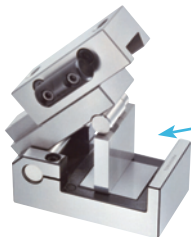




# Sine Vise



Height  
Gage Block  
PAGE B76

● Example

- Compound angles easily and quickly set.
- Adjustments up to 46 degrees.

**Accuracy :**

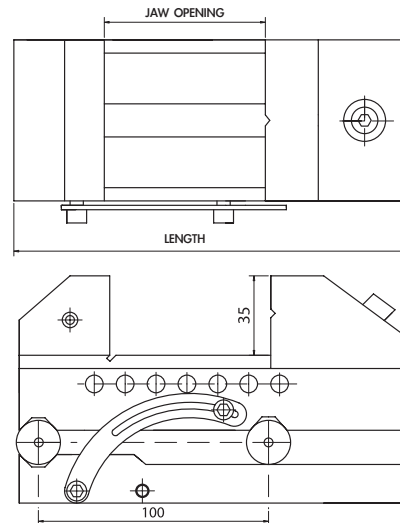
**Material Hardened:** SK2 HRC 56° - 58° Sub-zero processing.

**Parallelism:** Within 0.003 / 100 mm

**Squareness:** Within 0.005 / 100 mm

**Angle tolerance:** Within 15 sec Within 20 sec

\*Sine conversion table attached page B16



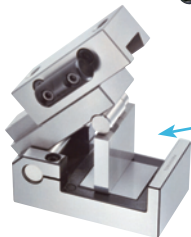
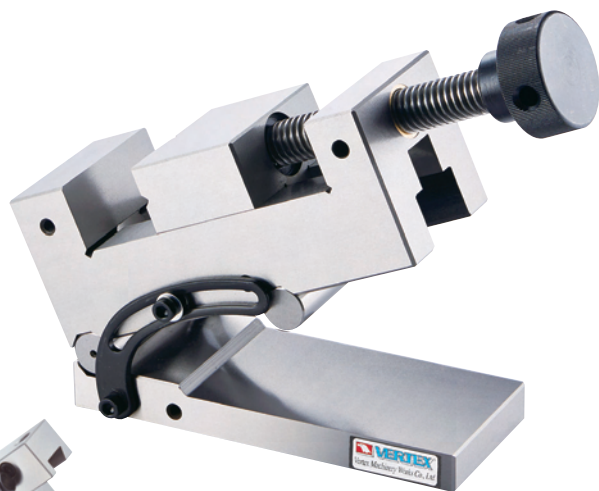
Unit:mm

## SPECIFICATION

ORDER NO.	MATERIAL	LENGTH	WIDTH	JAW OPENING	JAW HEIGHT	HEIGHT (mm)	ANGLE	HARDEN	N.W (KGS)	CODE. NO.
SVB-20	SK2	155	48	80	30	93.5	0°-46°	HRC56°-58°	4.4	2003-030
SVB-25	SK2	175	63	90	35	102.5	0°-46°	HRC56°-58°	6	2003-031
SVB-30	SK2	180	73	90	35	103.8	0°-46°	HRC56°-58°	6.9	2003-032



# Sine Vise



Height  
Gage Block  
PAGE B78

● Example

- Compound angles easily and quickly set.
- Adjustments up to 46 degrees.

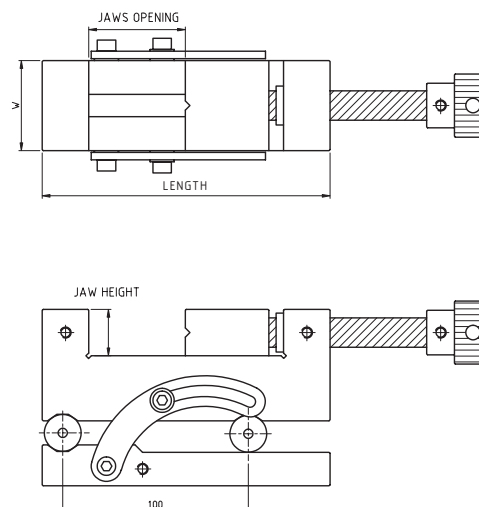
**Accuracy :**

**Material Hardened:** SK2 HRC 54° ± 2 Sub-zero processing.

**Parallelism:** Within 0.003 / 100 mm

**Squareness:** Within 0.005 / 100 mm

\*Sine conversion table attached page B16



Unit:mm

## SPECIFICATION

ORDER NO.	MATERIAL	LENGTH	WIDTH	JAW OPENING	JAW HEIGHT	HEIGHT (mm)	ANGLE	HARDEN	N.W (KGS)	CODE. NO.
SVD-200	SK2	155	48	60	25	94	0°-46°	HRC54°±2	4.6	2003-040
SVD-250	SK2	176	63	68	30	97.5	0°-46°	HRC54°±2	6.4	2003-041
SVD-300	SK2	180	73	72	30	103	0°-46°	HRC54°±2	8.4	2003-042



