



MC.FMS Machine Vise and Accessories



SYMBOL OF EXCELLENCE WINNER **ISO9001**

Very good quality vise



Mechanical Power

Power Presetting

Power Stopper Device

3 Function Built In One

S & J Indle with clamping force presetting and stopper mechanism device.

2005



SAFEWAY

<http://www.safeway-vise.com>

ISO-9001:2000

VCV-100,130,160,200V

FMS Compact Machine Vise



P1

VHV-100,130,160,200V

FMS Compact Hydraulic Vise



P3

VQV-100,130,160,200V

FMS Compact Power Vise



P5

VCV-160,200V-L/XL

FMS Compact Machine Vise (Long Opening)



P7

VCV-100,130,160-4S

FMS Multiply Compact Machine Vise (4 In 1 Set Up)

Mechanical



P15

VHV-130,160-4S

Hydraulic



P16

VQV-100,130,160-4S

Power mechanism



P18

CV-100,130,160,200V/S

MC Compact Vise



P17

DAV-100,130,160,200V/S

MC 2 In 1 Double Lock & Anglock Machine Vise



P27

DBV-100,130,160,200V/S

MC Double Self-Centering Vise



P29

PQV-100,130,160,200V/S

MC Pneumatic Quick Vise



P31

CV-100,130,160-2S-3S-4S

Multiply MC Compact Vise (2.3.4 In One Set Up)



P33

PQV-100,130,160-2S-3S-4S

Pneumatic quick vise



P37

CV-100,130,160,200V1

MC 1 Upright Mounting Compact Vise On Bracket Mechanical



P35

CHV-100,130,160,200V1

Mechanical/Hydraulic



P36

CHV-100,130,160,200V1-D

Hydraulic with 90° mechanism



P38

CMV-100,130,160,200V1

Mechanical power



CV-100,130,160,200V4

MC 4 Upright Mounting Compact Vise Mechanical



CHV-100,130,160,200V4

Mechanical/Hydraulic



CHV-100,130,160,200V4-D

Hydraulic with 90° mechanism



CMV-100,130,160,200V4

Mechanical power



CV-100,130,160,200V4B

MC 4 Upright Mounting Compact Vise On Jig Block Mechanical



P38

CHV-100,130,160,200V4B

Mechanical/Hydraulic



PLV-160,200,250

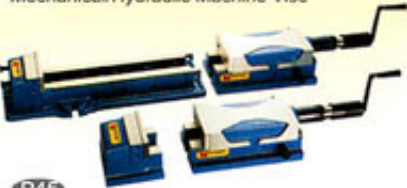
Max. Opening Lock-down Jaw Mechanical/Hydraulic Machine Vise



P43

EHV-160A, 160B

Extension Lock-down Jaw Mechanical/Hydraulic Machine Vise



P45

DV-100,130,160

Drill Press Vise With Lock Down Jaw Mechanism



P46

TSS-130,160,200T/U

Mc Tilt Table (Whole Steel)



P59

SHV-150,200,250,300,350,400

Horizontal / Vertical Rotary Table



P61

C C-S, C C-B

Simple Index Spacer



P62

C S-B, C S-B

Super Index Spacer



P63

B S-B, B S-1

Semi-universal Center (Dividing Head)



P64



SYMBOL OF EXCELLENCE WINNER

VHV-160,200V-L/XL

FMS Compact Hydraulic Vise (Long Opening)



P9

VQV-160,200V-L/XL

FMS Compact Power Vise (Long Opening)



P11

VHV-200-1100UL

FMS Compact Machine Vise (Ultra Long Opening)



P13

CHV-100,130,160,200V/S

MC Compact Mechanical / Hydraulic Vise



P19

CHV-100,130,160,200V/S-B

MC Compact Hydraulic Vise With 90° Driving Mechanism Unit



P21

CHV-100,130,160,200V/S-E

MC Compact Hydraulic Vise With 90° Driving Mechanism Unit And Universal Handle Driving Mechanism (0°~360°)



P23

CMV-100,130,160,200V/S

MC Compact Mechanical Power Vise



P25

CHV-100,130,160-2S-3S-4S



Mechanical/Hydraulic

CHV-100,130,160-2S-3S-4S-B



Hydraulic with 90° mechanism

CMV-100,130,160-2S-3S-4S



Mechanical power

DAV-100,130,160-2S-3S-4S



2 in 1 double lock

DAY-100,130,160,200V1



2 in 1 double lock

CV-100,130,160,200V2



P36

CHV-100,130,160,200V2



Mechanical/Hydraulic

CHV-100,130,160,200V2-B



Hydraulic with 90° mechanism

CMV-100,130,160,200V2



Mechanical power

DAY-100,130,160,200V2



2 in 1 double lock

CHV-100,130,160,200V4S-B



Hydraulic with 90° mechanism

CMV-100,130,160,200V4S



Mechanical power

DAV-100,130,160,200V4S



2 in 1 double lock

PHV-130,160,200,250

Lock-down Jaw Mechanical / Hydraulic Machine Vise



P39

PPV-130,160

Lock-down Jaw Mechanical Power Vise



P41

MC SUB TABLES



P50



P51



P54



P56



P58



B S-2

Semi-universal Center(Dividing Head)



P65

SDT-300

Universal Tilting Rotary Table



P66

SA-1300,2500-110V/220V

Drill Grinding Machine



P69

SPT-300/400 x 30,40,50

Tool-presetting And Checking



P67

Brief

Leading a group of his professional and enthusiastic schoolmates, Mr. Ching-Wen Hong has founded Safeway Machinery Industry Corporation in 1985. This team is consisted of top technicians who have reputable technology backgrounds for research and development. At the beginning, the company mainly manufactured Drill Index Head and in 1986 produced its first Lock-down Jaw Mechanical / Hydraulic Machine Vise. These preliminary products were immediately well accepted by customers for their good quality and stable hydraulic pressure characteristics. Company businesses were since moving full steam ahead.

By the time when CNC machining center industry was moving fast in Taiwan, Safeway started designing its first MC Compact Mechanical / Hydraulic Machine Vise specially for CNC machining centers. The brand new product was launched successfully the following year. Local and international customers' reactions were great. From then on, Safeway focuses even more upon more upon self-research and development.



SAFEWAY

"Innovation and Service Comes First", that is the professional business attitude that Safeway is upholding in their daily operations to provide customers with versatile products and services. Based upon years of the knowledge and experience for manufacturing precision vises and clamping devices, the entire technician team of Safeway has led the way to introduce full range of products suitable for different industries, laying a reliable foundation for precision vise industry in Taiwan and gradually becoming a world class CNC precision vise manufacture.

In the Taiwanese precision vise industry, Safeway is the only manufacturer who has continuously achieved the 3th and the 4th Taiwan Innovalue awards. After these achievements, great sales have been created this is just another proof that customers' trust toward Safeway products is overwhelming and Safeway must consistently introduce exceptional products to meet ever-growing market demands. It is really the irrevcoable responsibility for Safeway as a precision vise manufacturer in Taiwan.





Company Brief

- 1984. Mr. Ching-Wen Hong took the leadership to call up his schools mates, forming a management team to start the company in Chingshui, Taichung, Taiwan.
- 1985. Formal registration of Safeway Co., LTD. and the very first products Hydraulic Indexing table. Drill Index Head, TACM-2400 Portable Chamfering Machine and Taper Turning Center were born.
- 1986. First PHV-130, 160 Lock-down Jaw Mechanical / Hydraulic Machine Vise was built. It was also the first ever seen product on Taiwanese market.
- 1987. PHV-120, 250 Lock-down Jaw Mechanical / Hydraulic Machine Vise were developed.
- 1988. Start to design series of MC Compact Mechanical / Hydraulic Machine Vise and CHV Series.
- 1989. First precision vise specially for CNC machining centers was built in Taiwan, precision vise was since successfully incorporated with CNC machining centers.
- 1990. CHV-100, 130, 160, 200 full range specifications were introduced to offer more extensive choices for customers.
- 1992. New factory was built in Chingshui, Taichung to cope with ever expanding business. Pneumatic Quick Vise

PQV series was developed for high precision processing industry. Full range of Multiply MC Compact Vise (2,3,4 in one set up) were designed and developed. This range of product will make it easy for customers who install many sets of vises at the same time. Full range of vertical vise (CHV-100 V1,V2,V4,V4B) were built for horizontal machining centers. Full size range Sub Table were built for CNC machining centers, EHV-160A Extension Lock-down Jaw Mechanical / Hydraulic Machine Vise was introduced.

- 1993. New factory was fully completed, new CNC machining center was purchased to increase production volume for every growing market. CHV-100,130,160,200-D Series, MC Compact Mechanical / Hydraulic Vise with 90° degree Driving Mechanism Unit were developed.
- 1994. Heavy Duty High Precision Drill Press Vise with Lock-down Jaw Mechanism DV-100,130,160 Series were developed and had achieved honorable special use status in Technical Competition of Taiwanese Vocational Schools. These products had greatly enhanced the accuracy of boring operation in Taiwan.



- 1995. Full range of MC Tooling Block (2 Face Type, 4 Face Type), were developed, a sheer powerful tool for floor type machine tools, (SJB series) purchase another CNC machining center to further production volume.
- 1996. MC Compact Mechanical Power Vise CMV-100,130,160,200 Series were developed. Start to develop Horizontal / Vertical Rotary Table SHV-150,200,250,300,350,400 Series. Products passed through Taiwan Innovalue evaluation and won the 3th Taiwan Innovalue award.
- 1997. Developed Max. Opening Hydraulic Machine Vise PLV, PMV Series, BS-0,1,2, Simple Index Spacer and Universal Tilting Rotary Table SUT-300. Tool part in the 4th Taiwan Innovalue evaluation and won the award once more.
- 1998. Developed MC 2 in 1 Double Lock & Self-centering Vise DMV-100,130,160,200 Series. For further business expansion, 3300mm² land were bought in Kuan Lien Industrial Park near Port of Taiching.
- 1999. MC 2 in 1 Double Lock & Anglock Machine Vise DAV-100,130,160,200 Series were developed New factory planning is finished and Earth Breaking Ceremony was held for the new factory project.

- 2000. Technical cooperation started with Swiss TRIMOS to produce Tool-Pre-setting and Checking SPT Series equipments. New factory in the industrial area adjacent to Port of Taiching was completed, new software and hardware have been installed.
- 2001. New factory Kuan Lien Industrial Park next to Taichung Port was finally opened on 1th of January. This is the brand new start for Safeway Co., Ltd. Starting to develop precision type / angle tilting operation table TSB-100, 130,160,200.
- 2002. Developed Double Self-centering Vise DBV-100,130, 160,200 Series and MC Compact Mechanical / Hydraulic Vise with 90 degree Driving Mechanism Unit CHV-100, 130,160,200-E Series.
- 2003. SA-1300 drill grind machine developed.
2003.11 ISO 9001:2000 Formally Certified.
- 2004. Developed VQV-100,130,160,200 Series.



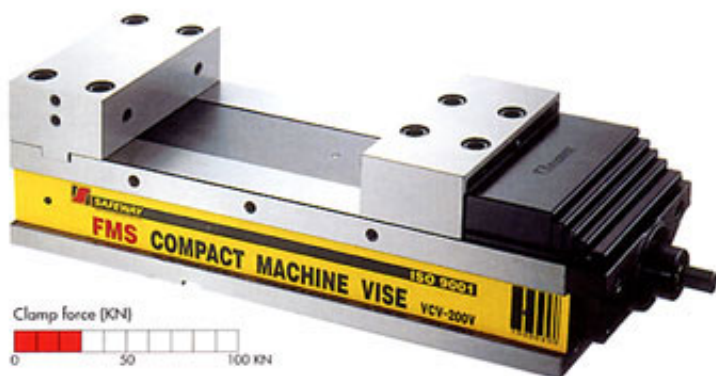
SAFEWAY

ISO-9001:2000

MOST SUITABLE FOR VERTICAL MACHINE CENTER, MILLING MACHINE

FMS/Mechanical

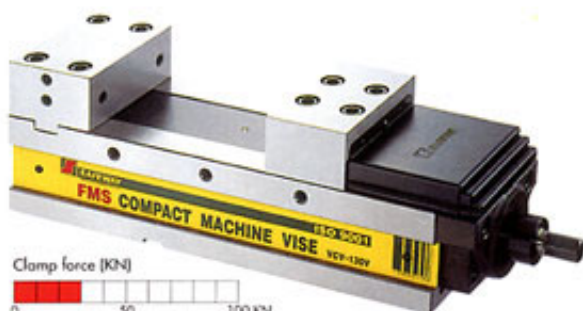
MODEL ● 10000100 VCV-100V
 ● 10000130 VCV-130V
 ● 10000160 VCV-160V
 ● 10000200 VCV-200V



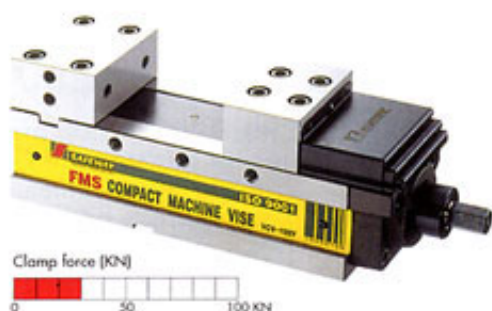
Clamp force [KN]
 0 50 100 KN



Clamp force [KN]
 0 50 100 KN

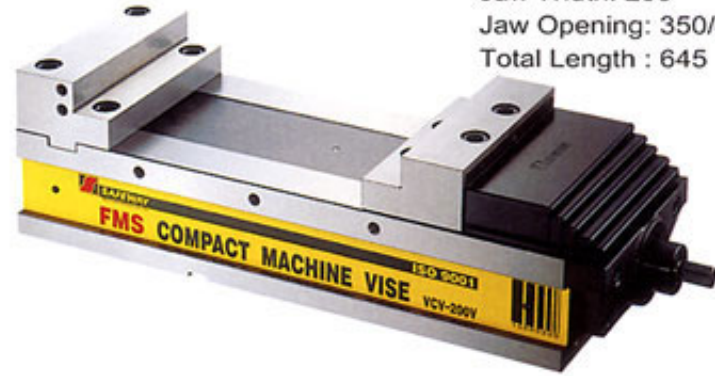


Clamp force [KN]
 0 50 100 KN



Clamp force [KN]
 0 50 100 KN

MODEL ● 10004100 VCV-100V-SJ
 ● 10004130 VCV-130V-SJ
 ● 10004160 VCV-160V-SJ
 ● 10004200 VCV-200V-SJ



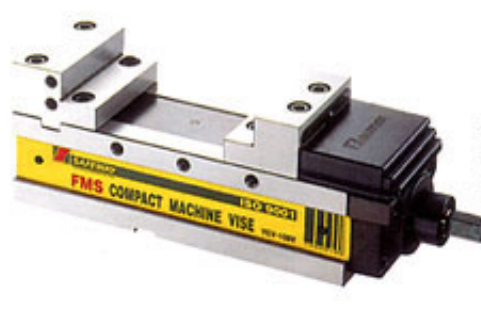
Jaw Width: 200
 Jaw Opening: 350/426
 Total Length : 645



Jaw Width: 160
 Jaw Opening: 300/370
 Total Length : 565



Jaw Width: 130
 Jaw Opening: 250/315
 Total Length: 500



Jaw Width: 100
 Jaw Opening: 155/213
 Total Length: 390

PAT. Unit:mm

ORDER NO.	MODEL	JAW WIDTH	JAW HEIGHT	JAW OPENING J(J1)	WISE HEIGHT	TOTAL HEIGHT	TOTAL LENGTH	REMARK
10000100	VCV-100V	100	45	155	85	130	398	
10000130	VCV-130V	130	52	250	95	147	508	
10000160	VCV-160V	160	55	300	105	160	573	
10000200	VCV-200V	200	60	350	110	170	653	
10004100	VCV-100V-SJ	100	45	213	85	130	398	
10004130	VCV-130V-SJ	130	52	315	95	147	508	
10004160	VCV-160V-SJ	160	55	370	105	160	573	
10004200	VCV-200V-SJ	200	60	426	110	170	653	



FMS COMPACT MACHINE VISE

FEATURES:

1. Max. opening capacity and compact in total length. particularly suitable for machining centers.
2. Rigid material- Ductile iron FCD60 JIS (equal to GGG 60) with 60 kg/mm² or 80,000 psi tensile strength.
3. Vise bed flame hardened to HRC 45 and up takes up wear and maintain accuracy for long.
4. Stationary jaw and Movable jaw are hardened HRC 52°~55° with grinding.
5. Stationary jaw and Movable jaw are easy to shift on the clamping slide.
6. Chip cover adopt on each Vise for preventing chips falling into Lead- screw and inside of vise.



OPTIONAL

Step Jaw (HRC 52°~55°)

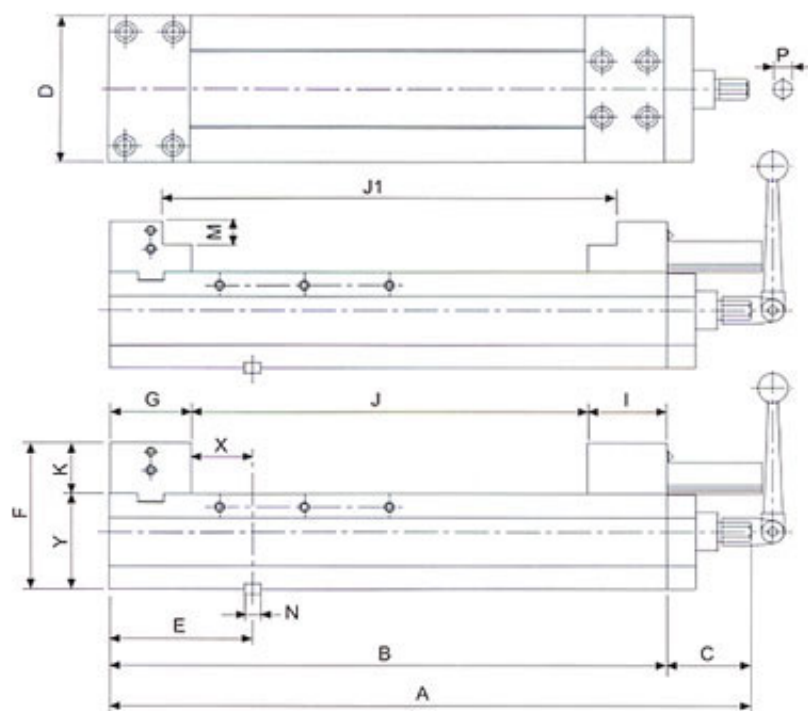
ORDER NO.	MODEL	J1	M
10004100	VCV-100V-SJ	213	25
10004130	VCV-130V-SJ	315	30
10004160	VCV-160V-SJ	370	30
10004200	VCV-200V-SJ	426	30

OPTIONAL

Aluminum Jaw

ORDER NO.	MODEL
10006100	VCV-100V-AJ
10006130	VCV-130V-AJ
10006160	VCV-160V-AJ
10006200	VCV-200V-AJ

VCV Vise Dimensions

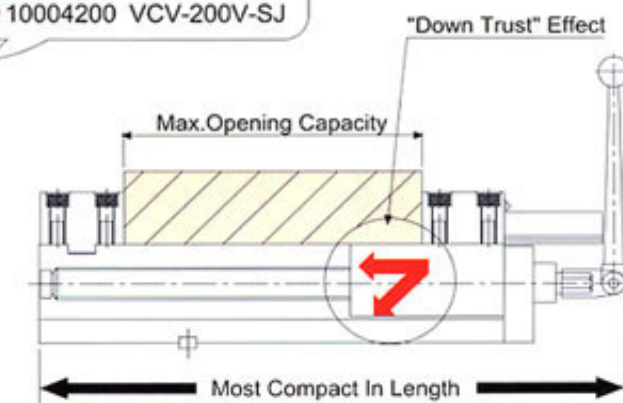


Step Jaw (Optional)

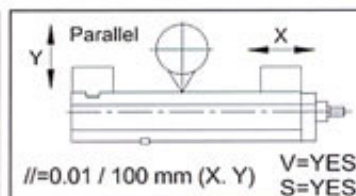
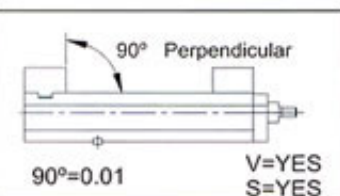
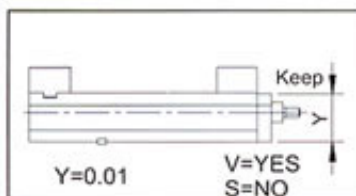
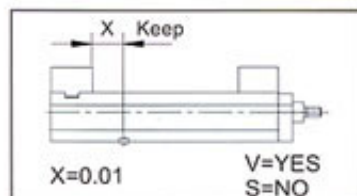
- 10004100 VCV-100V-SJ
- 10004130 VCV-130V-SJ
- 10004160 VCV-160V-SJ
- 10004200 VCV-200V-SJ

Standard Accessories

- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Vise locked block x 4 pcs



- Clamp power intensification via "Lead - screw" intensifier.
- Lower deformable design for very high clamping accuracy.



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	I	J	K	N	X	Y	X.Y=0.01	N.W.	G.W.	SHIPMENT SIZE	REMARK
10000100	VCV-100V	398	300	98	101	124	130	78	64	155	45	18	45	85	YES	21kg	23kg	590x175x185	
10005100	VCV-100S	398	300	98	101	124	130	78	64	155	45	18	45	85	NO	21kg	23kg	590x175x185	
10000130	VCV-130V	508	410	98	131	149	147	83	74	250	52	18	65	95	YES	38kg	40kg	655x190x225	
10005130	VCV-130S	508	410	98	131	149	147	83	74	250	52	18	65	95	NO	38kg	40kg	655x190x225	
10000160	VCV-160V	573	475	98	161	152	160	86	86	300	55	18	65	105	YES	57kg	60kg	760x190x215	
10005160	VCV-160S	573	475	98	161	152	160	86	86	300	55	18	65	105	NO	57kg	60kg	760x190x215	
10000200	VCV-200V	653	555	98	201	194	170	100	97	350	60	18	92	110	YES	87kg	90kg	820x230x220	
10005200	VCV-200S	653	555	98	201	194	170	100	97	350	60	18	92	110	NO	87kg	90kg	820x230x220	



SAFEWAY

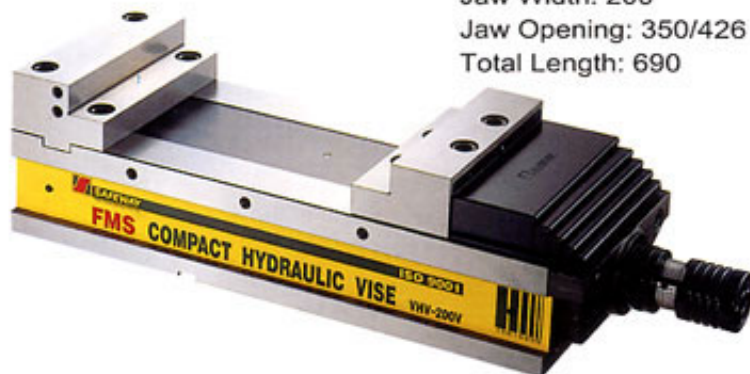
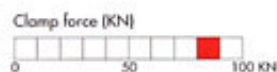
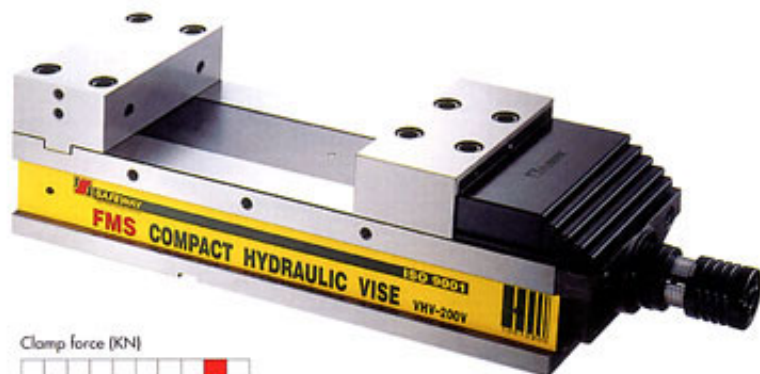
ISO-9001:2000

MOST SUITABLE FOR VERTICAL MACHINE CENTER, MILLING MACHINE

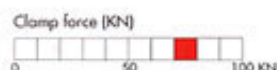
FMS/Hydraulic

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 ● 10010160 VHV-160V
 ● 10010200 VHV-200V

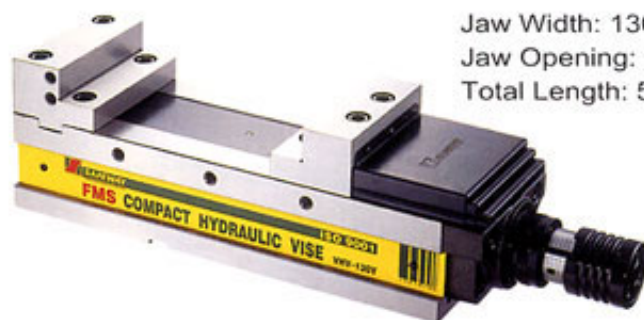
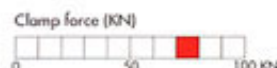
MODEL ● 10014130 VHV-130V-SJ
 ● 10014160 VHV-160V-SJ
 ● 10014200 VHV-200V-SJ



Jaw Width: 200
 Jaw Opening: 350/426
 Total Length: 690



Jaw Width: 160
 Jaw Opening: 300/370
 Total Length: 610



Jaw Width: 130
 Jaw Opening: 210/275
 Total Length: 545

PAT. Unit:mm

ORDER NO.	MODEL	JAW WIDTH	JAW HEIGHT	JAW OPENING J(J1)	WISE HEIGHT	TOTAL HEIGHT	TOTAL LENGTH	LIMIT. PRESSURE	REMARK
10010130	VHV-130V	130	52	210	95	147	545	72KN(7056kgf)	
10010160	VHV-160V	160	55	300	105	160	610	77KN(7546kgf)	
10010200	VHV-200V	200	60	350	110	170	690	82KN(8036kgf)	
10014130	VHV-130V-SJ	130	52	275	95	147	545	72KN(7056kgf)	
10014160	VHV-160V-SJ	160	55	370	105	160	610	77KN(7546kgf)	
10014200	VHV-200V-SJ	200	60	426	110	170	690	82KN(8036kgf)	



SAFEWAY

ISO-9001:2000



FMS COMPACT HYDRAULIC VISE

FEATURES:

1. Max. opening capacity and compact in total length, particularly suitable for machining centers.
2. Clamping system: mechanical/hydraulic.
3. Vise bed flame hardened to HRC 45 and up takes up wear and maintain accuracy for long.
4. Rigid material- Ductile iron FCD60 JIS (equal to GGG 60) with 60 kg/mm² or 80,000 psi tensile strength.
5. Stationary jaw and Movable jaw are hardened HRC 52°~55° with grinding.
6. Stationary jaw and Movable jaw are easy to shift on the clamping slide.
7. Chip cover adopt on each Vise for preventing chips falling into Lead- screw and inside of vise.



OPTIONAL

Step Jaw (HRC 52°~55°)

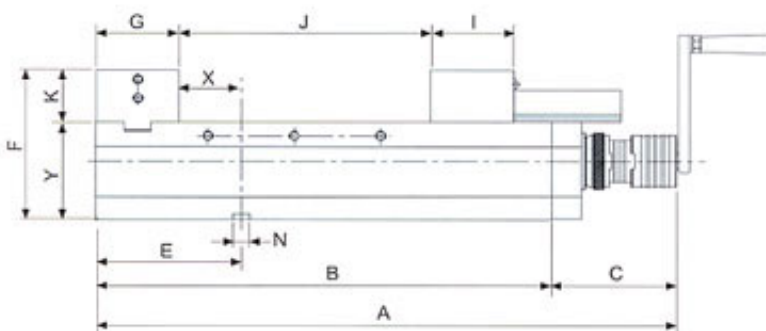
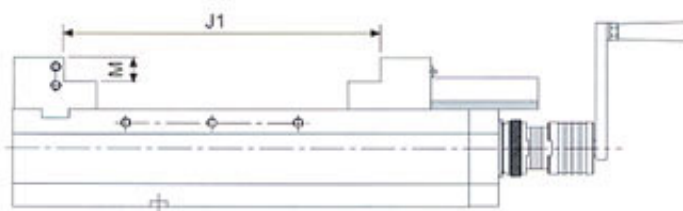
ORDER NO.	MODEL	J1	M
10014130	VHV-130V-SJ	275	30
10014160	VHV-160V-SJ	370	30
10014200	VHV-200V-SJ	426	30

OPTIONAL

Aluminum Jaw

ORDER NO.	MODEL
10016130	VHV-130V-AJ
10016160	VHV-160V-AJ
10016200	VHV-200V-AJ

VHV Vise Dimensions

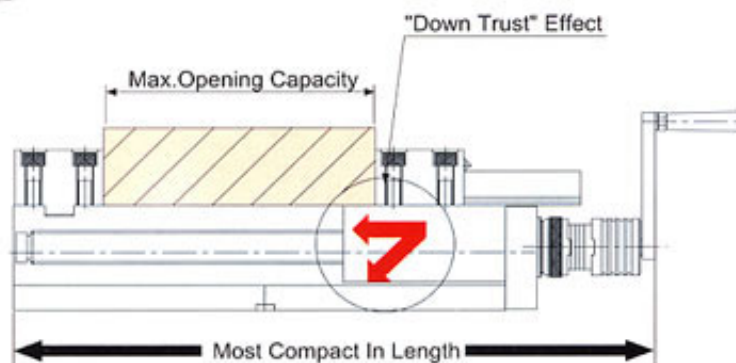


Step Jaw (Optional)

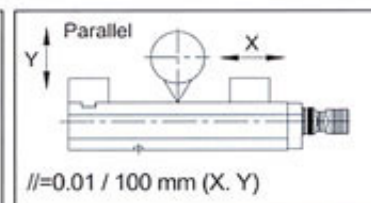
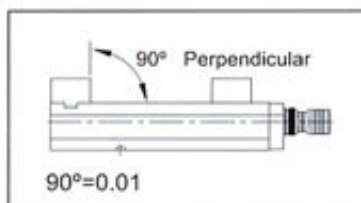
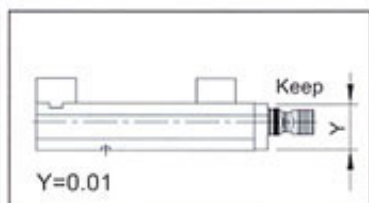
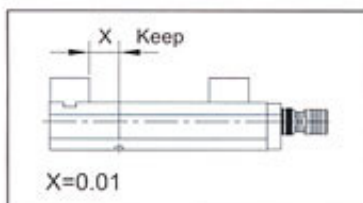
- 10014130 VHV-130V-SJ
- 10014160 VHV-160V-SJ
- 10014200 VHV-200V-SJ

Standard Accessories

1. Handle x 1 pc
2. Guide key x 2 pcs
M6 x 10L x 2 pcs
3. Vise locked block x 4 pcs



- Clamp power intensification via "hydraulic pressure" intensifier.
- Lower deformable design for very high clamping accuracy.



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	I	J	K	N	X	Y	N.W.	G.W.	SHIPMENT SIZE	REMARK
10010130	VHV-130V	545	410	135	131	149	147	83	74	210	52	18	65	95	40kg	42kg	655x190x225	
10010160	VHV-160V	610	475	135	161	152	160	86	86	300	55	18	65	105	59kg	62kg	760x190x215	
10010200	VHV-200V	690	555	135	201	194	170	100	97	350	60	18	92	110	90kg	93kg	820x230x220	

**SAFEWAY****ISO-9001:2000****MOST SUITABLE FOR VERTICAL MACHINE CENTER, MILLING MACHINE****FMS/Power**

MODEL ● 10040100 VQV-100V
 ● 10040130 VQV-130V
 ● 10040160 VQV-160V
 ● 10040200 VQV-200V

MODEL ● 10044100 VQV-100V-SJ
 ● 10044130 VQV-130V-SJ
 ● 10044160 VQV-160V-SJ
 ● 10044200 VQV-200V-SJ

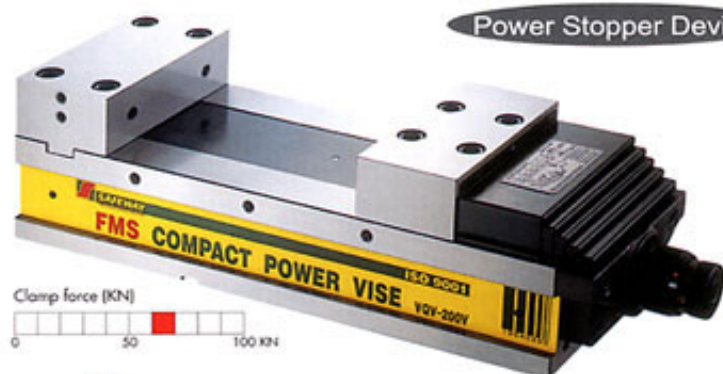
Mechanical Power

Power Presetting

Power Stopper Device

3 Function Built In One

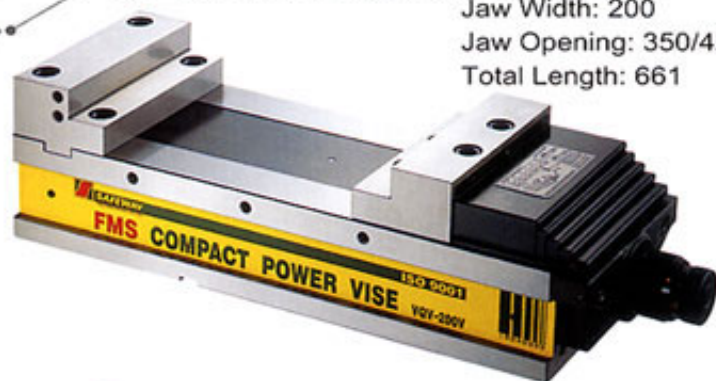
Jaw Width: 200
 Jaw Opening: 350/426
 Total Length: 661



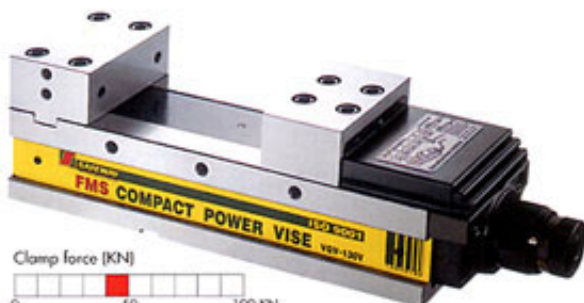
Clamp force (KN)
 0 50 100 KN



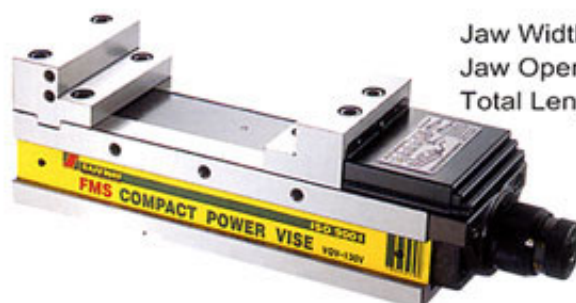
Clamp force (KN)
 0 50 100 KN



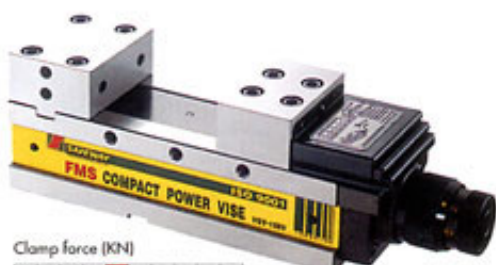
Jaw Width: 160
 Jaw Opening: 300/370
 Total Length: 581



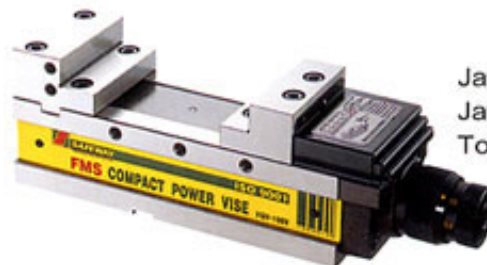
Clamp force (KN)
 0 50 100 KN



Jaw Width: 130
 Jaw Opening: 250/315
 Total Length: 516



Clamp force (KN)
 0 50 100 KN



Jaw Width: 100
 Jaw Opening: 155/213
 Total Length: 406

PAT. Unit:mm

ORDER NO.	MODEL	JAW WIDTH	JAW HEIGHT	JAW OPENING J(J1)	WISE HEIGHT	TOTAL HEIGHT	TOTAL LENGTH	LIMIT. PRESSURE	REMARK
10040100	VQV-100V	100	45	155	85	130	406	41KN(4018kgf)	
10040130	VQV-130V	130	52	250	95	147	516	45KN(4410kgf)	
10040160	VQV-160V	160	55	300	105	160	581	54KN(5292kgf)	
10040200	VQV-200V	200	60	350	110	170	661	66KN(6468kgf)	
10044100	VQV-100V-SJ	100	45	213	85	130	406	41KN(4018kgf)	
10044130	VQV-130V-SJ	130	52	315	95	147	516	45KN(4410kgf)	
10044160	VQV-160V-SJ	160	55	370	105	160	581	54KN(5292kgf)	
10044200	VQV-200V-SJ	200	60	426	110	170	661	66KN(6468kgf)	



SAFEWAY

ISO-9001:2000



FMS COMPACT POWER VISE

FEATURES:

1. Max. opening capacity and compact in total length. particularly suitable for machining centers.
2. Drive spindle with clamping force presetting and stopper mechanism device.
3. Rigid material- Ductile iron FCD60 JIS (equal to GGG 60) with 60 kg/mm² or 80,000 psi tensile strength.
4. Vise bed frame hardened to HRC 45° and up takes up wear and maintain accuracy for long.
5. Stationary jaw and Movable jaw are hardened HRC 52°~55° with grinding.
6. Stationary jaw and Movable jaw are easy to shift on the clamping slide.
7. Chip cover adopt on each Vise for preventing chips falling into Lead- screw and inside of vise.



OPTIONAL

Step Jaw (HRC 52°~55°)

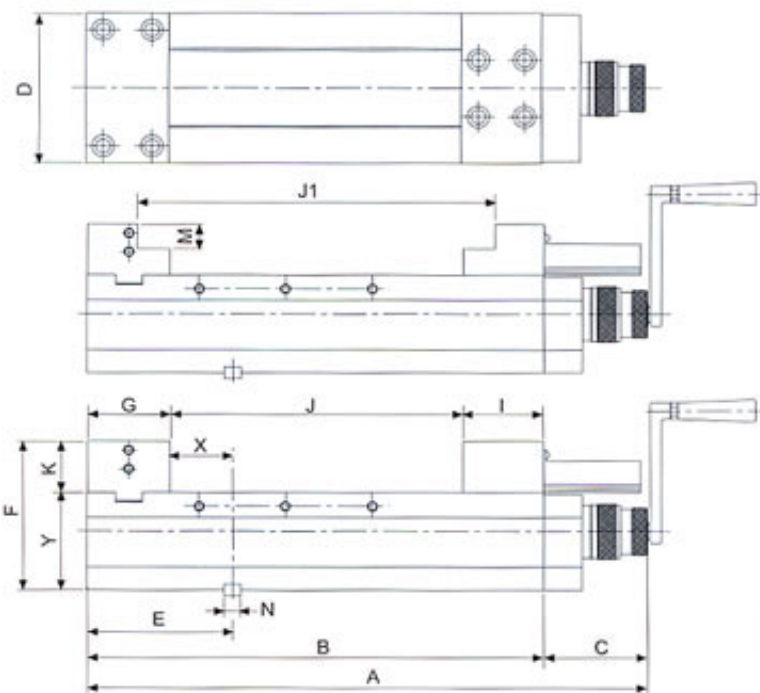
ORDER NO.	MODEL	J1	M
10044100	VQV-100V-SJ	213	25
10044130	VQV-130V-SJ	315	30
10044160	VQV-160V-SJ	370	30
10044200	VQV-200V-SJ	426	30

OPTIONAL

Aluminum Jaw

ORDER NO.	MODEL
10046100	VQV-100V-AJ
10046130	VQV-130V-AJ
10046160	VQV-160V-AJ
10046200	VQV-200V-AJ

VQV Vise Dimensions



Clamping force table

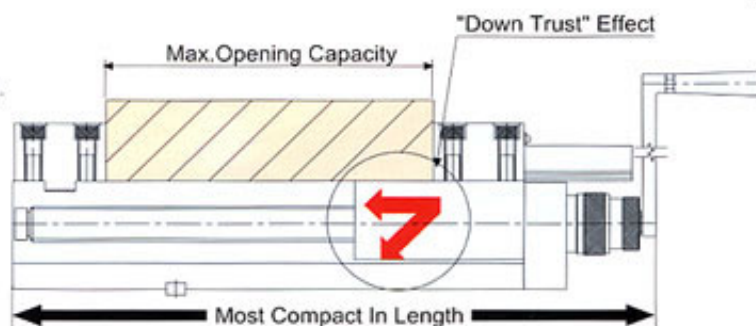
	4	3	2	1	0
VQV-100	41 (4018)	30 (2940)	17 (1666)	10 (980)	4 (392)
VQV-130	45 (4410)	34 (3332)	17 (1666)	10 (980)	4 (392)
VQV-160	54 (5292)	43 (4214)	21 (2058)	12 (1176)	5 (490)
VQV-200	66 (6468)	48 (4704)	22 (2156)	12 (1176)	5 (490)

Step Jaw (Optional)

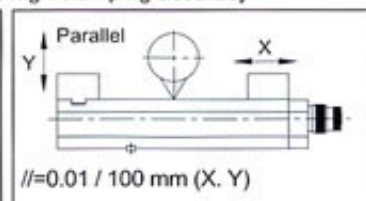
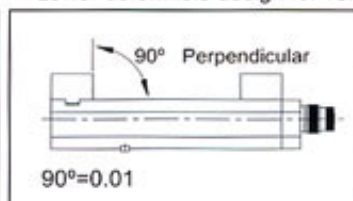
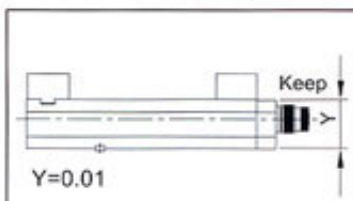
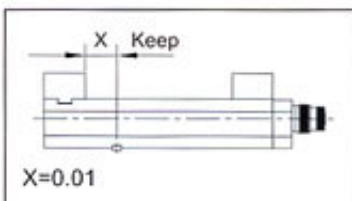
- 10044100 VQV-100V-SJ
- 10044130 VQV-130V-SJ
- 10044160 VQV-160V-SJ
- 10044200 VQV-200V-SJ

Standard Accessories

1. Handle x 1 pc
2. Guide key x 2 pcs
M6 x 10L x 2 pcs
3. Chip cover x 1 set
4. Vise locked block x 4 pcs



- Clamp power intensification via "knee lever" intensifier.
- Lower deformable design for very high clamping accuracy.

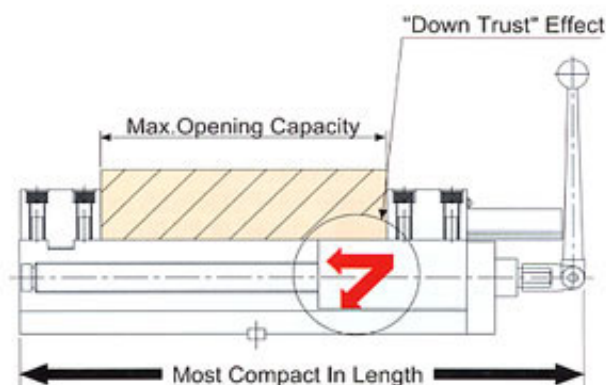
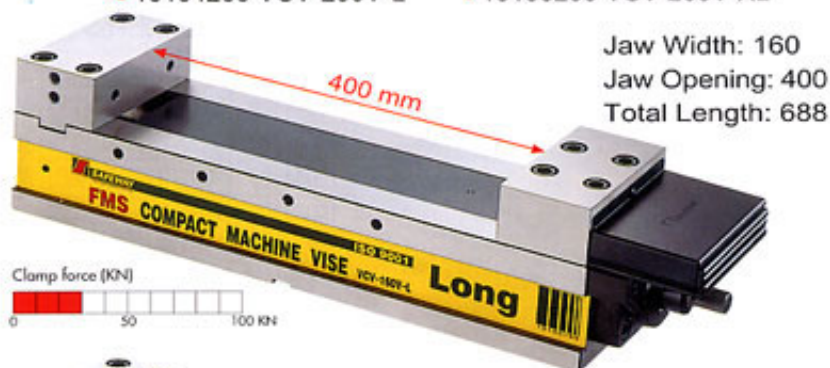


Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	I	J	K	N	X	Y	N.W.	G.W.	SHIPMENT SIZE	REMARK
10040100	VQV-100V	406	300	106	101	124	130	78	64	155	45	18	45	85	22kg	24kg	590x175x185	
10040130	VQV-130V	516	410	106	131	149	147	83	74	250	52	18	65	95	40kg	42kg	655x190x225	
10040160	VQV-160V	581	475	106	161	152	160	86	86	300	55	18	65	105	59kg	62kg	760x190x215	
10040200	VQV-200V	661	555	106	201	194	170	100	97	350	60	18	92	110	90kg	93kg	820x230x220	

**SAFEWAY****ISO-9001:2000****MOST SUITABLE FOR VERTICAL MACHINE CENTER****FMS/Mechanical**

MODEL ● 10100160 VCV-160V-L ● 10102160 VCV-160V-XL
 ● 10104200 VCV-200V-L ● 10106200 VCV-200V-XL



- Clamp power intensification via "Lead - screw" intensifier.
- Lower deformable design for very high clamping accuracy.

FEATURES:

1. Max. opening capacity and compact in total length, particularly suitable for machining centers.
2. Rigid material- Ductile iron FCD60 JIS (equal to GGG 60) with 60 kg/mm² or 80,000 psi tensile strength.
3. Vise bed flange hardened to HRC 45° and up takes up wear and maintain accuracy for long.
4. Stationary jaw and Movable jaw are hardened HRC 52°~55° with grinding.
5. Stationary jaw and Movable jaw are easy to shift on the clamping slide.
6. Chip cover adopt on each Vise for preventing chips falling into Lead- screw and inside of vise.

