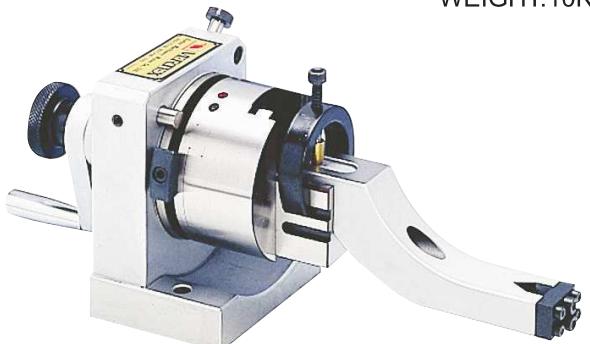




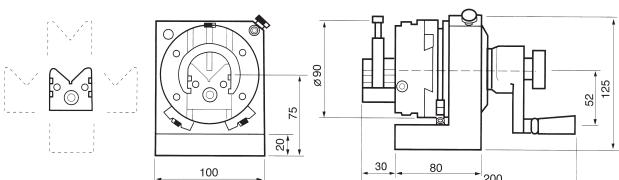
Punch Former

ORDER NO.V-PB CODE NO.2001-001

WEIGHT:10KGS



V-PB 2WAY
V-PS 1WAY, THROUGH HOLE



ORDER NO.V-PS CODE NO.2001-101

WEIGHT:8.7KGS



V-PS can pass through from itself to the center of grip, in case of facing a more longer punch ejector pin, it can go deep into of the grip position directly. To assemble an ARM with the main body, any combination of radial form of the grinding wheel may be dressed accurately by easy operation.

- Punch former is the fixture to grind the point of standard punches and E.D.M. electrodes for precise and fast operation.

- Besides the round, radius and multiangle punches, any special forms can be ground precisely.

- By using this attachment, it can be ground either concave or convex radius shape.

- The capacity is from 4mm to 30mm.

Punch Former is the great dressing instrument.

Precision forming of grinding wheel can be done by assembling an ARM with the main body. Any combination of tangents or radial form of the grinding wheel may be dressed accurately by easy operation.

- Max. diameter of grinding wheel within 200m/m can be dressed accurately and safely. The height from base to roller's center is 80m/m. Movement of each side can reach 12.5m/m while aiming at the center of V block. The main body is made of one piece steel construction.

Specification

D(diameter)of the pressed part of the punch...4-30mm

L(length)of the pressed part of the punch...above22mm

Upper and lower movement span of V block.....25mm

Horizontal movement span of V block(one side)..12.5mm

(tow side)...25mm

Length of V block30mm

Height of the rotary central axis.....15mm

Cutting and dividing.....24 equal pieces(15")

Sand forming of the forming lever

(concave R).....100mmR

(convex R).....48mmR

Diamond sharpening knife

(small diameter)60x50(1/10carat)

(large diameter)100x50(1/4carat)

*Except for the handle and graduation scale all metal is special hard tool steel (SKS-2) heat treated at HRC 63

*V block can be disassembled for use separately.

V-PS the center through hole is ø30m/m

SPECIAL PART ACCESSOR FOR ANGULAR DRESSING

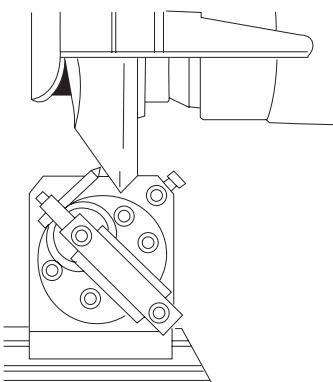
ORDER NO.V-PF

CODE NO.2001-020

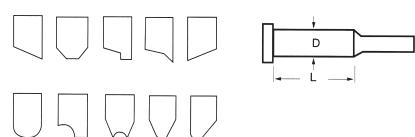
WEIGHT:0.7KG



Without Diamond



Appliycation style:

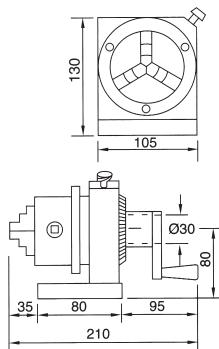


The Wheel angular dressing



3-Jaws Punch Former

ORDER NO.V-PS-80J CODE NO:2001-030

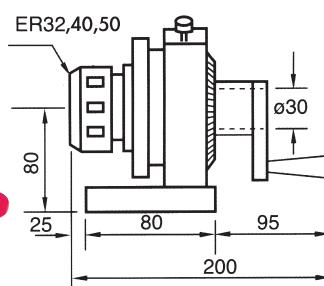
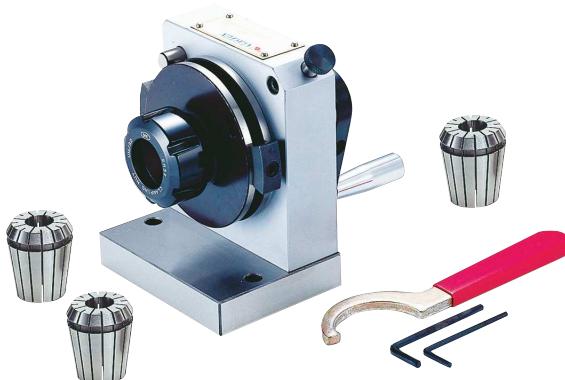


- The center of 3 jaws punch grinder can move gently to fix and to help the concentricity more precision.
- This punch grinder can divide into 24 angles, each angle is 15 degrees at 10 seconds accuracy, the weight is 8.7kgs.
- This style base can be selected to set up with sine plate to make sine angles. The sine plate also can be used with other Machines.
- The base can be adjusted for sine angle. (ORDER NO.V-PS-80JS)



ER Collet Dividing Punch Former

ORDER NO.V-PS-ER32 CODE NO.2001-040
ORDER NO.V-PS-ER40 CODE NO.2001-041
ORDER NO.V-PS-ER50 CODE NO.2001-042



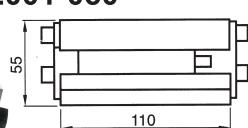
- ER Collet Dividing Punch Grinder put ER32 main body and with collet inner size 6, 8, 10, 12, 16, 20mm, total 6pcs. the weight is 11kgs. ER40 with 7pcs, ER50 with 6pcs collet. (ER50 collet size 12, 16, 20, 26, 30, 32mm)
- The center of collet can move gently to help the concentricity more precision.
- This punch grinder can divide into 24° angles, each angle is 15 degrees at ±10 seconds accuracy.
- ER16 connection, special accessory(v-601 20-ER16-50L WITH 10PCS COLLET) can use
ER 16 base can select sine vise base which is good for sine angle use
(ORDER NO.V-PS-ER32S) .



Sine Plate For All Type

Punch Former

ORDER NO.V-PS-SP WEIGHT:3.6kgs
CODE NO.2001-050



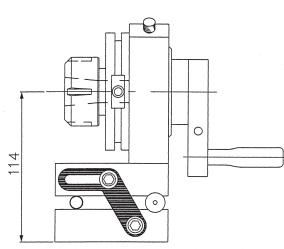
IT'S FIT WITH VERTEX'S V-PB
V-PS. V-PS-ER-32. V-PS-80J



ER Collet Dividing Punch

Grinder With Sine Plate

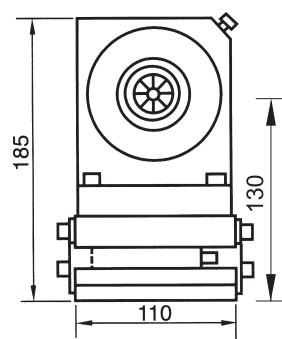
ORDER NO.V-PS-ER50S WEIGHT:10kgs
CODE NO.2001-061



ER Collet Dividing Punch

Grinder With Sine Plate

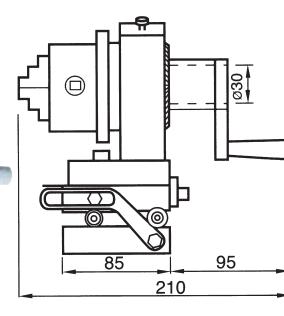
ORDER NO.V-PS-ER32S WEIGHT:11kgs
CODE NO.2001-060



3-Jaws Punch Former

With Sine Plate

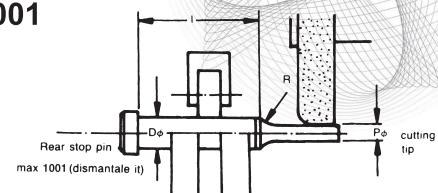
ORDER NO.V-PS-80JS WEIGHT:11.7kgs
CODE NO.2001-070



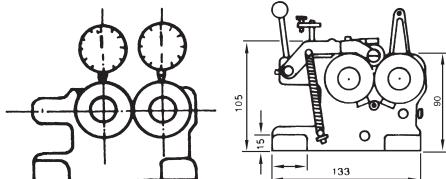


**ORDER NO.V-PGS CODE NO.2002-001
MINI-TYPE
PUNCH GRINDER Ø1.5-3mm**

This is a mini type punch grinder which can grind fine punch of outside diameter from 1.5mm to 3mm.N.W.4.5kgs



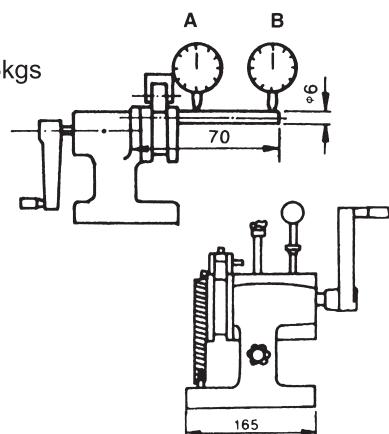
Accuracy of point A within 0.005m/m and point B Within 0.008m/m while turning.



**ORDER NO.V-PG CODE NO.2002-010
STANDARD- TYPE Ø1.5-Ø25 WEIGHT: 6.6kgs**

Punch grinder is a tool which can be put on the surface grinding machine for round punches(1.5mm-25mm).It can be ground by putting among three rollers of punch grinder. without checking the center.

Accuracy of roller within 0.005mm while turning right or left. It can allow lenght 5-35m/m



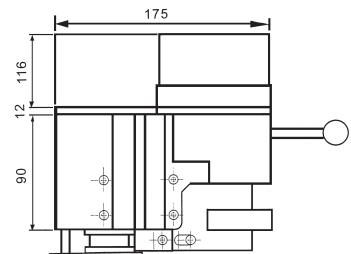
Accuracy of point A within 0.005m/m and point B Within 0.008m/m while turning.



**ORDER NO.V-PGM CODE NO.2002-020
WITH MOTOR TYPE Ø1.5-Ø25
WEIGHT: 11.8kgs**

Features

- 1.High accuracy cylindrical grinding work possible just by putting this economical unit on surface grinder.
- 2.No center alignment necessary.just put work on rollers.
- 3.Portable with single hand, thus easily set on grinding.
- 4.With rollers motor -driven attention can be concentrated on table/wheel feeds.
- 5.Work can be formed in radius taper as well
- 6.Double roller unit available for long pin or punch grinding.



V-PGM

FEATURES

Mounting surface(RLxFB).....	175X218X90mm
50Hz/220v.....	108rpm
Roller speed 60Hz/110v.....	129rpm
Accuracy(Roundness and concentricity).....	25.4mm
Roller driving motor 110v, Single phase, 25W	
(Specifications are subject to change without notice.)	



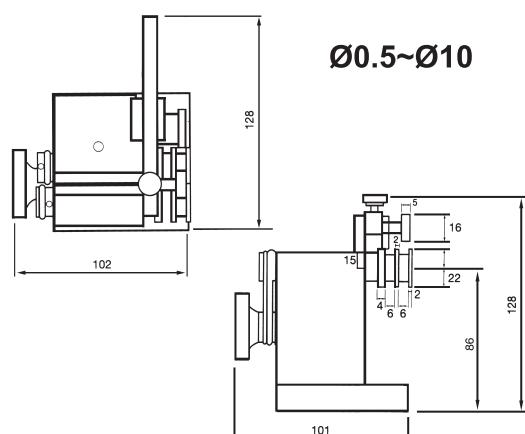
Punch Grinder

ORDER NO:V-PGA CODE NO.2002-030

WEIGHT:3.1kgs



1. The small punch grinder can process from dia 0.5mm to 6mm. If the length of workpiece is about 10mm which can be grind.
This punch grinder can work with surface grinding machine and to grinding any sizes.
2. Easy operation and high precision make it to be the best grindig tool for small workpiece.



Ø0.5~Ø10

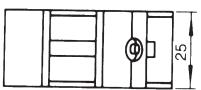
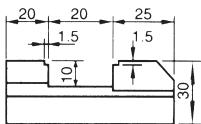
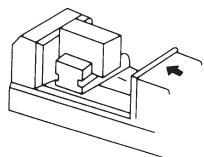


Mine Tool Maker Vise

ORDER NO.VMV-10 CODE NO.2003-001



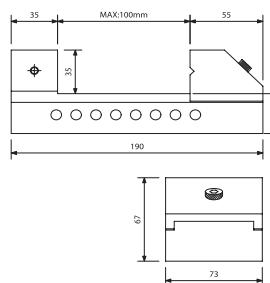
WEIGHT:0.3kg



Tool makers vise of mini type which can be put in a bigger vise to process the small and precise workpiece. Also it can be used in an E.D.M. machine and grinding machine.
Squareness and parallelism: within 0.003mm.



Tool Maker Vise



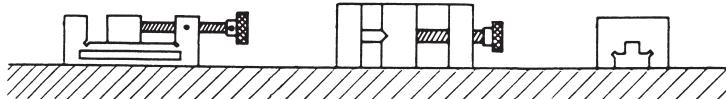
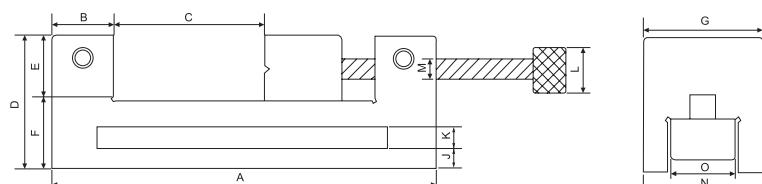
- Made of SK material of J.I.S. specification.
- Hardened by heat treatment and precision ground.
- Squareness and parallelism are ensured to be within $\pm 0.005\text{mm}$.
- It can be used and kept its high precision while standing on its base, sides or extremity, for inspection use instead of squares due to its extremely accuracy.

Unit:mm

ORDER NO.	MATERIAL	LENGTH	WIDTH	JAW OPENING	JAW HEIGHT	HEIGHT (mm)	<i>h</i>	HARDEN	N.W (KGS)	CODE NO
VMV-15	SK2	100	36	40	20	45	25	HRC54° $\pm 2^\circ$	0.9	2003-010
VMV-20	SK2	150	48	75	29.5	57	28	HRC54° $\pm 2^\circ$	2	2003-011
VMV-25	SK2	170	63	90	35	62	28	HRC54° $\pm 2^\circ$	3.3	2003-012
VMV-30	SK2	190	73	100	35	67	32	HRC54° $\pm 2^\circ$	4.5	2003-013
VMV-35	SK2	225	88	125	45	84.5	40	HRC54° $\pm 2^\circ$	7	2003-014
VMV-40	SK2	230	98	125	45	85	40	HRC54° $\pm 2^\circ$	8.9	2003-015
VMV-50	SK2	287	125	150	50	100	50	HRC54° $\pm 2^\circ$	15.5	2003-016
VMV-60	S50C	330	150	200	50	100.5	50	HRC54° $\pm 2^\circ$	21.4	2003-017

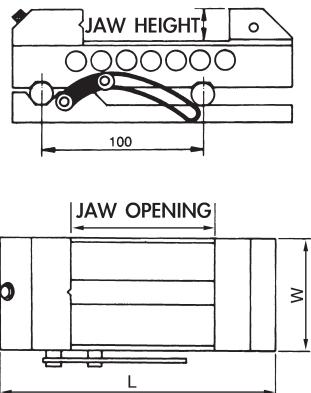


Tool Maker Vise



TOLERANCE $\pm 0.004\text{mm}$, $\pm 0.005\text{mm}$

ORDER NO.	MATERIAL	A LENGTH	JAW B HEIGHT	JAW C OPENING	D WIDTH	E	F	G	H	I	J	K	L	M	N	O	HEIGHT (mm)	HARDEN	WEIGHT (KGS)	CODE NO.
VDV-20	SK2	155	25	60	54	29	25	48	45	25	9.50	10.15	34.70	15.80	48	11.60	54	HRC54° $\pm 2^\circ$	2.5	2003-020
VDV-25	SK2	176	25	75	60	30	30	63	44.80	25	10	10.90	39.60	15.75	63.10	28.15	60	HRC54° $\pm 2^\circ$	3.9	2003-021
VDV-30	SK2	181	30	74	70	40	30	73	51.85	25	14	12.35	50.35	18.95	73	26	70	HRC54° $\pm 2^\circ$	5.7	2003-022
VDV-35	SK2	250	35	125	73	35	38	88	55.40	35.55	10.80	11.60	54.85	25.35	88.45	30.20	73	HRC54° $\pm 2^\circ$	9.2	2003-023
VDV-40	SK2	250	35	125	73	35	38	98	55	34.75	11.80	11.55	54.65	25.35	98.60	29.60	73	HRC54° $\pm 2^\circ$	10.1	2003-024



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

Accuracy

Material Hardened: SKS HRC60° Sub-zero processing.

Parallelism: Within 0.003/100mm

Squareness: Within 0.005/100mm

Model: V.VC.L CSV

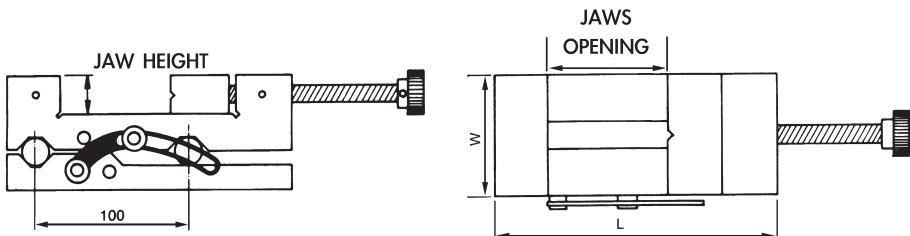
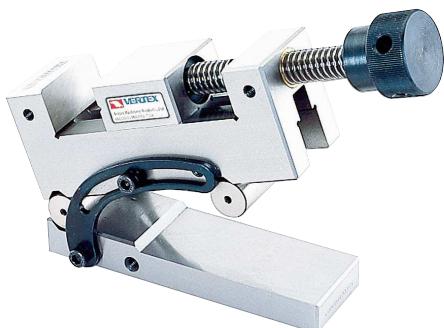
Angle tol: Within 15sec Within 20sec

*Since conversion table attached

SPECIFICATION

ORDER NO.	MATERIAL	LENGTH	WIDTH	JAW OPENING	JAW HEIGHT	HEIGHT (mm)	ANGLE	HARDEN	N.W (KGS)	CODE. NO.	Unit:mm
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



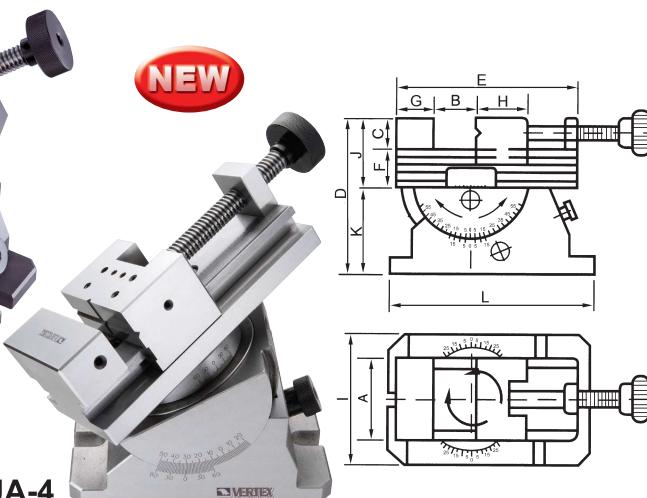
SPECIFICATION

ORDER NO.	MATERIAL	LENGTH	WIDTH	JAW OPENING	JAW HEIGHT	HEIGHT (mm)	ANGLE	HARDEN	N.W (KGS)	CODE. NO.	Unit:mm
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	

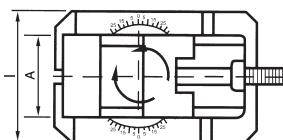
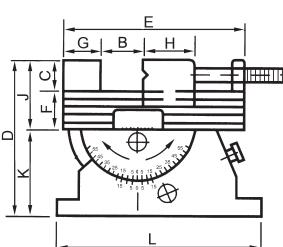
Precision Universal Angle Vise



VUA-3



VUA-4



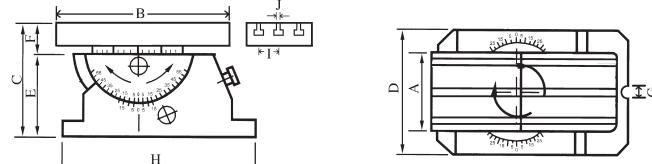
- Precision graduation for accurate reading.
- Its swivelling and tilting features make this unit well suited for straight or inclined surface, angular drilling machining on various machine tools as precision grinding machine, boring and milling machine, electrical discharge machine etc.
- Tolerance $\pm 0.01\text{mm}/100\text{mm}$.
- Vise bottom to base parallelism $\pm 0.02\text{mm}$
- Squareness ± 0.02
- 360° Horizontal swivel
- 45° Vertical tilting
- Precision ground
- Material: SK-2
- Hardness: HRC52° $\pm 2^\circ$

ORDER NO.	A	B	C	D	E	F	G	H	I	J	K	L	N.W(KGS)	CODE.NO.
VUA-3	70	85	30	146	162	32	32	45	110	63	83	182	14.6	2003-050
VUA-4	88	108	35	166	200	32	36	56	110	67	99	182	17.8	2003-051

Precision Universal Angle Plate



- Precision ground.
- 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



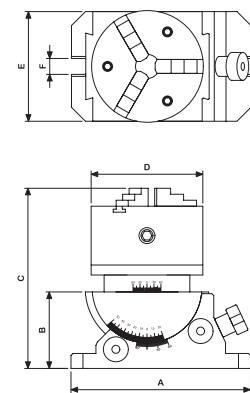
ORDER NO.	A	B	C	D	E	F	G	H	I	J	G.W (kgs)	CODE NO.
VUA-408	100	200	125	110	82	50	16	182	30	12	15	2003-055
VUA-510	126	250	125	110	82	50	16	182	40	12	18.1	2003-056

Precision Universal Angle Chuck



- 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.
- With VSC-4 3-Jaw chuck.
- O.D. clamping Ø3-90 mm,
- I.D. clamping Ø32-84 mm.
- Tolerance ±0.01mm/100mm.
- 2 axis with angle scale
- For angle setting
- Chuck indexing / Rotating setting
- Tilting Features same as VUA series, Page B5.

