



New Design Features

- Redesigned degree position indication plate for Lever type valves
- Molded valve body tag holes
- Increased internal sealing performance

Standard Features (Sizes 1-1/2" – 14")

- 316SS Stem with full disc engagement
- Full seat design eliminates gaskets
- Seat overtightening prevention
- Lockout-Tagout – lever handle molded padlock provision and 2-molded valve body tag holes
- Highly visible 0° to 90° position indicator with 19 fine adjustment locking positions
- ISO 5211 F07 – F14 bolt circle on top flange
- Polypropylene stem retainer
- Spherical disc design
- Non-wetted stem and body - Isolated from the media
- Plasgear™ operator

Options

- Pneumatically and electrically actuated with accessories
- 2" square operating nuts
- Stem extensions
- Chain operators
- Manual limit switches
- Speed Handle™ - For Plasgear™ operator

Specifications

- Sizes:** Lever: 1-1/2" – 8"
Gear: 1-1/2" – 14"
- Models:** Wafer Style
- Operators:** Lever and Gear
- Bodies:** PVC, CPVC PP and PVDF
- Discs:** PVC, CPVC PP and PVDF
- Seats:** EPDM, FKM, and Nitrile
- Seals:** Same as seating material
- Stems:** 316 stainless steel, Titanium, Hastelloy C® ‡

**PVC/PP/EPDM and PP/PP/EPDM Models
NSF-61 Certified**

‡ Trademark of Cabot Corporation

Parts List (Lever: Sizes 1-1/2" – 8")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, CPVC, PP, PVDF
2	Disc	1	PVC, CPVC, PP, PVDF
183	Seat bush (A)	1	PVC, PP, PVDF*
184	Seat bush (B)	1	PVC, PP, PVDF*
3	Seat	1	EPDM, FKM, NBR
6	O-ring [C]	1	EPDM, FKM, NBR
185	O-ring [I]	4	EPDM, FKM, NBR
7	Stem	1	Stainless Steel 316
8	Stem Retainer	1	PP
157	Screw (F)	4	Stainless Steel 304
16	Handle	1	PP
16A	Metal Handle Insert	1	Stainless Steel 316L
17	Handle Lever	1	PPG
18	Pin	1	PPG
19	Spring	1	Stainless Steel 304
20	Washer (A)	1	Stainless Steel 304
21	Bolt (B)	1	Stainless Steel 304
22	Locking Plate	1	PPG
23	Screw (B)	4	Stainless Steel 304
24	Cap (A)	1	PP

* Used for CPVC and PVDF

Parts List (Gear: Sizes 1-1/2" – 14")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, CPVC, PP, PVDF
2	Disc	1	PVC, CPVC, PP, PVDF
183	Seat bush (A)	1	PVC, PP, PVDF*
184	Seat bush (B)	1	PVC, PP, PVDF*
3	Seat	1	EPDM, FKM, NBR
6	O-ring [C]	1	EPDM, FKM, NBR
185	O-ring [I]	4	EPDM, FKM, NBR
7	Stem	1	Stainless Steel 316
8	Stem Retainer	1	PP
157	Screw (F)	4	Stainless Steel 304
25	Gearbox	1	Plasgear™
28	Bolt [C]	4	Stainless Steel 304
158	Gasket	1	EPDM

* Used for CPVC and PVDF

Cv Values

Nominal Size		CV values at various opening degrees		
Inches	mm	30°	60°	90°
1-1/2"	40	4	43	71
2"	50	7	73	120
2-1/2"	65	15	153	250
3"	80	18	183	300
4"	100	28	287	470
5"	125	49	506	830
6"	150	66	671	1100
8"	200	150	1525	2500
10"	150	232	2355	3860
12"	300	342	3477	5700
14"	350	386	3928	6440

Wt. (lbs.)

Nominal Size		PVC		CPVC		PP		PVDF	
Inches	mm	Lever	Gear	Lever	Gear	Lever	Gear	Lever	Gear
1-1/2"	40	2.9	7.5	-	-	2.4	6.8	3	7.7
2"	50	3.3	7.7	3.3	7.8	2.6	7.3	3.7	8.4
2-1/2"	65	3.8	8.4	-	-	3	7.5	4.2	8.8
3"	80	4.2	8.6	4.2	8.6	3.5	8	4.9	9.3
4"	100	5.5	10	5.5	10	4.4	8.8	6.4	10.8
5"	125	10.8	14.3	-	-	8.8	12.3	12.6	16.1
6"	150	12.8	16.3	13	16.5	10.1	13.7	15.2	18.7
8"	200	20.5	23.6	20.5	24	16.3	19.6	24.3	27.6
10"	250	-	32.4	-	35	-	27	-	41
12"	300	-	61.7	-	65	-	53	-	76
14"	350	-	67	-	-	-	58	-	81

Vacuum Service - Lever

Nominal Size		Inches of Mercury
Inches	mm	
1-1/2"	40	-29.92
2"	50	-29.92
2-1/2"	65	-29.92
3"	80	-29.92
4"	100	-29.92
5"	125	-29.92
6"	150	-29.92
8"	200	-29.92

Vacuum Service - Gear

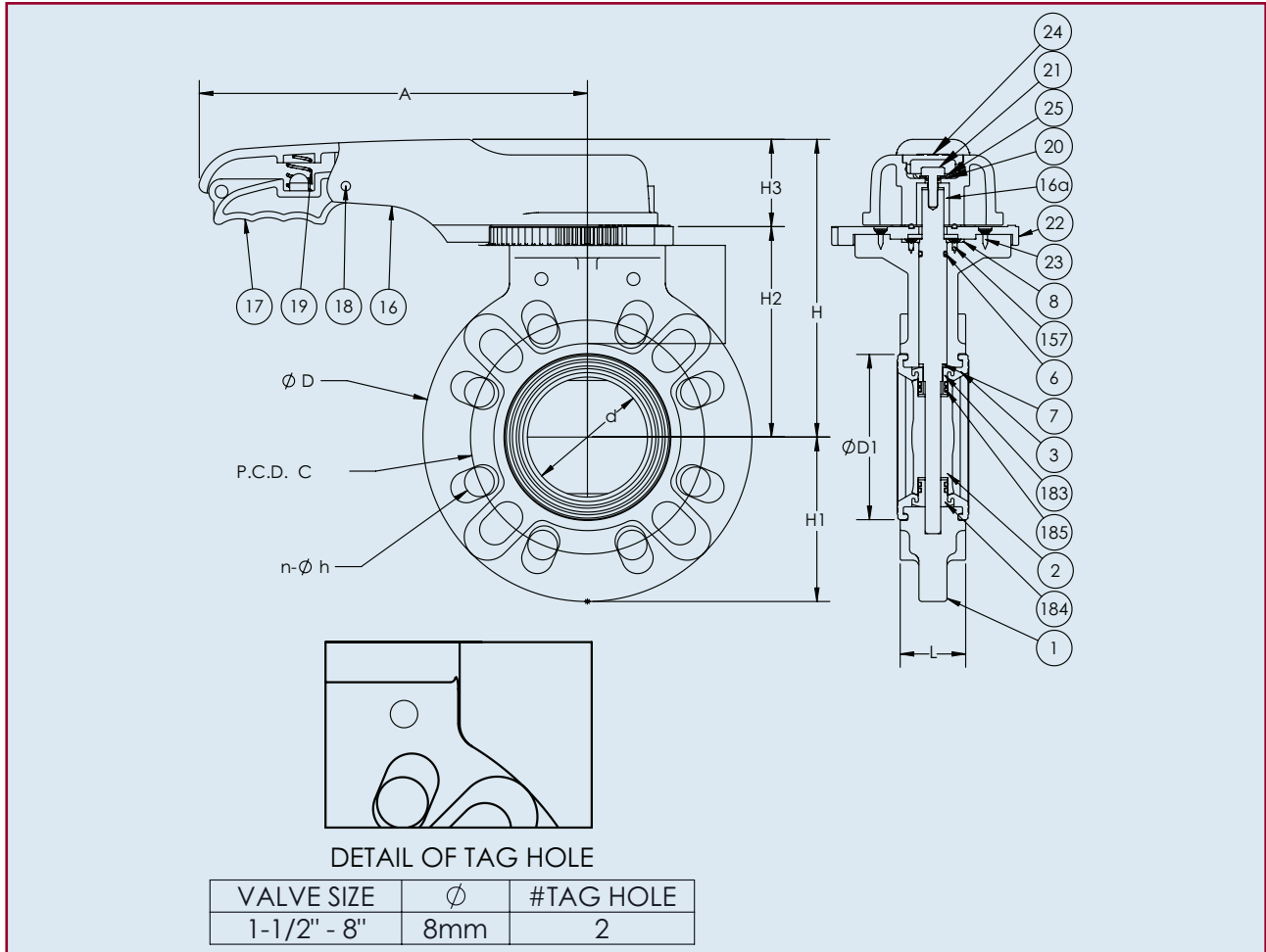
Nominal Size		Inches of Mercury
Inches	mm	
1-1/2"	40	-29.92
2"	50	-29.92
2-1/2"	65	-29.92
3"	80	-29.92
4"	100	-29.92
5"	125	-29.92
6"	150	-29.92
8"	200	-29.92
10"	250	-29.92
12"	300	-23.62
14"	350	-23.62

Pressure vs. Temperature (psi, water, non-shock)*

Body		PVC	PVC PP,PVDF		CPVC CPVC				PP PP,PVDF		PVDF PVDF			
Disc		PVC	30°F	121°F	30°F	141°F	161°F	177°F	-5°F	141°F	-5°F	141°F	176°F	211°F
Nominal Size		120°F	120°F	140°F	140°F	160°F	176°F	195°F	140°F	175°F	140°F	175°F	210°F	250°F
Inches	mm													
1-1/2"	40	150	150	70	-	-	-	-	150	100	150	100	85	75
2"	50	150	150	70	150	120	100	55	150	100	150	100	85	75
2-1/2"	65	150	150	70	-	-	-	-	150	100	150	100	85	75
3"	80	150	150	70	150	120	100	55	150	100	150	100	85	75
4"	100	150	150	45	150	120	100	55	150	100	150	100	85	75
5"	125	150	150	45	-	-	-	-	150	100	150	100	85	75
6"	150	150	150	45	150	120	100	55	150	100	150	100	85	75
8"	200	150	150	40	150	120	100	55	150	85	150	85	75	60
10"	250	150	150	40	150	120	100	50	150	85	150	85	75	60
12"	300	100	100	30	100	90	70	40	100	60	100	60	45	30
14"	350	100	100	30	-	-	-	-	100	45	100	45	30	15

*FKM seat butterfly valves have a low temperature limit of 23°F, regardless of body/disc material.

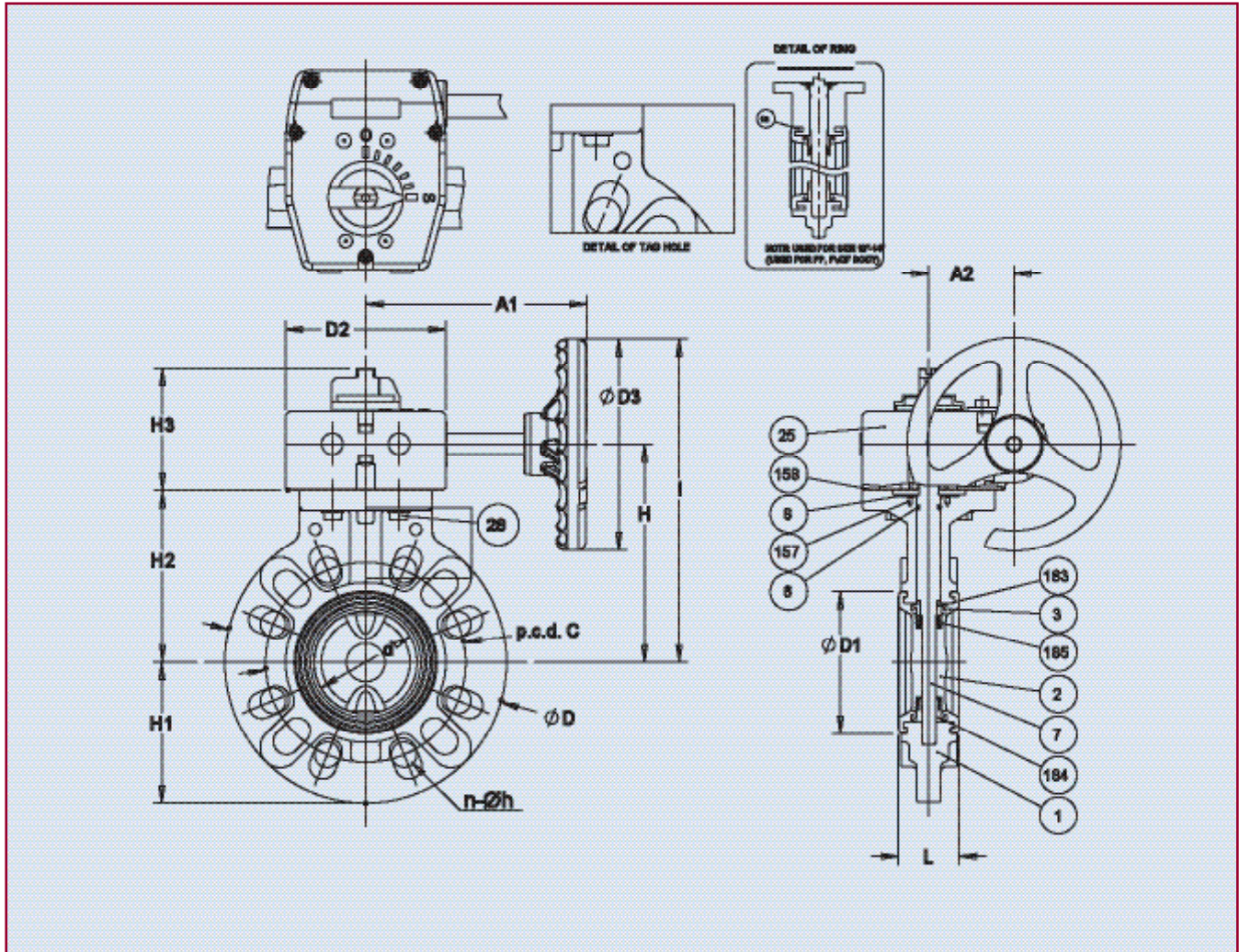
** For Lug style data consult factory



Dimensions (Sizes 1-1/2" – 8") (in.)

Nominal Size		d	ANSI Class 150			D	D1	L	H	H1	H2	H3	A
Inches	mm		C	n	h								
1-1/2"	40mm	1.77	3.88	4	0.62	5.91	2.83	1.54	6.14	2.95	3.94	2.20	8.66
2"	50mm	2.20	4.75	4	0.75	6.50	3.23	1.65	6.54	3.25	4.33	2.20	8.66
2-1/2"	65mm	2.72	5.50	4	0.75	7.28	3.78	1.81	6.93	3.64	4.72	2.20	8.66
3"	80mm	3.03	6.00	4	0.75	8.31	4.17	1.81	7.52	4.15	5.31	2.20	9.84
4"	100mm	4.02	7.50	8	0.75	9.37	5.31	2.20	8.11	4.69	5.91	2.20	9.84
5"	125mm	5.08	8.50	8	0.88	10.39	6.69	2.60	9.33	5.20	6.61	2.72	12.60
6"	150mm	5.91	9.50	8	0.88	11.22	7.52	2.80	9.92	5.61	7.20	2.72	12.60
8"	200mm	7.68	11.75	8	0.88	13.39	9.53	3.43	11.14	6.69	8.43	2.72	15.75

Note: The shape and appearance of assembly differ a little with nominal size compared to the drawing



Dimensions (Sizes 1-1/2" – 14") (in.)

Nominal Size		d	ANSI Class 150			D	D1	D2	D3	L	H	H1	H2	H3	I	A1	A2	Number of handle rotations	Gear Box Type
Inches	mm		C	n	h														
1-1/2"	40mm	1.77	3.88	4	0.62	5.91	2.83	4.80	6.30	1.54	5.12	2.95	3.74	3.54	8.27	6.57	2.52	9.5	Type 241
2"	50mm	2.20	4.75	4	0.75	6.50	3.23	4.80	6.30	1.65	5.51	3.25	4.13	3.54	8.66	6.57	2.52		
2-1/2"	65mm	2.72	5.50	4	0.75	7.28	3.78	4.80	6.30	1.81	5.91	3.64	4.53	3.54	9.06	6.57	2.52		
3"	80mm	3.03	6.00	4	0.75	8.31	4.17	4.80	6.30	1.81	6.50	4.15	5.12	3.54	9.65	6.57	2.52		
4"	100mm	4.02	7.50	8	0.75	9.37	5.31	4.80	6.30	2.20	7.09	4.69	5.71	3.54	10.24	6.57	2.52		
5"	125mm	5.08	8.50	8	0.88	10.39	6.69	4.80	6.30	2.60	7.68	5.20	6.30	3.54	10.83	6.57	2.52		
6"	150mm	5.91	9.50	8	0.88	11.22	7.52	4.80	6.30	2.80	8.27	5.61	6.89	3.54	11.42	6.57	2.52		
8"	200mm	7.68	11.75	8	0.88	13.39	9.53	4.80	6.30	3.43	9.49	6.69	8.11	3.54	12.64	6.57	2.52		
10"	250mm	9.84	14.25	12	1.00	16.57	11.89	4.80	6.30	4.33	10.87	8.31	9.49	3.62	14.02	6.57	2.52		
12"	300mm	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"	350mm	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 assembly differ a little with nominal size compared to the drawing

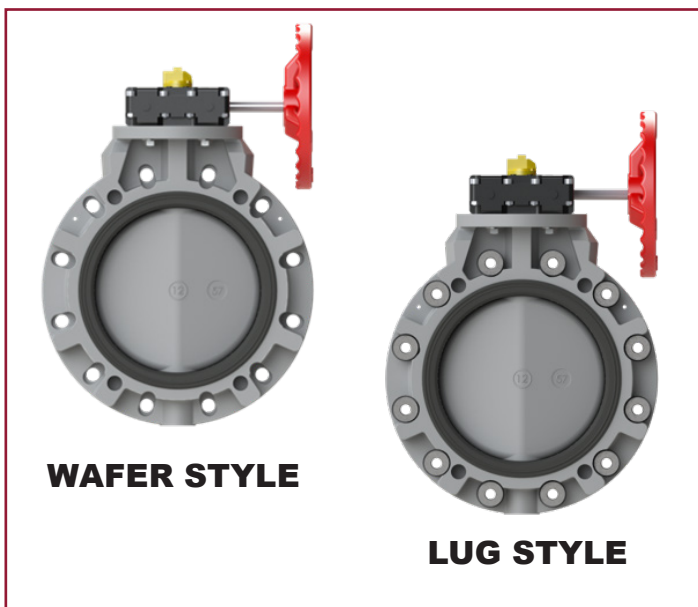


Position Indication Closed - 0° to Open - 90° in 10° increments

Sample Specification

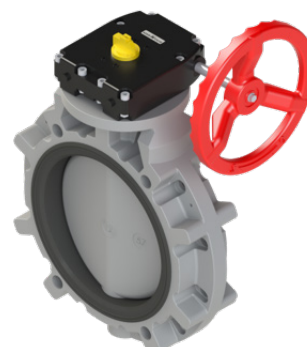
Butterfly valves shall be Type-57P PVC, CPVC, PP or PVDF body with PVC, CPVC, PP or PVDF disc and either EPDM, Nitrile or FKM seat & seals. The liner shall be full seat design fully molded around the body where as only the disc and seat are wetted parts, feature raised convex rings on the face and is intended to be utilized as the mating flange gaskets. Valve shall have a spherical disc design with disc bushings with double O-ring seals for a high cycle life and ultimate sealing. Valve body shall have integral molded body stops and seat relief area to prevent over-tightening of the mating flanges from influencing valve operating torque. Valves shall accept flat faced flanges in accordance with ANSI B16.5 bolt pattern for 150 lb flanges. Valve stem shall be 316 SS, have PP stem retainer for valve stem retention, be non-wetted, and have engagement over the full length of the spherically designed disc. Valves shall be equipped with either lever handle or Plasgear™ operator for manual operation. For lockout applications, the valve lever handle (sizes 1/1/2" – 8") shall have a molded provision for a padlock. The valve body shall feature two molded tag holes for the user. Valves sizes 1-1/2" – 14" shall feature a molded ISO 5211 bolt pattern for accessory mounting. PVC shall conform to ASTM D1784, Cell Classification 12454A, CPVC to ASTM D1784, Cell Classification 23567A, PP to ASTM D4101 Cell Classification PPO210B67272, and PVDF to ASTM D3222-91A, Cell Classification Type II.