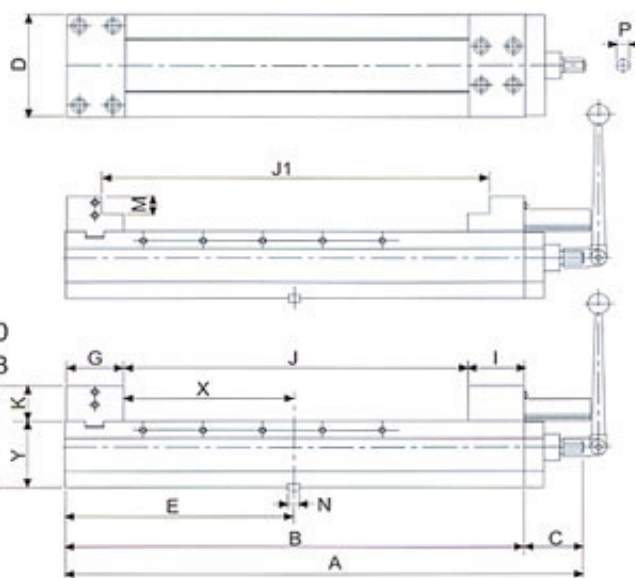
PAT. Unit:mm

ORDER NO.	MODEL	JAW WIDTH	JAW HEIGHT	JAW OPENING J(J1)	WISE HEIGHT	TOTAL HEIGHT	TOTAL LENGTH	REMARK
10100160	VCV-160V-L	160	55	400	105	160	688	
10102160	VCV-160V-XL	160	55	500	105	160	788	
10104200	VCV-200V-L	200	60	630	110	170	933	
10106200	VCV-200V-XL	200	60	780	110	170	1078	
10110160	VCV-160V-L-SJ	160	55	470	105	160	688	
10112160	VCV-160V-XL-SJ	160	55	570	105	160	788	
10114200	VCV-200V-L-SJ	200	60	706	110	170	933	
10116200	VCV-200V-XL-SJ	200	60	856	110	170	1078	

**SAFEWAY****ISO-9001:2000****FMS COMPACT MACHINE VISE (LONG OPENING)**

MODEL • 10110160 VCV-160V-L-SJ • 10112160 VCV-160V-XL-SJ
 • 10114200 VCV-200V-L-SJ • 10116200 VCV-200V-XL-SJ

Jaw Width: 160
 Jaw Opening: 470
 Total Length: 688

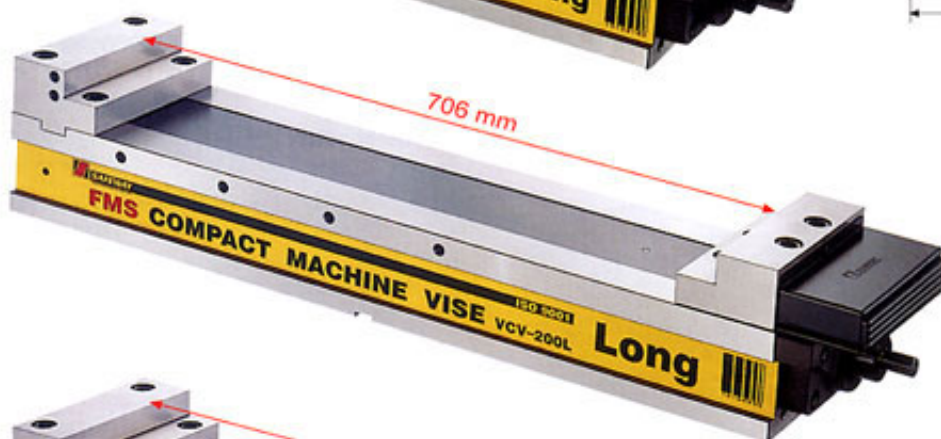
**VCV Vise Dimensions**

Jaw Width: 160
 Jaw Opening: 570
 Total Length: 788

**Standard Accessories**

- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Chip cover x 1 set
- 4.Vise locked block x 6 pcs

Jaw Width: 200
 Jaw Opening: 706
 Total Length: 933



Jaw Width: 200
 Jaw Opening: 856
 Total Length: 1078

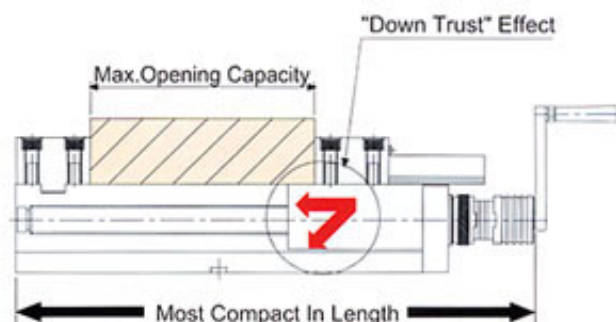
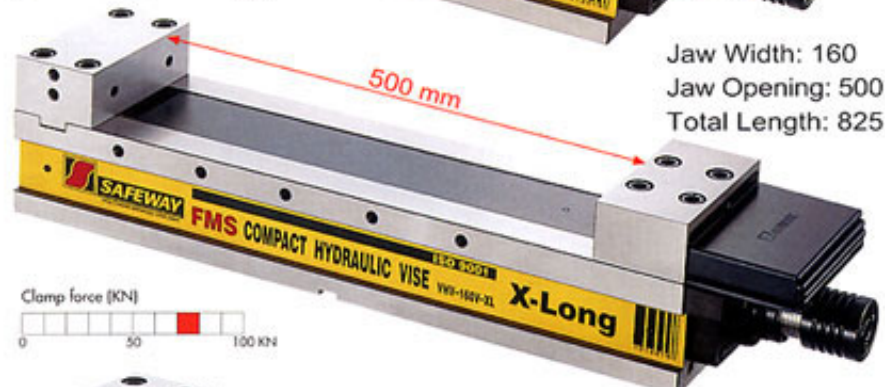
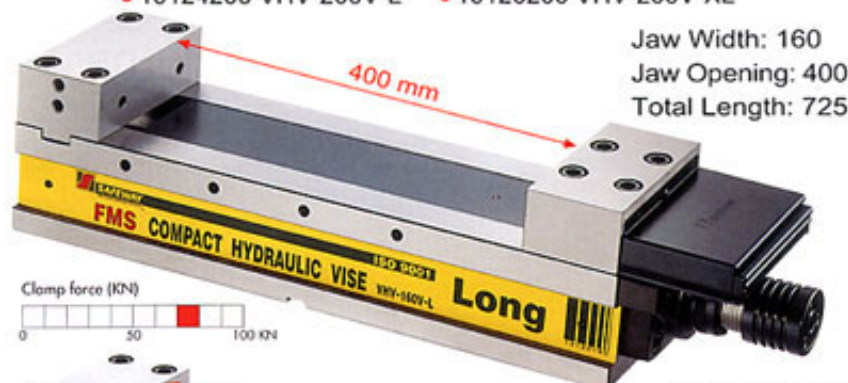


Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	I	J/J1	K	M	N	X	Y	N.W.	G.W.	SHIPMENT SIZE	REMARK
10100160	VCV-160V-L	688	590	98	161	295	160	86	86	400	55		18	207	105	66kg	79kg	890x350x265	
10102160	VCV-160V-XL	788	690	98	161	345	160	86	86	500	55		18	258	105	72kg	86kg	1000x350x265	
10104200	VCV-200V-L	933	835	98	201	418	170	100	97	630	60		18	316	110	115kg	135kg	1205x410x280	
10106200	VCV-200V-XL	1078	980	98	201	490	170	100	97	780	60		18	388	110	129kg	151kg	1300x410x280	
10110160	VCV-160V-L-SJ	688	590	98	161	295	160	86	86	470	55	25	18	207	105	64kg	77kg	890x350x265	
10112160	VCV-160V-XL-SJ	788	690	98	161	345	160	86	86	570	55	30	18	258	105	70kg	84kg	1000x350x265	
10114200	VCV-200V-L-SJ	933	835	98	201	418	170	100	97	706	60	30	18	316	110	111kg	131kg	1205x410x280	
10116200	VCV-200V-XL-SJ	1078	980	98	201	490	170	100	97	856	60	30	18	388	110	125kg	147kg	1300x410x280	

**SAFEWAY****ISO-9001:2000****MOST SUITABLE FOR VERTICAL MACHINE CENTER****FMS/Hydraulic**

MODEL • 10120160 VHV-160V-L • 10122160 VHV-160V-XL
 • 10124200 VHV-200V-L • 10126200 VHV-200V-XL



- Clamp power intensification via "hydraulic pressure" intensifier.
- Lower deformable design for very high clamping accuracy.

FEATURES:

1. Max. opening capacity and compact in total length, particularly suitable for machining centers.
2. Clamping system: mechanical/hydraulic.
3. Vise bed frame hardened to HRC 45 and up takes up wear and maintain accuracy for long.
4. Rigid material- Ductile iron FCD60 JIS (equal to GGG 60) with 60 kg/mm² or 80,000 psi tensile strength.
5. Stationary jaw and Movable jaw are hardened HRC 52°-55° with grinding.
6. Stationary jaw and Movable jaw are easy to shift on the clamping slide.
7. Chip cover adopt on each Vise for preventing chips falling into Lead-screw and inside of vise.

Jaw Width: 200
Jaw Opening: 630
Total Length: 970

Jaw Width: 200
Jaw Opening: 780
Total Length: 1115

PAT. Unit:mm

ORDER NO.	MODEL	JAW WIDTH	JAW HEIGHT	JAW OPENING J(J1)	WISE HEIGHT	TOTAL HEIGHT	TOTAL LENGTH	LIMIT. PRESSURE	REMARK
10120160	VHV-160V-L	160	55	400	105	160	725	77KN(7546kgf)	
10122160	VHV-160V-XL	160	55	500	105	160	825	77KN(7546kgf)	
10124200	VHV-200V-L	200	60	630	110	170	970	82KN(8036kgf)	
10126200	VHV-200V-XL	200	60	780	110	170	1115	82KN(8036kgf)	
10130160	VHV-160V-L-SJ	160	55	470	105	160	725	77KN(7546kgf)	
10132160	VHV-160V-XL-SJ	160	55	570	105	160	825	77KN(7546kgf)	
10134200	VHV-200V-L-SJ	200	60	706	110	170	970	82KN(8036kgf)	
10136200	VHV-200V-XL-SJ	200	60	856	110	170	1115	82KN(8036kgf)	

**SAFEWAY****ISO-9001:2000****FMS COMPACT HYDRAULIC VISE (LONG OPENING)**

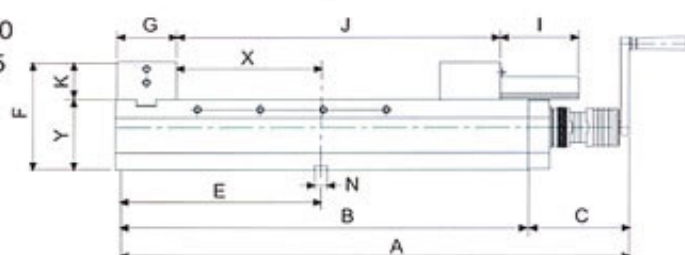
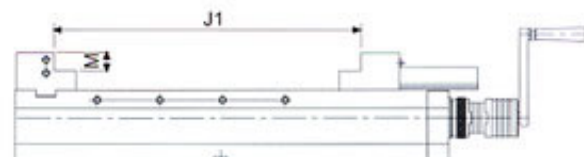
MODEL • 10130160 VHV-160V-L-SJ • 10132160 VHV-160V-XL-SJ
 • 10134200 VHV-200V-L-SJ • 10136200 VHV-200V-XL-SJ



Jaw Width: 160
 Jaw Opening: 470
 Total Length: 725



Jaw Width: 160
 Jaw Opening: 570
 Total Length: 825

**VHV Vise Dimensions****Standard Accessories**

- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Chip cover x 1 set
- 4.Vise locked block x 6 pcs

Jaw Width: 200
 Jaw Opening: 706
 Total Length: 970



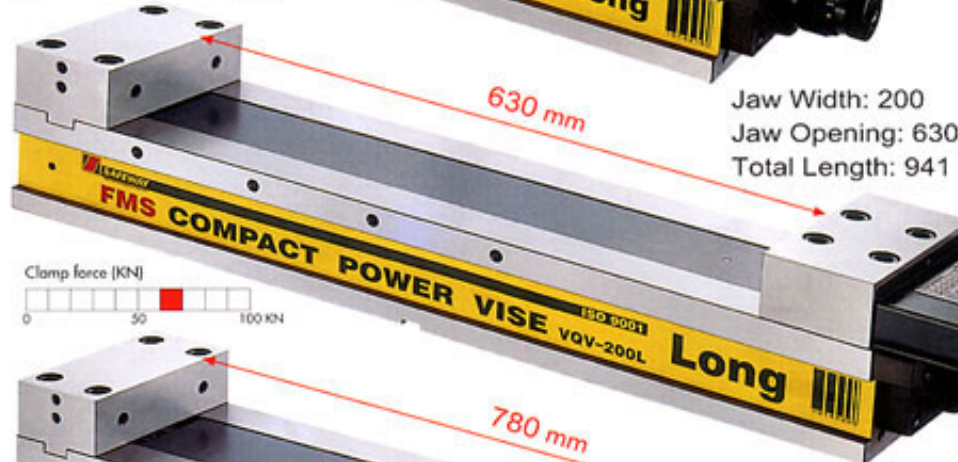
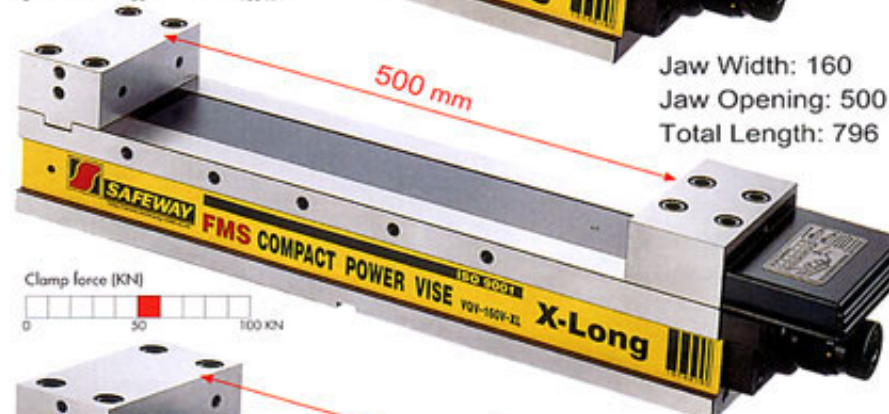
Jaw Width: 200
 Jaw Opening: 856
 Total Length: 1115

Unit:mm

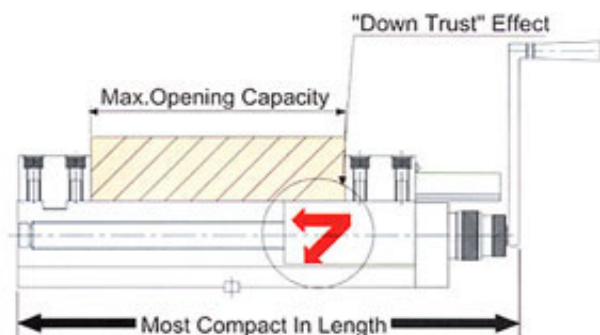
ORDER NO.	MODEL	A	B	C	D	E	F	G	I	J/J1	K	M	N	X	Y	N.W.	G.W.	SHIPMENT SIZE	REMARK
10120160	VHV-160V-L	725	590	135	161	295	160	86	86	360	55		18	207	105	68kg	81kg	890x350x265	
10122160	VHV-160V-XL	825	690	135	161	345	160	86	86	460	55		18	258	105	75kg	89kg	1000x350x265	
10124200	VHV-200V-L	970	835	135	201	418	170	100	97	590	60		18	316	110	118kg	138kg	1205x410x280	
10126200	VHV-200V-XL	1115	980	135	201	490	170	100	97	735	60		18	388	110	130kg	153kg	1300x410x280	
10130160	VHV-160V-L-SJ	725	590	135	161	295	160	86	86	470	55	25	18	207	105	66kg	79kg	890x350x265	
10132160	VHV-160V-XL-SJ	825	690	135	161	345	160	86	86	570	55	30	18	258	105	73kg	87kg	1000x350x265	
10134200	VHV-200V-L-SJ	970	835	135	201	418	170	100	97	706	60	30	18	316	110	114kg	134kg	1205x410x280	
10136200	VHV-200V-XL-SJ	1115	980	135	201	490	170	100	97	856	60	30	18	388	110	126kg	149kg	1300x410x280	

**SAFEWAY****ISO-9001:2000****MOST SUITABLE FOR VERTICAL MACHINE CENTER****FMS/Power**

MODEL • 10140160 VQV-160V-L • 10142160 VQV-160V-XL
 • 10144200 VQV-200V-L • 10146200 VQV-200V-XL



Clamping force table					KN(kgf)
	4	3	2	1	0
VQV-160	54 (5292)	43 (4214)	21 (2058)	12 (1176)	5 (490)
VQV-200	66 (6468)	48 (4704)	22 (2156)	12 (1176)	5 (490)



- Clamp power intensification via "knee lever" intensifier.
- Lower deformable design for very high clamping accuracy.

FEATURES:

1. Max. opening capacity and compact in total length, particularly suitable for machining centers.
2. Drive spindle with clamping force presetting and stopper mechanism device.
3. Rigid material- Ductile iron FCD60 JIS (equal to GGG 60) with 60 kg/mm² or 80,000 psi tensile strength.
4. Vise bed flame hardened to HRC 45° and up takes up wear and maintain accuracy for long.
5. Stationary jaw and Movable jaw are hardened HRC 52°~55° with grinding.
6. Stationary jaw and Movable jaw are easy to shift on the clamping slide.
7. Chip cover adopt on each Vise for preventing chips falling into Lead- screw and inside of vise.

Jaw Width: 200
Jaw Opening: 780
Total Length: 1086

PAT. Unit:mm

ORDER NO.	MODEL	JAW WIDTH	JAW HEIGHT	JAW OPENING J(J1)	WISE HEIGHT	TOTAL HEIGHT	TOTAL LENGTH	LIMIT. PRESSURE	REMARK
10140160	VQV-160V-L	160	55	400	105	160	696	54KN(5292kgf)	
10142160	VQV-160V-XL	160	55	500	105	160	796	54KN(5292kgf)	
10144200	VQV-200V-L	200	60	630	110	170	941	66KN(6468kgf)	
10146200	VQV-200V-XL	200	60	780	110	170	1086	66KN(6468kgf)	
10141160	VQV-160V-L-SJ	160	55	470	105	160	696	54KN(5292kgf)	
10143160	VQV-160V-XL-SJ	160	55	570	105	160	796	54KN(5292kgf)	
10145200	VQV-200V-L-SJ	200	60	706	110	170	941	66KN(6468kgf)	
10147200	VQV-200V-XL-SJ	200	60	856	110	170	1086	66KN(6468kgf)	

**SAFEWAY****ISO-9001:2000****FMS COMPACT POWER VISE (LONG OPENING)**

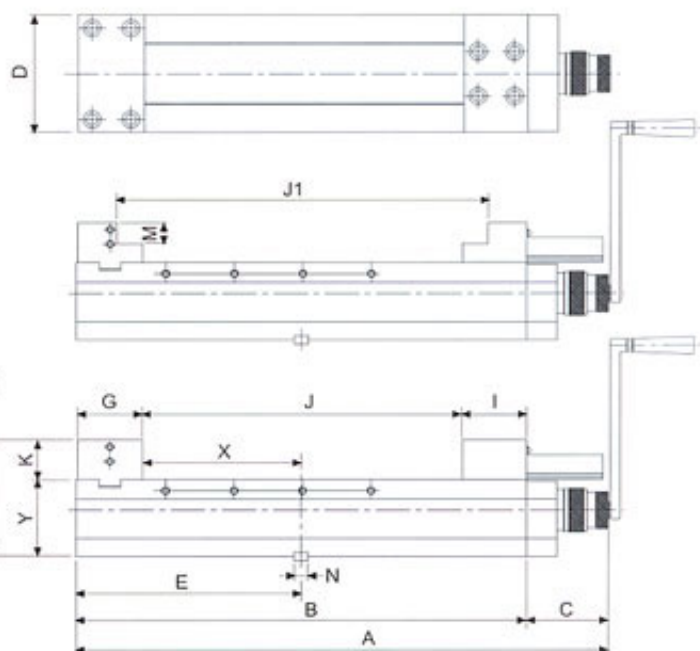
MODEL • 10141160 VQV-160V-L-SJ • 10143160 VQV-160V-XL-SJ
 • 10145200 VQV-200V-L-SJ • 10147200 VQV-200V-XL-SJ

VQV Vise Dimensions

Jaw Width: 160
 Jaw Opening: 470
 Total Length: 696



Jaw Width: 160
 Jaw Opening: 570
 Total Length: 796

**Standard Accessories**

- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Vise locked block x 6 pcs

Jaw Width: 200
 Jaw Opening: 706
 Total Length: 941

Jaw Width: 200
 Jaw Opening: 856
 Total Length: 1086

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	I	J/J1	K	M	N	X	Y	N.W.	G.W.	SHIPMENT SIZE	REMARK
10140160	VQV-160V-L	696	590	106	161	295	160	86	86	400	55		18	207	105	68kg	81kg	890x350x265	
10142160	VQV-160V-XL	796	690	106	161	345	160	86	86	500	55		18	258	105	75kg	89kg	1000x350x265	
10144200	VQV-200V-L	941	835	106	201	418	170	100	97	630	60		18	316	110	118kg	138kg	1205x410x280	
10146200	VQV-200V-XL	1086	980	106	201	490	170	100	97	780	60		18	388	110	131kg	153kg	1300x410x280	
10141160	VQV-160V-L-SJ	696	590	106	161	295	160	86	86	470	55	25	18	207	105	66kg	79kg	890x350x265	
10143160	VQV-160V-XL-SJ	796	690	106	161	345	160	86	86	570	55	30	18	258	105	73kg	87kg	1000x350x265	
10145200	VQV-200V-L-SJ	941	835	106	201	418	170	100	97	706	60	30	18	316	110	114kg	134kg	1205x410x280	
10147200	VQV-200V-XL-SJ	1086	980	106	201	490	170	100	97	856	60	30	18	388	110	127kg	149kg	1300x410x280	



SAFEWAY

ISO-9001:2000

MOST SUITABLE FOR VERTICAL MACHINE CENTER

FMS/U-Long

MODEL

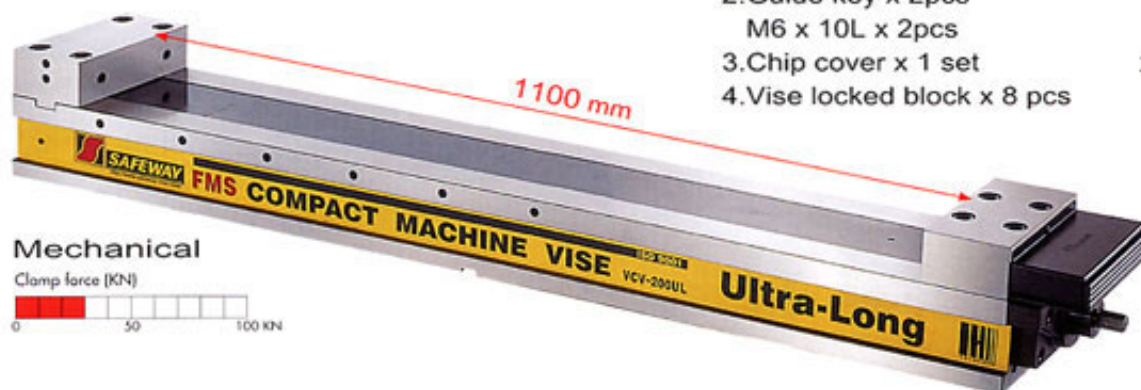
- 10150200 VCV-200-1100UL
- 10160200 VHV-200-1100UL
- 10170200 VQV-200-1100UL

Standard Accessories

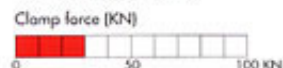
- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Chip cover x 1 set
- 4.Vise locked block x 8 pcs

FEATURES:

- 1.Ultra - Long opening capacity, particularly suitable for Ultra - Long workpieces.
- 2.Clamp power intensification via
 - Lead-screw (VCV)
 - Hydraulic pressure (VHV)
 - Knee lever (VQV)



Mechanical



VCV-200-1100UL

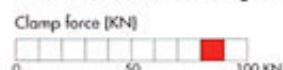
Jaw Width: 200

Jaw Opening: 1100

Total Length: 1398



Mechanical/Hydraulic

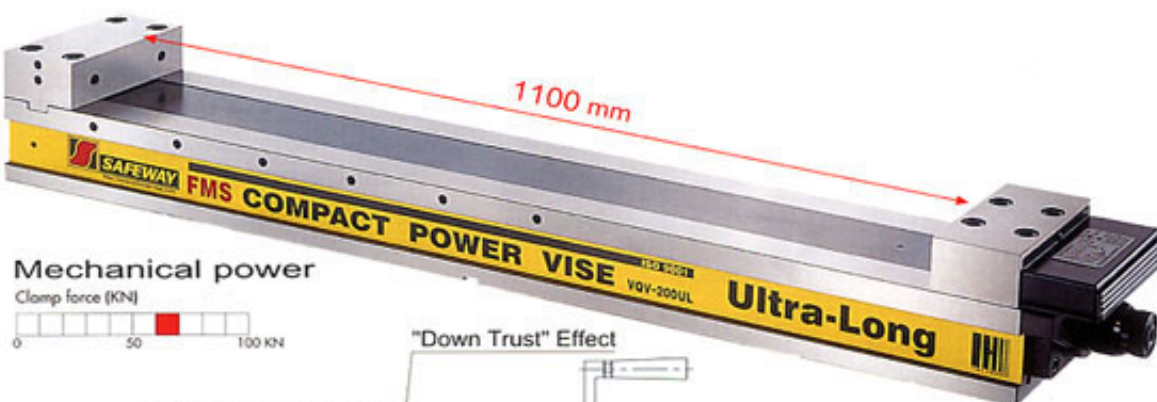


VHV-200-1100UL

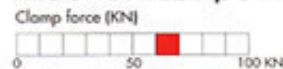
Jaw Width: 200

Jaw Opening: 1100

Total Length: 1435



Mechanical power

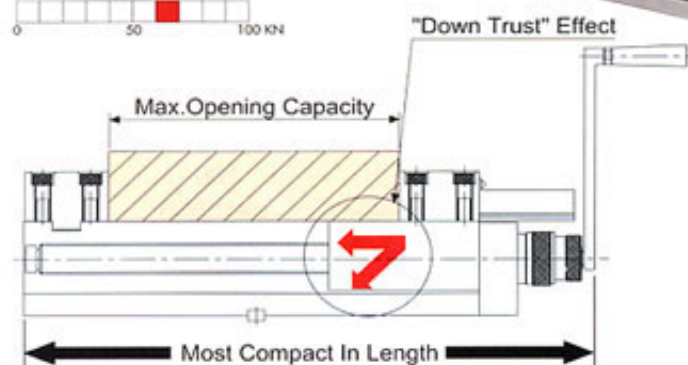


VQV-200-1100UL

Jaw Width: 200

Jaw Opening: 1100

Total Length: 1406



Clamping force table

KN(kgf)

	4	3	2	1	0
VQV-200-1100UL	66 (6468)	48 (4704)	22 (2156)	12 (1176)	5 (490)

PAT. Unit:mm

ORDER NO.	MODEL	JAW WIDTH	JAW HEIGHT	JAW OPENING J(J1)	WISE HEIGHT	TOTAL HEIGHT	TOTAL LENGTH	LIMIT. PRESSURE	REMARK
10150200	VCV-200-1100UL	200	60	1100	110	170	1398	-	
10160200	VHV-200-1100UL	200	60	1100	110	170	1435	82KN(8036kgf)	
10170200	VQV-200-1100UL	200	60	1100	110	170	1406	66KN(6468kgf)	
10152200	VCV-200-1100UL-SJ	200	60	1176	110	170	1398	-	
10162200	VHV-200-1100UL-SJ	200	60	1176	110	170	1435	82KN(8036kgf)	
10172200	VQV-200-1100UL-SJ	200	60	1176	110	170	1406	66KN(6468kgf)	



SAFEWAY

ISO-9001:2000



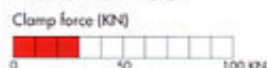
FMS COMPACT MACHINE VISE (ULTRA-LONG OPENING)

- MODEL
- 10152200 VCV-200-1100UL
 - 10162200 VHV-200-1100UL
 - 10172200 VQV-200-1100UL



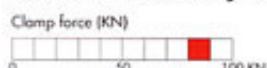
VCV-200-1100UL-SJ
Jaw Width: 200
Jaw Opening: 1176
Total Length: 1398

Mechanical



VHV-200-1100UL-SJ
Jaw Width: 200
Jaw Opening: 1176
Total Length: 1435

Mechanical/Hydraulic



VQV-200-1100UL-SJ
Jaw Width: 200
Jaw Opening: 1176
Total Length: 1406

Mechanical power



VCV. VHV. VQV. Vise Dimensions



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	I	J/J1	K	M	N	X	Y	N.W.	G.W.	SHIPMENT SIZE	REMARK
10150200	VCV-200-1100UL	1398	1300	98	201	650	170	102	97	1100	60		18	548	110	160kg	187kg	1640x410x280	
10160200	VHV-200-1100UL	1435	1300	135	201	650	170	102	97	1100	60		18	548	110	163kg	189kg	1640x410x280	
10170200	VQV-200-1100UL	1406	1300	106	201	650	170	102	97	1100	60		18	548	110	163kg	189kg	1640x410x280	
10152200	VCV-200-1100UL-SJ	1398	1300	98	201	650	170	102	97	1176	60	30	18	548	110	156kg	183kg	1640x410x280	
10162200	VHV-200-1100UL-SJ	1435	1300	135	201	650	170	102	97	1176	60	30	18	548	110	159kg	185kg	1640x410x280	
10172200	VQV-200-1100UL-SJ	1406	1300	106	201	650	170	102	97	1176	60	30	18	548	110	159kg	185kg	1640x410x280	



SAFEWAY

ISO-9001:2000

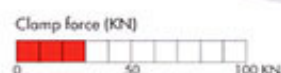
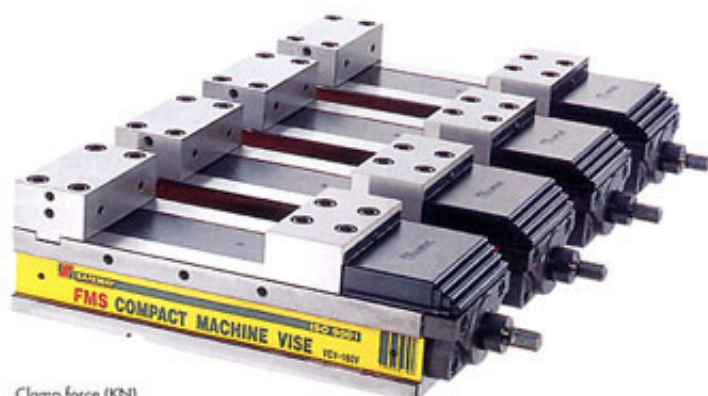
MOST SUITABLE FOR VERTICAL MACHINE CENTER, MILLING MACHINE

FMS/Multiply

MODEL ● 10180100 VCV-100-4S
 ● 10180130 VCV-130-4S
 ● 10180160 VCV-160-4S

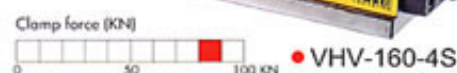
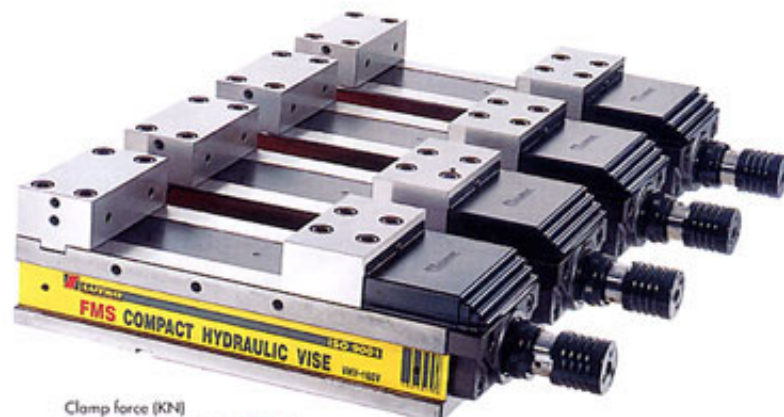
MODEL ● 10190130 VHV-130-4S
 ● 10190160 VHV-160-4S

Mechanical

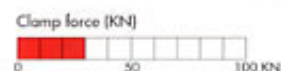
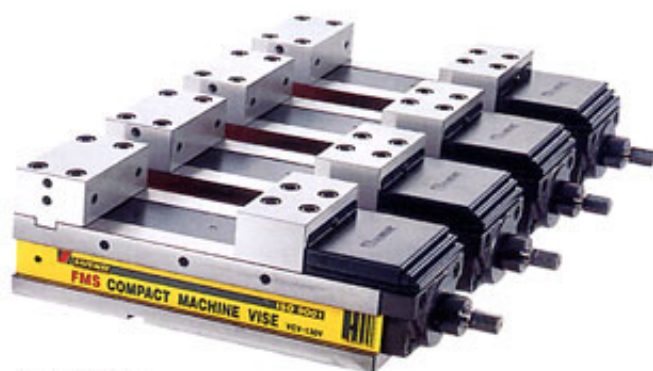


● VCV-160-4S

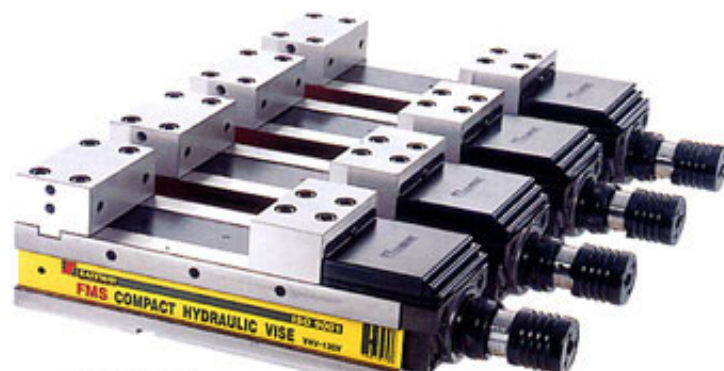
Mechanical/Hydraulic



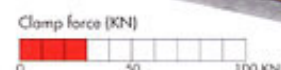
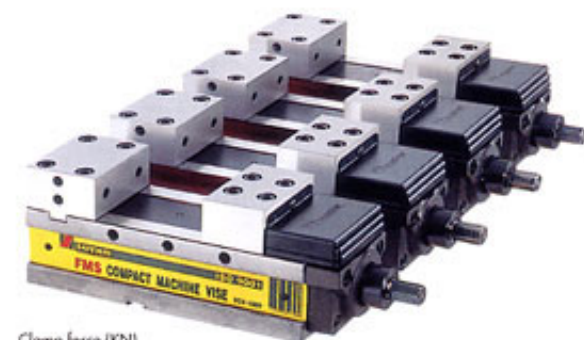
● VHV-160-4S



● VCV-130-4S



● VHV-130-4S



● VCV-100-4S

FEATURES:

1. Robust construction of one piece casting of 4 in one set up.
2. Most suitable for mass production and to be used on long size workpiece machining.
3. High rigidity eliminates workpiece lifting and accuracy improved.

Standard Accessories

1. Handle x 1 pc
2. Guide key x 2 pcs
M6 x 10L x 2 pcs
3. Chip cover x 4 set
4. Vise locked block x 4 pcs

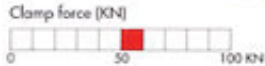
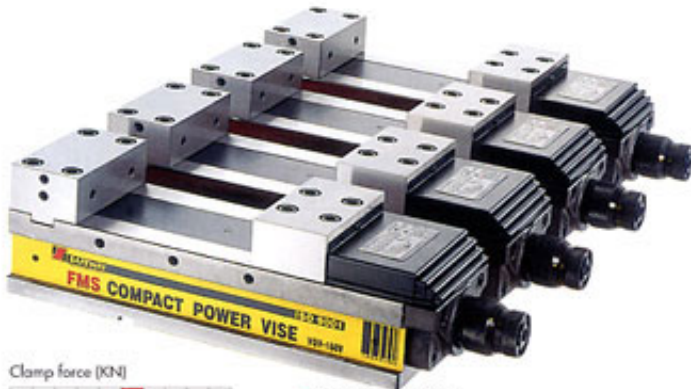
Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	I	J	K	L	Q	R
10180100	VCV-100-4S	398	300	98	101	124	145	78	64	155	45	150	50.5	125.5
10180130	VCV-130-4S	508	410	98	131	149	162	83	74	250	52	180	65.5	155.5
10180160	VCV-160-4S	573	475	98	161	152	175	86	86	300	55	220	80.5	190.5
10190130	VHV-130-4S	545	410	135	131	149	162	83	74	210	52	180	65.5	155.5
10190160	VHV-160-4S	610	475	135	161	152	175	86	86	300	55	220	80.5	190.5
10200100	VQV-100-4S	406	300	106	101	124	145	78	64	155	45	150	50.5	125.5
10200130	VQV-130-4S	516	410	106	131	149	162	83	74	250	52	180	65.5	155.5
10200160	VQV-160-4S	581	475	106	161	152	175	86	86	300	55	220	80.5	190.5

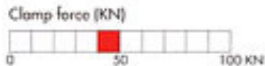
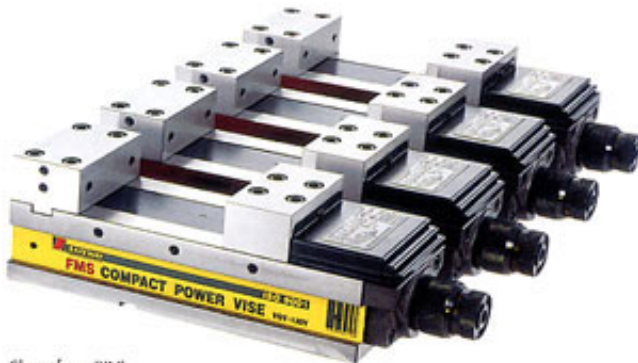
**SAFEWAY****ISO-9001:2000****FMS MULTIPLY COMPACT MACHINE VISE (4 IN 1 SET UP)**

- MODEL ● 10200100 VQV-100-4S
 ● 10200130 VQV-130-4S
 ● 10200160 VQV-160-4S

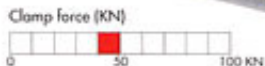
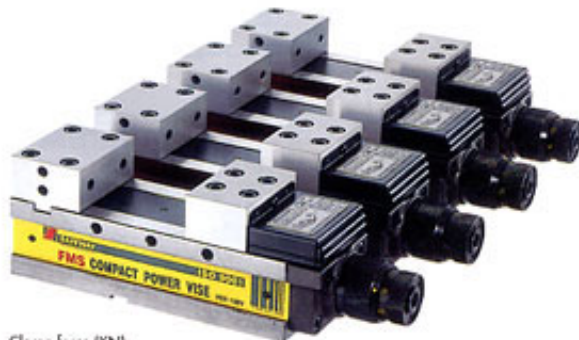
Mechanical Power



● VQV-160-4S

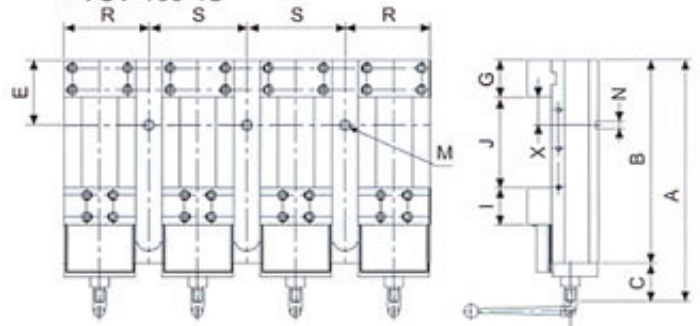


● VQV-130-4S

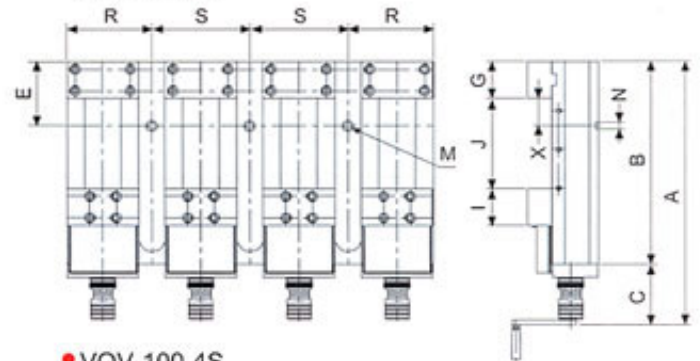


● VQV-100-4S

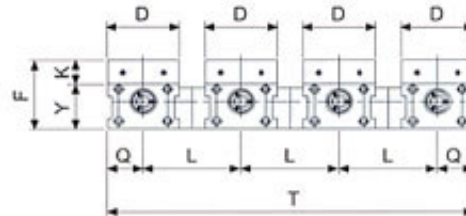
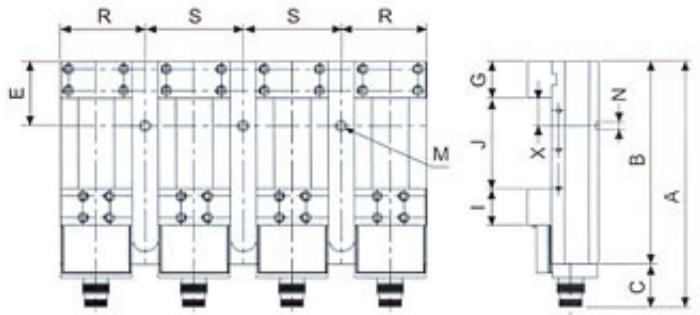
- VCV-100-4S
 ● VCV-130-4S
 ● VCV-160-4S



- VHV-130-4S
 ● VHV-160-4S



- VQV-100-4S
 ● VQV-130-4S
 ● VQV-160-4S



Unit:mm

ORDER NO.	MODEL	M	N	S	T	X	Y	LIMIT. PRESSURE	N.W.	G.W.	SHIPMENT SIZE	REMARK
10180100	VCV-100-4S	M16	18	150	551	45	100	-	100kg	116kg	850x505x240	
10180130	VCV-130-4S	M16	18	180	671	65	110	-	173kg	195kg	870x650x250	
10180160	VCV-160-4S	M16	18	220	821	65	120	-	250kg	277kg	1020x790x280	
10190130	VHV-130-4S	M16	18	180	671	65	110	77KN(7546kgf)	178kg	200kg	870x650x250	
10190160	VHV-160-4S	M16	18	220	821	65	120	82KN(8036kgf)	256kg	283kg	1020x790x280	
10200100	VQV-100-4S	M16	18	150	551	45	100	41KN(4018kgf)	102kg	118kg	850x505x240	
10200130	VQV-130-4S	M16	18	180	671	65	110	45KN(4410kgf)	178kg	203kg	870x650x250	
10200160	VQV-160-4S	M16	18	220	821	65	120	54KN(5292kgf)	256kg	283kg	100x790x280	



SAFEWAY



SYMBOL OF EXCELLENCE WINNER

MOST SUITABLE FOR VERTICAL MACHINE CENTER, MILLING MACHINE

MODEL • 07100100 CV-100V • 07100130 CV-130V
• 07100160 CV-160V • 07100200 CV-200V

MODEL • 07105100 CV-100S • 07105130 CV-130S
• 07105160 CV-160S • 07105200 CV-200S



PATENTED



FEATURES:

1. Holding Work-piece firmly in single and multiple vises setup.
2. Semi-spherical segment eliminates jaw lifting and work-piece tilting.
3. One piece casting of vise bed and fixed jaw.
4. Rigid material-Ductile iron FCD60JIS (Equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
5. Vise bed flame hardened to HRC 45° and up takes up wear and maintain accuracy for long.
6. Chip covers adopt on each Vise for preventing chips falling into Lead-screw and inside of vise.

