

Corrosion Resistant High Performance Butterfly Valves

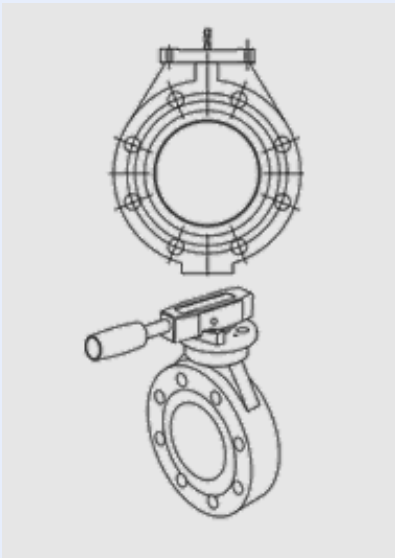
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Advanced Valve Technologies Butterfly Valves incorporate all the features which users have come to expect from high performance valves combined with the significant advantages available from reinforced composite resin systems tailored to provide optimum characteristics for specific applications. The range includes glass reinforced Epoxy, Vinyl Ester and Novolac Epoxy systems formulated to achieve extended service lives in demanding applications without a requirement for routine maintenance. Continuous research and development ensures that the range maintains its technical leadership at all times.

Size Range:	80mm to 300mm / 3in to 12in					
Pressure Ranges:	10 to 16 bar / 150 to 235 psi throughout temperature range					
Configurations:	ANSI 150	ANSI 300	BS PN10	BS PN16	DIN PN10/16	ISO

Butterfly Valve Materials



Body and Disc Materials: The resin systems used in the Advanced Valve Technologies moulding process are the result of sustained work with the industry's leading suppliers over a period of years. Formulations offering excellent mechanical strength and outstanding corrosion resistance against a wide spectrum of aggressive chemicals are now available.

AVT 510 is an Anhydride Epoxy system with milled glass reinforcement and silica filling.

AVT 520 is a Vinyl Ester system with milled glass reinforcement and silica filling.

AVT 530 is an IPD cured Epoxy system with milled glass reinforcement and silica filling.

AVT 540 is a Novolac Epoxy system with milled glass reinforcement and silica filling.

Reference should be made to the Chemical Resistance Guide available either to your Distributor or to the Advanced Valve Technologies Technical Help Desk for guidance as to the optimum choice for any given application. Test coupons for all Advanced Valve Technologies resin systems are available for chemical compatibility checks.

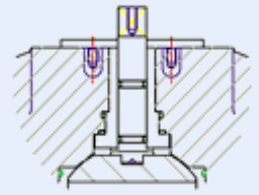
Sealing Materials: Main seats and "O" ring shaft seals are EPDM unless otherwise specified. Nitrile, Viton and PTFE seats and seals can be fitted if required.

Shaft Materials: Shafts are made from 316 Stainless Steel as standard. They are isolated from the media but titanium, hasteloy, duplex and super duplex shafts can be supplied if required.

Butterfly Valve Design Features

Full Flange Face Body for reduced flange cost. Advanced Valve Technologies valves do not require the use of heavy duty flanges when used with GRE pipe systems. They can be fitted as direct replacements for all metal valves of the same specification.

One piece shaft and unique shaft/disc connection eliminates flutter for improved flow and noise reduction. Shaft designed as "non-wetted", blow out proof. Shafts are sealed with a multi "O" ring system that ensures long life bubble tight sealing even in high cycling applications without the need for maintenance.



