

# BUTTERFLY VALVE TYPE 57 40mm - 350mm(1½inch - 14inch)

## FEATURES



### Excellent Sealing Performance

Sealing performance has been improved due to its specially designed seat "PAT pending".

### Lowered Operating Torque

Required operating torque has been reduced by applying specially designed seat.

### Protection for Over Tightening of Mating Flange

The valve body acts as a protector against over tightening to avoid breakage or deformation of the seat. (Please refer to sketch of below)

### Spherical Design Disc

Spherical design disc provides superior durability and improved Cv value.

### Stem Retainer

Stem retainer allows field automation or accessories preventing the stem from being removed.

### Plastic Gear Box

Corrosion resistant plastic gear box provides a broader range of applications.

### Wetted Part Lubricants Free (SPECIAL)

Note: Long stem type and chain drive type are available on special request.

### Locking Operation

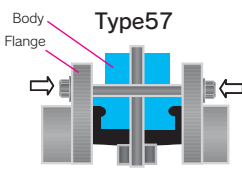
Locking device of Gear type is available on special request.



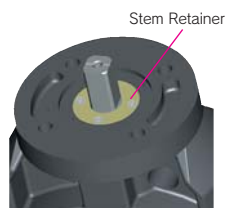
Lever type



Gear type



Body Flange Type57  
Body contacts flanges to protect the seat from deformation and to avoid increased operating torque.



Stem Retainer

#### Plastic Gear Box Housing

Superior corrosion resistance allows applications such as severe chemicals and sea waters.

#### NAMUR Mounting Dimension

NAMUR standard is applied on the gear box housing.

#### Highly Visible Position Indicator

Highly visible from a distance.

#### Stainless Steel Trim and Hardware

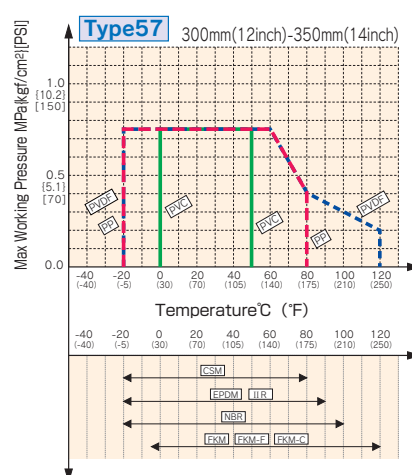
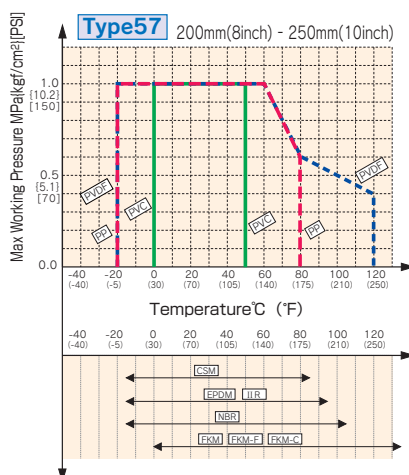
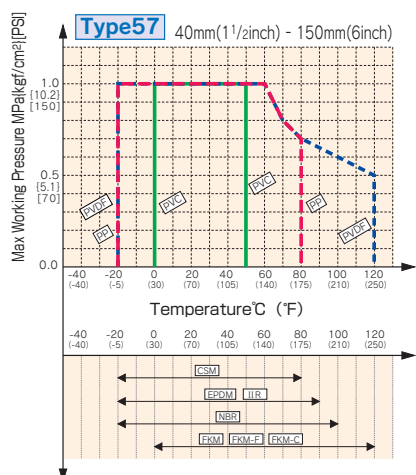
#### Plastic Hand Wheel

Corrosion resistance gripping design allows easy operation.

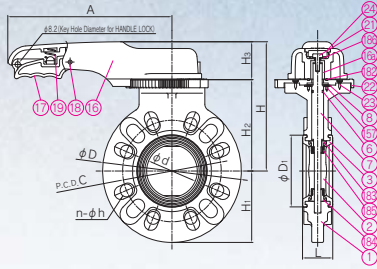
## SPECIFICATIONS

Body material	Working Temperature °C (°F)	Max. Working Pressure MPa[kgf/cm²][PSI]	
		40mm-250mm (1½inch~10inch)	300mm-350mm (12inch·14inch)
Polyvinyl Chloride(PVC)	0 - 50 (30 - 120)	1.0{10.2}[150]	0.75{7.7}[110]
Polypropylene(PP)	-20 - 80 (20 - 175)	1.0{10.2}[150]	0.75{7.7}[110]
Polyvinylidene Fluoride(PVDF)	-20 - 120(20 - 250)	1.0{10.2}[150]	0.75{7.7}[110]

