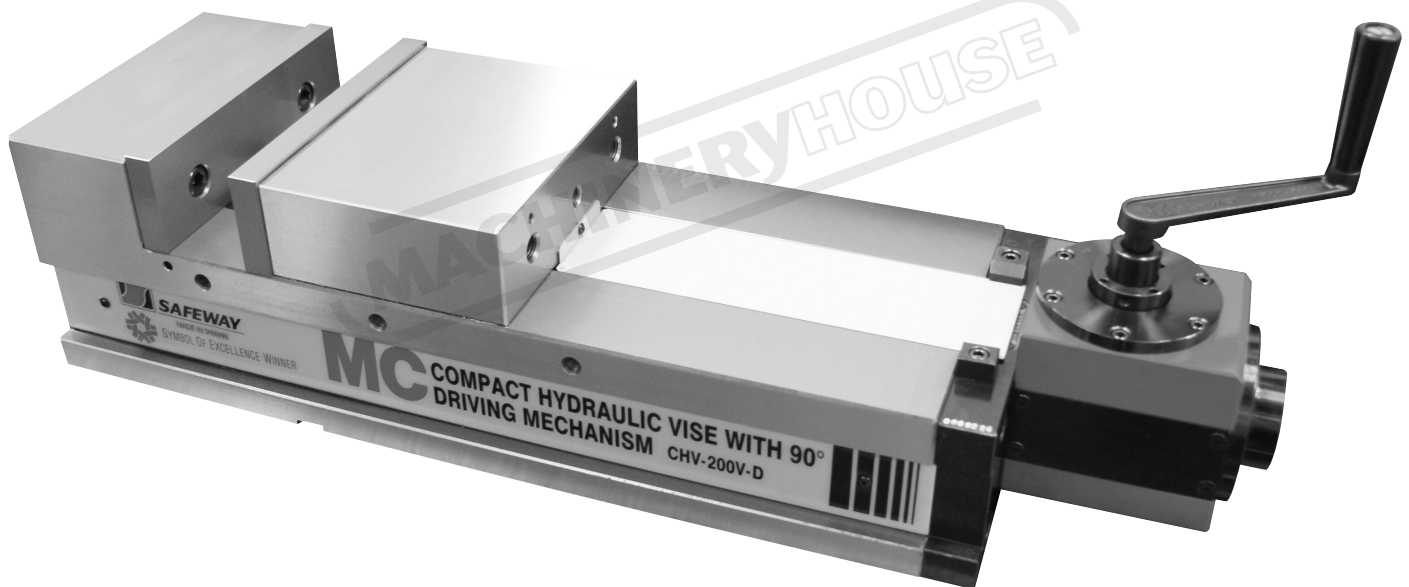


# INSTRUCTION MANUAL

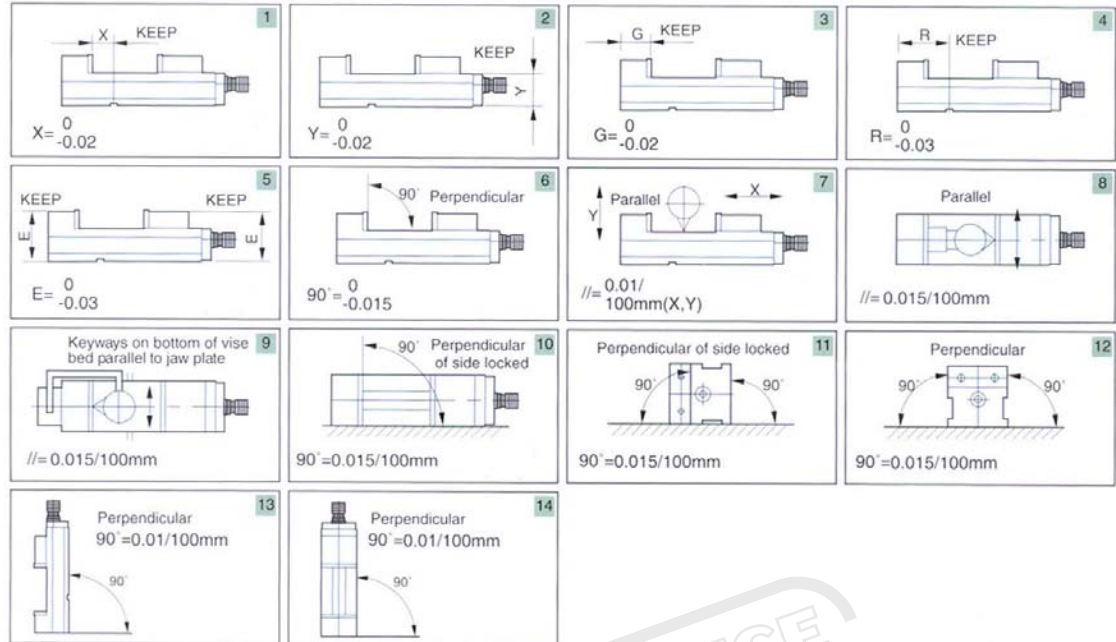
## CHV-200V-D Compact Hydraulic Vice - Angle Drive 200mm



V3235

## Tolerances

### CLEARANCE CONTROL



Specifications are based on the "V" series only.

