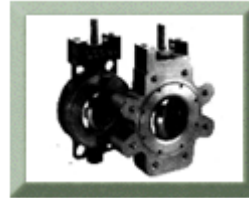


**PDC High Performance
Butterfly Valve
Available in sizes
2" Thru 24"**



Series 60 Lug Style (ANSI Class 300)
Series 62 Wafer Style (ANSI Class 300)
Series 63 Lug Style (ANSI Class 150)
Series 66 Wafer Style (ANSI Class 150)

General Description:

PDC High Performance Butterfly Valves are designed to offer efficient, bi-directional sealing across a wide spectrum of service conditions, easy installation, long service life and minimum maintenance together with a wide choice of designs and materials.

Features:

- **POSITIVE SEALING-** which is mechanically achieved and does not rely on line pressure assistance. The combination of interference fit seats and bi-directional packing makes these valves especially suited for vacuum service, as well.
- **FIRE SAFE-** performance proven throughout the range.
- **BI-DIRECTIONAL-** performance. Lug Style valves are suitable for use on end-of-line service.
- **LONG LIFE-** durability due to the double offset operating principle minimizing seat wear.
- **COMPACT DESIGN-** minimizes weight and installation and maintenance costs.
- **ECONOMICAL-** superior performance alternative to other valve types.
- **DESIGN TYPES-** Soft Seated for general purpose applications , Firesafe for process industry use where superior safety is required and Metal Seated for high temperature and/or abrasive services.
- **BODY MATERIALS-** Carbon Steel, and Stainless Steel
- **SEAT MATERIALS-** Soft Seat (PTFE), Reinforced (RTFE) and Metal Seat (Stainless Steel or MONEL® ring, reinforced by Stainless Steel wire windings.)

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Seating and Un-seating Torque

Seating and un-seating torques are a function of the size of the valve and the shutoff pressure of the system.

Specific torque ratings can be found in the Seating/ Un-seating chart at the intersection of the 'size' row and the 'shutoff pressure' column. Torques listed are for PTFE and RTFE seated valves. For different seat materials specific multipliers are to be used as stated.

All torques listed are for normal service conditions (i.e. operating frequency is a minimum of once per month; disc corrosion is expected to be mild or minor, the media is a clean gas, liquid or steam, and is non-abrasive) and chemical affects upon the seat are minor.

Note

1. Torques are applicable only to PTFE and RTFE seats. For fire-safe and metal seats, select only the torque applicable for the valve at 285 psig and multiply by 2.0.
2. For other seat materials, select the torque applicable for the maximum differential pressure and multiply by the following factor:
UHMWPE (Clean Service) x 1.3
UHMWPE (Slurry Service) x 1.7

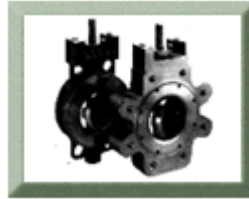
PTFE and RTFE Bi-directional Seating & Un-seating Torque Values

Valve Size (in.)	Seating and Un-seating Torque (lbs. in.) System Shutoff Pressure (PSIG)					
	150 psi	200 psi	285 psi	400 psi	500 psi	740 psi
2"	220	280	380	460	520	580
2 1/2 "	220	280	380	460	520	580
3"	250	320	430	520	590	650
4"	475	600	820	995	1,120	1,235
5"	925	1,125	1,350	1,570	1,750	1,900
6"	1,370	1,600	1,850	2,150	2,390	2,900
8"	2,060	2,330	3,200	4,020	4,870	6,720
10"	3,340	3,650	4,700	6,250	7,450	9,850
12"	4,590	5,250	6,400	8,160	9,590	12,940
14"	6,750	7,560	9,150	11,450	13,300	17,200
16"	9,350	10,450	12,500	15,000	17,500	22,200
18"	11,900	13,300	15,800	19,500	21,900	28,500
20"	15,600	17,500	21,000	25,200	28,700	36,140
24"	21,700	25,340	30,600	36,900	42,100	54,000
30"	29,200	35,000	43,500	54,500	62,500	80,000
36"	52,500	58,500	70,000	85,000	97,500	125,000