## WORKING PRESSURE VS. TEMPERATURE



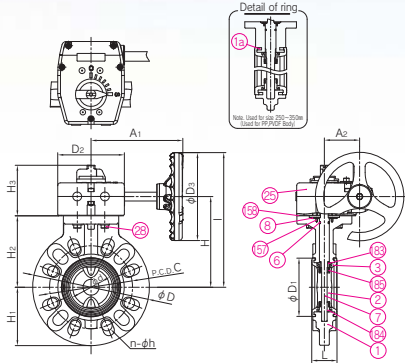
**Lever Type** ● 40mm(1½inch) – 200mm(8inch)



**PARTS & MATERIALS**

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY/DISC- SEAT BUSH	⑰	HANDLE LEVER	1	PPG
②	DISC	1	PVC/PP	⑱	PIN	1	PPG
⑬	SEAT BUSH(A)	1	PP/PP	⑲	SPRING	1	STAINLESS STEEL(SUS 304)
⑭	SEAT BUSH(B)	1	PVDF/PVDF	⑳	BOLT (B)	1	STAINLESS STEEL(SUS 304)
③	SEAT	1	EPDM FKM Others	㉑	LOCKING PLATE	1	PPG
⑥	O-RING(C)	1		㉒	SCREW (B)	4	STAINLESS STEEL(SUS 304)
⑯	O-RING(I)	4		㉓	CAP(A)	1	PP
⑦	STEM	1	STAINLESS STEEL(SUS 403) STAINLESS STEEL(SUS 316)	㉔	SCREW (F)	4	STAINLESS STEEL(SUS 304)
⑧	STEM HOLER(A)	1	PP	㉕	O-RING(H)	1	EPDM
⑫	HANDLE(A)	1	PP	㉖	RUBBER+WASHER	1	STAINLESS STEEL304 + EPDM
⑮	HANDLE INSERTED METAL	1	STAINLESS STEEL(SUS 316L)				

**Gear Type** ● 40mm(1½inch) – 350mm(14inch)



**PARTS & MATERIALS**

No.	DESCRIPTION	Pcs.	MATERIAL	No.	DESCRIPTION	Pcs.	MATERIAL
①	BODY	1	BODY/DISC- SEAT BUSH	⑧	STEM RETAINER(A)	1	PP
②	DISC	1	PVC/PP	㉑	GEAR BOX	1	PLASTIC etc.
⑬	SEAT BUSH(A)	1	PP/PP	㉒	BOLT (C)	4	STAINLESS STEEL(SUS 304)
⑭	SEAT BUSH(B)	1	PVDF/PVDF	㉓	SCREW (F)	4	STAINLESS STEEL(SUS 304)
③	SEAT	1	EPDM FKM Others	㉔	GASKET (L)	1	EPDM
⑥	O-RING(C)	1		㉕	RING	2	STEEL400 (Unichrome coated) PP,PVDF Body used for size 250mm-350mm
⑯	O-RING(I)	4					
⑦	STEM	1	STAINLESS STEEL(SUS 403) STAINLESS STEEL(SUS 316)				

**DIMENSIONS TABLE**

Nominal Size		JIS 5K		JIS 10K			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		A <sub>1</sub>		A <sub>2</sub>		Number of handle wheel rotation
mm	inch	d	C	n	h	C	n	h	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	L	LEVER	GEAR	H <sub>1</sub>	LEVER	GEAR	LEVER	GEAR	I	A	A <sub>1</sub>	A <sub>2</sub>									
40	1½	45	95	4	15	105	4	19	150	71	122	160	39	156	130	75	100	95	56	92	210	220	167	64					9.5				
50	2	56	105	4	15	120	4	19	165	81	122	160	42	166	140	83	110	105	56	92	220	220	167	64									
65	2½	69	130	4	15	140	4	19	185	95	122	160	46	176	150	93	120	115	56	92	230	220	167	64									
80	3	77	145	4	19	150	8	19	211	105	122	160	46	191	165	106	135	130	56	92	245	250	167	64									
100	4	102	165	8	19	175	8	19	238	134	122	160	56	206	180	119	150	145	56	92	260	250	167	64									
125	5	129	200	8	19	210	8	23	263	169	122	160	66	237	195	132	168	160	69	92	275	320	167	64									
150	6	150	230	8	19	240	8	23	285	190	122	160	71	252	210	143	183	175	69	92	290	320	167	64									
200	8	195	280	8	23	290	12	23	340	242	122	160	87	283	241	170	214	206	69	92	321	400	167	64									
250	10	250	345	12	23	355	12	25	421	302	122	160	112	-	276	211	-	241	-	92	356	-	167	64									
300	12	303	390	12	23	400	16	25	488	360	188	300	129	-	340	244	-	298	-	108	490	-	272	99									
350	14	351	435	12	23	445	16	25	539	393	188	300	129	-	367	270	-	325	-	108	517	-	272	99									