## Good Design With High Precision And Rigid

**Accuracy :**

**Material Hardened:** SKS2 HRC 60° Sub-zero processing.

**Parallelism:** Within 0.003 / 100 mm

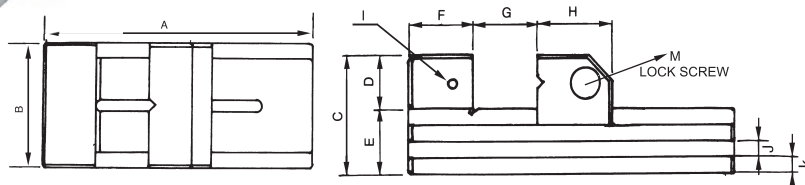
**Squareness:** Within 0.005 / 100 mm

**Angle tol:** Within 15 sec Within 20 sec

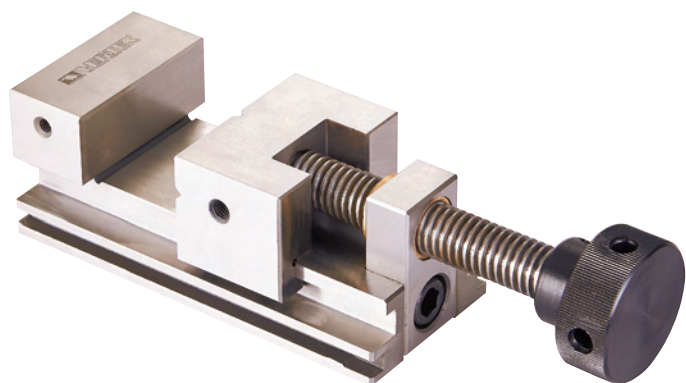
**Material:** SKS2

\*Sine conversion table attached page B16

### Fixed Down Jaw Designed



ORDER NO.	A	B	C	D	E	F	G	H	I	J	K	M	N.W (kgs)	CODE NO.
VC20	150	48	53	25	28	25	85	40	M6	8x5	8	M6x40L	1.6	2003-070
VC25	176	63	59	30	29	30	98	48	M6	8x5	8	M8x45L	2.8	2003-071
VC30	190	73	68	35	33	35	102	53	M6	8x6	10	M8x50L	4	2003-072
VC40	245	98	90	45	45	45	135	65	M8	12		M10x60L	9.02	2003-073



**Accuracy :**

**Material Hardened:** Sub-zero processing.

**Parallelism:** Within 0.003 / 100 mm

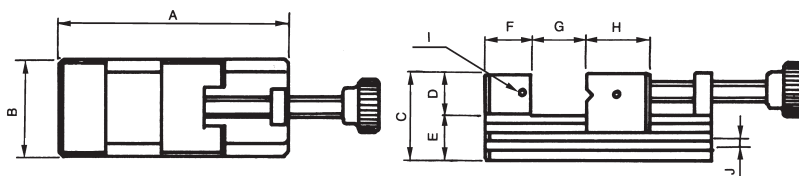
**Squareness:** Within 0.005 / 100 mm

**Angle tol:** Within 15 sec Within 20 sec

**Material:** SKS2

**Hardness:** HRC 54°±2°

\*Sine conversion table attached page B16



ORDER NO.	A	B	C	D	E	F	G	H	I	J	N.W (kgs)	CODE NO.
V-VE20	90	60	50	23	27	25	32	30	M5	6x6	1.62	2003-080
V-VE25	160	70	62	28	34	33	80	45	M6	7.5x7	4.02	2003-081
V-VE30	175	73	65	30	35	35	93	45	M6	7.5x7	4.7	2003-082

TOOL MAKER VISE

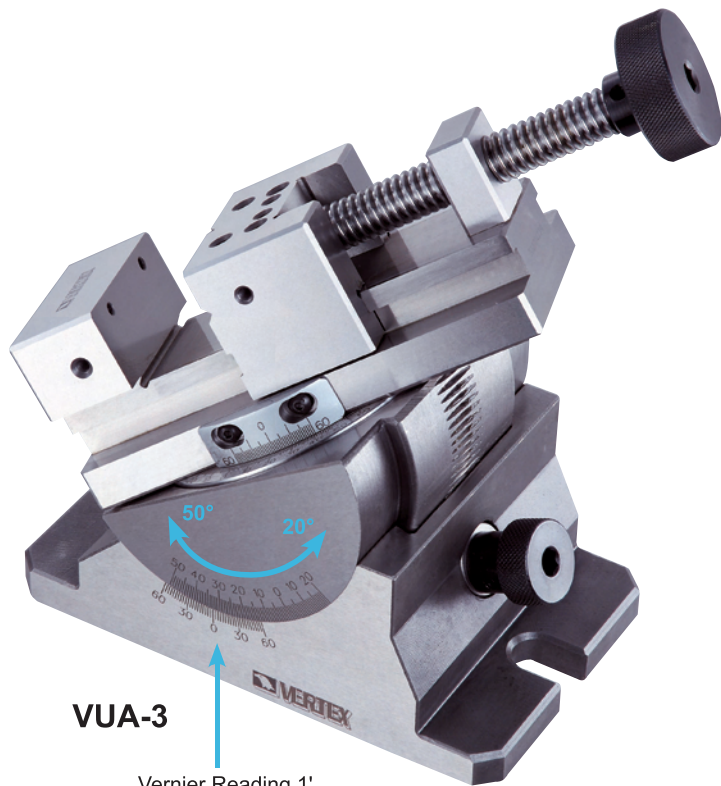


# Precision Universal Angle Vise



PAT.

