of a matched pair
638-070-01	60x70x50mm	8µm	8µm	8µm

640

V-BLOCK SET

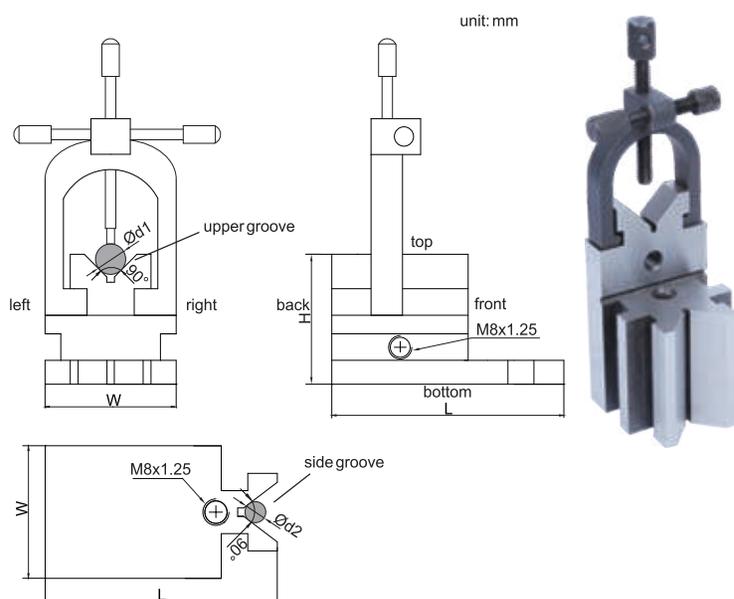
- ◆ Hold cylindrical workpieces for inspection and machining
- ◆ Two V-blocks per set
- ◆ Side lie-down use is possible
- ◆ Hardened to HRC60±2
- ◆ V groove on the top for large shafts
- ◆ V groove on the bottom for small shafts



Code	Size (LxWxH)	Range of shafts (Ød)	Parallelism of both V grooves to top, bottom, left, right sides	Squareness of both V grooves to front and back sides	Height difference of a matched pair
640-001-01	65x70x45mm	4 - 35mm	5µm	5µm	5µm

V-BLOCK

639



- ◆ Hold cylindrical workpieces for inspection and machining
- ◆ Hardened to HRC60±2

Code	Size (LxWxH)	Range of shafts ($\varnothing d1$ and $\varnothing d2$)	Parallelism of upper groove to bottom, left and right sides	Squareness of upper groove to back side	Parallelism of side groove to back side
639-090-01	90x48x48mm	5-33mm	5 μ m	5 μ m	5 μ m

PARALLEL SET

641



- ◆ Parallelism between top and bottom: 5 μ m
- ◆ Height difference of a matched pair: 5 μ m
- ◆ Hardened to HRC55-60



Code	Parallels per set	Length	Thickness	Height(h)
641-014-01	14 pairs	150	10	14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 35, 40, 45, 50

(mm)

SERIES 571

ANGLE GAUGE BLOCK SET

- ◆ For angle set-up in tooling, production and inspection
- ◆ Hardness HRC55



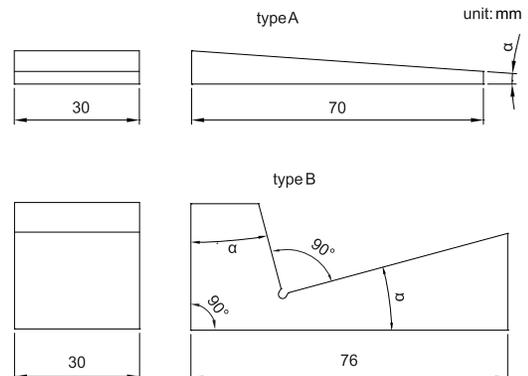
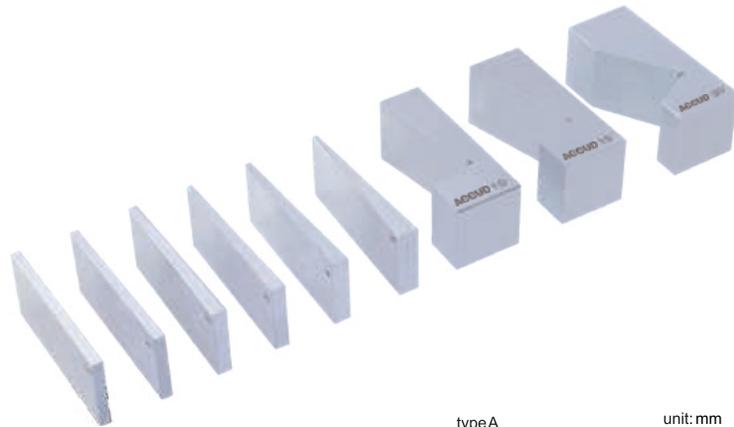
571-012-01