With VSC-4 Chuck

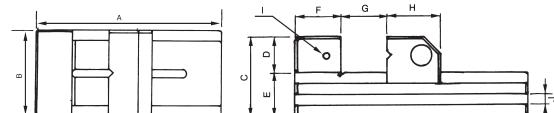


ORDER NO.	A	B	C	D	E	F	G.W (kgs)	CODE NO.
VUA-100J	180	77	181	112	110	16	14	2003-060

Tool Makers Vise

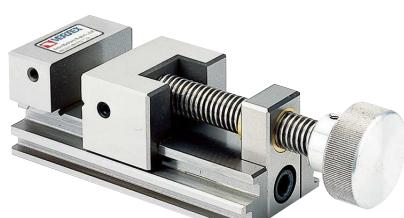


- Material:SKS2
- Hardness:HRC 58°-60°
- Squareness:Within 0.005m/m

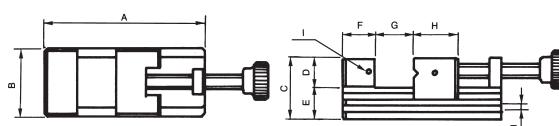


ORDER NO.	A	B	C	D	E	F	G	H	I	J	N.W (kgs)	CODE NO.
VC20	135	48	42	20	22	23	62	40	M6	5x7	1.3	2003-070
VC25	160	70	62	30	32	33	80	45	M6	8x7	3.6	2003-071
VC30	175	73	65	32	33	35	95	45	M6	8X7	4	2003-072

Tool Makers Vise



- Material:SKS2
- Hardness:HRC 58°-60°
- Squareness:Within 0.005m/m

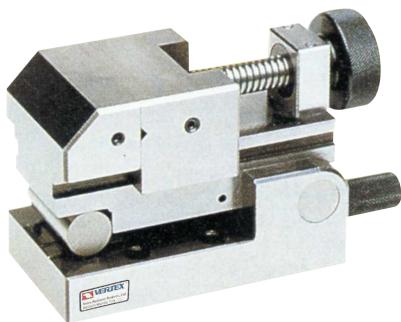


ORDER NO.	A	B	C	D	E	F	G	H	I	J	N.W (kgs)	CODE NO.
V-VE20	90	60	50	25	25	25	32	32	M5	6x6	2	2003-080
V-VE25	160	70	62	30	32	33	80	45	M6	8x7	4.7	2003-081
V-VE30	175	73	65	32	33	35	95	45	M6	8X7	5.4	2003-082



Precision Sine Vise

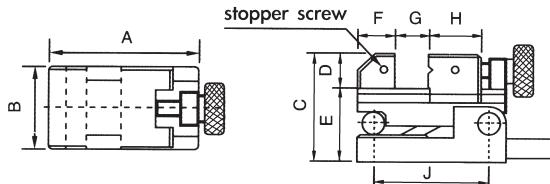
ORDER NO.SVC-100 CODE NO.2003-090



HARDENESS HRC 60°, SKS3

PARALLELISM 0.003/100mm

SQUARENESS 0.005/100mm



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

THE CLAMP HANDLE IS PLACED
UNDER WORK PIECE.



Precision Sine Vise

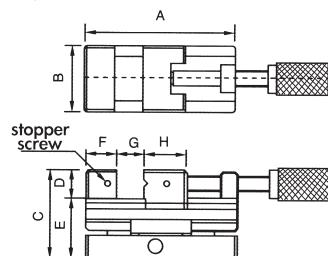
ORDER NO.SVL-50 CODE NO.2003-100



HARDENESS HRC 60°, SKS3

PARALLELISM 0.003/100mm

SQUARENESS 0.005/100mm



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

HORIZONTAL WAY



Two Way Vise

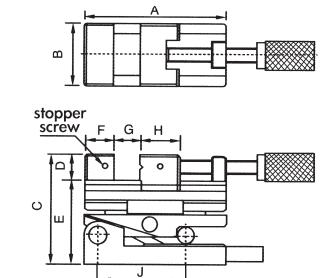
ORDER NO.SVS-100 CODE NO.2003-110



HARDENESS HRC 60°, SKS3

PARALLELISM 0.003/100mm

SQUARENESS 0.005/100mm



2 WAYS

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

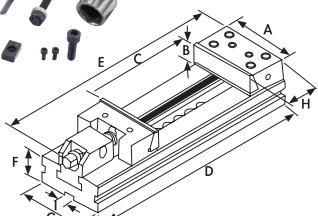
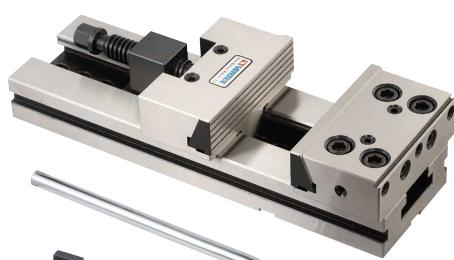


Modular Precision Machine Vise

FEATURES

- High Accuracy
- Unlimited Clamping Range
- High Quality Alloy Steel
- High Clamping Pressure
- EACH ONE IS SAME AS HEIGHT.

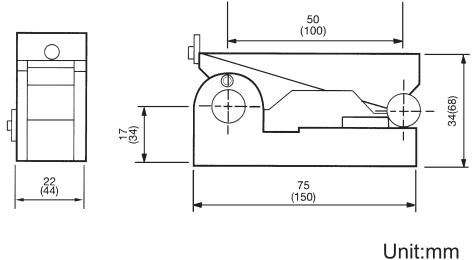
- CAN BE USED IN MULTIPLE STYLE
- No'Length of Height Limitation
- NO jaw Life
- Low Profile
- All Vises are Matched
- Swivel base be optional



ORDER NO.	VMP-4	VMP-5	VMP-6	VMP-6B	VMP-6C	VMP-7A	VMP-7B	VMP-7C	VMP-8A	VMP-8B	VMP-8C	VMP-8D	VMP-12C	VMP-12E
A	100	125	150	150	150	175	175	175	200	200	200	200	300	300
B	30	40	50	50	50	60	60	60	65	65	65	65	80	80
C	100	150	200	300	400	200	300	400	200	300	400	500	400	600
D	270	345	420	520	620	455	555	655	573	595	695	795	735	935
E	325	146	530	600	700	620	620	620	718	718	718	880	830	1030
F	35	40	50	50	50	58	58	58	70	70	70	70	78	78
G	75	96	125	125	125	145	145	145	170	170	170	170	195	195
H	78	78	90	89.4	89.4	97	97	97	114	114	114	113.4	120.4	120.4
I	16	16	16	16	16	16	16	16	16	16	16	16	16	16
KGS	9.2	16	28.5	34.8	38.1	43.7	48.3	53.5	66.3	73.2	81.3	87.2	125	143
CODE NO	1002-190	1002-191	1002-192	1002-201	1002-202	1002-193	1002-194	1002-195	1002-196	1002-197	1002-198	1002-203	1002-204	1002-205



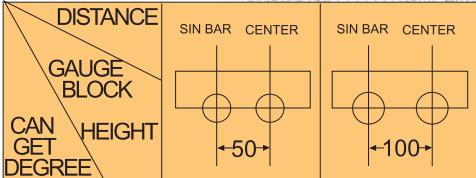
There is magnet in the bottom which can be run on any kind of machine for testing angle use.



Unit:mm

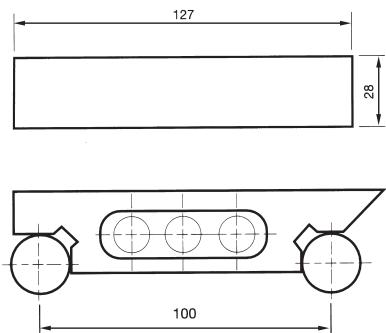
ORDER NO.	SQUARNESS	ACCURACY	PARALLELISM	HARDENESS	MATERIAL	N.W. (kgs)	CODE NO.
V-S50M	0.005mm	± 0.002	0.002mm	HRC60°	YK-30	0.4	2004-001
V-S100M	0.005mm	± 0.002	0.002mm	HRC60°	YK-30	2.3	2004-002

HOW TO CHOICE THE BLOCK FOR SINE BAR



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



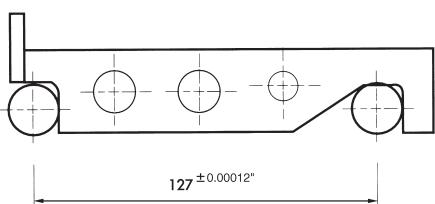
Unit:mm

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	HRC50°	20Øm/m	SK3	0.8	2004-010

Sine Bar-Inch



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



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



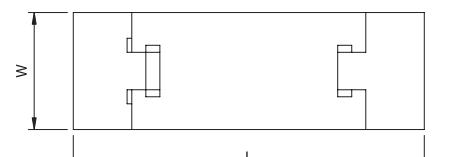
90° V-way. High carbon steel hardened to 50°-54° HRC, precision ground to within 0.005mm accuracy in squareness. Angle tolerance 30 seconds. Sets any angle 0-60°, vernier reading 10 minutes. 2 set screws provided for firmlocking at fixed angle.

Material: SK2

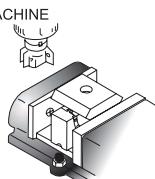
Hardness: HRC50°-54°

Squareness: ±0.01mm

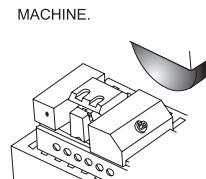
Angular measures from 0°-60°



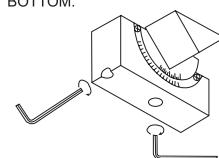
1. USING ON THE MILLING MACHINE



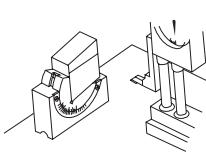
2. USING ON THE GRINDING MACHINE.



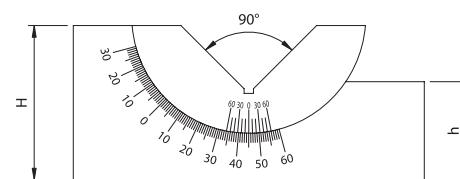
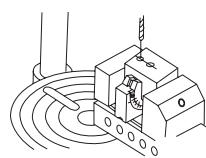
IT CAN BE LOCKED AT DESIRED ANGLE FROM THE BOTTOM.



3. TO MARK OUT ON A WORKPIECE.



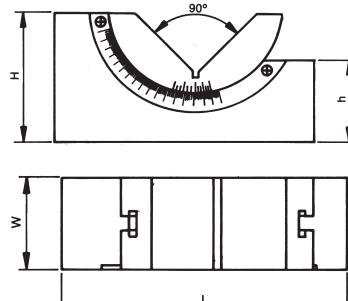
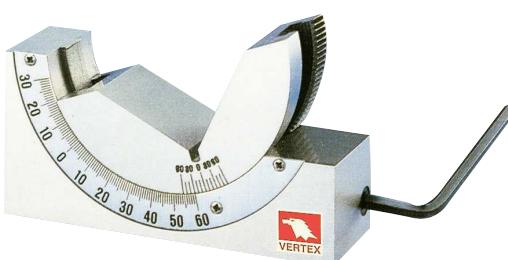
4. USING ON THE DRILLING MACHINE.



Unit:mm

ORDER NO.	H	W	L	h	N.W. (KGS)	CODE NO.
VAP-1	47	46	102	28	1.4	2005-001
VAP-2	47	30	102	28	0.9	2005-002
VAP-3	32.5	25	75	21	0.5	2005-003

Micro-Adjustable Angle Plate



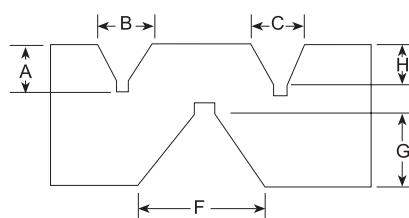
ANGULAR CAN BE ADJUSTED FROM 0°~60° BY SCREW

Unit:mm

ORDER NO.	H	W	L	h	N.W. (KGS)	CODE NO.
VAPM-1	47	46	102	28	1.4	2005-010
VAPM-2	47	30	102	28	1	2005-011
VAPM-3	32	25	75	22	0.5	2005-012

Precision V Block

PAIRS GROUNDED



Unit:mm

ORDER NO.	A	B	C	F	G	H	L	X	W	X	H	WEIGHT(KGS)	CODE NO.
V-3VA	9	23	19	44	21	7	76X23X43					0.9	2005-015
V-4VA	14	34	28	62	27	11	100X32X60					2.1	2005-016
V-5VA	14	35	40	63	29	19	124X35X61					2.8	2005-017



Precision Angle Blocks

ORDER NO.AB-130 CODE NO.2006-001

WEIGHT:1kg



Furnished in 1° increments to 5 degrees and in 5° increments to 30 degrees. With the addition of the optional 1/4° and 1/2° blocks virtually any conceivable angle to these increments can be established.

- Simple, quick angle set-ups.
- Eliminates calculations, avoids errors.
- Lightly magnetized for better holding.
- Manufactured of steel, hardened, stabilized and ground.
- Sizes: 3" long x 1/4" thick. (75mm x 6mm)
- Accuracy: .0001" per inch.
- Oil-hardened steel, precision ground. 12pcs angle blocks (1/4°, 1/2°, 1°, 2°, 3°, 4°, 5°, 10°, 15°, 20°, 25°, 30°)



Universal Angle Block Set



No sine plate, sine vise, angle chart or gauge block needed!

- A slope at any angle can be provided by installing a block or blocks on a machine vise up to 5%
- 8 pieces in a deluxe wooden box include: 10°, 15° & 30° vee blocks and 5 angle plates-1° to 5° for AB-164
- Heat treated 45°-50° HRC & ground to 10 sec.
- 9pcs angle blocks (1/2°, 1°, 2°, 3°, 4°, 5°, 10°, 15°, 30°), for AB-163

m/m

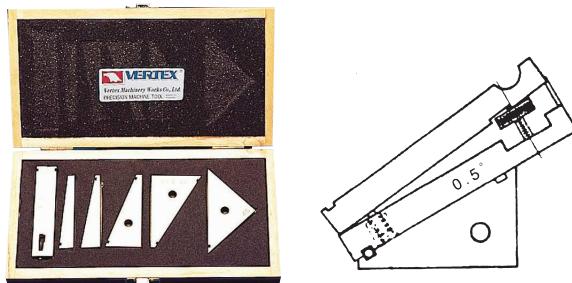
ORDER NO.	L X W X H	WEIGHT (KGS)	CODE NO.
AB-163	Vee blocks:3" Lx1 3/16" Wx1 3/16" H Angle Plates:2 3/4" Lx1 3/16" Wx5/64" H	2	2006-010
AB-164	Vee blocks:4" Lx1 1/2" Wx1 1/2" H Angle Plates:4" Lx1 1/2" Wx5/32" H	3.8	2006-011



Micrometric Tangent Bar & Angle Gauge Block Set

ORDER NO.AB-166 CODE NO.2006-020

WEIGHT:1kg



Micrometric Tangent Bar & Angle Gauge Block Set

- Made of Hardened Steel, Precision Ground.
- Accuracy ±.001" Per Inch.
- Interlocking Slots.
- Size of Angle Blocks: .35"x3"
- A Complete set for Angular set-ups. No Other Gages Required. Consists os set.
- Simplicity in application.
- Angular set-ups with this are a zip. Just dial your angle direct in degrees and minutes. Add one or two angle block gauges for angles over 5° and Secure assembly by dropping 1/8" dowel or square key into slot provided.
- Complete with fitted case.



Solid Angle Plates

ORDER NO.AB-167 CODE NO.2006-030

WEIGHT:0.3kg



Solid Angle Plates

- Precision ground angles for convenient set-ups in tooling, production and inspection.
- Four holes on top of it for easy mounting.
- 1/4" Thick, packed in cardboard box.
- Set of 3"x3"x4-3/8", 45°x45°x90°x1pc
2"x3-15/32"x4", 30°x60°x90°x1pc

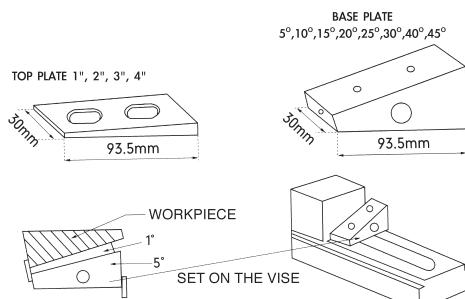


Precision Angle Blocks

ORDER NO:AB-113(13PCS/SET) CODE NO:2006-040



WEIGHT:7.1kgs



FEATURES

- ANGLE TOLERANCE:0.02MM
- CAN BE ASSEMBLED TOP PLATE WITH BASE PLATE FOR 6°-9°,16°-19°,26°-29°, 36°-39°,46°- 49°
- HARDEN TREATMENT UP TO HRC55°-58°
- MADE BY THE MATERIAL OF SK2
- CAN BE COOPERATE TWO SET FOR USE.

EXAMPLE FOR USE

PLATE	ANGLE DEGREE
TOP PLATE	1°,2°,3°,4°
BASE PLATE	5°,10°,15°,20°,25°,30°,35°,40°,45°



Hardened Steel Squares



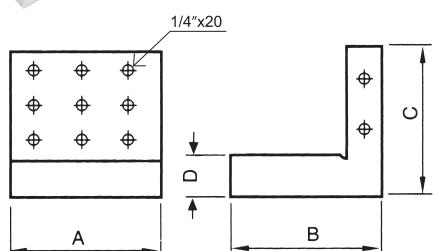
Squares have accurate right angles both inside and outside. Made from a single piece of fully tool steel. Beams and blades are ground and accurately lapped for straightness and parallelism. Accuracy Class H Blades are beveled on both edges of each side. Beam is grooved at inner corner for clearance of burr and dirt. All squares are fully hardened (Rockwell 55). Packed in individual cartons. Accuracy 0.02mm.

ORDER NO.	L x H x thick	NEW WEIGHT (KGS)	CODE NO.
SS-304	100X75X8MM	0.3	2006-050
SS-306	100X150X8MM	0.6	2006-051
SS-308	130X200X8MM	0.8	2006-052
SS-310	250X160X10MM	1.4	2006-053
SS-312	300X200X12MM	2.2	2006-054



Precision Steel Angle Plates

HIGH PRECISION TYPE



MATERIAL : YK30 ALLOY STEEL
ACCURACY : 0.005/100MM
HARDEN TREATMENT UP TO HRC 58°

ORDER NO.	A	B	C	D	N.W (KGS)	CODE NO.
VRS-33	3" 75	3" 75	4" 100	1" 25	2.2	2006-060
VRS-44	4" 100	4" 100	4" 100	1" 25	3.7	2006-061
VRS-46	4" 100	4" 100	6" 150	1" 25	4.5	2006-062
VRS-85	8" 200	8" 120	8" 200	40	14.3	2006-063
VRS-1206	12" 300	6" 150	12" 300	2" 50	32.3	2006-064



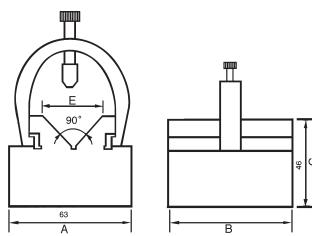
ORDER NO.	LxHxthick	ACCURACY	WEIGHT(kg)	CODE.NO.
FS-204	100x75x6mm	0.02mm	0.2	2006-055
FS-206	150x100x6mm		0.3	2006-056
FS-208	200x130x6mm		0.5	2006-057

 **V-Block With Clamps**

VBC-196



Alloysteel Grounded HRC50



- Two V blocks and two clamps are included in the set.
- Made of hardened tool steel machined & ground in pairs close tolerances.
- A precision set for toolmakers & machinists.

ORDER NO.	A	B	C	E	N.W. (kgs)	CODE.NO.
VBC-195	63	63	46	34	3.1	2007-001
VBC-196	100	50	60	60	5.9	2007-002
VBC-197	150	65	100	110	14.7	2007-003

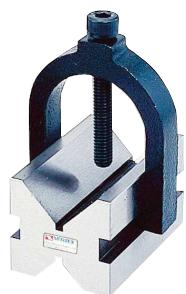
 **V-Block With Clamps**


VBC-003



PAIRS

Alloysteel Grounded HRC50



VBC-006



VBC-009



ORDER NO	W	H	L	W.OF SMALL VEE	W.OF LARGER VEE	PACKIN	G.W. (kgs)	CODE NO.
VBC-003	2.36 60mm	1.86 50mm	2.75 70mm	-	50mm	110x80x110mm	2.4	2007-010
VBC-243	2 3/4 70mm	1 3/4 45mm	1 5/8 42mm	-	1"	75x80x100mm	1.9	2007-020
VBC-006	2 1/2 64mm	1 3/4 45mm	2 3/4 70mm	1	1 3/16"	110x80x110mm	2.6	2007-030
VBC-009	4 102mm	3 76mm	3 76mm	-	2 1/4"	70x50x110mm	3.9	2007-040



Electrode Vise

ORDER NO.VEH-20 CODE NO.2008-001 (ALLOY STEEL) FOR EDM



WEIGHT:0.8kg



ELECTRODE HOLDERS FOR ELECTRO DISCHARGE MACHINE

Mini vise can be used in fixed electrode holders.

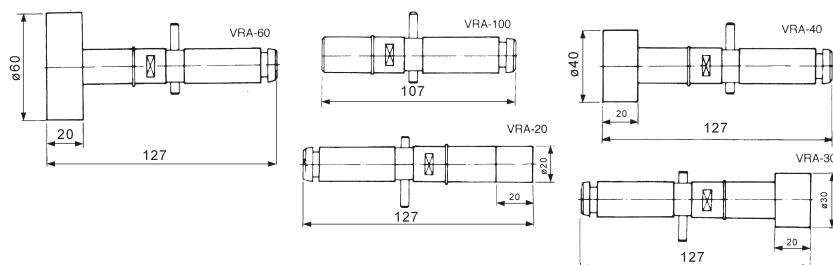
The opening with a cross V groove on the vise can do electric discharging both by vertical way and horizontal way for various-shape workpieces.
The max. opening on the vise is 20mm.

