

ANSI Gate, Globe, Check, Ball, Plug, Butterfly Valves

ANSI Sürgölü, Buhar, Çek, Küresel, Blöf, Kelebek Vanalar



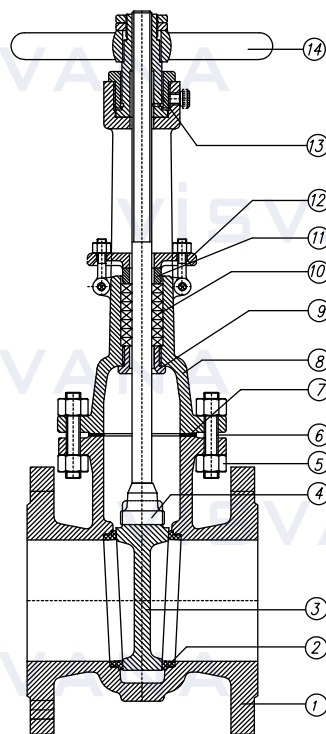
Products & Technical Data



Teknik Bilgiler

www.visvana.com

API GATE VALVE



STANDARD MATERIAL To API 600

Trim Code	Seat Ring Surface Part No.2	Wedge Surface Part No.3	Stem Part No.4	
1	F6	F6	F6	
2	F304	F304	F304	
5	Stellite	Stellite	F6	
8	Stellite	F6	F6	
9	Monel	Monel	Monel	
10	F316	F316	F316	
13	Alloy 20	Alloy 20	Alloy 2	

Note: Usually, trim2 and trim 10 are not adopted because the sealing face would be destroyed easily.

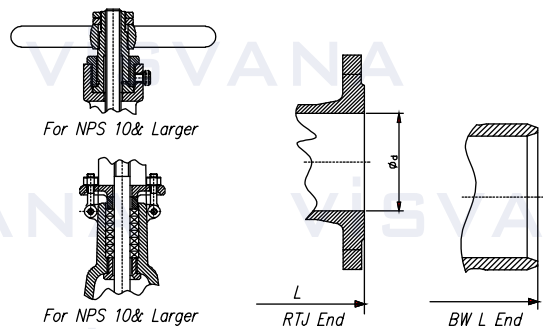
Standards

Design and Manufacture	API 600, API6D
Inspection and Test	API598, API6D, API600
End Flange dimension	ASME B16.5
End Flange dimension	ASME B16.47 A, MSS SP-44
End Flange dimension	ASME B16.47 B, API605
BW end dimension	ASME B16.25
Face to face	ASME B16.10
Pressure-temperature ratings	ASME B16.34

Standard Material specifications

Parts name		Carbon steel to ASTM		Alloy Steel to ASTM				Stainless Steel to ASTM			
1	Body	A216 WCB	A352 LCB	A217 WCI	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
8	Bonnet	A216 WCB	A352 LCB	A217 WCI	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
6	Bolts	A193 B7	A320 L7	A193 B7	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8
5	Nuts	A194 2H	A194 4	A194 2H	A194 4	A194 4	A194 4	A194 8	A194 8	A194 8	A194 8
11	Gland	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
12	Gland Flange	A216 WCB	A352 LCB	A217 WCI	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Disc	A216 WCB	A352 LCB	A217 WCI	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
7	Gasket	SS Spiral Wound W/graphite, or SS Spiral Wound W/PTFE, or Reinforced PTFE									
10	Packing	Braided graphite, or Die-formed graphite ring or PTFE									
13	Stem Nut	Copper alloy or A439 D2									
14	Hand Wheel	Ductile iron or Carbon steel									

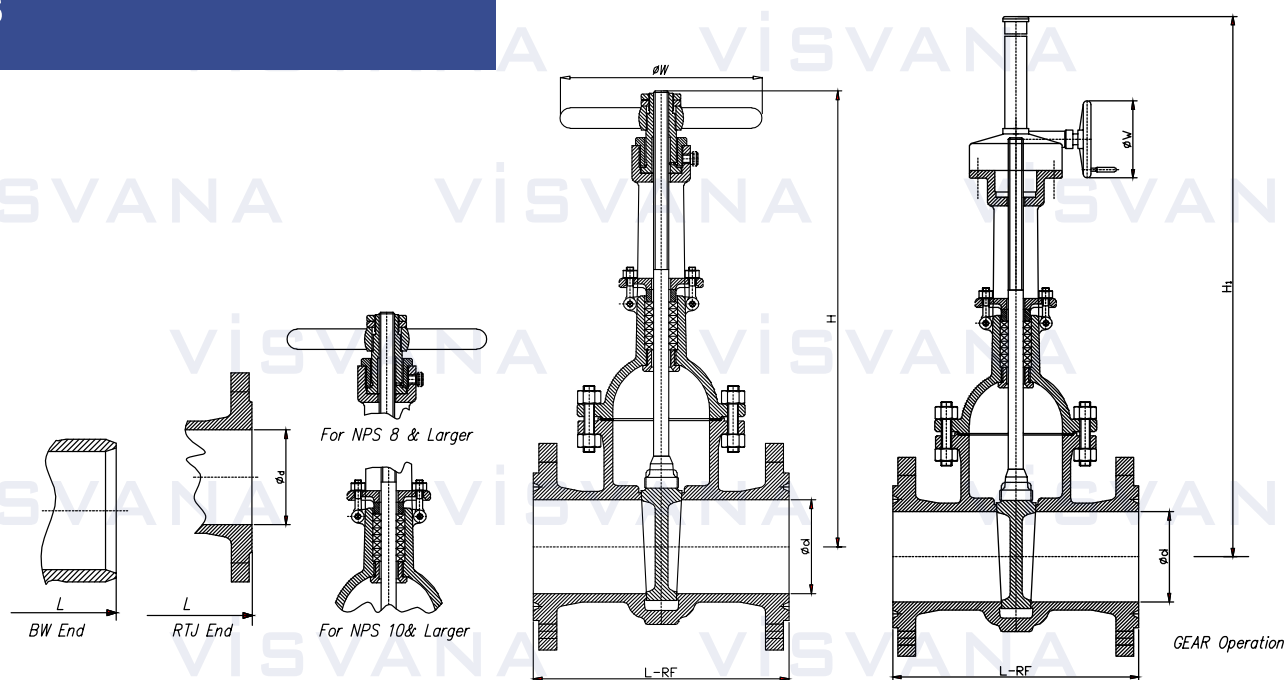
Noted: The chart above only lists out some common composition of steel gate valve parts, we may provide other different parts material composition according to the customer's request or the actual valve working condition.