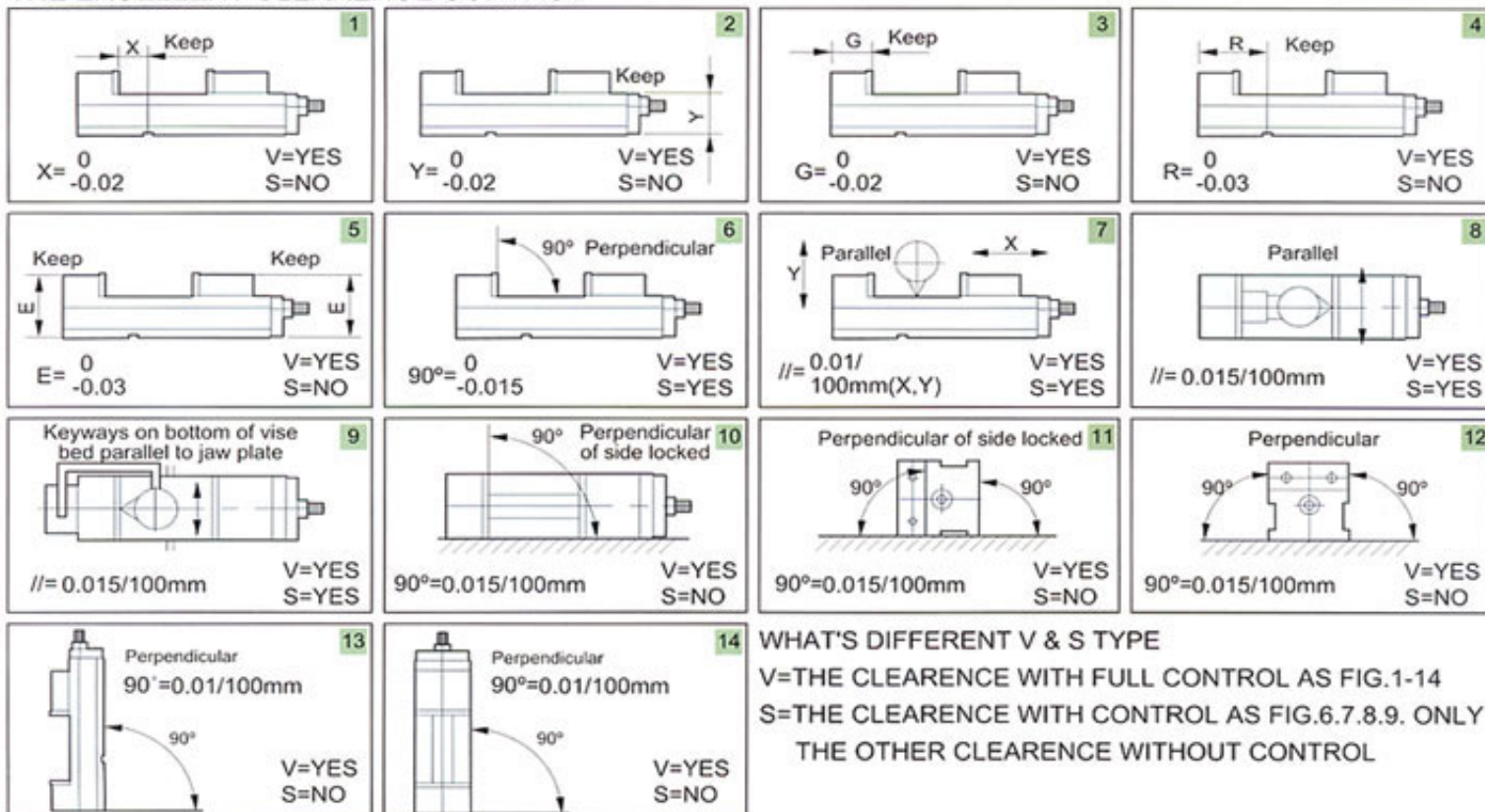
Vise Max. Opening (Optional)



Vise Side-lock



THE EXCELLENT CLEARANCE CONTROL





SAFEWAY

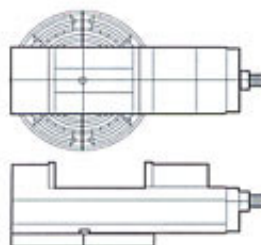
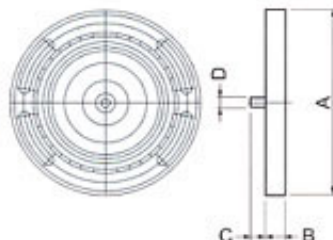
ISO-9001:2000



MC COMPACT VISE

SWIVEL BASE (STEEL)

MODEL ●07813100 SBD-100 ●07813130 SBD-130
 ●07813160 SBD-160 ●07813200 SBD-200



ORDER NO.	SBD	A	B	C	D	N.W.
07813100	100	248	27	25	16	6.6kg
07813130	130	296	30	25	18	10.6kg
07813160	160	312	34	25	18	15.5kg
07813200	200	378	44	25	18	27.2kg

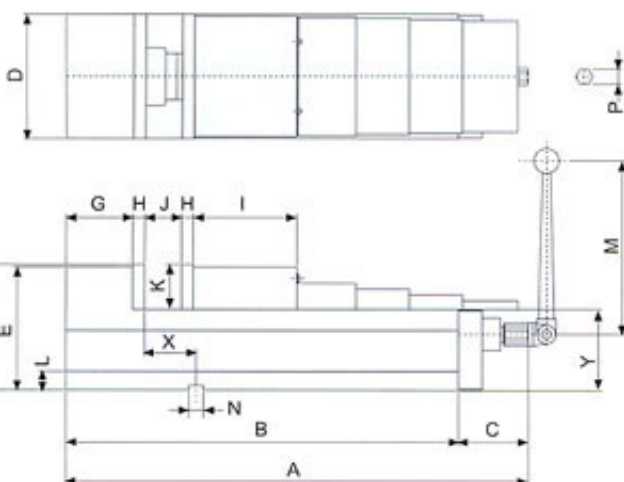
THE WHOLE SWIVEL BASE BY MADE OF STEEL
 BY HARDNESS AND TAKE UP WEAR AND
 MAINTAIN ACCURACY FOR LONG

Standard Accessories

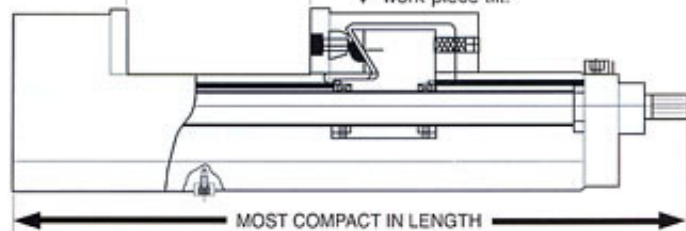
- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Vise locked block x 4 pcs

Optional Accessories

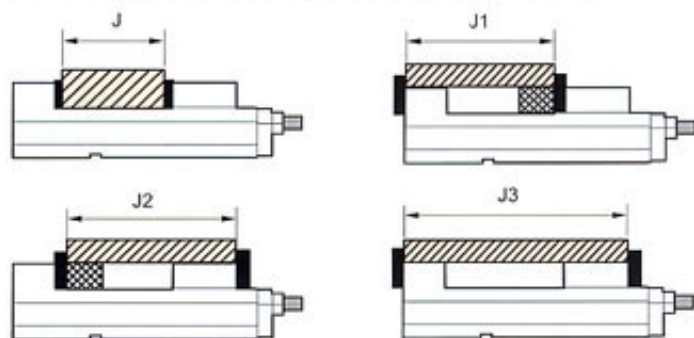
- 1.Special Application
Jaw Plates (P.47,48)
- 2.Swivel Base - SBD (Steel)



2 KGS of power in this direction
 Produce 1KG of downward.
 Down thrust "semi-sphere segment"
 Mechanism-eliminates jaw lift and
 work-piece tilt.



The 4 Ways Of Clamping For Your Best Choice



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	J1	J2
07100100	CV-100V	430	340	90	101	130	133	65	15	105	0-125	125-190	125-230
07105100	CV-100S	430	340	90	101	130	133	65	15	105	0-125	125-190	125-230
07100130	CV-130V	495	405	90	131	147	150	70	15	115	0-180	180-240	180-290
07105130	CV-130S	495	405	90	131	147	150	70	15	115	0-180	180-240	180-290
07100160	CV-160V	585	495	90	161	160	163	85	15	130	0-240	240-320	240-360
07105160	CV-160S	585	495	90	161	160	163	85	15	130	0-240	240-320	240-360
07100200	CV-200V	666	570	96	201	170	173	90	18	150	0-280	280-360	280-420
07105200	CV-200S	666	570	96	201	170	173	90	18	150	0-280	280-360	280-420

ORDER NO.	MODEL	J3	K	L	M	N	P	X	X=0.02	Y	Y=0.02	N.W.	G.W.	SHIPMENT SIZE	REMARK
07100100	CV-100V	125-320	48	22	260	16	19	45	YES	85	YES	24kg	26kg	590x175x185	
07105100	CV-100S		48	22	260	16	19	45	NO	85	NO	24kg	26kg	590x175x185	
07100130	CV-130V	180-380	55	22	260	18	19	65	YES	95	YES	37kg	39kg	655x190x225	
07105130	CV-130S		55	22	260	18	19	65	NO	95	NO	37kg	39kg	655x190x225	
07100160	CV-160V	240-470	58	22	260	18	19	65	YES	105	YES	57kg	59kg	760x190x215	
07105160	CV-160S		58	22	260	18	19	65	NO	105	NO	57kg	59kg	760x190x215	
07100200	CV-200V	280-540	63	22	260	18	19	82	YES	110	YES	77kg	80kg	820x230x220	
07105200	CV-200S		63	22	260	18	19	82	NO	110	NO	77kg	80kg	820x230x220	



SAFEWAY



SYMBOL OF EXCELLENCE WINNER

MOST SUITABLE FOR VERTICAL MACHINE CENTER, MILLING MACHINE

MODEL ●07120100 CHV-100V ●07120130 CHV-130V
●07120160 CHV-160V ●07120200 CHV-200V

MODEL ●07125100 CHV-100S ●07125130 CHV-130S
●07125160 CHV-160S ●07125200 CHV-200S



FEATURES:

1. Holding Work-piece firmly in single and multiple vises setup.
2. Clamping system: mechanical/hydraulic.
3. Semi-spherical segment eliminates jaw lifting and work-piece tilting.
4. One piece casting of vise bed and fixed jaw.
5. Rigid material-Ductile iron FCD60JIS (Equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
6. Vise bed flame hardened to HRC 45° and up takes up wear and maintain accuracy for long.
7. Chip covers adopt on each Vise for preventing chips falling into Lead-screw and inside of vise.

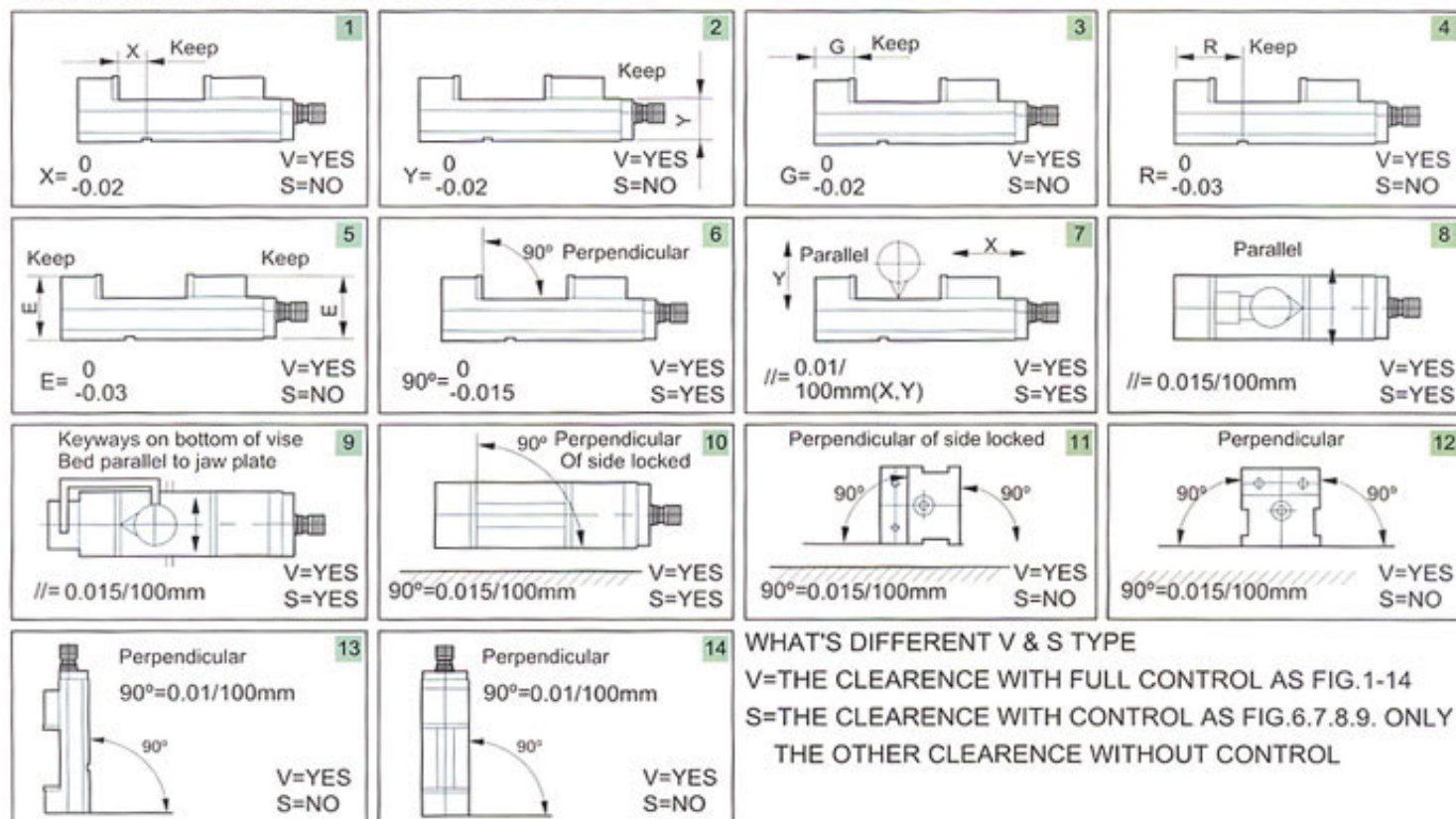
Vise Max. Opening (Optional)



Vise Side-lock

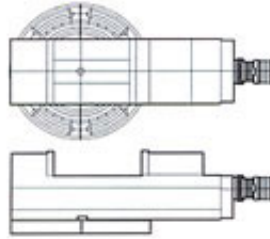


THE EXCELLENT CLEARENCE CONTROL



**SAFEWAY****ISO-9001:2000****MC COMPACT MECHANICAL / HYDRAULIC VISE****SWIVEL BASE (STEEL)**

MODEL ● 07813100 SBD-100 ● 07813130 SBD-130
 ● 07813160 SBD-160 ● 07813200 SBD-200



ORDER NO.	SBD	A	B	C	D	N.W.
07813100	100	248	27	25	16	6.6kg
07813130	130	296	30	25	18	10.6kg
07813160	160	312	34	25	18	15.5kg
07813200	200	378	44	25	18	27.2kg

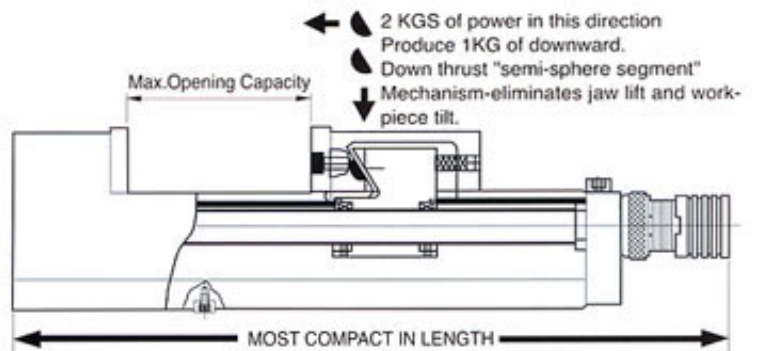
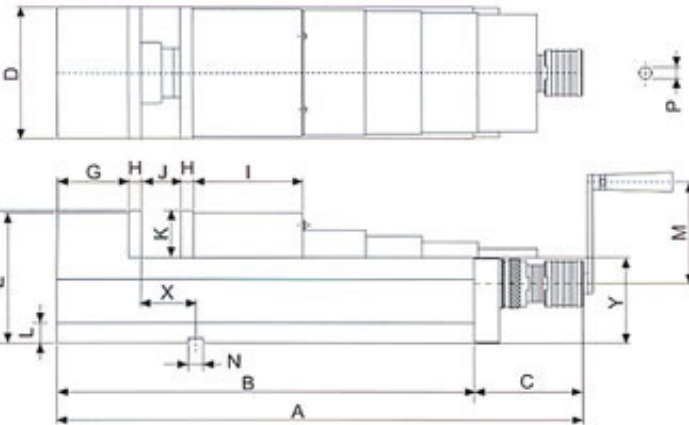
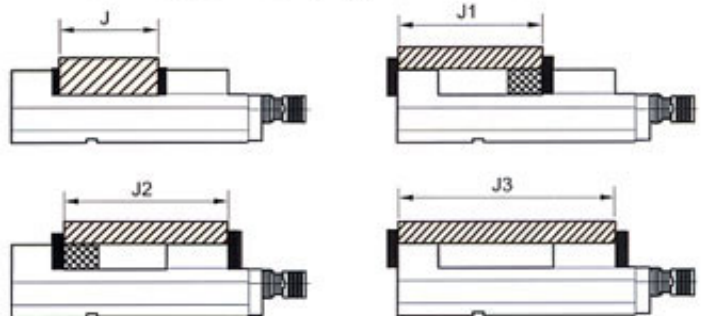
THE WHOLE SWIVEL BASE BY MADE OF STEEL
 BY HARDNESS AND TAKE UP WEAR AND
 MAINTAIN ACCURACY FOR LONG

Standard Accessories

- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Vise locked block x 4 pcs

Optional Accessories

- 1.Special Application
Jaw Plates (P.47.48)
- 2.Swivel Base - SBD (Steel)

**The 4 Ways Of Clamping For Your Best Choice**

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	L
07120100	CHV-100V	475	340	135	101	130	133	65	15	105	0-125	125-190	125-230	125-320	48	22
07125100	CHV-100S	475	340	135	101	130	133	65	15	105	0-125	125-190	125-230		48	22
07120130	CHV-130V	540	405	135	131	147	150	70	15	115	0-180	180-240	180-290	180-380	55	22
07125130	CHV-130S	540	405	135	131	147	150	70	15	115	0-180	180-240	180-290		55	22
07120160	CHV-160V	630	495	135	161	160	163	85	15	130	0-240	240-320	240-360	240-470	58	22
07125160	CHV-160S	630	495	135	161	160	163	85	15	130	0-240	240-320	240-360		58	22
07120200	CHV-200V	705	570	135	201	170	173	90	18	150	0-280	280-360	280-420	280-540	63	22
07125200	CHV-200S	705	570	135	201	170	173	90	18	150	0-280	280-360	280-420		63	22

ORDER NO.	MODEL	M	N	P	X	X=0.02	Y	Y=0.02	MAX.PRESSURE	LIMIT.PRESSURE	N.W.	G.W.	SHIPMENT SIZE	REMARK
07120100	CHV-100V	125	16	14	45	YES	85	YES	36KN(3528kgf)	41KN(4018kgf)	25kg	27kg	590x175x185	
07125100	CHV-100S	125	16	14	45	NO	85	NO	36KN(3528kgf)	41KN(4018kgf)	25kg	27kg	590x175x185	
07120130	CHV-130V	125	18	14	65	YES	95	YES	46KN(4508kgf)	52KN(5096kgf)	38kg	40kg	655x190x225	
07125130	CHV-130S	125	18	14	65	NO	95	NO	46KN(4508kgf)	52KN(5096kgf)	38kg	40kg	655x190x225	
07120160	CHV-160V	125	18	14	65	YES	105	YES	56KN(5488kgf)	61KN(5978kgf)	57kg	60kg	760x190x215	
07125160	CHV-160S	125	18	14	65	NO	105	NO	56KN(5488kgf)	61KN(5978kgf)	57kg	60kg	760x190x215	
07120200	CHV-200V	125	18	14	82	YES	110	YES	71KN(6958kgf)	82KN(8036kgf)	78kg	81kg	820x230x220	
07125200	CHV-200S	125	18	14	82	NO	110	NO	71KN(6958kgf)	82KN(8036kgf)	78kg	81kg	820x230x220	



SAFEWAY

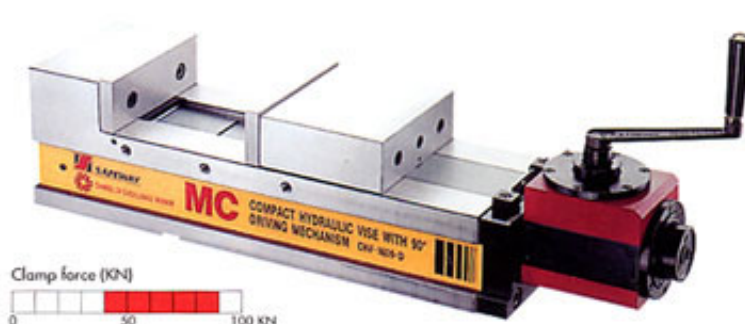
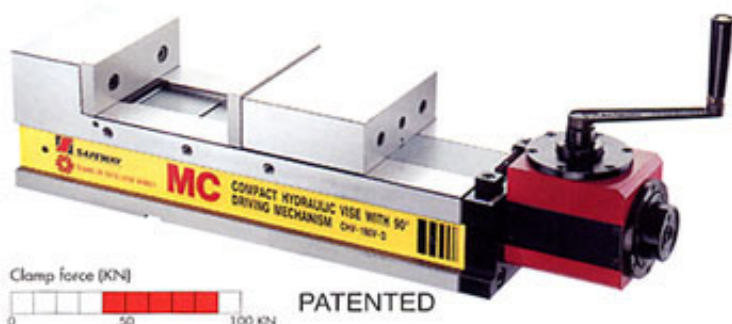


SYMBOL OF EXCELLENCE WINNER

MOST SUITABLE FOR VERTICAL MACHINE CENTER

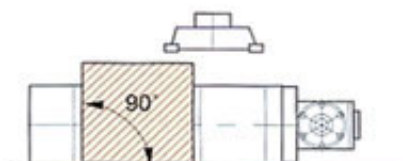
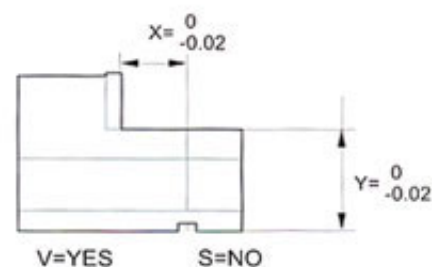
MODEL ● 07140100 CHV-100V-D ● 07140130 CHV-130V-D
● 07140160 CHV-160V-D ● 07140200 CHV-200V-D

MODEL ● 07145100 CHV-100S-D ● 07145130 CHV-130S-D
● 07145160 CHV-160S-D ● 07145200 CHV-200S-D



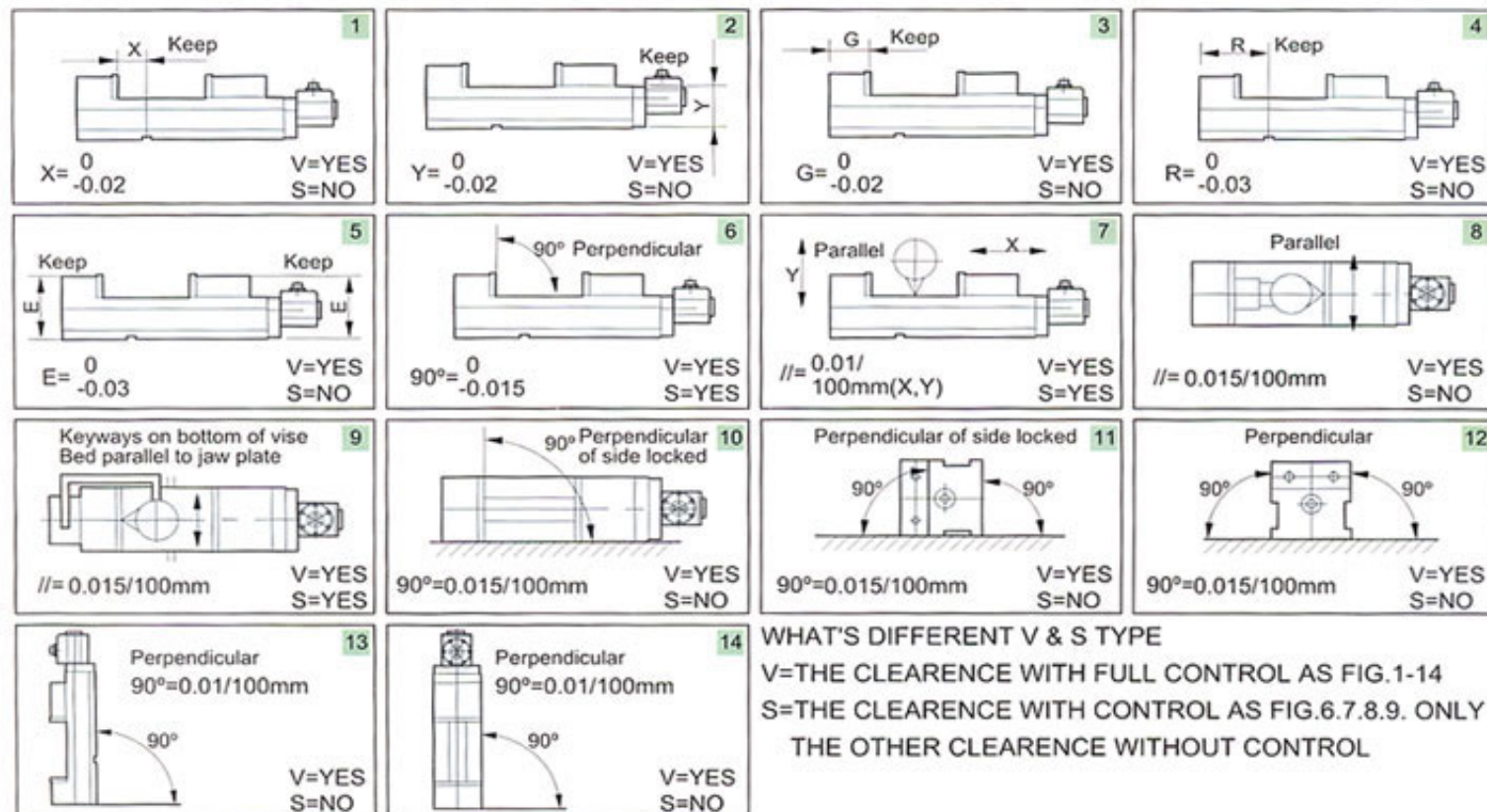
FEATURES:

1. Holding Work-piece firmly in single and multiple vises setup.
2. Clamping system:hydraulic.
3. Semi-spherical segment eliminates jaw lifting and work-piece tilting.
4. One piece casting of vise bed and fixed jaw.
5. Rigid material-Ductile iron FCD60 JIS (Equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
6. Vise bed flame hardened to HRC 45° and up takes up wear and maintain accuracy for long.
7. Chip covers adopt on each Vise for preventing chips falling into Leadscrew and inside of vise.
8. With 90° driving mechanism unit, Avoid handle interrupted of table.



V=Side lock control perpendicular
S=Side lock without control perpendicular

THE EXCELLENT CLEARANCE CONTROL



WHAT'S DIFFERENT V & S TYPE

V=THE CLEARANCE WITH FULL CONTROL AS FIG.1-14
S=THE CLEARANCE WITH CONTROL AS FIG.6.7.8.9. ONLY
THE OTHER CLEARANCE WITHOUT CONTROL



SAFEWAY

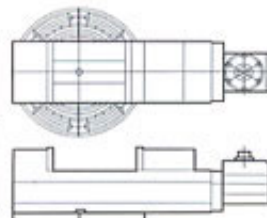
ISO-9001:2000



MC COMPACT MECHANICAL / HYDRAULIC VISE WITH 90° DRIVING MECHANISM UNIT

SWIVEL BASE (STEEL)

MODEL ● 07813100 SBD-100 ● 07813130 SBD-130
 ● 07813160 SBD-160 ● 07813200 SBD-200



ORDER NO.	SBD	A	B	C	D	N.W.
07813100	100	248	27	25	16	6.6kg
07813130	130	296	30	25	18	10.6kg
07813160	160	312	34	25	18	15.5kg
07813200	200	378	44	25	18	27.2kg

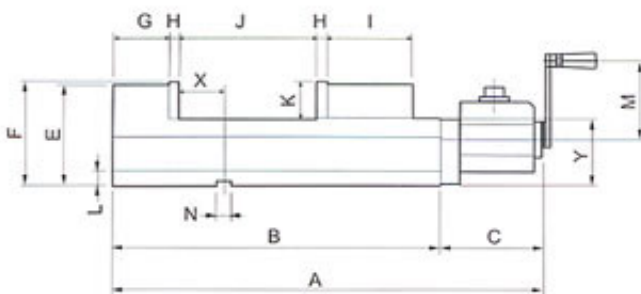
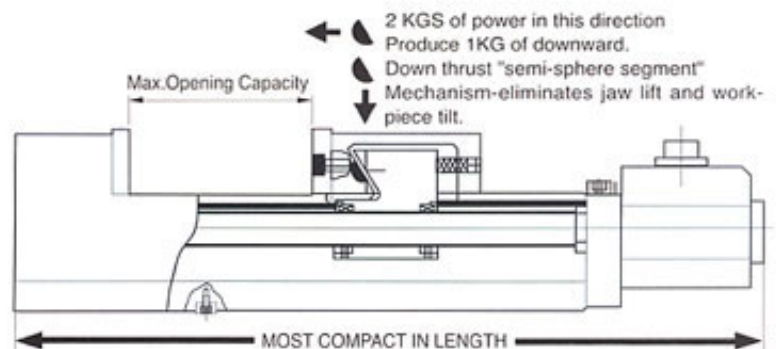
THE WHOLE SWIVEL BASE BY MADE OF STEEL
 BY HARDNESS AND TAKE UP WEAR AND
 MAINTAIN ACCURACY FOR LONG

Standard Accessories

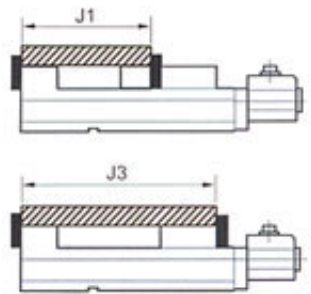
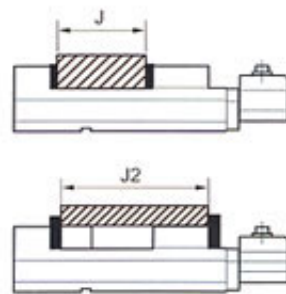
- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Chip cover x 1 set
- 4.Vise locked block x 4 pcs

Optional Accessories

- 1.Special Application
Jaw Plates (P.47,48)
- 2.Swivel Base - SBD (Steel)



The 4 Ways Of Clamping For Your Best Choice



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	L
07140100	CHV-100V-D	512	340	172	101	130	133	65	15	105	0-125	125-190	125-230	125-320	48	22
07145100	CHV-100S-D	512	340	172	101	130	133	65	15	105	0-125	125-190	125-230		48	22
07140130	CHV-130V-D	577	405	172	131	147	150	70	15	115	0-180	180-240	180-290	180-380	55	22
07145130	CHV-130S-D	577	405	172	131	147	150	70	15	115	0-180	180-240	180-290		55	22
07140160	CHV-160V-D	667	495	172	161	160	163	85	15	130	0-240	240-320	240-360	240-470	58	22
07145160	CHV-160S-D	667	495	172	161	160	163	85	15	130	0-240	240-320	240-360		58	22
07140200	CHV-200V-D	742	570	172	201	170	173	90	18	150	0-280	280-360	280-420	280-540	63	22
07145200	CHV-200S-D	742	570	172	201	170	173	90	18	150	0-280	280-360	280-420		63	22

ORDER NO.	MODEL	M	N	P	X	X=0.02	Y	Y=0.02	MAX.PRESSURE	LIMIT.PRESSURE	N.W.	G.W.	SHIPMENT SIZE	REMARK
07140100	CHV-100V-D	125	16	14	45	YES	85	YES	36KN(3528kgf)	41KN(4018kgf)	29kg	31kg	590x175x185	
07145100	CHV-100S-D	125	16	14	45	NO	85	NO	36KN(3528kgf)	41KN(4018kgf)	29kg	31kg	590x175x185	
07140130	CHV-130V-D	125	18	14	65	YES	95	YES	46KN(4508kgf)	52KN(5096kgf)	42kg	44kg	655x190x225	
07145130	CHV-130S-D	125	18	14	65	NO	95	NO	46KN(4508kgf)	52KN(5096kgf)	42kg	44kg	655x190x225	
07140160	CHV-160V-D	125	18	14	65	YES	105	YES	56KN(5488kgf)	61KN(5978kgf)	63kg	65kg	760x190x215	
07145160	CHV-160S-D	125	18	14	65	NO	105	NO	56KN(5488kgf)	61KN(5978kgf)	63kg	65kg	760x190x215	
07140200	CHV-200V-D	125	18	14	82	YES	110	YES	71KN(6958kgf)	82KN(8036kgf)	83kg	86kg	820x230x220	
07145200	CHV-200S-D	125	18	14	82	NO	110	NO	71KN(6958kgf)	82KN(8036kgf)	83kg	86kg	820x230x220	



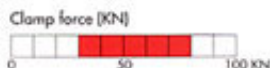
SAFEWAY

ISO-9001:2000

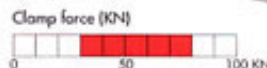
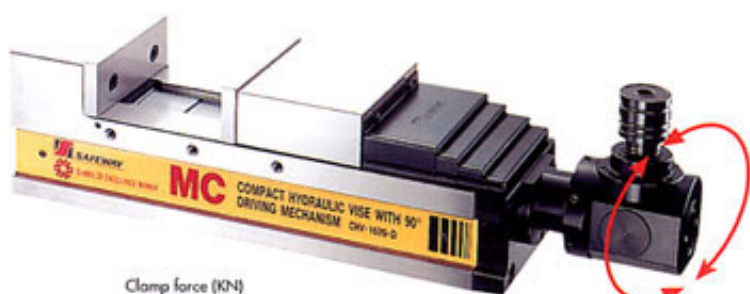
MOST SUITABLE FOR VERTICAL MACHINE CENTER

MODEL ● 07142100 CHV-100V-E ● 07142130 CHV-130V-E
 ● 07142160 CHV-160V-E ● 07142200 CHV-200V-E

MODEL ● 07147100 CHV-100S-E ● 07147130 CHV-130S-E
 ● 07147160 CHV-160S-E ● 07147200 CHV-200S-E



PATENTED Handle driving mechanism (0-360°)



Handle driving mechanism (0-360°)

FEATURES:

1. Holding Work-piece firmly in single and multiple vises setup.
2. Clamping system:hydraulic.
3. Semi-spherical segment eliminates jaw lifting and work-piece tilting.
4. One piece casting of vise bed and fixed jaw.
5. Rigid material-Ductile iron FCD60JIS (Equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
6. Vise bed flame hardened to HRC 45° and up takes up wear and maintain accuracy for long.
7. With 90° driving mechanism unit and universal handle driving mechanism(0~360°), avoid handle interrupted of table.
8. With 90° driving mechanism unit, Avoid handle interrupted of table.

Vise Max.Opening (Optional)

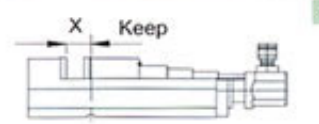
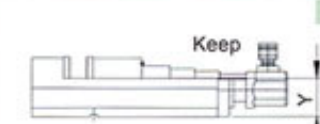
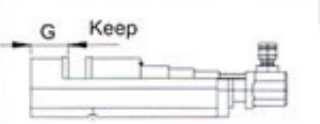
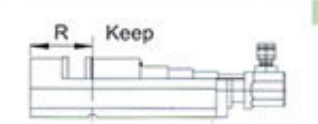
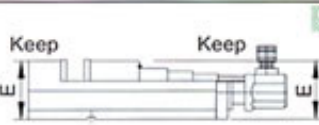
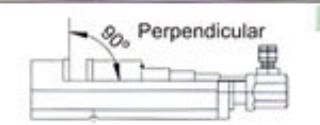
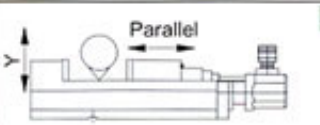
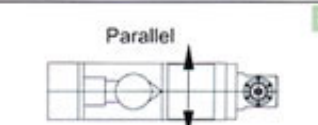
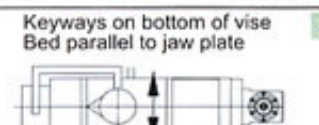
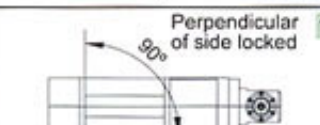
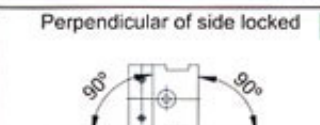
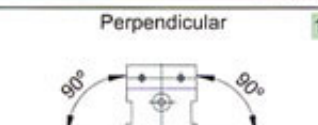
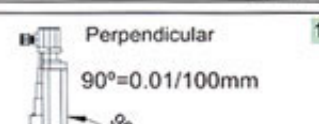
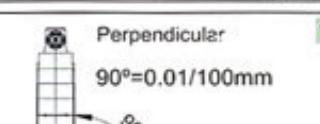


Vise Side-lock



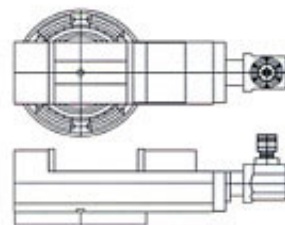
Handle driving mechanism (0-360°)

THE EXCELLENT CLEARENCE CONTROL

 1 X= 0 -0.02 V=YES S=NO	 2 Y= 0 -0.02 V=YES S=NO	 3 G= 0 -0.02 V=YES S=NO	 4 R= 0 -0.03 V=YES S=NO
 5 E= 0 -0.03 V=YES S=NO	 6 90°= 0 -0.015 V=YES S=YES	 7 // = 0.01/100mm(X,Y) V=YES S=YES	 8 // = 0.015/100mm V=YES S=NO
 9 // = 0.015/100mm V=YES S=YES	 10 90°= 0.015/100mm V=YES S=NO	 11 90°= 0.015/100mm V=YES S=NO	 12 90°= 0.015/100mm V=YES S=NO
 13 90°= 0.01/100mm V=YES S=NO	 14 90°= 0.01/100mm V=YES S=NO	WHAT'S DIFFERENT V & S TYPE V=THE CLEARENCE WITH FULL CONTROL AS FIG.1-14 S=THE CLEARENCE WITH CONTROL AS FIG.6.7.8.9. ONLY THE OTHER CLEARENCE WITHOUT CONTROL	

**SAFEWAY****ISO-9001:2000****MC COMPACT HYDRAULIC VISE WITH 90° DRIVING MECHANISM UNIT AND UNIVERSAL HANDLE FRIVING MECHANISM(0-360°)****SWIVEL BASE (STEEL)**

MODEL ● 07813100 SBD-100 ● 07813130 SBD-130
 ● 07813160 SBD-160 ● 07813200 SBD-200



ORDER NO.	SBD	A	B	C	D	N.W.
07813100	100	248	27	25	16	6.6kg
07813130	130	296	30	25	18	10.6kg
07813160	160	312	34	25	18	15.5kg
07813200	200	378	44	25	18	27.2kg

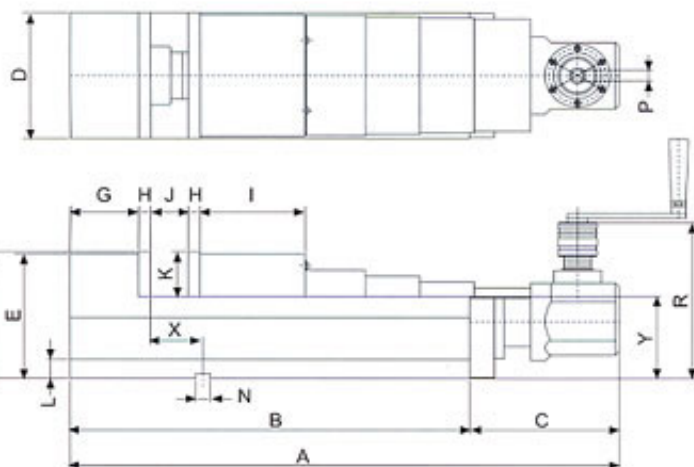
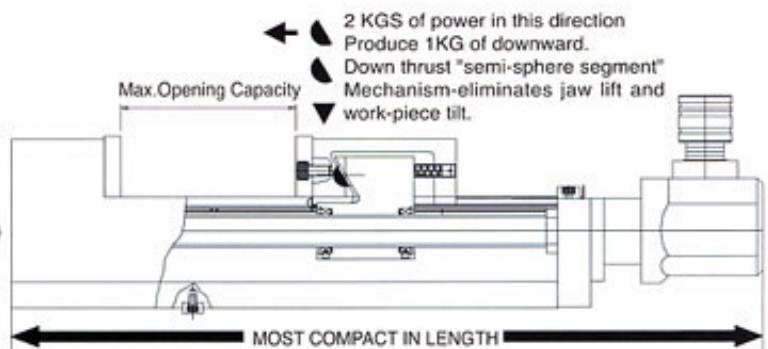
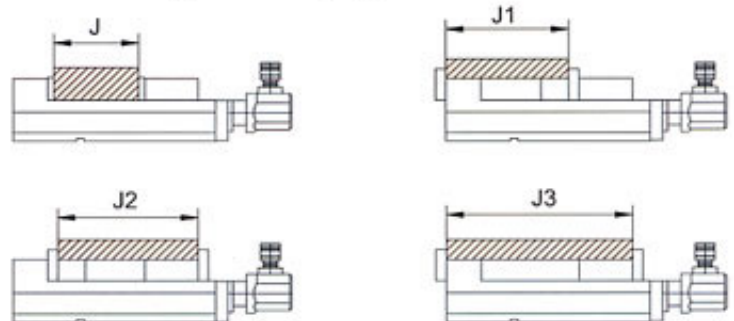
THE WHOLE SWIVEL BASE BY MADE OF STEEL
 BY HARDNESS AND TAKE UP WEAR AND
 MAINTAIN ACCURACY FOR LONG

Standard Accessories

- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Vise locked block x 4 pcs

Optional Accessories

- 1.Special Application
Jaw Plates (P.47,48)
- 2.Swivel Base - SBD (Steel)

**The 4 Ways Of Clamping For Your Best Choice**

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	L
07142100	CHV-100V-E	525	340	185	101	130	133	65	15	105	0-125	125-190	125-230	125-320	48	22
07147100	CHV-100S-E	525	340	185	101	130	133	65	15	105	0-125	125-190	125-230		48	22
07142130	CHV-130V-E	590	405	185	131	147	150	70	15	115	0-180	180-240	180-290	180-380	55	22
07147130	CHV-130S-E	590	405	185	131	147	150	70	15	115	0-180	180-240	180-290		55	22
07142160	CHV-160V-E	680	495	185	161	160	163	85	15	130	0-240	240-320	240-360	240-470	58	22
07147160	CHV-160S-E	680	495	185	161	160	163	85	15	130	0-240	240-320	240-360		58	22
07142200	CHV-200V-E	755	570	185	201	170	173	90	18	150	0-280	280-360	280-420	280-540	63	22
07147200	CHV-200S-E	755	570	185	201	170	173	90	18	150	0-280	280-360	280-420		63	22

ORDER NO.	MODEL	R	N	P	X	X=0.02	Y	Y=0.02	MAX.PRESSURE	LIMIT.PRESSURE	N.W.	G.W.	SHIPMENT SIZE	REMARK
07142100	CHV-100V-E	198	16	14	45	YES	85	YES	36KN(3528kgf)	41KN(4018kgf)	29kg	31kg	590x175x185	
07147100	CHV-100S-E	198	16	14	45	NO	85	NO	36KN(3528kgf)	41KN(4018kgf)	29kg	31kg	590x175x185	
07142130	CHV-130V-E	198	18	14	65	YES	95	YES	46KN(4508kgf)	52KN(5096kgf)	42kg	44kg	655x190x225	
07147130	CHV-130S-E	198	18	14	65	NO	95	NO	46KN(4508kgf)	52KN(5096kgf)	42kg	44kg	655x190x225	
07142160	CHV-160V-E	198	18	14	65	YES	105	YES	56KN(5488kgf)	61KN(5978kgf)	60kg	63kg	760x190x215	
07147160	CHV-160S-E	198	18	14	65	NO	105	NO	56KN(5488kgf)	61KN(5978kgf)	60kg	63kg	760x190x215	
07142200	CHV-200V-E	198	18	14	82	YES	110	YES	71KN(6958kgf)	82KN(8036kgf)	80kg	84kg	820x230x220	
07147200	CHV-200S-E	198	18	14	82	NO	110	NO	71KN(6958kgf)	82KN(8036kgf)	80kg	84kg	820x230x220	



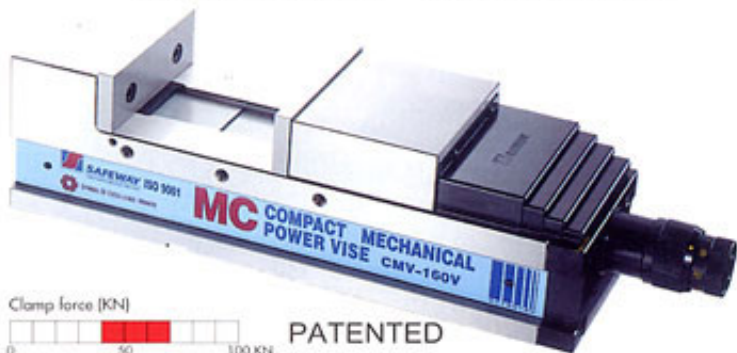
SAFEWAY

ISO-9001:2000

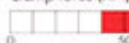
MOST SUITABLE FOR VERTICAL MACHINE CENTER

MODEL ● 07160100 CMV-100V ● 07160130 CMV-130V
 ● 07160160 CMV-160V ● 07160200 CMV-200V

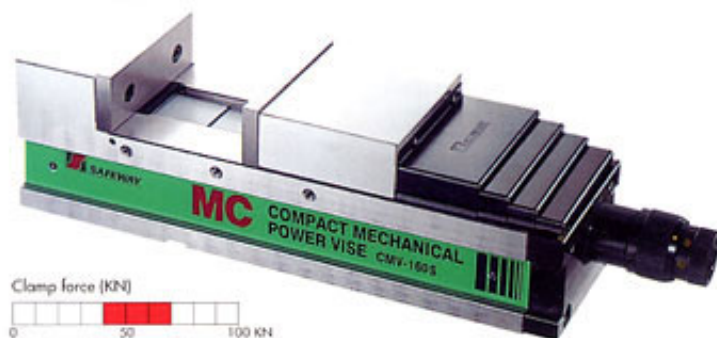
MODEL ● 07165100 CMV-100S ● 07165130 CMV-130S
 ● 07165160 CMV-160S ● 07165200 CMV-200S



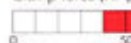
Clamp force (KN)



PATENTED



Clamp force (KN)

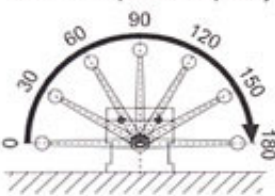


Clamping force table

KN(kgf)

	4	3	2	1	0
CMV-100	46 (4508)	37 (3626)	23 (2254)	10 (980)	4 (392)
CMV-130	52 (5096)	40 (3920)	25 (2450)	13 (1274)	4 (392)
CMV-160	57 (5586)	43 (4214)	29 (2842)	15 (1470)	5 (490)
CMV-200	65 (6370)	49 (4802)	35 (3430)	22 (2156)	5 (490)

Handle turn less 1 cycle will reach power capacity



Vise Max. Opening (Optional)



Vise Side-lock



FEATURES:

1. Clamping power indicating graduations are engraved on the vise handle to show instantly the figure of clamping force in tons.
2. Drive spindle with clamping force presetting and stopper mechanism device.
3. Holding work-piece firmly in single and multiple vises setup.
4. Semi-spherical segment eliminates jaw lifting and work-piece tilting.
5. One piece casting of vise bed and fixed jaw.
6. Rigid material-Ductile iron FCD60JIS (Equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
7. Vise bed flame hardened to HRC45° and up takes up wear and maintain accuracy for long.
8. Chip covers adopt on each vise for preventing chips falling into leadscrew and inside of vise.

