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VALUE

Value Valves

CV-122 SERIES
Dual Plate Check Valves

VALUE VALVES

FEATURES AND BENEFITS

- CV-122 Dual plate check valve is a general purpose and one way flow valves that is stronger, lighter and more reliable than conventional swing check valves.
- Due to lighter in weight and short face-to-face dimension , it's very easy to be maintained between flanges.
- Inner parts assembled by two semicircular springs and plates, which pinned to the body. Normally close by spring action and open by fluid pressure. Due to very quick reaction of spring cycle, it could protect piping from water hammer.

GENERAL SPECIFICATIONS

- Size:40mm-1200mm(1.5"~48")
- PRESSURE TESTING AS ACCORDING TO ISO 5208
- Seat testing : 11bar (160psi.)
- Body testing : 15bar (220psi.)
- ANSI CLASS 150LB/ PN10
- END CONNECTIONS: BS 10 TABLE "E". ANSI 150LB ,ISO-PN. JIS 10K

(Other flange connection please contacts with Value Valves Co., Ltd.)
*Technical information is only for reference. Value Valves Co., Ltd. reserves the right to change without previous notice.

Comparison of the shape with conventional swing check valve

DUAL PLATE CHECK VALVES

- Small and Light
- Quick Vertical and Horizontal
- Bubble tight

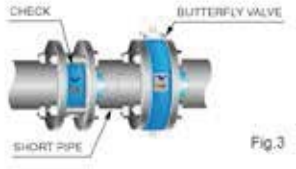
SWING CHECK VALVE

- Large and Heavy
- Slow reaction
- Horizontal installation
- Leakage allowable

PRECAUTIONS IN PIPING

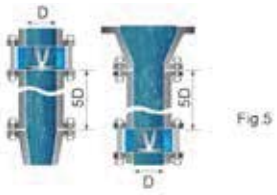
*Lay pipes so that the cast direction of wafer Check body corresponds with the flow direction. (Fig.1)

*It can be installed in vertical piping.
*In horizontal piping, set the rib of wafer Check vertically.(Fig.2)

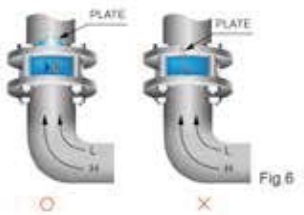


*Use an extension tube between wafer Check and the butterfly valve. Never connect wafer Check to the valve directly.(Fig.3)

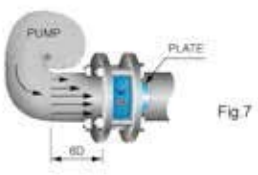
*Avoid entering the end of a tube or gasket within the operating area of a radius of the wafer Check plate.(Fig.4)



*Never mount a reducer just in front of or behind wafer Check. Leave a space of 5 times the valve diameter(5D) or more.(Fig.5)

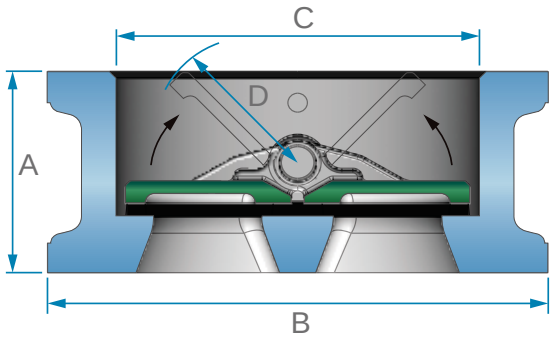


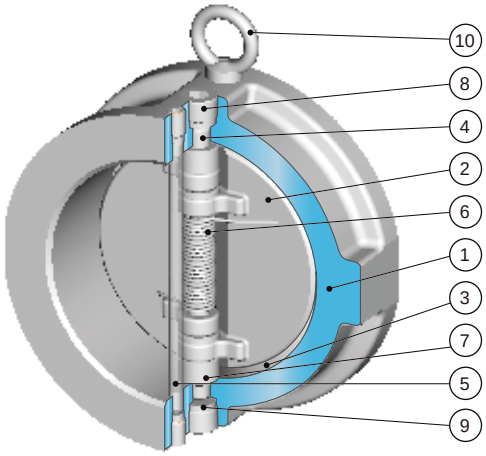
*When installing wafer Check near an elbow, leave a space as large as possible between an elbow and wafer Check and be sure that the plate is stressed evenly .(Fig.6)