NEW SIZES: 10" & 12" CPVC TYPE-57P BUTTERFLY VALVE NOW AVAILABLE



WAFER STYLE - GEAR OPERATOR PART NUMBERS:

Size inch	Elastomer	Part Number	Elastomer	Part Number
10"	EPDM	173883100	FKM	173884100
12"	EPDM	173883120	FKM	173884120



DESCRIPTION:

Effective immediately, Asahi/America, Inc. introduces the CPVC body and disc Type-57P Butterfly valve in sizes 10" & 12". The CPVC Type-57P is available now in both ANSI wafer style connection and with 316 stainless steel lug inserts in sizes 10" & 12" with Plasgear™ operator. Additionally, the CPVC Type-57P can be actuated both electrically and pneumatically, as well as various manual accessories can be installed.

LUG STYLE - GEAR OPERATOR PART NUMBERS:

Size inch	Elastomer	Part Number	Elastomer	Part Number
10"	EPDM	173890100	FKM	173890120
12"	EPDM	173890120	FKM	173891120

SPECIFICATION:

- **Products:** CPVC Type-57P butterfly valve
- **Sizes/Models:** 10" & 12" wafer or lug style butterfly valve with Plasgear™ operator
- **Materials:** CPVC body and disc, EPDM or FKM seat and seals

Please see full Type-57P lug butterfly valve data sheet for more information. Located under Butterfly Valve Options section of our website.



INTERCHANGEABILITY:

- The CPVC Type-57P butterfly valve shares the same face-to-face dimensions as all like size Type-57P butterfly valves

AVAILABILITY:

- Valve materials are in stock, ready to be assembled, tested and shipped to order from our Lawrence, MA facility

Type-57P Butterfly Valves

1.0 Scope:

All requirements are for Type-57P Butterfly Valves and accessories.

2.0 Materials:

U-PVC – Conforming to ASTM D1784 Cell Classification 12454 A

CPVC – Conforming to ASTM D1784 Cell Classification 23567 A

Polypropylene – Conforming to ASTM D4101 Cell Classification PP0210B67272

PVDF – Conforming to ASTM D3222-91A Cell Classification Type II

FKM – Viton® Fluorocarbon Rubber

EPDM – Ethylene Propylene Diene Terpolymer Rubber

NBR – Nitrile Butadiene Rubber

3.0 Valves:

Butterfly valves shall be Type-57P PVC, CPVC, PP or PVDF body with PVC, CPVC, PP or PVDF disc and either EPDM, Nitrile or FKM seat & seals. The liner shall be full seat design fully molded around the body where as only the disc and seat are wetted parts, feature raised convex rings on the face and is intended to be utilized as the mating flange gaskets. Valve shall have a spherical disc design with disc bushings with double O-ring seals for a high cycle life and ultimate sealing. Valve body shall have integral molded body stops and seat relief area to prevent over-tightening of the mating flanges from influencing valve operating torque. Valves shall accept flat faced flanges in accordance with ANSI B16.5 bolt pattern for 150 lb flanges. Valve stem shall be 316 SS, have PP stem retainer for valve stem retention, be non-wetted, and have engagement over the full length of the spherically designed disc. Valves shall be equipped with either Lever handle or Plasgear™ operator for manual operation. For lockout applications, the valve lever handle (sizes 1-1/2" – 8") shall have a molded provision for a padlock. The valve body shall feature 2 molded tag holes for the user. Valves sizes 1-1/2" – 14" shall feature a molded ISO 5211 bolt pattern for accessory mounting. PVC shall conform to ASTM D1784, Cell Classification 12454A, CPVC to ASTM D1784, Cell Classification 23567A, PP to ASTM D4101 Cell Classification PP0210B67272, and PVDF to ASTM D3222-91A, Cell Classification Type II.

3.1 Operators

Type-57P 1-1/2" – 14" (Lever Type standard sizes 1-1/2" – 8")

(Gear Type standard sizes 1-1/2" – 14")

Lever Handle to be Asahi Standard valve handle color Red

Gear-Operator to be Asahi Plasgear™ all plastic construction with SS trim submersible type

Gear-operator for valves sizes 1-1/2" – 14".

3.2 Approved Manufacturer

Valves shall be provided by Asahi/America, Inc. of Lawrence, MA with no approved equals.

Manufacturer must be ISO-9001 certified.

3.3 Pressure vs. Temperature

Valves shall have a pressure rating of:

150 psi at 70° F sizes 1-1/2" – 10"

100 psi at 70° F sizes 12" & 14"

4.0 Accessories:

4.1 Stem Extensions

Stem extensions where required should be designed, built and provided by the Asahi/America, Inc., and be 1 of 5 styles:

Style LBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style GBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style LBF-B Single piece extension either free standing or supported design

Style GBF-B Single piece extension either free standing or supported design.

Style GBF-C Single piece extension for the gear handwheel only either free standing or supported design.

4.2 Actuation

Actuation where required should be designed, built and provided by Asahi/America, Inc., and be either pneumatic (Series 79P) or electric (Series 94, 92, or 10) type. All actuation accessories to be provided and installed by Asahi/America, Inc. in accordance with manufacturers requirements.

4.3 Lugs

Lugs where required should be factory installed by Asahi/America, Inc. Materials of construction shall be 316 SS. Sizes 3" – 12" PVC body shall be Type-57IL.

4.4 Operating Nuts

Where required 2" square operating nuts can be installed on Lever type or Gear type Butterfly valves. On Gear type valves, the gear operator must remain on top of valve body and only the handwheel from gear-operator is replaced by 2" square operating nut.

Materials of construction – Anodized Aluminum.

4.5 Chain Operators

Where required for overhead applications, chain operators manufactured by Babbitt Steam may be installed on Gear-operated butterfly valves. Chain must be weldless loop style chain supplied from Babbitt Steam.

Materials of construction: Chain Operator – Cast Iron

Chain – Hot Galvanized steel, others by request.

5.0 Installation Procedures:

All valve joints shall be prepared using flanged connections to accept either wafer style or lugged butterfly valves. The bolt diameters and torque values should be according to manufacturer's standard and requirements put forth in Type-57P Butterfly valve Operation and Maintenance manuals. All accessories should be installed in accordance with the manufacturer's requirements as well as any facility requirements.



Type-57IL Isolator Lug Butterfly Valves

Standard Features (Sizes 3" – 12")

- Standard model (3" - 12") has PVC body and PP disc for superior chemical resistance and elevated temperature capabilities
- Our 316 stainless steel stem has full engagement over the entire length of the disc and is a non-wetted part, totally isolated from the media
- Only solid and abrasion resistant plastic disc and elastomeric liner are wetted parts
- ISO bolt circle on top flange - No body or stem modifications required for accessories
- Stem retainer - PP retainer to prevent stem removal
- Seat overtightening protection molded body stops and seat stress relief area
- Spherical disc design offers increased Cv, ultimate sealing and high cycle life
- Over molded 316 stainless steel factory lug that allows bidirectional installation
- Plasgear™ gear operators for 3" - 12" standard

Options

- Pneumatically and electrically actuated with accessories
- Alternate discs:
 - (I) PVC: 3" - 12"
 - (II) PVDF: 3" - 12"
- Stems in titanium or Hastelloy C[‡]
- 2" square nut on stem (3" - 8" only)
- 2" square nut on gear operator (all sizes)
- Stem extensions (single stem and two-piece stem)
- Locking devices (gear type - standard on lever)
- Chain operators
- Manual limit switch - Asahi P-Series
- Tandem arrangements (Patented by A/A, Inc.)

Specifications

Sizes: Lever: 3" – 8"
Gear: 3" – 12"

Models: Lug Style

Operators: Lever and Gear

Body: PVC

Discs: PVC, PP, and PVDF

Seats: EPDM, FKM and Nitrile

Seals: Same as seating material

Stems: 316 stainless steel, Titanium, Hastelloy C[‡]

**PVC/PP/EPDM
NSF Certified**

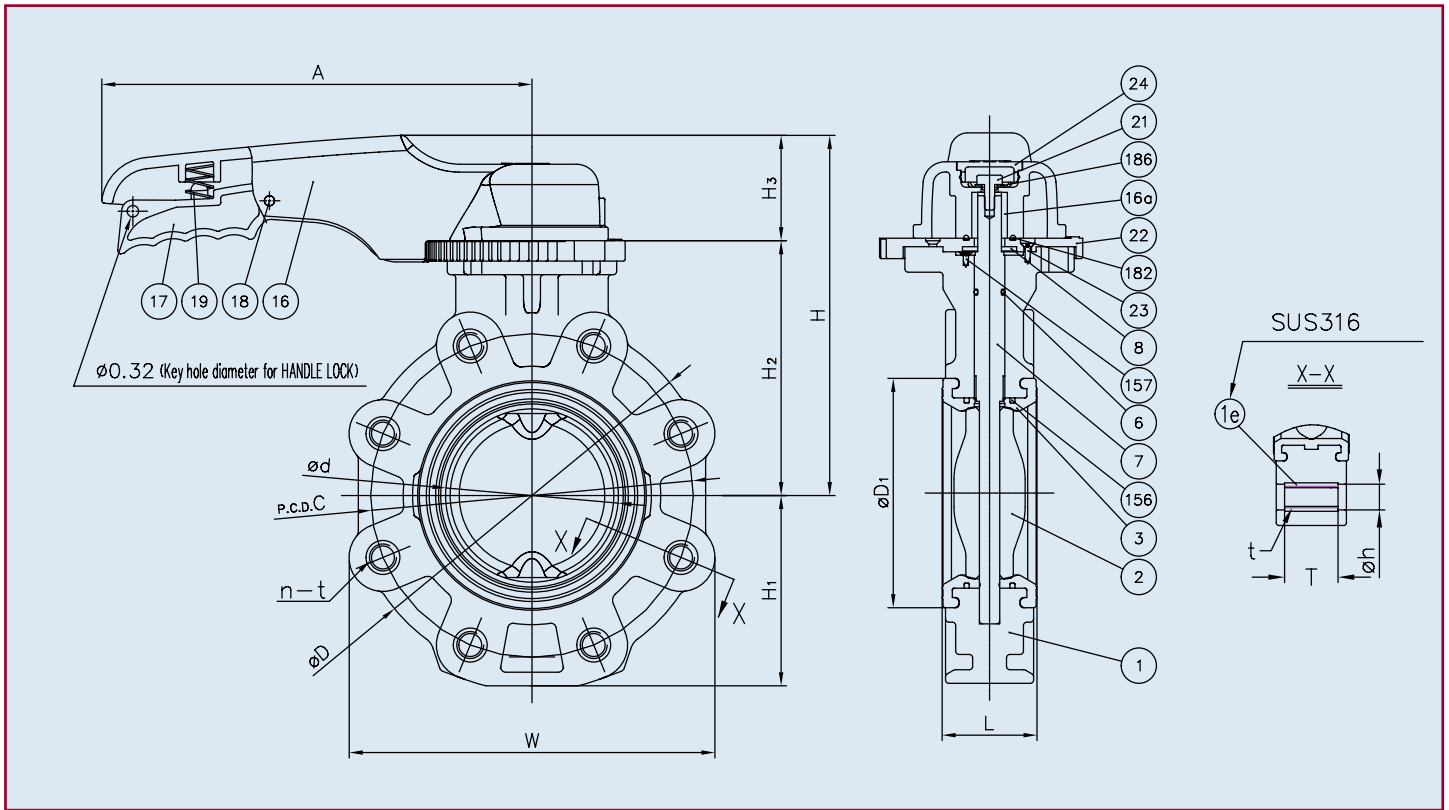
‡ Trademark of Cabot Corporation

Parts List (Lever: Sizes 3" – 8")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC
1e	Lug	-	Stainless Steel 316
2	Disc	1	PVC, PP, PVDF
3	Seat	1	EPDM, FKM, NBR
6	O-Ring (C)	1	EPDM, FKM, NBR
7	Stem	1	Stainless Steel 316
8	Stem Retainer	1	PP
16	Handle	1	PP
16a	Metal Insert in Handle	1	Stainless Steel 316L
17	Handle Lever	1	PPG
18	Pin	1	PPG
19	Spring	1	Stainless Steel 304
20	Washer (A)	1	Stainless Steel 304
21	Bolt (B)	1	Stainless Steel 304
22	Locking Plate	1	PPG
23	Screw (B)	4	Stainless Steel 304
24	Cap (A)	1	PP
156	Stabilization Ring	2	Stainless Steel (SCS13)
157	Screw (F)	4	Stainless Steel 304



Type-57IL Isolator Lug Lever Butterfly Valve



Dimensions (Lever: Sizes 3" - 8") (in.)

NOMINAL SIZE		ANSI CLASS 150				D	D1	L	H	H1	H2	H3	A	W	T	t
INCHES	mm	d	C	n	h											
3	80	3.03	6.00	4	0.75	7.28	4.13	1.81	7.52	3.82	5.31	2.20	9.84	7.09	1.26	5/8-11 UNC
4	100	4.02	7.50	8	0.75	8.27	5.28	2.20	8.11	4.41	5.91	2.20	9.84	8.50	1.52	5/8-11 UNC
6	150	5.91	9.50	8	0.87	10.63	7.48	2.80	9.92	5.55	7.2	2.72	12.60	10.67	1.97	3/4-10 UNC
8	200	7.68	11.75	8	0.87	12.6	9.53	3.43	11.14	6.61	8.43	2.72	15.75	12.76	2.26	3/4-10 UNC

Pressure vs. Temp.

BODY		PVC		
DISC		PP		
NOMINAL SIZE		30° F	121° F	141° F
INCHES	mm	120° F	140° F	175° F
3	80	150	70	30
4	100	150	45	30
6	150	150	45	30
8	200	150	40	20

Vacuum

NOMINAL SIZE		VACUUM SERVICE (INCHES OF MERCURY)
INCHES	mm	
3	80	-29.92
4	100	-29.92
6	150	-29.92
8	200	-29.92
10	250	-29.92
12	300	-24.37

Cv Values

NOMINAL SIZE		Cv (at various opening degrees)		
INCHES	mm	30°	60°	90°
3	80	18	183	300
4	100	28	287	470
6	150	66	671	1100
8	200	150	1525	2500
10	250	232	2355	3860
12	300	342	3477	5700

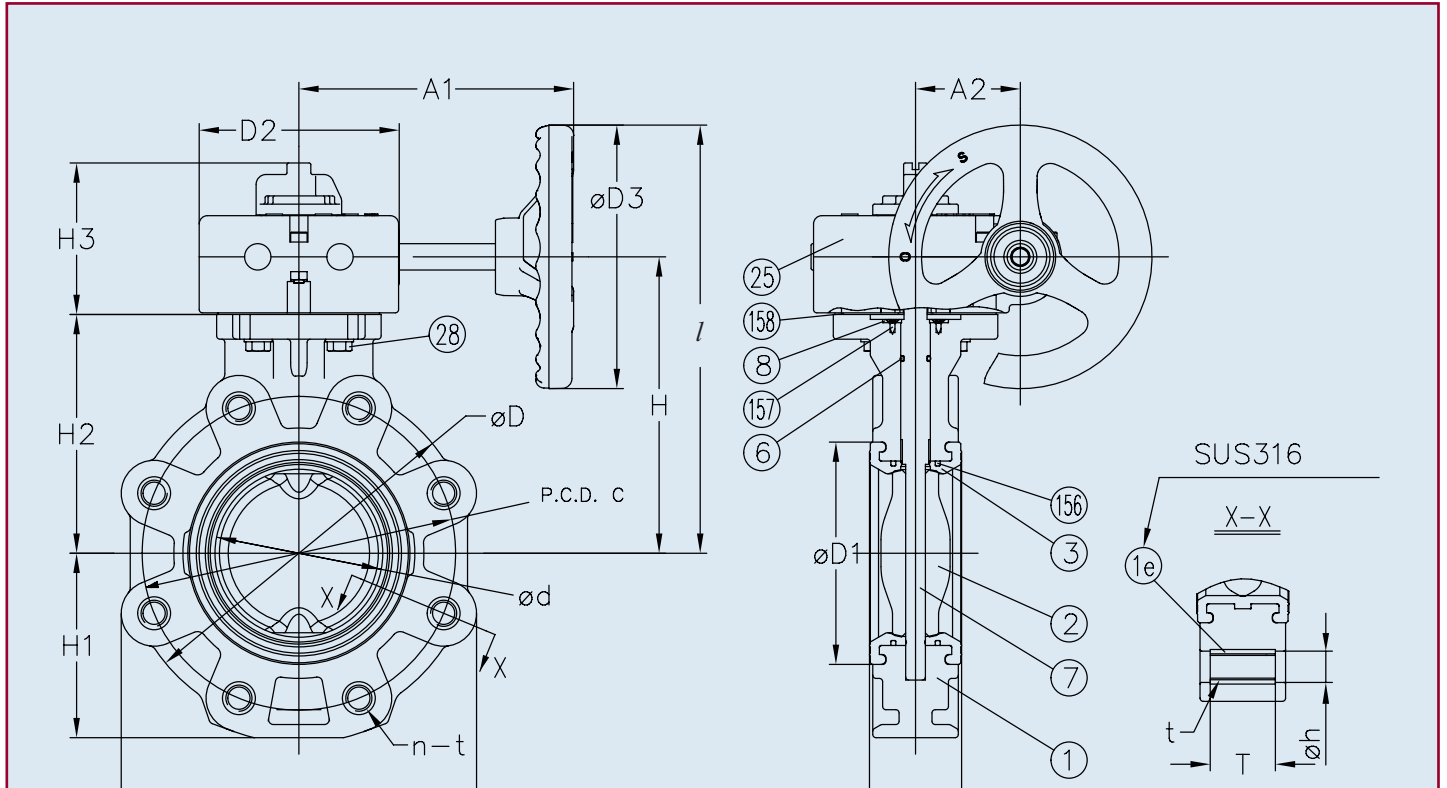
Wt (lbs.)

