



VALVE AND FLOW CONTROL SPECIALISTS
SERVICE AND RELIABILITY

Double Block and Bleed Ball Valve AKA Twinvalve

Twinvalve trunnion ball valves are made of two balls and seat combinations in one valve body, also referred as integral Double Block & Bleed ball valve (DBB valves). It has two independent sealing members and two separate actuating mechanisms, which keeps sealing service at the same time, the cavity of valve body has a pressure bleed interface. Twinvalve ball valves offer the most performance for severe isolation services where double block and bleed is required.



They can come with various vent and bleed valve options along with drains, sealant injection where required.

Size range 2" -16" (50nb-400nb)

Pressure classes

ANSI 150

ANSI 300

ANSI 600

ANSI 900

ANSI 1500

ANSI 2500

End connections RF flanged RTJ flanged.

Standard Body material is A105 steel.

Other materials 304 /316 / SAF /

Duplex / Super Duplex / or Titanium.

Seats can be metal and soft seats such as Peek, Devlon and PTFE.

Operation can be via wrench, gearbox or actuated.

For sizes below 2" refer DK-Lok Instrumentation section.

BRISBANE SYDNEY MELBOURNE DARWIN
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E-mail sales@valveandflowcontrolspecialists.com



Bleed Valve options



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Standard Materials of Construction

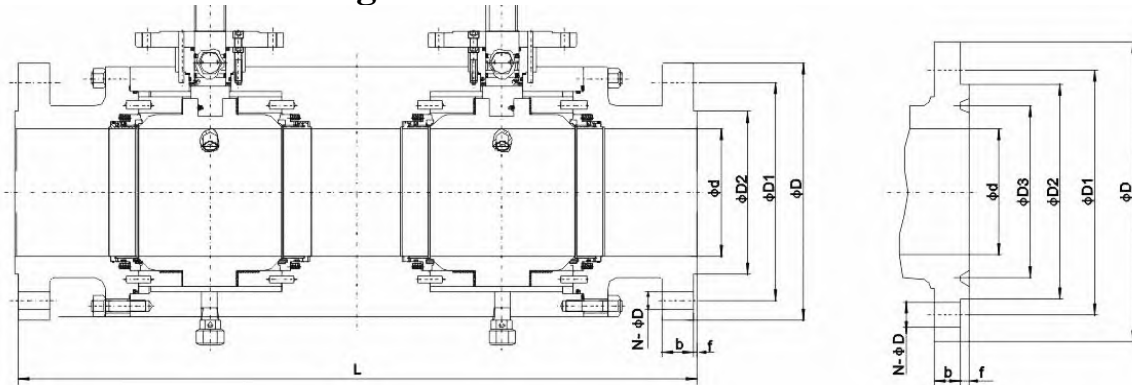
Nominal diameter (in)		NPS 2~16					
Nominal pressure (MPa)		Class150~Class2500					
Materials of parts	No.	Part Name	Materials				
			Carbon Steel	Stainless Steel			
	1	Body	ASTM A105	ASTM A182 304	ASTM A182 316	ASTM A182 304L	ASTM A182 316L
	2	Spring	17-7PH				
	3	Anti-fire packing	Graphite				
	4	O ring	VITON	VITON	VITON	VITON	VITON
	5	Seat ring	ASTM A105 • ENP	ASTM A182 304	ASTM A182 316	ASTM A182 304L	ASTM A182 316L
	6	Seat	PTFE/NYLON/PEEK/PPL				
	7	Ball	ASTM A105 • ENP	ASTM A182 304	ASTM A182 316	ASTM A182 304L	ASTM A182 316L
	8	Stud	A193 B7M	A320 B8	A320 B8M	A320 B8	A320 B8M
	9	Anti-fire gasket	SST + Graphite				
	10	O ring	VITON				
	11	Bonnet	ASTM A105	ASTM A182 304	ASTM A182 316	ASTM A182 304L	ASTM A182 316L
	12	Check valve	Combined parts	Combined parts	Combined parts	Combined parts	Combined parts
	13	Sealant injection valve	Combined parts	Combined parts	Combined parts	Combined parts	Combined parts
	14	Anti-static device	Combined parts	Combined parts	Combined parts	Combined parts	Combined parts
	15	Stem	ASTM A182 F6a	ASTM A182 304	ASTM A182 316	ASTM A182 304L	ASTM A182 316L
	16	Sliding bearing	Metal+PTFE	Metal+PTFE	Metal+PTFE	Metal+PTFE	Metal+PTFE
	17	Thrust bearing	PTFE				
	18	O ring	VITON				
	19	O ring	VITON				
	20	Anti-fire gasket	SST + Graphite				
	21	Seal gland	ASTM A105 • ENP	ASTM A182 304	ASTM A182 316	ASTM A182 304L	ASTM A182 316L
	22	Socket head cap screw	A193 B7M	A320 B8	A320 B8M	A320 B8	A320 B8M
	23	Pin	ANSI 1035	ANSI 1035	ANSI 1035	ANSI 1035	ANSI 1035
	24	Packing	Graphite	Graphite	Graphite	Graphite	Graphite
	25	Packing gland	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB
	26	Hexagon bolt	A193 B7M	A320 B8	A320 B8M	A320 B8	A320 B8M
	27	Stopper	A3 • HZn	A3 • Zn	A3 • HZn	A3 • HZn	A3 • HZn
	28	Retainer ring	65Mn	65Mn	65Mn	65Mn	65Mn
	29	Sealant injection valve	Combined parts	Combined parts	Combined parts	Combined parts	Combined parts
	30	Air release valve	Combined parts	Combined parts	Combined parts	Combined parts	Combined parts
	31	Check valve	Combined parts	Combined parts	Combined parts	Combined parts	Combined parts
	32	Sealant injection valve	Combined parts	Combined parts	Combined parts	Combined parts	Combined parts
	33	Drainage valve	Combined parts	Combined parts	Combined parts	Combined parts	Combined parts
	34	Drainage valve	Combined parts	Combined parts	Combined parts	Combined parts	Combined parts
	35	Thrust bearing	PTFE				
	36	Sliding bearing	Metal+PTFE	Metal +PTFE	Metal+PTFE	Metal+PTFE	Metal+PTFE
	37	O ring	VITON				
	38	Anti-fire gasket	SST + Graphite				
	39	Lower cover	ASTM A105 • ENP	ASTM A182 304	ASTM A182 316	ASTM A182 304L	ASTM A182 316L
	40	Stud	A193 B7M	A320 B8	A320 B8M	A320 B8	A320 B8M
41	Hexagon nut	A194 2HM	A194-8	A194 -8 M	A194-8	A194-8 M	
42	Hexagon nut	A194 2HM	A194-8	A194 -8 M	A194-8	A194-8 M	
Applicable service conditions	Applicable media	Water, steam, oil, gas, liquefied gas, natural gas, etc.	Nitric Acid	Acetic Acid	Strong Oxidizer	Urea	
	Applicable temperature	120°C (PTFE) 、≤80°C (NYLON) 、≤250°C (PEEK) 、≤250°C (PPL)					
Design and manufacturing	API 608、API 6D						
Face-to-face dimensions	ASME B16.10、API 6D						
Type of connection	Flange	ASME B16.5/ASME B16.47		Butt welding	ASME B16.25		
Pressure test	API 598、API 6D						
Transmission mode	Manual, worm and worm gear transmission, pneumatic, electric						

