

HYDRO TEST PRESSURE
1.5 TIMES
COLD WORKING PRESSURE (CWP)

PART NO.	PART NAME
1	BODY
2	COVER
3	DISC
4	GASKET
5	COVER BOLT
20	OIL CUSHION

SEE DRAWING NO. VM-506B-M FOR STANDARD MATERIALS OF CONSTRUCTION.
SEE DRAWING NO. SS-1402 FOR OIL CUSHION SEQUENCE OF OPERATION.

ANSI CLASS 125											
VALVE SIZE	MODEL NO.	CWP	A	B	C	D	E	F	G	BOLT SIZE	NO. OF BOLTS
6	506AB	200	15	9 1/2	11	1	6	6 7/8	16	3/4	8
8	508AB	200	19 1/2	11 3/4	13 1/2	1 1/8	8	8 3/8	17	3/4	8
10	510AB	200	24 1/4	14 1/4	16	1 3/16	10	10 3/4	18	7/8	12
12	512AB	200	27 1/2	17	19	1 1/4	12	12 1/2	20	7/8	12
14	514AB	150	31	18 3/4	21	1 3/8	14	13	21	1	12
16	516AB	150	32	21 1/4	23 1/2	1 7/16	16	14 1/4	23	1	16
18	518AB	150	36	22 3/4	25	1 9/16	18	15 1/4	24	1 1/8	16
20	520AB	150	40	25	27 1/2	1 11/16	20	16 7/8	25	1 1/8	20
24	524AB	150	48	29 1/2	32	1 7/8	24	19 1/4	27	1 1/4	20
30	530B	150	56	36	38 3/4	2 1/8	30	23	35	1 1/4	28
36	536B	150	63	42 3/4	46	2 3/8	36	27 3/8	39	1 1/2	32

Revised 5-11-04

SWING-FLEX® CHECK VALVE WITH OIL CUSHION

DATE 10-9-00

VAL-MATIC® VALVE AND MANUFACTURING CORP.

DRWG. NO.

VM-506B

BOTTOM MOUNTED OIL DASHPOT SEQUENCE OF OPERATION

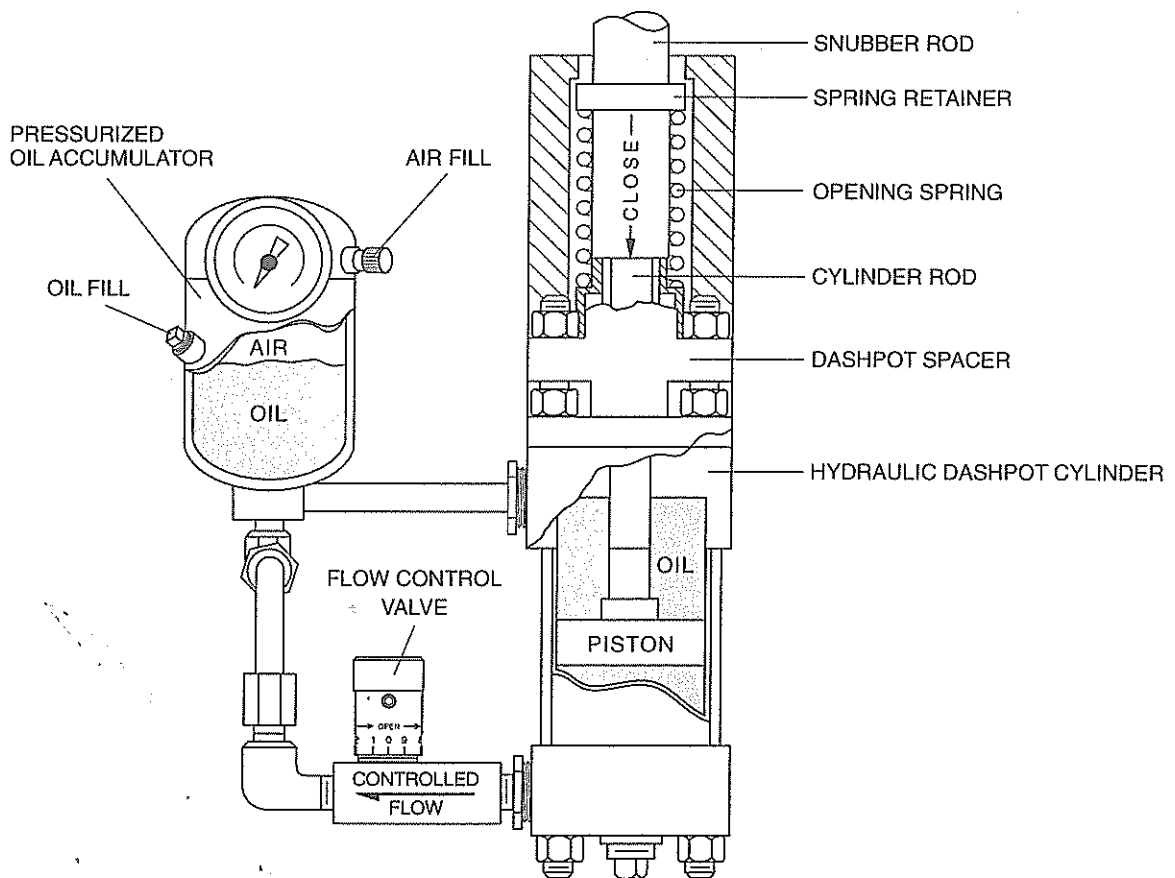
The last 10% of closing of the Check Valve can be controlled by an optional hydraulic dashpot cylinder to prevent slamming where rapid flow reversals are expected. The "Cylinder Rod" pushes against a "Snubber Rod" which in turn makes contact with the valve disc. Both sides of the "Hydraulic Cylinder" are connected to a "Pressurized Oil Accumulator" which is held at the maximum line pressure plus 50 psi. Because the cylinder "Piston" has a greater pressure area opposite the rod end, the air pressure in the accumulator will tend to extend the rod. The "Opening Spring" is also designed to extend the rod.