Code	Blocks per set	Accuracy	Sharp	Angle
571-010-02	10	±20"	triangle	1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°
571-012-01	12	±20"	triangle	1/4°, 1/2°, 1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°

646

UNIVERSAL ANGLE PLATE SET

- ◆ For angle set-up in tooling, production and inspection
- ◆ Hardness HRC55



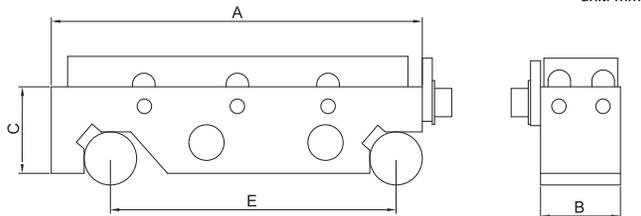
Code	Quantity	Angle α	Type	Accuracy
646-009-01	9pcs	1/2°, 1°, 2°, 3°, 4°, 5°	typeA	±1'
		10°, 15°, 30°	typeB	

SINE BAR

SERIES 651



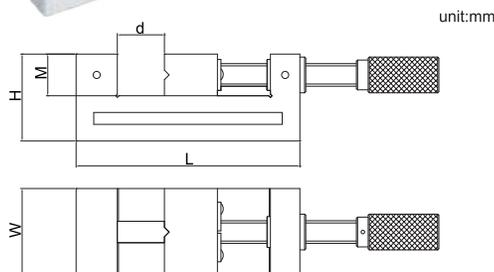
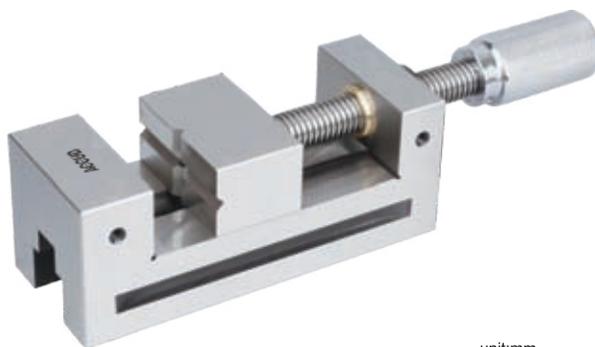
651-005-01



Code	Roller distance (E)	Table size (AxB)	Accuracy of α at 30°	C
651-005-01	100mm	130x25mm	$\pm 8''$	25mm
651-005-02	100mm	130x83mm	$\pm 16''$	30mm
651-010-01	200mm	250x40mm	$\pm 8''$	40mm
651-010-02	200mm	250x85mm	$\pm 16''$	40mm

PRECISION VISE

SERIES 652



- ◆ Parallelism: 5 μ m/100mm
- ◆ Squareness: 5 μ m/100mm
- ◆ Made of alloy steel
- ◆ Hardness HRC56-58