NOMINAL SIZE		LEVER OPERATED	GEAR OPERATED
INCHES	mm		
3	80	10	15
4	100	15	20
6	150	23	28
8	200	34	39
10	250	n/a	50
12	300	n/a	85

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

Type-57IL Isolator Lug Gear Butterfly Valve



Dimensions (Gear: Sizes 3" - 12") (in.)

NOMINAL SIZE	INCHES	mm	ANSI CLASS 150				D	D1	D2	D3	L	H	H1	H2	H3	L	A1	A2	W	T	t	Wheel Cycles	Gear box model
			d	C	n	h																	
3		80	3.03	6.00	4	0.75	7.28	4.13	4.80	6.30	1.81	6.50	3.82	5.12	3.62	9.65	6.57	2.52	7.09	1.37	5/8-11 UNC	9.5	241
4		100	4.02	7.50	8	0.75	8.27	5.28	4.80	6.30	2.20	7.09	4.41	5.71	3.62	10.24	6.57	2.52	8.50	1.37	5/8-11 UNC	9.5	
6		150	5.91	9.50	8	0.87	10.63	7.48	4.80	6.30	2.80	8.27	5.55	6.89	3.62	11.42	6.57	2.52	10.67	2.15	3/4-10 UNC	9.5	
8		200	7.68	11.75	8	0.87	12.6	9.53	4.80	6.30	3.43	9.49	6.61	8.11	3.62	12.64	6.57	2.52	12.76	2.15	3/4-10 UNC	9.5	
10		250	9.84	14.25	12	0.98	15.75	11.89	4.80	6.30	4.41	10.87	7.95	9.49	3.62	14.01	6.57	2.52	15.91	3.14	7/8-9 UNC	9.5	
12		300	11.93	17.01	12	0.98	18.31	14.17	7.40	11.81	5.08	13.39	9.29	11.73	4.25	19.29	10.71	3.90	18.54	3.14	7/8-9 UNC	9.5	

Parts List (Gear)

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC
1e	Lug	-	Stainless Steel 316
2	Disc	1	PVC, PP, PVDF
3	Seat	1	EPDM, FKM, NBR
6	O-Ring (C)	1	EPDM, FKM, NBR
7	Stem	1	Stainless Steel 316
8	Stem Retainer	1	PP
25	Gear Box	1	Plasgear™
28	Bolt (C)	4	Stainless Steel 304
156	Stabilization Ring	2	Stainless Steel (SCS13)
157	Screw (F)	4	Stainless Steel 304
158	Gasket (L)	1	EPDM

Pressure vs. Temperature

BODY		PVC		
DISC		PP		
NOMINAL SIZE		30° F	121° F	141° F
INCHES	mm	120° F	140° F	175° F
8	200	150	40	20
10	250	150	40	20
12	300	100	30	15

Type-57IL Isolator Lug Butterfly Valve

Troubleshooting

What if fluid still flows when valve is closed?

1. Make sure lever or gear is in a fully closed position (gear type may require travel stop adjustment).
2. Liner is damaged or worn. Replace liner.
3. Disc is damaged or abraded. Change disc.
4. Foreign material is caught between seat and disc. Remove the substance.
5. Mating flange bolts either overtightened or unevenly tightened. Retighten properly.

What if fluid leaks outside between seat and mating flange?

1. Seat damage. Change seat.
2. Mating flange bolts not tightened with proper torque or unevenly tightened. Retighten to the appropriate torque.

What if valve does not operate smoothly?

1. Foreign material is caught between disc and seat. Remove the material and clean.
2. Lever or gearbox is damaged. Replace.
3. Mating flange bolts overtightened. Retighten.

Sample Specification

All solid thermoplastic butterfly valves sizes 3" through 12" shall be of the Type-57IL (isolator lug) PVC lined body design and bubble-tight seal (meeting or exceeding Class VI as defined by American National Standard Institute) with only the liner and disc as wetted parts. The lever handle (sizes 3" through 8") shall have a molded provision for a padlock. Gear operators shall be worm gear design, self-locking Plasgear™. The spherical disc design for higher Cv values shall be of solid abrasion resistant plastic. Liner shall be molded and formed around the body, functioning as gasket seals with convex ring design on each side of the valve for lower bolt tightening torque and valve body shall have molded body stops and seat relief area to prevent overtightening of mating flanges. Valves shall be molded to accept 316 stainless steel A/A factory molded lugs. Valve shall be capable of having flange removed while maintaining full line pressure on upstream side for end of line service. Stem shall be of 316 stainless steel, non-wetted and have engagement over the full length of the disc. Valves shall have a molded ISO bolt pattern on top flange for actuator mount. PVC shall conform to ASTM D1784 Cell Classification 12454A, PP conforming to ASTM D4101 Cell Classification PP0210B67272. All (3" through 10") valves shall be rated to 150psi and 12" rated to 100psi. Butterfly valves shall be lug style, as manufactured by Asahi/America, Inc.

Type-57IL Isolator Lug Butterfly Valves

1.0 Scope:

All requirements are for Type-57IL Isolator Lug Butterfly Valves and accessories.

2.0 Materials:

U-PVC – Conforming to ASTM D1784 Cell Classification 12454 A

Polypropylene – Conforming to ASTM D4101 Cell Classification PP0210B67272

PVDF – Conforming to ASTM D3222-91A Cell Classification Type II

FKM – Viton® Fluorocarbon Rubber

EPDM – Ethylene Propylene Diene Terpolymer Rubber

Nitrile – Nitrile Butadiene Rubber

3.0 Valves:

Type-57IL Butterfly valves shall be PVC, body with PP, PVC, or PVDF disc and EPDM, Nitrile, or FKM liner & seals. The liner shall be full seat design fully molded around the body where only the disc and seat are wetted parts and feature raised convex rings on the seat face and be utilized as the mating flange gaskets. Valve shall have spherical disc design for increased CV, high cycle life, and ultimate sealing. Valve body shall have integral molded body stops and seat relief area to prevent over-tightening of the mating flanges. Valves shall accept flat faced flanges in accordance with ANSI B16.5 bolt pattern for 150 lb flanges. Valve stem shall be 316 SS, non-wetted by the media, and have engagement over the full length of the spherically designed disc. A PP stem retainer shall prevent stem pull-out when removing gear-operator. The valve lever handle (sizes 3" – 8") shall have a molded provision for a padlock. Valves sizes 3" – 12" shall feature a molded ISO bolt pattern for accessory mounting. Valves shall be non-directional, feature factory molded inserts of 316 SS conforming to an ANSI B16.5 bolt pattern and permit downstream flange removal. The Type-57IL is ideally suited for end of line applications where full pressure rating is required on the upstream side of the valve.

3.1 Operators

Type-57IL 3" – 12" (Lever Type standard sizes 3" – 8")

(Gear Type standard sizes 8" – 12", optional for sizes smaller than 8")

Lever Handle to be Asahi Standard valve handle Red color

Gear-operator for valves sizes 3" – 12".

Gear-Operator to be Asahi Plasgear™ all plastic construction with SS trim submersible type

3.2 Approved Manufacturer

Valves shall be provided by Asahi/America, Inc. of Lawrence, MA with no approved equals. Manufacturer must be ISO-9001 certified.

3.3 Pressure vs. Temperature

Valves shall have a pressure rating of:

150 psi at 70° F sizes 3" – 10"

100 psi at 70° F size 12"

4.0 ACCESSORIES:

4.1 Stem Extensions

Stem extensions where required should be designed, built and provided by the Asahi/America, Inc., and be 1 of 5 styles:

Style LBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style GBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style LBF- B Single piece extension either free standing or supported design
Style GBF- B Single piece extension either free standing or supported design.
Style GBF-C Single piece extension for the gear handwheel only either free standing or supported design.

4.2 Actuation

Actuation where required should be designed, built and provided by Asahi/America, Inc., and be either pneumatic (Series 79P) or electric (Series 94, 92, or 10) type. All actuation accessories to be provided and installed by Asahi/America, Inc. in accordance with manufacturer's requirements.

4.3 Operating Nuts

Where required 2" square operating nuts can be installed on Lever type or Gear type Butterfly valves. On Gear type valves, the gear operator must remain on top of valve body and only the handwheel from gear-operator is replaced by 2" square operating nut.

Materials of construction – Anodized Aluminum.

4.4 Chain Operators

Where required for overhead applications, chain operators manufactured by Babbitt Steam may be installed on Gear-operated butterfly valves. Chain must be weldless loop style chain supplied from Babbitt Steam.

Materials of construction: Chain Operator – Cast Iron

Chain – Hot Galvanized steel, others by request.

5.0 Installation Procedures:

All valve joints shall be prepared using flanged connections to accept either wafer style or lugged butterfly valves. The bolt diameters and torque values should be according to manufacturer's standard and requirements put forth in Type-57IL Lug Butterfly valve Operation and Maintenance manuals. All accessories should be installed in accordance with the manufacturer's requirements as well as any facility requirements.



Type-57LIS Butterfly Valve

Standard Features (Sizes 3" – 8")

- Direct replacement for metal valves conforming to ISO 5752 short face-to-face dimensions
- Standard model has PVC body with PP disc for superior chemical and corrosion resistance as well as elevated temperature capabilities
- Non-wetted 316 stainless steel stem has full engagement over the entire length of the disc and is totally isolated from the media
- Full seat design isolates the body and stem from the media and acts as mating flange gaskets
- Integral body stops in valve body to prevent overtightening of mating flanges
- Spherical disc design for improved Cv's and superior durability
- Plasgear™ operator – Industry first composite enclosure gear operator
- Integral ISO-5211 top mounting pad for actuation mounting
- Polypropylene stem retainer

Options

- 316 stainless steel lug inserts
- Pneumatic and electric actuators with accessories
- Alternate disc materials
 - (I) PVC
 - (II) PVDF
- Alternate stem materials
 - (I) Titanium
 - (II) Hastelloy C®‡

Specifications

- Sizes:** Lever: 3" – 8"
Gear: 3" – 8"
- Models:** Wafer Style or Lug Style with 316SS lug inserts
- Operators:** Lever and Plasgear
- Bodies:** PVC
- Discs:** PVC, CPVC, PP and PVDF
- Seats:** EPDM, FKM, or Nitrile
- Seals:** Same as seating material
- Stems:** 316 stainless steel, Titanium, Hastelloy C® ‡

‡ Trademark of Cabot Corporation

Parts List (Lever: Sizes 3" – 8")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC
1e	Lug*	-	Stainless Steel 316
2	Disc	1	PVC, PP, PVDF
3	Seat	1	EPDM, FKM, NBR
6	O-Ring (C)	1	EPDM, FKM, NBR
7	Stem	1	Stainless Steel 316
8	Stem Retainer	1	PP
16	Handle	1	PP
16a	Metal Insert in Handle	1	Stainless Steel 316L
17	Handle Lever	1	PPG
18	Pin	1	PPG
19	Spring	1	Stainless Steel 304
20	Washer (A)	1	Stainless Steel 304
21	Bolt (B)	1	Stainless Steel 304
22	Locking Plate	1	PPG
23	Screw (B)	4	Stainless Steel 304
24	Cap (A)	1	PP
156	Stabilization Ring	2	Stainless Steel (SCS13)
157	Screw (F)	4	Stainless Steel 304

*Supplied installed with lug style valves only.

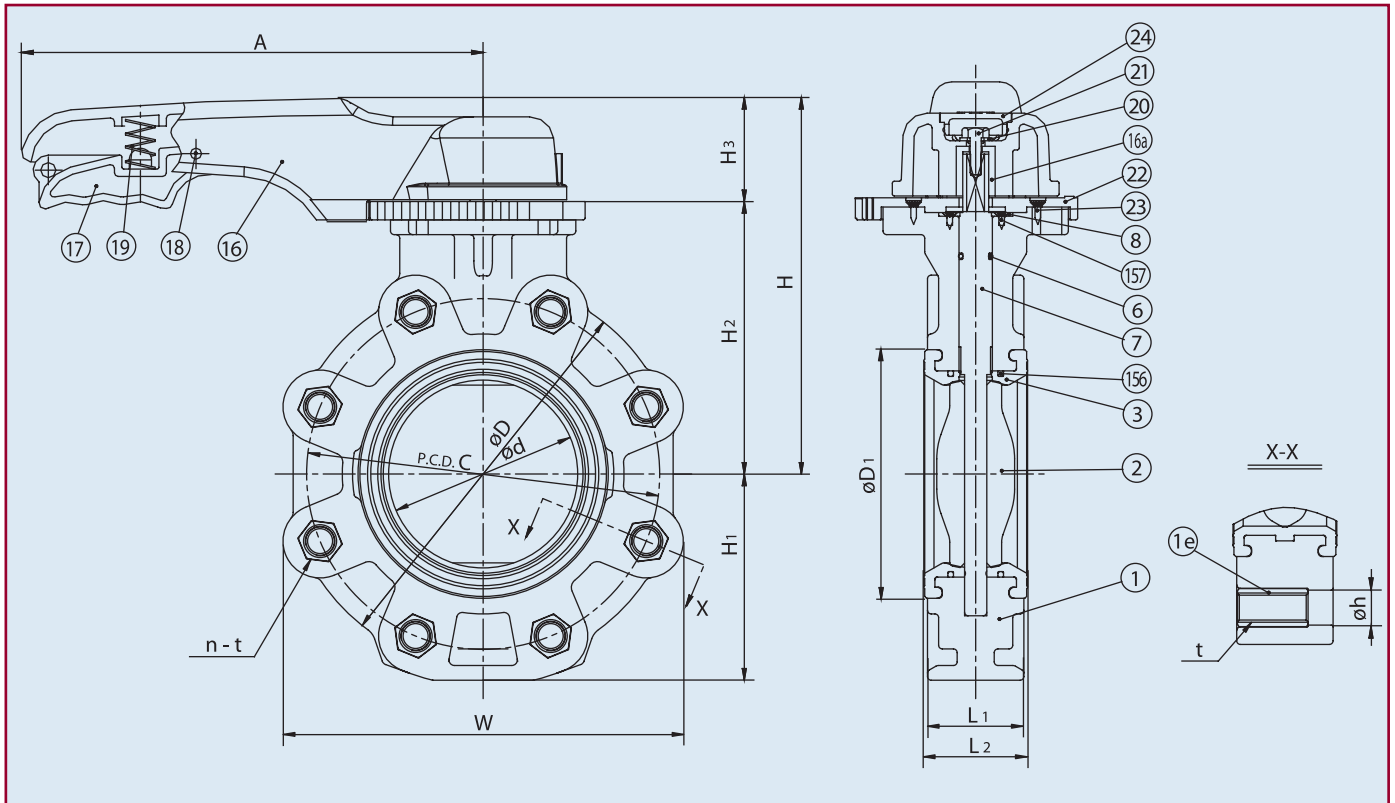
(Options continued)

- 2" square operating nuts on valve stem or gear operator shaft
- Stem extensions for above ground or buried applications
- Chain operators
- Manual limit switches

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

Type-57LIS Lever Butterfly Valves



Dimensions (Lever: Sizes 3" – 8") (in.)

