

**PDC Flanged Series 39
Butterfly Valve
4" thru 14" for
125/150 lb. Flanging**



General Description:

The PDC "Flanged" series butterfly valve is available in sizes from 4" thru 14" in a combination of materials and optional features suitable for most mid-range differential pressures and service conditions.

Features:

- Inboard bushings of graphited bronze for long life, non-freezing, low torque characteristics.
- Close tolerance machining for minimal leakage and dependable flow characteristics.
- Adjustable packing Graphited TEFLON ® Braid. Valves can be repacked without removal from line.
- Rugged mounting pads drilled and tapped for ease of installing actuating equipment and accessories.
- Flatted, keywayed or hexed ends on shafts are available to facilitate factory or field mounting of all types of actuating equipment.
- Lightweight, full faced flange designed for ease of installation. The full flanged drilling will allow for dead end flange connection.
- Contoured bore improves flow characteristics.

Standard Materials and Seat Construction:

Body:	Ductile Iron
Disc:	Cast Iron
Shaft:	416 Stainless Steel
Seat:	Swing-thru
Bushing:	Graphited Bronze
Packing:	Graphited Teflon Braid
Packing Nut:	Brass

Optional Materials and Seat Construction:

Body:	No Option
Disc:	Carbon Steel, 316 Stainless Steel, 304 Stainless Steel
Shaft:	316 Stainless Steel, 304 Stainless Steel, Incoloy, Monel
Seat:	Angle
Bushing:	316 Stainless Steel, 304 Stainless Steel, Glass Filled Teflon, Metcar
Packing:	Pure Teflon Braid, Teflon V-Ring
Packing Nut:	316 Stainless Steel

Temperature:

To 450°F with standard material

PDC Valve Coatings:

Consult Factory

Maximum Containment:

25 psi.

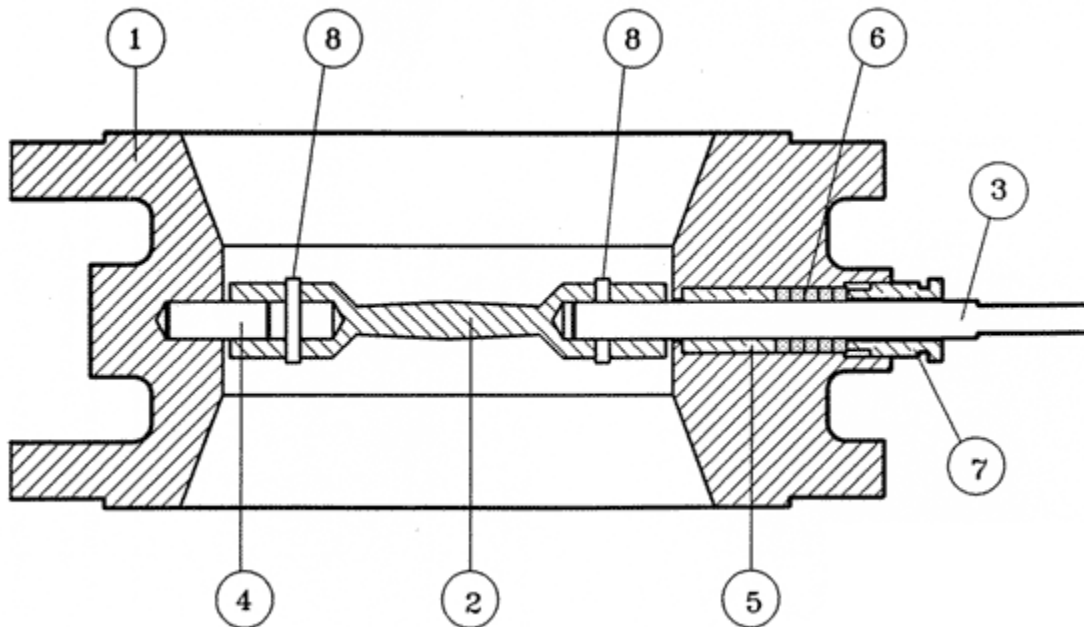
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Cross-section Data

Item	Description	Qty.
1	Body	1
2	Disc	1
3	Power Shaft	1
4	Idle Shaft	1
5	Bushing	1
6	Braided Packing	5
7	Adjustable Packing Nut	1
8	Shaft Retaining Pin	2



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*** Torque, Lb-In/PSI,
Required for PDC swing thru valves with
disc in closed position for
temperatures up to 450 degrees F**