Class	Size		Dimensions (mm)								Weight (Kg)	
	NPS	DN	L			d	H	H1	W	W1	H.W	G.O
			RF	RTJ	BW							
150 10K	½	15	108	119	108	14	218		120		4	
	¾	20	117	130	117	19	190		120		5	
	1	25	127	140	127	25	256		140		7	
	1 1/4	32	140	153	140	31	268		180		10	
	1 1/2	40	165	178	165	38	326		200		15	
	2	50	178	191	216	30	340		200		20	
	2 1/2	65	191	203	241	63	365		200		23	
	3	80	203	216	283	76	410		250		36	
	4	100	229	241	305	100	485		280		54	
	5	125	254	267	381	127	520		280		62	
	6	150	267	279	403	150	595	795	300	310	82	104
	8	200	292	305	419	200	755	1015	360	310	136	150
	10	250	330	343	457	250	895	1210	400	310	196	215
	12	300	356	368	502	300	1040	1405	450	460	299	315
	14	350	381	394	572	336	1145	1535	500	460	381	451
	16	400	406	419	610	387	1333	1780	500	460	536	597
	18	450	432	445	660	438	1420	1900	600	460	608	651
	20	500	457	470	711	488	1635	2220	700	530	827	863
	24	600	508	521	813	590	1862	2557	800	530	1202	1357
	26	650	559		864	633		2680		530	1281	1550
	28	700	610		914	684		2890		530		1880
	30	750	610		914	735		3110		600		2300
	32	800	711		965	779		3280		600		2550
	34	850	711		1016	830		3500		600		2950
36	900	711		1016	874		3640		600		3390	
40	1000	812.8		1067			4200		1000		4042	
48	1200	1067		1168			5020		1000		5520	

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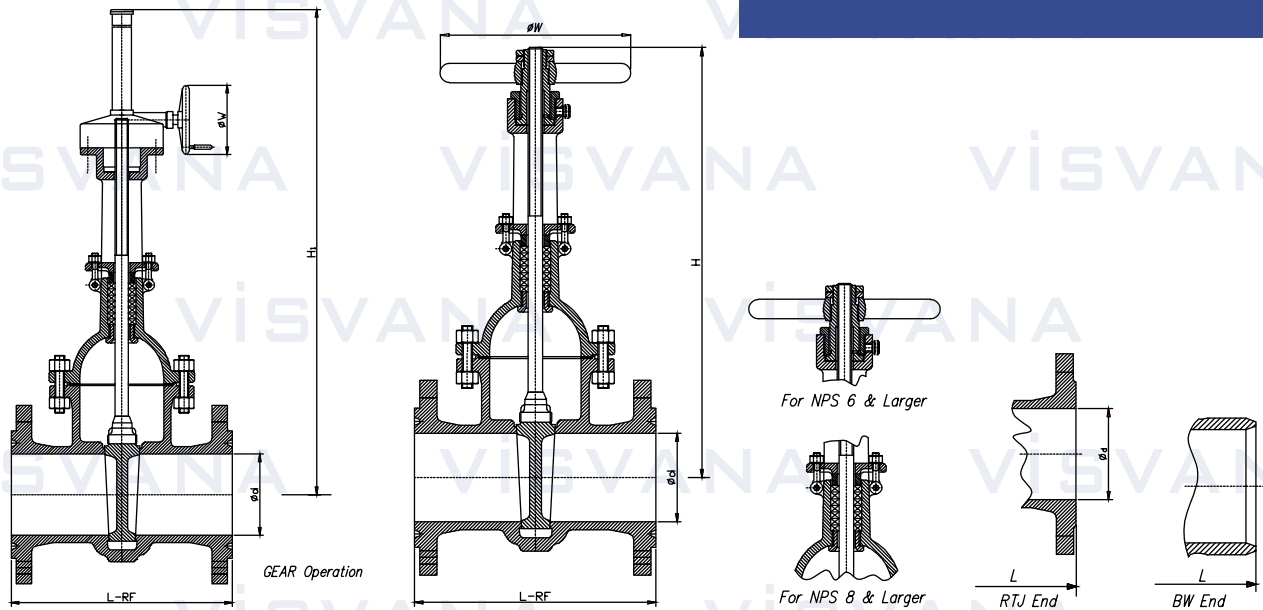
ANSI Valves



Class 300 & JIS 20K Gate Valve

Class	Size		Dimensions (mm)								Weight (Kg)	
	NPS	DN	L			d	H	H1	W	W1	H.W	G.O
			RF	RTJ	BW							
300 20K	½	15	140	151	140	14	198		120		6	
	¾	20	152	165	152	19	215		140		7	
	1	25	165	178	165	25	220		160		8,5	
	1 1/4	32	178	191	178	31	306		180		15	
	1 1/2	40	190	203	190	38	342		200		18	
	2	50	216	232	216	50	364		200		26	
	2 1/2	65	241	257	241	63	385		200		36	
	3	80	283	298	283	76	460		250		55	
	4	100	305	321	305	100	540	650	280	310	67	100
	5	125	381	397	381	127	548	750	300	310	99	126
	6	150	403	419	403	150	649	835	350	310	147	186
	8	200	419	435	419	200	798	1030	400	310	228	235
	10	250	457	473	457	250	940	1255	450	460	332	416
	12	300	502	518	502	300	1129	1460	500	460	512	502
	14	350	762	778	762	336	1195	1585	600	460	715	756
	16	400	838	854	838	387	1340	1830	500	460	850	965
	18	450	914	930	914	431	1503	2000	650	460	1100	1224
	20	500	991	1010	991	482	1625	2175	750	530	1300	1400
	24	600	1143	1165	1143	584	1965	2620	900	530	2200	2385
	26	650	1245	1270	1245	633		2850		600		3000
	28	700	1346	1372	1346	684		3080		600		3300
	30	750	1397	1422	1397	735		3180		600		3550
	32	800	1524	1553	1524	779		3300		600		4400
	34	850	1626	1654	1626	830		3550		600		5200
	36	900	1727	1756	1727	874		3760		600		6050
	40	1000	1956					4340		1000		8100

