

Corrosion Resistant Full Port Ball Valves

[Download Acrobat v3 compatible pdf file for printing or offline viewing \(120kb\)](#)
[Download Adobe Acrobat pdf Reader v4.05 \(5.6MB\)](#)

Full port design offers unrestricted flow when the valve is fully open.

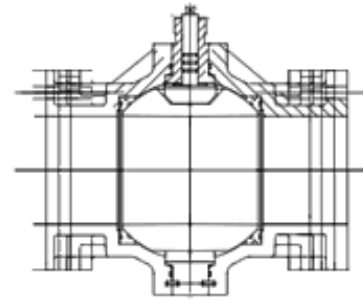
Advanced Valve Technologies Ball Valves incorporate all the features which users have come to expect from high performance valves combined with the significant advantages available from reinforced composite resin systems tailored to provide optimum characteristics for specific applications. The range used 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:	40mm to 200mm / 1.5in to 8in					
Pressure Ranges:	10 to 20 bar / 150 to 300 psi throughout temperature range					
Configurations:	ANSI 150	ANSI 300	BS PN10	BS PN16	DIN PN10/16	ISO

Materials

Body and Ball 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 Novolac Epoxy system with milled glass reinforcement and silica filling.
- AVT 530 is an improved temperature Epoxy system with milled glass reinforcement and silica filling.
- AVT 540 is a Vinyl Ester system with milled glass reinforcement and silica filling.

Reference must be made to the Chemical Resistance Guide available either to your Distributor or to the Advanced Valve Technologies Technical Help Desk for selecting the appropriate resin system and for confirming the maximum operating temperature for specific media. Test coupons for all Advanced Valve Technologies resin systems are available for chemical compatibility checks.

Sealing and Stem Materials: See below.

Design Features

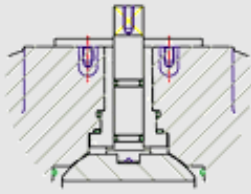
Face to Face dimensions to all International Standards. Special dimensions can be manufactured to customer requirements.

Full Port Body and Ball Design: Floating ball design, three part moulded body secured with 316 stainless steel studs and bolts.

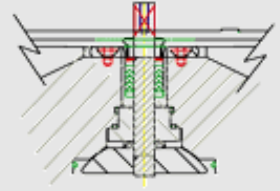
Stem Sealing System:

"O" Ring System

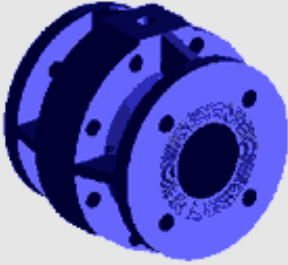
Chevron Stuffing Box System



Multi Viton "O" Ring Shaft Seals for multi-cycle maintenance-free use and low operating torque.



PTFE Chevron packing with Belville thrust washer. A parallel motion adjuster for simpler and quicker adjustment applies even pressure on the chevron pack.



Stem: Blow-out proof design, 316 Stainless Steel as standard, encapsulated in AVT 510, 520, 530 or 540 resin to match body and ball. Other stem materials can be supplied.

Seating System: Virgin PTFE seats with Viton energisers as standard, other energiser materials are available.

Operator Design: Corrosion Resistant, light weight lockable levers are offered for all Ball valves up to 150 mm (6 inch). Standard gearboxes can be fitted directly onto the valve. Stem extensions manufactured from reinforced composites can be supplied for buried pipe service.

Actuation: Any standard actuator can be fitted including ancilliary equipment such as switch boxes, solenoids, beacon indicators etc.