* Below Torques only apply to normal clean service conditions

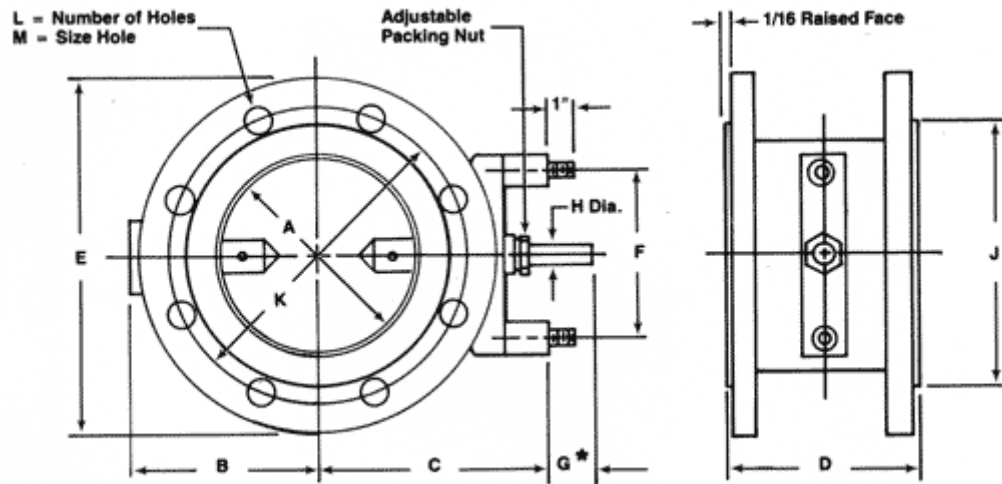
VALVE SIZE	PRESSURE DROP ACROSS DISC IN CLOSED POSITION, PSI																
	0.5	1	2	3	4	5	6	8	10	12	14	16	18	20	22	24	25
4	51	52	53	55	57	59	60	64	67	70	74	77	81	84	87	91	93
5	51	53	55	58	60	63	65	70	75	80	85	90	95	100	105	110	113
6	52	54	58	61	65	69	73	80	88	96	103	111	118	126	134	141	145
8	124	128	135	143	150	158	165	180	195	210	225	240	255	270	285	300	308
10	129	137	154	171	188	205	222	256	290	324	358	392	426	460	494	528	545
12	132	143	166	189	212	235	258	304	350	396	442	488	534	580	626	672	695
14	139	157	194	231	268	305	342	416	490	564	638	712	786	860	934	1,008	1,045

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Typical Dimensions: 4" thru 14"



SIZE	A	B	C	D	E	F	H	J	K	L	M	Max. Δ P	Approx. Wt. (Lb.)
4"	4	4-1/2	6-3/8	5	9	4-1/4	1/2	6-3/16	7-1/2	8	3/4	25	35#
5"	5	5	6-7/8	5	10	4-1/4	1/2	7-1/2	8-1/2	8	7/8	25	41#
6"	6	5-1/2	7-3/8	5	11	4-1/4	1/2	8-1/2	9-1/2	8	7/8	25	51#
8"	8	7-3/4	9-5/8	5-1/2	13-1/2	5-1/8	3/4	10-5/8	11-3/4	8	7/8	25	72#
10"	10	8-3/4	10-5/8	5-1/2	16	5-1/8	3/4	12-3/4	14-1/4	12	1	25	91#
12"	12	9-3/4	11-5/8	5-1/2	19	5-1/8	3/4	15	17	12	1	25	120#
14"	13-1/8	10-1/2	12-1/8	5-1/2	21	5-1/8	3/4	16-1/4	18-3/4	12	1-1/8	25	140#

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Cv Values for PDC Swing Thru Butterfly Valves

By definition, Cv is the flow coefficient of a control device or flow restriction. Cv is defined as the number of US gallons of 60°F water per minute which will flow through the given restriction with a one pound per square inch pressure drop.

Cv Values

(Flow in GPM of 60°F water at 1 psi pressure drop, specific gravity=1)

Valve Size	Disc Angle, Degree								
	10	20	30	40	50	60	70	80	90
4"	13	28	54	98	159	257	391	550	747
5"	21	43	88	158	265	429	636	913	1,272
6"	30	63	126	228	382	632	955	1,370	1,999
8"	53	111	225	406	680	1,125	1,698	2,591	3,853
10"	83	174	351	635	1,063	1,758	2,655	4,052	6,361
12"	120	252	506	915	1,531	2,533	3,826	5,835	9,164
14"	143	302	606	1,096	1,835	3,035	4,584	6,992	10,981

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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 a Flanged 8 " swing thru butterfly valve with ductile body, 316 stainless steel disc, 316 stainless steel shaft, glass filled Teflon bushing, pure Teflon braid packing, 316 stainless steel nut, and cataloged flatted shaft would be as follows:

39-0080-1-6-3-2-4-3-2-CF

When "other " 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 39

Nominal Size Code	Seat Code	Body Material	Disc Material	Shaft Material	Bushing Material	Packing Material	Packing Nut	Shaft End Config./ Length
0040 = 4.0"	1 = Swing Thru	6 = DUCTILE IRON	1 = Cast Iron	1 = 416 S/S	1 = Graphited Bronze	1 = Graphited Teflon Braid	1 = Brass	CH = Catalog Hex
0050 = 5.0"	2 = Angle	X1 = Other	2 = Carbon Steel*	2 = 316 S/S	3 = Metcar	3 = Pure Teflon Braid	2 = 316 S/S	CK = Catalog Keyed
0060 = 6.0"			3 = 316 S/S	3 = Inconel	4 = Glass Filled Teflon	4 = V-Ring Teflon*	X6 = Other	CF = Catalog Flat
0080 = 8.0"			4 = Hi-Temp Iron	4 = Monel*	6 = 316 S/S*	X5 = Other		CR = Catalog Round
0100 = 10.0"			7 = 304 S/S*	8 = 304 S/S*	8 = 304 S/S*			SH = Special Hex*
0120 = 12.0"			X2 = Other	X3 = Other	X4 = Other			SK = Special Keyed*
0140 = 14.0"								SF = Special Flat*
								SR = Special Round*
								X7 = Other

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