WISE MAX.OPENING

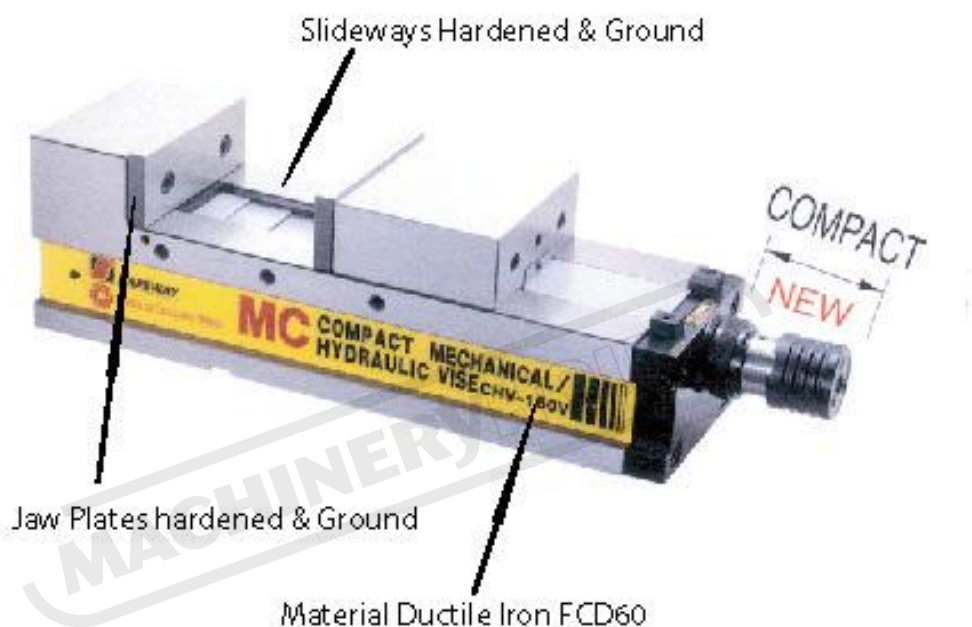


WISE SIDE-LOCK



## BEFORE OPERATION CHECK THE FOLLOWING

1. Check the accuracy sheet and attachment
2. Remove the protective layers of grease and rust preventive before moving the slides.
3. Lubricate all slide ways and lubrication points
4. Attaché the keys to the bottom of the vice for tee slot location. To insure accuracy with the axis of the machine check that the tee slot has been ground.
5. Insure that the vice is balanced before lifting



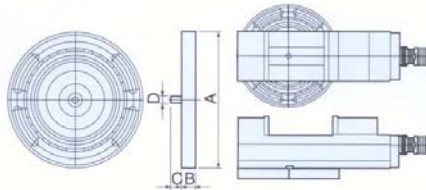
## FEATURES

1. Mechanical/Hydraulic spindle
2. Down thrust "Semi-sphere Segment" mechanism eliminates jaw lift and work tilting
3. All surfaces ground
4. Rigid vice body manufactured from ductile iron FCD 60JIS (equal to GGG60) with 60kgs/mm or 80888 psi tensile strength
5. Vice bed flame hardened to HRC 45 to minimise wear and maintain accuracy

**MC COMPACT MECHANICAL / HYDRAULIC VISE**

**SWIVEL BASE (STEEL)**

- MODEL ● SBD-100 ● SBD-130  
 ● SBD-160 ● SBD-200



SBD	A	B	C	D	N.W.
100	248	27	25	16	
130	296	30	25	18	
160	312	34	25	18	
200	378	44	25	18	

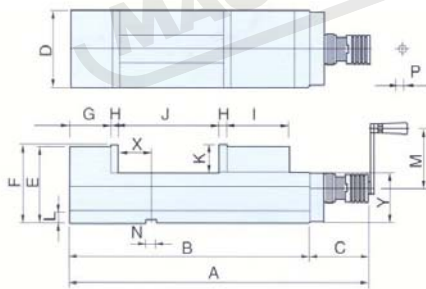
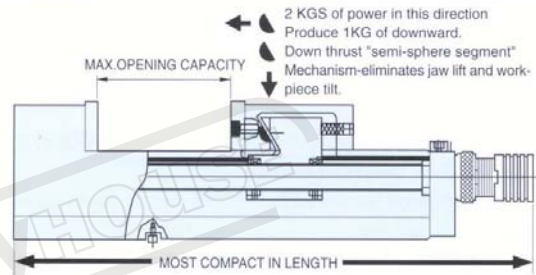
THE WHOLE SWIVEL BASE BY MADE OF STEEL BY HARDNESS AND TAKE UP WEAR AND MAINTAIN ACCURACY FOR LONG

