

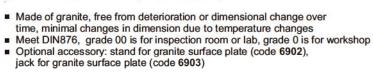
CUSTOM-MADE SUPPLY SPECIAL SIZES ACCORDING TO CUSTOMER'S REQUEST



Grade 0

### **GRANITE SURFACE PLATES**







Grade 00				
Code	Size (LxWxH)	Flatness	Weight (Kg)	Load (Kg)
6900-132*	300x200x60mm	2.7µm	11	30
6900-142*	400x250x60mm	2.9µm	18	50
6900-144*	400x400x60mm	3.1µm	29	60
6900-153*	500x315x70mm	3.2µm	33	60
6900-164*	630x400x80mm	3.5µm	60	65
6900-166*	630x630x100mm	3.8µm	119	75
6900-185 <b>*</b>	800x500x100mm	3.9µm	120	100
6900-1106*	1000x630x140mm	4.4µm	265	200
6900-1101*	1000x1000x150mm	4.8µm	450	400
6900-1128*	1200x800x160mm	4.9µm	461	500
6900-1161*	1600x1000x180mm	5.8µm	864	600
6900-1201*	2000x1000x220mm	6.5um	1320	650

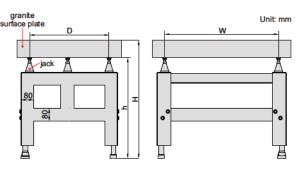
7.0µm

Grade 0				
Code	Size (LxWxH)	Flatness	Weight (Kg)	Load (Kg)
6900-032*	300x200x60mm	5.4µm	11	60
6900-042*	400x250x60mm	5.9µm	18	100
6900-044*	400x400x60mm	6.3µm	29	120
6900-053*	500x315x70mm	6.4µm	33	120
6900-064*	630x400x80mm	7.0µm	60	130
6900-066*	630x630x100mm	7.6µm	119	150
6900-085*	800x500x100mm	7.8µm	120	200
6900-0106*	1000x630x140mm	8.7µm	265	400
6900-0101*	1000x1000x150mm	9.7µm	450	800
6900-0128*	1200x800x160mm	9.8µm	461	1000
6900-0161*	1600x1000x180mm	11.5µm	864	1200
6900-0201*	2000x1000x220mm	12.9µm	1320	1300
6900-0202*	2000x1500x250mm	14.0µm	2250	1500

6900-1202\* 2000x1500x250mm

### ■ For medium size granite surface plates

- 5 jacks are included
- Adjusting range of jacks: 25mm
- One foot on the bottom is adjustable



2250

750



6902-64A

### I ow stands

Low stands				-	(mm)
Code	For granite surface plate	W	D	H (with granite surface plate)	h (without granite surface plate)
6902-64A	630x400x80mm (code 6900-064 and 6900-164)	352	224	775-800	695-720
6902-66A	630x630x100mm (code 6900-066 and 6900-166)	352	352	775-800	675-700
6902-85A	800x500x100mm (code 6900-085 and 6900-185)	448	280	775-800	675-700
6902-106A	1000x630x140mm (code 6900-0106 and 6900-1106)	560	352	755-780	615-640
6902-101A	1000x1000x150mm (code 6900-0101 and 6900-1101)	560	560	755-780	605-630
6902-128A	1200x800x160mm (code 6900-0128 and 6900-1128)	672	448	755-780	595-620
6902-161A	1600x1000x180mm (code 6900-0161 and 6900-1161)	896	560	755-780	575-600

High stands (mm)

riigii stanus					(11111)
Code	For granite surface plate	W	D	H (with granite surface plate)	h (without granite surface plate)
6902-64H	630x400x80mm (code 6900-064 and 6900-164)	352	224	1000-1025	920-945
6902-66H	630x630x100mm (code 6900-066 and 6900-166)	352	352	1000-1025	900-925
6902-85H	800x500x100mm (code 6900-085 and 6900-185)	448	280	1000-1025	900-925
6902-106H	1000x630x140mm (code 6900-0106 and 6900-1106)	560	352	1000-1025	860-885
6902-101H	1000x1000x150mm (code 6900-0101 and 6900-1101)	560	560	1000-1025	850-875
6902-128H	1200x800x160mm (code 6900-0128 and 6900-1128)	672	448	1000-1025	840-865
6902-161H	1600x1000x180mm (code 6900-0161 and 6900-1161)	896	560	1000-1025	820-845

