

Butterfly Valve Type 55 (Manual Type)

Features

- High corrosion resistance against corrosive fluid.
(Ideal for corrosive chemical line)
- Cv value is improved by reduced disc thickness and larger opening area.
- Excellent heat and cold resistance allowing for continuous operation at -20 to 100 °C.
- Simple stem seal structure facilitates maintenance.



Basic specifications

- Valve Type : Butterfly Valve Type 55
- Size / Lever Type : 50 mm - 125 mm (2 inch – 5 inch)
/ Gear Type : 50 mm - 250 mm (2 inch – 10 inch)
- Body Material / : FCD-S (EPOXY POWDER COATING)
- Seal Material / Seat : PTFE
- Connection / Wafer : JIS B2220 10K, JIS B2220 5K, DIN/EN1092-1 PN10, ANSI B16.5 CLASS150

	FLUID TEMPERATURE °C {°F}	MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa {psi}
FCD-S	-20 ~ 100 { -5~210 }	1.0 {150}

Note: The maximum working pressure is the value including the water hammer pressure.
Be careful that the maximum working pressure is not exceeded during use.

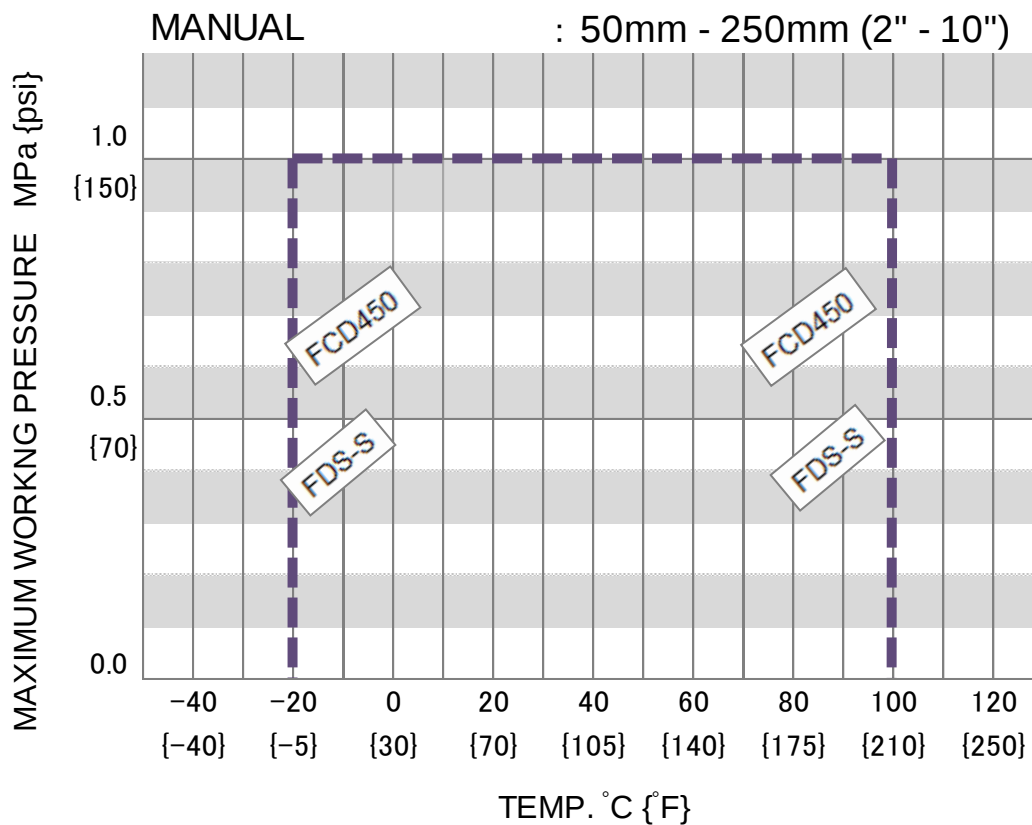
* Concerning the allowable pressure for each temperature and material, see the technical documents at the next page of this sheet.

Certificate / Approval

PED

"For details of applicable products, please consult us."