**STANDARD ACCESSORIES**

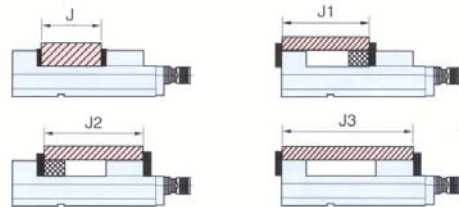
- 1.Handle X 1 pc
- 2.Guide key X 2pcs  
M6 X 10L X 2pcs
- 3.Chip cover X 1 set
- 4.Vise locked block X 4 pcs

**OPTIONAL ACCESSORIES**

- 1.Special Application Jaw Plates (P.35.36)
- 2.Work-piece Stopper
- 3.Swivel Base - SBD (Steel)
- 4.Swivel Base-SB (Cast Iron)



**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
07120100	CHV-100V	470	340	130	101	130	133	65	15	105	0-125	125-190	125-230	125-320
07120130	CHV-130V	535	405	130	131	147	150	70	15	115	0-180	180-240	180-290	180-380
07120160	CHV-160V	625	495	130	161	160	163	85	15	130	0-240	240-320	240-360	240-470
07120200	CHV-200V	700	570	130	201	170	173	90	18	150	0-280	280-360	280-420	280-540

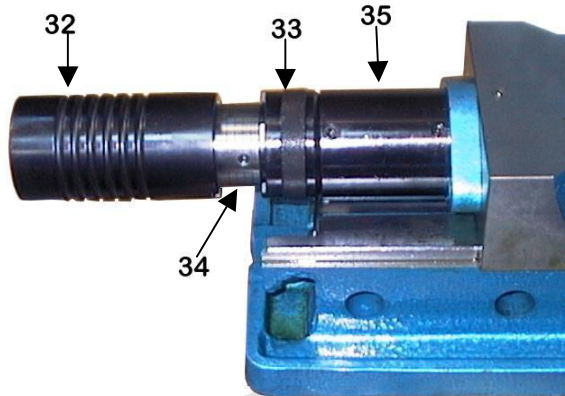
ORDER NO.	MODEL	K	L	M	N	P	X	X= $\frac{0}{0.02}$	Y	Y= $\frac{0}{0.02}$	MAX.PRESSURE	LIMIT.PRESSURE	N.W.	G.W.	SHIPMENT SIZE
07120100	CHV-100V	48	22	125	16	14	45	Yes	85	Yes	3500kgf	4000kgf	27kg	34kg	680x170x230
07120130	CHV-130V	55	22	125	18	14	65	Yes	95	Yes	4500kgf	5000kgf	40kg	48kg	780x200x240
07120160	CHV-160V	58	22	125	18	14	65	Yes	105	Yes	5500kgf	6500kgf	58kg	65kg	800x240x260
07120200	CHV-200V	63	22	125	18	14	82	Yes	110	Yes	7000kgf	8000kgf	87kg	99kg	860x280x270

# OPERATING INSTRUCTIONS

## 1. CLAMPING WITH HYDRAULIC POWER



a. Insure that the four lines on the hydraulic spindle 34 are visible. To bring them into full view hold the cylinder 35 body and turn the spindle 32 counter clockwise.



b. Slide the collar 33 to the non en-gauge position.

c. Turn the handle clockwise to bring the movable jaw into the work piece



d. The vice will lock up as a mechanical vice. When the handle starts to tighten bump the handle sharply clock wise with your hand and the hydraulic mechanism will commence. The spindle 34 will remain stationary and the outer handle will turn.

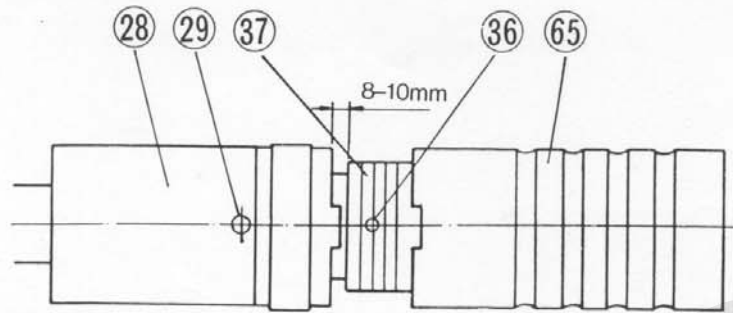
e. The lines engraved on spindle 34 can be used as a guide to indicate the amount of pressure applied to the job. Maximum pressure is obtained when all the lines have been covered.



f. To undo the vice wind the handle anti clock wise. The outer spindle 32 will rotate with 34 remaining stationary until the hydraulic system has reached its home position the spindle 34 will rotate to undo the mechanical side of the system.

**HOW TO PUT OIL INTO BOSTER AS FOLLOWING: (PAT. 45716)**

1. Hold the cylinder 28, knock handle clockwise until the clutch 38 39 non-engagement.
2. Loosen oil hole plug 29, and continue turn handle clockwise, until the air from boster by pressed.
3. Drop oil (R-68) into the boster hole, simultaneous turn handle counter clockwise. Untile the boster oil full. (Maybe twice)
4. Tightly the boster plug 29 and try clamping.
5. Loosen set screw 36 and boster plug 29 again.
6. Hold the cylinder 28, use handle turn collar 65 counter clockwise simultaneous drop oil into boster again. Until the cylinder 37 loosen 8-10m/m, then tightly boster plug 29 and turn collar 65 clockwise tightly set screw 36. You can finished pre-pressure.
7. Check clamping force whether OK!