**NEW**



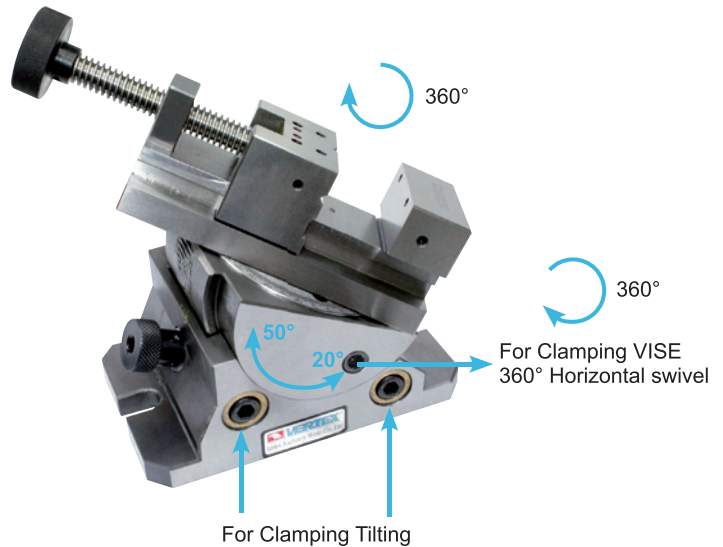
**VUA-3**

Vernier Reading 1'



**VUA-4**

MAX.HEIGHT  
VUA-3 220-280 mm  
VUA-4 252-332 mm  
WHEN VISE OPENING

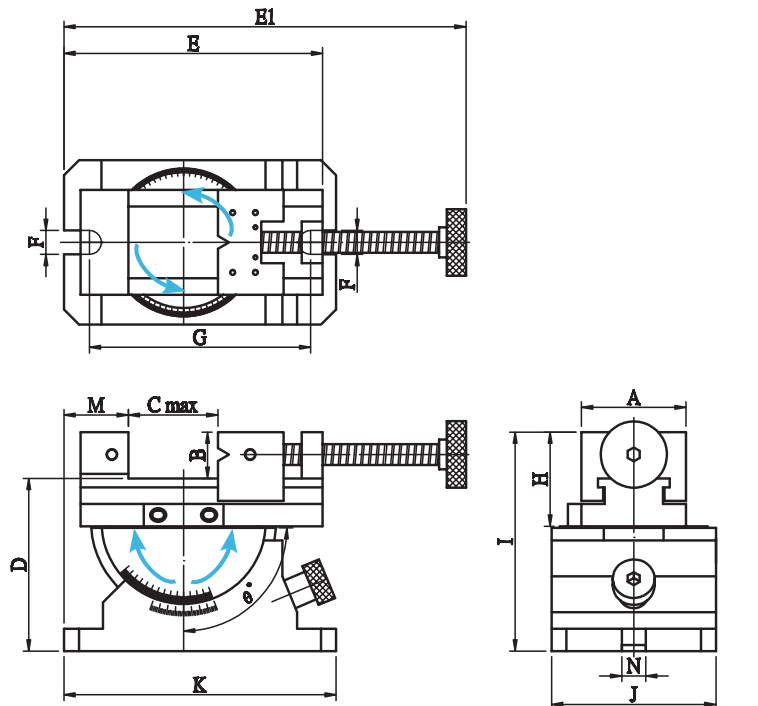


For Clamping Tilting

For Clamping VISE  
360° Horizontal swivel

## Features

- Precision graduation for accurate reading.
- Its swivelling and tilting features make this unit well suited for straight or inclined surface, angular drilling machining on various machine tools as precision grinding machine, boring and milling machine, electrical discharge machine etc.
- Tolerance  $\pm 0.01\text{mm}/100\text{mm}$ .
- Vise bottom to base parallelism  $\pm 0.02\text{ mm}$
- Squareness  $\pm 0.02$
- 360° Horizontal swivel
- 45° Vertical tilting
- Precision ground
- Material: VISE SK2
- Hardness: HRC  $52^{\circ}\pm 2^{\circ}$
- Load capacity : 15kgs



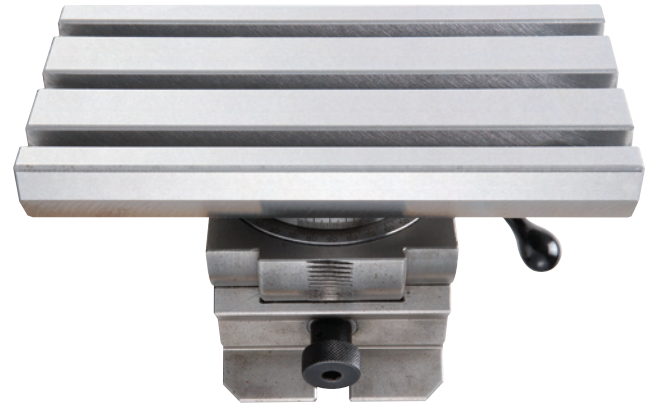
Unit:mm

ORDER NO.	A	B	C MAX	D	E	E1	F	G	H	I	J	K	M	N	$\theta$	G.W(KGS)	CODE.NO.
VUA-3	70	31	80	115	173	291	16	156	63	146	110	182	43	16	-20°~50°	12	2003-050
VUA-4	88	35	110	132	173	346	16	156	83	167	110	182	29	16	-20°~50°	15	2003-051





Vernier Reading 1'



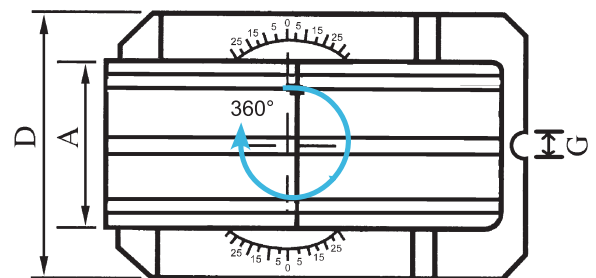
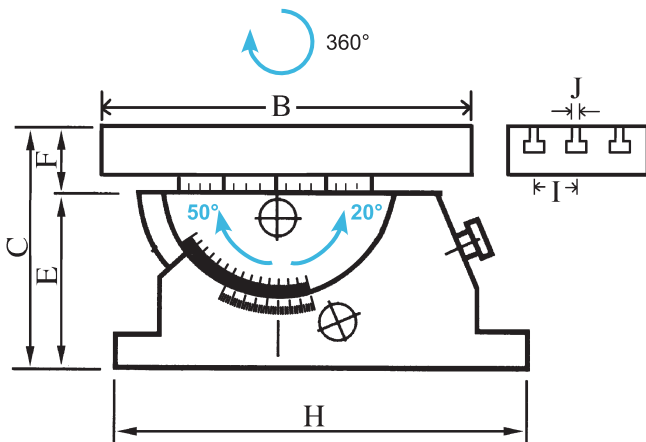
TOOL MAKER VISE