NOMINAL SIZE		ANSI CLASS 150															
		d	C	n	h	D	D1	L1	L2	H	H1	H2	H3	A	W	T	t
INCHES	mm																
3	80	3.03	6.00	4	0.75	7.28	4.13	1.73	1.81	7.52	3.82	5.31	2.20	9.84	7.09	1.26	5/8-11 UNC
4	100	4.02	7.50	8	0.75	8.27	5.28	2.05	2.20	8.11	4.41	5.91	2.20	9.84	8.50	1.52	5/8-11 UNC
6	150	5.91	9.50	8	0.87	10.63	7.48	2.20	2.40	9.92	5.55	7.20	2.72	12.60	10.67	1.57	3/4-10 UNC
8	200	7.68	11.75	8	0.87	12.60	9.53	2.36	2.66	11.14	6.61	8.43	2.72	15.75	12.76	1.57	3/4-10 UNC

Pressure vs. Temp. Cv Values

BODY		PVC		
DISC		PP		
NOMINAL SIZE		30° F	121° F	141° F
INCHES	mm	120° F	140° F	175° F
3	80	150	70	30
4	100	150	45	30
6	150	150	45	30
8	200	150	40	20

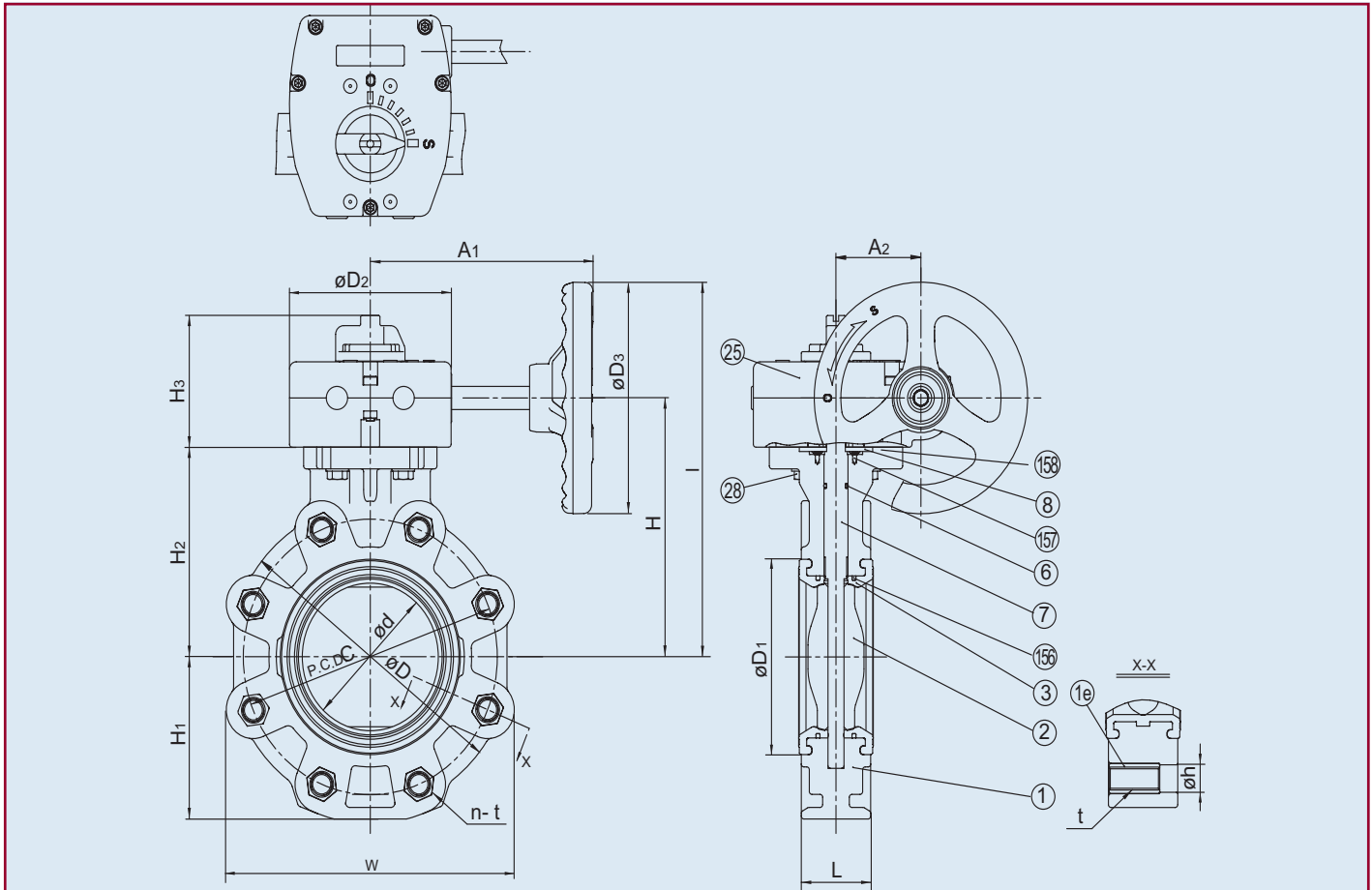
NOMINAL SIZE		Cv (at various opening degrees)		
INCHES	mm	30°	60°	90°
3	80	18	183	300
4	100	28	287	470
6	150	66	671	1100
8	200	150	1525	2500

Vacuum Service Wt. (lbs.)

NOMINAL SIZE		VACUUM SERVICE (INCHES OF MERCURY)
INCHES	mm	
3	80	-29.92
4	100	-29.92
6	150	-29.92
8	200	-29.92

NOMINAL SIZE		LEVER OPERATED	GEAR OPERATED
INCHES	mm		
3	80	10	15
4	100	15	20
6	150	23	28
8	200	34	39

Type-57LIS – Gear Operated Butterfly Valve



Dimensions (Gear: Sizes 3"-8") (in.)

NOMINAL SIZE	ANSI CLASS 150																						Wheel Cycles
	INCHES	mm	d	C	n	h	D	D1	D2	D3	L1	L2	H	H1	H2	H3	I	A1	A2	W	T	t	
3	80	3.03	6.00	4	0.75	7.28	4.13	4.80	6.30	1.73	1.81	6.50	3.82	5.12	3.62	9.65	6.57	2.52	7.09	1.26	5/8-11 UNC	9.5	
4	100	4.02	7.50	8	0.75	8.27	5.28	4.80	6.30	2.05	2.20	7.09	4.41	5.71	3.62	10.24	6.57	2.52	8.50	1.52	5/8-11 UNC	9.5	
6	150	5.91	9.50	8	0.87	10.63	7.48	4.80	6.30	2.20	2.40	8.27	5.55	6.89	3.62	11.42	6.57	2.52	10.67	1.57	3/4-10 UNC	9.5	
8	200	7.68	11.75	8	0.87	12.60	9.53	4.80	6.30	2.36	2.66	9.49	6.61	8.11	3.62	12.64	6.57	2.52	12.76	1.57	3/4-10 UNC	9.5	

Parts List (Gear: 3" – 8")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC
1e	Lug	-	Stainless Steel 304, 316
2	Disc	1	PVC, PP, PVDF
3	Seat	1	EPDM, FKM, NBR
6	O-Ring (C)	1	EPDM, FKM, NBR
7	Stem	1	Stainless Steel 316
8	Stem Retainer	1	PP
25	Gear Box	1	Plasgear™
28	Bolt (C)	4	Stainless Steel 304
156	Liner Stabilization Ring	2	Stainless Steel (SCS13)
157	Screw (F)	4	Stainless Steel 304
158	Gasket	1	EPDM

Sample Specification

All Type-57LIS butterfly valves shall be of solid thermoplastic lined body design with only the disc and seat as wetted parts. The face-to-face dimension shall be in accordance to ISO-5752 short face-to-face dimensions. All valves shall meet Class 6 bubble-tight shut-off standards. Operators shall be either molded PP lever handles with PPG trigger and 21-position throttle plate or Plasgear™ plastic enclosure gear operators. The lever handle shall feature a molded provision for padlocking. Valves shall feature spherical design discs for improved Cv's and lower seating torque. Seats or liners shall be molded and formed around the valve body and provide a gasket face for mating flanges. The valve body shall include molded body stops to prevent mating flange overtightening. Valves shall be molded wafer style and accept 316 stainless steel factory installed lug inserts. Lug style valves shall be capable of having the downstream flange removed while maintaining full line pressure on the upstream side. Valve stems shall be 316 stainless steel and have full engagement over the entire length of the disc. Valves shall feature molded ISO-5211 top flange bolt patterns for actuation mounting. PVC shall conform to ASTM D1784 Cell Classification (CC) 12454-A, PP to ASTM D41101 CC 0210B67272, and PVDF to ASTM D3222-91A CC Type II. All Type 57LIS butterfly valves shall be rated to 150psi at 70° F and be wafer or drop in lug style, as manufactured by Asahi/America, Inc.

* Supplied installed with Lug Style Valves only

Type-57LIS Butterfly Valves

1.0 Scope:

All requirements are for Type-57 LIS Butterfly Valves and accessories.

2.0 Materials:

U-PVC – Conforming to ASTM D1784 Cell Classification 12454 A

CPVC – Conforming to ASTM D1784 Cell Classification 23567 A

Polypropylene – Conforming to ASTM D4101 Cell Classification PP0210B67272

PVDF – Conforming to ASTM D3222-91A Cell Classification Type II

FKM – Viton® Fluorocarbon Rubber

EPDM – Ethylene Propylene Diene Terpolymer Rubber

Nitrile – Nitrile Butadiene Rubber

3.0 Valves:

Type-57LIS Butterfly valves shall be PVC, body with either PP, PVC, or PVDF disc and either EPDM, Nitrile, or FKM seat & seals. The liner shall be full seat design fully molded around the body where as only the Disc and Seat are wetted parts and feature raised convex rings on the face and be utilized as the mating flange gaskets. Valve shall have spherical disc design for increased CV, high cycle life, and ultimate sealing. Valve body shall have integral molded body stops and seat relief area to prevent over-tightening of the mating flanges. Valves shall accept flat faced flanges in accordance with ANSI B16.5 bolt pattern for 150 lb flanges. Valves face to face dimension shall conform to ISO 5752 short pattern and shall function as a direct replacement for metal body valves conforming to the same standard. Valve stem shall be 316 SS, have PP stem retainer for valve stem retention, be non-wetted, and have engagement over the full length of the spherically designed disc. The valve lever handle (sizes 3" – 8") shall have a molded provision for a padlock. Valves sizes 3" – 8" shall feature a molded ISO bolt pattern for accessory mounting. Valves shall be molded to accept 316 SS lug inserts, have a fluid flow directional arrow cast into the valve body and be ideally suited for end of line applications where full pressure rating is required.

3.1 Operators

Type-57LIS 3" – 8" (Lever Type standard)
(Gear Type standard)

Lever Handle to be Asahi Standard valve handle Red color

Gear-Operator to be Asahi Plasgear™ all plastic construction with SS trim submersible type

Gear-operator for valves sizes 3" – 8".

3.2 Approved Manufacturer

Valves shall be provided by Asahi/America, Inc. of Lawrence, MA with no approved equals. Manufacturer must be ISO-9001 certified.

3.3 Pressure vs. Temperature

Valves shall have a pressure rating of:

150 psi at 70° F sizes 3" – 8"

4.0 Accessories:

4.1 Stem Extensions

Stem extensions where required should be designed, built and provided by the Asahi/America, Inc., and be 1 of 5 styles:

Style LBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style GBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style LBF- B Single piece extension either free standing or supported design

Style GBF- B Single piece extension either free standing or supported design.

Style GBF-C Single piece extension for the gear handwheel only either free standing or supported design.

4.2 Actuation

Actuation where required should be designed, built and provided by Asahi/America, Inc., and be either pneumatic (Series 79P) or electric (Series 94, 92, or 10) type. All actuation accessories to be provided and installed by Asahi/America, Inc. in accordance with manufacturer's requirements.

4.3 Operating Nuts

Where required 2" square operating nuts can be installed on Lever type or Gear type Butterfly valves. On Gear type valves, the gear operator must remain on top of valve body and only the handwheel from gear-operator is replaced by 2" square operating nut.

Materials of construction – Anodized Aluminum.

4.4 Chain Operators

Where required for overhead applications, chain operators manufactured by Babbitt Steam may be installed on Gear-operated butterfly valves. Chain must be weldless loop style chain supplied from Babbitt Steam.

Materials of construction: Chain Operator – Cast Iron

Chain – Hot Galvanized steel, others by request.

5.0 Installation Procedures:

All valve joints shall be prepared using flanged connections to accept either wafer style or lugged butterfly valves. The bolt diameters and torque values should be according to manufacturer's standard and requirements put forth in Type-57LIS Butterfly valve Operation and Maintenance manuals. All accessories should be installed in accordance with the manufacturer's requirements as well as any facility requirements.



Type-55 Butterfly Valve

Standard Features

- Highly corrosion resistant PTFE disc and seat
- Epoxy powder coated ductile iron body for corrosive atmosphere or environments
- Strong but thin disc with high Cv value
- Stainless steel stem has full engagement over the entire length of the disc and is a non-wetted part, totally isolated from the media
- Only PTFE disc and PTFE seat are wetted parts
- Bubble-tight shut-off
- Rated for full vacuum service
- Locking device
- 21-position throttle plate for lever handle style

Options

- Pneumatically or electrically actuated with accessories
- Gear operators for 2" - 5"
- 2" square nut on valve stem
- 2" square nut on gear
- Stem extensions (single stem and two-piece stem)
- Chain operators
- Manual limit switch

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

Specifications

- Sizes:** 2" - 10"
- Models:** Wafer Style
- Operators:** Lever: 2" - 5"
Gear: 2" - 10"
- Bodies:** Epoxy powder coated ductile cast iron
- Discs:** PTFE
- Seats:** PTFE backed with Neoprene^{®†}
- Seals:** Same as seating material
- Stems:** Stainless steel 304

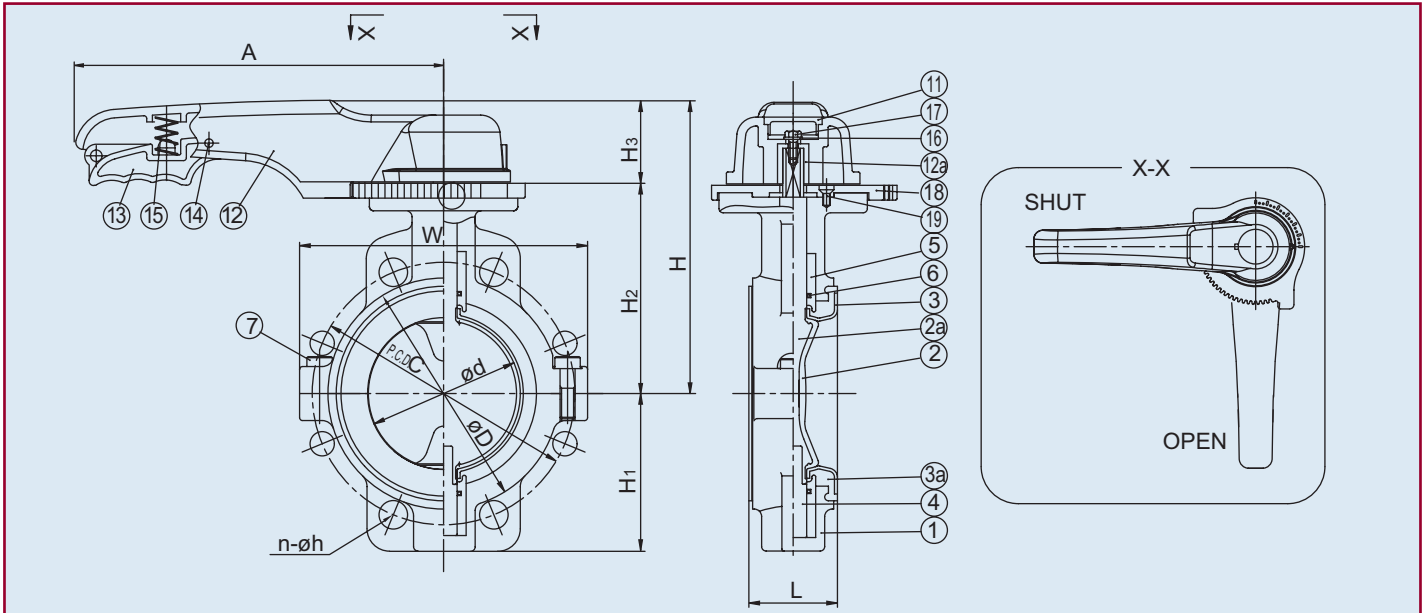
† Trademarks of E. I. du Pont de Nemours and Company

Parts List (Lever: Sizes 2" - 5")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	Ductile Cast Iron*
2	Disc	1	PTFE
2a	Disc Insert	1	Stainless Steel 304
3	Seat	1	PTFE
3a	Cushion Rubber	1	CR
4	Stem	1	Stainless Steel 304
5	Bush	2	Stainless Steel 304
6	O-Ring	2	EPDM
7	Bolt (A)	-	Stainless Steel 304
11	Cap	1	PP
12	Handle	1	PP
12a	Handle Metal Insert	1	Stainless Steel 316
13	Handle Lever	1	PPG
14	Pin	1	PPG
15	Spring	1	Stainless Steel 304
16	Washer	1	Stainless Steel 304
17	Bolt (C)	1	Stainless Steel 304
18	Locking Plate	1	PPG
19	Screw	4	Stainless Steel 304

*With epoxy powder coating.





Dimensions (Sizes 2" – 5") (in.)

NOMINAL SIZE		ANSI CLASS 150				D	L	H	H1	H2	H3	W	A
INCHES	mm	d	C	n	h								
2	50	2.17	4.75	2(4)	0.75	3.54	1.73	6.34	2.40	4.13	2.20	4.57	8.66
3	80	3.15	6.00	4(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

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

Cv Values

NOMINAL Size		Cv
INCHES	mm	
2	50	100
3	80	285
4	100	600
5	125	940
6	150	1500
8	200	2500
10	250	4200

Weight (lbs.)

NOMINAL SIZE		LEVER	GEAR
INCHES	mm		
2	50	6.61	11.02
3	80	9.92	14.33
4	100	13.23	17.64
5	125	23.15	25.35
6	150	-	31.97
8	200	-	50.71
10	250	-	73.85

Pressure vs Temperature

NOMINAL Size		- 5° F
INCHES	mm	210° F
2	50	150
3	80	150
4	100	150
5	125	150
6	150	150
8	200	150
10	250	150

Troubleshooting

What if fluid still flows when valve is closed?

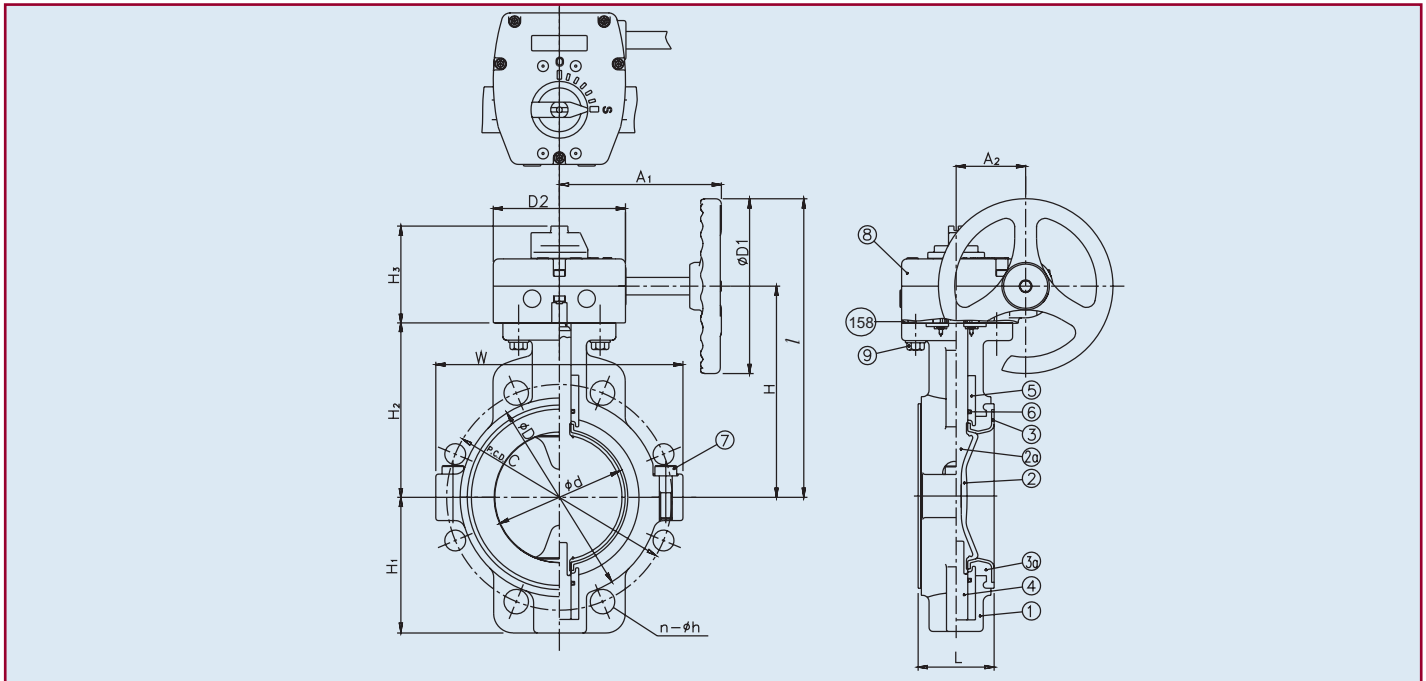
1. Make sure lever or gear is in a fully closed position (gear type may require travel stop adjustment).
2. Liner is damaged or worn. Replace liner.
3. Disc is damaged or abraded. Change disc.
4. Foreign material is caught between seat and disc. Remove the substance.
5. Mating flange bolts either overtightened or unevenly tightened. Retighten properly.

