

# Lug Butterfly Valve Type 57L (Manual Type)

## Features

- Significantly reduces the burden of fluid removal work.
- The over tightening prevention mechanism eliminates the risk of seat breakage.
- Plastic gear box with excellent corrosion resistance and high operability.



## Basic specifications

- Valve Type : Lug Butterfly Valve Type 57L
- Size / Lever Type : 80 mm - 200 mm ( 3 inch – 8 inch )
- / Gear Type : 80 mm - 250 mm ( 3 inch – 10 inch )
- Body Material / : PDCPD
- Seal Material / Seat : EPDM, FKM, etc.
- Connection / Wafer : JIS B2220 10K, DIN/EN1092-1

			FLUID TEMPERATURE °C {°F}	MAXIMUM WORKING PRESSURE (NORMAL TEMPERATURE) MPa {psi}
				FOR WAFER
PDCPD	( DISC MATERIAL-	PP )	-20 ~ 80 { -5~175 }	1.0 {150}
PDCPD	( DISC MATERIAL-	PVDF )	-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.

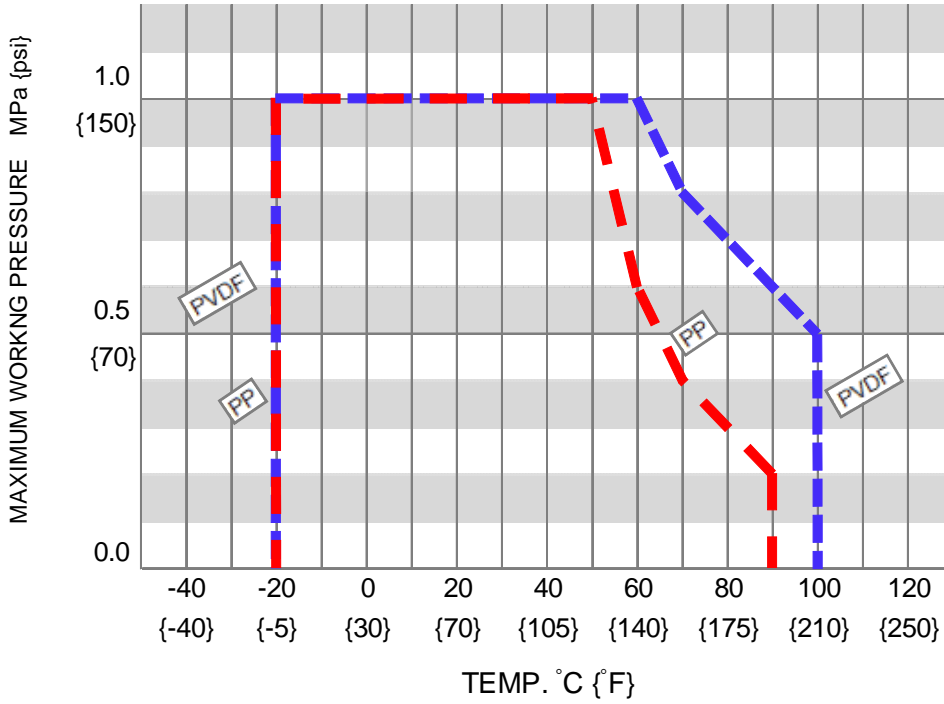
## Certificate / Approval

### PED

“For details of applicable products, please consult us.”