MATERIAL	LENGTH	WIDTH	JAW OPENING	JAW HEIGHT	HARDEN
SKS	65	25	20	0.8	HRC58°-60°



Electrode Holders

FOR EDM



ORDER NO.	VRA-20	VRA-30	VRA-40	VRA-60	VRA-100
WEIGHT(KG)	0.2	0.4	0.5	0.9	0.3
CODE NO.	2008-010	2008-011	2008-012	2008-013	2008-014

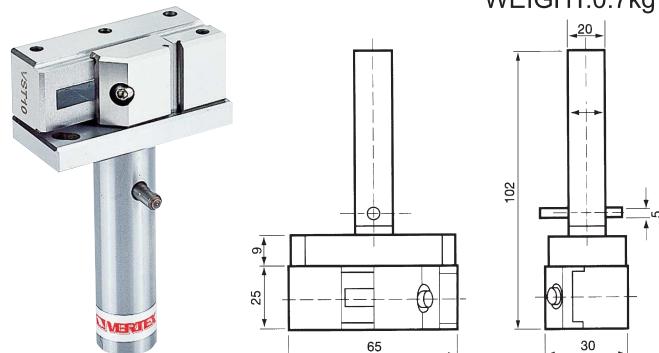


Electrode Holders

ORDER NO.VEH-20MS CODE NO.2008-020

(STAINLESS)FOR EDM

WEIGHT:0.7kg



Material	SUS440
Parallelism	within 0.003mm/100mm
Squareness	within 0.005mm/100mm
Harden treatment up to HRC58°	

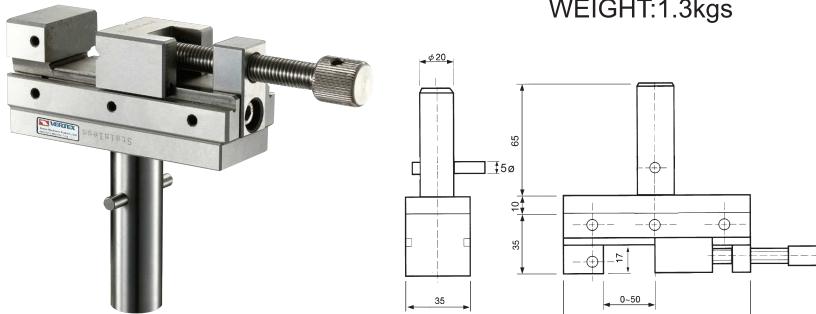


Electrode Holders

ORDER NO.VEH-20DS CODE NO.2008-030

(STAINLESS)FOR EDM

WEIGHT:1.3kgs



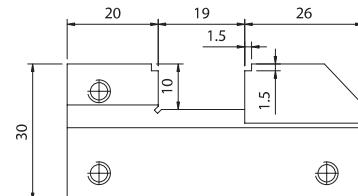
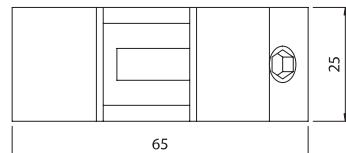
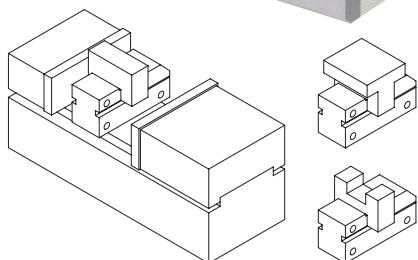
Material	SUS440
Parallelism	within 0.003mm/100mm
Squareness	within 0.005mm/100mm
Harden treatment up to HRC58°	



Tool Maker Vise (STAINLESS)

ORDER NO.VSTV-10V CODE NO.2008-070 MINI TYPE FOR EDM

WEIGHT:0.3kg Squareness:Within0.005m/m



MATERIAL	LENGTH	WIDTH	JAW OPENING	JAW HEIGHT	HARDEN
SUS440	65	25	19	10	HRC56°~58°

Tool makers vise of mini type which can be put in a bigger vise to process the small and precise workpiece. Also it can be used in an E.D.M. machine and grinding machine.
Squareness and parallelism: within 0.003 m/m



Tool Maker Vise (STAINLESS)

ORDER NO.VBST-30 CODE NO.2008-075

FOR EDM

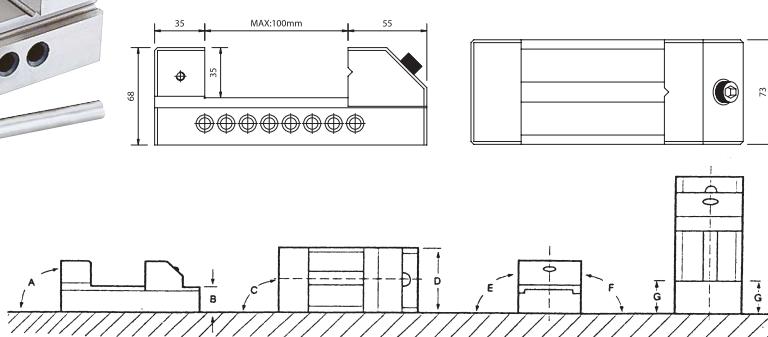
WEIGHT:4.5kgs



Material: SUS440
Hardness: HRC58°~60°
Squareness: Within 0.005 m/m

Unit:m/m

TOLERANCE	
A	±0.004m/m
B	±0.005m/m
C	±0.005m/m
D	±0.005m/m
E	±0.005m/m
F	±0.005m/m
G	±0.005m/m

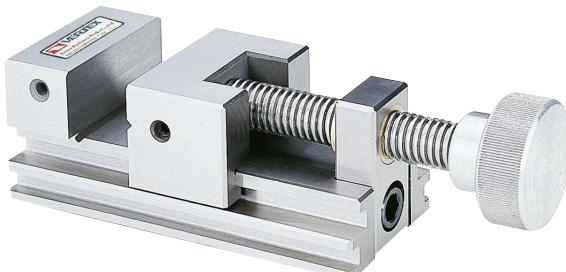


Tool Maker Vise (STAINLESS)

ORDER NO.VSTV-25 CODE NO.2008-080

FOR EDM

WEIGHT:4.4kgs

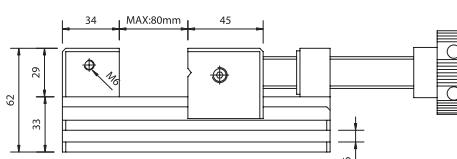
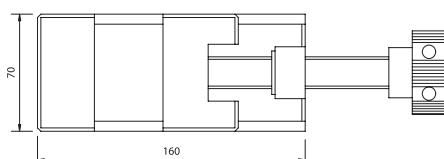


Material: SUS440
Hardness: HRC56°

Squareness: Within 0.005 m/m
It was made by tool steel of stainless steel system and was precision ground after hardened by heat treatment. So, it will not be rusted even though permeation.

The vise can pinch workpiece which will not upward for using moveable method.

It is getting more easier and convenient for processing in a smaller workpiece.





EDM Tool Marker Vise (STAINLESS)

ORDER NO.VSTV-50W

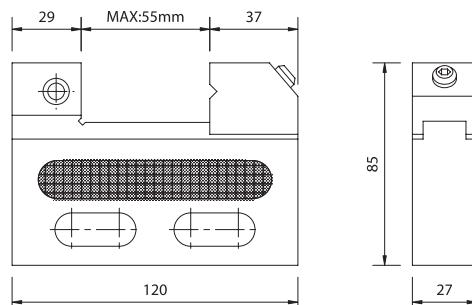
CODE NO.2008-040

WEIGHT:1.4kgs



VERTEX®

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



Material: SUS440
Hardness: HRC58°~60°
Squareness: Within 0.005 m/m

PARALLELISM	±0.002mm/100mm
SQUARENESS	±0.002mm/100mm

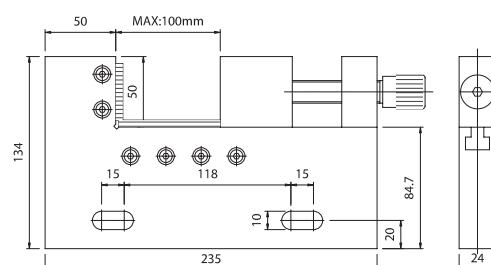
MAX.OPENING	55mm
THICKNESS	27mm
JAW DEEP	25mm
N.W	1.01kgs
MATERIAL	SUS440
HARDNESS	HRC54°±2°



EDM Tool Maker Vise (STAINLESS)

ORDER NO.VSTV-100W CODE NO.2008-050

WEIGHT: 4.88kgs



PARALLELISM	±0.002mm/100mm
SQUARENESS	±0.002mm/100mm

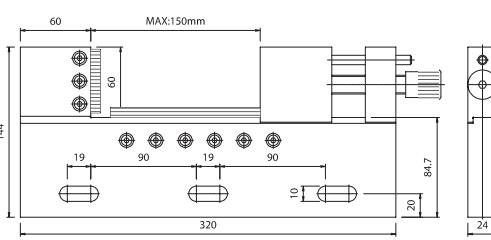
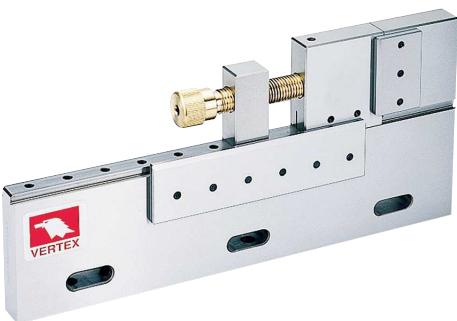
MAX.OPENING	100mm
THICKNESS	24mm
JAW DEEP	50mm
N.W	4.88kgs
MATERIAL	STAINLESS
HARDNESS	HRC54°±2°



EDM Tool Maker Vise (STAINLESS)

ORDER NO.VSTV-150W CODE NO.2008-060

WEIGHT: 6.75kgs



PARALLELISM	±0.002mm/100mm
SQUARENESS	±0.002mm/100mm

MAX.OPENING	150mm
THICKNESS	24mm
JAW DEEP	60mm
N.W	6.75kgs
MATERIAL	STAINLESS
HARDNESS	HRC54°±2°



Zinc COATING IS ALSO AVAILABLE



FEATURES

CHEMICAL COMPOSITION

65/35 brass equivalent to Alloy No. JIS-H3260 C2700

NO ACID-CORROSION AND NO DAMAGE TO RESINS

The special treatment avoids acid-corrosion on machine and workpiece.

HIGH SURFACE QUALITY

The special treatment makes the wire surface smooth, free from dirt, rust and grease that causes unefficiency to electric discharge.

STANDARD WEIGHT CONTROL

By perfect control in process, we obtain the standard weight per coil that enables us to maintain the stability of processing time and the accuracy of drawing.

NO WELDMENT

The rough surface caused by welding could affect the quality and accuracy of performance. The welded wire tends to break that wastes the time to re-thread.

HIGH-DIMENSIONAL PRECISION

Wire diameter tolerance and roundness tolerance are both limited to $1/\mu\text{m}$.

OUTSTANDING STRAIGHTNESS

Outstanding straightness ensures automatic threading successfully.

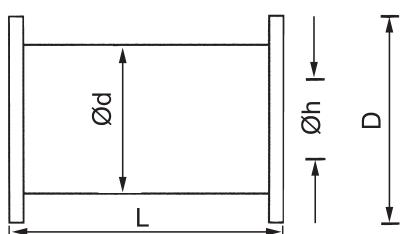
SPECIFICATION

ORDER NO.	WIRE TYPE	DIAMETER		DIAMETER TOLERANCE (mm)	BREAKING LOAD (kgs)	TENSILE STRENGTH (N/mm ²)	ELONGATION (%)	SUITFUL WORKING STYLE	CODE NO.
		inch	mm						
VEW-10H	HARD	0.004	0.10	± 0.001	0.78	980 \leq	0.4 \leq	STRAIGHT CUTTING a.PASS CUTTING b.ROUGH CUTTING c.FINISH CUTTING	2009-001
VEW-15H		0.006	0.15		1.73				2009-002
VEW-20H		0.008	0.20		3.14				2009-003
VEW-25H		0.010	0.25		4.92				2009-004
VEW-30H		0.012	0.30		7.07				2009-005
VEW-33H		0.013	0.33		8.55				2009-006
VEW-20S	SOFT	0.008	0.20	± 0.001	1.41	441 \leq	15 \leq	ANGLE CUTTING	2009-010
VEW-25S		0.010	0.25		2.21				2009-011
VEW-30S		0.012	0.30		3.18				2009-012

THE PACKING USED A STANDARD COIL.

HERE SHOW 3 KINDS OF COIL PACKING OF TYPE FOR CHOICE. THE POPULAR IS

P-5R (5kgs). OTHER COIL TYPE, WEIGHT, WELL BE AVAILABLE.



PACKING COIL TYPE	COIL SHAPE	WEIGHT OF WIRE ON COIL (kg)	DIAMETER OF WIRE (mm)	D (mm)	d (mm)	L (mm)	h (mm)	LENGTH OF WIRE ON COIL (M)	NUMBER OF COILS /BOX	CODE NO.
P-3R		3	0.10 0.15 0.20 0.25	130	80	110	20	39360 18750 10988 6932	6	2009-021
P-5R		5	0.20 0.25 0.30 0.33	160	90	114	20	18314 11553 8001 6750	4	2009-022
K-125		3.5	0.2 0.25	125	80	125	20	5600 4725	4	2009-023
K-160		7	0.20 0.25	160	100	160	22	25640 16174	2	2009-024

ORDER NO.	MAKER	APPLICATION	REMARKS	CODE NO.
	MITSUBISHI	SX, CX, FX Upper 上 (線切割眼模 M118)	C 834G	2009-030
		SX, CX, FX Lower 下 (線切割眼模 M119)	B 243G	2009-031
		F, FL, G, Opening Ceramic Stainless (眼模螺絲 Stop screw M108)	D 162G	2009-032
			D 123G	2009-033
		G, H~HA, C, CR, (偏心座 Dies Holder M111)	X 184D226H01	2009-034
		H1, HA, B, Z SK/AF Lower 下 (線切割眼模 M117)	B 176G	2009-035
		H1, HA, B, Z SK/AF Upper 上 (線切割眼模 M107)	B123G	2009-036
		H1, A, B, Z/AF Upper 上 (眼模螺絲 Stop screw M120)	C524G	2009-037
		Ceramic Guides for Small Hole EDM machine (放電打孔機用導管 Z141)		2009-038
	ソデツク SODICK	A300, 500, Aw330, 450 EPOC, AP, BF (線切割眼模 S103)	GUIDE (87-3)	2009-039
	SEIBE	F, K Upper & Lower (線切割眼模 S111)		2009-040
	HITACHI	H1-Cut 203, 304, 345, 460 Lower 下 (線切割眼模 H102)		2009-041
	FANUC	∞°A, °B Upper 上 (線切割眼模 F120) ∞°A, °B Lower 下 (線切割眼模 F121)		2009-042
				2009-043
		O, P, Q, R, W Upper & Lower 上、下 (線切割眼模 F101, F102)		2009-044
		1A, 1B, Upper 上 (線切割眼模 F123) 1A, 1B, Lower 下 (線切割眼模 F124)		2009-045
				2009-046
				



STD. STYLE



SUPER 8 STYLE



- BRASS PIPE FOR STEEL & TREATMENT STEEL. COPPER PIPE FOR TUNGSTEN MATERIAL & SMALL HOLE.
- SUPER STYLE HOLE COPPER PIPE FOR HIGH SPEED MACHINNING & NON THROUGH HOLE.
- THE LENGTH 300MM OR 400MM OF PRICE IS SAME. PLEASE NOTIFY THE LENGTH WHEN YOU ORDERING.
- EAH UNIT PRICES IS 20 PCS.

STANDARD STYLE HOLE

MATERIAL \ HOLE DIA.	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5
BRASS \ ORDER NO.	VEB-04	VEB-05	VEB-06	VEB-07	VEB-08	VEB-09	VEB-10	VEB-11	VEB-12	VEB-13	VEB-14	VEB-15
BRASS \ CODE NO.	2010-001	2010-002	2010-003	2010-004	2010-005	2010-006	2010-007	2010-008	2010-009	2010-010	2010-011	2010-012
COPPER \ ORDER NO.	VEP-04	VEP-05	VEP-06	VEP-07	VEP-08	VEP-09	VEP-10	VEP-11	VEP-12	VEP-13	VEP-14	VEP-15
COPPER \ CODE NO.	2010-030	2010-031	2010-032	2010-033	2010-034	2010-035	2010-036	2010-037	2010-038	2010-039	2010-040	2010-041

MATERIAL \ HOLE DIA.	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7
BRASS \ ORDER NO.	VEB-16	VEB-17	VEB-18	VEB-19	VEB-20	VEB-21	VEB-22	VEB-23	VEB-24	VEB-25	VEB-26	VEB-27
BRASS \ CODE NO.	2010-013	2010-014	2010-015	2010-016	2010-017	2010-018	2010-019	2010-020	2010-021	2010-022	2010-023	2010-024
COPPER \ ORDER NO.	VEP-16	VEP-17	VEP-18	VEP-19	VEP-20	VEP-21	VEP-22	VEP-23	VEP-24	VEP-25	VEP-26	VEP-27
COPPER \ CODE NO.	2010-042	2010-043	2010-044	2010-045	2010-046	2010-047	2010-048	2010-049	2010-050	2010-051	2010-052	2010-053

SUPER 8 STYLE HOLE COPPER & BRASS PIPE ELECTRODE

MATERIAL \ HOLE DIA.	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5
ORDER NO.	VES-06	VES-07	VES-08	VES-09	VES-10	VES-11	VES-12	VES-13	VES-14	VES-15
CODE NO.	2010-060	2010-061	2010-062	2010-063	2010-064	2010-065	2010-066	2010-067	2010-068	2010-069

MATERIAL \ HOLE DIA.	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5
ORDER NO.	VES-16	VES-17	VES-18	VES-19	VES-20	VES-21	VES-22	VES-23	VES-24	VES-25
CODE NO.	2010-070	2010-071	2010-072	2010-073	2010-074	2010-075	2010-076	2010-077	2010-078	2010-079



EDM Filter For EDM (Oil)



ORDER NO.	OUTER DIA.	INNER DIA.	LENGTH	SUITABLE MODELS	WEIGHT (kg)	CODE NO.
NH-01	150	72	450	SEIBU.JAPAX.SODICK.AMADA	1	2011-001
NH-09	150	33	360	CHARMILLES.AGIE.MITSUBISHI	0.8	2011-002
NH-09S	150	91	309		1.2	2011-003
NH-600L	150	26	600	WITH STEEL NET	1.2	2011-004



Tangimatic Dresser

ORDER NO.V-TDA CODE NO.2012-001

WEIGHT:7kgs



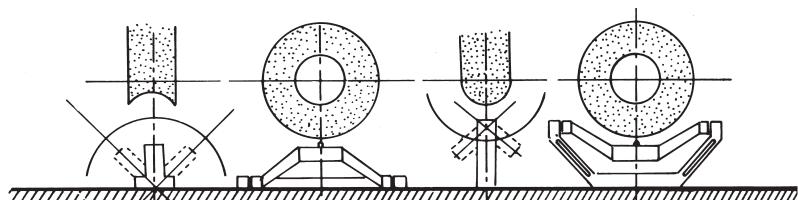
The dresser can be dressing any concave or convex of grinding wheel

Concave R:0-40R(mm)

Convex R:0-90R(mm)

Max. wheel DIA.:8"(200mm)

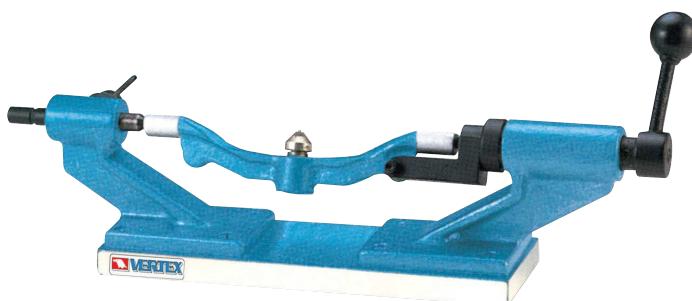
Diamond dresser pen 10mm



Tangimatic Dresser Handy Type

ORDER NO.V-TDH CODE NO.2012-002

WEIGHT:4.5kgs



The dresser can be dressing any concave or convex of grinding wheel

Convex R:0-90R(mm)

Concave R:0-40R(mm)



Radius And Angle Dresser

ORDER NO.V-TDB CODE NO.2012-010

WEIGHT:11.5kgs

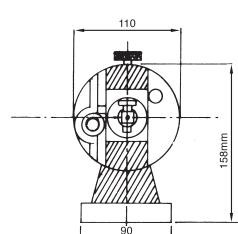
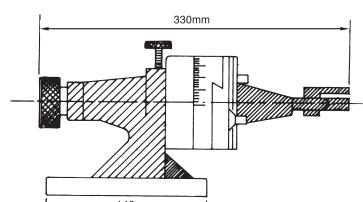


Convex dressing range: 0.8R-40R

Concave dressing range: 0-40R

Max. wheel dressing diameter: 250mm

Max. wheel extending diameter: 375mm



- Positive setting of the diamond to absolute center with the special gage included with the dresser.
- Simple, fast, accurate radius setting; no height gage or other set-up aids required. Radius is set on the grinder by measuring over the two pins or by inserting a gage block, as shown, for direct reading. Inside or outside radius is determined simply by sliding the dowel pin to the right for concave and to the left for convex.
- 4x90° graduation in full 360° circle. 6 Minute vernier reading. Chrome plated.
- One push-pull type knob for radius and angle control and for safer and faster operations.
- ACCURACY. Extremely close tolerances are held in the manufacture of this tool, assured by hardening and precision grinding of all critical parts. Ways are chrome hardened.
- ECONOMY. Set-up and dressing time reduced to a bare minimum due to simplicity.



Universal Wheel Dresser

ORDER NO.V-TDC CODE NO.2012-020

WEIGHT:7.8kgs



The wheel dresser that dresses two angles tangent to a radius in one continuous motion with .0001~0.0002m/m accuracy.
The wheel dresser with a micrometer feed-0.98"(25mm) travel.

SIMPLE-ELIMINATES HEIGHLY SKILLED OPERATORS

Fluidmotion means YOU CAN dress two angles tangent to a radius in one continuous motion-with only one setting. The diamond automatically returns to center position after dressing angles. Thus even a beginner can dress complex forms quickly and accurately. (center height 195mm)

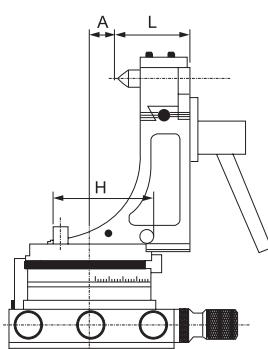
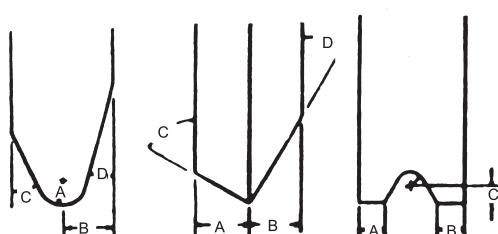
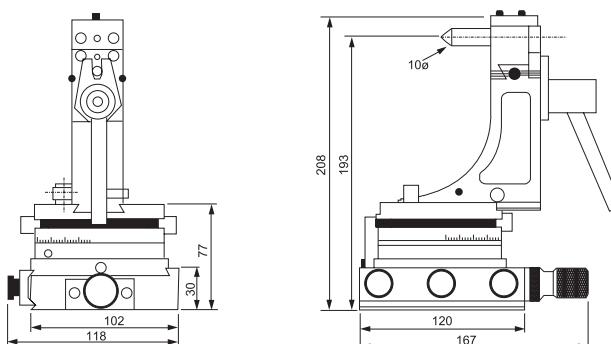
ELIMINATES ELABORATE SETUPS

No need to pre-set diamond, or use any other tool except a micrometer and a simple hex wrench.

No Gage block-Master Gage setting or Block-Parallel Bar-Surface Plate-Height Gage-Dial Indicator.

No movement of dovetails necessary to form angles. The angle is dressed by continuing to push handle in both directions after radius is formed.

No need to use Gibbs & V-Ways other than positioning surfaces.



ACCURATE-RAPID, REPAT FORM-DRESSING

Fluidmotion generates clean, precise wheel profiles entirely free of chatter marks. Without fluidmotion a perfect blend of angles and radius is improbable.

PRECISE SHARP CONTOURS-concave or convex, at a full 180 degrees, are obtained consistently with (GUARANTEED) 0.001" accuracy.

CONVEX RANGE-0R-76.2R

CONCAVE RANGE-0.8R-88.9R

ACCURATE...FLUIDMOTION...PRECISE...

HOLD INTERSECTING ANGLES 12 to 15 seconds. This is accomplished by operating upright and handle.

Setting up two angles requires 10 seconds. Setting two angles and radius requires less than 3 minutes.

THE MOST DURABLE DRESSER AVAILABLE

Manufactured from hardened, ground and lapped alloy steels.

No wearing surfaces. Swivels on sealed bearings.

This form tangent in one setting-two angles-two radius-one flat.

MAX. Swing distance of diamond cutter..... $\pm 14\text{mm}$

Measuring quasi-pin dia..... $\phi 10$

MAX. Wheel dia..... $\phi 200\text{mm}$

Reading accuracy of turret index.....5'

Feed per division of handle scale.....0.01mm

Calculation Method

To dress convex arc surface: $H=L + R$

To dress concave arc surface: $H=L +(-R)$

H: Distance between outer generating lines of two locating pins.

R: Radius of the arc surface to be dressed

L: Distance from tip of diamond cutter to base plate

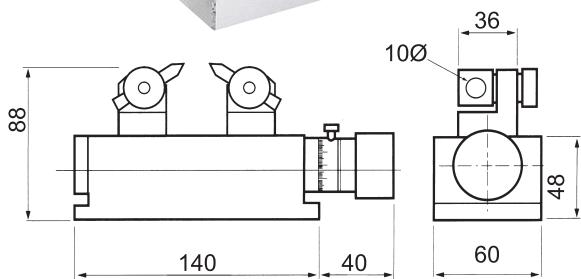


Precision Duplex Dresser

ORDER NO.V-TDF CODE NO.2012-030



WEIGHT:3.7kgs



FEATURES

PRECISION DUPLEX DRESSER is designed to simultaneously dress both sides of a grinding wheel, precisely and without deformation.

It is useful for the thinning of grinding wheels or the dressing of thin wheels. manufactured of tool steel and hardened through out to HRC 60 for life time use.