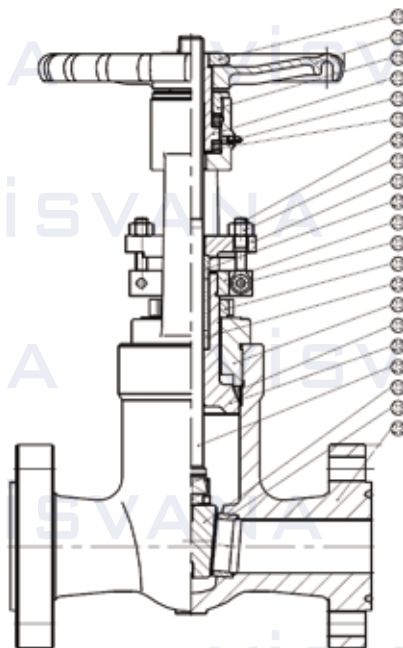
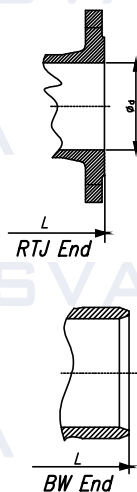
Noted: We may provide other different actuators according to the customer's request, such as pneumatisch, electric, hydraulic actuators, the details of them according to the actual valve working condition.



Class 600 & Class 900 Gate Valve

Class	Size		Dimensions (mm)								Weight (Kg)	
	NPS	DN	L			d	H	H1	W	W1	H.W	G.O
			RF	RTJ	BW							
600	2	50	292	295	292	50	380		200		37	
	2 1/2	65	330	333	330	63	420		250		50	
	3	80	356	359	356	76	500	585	280	310	82	87
	4	100	432	435	432	100	575	695	300	310	142	134
	5	125	508	511	508	127	700	790	350	310	175	227
	6	150	559	562	559	150	750	900	450	460	245	286
	8	200	660	664	660	199	850	1110	500	460	423	472
	10	250	787	791	787	247	1005	1300	650	460	682	657
	12	300	838	841	838	298	1130	1650	700	460	932	893
	14	350	889	892	889	326	1270	1750	900	530	1177	1318
	16	400	991	994	991	374	1365	1900	900	530	1513	1720
	18	450	1092	1095	1092	419		2020		600		1980
	20	500	1194	1200	1194	463		2172		600		2460
	24	600	1397	1407	1397	558		2650		600		3650
900	2	50	368	371	368	47	500		280		70	
	2 1/2	65	419	422	419	57	450		280		110	
	3	80	381	384	381	72	505		300	310	140	167
	4	100	457	460	457	98	575	625	350	310	178	227
	5	125	559	562	559	125	630	740	400	310	258	285
	6	150	610	613	610	146	795	900	500	460	358	396
	8	200	737	740	737	190	885	1000	650	460	550	627
	10	250	838	841	838	238	1035	1130	700	530	1000	1100
	12	300	965	968	965	282	1180	1520	900	530	1215	1310
	14	350	1029	1038	1029	311	1350	1600	900	530	1600	1665
	16	400	1130	1140	1130	355	1890	2100	900	600	2150	2330
	18	450	1219			400		2232		800		3000
	20	500	1321			444		2435		800		3800

Noted: We may provide other different actuators according to the customer's request, such as pneumatch, electric, hydraulic actuators, the details of them according to the actual valve working condition.



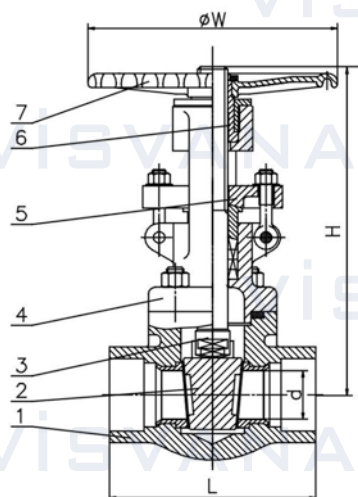
Class 1500 & Class 2500 Gate Valve

Class	Size		Dimensions (mm)									Weight (Kg)	
	NPS	DN	L				d	H	H1	W	W1	H.W	G.O
			RF	RTJ	BW (BB)	BW (PSB)							
1500	2	50	368	371	368	216	47	430		280		70	
	2 1/2	65	419	422	419	254	57	490		300		110	
	3	80	470	473	470	305	69	540	680	350	310	175	202
	4	100	546	549	546	406	92	650	810	400	310	270	300
	5	125	673	676	673	483	125	780	920	450	310	378	405
	6	150	705	711	705	559	136	835	1035	500	460	520	575
	8	200	832	841	832	711	177	925	1180	750	530	820	915
	10	250	991	1000	991	864	222	1230	1525	900	600	1560	1750
	12	300	1130	1146	1130	991	263		1620		600		2120
	14	350	1257	1276	1257	1067	288		1905		600		3306
2500	16	400	1384	1407	1384	1194	330		2050		600		3450
	2	50	451	454	451	279	38	490	580	280	310	100	130
	2 1/2	65	508	514	508	330	47	580	630	300	310	150	180
	3	80	578	584	578	368	57	630	765	350	310	245	275
	4	100	673	683	673	457	72	725	850	400	310	390	420
	5	125	794	807	794	533	96	900	960	500	460	550	580
	6	150	914	927	914	610	111	1040	1100	600	530	780	835
	8	200	1022	1038	1022	762	146	1150	1150	750	460	1260	1355
	10	250	1270	1292	1270	914	184	1400	1460	900	600	2380	2565
	12	300	1422	1445	1422	1041	218		1660		600		3250

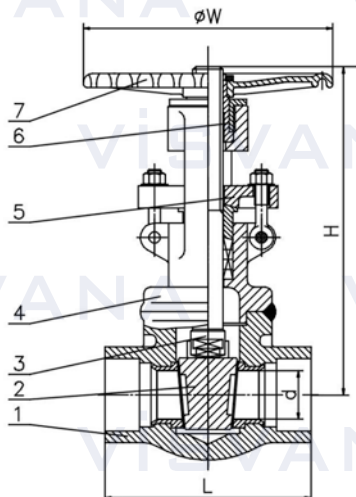
Noted: We may provide other different actuators according to the customer's request, such as pneumatisch, electric, hydraulic actuators, the details of them according to the actual valve working condition.