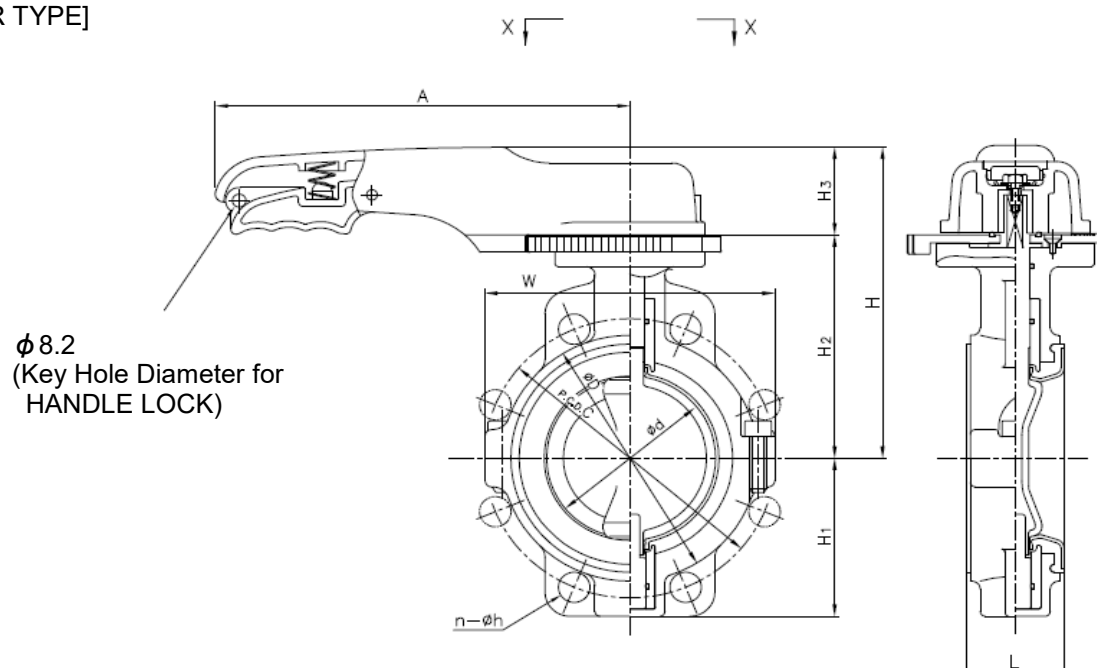
Working pressure vs. Temperature



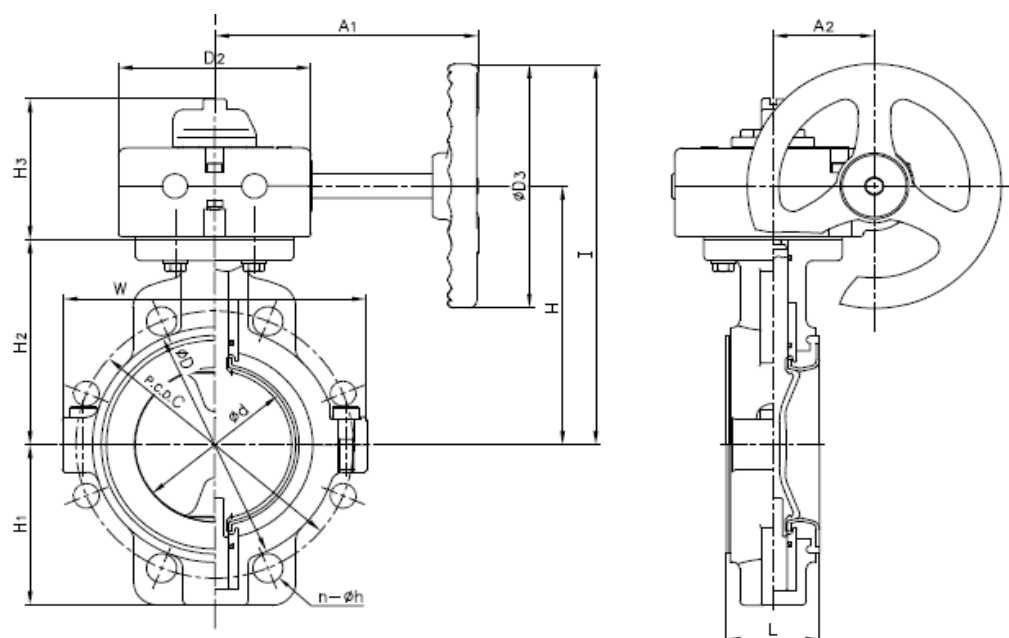
Note: Make sure that the temperature and pressure are within the working range during operation.
(If the tolerance range is exceeded during use, the valve may be damaged.)