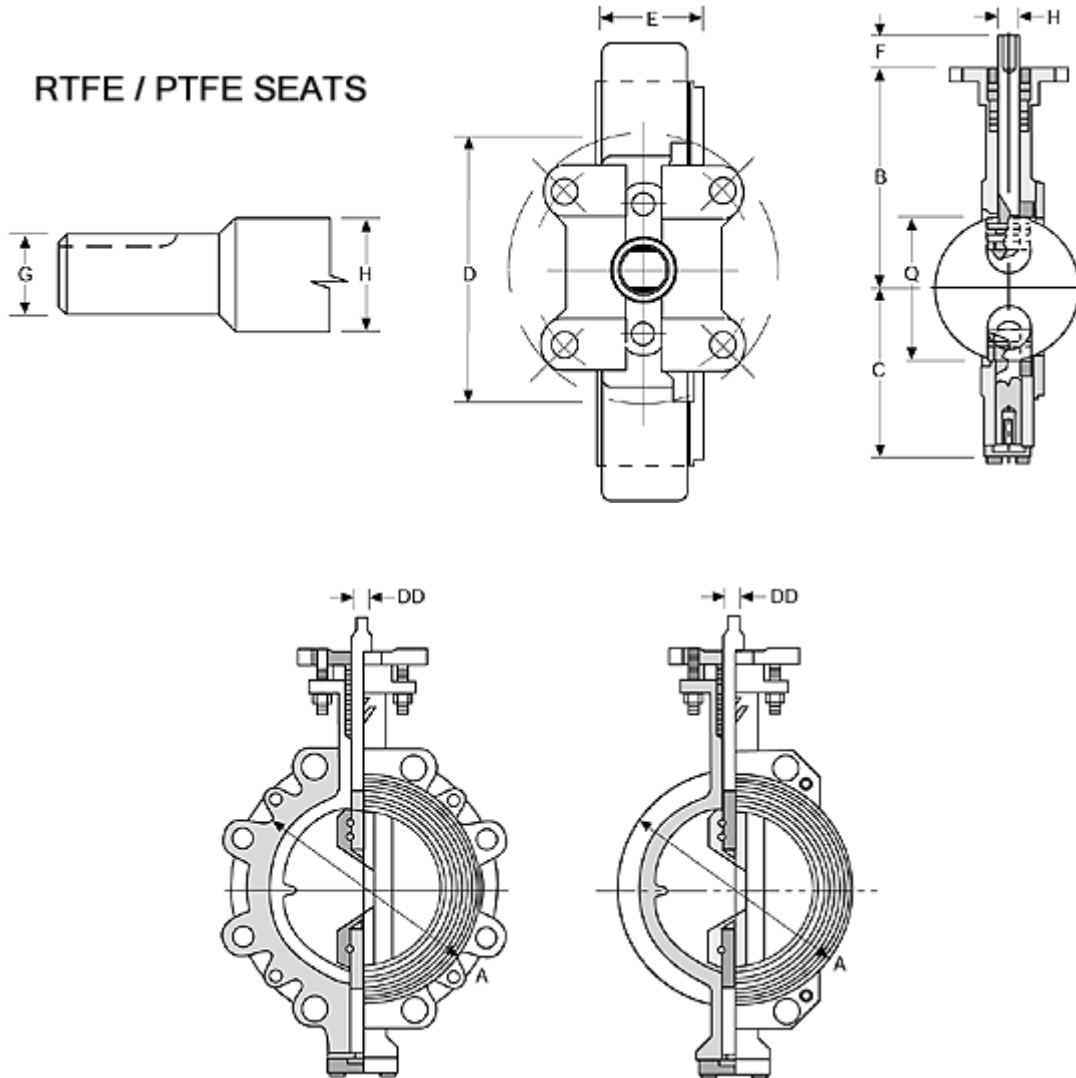
ANSI/FCI 70-2 Control Valve Seat Leakage, Tolerances and Test Specifications