**HOW TO CORRECT CLAMPING YOUR WORKPIECE**

<p>Correct</p>	<p>The bottom of workpiece is suspensible and it is not easy to take the resistance of cutting, then it will loosen or move secretly.</p>
<p>Correct</p>	<p>The workpiece itself is difficult to clamp and easing deformed after clamping.</p>
<p>The workpiece itself will become bendable after clamping.</p>	<p>Use CJ-Jaw plates</p>



## SAFEWAY MACHINERY INDUSTRY CORPORATION

## PART LISTS

MODEL:CHV-100V  
MECH./HYDR. MC COMPACT VISE.

DATE:8 JULY. 1998  
Computer No.07120100

NO.	Computer No.	Part No.	Part Name	Q'ty	Specification	Remark
1	07120100-001	CHV-100-001	MAIN BODY	1		
2	07120100-002	CHV-100-002	MAIN SCREW SUPPORT	1		
3	07120100-003	CHV-100-003	MOVABLE	1		
4	07120100-004	CHV-100-004	JAW PLATES	2		
5	07120100-005	CHV-100-005	LOCK DOWN BODY	1		
6	07120160-006	CHV-160-006	SEAL COVER	1		
7	07120100-007	CHV-100-007	MAIN SCREW	1		
8	07800160-029	PHV-160-029	KEY	1	12X25X5	
9	07120160-008	CHV-160-008	COLLAR	1		
10	OS352007	OS352007	CHIP SEAL	1	35X20X7	
11	07120160-009	CHV-160-009	PISTON	1		
12	07120160-010	CHV-160-010	CYLINDER BODY	1		
13	07120160-011	CHV-160-011	SLEEVE	1		
14	07120160-012	CHV-160-012	POWER PUSH ROD	1		
15	07800160-034	PHV-160-034	CLUTCH(I <sup>H</sup> )	1		
16	07800160-033	PHV-160-033	CLUTCH(I <sup>L</sup> )	1		
17	07800160-035	PHV-160-035	MINOR SCREW ROD	1		
18	R04X4	RO4X4	ROLLER	4	4X4M/M	
19	07800160-037	PHV-160-037	CLUTCH SPRING	1		
20	07800160-036	PHV-160-036	CLUTCH WASHER	1		
21	SR-S-14	SR-S-14	SNAP RING	1	S-14	
22	SB03	SB03	STEEL BALL	1	3M/M	
23	SSM06X08L	SSM06X08L	SET SCREW	1	M6X8L	
24	SSM06X08L	SSM06X08L	SET SCREW	2	M6X8L	
25	SB04	SB04	STEEL BALL	26	4M/M	
26	07800160-027	PHV-160-027	BACKUP RING	1		
27	OS201006	OS201006	OIL-SEAL	1	20X10X06	
28	07800160-021	PHV-160-021	PACKING RING	1		
29	07800160-026	PHV-160-026	BOSTER RING	1		
30	OS352508	OS352508	OIL-SEAL	1		
31	OR-P-28	OR-P-28	O-RING	1	P-28	
32	SSM06X10L	SSM06X10L	SET SCREW	1	M6X10L	
33	DS204015	DS204015	DISC SPRING	1	20X40X1.5	
34	07120160-013	07120160-013	KEY	1		
35	SSM06X08L	SSM06X08L	SET SCREW	1	M6X8L	
36	07800160-024	PHV-160-024	OIL PLUG	1		
37	OR-P-10	OR-P-10	O-RING	2	P-10	
38	07800160-025	PHV-160-025	OIL PLUG SEAL	1		
39	WS212	WS212	SNAP RING	1		
40	07120160-015	CHV-160-015	SNAP RING WASHER	1		

## SAFeway MACHINERY INDUSTRY CORPORATION

## PART LISTS

MODEL:CHV-100V  
MECH./HYDR. MC COMPACT VISE.

