



NC-Rotary Table



• HIGH ACCURACY AND HIGH RIGIDITY

Adoption of new double-lead worm gear--engagement between worm wheel and worm shaft has been improved, and tooth profile has been modified--has contributed greatly to increased dynamic accuracy. To remove the defect of single-lead worm gear. Close-tolerance taper roller bearing assembly is used, and the rotating slide part is finished in a superprecision manner, which in turn, implements highly improved overall accuracy.

• SLEEVE TYPE CLAMPING MECHANISM

with this system, the Rotary Table is clamped by applying hydraulic pressure to the outer circumference of the turn table. Since the sleeve is positioned closest to the workpiece, the table clamp force is enlarged. This system is not only advantageous for heavy duty cutting but also helps improve the machining accuracy and extend the service life of the Rotary Table.

- This rotary table has been specifically developed to fulfill the requirements of a fully automatic machining process in association with a machine tool. they are used for milling, grinding and drilling of spindles, slots, planes or bores in the radial or axial direction of the workpiece.
- Can be equipped with stepping motor or DC/AC servo motors.
- Carefully designed, rigid construction to assure high and constant indexing accuracy.
- Can to operate as function M or as 4th axis or more, in machining units or numerically controlled machines, and are equally capable of being fitted to any other type of non-NC machine-tools.
- Hardened and ground steel worm, mounted on high precision combined radial-axial bearings.
- Worm mounted on an axial support system, which allows adjustment and suppression of any backlash existing between the worm and the worm-wheel after long-time service.
- High precision
Axial and radial runout within 0.01mm Cumulative indexing accuracy within 15 sec.



DOUBLE LEAD WORM GEARS SYSTEM

- New design/special material



PROGRAMMABLE SERVO MOTOR CONTROLLER

● SPECIFICATIONS

Unit:mm

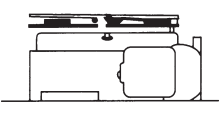
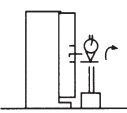
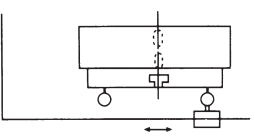
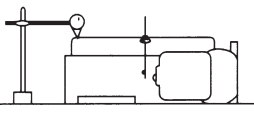
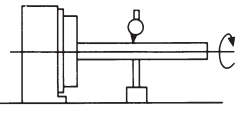
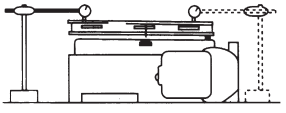
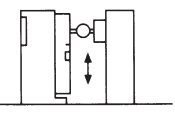
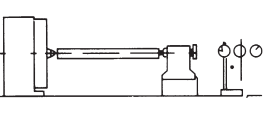
ORDER NO.	VNCM-150 ^L _R	VNCM-220 ^L _R	VNCM-250 ^L _R	VNCM-320 ^L _R	VNCM-400 ^L _R
Right-hand type	○	○	○	○	○
Left-hand type	○	○	○	○	○
Turntable diameter	∅160	∅225	∅250	∅320	∅400
Table height(Horizontal pos.)	150	165	165	220	250
Table center height(Vertical pos.)	135	160	160	210	255
Center bore diameter	∅35H7	∅40H7	∅40H7	∅40H7	∅40H7
T-slot size	12H7	12H7	12H7	14H7	14H7
Guide-block size	14h7	14h7	14h7	18h7	18h7
Number of worm wheel teeth	72	72	72	72	72
Servo motor type	FANUC α 3	FANUC α 6	FANUC α 6	FANUC α 18 FANUC α 6	FANUC α 12
Speed reduction ratio	1/90	1/180	1/180	1/180 1/360	1/180
Table gyration angle per 1 pulse	0.001°	0.001°	0.001°	0.001°	0.001°
Table rotation speed	22.2r.p.m./ (Motor 2,000r.p.m.)	11.1r.p.m./ (Motor 2,000r.p.m.)	11.1r.p.m./ (Motor 2,000r.p.m.)	11.1r.p.m./ (Motor 2,000r.p.m.) 5.5r.p.m./ (Motor 2,000r.p.m.)	11.1r.p.m./ (Motor 2,000r.p.m.)
Clamp method & Clamp torque (kg-m)	8/ (Air 5kg/cm ²)	50/ (Hydraulic 35kg/cm ²)	50/ (Hydraulic 35kg/cm ²)	85/ (Hydraulic 35kg/cm ²)	180/ (Hydraulic 35kg/cm ²)
Load capacity, horizontal(kg)	150	250	250	350	500
Load capacity, vertical(kg)	75	100	100	150	200
Inertia force (kg-cm-sec ²)	4.3	12.3	12.3	38.5	99.8
Max.torque capacity of worm gear (kg-m)	15	48	48	78	170
Max. workpiece diameter	160	225	225	320	400
Cumulative indexing accuracy sec.	20"	15"	15"	15"	15"
Repeatability sec.	4"	4"	4"	4"	4"
Inertia force(convert into motor shaft) kg-cm-sec ² X10 ⁻²	0.2	0.24	0.34	1.85 1.35	1.94
Net weight (kg)	55	75	75	200	300
CODE NO.	4001-001	4001-002	4001-003	4001-004	4001-005

• Other makers' servo motors can be installed.

● ACCURACY STANDARD

Unit:mm

NO.	Inspection Item	Inspection Item	Inspection Item
1	Table top flatness (concave)	Per overall length	0.01
2	Table top runout		0.015
3	Parallelism of table top and frame bottom	Per overall length	0.02
4	Table spindle center runout		0.01
5	Center bore runout	Hole end	0.01
		Per 100mm	0.01
6	Perpendicularity of table top to frame bottom	Per overall length	0.02
7	Perpendicularity of table top to frame bottom guide block	Per overall length	0.02
8	Cumulative indexing accuracy		15"
9	Parallelism of center line between headstock and tailstock to frame bottom guide block	Per 300mm	0.02
10	Height difference of both center lines of headstock (Tailstock center line should be higher)		0.02

1		4		7	
2		5		8 An optical measuring instrument should be used for indexing accuracy measurements.	
3		6		9	

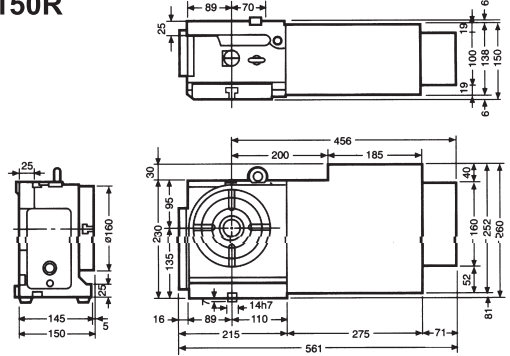


NC-Rotary Table

VNCOM-150R



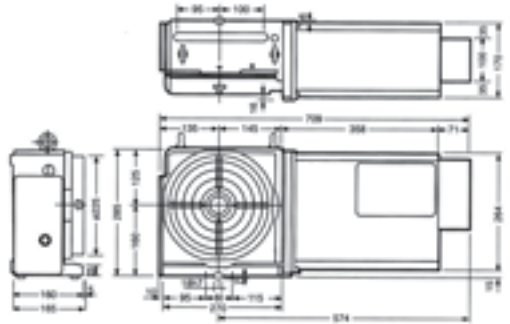
VNCOM-150R



VNCOM-220R



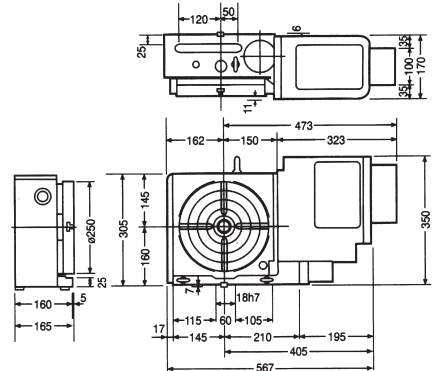
VNCOM-220R



VNCOM-250R



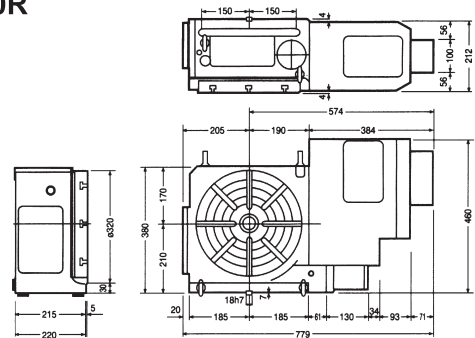
VNCOM-250R



VNCOM-320R



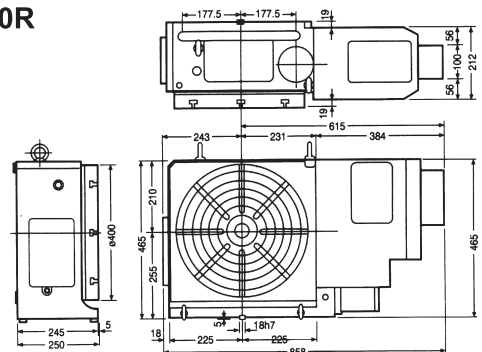
VNCOM-320R



VNCOM-400R



VNCOM-400R





NC-Rotary Table



- Motor case setted on the back of the body, increased the space for moving forward and backward, suitable for large or small NC machine using.
- Use of precision lead worm gear assures highly accurate dividing independently of table rotating direction. Further, no backlash will be produced.
- Wide range of machining is accomplished by connecting the Drive Table with Mcode of machining center.
- When used with machining center, the Drive Table will widen the range of applications; circular cutting dividing into equal parts, dividing into unequal parts, lead cutting, can cutting etc.
- MACHINE ZERO AND WORK ZERO. Zero Return Function to either Zero.
- BACKLASH COMPENSATION.
- BUILT-IN PNEUMATIC BRAKE FUNCTION.

Order No. & Dimensions

Unit:mm

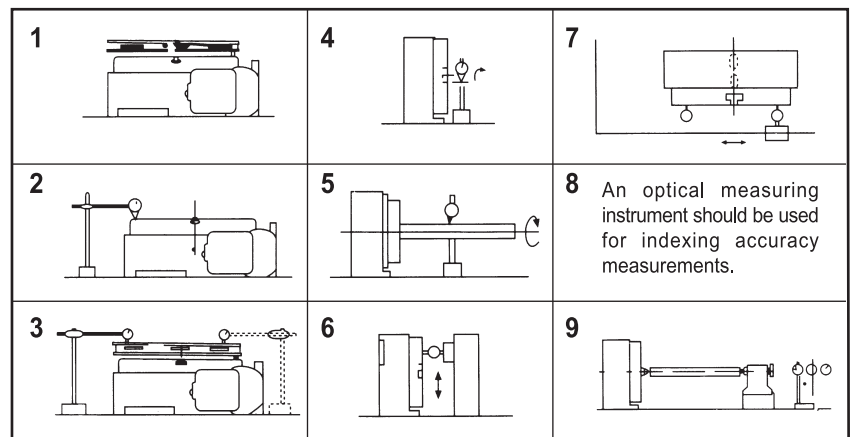
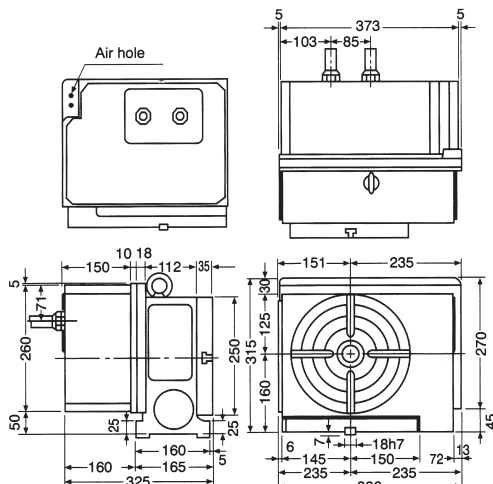
Item	Order No.	VNCX-10
Table diameter		250
Table height		315
Center height		160
Center hole diameter		32
Table reference groove width		14
Key way		18
Clamping force (kgf-m)	Pneumatic	20
Allowable work diameter		250
Center bore runout	Horizontal setup	200
	Vertical setup	100
Allowable work inertia (kgf-cm sec ²)		12.5
Total reduction ratio		1:90
Rotary speed (rpm)		11.1
Allowable machine torque (kgf-m)		48
CODE NO.		4001-010

ACCURACY STANDARD

Unit:mm

NO.	Inspection Item		Tolerance
1	Table top flatness (concave)	Per overall length	0.01
2	Table top runout		0.015
3	Parallelism of table top and frame bottom	Per overall length	0.02
4	Table spindle center rnut		0.01
5	Center bore runout	Hole end	0.01
		Per 100mm	0.01
6	Perpendicularity of table top to frame bottom	Per overall length	0.02
7	Perpendicularity of table top to frame bottom guide block	Per overall length	0.02
8	Cumulative indexing accuracy		15"
9	Parallelism of center line between headstock and tailstock to frame bottom guide block	Per 300mm	0.02
10	Height difference of both headstock and tailstock center lines (Tailstock center line should be higher)		0.02

