

# BUTTERFLY VALVE TYPE 55 50mm - 250mm(2inch - 10inch)

## FEATURES

### Extreme Corrosion Resistance

All of the wetted parts are completely covered with PTFE, which can result in excellent performance against a highly corrosive media. Therefore BUTTERFLY VALVE TYPE 55 is the most suitable valve for lines of highly corrosive media in factories of Soda electrolysis, Chemicals and Agricultural chemicals.

### Improved Cv Value

Thinner disc makes the area of flow passage wider and the Cv value is improved as a result.

### Excellent resistibility to high and low temperature.

BUTTERFLY VALVE TYPE 55 can be used continuously at the range from -20°C to 100°C (-5°F to 210°F)

### Simple Structure for Stem Sealing

Simple structure for stem sealing offers high reliability and also allows for easy maintenance.



## APPLICATIONS

Electrolytic soda, agricultural chemicals, chemicals, steel, aluminum refining exhaust fumes dischargers, desulfurizers, erosive and corrosive solution lines

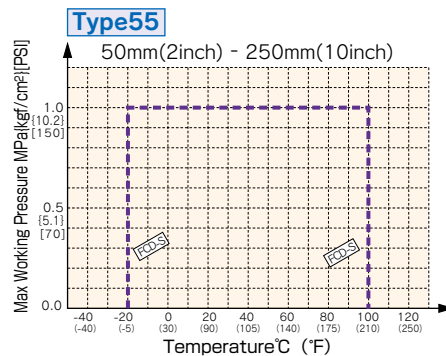
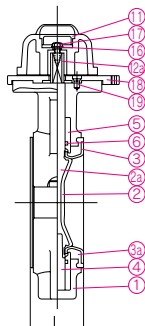
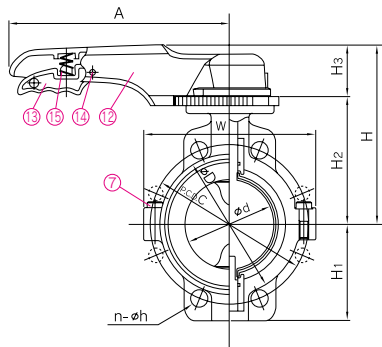
## SPECIFICATIONS

Body material	DUCTILE CAST IRON (FCD-S)[with epoxy powder coat]	Nominal size mm(inch)	50(2), 80(3), 100(4), 125(5) 150(6), 200(8), 250(10)
Disc·Seat material	PTFE	Max. Working Pressure	1.0MPa{10.2kgf/cm <sup>2</sup> }[150PS1]
		Working Temperature	-20°C - 100°C(-5° F - 210° F)

## DIMENSION

## WORKING PRESSURE VS. TEMPERATURE

### Lever



## PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	FCD-S(Epoxy Powder Coat)
②	DISC	1	PTFE
②a	DISC INSERT	1	STAINLESS STEEL304
③	SEAT	1	PTFE
③a	CUSHION RUBBER	1	CR
④	STEM	1	STAINLESS STEEL304
⑤	BUSH	2	STAINLESS STEEL304
⑥	O-RING	2	EPDM
⑦	BOLT(A)	-	STAINLESS STEEL304
⑪	CAP	1	PP
⑫	HANDLE	1	PP
⑫a	INSERTED METAL OF HANDLE	1	STAINLESS STEEL304
⑬	HANDLE LEVER	1	PPG
⑭	PIN	1	PPG
⑮	SPRING	1	STAINLESS STEEL304
⑯	WASHER	1	STAINLESS STEEL304
⑰	BOLT(C)	1	STAINLESS STEEL304
⑱	LOCKING PLATE	1	PPG
⑲	SCREW	4	STAINLESS STEEL304

## DIMENSIONS TABLE

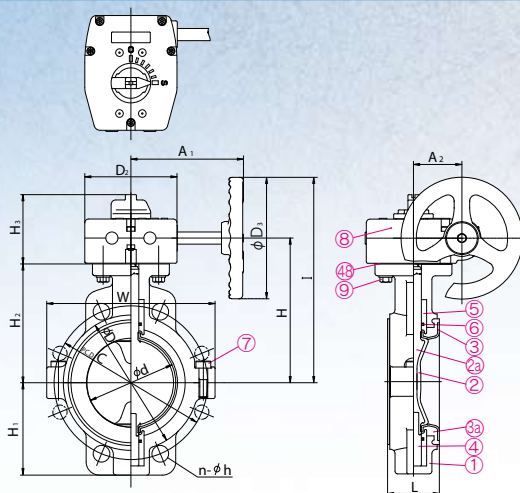
Nominal Size		JIS 10K										Unit:mm	
mm	inch	d	C	n	h	D	L	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	W	A
50	2	55	120	2(4)	19	90	44	161	61	105	56	116	220
80	3	80	150	4(8)	19	125	54	180	95	124	56	152	250
100	4	100	175	4(8)	19	154	59	196	99	140	56	174	250
125	5	125	210	4(8)	23	181	64	235	120	166	69	206	320