ANSI B16.104-1976	Maximum Leakage	Test Medium	Pressure and Temperature																					
Class IV	0.01% valve capacity at full travel	Air or water	Service Δ P or 50 psig differential (3.4 bar differential), whichever is lower, at 50° to 125°F (10° to 52°C)																					
Class V	5×10^{-4} ml/min/psig/in. port dia. (5×10^{-12} m ³ /sec/bar differential/mm port dia.)	Water	Service Δ P at 50° to 125°F (10° to 52° C)																					
Class VI	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Nominal Port Diameter (in.)</th> <th>Bubbles per Minute</th> <th>ml. per Minute</th> </tr> </thead> <tbody> <tr><td>2</td><td>3</td><td>0.45</td></tr> <tr><td>2 1/2</td><td>4</td><td>0.60</td></tr> <tr><td>3</td><td>6</td><td>0.90</td></tr> <tr><td>4</td><td>11</td><td>1.70</td></tr> <tr><td>6</td><td>27</td><td>4.00</td></tr> <tr><td>8</td><td>45</td><td>6.75</td></tr> </tbody> </table>	Nominal Port Diameter (in.)	Bubbles per Minute	ml. per Minute	2	3	0.45	2 1/2	4	0.60	3	6	0.90	4	11	1.70	6	27	4.00	8	45	6.75	Air or nitrogen	Service Δ P or 50 psig differential (3.4 bar differential), whichever is lower, at 50° to 125°F (10° to 52°C)
Nominal Port Diameter (in.)	Bubbles per Minute	ml. per Minute																						
2	3	0.45																						
2 1/2	4	0.60																						
3	6	0.90																						
4	11	1.70																						
6	27	4.00																						
8	45	6.75																						
<ol style="list-style-type: none"> 1. Polymer and Fire Safe Seats provide ANSI class VI shutoff. 2. Metal Seats provide ANSI Class IV shutoff. 3. All Polymer and Fire Safe Valves are factory tested for zero water leakage. 4. Reference ANSI/FCI 70-2 for further information. 																								

**PDC High Performance
Butterfly Valve
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2" Thru 24"**



- Series 60 Lug Style (ANSI Class 300)
- Series 62 Wafer Style (ANSI Class 300)
- Series 63 Lug Style (ANSI Class 150)
- Series 66 Wafer Style (ANSI Class 150)



(see tables on following pages for dimensions for above drawings)

Ansi Class 150 Lug & Wafer Dimensions (Inches)

SIZE	A	B	C	D	E	F	G	H	Q	Tapped Lug Data		
										No. Holes	Bolt Circle	Tap
2"	4 1/8	6	4 1/16	4	2 3/8	1 1/4	9/16	9/16	1 7/8	4	5 1/2	5/8-11UNC
2 1/2"	4 1/8	6	4 1/16	4	1 7/8	1 1/4	9/16	9/16	2 3/8	4	5 1/2	5/8-11UNC
3"	5	6 5/8	4 5/8	4	1 7/8	1 1/4	5/8	5/8	2 15/16	4	6	5/8-11UNC
4"	6 3/16	7 1/2	5 1/2	4	2 1/8	1 1/4	3/4	3/4	3 7/8	8	7 1/2	5/8-11UNC
5"	7 1/4	7 9/16	5 9/16	4	2 1/4	1 1/4	3/4	3/4	4 13/16	8	8 1/2	3/4-10UNC
6"	8 19/32	8 3/4	6 11/16	6	2 1/4	1 1/4	3/4	7/8	5 13/16	8	9 1/2	3/4-10UNC
6"*	8 19/32	8 3/4	6 11/16	6	2 1/4	1 1/4	7/8	7/8	5 13/16	8	9 1/2	3/4-10UNC
8"	10 5/8	10 1/8	8 1/16	6	2 1/2	2	1 1/8	1 1/8	7 5/8	8	11 3/4	3/4-10UNC
10"	12 3/4	11 3/8	9 3/8	6	2 13/16	2	1 1/8	1 3/8	9 9/16	12	14 1/4	7/8-9UNC
10"*	12 3/4	11 3/8	9 3/8	6	2 13/16	3	1 3/8	1 3/8	9 9/16	12	14 1/4	7/8-9UNC
12"	14 3/4	13	10 9/16	8	3 3/16	3	1 3/8	1 1/2	11 3/8	12	17	7/8-9UNC
14"	16 1/4	13 1/4	11 9/16	8	3 5/8	3	1 5/8	1 5/8	12 1/2	12	18 3/4	1-8UN
16"	18 1/2	14 1/2	12 9/16	8	4	3	1 5/8	1 3/4	14 5/16	16	21 3/4	1-8UN
18"	21	16	13 7/16	8	4 1/2	4 1/4	1 7/8	1 7/8	16 1/8	16	22 3/4	1 1/8-8UN
20"	23	17 7/16	15 1/16	8	5	4 1/4	2 1/4	2 1/4	17 15/16	20	25	1 1/8-8UN
24"	27 1/2	19 11/16	17 7/16	8	6 1/16	4 1/4	2 1/4	2 1/2	21 9/16	20	29 1/2	1 1/4-8UN
30"	33 3/4	24 1/2	20 3/4	9 1/2	7 3/8	7	3	3	27 1/2	28	36	1 1/4-8UN
36"	40 1/4	28 3/8	24 1/4	9 1/2	8 1/2	8	3 1/2	3 1/2	33 1/2	32	42 3/4	1 1/2-8UN