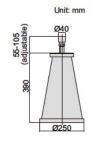
<sup>\*</sup>Supplied with manufacturer inspection certificate

### JACK SET FOR GRANITE SURFACE PLATES

- 5 jacks per set
- Adjustable height
- For large granite surface plates: 2000x1000x220mm (code 6900-0201 and 6900-1201) 2000x1500x250mm (code 6900-0202 and 6900-1202)

Code 6903-B





6903-B

### **MAGNETIC RECTANGULAR BLOCKS**

back side





STRONG MAGNETIC FORCE

- For grinding, light milling, drilling and inspection of round and square jobs
- Hardened, high accuracy, strong magnetic force
- Working surfaces are hardened to HRC58-62
- Magnetic force on top, bottom and back sides
- Supplied in matched pair

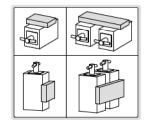




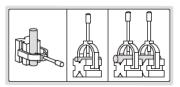


6898-150

Code	Size (LxWxH)	Magnetic force	Parallelism of top to bottom side	Squareness of top and bottom to back side	
6898-100	100x70x70mm	100kgf	5µm	5µm	5µm
6898-150	150x70x85mm	125kgf	5µm	5µm	5µm



### V-BLOCK SETS



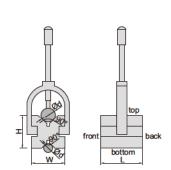
- Hold cylindrical workpieces for inspection and machining
- Two V-blocks per set
- Made of alloy steel
- Hardened to HRC60±2
- V groove on the top for large shafts
- V groove on the bottom for small shafts (except 6896-10)





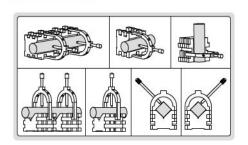


6896-11



Code	Size (LxWxH)	Range of shafts (Ød)	Parallelism of both V grooves to top and bottom sides	Squareness of both V grooves to front and back sides	Height difference of a matched pair
6896-10	25x20x20mm	3-20mm	3µm	3µm	3µm
6896-11	50x40x40mm	5-30mm	5µm	5µm	5µm
6896-12	80x63x63mm	7-63mm	5µm	5µm	5µm
6896-13	100x80x80mm	7-80mm	5µm	5µm	5µm
6896-14	70x140x140mm	9-140mm	5µm	5µm	5µm

Code



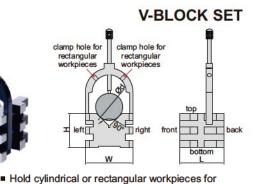
Size (LxWxH)

6802-1 65x70x50mm

Parallelism of V groove to top, bottom, left, right sides

5µm





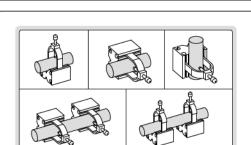
6802-1

Height difference of a matched pair

5µm

_	ribid cylindrical or rectangular	woi kpi
	inspection and machining	
	Two V-blocks per set	

- Made of alloy steelHardened to HRC60±2
- Applicable for cylinder with diameter (Ød): 5-50mm
- Applicable for rectangular workpieces with thickness: ≤35mm



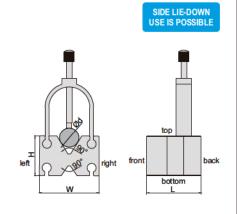
- Hold cylindrical workpieces for inspection and machining
  ■ Two V-blocks per set

- Made of alloy steel
  Hardened to HRC60±2
- V groove on the top for large shafts
- V groove on the bottom for small shafts



Squareness of V groove to front and back sides

5µm

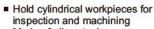


**V-BLOCK SETS** 

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
6803-1	25x20x20mm	4-35mm	5μm	5µm	5µm
6803-2	50x40x40mm	4-47mm	5µm	5µm	5µm