Specifications:

Max. width of wheel.....40mm(1-9/16")

Max. dressing depth.....40mm(1-9/16")

Mini dressing width.....0.2mm(0.0079")

Graduation.....0.02mm(0.0001")

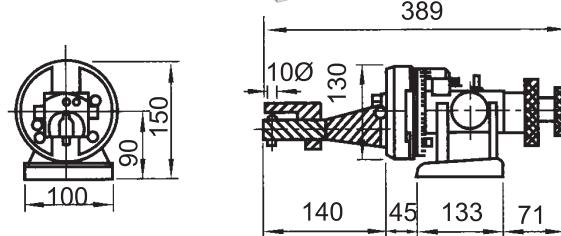
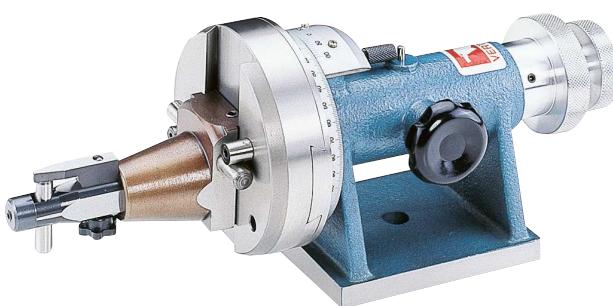
Max.thickness	Min.	Max.	Min
40mm	0.2mm	40mm	0.02mm/div



Radius And Angle Dresser

ORDER NO.V-TDG CODE NO.2012-040

WEIGHT:12kgs



FEATURES

- 6 minute vernier reading.
- 5-1/2" longx6-1/2" high.
- Dual purpose knob for drum & angle movement.
- Stop for concave and convex radius.
- Comes with setting gage for diamond tool.

Specifications:

Max. wheel diameter, standard.....11"

Concave radius with standard diamonds.....0-2¹/₄"

Concave radius with rta-tail diamonds.....0-2¹/₄"

Convex radius.....0-4"

Tangent travel in either direction.....1.950"

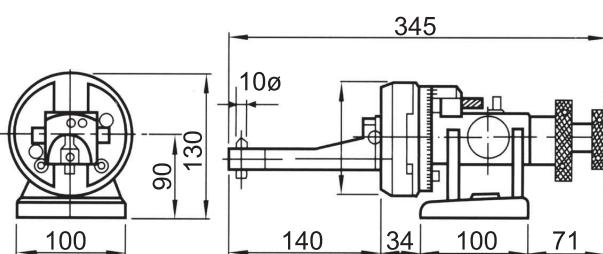
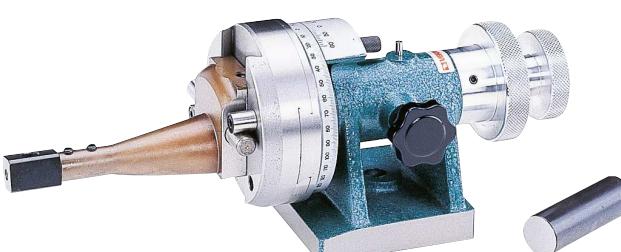
Center line.....3.4"



Radius And Angle Dresser

ORDER NO.V-TDE CODE NO.2012-050

WEIGHT:9.2kgs



Features

- No height gauge or set-up aids required.
- Radius is set on the grinder by measuring over the two pins or by inserting a gauge block for direct reading.
- Concave radius or Convex radius is determined by using either the left or right hand pins.

Grinding wheel dressing application



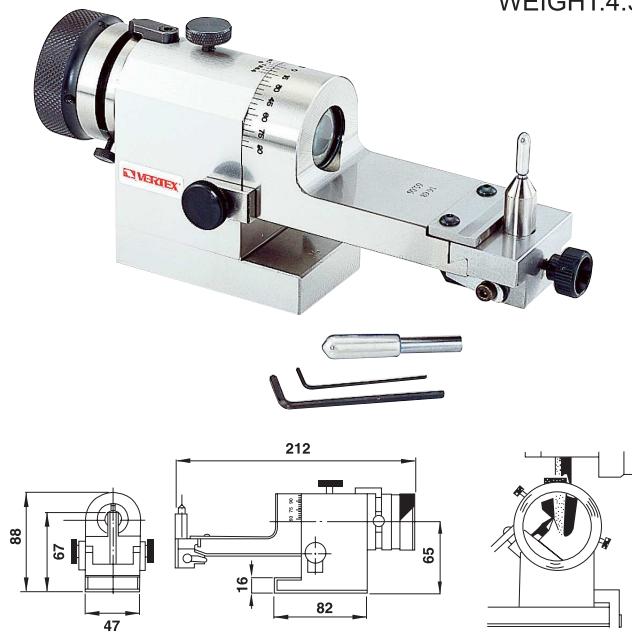


Optical Radius Angle Dresser

ORDER NO.V-TDT CODE NO.2012-060



WEIGHT:4.3kgs



Features

Universal Wheel Dresser is Adoptable on Surface grinder and universal tool grinder for dressing grinding wheel into various cross sections of flat or curved shapes.

By "SIGHTING" the diamond point through the lens, radius and angles can easily be made perfectly tangent Visually Even with diamonds. Likewise radius can be blended together with most unbelievable accuracy.

Specification

Center height.....65mm
Max. wheel diameter.....200mm
Max. convex radius.....10mm
Max. concave radius.....25.4mm
Dressing angle.....95°-0°-95°
Tangential travel.....Appo x 22.5mm

Grinding wheel dressing application



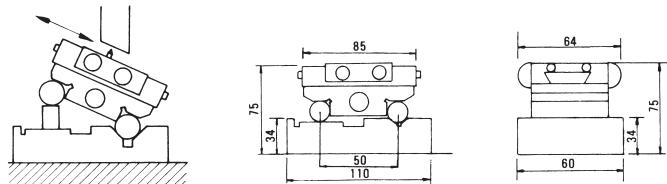
Matco Sine Dresser

ORDER NO.VP-50 CODE NO.2012-070

WEIGHT:2.5kgs



- This fine precision-made unit dresses grinding wheels to any angle from 0°-60° degrees with new smoothness and accuracy.
- The cross feed up to 50mm, center distance 0.01mm, Sine angle absolutely accurate.



SPECIFICATION

BLOCK CENTER DISTANCE	CENTER TOLERANCE	MAX CROSS FEED
50	±0.01	50



Matco Sine Dresser

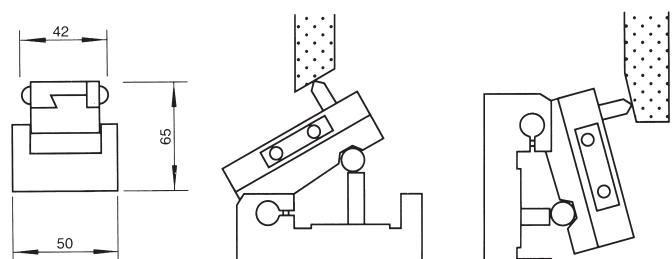
ORDER NO.V-50D CODE NO.2012-080

WEIGHT:1.6kgs



This fine precision-made unit dresses grinding wheels to any angle from 0°-60° degrees with new smoothness and accuracy.

The cross feed up to 50mm, center distance 0.01mm, Sine angle absolutely accurate.





Diamond Wheel Dresser

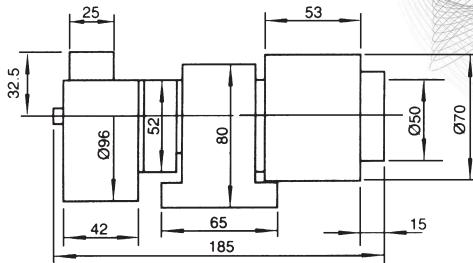
ORDER NO.V-TDD

CODE NO.2012-090

WEIGHT:4.6kgs



VERTEX®



This device is suitably used for Diamond Grinding wheel.

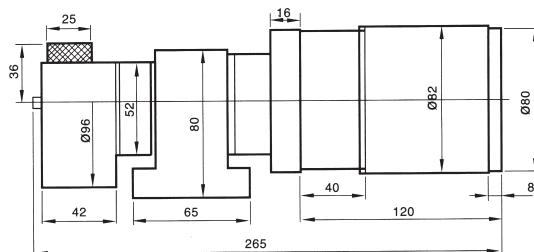
The surface is treated with blaze-dried lacquer.

Axis part is fixed with shaft bearing and can be rotated in high speed & with great precision.

- Sand wheel size: Ø75x26x12.7 ØWA80



Motor Type CBN Flat Wheel Dresser



SAND WHEEL SIZE: Ø75x25x12.7 ØWA80

Unit: mm

ORDER NO	VOLTAGE	RPM	WEIGHT (kgs)	CODE NO.
V-TDM-1	110V	129	6.5	2012-100
V-TDM-2	220V	108	7.1	2012-101

5.5KGS, SINGLE PHASE

0.07HP



Grinding Wheel Flang

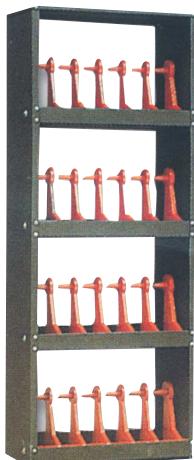
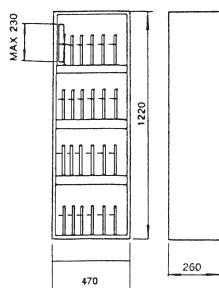


Wheel Hanger

ORDER NO.VWH-24, VWH-32

CODE NO.2013-001, 2013-002

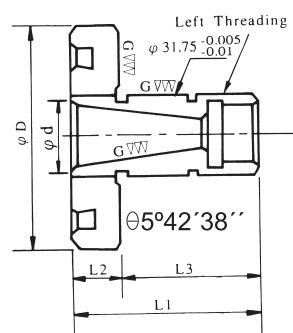
WEIGHT:23.1kgs



VWH-24
(24pcs)



VWH-32 (32pcs)
653Wx600Dx1460H mm
(excl. wheel height)



Unit: mm

ORDER NO.	ØD	Ød	L1	L2	L3	Brand Mark	WEIGHT (kg)	CODE NO.
FKT-250	78	25.7+0 -0.05	40	13	27	KENT PROTH	0.8	2013-010
FTA-350	75	25.4+0 -0.05	40	13	34	TA TUNG	1	2013-011



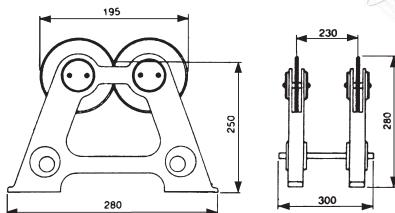
Wheel Balancing Stand

ORDER NO.WBS-300 CODE NO.2014-001

WEIGHT:12.5kgs



MAX.WHEEL DIAMETER ALLOWED Ø 400mm



The stand is specifically designed to improve accuracy and longer life for grinding. It is finished with cast iron and fine through hardened to HRC55°.



Level Balancing Stand

ORDER NO.LBS-100

CODE NO.2014-010

WEIGHT:8.8kgs

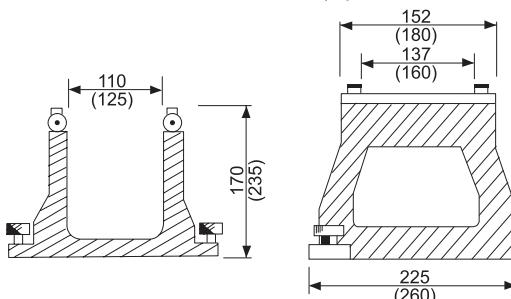
ORDER NO.LBS-350

CODE NO.2014-011

WEIGHT:15.1kgs



()For LBS-350

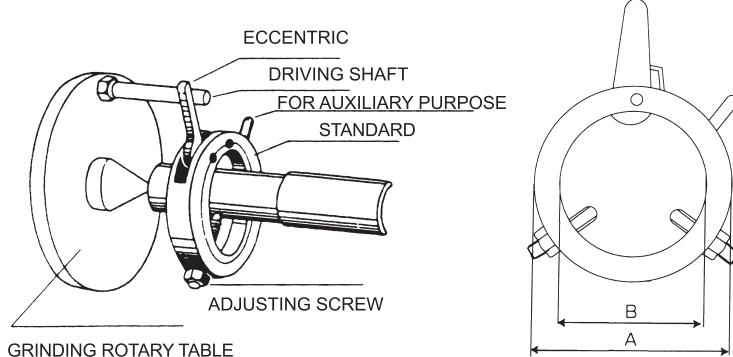


This machine encloses minute leveling instrument. The adjustment of horizontal enable rapidly and accurately.

**MAX.WHEEL DIAMETER ALLOWED Ø200mm,
Ø350mm**



Driving Carrier



ORDER NO	CAPACITY	A	B	WEIGHT (kg)	CODE NO.
VDC-13	Ø6~Ø14	36	18	0.1	2014-020
VDC-22	Ø13~Ø24	48	28	0.2	2014-021
VDC-30	Ø20~Ø33	58	38	0.2	2014-022
VDC-40	Ø31~Ø42	68	48	0.2	2014-023
VDC-50	Ø36~Ø50	78	58	0.3	2014-024
VDC-60	Ø40~Ø62	89	68	0.3	2014-025
VDC-80	Ø60~Ø80	119	88	0.6	2014-026
VDC-100	Ø80~Ø100	140	109	0.7	2014-027

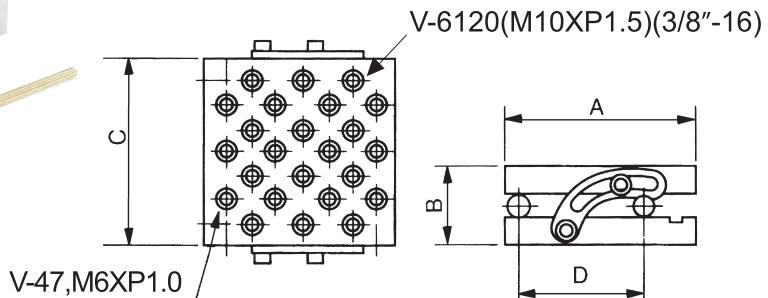
FEATURES:

- SUITABLE FOR GRINDING OF SHAFTS.
- EASY ATTACH AND DETACH BY ONE HAND.



Design by the principles of SINE, angle grinding can be done well. High precision of parallelism within 0.002mm and squareness within 0.005 mm. Setup and dressing time reduced to a bare minimum due to simplicity.(ANGLE 0° - 46°)

- Made of quality steel, hardened to HRC 55° - 56°
- Two hardened and ground side rails and one.
- Locking strap included.



ORDER NO.	A	B	C	D	N.W (kgs)	CODE NO.
V-47	98	66	177	75	8.4	2015-001
V-66	150	62	150	100	9.4	2015-002
V-6120	147	65	300	100	19.8	2015-003

Compound Sine Plate



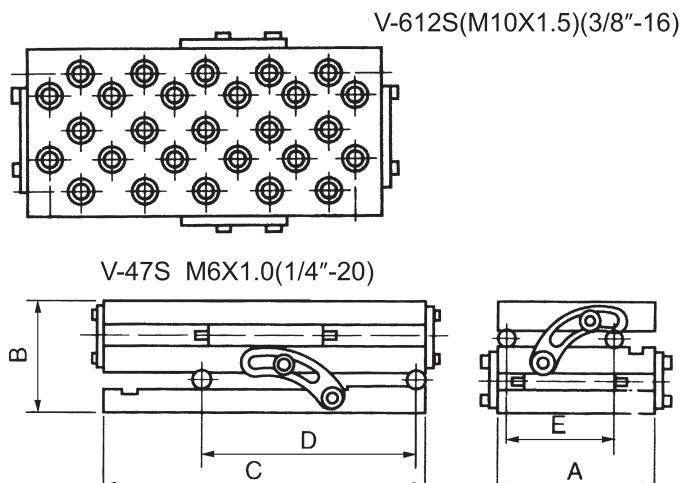
Made of quality steel, hardened to HRC 55°-62°, angles 0°~60° capacity.

Minute angle step 0.2 built into the front gauge block roll eliminates steps in base plate.

Two end rails and one locking strap included

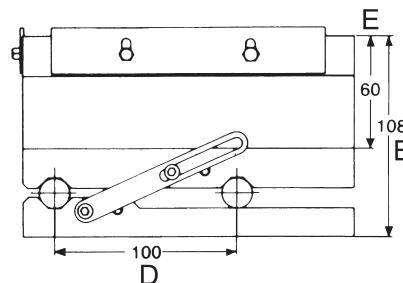
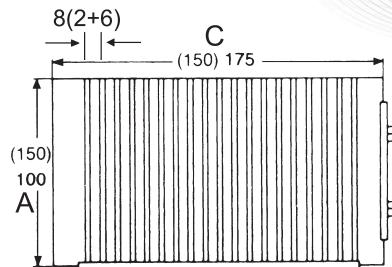
Tapped holes on the top.

Center distance of tools with 0.005mm(0.0001")V-612S within 0.008mm(0.0003")



ORDER NO.	A	B	C	D	E	N.W (kgs)	CODE NO.
V-47S	100	100	175	125	75	9.9	2015-010
V-66S	150	100	150	100	100	12.4	2015-011
V-612S	150	100	300	100	100	23.7	2015-012

MAGNETIC SINE PLATES with a permanent magnetic, never lose its strong power by press down a screw based on the plate and regain the original after work.

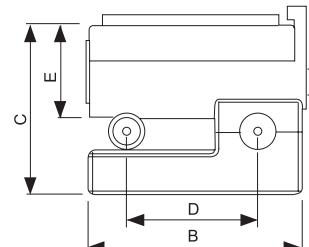
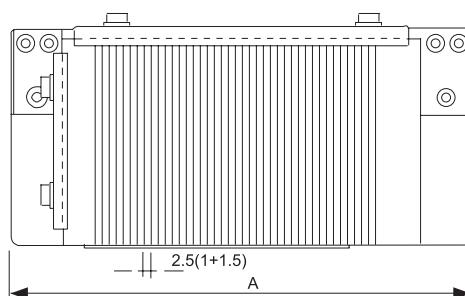


ORDER NO.	A	B	C	D	E	ANGLE	N.W (kgs)	CODE NO.
V-47M	100	108	175	100	60	0°~55°	11.3	2015-020
V-66M	150	108	150	100	60	0°~55°	15.6	2015-021
V-612M	150	108	300	100	60	0°~55°	27	2015-022

Magnetic Sine Plate With Fine Pole



Permanent magnetic chuck. Removable handle for positive on/off control, side rails, end rails all included. All have 200 minute angle steps with 0.005mm(0.0002") tolerance in squareness,parallelism and roll center distances. The chuck of pole is 1+1.5



ORDER NO.	A	B	C	D	E	P	ANGLE	N.W (kgs)	CODE NO.
V-47MF	175	102	87	75	47	2.5 (1+1.5)	0°~60°	13.1	2015-030
V-66MF	200	152	87	100	47			16.5	2015-031
V-612MF	350	152	87	100	47			30.3	2015-032



Adjustable Sine Plate With Fine Pole Magnetic Chuck

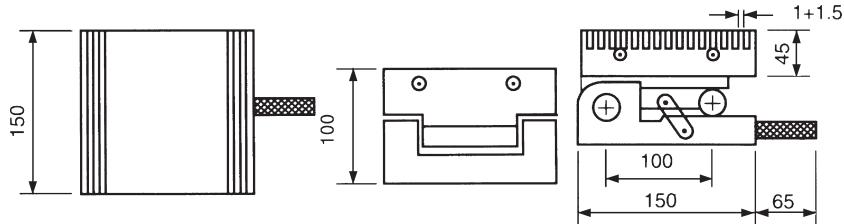
VERTEX

ORDER NO.V-66SA CODE NO.2015-050

WEIGHT:17.9kgs



The sine plate with magnetic chuck is with high accuracy and stability. From 0° to 60° can be used for angle, the precision is within 0.003m/m.



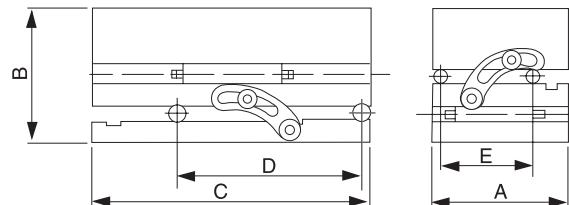
Double Way Sine Plate With Permanent Magnetic Chuck



FEATURES:

- Double way sine plate, can be use to grind two way angle at same time.
- Constructed of hardened alloy tool steel.
- Precise angle setting is obtained with gauge block.
- This device provides positive locking at any angle without distortion.
- A positive locking device is mounted on the base.

ORDER NO.	A	B	C	D	E	P1	P2	ANGLE	N.W (kgs)	CODE NO.
V-47MS	100	142	175	100	75	6.5 (1.5+5)	7.5 (1.5+6)	0°~60°	15.2	2015-060
V-66MS	150	142	150	100	100				18.1	2015-061
V-612MS	150	142	300	200	100				34.7	2015-062



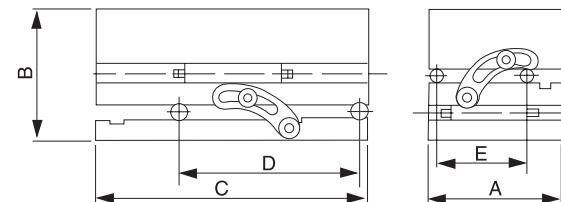
Double Way Sine Plate With Fine Pole Magnetic Chuck



FEATURES:

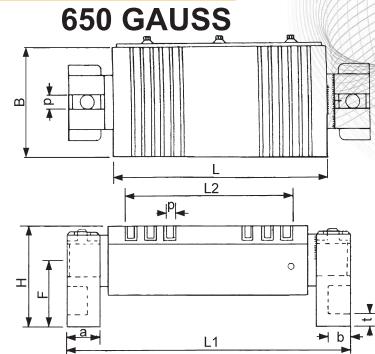
- Double way sine plate, can be grind two way angle at same time.
- Special feature with micropitch magnetic chuck, can fix tiny parts firmly on the chuck.
- Constructed of hardened alloy tool steel.
- Precise angle setting is obtained with gauge block.
- This device provides positive locking at any angle without distortion.
- A positive locking device is mounted on the base.

ORDER NO.	A	B	C	D	E	P	ANGLE	N.W (kgs)	CODE NO.
V-47MSF	100	122	175	100	75	2.5 (1+1.5)	0°~60°	14.9	2015-070
V-66MSF	150	122	150	100	100			19.8	2015-071
V-612MSF	150	122	300	200	100			35	2015-072





Rotary Permanent Magnetic Plate



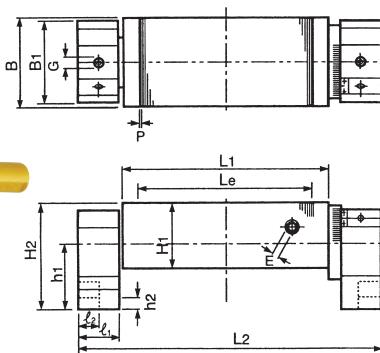
- Can grind the (0°-90°) angle work-piece, could be easily set by graduated collar.

Unit:mm

ORDER NO.	SIZE	OPERATION PLANE		POLE PITCH	ROTARY SEAT PLANE						HEIGHT	WEIGHT	CODE NO.	
		B	L		P	a	b	t	F	L1	d			
VLU-510B	125x250	125	250	191	8.5 (2.5+6)	50	35	17	96	380 430	16	150	33.2 44.5	2015-080 2015-081
VLU-612B	150x300	150	300	245			27	15	90	565	-	145	43	2015-082
VLU-618B	150x450	150	450	414	8(2+6)									



Rotary Fine Pole Permanent Magnetic Plate



APPLICATION

600 GAUSS

Suitable for (0°-90°) angle grinding on grinder.

FEATURES

- Rotary shaft with graduation makes it easy to grind at any angle.
- Integrated molding of machine body and rotary spindle.
- Unchanged surface accuracy during ON/OFF change over.
- Design for distance between both magnets enables machining of various unconfirm in thickness & sizes.

Unit:mm

ORDER NO.	Nominal Dimension	Chuck Dimension				POLE PITCH	Length	Rotary Base						HEIGHT	WEIGHT (kgs)	CODE NO.
		B	L1	L2	H1			B	c1	c2	G	h1	h2	H2		
VLU-407BF	100X175	100	175	125			293								19	2015-090
VLU-510BF	125X250	125	250	200			368								27	2015-091
VLU-612BF	150X300		300	246	78	2 (1+1.5)	418	100	50	25	16	103	50	145	31	2015-092
VLU-614BF	150X350	150	350	296			468								37	2015-093
VLU-618BF	150X450		450	396			568								43	2015-094



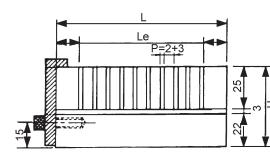
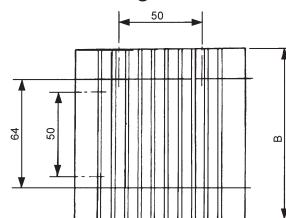
Hi-Power Mini Type Permanent Magnetic Plate

FOR CARBIDE MATERIAL ONLY
CAN NOT FOR ALL STEEL



APPLICATION

This chuck is designed for objects with weaker magnetic force. This chuck can be placed in the plate of large permanent magnetic chuck or electro-magnetic chuck for attraction or attachment.



