

**PDC Combustion Series 22
Butterfly Valve
2" thru 14" for
125/150 lb. Flanging**



General Description:

The PDC Series 22 Combustion Valve is a cost effective, manual, wafer style butterfly valve designed for use in low pressure, low cycle ("set -and-forget") applications. It is designed for use in temperatures up to 900°F Maximum with differential pressures not to exceed 1 PSIG. The valve is designed with appropriate clearances in the disc for combustion installations. These applications are typically : "Hot" or "Cold" lines of air or combustible gases that require High-Low or Modulating flow control.

Features:

- Lightweight, solid ring, wafer design for ease of installation. Four holes to insure proper alignment without transfer of pipe stresses to the valve body.
- PDC's Combination 10 Position/Infinite Throttling & Locking Lever Assembly offers both types of the most commonly requested manual actuators in one unit.
- Adjustable packing - Graphited TEFLON ® Braid for "Cold" (up to 450°F) applications - Graphited Glass Yarn Reinforced with Inconel Wire for "Hot" (up to 900°F) applications.
- Valves can be repacked without removal from the line.
- Inboard bronze bushing on "Cold" (up to 450°F) applications and "metallized" carbon bushing on "Hot" (up to 900°F) applications are designed for long life, nonfreezing, low torque characteristics.

Standard Materials and Seat Construction:

	Cold (450°)	Hot (900°)
Body:	Cast Iron	Cast Iron
Disc:	Carbon Iron	Carbon Iron
Shaft:	416 Stainless Steel	316 Stainless Steel
Seat:	Swing-thru, Paddle Disc	Swing-thru, Paddle Disc
Bushing:	Graphited Bronze	Metallized Carbon
Packing:	Graphited Teflon	Graphited Yarn Reinforced with Iconoly
Packing Nut:	Brass	316 Stainless Steel

Optional Materials and Seat Construction:

Body:	Cast Iron
Disc:	Cast Iron
Shaft:	316 Stainless Steel
Seat:	Swing-thru
Bushing:	Metcar
Packing:	High Temp Packing
Packing Nut:	316 Stainless Steel

Temperature:

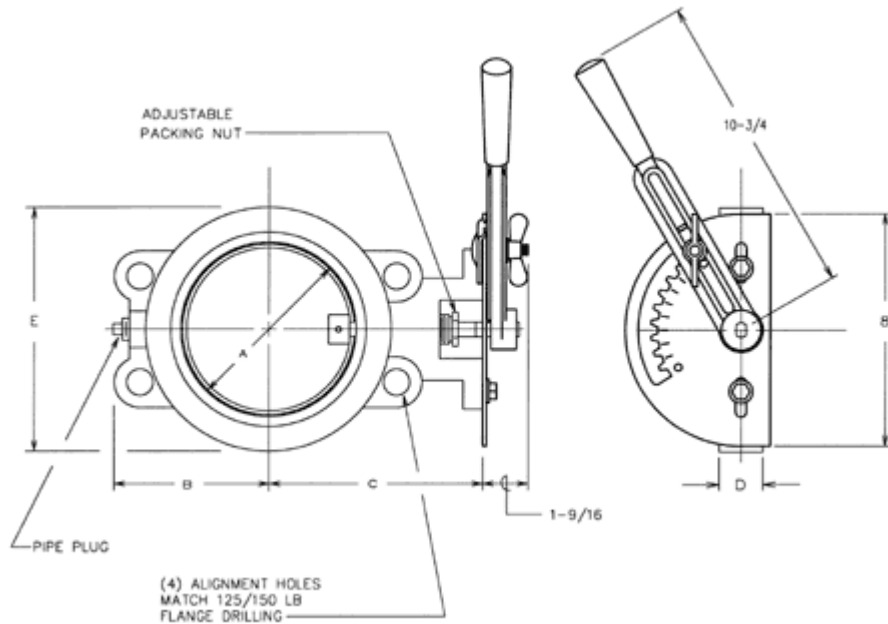
Maximum design temperature to 900°F. Maximum differential pressure at all design temperatures is 1 psig. Maximum containment pressure at all design temperatures is 25 psig

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

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Dimensions and How to Order



Valve Size	Valve Related Dimensions					
	Part Number	A	B	C	D	E
2"	221-017-000-ZZ	2	2-3/4	5-3/8	1-1/2	3-7/8
2.5"	221-027-000-ZZ	2-1/2	3	5-5/8	1-1/2	4-5/8
3"	221-037-000-ZZ	3	3-1/8	5-7/8	1-1/2	5-1/4
4"	221-047-000-ZZ	4	4-1/4	6-3/8	1-1/2	6-3/8
5"	221-057-000-ZZ	5	4-7/8	6-7/8	1-1/2	7-1/2
6"	221-067-000-ZZ	6	5-3/8	7-3/8	1-1/2	8-9/16
8"	221-077-000-ZZ	8	6-1/2	8-3/8	1-1/2	10-3/4
10"	221-087-000-ZZ	10	8	10-5/8	1-7/8	13
12"	221-097-000-ZZ	12	9-1/2	11-5/8	1-7/8	15-1/4
14"	221-107-000-ZZ	13-1/8	10-1/2	12-1/8	1-7/8	16-3/8

Materials of Construction

	450°F Service	900°F Service
Components	<i>ZZ=00</i>	<i>ZZ=28</i>
Body	Cast Iron	Cast Iron
Disc	Carbon Steel	Carbon Steel
Shaft	416 Stainless Steel	316 Stainless Steel
Bushing	Graphited Bronze	Metcar
Packing	Graphited Teflon	High Temperature
Packing Nut	Brass	316 Sainless Steel

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Cv Data for Combustion Series 22 Swing Thru Seat

Cv Values

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

VALVE SIZE	DISC ANGLE, DEGREES								
	10	20	30	40	50	60	70	80	90
2"	2	5	12	21	36	51	67	87	95
2.5"	4	8	21	36	59	88	132	187	204
3"	6	15	32	54	89	139	212	293	389
4"	14	29	57	103	167	270	411	578	784
5"	22	45	92	166	278	450	668	959	1,336
6"	32	66	132	239	401	664	1,003	1,439	2,099
8"	56	117	236	426	714	1,181	1,783	2,721	4,046
10"	87	183	369	667	1,116	1,847	2,788	4,255	6,679
12"	126	265	531	960	1,608	2,660	4,017	6,127	9,622
14"	150	317	636	1,151	1,927	3,187	4,813	7,342	11,530

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