SIZE	Lug Wt. Lbs.	Top Plate Drilling				Wafer Wt. Lbs.	Actuator Code
		DD or Keyway	Bolt Circle	No. Holes	Hole Dia.		
2"	13	3/8	3 1/4	4	7/16	8	BAB
2 1/2"	14	3/8	3 1/4	4	7/16	9	BAB
3"	15	7/16	3 1/4	4	7/16	12	BAC
4"	26	1/2	3 1/4	4	7/16	20	BAD
5"	31	1/2	3 1/4	4	7/16	25	BAD
6"	40	1/2	5	4	9/16	32	CAD
6"*	41	5/8	5	4	9/16	33	CAE
8"	63	1/4 x 1/4 x 1 5/8	5	4	9/16	50	CAF
10"	106	1/4 x 1/4 x 1 5/8	5	4	9/16	77	CAF
10"*	107	5/16 x 5/16 x 2 5/8	5	4	9/16	78	CAG
12"	160	5/16 x 5/16 x 2 5/8	6 1/2	4	13/16	124	DAG
14"	265	3/8 x 3/8 x 2 5/8	6 1/2	4	13/16	141	DAH
16"	305	3/8 x 3/8 x 2 5/8	6 1/2	4	13/16	230	DAH
18"	415	1/2 x 3/8 x 3 7/8	6 1/2	4	13/16	305	DAJ
20"	500	1/2 x 3/8 x 3 7/8	6 1/2	4	13/16	350	DAK
24"	750	1/2 x 3/8 x 3 7/8	6 1/2	4	13/16	620	DAK
30"	1,360	3/4 x 3/4 x 5 7/8	9 3/4	4	1 1/16	1,020	MAZ
36"	2,250	3/4 x 3/4 x 5 7/8	9 3/4	4	1 1/16	1,850	MBE

*E.N.P. discs require larger upper stem connection diameters on 6-inch and 10-inch valve sizes for UHMWPE seat, metal seat and fire-safe trims.

ANSI Class 300 Lug & Wafer Dimensions (Inches)