VNCX-10

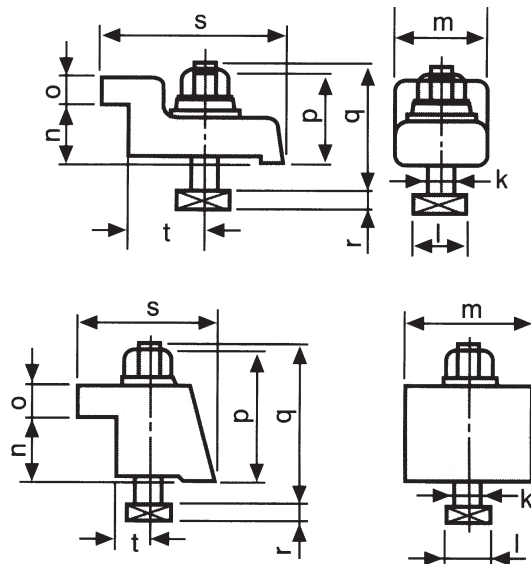
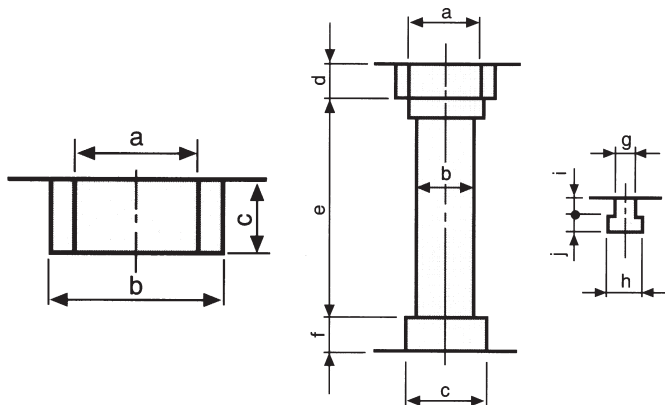


● Optional accessories (For NC ROTARY TABLE)

<p>VHR-100M VHR-101M VHR-110F</p>  <p>MITSUBISHI MOTOR & FANUC MOTOR</p> <p>Servo controller + Servo motor</p> <p>Hydraulic unit</p>	 <p>Flange & Center for VNCM-320, 400</p>	 <p>Automatic power chuck</p>	 <p>Flanged scroll chuck</p>
<p>VHR-110F VHR-112F</p>  <p>Stepping controller + Stepping motor</p>	<p>VHR-20</p>  <p>Air-hydraulic for the table clamp (VNCM-320, 400)</p>	 <p>Automatic tailstock</p>	 <p>Manual tailstock</p>
<p>VHR-116S</p>  <p>SIEMERS MOTOR</p>	<p>VHR-10</p>  <p>Hydraulic unit</p>	<p>Standard accessories</p>  <p>Clamping blocks and bolts</p>	

ORDER NO.	Suitable for	CODE NO.
VHR-10	NC Rotary table	4002-010
VHR-20	NC Rotary table	4002-020
VHR-100M	VNCM-150, 220, 250 MITSUBISHI MOTOR	4002-030
VHR-101M	VNCM-320, 400 MITSUBISHI MOTOR	4002-031
VHR-110F	VNCM-150, 220, 250 FANUC MOTOR	4002-040
VHR-112F	VNCM-320, 400 FANUC MOTOR	4002-041
VHR-116S	VNCM-150, 220, 250 SIEMERS MOTOR	4002-042
VHR-117S	VNCM-320, 400 SIEMERS MOTOR	4002-043

● CLAMPING BLOCKS AND BOLTS

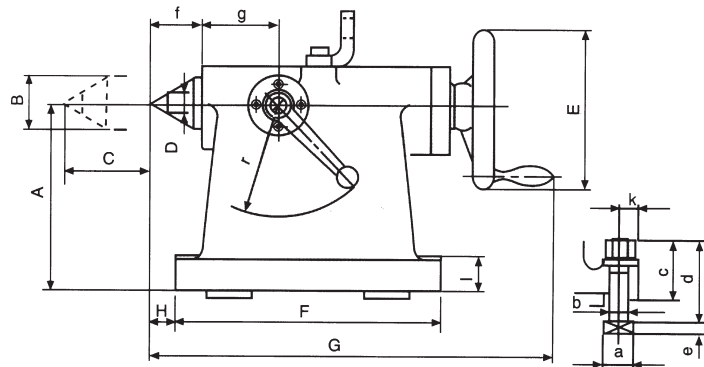
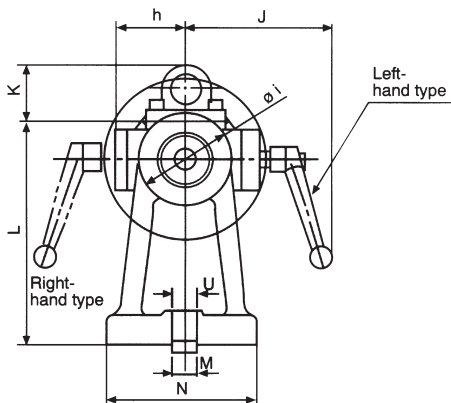


Unit:mm

ORDER NO.	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t
VNCM-150	∅35H7	∅40	∅35	16	114	20	12H7	19	11	8	∅12	□23	40	25	15	57	75	8	52	15
VNCM-220/250	∅40H7	∅32	∅45	20	124	20	12H7	19	11	8	∅16	□28	40	25	12	43	63	11	80	33
VNCM-320	∅40H7	∅42	∅50	20	139	30	14H7	23	14	9	∅16	□28	46	30	15	46	70	11	90	31
VNCM-400	∅40H7	∅41	∅50	20	164	30	14H7	23	14	9	∅16	□28	46	30	15	46	70	11	90	31



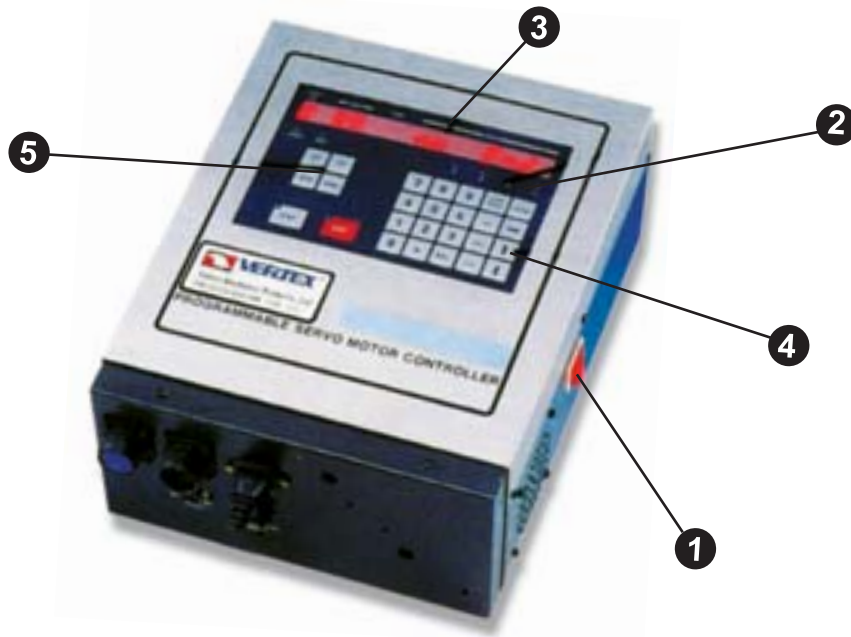
Tailstock For NC Rotary Table




Unit:mm

ORDER NO.	Main dimensions For	Center height A	Conter diameter B	Stroke C	Carbit chip diameter D	Handle diameter E	Base dimensions FXM	G	H	I	J	K	L	Guide block size M	a	b	c	d	e	u	f	g	h	j	k	r	Net weight (kg)	CODE NO.
TS-135	VNCM-150	135	Ø40	55	Ø14	125	215 X 120	332	25	25	109	-	164	14	23	12	42	60	8	19	40	69	44	70		80	14.5	4002-001
														16	26	16	46	70	10									
														18	28	16	46	70	11									
TS-160	VNCM-220 VNCX-10 VNCM-250	160	Ø40 MT#3			230 X 130	356	30	129				193	14	20	12	49	70	8	19	45	70	52	80	17.5	24	4002-002	
														16	26	16	51	75	10									
TS-210	VNCM-320	210			Ø18	140	230 X 146	30			53	243	18	28	16	51	72	11	23						95	27	4002-003	
													22	34	20	57	85	13										
TS-255	VNCM-400	255	Ø50 MT#3	50		160	270 X 170	412	35	131		255	20	32	18	60	90	11	19	50	75	54	85			37.8	4002-004	
													22	34	20	52	90	13	23									

Listed in the above table are examples of applicable models. Those not listed above should be selected so that the center height of the rotary table and dividing heads is the same as that of the tailstock.



SIZE:L320 x W290 x H 90(mm)

ON  POWER	<p>1. POWER SWITCH This switch is located at right-hand side of controller box.</p>
● PRO ● RUN ● P ● S ● F ● L	<p>2. LED INDICATORS</p> <p>a. The controller is in PROGRAM mode. b. The controller is in RUN mode. c. Displays current position of rotary table in Display Scan. d. Displays the programming angle or position. e. Displays the programming speed. f. Loop count for one step. g. The table rotates as programmed. h. The rotating table slows down and stops.</p>
● STRAT ● STOP	<p>3. LED DISPLAY</p> <p>a. Prog. No 10 programs can be stored in the controller, rangin from 0-9. b. Step: 99 steps for each program. c. Code: OP code setting is possible from 0-9 or A,B,C, d. Data: Displays the angle, position various programmed data.</p>

1 - 9 +/- STEP PROG INS DEL CLR MODE → ↓ ↑ JOG + JOG - ZERO HOME RS-232	<p>4. PROFRAMMING KEYS</p> <p>a. Numeric and decimal keys: To enter data of program. b. Table rotation is CW or CCW. c. For setting program or step number. d. In PROGRAM mode, insert a program step. e. In PROGRAM mode, delete a program step. f. In RUN mode reset current position to Zero when \dot{F} LED indicator is lit. In \dot{R} mode, erase an error input. In \dot{R} mode, step 01, push this key, then push "CLR" key, which wil clear the memory of program and set every step to End. g. For mode change either in the RUN or PROGRAM mode. h. Changes display of the data from P → S → F → L → P. In PROGRAM mode for entering and changing the parameter. i. Previous step can be displayed. j. Next step can be displayed.</p> <p>5. OPERATION KEYS</p> <p>a. Jog rotary table for different direction. b. Return to absolute zero position. c. Return to the mechanical home position.</p> <p>Interface possible connecting to personal</p>
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Stepping Controller FOR NC ROTARY TABLE



- Easy operation, saving space of machine shop.
- Connecting with CNC Rotary Table to M-Code of CNC M/C for equal division indexing machining.
- The best solution for conventional M/C which could not retrofitted 4th axis.
- Program Capacity = 3 sets, minimum increment 0.01°

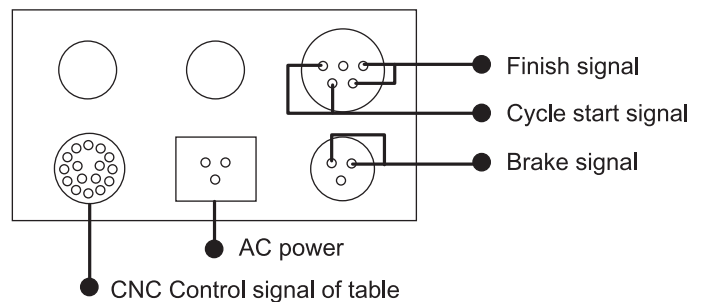
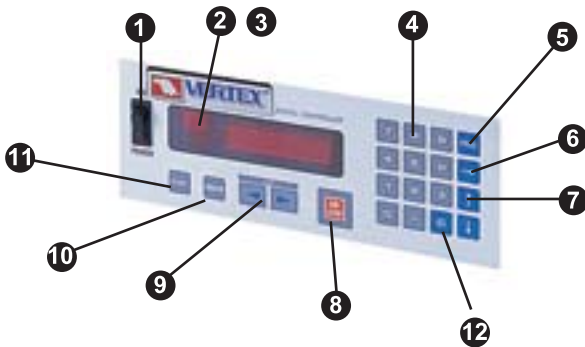
Suitable Rotary Table:

VNCM-150	VNCX-10
VNCM-220	VPX-6A
VNCM-250	VPX-8A
VNCM-320	VTNC-201
VNCM-400	

ITEM	SPECIFICATION	ITEM	SPECIFICATION
Min. Increment	0.01°	key-Lock function	Set Parameter #7 to (1)
Programmable Angle	1-540°	Mode Selection After Power On	Program mode / Run mode
Max. Equal Dividing	± 2-999 equal dividing	Backlash Adjustment	Parameter #17
Emergency Stop	Whole system stop	Previous Step Display function	Pushing "WRITE" key
Input System	key board	Next Step Display	Pushing "READ" key
Zero Return	Software zero return	Standard Parameter Function	Parameter #1-17 can be set easily
Feedrate	F1~F30(degree/sec.)	Motor	DC Stepping motor with feed back unit
Program Capacity	Three programs(0,1,2),99 steps for each program		For input power/pulse coder, motor power cycle start/finish signal/brake signal
Jump Function	Jump to sub-program (code. 95)	Input Power	AC 240V/50Hz/signal phase
Loop Count	Up to 999 time per step		

Example

Step 1	Turn (Power) switch on.	Step 5	Push [PROG] to feed-rate (F), input "30"
Step 2	Push and hold [PROG] and release display becomes blinking	Step 6	Push [FUNC] to loops (L), input "4"
Step 3	Push and hold [CLR] for 5 sec. or "00" display	Step 7	Push [PROG] display become no blinking
Step 4	Key in "9000"	Step 8	Push [START] table start rotating 4 times

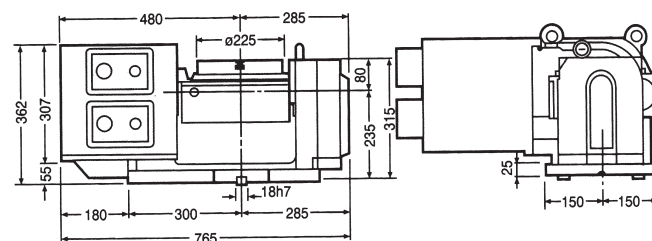
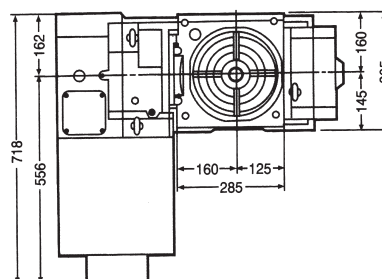
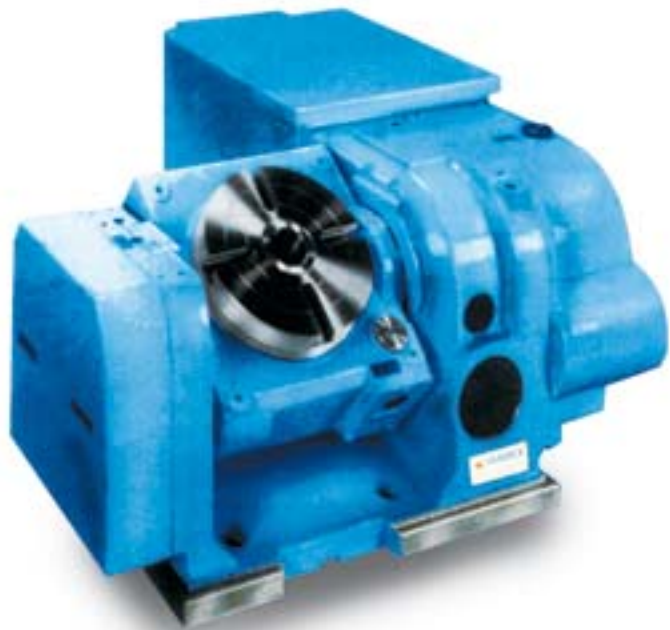


ON 	1. POWER SWITCH
POWER	2. PROGRAM STEP DISPLAY SCAN
	3. DATA DISPLAY SCAN To show either position, step angle feedrate or loop count.
	4. DATA ENTER KEYS Enter in data of program
	5. MODE BUTTON To select in the PROGRAM or RUN mode • If the display is steady, you are in RUN mode. • If it is flashing on and off, you are in PROGRAM mode.
	6. FUNCTION BUTTON To view the piece of data in the display scan of the controller.
	7. STEP READ or WRITE BUTTON • Scans step number from 1-99. • To read or write previous or next step.