Nominal Size		DIN PN 10			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		A <sub>1</sub>		A <sub>2</sub>		Number of handle wheel rotation
mm	inch	d	C	n	h	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	L	LEVER	GEAR	H <sub>1</sub>	LEVER	GEAR	LEVER	GEAR	I	A	A <sub>1</sub>	A <sub>2</sub>										
40	1½	45	110	4	18	150	71	122	160	39	156	130	75	100	95	56	92	210	220	167	64					9.5					
50	2	56	125	4	18	165	81	122	160	42	166	140	83	110	105	56	92	220	220	167	64										
65	2½	69	145	4	18	185	95	122	160	46	176	150	93	120	115	56	92	230	220	167	64										
80	3	77	160	8	18	211	105	122	160	46	191	165	106	135	130	56	92	245	250	167	64										
100	4	102	180	8	18	238	134	122	160	56	206	180	119	150	145	56	92	260	250	167	64										
125	5	129	210	8	18	263	169	122	160	66	237	195	132	168	160	69	92	275	320	167	64										
150	6	150	240	8	22	285	190	122	160	71	252	210	143	183	175	69	92	290	320	167	64										
200	8	195	295	8	22	340	242	122	160	87	283	241	170	214	206	69	92	321	400	167	64										
250	10	250	350	12	22	421	302	122	160	112	-	276	211	-	241	-	92	356	-	167	64										
300	12	303	400	12	22	488	360	188	300	129	-	340	244	-	298	-	108	490	-	272	99										
350	14	351	460	16	22	539	393	188	300	129	-	367	270	-	325	-	108	517	-	272	99										

Nominal Size		ANSI CLASS 150			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		A <sub>1</sub>		A <sub>2</sub>		Number of handle wheel rotation
inch	mm	d	C	n	h	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	L	LEVER	GEAR	H <sub>1</sub>	LEVER	GEAR	LEVER	GEAR	I	A	A <sub>1</sub>	A <sub>2</sub>										
1½	40	1.77	3.88	4	0.62	5.91	2.80	4.80	6.30	1.54	6.14	5.12	2.95	3.94	3.74	2.20	3.62	8.27	8.66	6.57	2.52					9.5					
2	50	2.20	4.75	4	0.75	6.50	3.19	4.80	6.30	1.65	6.54	5.51	3.25	4.33	4.13	2.20	3.62	8.66	8.66	6.57	2.52										
2½	65	2.72	5.50	4	0.75	7.28	3.74	4.80	6.30	1.81	6.93	5.91	3.64	4.72	4.53	2.20	3.62	9.06	8.66	6.57	2.52										
3	80	3.03	6.00	4	0.75	8.31	4.13	4.80	6.30	1.81	7.52	6.50	4.15	5.31	5.12	2.20	3.62	9.65	9.84	6.57	2.52										
4	100	4.02	7.50	8	0.75	9.37	5.28	4.80	6.30	2.20	8.11	7.09	4.69	5.91	5.71	2.20	3.62	10.24	9.84	6.57	2.52										
5	125	5.08	8.50	8	0.88	10.35	6.65	4.80	6.30	2.60	9.33	7.68	5.20	6.61	6.30	2.72	3.62	10.83	12.60	6.57	2.52										
6	150	5.91	9.50	8	0.88	11.22	7.48	4.80	6.30	2.80	9.92	8.27	5.61	7.20	6.89	2.72	3.62	11.42	12.60	6.57	2.52										
8	200	7.68	11.75	8	0.88	13.39	9.53	4.80	6.30	3.43	11.14	9.49	6.69	8.43	8.11	2.72	3.62	12.64	15.75	6.57	2.52										
10	250	9.84	14.25	12	1.00	16.57	11.89	4.80	6.30	4.41	-	10.87	8.31	-	9.49	-	3.62	14.02	-	6.57	2.52										
12	300	11.93	17.00	12	1.00	19.21	14.17	7.40	11.81	5.08	-	13.39	9.61	-	11.73	-	4.25	19.29	-	10.71	3.90										
14	350	13.82	18.75	12	1.12	21.22	15.47	7.40	11.81	5.08	-	14.45	10.63	-	12.80	-	4.25	20.35	-	10.71	3.90										

Note. The shape and appearance of the actual assembly may differ slightly in nominal size as compared with this drawing.