SIZE	A	B	C	D	E	F	G	H	Q	Tapped Lug Data		
										No. Holes	Bolt Circle	Tap
2"	4 1/8	6	4 1/16	4	2 3/8	1 1/4	9/16	9/16	1 7/8	8	5 7/8	3/4-10UNC
2 1/2"	4 1/8	6	4 1/16	4	1 7/8	1 1/4	9/16	9/16	2 3/8	8	5 7/8	3/4-10UNC
3"	5	6 5/8	4 5/8	4	1 7/8	1 1/4	5/8	5/8	2 15/16	8	6 5/8	3/4-10UNC
4"	6 3/16	7 1/2	5 1/2	4	2 1/8	1 1/4	3/4	3/4	3 7/8	8	7 7/8	3/4-10UNC
5"	7 1/4	7 9/16	5 9/16	4	2 5/16	1 1/4	3/4	3/4	4 13/16	8	9 1/4	3/4-10UNC
6"	8 19/32	8 3/4	6 11/16	6	2 5/16	1 1/4	7/8	7/8	5 13/16	12	10 5/8	3/4-10UNC
8"	10 5/8	10 1/8	8 1/16	6	2 7/8	2	1 1/8	1 1/8	7 5/8	12	13	7/8-9UNC
10"	12 3/4	11 3/8	9 3/8	6	3 1/4	3	1 3/8	1 3/8	9 9/16	16	15 1/4	1-8UN
12"	14 3/4	13	10 9/16	8	3 5/8	3	1 3/8	1 1/2	11 3/8	16	17 3/4	1 1/8-8UN
14"	16 1/4	14 3/8	12 1/4	8	4 5/8	4 1/4	1 7/8	1 7/8	12 1/2	20	20 1/4	1 1/8-8UN
16"	18 1/2	16	13 3/8	8	5 1/4	4 1/4	2 1/4	2 1/4	14 5/16	20	22 1/2	1 1/4-8UN
18"	21	17	14 3/4	8	5 7/8	4 1/4	2 1/2	2 1/2	16 1/8	24	22 3/4	1 1/4-8UN
20"	23	20 3/16	16 5/16	7 1/2	6 1/4	6 1/2	2 3/4	2 3/4	17 15/16	24	27	1 1/4-8UN
24"	27 1/4	23 3/8	19 3/8	9 1/2	7 1/8	6 13/16	3 1/2	3 1/2	21 9/16	24	32	1 1/2-8UN
30"	33 3/4	26 5/8	24	10	9 1/2	7 3/8	4 1/2	4 1/2	27 1/2	28	39 1/4	1 3/4-8UN
36"	40 1/4	30 7/8	27 1/8	12 1/4	10 3/4	8	5	5	33 1/2	32	46	2-8UN

SIZE	Lug Wt. Lbs.	Top Plate Drilling				Wafer Tapped Lug Data			Wafer Wt. Lbs.	Actuator Code
		DD or Keyway	Bolt Circle	No. Holes	Hole Dia.	No. Holes	Bolt Circle	Tap		
2"	17	3/8	3 1/4	4	7/16	--	--	--	8	BAB
2 1/2"	18	3/8	3 1/4	4	7/16	--	--	--	9	BAB
3"	20	7/16	3 1/4	4	7/16	--	--	--	12	BAC
4"	26	1/2	3 1/4	4	7/16	--	--	--	20	BAD
5"	31	1/2	3 1/4	4	7/16	--	--	--	25	BAD
6"	55	5/8	5	4	9/16	--	--	--	32	CAE
8"	80	1/4 x 1/4 x 1 5/8	5	4	9/16	--	--	--	65	CAF
10"	137	5/16 x 5/16 x 2 5/8	5	4	9/16	--	--	--	95	CAG
12"	185	5/16 x 5/16 x 2 5/8	6 1/2	4	13/16	--	--	--	145	DAG
14"	340	1/2 x 3/8 x 4	6 1/2	4	13/16	4	20 1/4	1 1/8-8UN	270	DAJ
16"	432	1/2 x 3/8 x 4	6 1/2	4	13/16	4	22 1/2	1 1/4-8UN	305	DAK
18"	550	1/2 x 3/8 x 4	6 1/2	4	13/16	4	24 3/4	1 1/4-8UN	385	DBA
20"	850	5/8 x 5/8 x 5 3/4	8	4	13/16	4	27	1 1/4-8UN	450	LAX
24"	1,278	7/8 x 7/8 x 5 3/4	9 3/4	4	13/16	4	32	1 1/2-8UN	770	MAY
30"	2,450	1 x 1 x 6 1/4	10	4	1 1/8	4	39 1/4	1 3/4-8UN	1,100	NAW
36"	2,850	1 1/4 x 1 1/4 x 6 3/4	12	4	1 1/8	4	46	2-8UN	1,590	EBD

Process Development & Control, Inc. reserves the right to make design improvements and/or change dimensions without notice.