THE EXCELLENT CLEARANCE CONTROL

1

X = 0
-0.02

V=YES
S=NO

2

Y = 0
-0.02

V=YES
S=NO

3

G = 0
-0.02

V=YES
S=NO

4

R = 0
-0.02

V=YES
S=NO

5

E = 0
-0.03

V=YES
S=NO

6

90° = 0
-0.015

V=YES
S=YES

7

∥ = 0.015/100mm(X,Y)

V=YES
S=YES

8

∥ = 0.015/100mm

V=YES
S=YES

9

∥ = 0.015/100mm

V=YES
S=YES

10

90° = 0.015/100mm

V=YES
S=NO

11

90° = 0.01/100mm

V=YES
S=NO

12

90° = 0.015/100mm

V=YES
S=NO

13

90° = 0.01/100mm

V=YES
S=NO

14

90° = 0.01/100mm

V=YES
S=NO

WHAT'S DIFFERENT V & S TYPE

V=THE CLEARANCE WITH FULL CONTROL AS FIG.1-14

S=THE CLEARANCE WITH CONTROL AS FIG.6.7.8.9. ONLY THE OTHER CLEARANCE WITHOUT CONTROL



SAFEWAY

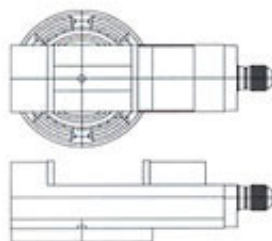
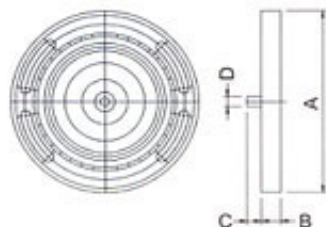
ISO-9001:2000



MC COMPACT MECHANICAL POWER VISE

SWIVEL BASE (STEEL)

MODEL • 07813100 SBD-100 • 07813130 SBD-130
 • 07813160 SBD-160 • 07813200 SBD-200



ORDER NO.	SBD	A	B	C	D	N.W.
07813100	100	248	27	25	16	6.6kg
07813130	130	296	30	25	18	10.6kg
07813160	160	312	34	25	18	15.5kg
07813200	200	378	44	25	18	27.2kg

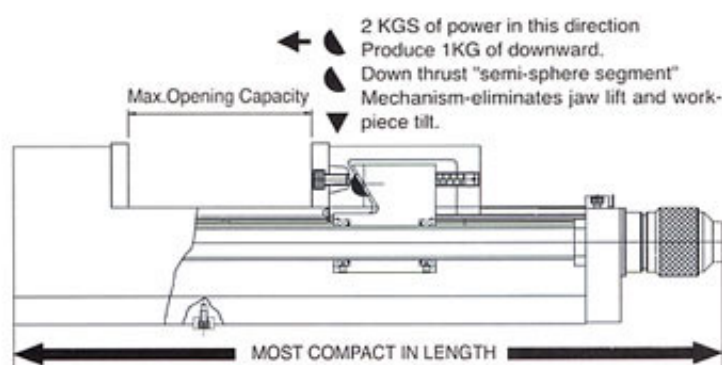
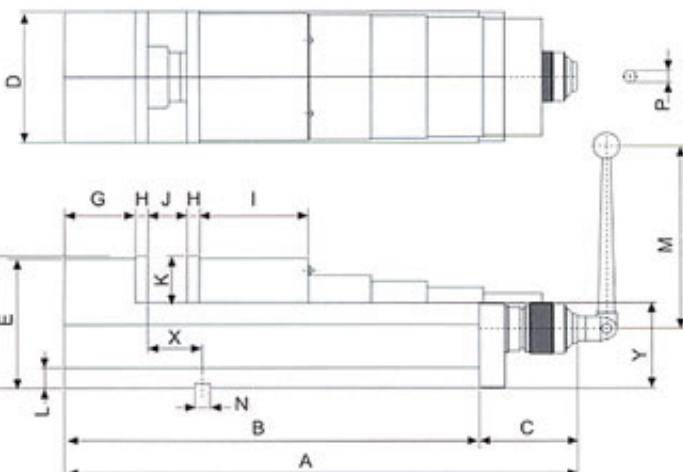
THE WHOLE SWIVEL BASE BY MADE OF STEEL
 BY HARDNESS AND TAKE UP WEAR AND MAINTAIN
 ACCURACY FOR LONG

Standard Accessories

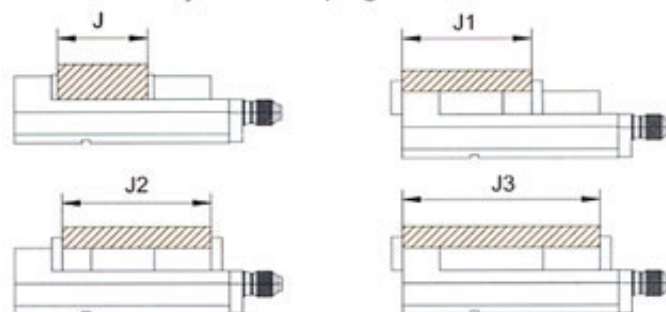
- 1.Handle x 1 pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Vise locked block x 4 pcs

Optional Accessories

- 1.Special Application
Jaw Plates (P.47,48)
- 2.Swivel Base - SBD (Steel)



The 4 Ways Of Clamping For Your Best Choice



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	J1	J2	J3	K	L
07160100	CMV-100V	475	340	135	101	130	133	65	15	105	0-125	125-190	125-230	125-320	48	22
07165100	CMV-100S	475	340	135	101	130	133	65	15	105	0-125	125-190	125-230		48	22
07160130	CMV-130V	540	405	135	131	147	150	70	15	115	0-180	180-240	180-290	180-380	55	22
07165130	CMV-130S	540	405	135	131	147	150	70	15	115	0-180	180-240	180-290		55	22
07160160	CMV-160V	630	495	135	161	160	163	85	15	130	0-240	240-320	240-360	240-470	58	22
07165160	CMV-160S	630	495	135	161	160	163	85	15	130	0-240	240-320	240-360		58	22
07160200	CMV-200V	705	570	135	201	170	173	90	18	150	0-280	280-360	280-420	280-540	63	22
07165200	CMV-200S	705	570	135	201	170	173	90	18	150	0-280	280-360	280-420		63	22

ORDER NO.	MODEL	M	N	P	X	X=0.02	Y	Y=0.02	MAX.PRESSURE	N.W.	G.W.	SHIPMENT SIZE	REMARK
07160100	CMV-100V	125	16	14	45	YES	85	YES	46KN(4508kgf)	25kg	27kg	590x175x185	
07165100	CMV-100S	125	16	14	45	NO	85	NO	46KN(4508kgf)	25kg	27kg	590x175x185	
07160130	CMV-130V	125	18	14	65	YES	95	YES	52KN(5096kgf)	38kg	40kg	655x190x225	
07165130	CMV-130S	125	18	14	65	NO	95	NO	52KN(5096kgf)	38kg	40kg	655x190x225	
07160160	CMV-160V	125	18	14	65	YES	105	YES	57KN(5586kgf)	58kg	60kg	760x190x215	
07165160	CMV-160S	125	18	14	65	NO	105	NO	57KN(5586kgf)	58kg	60kg	760x190x215	
07160200	CMV-200V	125	18	14	82	YES	110	YES	65KN(6370kgf)	78kg	81kg	820x230x220	
07165200	CMV-200S	125	18	14	82	NO	110	NO	65KN(6370kgf)	78kg	81kg	820x230x220	



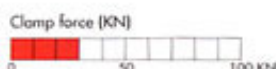
SAFEWAY

ISO-9001:2000

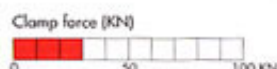
MOST SUITABLE FOR VERTICAL MACHINE CENTER, MILLING MACHINE

MODEL ● 07190100 DAV-100V ● 07190130 DAV-130V
 ● 07190160 DAV-160V ● 07190200 DAV-200V

MODEL ● 07195100 DAV-100S ● 07195130 DAV-130S
 ● 07195160 DAV-160S ● 07195200 DAV-200S

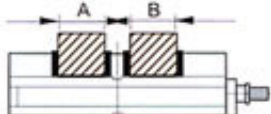
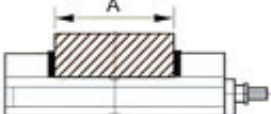
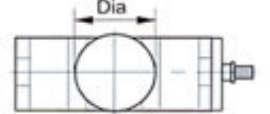
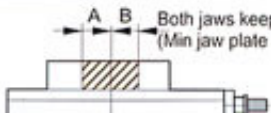
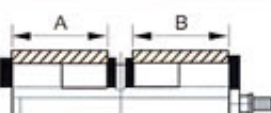
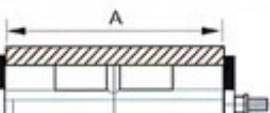


PATENTED



	11 1. Patented mechanical clamping lock down jaw mechanism 1-1 Workpiece are held securely and precisely for heavy machining 1-2 No minimum limit on size of workpiece clamping rang is freely adjusted from 0 to the maximum jaw opening see fig P28				
	12 2. As long as size tolerance clearance is $\pm 1.5\text{mm}$ for parts 2-1 The vise can clamp parts without re-adjusting the clamping position meanwhile the clamping power is equal on 2 parts.				
	13 3. When install the part first install part A, after part B. When take out the part first take out part B, after part A. 3-1 When install the part first install part A then light clamping by handle, after install part B, then light clamping by handle, finally, the clamping power is equal on 2 parts. 3-2 When loosen parts first loosen part B, after part A.				
	14 4. Large workpiece (square, rectangular, round surface) clamping 4-1 Remove stationary jaw for clamping large part (fig.22. P28) 4-2 Jaws clamp simultaneously with equal clamping power				
	15 5. Mc 2 in 1 anglock vise, most suitable for machine center 5-1 Rigid material ductile iron FCD 60 kgs/mm² or 80,000psi tensile strength. 5-2 Vise bed flame hardened to HRC45° and up take up wear and maintain accuracy for long				
	16 6. Movable jaws lock down mechanism eliminates lift of parts eliminates 6-1 Both movable jaws is featured with lock down mechaism eliminates the lift of parts 6-2 Vise leadscrew is covered with chip way cover to prevent chips for falling into the vise inner bottom and damage the leadscrew 6-3 Jaw plates position set up as shown of fig 21-26 (P28)				
	$X = 0$ -0.02 V=YES S=NO		$Y = 0$ -0.03 V=YES S=NO		$E = 0$ -0.03 V=YES S=NO
	// = 0.015/100mm V=YES S=YES		90° = 0.02/100mm V=YES S=YES		// = 0.02/100mm V=YES S=NO
	⊥ = 0.02/100mm V=YES S=YES		// = 0.02/100mm V=YES S=YES		90° = 0.03/100mm V=YES S=NO

**SAFEWAY****ISO-9001:2000****MC 2 IN 1 DOUBLE LOCK & ANGLOCK MACHINE VISE**

 <table border="1"> <thead> <tr> <th>MODEL NO.</th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>DAV-100V/S</td> <td>0-75mm</td> <td>0-75mm</td> </tr> <tr> <td>DAV-130V/S</td> <td>0-85mm</td> <td>0-85mm</td> </tr> <tr> <td>DAV-160V/S</td> <td>0-100mm</td> <td>0-100mm</td> </tr> <tr> <td>DAV-200V/S</td> <td>0-150mm</td> <td>0-150mm</td> </tr> </tbody> </table>	MODEL NO.	A	B	DAV-100V/S	0-75mm	0-75mm	DAV-130V/S	0-85mm	0-85mm	DAV-160V/S	0-100mm	0-100mm	DAV-200V/S	0-150mm	0-150mm	 <table border="1"> <thead> <tr> <th>MODEL NO.</th> <th>A=MAX.</th> <th>A=MIN.</th> </tr> </thead> <tbody> <tr> <td>DAV-100V/S</td> <td>210mm</td> <td>80mm</td> </tr> <tr> <td>DAV-130V/S</td> <td>230mm</td> <td>60mm</td> </tr> <tr> <td>DAV-160V/S</td> <td>260mm</td> <td>60mm</td> </tr> <tr> <td>DAV-200V/S</td> <td>370mm</td> <td>90mm</td> </tr> </tbody> </table>	MODEL NO.	A=MAX.	A=MIN.	DAV-100V/S	210mm	80mm	DAV-130V/S	230mm	60mm	DAV-160V/S	260mm	60mm	DAV-200V/S	370mm	90mm	 <table border="1"> <thead> <tr> <th>MODEL NO.</th> <th>Dia=MAX.</th> <th>Dia=MIN.</th> </tr> </thead> <tbody> <tr> <td>DAV-100V/S</td> <td>180mm</td> <td>60mm</td> </tr> <tr> <td>DAV-130V/S</td> <td>220mm</td> <td>60mm</td> </tr> <tr> <td>DAV-160V/S</td> <td>230mm</td> <td>60mm</td> </tr> <tr> <td>DAV-200V/S</td> <td>340mm</td> <td>80mm</td> </tr> </tbody> </table>	MODEL NO.	Dia=MAX.	Dia=MIN.	DAV-100V/S	180mm	60mm	DAV-130V/S	220mm	60mm	DAV-160V/S	230mm	60mm	DAV-200V/S	340mm	80mm
MODEL NO.	A	B																																													
DAV-100V/S	0-75mm	0-75mm																																													
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■ When work in self-centering condition (fig.22&23), Optional jaw plates (2 pcs) are available for size of work-piece smaller than 60mm or 80mm.

■ Optional fixed plate is available for converting the vise to be a standard vise.(See fig 24.)

OPTIONAL METHODS:FIGURES FOR SHOWING THE PROCEDURES OF CLAMPING WORKPIECES.

 	 	REMARKS: 1. When clamping other size, please follow the same procedurs as stated below. 3. When install the part first part a after part B. 4. When take out the part, first part b after A. 31-1 If part a and b are different in sizes. 31-2 First of all make sure the set screw (D) is loosen stated. 31-3 Second make sure the clutch (E) is engagement stated. 31-4 Rotate handle till the part b can fit in.	Standard Accessories 1.Handle x 1 pc 2.Guide key x 2pcs M6 x 10L x 2pcs 3.Chip cover x 1 set 4.Vise locked block x 4 pcs
	 	32-1 Adjusting the gap between movable jaw and part (B) is 3~6mm. 32-2 Then lock the set screw (D) but don't lock too tight. 32-3 Then pull out the clutch to non engagement stated. 32-4 Finally rotate handle till the part a can fit in. But part b the gap always keep 3~6mm can't move it.	
	 	33-1 The set screw (D) keep lock and clutch (E) keep non engagement stated. 33-2 Rotary handle by clockwise till the movable jaw and part a is touch. 33-3 Then rotary handle by under clockwise till near next slot also push clutch to engagement stated. 33-4 Finally loosen set screw (D).	
		34-1 As procedurs 31-33 already finished adjusting part a and b size then lock set screw (F) on clutch (E). 34-2 Rotat handle by clockwise first the part a will be by clamping, then will be move the part B gap (L=3~6mm) till the gap between movable jaw and part B is by clamping. 34-3 By heavy power on handle by clockwise the part A, B will be heavy power capacity by clamped. (The part a and B is same power capacity by designed).	

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	L(EACH OPENING)	M
07190100	DAV-100V	495	410	85	101	45	125	128	15	30	0-75 0-75	16
07192100	DAV-100S	495	410	85	101	45	125	128	15	30	0-75 0-75	16
07190130	DAV-130V	535	450	85	131	52	137	140	15	30	0-85 0-85	18
07192130	DAV-130S	535	450	85	131	52	137	140	15	30	0-85 0-85	18
07190160	DAV-160V	585	500	85	161	55	145	148	15	30	0-100 0-100	18
07192160	DAV-160S	585	500	85	161	55	145	148	15	30	0-100 0-100	18
07190200	DAV-200V	727	642	85	201	60	155	158	18	40	0-150 0-150	18
07192200	DAV-200S	727	642	85	201	60	155	158	18	40	0-150 0-150	18

ORDER NO.	MODEL	N	X	X= $\frac{0}{0.02}$	Y	Y= $\frac{0}{0.02}$	N.W.	G.W.	SHIPMENT SIZE	REMARK
07190100	DAV-100V	48	30	YES	80	YES	27kg	29kg	590x175x185	
07192100	DAV-100S	48	30	NO	80	NO	27kg	29kg	590x175x185	
07190130	DAV-130V	55	30	YES	85	YES	39kg	41kg	655x190x225	
07192130	DAV-130S	55	30	NO	85	NO	39kg	41kg	655x190x225	
07190160	DAV-160V	58	30	YES	90	YES	56kg	59kg	760x190x215	
07192160	DAV-160S	58	30	NO	90	NO	56kg	59kg	760x190x215	
07190200	DAV-200V	63	38	YES	95	YES	89kg	92kg	820x230x220	
07192200	DAV-200S	63	38	NO	95	NO	89kg	92kg	820x230x220	



SAFEWAY

ISO-9001:2000

MOST SUITABLE FOR VERTICAL MACHINE CENTER, MILLING MACHINE

MODEL ● 07196100 DBV-100V ● 07196130 DBV-130V
● 07196160 DBV-160V ● 07196200 DBV-200V

MODEL ● 07198100 DBV-100S ● 07198130 DBV-130S
● 07198160 DBV-160S ● 07198200 DBV-200S



FEATURES:

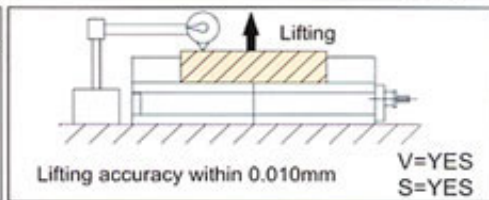
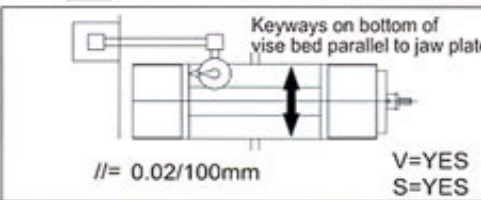
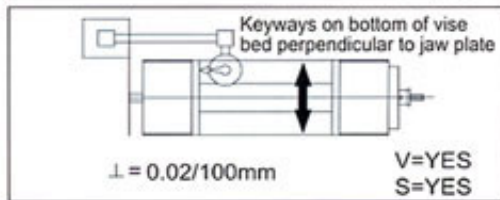
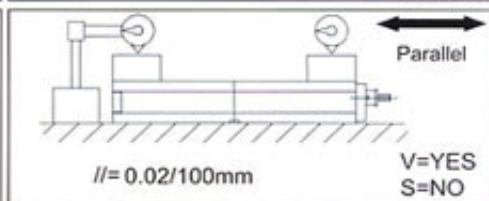
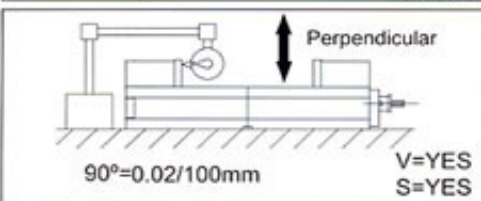
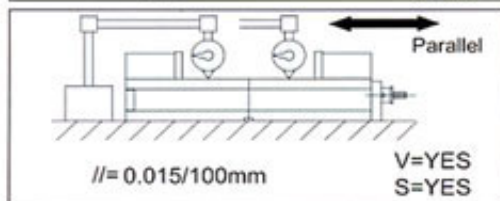
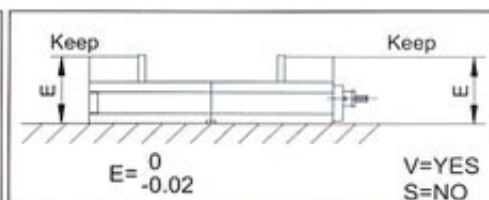
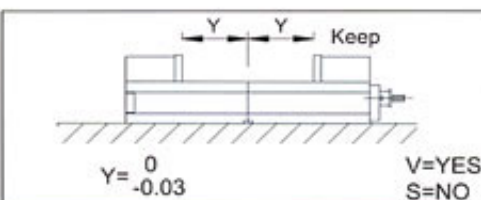
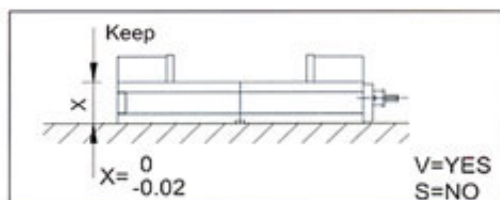
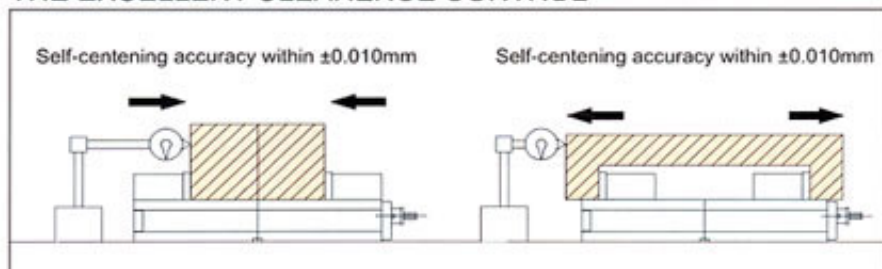
1. Holding work-piece firmly in single and multiple vises setup.
2. Double self-centering function.
3. Each self-centering clearance within $\pm 0.010\text{mm}$.
4. Down thrust mechanism eliminates jaw lifting and work-piece tilting.
5. Rigid material-ductile iron FCD60JIS (Equal to GGG60) with 60kgs/mm^2 or $80,000\text{ psi}$ tensile strength.
6. Vise bed flame hardened to HRC45° and up takes up wear and maintain accuracy for long.
7. Movable flame hardened to HRC55° and up takes up wear and maintain accuracy for long.
8. Chip covers adopt on each vise for preventing chips falling into lead-crew and inside of vise.

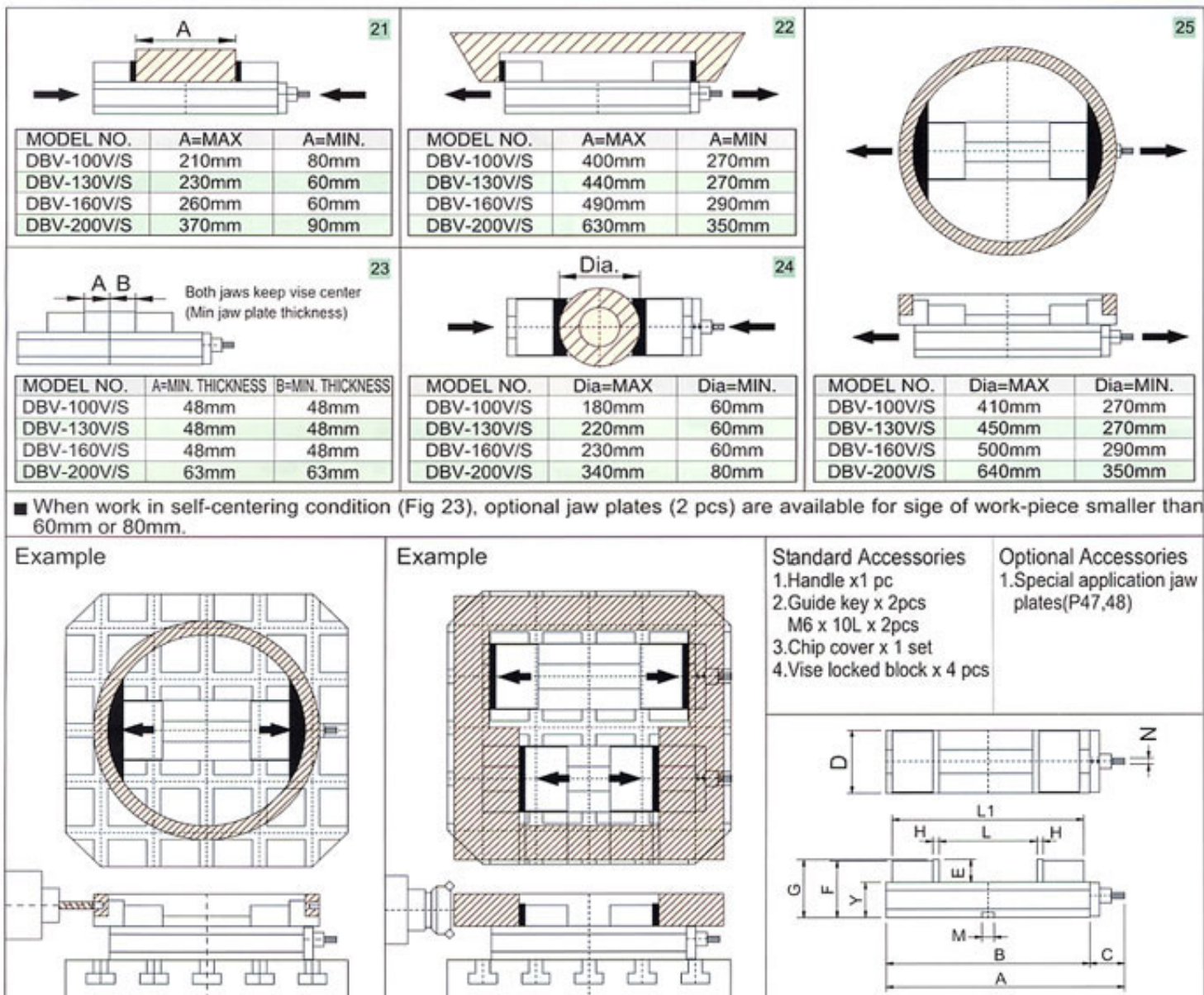
Work-piece lifting accuracy within 0.010 mm



Work-piece lifting accuracy within 0.010 mm

THE EXCELLENT CLEARANCE CONTROL



**SAFEWAY****ISO-9001:2000****MC 2 IN 1 DOUBLE SELF-CENTERING VISE**

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	L 21	L 23	L1
07196100	DBV-100V	488	410	78	101	48	125	128	15	80~210	0~150	270~400
07198100	DBV-100S	488	410	78	101	48	125	128	15	80~210	0~150	270~400
07196130	DBV-130V	528	450	78	131	55	137	140	15	60~230	0~170	270~440
07198130	DBV-130S	528	450	78	131	55	137	140	15	60~230	0~170	270~440
07196160	DBV-160V	578	500	78	161	58	145	148	15	60~260	0~200	270~490
07198160	DBV-160S	578	500	78	161	58	145	148	15	60~260	0~200	270~490
07196200	DBV-200V	720	642	78	201	63	155	158	18	90~370	0~290	350~630
07198200	DBV-200S	720	642	78	201	63	155	158	18	90~370	0~290	350~630

ORDER NO.	MODEL	M	N	Y	Y=0.02	N.W.	G.W.	SHIPMENT SIZE	REMARK
07196100	DBV-100V	16	19	80	YES	25kg	27kg	590x175x185	
07198100	DBV-100S	16	19	80	NO	25kg	27kg	590x175x185	
07196130	DBV-130V	18	19	85	YES	38kg	41kg	655x190x225	
07198130	DBV-130S	18	19	85	NO	38kg	41kg	655x190x225	
07196160	DBV-160V	18	19	90	YES	53kg	55kg	760x190x215	
07198160	DBV-160S	18	19	90	NO	53kg	55kg	760x190x215	
07196200	DBV-200V	18	19	95	YES	87kg	90kg	820x230x220	
07198200	DBV-200S	18	19	95	NO	87kg	90kg	820x230x220	



SAFEWAY

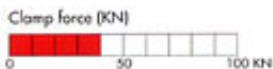


SYMBOL OF EXCELLENCE WINNER

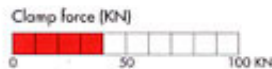
MOST SUITABLE FOR MASS PRODUCTION ON MACHINE CENTER

MODEL ● 07700100 PQV-100V ● 07700130 PQV-130V
● 07700160 PQV-160V ● 07700200 PQV-200V

MODEL ● 07705100 PQV-100S ● 07705130 PQV-130S
● 07705160 PQV-160S ● 07705200 PQV-200S

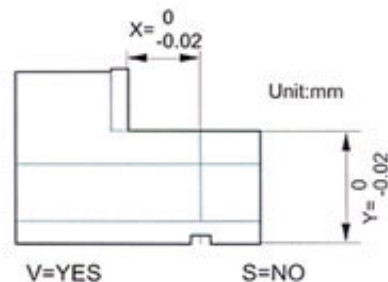


PATENTED



FEATURES:

1. Robust construction of one piece casting of fixed jaw and vise bed.
2. Rigid and high tensile casting of ductile iron FCD60JIS (Equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
3. Most suitable for mass production and to be used on machine centers, milling machines, drilling machines and special purpose machines.
4. Most compact pneumatic mechanism design. No oil, just joint with the air supply will do.
5. Most compact in total length of vise with Max. clamping capacity
6. Safety locking mechanism for unexpected termination of air supply. After pneumatic clamping, the work piece will be clamped firmly even without the air supply.
7. Easy and simple ON-OFF switch control for pneumatic operation. The optional electric control for automatic and FMS system is available.
8. Safety protection Max. pneumatic clamping stroke is 4 mm to prevent inserting operator's finger during clamping operation. (Stroke is 2mm best power capacity)
9. Rapid ON-OFF only 1.5sec.
10. Multiply pneumatic Quick Vise set up available with only one source of air supply. (Optional)
11. Free adjusting of Max. pneumatic clamping pressure from 0-1,000 kgf (4000) by air regulator, jaw opening 2 mm is best clamping power capacity of workpiece.
12. Vise bed flame hardened to HRC45° and up takes up wear and maintains accuracy for long.
13. Down trust "semi-spherical segment" mechanism eliminates jaw lifting and work-piece



PQV-100V, 130V, 160V, 200V

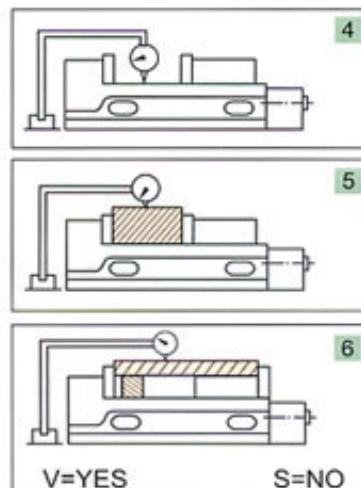
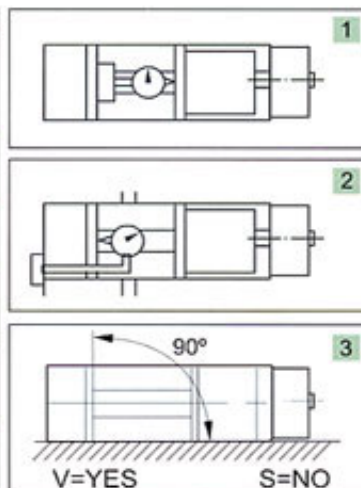
X=0 Y=0
X=-0.02 Y=-0.02

Vise side-lock square within 0.010mm

PQV-100S, 130S, 160S, 200S

Vise side-lock square within 0.010mm

NO	TEST	JIS grade1.	GUARANTEED
1	Both jaw plate parallel	0.020 100mm	0.020 100mm
2	Keyways on bottom of vise bed square to clamping surface of jaw plate.	0.020 100mm	0.015 100mm
3	Vise side-lock on bottom to slide way square.	0.020 100mm	0.010 100mm
4	Surface of vise bed parallel to bottom of vise body.	0.020 100mm	0.010 100mm
5	Top of rectangular test block clamped tightly by jaw parallel to bottom of vise body	0.030 100mm	0.020 100mm
6	Max. opening test block parallel to bottom of vise body.	0.050 100mm	0.030 100mm





SAFEWAY

ISO-9001:2000



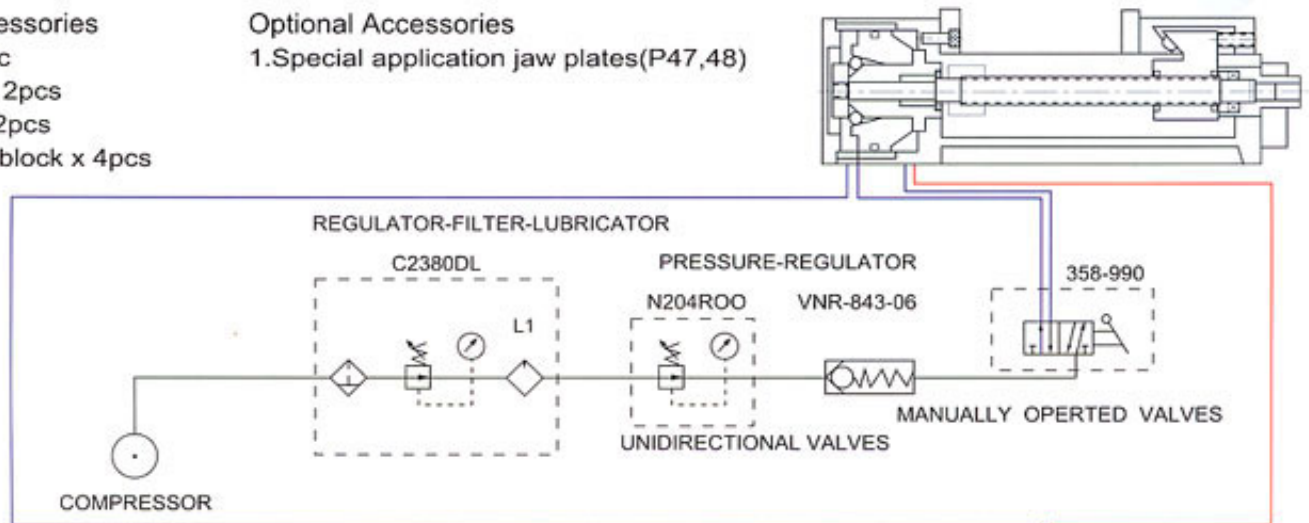
MC PNEUMATIC QUICK VISE

Standard Accessories

- 1.Handle x 1pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs
- 3.Vise locked block x 4pcs

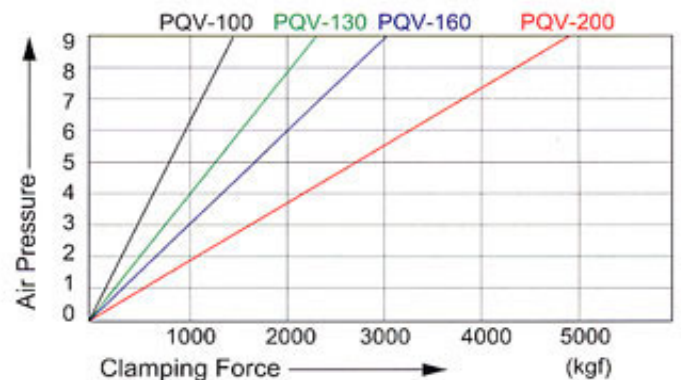
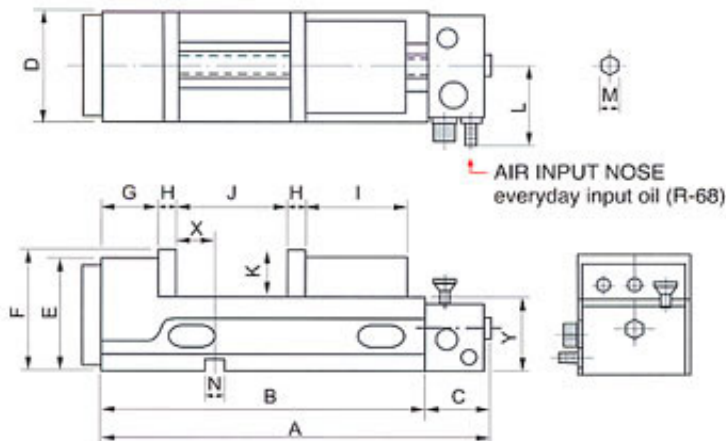
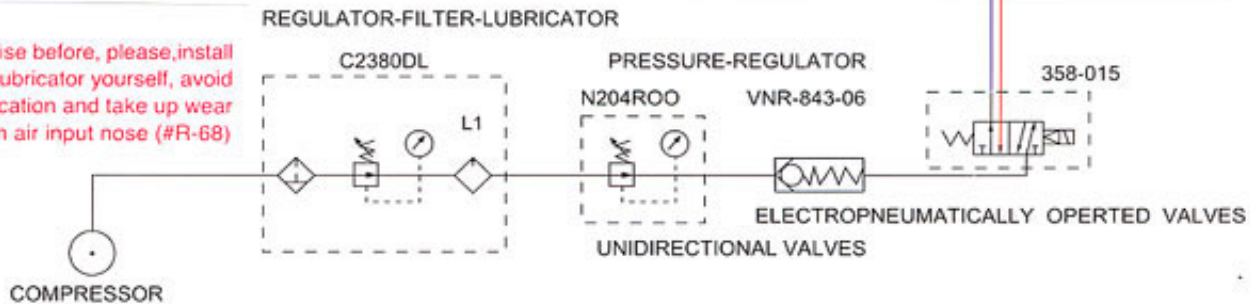
Optional Accessories

- 1.Special application jaw plates(P47,48)



★ Caution:

When you operate vise before, please install the regulator - filter-lubricator yourself, avoid the piston loss lubrication and take up wear piston or input oil on air input nose (#R-68)



ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M	N	X
07700100	PQV-100V	442	340	102	101	130	133	96	15	105	0-105	48	95	14	16	45
07705100	PQV-100S	442	340	102	101	130	133	96	15	105	0-105	48	95	14	16	45
07700130	PQV-130V	482	405	102	131	152	155	100	15	115	0-140	55	95	14	18	65
07705130	PQV-130S	482	405	102	131	152	155	100	15	115	0-140	55	95	14	18	65
07700160	PQV-160V	534	432	102	161	160	163	120	15	130	0-150	58	105	14	18	65
07705160	PQV-160S	534	432	102	161	160	163	120	15	130	0-150	58	105	14	18	65
07700200	PQV-200V	627	525	102	201	185	188	125	18	150	0-200	63	105	14	18	82
07705200	PQV-200S	627	525	102	201	185	188	125	18	150	0-200	63	105	14	18	82

ORDER NO.	MODEL	X=0.02	Y	Y=0.02	POWER	AIR PRESSURE	STROKE	N.W.	G.W.	SHIPMENT SIZE	REMARK
07700100	PQV-100V	YES	85	YES	11KN(1078kgf)	1.5-7.0 kg/cm ²	0-3 m/m	27kg	29kg	590x175x185	
07705100	PQV-100S	NO	85	NO	11KN(1078kgf)	1.5-7.0 kg/cm ²	0-3 m/m	27kg	29kg	590x175x185	
07700130	PQV-130V	YES	100	YES	16KN(1568kgf)	1.5-7.0 kg/cm ²	0-3 m/m	40kg	42kg	655x190x225	
07705130	PQV-130S	NO	100	NO	16KN(1568kgf)	1.5-7.0 kg/cm ²	0-3 m/m	40kg	42kg	655x190x225	
07700160	PQV-160V	YES	105	YES	21KN(2058kgf)	1.5-7.0 kg/cm ²	0-4 m/m	52kg	55kg	760x190x215	
07705160	PQV-160S	NO	105	NO	21KN(2058kgf)	1.5-7.0 kg/cm ²	0-4 m/m	52kg	55kg	760x190x215	
07700200	PQV-200V	YES	125	YES	41KN(4018kgf)	1.5-7.0 kg/cm ²	0-4 m/m	83kg	86kg	820x230x230	
07705200	PQV-200S	NO	125	NO	41KN(4018kgf)	1.5-7.0 kg/cm ²	0-4 m/m	83kg	86kg	820x230x230	



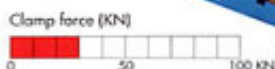
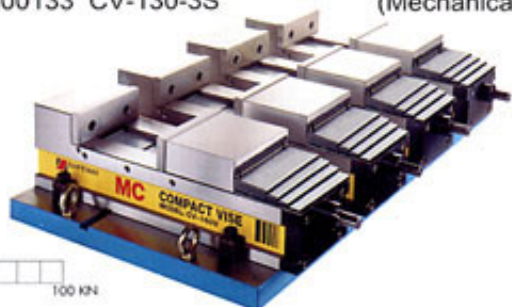
SAFEWAY



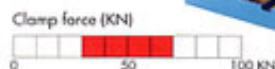
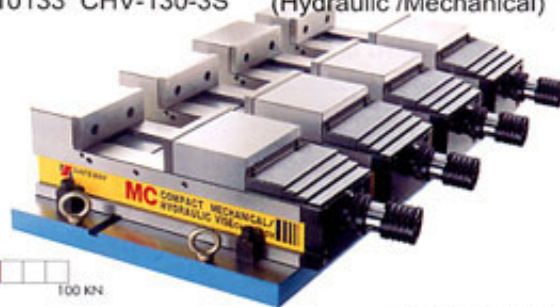
SYMBOL OF EXCELLENCE WINNER

MULTIPLY MC COMPACT VISE (2,3,4, IN ONE SET UP)

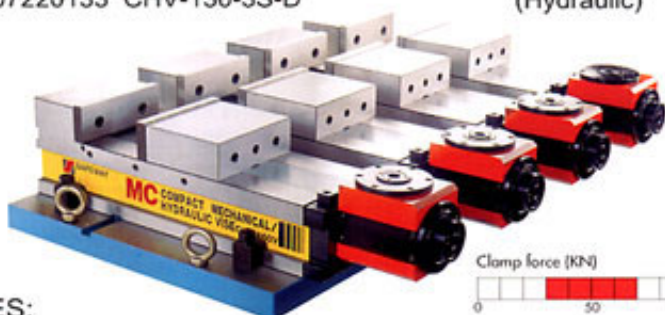
MODEL • 07200102 CV-100-2S • 07200134 CV-130-4S
 • 07200103 CV-100-3S • 07200162 CV-160-2S
 • 07200104 CV-100-4S • 07200163 CV-160-3S
 • 07200132 CV-130-2S • 07200164 CV-160-4S
 • 07200133 CV-130-3S (Mechanical)



MODEL • 07210102 CHV-100-2S • 07210134 CHV-130-4S
 • 07210103 CHV-100-3S • 07210162 CHV-160-2S
 • 07210104 CHV-100-4S • 07210163 CHV-160-3S
 • 07210132 CHV-130-2S • 07210164 CHV-160-4S
 • 07210133 CHV-130-3S (Hydraulic / Mechanical)



MODEL • 07220102 CHV-100-2S-D • 07220134 CHV-130-4S-D
 • 07220103 CHV-100-3S-D • 07220162 CHV-160-2S-D
 • 07220104 CHV-100-4S-D • 07220163 CHV-160-3S-D
 • 07220132 CHV-130-2S-D • 07220164 CHV-160-4S-D
 • 07220133 CHV-130-3S-D (Hydraulic)

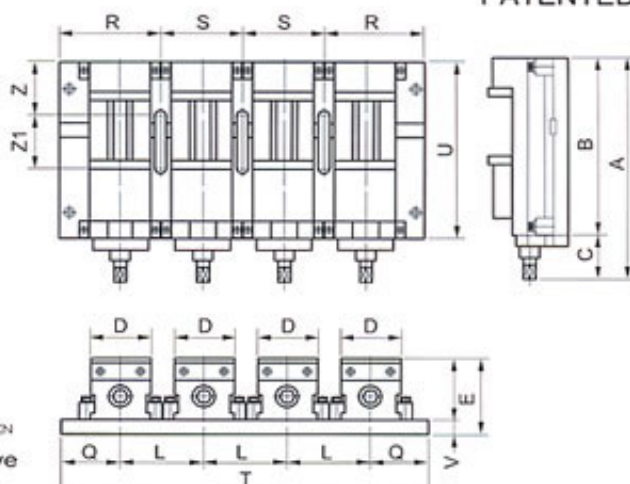


FEATURES:

1. Multiply MC compact vise for mounting on a vertical machining center to achieve highest productivity.
2. Incorporates lock down jaw principle assures zero part lift and near zero deflection when clamping.
3. Parts can be clamped in a

- consecutive pattern for progressive "all sides" machining.
4. Chip covers adopt on each Vise for preventing chips falling into Leadscrew and inside of vise.
5. With 90° driving mechanism unit, Avoid handle interrupted of table. (CHV-D)

PATENTED



- Standard Accessories 1. Handle x 2,3,4 pc
 2. Guide key x 2pcs
 M6 x 10L x 2pcs
- Optional Accessories 1. Special application jaw plates(P47,48)

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	J	L	Q	R	S	T	U	V	Z	Z1	N.W.	G.W.	SHIPMENT SIZE	REMARK
07200102	CV-100-2S	430	340	90	101	163	0-125	300	105	180	150	510	340	30	100	100				
07200103	CV-100-3S	430	340	90	101	163	0-125	150	105	180	150	510	340	30	100	100				
07200104	CV-100-4S	430	340	90	101	163	0-125	150	105	180	150	660	340	30	100	100				
07200132	CV-130-2S	495	405	90	131	185	0-180	360	120	210	180	600	405	35	120	120				
07200133	CV-130-3S	495	405	90	131	185	0-180	180	120	210	180	600	405	35	120	120				
07200134	CV-130-4S	495	405	90	131	185	0-180	180	120	210	180	780	405	35	120	120				
07200162	CV-160-2S	585	495	90	161	203	0-240	440	140	250	220	720	495	40	150	150				
07200163	CV-160-3S	585	495	90	161	203	0-240	220	140	250	220	720	495	40	150	150				
07200164	CV-160-4S	585	495	90	161	203	0-240	220	140	250	220	940	495	40	150	150				
07210102	CHV-100-2S	475	340	135	101	163	0-125	300	105	180	150	510	340	30	100	100				
07210103	CHV-100-3S	475	340	135	101	163	0-125	150	105	180	150	510	340	30	100	100				
07210104	CHV-100-4S	475	340	135	101	163	0-125	150	105	180	150	660	340	30	100	100				
07210132	CHV-130-2S	540	405	135	131	185	0-180	360	120	210	180	600	405	35	120	120				
07210133	CHV-130-3S	540	405	135	131	185	0-180	180	120	210	180	600	405	35	120	120				
07210134	CHV-130-4S	540	405	135	131	185	0-180	180	120	210	180	780	405	35	120	120				
07210162	CHV-160-2S	630	495	135	161	203	0-240	440	140	250	220	720	495	40	150	150				
07210163	CHV-160-3S	630	495	135	161	203	0-240	220	140	250	220	720	495	40	150	150				
07210164	CHV-160-4S	630	495	135	161	203	0-240	220	140	250	220	940	495	40	150	150				
07220102	CHV-100-2S-D	512	340	172	101	163	0-125	300	105	180	150	510	340	30	100	100				
07220103	CHV-100-3S-D	512	340	172	101	163	0-125	150	105	180	150	510	340	30	100	100				
07220104	CHV-100-4S-D	512	340	172	101	163	0-125	150	105	180	150	660	340	30	100	100				
07220132	CHV-130-2S-D	577	405	172	131	185	0-180	360	120	210	180	600	405	35	120	120				
07220133	CHV-130-3S-D	577	405	172	131	185	0-180	180	120	210	180	600	405	35	120	120				
07220134	CHV-130-4S-D	577	405	172	131	185	0-180	180	120	210	180	780	405	35	120	120				
07220162	CHV-160-2S-D	667	495	172	161	203	0-240	440	140	250	220	720	495	40	150	150				
07220163	CHV-160-3S-D	667	495	172	161	203	0-240	220	140	250	220	720	495	40	150	150				
07220164	CHV-160-4S-D	667	495	172	161	203	0-240	220	140	250	220	940	495	40	150	150				



SAFEWAY

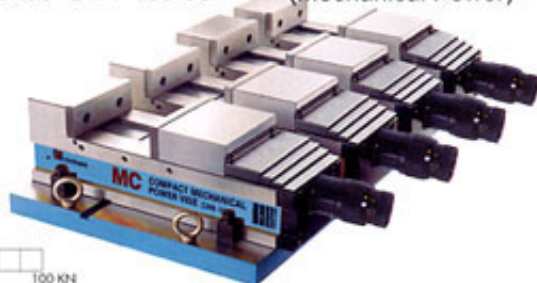


SYMBOL OF EXCELLENCE WINNER



MULTIPLY MC COMPACT VISE (2,3,4, IN ONE SET UP)

MODEL • 07230102 CMV-100-2S • 07230134 CMV-130-4S
 • 07230103 CMV-100-3S • 07230162 CMV-160-2S
 • 07230104 CMV-100-4S • 07230163 CMV-160-3S
 • 07230132 CMV-130-2S • 07230164 CMV-160-4S
 • 07230133 CMV-130-3S (Mechanical Power)



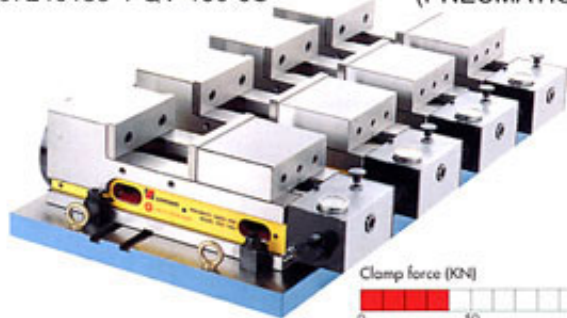
Clamp force (KN)
 0 50 100 KN

MODEL • 07250102 DAV-100-2S • 07250134 DAV-130-4S
 • 07250103 DAV-100-3S • 07250162 DAV-160-2S
 • 07250104 DAV-100-4S • 07250163 DAV-160-3S
 • 07250132 DAV-130-2S • 07250164 DAV-160-4S
 • 07240133 DAV-130-2S (2 in 1 Double Lock)

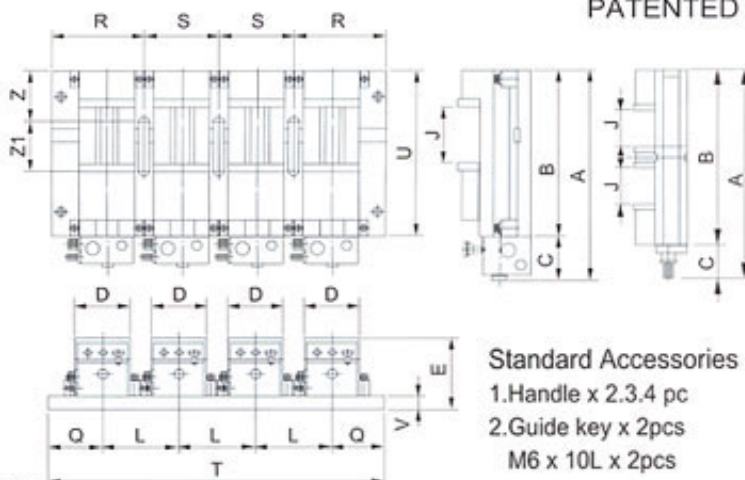


Clamp force (KN)
 0 50 100 KN

MODEL • 07260102 PQV-100-2S • 07260134 PQV-130-4S
 • 07260103 PQV-100-3S • 07260162 PQV-160-2S
 • 07260104 PQV-100-4S • 07260163 PQV-160-3S
 • 07260132 PQV-130-2S • 07260164 PQV-160-4S
 • 07240133 PQV-130-3S (PNEUMATIC)



Clamp force (KN)
 0 50 100 KN



PATENTED

FEATURES:

1. Multiply MC compact vise for mounting on a vertical machining center to achieve highest productivity.
2. Incorporates lock down jaw principle assures zero part lift and near zero deflection when clamping.
3. Parts can be clamped in a consecutive pattern for progressive "all sides" machining.
4. Chip covers adopt on each Vise for preventing chips falling into Leadscrew and inside of vise.