API FORGED STEEL GATE VALVE

VYDC 800 / VYDC 900
VYDC 1500 / VYDC 2500



Bolted Bonnet
Socket-Welding End



Welded Bonnet
Socket-Welding End



Standards

Design and Manufacture	API 602	Part Name			Material	
Inspection and Test	API 598	1	Body	ASTM A105	ASTM A182F304	ASTM A182F316
Socket-weld dimension	ASME B16.11	2	Disc	ASTM A105	ASTM A182F304	ASTM A182F316
End threads dimension	ASME B1.20.1	3	Stem	ASTM A182F6	ASTM A182F304	ASTM A182F316
Pressure-temperature ratings	ASME B16.34	4	Bonnet	ASTM A105	ASTM A182F304	ASTM A182F316
		5	Gland Flange	ASTM A105	ASTM A182F304	ASTM A182F316
		6	Stem Nut	ASTM A276410		
		7	Handwheel	ASTM A197		

Class 150 & Class 1500 Forged steel Gate Valve

Class	Size		Dimensions (mm)				NPT	Weight (Kg)
	NPS	DN	L	d	H	W		
150 - 800	1/2"	15	79	13	153	100	1/2"	2.0
	3/4"	20	92	13	153	100	3/4"	2,2
	1"	25	111	18	185	125	1"	3,6
	1 1/4"	32	120	29	222	160	1 1/4"	6,2
	1 1/2"	40	120	29	240	160	1 1/2"	6,2
	2"	50	140	36,5	279	180	2"	9,7
900 - 1500	1/2"	15	92	13	181	125	1/2"	3,5
	3/4"	20	111	13	181	125	3/4"	4.0
	1"	25	120	18	218	160	1"	6.0
	1 1/4"	32	120	24	237	160	1 1/4"	7.0
	1 1/2"	40	140	29	274	180	1 1/2"	10,8
	2"	50	160	36,8	319	200	2"	15,5
2500	1/2"	15	150	14	284	160	1/2"	10.0
	3/4"	20	150	14	284	160	3/4"	12,8
	1"	25	170	19	327	200	1"	22,5
	1 1/4"	32	200	25	374	250	1 1/4"	31,7
	1 1/2"	40	200	28	377	250	1 1/2"	33.0
	2"	50	250	35	434	300	2"	38.0



Forged Steel
Ball Valve



Forged Steel
Ball Valve



Floating
Ball Valve

STEEL BALL VALVE

Ball valve is suitable for using on various kinds of pipelines of class 150 to class 2500 to turn on or off the pipeline medium. Our steel valves have two types: floating ball valve and trunnion ball valve, floating ball valve usually class 150lb-600lb, size 1/2-8", the operation types include worm gear, manual, pneumatic or electric actuators.

BALL VALVE DESIGN CONSTRUCTION AND SPECIFICATIONS

Our cast steel ball valve conforms to API 608, API 16D, ANSI B16.34 AND BS5351. Each is tested according to API 1598, API 16D and marking is per MSS-SP-25.

CONSTRUCTION AS FOLLOWS

Full bore/reduced bore
Turn 90 degree opening or close
Detachable seat PTFE/RPTFE

Reliable seat seal
Fire safe design
Reliable stem seal
Anti-static device
Wrong operation prevention

STANDARDS AND SPECIFICATION

Design & manufacture: API 6D, API 608, ASME B16.34, ANSI AWWA C507 MSS SP-72 AWWAC507, MSS SP-72, BS 5351, BS6364 BFCI 70-2, ISO 5211, NACE MR0175.
Connection ends: ASME B16.5, ASME B16.47, API 605, MSS SP-44, ISO 7005-1, JIS B2238, BS12627, ASME B16.11, BS 1276
Face to face dimension: ASME B16.10, ISO 5752, BS 558, BS 12982
Testing & inspection: API 1598, API 6D, API 607, API 6FA, BS 6755, BS 12569, MSS SP-82, MSS SP-60
Normal pressure or rating: Class 150~Class 2500, JIS 10K~20K, PN10~PN420
Normal diameter or bore: NPS 1/2~NPS 10, DN15~DN250
Applicable temperature: -196°C - 540°C
Operation type: Manual, worm gear, pneumatic, electric

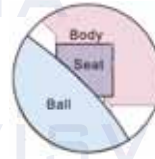
Construction and features of floating ball valve

RELIABLE SEAT SEAL

The structure desing of elastic sealing ring has been adopted for floating ball valves. When the pressure of medium is low, the contact area between valve seat insert and ball is relatively small, thus providing high sealing load to ansure dependable seating seal. When the pressure of medium is high, the contact area between valve seat insert and ball is relatively large, so that valve seat insert can endure the considerable medium thrust and without any damage.



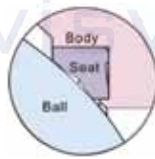
At lower medium pressure



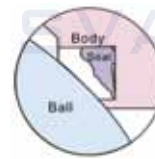
At higher medium pressure

FIRE SAFE DESING

In case of fire, the non-metal material parts such as seat sealing ring of PTFE, stem back seat gasket, gland packing and the sealing gasket between body and bonnet might be damaged due to the high temperature. As show in the figure, our specially designed structure of secondary metal seal is provided to effectively prevent both internal and external leakage of the valve. This desing can meet requirement of AP1607.



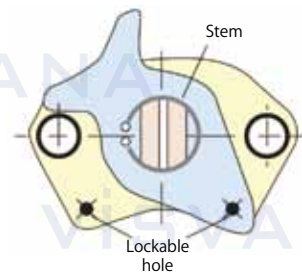
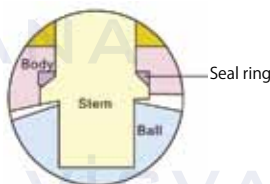
Before fire



After fire

ANTI BLOWOUT STEM

The Anti-blowout desing has been adopted fort he stem to ensure that even if the pressure in the body cavity risen accidentally and the packing flange becomes invalid, the stem may not be blown out by medium. To prevent these possibilities, the stem is designed with a backseat, being assembled from underneath. The sealing force against the back seats higher as the medium pressure becomes higher. So the stem can be assured under variable medium pressure.