*When installing wafer Check at a pump outlet, leave a space of at least 6 times the valve diameter (6D) and be sure that the plate is evenly stressed by fluid. (Fig.7)

*Consult us when flow velocity of liquid exceed 3m/sec.
*Seat leakage may occur when pressure difference is 0.02Mpa(0.2kgf/cm^{2}G) or below.





DIMENSION CV-122

Unit : mm

mm	inch	A	B	C	D	WEIGHT(kg)
40	1.5	43	96	72	25	1.5
50	2	43	98	66	29	1.6
65	2.5	46	110	80	36	1.9
80	3	64	128	100	44	2.7
100	4	64	156	112	53	4.2
125	5	70	187	135	65	6.8
150	6	76	213	160	77	10.7
200	8	89	267	210	102	17.2
250	10	114	328	260	127	28.7
300	12	114	375	310	152	33.0
350	14	127	415	360	170	71.0
400	16	140	482	410	220	99.0
450	18	152	530	460	225	118
500	20	152	580	510	250	180
550	22	219	660	559	264	228
600	24	222	718	610	292	549
650	26	279	772	660	312	579
700	28	321	832	711	337	580
750	30	330	883	762	365	700
800	32	356	940	813	397	800
900	36	387	1048	914	440	1000
1000	40	419	1162	1016	495	1065
1050	42	432	1219	1067	527	1260
1200	48	524	1384	1219	603	2055

*Each materials can provide on different process of customer's requirements.

PART AND MATERIALS CV-122

No.	NAME	MATERIALS	SPECIFICATION		REMARKS
			JIS	ASTM	
1	BODY	CAST IRON	FC200	A126 ClassB	
		DUCTILE IRON	FCD400	A536-65-45-12	
2	PLATE	BRONZE	ALBC2	C95400	
		STAINLESS STEEL	SCS13A	A351CF8	
			SCS14A	A351CF8M	
3	SEAT	NBR(NITRILE)			-10℃ ~80℃ (14 ℉ ~176 ℉)
		EPDM			-20℃ ~120℃ (-4 ℉ ~248 ℉)
4	HINGE PIN	STAINLESS STEEL	SUS304	A182F304	
5	STOP PIN	STAINLESS STEEL	SUS304	A182F304	
6	SPRING	STAINLESS STEEL	SUS304	A182F304	14"~24"
			SUS316	A182F316	1.5"~12"
7	BUSHING	TEFLON			
8	SET BOLT	STEEL	SCM3		
9	PACKING	NBR(NITRILE)			
10	EYE BOLT	FORGING STEEL	SF40A		FOR 5" AND LARGER

*Other dimensions please consult with Value Valves.

CV FLOW COFFICIENT CV-122

mm	inch	Cv	mmAq
50	2	55	300
65	2.5	85	300
80	3	145	250
100	4	290	200
125	5	460	150
150	6	800	150
200	8	1550	140
250	10	2800	140
300	12	4100	130

mm	inch	Cv	mmAq
350	14	5350	130
400	16	8250	100
450	18	10550	70
500	20	14500	70
600	24	24000	60
800	32	48000	50
900	36	63000	40
1050	42	91000	35
1200	48	125000	30

Note:
1. The pressure-drop corresponding to the spring action, is refered to the normal torque type.
2. Cv=The number of U.S. Gallons/minute that will result in 1 psi pressure lose across the valve at temp of 15.6℃ (60 ℉).
3. Cv=1.17Kv
4. Where the Kv value denotes the rate in m^3/Hr for water at 25℃ (77 ℉) flowing under pressure differential 1 Kg/cm^2.