### Features

- Precision grounded.
- Rigid design.
- The table can swivel 360°, and tilts 45°
- It can put tool maker vise VMV-type VDV-type or 3 jaw chuck for clamping
- The graduation for accurate reading
- Vise bottom to base parallelism  $\pm 0.02$  mm
- Squareness  $\pm 0.02$
- Material: SK2
- Hardness: HRC  $52^{\circ} \pm 2^{\circ}$
- Load capacity : 15kgs



- Example For single purpose



Unit:mm

ORDER NO.	A	B	C	D	E	F	G	H	I	J	G.W (kgs)	CODE NO.
VUA-408	100	200	133	110	83	50	16	182	30	12	15	2003-055
VUA-510	126	250	133	110	83	50	16	182	40	12	18.1	2003-056





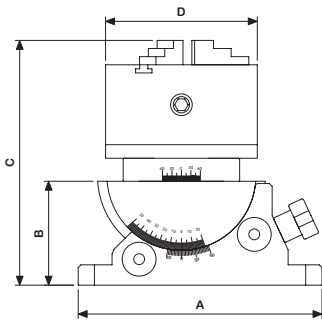
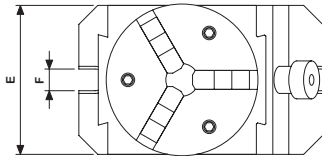
# Precision Universal Angle Chuck



**VERTEX**<sup>®</sup>  
With VSC-4 Chuck

**NEW**

PAT.



- Precision graduation for accurate reading.
- Its swivelling and tilting features with clamping make this unit well suited for straight or inclined surface, angular drilling machining on various machine tools.
- With VSC-4 3-Jaw chuck.
- O.D. clamping  $\varnothing 3-90$  mm,
- I.D. clamping  $\varnothing 32-84$  mm.
- Tolerance  $\pm 0.01\text{mm}/100\text{mm}$ .
- 2 axis with angle scale
- For angle setting
- Chuck indexing / Rotating setting
- Tilting Features same as VUA series, Page B13.
- Load capacity : 15kgs



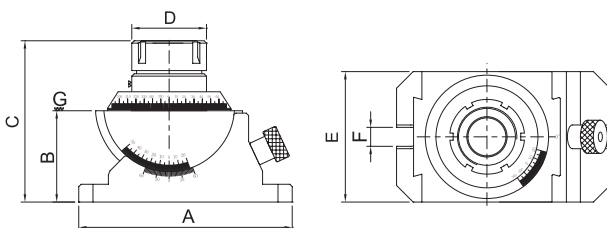
ORDER NO.	A	B	C	D	E	F	G.W (kgs)	CODE NO.
VUA-100J	180	77	181	112	110	16	14	2003-060



# Precision Universal Angle Collet Chuck

**NEW**

Capacity  $\varnothing 3-\varnothing 30$



- Precision graduation for accurate reading.
- Its swivelling and tilting features with clamping make this unit for straight or inclined surface, angular drilling machining on various machine tools.
- Tolerance  $\pm 0.01$  mm / 100 mm.
- 360° horizontal swivel, 45° vertical tilting.
- Suit for multi - angle cutting.
- Simple way for mass production.
- Hardness : HRC  $52^{\circ} \pm 2^{\circ}$
- Load capacity : 15kgs



**Standard Accessories:** With 15pcs ER-40 Collet (4, 5, 6, 8, 10, 12, 13, 15, 16, 18, 20, 21, 22, 25, 26)

ORDER NO.	A	B	C	D	E	F	G.W (kgs)	CODE NO.
VUA-ER40	180	77	136	63	110	16	17.48	2003-065

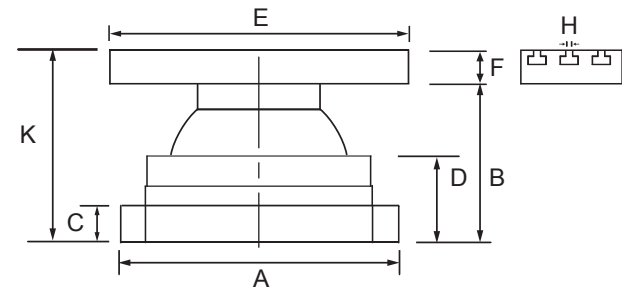
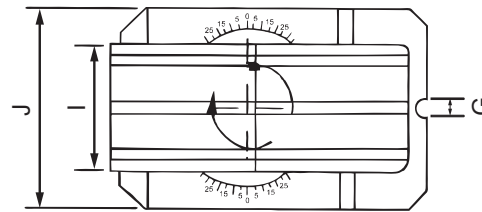
Optional collet ER-40- $\varnothing$  27, 28, 29, 30 mm



# Free Angle Table



**NEW**



FREE ANGLE TABLE

**Features:**

- Quick setting
- Operating is very quick and easy, can increase so much working efficiency than you can image.
- 360° Rotation, Tilting 30°
- For non-normal angle setting.
- Load capacity : 15 kgs
- Its swivelling and tilting features with chuck clamping make this unit for round & square, angular drilling machining on various machine tools or for bench work table.
- Plate is precisely ground.
- For clamping tool vise & many other way of clamping.