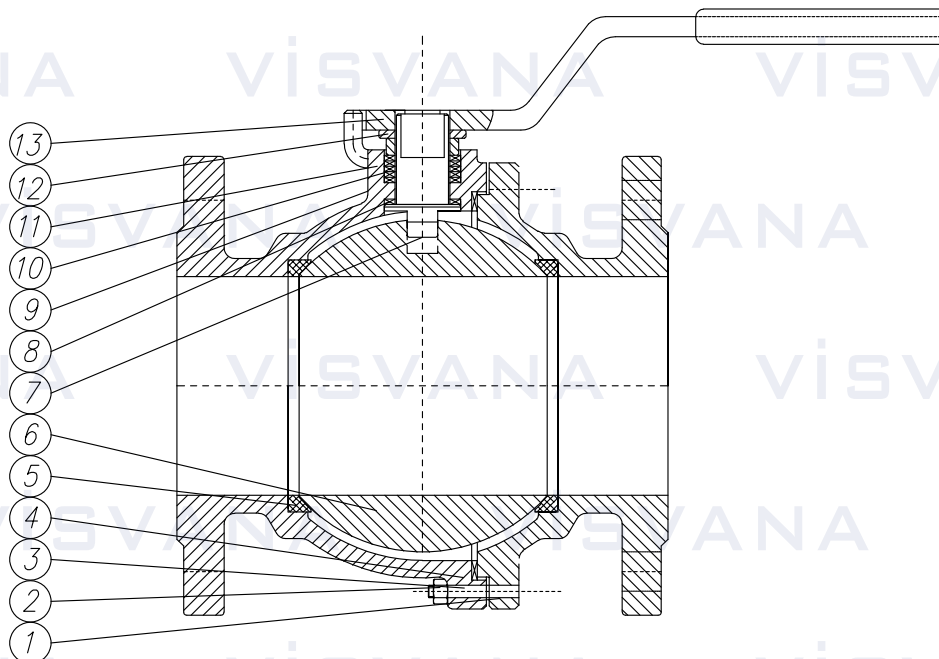


WRONG OPERATION PREVENTION

To prevent the ball valve from wrong operation. The fully opened or closed position of valve can be locked up, especially when are mounted outdoors or when valves are not allowed to be opened or closed by technical process.

ANTI STATIC DEVICE

As required by customers, an anti static device can be placed on the valve to derive the electic charge is accumulated on the ball from the static channel between the ball and stem, or between the stem and valve body.



Floating ball valve

Bolted bonnet, Two-pieces Body, floating Ball
Full or Reduced bore, Anti Blowout stem.
Fire safe and Anti Static.
Stainless steel ball
ASTM A216 WCB, A351 CF8, A351 CF8M,
A351 CF3, A351 CF3M, A351 CN7M

Standards compliance

Design and Manufacture: API 608, API6D, BS5351
Face to face(end to end):ANSI B 16.10, API6D, JIS B 2002
Flanged connection: ANSI B16.5, JISB2212-2214
Fire-safe:API607, API6 FA
Butt welded end:ANSI B16.25
Test and inspection:API598, API6D, JIS B2003

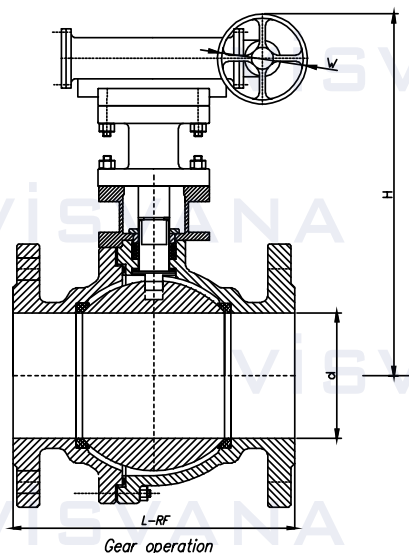
Parts and material list

Parts No	Parts Name	Material				
		WCB/13Cr	WCB/304	WCB/316	WCB/304	CF8M/316
1	Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
10	Packing	PTFE	PTFE	PTFE	PTFE	PTFE
11	Gland flange	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
12	Stop collar	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
13	Lever	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
8	Thrust washer	PTFE	PTFE	PTFE	PTFE	PTFE
7	Stem	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
6	Ball	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
5	Seat	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE
9	Gasket	PTFE	PTFE	PTFE	PTFE	PTFE
2	Body nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8M
3	Body bolting	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8M
4	Closure	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M

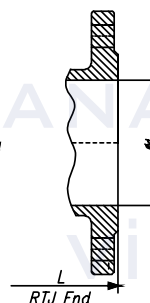
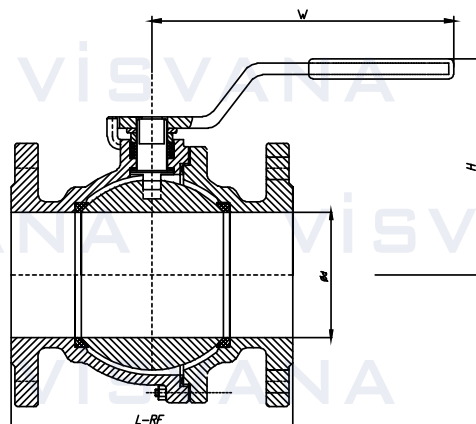
Noted: the chart above only lists out some common composition of steel ball valve parts, we may provide other different parts material composition according to the customer's request or the actual valve working condition.