DATE:8 JULY. 1998  
Computer No.07120100

41	07120160-016	CHV-160-016	COLLAR	1	
42	SCM05X16	SCM05X16	SOCKET CAP SCREW	3	M5X16L
43	SR-R-42	SR-R-42	SNAP RING	2	R42
44	07120160-020	CHV-160-020	CHIP SEAL	2	
45	SSM06X08L	SSM06X08L	SET SCREW	2	M6X8L
46	WS6203	WS6203	SPRING WASHER	4	6203
47	07120160-021	CHV-160-021	SPRING WASHER	1	
48	07120130-022	CHV-130-022	ADJUSTING SCREW	1	
49	07120160-023	CMV-160-023	CHIP COVER BLOCK	2	
50	SCM06X10L	SCM06X10L	SOCKET CAP SCREW	2	M6X10L
51	SCM12X40L	SCM12X40L	SOCKET CAP SCREW	4	M12X40L
52	OC-1/4"	OC-1/4"	OIL CAP	1	1/4"
53	07800160-006	PHV-160-006	SEMI-SPHERE SEGMENT	1	
54	SCM10X20L	SCM10X20L	SOCKET CAP SCREW	4	M10X20L
55	07120100-024	CHV-100-024	CHIP COVER GUIDE	1	
56	SSM06X08L	SSM06X08L	SET SCREW	4	M6X8L
57	07120160-025	CHV-160-025	WISE CLAMP BLOCK	4	
58	SDM04X08L	SDM04X08L	ROUND SOCKET CAP SCREW	2	M04X08L
59	07120160-026	CHV-100-026	CHIP COVER (FORWARD 1)	1	
60	07120160-027	CMV-100-027	CHIP COVER (FORWARD 2)	1	
61	07120160-028-1	CHV-100-028-1	CHIP COVER	1	50m/m
	07120160-028-2	CHV-100-028-2	CHIP COVER	1	100m/m
	07120160-028-3	CHV-100-028-3	CHIP COVER	1	150m/m
62	07800200-058	PHV-160-058	GUIDE KEY	2	16m/m
63	SCM06X10L	SCM06X10L	SOCKET CAP SCREW	2	M6X10L
64	07800160-054	PHV-160-054	HANDLE	1	
65	GR-001	GR-001	HANDLE GRIP	1	10m/m
66	07120160-029	CHV-160-029	NAME PLATES	2	CHV-100V
67	SDM04X08L	SDM04X08L	ROUND SET SCREW	4	M4X8L

## SAFEWAY MACHINERY INDUSTRY CORPORATION

## PART LISTS

MODEL:CHV-130V  
MECH./HYDR. MC COMPACT VISE.

DATE:8 JULY. 1998  
Computer No.07120130

NO.	Computer No.	Part No.	Part Name	Q'ty	Specification	Remark
1	07120130-001	CHV-130-001	MAIN BODY	1		
2	07120130-002	CHV-130-002	MAIN SCREW SUPPORT	1		
3	07120130-003	CHV-130-003	MOVABLE	1		
4	07120130-004	CHV-130-004	JAW PLATES	2		
5	07120130-005	CHV-130-005	LOCK DOWN BODY	1		
6	07120160-006	CHV-160-006	SEAL COVER	1		
7	07120130-007	CHV-130-007	MAIN SCREW	1		
8	07800160-029	PHV-160-029	KEY	1	12X25X5	
9	07120160-008	CHV-160-008	COLLAR	1		
10	OS352007	OS352007	CHIP SEAL	1	35X20X7	
11	07120160-009	CHV-160-009	PISTON	1		
12	07120160-010	CHV-160-010	CYLINDER BODY	1		
13	07120160-011	CHV-160-011	SLEEVE	1		
14	07120160-012	CHV-160-012	POWER PUSH ROD	1		
15	07800160-034	PHV-160-034	CLUTCH(I <sup>III</sup> )	1		
16	07800160-033	PHV-160-033	CLUTCH(I <sup>II</sup> )	1		
17	07800160-035	PHV-160-035	MINOR SCREW ROD	1		
18	RO4X4	RO4X4	ROLLER	4	4X4M/M	
19	07800160-037	PHV-160-037	CLUTCH SPRING	1		
20	07800160-036	PHV-160-036	CLUTCH WASHER	1		
21	SR-S-14	SR-S-14	SNAP RING	1	S-14	
22	SB03	SB03	STEEL BALL	1	3M/M	
23	SSM06X08L	SSM06X08L	SET SCREW	1	M6X8L	
24	SSM06X08L	SSM06X08L	SET REW	2	M6X8L	
25	SB04	SB04	STEEL BALL	26	4M/M	
26	07800160-027	PHV-160-027	BACKUP RING	1		
27	OS201006	OS201006	OIL-SEAL	1	20X10X06	
28	07800160-021	PHV-160-021	PACKING RING	1		
29	07800160-026	PHV-160-026	BOSTER RING	1		
30	OS352508	OS352508	OIL-SEAL	1	35X25X08	
31	OR-P-28	OR-P-28	O-RING	1	P-28	
32	SSM06X10L	SSM06X10L	SET SCREW	1	M6X10L	
33	DS204015	DS204015	DISC SPRING	1	20X40X1.5	
34	07120160-013	07120160-013	KEY	1	10X4X15L	
35	SSM06X08L	SSM06X08L	SET SCREW	1	M6X8L	
36	07800160-024	PHV-160-024	OIL PLUG	1		
37	OR-P-10	OR-P-10	O-RING	2	P-10	
38	07800160-025	PHV-160-025	OIL PLUG SEAL	1		
39	WS212	WS212	SNAP RING	1		
40	07120160-015	CHV-160-015	SNAP RING WASHER	1		

## SAFEWAY MACHINERY INDUSTRY CORPORATION

## PART LISTS

MODEL:CHV-130V  
MECH./HYDR. MC COMPACT VISE.