Nominal Size		DIN PN 10										Unit:mm	
mm	inch	d	C	n	h	D	L	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	W	A
50	2	55	125	2(4)	18	90	44	161	61	105	56	116	220
80	3	80	160	4(8)	18	125	54	180	95	124	56	152	250
100	4	100	180	4(8)	18	154	59	196	99	140	56	174	250
125	5	125	210	4(8)	18	181	64	235	120	166	69	206	320

Nominal Size		ANSI Class 150, ANSI Class 125										Unit:inch	
inch	mm	d	C	n	h	D	L	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	W	A
2	50	2.17	4.75	2(4)	0.75	3.54	1.73	6.43	2.40	4.13	2.20	4.57	8.66
3	80	3.15	6.00	-(4)	0.75	4.92	2.13	7.09	3.74	4.88	2.20	5.98	9.84
4	100	3.94	7.50	4(8)	0.75	6.06	2.32	7.72	3.90	5.51	2.20	6.85	9.84
5	125	4.92	8.50	4(8)	0.88	7.13	2.52	9.25	4.72	6.54	2.72	8.11	12.60

DIMENSION

Gear



PARTS & MATERIALS

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	※FCD-S(Epoxy Powder Coat)	⑤	BUSH	2	STAINLESS STEEL304
②	DISC	1	PTFE	⑥	O-RING	2	EPDM
③	DISC INSERTED METAL	1	STAINLESS STEEL304	⑦	BOLT(A)	-	STAINLESS STEEL304
④	SEAT	1	PTFE	⑧	GEAR BOX	1	PLASTIC etc.
⑤	SEAT CUSION	1	CR	⑨	BOLT(B)	4	STAINLESS STEEL304
⑥	STEM	1	STAINLESS STEEL304				

Note : FCD-S: DUCTILE CAST IRON

DIMENSIONS TABLE

JIS																			Unit:mm		
Nominal Size mm inch	d	JIS 5K			JIS 10K			D	D <sub>2</sub>	D <sub>3</sub>	L	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	I	W	A <sub>1</sub>	A <sub>2</sub>	Number of handle rotation	GEAR BOX MODEL No.
		C	n	h	C	n	h														
50 2"	55	105	2(4)	15	120	2(4)	19	90	122	160	44	135	61	100	92	215	116	167	64	9.5	TYPE1
80 3	80	145	-(4)	19	150	4(8)	19	125	122	160	54	154	95	119	92	234	152	167	64		
100 4	100	165	4(8)	19	175	4(8)	19	154	122	160	59	170	99	135	92	250	174	167	64		
125 5	125	200	4(8)	19	210	4(8)	23	181	122	160	64	193	120	158	92	273	206	167	64		
150 6	150	230	4(8)	19	240	4(8)	23	211	122	160	75	210	137	175	92	290	236	167	64		
200 8	191	280	4(8)	23	290	4(12)	23	265	122	160	85	240	163	205	92	320	282	167	64		
250 10	245	345	4(12)	23	355	4(12)	25	325	122	160	96	275	200	240	92	355	341	167	64		

NOTE. The shape and appearance of assembly differ little with nominal size compared to this drawing.

DIN																			Unit:mm	
Nominal Size mm inch	d	DIN 2501 PN10			D	D <sub>2</sub>	D <sub>3</sub>	L	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	I	W	A <sub>1</sub>	A <sub>2</sub>	Number of handle rotation	GEAR BOX MODEL No.		
		C	n	h																
50 2"	55	125	2(4)	18	90	122	160	44	135	61	100	92	215	116	167	64	9.5	TYPE1		
80 3	80	160	-(4)	18	125	122	160	54	154	95	119	92	234	152	167	64				
100 4	100	180	4(8)	18	154	122	160	59	170	99	135	92	250	174	167	64				
125 5	125	210	4(8)	18	181	122	160	64	193	120	158	92	273	206	167	64				
150 6	150	240	4(8)	22	211	122	160	75	210	137	175	92	290	236	167	64				
200 8	191	295	4(8)	22	265	122	160	85	240	163	205	92	320	282	167	64				
250 10	245	350	4(12)	22	325	122	160	96	275	200	240	92	355	341	167	64				

NOTE. The shape and appearance of assembly differ little with nominal size compared to this drawing.