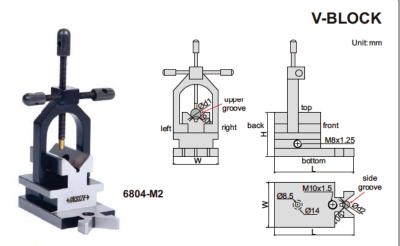
6803-1

# the adjustable screw can support the block and prevent tilting



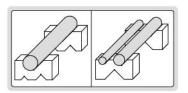
Made of alloy steel
 Hardened to HRC60±2





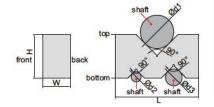
Code	Size (LxWxH)	Range of shafts (Ød1 and Ød2)	Parallelism of upper groove to bottom, left and right sides	Squareness of upper groove to back side	Parallelism of side groove to back side
6804-M2	90x48x48mm	5-33mm	5µm	5µm	5µm

### V-BLOCK SETS



- Two V-blocks per setMade of hardened tool steel



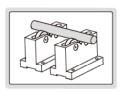


6887-3

				(mm)
Code	Size (LxWxH)	Range of shafts (Ød1)	Range of shafts (Ød2)	Range of shafts (Ød3)
6887-1	50x19x24	3-32	3-16	3-22
6887-2	75x24x35	3-50	3-20	3-32
6887-3	100x33x52	3-68	3-26	3-40
6887-4	125x44x69	3-87	3-34	3-50

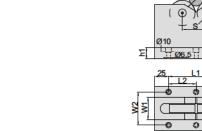
Code	Parallelism of three V grooves to top and bottom sides	Height difference of a matched pair
6887-1	5μm	5µm
6887-2	5μm	5µm
6887-3	5μm	5µm
6887-4	5µm	5µm

### **ROLLER BEARING V-BLOCK SETS**





6888-1



<ul> <li>Two V-blocks per set</li> <li>Workpieces don't get damaged due to bearings</li> <li>Suitable for heavy workpieces</li> </ul>

Code	Size (LxWxH)	Diameter of bearings (ØD)	Range of shafts (Ød)	Parallelism of bearings to bottom	Load capacity
6888-1	150x60x100mm	42mm	25-70mm	12µm	500kg
6888-2	150x80x100mm	47mm	5-55mm	12µm	1000kg
6888-3	230x100x150mm	72mm	70-200mm	12µm	1000kg

								(mm)
Code	W1	W2	h1	h2	h3	L1	L2	S
6888-1	22	44	20	85	12	100	-	60
6888-2		60	22	85	12	100	-	50
6888-3	60	80	30	124	20	180	90	120

### **GRANITE V-BLOCK SETS**

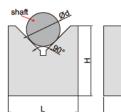


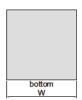
■ Two V-blocks per set





6897-1





Unit: mm

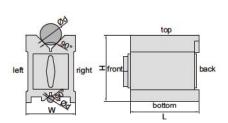
Code	Size (LxWxH)	Range of shafts (Ød)	Parallelism of V groove to bottom	Height difference of a matchet pair
6897-1	70x50x70mm	6-75mm	4µm	5µm
6897-2	100x50x70mm	6-99mm	4µm	5µm

HARDENED SURFACES

HIGH PRECISION

STRONG MAGNETIC FORCE

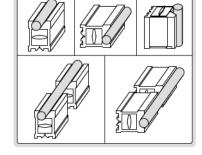
### **MAGNETIC V-BLOCKS**





- Hardened, high accuracy, strong magnetic force, for grinding, light milling, drilling and inspection of round and square jobs
- All working surfaces are hardened to HRC60±2
- Magnetic force on top, bottom and two V grooves
- V groove on the top for large shafts
   V groove on the bottom for small shafts
- Suitable for cast iron surface plates and granite surface plates