### Working pressure vs. Temperature

BUTTERFLY VALVE TYPE 57L (PDCPD WAFER)  
MANUAL : 80mm - 250mm



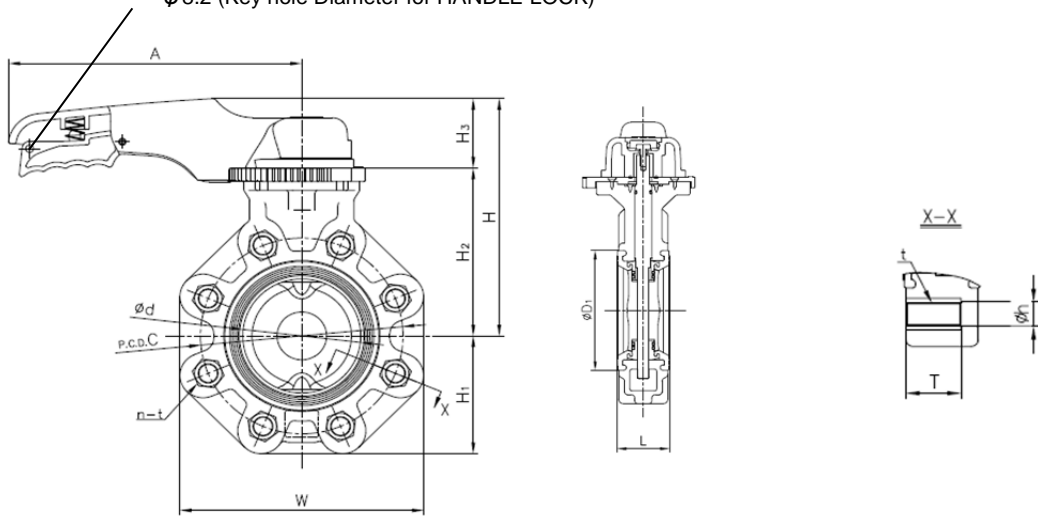
Note: Make sure that the temperature and pressure are within the working range during operation.  
(If the tolerance range is exceeded during use, the valve may be damaged.)

Product dimension

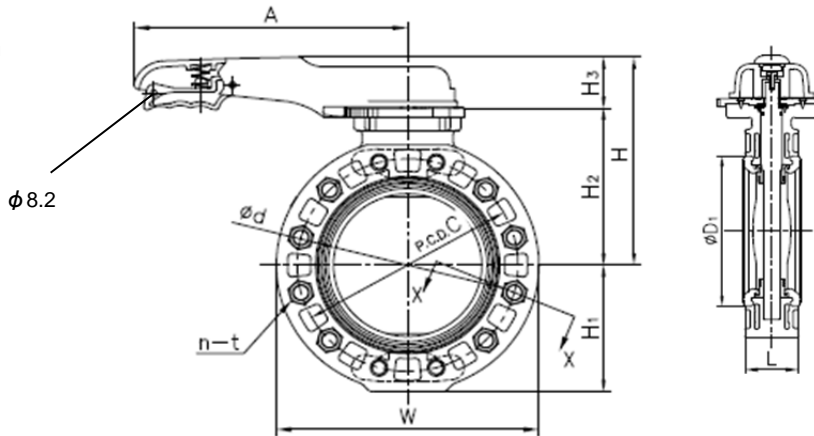
[LEVER TYPE]

φ 8.2 (Key hole Diameter for HANDLE LOCK)

80-150mm



200mm

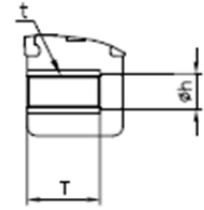
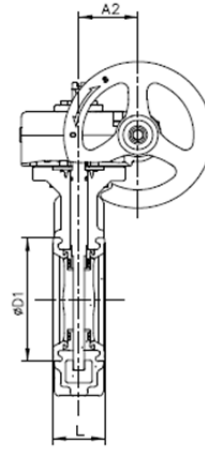
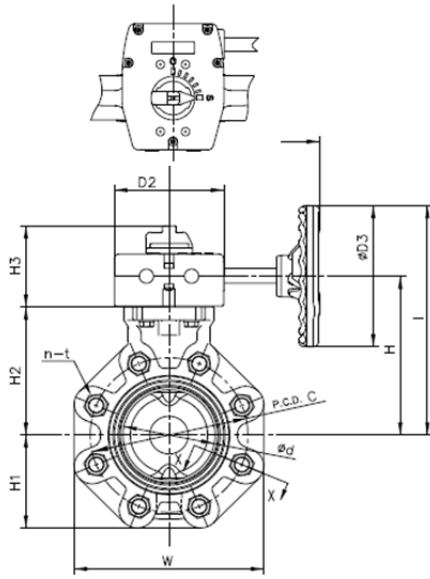


■ JIS,DIN (Unit: mm)