What if fluid leaks outside between seat and mating flange?

1. Seat damage. Change seat.
2. Mating flange bolts not tightened to proper torque or unevenly tightened. Retighten to the appropriate torque.

What if valve does not operate smoothly?

1. Foreign material is caught between disc and seat. Remove the material and clean.
2. Lever or gearbox is damaged. Replace.
3. Mating flange bolts overtightened. Retighten.



Dimensions (Sizes 2" – 10") (in.)

NOMINAL SIZE		ANSI CLASS 150																
INCHES	mm	d	C	n	h	D	D1	D2	L	H	H1	H2	H3	l	W	A1	A2	
2	50	2.17	4.75	2(4)	0.75	3.54	6.30	4.80	1.73	5.29	2.40	3.94	3.54	8.49	4.57	6.57	2.52	
3	80	3.15	6.00	-(4)	0.75	4.92	6.30	4.80	2.13	6.04	3.74	4.69	3.54	9.24	5.98	6.57	2.52	
4	100	3.94	7.50	4(8)	0.75	6.06	6.30	4.80	2.32	6.66	3.90	5.31	3.54	9.86	6.85	6.57	2.52	
5	125	4.92	8.50	4(8)	0.88	7.13	6.30	4.80	2.52	7.57	4.72	6.22	3.54	10.77	8.11	6.57	2.52	
6	150	5.91	9.50	4(8)	0.88	8.31	6.30	4.80	2.95	8.24	5.39	6.89	3.54	11.44	9.29	6.57	2.52	
8	200	7.52	11.75	4(8)	0.88	10.43	6.30	4.80	3.35	9.42	6.42	8.07	3.54	12.62	11.10	6.57	2.52	
10	250	9.65	14.25	4(12)	1.00	12.80	6.30	4.80	3.78	10.80	7.87	9.45	3.54	14.00	13.43	6.57	2.52	

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

Parts List (Gear: Sizes 2" – 10")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	Ductile Cast Iron*
2	Disc	1	PTFE
2a	Disc Insert	1	Stainless Steel 304
3	Seat	1	PTFE
3a	Cushion Rubber	1	CR
4	Stem	1	Stainless Steel 304
5	Bush	2	Stainless Steel 304
6	O-Ring	2	EPDM
7	Bolt [A]	-	Stainless Steel 304
8	Gear Box	1	Plasgear™
9	Bolt [B]	4	Stainless Steel 304
158	Gasket	1	EPDM

*With epoxy powder coating

Sample Specification

All Type-55 butterfly valves shall be of epoxy powder coated ductile cast iron body design and bubble-tight seal (meeting or exceeding Class VI as defined by American National Standard Institute) with only the liner and disc as wetted parts. The lever handle (sizes 2" through 5") shall have a molded provision for a padlock. Gear operators shall be worm gear design, self-locking, with Plasgear™ plastic gear box. Valves shall have a molded ISO bolt pattern conforming to 5211/1 on top flange for actuator mount. The disc shall be of PTFE. Liner shall be of PTFE with Neoprene® backing cushion. Stem shall be of stainless steel, non-wetted and have engagement over the full length of the disc. The butterfly valves shall be wafer style. Valves shall be rated to 150psi from -5° F to +210° F, as manufactured by Asahi/America, Inc.



Type-55 IS Butterfly Valve

Standard Features

- Face to face dimension conforms to ISO 5752 short pattern for metal valves
- Powdercoated cast ductile iron body for corrosion resistance
- Highly corrosion resistant PTFE disc and PTFE seat are the only parts in contact with the process media
- Stainless steel stem is non-wetted, isolated from the media, and has full engagement thru the entire length of the valve body and disc
- High CV value achieved with strong, thin disc
- Class VI bubble tight shut-off
- Lever handle features 19 position throttling plate and factory padlock provision
- Plasgear™ engineered resin enclosure gear-operator with stainless steel trim
- Top flange conforms to ISO 5211 for actuation mounting

Options

- Pneumatic or electric actuation with accessories
- 2" square nut on valve stem or Plasgear™ operator handwheel shaft
- Stem extensions
- Chain operators (Plasgear™ type only)
- Manual limit switch (Lever or Plasgear™ types)
- Speed Handle™ for Plasgear™ operator

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

Specifications

- Sizes:** 2" – 16"
- Models:** Wafer Style
- Operators:** Lever: 2" – 5"
Gear: 2" – 16"
- Bodies:** Powdercoat finish Ductile Cast Iron (FCD-S)
- Discs:** PTFE
- Seats:** PTFE backed with Neoprene®† backing
- Stems:** Stainless steel 304

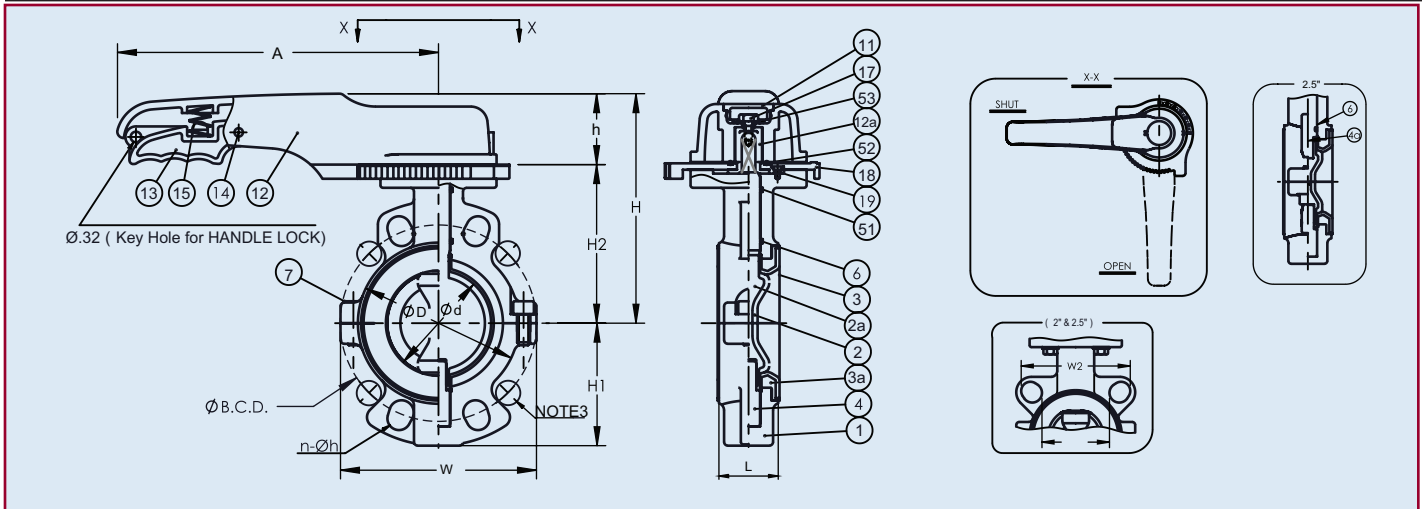
† Trademarks of E. I. du Pont de Nemours and Company

Parts List (Lever: Sizes 2" – 5")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	Ductile Cast Iron (FCD-S)*
2	Disc	1	PTFE
2a	Inserted Metal of Disc	1	Stainless Steel (SUS304)
3	Seat	1	PTFE
3a	Seat Cushion	1	CR
4a	Stem (A)	1	Stainless Steel (SUS304)
4b	Stem (B)	1	Stainless Steel (SUS304)
6	O-Ring (A)	1	EPDM
7	Bolt (A)	2	Stainless Steel (SUS304)
11	Cap	1	PP
12	Handle	1	PP
12a	Handle Insert Metal	1	Stainless Steel (SUS316)
13	Handle Lever	1	PPG
14	Pin	1	PPG
15	Spring	1	Stainless Steel (SUS304)
17	Bolt (C)	1	Stainless Steel (SUS304)
18	Locking Plate	1	PPG
19	Screw (A)	4	Stainless Steel (SUS304)
51	O-Ring (B)	1	EPDM
52	O-Ring (C)	1	EPDM
53	Rubber + Washer	1	Stainless Steel (SUS304) + EPDM

*With powdercoat finish.





Dimensions (Sizes 2" – 5") (in.)

Nominal Size		d	ANSI Class 150			D	L	H	H1	H2	H3	W	W1	W2	A
			C	n	h										
2"	50mm	2.17	[4.75]	2 (4)	[0.75]	3.54	1.69	6.34	2.40	4.13	2.20	4.57	2.60	4.17	8.66
2-1/2"	65mm	2.56	[5.50]	2 (4)	[0.75]	0.43	1.81	6.93	3.15	4.72	2.20	5.75	3.07	4.76	8.66
3"	80mm	3.15	[6.00]	- (4)	[0.75]	4.92	1.81	7.09	3.74	4.88	2.20	5.98	-	-	9.84
4"	100mm	3.94	7.50	4 (8)	0.75	6.06	2.05	7.72	4.06	5.51	2.20	6.85	-	-	9.84
5"	125mm	4.92	8.50	4 (8)	0.88	7.13	2.20	9.25	4.72	6.54	2.72	8.11	-	-	12.60

Note 1: Dimensions "L" is equivalent to ISO-5752 Short Pattern Face to Face deimsnion for metal valves.

Note 2: The shape and appearance of assembly differ a little with nominal size compared to this drawing.

Note 3: These show the bolt hole position for 3" (80mm)

Cv Values

Nominal Size		CV values
Inches	mm	
2"	50	100
2-1/2"	65	230
3"	80	285
4"	100	600
5"	125	940
6"	150	1500
8"	200	2500
10"	250	4200
12"	300	7800
14"	350	9200
16"	400	12800

Weight (lbs.)

Nominal Size		Lever	Gear
Inches	mm		
2"	50	6.61	11.02
2-1/2"	65	8.82	13.23
3"	80	9.92	14.33
4"	100	13.23	17.64
5"	125	23.15	25.35
6"	150	-	31.97
8"	200	-	50.71
10"	150	-	73.85
12"	300	-	101.41
14"	350	-	125.66
16"	400	-	169.76

Vacuum Service Pressure vs. Temp.

Nominal Size		Inches of Mercury
Inches	mm	
2"	50	-29.92
2-1/2"	65	-29.92
3"	80	-29.92
4"	100	-29.92
5"	125	-29.92
6"	150	-29.92
8"	200	-29.92
10"	250	-29.92
12"	300	-29.92
14"	350	-29.92
16"	400	-29.92

Nominal Size		-5°F to 210°F
Inches	mm	
2" - 12"	50 - 200	150
14" - 16"	350 - 400	100

Troubleshooting

What if fluid still flows when valve is closed?

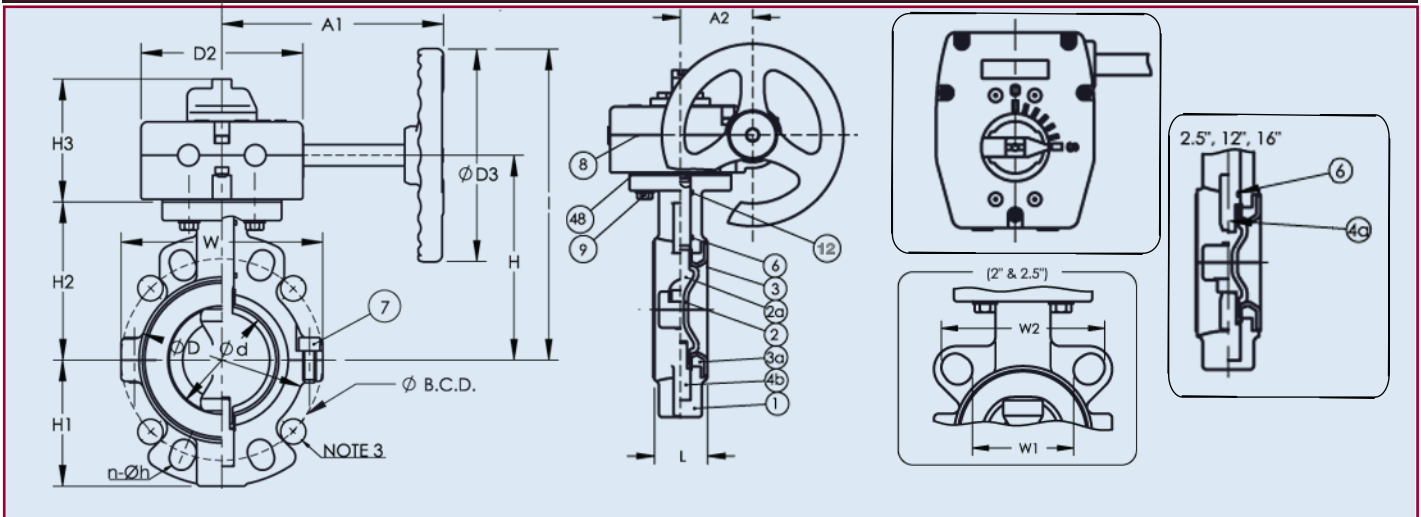
1. Make sure lever or gear is in a fully closed position (gear type may require travel stop adjustment).
2. Liner is damaged or worn. Replace liner.
3. Disc is damaged or abraded. Change disc.
4. Foreign material is caught between seat and disc. Remove the substance.
5. Mating flange bolts either overtightened or unevenly tightened. Retighten properly.

What if fluid leaks outside between seat and mating flange?

1. Seat damage. Change seat.
2. Mating flange bolts not tightened to proper torque or unevenly tightened. Retighten to the appropriate torque.

What if valve does not operate smoothly?

1. Foreign material is caught between disc and seat. Remove the material and clean.
2. Lever or gearbox is damaged. Replace.
3. Mating flange bolts overtightened. Retighten.



Dimensions (Sizes 2" – 16") (in.)

Nominal Size	ANSI Class 150				D	D2	D3	L	H	H1	H2	H3	I	W	W1	W2	A1	A2	
	d	C	n	h															
2"	50mm	2.17	[4.75]	2 [4]	[0.75]	3.54	4.80	6.30	1.69	5.31	2.40	3.94	3.62	8.46	4.57	2.60	4.17	6.57	2.52
2-1/2"	65mm	2.56	[5.50]	2 [4]	[0.75]	4.33	4.80	6.30	1.81	5.91	3.15	4.53	3.62	9.06	5.75	3.07	4.41	6.57	2.52
3"	80mm	3.15	[6.00]	- [4]	[0.75]	4.92	4.80	6.30	1.81	6.06	3.74	4.69	3.62	9.21	5.98	-	-	6.57	2.52
4"	100mm	3.94	7.50	4 [8]	0.75	6.06	4.80	6.30	2.05	6.69	4.06	5.31	3.62	9.84	6.85	-	-	6.57	2.52
5"	125mm	4.92	8.50	4 [8]	0.88	7.13	4.80	6.30	2.20	7.60	4.73	6.22	3.62	10.75	8.11	-	-	6.57	2.52
6"	150mm	5.91	[9.50]	4 [8]	[0.88]	8.31	4.80	6.30	2.20	8.27	5.39	6.89	3.62	11.42	9.29	-	-	6.57	2.52
8"	200mm	7.52	11.75	4 [8]	0.88	9.96	4.80	6.30	2.36	9.45	6.42	8.07	3.62	12.60	11.42	-	-	6.57	2.52
10"	250mm	9.65	14.25	4 [12]	1.00	12.60	4.80	6.30	2.68	10.83	7.87	9.45	3.62	16.73	13.39	-	-	6.57	2.52
12"	300mm	11.02	17	4 [12]	1.00	14.61	7.40	11.81	3.07	13.27	9.06	11.61	4.25	19.17	16.14	-	-	10.71	3.90
14"	350mm	12.99	18.75	4 [12]	1.12	16.38	7.40	11.81	3.62	14.25	10.04	12.60	4.25	20.16	18.11	-	-	10.71	3.90
16"	400mm	14.96	[21.25]	4 [16]	[1.12]	18.74	7.40	11.81	4.02	15.43	11.42	13.78	4.25	21.34	20.94	-	-	10.71	3.90

Note 1: Dimensions "L" is equivalent to ISO-5752 Short Pattern Face to Face dimension for metal valves.

Note 2: The shape and appearance of assembly differ a little with nominal size compared to this drawing.

Note 3: These show the bolt hole position for 3" (80mm)

Parts List (Gear: Sizes 2" – 16")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	Ductile Cast Iron (FCD-S)*
2	Disc	1	PTFE
2a	Inserted Metal of Disc	1	Stainless Steel (SUS304)
3	Seat	1	PTFE
3a	Seat Cushion	1	CR
4a	Stem (A)	1	Stainless Steel (SUS304)
4b	Stem (B)	1	Stainless Steel (SUS304)
6	O-Ring (A)	1	EPDM
7	Bolt (A)	-	Stainless Steel (SUS304) 2" - 5" (2), 6" - 16" (4)
8	Gear Box	1	PLASGEAR™
9	Bolt (B)	4	Stainless Steel (SUS304)
48	Gasket (C)	1	EPDM
51	O-Ring (B)	1	EPDM

*With powdercoat finish.

Sample Specification

Type-55 IS Butterfly valves shall feature a powder coat finish cast ductile iron body with PTFE disc and seat. The PTFE seat shall be Neoprene backed for chemical resistance and flexibility over a wide range of temperatures. The face to face dimensions of the valve shall conform to ISO 5752 short pattern wafer style. Valves shall feature a 304 SS stem with full engagement thru the valve body and disc. Valves 2" – 5" shall feature a lever handle with 19 position throttling plate and trigger padlock provision. Valves 2" – 16" feature gear operators which shall be worm gear design, self-locking Plasgear™ as manufactured by Asahi/America Inc. Valves shall be rated to 150 psi from -5°F thru 210°F sizes 2" – 12" and 100psi from -5°F thru 210°F sizes 14" and 16", as manufactured by Asahi/America Inc.

Type 55-IS ISO Short Butterfly Valves

1.0 Scope:

All requirements are for Type 55-IS Butterfly Valves and accessories.