6889-1

### Individual

Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V groove to top, bottom, left, right sides	Squareness of V groove to back side
6889-11	75x56x75mm	5-40mm	75kgf	5µm	5µm
6889-22	100x70x95mm	5-65mm	100kgf	5µm	5µm
6889-33	150x75x100mm	5-70mm	125kgf	5µm	5µm
6889-44	200x124x150mm	10-140mm	175kgf	10µm	10µm

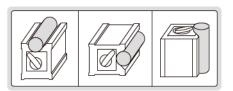
### Matched pair

materioa p						
Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V grooves to top, bottom, left, right sides	Squareness of V grooves to back side	Height difference of a matched pair
6889-1	75x56x75mm	5-40mm	75kgf	5µm	5µm	5µm
6889-2	100x70x95mm	5-65mm	100kgf	5µm	5µm	5µm
6889-3	150x75x100mm	5-70mm	125kgf	5µm	5µm	5µm
6889-4	200x124x150mm	10-140mm	175kgf	10µm	10µm	10µm

ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACE ATTENTION: NOT HARDENED

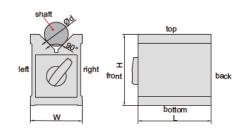
### MAGNETIC V-BLOCK

- Hold cylindrical workpieces for inspection and machining
- Supplied in single piece
- Not hardened
- Not suitable for steel or iron surface





6890-702



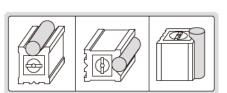
Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V groove to top, bottom, left and right sides	Squareness of V groove to back side
6890-702	70x60x73mm	6-44mm	56kgf	10µm	10µm

### **MAGNETIC V-BLOCKS**

ATTENTION: NOT SUITABLE FOR STEEL OR IRON SURFACE

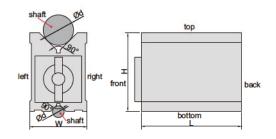
ATTENTION: NOT HARDENED

- Hold cylindrical workpieces for inspection and machining
- Supplied in single piece
- Not hardened
- V groove on the top for large shafts
  V groove on the bottom for small shafts
  Not suitable for steel or iron surface









Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V grooves to top, bottom, left, right side	Squareness of V grooves to back side
6801-1201	80x70x95mm	6-67mm	64kgf	10µm	10µm
6801-1202	100x70x95mm	6-67mm	80kgf	10µm	10µm
6801-1203	120x70x95mm	6-67mm	96kgf	10µm	10µm

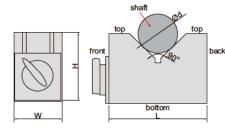
### **MAGNETIC V-BLOCK SETS**

ATTENTION: LOW **MAGNETIC FORCE** 

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

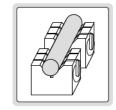






6891-1

Code	Size (LxWxH)	Range of shafts (Ød)	Magnetic force	Parallelism of V groove to bottom and back sides	Height difference of a matched pair
6891-1	70x40x50mm	6-46mm	8kgf	10μm	10µm
6891-3	150x50x100mm	6-125mm	14kgf	10µm	10µm



### **MAGNETIC INDUCTION V-BLOCK**

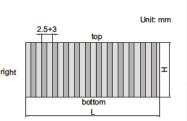
- Hold cylindrical workpieces for inspection and machining
- To be used on magnetic chucks

- Supplied in single piece
   V groove on the top for large shafts
   V groove on the bottom for small shafts





		(
	left	
ves		(
ides		`



Code	Size (LxWxH)	Range of shafts (Ød)	Pole pitch	Parallelism of both V grooves to top, bottom, left, right sides
6892-1	110x60x48mm	6-50mm	2.5+3mm	10µm

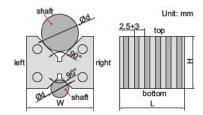
### MAGNETIC INDUCTION V-BLOCK SET

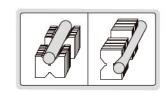


6899-1

- Hold cylindrical workpieces for inspection and machining
   To be used on magnetic chucks
   Two V-blocks per set

- V groove on the top for large shafts
- V groove on the bottom for small shafts





Code	Size (LxWxH)	Range of shafts (Ød)	Pole pitch	Parallelism of both V grooves to top, bottom, left and right sides	Height difference of a matched pair
6899-1	55x60x48mm	6-50mm	2.5+3mm	10µm	10µm