Product dimension

[LEVER TYPE]



[GEAR TYPE]



JIS, DIN (Unit: mm)

■ JIS, DIN (Unit: mm)

mm	d	D	L	H		H ₁	H ₂		H ₃		I	W	A	A ₁	A ₂	HANDLE ROTATION
				LEER TYPE	GEAR TYPE		LEER TYPE	GEAR TYPE	LEER TYPE	GEAR TYPE						
50	55	90	44	161	135	61	105	100	56	92	215	116	220	167	64	9.5
80	80	125	54	180	154	95	124	119	56	92	234	152	250	167	64	
100	100	154	59	196	170	99	140	135	56	92	250	174	250	167	64	
125	125	181	64	235	193	120	166	158	69	92	273	206	320	167	64	
150	150	211	75	-	-	137	-	175	-	92	290	236	-	167	64	
200	191	265	85	-	240	163	-	205	-	92	320	282	-	167	64	
250	245	325	96	-	275	200	-	240	-	92	355	341	-	167	64	

JIS 5K			JIS 10K			DIN PN10		
C	n	h	C	n	h	C	n	h
105	2(4)	15	120	2(4)	19	125	2(4)	18
145	- (4)	19	150	4(8)	19	160	4(8)	18
165	4(8)	19	175	4(8)	19	180	4(8)	18
200	4(8)	19	210	4(8)	23	210	4(8)	18
230	4(8)	19	240	4(8)	23	240	4(8)	22
280	4(8)	23	290	4(12)	23	295	4(8)	22
345	4(12)	23	355	4(12)	25	350	4(12)	22

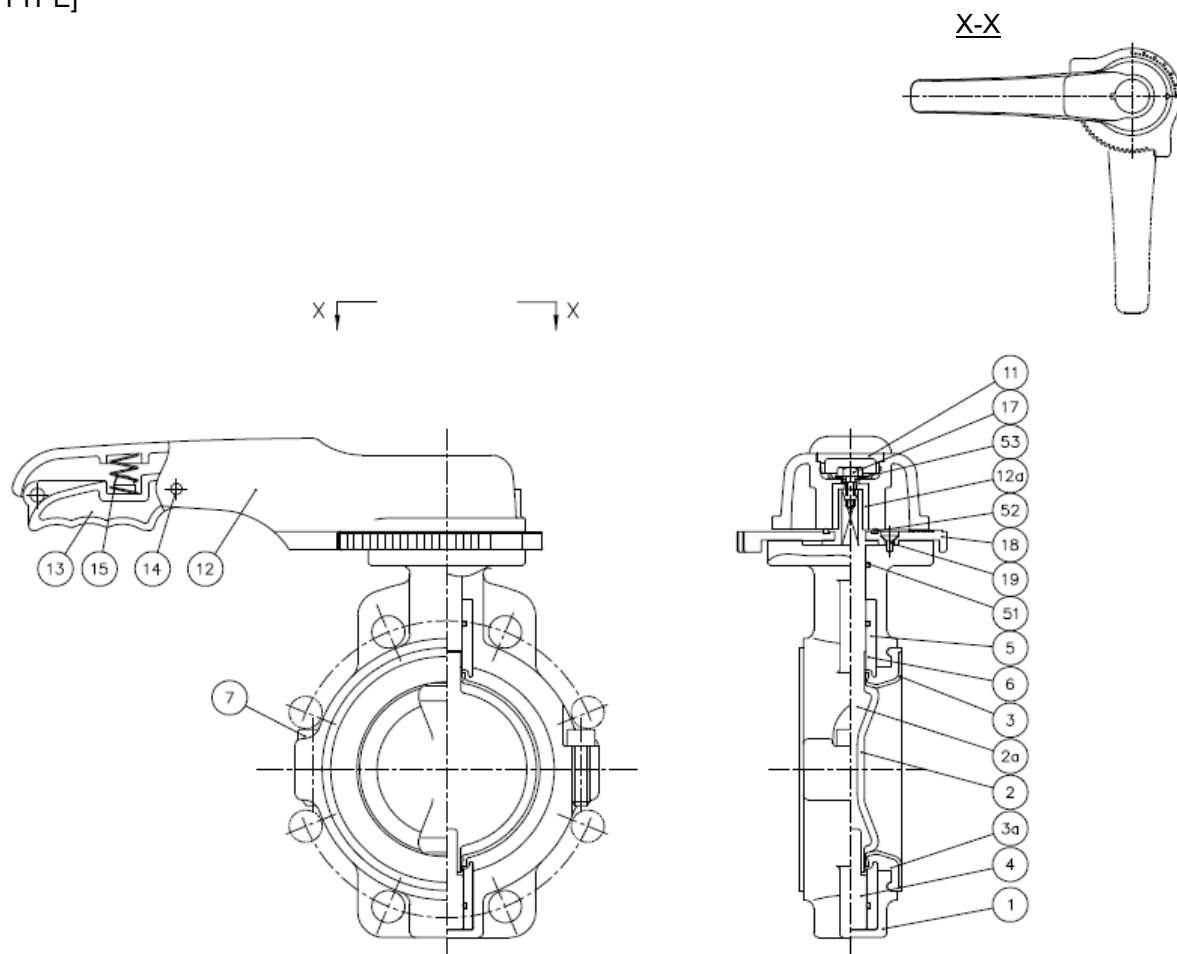
ANSI (Unit: inch)