	8. EMERGENCY STOP BUTTON To select in the PROGRAM or RUN mode If the display is steady, you are in RUN mode. If it is flashing on and off, you are in PROGRAM mode.
	9. JOG BUTTON To jog the movement at single step, holding for rapid movement after 150 pulse.
	10. ZERO RETURN BUTTON In the RUN mode, push the button will return the table to Zero Point.
	11. CYCLE START BUTTON The table rotates as programmed.
	12. CLEAR BUTTON • In the RUN mode, it resets the "P" display to zero. • In the PROGRAM mode, it is used to clear the current line or collect the error



NC Tilting Rotary Table



VTNC-201

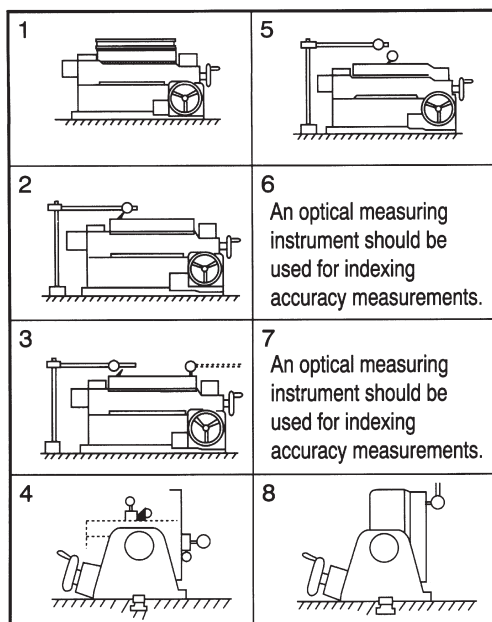
- **Wide Inclination Angle $\pm 110^\circ$**
for both right and left hand sides.

● ACCURACY STANDARD

Unit:mm

NO.	Inspection Item	Per overall length	Tolerance
1	Table top flatness (concave)		0.01
2	Table top runout		0.015
3	Parallelism of table top and frame bottom		0.02
4	Parallelism of inclination axis center line and frame bottom		0.02
5	Table spindle center bore runout		0.01
6	Tilting accuracy		45" 60
7	Cumulative indexing accuracy		(20") 15"
8	Parallelism of table top and frame bottom guide block		0.02

□ In the case of between 180° ($-90^\circ \sim +90^\circ$)



● SPECIFICATIONS

Order NO.	VTNC-201
Turntable diameter	$\varnothing 225$
Table height (Horizontal pos.)	315 (330)
Overall height (Vertical pos.)	395
Table center height (Vertical pos.)	235
Center bore diameter	$\varnothing 40H7 \varnothing 70H7$
Spindle hole diameter	$\varnothing 32 \varnothing 70.5$
T-slot size	12H7
Guide-block size	18H7
Servo motor type	Rotation
	Inclination
	FANUC FANUC
	$\alpha 6 \quad \alpha 6$
Speed reduction ratio	1/360 1/360
Table gyration angle per 1 pulse	0.001 0.001
Table rotation speed	5.5r.p.m. 5.5r.p.m.
	/(Motor 2,000r.p.m.) /(Motor 2,000r.p.m.)
Load capacity	0° tilt ange (kg)
	$0^\circ \sim 90^\circ$ tilt angle (kg)
	Movable load moment on the table (kg-m)
	100
	50
	16
Inertia force (kg-cm-sec ²)	6.4
Max. torque of worm gear (kg-m)	48
Max. diameter of workpiece	$\varnothing 225$
Rotation axis	Clamp torque (kg-m)
	Cumulative accuracy (sec.)
	Repeatability (sec.)
	50(Hydraulic 35/cm ²)
	15" (20")
	4"
Inclination axis	Clamp torque (kg-m)
	Tilting accuracy (sec.)
	50(Hydraulic 35/cm ²)
	60"
Net weight (kg)	280
CODE NO.	4003-001

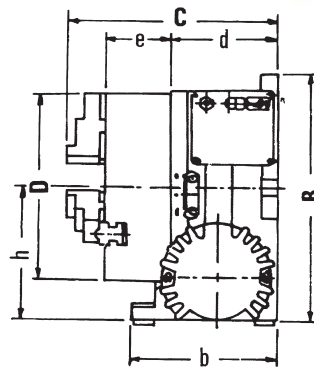
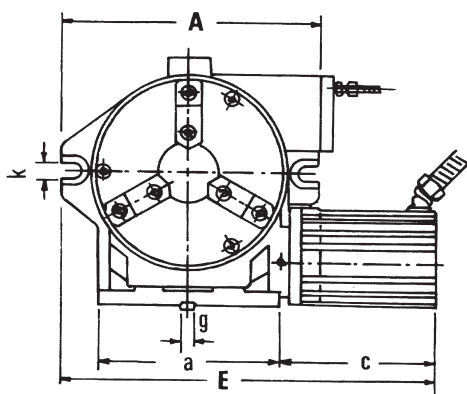


Programmable Precision Indexer



1. Carefully designed, rigid construction to assure high and constant indexing accuracy.
2. The large thru-hole facilitates adapting chucks and tooling on the table in order to follow multiple applications (for example, long machining work, etc...)
3. Reasonability-Can be used in both Vertical and Horizontal position, and Air Clamping is completely self contained.
4. Automatic Circle Division-You can program a step that automatically divides a circle into any number of equal parts (between 2 and 999).
5. Programmability-Up to 99 different steps can be stored in memory, and each step can be looped 999 more times.
6. Versatility-Any angle from 1 minute to 540 degrees, can be programmed for each step.

7. Linear & Spiral Milling-For semi-fourth axis capability.
8. Fast Set-Ups-All connectors are "quick-disconnect," ensuring fast and easy setups.
9. Speed reduction ratio-1/90
10. Accuracy- $\pm 20''$
11. With stepping Motor, Electrical, AC 110V/220V $\pm 10\%$, 60HZ



Order No. & Dimensions

Unit:mm

ORDER NO.	A	B	C	D	E	a	b	c	d	e	g	h	k	Inner jaw	Outer jaw	Diameter of Hole (chuck)	Diameter of Hole (turret)	Allowed Load (kg)		Weight kg	CODE NO.
																		Horizontal	Vertical		
VPX-6A	276	234	219	165	483	184	140	250	114	67	16	135	16	4~42	10~156	44	46	80	40	98	4004-001
VPX-8A	338	280	245	200	555	224	160	250	126	76	16	155	16	4~62	10~180	63	63.5	120	60	108.5	4004-002



Hirth Coupling Type Super Cutting Indexer Table

Three-plate type plane gear positioning method



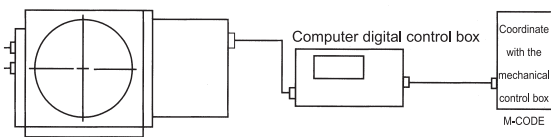
- Build-in 3 pieces hirth coupling, table will not lifting-up during rotating.
- Could be direct connected to the 4th. axis on machining-center. Also could be connected the M-code.
- Build-in 3pcs hirth coupling, ensure the indexing accuracy +/- 5 sec.



Three-plate type plane gear plate cutting table movement principle

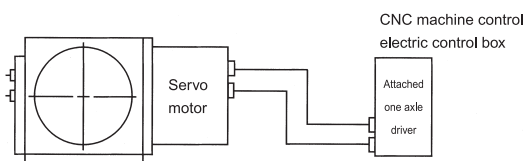
- As illustrated, the three-plate gear plate can be divided into three parts, A gear plate(lock above the revolution plate) B gear plate(lock on the cutting table base), C gear plate(loosening/ tightening movement). The three pieces are combined together tightly.
- As Fig.b illustrated, when C gear plate is descending, the cutting table instantly turn to loosening condition, gear plate A supported tightly by bearing so that it can smoothly and precisely revolve on the revolution table when ascending is not required.
- When A gear plate completes cutting and reach the positioning site, C gear plate will move upwardly to combine A and B gear plates. It is shown on Fig.d. which from a high precision structure.
- C gear plate has sufficient width to combine A and B gear plates and precisely to line up A and B gear plates, the pressure angle of each gear plate is 30 degree. We assure you the longer you use the more the precision.

Oil pressure source(for cutting table tightening/loosening use)



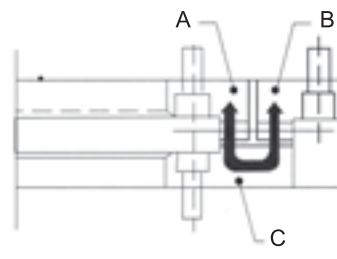
The illustration when applied with CNC cutting center that use the M signal wiring. (Usually, to use tooling machine or specialty machine may also apply this method)

Oil pressure source(for cutting table tightening/loosening use)

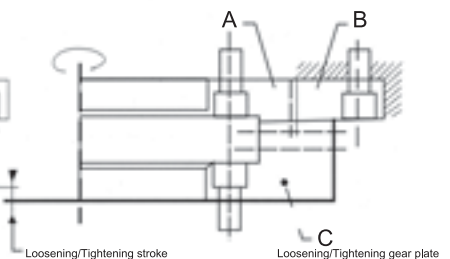


It can be directly installed to form the 4th axle of the CNC machine.

(Fig.a)



(Fig.b)



SPECIFICATION TABLE

ORDER NO.	VNCS-250	VNCS-320	VNCS-400	VNCS-500
Cutting angle	Minimum cutting unit:5°	Standard model 5° for one cutting unit, special spec:1° for one cutting unit can be custom made.		
Table diameter	250	320	400	500
Overall height when horizontal fixed	200	240	265	300
Central height when vertical fixed	170	230	250	310
Central hole diameter	55Ø	100Ø	120Ø	120Ø
Through hole diameter	30Ø	80Ø	80Ø	90Ø
T slot width	12	14	14	18
The width of the correcting key	18	18	18	18
Servo motor spec.	Mitsubishi	HA-40C-S	HA-80C-S	HA-100C
	FANUC	$\alpha 3$	$\alpha 6$	$\alpha 12$
Total reducing ratio	1/120	1/120	1/120	1/120
Max. revolution speed(min.) Motor 2,000 r.p.m.	16.6	16.6	16.6	16.6
The tightening force when fixed(kg.m) Oil pressure 35kg/cm ²	300	400	500	600
Allowable accumulating load(kg)	For horizontal use	300	350	500
	Load For vertical use	125	175	250
Allowable cutting torque(kg.m) Oil pressure 35Kg/cm ²	250	350	450	550
Accuracy	±5 "	±5 "	±5 "	±5 "
Machine weight(kg)	110	200	350	400
CODE NO.	4003-010	4003-011	4003-012	4003-013



Super Horizontal Hydraulic Feed Indexer

HORIZONTAL TYPE



Precision plane gear plate positioning
For super hydraulic indexer

- Build-in 3 pieces plane gear plate, without lifting up and down during rotating, shorten the indexing cycle.
- Suitable for special-purpose machine M/C for high precision machining.
- Powerful clamping design

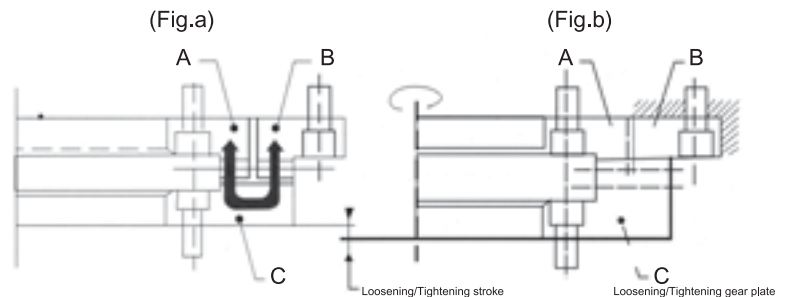
Test Report

ITEM NO.	TESTING OBJECTIVE	VARIATION(INCHES)(MM) MAXIMUM TESTED	
1	FLATNESS OF CLAMPING SURFACE(CONCAVE)	.0006(0.015)	
2	PARALLELISM OF CLAMPING SURFACE TO BASE	.0008(0.02)	
3	SQUARENESS OF CLAMPING SURFACE TO ANGLE FACE	.0008(0.02)	
4	TRUE RUNNING OF CLAMPING SURFACE	.0006(0.015)	
5	TRUE RUNNING OF CENTER HOLE (1) MEASURED AT HOLE EDGE (2) MEASURED AT ARBOR 4-IN. LONG	(1).0008(0.02) (2).0012(0.03)	(1) (2)
6	INDEXING ACCURACY OF DIRECT INDEXING MECHANISM MAXIMUM CUMULATIVE SPACING ERROR	±5"	

- Super indexer is within ±5 sec.
Because it applies high precision horizontal gear plate to assemble. It may maintain super fine after long time operation .
- When the plate is in revolution, there is no ascending/ descending movement, therefore, the main body of the cutting table will not absorb the cutting chips and cutting water.
- Cutting water resistance mechanism
The plate has no ascending /descending mechanism and the sturdy sealing structure will prevent great amount of cutting water from permeating into the internal at the site to ensure safe operation.
- Strong clipping force to enable heavy cutting
Super strong rigidity structure, high difficulty cutting material or all angles heavy cutting can all be fully developed.
- Ample accumulating loading and revolution inertia instant value (TS)
apply high revolution torque and smooth indexing design which may load high accumulating weight, while the smooth cutting movement may provide the machine with stable precision and long life.