ORDER NO.	A	B	C	D	Table size		F	G	H	J	K	G.W (kgs)	CODE NO.
					E	I							
VAV-1020	190	120	20	72	200	100	34	17	12	140	153	15	2003-120
VAV-1325	190	120	20	72	250	126	34	17	12	140	153	17	2003-121



# Free Angle Rotary Chuck

**NEW**



- With VSC-4, VSC-5, 3-JAW Chuck.
- O.D. Clamping  $\varnothing$ 3-90 mm (VSC-4)
- O.D. Clamping  $\varnothing$ 3-110 mm (VSC-5)
- I.D. Clamping  $\varnothing$  32-84 mm (VSC-4)
- I.D. Clamping  $\varnothing$  35-100 mm (VSC-5)

**Features:**

- Quick setting
- Operating is very quick and easy, can increase so much working efficiency than you can image.
- 360° Rotation, Tilting 30°
- For non-normal angle setting.
- Its swivelling and tilting features with chuck clamping make this unit for round & square, angular drilling machining on various machine tools or for bench work table.
- Load capacity : 15 kgs

LIGHT DUTY

TILTING

ACCURACY GUARANTEE

0.01/100 MM 0.02/50

MECHANICAL

patent

**PAT.**

ORDER NO.	A	B	C	D	E	F	G	H	Weight (kgs)	CODE NO.
VAV-4J	140	120	20	190	72	158	17	203	16	1002-217
VAV-5J	140	120	20	190	72	158	17	203	17	1002-218

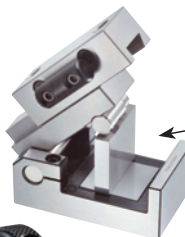


# Precision Sine Vise



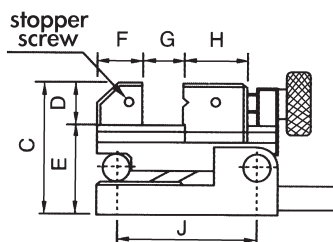
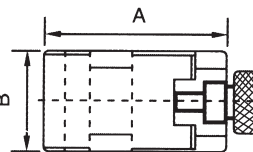
HARDENESS HRC 60°, SKS3  
 PARALLELISM 0.003 / 100 mm  
 SQUARENESS 0.005 / 100 mm

THE CLAMP HANDLE IS PLACED UNDER WORK PIECE.



Height  
 Gage Block  
 PAGE B78

● Example



Unit:mm

A	130
B	70
C	93
D	30
E	63
F	33
G	45
H	45
I	M5
J	100
Max.angle	46°
Weight(kgs)	5.5

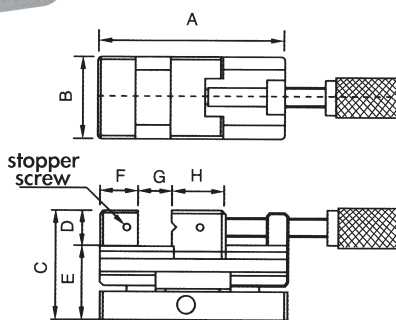
ORDER NO.	CODE NO.
SVC-100	2003-090



# Precision Sine Vise



HARDENESS HRC 60°, SKS3  
 PARALLELISM 0.003 / 100 mm  
 SQUARENESS 0.005 / 100 mm



SIN BAR CENTER 50 mm

Unit:mm

A	160
B	73
C	93
D	30
E	63
F	33
G	80
H	45
I	M5
Max.angle	46°
Weight(kgs)	6.6

ORDER NO.	CODE NO.
SVL-50	2003-100

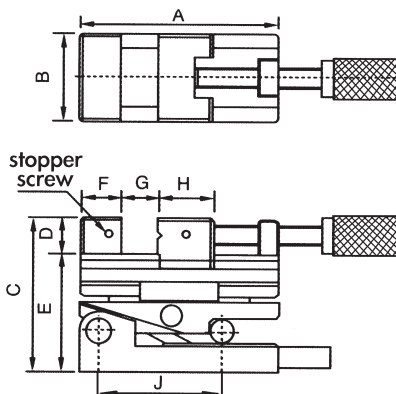


# Two Way Vise

2 WAYS



HARDENESS HRC 60°, SKS3  
 PARALLELISM 0.003 / 100 mm  
 SQUARENESS 0.005 / 100 mm



Unit:mm

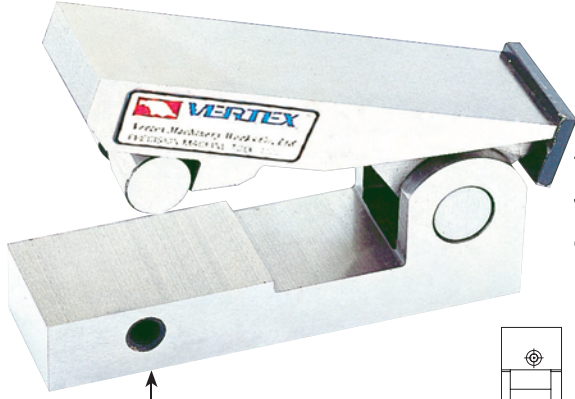
A	160
B	73
C	124
D	30
E	94
F	33
G	80
H	45
I	M5
J	100
Max.angle	46°
Weight(kgs)	8.3

ORDER NO.	CODE NO.
SVS-100	2003-110



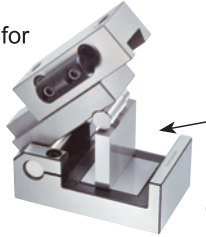


# Sine Bar With Magnetic



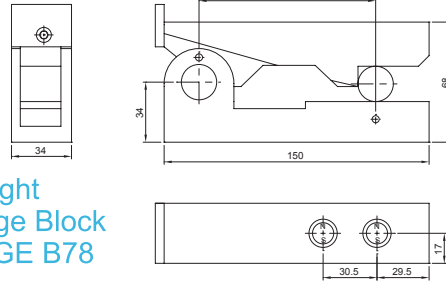
There is magnet in the bottom which can be run on any kind of machine for testing angle use.

