



Shipham Valves

ESTABLISHED 1798

The World's Preferred Partner for
Corrosion Resistant Valve Solutions



The Composite Valve Range



advanced valve
TECHNOLOGIES

Global Leaders in Corrosion Resistant Valves



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Shipham Valves is one of the longest established and most highly respected valve manufacturers in the world, with a global reputation for excellence in product design, quality, reliability and the highest levels of customer service.

Since the 1930s, Shipham Valves has been a key manufacturer of valves for the global naval defence industries. In a market known for its arduous demands for product performance and reliability, quality assurance, traceability, certification and documentation, we have built an unrivalled reputation for excellence.

We have successfully taken our experience and capabilities into many other areas, including the oil & gas and petrochemical markets. Shipham Valves is now firmly established as a global leader in the design and manufacture of high alloy valve products used in severe service applications handling sea water and other corrosive media.

Shipham's leadership in the manufacture of valves for corrosive applications was further enhanced in 2008 with the acquisition of Advanced Valve Technologies (AVT).

The AVT product range includes ball and butterfly valves manufactured using reinforced composite technology which offers outstanding internal & external corrosion resistance and significant weight savings over equivalent metallic valves.

Reinforced Composite Technology applied to fluid handling and control

Key benefits of reinforced composites:

Outstanding internal and external corrosion resistance - eliminating the need for external coatings and protective linings

Up to 60% weight saving - leading to a very significant reduction of installation and delivery costs

Very low thermal conductivity - eliminating the need for lagging leading to further cost savings

Reduced torque - leading to lower costs of actuation

Total lifecycle - cost savings against metal valves can be up to 90%

Reliable, short leadtimes - eliminating project over-runs





Butterfly Valves - Corrosion resistant, high performance, firesafe API 607 (optional)

Double offset seat design and 360° bubble tight sealing and low operating torque with extended seat life and up to 60% weight saving versus metal valves!

Operator Design

Corrosion resistant lightweight, lockable levers with 7 intermediate stops are standard. Mounting accommodates ISO Standard gear operators and actuators.

Corrosion resistant stem extensions for buried service made to customer requirements.

Full Flange Face Body

For reduced flange cost. AVT 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.

Also available in tapped lugged.

Disc / Seat Design

This disc design takes advantage of the inherent strength of all the resin systems to limit the overall thickness of the disc, thereby reducing the restriction of flow to a practical minimum when the valve is fully opened.

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.



One Piece Shaft Assembly

And unique shaft/disc connection eliminates flutter for improved flow and noise reduction. Shaft designed as non-wetted, blow out proof.

First Degree Off-Set

The off-set between the seat face and the shaft axis makes the 360° seat possible ensuring bubble tight sealing even in high cycling applications.

Shafts

Sealed with a multi "O" ring system that ensures long life tight sealing even in high cycling applications without need for maintenance. Hastelloy non wetted shaft as standard, with 316 and Titanium optional.

Second Degree Off-Set

The off-set of the shaft with respect to the axis of the bore combined with the first degree of off-set ensures that the sector of the seat sealing face is effectively cleared from contact by a very small angular motion.

The introduction of this second degree of off-set reduces wear and break out torque.

Dimensions for ANSI 150 Valves

Full Flange faced Eccentric Butterfly Valve - Dimensions Inches										Mounting				Lever		Weight		CV Valves	
A	B	C	D	E	F	G (mm)	H	J	K	L	M	N	P	R	S	T	Kg		lbs
3" / 80mm	1.88	8.25	6	4.3	0.78	16x10	6.0	0.75	4	3.5	2.75	0.35	4	F07	12.63	2.12	3.82	8.42	278
4" / 100mm	2.12	9.12	6.4	4.9	0.78	18x12	7.5	0.75	8	3.5	2.75	0.35	4	F07	12.63	2.12	4.82	10.63	485
6" / 150mm	2.25	12.2	8.1	6.3	0.78	26x16	9.5	0.88	8	5	4	0.475	4	F10	12.63	2.12	9.40	20.72	1267
8" / 200mm	2.5	15	9.8	7.6	1.5	32x16	11.75	0.88	8	6.3	4.9	0.55	4	F12	24.13	2.12	14.80	32.63	2174
10" / 250mm	2.8	17.5	11.4	8.9	1.5	36x20	14.25	1.0	12	6.3	4.9	0.5	4	F12	24.13	2.12	21.00	46.30	3457
12" / 300mm	3.2	20.5	13.1	10.6	1.5	40x20	17.0	1.0	12	6.3	4.9	0.55	4	F12	25	2.12	33.00	72.75	4971

Refer to individual specification sheets for ANSI, DIN, ISO and PN standards that are available.