2.0 Materials:

Ductile Cast Iron – FCD-S With Epoxy Powder Coat

PTFE - Teflon® Polytetrafluoroethylene

EPDM – Ethylene Propylene Diene Terpolymer Rubber

Nitrile – Nitrile Butadiene Rubber

Neoprene – Polychloroprene

3.0 Valves:

Type-55-IS Butterfly valves shall feature a powder coat finish cast ductile iron body with PTFE disc and seat. The PTFE seat shall be Neoprene backed for chemical resistance and flexibility over a wide range of temperatures. The face to face dimensions of the valve shall conform to ISO 5752 short pattern wafer style. Valves shall feature a 304 SS stem with full engagement thru the valve body and disc. Valves 2" – 5" shall feature a lever handle with 19 position throttling plate and trigger padlock provision. Valves 2" – 16" feature gear operators which shall be worm gear design, self-locking Plasgear™ as manufactured by Asahi/America Inc. Valves shall be rated to 150 psi from -5°F thru 210°F sizes 2" – 12" and 100 psi from -5°F thru 210°F sizes 14" and 16", as manufactured by Asahi/America Inc.

3.1 Operators

Type 55-IS 2" – 8" (Lever Type standard sizes 2" – 8")
(Gear Type standard sizes 2" – 16")

Lever Handle to be Asahi Standard valve handle color Red

Gear-operator to be Asahi Plasgear™ all plastic construction with SS trim submersible type gear-operator for valves sizes 2" – 16".

3.2 Approved Manufacturer

Valves shall be provided by Asahi/America, Inc. of Lawrence, MA with no approved equals. Manufacturer must be ISO-9001 certified.

3.3 Pressure vs. Temperature

Valves shall have a pressure rating of:

150 psi at 70°F sizes 2" – 12"

100 psi at 70°F sizes 14" – 16"

4.0 Accessories:

4.1 Stem Extensions

Stem extensions where required should be designed, built and provided by the Asahi/America, Inc., and be 1 of 5 styles:

Style LBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style GBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style LBF-B Single piece extension either free standing or supported design

Style GBF-B Single piece extension either free standing or supported design.

Style GBF-C Single piece extension for the gear handwheel only either free standing or supported design.

4.2 Actuation

Actuation where required should be designed, built and provided by Asahi/America, Inc., and be either pneumatic (Series 79P) or electric (Series 94, 92, or 10) type. All actuation accessories to be provided and installed by Asahi/America, Inc. in accordance with manufacturers requirements.

4.3 Lugs

There shall be no provision for Lug style body.

4.4 Operating Nuts

Where required 2" square operating nuts can be installed on Lever type or Gear type Butterfly valves. On Gear type valves, the gear operator must remain on top of valve body and only the handwheel from gear-operator is replaced by 2" square operating nut.

Materials of construction – Anodized Aluminum.

4.5 Chain Operators

Where required for overhead applications, chain operators manufactured by Babbitt Steam may be installed on Gear-operated butterfly valves. Chain must be weldless loop style chain supplied from Babbitt Steam.

Materials of construction: Chain Operator – Cast Iron

Chain – Hot Galvanized steel, others by request.

5.0 Installation Procedures:

All valve joints shall be prepared using flanged connections to accept either wafer style or lugged butterfly valves. The bolt diameters and torque values should be according to manufacturer's standard and requirements put forth in Type 55IS Butterfly valve Operation and Maintenance manuals. All accessories should be installed in accordance with the manufacturer's requirements as well as any facility requirements.



Type-56 Butterfly Valve

Specifications

Sizes: Gear: 16"
Models: Wafer or Lug Style
Operators: Gear
Bodies: PP and PVDF
Discs: PP and PVDF
Seats: EPDM or FKM, also Nitrile,
Seals: Same as seating material
Stems: 403 and 316 stainless steel, Titanium, Hastelloy C® ‡

‡ Trademark of Cabot Corporation

Standard Features (Sizes 16")

- Standard model 16" has PP body and PP disc as standard
- Our 403 stainless steel shaft has full engagement over the entire length of the disc and is a non-wetted part, totally isolated from the media
- Only solid and abrasion resistant plastic disc and elastomeric liner are wetted parts
- ISO bolt circle on top flange - No body or stem modifications required for accessories or activation

Options

- Pneumatically and electrically actuated with accessories
- Alternate disc: PVDF
- Lug style (stainless steel 304 or 316) as blocking and end of line applications
- Stems in 316 stainless steel, titanium, Hastelloy C® ‡
- 2" square nut on gear operator
- Stem extensions (single stem and two-piece stem)
- Locking devices
- Chain operators
- Manual limit switch - Asahi P-Series

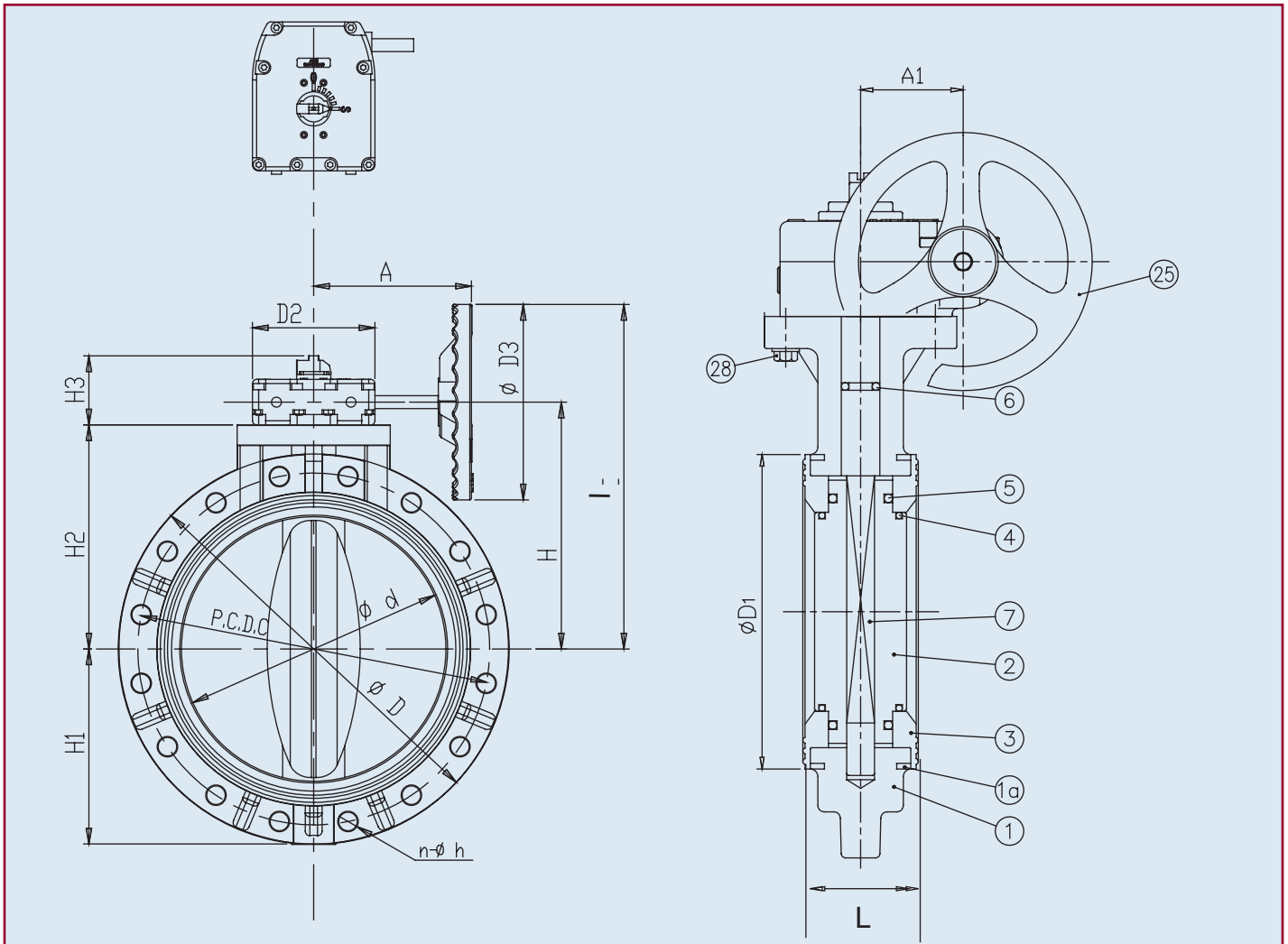
Parts List (Gear: Sizes 16")

PARTS			
No.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PP, PVDF
2	Disc	1	PP, PVDF
3	Seat	1	EPDM, FKM, NBR
4	O-Ring (A)	2	EPDM, FKM, NBR
5	O-Ring (B)	2	EPDM, FKM, NBR
6	O-Ring (C)	1	EPDM, FKM, NBR
7	Stem	1	Stainless Steel 403
25	Gear Box	1	Plasgear™
28	Bolt (C)	4	Stainless Steel 304
1a	Ring	2	Steel

Sample Specification

All solid thermoplastic butterfly valves sizes 16" shall be of lined body design and bubble-tight seal (meeting or exceeding Class VI as defined by American National Standard Institute) with only the liner and disc as wetted parts. Gear operators shall be worm gear design, self locking Plasgear™. The disc shall be of solid, abrasion resistant plastic, have double O-ring seals on top and bottom trunnions of the same material as the valve liner. Liner shall be molded and formed around the body, functioning as gasket seals with convex ring design on each side of the valve for lower bolt tightening torque. Stem shall be of 403 stainless steel, non-wetted and have engagement over the full length of the disc. Valves shall have a molded ISO bolt pattern conforming to 5211 on top flange for actuator mount. PP conforming to ASTM D4101 Cell Classification PPO210B67272, and PVDF conforming to ASTM D 3222 Cell Classification Type II. PP and PVDF body Valves shall be rated 85psi size 16" at 70° F. Butterfly valves shall be wafer or lug style, as manufactured by Asahi/America, Inc.

Type-56 – Gear Operated Butterfly Valves



Dimensions (Sizes 16") (in.)

NOMINAL SIZE		ANSI CLASS 150					D	D1	D2	D3	L	H	H1	H2	H3	/	A	A1	Gear Box Model No.
INCHES	mm	d	C	n	h														
16	400	15.98	21.25	16	1.12	23.62	18.5	7.4	11.81	6.65	14.92	11.81	13.54	4.25	20.82	10.71	3.9	243	

Type-56 – Gear Operated Butterfly Valves

Troubleshooting

What if fluid still flows when valve is closed?

1. Make sure gear is in a fully closed position (may require travel stop adjustment).
2. Liner is damaged or worn. Replace liner.
3. Disc is damaged or abraded. Change disc.
4. Foreign material is caught between seat and disc. Remove the substance.
5. Mating flange bolts either overtightened or unevenly tightened. Retighten properly.

What if fluid leaks outside between seat and mating flange?

1. Seat damage. Change seat.
2. Mating flange bolts not tightened with proper torque or unevenly tightened. Retighten to the appropriate torque.

What if valve does not operate smoothly?

1. Foreign material is caught between disc and seat. Remove the material and clean.
2. Gearbox is damaged. Replace.
3. Mating flange bolts overtightened. Retighten.

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

Pressure vs. Temperature (psi, water, non-shock)* Wt. (lbs.)

BODY		PP		PVDF			
DISC		PP		PVDF			
NOMINAL SIZE		-5° F	141° F	-5° F	141° F	176° F	211° F
INCHES	mm	140° F	175° F	140° F	175° F	210° F	250° F
16	400	85	45	85	45	30	15

* For lug style data consult factory.

* FKM seat butterfly valves have a lower temperature limit of 23° F

Vacuum Service

NOMINAL SIZE		GEAR OPERATED	NOMINAL SIZE		VACUUM SERVICE (INCHES OF MERCURY)
INCHES	mm		INCHES	mm	
16	400	79.4	16	400	-23.62

Cv Values

NOMINAL SIZE		Cv [at various opening degrees]		
INCHES	mm	30°	60°	90°
16	400	750	3760	8340



Type-75 Butterfly Valve

Standard Features (Sizes 18" – 24")

- Standard model (18" - 24") has polypropylene body, disc and EPDM seat
- 403 stainless steel stem has full engagement over the entire length of the disc and is a non-wetted part totally isolated from the media
- Bubble-tight seating
- Only abrasion resistant, solid plastic disc and elastomeric liner are wetted parts
- Rotork gear operator

Options:

- Pneumatically and electrically actuated with accessories
- Lug style (stainless steel 304 and 316) as blocking and end of line applications
- Stems in 316 stainless steel, titanium, Hastelloy C[®] ‡
- 2" square nut on gear
- Stem extensions (single stem and two-piece stem)
- Locking device
- Chain operators
- Manual limit switch

Caution

- Never remove valve from pipeline under pressure.
- Always wear protective gloves and goggles.

FOR TROUBLESHOOTING, REFER TO PAGE 47.

Specifications

- Sizes:** 18" – 24"
- Models:** Wafer or Lug Style
- Operators:** Gear
- Bodies:** PP and PVDF
- Discs:** PP and PVDF
- Seats:** EPDM, FKM and Nitrile
- Seals:** Same as seating material
- Stems:** 403 and 316 stainless steel, Titanium, Hastelloy C[®] ‡

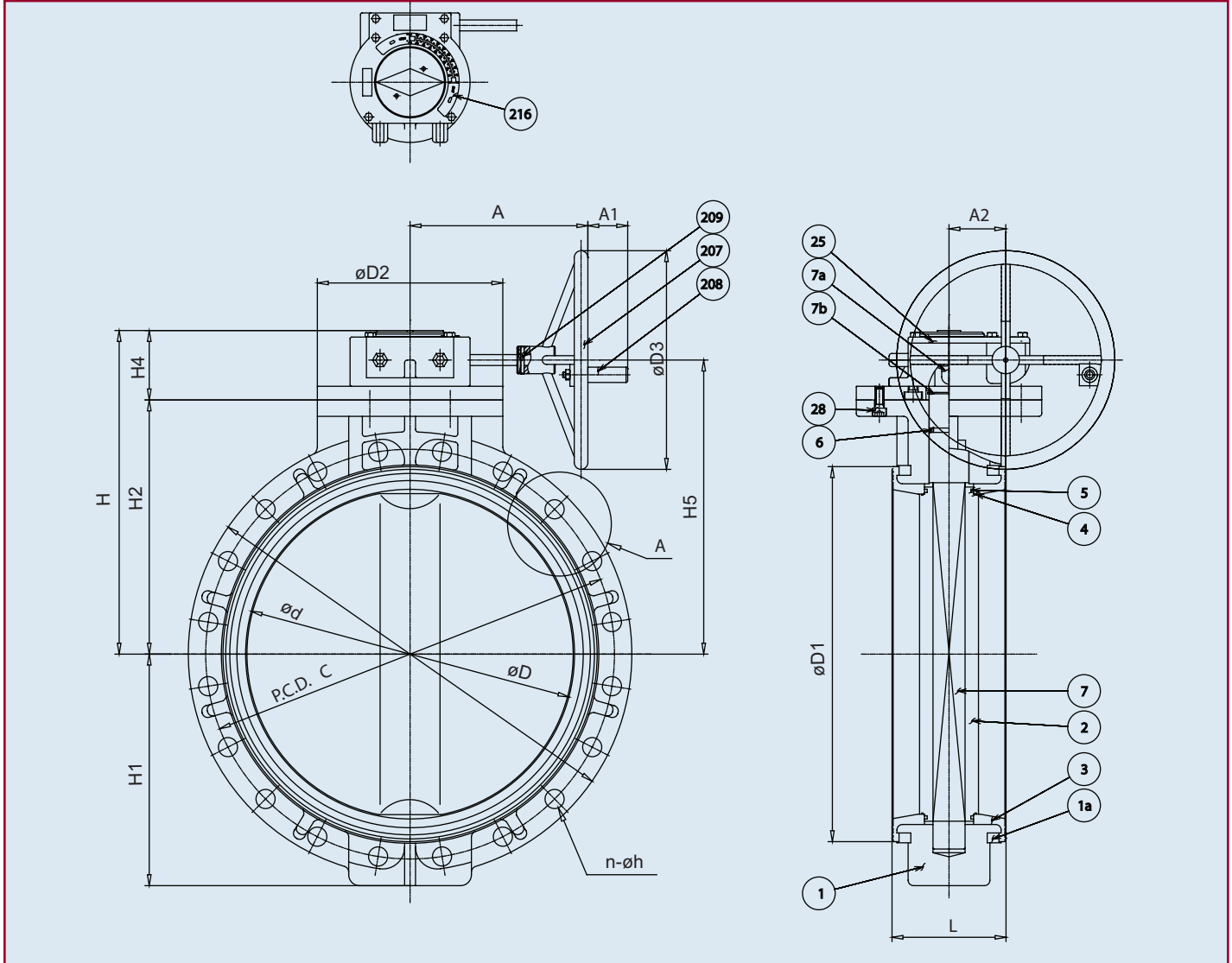
‡ Trademark of Cabot Corporation

Parts List (Sizes 18" – 24")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PP, PVDF
2	Disc	1	PP, PVDF
3	Seat	1	EPDM, FKM, Others
4	O-Ring (A)	2	EPDM, FKM, Others
5	O-Ring (B)	2	EPDM, FKM, Others
6	O-Ring (C)	1	EPDM, FKM, Others
7	Stem	1	Stainless Steel, [SUS 403]
7a	Key (A)	1	Carbon Steel [S45C]
7b	Snap Ring	1	Stainless Steel [SUS 304]
25	Gear Box	1	Cast Iron [FC250] Etc.
28	Bolt (C)	4	Stainless Steel [SUS 304]
207	Handle (C)	1	Cast Iron [FC250]
208	Handle Grip	1	Nylon, Etc.
209	Spring Pin	1	Stainless Steel [SUS 304]
216	Scale Plate	1	Stainless Steel [SUS 304]
1a	Ring	2	S20C Trivalent White

Sample Specification

All solid thermoplastic Type-75 butterfly valves (18" through 24") shall be of the lined body design and bubble-tight seal (meeting or exceeding Class VI as defined by American National Standard Institute) with only the liner and disc as wetted parts. The disc shall be of solid, abrasion resistant plastic, have double O-ring seals on top and bottom trunnions of the same material as the valve liner. Liner shall be molded and formed around the body, functioning as a gasket seal with convex ring design on each side of the valve for lower bolt tightening torque. Stem shall be of 403 stainless steel, non-wetted and have engagement over the full length of the disc. PP shall conform to ASTM D4101 Cell Classification PPO210B67272 and PVDF conforming to ASTM D3222 Cell Classification Type II. PP and PVDF bodies shall be rated to 75psi, size 18", and 50psi, sizes 20" and 24" at 70° F. Butterfly valves shall be wafer or lug style, as manufactured by Asahi/America, Inc.