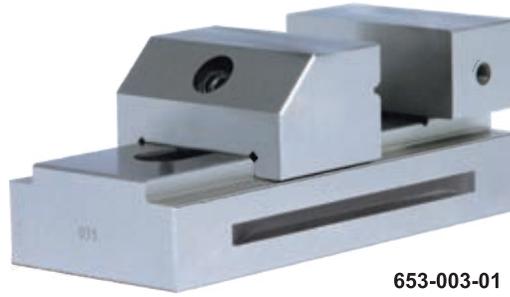


Code	Jaw opening(d)	Jaw width(W)	Overall length(L)	H	M
652-073-01	73mm	63mm	176mm	63	30
652-076-01	76mm	73mm	190mm	73	35
652-120-01	120mm	98mm	255mm	82	40

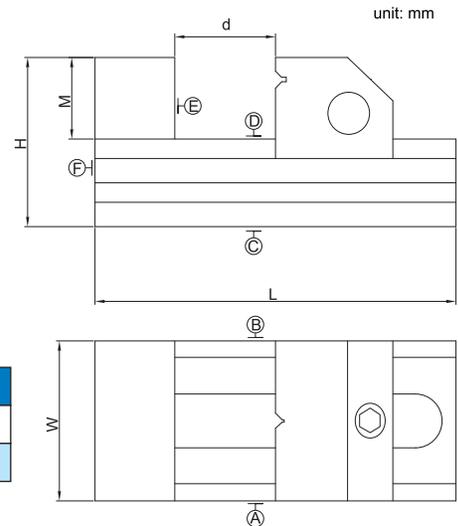
SERIES 653

PRECISION VISE

- ◆ Made of hardened alloy steel
- ◆ Parallelism and squareness between A, B, C, D, E and F: $5\mu\text{m}/100\text{mm}$
- ◆ Hardness HRC56-58



653-003-01

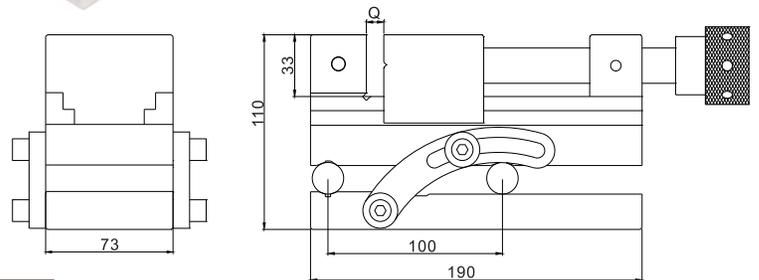


Code	Jaw opening(d)	Jaw width(W)	Overall length(L)	H	M
653-003-01	80mm	50mm	150mm	53	32
653-005-01	100mm	70mm	190mm	70	35

657

PRECISION SINE VISE

- ◆ Parallelism: $3\mu\text{m}/100\text{mm}$
- ◆ Squareness: $5\mu\text{m}/100\text{mm}$
- ◆ Accuracy of angle: $\pm 20''$
- ◆ Made of SKS tool steel, subzero treatment
- ◆ Hardness HRC58-60

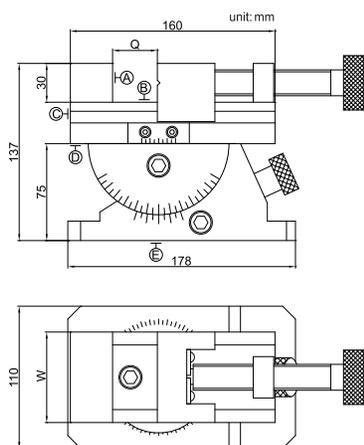


Code	Jaw opening(Q)	Jaw width	Adjustable angle
657-090-01	0-90mm	73mm	0-45°



PRECISION UNIVERSAL VISE

656



- ◆ Horizontal rotary: range 360°, graduation 0.05°
Vertical incline: range 45°, graduation 0.05°
- ◆ With vertical incline adjust knob
- ◆ Parallelism and squareness between A, B, C and D: 5μm/100mm, parallelism between D and E at 0°: 10μm/100mm
- ◆ Made of tool steel
- ◆ Hardness HRC56-58