Typical Ball Valve - Move cursor over valve to animate

Special Full Port Ball Valves

Special Full Port Ball Valve Configurations

Advanced Valve Technologies Limited is committed to a continuous development programme to meet customers' special requirements. Backed by advanced computer design and development programmes and a rigorous test procedure, Advanced Valve Technologies offers fast response solutions to difficult to solve problems. Please refer to [Custom Design, Moulding and Manufacturing Facilities](#)

Specially modified versions of these Full Port Ball Valves now include:

- Pressure-relieved valves that permit excess pressure that may accumulate in closed valves to be relieved upstream
- Glass fibre reinforced replaceable sleeves for ease of maintenance in processes causing scale build-up in valves and pipes
- Sample valves permitting safe extraction of samples without interfering with production flow
- Actuators, gear operators, switch assemblies etc. can be mounted to suit customer's requirements

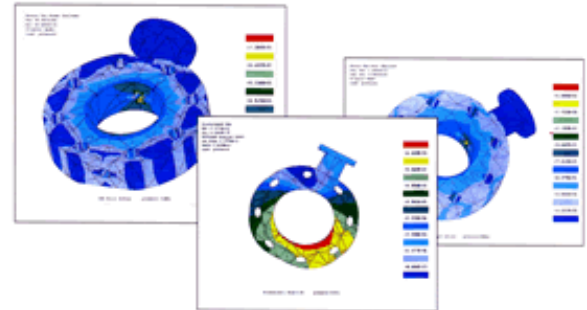
Custom Design, Moulding and Manufacturing Facilities

Advanced Valve Technologies' design and moulding experience is at the disposal of customers seeking the economic production of custom engineered, high performance products or components using reinforced thermoset resin systems ...

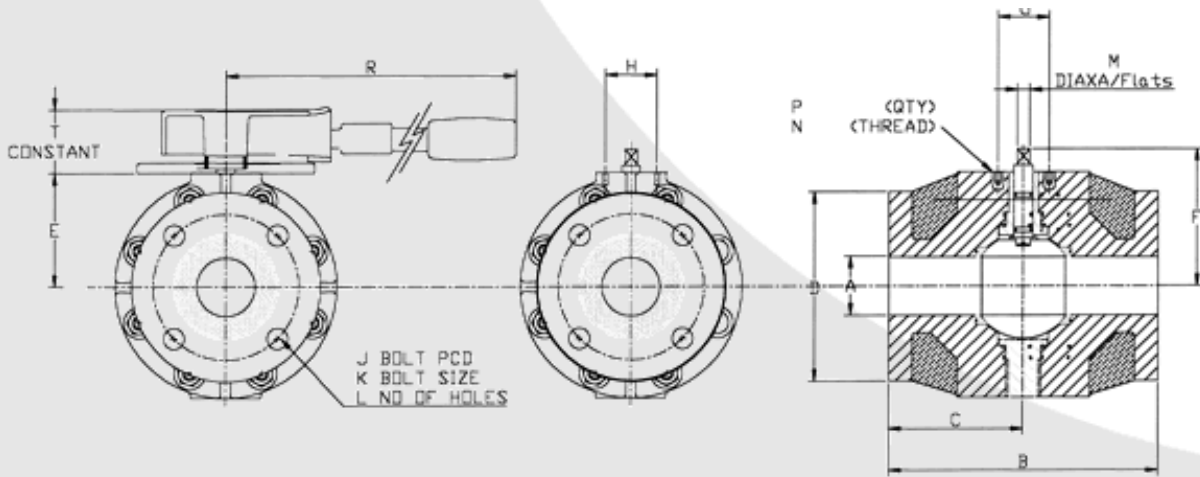
Its technologies can be applied advantageously to the manufacture of parts which may be subjected to chemical attack or where weight saving and the maintenance of performance characteristics across a wide temperature range are a necessity, even when manufactured quantities are relatively small.

Advanced Valve Technologies welcomes suggestions for innovative products that meet specific requirements or that can be added to our range.

Actuators, gear operators, switch assemblies, etc. can be mounted to suit customers' requirements.



Technical Data



Dimensions for ANSI Class 150 (dimensions - inches)

Actuator

Mounting

A	B	C	D	E	F	G	H	J	K	L	M	N	P
1.5	6.3	3.15	4.3	3.1	4.1	1.7	1.7	3.5	0.6	4	10.03x6.03	1/4BOLT	4
2.0	7.0	3.5	6.4	3.9	4.7	1.7	1.7	4.8	0.6	4	16.03x10.03	12*24	4
3.0	8.0	4.0	8.23	4.7	5.6	1.7	1.7	6.0	0.8	4	20.03x12.03	1/4"ANF	4
4.0	9.0	4.5	10.0	5.9	6.9	2.2	2.2	7.5	0.8	8	25.03x14.03	5/16"ANF	4
6.0	15.5	7.7	11.2	9.4	10.3	3.3	3.3	9.5	0.9	8	25.03x14.03	1/2BOLT	2
8.0	17.9	9.0	13.5	11.4	13.8	4.3	4.3	11.8	0.9	8	30.03x17.03	1/2BOLT	2