Three-plate type plane gear plate cutting table movement principle

- As illustrated, the three-plate plane gear plate can be divided into three parts, A gear plate(lock above the revolution plate) B gear plate(lock on the cutting table base), C gear plate(loosening/ tightening movement). The three pieces are combined together tightly.
- As Fig.b illustrated, when C gear plate is descending, the cutting table instantly turn to loosening condition, gear plate A supported tightly by bearing so that it can smoothly and precisely revolve on the revolution table when ascending is not required.
- When A gear plate completes cutting and reach the positioning site, C gear plate will move upwardly to combine A and B gear plates. It is shown on Fig.d. which from a high precision structure.
- C gear plate has sufficient width to combine A and B gear plates and precisely to line up A and B gear plates, the pressure angle of each gear plate is 30 degree. We assure you the more you use the more the precision.



SUPER HYDRAULIC FEED INDEXER SPECIFICATION

ORDER NO.	VNCI-340	VNCI-470	VNCI-600	VNCI-800
Revolution table diameter	Ø340	Ø470	Ø600	Ø800
Overall height	210	240	260	300
Central standard hole	Ø65H6(D)11	Ø90H6(D)11	Ø110H6(D)11	Ø120H6(D)40
Central through hole	30.5	40.5	53	80
Quantity of cutting(equal dividing)	[Standard] 4,6,8,12,24 equal divided. one of which division for your choice. [Spacial spec.] 2,3,5,9,10 accept customer requirement.			
Fine degree of cutting	±5 sec.			
Both available for clockwise and counter clockwise	Fine degree of cutting			
Revolution table revolving torque(kg.m ²)	60	80	100	280
Allowable load weight	500kg	700kg	1250kg	2400kg
Allowable instant inertia GD(kg.m ²)	85	180	500	1200
Clamping force(kg)	1560	3970	7916	11300
Applied pressure(kg/cm ²)	30	30	35	35
Main machine body positioning method	For horizontal use, plate face upward.			
Machine weight(kg)	98	250	550	1000
CODE NO.	4003-016	4003-017	4003-018	4003-019



Super Hydraulic Feed Indexer

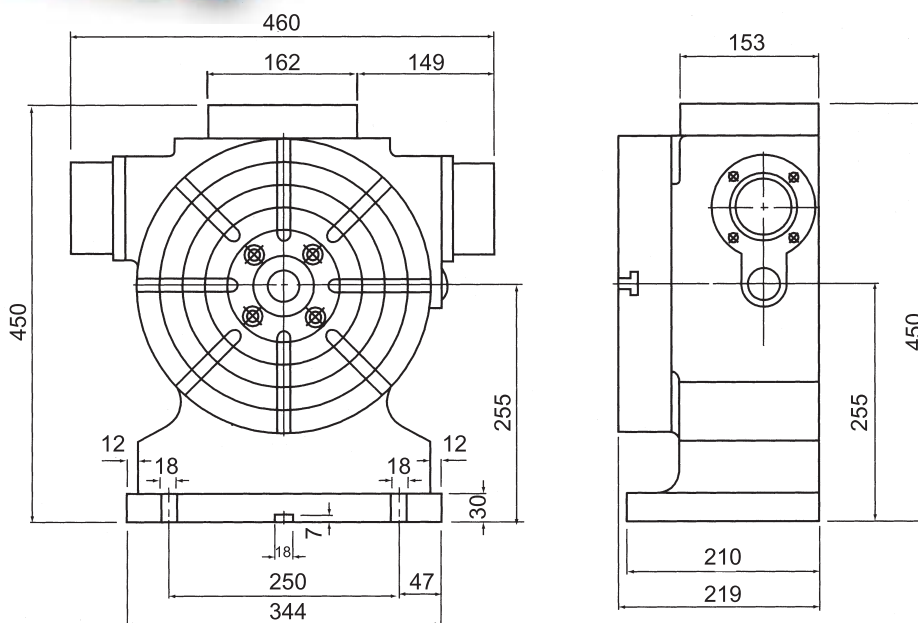


- Can be connected to M-code of machine center.
- Suitable also for CNC M/C, high indexing accuracy, equal division, and heavy duty cutting.
- Powerful clamping device.



3PCS PLANE GEAR PLATE
POSITIONING FOR SUPER
HYDRAULIC FEED INDEXER

HORIZONTAL / VERTICAL TYPE



SPECIFICATION

ORDER NO.	VNCT-250	VNCT-320A	VNCT-320B
Table diameter	Ø250	Ø320	Ø320
Center high	160	210	255
Division	Every model have 4,6,8,12,24 standard division, you can order any one of it only.		
Indexing accuracy	±5 sec.		
Rotate direction	(CW or CCW)		
Max.Workpiece load capacity(kg)	100	150	175
With tailstock	(250)	(250)	(350)
Weight	40	70	120
CODE NO.	4003-021	4003-022	4003-023

• Other of special division 3,5,7,11.....divisions, can be ordered.



Precision Index Table



2 PCS hirth coupling

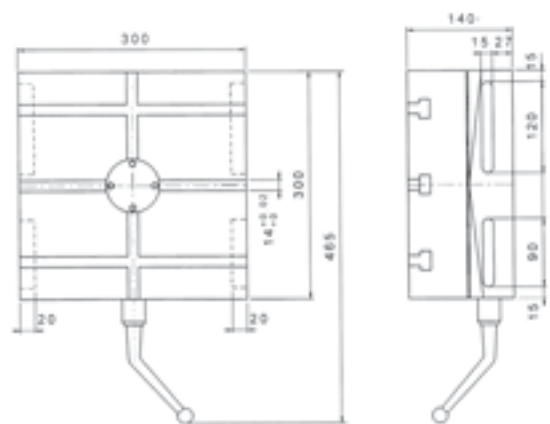
ORDER NO.	VIT-300-15	VIT-450-1	VIT-600-1	VIT-700-1	VIT-800-1	VIT-1000-1	VIT-1200-1	
		VIT-450-5	VIT-600-5	VIT-700-5	VIT-800-5	VIT-1000-5	VIT-1200-5	
Table size LxW(mm)	300x300	450x450	600x600	700x700	800x800	1000x1000	1200x1200	
Height(mm)	140	170	200	220	280	300	340	
Spindle hole(mm)	-	ø30	ø40	ø40	ø60	ø60	ø80	
T-slot(mm)	14	18	20	20	22	22	22	
Table rotating		Clockwise and counterclockwise						
Table Lifting up & Clamp down stroke(mm)	5	5	5	5	5	8	8	
Driving	Longitudinal	Manual						
	Revolving	Air Pressure 5~8kgs/cm ²						
Number of division(degree)	15°	1° or 5°						
Division(sec.)		±2						
Max.load weight in theory(kgs)	1200	2400	3400	3400	4500	6000	7000	
Allowable load weight(kgs)	500	1000	2000	2000	3000	5000	6000	
Clamping capacity(kgs)	-	2200	3200	3200	5400	5400	8100	
N.W.(kgs)	90	200	400	600	900	1200	2000	
CODE NO.	1°	1001-070(15)	1001-071	1001-072	1001-073	1001-074	1001-075	1001-076
CODE NO.	5°		1001-081	1001-082	1001-083	1001-084	1001-085	1001-086

- 1.The body is FC-35 cast iron, durable and will last longer without deformation.
- 2.Clamping/Unclamping by pneumatic, easy operation.
- 3.Powerful clamping design, allow heavy cutting and boring.

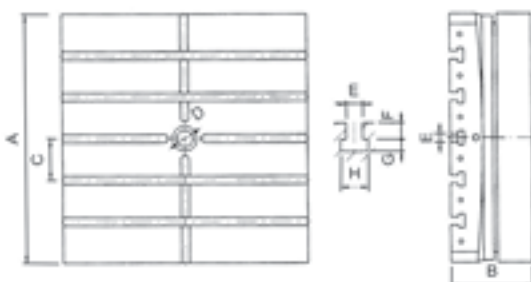
- 4.Build-in 2 pieces hirth coupling for positioning, indexing accuracy +/-3 sec, ensure a long-term operation.
- 5.Suitable for the high accuracy machining such as Boring-Milling, Grinding-Machine.

DIMENSION

VIT-300



VIT-450~1200

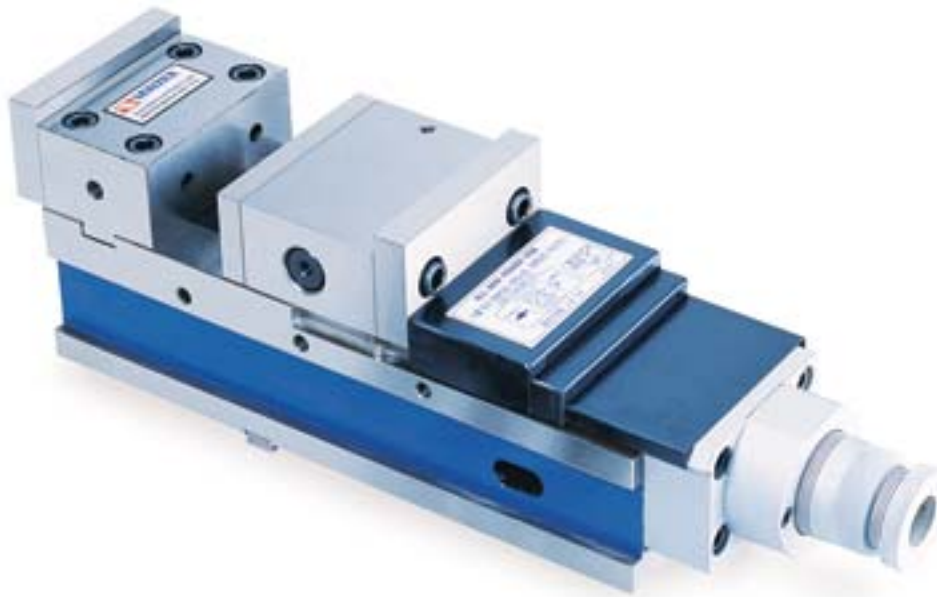


	VIT-450	VIT-600	VIT-700	VIT-800	VIT-1000	VIT-1200
A	450	600	700	800	1000	1200
B	170	200	220	280	300	340
C	100	100	125	100	150	200
D	30	40	40	60	60	80
E	18	20	20	22	22	22
F	16	20	20	23	23	23
G	12	14	14	15	15	15
H	28	35	35	38	38	38



Mechanical Power Vise

HIGH CLAMPING POWER AND LARGE JAW CLAMPING CAPACITY



STANDARD ACCESSORIES



Handle x 1PC



Plate x 1PC

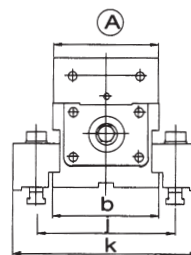
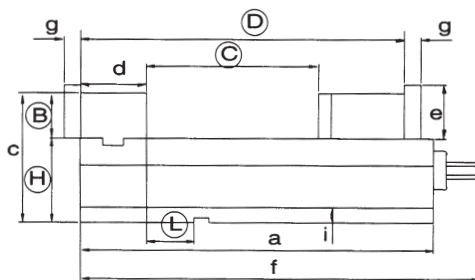
Clamp kit x 4PCS

Guide block x 2PCS

INSPECTION SPECIFICATION

1. To solve all your clamping problems on your machining centers.
2. Tons of pressure can be applied to the workpiece with minimum operator's effort. Using the new POWER VISE", it can not release the workpiece until the operator manually releases it.
3. "Mechanical booster". Provides a steady clamping force against shocks and vibrations during the operations, since it clamps the workpiece resiliently with an aid of the "disc-springs" mounted inside.
4. Powerfull VMC-6Q clamping pressure can be increased up to 5500kg/cm²; VMC-5Q, 3500kg/cm²; VMC-4Q, 3000kg/cm² Clamping force freely adjusted with the guidance of graduation lines.