NO ON/OFF SWITCH

Unit:mm

ORDER NO.	DIMENSION	CHUCKING SIZE			POLE PITCH	HEIGHT	TESTING BLOCK	WEIGHT (kgs)	CODE NO.
		B	L	Le					
VG-404H	100X100	100	100	72	5(2+3)	50		4	2015-100
VG-407H	100X180	100	180	152	5(2+3)	50		7	2015-101
VG-410H	100X250	100	250	222	5(2+3)	50	50x25t TEST BLOCK(TUNGSTEN) 210N(21kgf)	10	2015-102

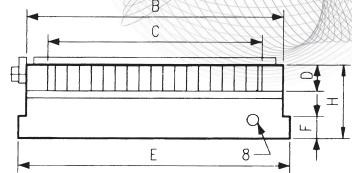
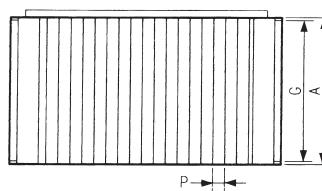


Angular Permanent Magnetic Plate



MAGNETIC FORCE 18KGF

650 GAUSS



- Permanent magnetic force.
- Operation plane, specially treated, nondeformation and high precision.

Unit:mm

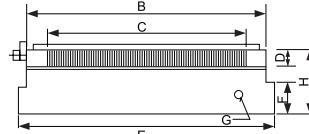
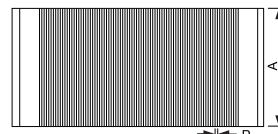
ORDER NO.	SIZE	CHUCKING SIZE				POLE PITCH	CHUCK MOUNTING FACE			SWITCH TYPE	HEIGHT H	WEIGHT KGS	CODE NO.	
		A	B	C	D		G	E	F					
VG-407	100x175	100	175	146	20	8(2+6)	100	187	LIVING HEXAGON SOCKET SCREW KEYS	50	7.2	2015-110		
VG-510	125x250	125	250	206			125	262			15	2015-111		
VG-612	150x300	150	300	256			318	150			18.5	2015-112		
VG-614	150x350		350	306			368				20.9	2015-113		
VG-618	150x450		450	406			468				27.5	2015-114		
VG-816	200x400		400	365			418				32	2015-115		
VG-818	200x450	200	450	406			468	200			36.3	2015-116		
VG-820	200x500		500	456			518				40.4	2015-117		
VG-1020	250x500	250	500	456			518				50.3	2015-119		
VG-606	150x150	150	150	116			150	162			9	2015-121		
VG-1224	300x600	300	600	550	18		300	620			48	73.5	2015-122	



Middle Pitch Permanent Magnetic Chuck

MAGNETIC FORCE 19KGF

680 GAUSS



APPLICATION

New type of think chuck, in 50mm thickness, for grinding and electrodischarging works, for thin plate or small works, in wide range of applications, it features a wide effective magnetic area on the chucking face.

FEATURES

- Thin and light to meet versatile applications.
- Fine-pitched magnetic poles, on this model,make it ideally suitable for small and thin works.
- Hexagonal wrench key is used for the magnetic ON/OFF change over handle it is inserted through the side easily removed and operates quite lightly.
- The chuck surface has a wider effective mgnetic area than other chucks of similar type.

Unit:mm

ORDER NO.	DIMENSION	CHUCKING SIZE				POLE PITCH	CHUCK MOUNTING FACE			HEIGHT H	HEXAGONAL HANDLE HOLE	WEIGHT KGS	CODE NO.
		A	B	C	D		A	E	F				
VGF-1018B	100X175	100	175	146	18	5(1+4)	100	195	15	50	8	7.7	2015-160
VGF-1515B	150X150	150	150	116	18	5(1+4)	150	175	15	50	8	10	2015-161
VGF-1530B	150X300	150	300	256	18	5(1+4)	150	320	15	50	8	18.8	2015-162
VGF-1535B	150X350	150	350	306	18	5(1+4)	150	370	15	50	8	21.6	2015-163
VGF-1545B	150X450	150	450	406	18	5(1+4)	150	470	15	50	8	27.4	2015-164
VGF-2040B	200X400	200	400	356	18	5(1+4)	200	420	15	50	8	32.3	2015-165
VGF-2045B	200X450	200	450	406	18	5(1+4)	200	470	15	50	8	36.3	2015-166
VGF-1018BS	100X175	100	175	146	18	5(1+4)	100	175	15	50	8	8	2015-167
VGF-1515BS	150X150	150	150	121	18	5(1+4)	150	150	15	50	8	9	2015-168
VGF-1530BS	150X300	150	300	256	18	5(1+4)	150	300	15	50	8	20	2015-169

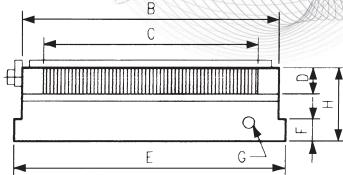
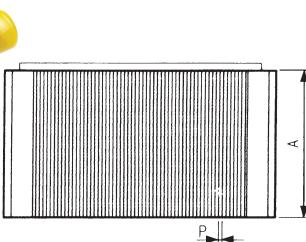


Fine Pole Magnetic Plate



MAGNETIC FORCE 21KGF

700 GAUSS



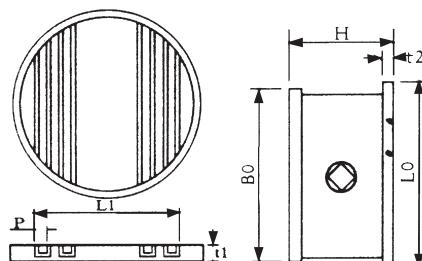
Unit:mm FEATURES

ORDER NO.	SIZE	CHUCKING SIZE				POLE PITCH	CHUCK MOUNTING FACE			HEIGHT	WEIGHT KGS	CODE NO.
		A	B	C	D		A	E	F			
VRTW-1018A	100X175	100	175	146		2.5 (1+1.5)	100	195	15	50	7.7	2015-130
VRTW-1515A	150X150	150	150	116			150	170	15		9.8	2015-131
VRTW-1530A	150X300	150	300	256			150	320	15		18.7	2015-132
VRTW-1535A	150X350	150	350	306			150	370	15		21.4	2015-133
VRTW-1545A	150X450	150	450	406			150	470	15		27.4	2015-135
VRTW-2040A	200X400	200	400	356	18		200	420	15		32.5	2015-137
VRTW-2045A	200X450	200	450	406			200	470	15		36.4	2015-138
VRTW-1224A	300X600	306	600	556			300	620	15		73	2015-138A
VRTW-1018S	100X175	100	175	146			100	175	-		8	2015-139
VRTW-1515S	150X150	150	150	121			150	150	-		9	2015-140
VRTW-1530S	150X300	150	300	256			150	300	-		20	2015-141
VRTW-1325S	125X250	125	250	206	20		125	250	15		13.1	2015-142

- Thin and light weight to meet versatile applications.
- Fine-pitched magnetic poles on this micropitch model. Make it ideally suitable for small and thin works.
- Hexagonal wrench key is used for the magnetic ON/OFF change over handle. It is inserted through the side, easily removed and operates quite lightly.
- The chuck surface has a wider effective magnetic area than other chuck of similar type.



Round Type Magnetic Plate



Unit:mm

ORDER NO.	FACE PLATE		BOTTOM PLATE		POLE PITCH	HEIGHT	WEIGHT	CODE NO.
	B0	t1	L1	t2	L0			
VGD-06	150		101		200	9 (2+7)	78	9.8 2015-150
VGD-08	200	21	137		200			12.8 2015-151
VGD-10	250		191		250			20.2 2015-152
VGD-12	300		227		305			30.4 2015-153

ORDER NO.VGD TYPE

Magnetic field intensity:

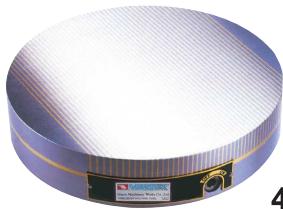
Higher than 650 gauss

APPLICATION

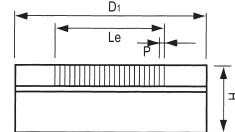
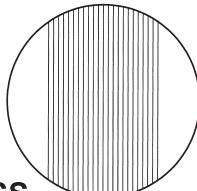
Suitable for light cutting and grinding on lathe, grinder, EDM and the Rotary Table.



Fine Pole Round Type Magnetic Plate



450 GAUSS



APPLICATION

New type of thin chuck, in 50mm thickness, for grinding and electrod-discharging works, for thin plate or small works, in wide range of applications, it features a wide effective magnetic area on the face plate (chucking face).

ORDER NO.	DIAMETER	TOP PLATE		POLE PITCH	HEIGHT	WEIGHT	CODE NO.
		D1	Le				
VGDW-6	160mm	160	115	2.5 (1+1.5)	50	8	2015-154
VGDW-8	200mm	200	155	2.5 (1+1.5)	50	13	2015-155
VGDW-10	250mm	250	205	2.5 (1+1.5)	50	21	2015-156
VGDW-12	300mm	300	255	2.5 (1+1.5)	50	33.5	2015-157

Permanent-Electro Magnetic Chuck

Suitable for Milling



NEW



5 SIDES MACHINING



CONTROLLER INCLUDED



VSB-
SPRING BLOCK



VTJ-
MAGNETIC TRANSISTING SOFT JAW

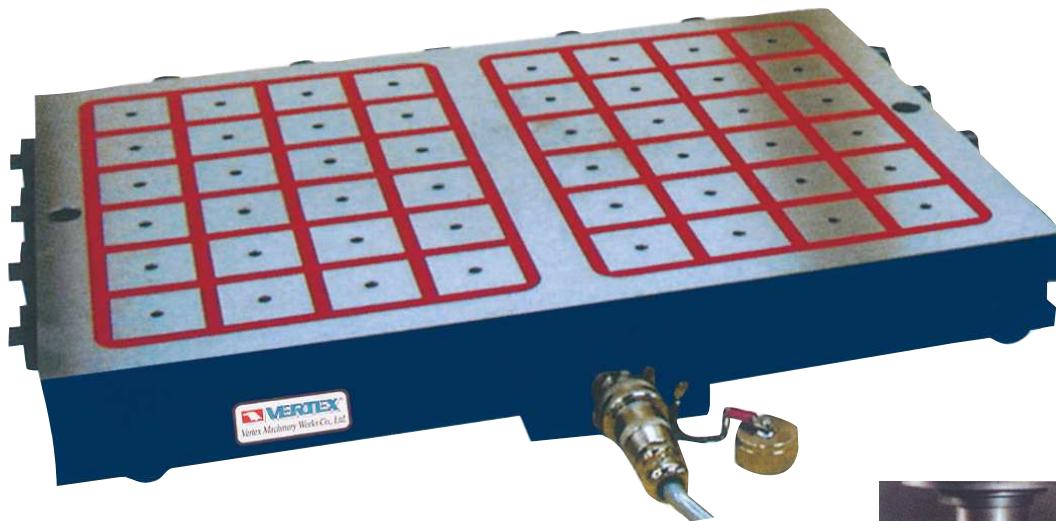
FEATURES

- Ensure higher magnetic and mechanical performances, as well as absolute reliability.
- Owing to no power supply to keep the magnetic chuck ON, it could be used for long time and never get temperature to affect the accuracy of workpiece. "COLD" device, not subject to internal wear or deformation resulting from moving internal parts.
- Easy and convenient to clamp a workpiece, shortens clamping time.
- Most suitable for heavy duty machining on medium, large or even rough components.
- Easily integrated with Pallet Change of Horizontal Machining Center and FMS System the Magnetic Chucks will be as geometrically stable as the table itself.
- For the most powerful machine tools available. Systems are switched ON or OFF with simple electrical pulse. A variable output from 20%-100% is controlled from the operator push button unit.
- Entirely independent of external power supply when holding work pieces. There is no risk, when power fails.
- 2 seconds control for power ON & OFF. No electric Power Supply required to keep the magnetic chuck ON. Safety in case of power failure.
- 10mm MIN. Thin workpiece & MIN. 4 block magnetic pole for workpiece.

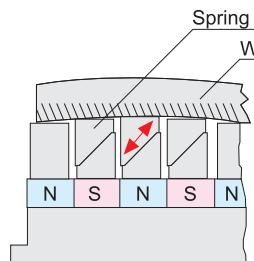


Permanent-Electro Magnetic Chuck

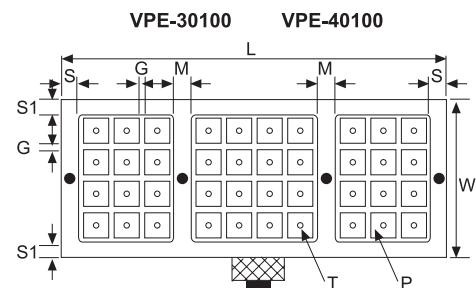
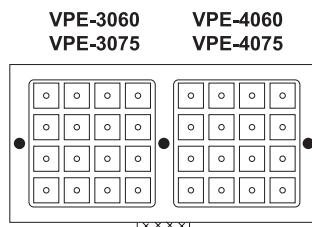
Suitable for Milling



STRONG CLAMPING FORCE, FAST SETTING, HIGH SAFETY



MAGNETIC FORCE 1000 KGS / 100 CM² / 4 SQUARE BLOCKS



ORDER NO.	DIMENISION						PITCH	POLE	No. of POLE	VOLTAGE	AMP	CHUCK N.W	CONTROLLER N.W	CODE NO.
	W	L	S	S1	M	T								
VPE-2540	240	430			--				18		18	42		2033-030
VPE-2560	240	590			30				24		24	63		2033-031
VPE-2580	240	750			30				30		30	84		2033-032
VPE-25100	240	990			30				42		40	105		2033-033
VPE-3030	300	310			--				16		16	38		2033-048
VPE-3040	300	430			--				24		24	51		2033-049
VPE-3060	300	590			30				32		35	76		2033-050
VPE-3075	300	750			30				40		32	102		2033-051
VPE-3090	300	870	30	25	30	M8	70	10	50X50	AC-220V 380V	40	115		2033-051A
VPE-30100	300	990			30				48		35	127		2033-052
VPE-4040	420	430			--				56		18	68		2033-052A
VPE-4060	420	590			30				36		25	102		2033-053
VPE-4075	420	750			30				48		30	135		2033-054
VPE-40100	420	990			30				60		45	168		2033-055
VPE-5060	480	590			30				84		28	126		2033-060
VPE-5080	480	750			30				56		35	168		2033-061
VPE-50100	480	990			30				70		50	210		2033-062



Permanent Magnetic Lifter (ON/OFF Type)



Convenient and efficiency for makes more profit

Light weight
Less dimension
Lower price

Safety coefficient 3.5 times!



VML-2000



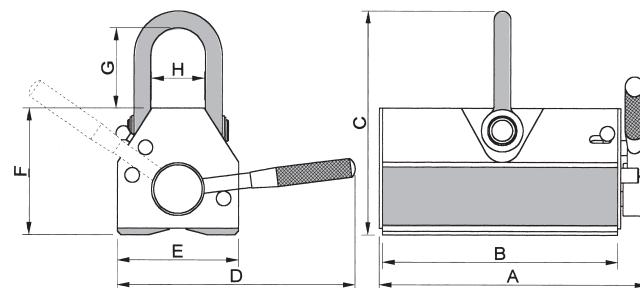
VML-100



VML-300



VML-600



FEATURES

- Each size suit for plate type & round type steel using.
- All new models with "light weight" less dimension" and "lower price".
- Made by permanent magnet, require no power supply, thus eliminating hazards due to failure wiring system as electric type.
- It features powerful magnetic force, with 3.5 times safety coefficient makes more safety in use.

OPERATION

With ON/OFF switch, it is very easy and convenient to operate.

See as the example pictures as below

Notice:

Never moves the handle to "ON" side, except on an iron object of holding.

ON



OFF



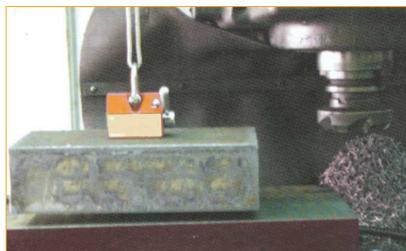
DIMENSIONS

ORDER NO.	Capacity	A	B	C	D	E	F	G	H	Weight	SAFETY COEFFICIENT	CODE NO.
	kg lbs	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	kg lbs		
VML-100	100 220	107 4.2	84 3.3	120 4.7	125 4.9	60 2.4	71 2.8	41 1.6	30 1.2	2.7 5.5	x3.5 times	2018-060
VML-300	300 660	180 7.1	155 6.1	156 6.1	185 7.3	90 3.6	93 3.7	51 2.0	41 1.6	9.1 18.9		2018-061
VML-600	600 1320	255 10	224 8.8	212 8.3	260 10.2	115 4.5	120 4.7	77 3.0	52 2.0	21.5 46		2018-062
VML-1000	1000 2200	280 11	245 9.6	286 11.3	371 14.6	165 6.5	169 6.7	97 3.8	87 3.4	53.4 101		2018-063
VML-2000	2000 4400	422 16.6	380 15	348 13.7	512 20.2	216 8.5	215 8.5	105 4.1	121 4.8	127.8 259		2018-064



APPLICATIONS

- Suitable for move plate steel, block steel and round steel, such as machine parts, press molds, plastic molds and iron materialetc.



LOAD OF HOLDING POWER

- The load of holding power will changes depending on the thickness, attractive face roughness and quality of material and clearance between the workpiece with magnet.

Table of difference in holding power by thickness

Thickness mm	Thickness inch	Percentage of lifting capacity					
		VML-3000	VML-2000	VML-1000	VML-600	VML-300	VML-100
T1 up 60	up 2.36"	100%	100%	100%	100%	100%	100%
T2 55	2.16"	95%					
T3 50	1.97"	90%					
T4 45	1.77"	85%					
T5 40	1.57"	80%					
T6 35	1.38"	70%					
T7 30	1.18"	60%					
T8 25	0.98"	50%					
T9 20	0.79"	40%					
T10 15	0.59"	30%					
T11 10	0.39"	20%					
T12 5	0.20"	10%					
		15%		20%	25%	30%	40%

Table of difference in holding power by attractive face roughness For all models

F1	0	50%	100%	125%
▽▽▽			125%	
▽▽		100%		
▽		90%		
~	65%			

Table of difference in holding power by material quality For all models

M1	0	50%	100%
Low carbon		100%	
Moderate carbon		85%	
High carbon		75%	
Cast iron	70%		

Calculating Formula for "Range of Lifting Capacity" → $(T_x F_x M_x \times \text{Capacity of Lifter})$

Example:

Terms of workpiece: T8, F1 and M2

$90\% \times 125\% \times 85\% \times 600\text{kgs (VML-600)} = 573\text{kgs}$

SAFETY COEFFICIENT x 3.5 times

The capacity of magnet indicated as 1/3.5 of holding power, it means the real holding power is 3.3 times of capacity. For example the capacity of VML-600 is 600kgs (1320lbs) but the real holding power is 1980kgs (4350lbs).

The large safety coefficient is consideration for ensuring the use in safety.

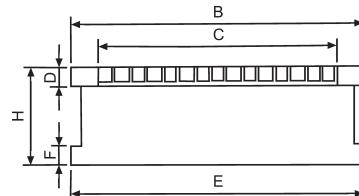
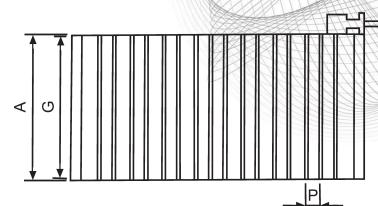
MAXIMUM LIFTING RANGE

FORM OF MATERIAL	STEEL PLATE		ROUND STEEL			
ORDER NO.	Max.lifting capacity	Min.thickness required	Max.lifting capacity	Max.diameter	Maximum length	
	kg lbs	mm inch	kg lbs	mm inch	mm inch	
VML-100	100 220	15 0.59"	45 99	150 5.9"	1000 40"	
VML-300	300 660	25 0.98"	135 300	250 9.8"	1500 60"	
VML-600	600 1320	30 1.18"	270 600	350 13.8"	2000 80"	
VML-1000	1000 2200	40 1.57"	450 990	450 17.8"	2500 98"	
VML-2000	2000 4400	55 2.16"	900 1980	550 21.6"	3000 118"	
VML-3000	3000 6600	60 2.36"	1350 2970	650 25.6"	3500 138"	

Standard Pole Electro Magnetic Chuck

VERTEX

450 GAUSS

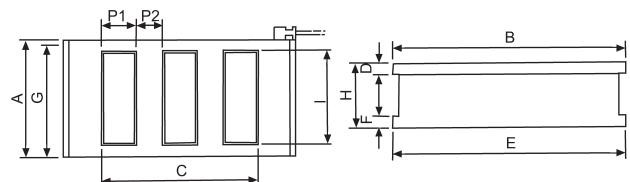


Unit:mm

ORDER NO.	DIMENSION	CHUCKING SIZE				POLE PITCH	CHUCK MOUNTING FACE				VOLTAGE	CURRENT	WEIGHT (kg)	CODE NO.
		A	B	C	D		G	E	F	H				
VEM-1530A	150x300	150	300	228	20	15(3+12)	144	316	20	70	DC-90V	0.15A	21	2015-221
VEM-1535A	150x350	150	350	288	20	15(3+12)	144	366	20	70	DC-90V	0.18A	25	2015-222
VEM-1545A	150x450	150	450	378	20	15(3+12)	144	466	20	70	DC-90V	0.24A	32	2015-223
VEM-2040A	200x400	200	400	348	20	15(3+12)	194	416	20	70	DC-90V	0.47A	38	2015-224
VEM-2045A	200x450	200	450	378	20	15(3+12)	194	466	20	70	DC-90V	0.35A	43	2015-225
VEM-2550A	250x500	250	500	438	20	15(3+12)	240	500	20	70	DC-90V	0.73A	67	2015-226
VEM-3060A	300x600	300	600	529	20	15(3+12)	290	600	20	70	DC-90V	0.97A	97	2015-227
VEM-4080A	400x800	400	800	725	25	19(3+16)	390	800	20	80	DC-90V	1.56A	182	2015-228
VEM-40100A	400x1000	400	1000	936	25	19(3+16)	390	1000	20	80	DC-90V	1.60A	228	2015-229
VEM-50100A	500x1000	500	1000	936	25	19(3+16)	490	1000	20	80	DC-90V	1.72A	285	2015-230

Super-Powerful Electric Magnetic Chuck

MILLING M / C TYPE
1200 GAUSS



APPLICATION

Most efficient for heavy cutting with milling machine, shaper, planer and planomill. It displays the power for the thick work and the high speed cutting operation.