API FLOATING BALL VALVE

VFTBV-C150 / VFTBV-C300
VFTBV-C600 / VFTBV-C900
VFTBV-C1500



Gear operation



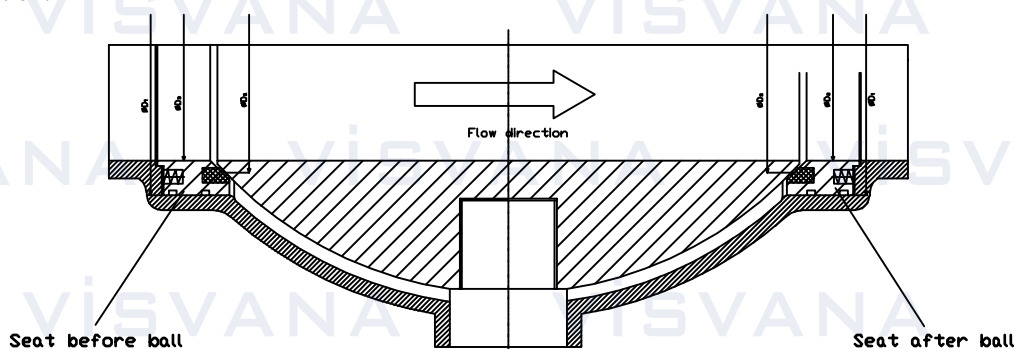
Main size and weight

Class	Size		Dimensions (mm)								Weight (Kg)	
	DN	NPS	L			Hand wheel	Gear box	Hand wheel	Gear box	Hand wheel	Gear box	
			d	RF	RTJ							
150 10K	15	½	13	108	119	140		85		3		
	20	¾	19	117	130	140		90		3,2		
	25	1	25	127	140	150		99		3,5		
	32	1 1/4	32	140	153	180		105		5		
	40	1 1/2	38	165	178	300		165		6		
	50	2	49	178	191	350		140		11		
	65	2 1/2	62	190	203	350		180		13,5		
	80	3	75	203	216	500		235		19		
	100	4	100	229	242	500	305	250	380	29	53	
	125	5	127	356	369	800	305	280	405	49	79	
	150	6	150	394	407	800	305	310	460	65	102	
300 20K	200	8	201	457	470	1000	305	350	550	115	185	
	250	10	252	533	546		400		706		280	
	15	½	13	140	151	140		85		3		
	20	¾	19	152	165	140		90		5		
	25	1	25	165	178	150		99		6		
	32	1 1/4	32	178	191	180		105		8		
	40	1 1/2	38	190	203	200		126		11		
	50	2	49	216	232	250		142		16		
	65	2 1/2	62	241	257	300		165		23		
	80	3	74	283	299	350		178		30	52	
600	100	4	100	305	321	500	305	230	330	47	76	
	125	5	127	381	397	800	305	280	380	74	124	
	150	6	150	403	419	800	305	310	420	107	163	
	200	8	201	502	518	1000	305	350	480	153	267	
	15	½	13	165	164	140		79	560	5		
	20	¾	19	190	190	140		83		7		
	25	1	25	216	216	200		114		9		
	32	1 1/4	32	229	229	200		120		13		
	40	1 1/2	38	241	241	250		125		17		
	50	2	49	292	295	300		156		25		
900	65	2 1/2	62	330	333	350		172		42		
	80	3	74	356	359	500	305	220	370	56	76	
	100	4	100	432	435	650	305	250	400	85	123	
	15	½	13	216	216	150		98		9		
	20	¾	19	229	229	150		105		13		
	25	1	25	254	254	200		110		16		
1500	32	1 1/4	32	279	279	250		120		24		
	40	1 1/2	38	305	305	250		125		31		
	50	2	49	368	371	350		160		45		
	15	½	13	216	216	182		98		10		
	20	¾	19	229	229	250		125		14		
	25	1	25	254	254	250		130		17		
	32	1 1/4	32	279	279	300		155		25		
	40	1 1/2	38	305	305	350		180		33		
	50	2	49	368	371	450		225		48		

Noted: We may provide other different actuators according to the customer's request, such as pneumatisch, electric, hydraulic actuators, the details of them according to the actual valve working condition.

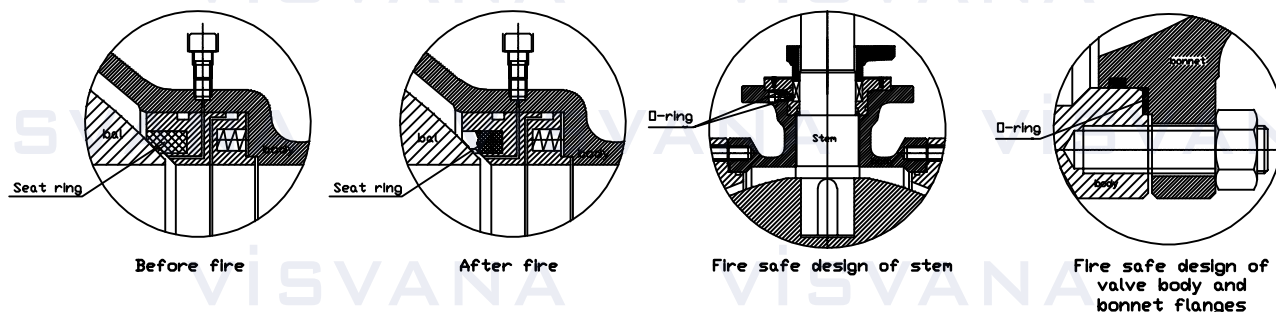
Seating structure

According to some special working conditions and customer's requirement, we provide the trunnion ball valve with the Bi-sealing design structure i.e. Seat sealing in front of the ball and seat sealing behind the ball, thus the reliable sealing of the valve is ensured because the valve can perform normally even if one of the effective sealing designs becomes lost due to the abnormal condition.



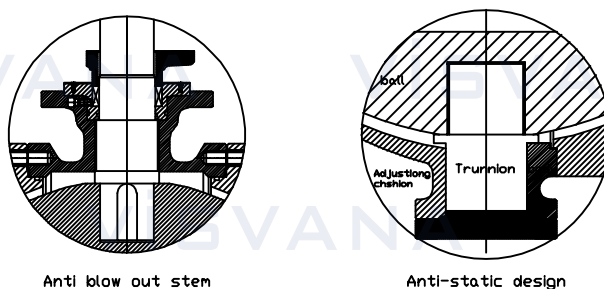
Fire safe design

In case of fire, the non-metal material parts such as seat sealing ring of PTFE, o-ring for the stem, and sealing gasket for body and bonnet, might be damaged due to high temperature. As showed in the figure, our special design structure of secondary metal to metal or the graphite seal is provided for the trunnion ball valve to effectively prevent both internal and external leakage of the valve. This design can meet the requirement of API 1607



Anti blowout stem

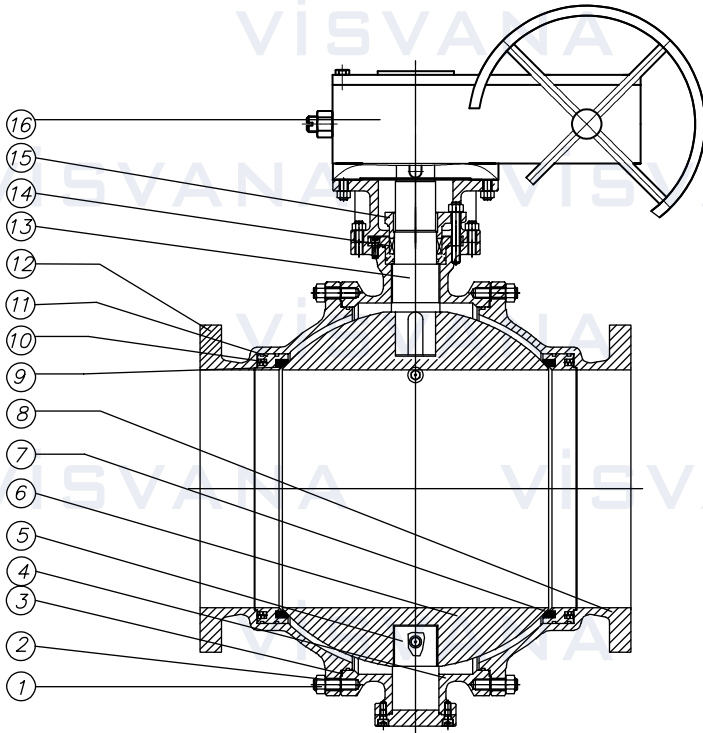
Anti blowout structure is provided with for the stem, which is positioned by the up-end cap and screw, being guaranteed not to be blown-out by the medium even if even if at abnormal risen pressure in the cavity.