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Dimensions and Weights ANSI Class 150 to ANSI 2500

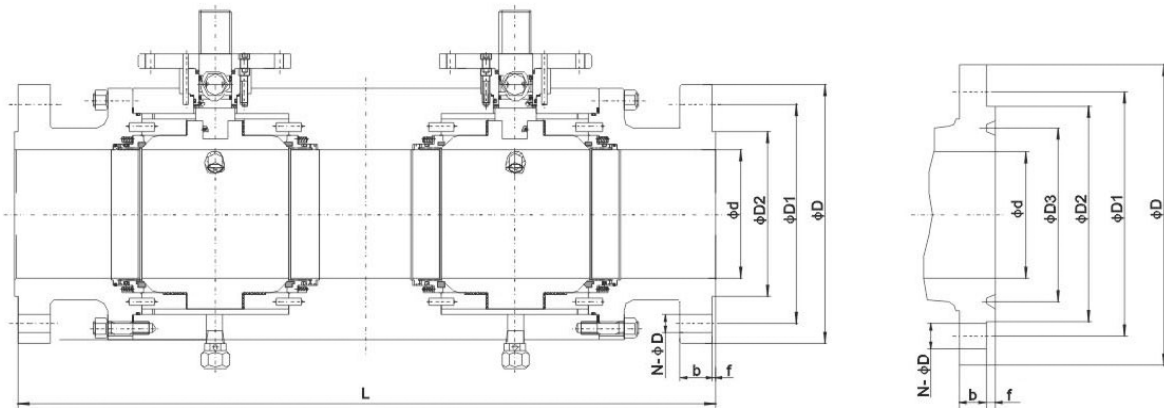


Pressure rating	Nominal Diameter		d	Flanged			Butt welding	Raised face flange						H	H1	Weight (Kg)	
	Class	NPS		DN	L(RF)	L(RTJ)		L(BW)	D	D1	D2	D3	f				b
150		2"	50	50	356	369	394	150	120.5	92	-	2	14.5	4-φ 19	93	88	△
		3"	80	75	457	470	537	190	152.5	127	-	2	17.5	4-φ 19	118.5	117	△
		4"	100	100	502	514	578	230	190.5	157	-	2	22.5	8-φ 19	143.5	137	△
		6"	150	150	787	799	850	280	241.5	216	-	2	24	8-φ 22	208	178.5	△
		8"	200	201	902	915	966	345	298.5	270	-	2	27	8-φ 22	248	235	△
		10"	250	252	991	1004	1017	405	362	324	-	2	29	12-φ 25	294	288	△
		12"	300	303	1130	1142	1155	485	432	381	-	2	30.5	12-φ 25	345	330	△
		14"	350	334	1245	1258	1321	535	476	413	-	2	33.5	12-φ 29	377	360	△
	16"	400	385	1372	1385	1448	595	540	470	-	2	35	16-φ 29	418	400	△	
300		2"	50	50	394	410	394	165	127	92	-	2	21	8-φ 19	93	88	△
		3"	80	75	495	510	495	210	168.5	127	-	2	27	8-φ 22	118.5	117	△
		4"	100	100	568	584	568	255	200	157	-	2	30.5	8-φ 22	143.5	137	△
		6"	150	150	826	842	826	320	270	216	-	2	35	12-φ 22	208	178.5	△
		8"	200	201	991	1007	991	380	330	270	-	2	40	12-φ 25	248	235	△
		10"	250	252	1054	1070	1054	445	387.5	324	-	2	46.5	16-φ 29	294	288	△
		12"	300	303	1194	1210	1194	520	451	381	-	2	49.5	16-φ 32	345	330	△
		14"	350	334	1346	1362	1346	585	514.5	413	-	2	52.5	20-φ 32	377	360	△
	16"	400	385	1473	1489	1473	650	571.5	470	-	2	56	20-φ 35	423	345	△	
600		2"	50	50	470	473	470	165	127	92	-	7	26	8-φ 19	107	91.5	△
		3"	80	75	610	613	610	210	168.5	127	-	7	32	8-φ 22	140	119	△
		4"	100	100	762	765	762	275	216	157	-	7	38.5	8-φ 25	164	150	△
		6"	150	150	978	981	978	355	292	216	-	7	48	12-φ 29	224	208	△
		8"	200	201	1143	1147	1143	420	349	270	-	7	56	12-φ 32	272	248	△
		10"	250	252	1372	1376	1372	510	432	324	-	7	64	16-φ 35	318	303	△
		12"	300	303	1448	1451	1448	560	489	381	-	7	67	20-φ 35	355	341	△
		14"	350	334	1549	1552	1549	605	527	413	-	7	70	20-φ 39	390	370	△