Dimensions (Sizes 18" - 24") (in.)

NOMINAL SIZE		ANSI CLASS 150					D													Gear Box Type
INCHES	mm	d	C	n	h	PP	PVDF	D1	D2	D3	L	H	H1	H2	H4	A	A1	A2		
18	450	17.80	22.75	16	1.25	24.92	24.80	20.67	13.39	15.75	7.05	19.57	12.40	14.57	5.00	12.83	2.97	4.11	AB1250N	
20	500	19.76	25.00	20	1.25	26.89	26.77	22.64	13.39	15.75	7.48	20.75	13.78	15.75	5.00	12.83	2.97	4.11		
24	600	23.74	29.50	20	1.38	31.22	31.10	27.01	13.39	15.75	8.23	23.31	16.69	18.31	5.00	12.83	2.97	4.11		

Cv Values Wt.(lbs.)/Vacuum Service/ Pressure vs. Temperature (psi, water)*

NOMINAL SIZE		Cv (at various opening degrees)			NOMINAL SIZE		Gear	NOMINAL SIZE		VACUUM SERVICE (INCHES OF MERCURY)	BODY		PP		PVDF			
INCHES	mm	30°	60°	90°	INCHES	mm		INCHES	mm		DISC	PP	PVDF					
NOMINAL SIZE		-5° F		141° F		-5° F		141° F		176° F		211° F						
INCHES	mm	140° F	175° F	140° F	175° F	210° F	250° F											
18	450	1100	5020	10890	18	450	195	18	450	-19.69	75	45	75	45	30	15		
20	500	1448	6620	14060	20	500	232	20	500	-19.69	50	30	50	30	25	15		
24	600	2130	9180	18500	24	600	285	24	600	-19.69	50	30	50	30	25	15		

* For lug style data consult factory.

* FKM seat butterfly valves have a lower temperature limit of 23° F



Type-56D/75D Butterfly Valve

Standard Features (Sizes 16" - 24")

- Standard model 16" - 24" has PDCPD body with PP disc
- 403 stainless steel shaft has full engagement over the entire length of the disc and is a non-wetted part, totally isolated from the media
- Higher pressure rating than standard 56 or 75
110psi at 70° F - All sizes 16" - 24"
- Seat overtightening protection
- Disc and seat only wetted parts
- Bubble-tight sealing
- ISO bolt circle on top flange - No body or stem modifications required for accessories

Options

- Pneumatically and electrically actuated with accessories
- Alternate disc: PVDF
- Stems in 316 stainless steel, titanium, Hastelloy C® †
- 2" square nut on gear operator
- Stem extensions (single stem and two-piece stem)
- Locking devices
- Chain operators
- Manual limit switch - Asahi P-Series

Specifications

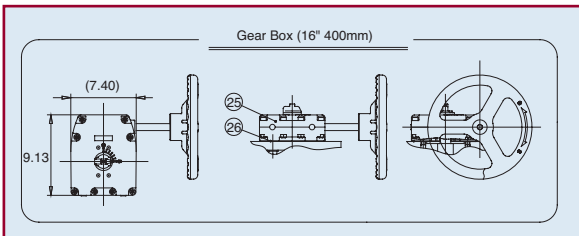
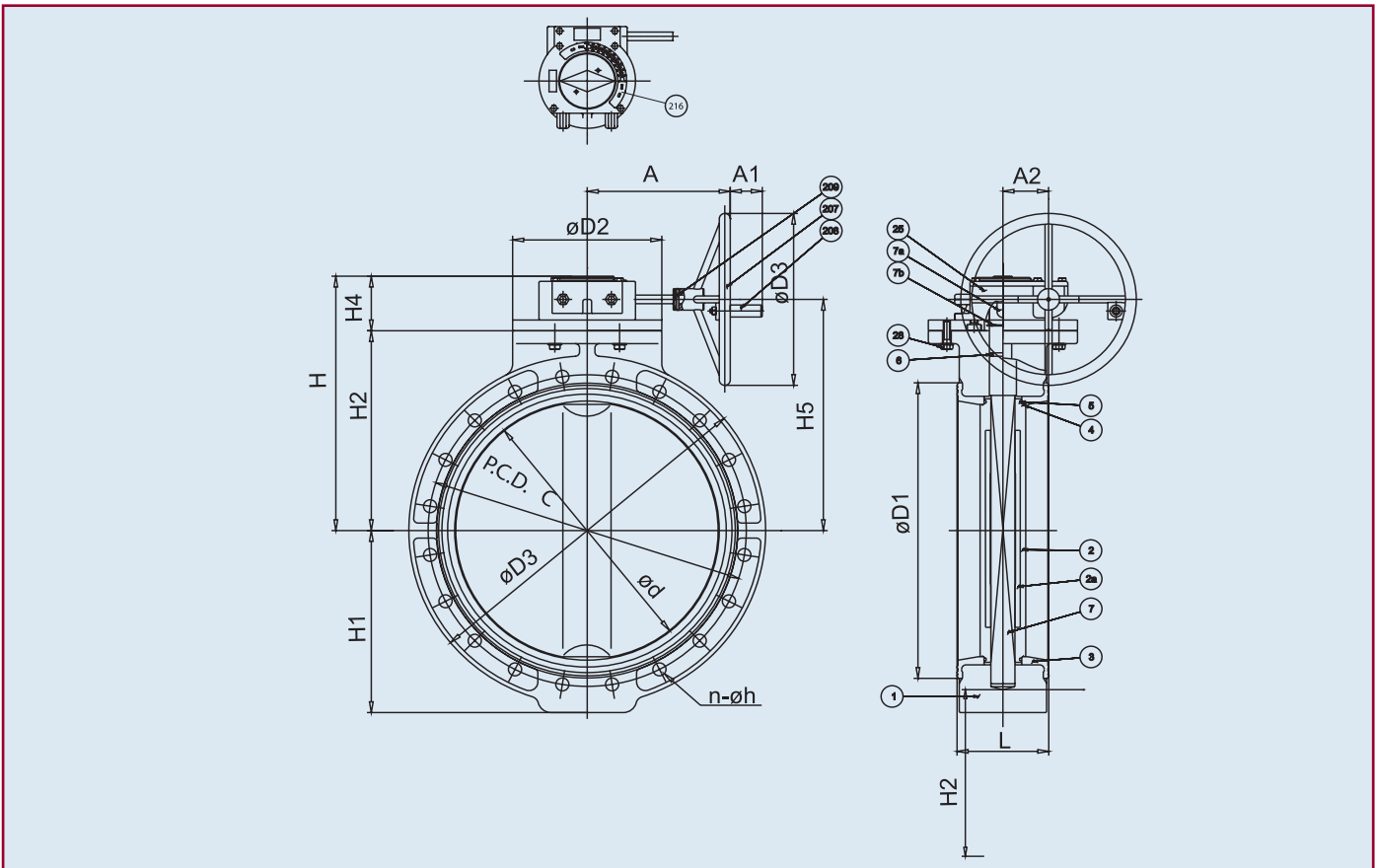
Sizes:	Gear: 16" - 24"
Models:	Wafer Style
Operators:	Gear
Bodies:	PDCPD
Discs:	PP and PVDF
Seats:	EPDM or FKM, also Nitrile,
Seals:	Same as seating material
Stems:	403 and 316 stainless steel, Titanium, Hastelloy C® †

† Trademark of Cabot Corporation

Parts List

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PP, PVDF
2	Disc	1	PP, PVDF
2a	Disc Insert	1	AC4C
3	Seat	1	EPDM, FKM, Others
4	O-Ring [A]	2	EPDM, FKM, Others
5	O-Ring [B]	2	EPDM, FKM, Others
6	O-Ring [C]	1	EPDM, FKM, Others
7	Stem	1	Stainless Steel, (SUS 403)
7a	Key [A]	1	Carbon Steel (S45C)
7b	Snap Ring	1	Stainless Steel (SUS 304)
25	Gear Box	1	16" - Plasgear™
			18" - 24" Cast Iron (FC250)
26	Gasket [A]	1	EPDM
28	Bolt [C]	4	Stainless Steel (SUS 304)
207	Handle [C]	1	Cast Iron (FC250)
208	Handle Grip	1	Nylon, Etc.
209	Spring Pin	1	Stainless Steel (SUS 304)
216	Scale Plate	1	Stainless Steel (SUS 304)

All solid thermoplastic butterfly valves size 16" - 24" shall be of the lined body design and bubble-tight seal (meeting or exceeding Class VI as defined by American National Standard Institute) with only the liner and disc as wetted parts. Gear operators shall be worm gear design, self-locking Plasgear™ 16", or cast iron with corrosion resistant finish sizes 18", 20" and 24". The disc shall be of solid, abrasion resistant plastic 16", or metal reinforced 18" - 24", have double O-ring seals on top and bottom trunnions of the same material as the valve liner. Liner shall be molded and formed around the body, functioning as gasket seals with convex ring design on each side of the valve for lower bolt tightening torque. Stem shall be of 403 stainless steel, non-wetted and have engagement over the full length of the disc. Valves shall have a molded ISO bolt pattern on top flange for actuator mount. PP conforming to ASTM D4101 Cell Classification PPO210B67272, and PVDF conforming to ASTM D 3222 Cell Classification Type II. All PDCPD body valves shall be rated to 110psi size at 70° F. Butterfly valves shall be wafer style, as manufactured by Asahi/America, Inc.



Dimensions (Sizes 16" - 24") Note: Gear operated valve is standard 16" - 24" sizes

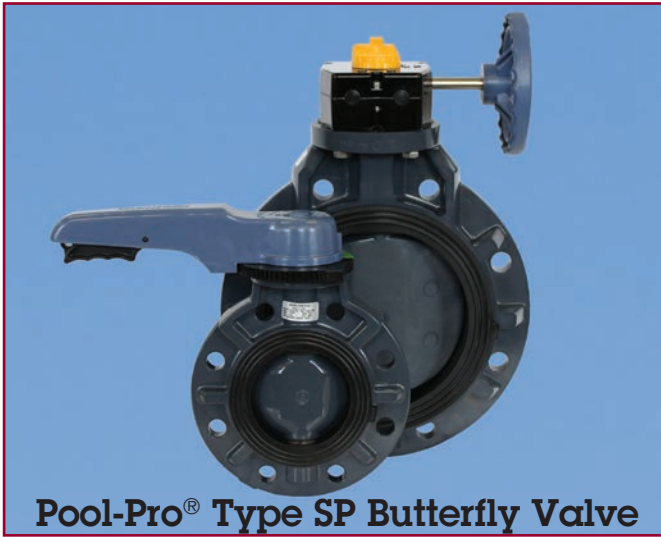
NOMINAL SIZE		ANSI CLASS 150																	Gear Box Model
INCHES	mm	d	C	n	h	D	D1	D2	D3	L	H	H1	H2	H4	H5	A	A1	A2	
16	400	15.98	21.26	16	1.12	24.41	18.50	9.25	11.81	6.65	18.03	12.40	13.78	4.25	-	10.71	-	3.91	BRF-243
18	450	17.80	22.75	16	1.25	26.18	20.67	13.39	15.75	7.05	19.57	13.19	14.57	5.00	17.44	12.83	2.97	4.11	AB1250N
20	500	19.76	25.00	20	1.25	28.35	22.64	13.39	15.75	7.48	20.76	14.37	15.75	5.00	18.62	12.83	2.97	4.11	
24	600	23.74	29.50	20	1.38	32.01	27.01	13.39	15.75	8.23	23.31	16.69	18.31	5.00	21.18	12.83	2.97	4.11	

The size and shape may differ slightly from this assembly

Pressure vs. Temperature (psi, water, non-shock)*

MODEL	BODY		PDCPD				PDCPD			
	DISC		PP				PVDF			
	NOMINAL SIZE		30° F	78° F	141° F	176° F	30° F	78° F	141° F	176° F
	INCHES	mm	77° F	140° F	175° F	194° F	77° F	140° F	175° F	210° F
	16	400	110	90	45	15	110	90	45	30
	18-24	450-600	110	90	45	15	110	90	45	30

EPDM: Up to 194° F, Others: Up to 210° F.



Specifications

- Sizes:** 1-1/2" - 12"
- Models:** Wafer Style
- Operators:** Lever and Gear
- Bodies:** PVC
- Discs:** PVC
- Seats:** EPDM
- Seals:** EPDM
- Stems:** Stainless steel

Standard Features (Sizes 1-1/2" - 12")

- **Submersible**
Material of construction allows complete submersion of valve body as all components are compatible with chlorinated water
- **PVC/PVC/EPDM Construction**
Ideal for chlorinated water applications
- **Blue Handle Design**
Blue handle designates the proper valve is in place for chlorinated water applications
- **Stainless Steel Stem**
Stem does not come in contact with the media but is still compatible if in direct contact
- **Thermoplastic Material**
Lightweight construction allows for easy installation
- **ISO Mounting Pad**
Allows for field mounting of accessories including stem extensions, gear operators and automation
- **18-position throttle plate**
For lever handle style

Parts List (Sizes 1-1/2" - 12")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC
2	Disc	1	PVC
3	Seat	1	EPDM
4	O-Ring (A)	2	EPDM
5	O-Ring (B)	2	EPDM
6	O-Ring (C)	1	EPDM
7	Stem	1	Stainless Steel
8	Stem Holder	1	Stainless Steel 304
16	Handle	1	PP
16a	Metal Insert in Handle	1	Stainless Steel 316L
17	Handle Lever	1	PPG
18	Pin	1	PPG
19	Spring	1	Stainless Steel 304
20	Washer (A)	1	Stainless Steel 304
21	Bolt (B)	1	Stainless Steel 304
22	Locking Plate	1	PPG
23	Screw (B)	4	Stainless Steel 304
24	Cap (A)	1	PP
25	Gear Box	1	Plasgear™
26	Bolt (C)	4	Stainless Steel 304
158	Gasket	1	EPDM

Sample Specifications

All Pool-Pro® Type SP butterfly valves, sizes 1-1/2"-12", shall be of a PVC body, PVC disc and EPDM construction suitable for chlorinated water applications. Stem shall be of stainless steel and non-wetted. Valves shall be a self-gasketing design with a convex sealing arrangement. All Pool-Pro® Type SP (1-1/2"-10") valves shall be rated to 150psi and size (12") 100psi at 70° F, as manufactured by Asahi/America, Inc.

Press. vs Temp. Weight (lbs.)

NOMINAL		30° F
INCHES	mm	120° F
1-1/2	40	150
2	50	150
2-1/2	65	150
3	80	150
4	100	150
6	150	150
8	200	150
10	250	150
12	300	100

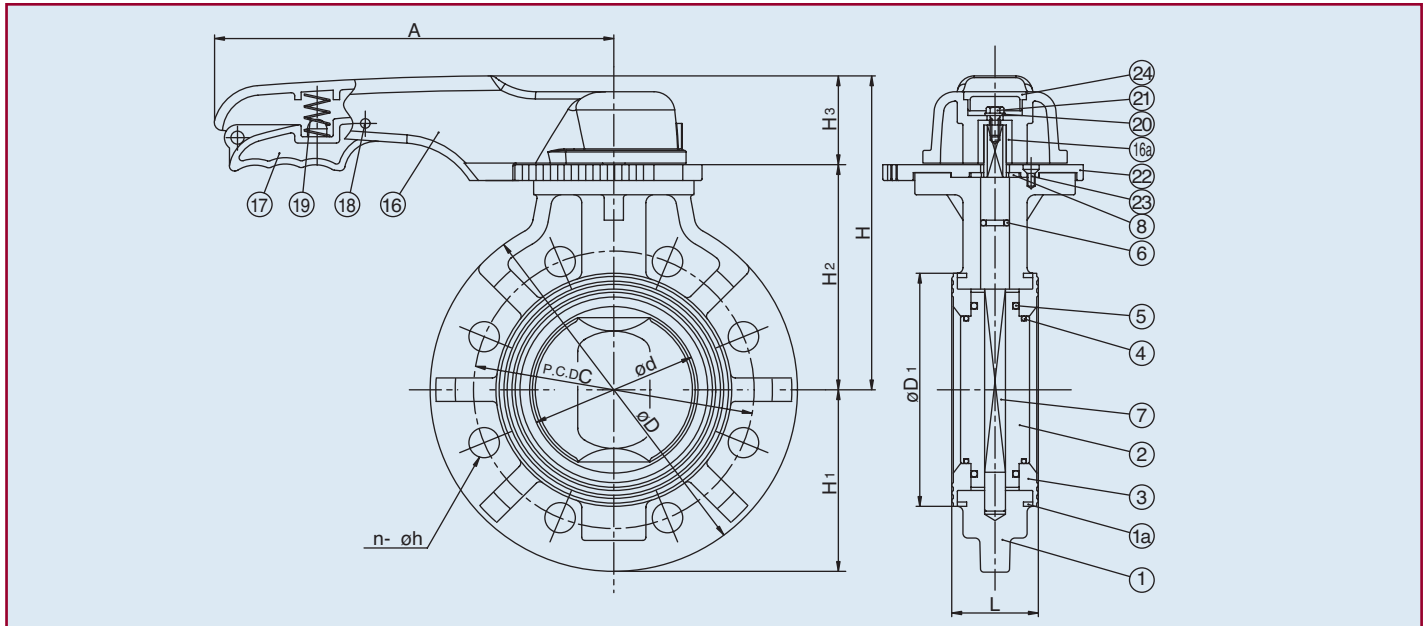
CV Values

NOMINAL		Cv (at various opening degrees)		
INCHES	mm	30°	60°	90°
1-1/2	40	2.9	43.3	71
2	50	3.9	56.1	92
2-1/2	65	5.9	85.4	140
3	80	9.3	134	220
4	100	15.1	231	380
6	150	46.6	671	1100
8	200	106	1425	2500
10	250	270	1476	3600
12	300	408	2140	5160

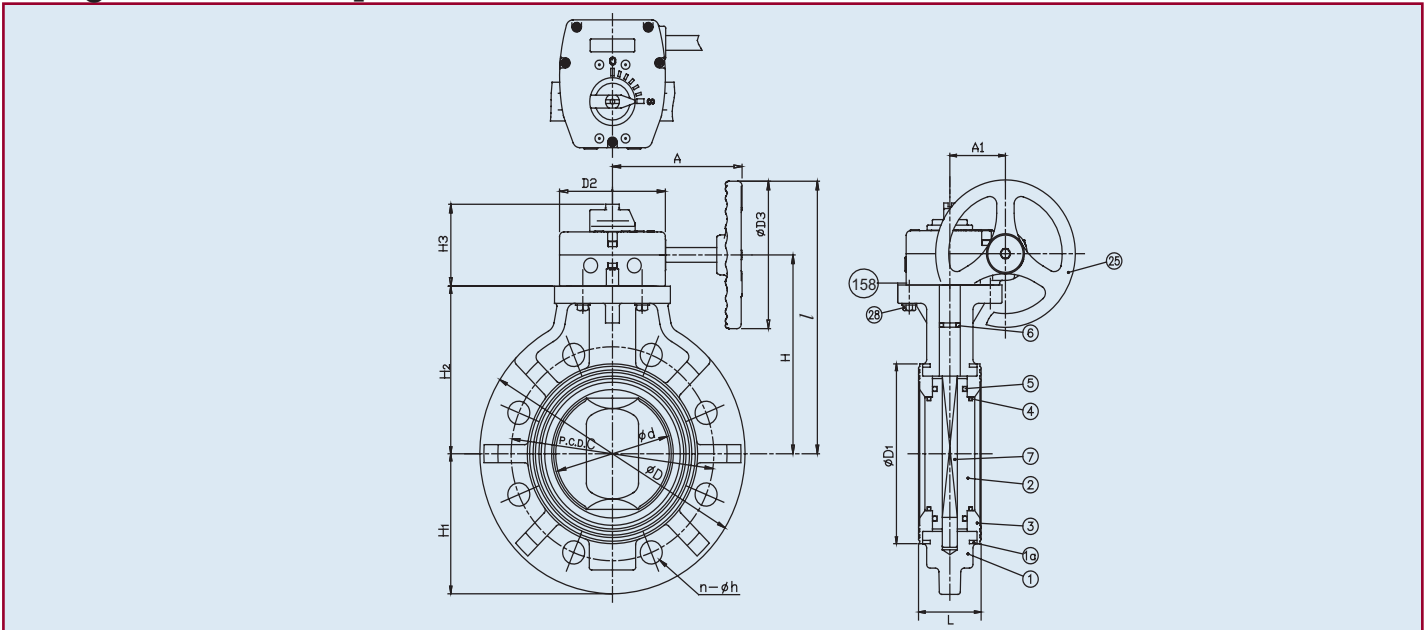
Pool-Pro® Type SP

Butterfly Valves

Lever Style



Plasgear™ Gear Style



Dimensions (in.)