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**Series 60 Lug Style (ANSI Class 300)
Series 62 Wafer Style (ANSI Class 300)
Series 63 Lug Style (ANSI Class 150)
Series 66 Wafer Style (ANSI Class 150)**

Cv Values vs. Travel Position

Size (in.)	10°	20°	30°	40°	50°	60°	70°	80°	CL 150 90°	CL 300 90°
2"	6	10	19	34	51	78	105	134	163	160
2 1/2"	6	10	19	34	53	80	111	148	175	170
3"	8	12	24	43	67	100	139	186	220	215
4"	16	23	44	80	130	194	269	360	425	413
5"	30	44	83	149	242	366	504	673	795	785
6"	50	70	130	230	370	550	760	1,010	1,195	1,140
8"	83	117	251	437	695	1,052	1,496	2,001	2,440	2,300
10"	144	202	454	754	1,185	1,821	2,611	3,541	4,540	4,333
12"	208	304	678	1,051	1,625	2,766	3,838	5,235	6,915	6,600
14"	257	360	747	1,186	1,909	3,121	4,416	6,225	8,300	7,920
16"	308	432	803	1,422	2,289	3,614	5,251	7,530	10,040	9,580
18"	373	548	1,121	1,869	2,990	4,745	6,728	9,845	12,460	11,890
20"	463	680	1,390	2,315	4,010	6,175	8,795	12,655	15,430	14,720
24"	650	991	2,076	3,803	6,060	9,091	13,301	18,466	21,660	20,665
30"	1,015	1,550	3,240	4,670	9,460	14,200	21,400	29,800	36,000	35,500
36"	1,460	2,300	4,640	5,950	13,700	21,000	30,400	44,000	56,000	55,500

While this information is presented in good faith and believed to be accurate, PDC inc. does not guarantee results from reliance upon such information. Nothing contained herein is to be construed as a warranty or guarantee, expressed or implied, regarding the merchantability, fitness or any other matter with respect to the products. PDC Inc. reserves the right, without notice, to alter or improve the designs of the products herein.

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Series 66 Wafer Style (ANSI Class 150)**

How To Order

*Material Option Followed By an Asterisk, May Not be Routinely Carried in Inventory, and May Result in Longer Deliveries Than Normal.

Use the following table to determine your part number:

Example: to code an 12"(ANSI Class 150) wafer butterfly valve with carbon steel body, 316 stainless steel disc, PTFE seat, 17-4 stainless steel shaft, manual gear operator and no special configuration would be coded as follows:

66-0120-W-1-1-1-1-3-1

When "Special" materials are selected, be sure to completely describe on purchase order.

Please provide the following information:

- **Flow Media**
- **Operating Temperature F°**
- **No. of [open/close] cycles/day**
- **Line Pressure (PSIG) = _____.**
- **Delta P = _____.**

Valve Series	Nominal Size Code	Body Style	Body Material	Disc Material	Seat Material	Stem Material	Operators	Special Configuration
60= Lug Style ANSI 300	0020= 2"	L = Lug	1= Carbon Steel	1= 316 Stn. Stl.	1= PTFE	1=17-4 Stn. Stl.	1= None	1= Leave Blank
62= Wafer Style ANSI 300	0030= 3"	W = Wafer	2= 316 Stn. Stl		2= RTFE		2= 10 Position Lock Lever	2= Chlorine Preperation
63= Lug Style ANSI 150	0040= 4"				3= Metal		3= Gear Operator	3= Oxygen Preperation
66= Wafer Style ANSI 150	0060= 6"				4= Firesafe		4= Double Acting Pneumatic	
	0080= 8"						5= Electric	
	0100= 10"						6= Spring return Pneumatic	
	0120= 12"							
	0140= 14"							
	0160= 16"							
	0180= 18"							
	0200= 20"							
	0240= 24"							

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