OPENING STROKE:

When the water system pump is started, the water pressure will force the check valve disc open. The air pressure in the accumulator and the spring will extend the cylinder and snubber rods into the valve port.

CLOSING STROKE:

When the water system pump is stopped, the weight of the disc and reverse flow of water will force the check valve disc closed thereby striking the "Snubber Rod". The "Snubber Rod" will push on the "Cylinder Rod" in the direction shown and force oil through the adjustable "Flow Control Valve". The "Flow Control Valve" will control the speed of closure for the last 10% of valve travel in typically 1 to 5 seconds.



Revised 5-28-03

BOTTOM MOUNTED OIL DASHPOT SEQUENCE OF OPERATION

DATE 7-31-97

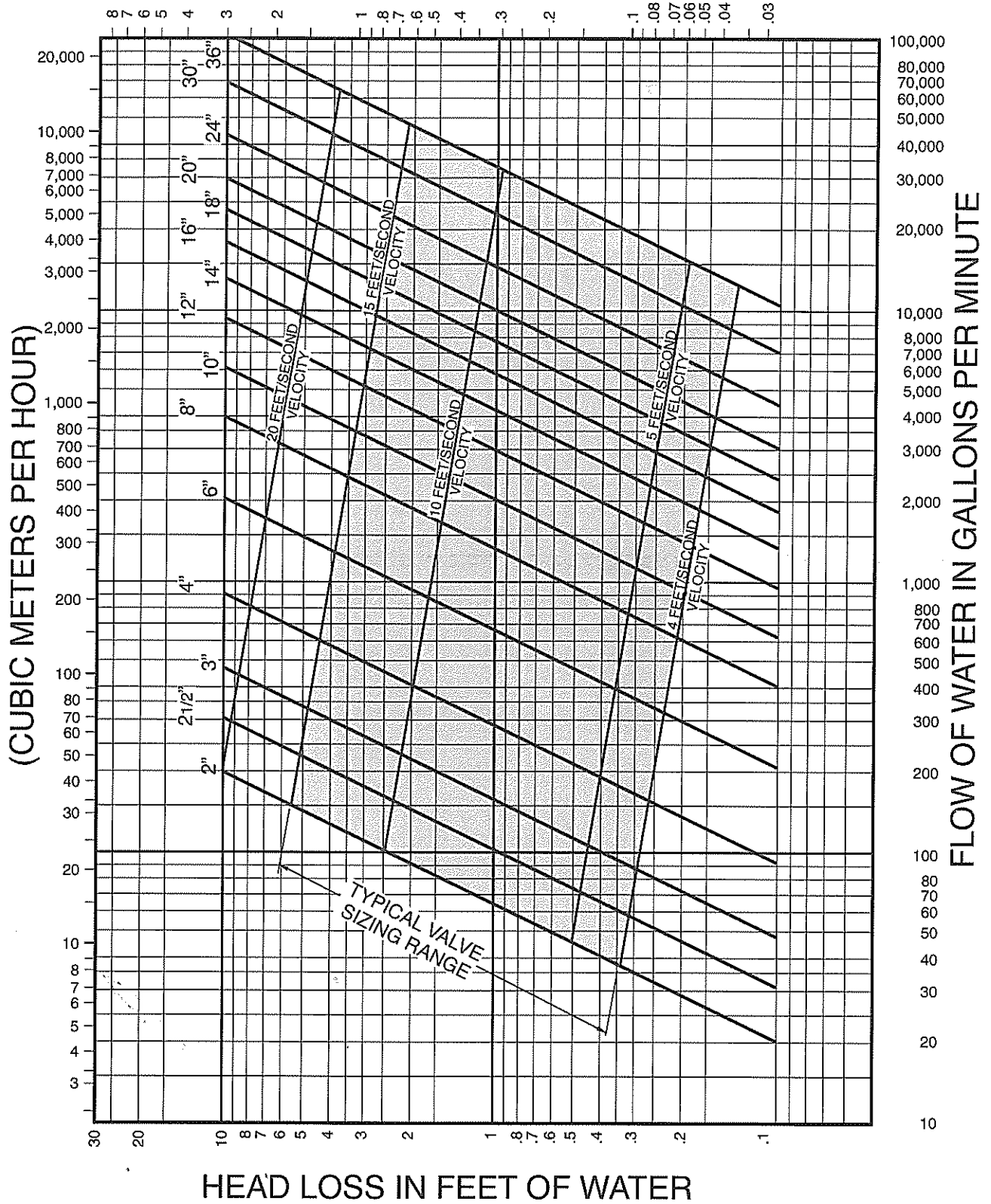
VAL-MATIC®

VALVE AND MANUFACTURING CORP.

DRWG. NO.

SS-1402

(METERS OF WATER)



SIZE	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	36
Cv	95	155	225	440	1,040	1,900	3,050	4,600	6,600	8,700	11,200	14,200	21,000	33,500	50,000

HEAD LOSS CHART FOR SWING-FLEX® CHECK VALVES



VALVE AND MANUFACTURING CORP.

Revised 12-16-03

DATE 9-26-91

DRWG. NO.

SS-902