The thread can for stopper screw



Height Gage Block PAGE B78

● Example

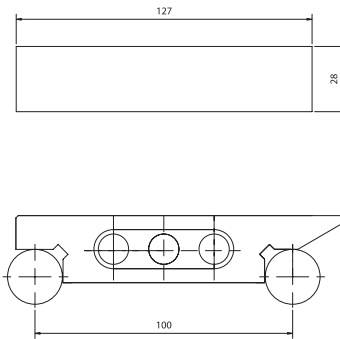
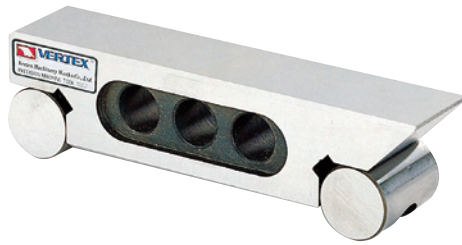


Unit:mm

ORDER NO.	SQUARNESS	ACCURACY	PARALLELISM	HARDNESS	MATERIAL	N.W. (kgs)	CODE NO.
V-S50M	0.005mm /100mm	± 0.002	0.002mm/100mm	HRC50°	SK-3	0.34	2004-001
V-S100M	0.005mm /100mm	± 0.002	0.002mm/100mm	HRC50°	SK-3	2.06	2004-002



# Sine Bar



Unit:mm

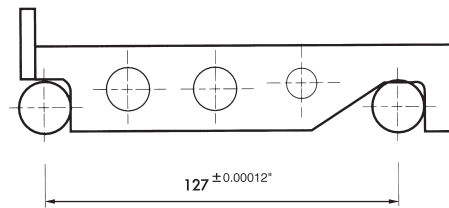
ORDER NO.	LENGTH	WIDTH	HEIGHT	CENTER DISTANCE	PARALLEL	HARDEN	BLOCKS DIA.	MATERIAL	N.W (kgs)	CODE NO.
VS-100	127	28	35	0.005	0.005/100mm	HRC50°	Ø20mm	SK-3	0.76	2004-010



# Sine Bar-Inch



Change of the sine angle must be count on sine bar inspection, the bar's tolerance within 0.005 mm / 100 mm



Unit:inch

ORDER NO.	LENGTH	WIDTH	HEIGHT	CENTER DISTANCE	PARALLEL	HARDEN	BLOCKS DIA.	MATERIAL	N.W (kgs)	CODE NO.
V-S25	6-3/8"	1"	1-1/4"	127	0.00012"	HRC52°	3/4"	SK2	1	2004-020
V-S50	6-3/8"	2"	1-1/4"	127	0.00012"	HRC52°	3/4"	SK2	1.8	2004-021

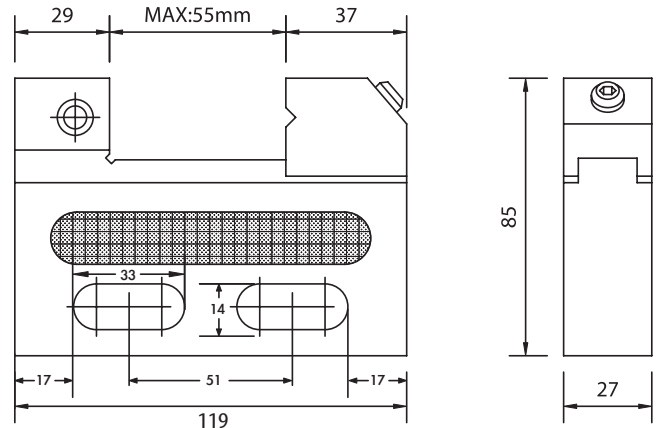
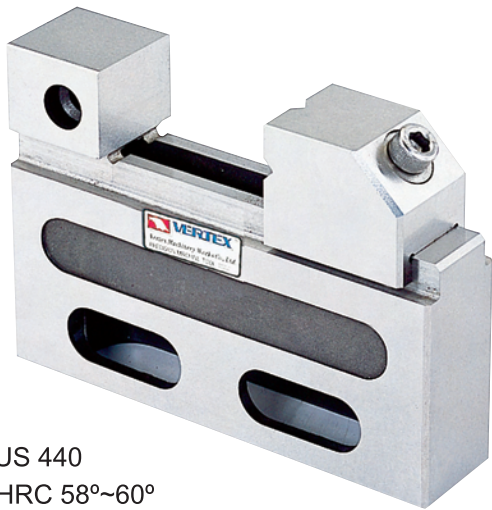
## HOW TO CHOOSE THE BLOCK FOR SINE BAR