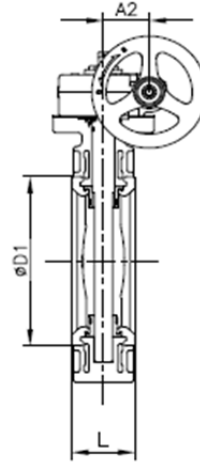
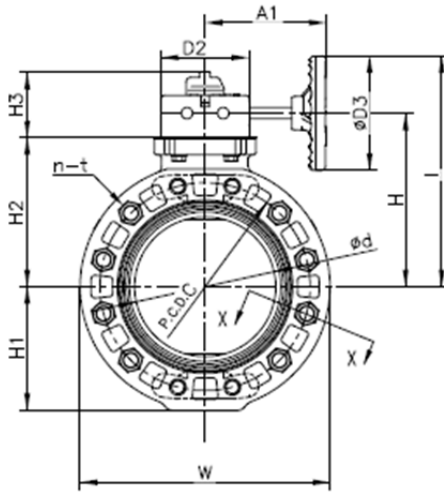
mm	inch	d	D <sub>1</sub>	L	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	A	W	T	t	JIS 10K			DIN PN10		
													C	n	h	C	n	h
80	3	77	105	46	191	94	135	56	250	193	40	M16X40 width across fat 24	150	8	19	160	8	18
100	4	102	134	56	206	105	150	56	250	217	40	M16X40 width across fat 24	175	8	19	180	8	18
125	5	129	169	66	237	124	168	69	320	247	50	M20X50 width across fat 30	210	8	23	210	8	18
150	6	150	190	71	252	138	183	69	320	285	50	M20X50 width across fat 30	240	8	23	240	8	23
200	8	195	242	87	283	173	214	69	400	345	60	M20X60 width across fat 30	295	12	23	295	8	23

[GEAR TYPE]

80-150mm



200, 250mm



■JIS,DIN (Unit: mm)

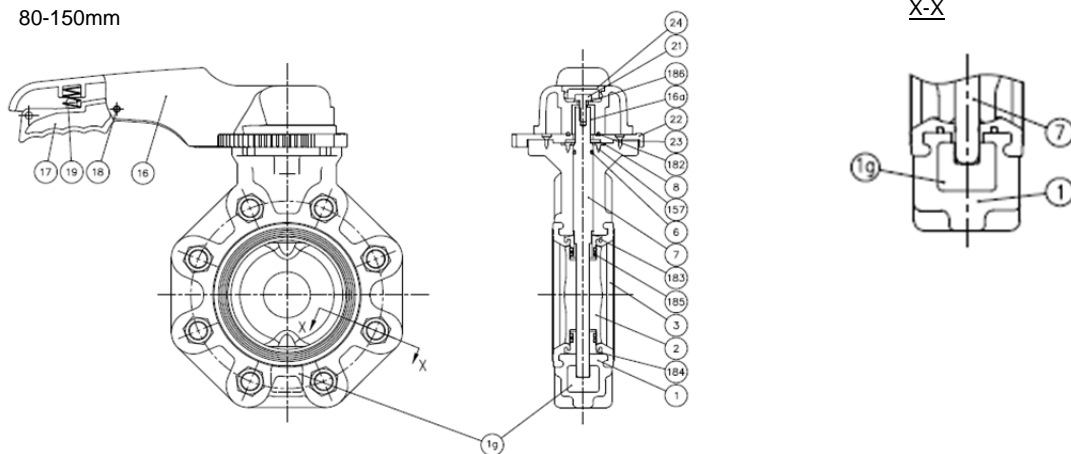
mm	inch	d	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	L	H	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	I	A <sub>1</sub>	A <sub>2</sub>	W	T	t	JIS 10K			DIN PN10			Number of Handle Wheel	GEAR BOX TYPE
																	C	n	h	C	n	h		
80	3	77	105	122	160	46	165	94	130	92	245	167	64	193	40	M16X40 width across fat 24	150	8	19	160	8	18	9.5	TYPE 1
100	4	102	134	122	160	56	180	105	145	92	260	167	64	217	40	M16X40 width across fat 24	175	8	19	180	8	18		
125	5	129	169	122	160	66	195	124	160	92	275	167	64	247	50	M20X50 width across fat 30	210	8	23	210	8	18		
150	6	150	190	122	160	71	210	138	175	92	290	167	64	285	50	M20X50 width across fat 30	240	8	23	240	8	23		
200	8	195	242	122	160	87	241	173	206	92	321	167	64	345	60	M20X60 width across fat 30	290	12	23	295	8	23		
250	10	250	302	122	160	112	276	208	241	92	356	167	64	415	70	M20X70 width across fat 30	355	12	25	350	12	23		