Anti-static design

the ball of the trunnion ball valve gets closed with each other trough trunnion, adjusting cushion, and down-end cap, the passage of static electricity thus forms together with the valve, which may lead the static electricity caused by sparks generated by friction between the ball and seat during on and off performance to the ground to prevent the possible of fire or explosion.

API TRUNNION BALL VALVE



Class 150-1500 cast steel Trunnion ball valve

Bolted cover, Two-piece or three-piece Body,
Anti Blowout stem.
Fire safe and Anti static
ASTM A216 WCB, A351 CF8, A351 CF8M,
A351 CF3, A351 CF3M, A351 CN7M

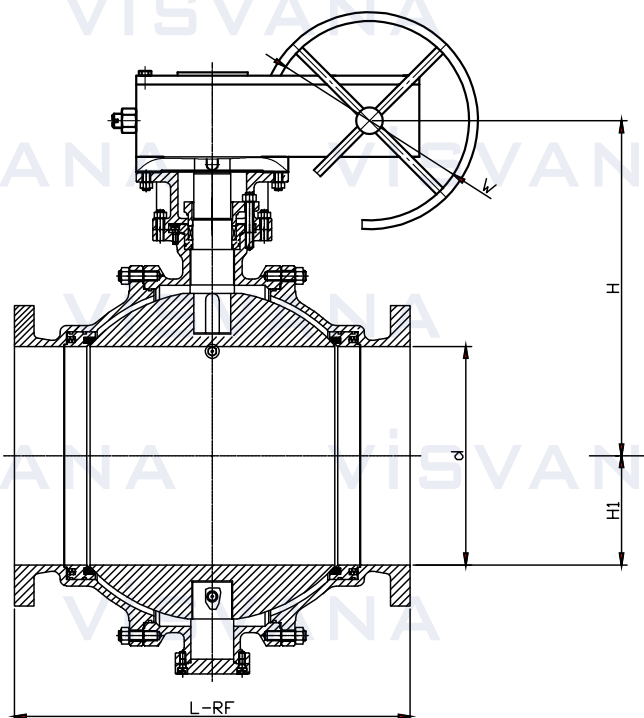
Standarts compliance

Design and Manufacture : API 6D, API 608
Face to face (end to end) : API 6D
Flanged connection : ANSIB16.5
Fire-safe : AP1607, API6FA
Butt welded and : ANSIB16.25
Test and inspection : API6D, API598

Parts and material list

Parts No	Parts Name	Material				
		WCB/13Cr	WCB/304	WCB/316	CF8/304	CF8M/316
4	Body	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
10	O ring	Viton	Viton	Viton	Viton	Viton
13	Stem	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
15	Gland	ASTM A105	ASTM A105	ASTM A105	ASTM A182 F304	ASTM A182 F316
16	Gear	Carbon Steel/Gray Iron	Carbon Steel/Gray Iron	Carbon Steel/Gray Iron	Carbon Steel/Gray Iron	Carbon Steel/Gray Iron
6	Ball	ASTM A182 F6a	ASTM A182 F304	ASTM A182 F316	ASTM A182 F304	ASTM A182 F316
9	Seat	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE	Reinforced PTFE
14	O ring	Viton	Viton	Viton	Viton	Viton
7	Seat ring	ASTM A105	ASTM A105	ASTM A105	ASTM A182 F304	ASTM A182 F316
11	Spring	SS304 or inconel 750	SS304 or inconel 750	SS316 or inconel 750	SS304 or inconel 750	SS316 or inconel 750
1	Body bolting	ASTM A193 B7	ASTM A193 B7	ASTM A193 B7	ASTM A193 B8	ASTM A193 B8
2	Body nut	ASTM A194 2H	ASTM A194 2H	ASTM A194 2H	ASTM A194 8	ASTM A194 8
8	Cover	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
3	Gasket	PTFE	PTFE	PTFE	PTFE	PTFE
5	Low trunnion	ASTM A105	ASTM A105	ASTM A105	ASTM A182 F304	ASTM A182 F316
12	Cover	ASTM A216 WCB	ASTM A216 WCB	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M

Noted: the chart above only lists out some common composition of steel ball valve parts, we may provide other different parts material composition according to the customer's request or the actual valve working condition.



API Trunnion Ball Valve

Class	Size		Dimensions (mm)						Weight (Kg)
	DN	NPS	L		d	H	H1	W	
			RF	BW					
150 10k	100	4	229	305	100	250	135	300	60
	125	5	356	381	127	260	165	300	80
	150	6	394	457	150	285	193	400	101
	200	8	457	521	201	325	240	400	166
	250	10	533	559	252	370	293	500	283
	300	12	610	635	303	415	340	500	463
	350	14	686	762	334	455	372	600	622
	400	16	762	838	385	500	415	600	900
	450	18	864	914	436	540	462	600	1150
	500	20	914	991	487	590	511	600	1360
	600	24	1067	1143	589	680	601	600	2514
	650	26	1143	1245	633	800	700	600	3200
	700	28	1245	1346	684	960	780	700	4000
	750	30	1295	1397	735	1200	830	700	4800
300 20k	800	32	1372	1524	779	1380	870	700	5800
	900	36	1524	1727	874	1650	970	700	8000
	100	4	305	305	100	205	140	300	70
	125	5	381	381	127	260	170	300	95
	150	6	403	457	150	285	192	400	128
	200	8	502	521	201	325	246	400	234
	250	10	568	559	252	370	303	500	403
	300	12	648	635	303	415	348	500	602
	350	14	762	762	334	455	378	600	803
	400	16	838	838	385	500	429	600	1273
	450	18	914	914	436	540	518	600	1450
	500	20	991	991	487	590	540	600	1700
	600	24	1143	1143	589	690	650	600	3100
	650	26	1245	1245	633	800	750	700	4500
700	28	1346	1346	684	960	800	700	6000	
750	30	1397	1397	735	1200	860	700	7500	
800	32	1524	1524	779	1380	900	800	9000	
900	36	1727	1727	874	1650	1020	800	12000	

Noted: We may provide other different actuators according to the customer's request, such as pneumatic, electric, hydraulic actuators, the details of them according to the actual valve working condition.