### **PARALLEL SETS**



- Parallelism between top and bottom: 5µm
- Height difference of a matched pair: 5µm
- Made of alloy tool steel
   Hardened to HRC55-60

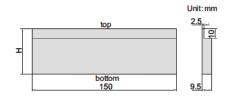


L L	W
top	

bottom

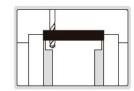
Code	Parallels per set	Length (L)	Thickness (W)	Height (H)
6533-10	10 pairs	150	3	13, 16, 19, 22, 25, 28, 31, 35, 38, 41
6533-144	14 pairs	150	10	14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 35, 40, 45, 50
6533-6	6 pairs	200	9.5	35, 40, 45, 50, 55, 58

### **PARALLEL SET**



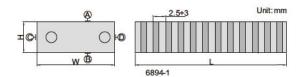
- Parallelism between top and bottom: 5µm
- Height difference of a matched pair: 5µm
   Made of alloy tool steel
   Hardened to HRC55-60

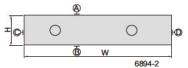
6534-6



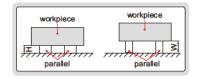
		(mm)
Code	Parallels per set	Height (H)
6534-6	6 pairs	25, 30, 35, 40, 45, 48

### **MAGNETIC INDUCTION PARALLEL SETS**

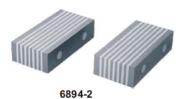












- To be used on magnetic chucks
- Two parallels per set

Code	Size (LxWxH)	Pole pitch	Parallelism between A and B	Parallelism between C and D	Height difference of a matched pair
6894-1	100x50x25mm	2.5+3mm	10µm	10µm	10µm
6894-2	50x100x25mm	2.5+3mm	10µm	10μm	10µm

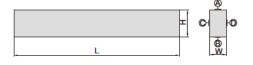
### **GRANITE PARALLEL SET**



4143-250

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

workpiece	workpiece
parallel	parallel



Code	Size (LxWxH)	Parallelism between A and B		Height difference of a matched pair
4143-250	250x25x40mm	3μm	3µm	3µm

### ADJUSTABLE ANGLE BLOCKS

■ Made of hardened tool steel

Size (LxWxH)

75x25x36mm

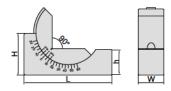
102x30x49mm

h

25mm

30mm

- With locking screw
- Accuracy of angle: 10'



Adjustable angle	Graduation of angle
30°~0°~60°	10'
30°~0°~60°	10'