NO.	Inspection Item	Per (100mm) 4"	Guaranteed
1	Parallelism:running face to bottom of bed.		0.01mm (0.0004")
2	Squareness:between running face and jaw plate.		0.03mm (0.0012")
※ 3	Squareness:both sides to fixed jaw plate.		0.02mm (0.0008")
4	Parallelism:keyways on bottom of bed to jaw plate.		0.02mm (0.0008")
5	Squareness:keyways on bottom of bed to jaw plate.		0.02mm (0.0008")
6	Parallelism:running face of the test block to bottom of bed.		0.02mm (0.0008")
	Lift can be controlled when clamping test block.		0.015mm (0.0006")



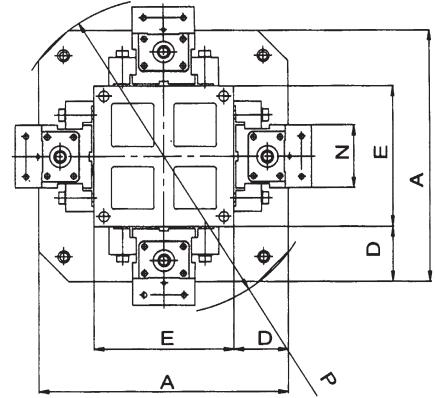
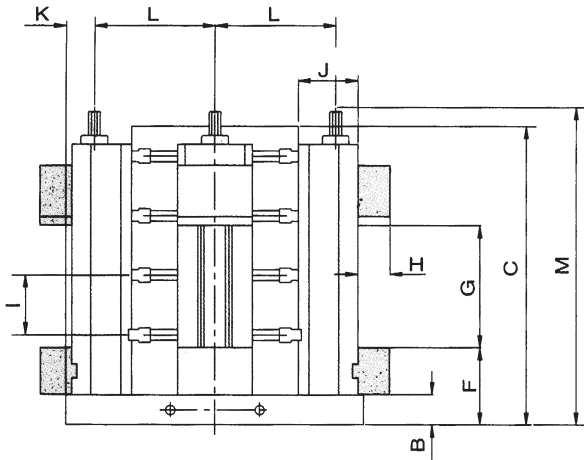
Unit:mm

ORDER NO.	A	B	C	D	a	b	c	d	e	f	g	j	i	k	H	L	Key way	Weight	CODE NO.
VMC-4Q	100	44	128	285	288	102	129	73	52	398	20	18	139	19	85 ±0.02	85 ±0.02	14	32 kgs	4005-001
VMC-5Q	125	53	203	382	385	127	153	78	63	508	20	18	164	216	85 ±0.02	85 ±0.02	18	49 kgs	4005-002
VMC-6Q	160	53	275	465	480	162	168	86	63	605	20	21	199	252	85 ±0.02	85 ±0.02	18	80 kgs	4005-003

* HORIZONTAL & VERTICAL 2 WAY VISE.

CLAMPING PRESSURE: VMC-4Q, 300kg/cm², VMC-5Q, 3500kg/cm², VMC-6Q, 5500kg/cm².

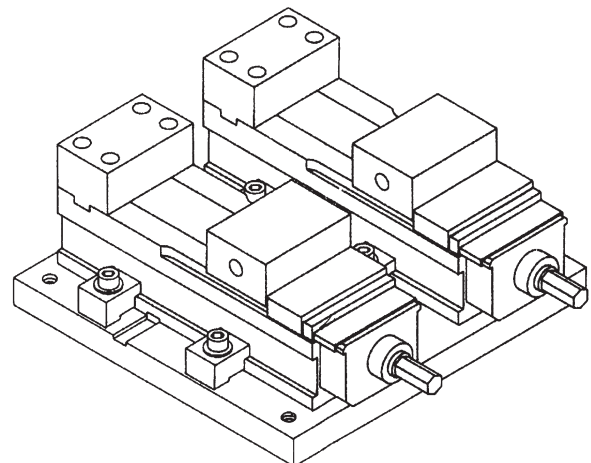
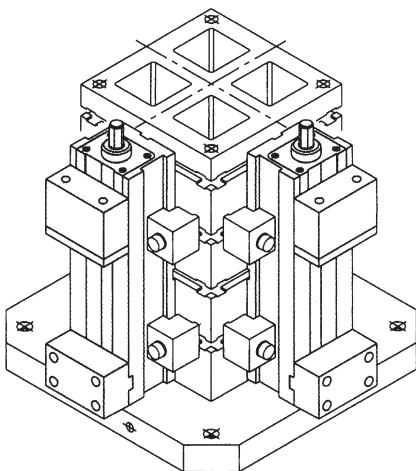
Jig Block



Unit:mm

ORDER NO.	USE VIS	PALLET SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	T-slot	Weight	CODE NO.
VMC-4Q-4B	VMC-4Q	400X400	400	50	500	110	240	124	128	44	100	85	27	173	449	101	524	4-4T	127kgs	4005-010
	VMC-5Q		400	50	500	110	240	129	203	53	100	100	18	182.5	525	126	54	4-4T	148kgs	4005-011
VMC-6Q-4B	VMC-4Q	500X500	500	50	600	80	280	129	203	53	100	100	48	202.5	525	126	628	4-5T	251kgs	4005-012
	VMC-5Q		500	50	600	80	280	137	275	55	100	115	42	208	656	161	653	4-5T	267kgs	4005-013

Usage Of "Jig Block" & Sub Table





Double Clamp Vise

**NEW DESIGN & UNIQUE CONSTRUCTION.
EXCLUSIVELY DESIGNED WITH COMBINATION OF
MACHINABLE FIXTURE JAWS AND HARD JAWS**



DOUBLE CLAMP SEAT:
One handle can simultaneously operate two movable jaws and clamps 2 pieces of workpiece of same size or different size or one large workpiece. This model can increase efficiency and productivity of CNC machine.

HIGH & EXCELLENT RIGIDITY.

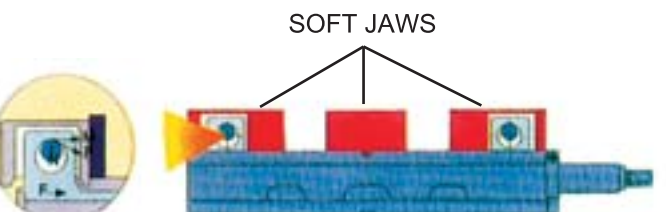
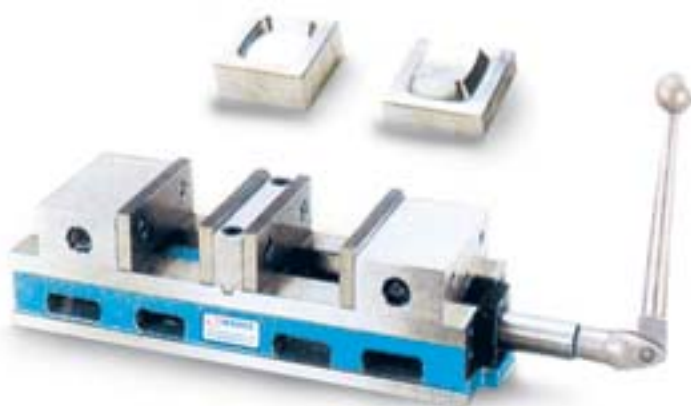
The vise is made of FCD. 80000 PSI (55 kg/cm²) Ductile iron, and the slide ways are hardened to HRC45. The rigid construction prevents the base from distortion.

Precision made to high accuracy standard.

1. The whole body is precisely grounded and height tolerance is within $\pm 0.025\text{m/m} (\pm 0.001")$, therefore several vises can be lined up for production.
2. The movable jaws provide alignment to workpiece without jaw lift.
3. The height of jaw plate is 30% higher than the other vise with the same size.
4. There are 6 kinds of clamping ways to meet workpieces of different shapes and sizes.

MACHINABLE FIXTURE JAWS

This is a new workholding concept. When you own it, your requirements are going to be satisfied. Just machine the surface of the flexible soft jaws based on your needs. It is not only quick, but also very economical.



OPTIONAL ACCESSORIES



SOFT JAWS FOR VMC-6D

STANDARD ACCESSORIES



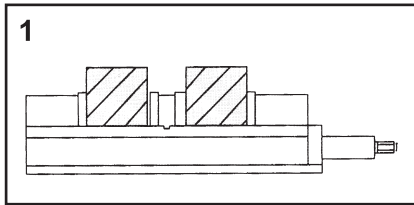
Handle x 1PC

Plate x 1PC

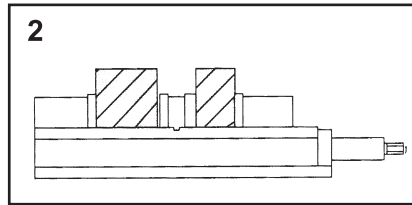
Clamp kit x 4PCS

Guide block x 2PCS

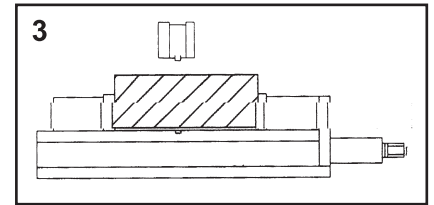
CLAMPING EXAMPLES OF DIFFERENT APPLICATIONS



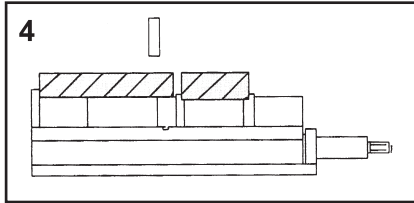
▲ clamping 2 pcs of same size of workpieces
Max. Capacity: 76m/m(3.00")
102m/m(4.00")



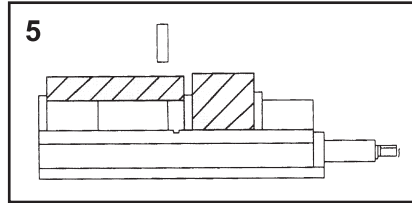
▲ clamping 2 pcs of different size of workpieces
Max. Capacity: 76m/m(3.00")
102m/m(4.00")



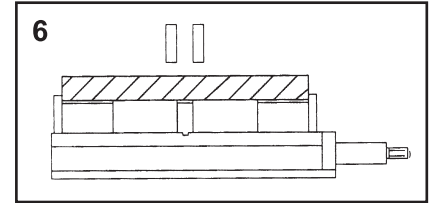
▲ large workpieces is able to be clamped after moving fixed jaw
Max. Capacity: 177m/m(6.00")
254m/m(10.00")



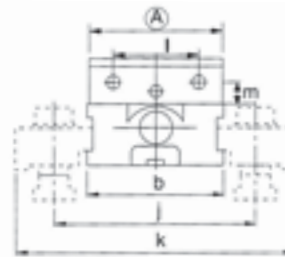
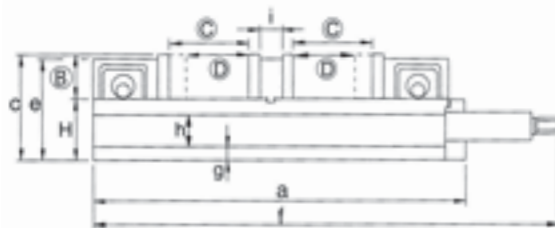
▲ stepped jaw plate for thin workpieces
Max. Capacity: 190m/m(7.00")
242m/m(9.50")



▲ clamping 2 different workpieces both in size and shape
Max. Capacity: 190m/m(7.00")
242m/m(9.50")



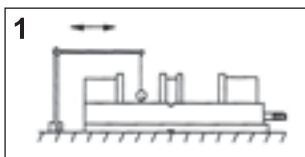
▲ large thin workpieces is able to be clamped after removing jaw plate on fixed jaw
Max. Capacity: 357m/m(14.00")
445m/m(17.50")



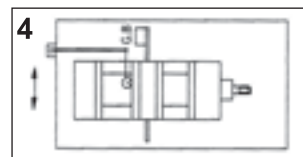
Unit:mm

ORDER NO.	(A)	(B)	(C)	(D)	a	b	c	H	e	f	g	h	i	j	k	l	m	※Guide Block	Weight (kgs)	CODE NO.
VMC-4D	102	45	18~76	0~57	380	104	110	65	107	497	16	29	25	115	170	54	22.5	18	20	4005-020
VMC-6D	152	58	34~102	0~68	495	154	140	90	135	610	18	46	30	165	220	68.4	31.8	18	63	4005-021

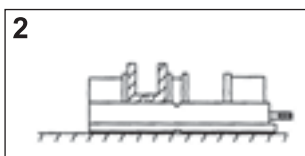
INSPECTION SPECIFICATION Inspection per 100mm (4.00")



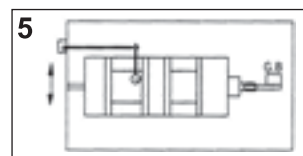
1 Parallelism: running face to bottom of bed.
Guaranteed: 0.01mm (0.0004")



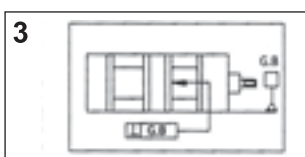
4 Parallelism: keyways on bottom of bed to jaw plate.
Guaranteed: 0.02mm (0.0008")



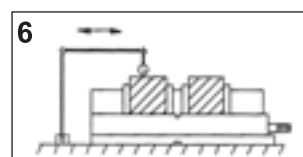
2 Squareness: between running face and jaw plate.
Guaranteed: 0.03mm (0.0012")



5 Squareness: keyways on bottom of bed to jaw plate.
Guaranteed: 0.02mm (0.0008")



3 Squareness: both sides to fixed jaw plate.
Guaranteed: 0.02mm (0.0008")



6 Parallelism: running face of the test block to bottom of bed.
Guaranteed: 0.02mm (0.0008")

※ NO.3 Only applies to VMQ, VMC in HV version.