DISTANCE GAUGE BLOCK CAN GET DEGREE HEIGHT	SIN BAR CENTER	SIN BAR CENTER
	←50→	←100→
2°	1.7405	3.4899
3°	2.6168	5.2336
4°	3.4878	6.9756
5°	4.3578	8.7155
6°	5.2264	10.4528
7°	6.0935	12.1869
8°	6.9587	13.9173
9°	7.8217	15.6434
10°	8.6824	17.3648
11°	9.5404	19.0809
12°	10.3956	20.7911
13°	11.2476	22.4951
14°	12.0961	24.1921
15°	12.9401	25.8819
16°	13.7819	27.5637
17°	14.6186	29.2371
18°	15.4058	30.9017
19°	16.2784	32.5586
20°	17.1010	34.2020
21°	17.9184	35.8367
22°	18.7303	37.4606
23°	19.5366	39.0713
24°	20.3368	40.6736
25°	21.1309	42.2618
26°	21.9186	43.8371
27°	22.6995	45.3990
28°	23.4736	46.9471
29°	24.2405	48.4809
30°	25.0000	50.0000
31°	25.7519	51.5038
32°	26.4960	52.9919
33°	27.2320	54.4639
34°	27.9596	55.9192
35°	28.6788	57.3576
36°	29.3893	58.7785
37°	30.0908	60.1815
38°	30.7831	61.5661
39°	31.4660	62.9320
40°	32.1394	64.2787
41°	32.8030	65.6059
42°	33.4565	66.9130
43°	34.0999	68.1998
44°	34.7329	69.4658
45°	35.3553	70.7106

SINE BAR



# EDM Tool Marker Vise (STAINLESS)



Material: SUS 440  
 Hardness: HRC 58°~60°  
 Squareness: Within 0.005 mm

This vise is for wire cutter use. Each of the parts was manufactured by stainless steel and with the appliance of high erosion resisting.

※ Not 100% magnetic proof ● Do not over lock.

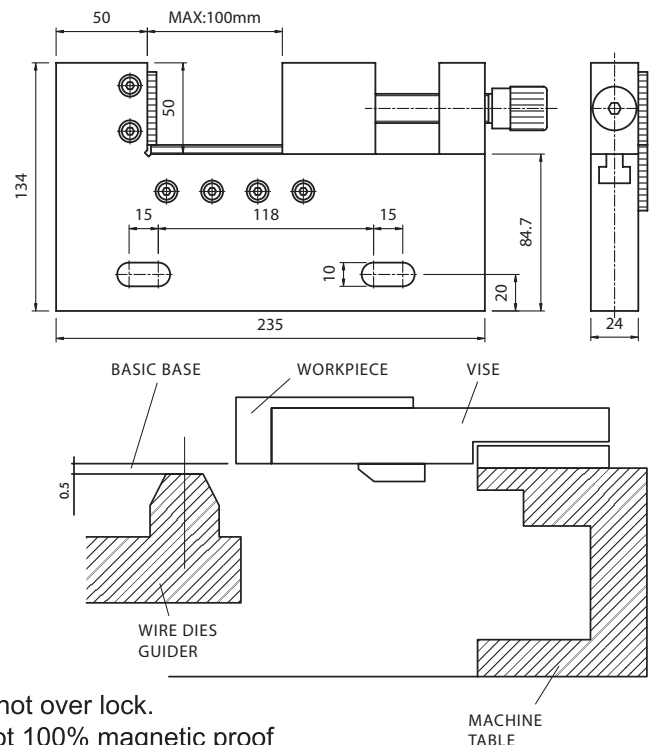
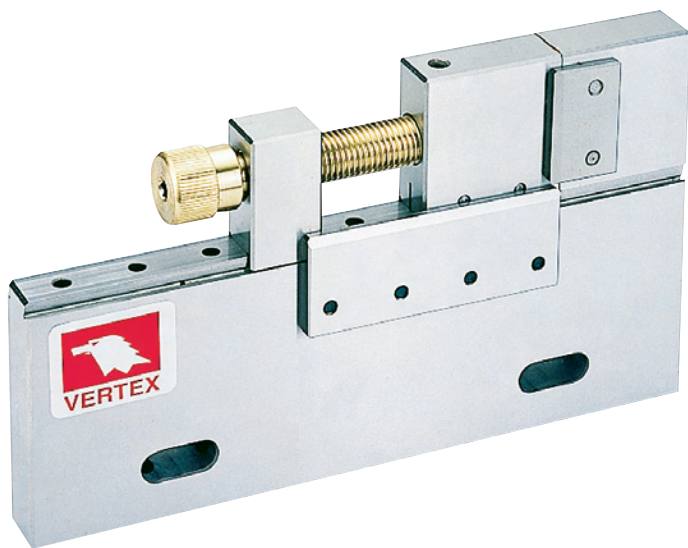
<b>PARALLELISM</b>	±0.002 mm / 100 mm
<b>SQUARENESS</b>	±0.002 mm / 100 mm

<b>MAX.OPENING</b>	55 mm
<b>THICKNESS</b>	27 mm
<b>JAW DEEP</b>	25 mm
<b>N.W</b>	1.01 kgs
<b>MATERIAL</b>	SUS 440
<b>HARDNESS</b>	HRC 54°±2°