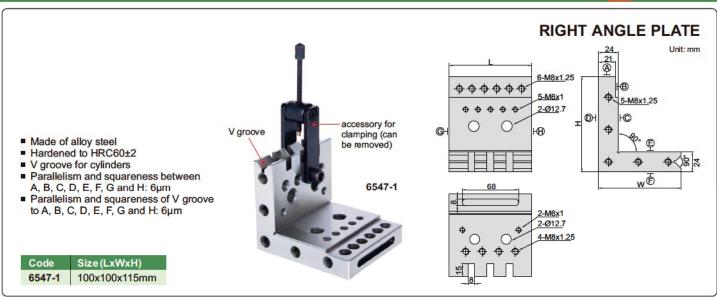


6535-30

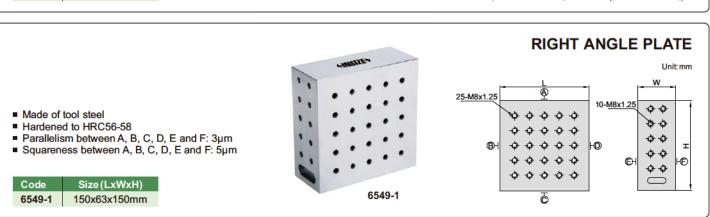
Code

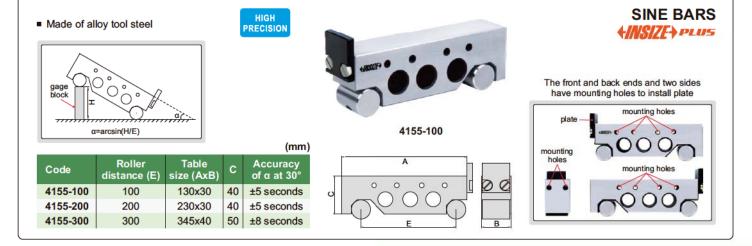
6535-25

6535-30









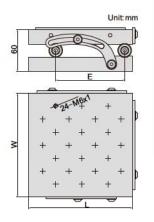
### SINE TABLE



6527-100

- Accuracy of angle: ±15"
   Made of alloy tool steel
   Hardness HRC58-60

Code	Roller distance (E)	Table size (LxW)	Adjustable angle
6527-100	100mm	150x150mm	0-60°



### **PRECISION SINE VISE**

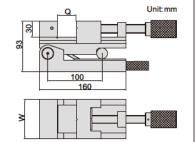


There is a 1mm step (accuracy +/-0.002mm). Gage blocks smaller than 0.5mm are not available. If small gage blocks are needed (for example, 0.25mm), a gage block 1.25mm can be used in order to make 1.25mm - 1mm = 0.25mm.









6522-80

- Parallelism: 3µm/100mm
- Squareness: 5µm/100mm
- Accuracy of angle: ±15"
- Made of SKS tool steel, subzero treatment
- Hardness HRC58-60

Code	Jaw opening (Q)	Jaw width (W)	Adjustable angle
6522-80	0-80mm	73mm	0-46°

### **PRECISION SINE VISE**

There is a 1mm step (accuracy +/-0.002mm). Gage blocks smaller than 0.5mm are not available. If small gage blocks are needed (for example, 0.25mm), a gage block 1.25mm can be used in order to make 1.25mm - 1mm = 0.25mm.

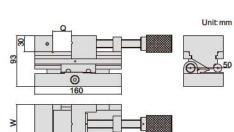




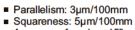




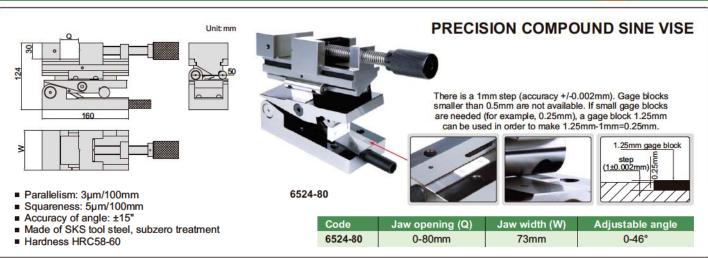
6523-80

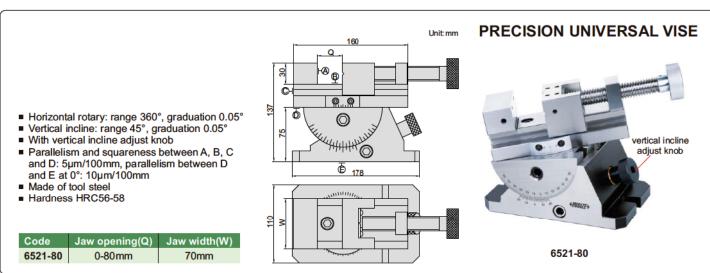


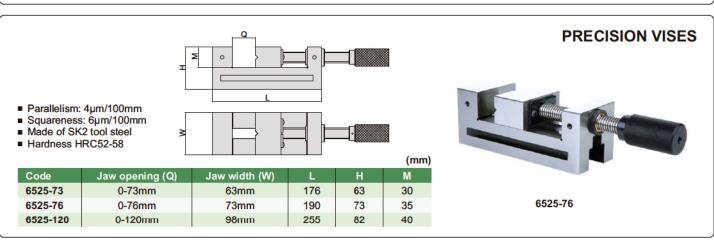
Code	Jaw opening (Q)	Jaw width (W)	Adjustable angle
6523-80	0-80mm	73mm	0-46°