Hydraulic / Super Power M/C Vise

ORDER NO. VMC-5HU, 6HU

H/V TYPE



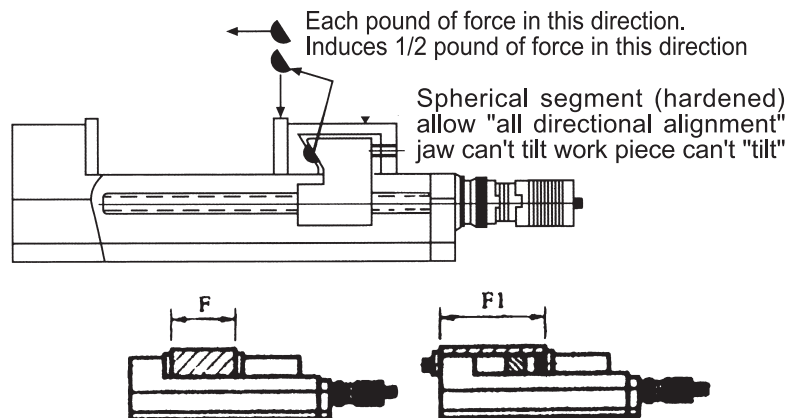
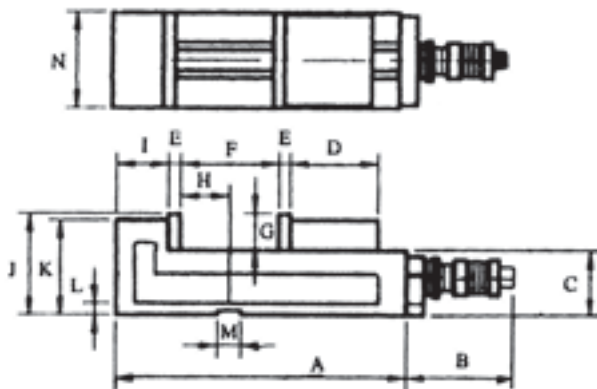
Performed vertically & Jointly.



Performed vertically with right angle base.



Performed sided vertically.



ORDER NO.	A	B	C	D	E	F	F1	F2	F3	G	H	I	J
VMC-5HU	405	200	95	115	15.5	180	240	290	380	55	65	69.5	150
VMC-6HU	495	200	105	130	15.5	240	320	360	470	58	65	84.5	163
VMC-5H	405	200	95	115	15.5	180	240	290		55	65	69.5	150
VMC-6H	495	200	105	130	15.5	240	320	360		58	65	84.5	163

THE SIZE TO BE CONTINUE



Hydraulic / Super Power M/C Vise

ORDER NO.: VMC-5H, 6H

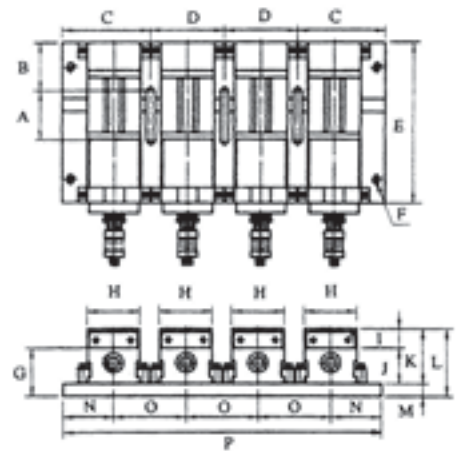
HORIZONTAL TYPE



Performed Jointly.

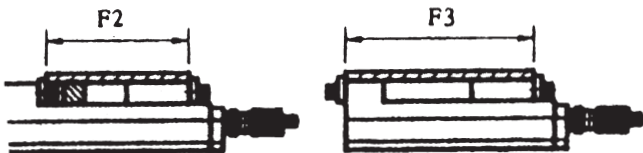
FEATURES

1. Angle fixed type super power precision hydraulic vise, suitable for vertical and horizontal combined cutting & processing machine for heavy cutting.
2. Angle fixed type spherical segment ball can produce the force for angle locking --- which can release the vise plate floating upward and make no slant of the workpiece.
3. Powerful material - cast iron, and has strong anti-tension, high abrasion, and is uneasy to be deformed.
4. The slide surface of vise bench is treated by hardening above HRC45° which can keep long durability for abrasion with high precision.
5. Movable jaw adjusting screw can adjust the appropriate precision for the vise at any time.
6. Four setting positions of the jaw plate are available, widening the jaw plate opening.



ACCURACY STANDARD

ITEM	TOLERANCE	ITEM	TOLERANCE	ITEM	TOLERANCE
1	0.01 mm	3	0.02 mm	5	0.02 mm
2	0.03 mm	4	0.02 mm	6	0.02 mm



K	L	M	N	O	Max. Hydraulic Clamping Force	N.W.	CODE NO.
47	25	18	131	19	4000	41	4005-030
60	25	18	161	19	5000	59	4005-031
47	25	18	131	19	4000	41	4005-032
60	25	18	161	19	5000	59	4005-033

STANDARD ACCESSORIES:

1. Handle
2. Guider Block-2 PCS
Screw-M6 x 10L - 2 PCS

Optional Accessory:

- Swivel Base – 1pc



MC Universal Powerful-Type Precision Vice

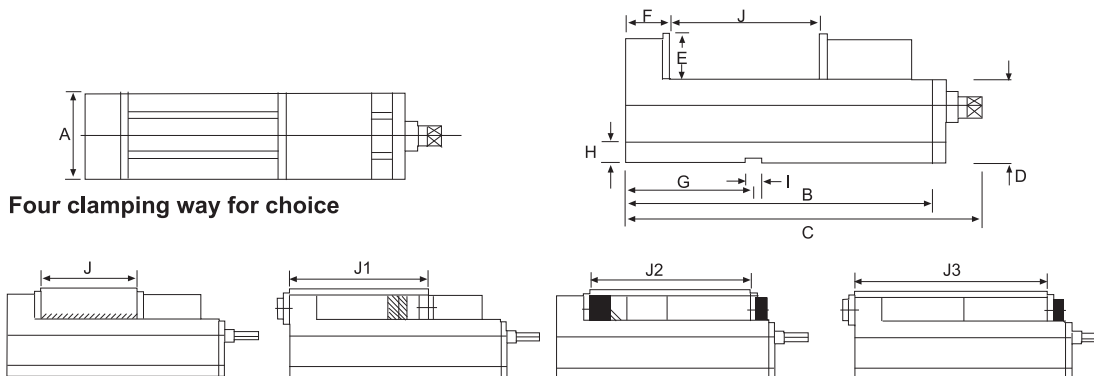
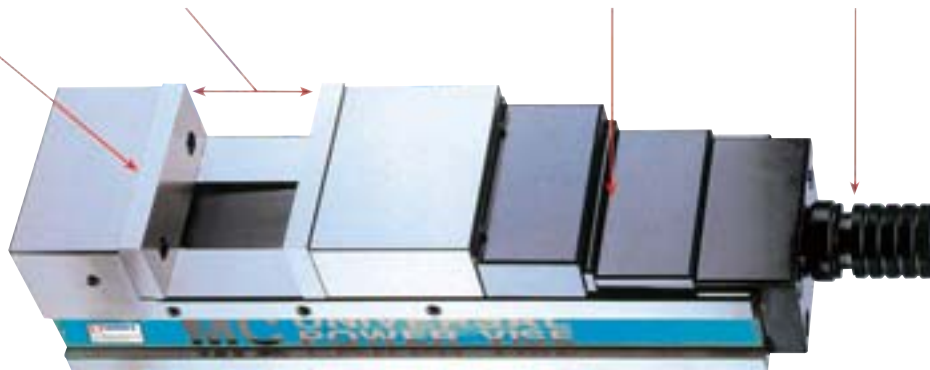
CORNER MOST KINDLY DESIGN TO CONSIDERED TINY POINT.

The jaw more deeper than those of same grade vice. Can clamping higher work piece correctly.

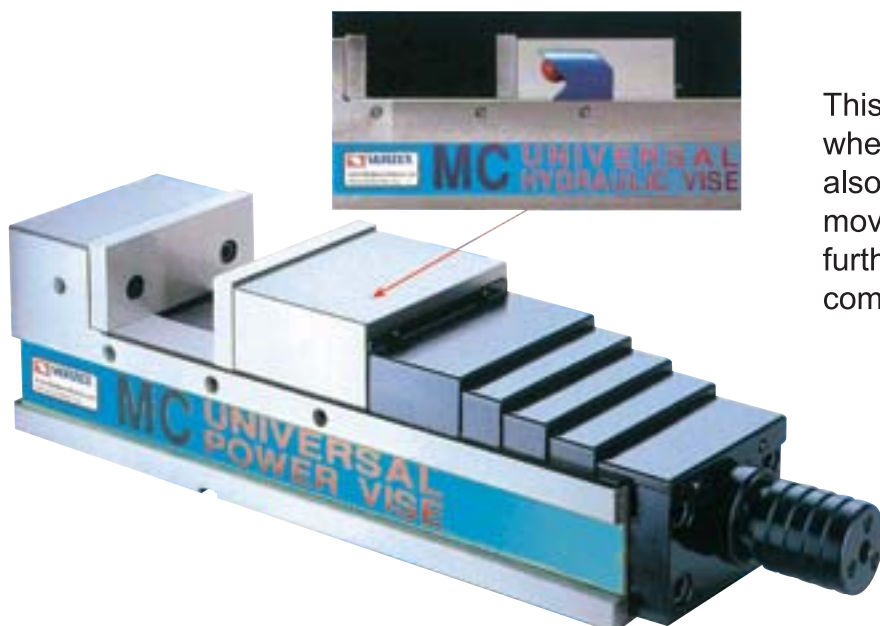
Double opening than those of same grade vice.
Can easy clamp longer work piece.

Chip cover adopted, preventing chips falling into causing bad motion.

New development patented, oil-free powerful mechanical boost system. which gives greater clamping and never collapsing pressue.



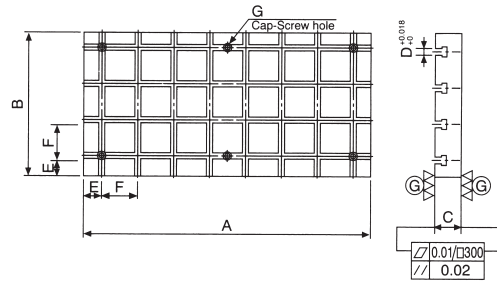
ORDER NO.	A	B	C	D	E	F	G	H	I	J MAX. OPENING	J1	J2	J3	N.W.	G.W.	POWER	CODE.NO.
VMC-4E	100	400	530	85	45	80	110	23	18	150	230	260	340	32kg	35kg	4000kgf	4005-080
VMC-5E	130	450	580	95	50	85	135	23	18	200	285	320	405	45kg	48kg	4500kgf	4005-081
VMC-6E	160	550	680	100	60	103	200	23	18	280	380	400	500	63kg	66kg	5000kgf	4005-082
VMC-8E	200	600	730	110	60	108	220	23	18	300	438	470	578	92kg	104kg	5500kgf	4005-083
VMC-6EB	160	450	580	100	60	103	135	23	18	200	285	320	405	55kg	58kg	5000kgf	4005-084



This unit had prevent lifting structure, when clamping in down direction power also acting, so the workpiece and movable parts lift very small, furthermore, the body and solid jaw is a combination structure, it does not tilt.



Base Plate Series



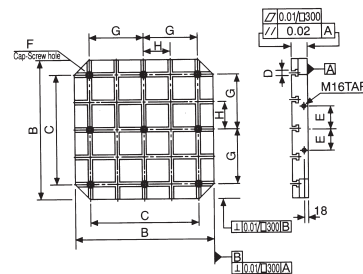
Unit:mm

SUB TABLE T-SLOT TYPE

Sub-plates used on vertical machining centers and larger milling machines. They protect the surface of machine table, and provide larger space for setting workpieces and minimize loss of operating time of expensive machine tools. Material: Close grained cst iron, Annealed Finish: Top and bottom ground

ORDER NO.	A	B	C(±0.02)	D	E	F(±0.02)	G	kg	CODE NO.
TBP-6040	600	400	60	14	50	100	∅18	100	4006-001
TBP-6050	600	500	60	14	50	100	∅18	125	4006-002
TBP-6060	600	600	60	14	50	100	∅18	149	4006-003
TBP-8040	800	400	60	14	50	100	∅18	133	4006-004
TBP-9045	900	450	60	14	50	100	∅18	169	4006-005
TBP-10050	1000	500	60	14	50	100	∅18	207	4006-006
TBP-6040D	600	400	75	18	50	100	∅18	120	4006-007
TBP-6050D	600	500	75	18	50	100	∅18	150	4006-008
TBP-6060D	600	600	75	18	50	100	∅18	179	4006-009
TBP-8040D	800	400	75	18	50	100	∅18	160	4006-010
TBP-9045D	900	450	75	18	50	100	∅18	204	4006-011
TBP-10050D	1000	500	75	18	50	100	∅18	248	4006-012

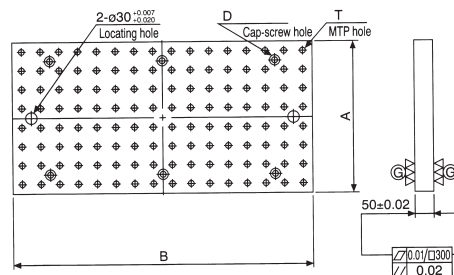
Special dimension's order welcome.



Unit:mm

ORDER NO.	A(±0.02)	B	C	D(H7)	E	F	G(±0.02)	H(±0.02)	kg	CODE NO.
SBP-4040	60	400	320	14	55	∅18	160	80	66	4006-020
SBP-5050	60	500	400	14	75	∅18	200	100	90	4006-021
SBP-6363	60	630	500	14	100	∅18	250	125	149	4006-022
SBP-8080	60	800	640	14	135	∅18	320	160	230	4006-023
SBP-4040A	75	400	320	18	55	∅18	160	80	85	4006-024
SBP-5050A	75	500	400	18	75	∅18	200	100	118	4006-025
SBP-6363A	75	630	500	18	100	∅18	250	125	195	4006-026
SBP-8080A	75	800	640	18	135	∅18	320	160	298	4006-027

Special dimension's order welcome.