ANSI																			Unit:mm	
Nominal Size mm inch	d	ANSI Class 150, ANSI Class 125			D	D <sub>2</sub>	D <sub>3</sub>	L	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	I	W	A <sub>1</sub>	A <sub>2</sub>	Number of handle rotation	GEAR BOX MODEL No.		
		C	n	h																
50 2"	2.17	4.75	2(4)	0.75	3.54	4.80	6.30	1.73	5.31	2.40	3.94	3.62	8.46	4.57	6.57	2.52	9.5	TYPE1		
80 3	3.15	6.00	-(4)	0.75	4.92	4.80	6.30	2.13	6.06	3.74	4.69	3.62	9.21	5.98	6.57	2.52				
100 4	3.94	7.50	4(8)	0.75	6.06	4.80	6.30	2.32	6.69	3.90	5.31	3.62	9.84	6.85	6.57	2.52				
125 5	4.92	8.50	4(8)	0.88	7.13	4.80	6.30	2.52	7.60	4.72	6.22	3.62	10.75	8.11	6.57	2.52				
150 6	5.91	9.50	4(8)	0.88	8.31	4.80	6.30	2.95	8.27	5.39	6.89	3.62	11.42	9.29	6.57	2.52				
200 8	7.52	11.75	4(8)	0.88	10.43	4.80	6.30	3.35	9.45	6.42	8.07	3.62	12.60	11.10	6.57	2.52				
250 10	9.65	14.25	4(12)	1.00	12.80	4.80	6.30	3.78	10.83	7.87	9.45	3.62	13.98	13.43	6.57	2.52				

NOTE. The shape and appearance of assembly differ little with nominal size compared to this drawing.

# Butterfly Valve Type 55 (Pneumatic Actuated Type TA) 50mm·80mm - 250mm (2·3inch - 10inch)

- Body Material**  
FCD-S
- Seat & O-ring Material**  
PTFE  
(Cushion:CR)
- Connection Standard**  
JIS 10K  
ANSI CLASS150  
DIN PN10
- Action**  
Double Acting  
Air to Open  
Air to Close
- Equipment**
  - Opening Adjustment Stopper (± 5 degree)
  - Indicator
- Option**
  - Filter Regulator
  - Solenoid Valve
  - ※ with built-in specialized speed controller and bypass valve.
  - Limit Switch
  - Speed Controller
  - Manual Operation Mechanism
  - ※ Only for air to open & close.
  - Full Opening Adjustment Mechanism
  - Positioner



## FEATURES

- Horizontal Type Actuator saves Piping Space.
- Spring unit for Air to Open & Shut is detachable so that Change-over between Double-Acting and Air to Open & Shut can be done easily.
- Various Options can be easily installed or removed and can be mounted later(except Positioners).
- Stopper enables Adjustment of angle of ±5 degree at fully-Opened or Fully-Closed position.

## OPTIONAL EQUIPMENT

Combination No.	1	2	3	4	5	6	7	8	9
Solenoid Valve ※	○	-	-	○	○	-	○	-	-
Filter Regulator	-	-	-	○	-	-	○	-	○
Speed Controller	◎	○	-	◎	◎	○	◎	-	-
Limit Switch	-	-	○	-	○	○	○	-	-
Positioner (Electric-Air, Air-Air)	-	-	-	-	-	-	-	○	○

◎ Indicates specialized for Solenoid Valve.  
 ※ With built-in speed controller and bypass valve.