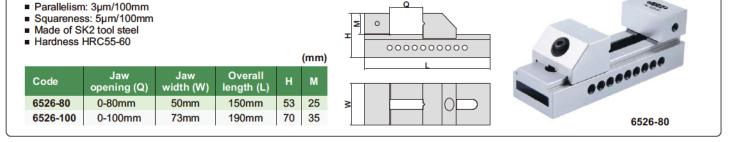


- Accuracy of angle: ±15"
- Made of SKS tool steel, subzero treatment
- Hardness HRC58-60

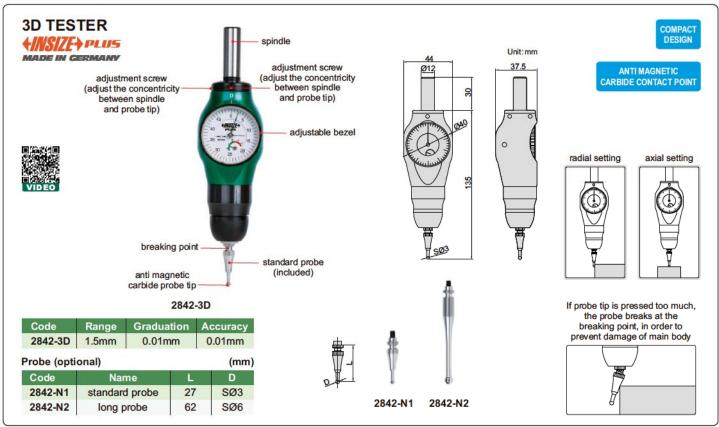


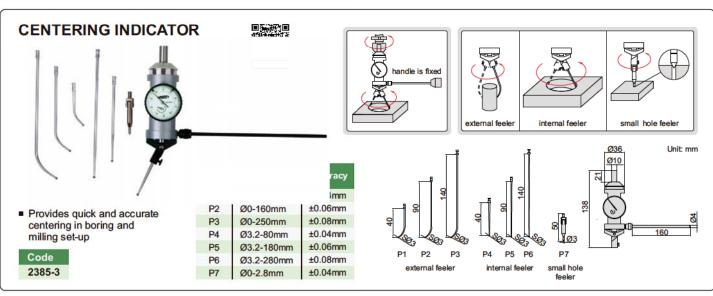






**PRECISION VISES** 





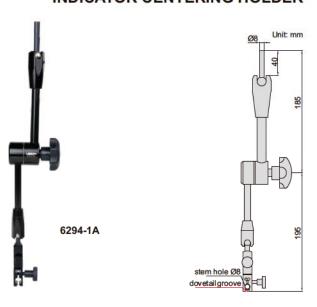


## INDICATOR CENTERING HOLDER

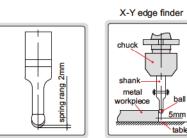


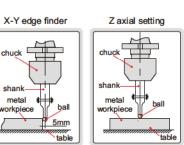
- Center cylinders or holes on machine tools
- Can be used with dial test indicators or dial indicators