Unit:mm

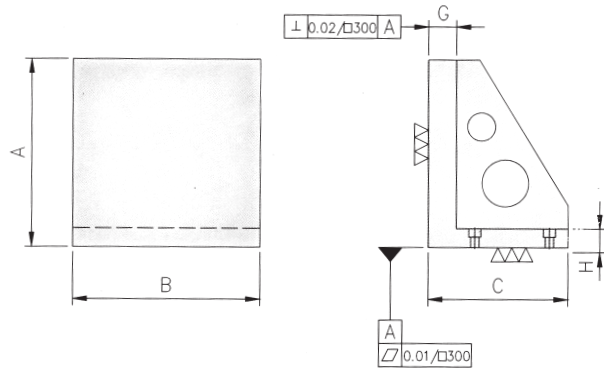
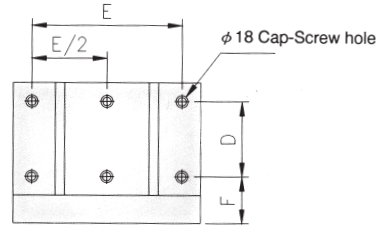
SUB TABLE THERAD TYPE

ORDER NO.	A	B	D	T		No. of MTP holes	kg	CODE NO.
				(F7)	TAP			
HBP-4060	400	600	∅18	∅12	M12	96	90	4006-030
HBP-5060	500	600	∅18	∅12	M12	120	112	4006-031
HBP-6060	600	600	∅18	∅12	M12	144	134	4006-032
HBP-4080	400	800	∅18	∅12	M12	128	119	4006-033
HBP-4590	450	900	∅18	∅12	M12	162	151	4006-034
HBP-50100	500	1000	∅18	∅12	M12	200	187	4006-035
HBP-4060T	400	600	∅18	∅16	M16	96	87	4006-036
HBP-5060T	500	600	∅18	∅16	M16	120	108	4006-037
HBP-6060T	600	600	∅18	∅16	M16	144	129	4006-038
HBP-4080T	400	800	∅18	∅16	M16	128	115	4006-039
HBP-4590T	450	900	∅18	∅16	M16	162	146	4006-040
HBP-50100T	500	1000	∅18	∅16	M16	200	180	4006-041

Special dimension's order welcome.



M/C Angle Plate 90°



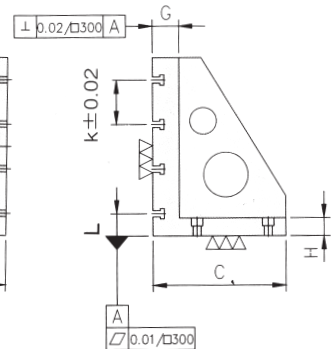
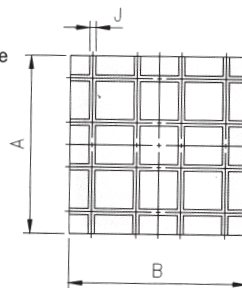
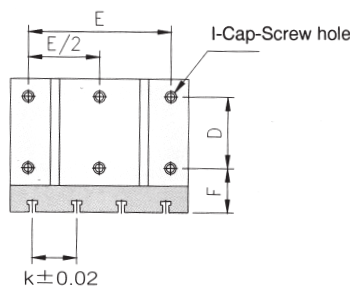
- Material/Finish:
Material:FC300(JIS)/GG30(DIN)
Heat treated (Normalized)
- Application:Good for horizontal M/C
- Features:Free to finish an actual required hole pattern for your special jig.
- eye bolt included.

ORDER NO.	A	B	C	D	E	F	G	H	kgs	CODE NO.
BP2 0- 30	300	300	220	100	250	90	40	30	52	4007-001
BP20 - 40	400	400	280	160	320	90	40	30	90	4007-002
BP20 - 50	500	500	350	200	400	90	50	35	175	4007-003
BP20 - 60	630	630	450	250	500	100	50	40	305	4007-004
BP20 - 80	800	800	550	320	640	115	50	45	480	4007-005



M/C Angle Plate 90°

TSLOT TYPE

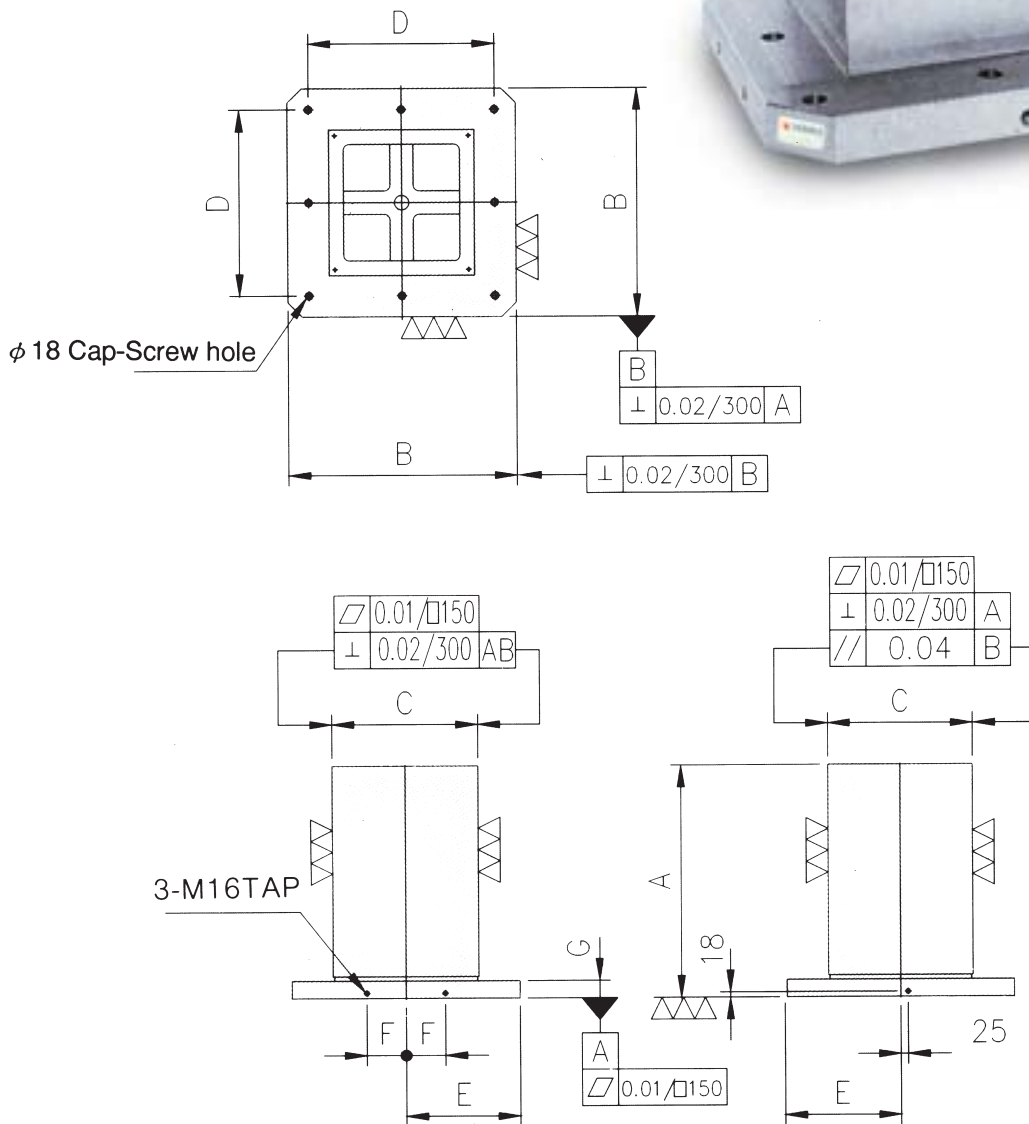


ORDER NO.	A	B	C	D	E	F	G	H	I	H (H7)	K (+0.02)	L	kgs	CODE.NO.
BP22 - 30	300	300	220	100	250	90	60	30	ø18	14	100	50	61	4007-010
BP22 - 40	400	400	280	160	320	90	60	30	ø18	14	100	50	106	4007-011
BP22 - 50	500	500	350	200	400	90	60	35	ø18	14	100	50	184	4007-012
BP22 - 60	630	630	450	250	500	100	60	40	ø18	14	125	65	316	4007-013
BP22 - 80	800	800	550	320	640	115	75	45	ø18	14	150	100	577	4007-014
BP22 - 830	300	300	220	100	250	90	60	30	ø18	18	100	50	59	4007-015
BP22 - 840	400	400	280	160	320	90	60	30	ø18	18	100	50	101	4007-016
BP22 - 850	500	500	350	200	400	90	60	35	ø18	18	100	50	175	4007-017
BP22 - 860	630	630	450	250	500	100	65	40	ø18	18	125	65	304	4007-018



M/C Clamping Cube

- Material/Finish:
Material:FC300(JIS)/GG30(DIN)
Heat treated (Normalized)
- Application:Good for horizontal M/C
- Features:Free to finish an actual required hole pattern for your special jig.
• eye bolt included.

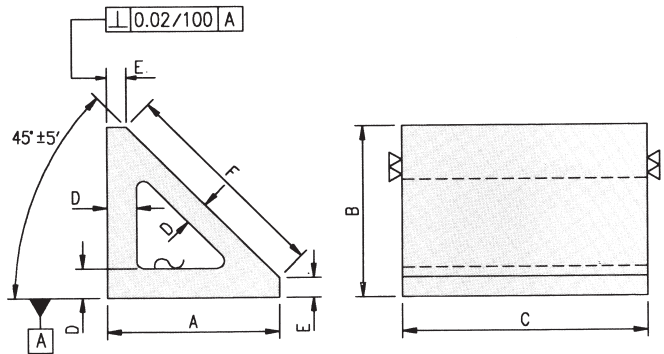


SPECIAL DESIGN WELCOME

ORDER NO.	A	B	C	D	E	F	G	No. of Mounting holes	kg	CODE.NO.
BP07-10	500	400	250	320	200	55	50	4	175	4007-020
BP07-20	600	500	300	400	250	75	50	8	240	4007-021
BP07-30	700	630	350	500	315	100	50	8	390	4007-022
BP07-40	800	800	500	640	400	135	50	8	745	4007-023



Angular Hollow Block 45°

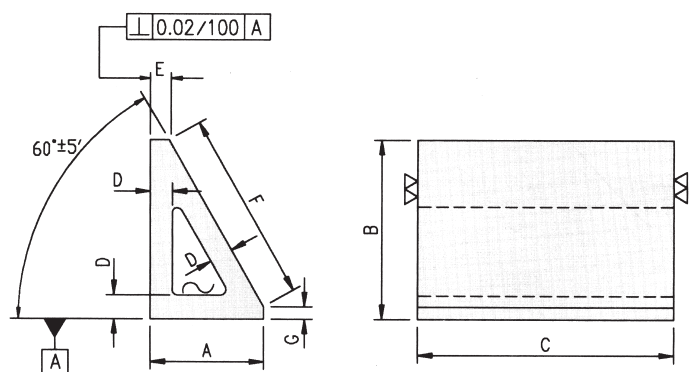


Material: Cast Iron.
FC-300
GG-30

ORDER NO.	A	B	C	D	E	F	kgs	CODE NO.
BC45 - 15	100	100	150	14	10	127	4.5	4007-030
BC45 - 30	100	100	300	14	10	127	8.8	4007-031
BC45 - 151	200	200	150	22	20	255	15.0	4007-032
BC45 - 301	200	200	300	22	20	255	29.0	4007-033



Angular Hollow Block 30°

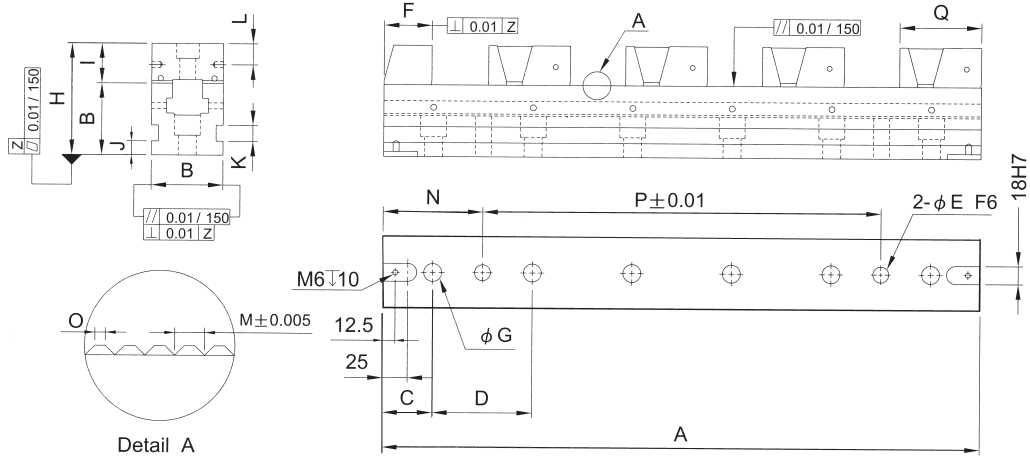


Material:
Cast Iron.
FC-300
GG-30

ORDER NO.	A	B	C	D	E	F	G	kgs	CODE NO.
BC30 - 15	63	100	150	12	9	108	6	3.0	4007-040
BC30 - 30	63	100	300	12	9	108	6	6.0	4007-041
BC30 - 151	125	200	150	20	14	222	8	9.5	4007-042
BC30 - 301	125	200	300	20	14	222	8	19.0	4007-043