inch	mm	d	D	L	H		H ₁	H ₂		H ₃		I	W	A	A ₁	A ₂
					LEER TYPE	GEAR TYPE		LEER TYPE	GEAR TYPE	LEER TYPE	GEAR TYPE					
2	50	2.17	3.54	1.73	6.34	5.31	2.40	4.13	3.94	2.20	3.62	8.46	4.57	8.66	6.57	2.52
3	80	3.15	4.92	2.13	7.09	6.06	3.74	4.88	4.69	2.20	3.62	9.21	5.98	9.84	6.57	2.52
4	100	3.94	6.06	2.32	7.72	6.69	3.90	5.51	5.31	2.20	3.62	9.84	6.85	9.84	6.57	2.52
5	125	4.92	7.13	2.52	9.25	7.60	4.72	6.54	6.22	2.72	3.62	10.75	8.11	12.60	6.57	2.52
6	150	5.91	8.31	2.95	-	8.27	5.39	-	6.89	-	3.62	11.42	9.29	-	6.57	2.52
8	200	7.52	10.43	3.35	-	9.45	6.42	-	8.07	-	3.62	12.60	11.10	-	6.57	2.52
10	250	9.65	12.80	3.78	-	10.83	7.87	-	9.45	-	3.62	13.98	13.43	-	6.57	2.52

ANSI CLASS 150			HANDLE ROTATION	GEAR BOX TYPE
C	n	h		
4.75	2(4)	0.75	9.5	TYPE 1
6.00	- (4)	0.75		
7.50	4(8)	0.75		
8.50	4(8)	0.88		
9.50	4(8)	0.88		
11.75	4(8)	0.88		
14.25	4(12)	1.00		

Parts list

[LEVER TYPE]