Dimensions for ANSI Class 150 - metric (dimensions - mm)

Actuator

Mounting

A	B	C	D	E	F	G	H	J	K	L	M	N	P
40	165	68.5	155	16	104	44	44	99	16	4	9x11	12*24	4
50	178	89	162	20	120	44	44	121	16	4	9x14	12*24	4
80	203	102	210	22	141	44	44	152	19	4	9x14	1/4"ANF	4
100	229	114	254	25	175	49	49	190	19	8	12x16	5/16"ANF	8
150	394	197	285	32	260	N/A	130	241	22	8	12x18	5/16"ANF	8
200	457	228	343	40	350	N/A	175	298	22	8	12x18	5/16"ANF	8

Dimensions for BS PN 10 (dimensions - mm)

Actuator

Mounting

A	B	C	D	E	F	G	H	J	K	L	M	N	P
40	165.10	82.55	155.45	16.00	98.30	43.99	43.94	98.55	15.75	4	9x11	12*24	4
50	177.80	88.90	165.10	20.07	119.89	43.94	43.94	120.65	16.00	4	9x14	12*24	4
80	203.20	101.60	209.55	20.07	140.97	43.94	43.94	152.40	19.05	4	9x14	12*24	4
100	228.60	114.30	254.00	24.89	175.01	54.86	54.86	190.50	19.05	4	12x16	1/4"ANF	4
150	266.70	133.35	317.50	31.75	260.35	82.55	82.55	241.30	22.35	8	12x18	5/16"ANF	4
200	292.10	146.05	381.51	44.45	350.01	109.98	109.98	298.45	22.35	8	12x18	5/16"ANF	4

Dimensions for DIN PN 10 (dimensions - mm)

Actuator Mounting

A	B	C	D	E	F	G	H	J	K	L	M	N	P
40	166	82.55	155.45	16.00	104	43.99	43.94	98.55	18	4	11x9	6	4
50	203	88.9	165.10	20.07	120	43.94	43.94	120.65	18	4	14x9	6	4
80	241	101.6	209.55	20.07	141	43.94	43.94	152.40	19	4	14x9	6	4
100	305	114.3	254.00	24.89	175	49.00	49.50	190.50	18	8	16x12	6	4
150	394	197.0	285.00	31.75	260	N/A	140.00	241.30	22	8	11.5x17.5	13	2
200	457	228.5	381.51	44.45	350	N/A	175.00	298.45	22	8	11.5x17.5	13	2

Torque Ratings

	1.5" (40mm) Valve				2" (50mm) Valve				3" (80mm) Valve				4" (100mm) Valve			
	"O" Ring lbs/ft Nm		Chevron lbs/ft Nm		"O" Ring lbs/ft Nm		Chevron lbs/ft Nm		"O" Ring lbs/ft Nm		Chevron lbs/ft Nm		"O" Ring lbs/ft Nm		Chevron lbs/ft Nm	
1 Bar	11	14.9	17	23.0	11	14.9	17	23.0	26	35.1	39	52.7	36	48.6	54	72.9
5 Bar	14	18.9	26	35.1	14	18.9	26	35.1	42	56.7	78	105	45	60.8	84	113
10 Bar	18	24.3	33	44.6	18	24.3	33	44.6	60	81.0	111	150	65	87.8	120	162

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 - mm & in)

N.B.	1.5" - 3"	40 - 80mm	4"	100mm	6"	150mm
"R"	8"	203mm	12"	305mm	16"	406mm
"T"	5.4"	137mm	8"	205mm	9.5"	241mm

NOTE: Advanced Valve Technologies 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

**Thanet Reach, Millennium Way,
Broadstairs, Kent, CT10 2QQ, England
T:01843 600000 F:01843 600333
E: avt@advalve.com www.advalve.com**

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.

Website by 



Please contact us for further information