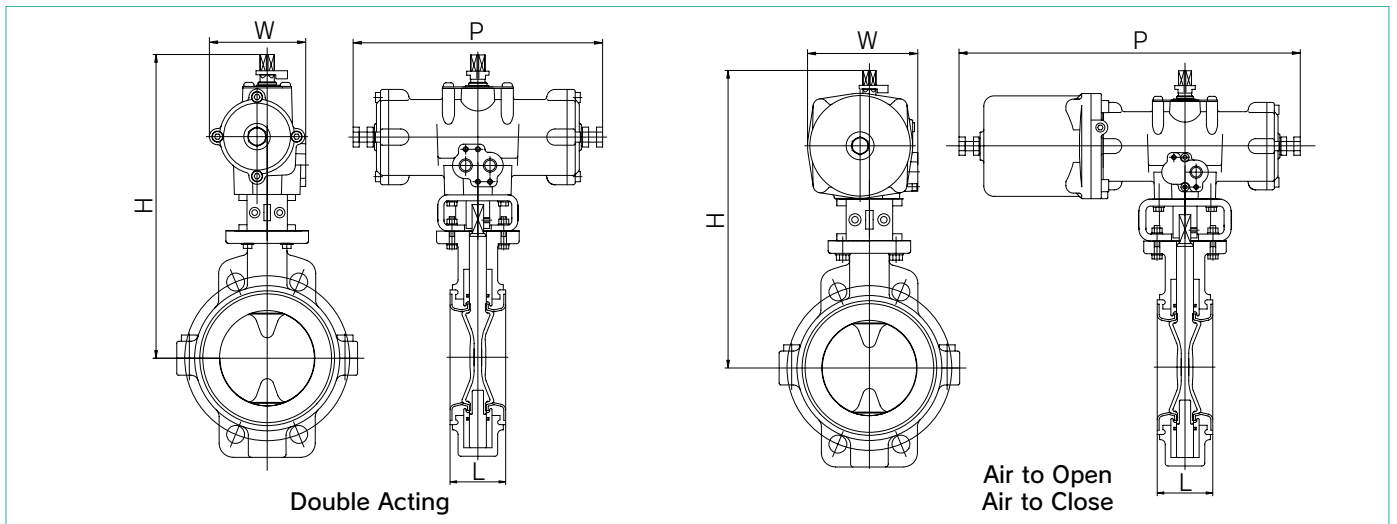
## ACTUATOR SPECIFICATION [Double Acting]

Nominal Size mm(inch)	50(2inch)	80(3inch)	100-125(4inch-5inch)	150(6inch)	200(8inch)	250(10inch)
Actuator Type	TA2A-050D	TA2A-063D	TA2A-080D	TA2A-100D	TA2A-125D	TA2A-160D
Operating Pressure Mpa[kgf/cm <sup>2</sup> ]	0.4{4.1} - 0.7{7.1}					
Air Consumption NI /open & close (at operating pressure 0.4NPa)	0.9	1.7	3.2	6.6	13.3	27.1
Air Supply Bore	Rc 1/4					

## ACTUATOR SPECIFICATION [Air to Open, Air to Close]

Nominal Size mm(inch)	50(2inch)	80(3inch)	100-125(4inch-5inch)	150(6inch)	200(8inch)	250(10inch)
Actuator Type	TA2A-050R	TA2A-063R	TA2A-080R	TA2A-100R	TA2A-125R	TA2A-160R
Operating Pressure Mpa[kgf/cm <sup>2</sup> ]	0.4{4.1} - 0.7{7.1}					
Air Consumption NI /open & close (at operating pressure 0.4NPa)	1.7	3.3	6.1	12.8	21.6	42.7
Air Supply Bore	Rc 1/4					

## DIMENSIONS FIGURE



## DIMENSIONS TABLE

JIS, ANSI, DIN		Unit:mm(inch)						
Nominal Size		50	80	100	125	150	200	250
Common	L	44 (1.73)	54 (2.13)	59 (2.32)	64 (2.52)	75 (2.95)	85 (3.35)	96 (3.78)
	H	268 (10.55)	302 (11.89)	346 (13.62)	375 (14.76)	428 (16.85)	502 (19.76)	583 (22.95)
Double acting	W	82 (3.23)	95 (3.74)	116 (4.57)	116 (4.57)	142.5 (5.61)	150 (5.90)	181 (7.13)
	P	210 (8.27)	250 (9.84)	292 (11.50)	292 (11.50)	362 (14.25)	440 (17.32)	532 (20.94)
Air to open, Air to close	W	103 (4.06)	118.5 (4.67)	141.5 (5.57)	141.5 (5.57)	174 (6.86)	192.5 (7.58)	231 (9.10)
	P	345 (13.58)	413 (16.26)	487 (19.17)	487 (19.17)	598 (23.54)	762 (30.00)	924 (36.38)

## WORKING PRESSURE VS. TEMPERATURE