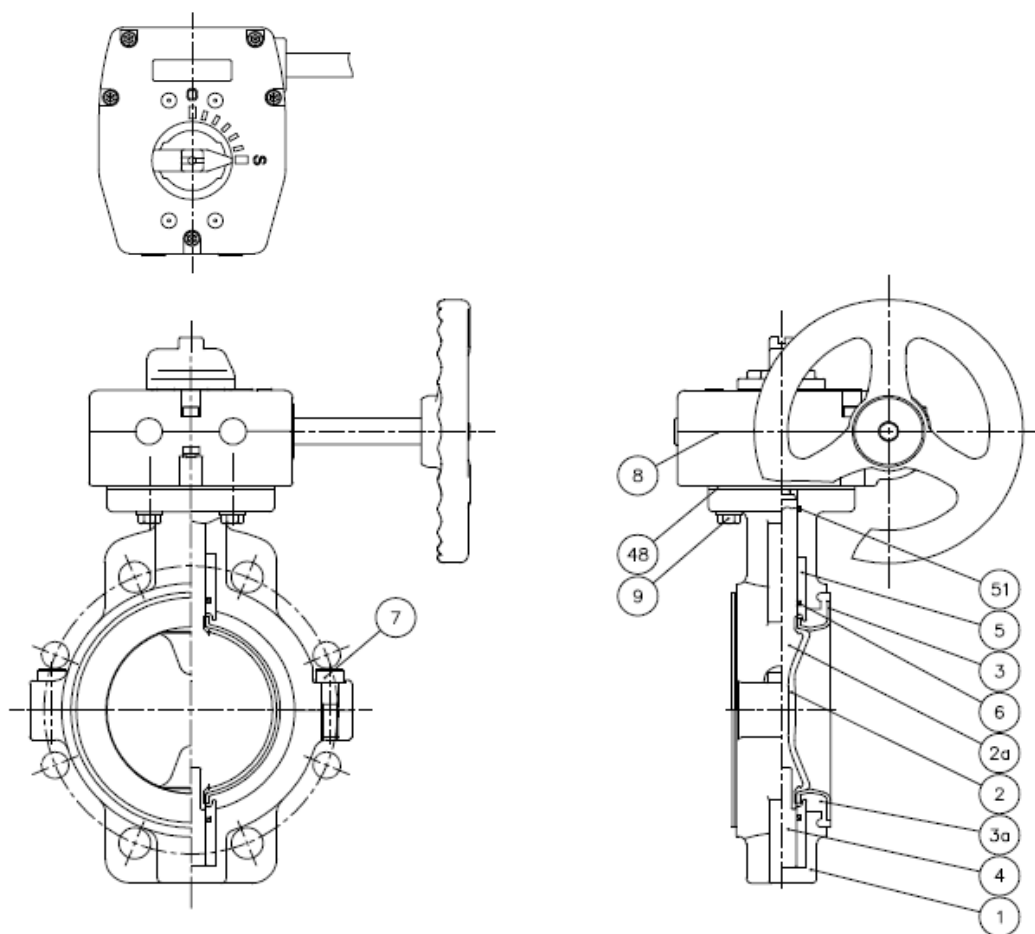


PART NO./NAME	QTY	MATERIAL
1 BODY	1	FCD450, FCD-S (Epoxy Powder Coating)
2 DISC	1	PTFE
2a INSERTED METAL OF DISC	1	STAINLESS STEEL
3 SEAT	1	PTFE
3a SEAT CUSHION	1	CR
4 STEM	1	STAINLESS STEEL
5 BUSH	2	STAINLESS STEEL

PART NO./NAME	QTY	MATERIAL
6 O-RING (A)	2	EPDM
7 BOLT (A)	2	STAINLESS STEEL
11 CAP	1	PP
12 HANDLE	1	PP
12a HANDLE INSERTED METAL	1	STAINLESS STEEL
13 HANDLE LEVER	1	PPG
14 PIN	1	PPG
15 SPRING	1	STAINLESS STEEL

PART NO./NAME	QTY	MATERIAL
17 BOLT (C)	1	STAINLESS STEEL
18 LOCKING PLATE	1	PPG
19 SCREW (A)	4	STAINLESS STEEL
51 O-RING (B)	1	NBR
52 O-RING (C)	1	EPDM
53 RUBBER+WASHER	1	STAINLESS STEEL + EPDM