Standard Accessories

1. Handle x 2,3,4 pc
2. Guide key x 2pcs
M6 x 10L x 2pcs

Optional Accessories

1. Special application jaw plates(P47,48)

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	J	L	Q	R	S	T	U	V	Z	Z1	N.W.	G.W.	SHIPMENT SIZE	REMARK
07230102	CMV-100-2S	475	340	135	101	163	0-125	300	105	180	150	510	340	30	100	100				
07230103	CMV-100-3S	475	340	135	101	163	0-125	150	105	180	150	510	340	30	100	100				
07230104	CMV-100-4S	475	340	135	101	163	0-125	150	105	180	150	660	340	30	100	100				
07230132	CMV-130-2S	540	405	135	131	185	0-180	360	120	210	180	600	405	35	120	120				
07230133	CMV-130-3S	540	405	135	131	185	0-180	180	120	210	180	600	405	35	120	120				
07230134	CMV-130-4S	540	405	135	131	185	0-180	180	120	210	180	780	405	35	120	120				
07230162	CMV-160-2S	630	495	135	161	203	0-240	440	140	250	220	720	495	40	150	150				
07230163	CMV-160-3S	630	495	135	161	203	0-240	220	140	250	220	720	495	40	150	150				
07230164	CMV-160-4S	630	495	135	161	203	0-240	220	140	250	220	940	495	40	150	150				
07250102	DAV-100-2S	495	410	85	101	45	0-75	300	105	180	150	510	340	30	100	100				
07250103	DAV-100-3S	495	410	85	101	45	0-75	150	105	180	150	510	340	30	100	100				
07250104	DAV-100-4S	495	410	85	101	45	0-75	150	105	180	150	660	340	30	100	100				
07250132	DAV-130-2S	535	450	85	131	52	0-85	360	120	210	180	600	405	35	120	120				
07240133	DAV-130-3S	535	450	85	131	52	0-85	180	120	210	180	600	405	35	120	120				
07250134	DAV-130-4S	535	450	85	131	52	0-85	180	120	210	180	780	405	35	120	120				
07250162	DAV-160-2S	585	500	85	161	55	0-100	440	140	250	220	720	495	40	150	150				
07250163	DAV-160-3S	585	500	85	161	55	0-100	220	140	250	220	720	495	40	150	150				
07250164	DAV-160-4S	585	500	85	161	55	0-100	220	140	250	220	940	495	40	150	150				
07260102	PQV-100-2S	442	340	102	101	163	0-105	300	105	180	150	510	340	30	100	100				
07260103	PQV-100-3S	442	340	102	101	163	0-105	150	105	180	150	510	340	30	100	100				
07260104	PQV-100-4S	442	340	102	101	163	0-105	150	105	180	150	660	340	30	100	100				
07260132	PQV-130-2S	507	405	102	131	185	0-140	360	120	210	180	600	405	35	120	120				
07240133	PQV-130-3S	507	405	102	131	185	0-140	180	120	210	180	600	405	35	120	120				
07260134	PQV-130-4S	507	405	102	131	185	0-140	180	120	210	180	780	405	35	120	120				
07260162	PQV-160-2S	534	432	102	161	203	0-150	440	140	250	220	720	495	40	150	150				
07260163	PQV-160-3S	534	432	102	161	203	0-150	220	140	250	220	720	495	40	150	150				
07260164	PQV-160-4S	534	432	102	161	203	0-150	220	140	250	220	940	495	40	150	150				



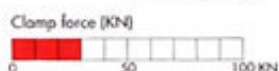
SAFEWAY



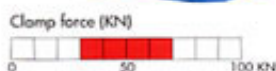
SYMBOL OF EXCELLENCE WINNER

MC 1 UPRIGHT MOUNTING MC COMPACT VISE ON BRACKET

MODEL • 07300100 CV-100V1
• 07300130 CV-130V1
• 07300160 CV-160V1
• 07300200 CV-200V1
(Mechanical)



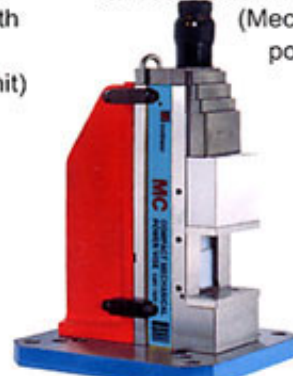
• 07310100 CHV-100V1
• 07310130 CHV-130V1
• 07310160 CHV-160V1
• 07310200 CHV-200V1
(Hydraulic)



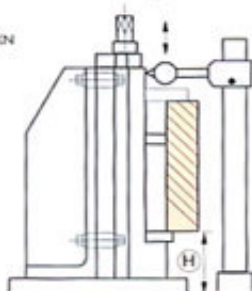
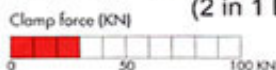
• 07320100 CHV-100V1-D
• 07320130 CHV-130V1-D
• 07320160 CHV-160V1-D
• 07320200 CHV-200V1-D
(Hydraulic With 90° driving Mechanism unit)



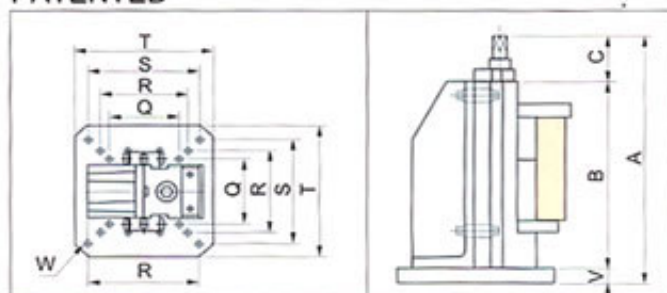
• 07330100 CMV-100V1
• 07330130 CMV-130V1
• 07330160 CMV-160V1
• 07330200 CMV-200V1
(Mechanical power)



MODEL • 07350100 DAV-100V1
• 07350130 DAV-130V1
• 07350160 DAV-160V1
• 07350200 DAV-200V1
(2 in 1 Double Lock)



PATENTED



Standard Accessories

1. Handle X 1 pcs
2. Sub-plate X 1pc
3. 1 upright bracket X 1 pc

Optional Accessories

1. Special application jaw plates (P47,48)

FEATURES:

1. Mounting 1 MC compact vise upright on a piece of sub-plate and 1 upright bracket to be best used on horizontal machine center with pallet changer.
2. Ideal for clamping 1 work-piece for machining five surfaces on horizontal machine center.
3. Chip covers adopt on each Vise for preventing chips falling into lead-screw and inside of vise.

Unit:mm

ORDER NO.	MODEL	A	B	C	D	G	I	J	Q	R	S	T	V	W	N.W.	G.W.	SHIPMENT SIZE	REMARK
07300100	CV-100V1	470	340	90	101	65	105	0-125	125	160	200	300	40	M16	68kg			
07300130	CV-130V1	535	405	90	131	70	115	0-180		160	200	300	40	M16	89kg			
07300160	CV-160V1	625	495	90	161	85	130	0-240	200	250	320	400	40	M16	133kg			
07300200	CV-200V1	711	570	90	201	90	150	0-280		250	320	400	40	M16	170kg			
07310100	CHV-100V1	475	340	135	101	65	105	0-125	125	160	200	300	40	M16	69kg			
07310130	CHV-130V1	540	405	135	131	70	115	0-180		160	200	300	40	M16	79kg			
07310160	CHV-160V1	630	495	135	161	85	130	0-240	200	250	320	400	40	M16	134kg			
07310200	CHV-200V1	705	570	135	201	90	150	0-280		250	320	400	40	M16	171kg			
07320100	CHV-100V1-D	552	340	172	101	65	105	0-125	125	160	200	300	40	M16	74kg			
07320130	CHV-130V1-D	617	405	172	131	70	115	0-180		160	200	300	40	M16	95kg			
07320160	CHV-160V1-D	707	495	172	161	85	130	0-240	200	250	320	400	40	M16	139kg			
07320200	CHV-200V1-D	787	570	172	201	90	150	0-280		250	320	400	40	M16	176kg			
07330100	CMV-100V1	475	340	135	101	65	105	0-125	125	160	200	300	40	M16	69kg			
07330130	CMV-130V1	540	405	135	131	70	115	0-180		160	200	300	40	M16	90kg			
07330160	CMV-160V1	630	495	135	161	85	130	0-240	200	250	320	400	40	M16	134kg			
07330200	CMV-200V1	705	570	135	201	90	150	0-280		250	320	400	40	M16	171kg			
07350100	DAV-100V1	535	410	85	101	30	80	0-125	125	160	200	300	40	M16	72kg			
07350130	DAV-130V1	575	450	85	131	30	90	0-180		160	200	300	40	M16	92kg			
07350160	DAV-160V1	625	500	85	161	30	100	0-240	200	250	320	400	40	M16	133kg			
07350200	DAV-200V1	767	642	85	201	38	110	0-280		250	320	400	40	M16	176kg			



SAFEWAY

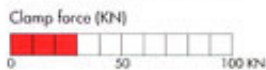


SYMBOL OF EXCELLENCE WINNER

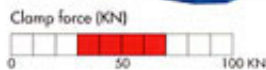


MC 2 UPRIGHT MOUNTING MC COMPACT VISE

MODEL ● 07400100 CV-100V2
● 07400130 CV-130V2
● 07400160 CV-160V2
● 07400200 CV-200V2
(Mechanical)



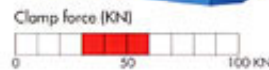
● 07410100 CHV-100V2
● 07410130 CHV-130V2
● 07410160 CHV-160V2
● 07410200 CHV-200V2
(Hydraulic)



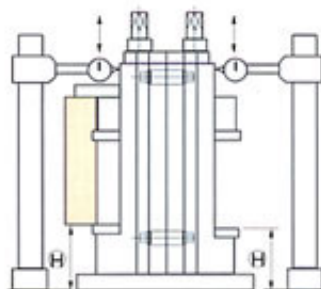
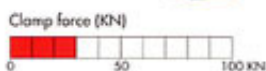
● 07420100 CHV-100V2-D
● 07420130 CHV-130V2-D
● 07420160 CHV-160V2-D
● 07420200 CHV-200V2-D
(Hydraulic With 90° driving Mechanism unit)



● 07430100 CMV-100V2
● 07430130 CMV-130V2
● 07430160 CMV-160V2
● 07430200 CMV-200V2
(Mechanical power)



MODEL ● 07440100 DAV-100V2 ● 07440160 DAV-160V2
● 07440130 DAV-130V2 ● 07440200 DAV-200V2
(2 in 1 Double Lock)



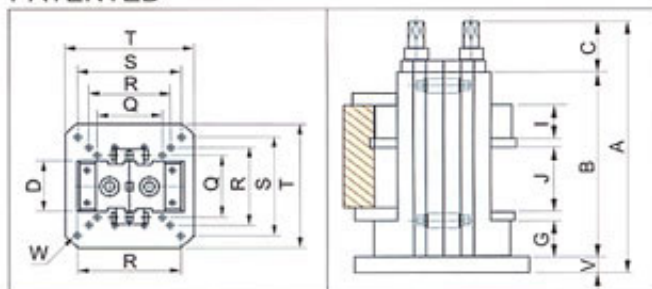
Standard Accessories

1. Handle x 2 pcs
2. Sub-plate x 1pc

Optional Accessories

1. Special application jaw plates(P47,48)

PATENTED



FEATURES:

1. Mounting 2 MC compact vise upright on a piece of sub-plate to be best used on horizontal machine center with pallet changer.
2. Ideal for clamping 2 work-piece for machining five surfaces on horizontal machine center.
3. Mechanical, mechanical/hydraulic type and with 90° driving mechanism unit for your best choice.
4. Chip covers adopt on each Vise for preventing chips falling into lead-screw and inside of vise.

Unit:mm

NO.	TEST ITEM	GUARANTEED	REMARK
1	Both vise jaw plates to bottom plate parallel within 0.020mm	0.020mm	
2	Vise "Y" dimension within 0.020mm	0.020mm	
3	Vise on bottom of vise bed square within 0.010mm/100mm	0.010/100mm	

ORDER NO.	MODEL	A	B	C	D	G	I	J	Q	R	S	T	V	W	N.W.	G.W.	SHIPMENT SIZE	REMARK
07400100	CV-100V2	470	340	90	101	65	105	0-125	125	160	200	300	40	M16	67kg			
07400130	CV-130V2	535	405	90	131	70	115	0-180		160	200	300	40	M16	93kg			
07400160	CV-160V2	625	495	90	161	85	130	0-240	200	250	320	400	40	M16	150kg			
07400200	CV-200V2	711	570	90	201	90	150	0-280		250	320	400	40	M16	208kg			
07410100	CHV-100V2	475	340	135	101	65	105	0-125	125	160	200	300	40	M16	69kg			
07410130	CHV-130V2	540	405	135	131	70	115	0-180		160	200	300	40	M16	95kg			
07410160	CHV-160V2	630	495	135	161	85	130	0-240	200	250	320	400	40	M16	152kg			
07410200	CHV-200V2	705	570	135	201	90	150	0-280		250	320	400	40	M16	210kg			
07420100	CHV-100V2-D	552	340	172	101	65	105	0-125	125	160	200	300	40	M16	73kg			
07420130	CHV-130V2-D	617	405	172	131	70	115	0-180		160	200	300	40	M16	99kg			
07420160	CHV-160V2-D	707	495	172	161	85	130	0-240	200	250	320	400	40	M16	156kg			
07420200	CHV-200V2-D	787	570	172	201	90	150	0-280		250	320	400	40	M16	215kg			
07430100	CMV-100V2	475	340	135	101	65	105	0-125	125	160	200	300	40	M16	69kg			
07430130	CMV-130V2	540	405	135	131	70	115	0-180		160	200	300	40	M16	95kg			
07430160	CMV-160V2	630	495	135	161	85	130	0-240	200	250	320	400	40	M16	152kg			
07430200	CMV-200V2	705	570	135	201	90	150	0-280		250	320	400	40	M16	210kg			
07450100	DAV-100V2	535	410	85	101	30	80	0-125	125	160	200	300	40	M16	75kg			
07450130	DAV-130V2	575	450	85	131	30	90	0-180		160	200	300	40	M16	99kg			
07450160	DAV-160V2	625	500	85	161	30	100	0-240	200	250	320	400	40	M16	156kg			
07450200	DAV-200V2	767	642	85	201	40	110	0-280		250	320	400	40	M16	220kg			



SAFEWAY

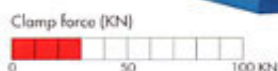


SYMBOL OF EXCELLENCE WINNER

MC 4 UPRIGHT MOUNTING MC COMPACT VISE

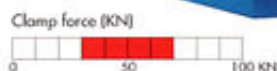
MODEL ● 07500100 CV-100V4
● 07500130 CV-130V4
● 07500160 CV-160V4
● 07500200 CV-200V4

(Mechanical type)



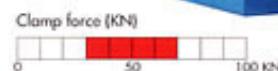
● 07510100 CHV-100V4
● 07510130 CHV-130V4
● 07510160 CHV-160V4
● 07510200 CHV-200V4

(Mechanical/Hydraulic type)



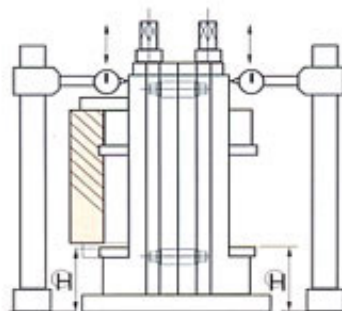
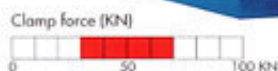
● 07520100 CHV-100V4-D
● 07520130 CHV-130V4-D
● 07520160 CHV-160V4-D
● 07520200 CHV-200V4-D

(Horizontal / With 90° driving Mechanism unit)

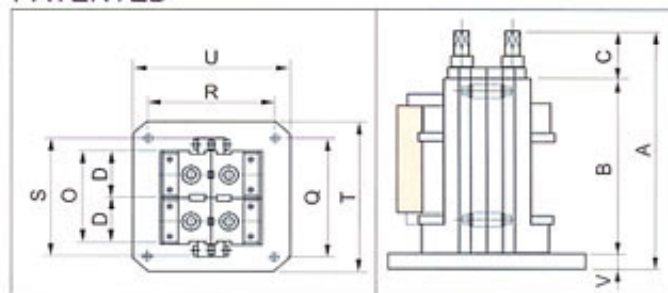


MODEL ● 07530100 CMV-100V4 ● 07530160 CMV-160V4
● 07530130 CMV-130V4 ● 07530200 CMV-200V4

(Mechanical power)



PATENTED



Standard Accessories

1. Handle x 4 pcs
2. Sub-plate x 1pc

Optional Accessories

1. Special application jaw plates (P47,48)

FEATURES:

1. Mounting 4 MC compact vise upright on a piece of sub-plate to be best used on horizontal machine center with pallet changer.
2. Ideal for clamping 4 work-piece for machining five surfaces on horizontal machine center.
3. Mechanical, mechanical/hydraulic type and with 90° driving mechanism unit for your best choice.
4. Chip covers adopt on each vise for preventing chips falling into lead-screw and inside of vise.

Unit:mm

NO.	TEST ITEM	GUARANTEED	REMARK
1	Both vise jaw plates to bottom plate parallel within 0.020mm	0.020mm	
2	Vise "Y" dimension with 0.020mm	0.020mm	
3	Vise on bottom of vise bed square within 0.010mm/100mm	0.010/100mm	

ORDER NO.	MODEL	A	B	C	D	G	I	J	Q	R	S	T	V	W	N.W.	G.W.	SHIPMENT SIZE	REMARK
07500100	CV-100V4	470	340	90	101	65	105	0-125	320	320	304	400	40	M16	119kg			
07500130	CV-130V4	535	405	90	131	70	115	0-180	320	320	364	400	40	M16	171kg			
07500160	CV-160V4	625	495	90	161	85	130	0-240	400	400	424	500	40	M16	264kg			
07500200	CV-200V4	711	570	90	201	90	150	0-280	400	400	504	500	40	M18	380kg			
07510100	CHV-100V4	475	340	135	101	65	105	0-125	320	320	304	400	40	M16	121kg			
07510130	CHV-130V4	540	405	135	131	70	115	0-180	320	320	364	400	40	M16	173kg			
07510160	CHV-160V4	630	495	135	161	85	130	0-240	400	400	424	500	40	M16	266kg			
07510200	CHV-200V4	705	570	135	201	90	150	0-280	400	400	504	500	40	M18	382kg			
07520100	CHV-100V4-D	552	340	172	101	65	105	0-125	320	320	304	400	40	M16	125kg			
07520130	CHV-130V4-D	617	405	172	131	70	115	0-180	320	320	364	400	40	M16	177kg			
07520160	CHV-160V4-D	707	495	172	161	85	130	0-240	400	400	424	500	40	M16	270kg			
07520200	CHV-200V4-D	787	570	172	201	90	150	0-280	400	400	504	500	40	M18	386kg			
07530100	CMV-100V4	475	340	135	101	65	105	0-125	320	320	304	400	40	M16	121kg			
07530130	CMV-130V4	540	405	135	131	70	115	0-180	320	320	364	400	40	M16	173kg			
07530160	CMV-160V4	630	495	135	161	85	130	0-240	400	400	424	500	40	M16	266kg			
07530200	CMV-200V4	705	570	135	201	90	150	0-280	400	400	504	500	40	M18	382kg			



SAFEWAY



SYMBOL OF EXCELLENCE WINNER

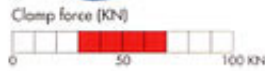


MC 4 UPRIGHT MOUNTING MC COMPACT VISE ON JIG BLOCK

MODEL • 07600100 CV-100V4B
• 07600130 CV-130V4B
• 07600160 CV-160V4B
• 07600200 CV-200V4B
(Mechanical type)



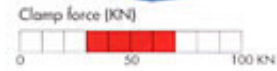
• 07610100 CHV-100V4B
• 07610130 CHV-130V4B
• 07610160 CHV-160V4B
• 07610200 CHV-200V4B
(Mechanical/ Hydraulic)



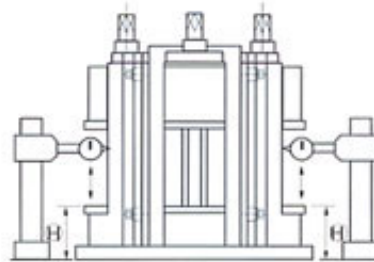
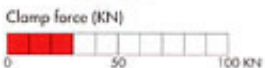
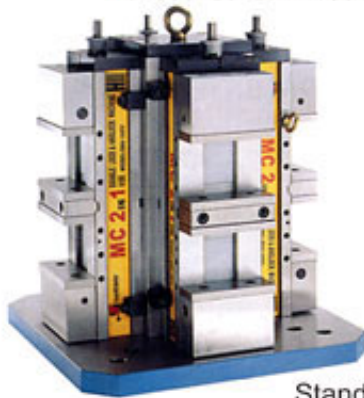
• 07620100 CHV-100V4B-D
• 07620130 CHV-130V4B-D
• 07620160 CHV-160V4B-D
• 07620200 CHV-200V4B-D
(Horizontal / With 90° driving Mechanism unit)



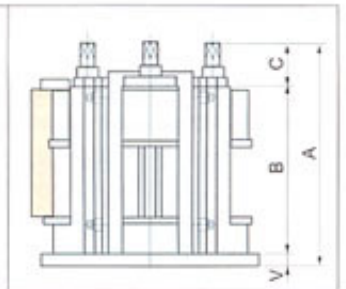
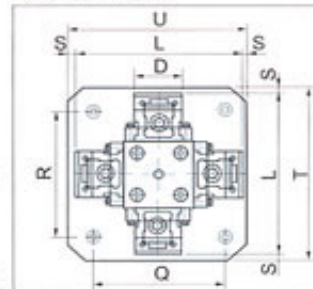
• 07630100 CMV-100V4B
• 07630130 CMV-130V4B
• 07630160 CMV-160V4B
• 07630200 CMV-200V4B
(Mechanical power)



MODEL • 07650100 DAV-100V4B • 07650160 DAV-160V4B
• 07650130 DAV-130V4B • 07650200 DAV-200V4B
(2 in 1 Double Lock)



PATENTED



Standard Accessories

1. Handle x 4 pcs
2. Sub-plate x 1pc
3. Jig block x 1 pc

Optional Accessories

1. Special application jaw plates(P47,48)

FEATURES:

1. Mounting 4 MC compact vise upright on a piece of jig block to be best used on horizontal machine center with pallet changer.
2. Ideal for clamping 4 work piece for machining five surfaces on horizontal machine center.
3. Chip covers adopt on each vise for preventing chips falling into lead-screw and inside of vise.

Unit:mm

NO.	TEST ITEM	GUARANTEED	REMARK
1	Both vise jaw plates to bottom plate parallel within 0.020mm	0.020mm	
2	Vise "Y" dimension within 0.020mm	0.020mm	
3	Vise on bottom of vise bed square within 0.010mm/100mm	0.010/100mm	

ORDER NO.	MODEL	A	B	C	D	G	J	I	Q	R	S	T	V	W	N.W.	G.W.	SHIPMENT SIZE	REMARK
07600100	CV-100V4B	470	340	90	101	65	0-125	105	320	320	7	450	40	M16	193kg			
07600130	CV-130V4B	535	405	90	131	70	0-180	115	320	320	10	500	40	M16	296kg			
07600160	CV-160V4B	625	495	90	161	85	0-240	130	400	400	7	550	40	M16	428kg			
07600200	CV-200V4B	711	570	90	201	90	0-280	150	500	500	2	600	45	M18	584kg			
07610100	CHV-100V4B	475	340	135	101	65	0-125	105	320	320	7	450	40	M16	197kg			
07610130	CHV-130V4B	540	405	135	131	70	0-180	115	320	320	10	500	40	M16	300kg			
07610160	CHV-160V4B	630	495	135	161	85	0-240	130	400	400	7	550	40	M16	432kg			
07610200	CHV-200V4B	705	570	135	201	90	0-280	150	500	500	2	600	45	M18	588kg			
07620100	CHV-100V4B-D	552	340	172	101	65	0-125	105	320	320	7	450	40	M16	217kg			
07620130	CHV-130V4B-D	617	405	172	131	70	0-180	115	320	320	10	500	40	M16	320kg			
07620160	CHV-160V4B-D	707	495	172	161	85	0-240	130	400	400	7	550	40	M16	452kg			
07620200	CHV-200V4B-D	787	570	172	201	90	0-280	150	500	500	2	600	45	M18	610kg			
07630100	CMV-100V4B	475	340	135	101	65	0-125	105	320	320	7	450	40	M16	197kg			
07630130	CMV-130V4B	540	405	135	131	70	0-180	115	320	320	10	500	40	M16	300kg			
07630160	CMV-160V4B	630	495	135	161	85	0-240	130	400	400	7	550	40	M16	432kg			
07630200	CMV-200V4B	705	570	135	201	90	0-280	150	500	500	2	600	45	M18	588kg			
07650100	DAV-100V4B	535	410	85	101	30	0-75	105	320	320	22	450	40	M16	206kg			
07650130	DAV-130V4B	575	450	85	131	30	0-85	115	320	320	20	500	40	M16	308kg			
07650160	DAV-160V4B	625	500	85	161	30	0-100	130	400	400	22	550	40	M16	440kg			
07650200	DAV-200V4B	767	642	85	201	40	0-150	150	500	500	18	600	45	M18	608kg			



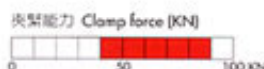
SAFEWAY

ISO-9001:2000



MOST SUITABLE FOR MILLING MACHINE

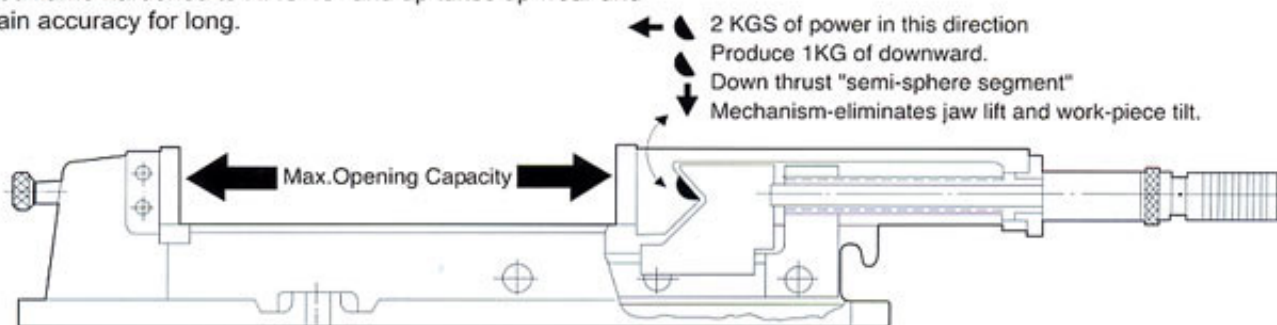
MODEL ● 07800130 PHV-130 ● 07800160 PHV-160
● 07800200 PHV-200 ● 07800250 PHV-250



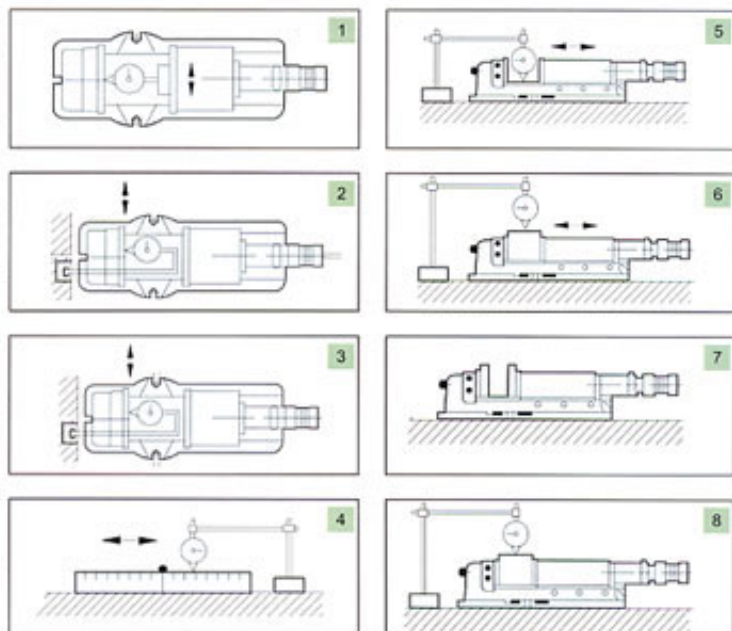
FEATURES:

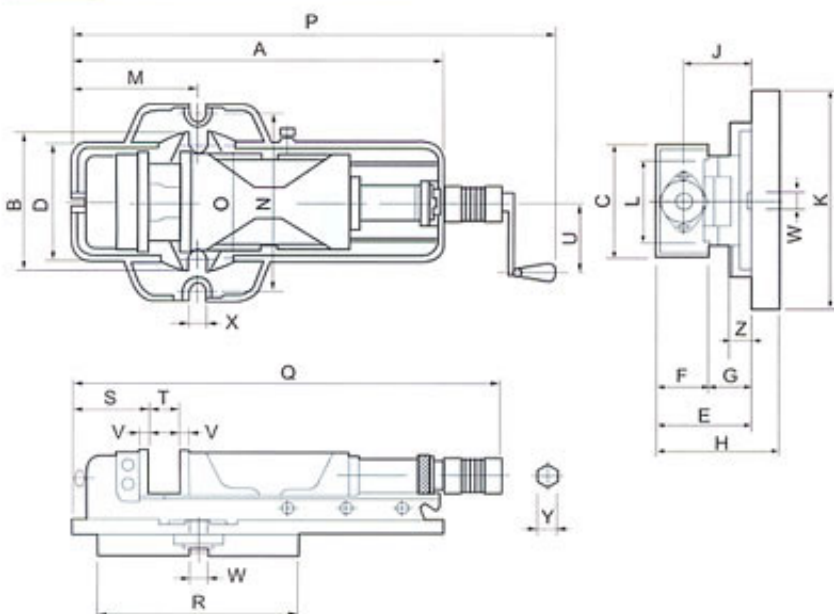
1. Mechanical/Hydraulic spindle without original clutch mechanism.
2. Clamping system: mechanical/hydraulic.
3. Large clamping & long guidance of movable jaw.
4. Rapid clamping range adjustment.
5. Rigid material - vise body of Ductile iron FCD60 JIS (equal to GGG 60) with 60 kgs/mm² or 80,000 psi tensile strength.
6. Down thrust "Semi - sphere segment" mechanism - eliminates jaw lift and work tilt.
7. Vise bed flange hardened to HRC 45° and up takes up wear and maintain accuracy for long.

PATENTED



NO	ITEM	JIS grade1	GUARANTEED
1	Both jaw plate parallel	0.020 100mm	0.020 100mm
2	Keyways on bottom of vise bed square to clamping surface of jaw plate.	0.020 100mm	0.015 100mm
3	Keyways on bottom of vise bed Parallel to clamping surface of jaw plate.	0.020 100mm	0.015 100mm
4	Swivel base parallel	0.020 100mm	0.015 100mm
5	Surface of vise bed parallel to bottom of vise body.	0.020 100mm	0.010 100mm
6	Surface of vise bed parallel to bottom of vise body.	0.030 100mm	0.020 100mm
7	Clamping surface of jaw palate perpendicular to vise bed, the angle always being less than 90	0.050 100mm	0.030 100mm
8	Clamping surface of jaw palate perpendicular to vise bed, the angle always being less than 90	0.040 100mm	0.030 100mm



**SAFEWAY****ISO-9001:2000****LOCK-DOWN JAW MECHANICAL / HYDRAULIC MACHINE VISE****Standard Accessories:**

- 1.Handle x 1pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs

Optional Accessories

- 1.Special application jaw plates (P47,48)
- 2.Work-piece stopper
- 3.Swivel base (SBD-steel)
- 4.Swivel base (SB-cast iron)

SWIVEL BASE (STEEL)

MODEL • 07813130 SBD-130 • 07813160 SBD-160 • 07813200 SBD-200

***HARDENED****Standard Accessories**

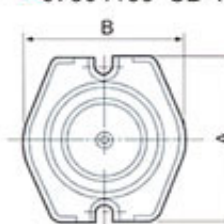
- 1.T-Bolts x 2pcs
- 2.5/8"nuts x 2pcs

Unit:mm

ORDER NO.	SBD	A	B	C	D	N.W
07813130	130	296	30	25	18	10.6kg
07813160	160	312	34	25	18	15.5kg
07813200	200	378	44	25	18	27.2kg

SWIVEL BASE (CAST IRON)

MODEL • 07804130 SB-130 • 07804160 SB-160 • 07804200 SB-200 • 07804250 SB-250

**Standard Accessories**

- 1.T-Bolts x 2pcs
- 2.5/8"nuts x 2pcs

Unit:mm

ORDER NO.	SB	A	B	C	D	N.W
07804130	130	290	260	34	16	9kg
07804160	160	340	320	39	16	15kg
07804200	200	400	360	46	18	23kg
07804250	250	460	420	50	18	32kg

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P
07800130	PHV-130	505	190	130	170	127	55	72	163	95	290	106	180	250	160	695/920
07800160	PHV-160	625	240	160	205	140	58	82	179	105	340	125	208	300	196	755/1055
07800200	PHV-200	700	280	200	240	163	63	100	205	125	400	165	265	360	240	830/1140
07800250	PHV-250	810	320	250	290	190	80	110	238	139	460	195	320	410	270	920/1260

ORDER NO.	MODEL	Q	R	S	T	U	V	W	X	Y	Z	JAW OPENING POSITION I II III
07800130	PHV-130	570/795	260	105	220	125	15	16	18	14	25	0-75/70-150/145-225
07800160	PHV-160	640/940	320	125	300	125	15	16	18	14	27	0-110/100-210/200-310
07800200	PHV-200	725/1035	365	150	300	125	18	18	22	14	36	0-110/100-210/200-310
07800250	PHV-250	815/1155	420	180	340	125	21	18	22	14	36	0-115/110-230/225-345

ORDER NO.	MODEL	MAX.PRESSURE	LIMIT.PRESSURE	N.W./G.W.	SHIPMENT SIZE	WEIGHT OF VISE WITH SWIVEL BASE	VISE WITH SWIVEL BASE	REMARK
07800130	PHV-130	36KN(3528kgf)	41KN(4018kgf)	36/38kg	645x260x185	46/55kg	690x360x270	
07800160	PHV-160	41KN(4018kgf)	52KN(5096kgf)	56/58kg	730x260x190	72/82kg	750x430x290	
07800200	PHV-200	62KN(6076kgf)	72KN(7056kgf)	90/102kg	860x380x280	117/131kg	860x520x310	
07800250	PHV-250	72KN(7056kgf)	82KN(8036kgf)	140/160kg	960x450x300	172/200kg	900x560x350	



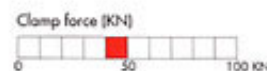
SAFEWAY

ISO-9001:2000



MOST SUITABLE FOR MILLING MACHINE

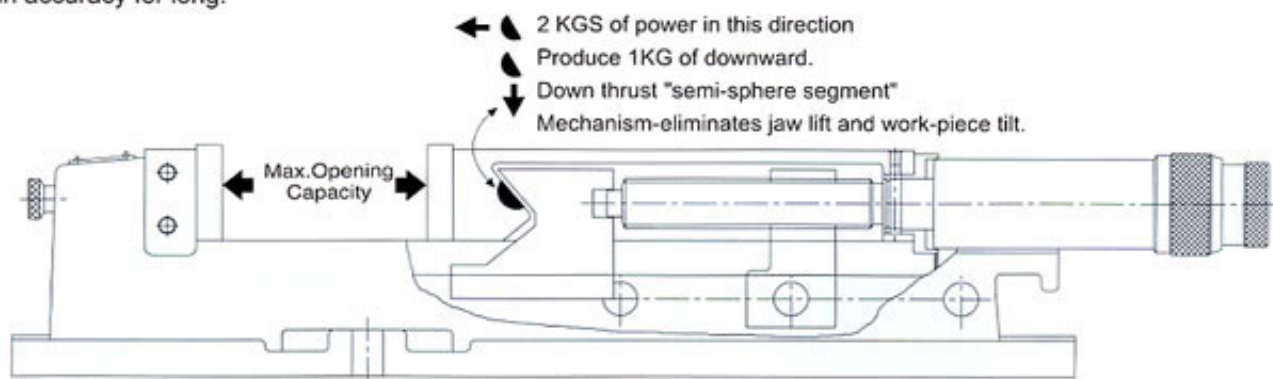
MODEL • 07810130 PPV-130 • 07810160 PPV-160



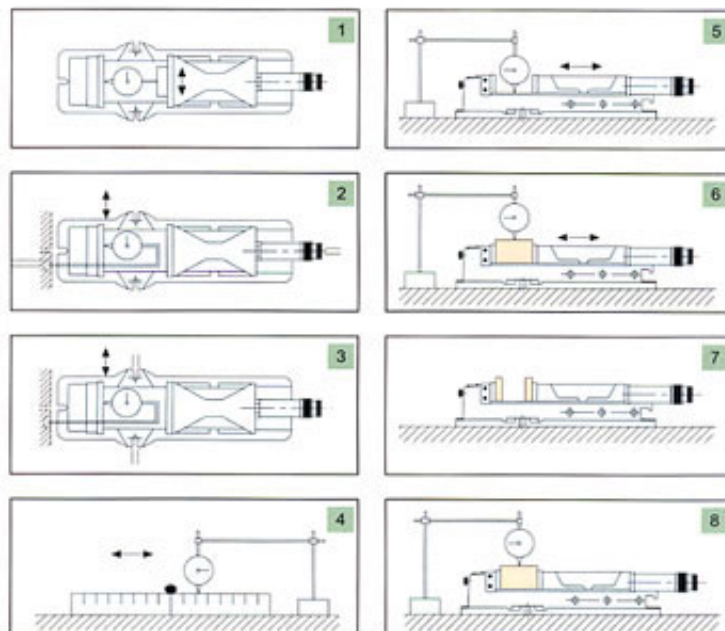
FEATURES:

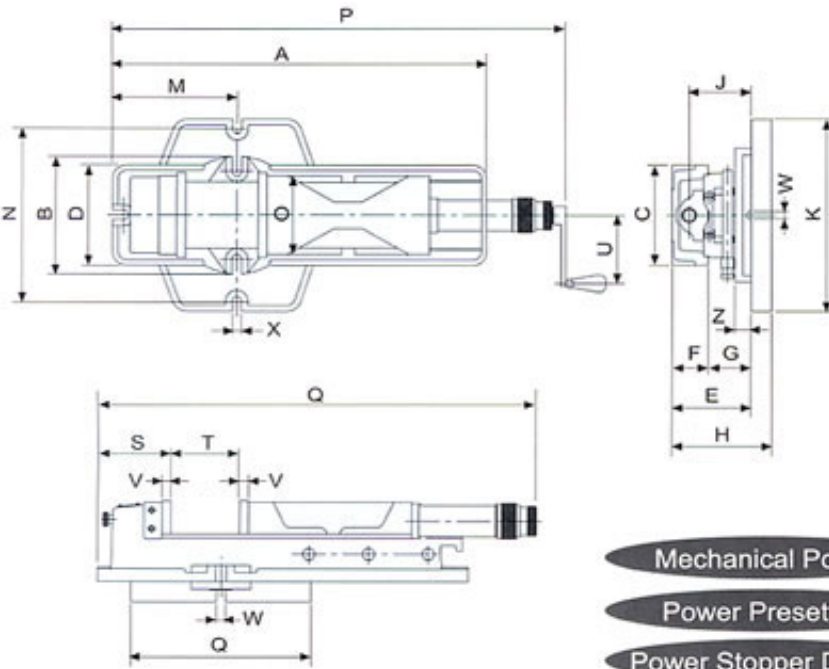
1. Drive spindle with clamping force presetting and stopper mechanism device.
2. Clamping system: mechanical power (knee lever)
2. Large clamping & long guidance of movable jaw.
3. Rapid clamping range adjustment.
4. Rigid material - vise body of Ductile iron FCD60 JIS (equal to GGG 60) with 60 kgs/mm² or 80,000 psi tensile strength
5. Down thrust "Semi - sphere segment" mechanism - eliminates jaw life and work tilt.
6. Vise bed flange hardened to HRC 45 and up takes up wear and maintain accuracy for long.