	16"	400	385	1778	1781	1778	685	603	470	-	7	77	20-φ 41	400	415	△	



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Dimensions and Weights ANS 900 to ANSI 2500



Pressure rating	Nominal Diameter		d	Flanged		Butt welding	Raised face flange						H	H1	Weight	
				L(RF)	L(RTJ)	L(BW)	D	D1	D2	D3	f	b				N-φd
Class	NPS	DN														
900	2"	50	50	610	613	610	215	165	124	95.25	7.92	38.5	8-φ25	126.5	105	△
	3"	80	75	660	663	660	240	190.5	156	123.83	7.92	38.5	8-φ25	150	130	△
	4"	100	100	826	829	826	290	235	181	149.23	7.92	45	8-φ32	172.5	158	△
	6"	150	150	1054	1057	1054	380	317.5	241	211.12	7.92	56	12-φ32	230	210	△
	8"	200	201	1295	1298	1295	470	393.5	308	269.88	7.92	64	12-φ39	290	255	△
	10"	250	252	1473	1476	1473	545	470	362	323.85	7.92	70	16-φ39	330	316	△
	12"	300	303	1651	1654	1651	610	533.5	419	381	7.92	79.5	20-φ39	366	351	△
	14"	350	322	1880	1889	1880	640	559	467	419.1	11.13	86	20-φ42	415	376	△
16"	400	373	1930	1940	1930	705	616	524	469.9	11.13	89	20-φ45	452	421	△	
1500	2"	50	50	610	613	610	215	165	124	95.25	7.92	38.5	8-φ25	126.5	105	△
	3"	80	75	826	829	826	285	203.2	168	136.53	7.92	48	8-φ32	166	149	△
	4"	100	100	965	968	965	310	241.3	194	161.93	7.92	54	8-φ35	219	178	△
	6"	150	144	1232	1238	1232	395	317.5	248	211.14	9.53	83	12-φ39	268	234	△
	8"	200	192	1448	1457	1448	485	393.7	318	269.88	11.13	92	12-φ45	305	270	△
	10"	250	239	1778	1787	1778	585	482.6	371	323.85	11.13	108	12-φ51	358	336	△
	12"	300	287	2083	2099	2083	675	571.5	438	381	14.27	124	16-φ54	414	395	△
	14"	350	315	2286	2305	2286	750	635	489	419.1	15.88	134	16-φ60	471	441	△
16"	400	360	2422	2445	2422	825	704.8	546	469.9	17.48	146.5	16-φ67	498	456	△	
2500	2"	50	42	762	765	762	235	171.4	133	101.6	7.92	51	8-φ29	149	123	△
	3"	80	62	1029	1153	1029	305	228.6	168	127	9.53	67	8-φ35	215	171	△
	4"	100	87	1143	1562	1143	355	273	203	157.18	11.13	76.5	8-φ42	245	206	△
	6"	150	131	1549	1559	1549	485	368.3	279	228.6	12.7	108	8-φ54	306	265	△
	8"	200	179	1880	1896	1880	550	438.2	340	279.4	14.27	127	12-φ54	361	336	△

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