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

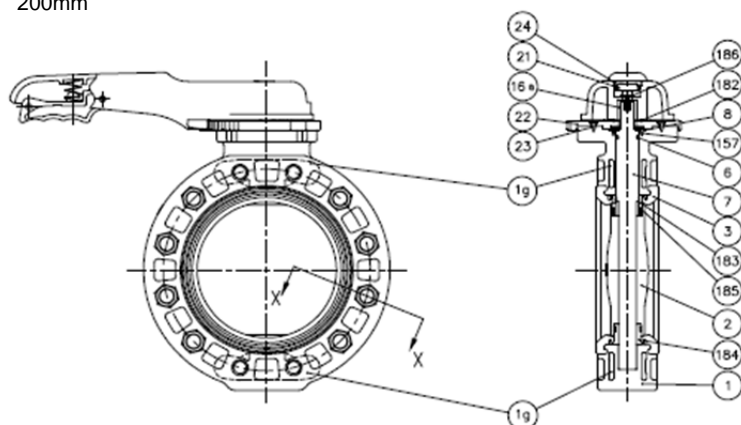
### Parts list

[LEVER TYPE]

80-150mm



200mm



PART NO./NAME	QTY	MATERIAL
1	1	PDCPD
1e	8	STAINLESS STEEL (Antiscoring Coat)
1g	1	STAINLESS STEEL Used for 125, 150mm
	2	STAINLESS STEEL Used for 200mm
2	1	PP, PVDF
3	1	EPDM, FKM, FKM-F, FKM-C

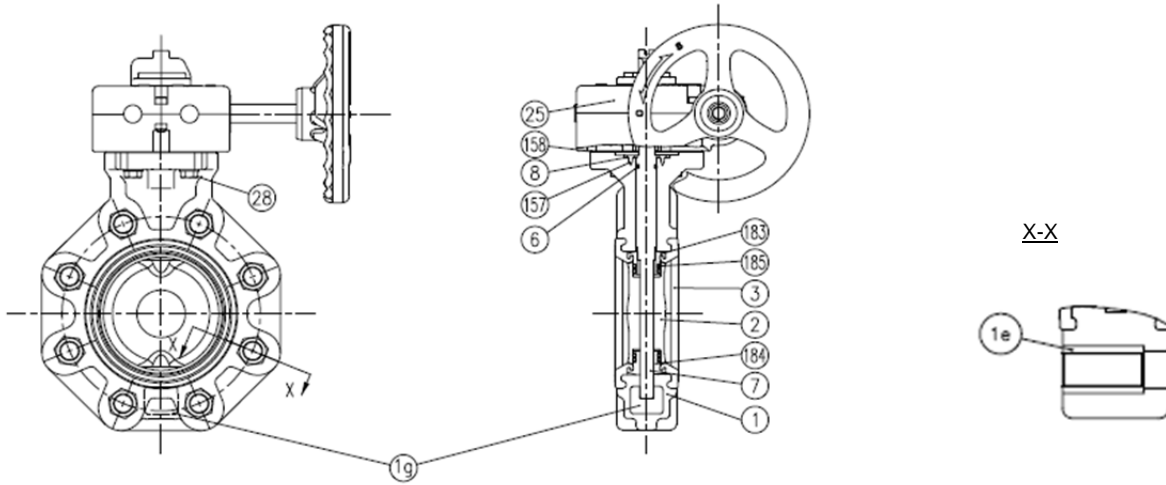
PART NO./NAME	QTY	MATERIAL
6	1	EPDM, FKM, FKM-F, FKM-C
185	-	EPDM, FKM, FKM-F, FKM-C
7	1	STAINLESS STEEL
8	1	PP
16	1	PP
16a	1	STAINLESS STEEL
17	1	PPG
18	1	PPG
19	1	STAINLESS STEEL