PATENTED



NO	ITEM	JIS grade1	GUARANTEED
1	Both jaw plate parallel	0.020 100mm	0.020 100mm
2	Keyways on bottom of vise bed square to clamping surface of jaw plate.	0.020 100mm	0.015 100mm
3	Keyways on bottom of vise bed Parallel to clamping surface of jaw plate.	0.020 100mm	0.015 100mm
4	Swivel base parallel	0.020 100mm	0.015 100mm
5	Surface of vise bed parallel to bottom of vise body.	0.020 100mm	0.010 100mm
6	Top of rectangular test block clamped tightly by jaw parallel to bottom of vise body	0.030 100mm	0.020 100mm
7	Clamping surface of jaw palate perpendicular to vise bed, the angle always being less than 90	0.050 100mm	0.030 100mm
8	Top of rectangular test block clamped tightly by jaws parallel to bottom of swivel base	0.040 100mm	0.030 100mm

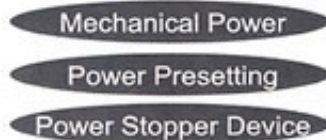


**SAFEWAY****ISO-9001:2000****LOCK-DOWN JAW MECHANICAL POWER VISE****Standard Accessories**

- 1.Handle x 1pc
- 2.Guide key x 2pcs
- M6 x 10L x 2pcs

Optional Accessories

- 1.Special application jaw plates
- 2.Swivel base (SBD-steel)
- 3.Swivel base (SB-cast iron)

**3 Function Built In One****SWIVEL BASE (STEEL)**

MODEL • 07813130 SBD-130 • 07813160 SBD-160 • 07813200 SBD-200

*HRC 45°~50°

**Standard Accessories**

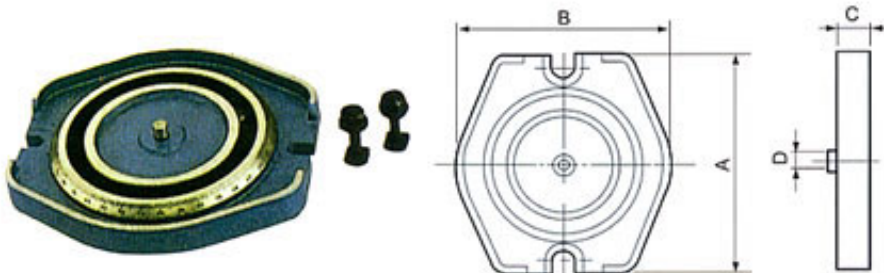
- 1.T-Bolts x 2pcs
- 2.5/8"nuts x 2pcs

Unit:mm

ORDER NO.	SBD	A	B	C	D	N.W
07813130	130	296	30	25	18	10.6kg
07813160	160	312	34	25	18	15.5kg
07813200	200	378	44	25	18	27.2kg

SWIVEL BASE (CAST IRON)

MODEL • 07804130 SB-130 • 07804160 SB-160 • 07804200 SB-200 • 07804250 SB-250

**Standard Accessories**

- 1.T-Bolts x 2pcs
- 2.5/8"nuts x 2pcs

Unit:mm

ORDER NO.	SB	A	B	C	D	N.W
07804130	130	290	260	34	16	9kg
07804160	160	340	320	39	16	15kg
07804200	200	400	360	46	18	23kg
07804250	250	460	420	50	18	32kg

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
07810130	PPV-130	505	190	130	170	127	55	72	163	95	290	106	180	250	160	715/940	590/815	260	105	220	125	15	16
07810160	PPV-160	625	240	160	205	140	58	82	179	105	340	125	208	300	196	770/1080	645/955	320	125	300	125	15	16
ORDER NO.	MODEL	X	Z	JAW OPENING POSITION I II III			LIMIT.CLAMP FORCE		N.W./G.W.		SHIPMENT SIZE		WEIGHT OF VISE WITH SWIVEL BASE		VISE WITH SWIVEL BASE		REMARK						
07810130	PPV-130	18	25	0-75/70-150/145-225			45KN(4410kgf)		36/38kg		645x260x185		46/55kg		690x360x270								
07810160	PPV-160	18	27	0-110/100-210/200-310			45KN(4410kgf)		56/58kg		730x260x190		72/82kg		750x430x290								



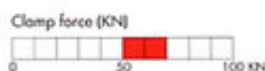
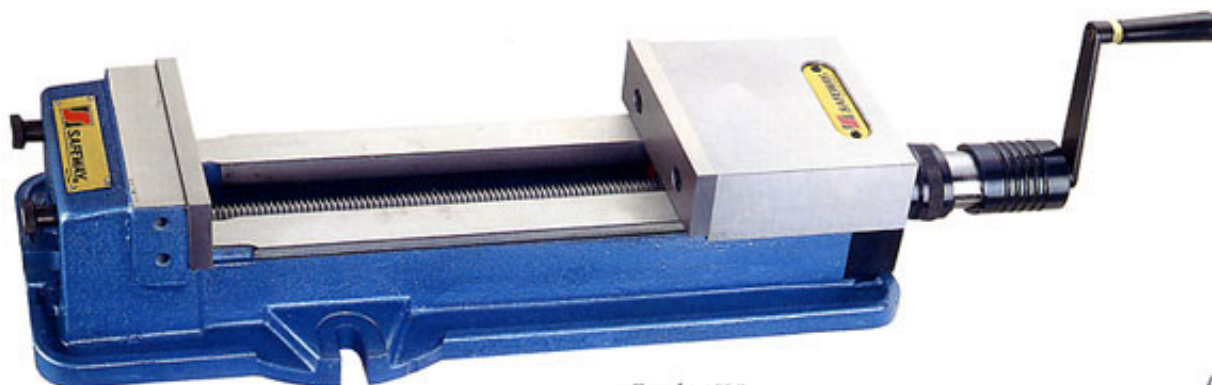
SAFEWAY

ISO-9001:2000



MOST SUITABLE FOR MILLING MACHINE

MODEL ● 07830160 PLV-160 ● 07830200 PLV-200
 ● 07830250 PLV-250 (Hydraulic)

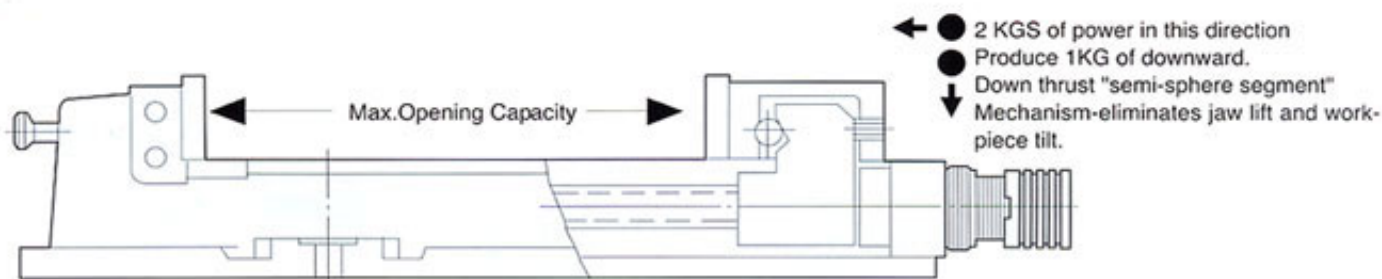


PATENTED

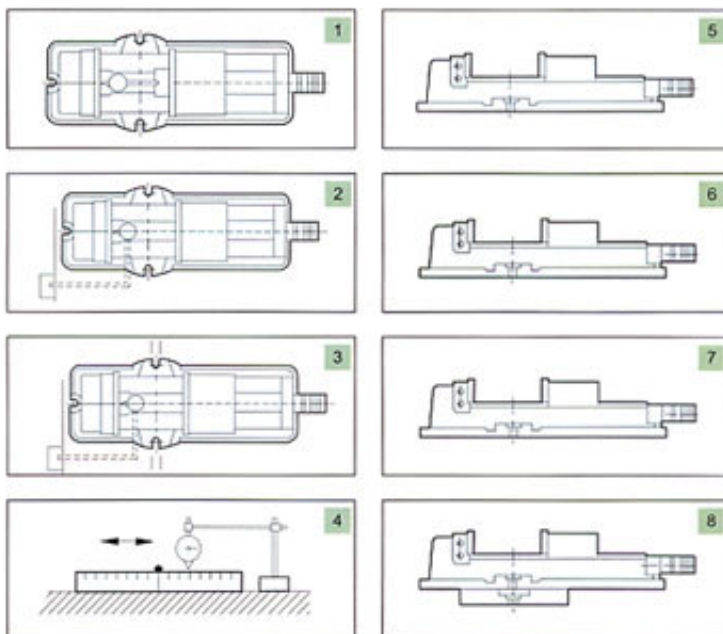


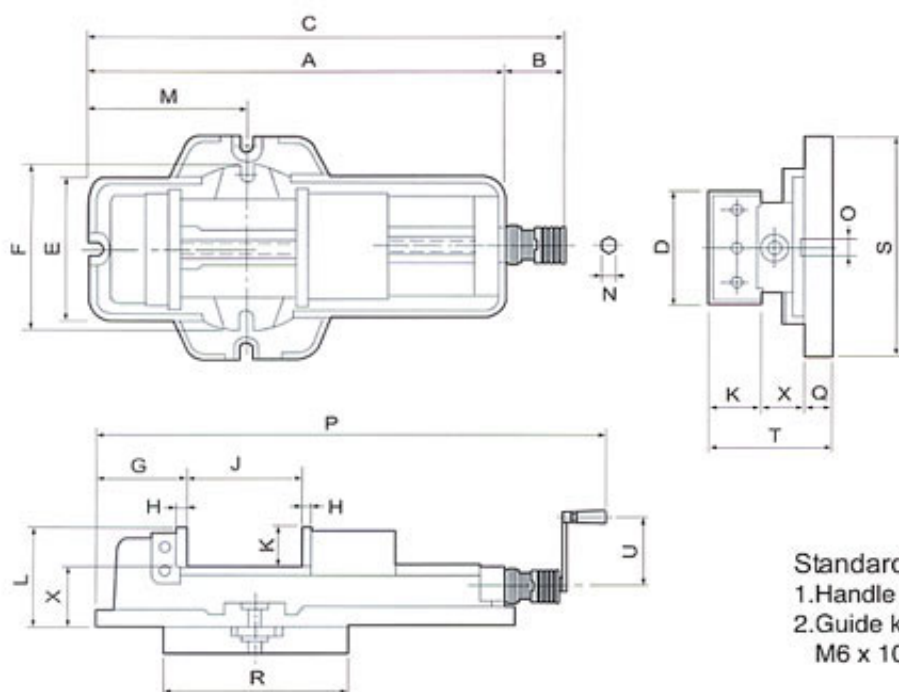
FEATURES:

1. Mechanical/hydraulic spindle without original clutch mechanism.
2. Clamping system: mechanical/hydraulic.
3. Rigid material- Ductile iron FCD60 JIS (equal to GGG 60) with 60 kgs/mm² or 80,000 psi tensile strength.
4. Down thrust "semi-sphere segment" mechanism-eliminates jaw lift and work tilt.
5. Vise bed flame hardened to HRC45° and up takes up wear and maintain accuracy for long.
6. Max. opening capacity particularly suitable large workpiece.



NO	ITEM	JIS grade1	GUARANTEED
1	Both jaw plate parallel	0.020 100mm	0.020 100mm
2	Keyways on bottom of vise bed square to clamping surface of jaw plate.	0.020 100mm	0.015 100mm
3	Keyways on bottom of vise bed Parallel to clamping surface of jaw plate.	0.020 100mm	0.015 100mm
4	Swivel base parallel	0.020 100mm	0.015 100mm
5	Surface of vise bed parallel to bottom of vise body.	0.020 100mm	0.010 100mm
6	Top of rectangular test block clamped tightly by jaw parallel to bottom of vise body	0.030 100mm	0.020 100mm
7	Clamping surface of jaw palate perpendicular to vise bed, the angle always being less than 90	0.050 100mm	0.030 100mm
8	Top of rectangular test block clamped tightly by jaws parallel to bottom of swivel base	0.040 100mm	0.030 100mm



**SAFEWAY****ISO-9001:2000****LOCK-DOWN JAW MECHANICAL / HYDRAULIC MACHINE VISE****Standard Accessories**

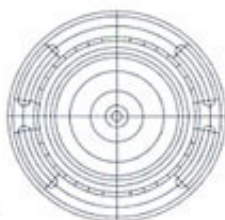
- 1.Handle x 1pc
- 2.Guide key x 2pcs
M6 x 10L x 2pcs

Optional Accessories

- 1.Special application jaw plates
- 2.Swivel base (SBD-steel)
- 3.Swivel base (SB-cast iron)

SWIVEL BASE (STEEL)

MODEL • 07813130 SBD-130 • 07813160 SBD-160 • 07813200 SBD-200

***HARDENED****Standard Accessories**

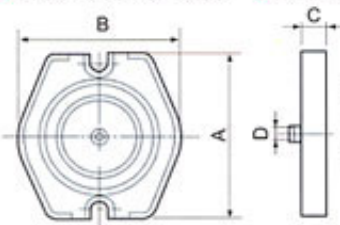
- 1.T-Bolts x 2pcs
- 2.5/8"nuts x 2pcs

Unit:mm

ORDER NO.	SBD	A	B	C	D	N.W
07813130	130	296	30	25	18	10.6kg
07813160	160	312	34	25	18	15.5kg
07813200	200	378	44	25	18	27.2kg

SWIVEL BASE (CAST IRON)

MODEL • 07804160 SB-160 • 07804200 SB-200 • 07804250 SB-250

**Standard Accessories**

- 1.T-Bolts x 2pcs
- 2.5/8"nuts x 2pcs

Unit:mm

ORDER NO.	SB	A	B	C	D	N.W
07804130	130	290	260	34	16	9kg
07804160	160	340	320	39	16	15kg
07804200	200	400	360	46	18	23kg
07804250	250	460	420	50	18	32kg

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
07830160	PLV-160	625	150	775	160	205	240	125	15	0-335	58	140	208	14	16	845	39
07830200	PLV-200	700	150	850	200	240	280	150	18	0-360	63	163	265	14	18	915	46
07830250	PLV-250	810	150	960	250	290	320	180	21	0-380	80	190	320	14	18	1020	50

ORDER NO.	MODEL	R	S	T	U	PRESSURE	N.W./G.W.	SHIPMENT SIZE	N.W./G.W.	WITH SWIVEL	REMARK
07830160	PLV-160	320	340	179	125	52KN(5096kgf)	57/70kg	900x330x250	72/85kg	900x430x290	
07830200	PLV-200	365	400	205	125	62KN(6076kgf)	90/102kg	1010x380x280	113/130kg	1010x520x310	
07830250	PLV-250	420	460	238	125	67KN(6566kgf)	140/160kg	1110x450x300	172/200kg	1110x560x350	



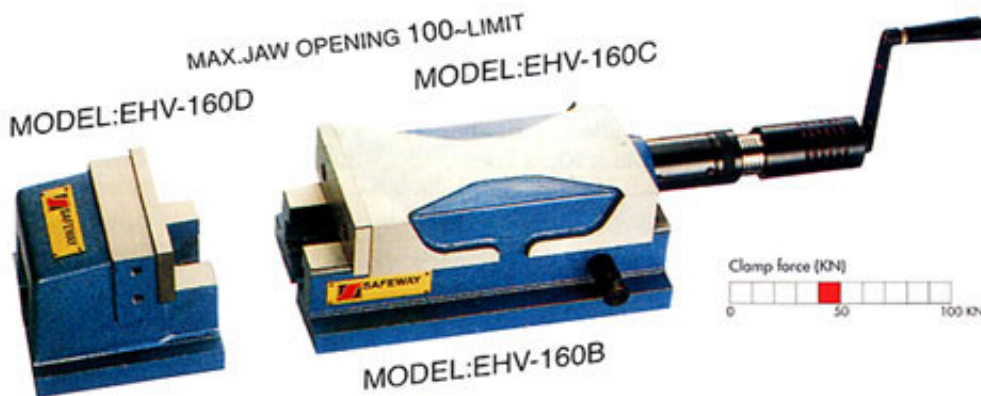
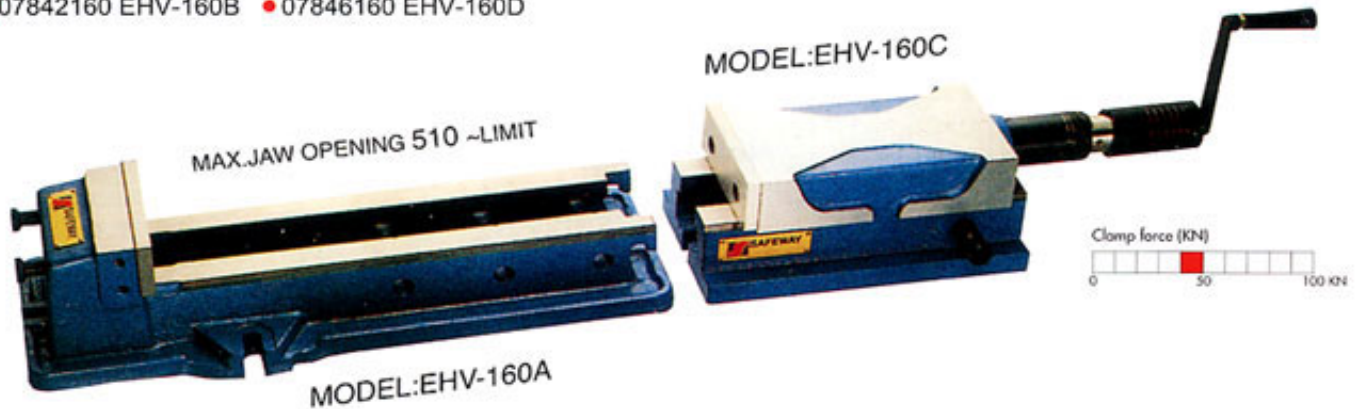
SAFEWAY

ISO-9001:2000



EXTENSION LOCK-DOWN JAW MECHANICAL / HYDRAULIC MACHINE VISE

MODEL ● 07840160 EHV-160A ● 07844160 EHV-160C
 ● 07842160 EHV-160B ● 07846160 EHV-160D

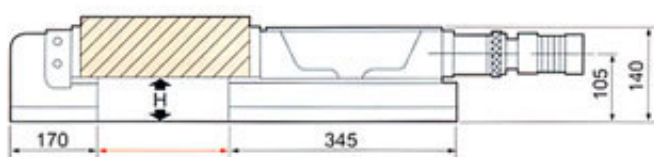
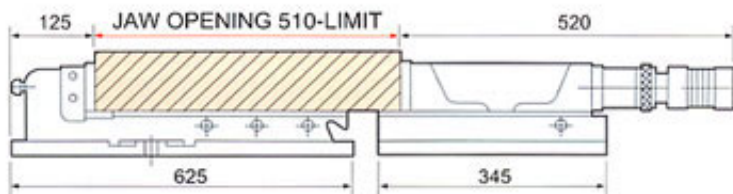
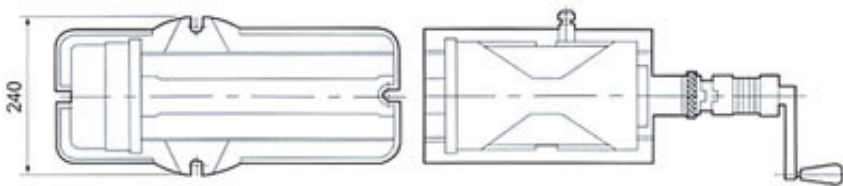


Standard Accessories

- 1.Handle x 1pc
- 2.Guide key x 4pcs
- M6 X 10L x 4pcs

Optional Accessories

- 1.Special application jaw plates (P47,48)



JAW OPENING 100-LIMIT (H=Same height)

FEATURES:

- 1.Mechanical/Hydraulic spindle without original clutch mechanism.
- 2.Clamping system:mechanical/hydraulic.
- 3.Both surface precision grinding.
- 4.Rigid material-vise body of ductile iron FD60JIS (Equal to GGG60) with 60 kgs/mm² or 80,000 psi tensile strength.
- 5.Down thrust "semi-sphere segment" mechanism-eliminates jaw lift and work tilt.
- 6.Vise bed flame hardened to HRC45° and up takes up wear and maintain accuracy for long.
- 7.Most suitable for large work-piece with 2 vise mounting.

Unit:mm

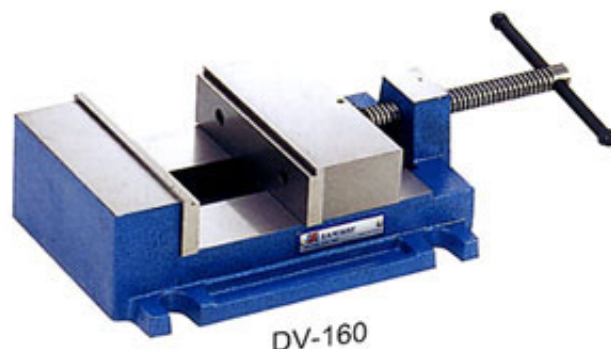
ORDER NO.	MODEL	JAW WIDTH	JAW HEIGHT	JAW OPENING	MAX.PRESSURE	LIMIT.PRESSURE	WEIGHT OF HEAD	WEIGHT OF MOVABLE JAW	LENGTH	WEIGHT	REMARK
07840160	EHV-160A	160	58	510-Limit	41KN(4108kgf)	52KN(5096kgf)	38kg	38kg	1155	76/90kg	
07842160	EHV-160B	160	58	100-Limit	41KN(4108kgf)	52KN(5096kgf)	38kg	15kg	790	53/65kg	

**SAFEWAY****ISO-9001:2000****HEAVY DUTY HIGH PRECISION DRILL PRESS VISE WITH LOCK DOWN JAW MECHANISM**

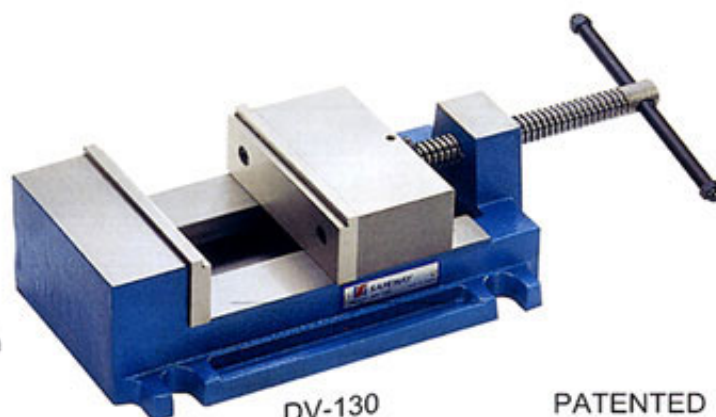
MODEL ● 07860100 DV-100
 ● 07860130 DV-130
 ● 07860160 DV-160



DV-100



DV-160



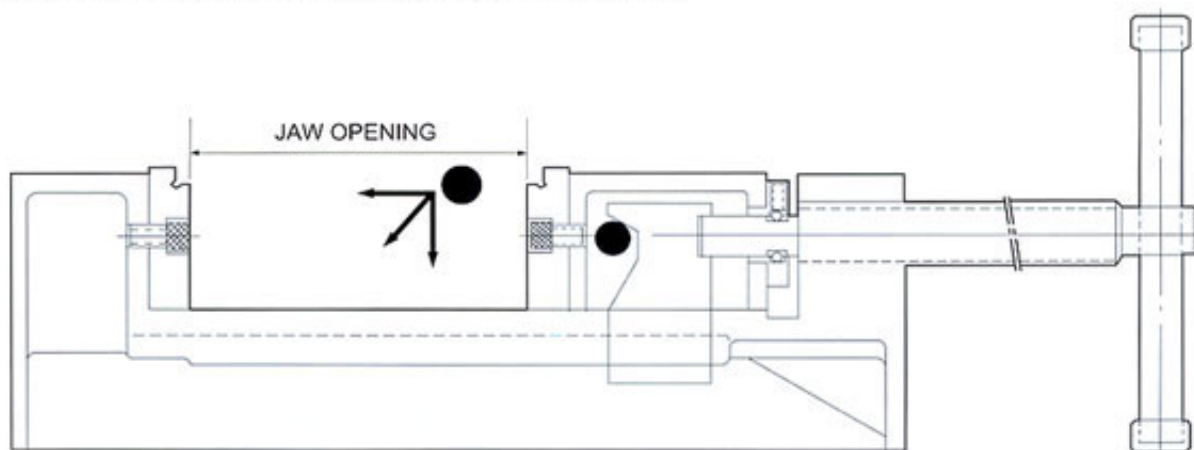
DV-130

PATENTED

Surface of vise bed parallel to bottom of vise body within 0.03m/m
 Jaw plate to sliding ways square within 0.03m/m.

FEATURES:

- 1.Lock down jaw mechanism, eliminates jaw lifting and work-piece titling.
- 2.High tensile DUCTILE IRON (FCD45)
- 3.Vise bottom and sliding ways are precision grinding.
- 4.Step jaw plates are hardened to HRC52° and precision ground.
- 5.Precision lead screw supported by steel balls design for smoother.



Unit:mm

ORDER NO.	MODEL	JAW WIDTH	JAW HEIGHT	JAW OPENING	N.W.	G.W.	SHIPMENT SIZE	REMARK
07860100	DV-100(4")	43	100	90/100	6.0kg	6.2kg	310x150x85	
07860130	DV-130(5")	44	130	100/110	8.2kg	8.4kg	327x188x94	
07860160	DV-160(6")	44	160	105/115	10.1kg	10.4kg	340x224x100	



SAFEWAY

ISO-9001:2000



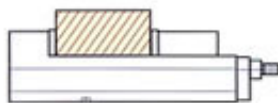
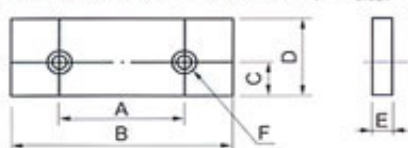
SPECIAL APPLICATION JAW PLATES

Unit:mm

(HARDENED HRC55°~58°)

PJ-100S,130S,160S,200S,250S

PJ-100V,130V,160V,200V,250V (E=0.02)

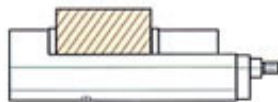
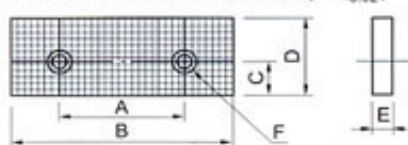


	07888002	07888006	07888010	07888014	07888018
PJ	100	130	160	200	250
A	60	90	90	120	160
B	100	130	160	200	250
C	22	25	25	28	35
D	48	55	58	63	80
E	15	15	15	18	21
F	M10x20L	M10x20L	M10x20L	M12x25L	M12x25L

(HARDENED HRC55°~58°)

RJ-100S,130S,160S,200S,250S

RJ-100V,130V,160V,200V,250V (E=0.02)

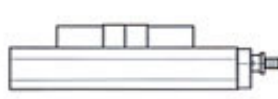


	07888022	07888026	07888030	07888034	07888038
RJ	100	130	160	200	250
A	60	90	90	120	160
B	100	130	160	200	250
C	22	25	25	28	35
D	48	55	58	63	80
E	15	15	15	18	21
F	M10x20L	M10x20L	M10x20L	M12x25L	M12x25L

(HARDENED HRC55°~58°)(FOR DAV)

PJ-1001,1301,1601,2001

PJ-1002,1302,1602,2002

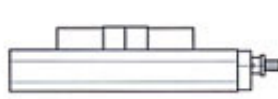
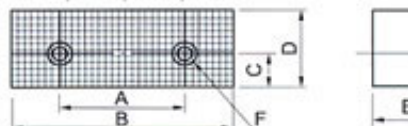


	07888132	07888136	07888140	07888144	07888148	07888152	07888156	07888160
PJ	1001	1301	1601	2001	1002	1302	1602	2002
A	60	90	90	120	60	90	90	120
B	100	130	160	200	100	130	160	200
C	22	25	25	28	22	25	25	28
D	48	55	58	63	63	73	73	102
E	48	48	48	63	48	48	48	63
F	M10x50L	M10x50L	M10x50L	M12x65L	M10x50L	M10x50L	M10x50L	M12x65L

(HARDENED HRC55°~58°)(DAV適用)

RJ-1003,1303,1603,2003

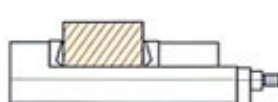
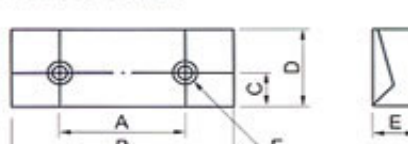
RJ-1004,1304,1604,2004



	07888164	07888168	07888172	07888176	07888180	07888184	07888188	07888192
RJ	1003	1303	1603	2003	1004	1304	1604	2004
A	60	90	90	120	60	90	90	120
B	100	130	160	200	100	130	160	200
C	22	25	25	28	22	25	25	28
D	48	55	58	63	63	73	73	102
E	48	48	48	63	48	48	48	63
F	M10x50L	M10x50L	M10x50L	M12x65L	M10x50L	M10x50L	M10x50L	M12x65L

(HARDENED HRC55°~58°)

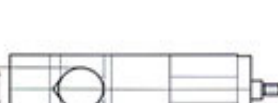
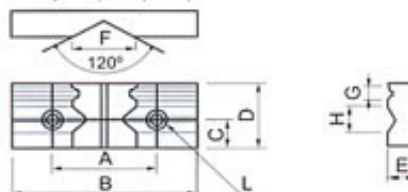
DJ-100,130,160,200



	07888042	07888044	07888046	07888048
DJ	130	160	200	250
A	90	90	120	160
B	130	160	200	250
C	25	25	28	35
D	55	58	65	80
E	32	32	32	40
F	M10x20L	M10x20L	M12x20L	M12x25L

(HARDENED HRC55°~58°)(?)

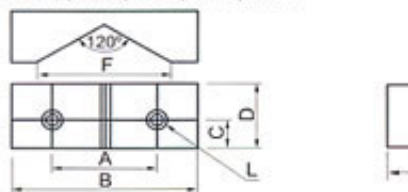
CJ-100,130,160,200,250



	07888050	07888052	07888054	07888056	07888058
CJ	100	130	160	200	250
A	60	90	90	120	160
B	100	130	160	200	250
C	22	25	25	28	35
D	48	55	58	63	80
E	24	24	30	36	36
F	55	55	55	70	70
G		12	12	12	12
H	25	25	25	30	30
L	M10x16L	M10x16L	M10x16L	M12x16L	M12x16L
Dia.	40-100	40-100	40-100	50-140	50-140

(HARDENED HRC55°~58°)(?)

CJ-1005,1305,1605,2005,2006



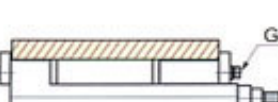
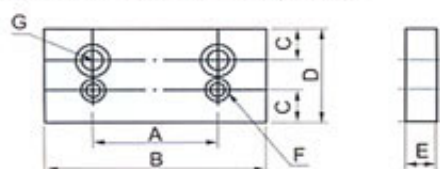
(FOR DAV, DBV)

	07888240	07888242	07888244	07888246	07888248
CJ	1005	1305	1605	2005	2006
A	60	90	90	120	120
B	100	130	160	200	200
C	22	25	25	28	28
D	48	55	58	63	63
E	42	48	48	48	63
F	94	120	120	120	184
G					
H					
L	M10x16L	M10x16L	M10x16L	M12x16L	M12x16L
Dia.	100-180	100-230	100-230	110-220	220-340

(HARDENED HRC55°~58°)

LJ-100S,130S,160S,200S

LJ-100V,130V,160V,200V (E=0.02)

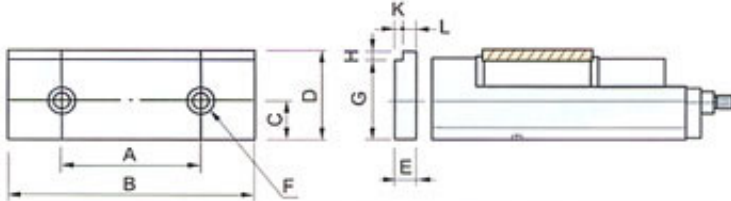


	07888060	07888064	07888068	07888072
LJ	100	130	160	200
A	60	90	90	120
B	100	130	160	200
C	22	25	25	28
D	63	69	73	88
E	21	23	23	30
F	M10x25L	M10x30L	M10x30L	M12x35L
G	M12x45L	M12x45L	M14x55L	M16x65L

**SAFEWAY****ISO-9001:2000****SPECIAL APPLICATION JAW PLATES**

Unit:mm

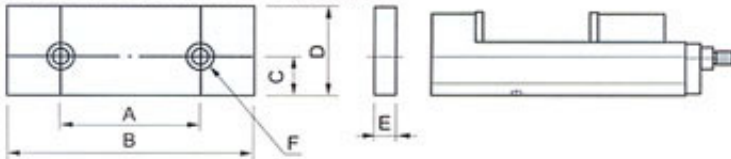
(HARDENED HRC55°~58°)
 SJ-100S,130S,160S,200S,250S
 SJ-100V,130V,160V,200V,250V(E,L,G= $\frac{0}{-0.02}$)



	07888076	07888080	07888084	07888088	07888090
SJ	100	130	160	200	250
A	60	90	90	120	160
B	100	130	160	200	250
C	22	25	25	28	35
D	48	55	58	63	80
E	15	15	15	18	21
F	M10x20L	M10x20L	M10x20L	M12x25L	M12x25L
G	43	50	53	58	75
H	5	5	5	5	10
K	5	5	5	5	5
L	10	10	10	13	18

SOFE JAW (WITHOUT HARDENED & GROUND)

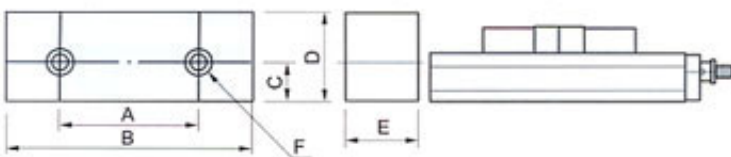
FJ-1001,1002,1003 FJ-1301,1302,1303
 FJ-1601,1602,1603 FJ-2001,2002,2003



	FJ	A	B	C	D		FJ	A	B	C	D
07888092	1001	60	100	22	48	07888104	1601	90	160	25	58
07888094	1002	60	100	22	63	07888106	1602	90	160	25	73
07888096	1003	60	100	22	73	07888108	1603	90	160	25	103
07888098	1301	90	130	25	55	07888110	2001	120	200	28	63
07888100	1302	90	130	25	73	07888112	2002	120	200	28	103
07888102	1303	90	130	25	103	07888114	2003	120	200	28	123

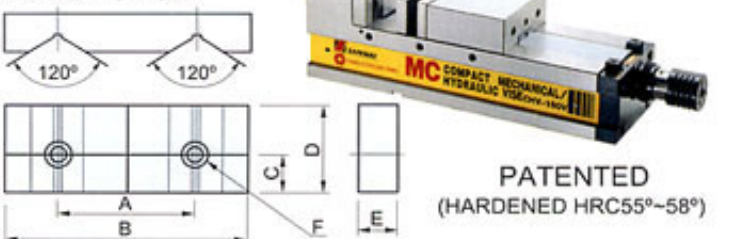
SOFE JAW (WITHOUT HARDENED & GROUND)

FJ-1004,1005 FJ-1304,1305 FJ-1604,1605 FJ-2004,2005



	FJ	A	B	C	D	E	F
07888116	1004	60	100	22	48	48	M10x20L
07888118	1005	60	100	22	63	48	M10x20L
07888120	1304	90	130	25	63	48	M10x20L
07888122	1305	90	130	25	73	48	M10x20L
07888124	1604	90	160	25	63	48	M10x20L
07888126	1605	90	160	25	73	48	M10x20L
07888128	2004	120	200	28	63	63	M12x25L
07888130	2005	120	200	28	102	63	M12x25L

DOUBLE V JAW
 VJ-100,130,160,200



PATENTED
 (HARDENED HRC55°~58°)

1Pc double v jaw + 1 set balance jaw plates it can be do 2 different size parts



1 Pc flat jaw plate +1set balance jaw plates it can be do 2 different clearance parts



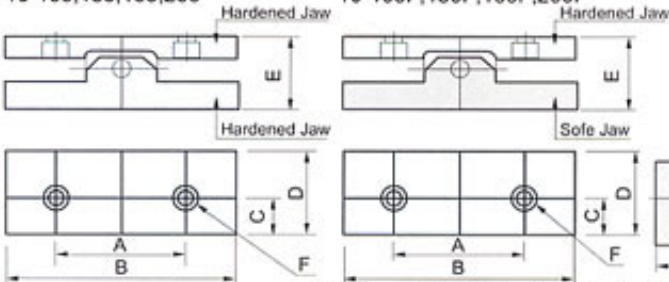
2Sets balance jaw plates (hardened)it can be do angle part



2 Set balance jaw plates (sofe) It can be do 2 irregular parts



BALANCE JAW
 (HARDENED HRC55°~58°)
 TJ-100,130,160,200

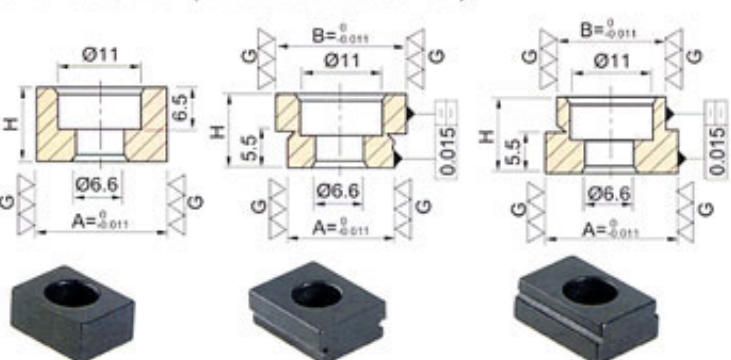


BALANCE JAW
 (SOFE JAW PLATE)
 TJ-100F,130F,160F,200F

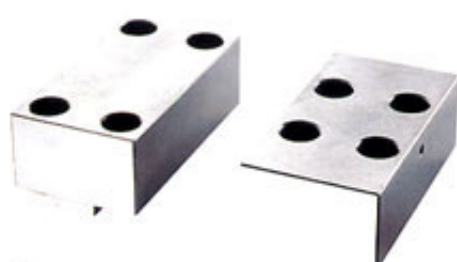
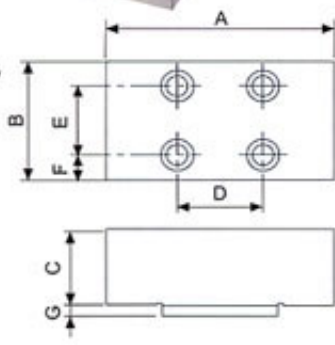
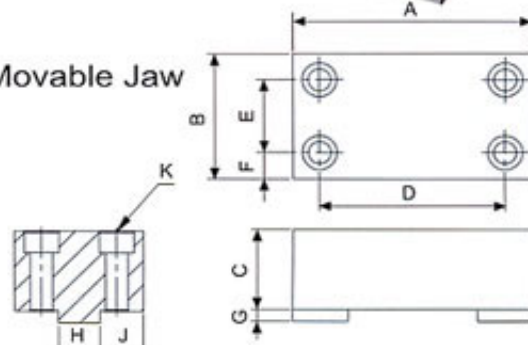
Sofo Jaw Plate Without Harden & Grinded.

		A	B	C	D	E	F	REMARK
07888200	VJ-100	60	100	22	48	24	M10x20L	ø10-65mm
07888202	VJ-130	90	130	25	55	24	M10x20L	ø10-65mm
07888204	VJ-160	90	160	25	58	24	M10x20L	ø10-65mm
07888206	VJ-200	120	200	28	63	30	M12x25L	ø25-85mm
07888210	TJ-100	60	100	22	48	48	M10x20L	18"
07888212	TJ-130	90	130	25	55	55	M10x20L	13"
07888214	TJ-160	90	160	25	58	58	M10x20L	11"
07888216	TJ-200	120	200	28	63	63	M12x25L	9"
07888220	TJ-100F	60	100	22	48	48	M10x25L	18"
07888222	TJ-130F	90	130	25	55	55	M10x20L	13"
07888224	TJ-160F	90	160	25	58	58	M10x20L	11"
07888226	TJ-200F	120	200	28	63	63	M12x25L	9"

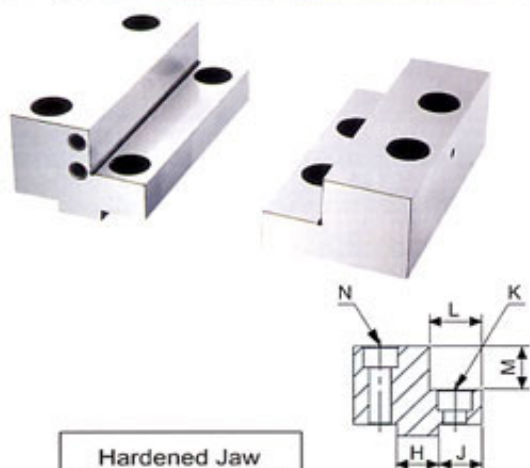
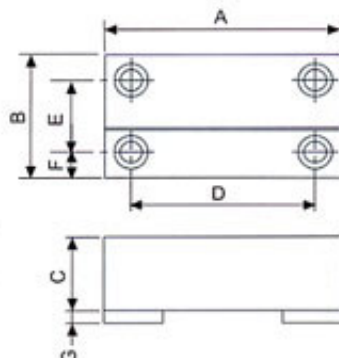
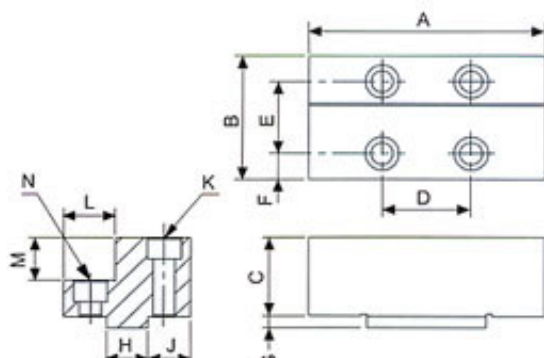
STEP GUIDE KEY (HARDENED HRC 55°~58°)



		A	B	H	L
07901612	KA16x12	16	12	10	25
07901614	KA16x14	16	14	10	25
07901618	KA16x18	16	18	10	25
07901620	KA16x20	16	20	10	25
07901622	KA16x22	16	22	10	25
07901812	KA18x12	18	12	10	25
07901814	KA18x14	18	14	10	25
07901816	KA18x16	18	16	10	25
07901820	KA18x20	18	20	10	25
07901822	KA18x22	18	22	10	25
07901212	KA12x12	12		8	22
07901414	KA14x14	14		10	22
07901616	KA16x16	16		10	22
07901818	KA18x18	18		10	22
07902020	KA20x20	20		10	22
07902222	KA22x22	22		12	25

**SAFEWAY****ISO-9001:2000****STATIONARY JAW. MOVABLE JAW. STEP JAW****Hardened Jaw (HRC 52°~55°)****Soft Jaw (Without grind)****Aluminum Jaw (Without grind)****Stationary Jaw****Movable Jaw**

Hardened Jaw HRC52°~55° Grind		Soft Jaw Without Grind		Aluminum Jaw															Unit:mm	
ORDER NO.	MODEL	ORDER NO.	MODEL	ORDER NO.	MODEL	A	B	C	D	E	F	G	H	J	K	N.W.	REMARK			
Stationary Jaw	10900100	MA-100A	10902100	MA-100B	10904100	MA-100C	100	78	45	74	44	14.5	7.5	18	23	M10x50L	3kg			
	10900130	MA-130A	10902130	MA-130B	10904130	MA-130C	130	83	52	95	45	16	8.5	24	25	M12x55L	4kg			
	10900160	MA-160A	10902160	MA-160B	10904160	MA-160C	160	86	55	124	50	18	8.5	28	29	M14x65L	6kg			
	10900200	MA-200A	10902200	MA-200B	10904200	MA-200C	200	100	60	150	62	19	9.5	28	34.5	M16x65L	9kg			
Movable Jaw	10910100	MB-100A	10912100	MB-100B	10914100	MB-100C	100	64	45	37	35	14.5	7.5	18	23	M10x50L	2.5kg			
	10910130	MB-130A	10912130	MB-130B	10914130	MB-130C	130	74	52	45	42	16	8.5	24	25	M12x55L	4.5kg			
	10910160	MB-160A	10912160	MB-160B	10914160	MB-160C	160	86	55	60	50	18	8.5	28	29	M14x65L	6kg			
	10910200	MB-200A	10912200	MB-200B	10914200	MB-200C	200	97	60	74	59	19	9.5	28	34.5	M16x70L	9kg			

**Step Jaw****Stationary Jaw****Movable Jaw**

Hardened Jaw HRC52°~55° Grind															Unit:mm	
ORDER NO.	MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	N.W.	REMARK
Stationary Jaw	10920100 MC-100A	100	78	45	74	44	19.5	7	18	27.5	M10x50L	32.5	25	M10x25L	2kg	
	10920130 MC-130A	130	83	52	95	45	16.5	8	24	27	M12x55L	35	30	M12x25L	3kg	
	10920160 MC-160A	160	86	55	124	50	18	8	28	29	M14x65L	35	30	M14x30L	4.2kg	
	10920200 MC-200A	200	100	60	150	62	19	9.5	28	36	M16x70L	38	30	M16x40L	7kg	
Movable Jaw	10930100 MD-100A	100	64	45	37	35	14.5	7.5	18	23	M10x50L	26	25	M10x25L	1.5kg	
	10930130 MD-130A	130	74	52	45	42	16	8.5	24	25	M12x55L	30	30	M12x25L	2.8kg	
	10930160 MD-160A	160	86	55	60	50	18	8.5	28	29	M14x65L	35	30	M14x30L	4.2kg	
	10930200 MD-200A	200	97	60	74	59	19	9.5	28	34.5	M16x70L	38	30	M16x40L	7kg	



SAFEWAY

ISO-9001:2000

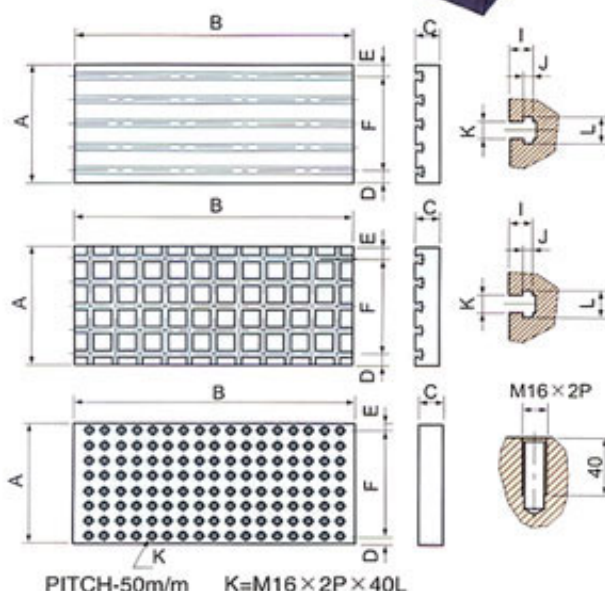


MC SUB TABLES



FEATURES:

1. Both ground & paralleled within 0.010/500mm
 2. Material: FCD-60 Ductile iron (High tensile casting)
 3. Annealing.
- * Please fill D.E.F.K. PITCH dimension of yourself.