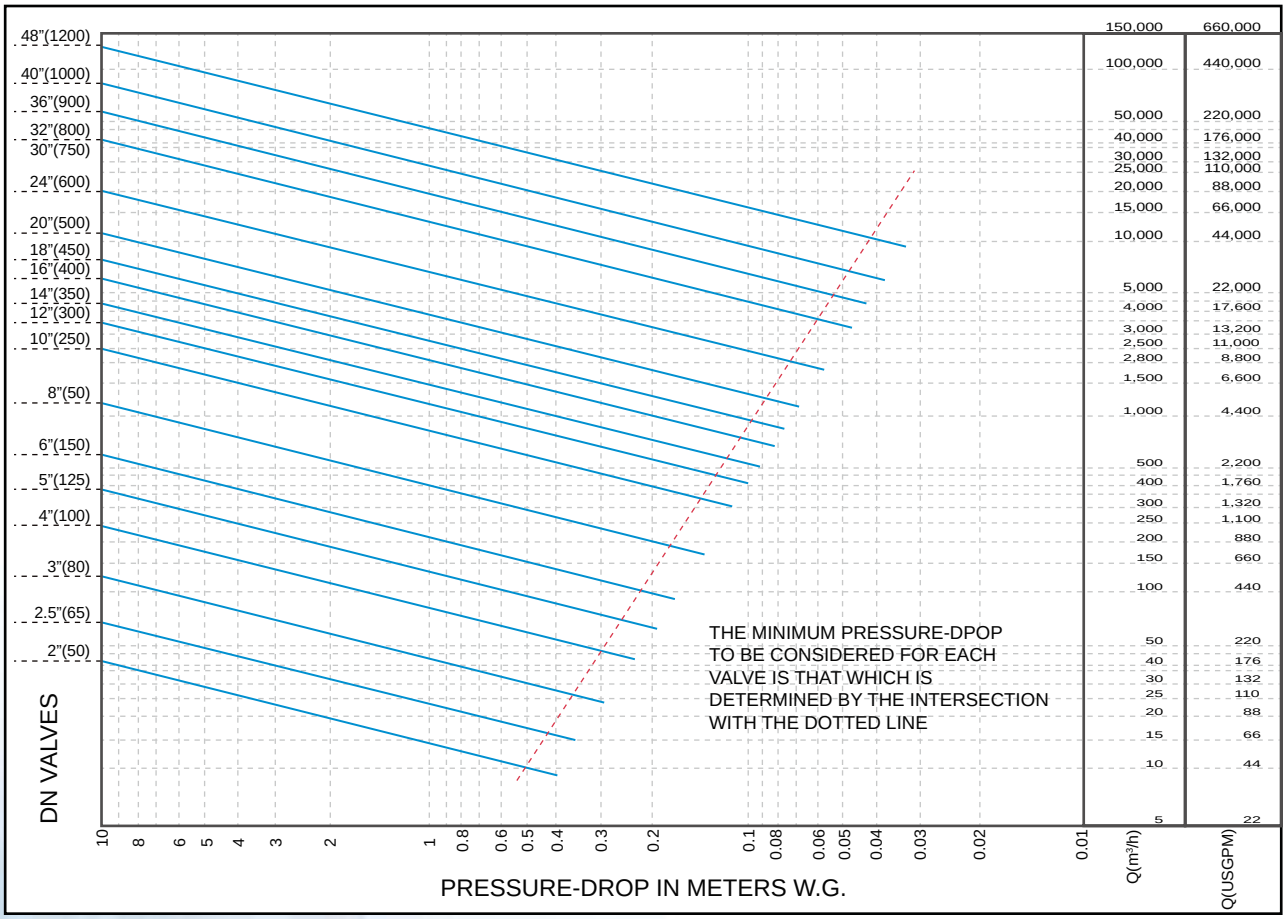
Q=Flow in gpm
(U.S. gallons per minute)

$$Q = C_V \sqrt{\frac{\triangle P}{G_L}}$$

△ p=pressure drop through the valve (psi)

G_L= specific gravity
(for water at 15.6℃ (60 ℉) =1)

PRESSURE DROP - FLOW RATE CV-122



In water rubber check valves (Graph for water in normal conditions)

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