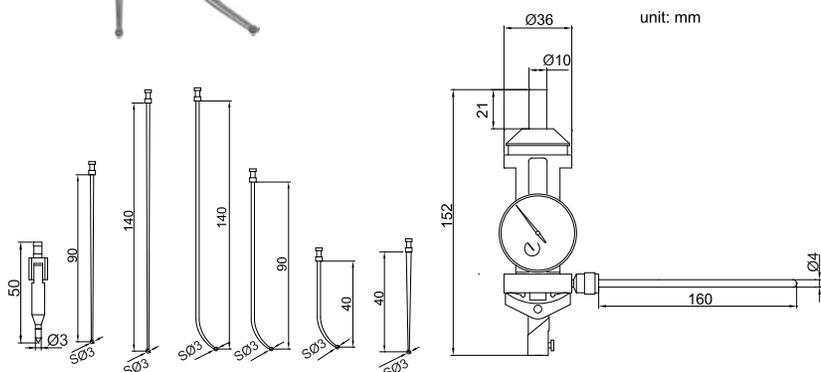
Code	Jaw opening(Q)	Jaw width(W)
656-080-01	0-80mm	70mm

CENTERING INDICATOR

297



- ◆ For quick and accurate centering in boring and milling set-up
- ◆ Jeweled bearing
- ◆ Supplied with 7 type feelers



Code

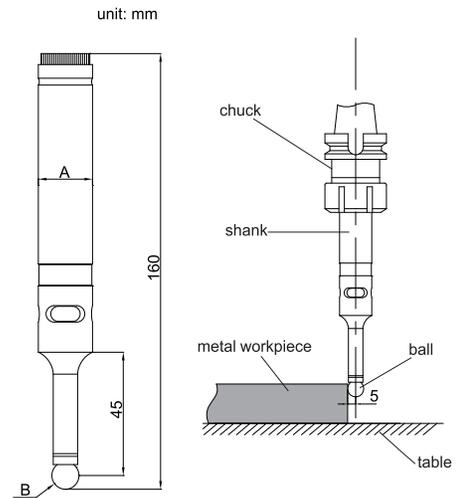
297-003-11



SERIES 692

ELECTRONIC EDGE FINDER

- ◆ The LED will be light when the ball contacts the workpiece
- ◆ Not suitable for rotating use

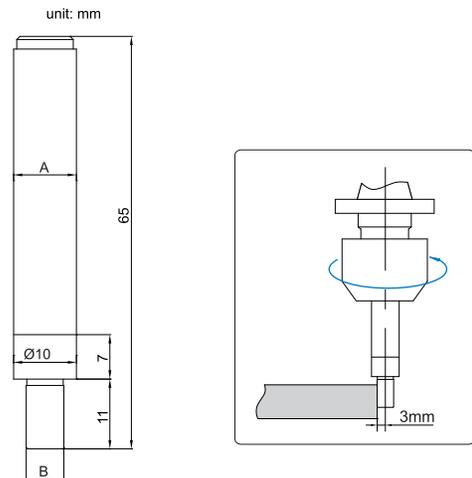


Code	Contact ball (B)	Shank(A)	Accuracy	Beeper
692-010-02	SØ10mm	Ø20mm	5µm	without
692-010-03	SØ10mm	Ø20mm	5µm	with

693

EDGE FINDER

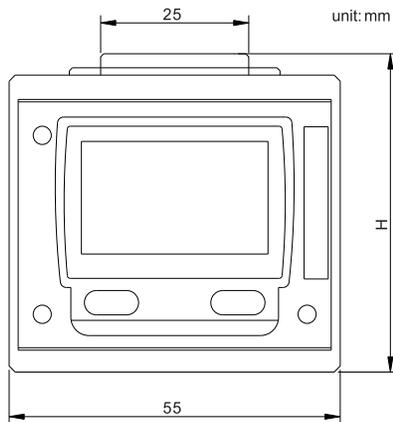
- ◆ Hardened shank and contact point
- ◆ Suitable for machine speed 400-600rpm