Unit:mm

ORDER NO.	DIMENSION	CHUCKING SIZE					POLE PITCH	CHUCK MOUNTING FACE				VOLTAGE	CURRENT	WEIGHT N.W. (kg)	CODE NO.	
		A	B	C	D	I		G	E	F	H					
VEM-2040Z	200x400	200	400	332	20	160	40	35	194	400	20	110	DC-90V	0.71	54	2015-251
VEM-2050Z	200x500	200	500	422	20	160	48	34	194	500	20	110	DC-90V	0.91	75	2015-252
VEM-2060Z	200x600	200	600	520	20	160	48	30	194	600	20	110	DC-90V	1.00	80	2015-253
VEM-2550Z	250x500	250	500	422	20	200	42	34	240	500	20	120	DC-90V	1.16	90	2015-254
VEM-3060Z	300x600	300	600	520	20	240	48	30	290	600	20	120	DC-90V	1.63	130	2015-255
VEM-4080Z	400x800	400	800	718	25	340	48	30	390	800	20	120	DC-90V	2.53	230	2015-256
VEM-40100Z	400x1000	400	1000	917	25	340	45	35	390	1000	20	120	DC-90V	2.96	288	2015-257
VEM-50100Z	500x1000	500	1000	917	25	430	45	35	490	1000	20	120	DC-90V	3.96	360	2015-258
VEM-60100Z	600x1000	600	1000	917	25	530	45	35	590	1000	20	120	DC-90V	5.30	432	2015-259

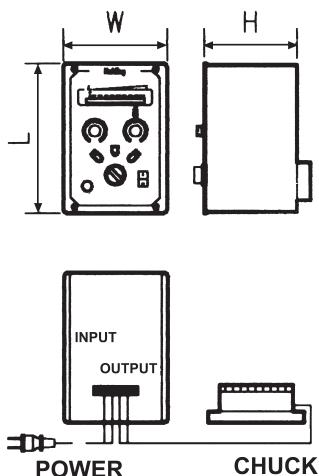


Chuck Controller (For Rectify & Demagnetize)



ORDER NO.VCC-705(5A)

For VGI-618~2048 / VLZ-510~612 / VIW-612~1224 / VEM-1530A~50100A

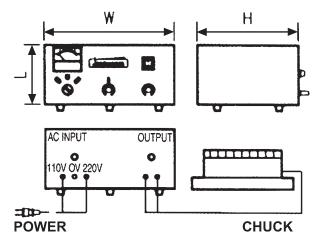


FEATURES

- Suitable for standard type of electric magnetic chucks.
- With current capacity of 5A; demagnetizing time is 6-15 seconds.
- Precisely adjust the magnetic force of electric magnetic chucks and indicate LED voltage.
- Suitable for any kind of electric magnetic chucks.

ORDER NO. VCC-805A (10A) FOR VGI-2060 / VEA-816~1640 / VEM-2040Z~40100Z

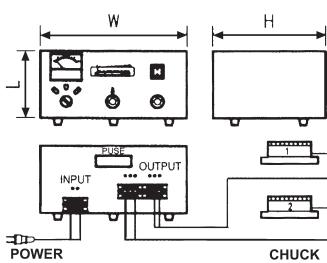
VCC-815 (15A) FOR VEA-2040~VEA2460 / VLZ-2060 / VEM-50100A / VEM-50100Z



FEATURES

- Suitable for standard type of electric magnetic chucks.
- With current capacity of 10A and 15A; demagnetizing time is 6-15 seconds.
- Precisely adjust the magnetic force of electric magnetic chucks and indicate LED voltage and current.
- Suitable for any kind of electric magnetic chucks.

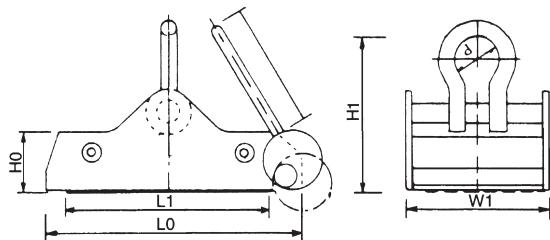
ORDER NO. VCC-820 (20A) FOR VEA-2460~ / VEM-60100Z



FEATURES

- Suitable for super powerful type of big electric magnetic chucks and could control 2 chucks at the same time.
- With current capacity of 20A; demagnetizing time is 8-15 seconds.
- Precisely adjust the magnetic force of electric magnetic chucks and indicate LED voltage and current.
- Built-in fan for radiating heat.
- Suitable for any kind of electric magnetic chucks.

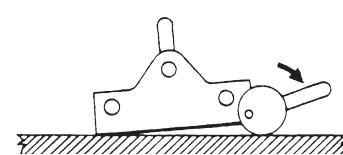
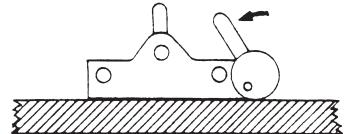
ORDER NO.	INPUT VOLTAGE (SINGLE PHASE)	OUTPUT		DIMENSION			NET WEIGHT (KGS)	CODE NO.
		VOLTAGE	CURRENT	L	W	H		
VCC-705	AC 110V/220V	DC 0-100V	5A	200	137	122	3.5	2015-380
VCC-805A	AC 110/220/380/415/440V	DC 0-100V	10A	150	330	260	18	2015-381
VCC-815	AC 220/380/415/440V	DC 0-120V	15A	150	330	260	20	2015-382
VCC-820	AC 220/380/415/440V	DC 0-120V	20A	180	385	295	32	2015-383

CAM TYPE

FEATURES

- Normal operation is not influenced on power off or system breakdown, as there is permanent magnet.
- Cam mechanism, easy operation.
- Ground surface of workpiece may be attracted to be scrap occasionally, please be careful.

LOADING

- Take the magnetic table on the workpiece, and move it at the vertical position.


UNLOADING

- Move the level at the horizontal position, the workpiece will be separated.

ORDER NO.	CAPACITY	W1	L1	L0	H0	H1	d	I	NET WEIGHT (KGS)	CODE NO.
VGP-100	1000kg	204	298	366	65	125	50	135	25.8	2018-040
VGP-200	2000kg	330	380	445	130	135			46.8	2018-041


Magnetic Lifter
HANDLE TYPE

VML-80

VML-140
FEATURES

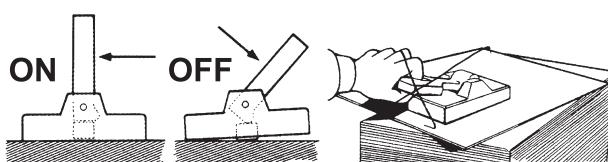
- Work is held and released very smoothly.
- Most suitable to move materials or semi-finished products such as black steel plate, flat iron and other materials etc.

HOLDING POWER

It depends on the attractive face, quality and thickness of material and clearance between the material and magnet.

MAXIMUM HOLDING POWER

Workpiece must be thick enough and the surface must be free of dust. magnetic attraction is best and with low carbon-soft steels.


VML-150


Unit:mm

ORDER NO.	CAPACITY	L	W	H	N.W (KGS)	CODE NO.
VML-80	80kgf	55.5	50	62	1.23	2018-054
VML-140	140kgf	120	50	55	2.2	2018-055
VML-150	150kgf	140	100	140	2.5	2018-056



Magnetic Transistor Block



- The V-Blocks and Parallels transfer the magnetism from permanent magnetic chucks. The steel used in all V-Blocks and Parallels is selected for the highest magnetic transfer and is cast integrally with aluminum.

VCP-1 Chuck Parallels
1"x2"x4" Matched pair.

VCP-2 Chuck Blocks 2 $\frac{3}{8}$ "
1 $\frac{7}{8}$ "x2 $\frac{3}{8}$ "x2" Matched pair.

VCP-3 Chuck Block
1 $\frac{4}{5}$ "x2 $\frac{3}{10}$ "x4 $\frac{3}{10}$ "single

VCP-4 Chuck Block
Each one of VCP-1 & VCP-2

ORDER NO.	WEIGHT KGS	CODE NO.
VCP-1	1.3	2015-401
VCP-2	1.2	2015-402
VCP-3	1.4	2015-403
VCP-4	2.5	2015-404



ORDER NO.VCP-6 CODE NO.2015-410

W^EIGHT:4.2kgs



Non-magnetic laminated plates and blocks are extras to increase the versatility of chucks. These plates and blocks offer excellent guidance of the magnetic force, and can be used in combination with chucks as ‘extensions’ for the clamping of workpieces of complex shapes.

Workpieces of 60

Comprises a selected set of 4 pairs of blocks

NO. of Blocks	STYLE	LxHxWxPCS	USED MODEL
1Pair		60x35x15x2	VCP-0
2Pair		100x50x25x2	VCP-1
1Pair		48x60x50x2	VCP-2



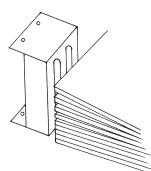
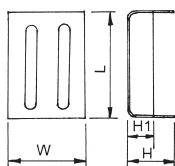
ORDER NO.VCP-5 CODE NO.2015-420

WEIGHT: 0.8kg



- Each block 2"x1"x1". Length overall: $4\frac{1}{8}$ ". width over all $2\frac{1}{8}$ ".
 - For Holding and welding.
 - Magnetic blocks can be set at any angle by adjustment and locking of the wing nut. When used in multiples, a number of sheets can be held in complicated arrangement.
 - Compact in size for holding work in confined spaces.

Magnetic Steel Sheet Separator



APPLICATION

- Suitable for separating a pile of thin iron plates or for chips separation.

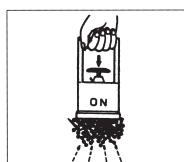
FEATURES

- By the principle of mutual repulsion between same magnetic poles, this item enable easy separation of thin iron plates.
- Also useable for chips separation on the small conveyer belt.

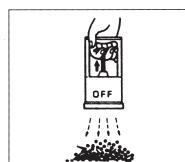
Unit:mm

ORDER NO.	DIMENSION				NET WEIGHT KGS	CODE NO.
	L	W	H	H1		
VCP-10	130	130	65	35	2.6	2015-430
VCP-11	210	155	65	35	4.2	2015-431

Magnetic Chip Collector



Magnet turned ON
attracts Powerfully.



Magnet turned OFF
Releases by Pulling Up Lever.

APPLICATION

- You can use it in a wide range of fields for machining, casting food chemical processing, etc.
- Most suitable for collecting iron pieces scattered on the floor or mixed in the medium, for putting in order, and holding the work at the buffing and other types of operations. This is conveniently applied to uses in selecting and collecting iron powder and granule materials; even for house-hold and educational uses.

FEATURES

- Magnetic force is turned ON/OFF just by operating the lever lightly with a hand.
- Powerful magnet ensure very strong adsorptive force with wide attractive face.



ORDER NO.	Dimension	Mass kgs	Weight kgs	CODE NO.
VCP-15	ø112x178H	75	1.9	2015-440

Magnetic Separating Bar Unit



VMS-9B

VMS-7B

Magnetic Separating Bar Unit made with Powerful magnet. It is essential to increase operation efficiency in removing substances from powder and grain materials, as in the industries of chemical, various and plastic...etc.

A wide range of applications and easy to mount.

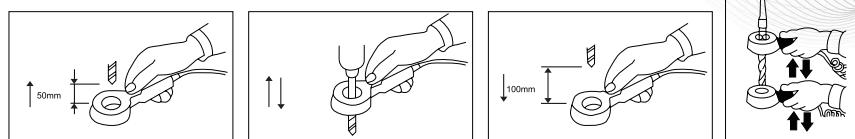
TEMPERATURE LIMIT 60°C

Unit:mm

ORDER NO.	DIMENSION (LxHxW)	WEIGHT KGS	CODE NO.
VMS-7B	180x170x75	2.4	2015-450
VMS-9B	239x220x65	3.8	2015-451



- Suit for drill, end mill, hard ware, cutting tool...etc.
- Handy type, it can also use the cutting tool.



ORDER NO.	INPUT VOLTAGE	POWER	DUTY CYCLE	HOLE CAPACITY	WEIGHT KGS	CODE NO.
VDM-40	AC110V/220V	80W	20%	Ø40MM	1.3	2019-030

NEW



- Suit for molding.
- Work perfectly in the narrow place.
- No need to remove the workpiece.



HANDY TYPE FOR BIGGER OR HEAVY WORKPIECE

ORDER NO.	INPUT VOLTAGE (SINGLE PHASE)	CURRENT	USING TIME	DIMENSION			WEIGHT KGS	CODE NO.
				L	W	H		
VDM-50	110V/220V/19H	1.2A	Demagnetize 1 minute waiting 4 minute	345	35	25	1.2	2019-031

Demagnetizer



FEATURES

- Suitable for general component spare parts, attachments, tools, etc, for fixed way demagnetization.
- Suitable for longtime use; be able to use continuously for 24 hours.
- With the design of double coils inside to avoid heat release.

DELUXE TYPE

ORDER NO.	INPUT VOLTAGE	CAPACITY	DUTY CYCLE	DIMENSION			NW KGS	CODE NO.
				L	W	H		
VDM-68	110V 220V	AC-330VA	100%	150	200	100	7.4	2019-001


VDM-8, 11

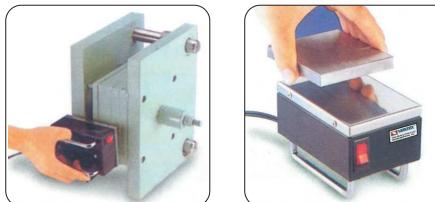
FEATURES

- Input voltage 110-220 Volts AC.
- With On-Off switch.
- Quickly Demagnetizes tools, drills punches, dies, etc. Held by magnetic chucks. Parts are demagnetized by drawing across surface.
- Voltage 200-240 should be ordered.

ORDER NO.	INPUT VOLTAGE	CAPACITY	WORKING SURFACE	HEIGHT	WEIGHT (KGS)	DUTY CYCLE	CODE NO.	Unit:mm
VDM-8	AC- 110V 220V	210VA	160X110	100	4.5	50%	2019-011	
VDM-11	AC- 110V 220V	550VA	200X280	30	16	100%	2019-021	

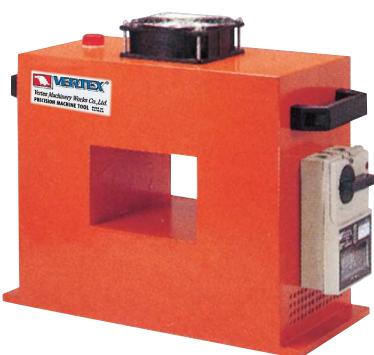
Mini Type Demagnetizer

For Handy And Big Plate



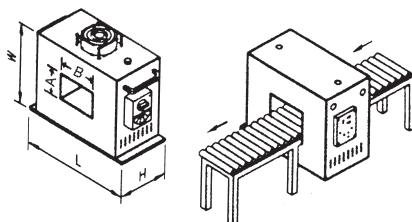
ORDER NO.	INPUT VOLTAGE	CAPACITY	WORKING SURFACE	HEIGHT	WEIGHT (KGS)	DUTY CYCLE	CODE NO.	Unit:mm
VDM-9	AC- 110V 220V	110VA	123X83	83	1.8	90%	2019-020	

Tunnel Type Demagnetizer And Magnetizer



FEATURES

- Merely using tools to pass through or move into a tunnel will cause a good demagnetizing effect.
- Suitable for planned automatic process; be adapted for delivery belts to proceed in order to increase productivity.
- Suitable for hand manual tools, etc. for filling magnetism.
- Suitable for large production of component spare parts, attachments, tools...etc.
- Suitable for longtime use; be able to use continuously for 24 hours.
- Super efficacy in demagnetizing and magnetizing; suitable for many kinds of metals.
- Attached a fan inside for dissipating heat.



ORDER NO.	POWER SOURCE	CAPACITY	DIMENSION			THROUGH HOLE		NET WEIGHT KGS	DUTY CYCLE	CODE NO.
			L	W	H	A	B			
VDM-150	AC 220/380V (single phase)	3520AV	370	370	200	100	150	33	100%	2019-025
VDM-250	AC 220/380V (3 phase)	4840AV	470	370	200	150	250	52		2019-026
VDM-450	AC 220/380V (3 phase)	4400VA	700	500	200	250	450	80		2019-027

Chip Collector Mini Handy Type



NEW



- Pull the trigger to drop attracted items easily.
- Permanent magnet.
- Light and handy design fitting ergonomics.
- Easy to pick up various kinds of hand of hand tools and small iron or steel parts for office, house and factory.
- Impact-proof plastic materials.

Unit:mm

ORDER NO.	PACKING	MASS KGS	CUFT	DIMENSION			WEIGHT KGS	CODE NO.
				L	W	H		
VCC-16	Color BOX	4.9	0.09'	110	110	190	0.7	2019-040

Chip Collector With Adjustable Arm Type

NEW



- Work perfectly in the narrow space.
- Pick up ferrous metal items such as tools, bolt, paper clips, nails, etc.
- Deluxe handle for comfort.
- Easy to use, safe, practical and time saving.
- Permanent magnet.
- Weight : 2 kgs

ORDER NO.	MAGNETIC BASE	MASS	CUFT	TOTAL LENGTH	CODE NO.
VCC-17A	120x70m/m	50kg	0.4'	700m/m	2019-041A

Chip Collector With Wheels

NEW



- Easy to use, safe and practical time saving device.
- Release magnetic pick up tool has a magnetic device which enable to attract any metal items and spare parts laying on the floor without the trouble to pick them up one by one.
- Pull the trigger to release magnetic force.
- Permanent magnet.

ORDER NO.	PACKING	MASS	CUFT	LENGTH	WEIGHT KGS	TOTAL WIDTH	CODE NO.
VCC-19	In Bulk	8.9kg	1.15'	720~1035m/m	1.5	377m/m	2019-043

Chip Collector With Flexible Arm

Flexible Magnetic Pick-Up Tool

WEIGHT:0.4kg



ORDER NO.	VCC-20
PACKING	Tied On Card
MASS	5kgs
CUFT	0.04'
LENGTH	533m/m
CAPACITY	12 lbs
CODE NO.	2019-044



Chip Collector With LED

Lighted Flexible Magnetic Pick-Up Tool

WEIGHT:0.2kg



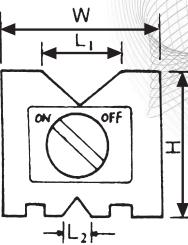
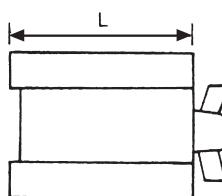
ORDER NO.	VCC-21
PACKING	Tied On Card
MASS	0.5kg
CUFT	0.04'
LENGTH	533m/m
CAPACITY	0.7 lbs
CODE NO.	2019-045

With 2pc 1.5V batteries



Magnetic V Block

1 PCS

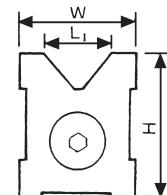
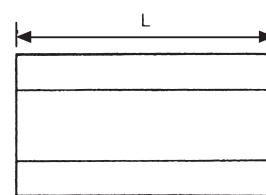


ORDER NO.	Magnetic Power(pull)	Dimension					Wt. kgs	CODE NO.
		H	W	L	L1	L2		
VCP-25	70kgs	95.3 3.75"	70 2.76"	101.6 4"	50 1.97"	20 0.75"	3.9	2015-501



Magnetic V Block

1 PCS



ORDER NO.	Magnetic Power(pull)	Dimension				Wt. kgs	CODE NO.
		H	W	L	L1		
VCP-26	30kgs	73 2.87"	54 2.13"	70 2.76"	38 1.5"	1.8	2015-510
VCP-27	35kgs	73 2.87"	60 2.36"	125 4.92"	38 1.5"	3.3	2015-511



Magnetic V Block



2 PCS/SET
PAIR

Magnetic V-Block

- Two pieces finished to the same dimension and accuracy are used together as a set.

ORDER NO.	Magnetic Power(pull)	Dimension			Width of V	Wt. kgs	CODE NO.
		H	W	L			
VCP-29	17kgs	74 2.91"	45 1.77"	110 4.33"	60 2.36"	4.9	2015-521
VCP-30	23kgs	100 3.94"	50 1.97"	150 5.91"	90 3.54"	8.9	2015-522

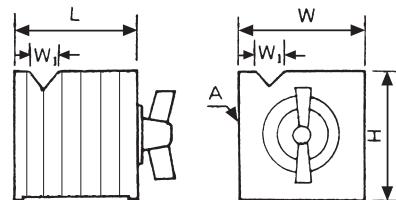


Magnetic Square Block



- The V-Blocks and Parallels transfer the magnetism from permanent magnetic chucks.

The steel used in all V-Blocks and Parallels is selected for the highest magnetic transfer and is cast integrally with aluminum.



ORDER NO.	Mag Power of V groove	Mag. Power of base	H	W	L	W1	Wt. kgs	CODE NO.
VCP-31	25kgs	50kgs	100 3.94"	100 3.94"	100 3.94"	26 1.02"	6.5	2015-530
VCP-32	50kgs	140kgs	150 5.91"	150 5.91"	150 5.91"	32 1.26"	20.4	2015-531



Magnetic Tools FOR DIAL GAUGE, INDICATORS



**FIXED ARM TYPE VMB-B,01,02
THE DIAL CLAMP HOLE Ø6.5 & Ø8**



ORDER NO. VMB-B
MAGNETIC BASE /80kgs



ORDER NO. VMB-01
MAGNETIC BASE
(ADJUSTABLE TYPE) /80kgs



ORDER NO. VMB-02
MAGNETIC BASE
(ADJUSTABLE TYPE) /80kgs



ORDER NO. VMB-03
MAGNETIC BASE
HEIGHT ROD TYPE/130kgs

Ø20x310



Big Dia. &
Height Rod



Ø8 Ø6.5

ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MIN ROD O.D XL	SUB ROD OD XL	WEIGHT (KGS)	CODE NO.
VMB-B	62X50X55	80KGS	Ø12X173	Ø10X162	1.6	2015-601
VMB-01	62X50X55	80KGS	Ø12X176	Ø10X150	1.6	2015-602
VMB-02	62X50X55	80KGS	Ø12X171	Ø10X153	1.6	2015-603
VMB-70	73.5X50X55.5	100KGS	Ø25X198	Ø25X116	1.7	2015-604
VMB-106	73.5X50X55.5	100KGS	Ø25X125	Ø25X125	1.9	2015-605
VMB-106H	75X50X55	100KGS	Ø25X125	Ø25X125	2.2	2015-606
VMB-03	115X50X55	130KGS	Ø20X310	Ø14X200	3.9	2015-607

UNIVERSAL ARM TYPE VMB-70,106,106H

THE DIAL CLAMP HOLE Ø6.5, Ø8 & DOVETAIL



ORDER NO. VMB-70
DELUXE UNIVERSAL
MAGNETIC BASE /100kgs



ORDER NO. VMB-106
MECHANICAL ARM
MAGNETIC BASE /100kgs



ORDER NO. VMB-106H
HYDRAULIC ARM
MAGNETIC BASE /100kgs

The head also suit for dial indicators



ORDER NO. VMB-06
FLEXIBLE ARM
WITH MAGNETEC BASE

ORDER NO. VML-A
MAGNETIC BASE AND
WORKING BEAM

ORDER NO. VML-B
MAGNETIC
WORKING BEAM

ORDER NO. VML-C
MAGNETIC
WORKING BEAM

ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.DXL	WEIGHT (KGS)	CODE NO.
VMB-06	62X50X55.5	75KGS		1.6	2015-610
VML-A	62X50X55.5	75KGS	Ø20X200	1.5	2015-611
VML-B	62X50X55	75KGS	Ø26X200	1.5	2015-612
VMB-00	62X50X55.5	80KGS		1.1	2015-613
VMB-11	120X50X55	140KGS		2.1	2015-614
VMB-12	60X50X55	80KGS		1.1	2015-615
VML-C	60X50X55	80KGS	Ø20X460	2.2	2015-616
VML-M	60X50X55	80KGS	Ø15X325	1.7	2015-617



ORDER NO. VML-M
MAGNETIC BASE WITH
MAGNIFYING GLASS
M8X1.25p,80kgs

ORDER NO. VMB-00
MAGNETIC BASE ONLY
M8X1.25p,80kgs

ORDER NO. VMB-11
MAGNETIC BASE ONLY
M8X1.25p,140kgs

ORDER NO. VMB-12
WHEEL DRESSER
CLAMP HOLE 12MM
WITHOUT DIAMOND
DRESSER PEN



**ORDER NO. VMF-112
MINI MAGNETIC BASE**



**ORDER NO. VH-70
MINI MAGNETIC BASE**



**ORDER NO. VMF-102
MINI DELUXE UNIVERSAL
MAGNETIC BASE
SUITABLE FOR EDM USING.**



**ORDER NO. VMS-1/4
ORDER NO. VMS-3/8
STEEL HOSE WITH
NOZZLE**

ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.D X L	SUB ROD O.D X L	WEIGHT (KGS)	CODE NO.
VMF-112	30X30X30	17KGS	Ø20 X 70	Ø20 X 65	0.6	2015-619
VH-70	31X31X32	15KGS	Ø10 X 70	Ø6 X 90	0.4	2015-620
VMF-102	44X50X38	22KGS	Ø20 X 70	Ø20 X 65	0.6	2015-621
VMS-1/4			Ø11 X 370	HOSE THREAD 1/4	0.2	2015-640
VMS-3/8			Ø15 X 370	HOSE THREAD 3/8	0.4	2015-641
VMH-54	62X50X55.5	75KGS	Ø16 X 330	2PCS.HOSE	1.4	2015-622
VMH-62	62X50X55.5	75KGS	Ø16 X 330	3PCS.HOSE	1.5	2015-623
VMH-63	62X50X55.5	75KGS	Ø11 X 330	1PCS.HOSE	1.6	2015-642
VMH-64	62X50X55.5	75KGS	Ø11 X 330	2PCS.HOSE	2	2015-643
VMH-65	62X50X55.5	75KGS	Ø11 X 330	3PCS.HOSE	2.2	2015-644



**ORDER NO. VMH-54
(2 HOSE)
MAGNETIC BASE
WITH HOSE NOZZLE**

**ORDER NO. VMH-62
(3 HOSE)
MAGNETIC BASE
WITH HOSE NOZZLE**

**ORDER NO. VMH-63
(1 HOSE)
MAGNETIC BASE
WITH STEEL NOZZLE**

**ORDER NO. VMH-64
(2 HOSE)
MAGNETIC BASE
WITH STEEL NOZZLE**

**ORDER NO. VMH-65
(3 HOSE)
MAGNETIC BASE
WITH STEEL NOZZLE**



Multi-Function Mist Coolant System

ORDER NO.VCS-500 CODE NO.2015-700

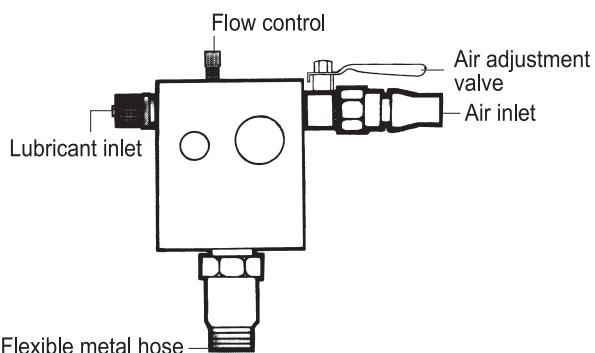
WEIGHT:0.8kg



FEATURES

- Flexible functions as cooling, lubrication and blowing the metal chips can be performed at the same time.
- Designed and manufactured for improving machinability, cutting speed, and extending tool service life, Saving working time and production cost.
- It insures better quality of parts finishing and cutting performance.
- The unit help to creat micro-finish effect even working on tough alloy steels and exotic metals.