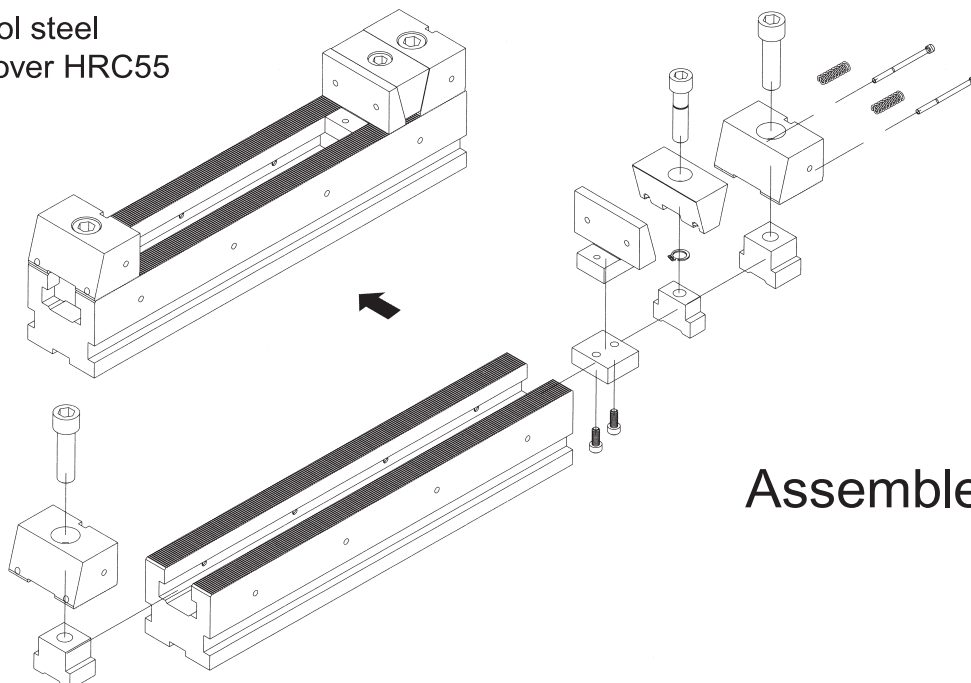
Flexible Line Up Vice



Order example

ORDER NO.	A	B±0.01	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	KG	CODE NO.
VFS-5030	300	50	30	80	12	36	13	75	25	10	12	10	1.5	70	0.5	160	60	7	4007-050
VFS-5030G			50	100										100		100			4007-051
VFS-5040	400	50	40	80	12	36	13	75	25	10	12	10	1.5	80	0.5	240	60	9	4007-052
VFS-5040G			50	100										100		200			4007-053
VFS-5050	500	50	50	80	12	36	13	75	25	10	12	10	1.5	90	0.5	320	60	10	4007-054
VFS-5050G			100	100										300		4007-055			
VFS-5060	600	50	60	80	12	36	13	75	25	10	12	10	1.5	100	0.5	400	60	11	4007-056
VFS-5060G			50	100										100		400			4007-057
VFS-5070	700	50	70	80	12	36	13	75	25	10	12	10	1.5	110	0.5	480	60	14	4007-058
VFS-5070G			50	100										100		500			4007-059
VFS-7240	400	72	50	100	16	48	17	110	40	14	16	15	2.0	100	0.7	200	82	19	4007-060
VFS-7250	500	72	50	100	16	48	17	110	40	14	16	15	2.0	100	0.7	300	82	25	4007-061
VFS-7260	600	72	50	100	16	48	17	110	40	14	16	15	2.0	100	0.7	400	82	27	4007-062
VFS-7270	700	72	50	100	16	48	17	110	40	14	16	15	2.0	100	0.7	500	82	30	4007-063

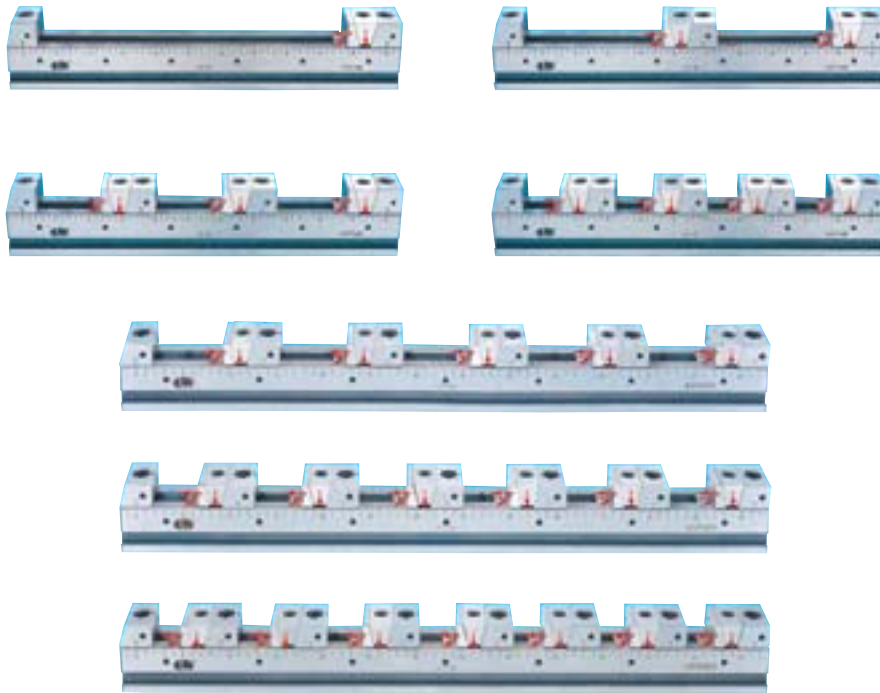
Material: tool steel
Hardness: over HRC55







Assembled






Flexidle Line Up Vice



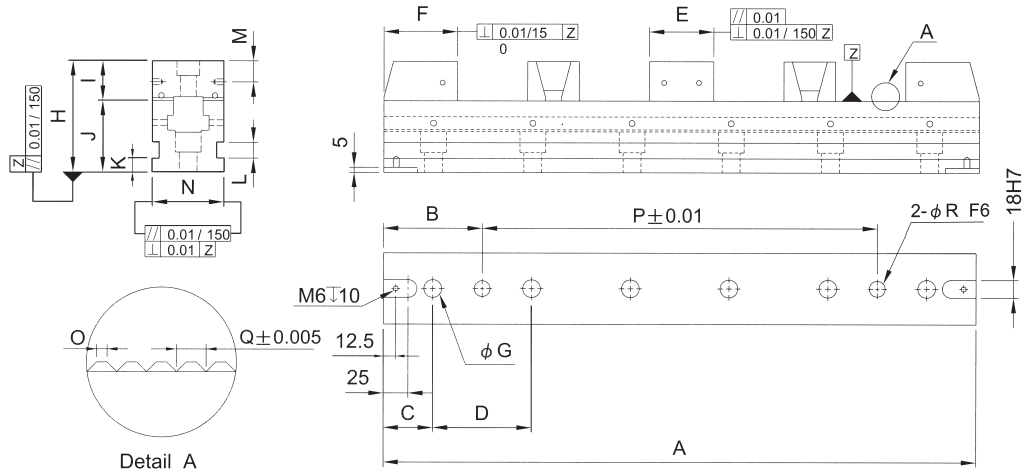
Maximum width of the workpieces can be clamped

ORDER NO.	One workpiece	Two workpieces	Three workpieces	Four workpieces
				
VFS-5030	203	71	27	--
VFS-5040	303	121	60	30
VFS-5050	403	171	94	55
VFS-5060	503	221	127	80
VFS-5070	603	271	160	105
VFS-7240	269	93	35	--
VFS-7250	369	143	68	30
VFS-7260	469	193	101	55
VFS-7270	569	243	135	80

ORDER NO.	Five workpieces	Six workpieces	Seven workpieces
			
VFS-5030	--	--	--
VFS-5040	--	--	--
VFS-5050	32	--	--
VFS-5060	52	33	--
VFS-5070	72	50	34
VFS-7240	--	--	--
VFS-7250	--	--	--
VFS-7260	28	--	--
VFS-7270	48	26	--



Flexible Line Up Vice

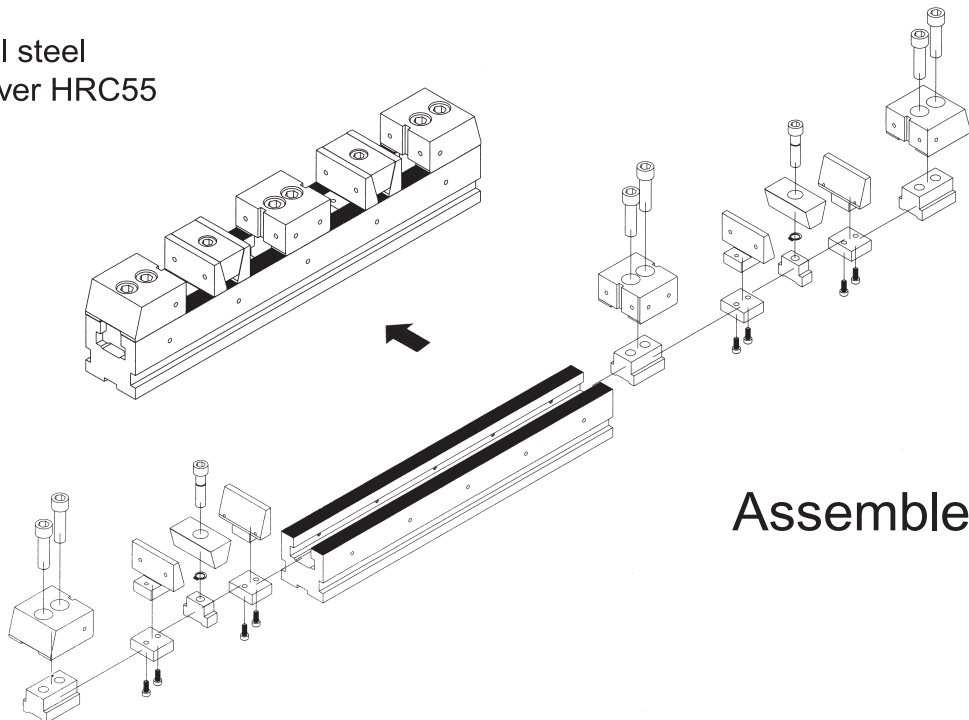


Detail A

Order example

ORDER NO.	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	KG	CODE NO.
VFL-5030	300	70	30	80	44	50	13	75	25	50	10	12	10	50	0.5	160	1.5	12	7	4007-080
VFL-5030G		100	50	100												100				4007-081
VFL-5040	400	80	40	80	44	50	13	75	25	50	10	12	10	50	0.5	240	1.5	12	9	4007-082
VFL-5040G		100	50	100												200				4007-083
VFL-5050	500	90	50	80	44	50	13	75	25	50	10	12	10	50	0.5	320	1.5	12	10	4007-084
VFL-5050G		100	50	100												300				4007-085
VFL-5060	600	100	60	80	44	50	13	75	25	55	10	12	10	50	0.5	400	1.5	12	11	4007-086
VFL-5060G		100	50	100												400				4007-087
VFL-5070	700	110	70	80	44	50	13	75	25	50	10	12	10	50	0.5	480	1.5	12	14	4007-088
VFL-5070G		100	50	100												500				4007-089
VFL-7240	400	100	50	100	65	75	17	110	40	72	14	16	15	72	0.7	200	2.0	16	19	4007-090
VFL-7250	500	100	50	100	65	75	17	110	40	72	14	16	15	72	0.7	300	2.0	16	25	4007-091
VFL-7260	600	100	50	100	65	75	17	110	40	72	14	16	15	72	0.7	400	2.0	16	27	4007-092
VFL-7270	700	100	50	100	65	75	17	110	40	72	14	16	15	72	0.7	500	2.0	16	30	4007-093

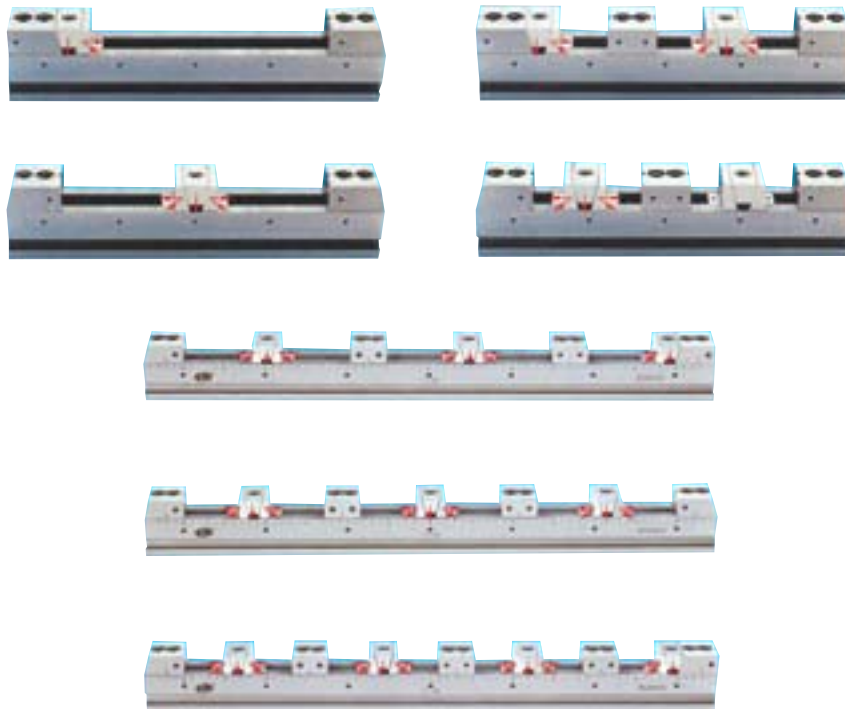
Material: tool steel
Hardness: over HRC55



Assembled



Flexidle Line Up Vice



Maximum width of the workpieces can be clamped

ORDER NO.	One workpiece	Two workpieces	Three workpieces	Four workpieces	Five workpieces
VFL-5030	175	82	32	20	--
VFL-5040	275	130	65	46	--
VFL-5050	375	180	96	71	--
VFL-5060	475	235	130	95	60
VFL-7240	215	100	35	--	--
VFL-7250	315	150	65	45	--
VFL-7260	415	200	100	70	--
VFL-7270	518	250	134	96	56

ORDER NO.	Six workpieces	Seven workpieces	Eight workpieces	Nine workpieces
VFL-5030	--	--	--	--
VFL-5040	--	--	--	--
VFL-5050	--	--	--	--
VFL-5060	50	30	25	15
VFL-7240	--	--	--	--
VFL-7250	--	--	--	--
VFL-7260	--	--	--	--
VFL-7270	44	24	19	--