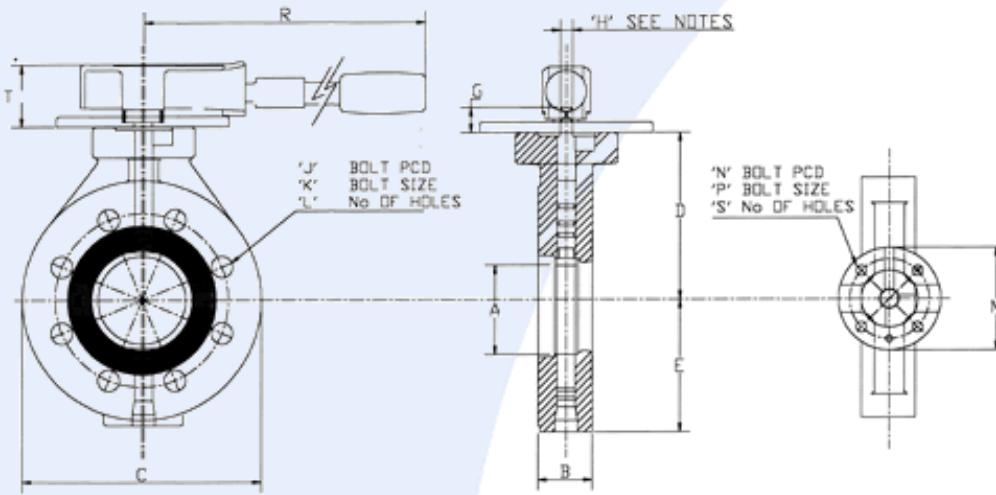
"O" Ring System

Double offset Seat design and 360° seat for bubble tight sealing and low operating torque with extended seat life.

First degree offset: The offset between the seat face and the shaft axis makes the 360° seat possible ensuring bubble tight sealing even in high cycling applications.

Second degree offset: The offset of the shaft with respect to the axis of the bore combined with the first degree of offset ensures that that sector of the seat sealing surface that passes through the sealing face is effectively cleared from contact by a very small angular motion. The introduction of this second degree of offset reduces seat wear and break out torque.

Disc/Seat Design: Disc design takes advantage of the inherent strength of the system to limit the overall thickness of the disc thereby reducing the restriction caused when the valve is fully open to an absolute minimum. The seat is secured to the disc by a moulded retaining plate. Leakage behind the seat is prevented by a secondary seal moulded on the inside diameter of the seat.



Operator Design: Corrosion Resistant, light weight control levers are offered for all butterfly valves up to 150 mm (6 inch). Above this size actuators are required. Standard mounting plates have 8 intermediate positions. The lever can be locked in the open, closed or any other position.

Any standard actuator with sufficient power can be fitted. Standard gear boxes can be fitted directly on to the valve. Shaft extensions manufactured from reinforced composites can be supplied for buried pipe service.

Dimensions for ANSI class 150 Butterfly Valves - dimensions in inches

Actuator Mounting

A	B	C	D	E	G	H	J	K	L	M	N	P	S
3	1.88	8.3	5.5	4.3	0.86	16 x 10	6.0	0.75	4	3.5	2.8	0.35	4
4	2.12	10.0	5.9	4.9	0.83	18 x 12	7.5	0.75	8	3.5	2.8	0.35	4
6	2.25	12.1	7.3	6.3	0.75	22 x 16	9.5	0.90	8	5.0	4.0	0.50	4
8	2.50	15.0	10.2	7.9	1.18	32 x 16	11.8	0.90	8	6.3	4.9	0.50	4
10	2.80	17.5	11.6	9.3	1.18	36 x 20	14.5	1.00	12	6.3	4.9	0.50	4
12	3.20	13.2	13.2	10.6	1.18	40 x 20	17.0	1.00	12	6.3	4.9	0.50	4

Torque Ratings

	80mm Valve		100mm Valve		150mm Valve		200mm Valve		250mm Valve		300mm Valve	
	lbs/ft	Nm	lbs/ft	Nm	lbs/ft	Nm	lbs/ft	Nm	lbs/ft	Nm	lbs/ft	Nm
1 Bar	10	13.5	22	29.7	48	64.8	59	79.7	70	94.5	96	129.6
5 Bar	14	18.9	48	64.8	100	135.0	124	167.4	148	199.8	200	270.0
10 Bar	29	40.3	95	128.3	198	267.3	243	328.1	293	395.5	398	537.3

To allow for variations in breakout torque due to pressure and viscosity variations, actuators capable of developing forces 50% greater the above requirement are recommended. Higher safety factors may be required in some applications.

Lever Dimensions

N.B.	1.5 - 3.0 "	40 - 80 mm	4.0 "	100 mm	6"	150 mm
"R"	8.0 "	203 mm	12.0 "	305 mm	16.0 "	406 mm
"T"	2.12 "	54 mm	2.12 "	54 mm	2.12 "	54 mm

NOTE: Valves are designed for use with full-face gaskets. Spacers can be supplied for use for mating with raised face flanges.

For full technical information e-mail, fax, mail or telephone your request to:

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Leaders in **Corrosion Resistant Valves**

NOTE: The information given in this specification is offered in good faith but without warranty as to its accuracy
Advanced Valve Technologies Limited reserves the right to alter any part or all of the specifications contained herein at any time without prior notice

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