This mist coolant systems are suited to fit on lathe, milling, drilling, tapping, grinding, cutter grinding, NC, CNC, press, sawing machine.....



Mist Coolant With Magnetic Base



ORDER NO. VMH-71 (1 HOSE)
MAGNETIC BASE WITH
MIST COOLANT SYSTEM

ORDER NO.	BASE SIZE LXWXH(MM)	HOLDING POWER	MAIN ROD O.D X L	SUB ROD O.D X L	WEIGHT (kgs)	CODE NO.
VMH-71	62X50X55.5	75KGS	Ø15X500	1PCS.HOSE	2	2015-618



CL-01



CL-02



CL-03

S-1 MAGNETIC FORCE 8kgs
Ø46X255

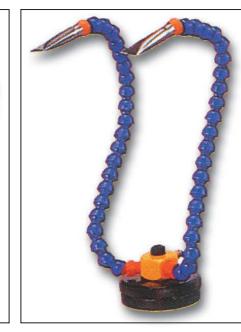
CL-01A



CL-02A



CL-03A

L2-S MAGNETIC FORCE 15kgs
O.D.68X330H

WITH PLASTIC NOZZLE & VALVE
O.D.34XH230mm

WITH STEEL NOZZLE
O.D.68X330H

- The adjustable magnetic nozzle is suitable for cooling and lubricating in machining process.
- Can be prolonged the cutter life and advance the accuracy and beauty of workpiece.
- By different of usage, there are much models for selection.
- Machine tool made by customer's specification and cooperated to develop.
- When using, please take out the spacer (under the magnetic base)

ORDER NO.	Weight	CODE NO.
CL-01	0.3kgs	2015-624
CL-02		2015-625
CL-03		2015-626
CL-01A		2015-627
CL-02A		2015-628
CL-03A		2015-629
S-1	0.2kgs	2015-630
L2-S	0.5kgs	2015-631

Adjustable Coolant Hoses & Valves

CODE NO. & DESCRIPTION

FIGURE

33CM Length Hose Kit
Assembled with:
1-1/4" Male NPT Valve
1-20 Element Segments
1-(1/16" or 1/8" or 1/4") Round Nozzle

ORDER NO. VHK-1/4 CODE NO.2016-002



36CM Length Hose Kit
Assembled with:
1-3/8" Male PT Valve
1-16 Element Segments
1-(1/4" or 3/8" or 1/2") Round Nozzle

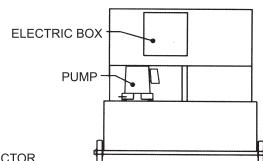
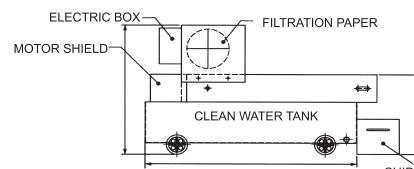
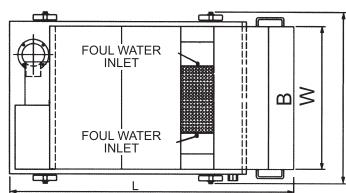
ORDER NO. VHK-3/8 CODE NO.2016-004



33CM Length Hose Kit
Assembled with:
1-1/2" Male NPT Valve
1-12 Element Segments
1-(1/4" or 3/8" or 1/2") Round Nozzle

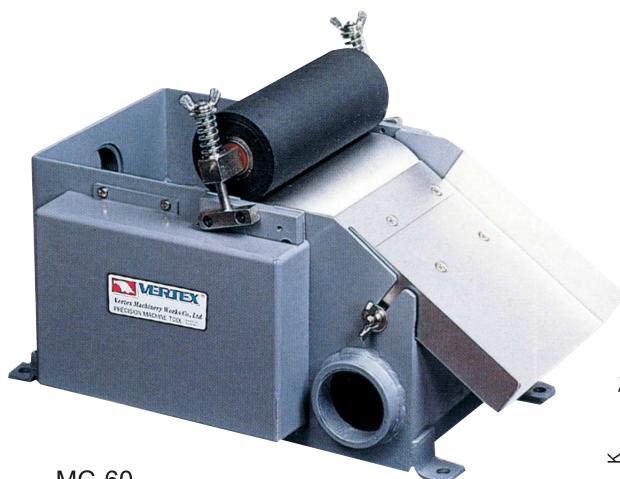
ORDER NO. VHK-1/2 CODE NO.2016-006





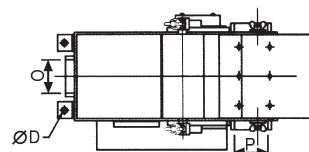
ORDER NO.	DISPOSAL CAPACITY L/MIN	WATER TANK CAPACITY							PUMP	PAPER MOTOR	PAPER	REMARKS	N.W (kgs)	GW (kgs)	CODE NO.
			L	A	B	C	W	H							
PF-20	20	100	1050	850	600	400	720	610	1/8	PF1/2"	25W	wheels attached	95	120	2020-001
PF-40	40	120	1200	1000	600	400	720	660	1/8	PF1/2"	25W		130	150	2020-002
PF-60	60	140	1350	1150	600	400	720	660	1/8	PF1/2"	25W		140	170	2020-003
PF-80	80	160	1500	1300	600	400	720	660	1/4	PF3/4"	25W		170	190	2020-004
PF-120	120	210	1500	1300	800	400	920	740	1/2	PF3/4"	40W		185	210	2020-005
PF-160	160	260	1800	1600	800	400	920	740	1/2	PF3/4"	40W		250	280	2020-006

Magnetic Separator

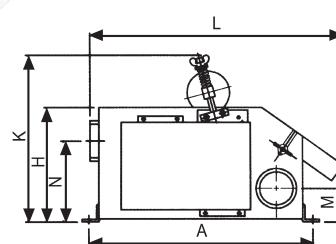


FEATURES

- Suitable in heavy machining for ferrous metal.
- No filtration-material consumption.
- Most economic in purchase & utilization cost.
- Able to serve rough filtration in other filtration process.



MC-20~160



Standard accessories

- a.Chip collector 1pc
- b.plugs 2pc
- c.Elbow 1pc
- d.Steel tubes 3pc

ORDER NO.	DISPOSAL CAPACITY L/MIN	L	W	H	M	N	A	B	D	J	K	INLET O	OUTLET P	MOTOR	N.W (kgs)	GW (kgs)	CODE NO.
MC-20	20	464	130	205	65	145	398	100	11	230	300	PF1 1/2"	PF1 1/2"	220V3Ø,25W	18	20	2020-010
MC-40	40	464	150	205	65	145	398	120	11	250	300	PF2"	PF2"	220V3Ø,25W	20	23	2020-011
MC-60	60	464	206	205	60	150	398	176	11	306	300	PF2"	PF2"	220V3Ø,25W	25	28	2020-012
MC-80	80	464	242	205	60	150	398	212	11	342	300	PF2"	PF2"	220V3Ø,25W	30	40	2020-013
MC-120	120	530	270	245	68	185	456	230	11	380	345	PF1 1/2"	PF3"	220V3Ø,40W	50	65	2020-014
MC-160	160	530	354	245	68	185	456	314	11	464	345	PF3"	PF3"	220V3Ø,40W	60	75	2020-015

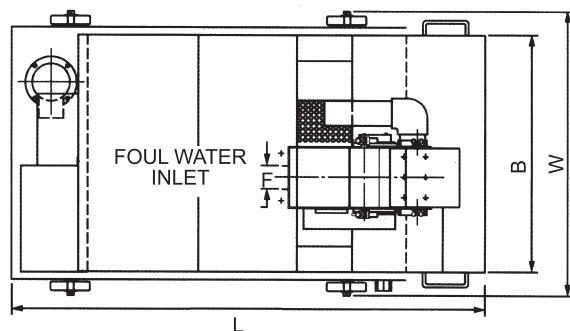

MC+PF60

APPLICABLE TO THE FOLLOWING WORKING MACHINES

- Plane grinding machine.
- Fine-grinding machine.
- Honing machine.
- Deep-hole drill.
- Internal/exterless cylinder grinder.
- Centerless grinder.
- Please specify the power voltage in your order list.
- Specifications are subject to change without notice.

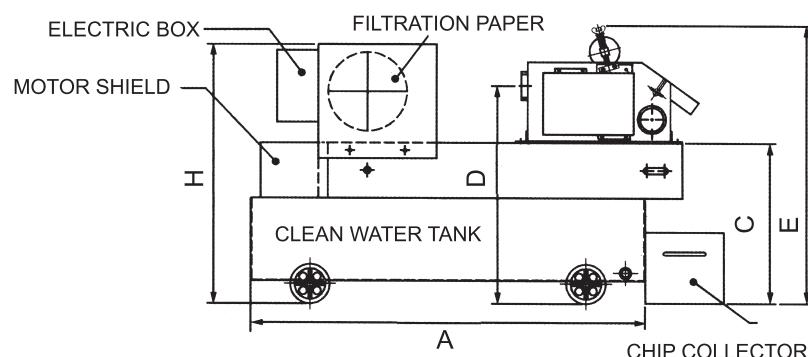
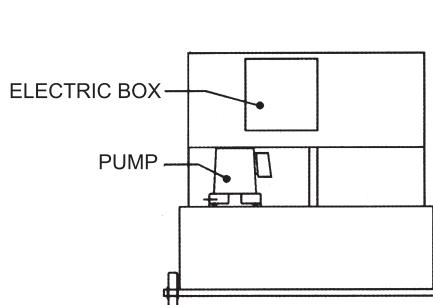
FEATURES

- Applicable to both ferrous and non-ferrous metals.
- Filtration effect depends on paper accuracy.
Use 50μ, 30μ, or 15μ.
- Rough filtration for chip in coolant with magnet and then fine filtration for impurities with paper will save the paper and upgrade filtration accuracy



DIMENSION DIAGRAM

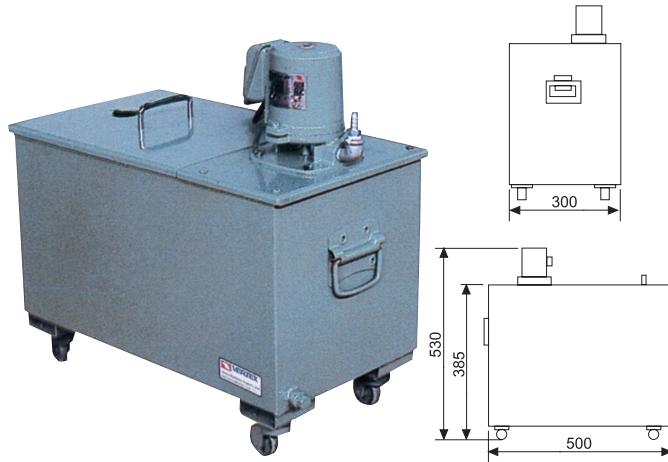
- Standard accessory: one roll paper 30μ



MAGNETIC SEPARATOR & PAPER FILTER SPECIFICATIONS

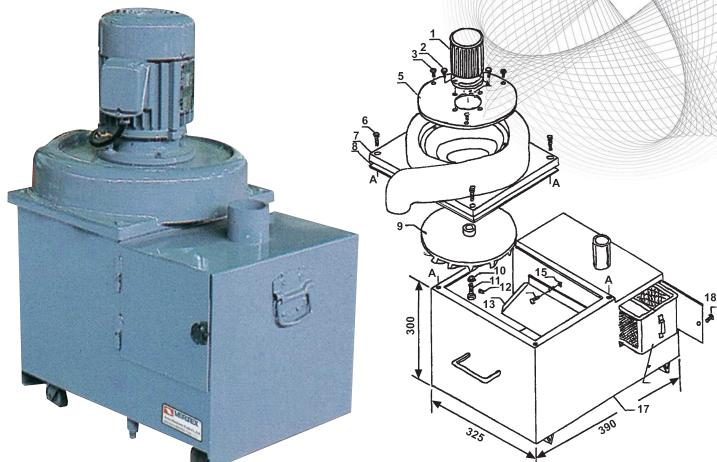
ORDER NO.	DISPOSAL CAPACITY L/MIN	WATER TANK CAPACITY	L	A	B	C	D	E	F	H	W	PUMP	PAPER MOTOR	PAPER	REMARKS	N.W (kgs)	G.W (kgs)	CODE NO.
												HP	OUTLET					
MC+PF-20	20	100	1050	850	600	400	550	655	PF1 1/2"	610	720	1/8	PF1/2"	25W	NO wheels W:500MM L:90M	115	140	2020-020
MC+PF-40	40	120	1200	1000	600	400	550	705	PF2"	660	720	1/8	PF1/2"	25W		150	175	2020-021
MC+PF-60	60	140	1350	1150	600	400	555	705	PF2"	660	720	1/8	PF1/2"	25W		165	200	2020-022
MC+PF-80	80	160	1500	1300	600	400	555	705	PF2"	660	720	1/4	PF3/4"	25W		190	225	2020-023
MC+PF-120	120	210	1500	1300	800	400	590	750	PF2 1/2"	740	920	1/2	PF3/4"	40W	W:700MM L:90M	235	275	2020-024
MC+PF-160	180	260	1800	1600	800	400	605	750	PF3"	740	920	1/2	PF3/4"	40W		290	335	2020-025

Coolant Tank



ORDER NO.	LxWxH	MOTOR	G.W.	CODE NO.
VC-601	500x300x530	1/8 HP	23kgs	2020-030

Dust Collector



ORDER NO.	LxWxH	MOTOR	G.W.	CODE NO.
VC-602	560x370x720	1/2 HP	47kgs	2020-026

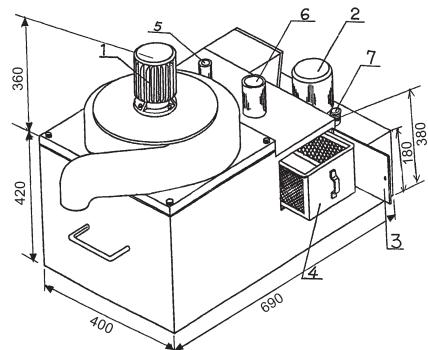
Dust-Suction And Coolant Tant

TWO IN ONE



PLEASE NOTIFY VOLTA & PHASE,
WHEN YOU ORDERING.

- Combination coolant and dust collector(10-12 J)
 1. Dust suction motor
 2. Coolant pump
 3. Filter access door
 4. Filter
 5. Coolant return pipe
 6. Dust inlet pipe
 7. Pump outlet

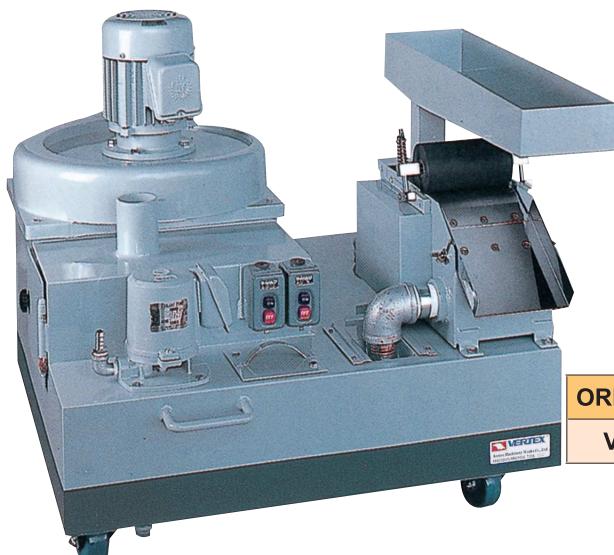


Unit: m/m

ORDER NO.	LxWxH	MOTOR	G.W.	CODE NO.
VC-603	690x400x780	1/2 HPx1, 1/8 HPx1	80kgs	2020-027

Dust-Suction & Coolant Tant W/Magnetic Separator

THREE IN ONE



PLEASE NOTIFY VOLTA & PHASE,
WHEN YOU ORDERING.

Unit: m/m

ORDER NO.	LxWxH	MOTOR	G.W.	CODE NO.
VC-606	900x780x850	1/2 HPx1, 1/8 HPx1	110kgs	2020-028



Oil Skimmer With Belt Type

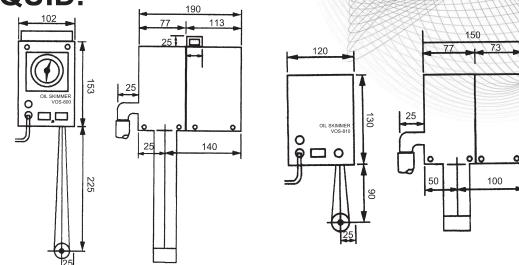


**OIL SKIMMER FOR MACHINE TOOL.
IT IS FOR CLEAR FLOATING OIL ON CUTTING LIQUID.**



ORDER NO. VOS-800

ORDER NO. VOS-810



FEATURES

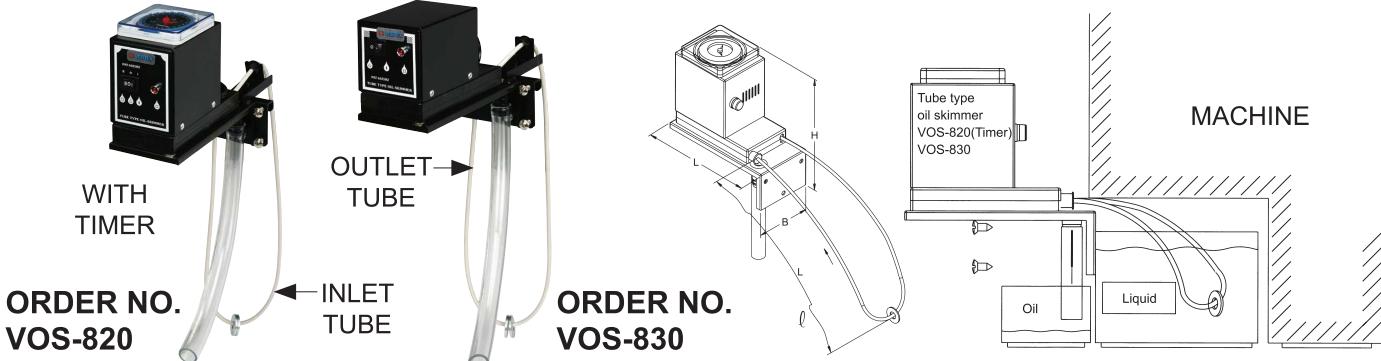
- Oily leather belt cycle for collecting oil and efficiently and completely getting rid of useless oil.
- Much less cost of running., without any material expended.
- Small volume., light weight., easy to install and to operate.
- Special leather belt with feature of excellent durability, heat-resistance, and chemical-resistance.
- VOS-800 attached a 24 hours procedure timer to run repeatedly in accordance with time proportion which it is set, and also provides the best efficiency of sucking floating oil.

Unit: mm

ORDER NO.	POWER SOURCE	CAPACITY	DIMENSION			WEIGHT (kgs)	BELT DIMENSION	DIMENSION OF HOSE	CODE NO.
			L	B	H				
VOS-800	AC 110/220V	4L/h	190m/m	102m/m	153m/m	3.4	39x800m/m	ø22x600m/m	2020-100
VOS-810			150m/m	102m/m	138m/m	3	39x550m/m		2020-101



Oil Skimmer With Belt Type



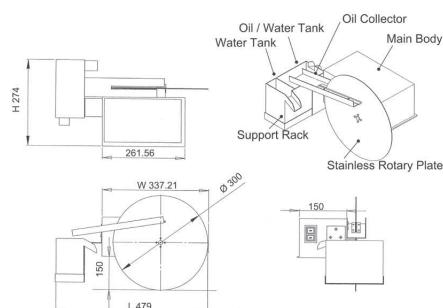
IF THE MACHINE DON'T HAVE SPACE FOR THE OIL SKIMMER. PLEASE CHOICE THIS TYPE.

Unit: mm

ORDER NO.	CAPACITY	DIMENSION			INLET TUBE SIZE	QUTLET TUBE SIZE	POWER SOVRCE	WEIGHT (kg)	CODE NO.
		L	B	H					
VOS-820	1L/hr	155m/m	78m/m	178m/m	1:350mm 2:300mm 3:200mm	ø22	150m/m	AC 110/220V	1.9 2020-102
VOS-830		155m/m	78m/m	140m/m					2 2020-103



Oil Skimmer With Rotary Plate Type



Unit: mm

ORDER NO.	CAPACITY	POWER SOURCE	DIMENSION			WEIGHT (kgs)	CODE NO.
			L	W	H		
VOS-850	1L/hr	AC 220V	479	337.21	274	8.6	2020-104



Gauge blocks are fundamental standards for linear measurement. For adjusting, checking, or inspecting measuring instruments and tools, and precision workpieces. Gauge blocks are used either individually or in combination of several blocks which are wrung together.

Steel gauge blocks are made of quality alloy steel, and carbide, the ceramics are also available.

The hardness number of the measuring surfaces is no less than HRC64.

The blocks have fine wear resistance. They are heat treated in special ways so as to stabilize their lengths.