MODEL ▲ST-300×600×70 · 500×1000×75 · 550×1200×75 · 700×1700×80
 ▲ST-350×800×75 · 510× 850×75 · 600×1200×75 · 800×2300×85
 ▲ST-400×950×75 · 510×1000×75 · 600×1500×80 · 850×2100×85
 ▲ST-410×900×75 · 510×1200×75 · 650×1600×80 · 850×2300×85
 ▲ST-450×900×75 · 510×1300×75 · 650×1700×80 · 900×2400×85

MODEL ▲SC-300×600×70 · 500×1000×75 · 550×1200×75 · 700×1700×80
 ▲SC-350×800×75 · 510× 850×75 · 600×1200×75 · 800×2300×85
 ▲SC-400×950×75 · 510×1000×75 · 600×1500×80 · 850×2100×85
 ▲SC-410×900×75 · 510×1200×75 · 650×1600×80 · 850×2300×85
 ▲SC-450×900×75 · 510×1300×75 · 650×1700×80 · 900×2400×85

MODEL ▲SH-300×600×70 · 500×1000×75 · 550×1200×75 · 700×1700×80
 ▲SH-350×800×75 · 510× 850×75 · 600×1200×75 · 800×2300×85
 ▲SH-400×950×75 · 510×1000×75 · 600×1500×80 · 850×2100×85
 ▲SH-410×900×75 · 510×1200×75 · 650×1600×80 · 850×2300×85
 ▲SH-450×900×75 · 510×1300×75 · 650×1700×80 · 900×2400×85
 ▲ST-340×510×30 · 340× 660×30 · 405× 600×35 · 405× 780×35
 ▲ST-495×720×40 · 495× 940×40

※ Accept Special Order T-SLOTS AS ISO

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	K	REMARK	ORDER NO.	MODEL	A	B	C	D	E	F	K	REMARK
07870002	ST-300×600×70	300	600	70						07872028	SC-650×1600×80	650	1600	80					
07870004	ST-350×800×75	350	800	75						07872030	SC-650×1700×80	650	1700	80					
07870006	ST-400×950×75	400	950	75						07872032	SC-700×1700×80	700	1700	80					
07870008	ST-410×900×75	410	900	75						07872034	SC-800×2300×85	800	2300	85					
07870010	ST-450×900×75	450	900	75						07872036	SC-850×2100×85	850	2100	85					
07870012	ST-500×1000×75	500	1000	75						07872038	SC-850×2300×85	850	2300	85					
07870014	ST-510×850×75	510	850	75						07872040	SC-900×2400×85	900	2400	85					
07870016	ST-510×1000×75	510	1000	75						07874002	SH-300×600×70	300	600	70					
07870018	ST-510×1200×75	510	1200	75						07874004	SH-350×800×75	350	800	75					
07870020	ST-510×1300×75	510	1300	75						07874006	SH-400×950×75	400	950	75					
07870022	ST-550×1200×75	550	1200	75						07874008	SH-410×900×75	410	900	75					
07870024	ST-600×1200×75	600	1200	75						07874010	SH-450×900×75	450	900	75					
07870026	ST-600×1500×80	600	1500	80						07874012	SH-500×1000×75	500	1000	75					
07870028	ST-650×1600×80	650	1600	80						07874014	SH-510×850×75	510	850	75					
07870030	ST-650×1700×80	650	1700	80						07874016	SH-510×1000×75	510	1000	75					
07870032	ST-700×1700×80	700	1700	80						07874018	SH-510×1200×75	510	1200	75					
07870034	ST-800×2300×85	800	2300	85						07874020	SH-510×1300×75	510	1300	75					
07870036	ST-850×2100×85	850	2100	85						07874022	SH-550×1200×75	550	1200	75					
07870038	ST-850×2300×85	850	2300	85						07874024	SH-600×1200×75	600	1200	75					
07870040	ST-900×2400×85	900	2400	85						07874026	SH-600×1500×80	600	1500	80					
07872002	SC-300×600×70	300	600	70						07874028	SH-650×1600×80	650	1600	80					
07872004	SC-350×800×75	350	800	75						07874030	SH-650×1700×80	650	1700	80					
07872006	SC-400×950×75	400	950	75						07874032	SH-700×1700×80	700	1700	80					
07872008	SC-410×900×75	410	900	75						07874034	SH-800×2300×85	800	2300	85					
07872010	SC-450×900×75	450	900	75						07874036	SH-850×2100×85	850	2100	85					
07872012	SC-500×1000×75	500	1000	75						07874038	SH-850×2300×85	850	2300	85					
07872014	SC-510×850×75	510	850	75						07874040	SH-700×2400×85	900	2400	85					
07872016	SC-510×1000×75	510	1000	75						07874042	SH-340×510×30	340	510	30					
07872018	SC-510×1200×75	510	1200	75						07874044	SH-340×660×30	340	660	30					
07872020	SC-510×1300×75	510	1300	75						07874046	SH-405×600×35	405	600	35					
07872022	SC-550×1200×75	550	1200	75						07874048	SH-405×780×35	405	780	35					
07872024	SC-600×1200×75	600	1200	75						07874050	SH-495×720×40	495	720	40					
07872026	SC-600×1500×80	600	1500	80						07874052	SH-495×940×40	495	940	40					

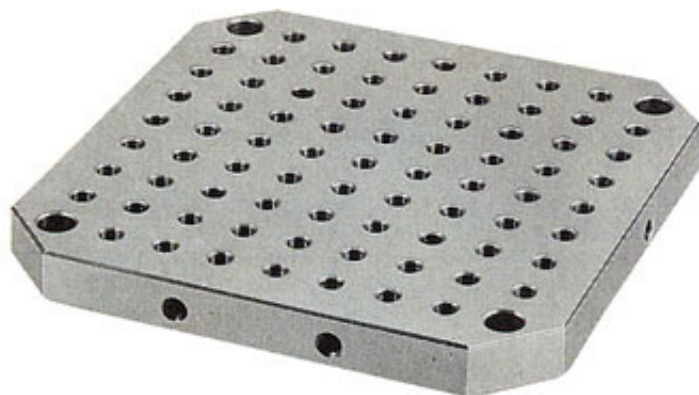


SAFEWAY

ISO-9001:2000



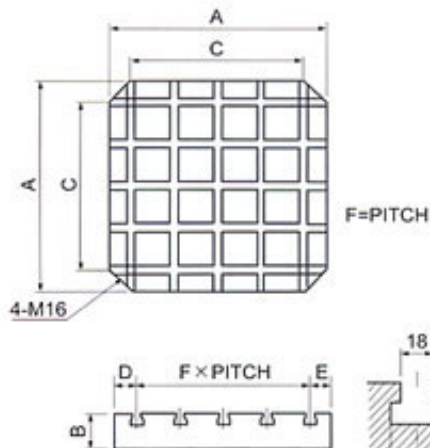
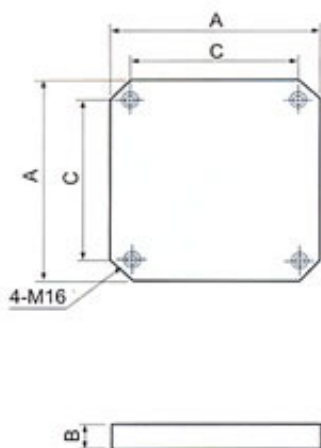
MC SUB TABLES



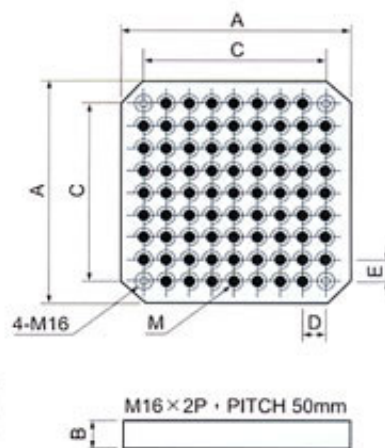
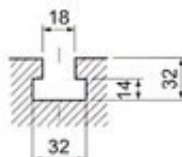
FEATURES:

1. Both ground & paralleled within 0.010/500mm
2. Material: FCD-60 Ductile iron (High tensile casting)
3. Annealing.

*Please fill D.E.F.K. PITCH dimension of yourself.



F=PITCH



MODEL:

- ▲07876002 SP-300×300×40
- ▲07876004 SP-400×400×40
- ▲07876006 SP-500×500×40
- ▲07876008 SP-600×600×45
- ▲07876010 SP-630×630×40

MODEL:

- ▲07878002 SL-400×400×70
- ▲07878004 SL-500×500×70
- ▲07878006 SL-630×630×70
- ▲07878008 SL-800×800×70

MODEL:

- ▲07880002 SM-300×300×40
- ▲07880004 SM-400×400×40
- ▲07880006 SM-500×500×40
- ▲07880008 SM-630×630×40
- ▲07880010 SM-600×600×45
- ▲07880012 SM-400×400×70
- ▲07880014 SM-500×500×70
- ▲07880016 SM-630×630×70
- ▲07880018 SM-800×800×70

※ Accept Special Order

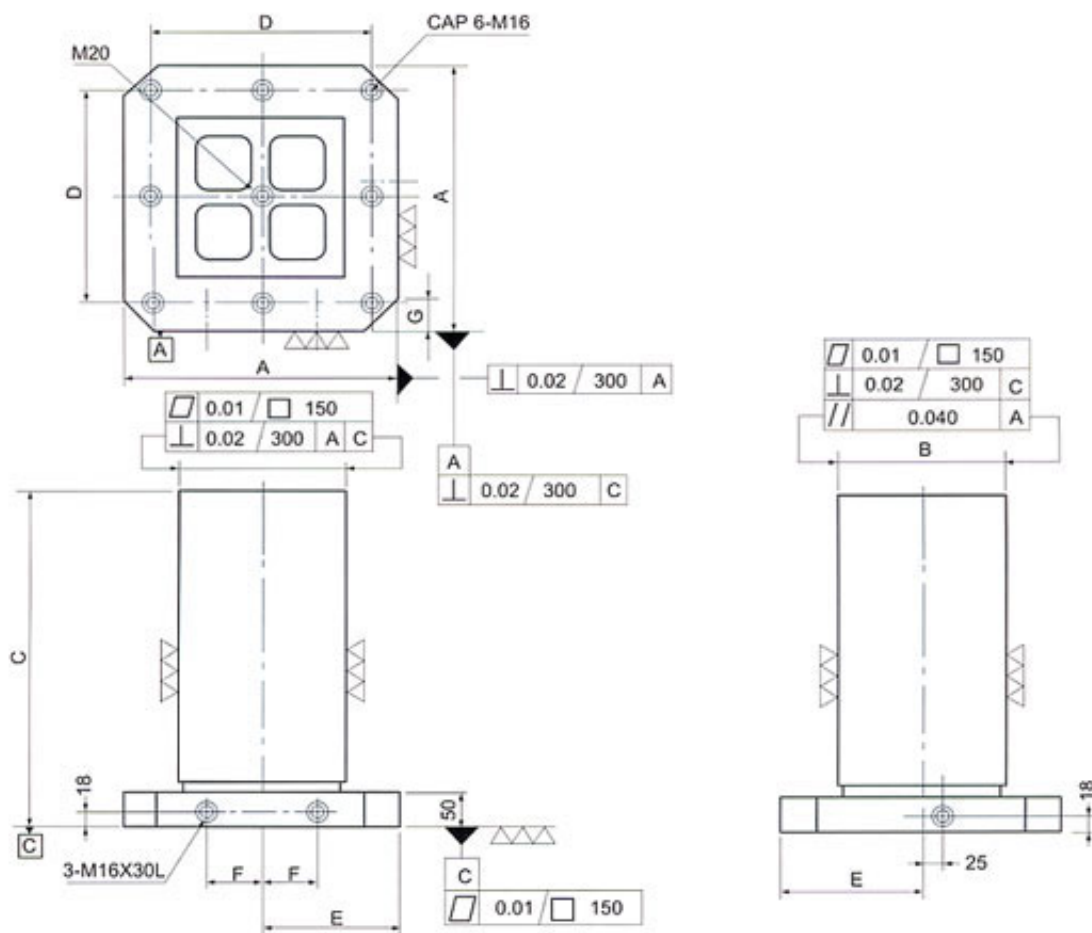
Unit:mm

ORDER NO.	MODEL	A	B	C	D	F	K	REMARK	ORDER NO.	MODEL	A	B	C	D	E	F	K	REMARK
07876002	SP-300×300×40	300	40	240					07880002	SM-300×300×40	300	40	240	50	50			
07876004	SP-400×400×40	400	40	300					07880004	SM-400×400×40	400	40	320	50	50			
07876006	SP-500×500×40	500	40	400					07880006	SM-500×500×40	500	40	400	50	50			
07876008	SP-600×600×45	600	45	500					07880008	SM-600×600×45	600	45	500	50	50			
07876010	SP-630×630×40	630	40	500					07880010	SM-630×630×40	630	40	500	50	50			
07878002	SL-400×400×70	400	70	300	50	100	18		07880012	SM-400×400×70	400	70	320	50	50			
07878004	SL-500×500×70	500	70	400	50	100	18		07880014	SM-500×500×70	500	70	400	50	50			
07878006	SL-630×630×70	630	70	500	65	100	18		07880016	SM-630×630×70	630	70	500	50	50			
07878008	SL-800×800×70	800	70	700	50	100	18		07880018	SM-800×800×70	800	70	700	50	50			

**SAFEWAY****ISO-9001:2000****MC TOOLING BLOCKS (4 FACE TYPE)**

ORDER NO.	MODEL
▲ 07882002	SJB-400 × 250 × 500B
▲ 07882004	SJB-500 × 300 × 600B
▲ 07882006	SJB-500 × 350 × 550B
▲ 07882008	SJB-630 × 350 × 700B
▲ 07882010	SJB-630 × 400 × 700B
▲ 07882012	SJB-630 × 500 × 700B
▲ 07882014	SJB-800 × 550 × 850B

FEATURES: 1.Material:FC300
 2.Heat-treatment-Annealing
 3.One piece casting of bed and column.



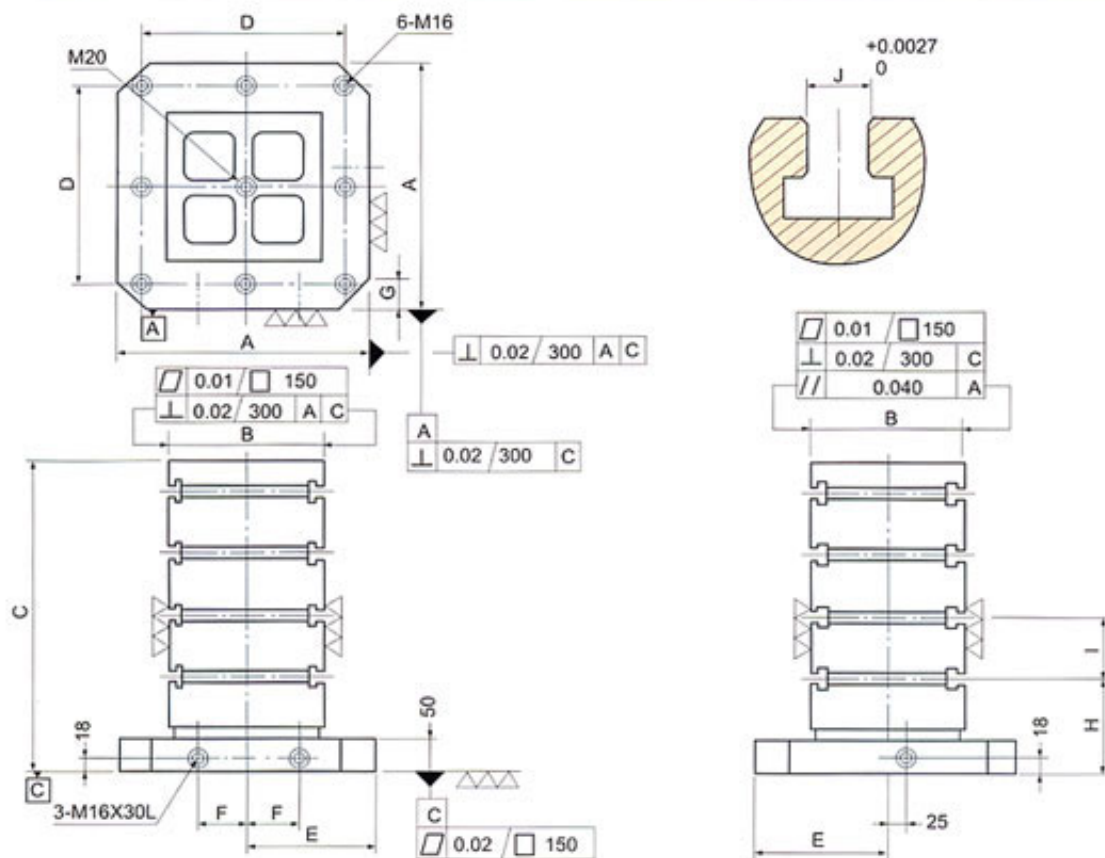
Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	N.W.	REMARK
07882002	SJB-400 × 250 × 500B	400	250	500	320	200	55	50	185kg	
07882004	SJB-500 × 300 × 600B	500	300	600	400	250	75	60	240kg	
07882006	SJB-500 × 350 × 550B	500	350	550	400	250	75	60	316kg	
07882008	SJB-630 × 350 × 700B	630	350	700	500	315	100	65	390kg	
07882010	SJB-630 × 400 × 700B	630	400	700	500	315	100	65	440kg	
07882012	SJB-630 × 500 × 700B	630	500	700	500	315	100	65	510kg	
07882014	SJB-800 × 550 × 850B	800	550	800	640	400	135	80	760kg	

**SAFEWAY****ISO-9001:2000****MC TOOLING BLOCKS (4 FACE TYPE-T-SLOTS)**

ORDER NO.	MODEL	ORDER NO.	MODEL
▲ 07884002	SJB-400×250×500T	▲ 07884202	SJB-400×250×500L
▲ 07884004	SJB-500×300×600T	▲ 07884204	SJB-500×300×600L
▲ 07884006	SJB-500×350×550T	▲ 07884206	SJB-500×350×550L
▲ 07884008	SJB-630×350×700T	▲ 07884208	SJB-630×350×700L
▲ 07884010	SJB-630×400×700T	▲ 07884210	SJB-630×400×700L
▲ 07884012	SJB-630×500×700T	▲ 07884212	SJB-630×500×700L
▲ 07884014	SJB-800×550×850T	▲ 07884214	SJB-800×550×850L

- FEATURES:**
1. Material: FC300
 2. Heat-treatment: Annealing
 3. One piece casting of bed and column.



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	N.W.	REMARK
07884002	SJB-400×250×500T	400	250	500	320	200	55	50	100	100x4	14	177kg	
07884004	SJB-500×300×600T	500	300	600	400	250	75	60	100	100x5	14	233kg	
07884006	SJB-500×350×550T	500	350	550	400	250	75	60	150	100x4	14	288kg	
07884008	SJB-630×350×700T	630	350	700	500	315	100	65	150	125x5	14	383kg	
07884010	SJB-630×400×700T	630	400	700	500	315	100	65	150	125x5	14	430kg	
07884012	SJB-630×500×700T	630	500	700	500	315	100	65	150	125x5	14	502kg	
07884014	SJB-800×550×850T	800	550	850	640	400	135	80	150	150x5	14	750kg	
07884202	SJB-400×250×500L	400	250	500	320	200	55	50	100	100x4	18	174kg	
07884204	SJB-500×300×600L	500	300	600	400	250	75	60	100	100x5	18	229kg	
07884206	SJB-500×350×550L	500	350	550	400	250	75	60	150	100x4	18	285kg	
07884208	SJB-630×350×700L	630	350	700	500	315	100	65	150	125x5	18	380kg	
07884210	SJB-630×400×700L	630	400	700	500	315	100	65	150	125x5	18	425kg	
07884212	SJB-630×500×700L	630	500	700	500	315	100	65	150	125x5	18	497kg	
07884214	SJB-800×550×850L	800	550	850	640	400	135	80	150	150x5	18	743kg	

**SAFEWAY****ISO-9001:2000****MC TOOLING BLOCKS (4 FACE TYPE-DRILLING & TAPPING)****ORDER NO.****MODEL**

▲ 07886002 SJB-400×250×500M
 ▲ 07886004 SJB-500×300×600M
 ▲ 07886006 SJB-500×350×550M
 ▲ 07886008 SJB-630×350×700M
 ▲ 07886010 SJB-630×400×700M
 ▲ 07886012 SJB-630×500×700M
 ▲ 07886014 SJB-800×550×850M

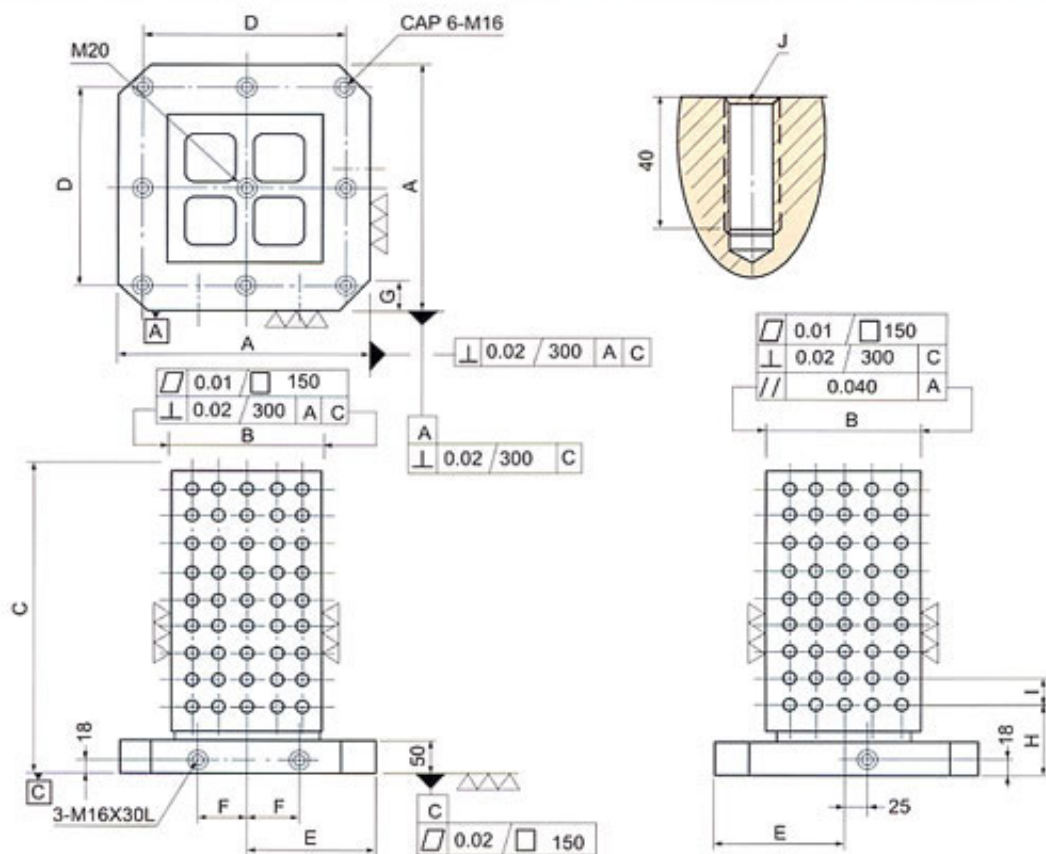
ORDER NO.**MODEL**

▲ 07886202 SJB-400×250×500H
 ▲ 07886204 SJB-500×300×600H
 ▲ 07886206 SJB-500×350×550H
 ▲ 07886208 SJB-630×350×700H
 ▲ 07886210 SJB-630×400×700H
 ▲ 07886212 SJB-630×500×700H
 ▲ 07886214 SJB-800×550×850H

FEATURES: 1.Material:FC300

2.Heat-treatment-Annealing

3.One piece casting of bed and column.



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	N.W.	REMARK
07886002	SJB-400×250×500M	400	250	500	320	200	55	50	125	50	M12-4x8x4	117kg	
07886004	SJB-500×300×600M	500	300	600	400	250	75	60	125	50	M12-5x10x4	294kg	
07886006	SJB-500×350×550M	500	350	550	400	250	75	60	125	50	M12-6x9x4	283kg	
07886008	SJB-630×350×700M	630	350	700	500	315	100	65	125	50	M12-6x12x4	377kg	
07886010	SJB-630×400×700M	630	400	700	500	315	100	65	125	50	M12-7x12x4	418kg	
07886012	SJB-630×500×700M	630	500	700	500	315	100	65	125	50	M12-9x12x4	488kg	
07886014	SJB-800×550×850M	800	550	850	640	400	135	80	125	50	M12-10x15x4	718kg	
07886202	SJB-400×250×500H	400	250	500	320	200	55	50	125	50	M16-4x8x4	173kg	
07886204	SJB-500×300×600H	500	300	600	400	250	75	60	125	50	M16-5x10x4	226kg	
07886206	SJB-500×350×550H	500	350	550	400	250	75	60	125	50	M16-6x9x4	308kg	
07886208	SJB-630×350×700H	630	350	700	500	315	100	65	125	50	M16-6x12x4	374kg	
07886210	SJB-630×400×700H	630	400	700	500	315	100	65	125	50	M16-7x12x4	414kg	
07886212	SJB-630×500×700H	630	500	700	500	315	100	65	125	50	M16-9x12x4	483kg	
07886214	SJB-800×550×850H	800	550	850	640	400	135	80	125	50	M16-10x15x4	708kg	



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ISO-9001:2000



MC TOOLING BLOCKS (2 FACE TYPE-DRILLING & TAPPING)

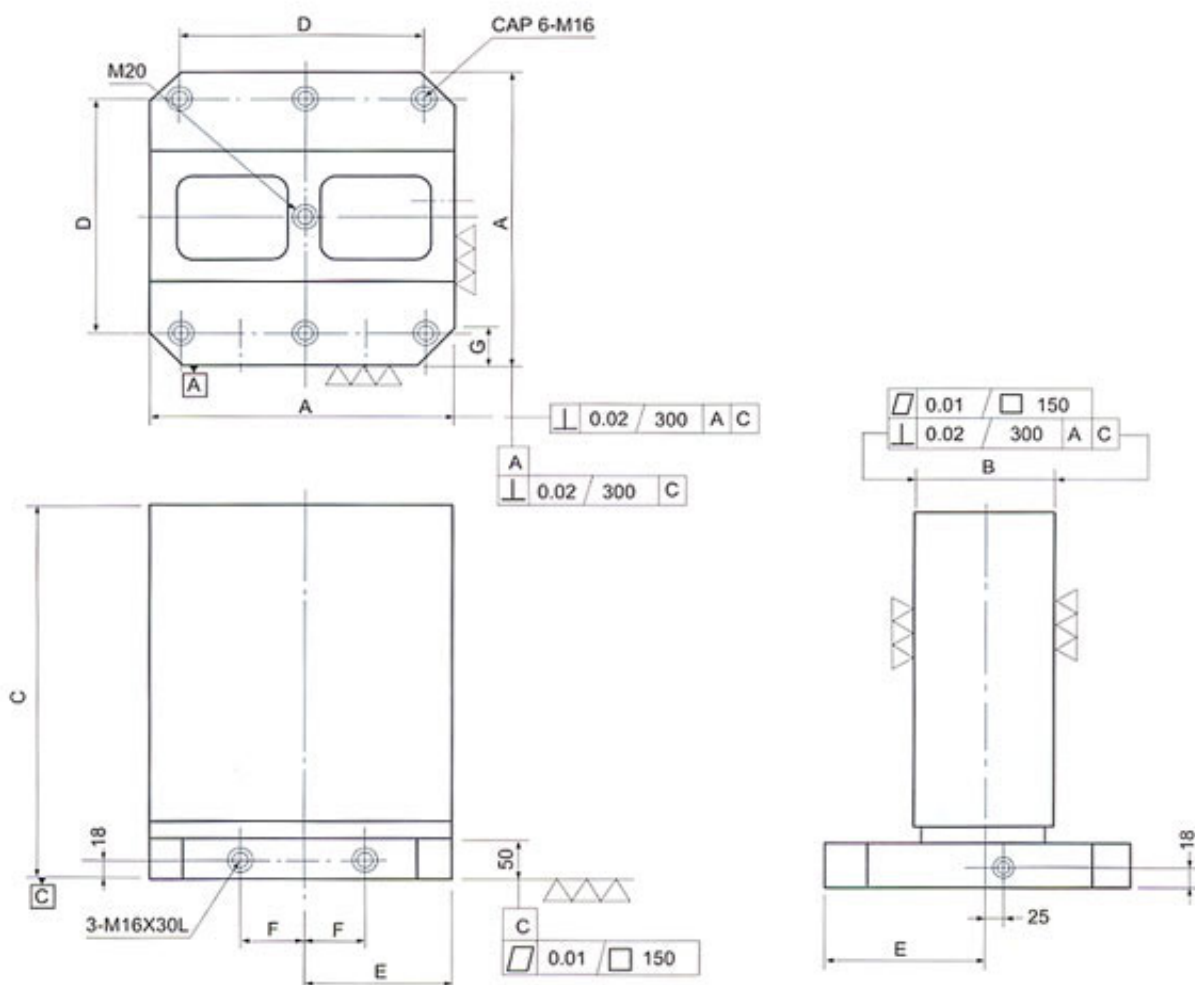


ORDER NO. MODEL

- ▲ 07886402 SJB-400×150×500P
- ▲ 07886404 SJB-500×200×600P
- ▲ 07886406 SJB-630×250×700P
- ▲ 07886408 SJB-800×300×800P

FEATURES:

1. Material: FC300
2. Heat-treatment: Annealing
3. One piece casting of bed and column.



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	N.W.	REMARK
07886402	SJB-400×150×500P	400	150	500	320	200	55	50	185kg	
07886404	SJB-500×200×600P	500	200	600	400	250	75	60	240kg	
07886406	SJB-630×250×700P	630	250	700	500	315	100	65	295kg	
07886408	SJB-800×300×800P	800	300	800	640	400	135	80	390kg	

**SAFEWAY****ISO-9001:2000****MC TOOLING BLOCKS (2 FACE T-SLOTS)****ORDER NO. MODEL**

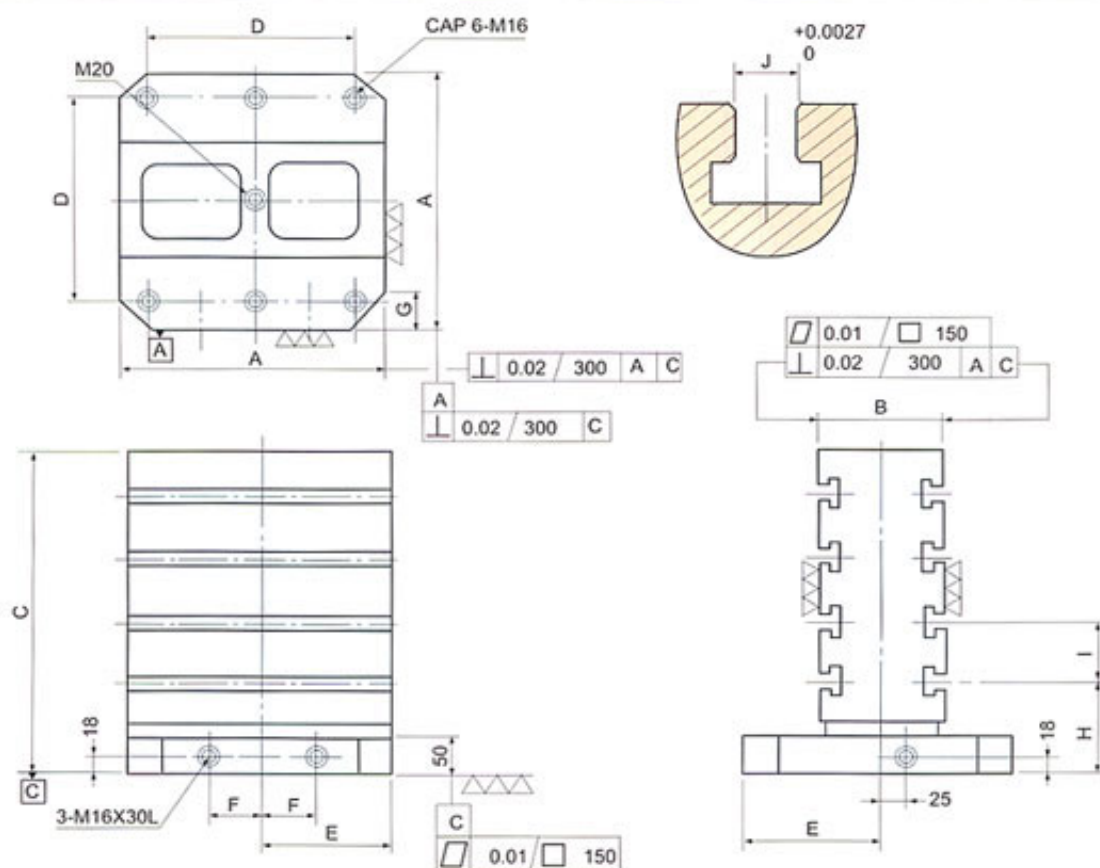
▲ 07886602	SJB-400×150×500R
▲ 07886604	SJB-500×200×600R
▲ 07886606	SJB-630×250×700R
▲ 07886608	SJB-800×300×800R

ORDER NO. MODEL

▲ 07886802	SJB-400×150×500S
▲ 07886804	SJB-500×200×600S
▲ 07886806	SJB-630×250×700S
▲ 07886808	SJB-800×300×800S

FEATURES:

1. Material: FC300
2. Heat-treatment: Annealing
3. One piece casting of bed and column.



													Unit:mm
ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	N.W.	REMARK
07886602	SJB-400×150×500R	400	150	500	320	200	55	50	100	100x4	14	165kg	
07886604	SJB-500×200×600R	500	200	600	400	250	75	60	100	100x5	14	242kg	
07886606	SJB-630×250×700R	630	250	700	500	315	100	65	150	125x5	14	458kg	
07886608	SJB-800×300×800R	800	300	800	640	400	135	80	150	150x5	14	718kg	
07886802	SJB-400×150×500S	400	150	500	320	200	55	50	100	100x4	18	164kg	
07886804	SJB-500×200×600S	500	200	600	400	250	75	60	100	100x5	18	240kg	
07886806	SJB-630×250×700S	630	250	700	500	315	100	65	150	125x5	18	453kg	
07886808	SJB-800×300×800S	800	300	800	640	400	135	80	150	150x5	18	708kg	



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ISO-9001:2000



MC TOOLING BLOCKS (2 FACE TYPE-DRILLING & TAPPING)

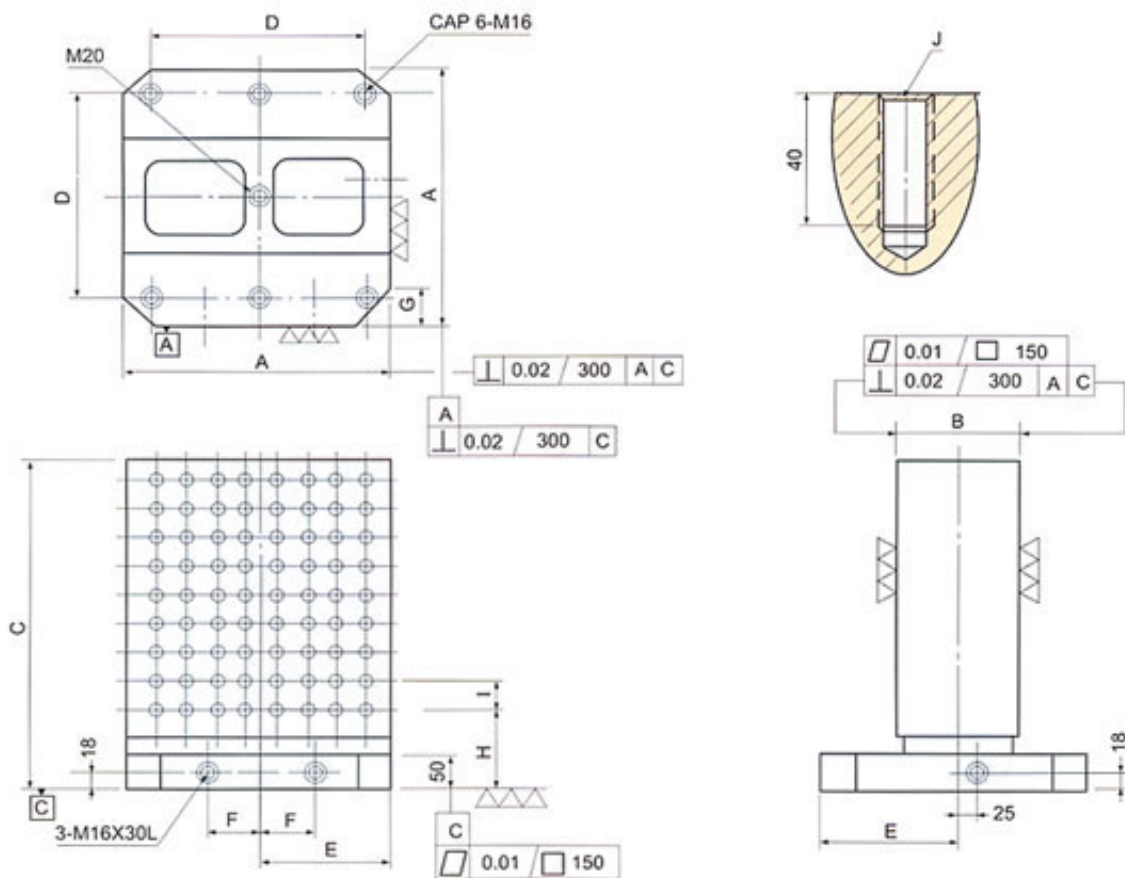


ORDER NO.	MODEL
▲ 07887002	SJB-400×150×500U
▲ 07887004	SJB-500×200×600U
▲ 07887006	SJB-630×250×700U
▲ 07887008	SJB-800×300×800U

ORDER NO.	MODEL
▲ 07887202	SJB-400×150×500V
▲ 07887204	SJB-500×200×600V
▲ 07887206	SJB-630×250×700V
▲ 07887208	SJB-800×300×800V

FEATURES:

1. Material: FC300
2. Heat-treatment: Annealing
3. One piece casting of bed and column.



Unit:mm

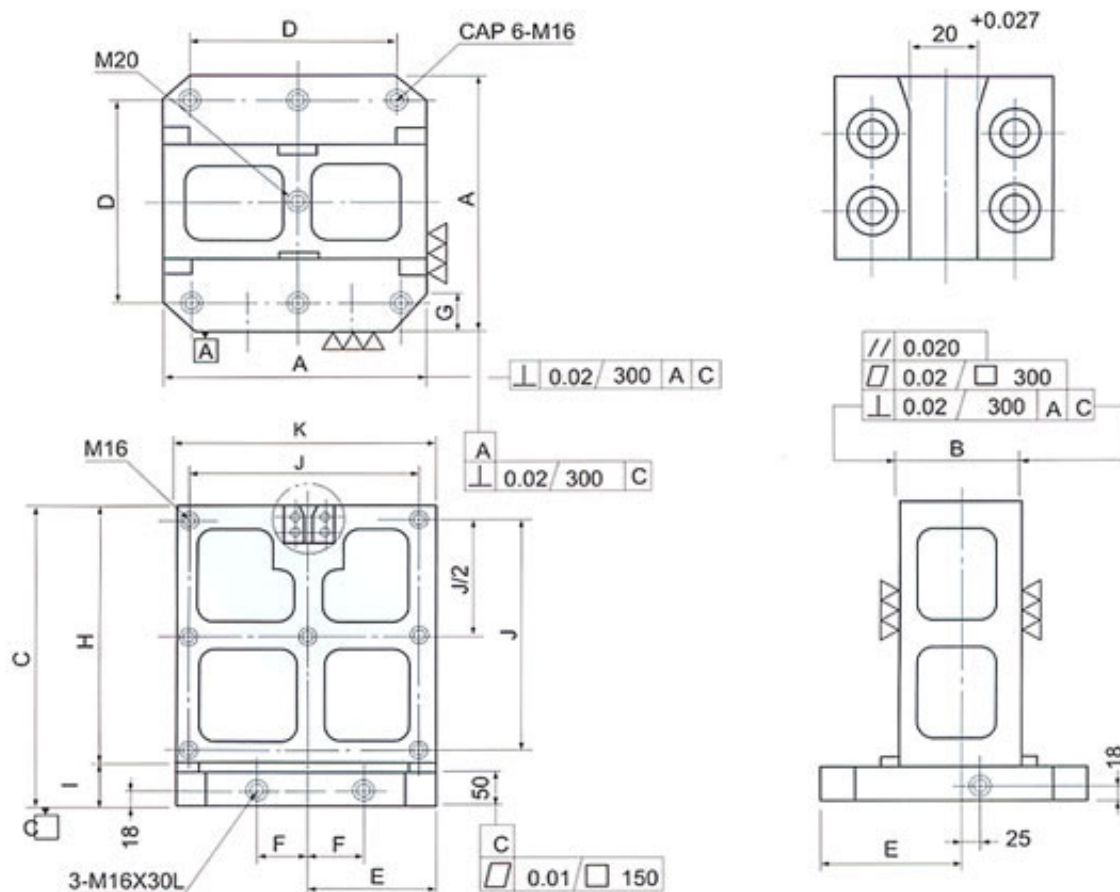
ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	N.W.	REMARK
07887002	SJB-400×150×500U	400	150	500	320	200	55	50	125	50	M12-7x8x2	98kg	
07887004	SJB-500×200×600U	500	200	600	400	250	75	60	125	50	M12-9x10x2	320kg	
07887006	SJB-630×250×700U	630	250	700	500	315	100	65	125	50	M12-11x12x2	266kg	
07887008	SJB-800×300×800U	800	300	800	640	400	135	80	125	50	M12-15x14x2	422kg	
07887202	SJB-400×150×500V	400	150	500	320	200	55	50	125	50	M16-7x8x2	96kg	
07887204	SJB-500×200×600V	500	200	600	400	250	75	60	125	50	M16-9x10x2	161kg	
07887206	SJB-630×250×700V	630	250	700	500	315	100	65	125	50	M16-11x12x2	263kg	
07887208	SJB-800×300×800V	800	300	800	640	400	135	80	125	50	M16-15x14x2	418kg	

**SAFEWAY****ISO-9001:2000****MC TOOLING BLOCKS (2 FACE FRAME BASE TYPE)****ORDER NO. MODEL**

- ▲ 07887402 SJB-400×100×470W
- ▲ 07887404 SJB-500×150×570W
- ▲ 07887406 SJB-630×200×700W
- ▲ 07887408 SJB-630×250×700W
- ▲ 07887410 SJB-800×250×870W

FEATURES:

1. Material: FC300
2. Heat-treatment: Annealing
3. One piece casting of bed and column.



Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	I	J	K	N.W.	REMARK
07887402	SJB-400×100×470W	400	100	470	320	200	55	50	400	70	350	400	98kg	
07887404	SJB-500×150×570W	500	150	570	400	250	75	60	500	70	450	500	215kg	
07887406	SJB-630×200×700W	630	200	700	500	315	100	65	630	70	580	630	270kg	
07887408	SJB-630×250×700W	630	250	700	500	315	100	65	630	70	580	800	450kg	
07887410	SJB-800×250×800W	800	250	870	640	400	135	80	800	70	750	800	590kg	



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ISO-9001:2000



MOST SUITABLE FOR TILT WORKING

MODEL • 07710130 TSB-130T • 07710160 TSB-160T
• 07710200 TSB-200T

MODEL • 07712100 TSB-100U • 07712130 TSB-130U
• 07712160 TSB-160U • 07712200 TSB-200U



0 ~ 45°



0 ~ 45°

0 ~ 360°

• Example A(0~45°)



The T slot on table could fasten the work piece to carry out 0° ~ 45° and 2 dimension angle machining.

• Example B(0~45°+0~360°)



This type can only be fitted with vise for 0° ~ 45° tilt adjustment. The vise can be tuned from 0° to 360° to perform 3 dimension angle work.

FEATURES:

1. The Universal Tilt Working Table is suitable for MC machining center, milling machine, EDM and other special machines to carry out tilt processing operation.
2. Slant degree is between 0° ~ 45°. Angle can be fine tuned with worm and worm gear.
3. Each fine-tuning scale equals 2 degree. The smallest scale is 60 seconds with another 1/60-second marks on the secondary scale.
4. The body is made of steel with high rigidity. Sliding surface is heat treatment and processed with fine grinding.
5. Once the tuning is fixed and properly fastened, heavy duty can be performed. There will be no loss of accuracy caused by heavy duty work.
6. This Universal Tilt Working Table can be categorized into two types:
 - A) Working table with T slot which can lock work piece for heavy duty machining (0° ~ 45° adjustable angle)
 - B) Working table which can be in-cooperated with vise for heavy duty machining (adjustable 0° ~ 45° working table and 0° ~ 360° vise rotary angle)



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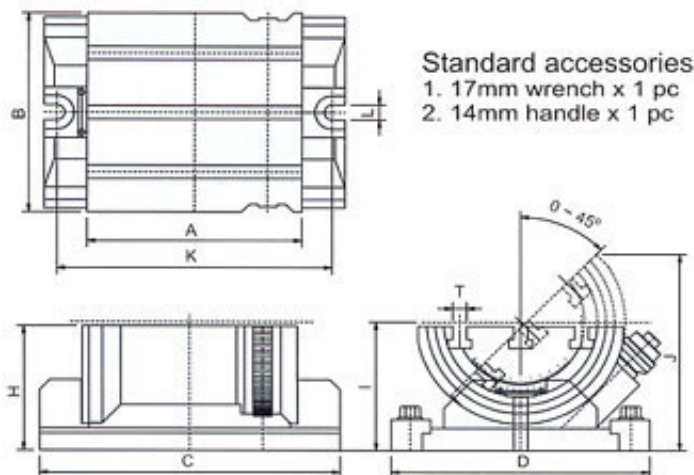
MC TILT TABLE (WHOLE STEEL)

OPERATION:

1. Use hex. head wrench to loose the fixed screw.	2. Adjust to the right angle by means of the handle and use angle scale (Fig. 4) and secondary scale (Fig. 3) to get the correct angle.	3. Angle scale (min. scale 1 degree and 1 second)
4. The secondary scale (2 degree for each round. Min. mark 1 second)	5. After the fine-tuning, use hex. wrench to fasten the fixed screws. It is now ready for heavy duty machining.	6. 0° ~ 360° adjustment. Insert vise into the slot and turn to the right angle to fasten the vise.

MODEL • 07710130 TSB-130T • 07710160 TSB-160T
• 07710200 TSB-200T

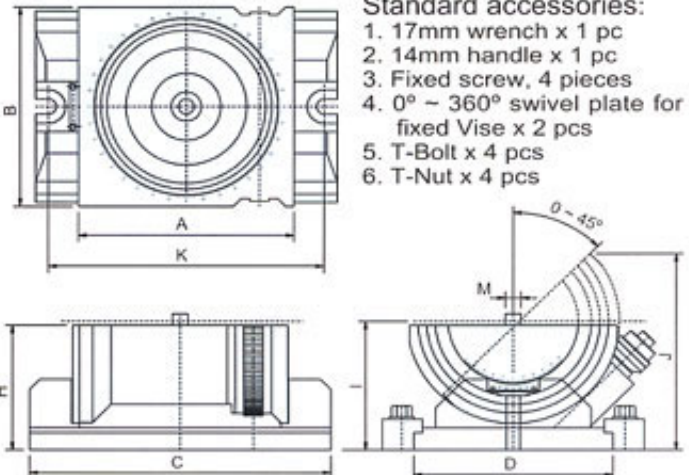
This model can fasten the work piece directly on to the working table and carry out 0° ~ 45° machining. It can in cooperated with vise which can't be adjusted within 0° ~ 360°.



Standard accessories
1. 17mm wrench x 1 pc
2. 14mm handle x 1 pc

MODEL • 07712100 TSB-100U • 07712130 TSB-130U
• 07712160 TSB-160U • 07712200 TSB-200U

This model must be fitted with vise made by Safeway. Working table can be tilted 0° ~ 45° degree and vise can be turned around 0° ~ 360° degree.