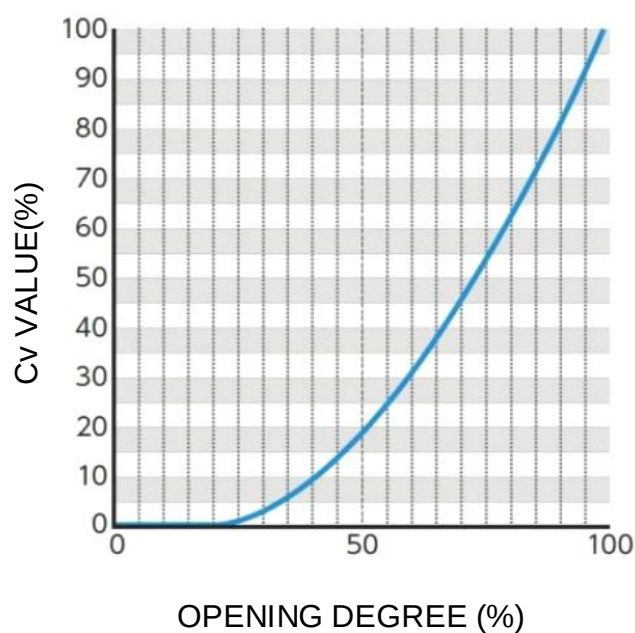
[GEAR TYPE]



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3 SEAT	1	PTFE
3a SEAT CUSHION	1	CR
4 STEM	1	STAINLESS STEEL
5 BUSH	2	STAINLESS STEEL
6 O-RING (A)	2	EPDM

PART NO./NAME	QTY	MATERIAL
7 BOLT (A)	-	STAINLESS STEEL Used for size 50 - 125mm : 2 150mm over : 4
8 GEAR BOX	1	PLASTIC etc.
9 BOLT (B)	4	STAINLESS STEEL
48 GASKET (C)	1	EPDM
51 O-RING (B)	1	NBR

Cv value for each opening degree



mm	50	80	100	125	150	200	250
inch	2	3	4	5	6	8	10
BUTTERFLY VALVE TYPE 55	100	285	600	940	1,500	2,500	4,200

The values shown are reference values, not guaranteed values.

Handle rotation for side gear type (Full open - Full close)

mm	50	80	100	125	150	200	250
inch	2	3	4	5	6	8	10
Handle rotation	9.5	9.5	9.5	9.5	9.5	9.5	9.5

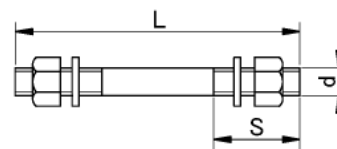
Operating torque

mm	50	80	100	125	150	200	250
inch	2	3	4	5	6	8	10
Stem torque (O→S) Nm [lb-inch]	22 [195]	45 [400]	45 [400]	100 [885]	130 [1150]	190 [1680]	220 [1950]
Handle torque (O→S) for sid gear type Nm [lb-inch]	—	—	—	—	66 [580]	100 [885]	120 [1065]

The values shown are reference values, not guaranteed values.

Dimension of bolt length (reference:recommended data)

BOLT A



■ JIS 10K

UNIT : mm

		BOLT A			QTY	
mm	inch	d	TYPE 55		BOLT A	NUT / WASHER
			L	S		
50	2	M16	130	35	4	8
80	3		140		8	16
100	4		145			
125	5	M20	165	40		
150	6		180			
200	8		195		12	24
250	10	M22	215			

■ JIS 5K

UNIT : mm

mm	inch	BOLT A			QTY	
		d	TYPE 55		BOLT A	NUT / WASHER
			L	S		
50	2	M12	110	30	4	8
80	3	M16	125	40	8	16
100	4		135			
125	5		140			
150	6		155			
200	8	M20	195	45	12	24
250	10		210			

Product weight list (reference)

LEVER TYPE / GEAR TYPE

Unit : kg

mm	50	80	100	125	150	200	250
inch	2	3	4	5	6	8	10
LEVER TYPE	3.0	4.5	6.0	10.5	—	—	—
GEAR TYPE	4.9	6.4	7.9	11.4	14.4	22.9	32.9

Product model code list

ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE
V	55	**	S	T	W	*	***
V	MANUAL VALVE	LV LEVER TYPE SG GEAR TYPE	S FCD-S	T PTFE	W WAFER	1 JIS 10K 5 JIS 5K D DIN A ANSI	050 50mm S 250 250mm

Installation, Operation and Maintenance Manual

"For details of Installation, Operation and Maintenance, please contact our nearest distribution agent or sales office.