JIS/ISO/DIN		ACCURACY STANDARD	
SIZE OVER UP TO	ACCURACY AT 20°C (µm)	GRADE 00	GRADE 0
10mm	±0.06	±0.12	
10 - 25mm	+0.07	±0.14	
25 - 50mm	±0.10	±0.20	
50 - 75mm	±0.12	±0.25	
75 - 100mm	±0.14	±0.30	
100 - 150mm	-	±0.40	

SIZE OVER UP TO	ACCURACY AT 20°C (µm)	
	GRADE 1	GRADE 2
10mm	±0.20	±0.45
10 - 25mm	±0.30	±0.60
25 - 50mm	±0.40	±0.80
50 - 75mm	±0.50	±1.00
75 - 100mm	±0.60	±1.20
100 - 150mm	±0.80	±1.60

STEEL METRIC GAUGE BLOCKS

ORDER NO.	Total blocks	Nominal dimension	Steps	No. of blocks	Grade	Weight (kg)	CODE NO.
VGB-112-0	112	1.0005	-	1	0	3.7	2006-070
VGB-112-1		1.001-1.009	0.001	9	1	3.7	2006-170
VGB-112-2		1.01-1.49 0.5-24.5 25-100	0.01 0.05 25	49 49 4	2	3.7	2006-270
VGB-103-0	103	1.005	-	1	0	3.6	2006-072
VGB-103-1		1.01-1.49 0.5-24.5 25-100	0.01 0.5 25	49 49 4	1	3.6	2006-172
VGB-103-2		1.01-1.49 0.5-9.5 10-100	0.01 0.5 10	49 19 10	2	3.6	2006-272
VGB-87-0	87	1.001-1.009	0.001	9	0	3	2006-073
VGB-87-1		1.01-1.49 0.5-9.5 10-100	0.01 0.5 10	49 19 10	1	3	2006-173
VGB-87-2		1.01-1.49 1.1-1.9 1-24 25-100	0.01 0.1 1 25	9 9 24 4	2	3	2006-273
VGB-47-0	47	1.005	-	1	0	2.4	2006-074
VGB-47-1		1.01-1.09 1.1-1.9 1-24 25-100	0.01 0.1 1 25	9 9 24 4	1	2.4	2006-174
VGB-47-2		1.01-1.09 1.1-1.9 1-9 10-100	0.01 0.1 1 10	9 9 9 10	2	2.4	2006-274
VGB-38-0	38	1.005	-	1	0	2.5	2006-075
VGB-38-1		1.01-1.09 1.1-1.9 1-9 10-100	0.01 0.1 1 10	9 9 9 10	1	2.5	2006-175
VGB-38-2		1.01-1.09 1.1-1.9 1-9 10-100	0.01 0.1 1 10	9 9 9 10	2	2.5	2006-275

CARBIDE METRIC GAUGE BLOCKS

ORDER NO.	Total blocks	Nominal dimension	Steps	No. of blocks	Grade	Weight (kgs)	CODE NO.
VGB-112T-0	112	1.0005	-	1	0	5.8	2006-080
VGB-112T-1		1.001-1.009	0.001	9	1	5.8	2006-180
VGB-112T-2		1.01-1.49 0.5-24.5 25-100	0.01 0.05 25	49 49 4	2	5.8	2006-280
VGB-103T-0	103	1.005	-	1	0	5.6	2006-081
VGB-103T-1		1.01-1.49 0.5-24.5 25-100	0.01 0.5 25	49 49 4	1	5.7	2006-181
VGB-103T-2		1.01-1.49 0.5-9.5 10-100	0.01 0.5 10	49 19 10	2	5.7	2006-281
VGB-87T-0	87	1.001-1.009	0.001	9	0	4.8	2006-082
VGB-87T-1		1.01-1.49 0.5-9.5 10-100	0.01 0.5 10	49 19 10	1	4.9	2006-182
VGB-87T-2		1.01-1.49 0.5-9.5 10-100	0.01 0.5 10	9 19 10	2	4.8	2006-282
VGB-47T-0	47	1.005	-	1	0	4.6	2006-083
VGB-47T-1		1.01-1.09 1.1-1.9 1-24 25-100	0.01 0.1 1 25	9 9 24 4	1	4.6	2006-183
VGB-47T-2		1.01-1.09 1.1-1.9 1-24 25-100	0.01 0.1 1 25	9 9 24 4	2	4.6	2006-283


HOW TO CHOICE THE BLOCK FOR SINE BAR

DISTANCE GAUGE BLOCK CAN GET HEIGHT DEGREE	SIN BAR CENTER	SIN BAR CENTER
2°	50	50
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

Gauge blocks are fundamental standards for linear measurement. For adjusting, checking, or inspecting measuring instruments and tools, and precision workpieces.

Gauge blocks are used either individually or in combination of several blocks which are wrung together.

JIS/ISO/DIN ACCURACY STANDARD

SIZE OVER UP TO	ACCURACY AT 20°C (µm)	
	GRADE 00	GRADE 0
10mm	±0.06	±0.12
10 - 25mm	±0.07	±0.14
25 - 50mm	±0.10	±0.20
50 - 75mm	±0.12	±0.25
75 - 100mm	±0.14	±0.30
100 - 150mm	-	±0.40

SIZE OVER UP TO	ACCURACY AT 20°C (µm)	
	GRADE 1	GRADE 2
10mm	±0.20	±0.45
10 - 25mm	±0.30	±0.60
25 - 50mm	±0.40	±0.80
50 - 75mm	±0.50	±1.00
75 - 100mm	±0.60	±1.20
100 - 150mm	±0.80	±1.60

CERAMIC GAUGE BLOCKS

ORDER NO.	Total blocks	Nominal dimension	Steps	No. of blocks	Grade	Weight (kgs)	CODE NO.
VGB-112C-0	112	1.0005 1.001-1.009 1.01-1.49	- 0.001 0.01	1 9 49	0	3.7	2006-090
VGB-112C-1		0.5-24.5 25-100	0.05 25	49 4	1	3.7	2006-190
VGB-103C-0	103	1.005 1.01-1.49	- 0.01	1 49	0	3.6	2006-091
VGB-103C-1		0.5-24.5 25-100	0.5 25	49 4	1	3.6	2006-191
VGB-87C-0	87	1.001-1.009 1.01-1.49	0.001 0.01	9 49	0	3	2006-092
VGB-87C-1		0.5-9.5 10-100	0.5 10	19 10	1	3	2006-192
VGB-47C-0	47	1.005 1.01-1.09 1.1-1.9 1-24 25-100	- 0.01 0.1 25	1 9 9 24 4	0	2.4	2006-093
VGB-47C-1					1	2.4	2006-193

Unit:m/m



- These surface plates are designed for a diversity of applications where a smooth surface is needed.
- Rigidity and lasting accuracy are ensured by adequate top and side thickness and ribbed construction.
- The surfaces are free from pinholes. Precisely finished by planing and hand scraping, suitable for various kinds of highest precision work, inspection and countless other uses.



Surface Plates

ORDER NO.	SIZE mm	SURFACE ACCURACY mm	APPROX. WEIGHT kgs	CODE NO.
VS-01	200x200	0.005/100	7.1	2021-001
VS-02	250x250		11.1	2021-002
VS-03	250x300		10.9	2021-003
VS-04	300x300		12.6	2021-004
VS-05	300x400	0.006/100	20.1	2021-005
VS-06	300x450		24	2021-006
VS-07	450x450		50.5	2021-007
VS-08	500x500		56	2021-008
VS-09	450x600	0.007/100	64.5	2021-009
VS-10	600x600		93	2021-010
VS-11	600x900		118	2021-011
VS-12	900x900		313	2021-012
VS-13	900x1200		431	2021-013

STAND

ORDER NO.	STAND SIZE mm	KGS	CODE NO.
VSD-09	450x600x700		2021-009A
VSD-10	600x600x700		2021-010A
VSD-11	600x900x600		2021-011A
VSD-12	900x900x600		2021-012A
VSD-13	900x1200x600		2021-013A

Black Granite Surface Plates



- Black Granite Surface Plates meet or exceed Federal Specification GGG-P-463c.
- Harder than steel.
- Does not nick or burr.
- Retains accuracy for years.
- Auto-colimator checked for overall accuracy.
- Guaranteed repeat reading.
- Includes an inspection certificate to show the unilateral accuracy of plate.
- Does not rust or corrode.
- All surface plates include inbound freight from factory.



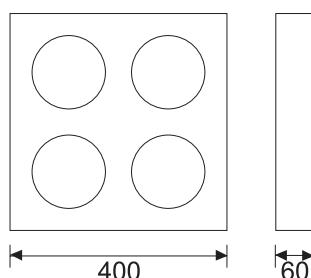
Surface Plates

ORDER NO.	SIZE mm	SURFACE ACCURACY mm	APPROX. WEIGHT kgs	CODE NO.
VSG-05	300x300x60	0.0065	25	2021-020
VSG-06	300x450x60	0.0065	31	2021-021
VSG-07	450x450x75	0.0065	46	2021-022
VSG-09	450x600x100	0.007	79	2021-023
VSG-10	600x600x100	0.009	110	2021-024
VSG-11	600x900x110	0.009	210	2021-025
VSG-13	900x1200x135	0.012	470	2021-027
VSG-14	1000x1000x135	0.012	450	2021-028
VSG-15	1000x1500x200	0.013	670	2021-029
VSG-21	900x900x160	0.013	380	2021-032

STAND

ORDER NO.	STAND SIZE mm	KGS	CODE NO.
VSGD-09	450x600x700	27.4	2021-023A
VSGD-10	600x600x700	30	2021-024A
VSGD-11	600x900x600	33.5	2021-025A
VSGD-13	900x1200x600	86	2021-027A
VSGD-14	1000x1000x600	87	2021-028A
VSGD-15	1000x1500x600	100	2021-029A
VSGD-21	900x900x600	73.4	2021-032A

Accuracy and O-Ledge Style available only in toolroom Grade A

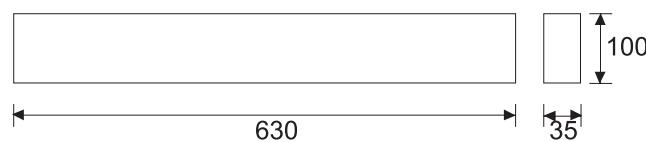


Accuracy:
SQUARENESS 0.002 m/m

Unit: m/m

ORDER NO.	SIZE	G.W.(kgs)	CODE NO.
VQR-400	400x400x60	24.8	2021-050
VQR-500	400x500x60	40.2	2021-051

Granite Straight Rulers



Accuracy:
PARALLELISM 0.002 m/m

Unit: m/m

ORDER NO.	SIZE	G.W.(kgs)	CODE NO.
VSR-630	630x100x35	8.7	2021-060
VSR-1000	1000x80x50	13.7	2021-061

Granite Triangle Ruler

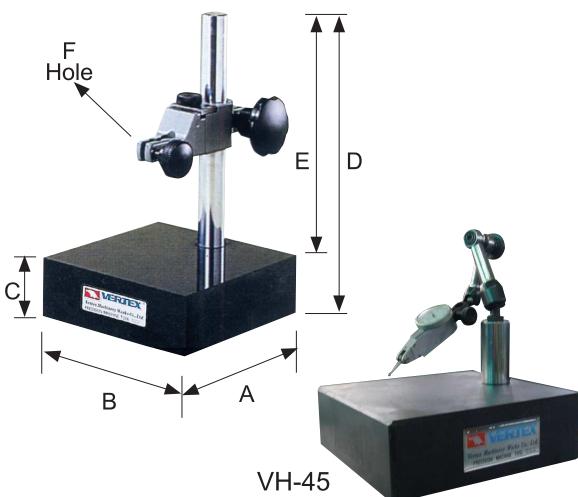


ORDE NO.	Size	Squareness	Thickness	Weight (kgs)	CODE NO.
VGT-300	300x200	0.002	30	5.7	2022-020
VGT-400	400x250	0.003	30	8.4	2022-021
VGT-600	600x400	0.004	63	27.5	2022-022

Granite V-Block



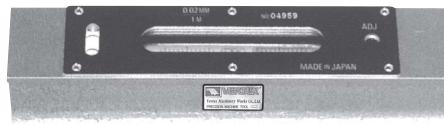
ORDER NO.	CAPACITY	Size	GRADE	KGS	CODE NO.
VGV-63	Ø10~50	63x63x63	0	1.7	2022-030
VGV-100	Ø50~80	100x100x100	0	6.3	2022-031


ACCURACY: 0.005/100mm

ORDER NO.	AxB GRANITE PLATE DIEMENSION	C	D	E	F	WEIGHT (kgs)	CODE NO.
VH-41	6" x 6" 150x150mm	52	252	200	8m/m or 3/8"	5.2	2022-001
VH-42	6" x 9" 150x220mm	52	252	200	8m/m or 3/8"	7.9	2022-002
VH-43	9" x 12" 230x300mm	90	290	200	8m/m or 3/8"	19.1	2022-003
VH-45	6" x 6" 150x150mm	52	232	180	8m/m or 3/8"	4.4	2022-005

 **Cylindrical Squares Steel**


ORDER NO.	ØD X L	ACCURACY	WEIGHT (kgs)	CODE NO.
VCS-300	100x300	0.005/100 m/m		2022-010
VCS-400	100x400	0.005/100 m/m	16	2022-011

 **Horizontal Leveling Instrument**


0.02m/m

ORDER NO.	DIMENSION	WEIGHT (kgs)	CODE NO.
VLI-100	100x38x36	1.1	2022-040
VLI-150	150x50x45	1.6	2022-041
VLI-200	200x50x45	2.1	2022-042

 **Precision Square Level**


0.02m/m

ORDER NO.	DIMENSION	WEIGHT(kgs)	CODE NO.
VSL-200	200x200x40	3.8	2022-050
VSL-250	250x250x40	5.8	2022-051
VSL-300	300x300x40	7.5	2022-052

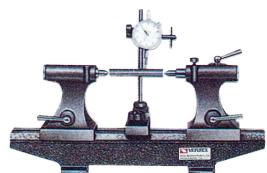
 **Cleaning Paper**

**ORDER NO. P-1000(PAPER)
CODE NO.2021-200**

SIZE: WIDTH: 250M/M (± 5 M/M)
LENGTH: 350M, G.W. 11kgs
PACK: 2 ROLL/CARTON
COLOR: WHITH

**ORDER NO. S-1000(STAND)
CODE NO.2021-220**

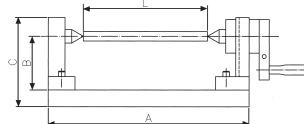
450L x 330W x 940H
G.W. 2.7kgs


VCI-400

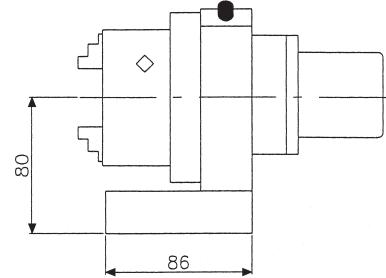
VCI-200

ORDER NO.	LENGTH	WIDTH	HEIGHT	CENTER DISTANCE	CENTER HEIGHT	WEIGHT (kgs)	CODE NO.
VCI-200	490	90	100	200	145	22	2021-101
VCI-300	530	90	100	300	145	26.8	2021-105
VCI-400	650	90	100	400	145	29.6	2021-102
VCI-600	1000	200	230	600	200	138.5	2021-106
VCI-800	1200	200	230	800	200	140	2021-103

WITHOUT INDICATORS

VCI-300P


ORDER NO.	A	B	C	L	Roundness	Parallelism	Squareness	Graduation	N.W. (kgs)	CODE NO.
VCI-300P	300	80	133	0-120	0.002/100	$\pm 0.002/100$	0.002/100	360°	22	2021-110
VCI-400P	400	80	133	0-220	0.002/100	$\pm 0.002/100$	0.002/100	360°	25	2021-111
VCI-500P	500	80	133	20-320	0.002/100	$\pm 0.002/100$	0.002/100	360°	28	2021-112


Fixed Speed Punch Former
ORDER NO.V-PS-80M CODE NO.2021-130
Auto Type


- The Punch Former with a motor attached can be applied to precisely grind a punch to round in a short time and saves the processing time.
- ER Collet Type and Chuck Type can clamp workpieces in a wide range.

O.D	I,D	Max. Dia. of Workpiece	Center Height	Motor Output-W Input-V	Roundness	Parallelism	Squareness	Graduation	N.W. (kg)
2-70	24-64	Ø50	80	15W 110/220V	0.002	0.002/100	0.002/100	360°	11.72


Pin Gauge

EACH 0.01mm FOR ONE STEP SIZE

ORDER NO.	NOMINAL DIMENSION EACH 0.01mm FOR 1 PCS	PCS/SET	WEIGHT (kgs)	CODE NO.
VPG-0B	0.50, 0.51, 0.52~1.00	51	1	2022-060
VPG-1A	1.00, 1.01, 1.02~1.50	51	1	2022-061
VPG-1B	1.50, 1.51, 1.52~2.00	51	1	2022-062
VPG-2A	2.00, 2.01, 2.02~2.50	51	1	2022-063
VPG-2B	2.50, 2.51, 2.52~3.00	51	1	2022-064
VPG-3A	3.00, 3.01, 3.02~3.50	51	1	2022-065
VPG-3B	3.50, 3.51, 3.52~4.00	51	1	2022-066
VPG-4A	4.00, 4.01, 4.02~4.50	51	1.5	2022-067
VPG-4B	4.50, 4.51, 4.52~5.00	51	1.5	2022-068
VPG-5A	5.00, 5.01, 5.02~5.50	51	1.5	2022-069
VPG-5B	5.50, 5.51, 5.52~6.00	51	1.5	2022-070
VPG-6A	6.00, 6.01, 6.02~6.50	51	3.1	2022-071
VPG-6B	6.50, 6.51, 6.52~7.00	51	3.2	2022-072
VPG-7A	7.00, 7.01, 7.02~7.50	51	3.5	2022-073
VPG-7B	7.50, 7.51, 7.52~8.00	51	3.5	2022-074
VPG-8A	8.00, 8.01, 8.02~8.50	51	3.8	2022-075
VPG-8B	8.50, 8.51, 8.52~9.00	51	3.8	2022-076
VPG-9A	9.00, 9.01, 9.02~9.50	51	4	2022-077
VPG-9B	9.50, 9.51, 9.52~10.00	51	4	2022-078
VPG-10A	10.00, 10.01, 10.02~10.50	51	5	2022-079
VPG-10B	10.50, 10.51, 10.52~11.00	51	5	2022-080

FEATURES:

DIAMETER	EACH STEP SIZE	LENGTH	ACCURACY IN DIAMETER	ROUNDNESS TOLERANCE	HARDNESS
0.05~0.09	0.01	5~10	$\pm 0.5\mu m$	0.5μm	HV480
0.10~0.19	0.01	20	$\pm 0.5\mu m$	0.5μm	HV480
0.20~0.99	0.01	40	$\pm 1\mu m$	0.8μm	HV650
1.00~10.00	0.01	50	$\pm 1\mu m$	0.8μm	HV650
10.01~20.00	0.01	50	$\pm 1.5\mu m$	1.6μm	HV650
20.00~30.00	0.01	50	$\pm 1.5\mu m$	1.6μm	HV650

PRECISION VERNIER CALIPER



L: 150, 200, 300 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VVC-6"	0.02 mm 1/1000"	0.4	2023-001
VVC-8"		0.5	2023-002
VVC-12"		0.8	2023-003

DIGITAL ELECTRONIC CALIPER



L: 150, 200, 300 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VEC-6"	0.01 mm	0.4	2023-010
VEC-8"		0.5	2023-011
VEC-12"		0.8	2023-012

DIAL CALIPER



L: 150, 200, 300 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VDC-6	0.02 mm	0.4	2023-050
VDC-8		0.5	2023-051
VDC-12		0.9	2023-052

OUTSIDE MICROMETER



0 - 25 mm
25 - 50 mm
50 - 75 mm
75 - 100 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VOM-0025	0.01 mm	0.3	2023-060
VOM-2550		0.4	2023-061
VOM-5075		0.5	2023-062
VOM-75100		0.6	2023-063
VOM-100125		1	2023-064

INSIDE MICROMETER



5 - 30 mm
25 - 50 mm
50 - 75 mm
75 - 100 mm

ORDER NO.	1 SCALE	WEIGHT(kg)	CODE NO.
VIM-0530	0.01 mm	0.3	2023-065
VIM-2550		0.4	2023-066
VIM-5075		0.4	2023-067
VIM-75100		0.4	2023-068

DIAL INDICATOR

DIAL TEST INDICATOR

HEIGHT VERNIER CALIPER


H: 300, 600, 450, 500

ORDER NO.	1 SCALE	WEIGHT(kgs)	CODE NO.
VDI-1	0.01 mm	0.3	2023-020

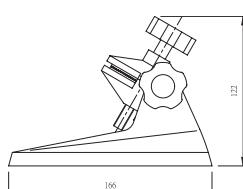
HEIGHT DIAL CALIPER


H: 300, 600 mm

ORDER NO.	1 SCALE	WEIGHT(kgs)	CODE NO.
VHD-12	0.01 mm	4	2023-080
VHD-24		9.4	2023-081

MICROMETER HEAD


ORDER NO.	SCALE x L	WEIGHT(kgs)	CODE NO.
VMH-25	0.01x25 mm	0.2	2023-040

MICROMETER STAND


160x110x130 m/m

ORDER NO.	WEIGHT(kg)	CODE NO.
VH-19	1.3	2023-090


Measuring Tool Kits


ORDER NO.	SET INCLUDING	WEIGHT (kg)	CODE NO.
VVC-20	VVC-6 x 1 PCS VOM-0025 x 1 PCS VIM-0530 x 1 PCS	1.37	2023-009

Oil Type Protractor With Magnets

VAL-60

VAL-80

VAL-50

VAL-30

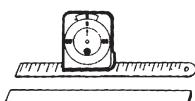
VAL-10

VAL-20

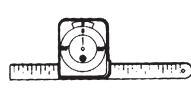
ORDER NO.	LxWxH	BASE	ACU	WEIGHT (kg)	CODE NO.
VAL-10	78x62x14mm	ABS	0.2°	0.2	2033-100
VAL-30	93x79x15mm	ABS	0.1°	0.2	2033-101
VAL-50	93x79x16mm	METAL	0.083°	0.4	2033-102
VAL-60	140x130x20mm	METAL	0.05°	1	2033-103
VAL-20	70x65x30mm	ABS	0.2°	0.2	2033-104
	13mm/1/2"x3M/10'				
VAL-80	335x73x30mm	ALUMINUM	0.2°	0.7	2033-105
	13mm/1/2"x3M/10'				

1. RESET: For setting a pseudo-horizon, upon which a new angle on the pseudo-horizon can be directly measured.

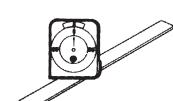
2. DOUBLE CHECK: Double annular graduations provided for calibrating either positive or negative degrees.

MULTI-FUNCTION ANGLE LEVEL


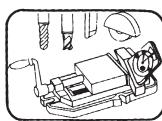
A Thin iron plate
(The magnet power the thicker the weaker) may be attracted under the angle level for wider measurement.



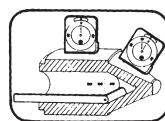
Inserting a straight extension rule into a bottom slot If the angle level.



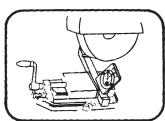
Attracting the angle level on an iron plate for measuring an angle inside a tank.



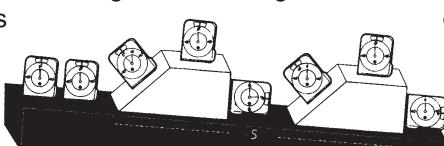
1. Suitable for working machines



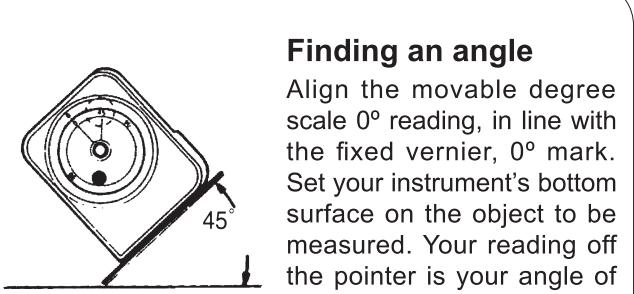
2. Grinding machine



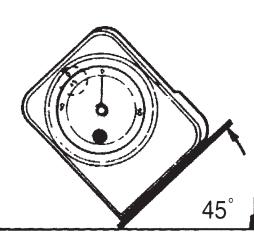
3. Out & inner cone angle



A standard angle block laid on a Non-horizontal Plane showing several measured positions by this angle level.

Finding an angle


Align the movable degree scale 0° reading, in line with the fixed vernier, 0° mark. Set your instrument's bottom surface on the object to be measured. Your reading off the pointer is your angle of inclination from 0°


Setting Specific angles

Align the desired angle on the movable scale to the vernier 0° mark. Tilt the instrument until the pointer is aligned with the 0° mark.