DATE:8 JULY, 1998  
Computer No.07120130

41	07120160-016	CHV-160-016	COLLAR	1	
42	SCM05X16	SCM05X16	SOCKET CAP SCREW	3	M5X16L
43	SR-R-42	SR-R-42	SNAP RING	2	R42
44	07120160-020	CHV-160-020	CHIP SEAL	2	
45	SSM06X08L	SSM06X08L	SET SCREW	2	M6X8L
46	WS6203	WS6203	SPRING WASHER	4	6203
47	07120160-021	CHV-160-021	SPRING WASHER	1	
48	07120130-022	CHV-130-022	ADJUSTING SCREW	1	
49	07120160-023	CMV-160-023	CHIP COVER BLOCK	2	
50	SCM06X10L	SCM06X10L	SOCKET CAP SCREW	2	M6X10L
51	SCM10X40L	SCM10X40L	SOCKET CAP SCREW	4	M10X40L
52	OC-1/4"	OC-1/4"	OIL CAP	1	1/4"
53	07800160-006	PHV-160-006	SEMI-SPHERE SEGMENT	1	
54	SCM10X20L	SCM10X20L	SOCKET CAP SCREW	4	M10X20L
55	07120130-024	CHV-100-024	CHIP COVER GUIDE	1	
56	SSM06X08L	SSM06X08L	SET SCREW	4	M6X8L
57	07120160-025	CHV-160-025	VISE CLAMP BLOCK	4	
58	SDM04X08L	SDM04X08L	ROUND SOCKET CAP SCREW	2	M04X08L
59	07130130-026	CHV-130-026	CHIP COVER (FORWARD 1)	1	
60	07120130-027	CMV-100-027	CHIP COVER (FORWARD 2)	1	
61	07120130-028-1	CHV-130-028-1	CHIP COVER	1	50m/m
	07120130-028-2	CHV-130-028-2	CHIP COVER	1	100m/m
	07120130-028-3	CHV-130-028-3	CHIP COVER	1	150m/m
	07120130-028-4	CHV-130-028-4	CHIP COVER	1	200m/m
62	07800200-058	PHV-160-058	GUIDE KEY	2	18m/m
63	SCM06X10L	SCM06X10L	SOCKET CAP SCREW	2	M6X10L
64	07800100-054	07800100-054	HANDLE	1	
65	GR-001	GR-001	HANDLE GRIP	1	10m/m
66	07120130-029	CHV-130-029	NAME PLATES	2	
67	SDM04X08L	SDM04X08L	ROUND SET SCREW	4	M4X8L

## SAFEWAY MACHINERY INDUSTRY CORPORATION

## PART LISTS

MODEL:CHV-160V  
MECH./HYDR. MC COMPACT VISE.

DATE:8 JULY. 1998  
Computer No.07120160

NO.	Computer No.	Part No.	Part Name	Q'ty	Specification	Remark
1	07120160-001	CHV-160-001	MAIN BODY	1		
2	07120160-002	CHV-160-002	MAIN SCREW SUPPORT	1		
3	07120160-003	CHV-160-003	MOVABLE	1		
4	07120160-004	CHV-160-004	JAW PLATES	2		
5	07120160-005	CHV-160-005	LOCK DOWN BODY	1		
6	07120160-006	CHV-160-006	SEAL COVER	1		
7	07120160-007	CHV-160-007	MAIN SCREW	1		
8	07800160-029	PHV-160-029	KEY	1	12X25X5	
9	07120160-008	CHV-160-008	COLLAR	1		
10	OS352007	OS352007	CHIP SEAL	1	35X20X7	
11	07120160-009	CHV-160-009	PISTON	1		
12	07120160-010	CHV-160-010	CYLINDER BODY	1		
13	07120160-011	CHV-160-011	SLEEVE	1		
14	07120160-012	CHV-160-012	POWER PUSH ROD	1		
15	07800160-034	PHV-160-034	CLUTCH(□)	1		
16	07800160-033	PHV-160-033	CLUTCH(□)	1		
17	07800160-035	PHV-160-035	MINOR SCREW ROD	1		
18	R04X4	RO4X4	ROLLER	4	4X4M/M	
19	07800160-037	PHV-160-037	CLUTCH SPRING	1		
20	07800160-036	PHV-160-036	CLUTCH WASHER	1		
21	SR-S-14	SR-S-14	SNAP RING	1	S-14	
22	SB03	SB03	STEEL BALL	1	3M/M	
23	SSM06X08L	SSM06X08L	SET SCREW	1	M6X8L	
24	SSM06X08L	SSM06X08L	SET SCREW	2	M6X8L	
25	SB04	SB04	STEEL BALL	26	4M/M	
26	07800160-027	PHV-160-027	BACKUP RING	1		
27	OS201006	OS201006	OIL-SEAL	1	20X10X06	
28	07800160-021	PHV-160-021	PACKING RING	1		
29	07800160-026	PHV-160-026	BOSTER RING	1		
30	OS352508	OS352508	OIL-SEAL	1	35X25X08	
31	OR-P-28	OR-P-28	O-RING	1	P-28	
32	SSM06X10L	SSM06X10L	SET SCREW	1	M6X10L	
33	DS204015	DS204015	DISC SPRING	1	20X40X1.5	
34	07120160-013	07120160-013	KEY	1	10X4X15L	
35	SSM06X08L	SSM06X08L	SET SCREW	1	M6X8L	
36	07800160-024	PHV-160-024	OIL PLUG	1		
37	OR-P-10	OR-P-10	O-RING	2	P-10	
38	07800160-025	PHV-160-025	OIL PLUG SEAL	1		
39	WS212	WS212	SNAP RING	1		
40	07120160-015	CHV-160-015	SNAP RING WASHER	1		