Break Torque Ratings

	3" / 80mm		4" / 100mm		6" / 150mm		8" / 200mm		10" / 250mm		12" / 300mm	
	Inch-lb	Nm	Inch-lb	Nm	Inch-lb	Nm	Inch-lb	Nm	Inch-lb	Nm	Inch-lb	Nm
0 Bar	60	6.5	120	13.5	144	16.2	180	20.25	191	21	221	25
5 Bar	120	13.5	264	29.7	576	64.8	708	79.65	836	94	1150	130
10 Bar	168	18.9	576	64.8	1200	135	1488	167.40	1761	199	2389	270

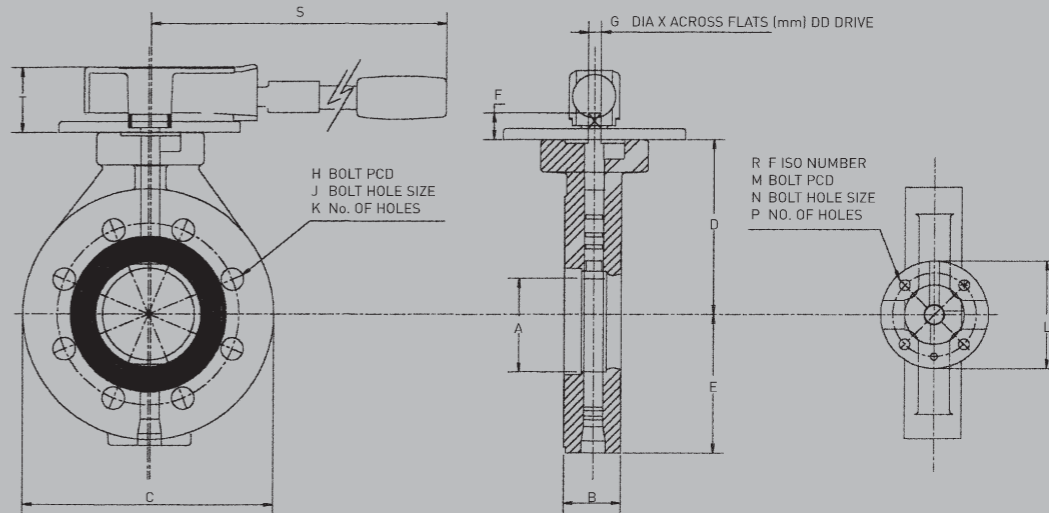
To allow for variations in break torque due to pressure and viscosity variations, it is recommended that actuators capable of developing forces a minimum of 30% greater than the above are used. Higher safety factors may be required in some applications e.g. when operations are infrequent.

Sizes	3" (80mm) – 12" (300mm)	
Body and Disc Material	AVT530	AVT520
Please contact AVT for material compatibility	Composite Epoxy Filled Resin System	Composite Proprietary Novolac Filled Resin System
Subject to media		
Max Long Term Temperature	110°C / 446°F	120°C / 480°F
Flange Configurations	Full ANSI 150, ANSI 300, DIN, BS, ISO, drilled through (Wafer) Full ANSI 150, ANSI 300, DIN, BS, ISO, lugged (Tapped)	

Options

Shaft Option	Titanium grade 5, Hastelloy C, 316 SS, Monel
Elastomer Options	EDPM, Viton B, Viton F, Nitrile NBR, others by request

Note: Specifications are subject to alteration.





Ball Valves - Corrosion resistant, firesafe (optional) full port ball valves

Operator Design

Corrosion resistant, lightweight, lockable levers are offered for all Ball Valves up to 150mm (6 inch). Standard gearboxes can be fitted onto the valve.