ORDER NO.	WEIGHT (kgs)	CODE NO.
VSTV-50W	1.4	2008-040



# EDM Tool Maker Vise (STAINLESS)



● Do not over lock.  
 ※ Not 100% magnetic proof

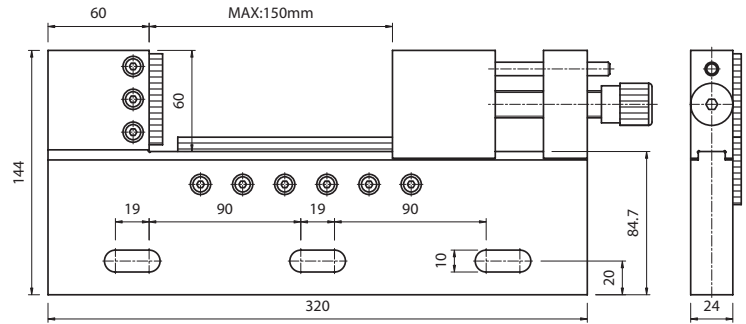
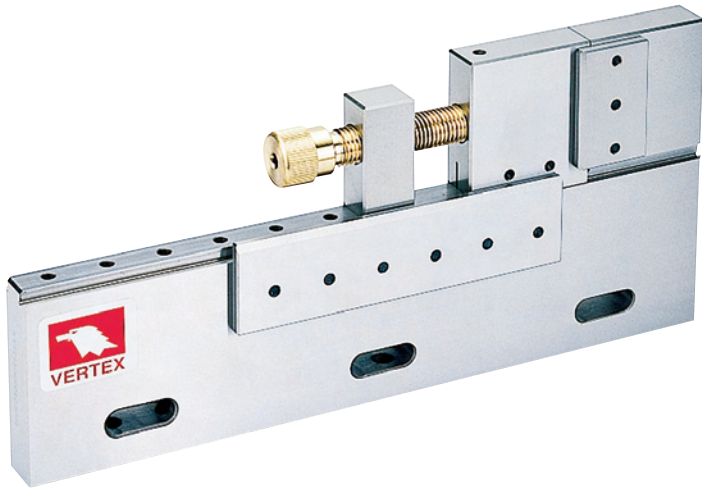
<b>PARALLELISM</b>	±0.002 mm / 100 mm
<b>SQUARENESS</b>	±0.002 mm / 100 mm

<b>MAX.OPENING</b>	100 mm
<b>THICKNESS</b>	24 mm
<b>JAW DEEP</b>	50 mm
<b>N.W</b>	4.88 kgs
<b>MATERIAL</b>	SUS420
<b>HARDNESS</b>	HRC 54°±2°

ORDER NO.	WEIGHT (kgs)	CODE NO.
VSTV-100W	4.88	2008-050



# EDM Tool Marker Vise (STAINLESS)



- Do not over lock.
- ※ Not 100% magnetic proof

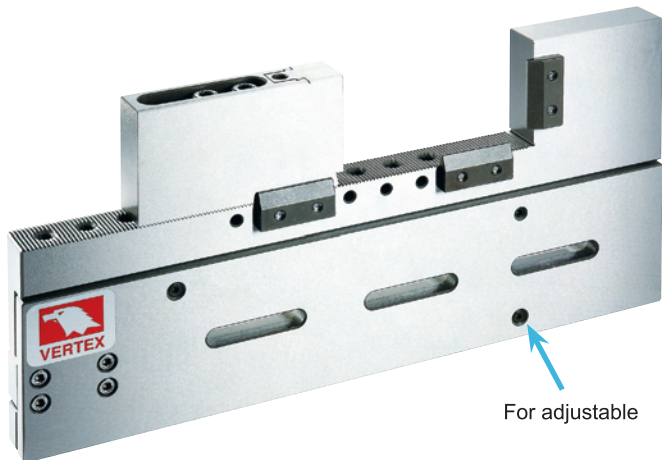
EDM TOOL MARKER VISE

<b>PARALLELISM</b>	±0.002 mm / 100 mm	
<b>SQUARENESS</b>	±0.002 mm / 100 mm	
<b>ORDER NO.</b>	<b>WEIGHT (kgs)</b>	<b>CODE NO.</b>
VSTV-150W	6.75	2008-060

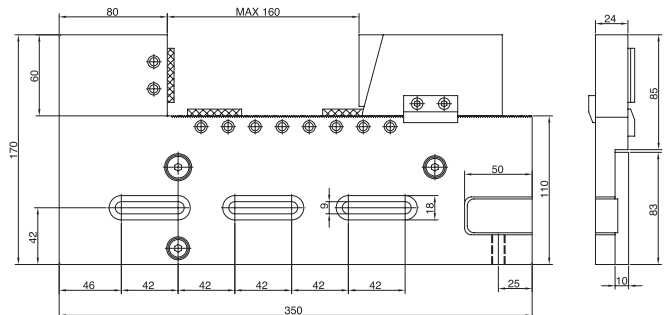
<b>MAX.OPENING</b>	150 mm
<b>THICKNESS</b>	24 mm
<b>JAW DEEP</b>	60 mm
<b>N.W</b>	6.75 kgs
<b>MATERIAL</b>	SUS420
<b>HARDNESS</b>	HRC 54°±2°



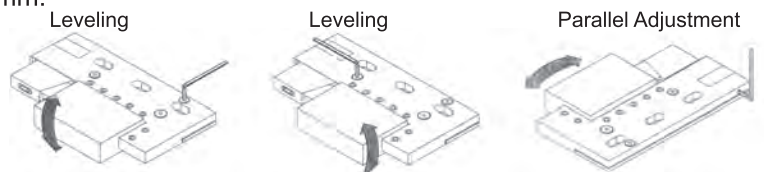
# EDM Tool Maker Vise (STAINLESS)



- Over lock may break vise.
- ※ Not 100% magnetic proof



- Parallelism: 0.003 / 100 mm, Squareness: 0.005 / 100 mm.
- Hardness: up to HRC 45°~55°.
- The vise can be adjusted up and down, left and right, forth and back to set parallelism.
- High water pressure resistance.



<b>PARALLELISM</b>	±0.003 mm / 100 mm	
<b>SQUARENESS</b>	±0.005 mm / 100 mm	
<b>ORDER NO.</b>	<b>WEIGHT (kgs)</b>	<b>CODE NO.</b>
VSTV-320W	8	2008-090

<b>MAX.OPENING</b>	160 mm
<b>THICKNESS</b>	24 mm
<b>JAW DEEP</b>	60 mm
<b>N.W</b>	8 kgs
<b>MATERIAL</b>	STAVAX
<b>HARDNESS</b>	HRC 52°±2°