Code 6294-1A





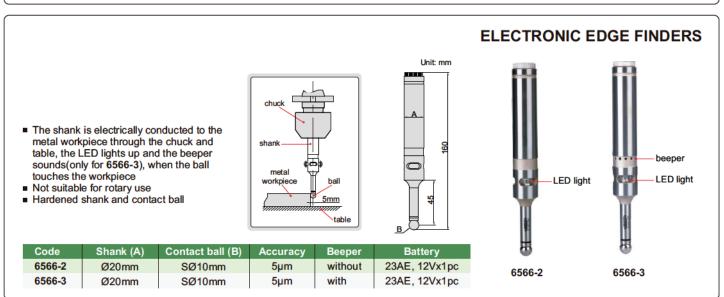


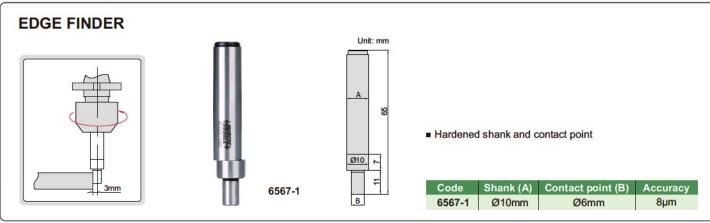


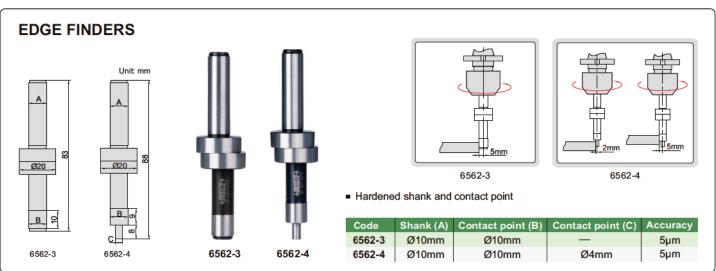
**♦///S/ZE→** PLUS MADE IN GERMANY

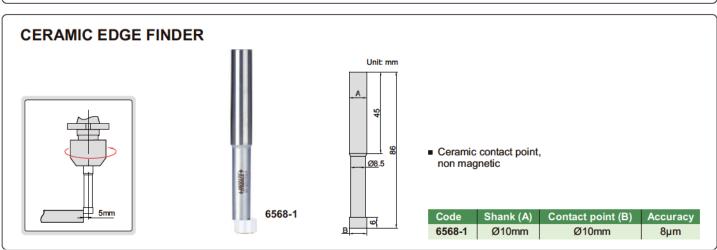
3D ELECTRONIC EDGE FINDERS

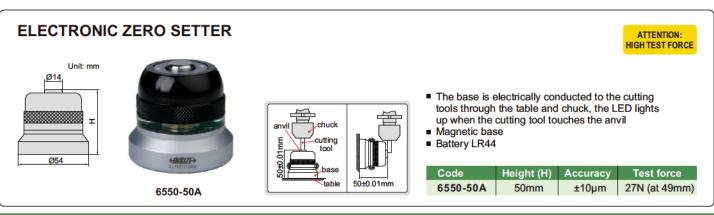
- The shank is electrically conducted to the metal workpiece through the chuck and table, the LED lights up, when the ball touches the workpiece
- Not suitable for rotary use
- Hardened contact ball







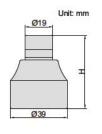




**♦///S/ZE→** PLU5 MADE IN GERMANY



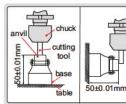
- The base is electrically conducted to the cutting tools through the table and chuck, the LED lights up when the cutting tool touches the anvil
- Magnetic base
- Two batteries LR44





6553-50





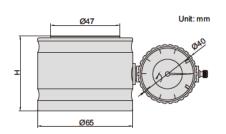
**ELECTRONIC ZERO SETTER** 

Code Height (H) Accuracy Test force 6553-50 50mm ±10µm 7N (at 49mm)



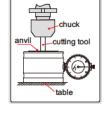
6554-50

Code	Height (H)	Accuracy	Test force
6554-50	50mm	±10µm	9N (at 50mm)

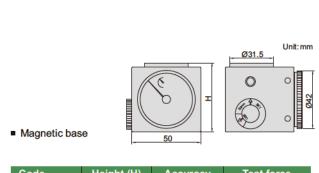




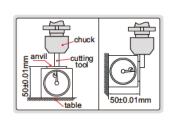
**ZERO SETTER ♦///S/ZE→** PLUS



**ZERO SETTER** 



Code	Height (H)	Accuracy	Test force
2397-502A	50mm	±10µm	9N (at 50mm)

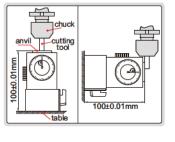




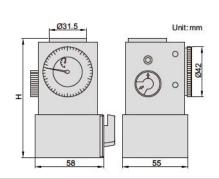
2397-502A

# **ZERO SETTER**

■ Magnetic base with on-off switch



Code	Height (H)	Accuracy	Test force
2394-100A	100mm	±10µm	9N (at 100mm)





2394-100A