Actuation

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

Standard Mounting Pad

ISO mounting for actuation.

Gland Packing

Energised chevron. 'O' ring seal.

Stem

Blow-out proof design, non wetted composite shaft with Hastelloy C-276 core as standard. Titanium and 316 stainless steel materials are optional - either encapsulated or bare metal.

Seating System

Bubble tight sealing. Available in Super PTFE TFM or Virgin PTFE seats. Options include glass filled PTFE, carbon filled PTFE or PEEK.

Full Port

For maximum flow rate.



Dimensions for ANSI 150 Valves

Full Port Ball Valve - Dimensions Inches										Mounting				Lever		Weight		CV Values
A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	Kg	lbs		
1" / 25mm	5	2.5	5.1	n/a	n/a	3.13	0.625	4	n/a	8x12	n/a	n/a	n/a	n/a	2.20	4.85	100	
1.5" / 40mm	6.5	3.25	6.4	3.15	4	3.88	0.6	4	2.44	14x9	M6	4	8.75	2.12	4.30	9.48	250	
2" / 50mm	7	3.5	6.5	3.9	4.75	4.75	0.75	4	2.44	14x9	M6	4	8.75	2.12	5.8	12.79	430	
3" / 80mm	8	4	8.5	4.7	6.1	6.1	0.75	4	2.44	19x12	M6	4	12.63	2.12	10.32	22.75	1020	
4" / 100mm	9	4.5	10.25	5.9	6.75	7.5	0.75	8	2.75	20x12	M6	4	12.63	2.12	18.18	40.08	1890	
6" / 150mm	15.5	7.75	12.6	9.45	10.44	9.5	0.88	8	5.11	25x14	M10	2	19.88	2.12	44.00	97.00	5500	
8" / 200mm	18	9	13.5	11.4	12.4	11.75	0.88	8	6.89	30x17	DIA 0.5	2	24.13	2.12	53.48	117.90	1800	

Refer to individual specification sheets for ANSI 300, DIN, ISO and PN standards that are available.

Break Torque Ratings

	1" / 25mm		1.5" / 40mm		2" / 50mm		3" / 80mm		4" / 100mm		6" / 150mm		8" / 200mm	
	Chevron		Chevron		Chevron		Chevron		Chevron		Chevron		Chevron	
0 Bar	75	8.5	79	9	88	10	97	11	106	12	1003	113	1003	113
5 Bar	84	9.5	97	11	132	15	318	36	584	66	1422	160	1422	160
10 Bar	97	11	168	19	221	25	743	84	1002	120	2114	238	2114	238

To allow for variations in break torque due to pressure and viscosity variations, it is recommended that actuators capable of developing forces a minimum of 30% greater than the above are used. Higher safety factors may be required in some applications e.g. when operations are infrequent.

Sizes	1" (25mm) – 8" (200mm) (1" - 6" full port, 8" is standard port)		
Body and Ball Material	AVT530	AVT520	AVT550 (Firesafe option)
Please contact AVT for material compatibility	Composite Epoxy Filled Resin System	Composite Proprietary Novolac Filled Resin System	Composite Filled Resin System
Subject to media			
Max Long Term Temperature	110°C / 446°F	120°C / 480°F	110°C / 446°F
Flange Configurations	Full ANSI 150, ANSI 300, DIN, BS, ISO		

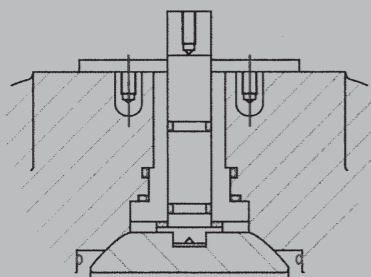
Options

Shaft Option	316 SS Encapsulated in body material, Titanium Grade 5 and Hastelloy C with or without encapsulation in body material
Elastomer Options	Super PTFE – TFM, Virgin PTFE, Viton F, EPDM, all PTFE Encapsulated Viton B, NBR, Custom
Seat	Viton B & F, Glass Filled PTFE, Carbon filled PTFE, PEEK, Custom

Note: Specifications are subject to alteration.