## SAFEWAY MACHINERY INDUSTRY CORPORATION

## PART LISTS

MODEL:CHV-160V  
MECH./HYDR. MC COMPACT VISE.

DATE:8 JULY. 1998  
Computer No.07120160

41	07120160-016	CHV-160-016	COLLAR	1		
42	SCM05X16	SCM05X16	SOCKET CAP SCREW	3	M5X16L	
43	SR-R-42	SR-R-42	SNAP RING	2	R42	
44	07120160-020	CHV-160-020	CHIP SEAL	2		
45	SSM06X08L	SSM06X08L	SET SCREW	2	M6X8L	
46	WS6203	WS6203	SPRING WASHER	4	6203	
47	07120160-021	CHV-160-021	SPRING WASHER	1		
48	07120160-022	CHV-160-022	ADJUSTING SCREW	1		
49	07120160-023	CMV-160-023	CHIP COVER BLOCK	2		
50	SCM06X10L	SCM06X10L	SOCKET CAP SCREW	2	M6X10L	
51	SCM12X40L	SCM12X40L	SOCKET CAP SCREW	4	M12X40L	
52	OC-1/4"	OC-1/4"	OIL CAP	1	1/4"	
53	07800160-006	PHV-160-006	SEMI-SPHERE SEGMENT	1		
54	SCM10X20L	SCM10X20L	SOCKET CAP SCREW	4	M10X20L	
55	07120160-024	CHV-160-024	CHIP COVER GUIDE	1		
56	SSM06X08L	SSM06X08L	SET SCREW	4	M6X8L	
57	07120160-025	CHV-160-025	WISE CLAMP BLOCK	4		
58	SDM04X08L	SDM04X08L	ROUND SOCKET CAP SCREW	2	M04X08L	
59	07120160-026	CHV-160-026	CHIP COVER (FORWARD 1)	1		
60	07120160-027	CMV-160-027	CHIP COVER (FORWARD 2)	1		
61	07120160-028-1	CHV-160-028-1	CHIP COVER	1	60m/m	
	07120160-028-2	CHV-160-028-2	CHIP COVER	1	110m/m	
	07120160-028-3	CHV-160-028-3	CHIP COVER	1	160m/m	
	07120160-028-4	CHV-160-028-4	CHIP COVER	1	210m/m	
	07120160-028-5	CHV-160-028-5	CHIP COVER	1	260m/m	
62	07800200-058	PHV-200-058	GUIDE KEY	2	18m/m	
63	SCM06X10L	SCM06X10L	SOCKET CAP SCREW	2	M6X10L	
64	07800160-054	PHV-160-054	HANDLE	1		
65	GR-001	GR-001	HANDLE GRIP	1	10m/m	
66	07120160-029	CHV-160-029	NAME PLATES	2		
67	SDM04X08L	SDM04X08L	ROUND SET SCREW	4	M4X8L	

## SAFeway MACHINERY INDUSTRY CORPORATION

## PART LISTS

MODEL:CHV-200V

DATE:8 JULY. 1998

MECH./HYDR. MC COMPACT VISE.