PART NO./NAME	QTY	MATERIAL
21	1	STAINLESS STEEL
22	1	PPG
23	4	STAINLESS STEEL
24	1	PP
157	4	STAINLESS STEEL
182	1	EPDM
183	1	PP, PVDF
184	1	PP, PVDF
186	1	STAINLESS STEEL+EPDM

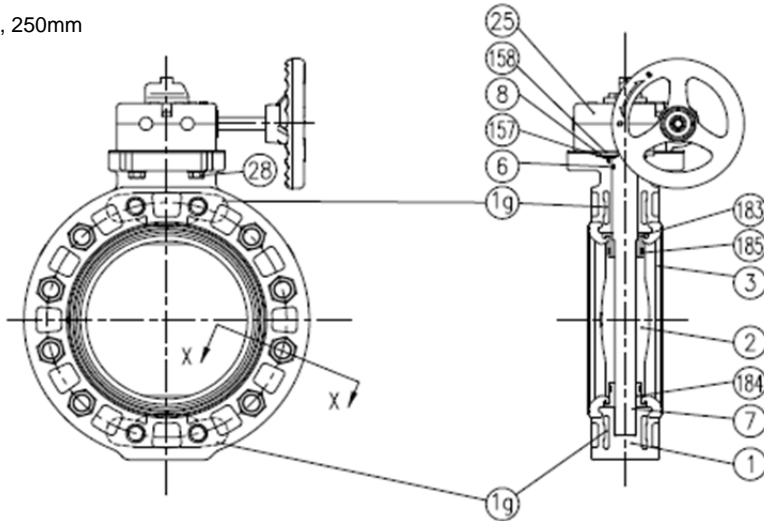
DATASHEET

[GEAR TYPE]

80-150mm



200, 250mm

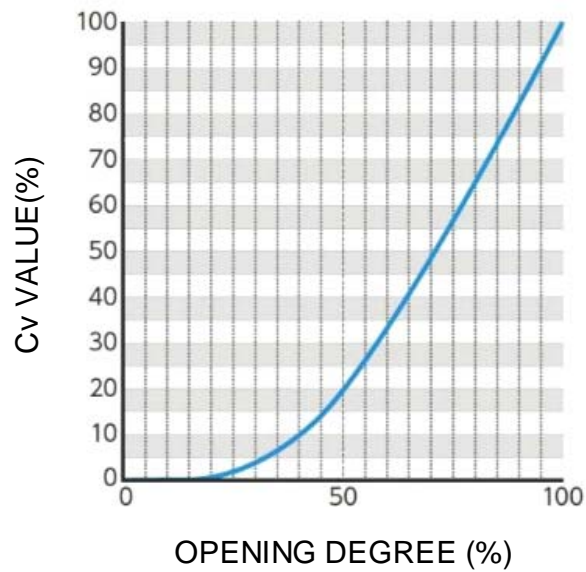


PART NO./NAME	QTY	MATERIAL
1 BODY	1	PDCPD
1e LUG-INSERT	8	STAINLESS STEEL (Antiscoring Coat)
1g BODY-INSERT	1	STAINLESS STEEL Used for 125, 150mm
	2	STAINLESS STEEL Used for 200, 250mm

PART NO./NAME	QTY	MATERIAL
2 DISC	1	PP, PVDF
3 SEAT	1	EPDM, FKM, FKM-F, FKM-C
6 O-RING ( C )	1	EPDM, FKM, FKM-F, FKM-C
185 O-RING ( I )	-	EPDM, FKM, FKM-F, FKM-C
7 STEM	1	STAINLESS STEEL
8 STEM HOLDER ( A )	1	PP

PART NO./NAME	QTY	MATERIAL
25 GEAR BOX	1	PLASTIC etc.
28 BOLT ( C )	4	STAINLESS STEEL
157 SCREW ( F )	4	STAINLESS STEEL
158 GASKET ( L )	1	EPDM
183 SEAT BUSH ( A )	1	PP, PVDF
184 SEAT BUSH ( B )	1	