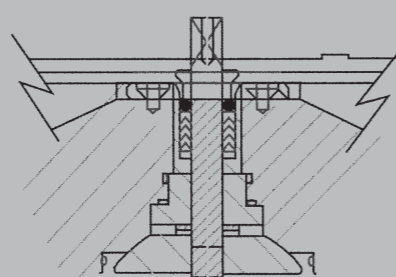
Design Features: AVT offer two gland packing options:

"O" ring system

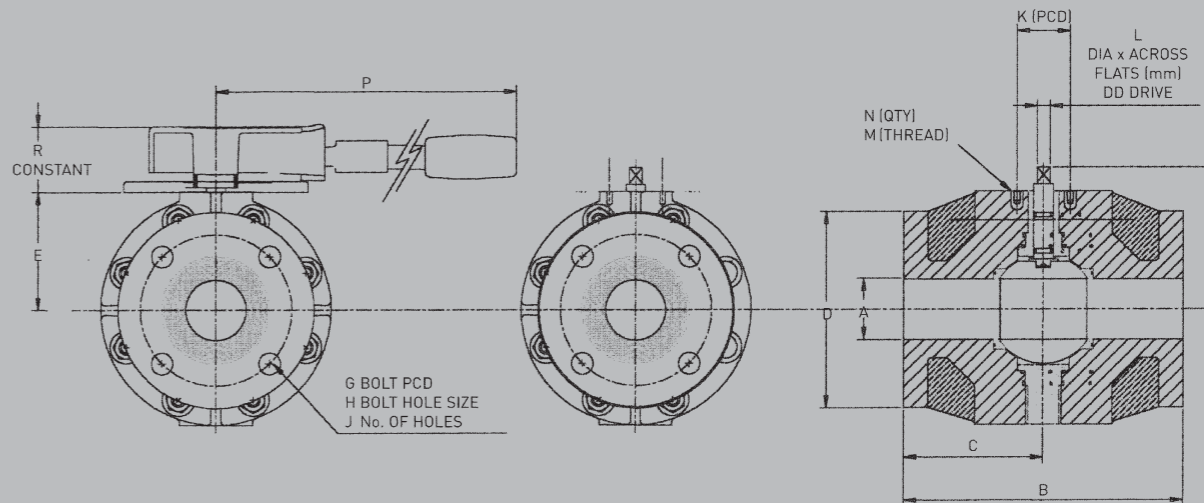


Multi Viton "O" ring shaft seals for multi-cycle maintenance free use and low operating torque.

Chevron Stuffing Box System



PTFE chevron packing combination stem sealing system with energiser. A parallel "O" ring backup. A parallel motion adjuster applies even pressure on the chevron pack for simpler and quicker adjustment.



Applications



Offshore Oil & Gas

Firewater and sprinkler systems, cooling, potable water, waste water, sea water injection, water purification, ballast, HVAC and sewage treatment plant (STP).



FPSO / FSO

Firewater, ballast, cooling, sea chests, oil / water separation, sewage treatment plant (STP), potable water, waste water and water purification.



Naval Marine

Ballast, washdown, firewater / sprinkler systems, cooling, potable water, waste water, sanitary systems, sewage treatment plant, water purification, fuel and lubrication lines.



Desalination

Sea water, cooling, firewater and sprinkler systems, potable water, HVAC, vent and compressed air lines.



Marine Services

Ballast, cargo, washdown, venting, firewater and sprinkler systems, cooling, potable and waste water lines, HVAC, fuel lines and sanitary systems.



Chemical

Process lines, effluent and waste water systems, vent & drain lines, sludge, brine, corrosive liquids, compressed air, cooling and firewater & sprinkler systems.



Waste Water Treatment

Potable water distribution, effluent lines, raw water, chlorinated water, sludge, aeration lines, firewater and sprinkler systems.



Pulp & Paper

Process lines, cooling, waste, black / green / white and waste liquors, acid & caustic lines, chlorinated water, water distribution, sewage and potable water distribution.

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