Computer No.07120200

NO.	Computer No.	Part No.	Part Name	Q'ty	Specification	Remark
1	07120200-001	CHV-200-001	MAIN BODY	1		
2	07120200-002	CHV-200-002	MAIN SCREW SUPPORT	1		
3	07120200-003	CHV-200-003	MOVABLE	1		
4	07120200-004	CHV-200-004	JAW PLATES	2		
5	07120200-005	CHV-200-005	LOCK DOWN BODY	1		
6	07120200-006	CHV-200-006	SEAL COVER	1		
7	07120200-007	CHV-200-007	MAIN SCREW	1		
8	07800160-029	PHV-160-029	KEY	1	12X25X5	
9	07120200-008	CHV-200-008	COLLAR	1		
10	OS352007	OS352007	CHIP SEAL	1	35X20X7	
11	07120160-009	CHV-160-009	PISTON	1		
12	07120160-010	CHV-160-010	CYLINDER BODY	1		
13	07120160-011	CHV-160-011	SLEEVE	1		
14	07120160-012	CHV-160-012	POWER PUSH ROD	1		
15	07800160-034	PHV-160-034	CLUTCH(III)	1		
16	07800160-033	PHV-160-033	CLUTCH(II)	1		
17	07800160-035	PHV-160-035	MINOR SCREW ROD	1		
18	R04X4	RO4X4	ROLLER	4	4X4M/M	
19	07800160-037	PHV-160-037	CLUTCH SPRING	1		
20	07800160-036	PHV-160-036	CLUTCH WASHER	1		
21	SR-S-14	SR-S-14	SNAP RING	1	S-14	
22	SB03	SB03	STEEL BALL	1	3M/M	
23	SSM06X08L	SSM06X08L	SET SCREW	1	M6X8L	
24	SSM06X08L	SSM06X08L	SET SCREW	2	M6X8L	
25	SB04	SB04	STEEL BALL	26	4M/M	
26	07800160-027	PHV-160-027	BACKUP RING	1		
27	OS201006	OS201006	OIL-SEAL	1	20X10X06	
28	07800160-021	PHV-160-021	PACKING RING	1		
29	07800160-026	PHV-160-026	BOSTER RING	1		
30	OS352508	OS352508	OIL-SEAL	1	35X25X08	
31	OR-P-28	OR-P-28	O-RING	1	P-28	
32	SSM06X10L	SSM06X10L	SET SCREW	1	M6X10L	
33	DS204015	DS204015	DISC SPRING	1	20X40X1.5	
34	07120160-013	07120160-013	KEY	1	10X4X15L	
35	SSM06X08L	SSM06X08L	SET SCREW	1	M6X8L	
36	07800160-024	PHV-160-024	OIL PLUG	1		
37	OR-P-10	OR-P-10	O-RING	2	P-10	
38	07800160-025	PHV-160-025	OIL PLUG SEAL	1		
39	WS212	WS212	SNAP RING	1		
40	07120160-015	CHV-160-015	SNAP RING WASHER	1		
41	07120160-016	CHV-160-016	COLLAR	1		

## SAFEWAY MACHINERY INDUSTRY CORPORATION

## PART LISTS

MODEL:CHV-200V

DATE:8 JULY. 1998

MECH./HYDR. MC COMPACT VISE.

Computer No.07120200

42	SCM05X16	SCM05X16	SOCKET CAP SCREW	3	M5X16L	
43	SR-R-42	SR-R-42	SNAP RING	2	R47	
44	07120200-020	CHV-200-020	CHIP SEAL	2		
45	SSM06X08L	SSM06X08L	SET SCREW	2	M6X8L	
46	WS6204	WS6204	SPRING WASHER	4	6204	
47	07120160-021	CHV-160-021	SPRING WASHER	1		
48	07120200-022	CHV-200-022	ADJUSTING SCREW	1		
49	07120160-023	CMV-160-023	CHIP COVER BLOCK	2		
50	SCM06X10L	SCM06X10L	SOCKET CAP SCREW	2	M6X10L	
51	SCM12X40L	SCM12X40L	SOCKET CAP SCREW	4	M12X40L	
52	OC-1/4"	OC-1/4"	OIL CAP	1	1/4"	
53	07800200-006	PHV-200-006	SEMI-SPHERE SEGMENT	1		
54	SCM <sup>12</sup> <del>10</del> X <sup>25</sup> <del>20</del> L	SCM <sup>12</sup> <del>10</del> X <sup>25</sup> <del>20</del> L	SOCKET CAP SCREW	4	M <sup>12</sup> <del>10</del> X <sup>25</sup> <del>20</del> L	
55	07120200-024	CHV-200-024	CHIP COVER GUIDE	1		
56	SSM06X08L	SSM06X08L	SET SCREW	4	M6X8L	
57	07120160-025	CHV-160-025	WISE CLAMP BLOCK	4		
58	SDM04X08L	SDM04X08L	ROUND SOCKET CAP SCREW	2	M04X08L	
59	07120200-026	CHV-200-026	CHIP COVER (FORWARD 1)	1		
60	07120200-027	CMV-200-027	CHIP COVER (FORWARD 2)	1		
61	07120200-028-1	CHV-200-028-1	CHIP COVER	1	60m/m	
	07120200-028-2	CHV-200-028-2	CHIP COVER	1	110m/m	
	07120200-028-3	CHV-200-028-3	CHIP COVER	1	160m/m	
	07120200-028-4	CHV-200-028-4	CHIP COVER	1	210m/m	
	07120200-028-5	CHV-200-028-5	CHIP COVER	1	260m/m	
	07120200-028-6	CHV-200-028-6	CHIP COVER	1	310m/m	
62	07800200-058	PHV-200-058	GUIDE KEY	2	18m/m	
63	SCM06X10L	SCM06X10L	SOCKET CAP SCREW	2	M6X10L	
64	07800160-054	PHV-160-054	HANDLE	1		
65	GR-001	GR-001	HANDLE GRIP	1	10m/m	
66	07120160-029	CHV-160-029	NAME PLATES	2		
67	SDM04X08L	SDM04X08L	ROUND SET SCREW	4	M4X8L	