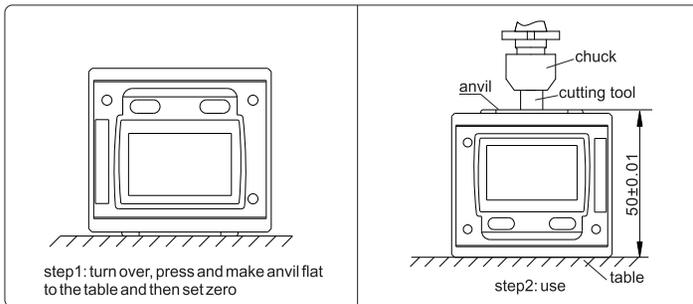
Code	Contact surface (B)	Shank(A)	Accuracy
693-010-01	Ø6mm	Ø10mm	8µm

DIGITAL ZERO SETTER

697



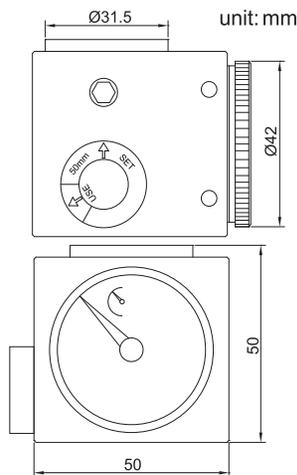
- ◆ IP65 protection level
- ◆ Magnetic base
- ◆ With backlight, will turn on automatically when close to zero ($\pm 0.002\text{mm}$)
- ◆ Turn off automatically



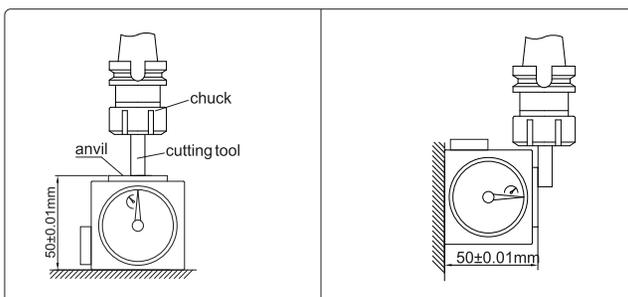
Code	Accuracy
697-050-01	$\pm 10\mu\text{m}$

ZERO SET

695



- ◆ Magnetic base



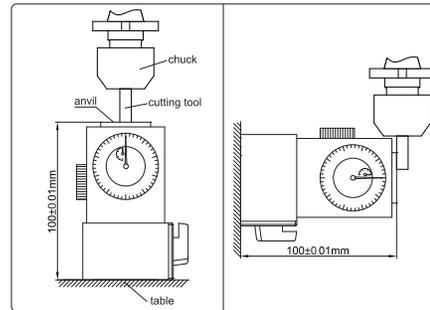
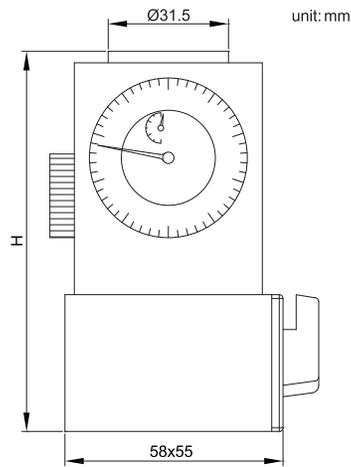
Code	Accuracy
695-050-01	$\pm 10\mu\text{m}$



696

ZERO SET

◆ Magnetic base with on-off switch



Code	Height (H)	Accuracy	Force
696-100-01	100mm	±10µm	9N(at 50mm)

SERIES 280

2-PIECE MEASURING TOOLS SET

Code	Include
280-000-02	10mm dial indicator (222-010-11) Magnetic stand (281-060-01)
280-001-02	1 inch dial indicator (225-025-11) Magnetic stand (281-060-01)



280-000-02



packed in aluminium box

3-PIECE MEASURING TOOL SET

280



◆ Includes:

- 1) Vernier caliper, range 0-150mm/0-6",
(code **120-006-12**)
- 2) Outside micrometer, range 0-25mm
(code **321-001-01**)
- 3) 90° beveled edge square, 100x70mm
(code **832-004-10**)

Code

280-000-03

3-PIECE MEASURING TOOL SET

280



◆ Includes:

- 1) Digital caliper, range 0-150mm/0-6"
(code **111-006-12**)
- 2) Outside micrometer, range 0-25mm
(code **321-001-01**)
- 3) 90° beveled edge square, 100x70mm
(code **832-004-10**)

Code

280-000-13



280

5-PIECE MEASURING TOOL SET

◆ Includes:

- 1) Digital caliper, range 0-150mm/0-6"
(code **111-006-12**)
- 2) Outside micrometer, range 0-25mm
(code **321-001-01**)
- 3) Dial indicator, range 10mm
(code **222-010-11**)
- 4) Magnetic stand (code **281-060-01**)
- 5) Micrometer stand (code **383-000-00**)



Code

280-000-05

280

5-PIECE MEASURING TOOL SET

◆ Includes:

- 1) Digital caliper, range 0-150mm/0-6"
(code **111-006-12**)
- 2) Outside micrometer, range 0-25mm
(code **321-001-01**)
- 3) Dial indicator, range 10mm
(code **222-010-11**)
- 4) 90° beveled edge square, 100x70mm
(code **832-004-10**)
- 5) Scriber, 250mm
(code **995-009-01**)



Code

280-000-15



8-PIECE MEASURING TOOL SET

280



◆ Includes:

- 1) Digital caliper, range 0-150mm/0-6"
(code **111-006-12**)
- 2) Outside micrometer, range 0-25mm
(code **321-001-01**)
- 3) Protractor (code **812-003-01**)
- 4) Pitch gauge, range 0.25-7mm, 24pcs
(code **922-007-24**)
- 5) Radius gauge (code **941-007-34**)
- 6) Feeler gauge, range 0.05-1.00mm, 20pcs
(code **912-100-20**)
- 7) 90° beveled edge square, 100x70mm
(code **832-004-10**)
- 8) Scriber (code **995-009-01**)

Code

280-000-08

12-PIECE MEASURING TOOL SET

280



◆ Includes:

- 1) Digital caliper, range 0-150mm/0-6"
(code **111-006-12**)
- 2) Outside micrometer, range 0-25mm
(code **321-001-01**)
- 3) Dial indicator, range 10mm
(code **222-010-11**)
- 4) Magnetic stand (code **281-060-01**)
- 5) Protractor (code **812-003-01**)
- 6) Pitch gauge, range 0.25-7mm, 24pcs
(code **922-007-24**)
- 7) Radius gauge (code **941-007-34**)
- 8) Feeler gauge, range 0.05-1.00mm, 20pcs
(code **912-100-20**)
- 9) 90° beveled edge square, 100x70mm
(code **832-004-10**)
- 10) Scriber (code **995-009-01**)
- 11) Depth base (code **179-000-00**)
- 12) Zero setting bar

Code

280-000-12



CN1500/CF1500/CFN1500

COATING THICKNESS GAUGE

- ◆ F type probe is used to measure the thickness of non-magnetic coatings (zinc, copper, enamel, plastic and so on) on magnetic substrates (iron, steel)
- N type probe is used to measure the thickness of non-conductive coatings (varnish, enamel, plastic and so on) on conductive substrates (zinc, copper, aluminum)
- ◆ External interchangeable probe
- ◆ Single and continuous working mode
- ◆ Low and high limits setting with judgement
- ◆ With average calculation
- ◆ With comparison measurement function
- ◆ With temperature compensation



CN1500

SPECIFICATION

Code	CF1500	CN1500	CFN1500
Probe type	F	N	F and N
Range	0 ~ 1500μm		
Accuracy	2μm (0 ~ 100μm)		
	2%(100 ~ 1500μm)		
Resolution	0.1μm (0 ~ 999μm)		
	1μm (1000 ~ 1250μm)		
Memory	500		
Power	3×AAA batteries		
Dimension(L×W×H)	150×50×29mm		
Weight	170g		

INCLUDED ACCESSORIES

Main unit	1pc
Calibration foil	1set
Calibration base	1set
USB cable	1pc
AAA battery	3pcs