Standard accessories:

1. 17mm wrench x 1 pc
2. 14mm handle x 1 pc
3. Fixed screw, 4 pieces
4. 0° ~ 360° swivel plate for fixed Vise x 2 pcs
5. T-Bolt x 4 pcs
6. T-Nut x 4 pcs

Unit:mm

ORDER NO.	MODEL	A	B	C	D	H	I	J	K	L	T	TITLE ANGLE	N.W.	G.W.	SHIPMENT SIZE	REMARK
07712130	TSB-130T	200	196	300	180	122	127	192	270	18	18	0~45°	30kg			
07712160	TSB-160T	250	240	350	230	150	155	236	320	18	18	0~45°	55kg			
07712200	TSB-200T	290	280	410	255	174	179	274	370	18	18	0~45°	88kg	93.5kg	500x410x260	
ORDER NO.	MODEL	A	B	C	D	H	I	J	K	M	TITLE ANGLE	SWIVEL ANGLE	N.W.	G.W.	SHIPMENT SIZE	REMARK
07712100	TSB-100U	200	196	300	180	122	127	192	270	16	0~45°	0~360°	33kg			
07712130	TSB-130U	200	196	300	180	122	127	192	270	18	0~45°	0~360°	33kg			
07712160	TSB-160U	250	240	350	230	150	155	236	320	18	0~45°	0~360°	58kg			
07712200	TSB-200U	290	280	410	255	174	179	274	370	18	0~45°	0~360°	90kg	96kg	500x410x260	

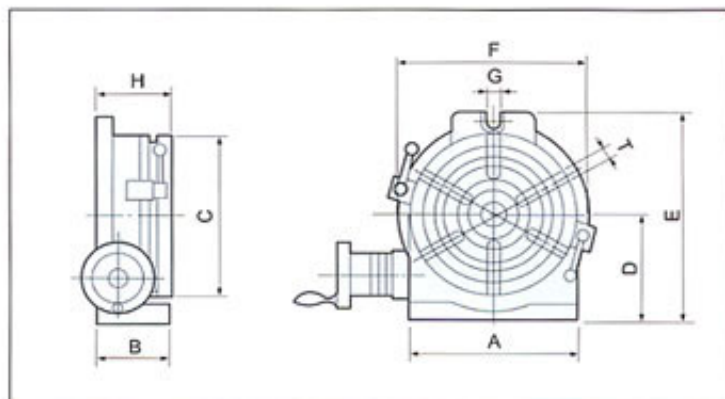
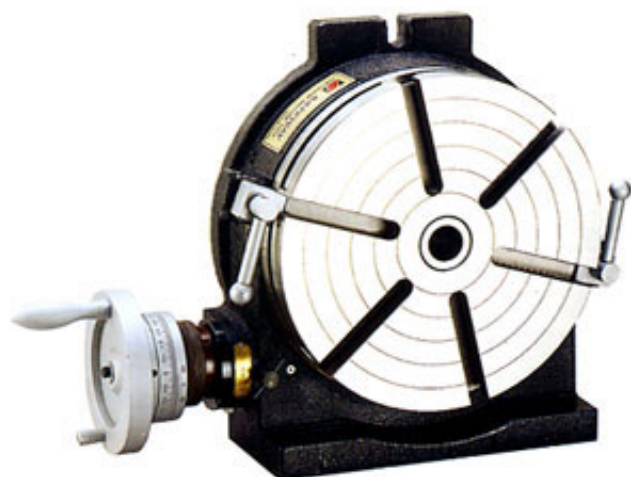
**SAFEWAY****ISO-9001:2000****HORIZONTAL / VERTICAL ROTARY TABLE**

MODEL	08100150	SHV-150	08100200	SHV-200
	08100250	SHV-250	08100300	SHV-300
	08100350	SHV-350	08100400	SHV-400

FEATURES:

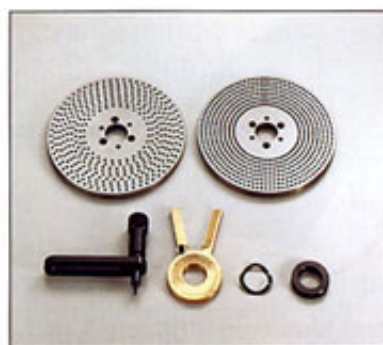
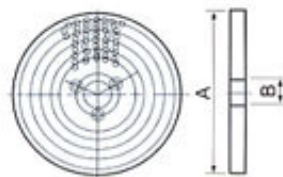
Tables are popular for their excellent performance, practical design and reasonable cost. They are widely used for circular cutting work, angle setting, boring, spot-facing and similar work in conjunction with a milling machine. These rotary tables are available in many sizes.

The worm gear can be quickly disengaged for rapid indexing.



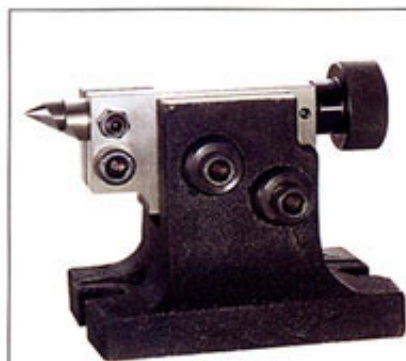
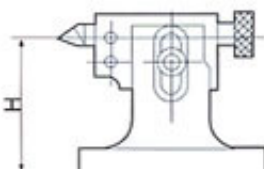
Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	T	TAPER	RATIO	N.W.	G.W.	SHIPMENT SIZE	REMARK
08100150	SHV-150	150	78	150	100	200	165	14	80	14	MT-2	1:90	13kg			
08100200	SHV-200	200	103	200	130	260	225	16	105	14	MT-3	1:90	32kg			
08100250	SHV-250	250	114	250	165	325	280	18	115	14	MT-4	1:90	38.5kg	45.5kg	455x410x270	
08100300	SHV-300	300	126	300	195	380	330	18	127	16	MT-4	1:90	58.5kg	67.5kg	520x465x270	
08100350	SHV-350	350	140	350	230	450	390	18	140	16	MT-4	1:90	85kg	98kg	585x530x270	
08100400	SHV-400	400	144	400	255	500	440	21	145	16	MT-5	1:90	111kg	127kg	640x580x280	

**DIVIDING PLATES**
(OPTIONAL ACCESSORIES)

ORDER NO.	MODEL	Number of holes	A	B	FOR
08106126	BE-3	15.16.17.18.19.20	126	28.8	SHV-150
08107126	BE-4	21.23.27.29.31.33	126	28.8	SHV-200
08108180	BE-5	37.39.41.43.47.49	180	28.8	SHV-250
08109180	BE-6	26.30.34.38.41.44.47.51.57	180	28.8	SHV-300
		28.32.37.39.43.46.49.53.59	180	28.8	SHV-350
		61.67.71.77.81.87.91.97	180	28.8	SHV-400
		63.69.73.79.83.89.93.99	180	28.8	

Unit:mm

**TAIL STOCK**
(OPTIONAL ACCESSORIES)**FEATURES:**

- 1.Rigid material casting iron FC300.
- 2.Heavy duty Machining Designed.
- 3.The Center Has been hardness HRC50°~52°

Unit:mm

ORDER NO.	MODEL	H	FOR
08102100	TS-100	90~110	SHV-150
08102130	TS-130	120~143	SHV-200
08102160	TS-160	150~170	SHV-250
08102230	TS-230	190~260	SHV-300.350.400

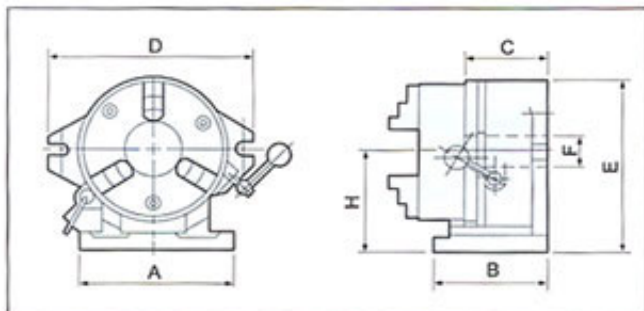
**SAFEWAY****ISO-9001:2000****SIMPLE INDEX SPACER**

MODEL ● 08110006 CC-6 (6")
 ● 08110008 CC-8 (7")
 ● 08110018 CC-8 (8")

**FEATURES:**

This Simple Index Spacer is to be mounted on milling machine, drill-ing machine and other machine tools for indexing during machining process. equipping CHUCK with big inside diameter, working range is up to 2 1/2" in diameter. Index Spacer can work horizontally and vertically. There is 24-Slots master plate inside Index Spacer, and other subplates in 2,3,4,6,8,12 slots as spare parts. The index process for the index number other than 24 is as follows:

1. Open rear cover.
2. Insert sub plate to master's.
3. Close the cover.
4. Loosen the lock handle at the right hand side.
5. Move pin handle at the left hand side to separate pin and master plate.
6. Turn the chuck until the slot of master and Sub plates aligned.
7. The pin will insert the slot automatically.
8. Fasten the lock handle.
9. The process is completed machining can then be started.

**Standard Accessories**

1. Master plates X 6pcs
(2,3,4,6,8,12)
2. Handle X 1pc.

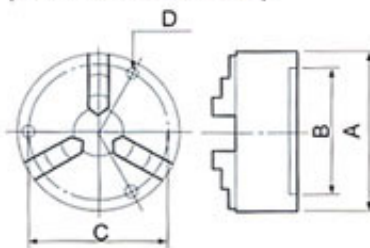
Optional Accessories

1. Scroll chuck
2. Tail Stock
3. Dividing plates
4. Dividing fork set.
5. Work table

Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	H	CHUCK	HOLE	N.W.	G.W.	SHIPMENT SIZE	REMARK
08110006	CC-6 (6")	188	115	84	254	225	50	130	6"	36				
08110008	CC-8 (7")	238	148	98	310	270	63	155	7"	63				
08110018	CC-8 (8")	238	148	98	310	270	63	155	8"	63				

Unit:mm

**TAIL STOCK
(OPTIONAL ACCESSORIES)****SCROLL CHUCK
(OPTIONAL ACCESSORIES)**

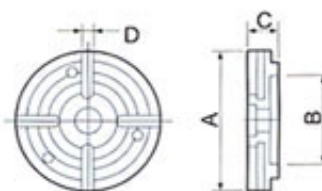
ORDER NO.	MODEL	A	B	C	D	REMARK
08130006	YK-6	160	130	145	M8	
08130007	YK-7	190	155	172	M10	
08130008	YK-8	200	165	180	M10	
08132006	SC-6	167	130	147	M10	
08132007	SC-7	192	155	172	M10	
08132008	SC-8	202	160	176	M10	
08134006	SK-6	167	130	147	M10	
08134007	SK-7	192	155	172	M10	
08134008	SK-8	202	160	176	M10	

FEATURES:

1. Rigid material casting iron FC300.
2. Heavy duty Machining Designed.
3. The Center Has been hardness HRC50°~52°.

Unit:mm

ORDER NO.	MODEL	N.W.	N.W.	FOR	REMARK
08102130	TS-130	120~143		CC-6	
08102160	TS-160	150~170		CC-8	

**WORK TABLE
(OPTIONAL ACCESSORIES)****FEATURES:**

1. MATERIAL: FC300
2. THE Table with T-Slots for heavy duty machining.

Unit:mm

ORDER NO.	MODEL	A	B	C	D	N.W.	REMARK
08106006	TA-6	204	130	39	14		CC-6(6")
08106007	TA-7	255	155	45	14		CC-8(7")
08106008	TA-8	255	160	45	14		CC-8(8")



SAFEWAY

ISO-9001:2000



SUPER INDEX SPACER

MODEL ●08120006 CS-6 (6")
 ●08120008 CS-8 (7")
 ●08120018 CS-8 (8")



FEATURES:

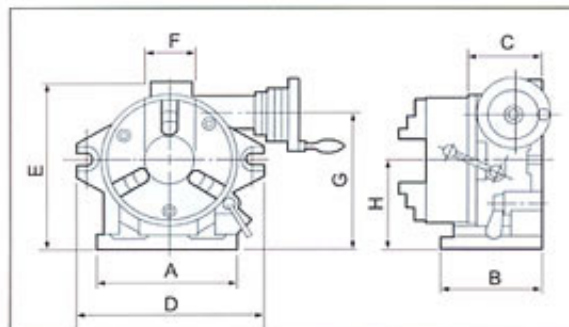
In addition to having all of the various functions of a Simple Index Spacer, the Super Index Spacer can be used as a Dividing Head or Rotary Table when it is equipped with Dividing Plate, Face Plate or 3--Jaw Chuck.

Standard Accessories

- 1.Master plates X 6pcs
(2,3,4,6,8,12)
- 2.handle X 1pc.

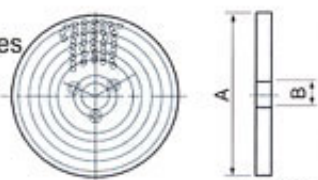
Optional Accessories

- 1.Scroll chuck
- 2.Tail Stock
- 3.Dividing plates
- 4.Dividing fork set.
- 5.Work plate



Optional Accessories

- 1.Dividing plate X 1pc
- 2.Dividing fork X 1set
- 3.Dividing arm X set



Unit:mm

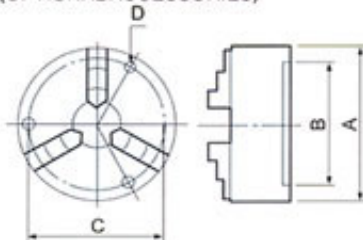
ORDER NO.	MODEL	A	B	C	Number of holes
08108180	BE-5	180	28.8	10.5	26.28.30.32.34.37.38.39.41.43.44.46.47.59.51.53.57.59
08109180	BE-6	180	28.8	10.5	61.63.67.69.71.73.77.79.81.83.87.89.91.93.97.99

ORDER NO.	MODEL	A	B	C	D	E	F	G	H	CHUCK	HOLE	N.W.	G.W.	SHIPMENT SIZE	REMARK
08120006	CS-6 (6")	188	150	113	250	246	50	198	130	6"	44				
08120008	CS-8 (7")	238	160	124	312	290	63	238	155	7"	63				
08120018	CS-8 (8")	235	160	124	312	290	63	238	155	8"	63				

TAIL STOCK (OPTIONAL ACCESSORIES)



SCROLL CHUCK (OPTIONAL ACCESSORIES)

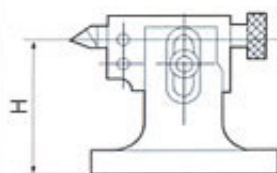


ORDER NO.	MODEL	A	B	C	D	REMARK
08130006	YK-6	160	130	145	M8	
08130007	YK-7	190	155	172	M10	
08130008	YK-8	200	165	180	M10	
08132006	SC-6	167	130	147	M10	
08132007	SC-7	192	155	172	M10	
08132008	SC-8	202	160	176	M10	
08134006	SK-6	167	130	147	M10	
08134007	SK-7	192	155	172	M10	
08134008	SK-8	202	160	176	M10	

FEATURES:

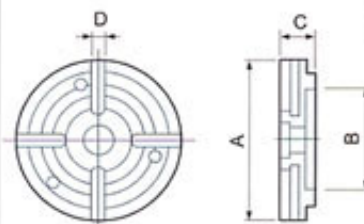
- 1.Rigid material casting iron FC300.
- 2.Heavy duty Machining Designed.
- 3.The Center Has been hardness HRC50°~52°.

Unit:mm



ORDER NO.	MODEL	H	G.W.	FOR	REMARK
08102130	TS-130	120~143		CS-6	
08102160	TS-160	150~170		CS-8	

WORK TABLE (OPTIONAL ACCESSORIES)



FEATURES:

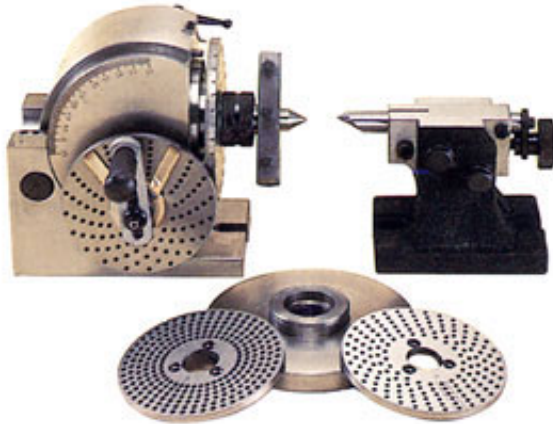
- 1.MATERIAL:FC300
- 2.The Table with T-Slots for heavy duty machining.

Unit:mm

ORDER NO.	MODEL	A	B	C	D	G.W.	REMARK
08106006	TA-6	204	130	39	14		CS-6(6")
08106007	TA-7	255	155	45	14		CS-8(7")
08106008	TA-8	255	160	45	14		CS-8(8")

**SAFEWAY****ISO-9001:2000****SEMI-UNIVERSAL CENTER (DIVIDING HEAD)**

MODEL ● 08140000 BS-0
 ● 08140001 BS-1

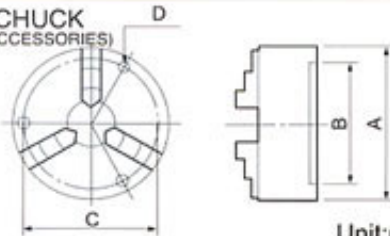
**FEATURES:**

Semi-Universal Index Center is a simplified type of Universal Index Center and can be used for direct and indirect dividing. No accessories for the differential dividing and spiral work are included, but the whole construction of the dividing head and tailstock are identical with those of the universal type.

The direct index plate of 24 holes allows the direct dividing in 2,3,4,6,8,12 and 24 and three plates in the standard accessories make the indirect dividing possible in any number from 2 to 50 and in certain numbers up to 380.

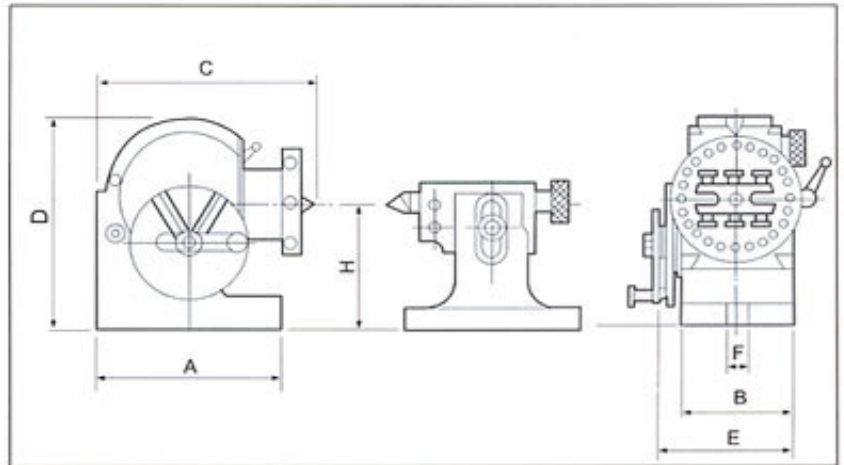
REMARK:

Operation and Service Manual"followed with each of Dividing Head for reference.

**SCROLL CHUCK
(OPTIONAL ACCESSORIES)**

Unit:mm

ORDER NO.	MODEL	A	B	C	FOR
08130004	YK-4	72	84	M8	BS-0
08130005	YK-5	100	115	M8	BS-0.1
08130006	YK-6	130	142	M8	BS-1
08132004	SC-4	80	95	M8	BS-0
08132005	SC-5	100	115	M8	BS-0.1
08132006	SC-6	130	142	M10	BS-1

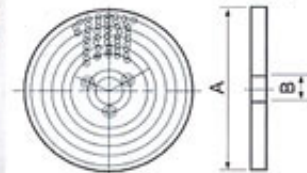


Unit:mm

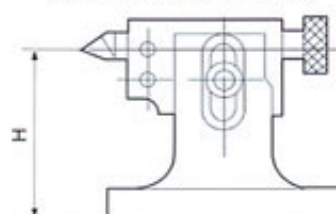
ORDER NO.	MODEL	A	B	C	D	E	F	H	TAPER	HOLE	N.W.	G.W.	SHIPMENT SIZE	REMARK
08140000	BS-0	160	90	188	172	140	18	100	BS-NO-7	18	22kg			
08140001	BS-1	207	114	292	219	156	18	128	BS-NO-9	20	36kg			

**DIVIDING PLATES
(STANDARD ACCESSORIES)**

BS-0,BE-1,2
 BS-1,BE-3,4



ORDER NO.	MODEL	Number of holes	A	B	FOR
08104100	BE-1	15.16.17.18.19.20	100	20.5	BS-0
08105100	BE-2	21.23.27.29.31.33	100	20.5	BS-0
08106126	BE-3	15.16.17.18.19.20	126	28.8	BS-0
08107126	BE-4	37.39.41.43.47.49	126	28.8	BS-1
08108180	BE-5	26.30.34.38.41.44.47.51.57	180	28.8	BS-1
08109180	BE-6	28.32.37.39.43.46.49.53.59	180	28.8	BS-1
		61.67.71.77.81.87.91.97	180	28.8	BS-1
		63.69.73.79.83.89.93.99	180	28.8	BS-1

**TAIL STOCK
(STANDARD ACCESSORIES)****FEATURES:**

- 1.Rigid material casting iron FC300.
- 2.Heavy duty Machining Designed.
- 3.The Center Has been hardness HRC50°~52°.

Unit:mm

ORDER NO.	MODEL	H	FOR	REMARK
08102100	TS-100	90-110	BS-0	
08102130	TS-130	120-143	BS-1	



SAFEWAY

ISO-9001:2000



UNIVERSAL INDEX CENTER (DIVIDING HEAD)

MODEL ●08140002 BS-2



FEATURES:

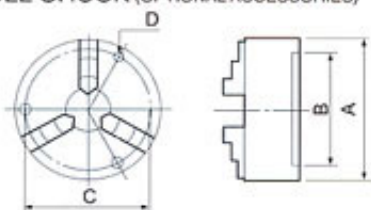
The Universal Index Center has been designed to carry out all types of gearcutting, precision dividing and spiral work(except Type BS-0, and BS-1)with greater precision and efficiency than has been possible before. The center face can be tilted from a horizontal position of 90° own to-10° from vertical, and inclinations can be read off a scale graduated in degrees.

The center is built to highest engineering standards and is factory inspected and tested to assure complete satisfaction. The ratio of worm to gear is 1:40

REMARK:

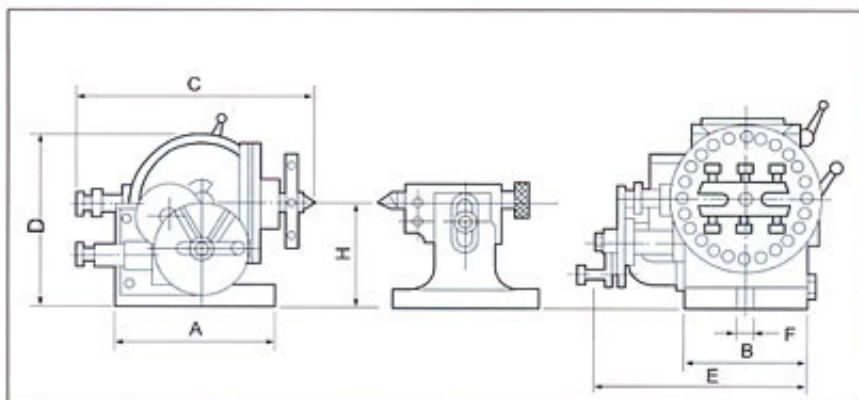
Operation and Service Manual "followed with each of Dividing Head for reference.

SCROLL CHUCK (OPTIONAL ACCESSORIES)



Unit:mm

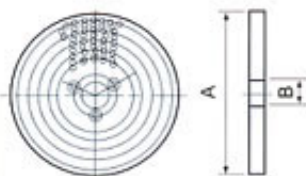
ORDER NO.	MODEL	A	B	C	FOR
08130006	YK-6	130	142	M8	BS-2
08130007	YK-7	155	172	M10	BS-2
08132006	SC-6	130	147	M10	BS-2
08132007	SC-7	155	172	M10	BS-2



Unit:mm

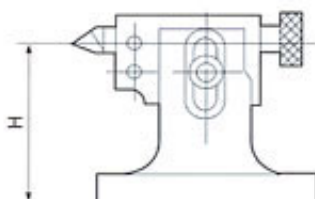
ORDER NO.	MODEL	A	B	C	D	E	F	H	TAPER	HOLE	N.W.	G.W.	SHIPMENT SIZE	REMARK
08140002	BS-2	210	134	365	235	272	18	132.7	BS-NO10	24	73kg			

DIVIDING PLATES (STANDARD ACCESSORIES)



ORDER NO.	MODEL	Number of holes	A	B	FOR
08106126	BE-3	15.16.17.18.19.20 21.23.27.29.31.33	126	28.8	BS-2
08107126	BE-4	37.39.41.43.47.49	126	28.8	BS-2
08108180	BE-5	26.30.34.38.41.44.47.51.57 28.32.37.39.43.46.49.53.59	180	28.8	BS-2
08109180	BE-6	61.67.71.77.81.87.91.97 63.69.73.79.83.89.93.99	180	28.8	BS-2

TAIL STOCK (STANDARD ACCESSORIES)



FEATURES:

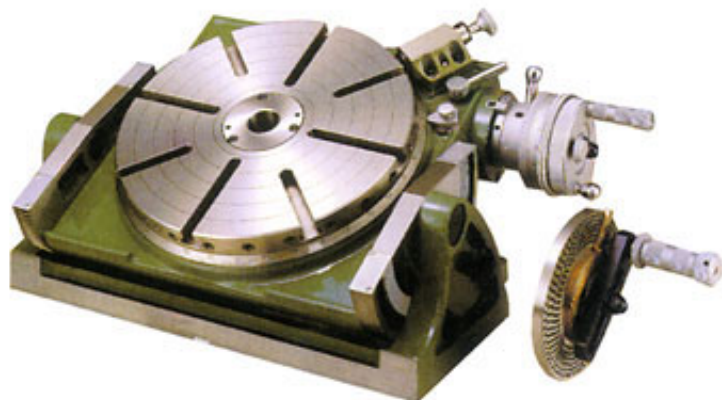
- 1.Rigid material casting iron FC300.
- 2.Heavy duty Machining Designed.
- 3.The Center Has been hardness HRC50°~52°.

Unit:mm

ORDER NO.	MODEL	H	FOR	REMARK
08102130	TS-130	120~143	BS-2	

**SAFEWAY****ISO-9001:2000****UNIVERSAL TILTING ROTARY TABLE**

MODEL ● 08150300 SUT-300

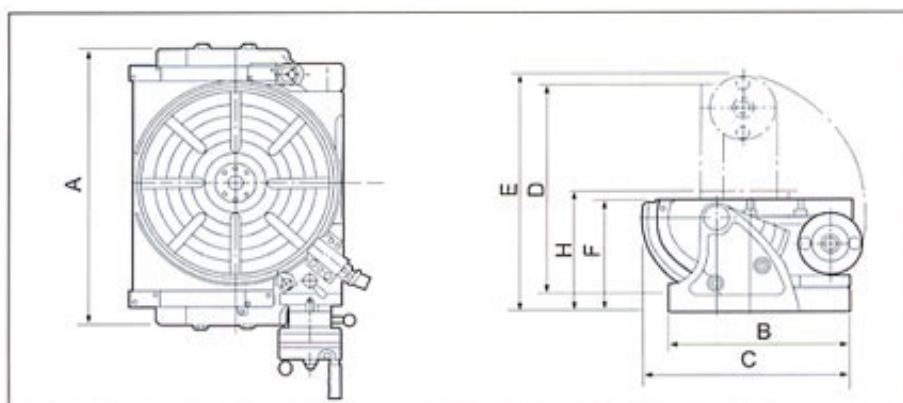
**FEATURES:**

FAST HAND INDEXING FREE FROM CENTERING.
Suitable for milling, boring, shaping, drilling, dividing, angle setting, circular cutting processes.

Tilting range 90 degrees from horizontal to vertical position. 1 rotation of handle equals 3 degrees 5 minutes tilting reading.

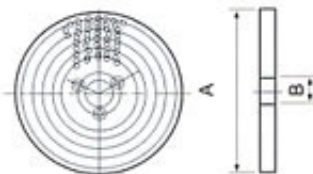
24-hole table periphery for quick hand indexing.

Large, Clearly marked, and easy to read graduations allow the operator to set complex angles quickly and easily.

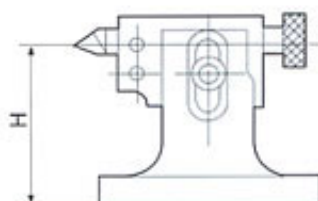


Unit:mm

ORDER NO.	MODEL	A	B	C	D	E	F	H	TAPER	HOLE	N.W.	G.W.	SHIPMENT SIZE	REMARK
08150300	SUT-300	458	300	337	300	360	179.5	199	MT-5	36	96kg			

**DIVIDING PLATES**
(OPTIONAL ACCESSORIES)

ORDER NO.	MODEL	Number of holes	A	B	FOR
08106126	BE-3	15.16.17.18.20	126	28.8	SUT-300
		21.23.27.29.31.33			
08107126	BE-4	37.39.41.43.47.49	126	28.8	SUT-300
08108180	BE-5	26.30.34.38.41.44.47.51.57	180	28.8	SUT-300
		28.32.37.39.43.46.49.53.59			
08109180	BE-6	61.67.71.77.81.87.91.97	180	28.8	SUT-300
		63.69.73.79.83.89.93.99			

**TAIL STOCK**
(OPTIONAL ACCESSORIES)**FEATURES:**

- 1.Rigid material casting iron FC300.
- 2.Heavy duty Machining Designed.
- 3.The Center Has been hardness HRC50°~52°.

Unit:mm

ORDER NO.	MODEL	H	FOR	REMARK
08102300	TS-230	190~260	SUT-300	



TOOL-PRESETTING AND CHECKING

MODEL	• 06030030	SPT-300X30
	• 06030040	SPT-300X40
	• 06030050	SPT-300X50
	• 06040030	SPT-400X30
	• 06040040	SPT-400X40
	• 06040050	SPT-400X50

FEATURES:

1. Checking and presetting of various type of tools.
2. Positive measuring results by easy manipulation.
3. Compact construction, incorporating the Sylvac measuring system.
4. The rotating tool carrying spindle unit simulates ISO tapes mounting.

CO-OPERATION WITH TRIMOS SWITZERLAND

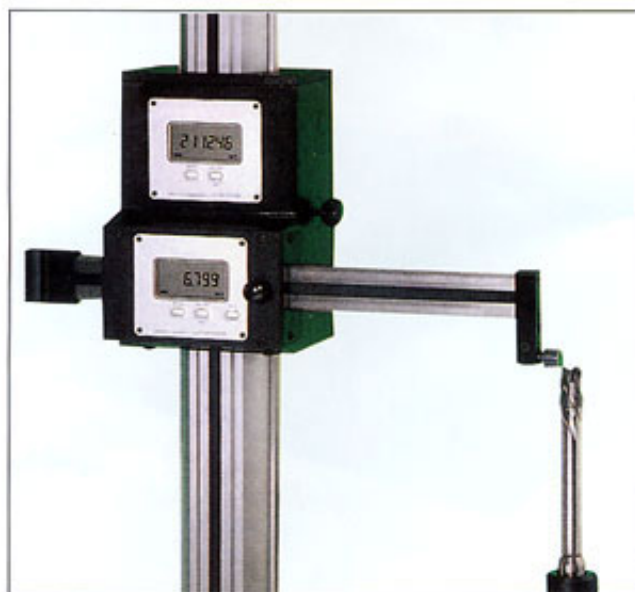


INSTRUMENT CONSTRUCTION

1. Cast iron base, steel column with hardened ground stainless steel guide-ways.
2. Counter-balanced measuring carriage including an horizontal arm for measuring in X-coordinate.
3. Knurled knobs for the displacement of the carriage activating a friction measuring pressure.
Displacement of the measuring arm by a sliding movement.
Measuring pressure set through a tension spring.
4. Incorporated SYLVAC measuring system on either coordinate.
5. Tool carrying spindle unit simulating ISO taper mounting.
Fixing device for one position.
Locking of the spindle at any point of rotation.
6. Transport handles. Possibility to fix instrument on a bench.



TOOL-PRESETTING AND CHECKING



EACH INSTRUMENT IS SUPPLIED AS FOLLOWS:

Instrument according to specifications including a probe holder and measuring insert with flat tungsten carbide surfaces (SPT02)-two lithium batteries, 3V-protection cover-instructions for use test and guarantee certificate.

TOOL PRESETTER	CODE NO.
X-Coord =100mm/4" Z-Coord=300mm/12" with ISO 50 location with ISO 40 location with ISO 30 location	SPT-300X50-ISO 50 SPT-300X40-ISO 40 SPT-300X30-ISO 30
X-Coord =150mm/6" Z-Coord=400mm/16" with ISO 50 location with ISO 40 location with ISO 30 location	SPT-400X50-ISO 50 SPT-400X40-ISO 40 SPT-400X30-ISO 30

OPERATING MODES

- 1.selection of resolution
- 2.zero setting at any position of the measuring carriage or the horizontal arm
- 3.mm/inch selction
- 4.two reference datums(REF I / REF II)
- 5.input of preset values and recall
- 6.min/max memory (display of delta)
- 7.setting and display of tolerance limits
- 8.HOLD display function
- 9.data transmission (RS232 compatible, half-duplex)
- 10.display of radius a diameter value in X-axis.

ACCESSORIES:

Attachment to probe TPR02 for checking heights on centerline of spindle unit

Opto-RS interface for connection of X and Z axis, including a foot pedal, AC adapter, two Opto-RS connection cables and a centronics cable for printer.

Epson Lx300 printer

Connection cable from interface to PC (9p/fm)

Instruments equipped with spindle units other than ISO (e.g.VDI) are available on special request.Models SPT300/SPT400 ability to increase the Z-coordinate measuring range up to 1000mm/40".

TPR 1.1

TPR .X.Z / OPTO / 220

or TPR .X.Z / OPTO / 240

or TPR .X.Z / OPTO / 100

or TPR .X.Z / OPTO / 110

Lx300

CABLE.RS.1/1-9P

	SPT-300-ISO 50/40/30	SPT-400-ISO 50/40/30
Measuring range	X=100mm/4",Z=300mm/12" Max. dia 200mm/8"	X=150mm/6",Z=400mm/16" Max. dia 300mm/12"
Resolution	0.01 mm/0.01 mm .0005" / .00005"	0.01 mm/0.01 mm .0005" / .00005"
Accuracy	X=0.010mm/.0004",Z=0.020mm/.0008"	X=0.010mm/.0004",Z=0.025mm/.00010"
Repeatability	0.005mm/.0002" (+/-2s)	0.005mm/.0002" (+/-2s)
Concentricity of the spindle unit related to the axis of the ISO location,max. error	0.02mm/.0008" over 300 mm/12"	0.025mm/.001" over 400 mm/16"
Squareness of measuring arm in relation to ISO location,max. error	0.015mm/.0006" over 300 mm/12"	0.02mm/.0008" over 400 mm/16"
Max. displacement speed of measuring carriage and measuring arm	1 m/sec. (40"/sec)	1 m/sec. (40"/sec)
Measuring force	X-coord. = 1N,Z-coord. = 2N	
Measuring unit	metric/inch (direct conversion)	
Measuring system	patented sylvac measuring system	
Digital display	LCD display:sign(-), 6digits (7 inch mode).height of digits: 8.5 mm/.33",indication for active functions	
Power supply	2 lithium batteries, 3V, type CR2032, capacity 190 mAh	
Working temperature	+5° to +40°C/+41 to 104F	
Date output	RS232 compatible	
Interface	RS232 compatible interface cable with opto-electronic coupler	
Weight	21 kg / 46.30 lbs	35 kg / 75 lbs



SAFEWAY

ISO-9001:2000



DRILL GRINDING MACHINE

MODEL ● 078201300 SA-1300-110V ● 078242500 SA-2500-110V
● 078221300 SA-1300-220V ● 078262500 SA-2500-220V

Easy

Accuracy

Fast



SA-1300 (ø3~ø13)
(ø2 Optional)



SA-2500 (ø13~ø26)
(ø27~ø30 Optional)

FEATURES:

1. Easy operation, precision grinding and cost saving.
2. Hand held for easy movement and can operate inside and outside of the room.
3. Use Diamond Wheel for long lasting service life and precise grinding angle.
4. Built-in collet bracket for easy management collets

ORDER NO.	MODEL	DIA. CAPACITY	ANGLE CAPACITY	POWER	N.W.	WHEEL	COLLET	DIMENSION	REMARK
078201300	SA-1300	Ø3-Ø13mm	90°-144° (Ø6-Ø13)	Single AC100~110V 50~60Hz	10kg	CBN#200	ER-20	320x225x190	
078221300		(Ø2 Optional)	118°-135° (Ø2-Ø6)	Single AC220~240V 50~60Hz					
078242500	SA-2500	Ø13-Ø26mm	90°-144° (Ø13-Ø26)	Single AC100~110V 50~60Hz	26kg	CBN#140	ER-40	490x270x260	
078262500		(Ø27-Ø30 Optional)	118°-135° (Ø27-Ø30)	Single AC220~240V 50~60Hz					

STANDARD ACCESSORIES:

1. SA-1300 ER-20 ø3,4,5,6,7,8,9,10,11,12,13 x 11 pcs
- SA-2500 ER-40 ø13,14,15,16,17,18,19,20,21,22,23,24,25,26 x 14 pcs
2. Diamond wheel CBN#200 x 1 pc (SA-1300) CBN#140 x 1 pc (SA-2500)
- (For high speed drill)
3. 4mm Hex. wrench x 1 pc

OPTIONAL ACCESSORIES:

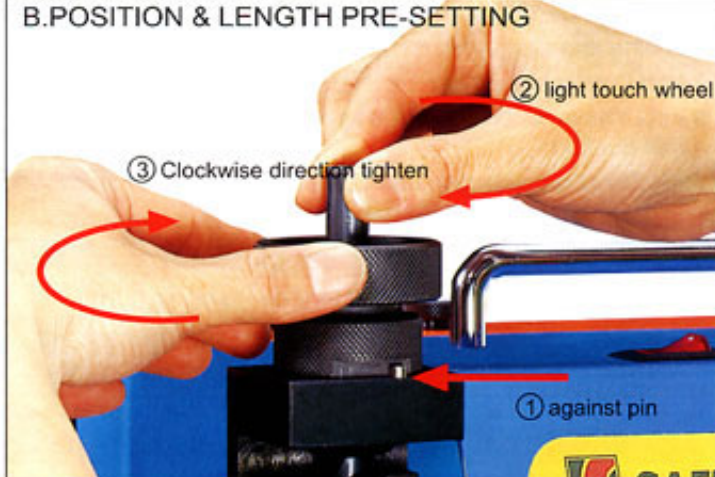
1. SA-1300 ER-20 (ø2), ø3,5,4,5,5,5,6,5,7,5,8,5,9,5,10,5,11,5,12,5 x 10 pcs
- SA-2500 ER-40 ø13,5,14,5,15,5,16,5,17,5,18,5,19,5,20,5,21,5,22,5,23,5,24,5,25,5 x 13 pcs (ø27,28,29,30)
2. Diamond wheel #400 (SA-1300) #300 (SA-2500)
- (For carbide drill)

A. COLLET



MODEL	COLLET	STANDARD	OPTIONAL
SA-1300	ER20	ø3~ø13	ø2
SA-2500	ER40	ø13~ø26	ø27~ø30

B. POSITION & LENGTH PRE-SETTING



C. POINT ANGLE



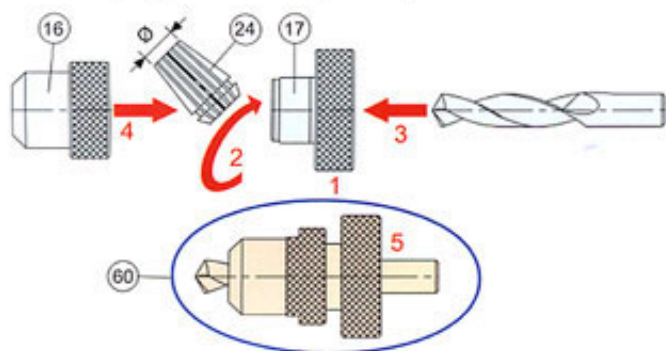
D. CHISEL EDGE ANGLE



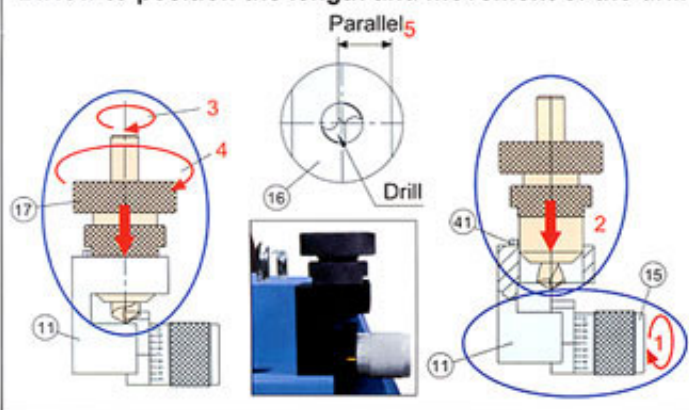


DRILL GRINDING MACHINE/OPERATION

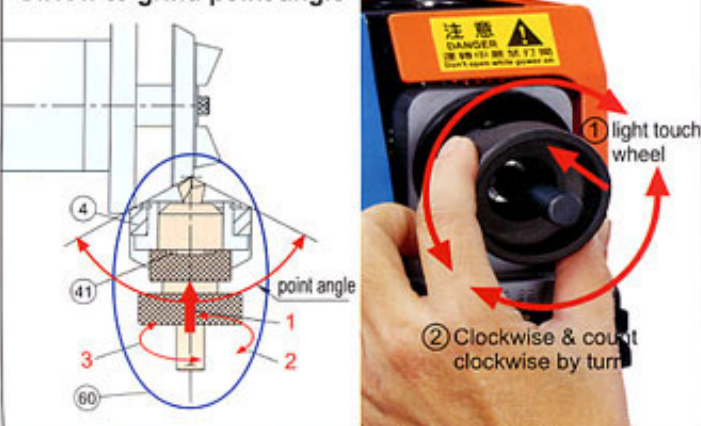
A. How to prepare for drill grinding



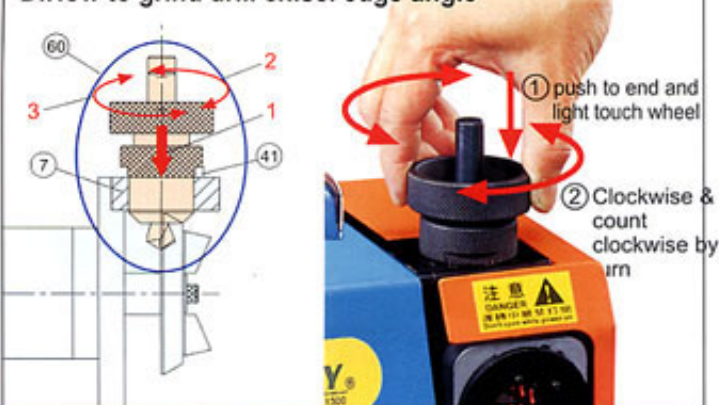
B. How to position the length and movement of the drill



C. How to grind point angle



D. How to grind drill chisel edge angle



OPERATION

A. How to prepare for drill grinding:

1. Make sure of the drill diameter to choose the right Collet (24)
2. Lock collet into Collet Holder (17) properly
3. Insert drill into collet with 35 mm extension, no tight locking.
4. Insert Collet Nut (16) into Collet (24) to lock Collet Holder (17). Operate slightly to turn the drill by hand.
5. Drill grinding preparation ends for Collet Chuck Set (60).

B. How to position the length and movement of the drill:

1. Adjust Scale (15) in line with the dia. of drill.
2. Put the whole set into Length Pre-Setting Bracket (11) (according to Step A1 - A4) and insert Pin (41) into the slot.
3. Turn Collet Chuck Set (60) clockwise to support against Pin (41) and turn drill clockwise until it touches drill cutting edge.
4. Tight Collet Holder (17) clockwise.
5. Take out of Collet Chuck Set (60) and make sure the cutting edge and collet holder slots are paralleled with each other. If not, the whole process must be repeated. Attention: if drill spiral is different, please reset the parallel and adjust Scale Ring (15) in line with diameter of drill.

C. How to grind point angle:

1. Put Collet Chuck Set (60) into Point Angle Bracket (4) and then insert the slot into the pin (41).
2. Push Collet Chuck Set (60) to light touch the wheel and turn clockwise and reverse about 5-6 times until grinding noise disappears.
3. Take out Collet Chuck Set (60) and turn it 180 degree. Repeat Step 1 and 2 to finish point angle grinding.

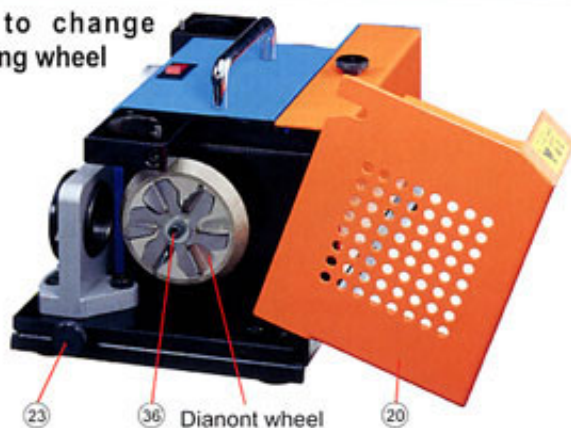
D. How to grind drill chisel edge angle:

1. Put Collet Chuck Set (60) into Point Angle Bracket (4) and then insert the slot into the pin (41).
2. Push Collet Chuck Set (60) to light touch the wheel and turn clockwise and reverse about 5-6 times until grinding noise disappears.
3. Take out Collet Chuck Set (60) and turn it 180 degree. Repeat Step 1 and 2 to finish grinding drill chisel edge angle on two drill chisel edge.

E. How to change grinding wheel:

1. Loose Knot (23) and open Cover (20)
2. Loose Screw (36) with 4mm hexagonal wrench.
3. Change the grinding wheel and install it back.
4. Make sure Cover (20) is tightened with Knob (23). Attention: If Screw (36) is not tightened properly, the Cover (20) will not be fastened enough. It is dangerous to switch on the machine before the Knob (23) being tightened fully.

E. How to change grinding wheel





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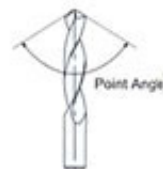
Drill Grinding Machine



SA-1300(ø3-ø13)
(ø2 Optional)



SA-2500(ø13-ø26)
(ø27-ø30 Optional)



FEATURES :

- Easy operation, precision grinding and cost saving.
- Hand held for easy movement and can operate inside and outside of the room.
- Use Diamond Wheel for long lasting service life and precise grinding angle.
- Built-in collet bracket for easy management collets

Easy

Accuracy

Fast

ORDER NO.	MODEL	Dia. capacity	Angle capacity	Power	N.W.	Wheel	Collet	Dimension	Remark
078201300	SA-1300	Ø3-Ø13mm	90°-144° (Ø6-Ø13)	Single AC100~110V 50~60Hz	10kg	CBN#200	ER-20	320x225x190	
078221300		(Ø2 Optional)	118°-135° (Ø2-Ø6)	Single AC220~240V 50~60Hz					
078242500	SA-2500	Ø13-Ø26mm	90°-144° (Ø13-Ø26)	Single AC100~110V 50~60Hz	26kg	CBN#140	ER-40	490x270x260	
078262500		(Ø27-Ø30 Optional)	118°-135° (Ø27-Ø30)	Single AC220~240V 50~60Hz					

STANDARD ACCESSORIES:

- 1.SA-1300 ER-20 ø3,4,5,6,7,8,9,10,11,12,13 x 11 pcs
- 1.SA-2500 ER-40 ø13,14,15,16,17,18,19,20,21,22,23,24,25,26 x 14 pcs
- 2.Diamond wheel CBN#200 x 1 pc (SA-1300) CBN#140 x 1 pc (SA-2500)
- (For high speed drill)
- 3.4mm Hex. wrench x 1 pc

OPTIONAL ACCESSORIES:

- 1.SA-1300.ER-20 (ø2), ø3,5,4,5,5,6,5,7,5,8,5,9,5,10,5,11,5,12,5 x 10 pcs
- SA-2500 ER-40 ø13,5,14,5,15,5,16,5,17,5,18,5,19,5,20,5,21,5,22,5,23,5,24,5,25,5 x 13 pcs (ø27,28,29,30)
- 2.Diamond wheel #400 (SA-1300) #300 (SA-2500)
- (For carbide drill)

A.Collet



Model	Collet	Standard	Optional
SA-1300	ER20	ø3-ø13	ø2
SA-2500	ER40	ø13-ø26	ø27-ø30

B.Position & length pre-setting



C.Point angle



D.Chisel edge angle



Best aid

SAFEWAY

<http://www.safeway-vise.com>

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