## Cv value for each opening degree



mm	80	100	125	150	200	250
inch	3	4	5	6	8	10
BUTTERFLY VALVE TYPE 57L	300	470	830	1,100	2,500	3,860

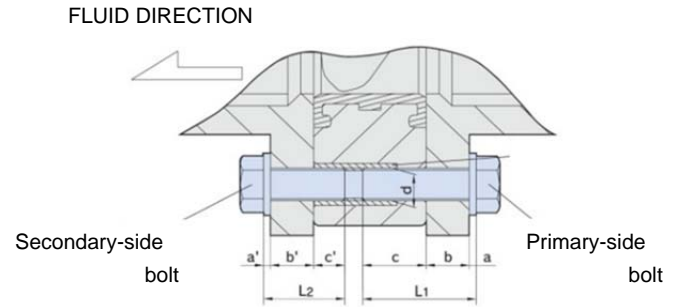
## Stem torque

UNIT : N · m

mm	inch	Stem torque (O→S)	
		EPDM	FKM, FKM-F/C
80	3	20	20
100	4	30	30
125	5	40	40
150	6	65	75
200	8	165	200
250	10	300 (40)	300 (40)

### Dimension of bolt length

(reference:recommended data)



Bolt length when AV TS FLANGE 10K is used (with washer of ISO 7092 or equivalent)  
 For 80 and 100 mm, bolts with the same length can be used for both primary and secondary sides.

Unit: mm

mm	inch	BOLT d (SIZE)	BOLT LENGTH		WASHER (SIZE)	HIGH NUT		
			PRIMARY SIDE	SECONDARY SIDE		SCREW SIZE	WIDTH ACROSS FLATS	HEIGHT
			L1	L2				
80	3	M16	45	40	16	M16	24	40
100	4	M16	55	40	16	M16	24	40
125	5	M20	60	45	20	M20	30	50
150	6	M20	65	50	20	M20	30	50
200	8	M20	75	55	20	M20	30	60
250	10	M22	95	60	22	M22	32	70

Bolt length when a FLANGE other than in 2.1 is used \*High nuts listed above can be used.

<Primary side bolt length, L1>

Primary side bolt length L1 = a Washer thickness + b Flange thickness + c (Resin thickness + Engagement allowance)

Unit: mm

mm	inch	a	b	c
80	3	WASHER THICKNESS TO BE USED	FLANGE THICKNESS TO BE USED	17
100	4			26
125	5			29
150	6			33
200	8			39
250	10			53

<Secondary side bolt length, L2>

Secondary side bolt length L2 = a' Washer thickness + b' Flange thickness + c' (Engagement allowance)

Unit: mm

mm	inch	a'	b'	c'
80	3	WASHER THICKNESS TO BE USED	FLANGE THICKNESS TO BE USED	13
100	4			13
125	5			13
150	6			16
200	8			16
250	10			18



## Product weight list (reference)

LUG BUTTERFLY VALVE TYPE 57L [MANUAL]

LEVER TYPE / GEAR TYPE

Unit: kg

mm	inch	PDCPD	
		DISC: PP	DISC: PVDF
80	3	2.7 / 4.7	2.8 / 4.9
100	4	3.3 / 5.3	3.5 / 5.6
125	5	6.3 / 8.5	6.9 / 9.0
150	6	7.3 / 8.9	8.1 / 9.6
200	8	13.7 / 15.1	15.0 / 16.5
250	10	— / 20.3	— / 22.7

## Product model code list

ACTUATION	TYPE	OPERATING SYSTEM	BODY MATERIAL	SEAL MATERIAL	CONNECTION	STANDARD	SIZE	DISC PVDF
<b>V</b>	<b>LG</b>	<b>**</b>	<b>D</b>	<b>*</b>	<b>W</b>	<b>*</b>	<b>***</b>	<b>00Q</b> <sup>※</sup>
∴	∴	∴	∴	∴	∴	∴	∴	∴
V MANUAL VALVE	LG TYPE 57L	LV LEVER TYPE SG SIDE GEAR TYPE	D PDCPD	E EPDM V FKM	W WAFER	1 10K D DIN A ANSI	080 80mm 5 250 250mm	※Used when the disc material is PVDF.

## Installation, Operation and Maintenance Manual

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