NOMINAL SIZE		ANSI CLASS 150					Gear Style											Lever Style			
INCHES	mm	d	C	n	h	D	D1	D2	D3	L	H1	H	H2	H3	/	A	A1	H	H2	H3	A
1-1/2	40	1.85	3.88	4	0.62	5.91	3.23	4.80	6.30	1.54	2.95	5.12	3.74	3.74	8.27	6.57	2.52	6.14	3.94	2.20	8.66
2	50	2.24	4.75	4	0.75	6.50	3.43	4.80	6.30	1.65	3.27	5.36	3.98	3.74	8.51	6.57	2.52	6.37	4.17	2.20	8.66
2-1/2	65	2.80	5.50	4	0.75	7.28	4.41	4.80	6.30	1.81	3.66	5.79	4.41	3.74	8.94	6.57	2.52	6.81	4.61	2.20	8.66
3	80	3.15	6.00	4	0.75	7.87	4.84	4.80	6.30	1.81	3.94	6.07	4.69	3.74	9.22	6.57	2.52	7.08	4.88	2.20	9.84
4	100	4.13	7.50	8	0.75	9.02	5.79	4.80	6.30	2.20	4.53	6.77	5.39	3.74	9.92	6.57	2.52	7.79	5.59	2.20	9.84
6	150	6.06	9.50	8	0.88	11.22	8.27	4.80	6.30	2.80	5.63	8.35	6.97	3.74	11.50	6.57	2.52	10.00	7.28	2.72	12.60
8	200	8.03	11.75	8	0.88	13.39	10.12	4.80	6.30	3.43	6.69	9.61	8.23	3.74	12.76	6.57	2.52	11.26	8.54	2.72	15.75
10	250	10.08	14.25	12	1.00	15.98	12.44	4.80	6.30	4.33	7.99	10.87	9.49	3.74	14.02	6.57	2.52	-	-	-	-
12	300	12.60	17.00	12	1.00	19.02	14.57	7.40	11.81	5.08	9.53	13.39	11.73	4.25	19.29	10.71	3.90	-	-	-	-

Pool-Pro Butterfly Valves

1.0 Scope:

All requirements are for Pool-Pro Butterfly Valves and accessories.

2.0 Materials:

U-PVC – Conforming to ASTM D1784 Cell Classification 12454 A

EPDM – Ethylene Propylene Diene Terpolymer Rubber

3.0 Valves:

Pool-Pro Butterfly valves shall be PVC body with PVC disc and EPDM seat & seals. The liner shall be full seat design fully molded around the body where as only the Disc and Seat are wetted parts and feature raised convex rings on the face and be utilized as the mating flange gaskets. Valves shall accept flat faced flanges in accordance with ANSI B16.5 bolt pattern for 150 lb flanges. Valve stem shall be Stainless Steel, be non-wetted, and have engagement over the full length of the disc. The valve lever handle (sizes 1-1/2" – 8") shall be Blue in color and have a molded provision for a padlock. Valves sizes 1-1/2" – 12" shall feature a molded ISO bolt pattern for accessory and Plasgear™ Gear-operator mounting. Type-SP Pool-Pro butterfly valves are intended for chlorinated water, swimming pool, and fresh water applications only.

3.1 Operators

Pool-Pro 1-1/2" – 12" (Lever Type standard sizes 1-1/2" – 8")
(Gear Type standard sizes 1-1/2" – 12")

Lever Handle to be Asahi Blue Color

Gear-Operator to be Asahi Plasgear™ all plastic construction with SS trim submersible type – Blue Handwheel

3.2 Approved Manufacturer

Valves shall be provided by Asahi/America, Inc. of Lawrence, MA with no approved equals. Manufacturer must be ISO-9001 certified.

3.3 Pressure vs. Temperature

Valves shall have a pressure rating of:

150 psi at 70° F sizes 1-1/2" – 10"

100 psi at 70° F sizes 12"

4.0 Accessories:

4.1 Stem Extensions

Stem extensions where required should be designed, built and provided by the Asahi/America, Inc., and be 1 of 5 styles:

Style LBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style GBF-A Two piece extension with outer housing 100% sealed either free standing or supported design.

Style LBF-B Single piece extension either free standing or supported design

Style GBF-B Single piece extension either free standing or supported design.

Style GBF-C Single piece extension for the gear handwheel only either free standing or supported design.

4.2 Actuation

Actuation where required should be designed, built and provided by Asahi/America, Inc., and be either pneumatic (Series 79P) or electric (Series 94, 92, or 10) type. All actuation accessories to be provided and installed by Asahi/America, Inc. in accordance with manufacturer's requirements.

4.3 Lugs

Lugs are not available for Type-SP Pool-Pro butterfly valves.

4.4 Operating Nuts

Where required 2" square operating nuts can be installed on Lever type or Gear type Butterfly valves. On Gear type valves, the gear operator must remain on top of valve body and only the handwheel from gear-operator is replaced by 2" square operating nut.

Materials of construction – Anodized Aluminum.

4.5 Chain Operators

Where required for overhead applications, chain operators manufactured by Babbitt Steam may be installed on Gear-operated butterfly valves. Chain must be weldless loop style chain supplied from Babbitt Steam.

Materials of construction: Chain Operator – Cast Iron

Chain – Hot Galvanized steel, others by request.

5.0 Installation Procedures:

All valve joints shall be prepared using flanged connections to accept wafer style butterfly valves. The bolt diameters and torque values should be according to manufacturer's standard and requirements put forth in Type-SP Pool-Pro Butterfly valve Operation and Maintenance manual. All accessories should be installed in accordance with the manufacturer's requirements as well as any facility requirements.

TYPE-58 BUTTERFLY VALVE



TECHNICAL SPECIFICATION:

Sizes:	28" (700mm), 32" (800mm), 36" (900mm)
Models:	Wafer style
Operators:	Gear or Electric
Bodies:	PDCPD
Disc:	PP
Seats:	EPDM
Seals:	EPDM
Stems:	316 stainless steel

FEATURES:

- Injection molded PDCPD body
- Polypropylene disc
- EPDM full boot liner
- Top flange interface: ISO 5211
- Face-to-face dimensions meet ISO 5752
- Non-wetted stainless steel stem

PRESSURE VS TEMPERATURE (PSI):

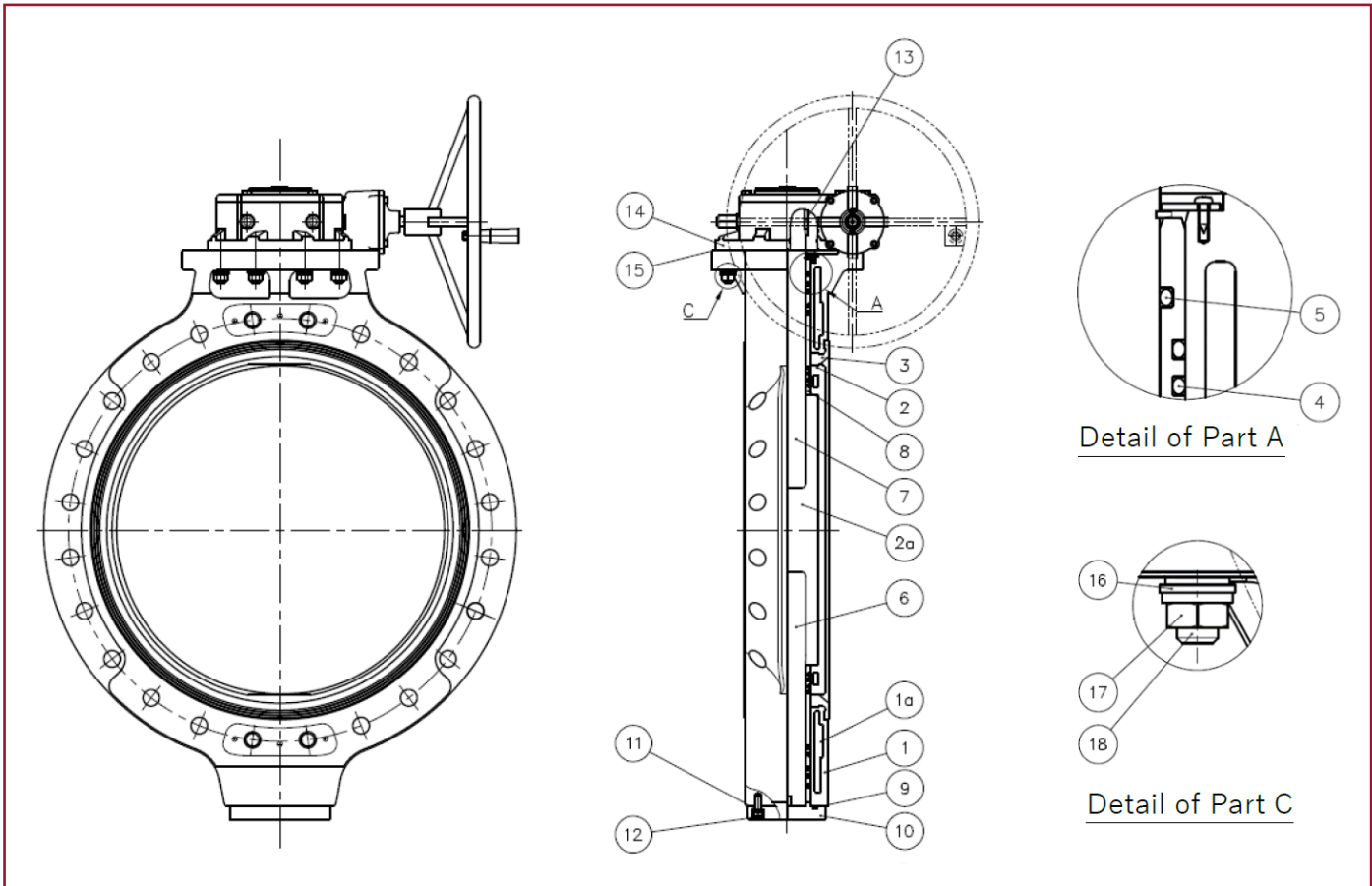
Nominal Size		30° F to 120° F	121° F to 140° F	141° F to 160° F	161° F to 175° F
inch	mm				
28	700	110	90	80	70
32	800	70	70	70	70
36	900	70	70	70	70

DESCRIPTION:

The Type-58 butterfly valve represents a significant advancement in valve technology, having been meticulously re-engineered using cutting-edge production methods. This meticulous process, from design to manufacturing, guarantees a product of exceptional quality, translating into superior performance and reduced delivery times. Key features of this valve include an injection-molded PDCPD body, a polypropylene disc, and an EPDM full boot liner, all of which contribute to its durability and efficiency. With a top flange interface compliant with ISO 5211 standards and face-to-face dimensions that meet ISO 5752 specifications, this valve offers a seamless and reliable solution for various industrial applications. Additionally, the inclusion of a non-wetted stainless steel stem ensures longevity and corrosion resistance in challenging environments.

TYPE-58 BUTTERFLY VALVE

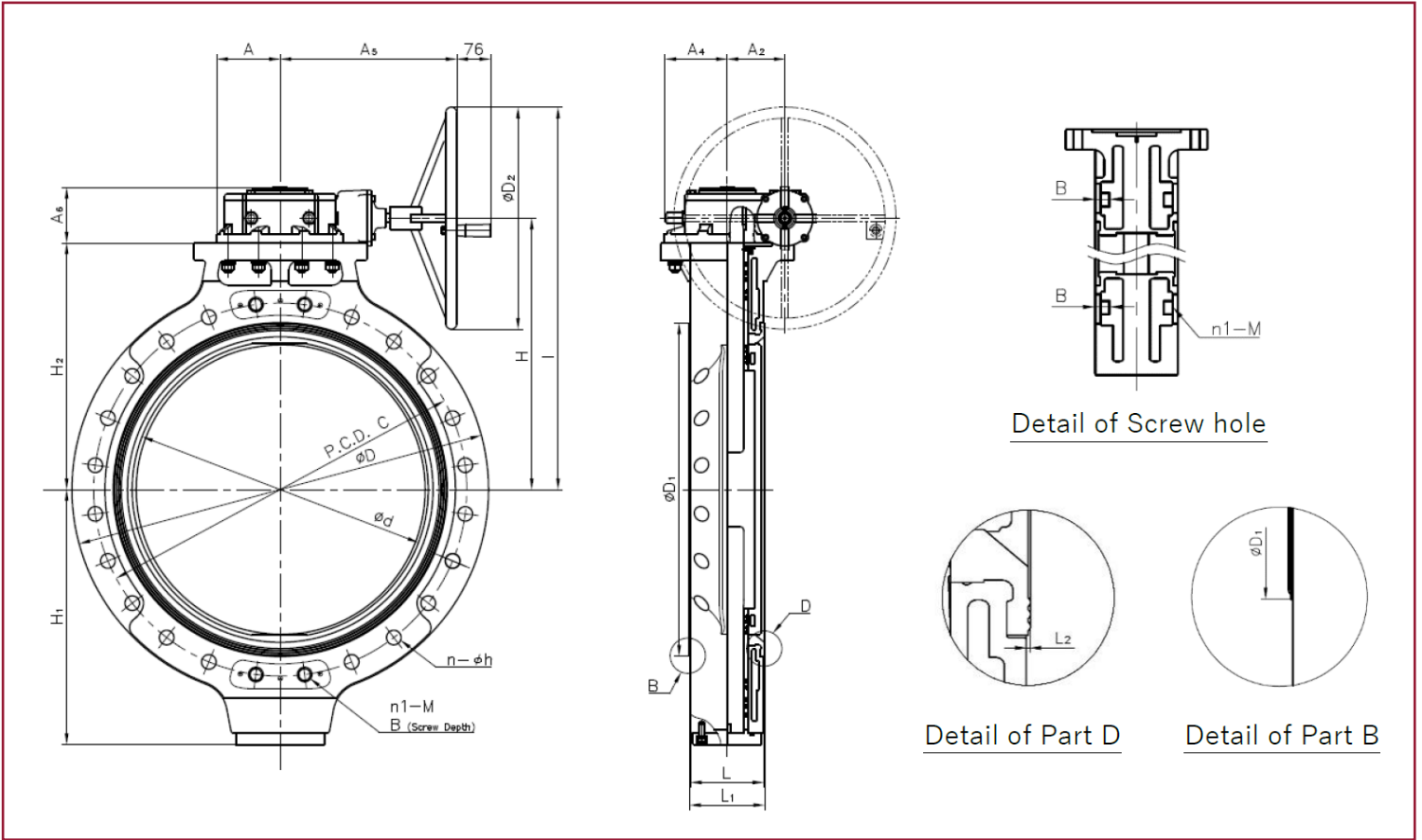
TYPE-58 PARTS LIST:



Part #	Description	Pcs.	Material
1	Body	1	PDCPD
1a	Insert Metal of Body	2	Steel / Casting Stainless
2	Disc 1	1	PP
2a	Insert Metal of Disc	1	AC4C
3	Seat	1	EPDM
4	O-Ring (A)	16	EPDM
5	O-Ring (B)	4	EPDM
9	O-Ring (C)	1	EPDM
15	Gasket	1	EPDM
6	Stem (B)	1	316 SS
7	Stem (A)	1	316 SS
8	Bush	2	PP
10	Stem Holder	1	ABS
11	Washer (A)	4	Stainless Steel
12	Bolt (A)	4	Stainless Steel
13	Key	1	Stainless Steel
14	Gear Box	1	Cast Iron
16	Washer (B)	8	Stainless Steel
17	Nut	8	Stainless Steel
18	Bolt (B)	8	Stainless Steel

TYPE-58 BUTTERFLY VALVE

DIMENSIONS:



ANSI Class 150

Size		d	C	h	N	n	side	total	M	B	D	D1	D2	L	H	I	H1	H2	A	A2	A4	A5	A6	Gear Box Model
in	mm																							
28	700	26.38	34	1.38	28	24	4	8	1-1/4 - 7	1.1	36.93	29.53	19.69	6.5	24.06	33.9	22.6	21.85	5.61	5.12	5.47	15.65	4.92	AB1950N
32	800	30.63	38.5	1.62	28	24	4	8	1-1/2 - 6	1.18	41.73	34.21	23.62	7.48	26.89	38.7	25.16	24.41	5.77	5.51	6.02	16.93	5.28	AB3000N
36	900	34.96	42.8	1.62	32	28	4	8	1-1/2 - 6	1.18	46.38	38.54	23.62	7.99	30.24	42.05	28.5	27.76	5.77	5.51	6.02	16.93	5.28	AB3000N