API Trunnion Ball Valve

Class	Size		Dimensions (mm)							Weight (Kg)
	DN	NPS	L			d	H	H1	W	
			RF	RTJ	BW					
600	50	2	292	295	292	49	140	94	300	32
	65	2 1/2	330	333	330	62	155	115	300	47
	80	3	356	359	356	74	190	136	300	68
	100	4	432	435	432	100	220	152	300	106
	125	5	508	511	508	127	245	180	300	170
	150	6	559	562	559	150	300	209	400	241
	200	8	660	664	660	201	345	263	600	444
	250	10	787	791	787	252	405	312	600	668
	300	12	838	841	838	303	445	354	600	1050
	350	14	889	892	889	334	505	389	600	1317
	400	16	991	994	991	385	580	440	700	1800
	450	18	1092	1095	1092	436	700	530	700	2400
900	500	20	1194	1200	1194	487	890	560	700	3000
	600	24	1397	1407	1397	538	1050	670	800	5400
	50	2	368	371	368	49	170	98	300	45
	65	2 1/2	419	422	419	62	195	120	300	55
	80	3	381	384	381	74	220	140	350	94
	100	4	457	460	457	100	245	162	350	141
	125	5	559	562	559	127	305	188	400	230
	150	6	610	613	610	150	335	213	400	325
	200	8	737	740	737	201	370	270	600	580
	250	10	838	841	838	252	475	322	600	850
	300	12	965	968	965	303	590	360	700	1330
	350	14	1029	1038	1029	322	700	400	700	1660
1500	400	16	1130	1140	1130	372	850	460	800	2280
	40	1 1/2	305	305	305	38	280	100	300	44
	50	2	368	371	368	49	320	113	300	67
	65	2 1/2	419	422	419	64	340	125	300	80
	80	3	470	473	470	74	385	138	300	130
	100	4	546	549	546	100	415	171	300	192
	125	5	673	676	673	125	480	200	400	335
	150	6	705	711	705	144	580	222	400	475
	200	8	832	841	832	192	584	280	400	820
	250	10	991	1000	991	239	650	340	500	1320
	300	12	1130	1146	1130	287	700	370	600	2050
	2500	40	1 1/2	384	387	384	38	290	105	300
50		2	451	454	451	42	320	120	300	104
65		2 1/2	508	514	508	52	350	130	300	140
80		3	578	584	578	62	400	150	300	202
100		4	673	683	673	87	425	180	400	305
125		5	794	807	794	100	500	210	400	530
150		6	914	927	914	131	590	230	500	760
200		8	1022	1038	1022	179	610	290	500	1200
250	10	1270	1292	1270	223	660	350	600	2080	



THE FEATURES OF GLOBE VALVE

Bolted bonnet: outside screw and yoke: rising stem: metallic seating surfaces.

BODY AND BONNET CONNECTION

The body and bonnet of class 150~class900 globe valves are usually with studs and nuts. And the body and bonnet of class 1500~class2500 globe valve are usually of pressure seal design.

GASKET OF COVER FLANGE

Stainless steel+flexible graphite wounded gasket is used for class 150 and class 300 globe valve. Stainless steel+flexible graphite wounded gasket is used for class 600, and ring joint gasket is also optional for class 600. Ring joint gasket is used for class900 globe valve. Pressure seal design is used for class 1500~class2500 globe valve.

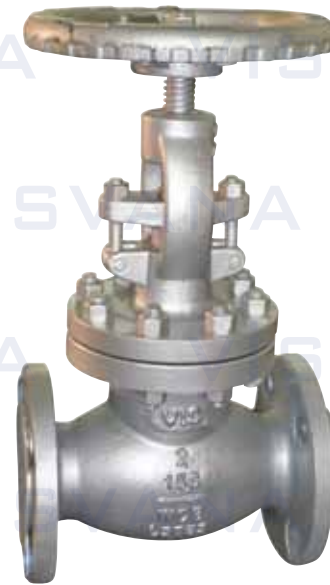
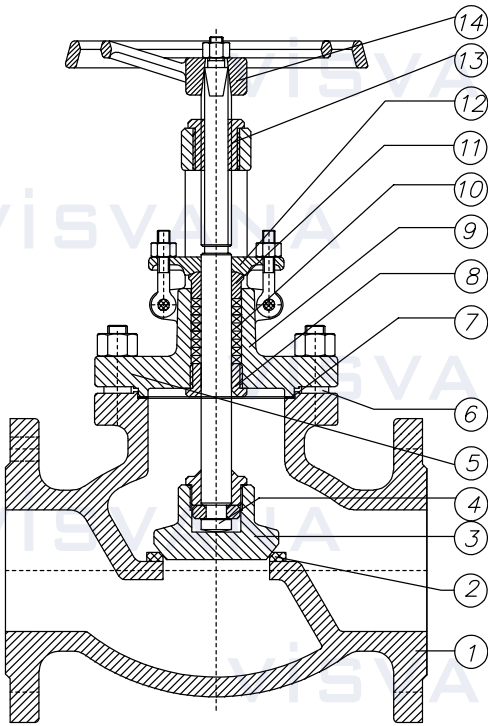
ACTUATION

Handwheel and gear box is usually used for globe valve actuation. Chain Wheel and electric actuator can be also used for globe valve actuation if being requested by the customers.

SEAT

For carbon steel globe valve, the seat is usually forged steel. The sealing surface of the seat is spray welded, with hard alloy specified by the customer. The seat has two types: welded on seat and integral seal, for stainless globe valve, integral seat is usually adopted, or to weld hard alloy directly integrally. If the customer has any other request about the seat, please kindly advise before placing the order.

API GLOBE VALVE



STANDARD MATERIAL TO API600

Trim Code	Seat Ring Surface Part No.2	Wedge Surface Part No.3	Stem Part No.4	Backseat Part No.8
1	F6	F6	F6	F6
2	F304	F304	F304	F304
5	Stellite	Stellite	F6	F6
8	Stellite	F6	F6	F6
9	Monel	Monel	Monel	Monel
10	F316	F316	F316	F316
13	Alloy 20	Alloy 20	Alloy 2	Alloy 20

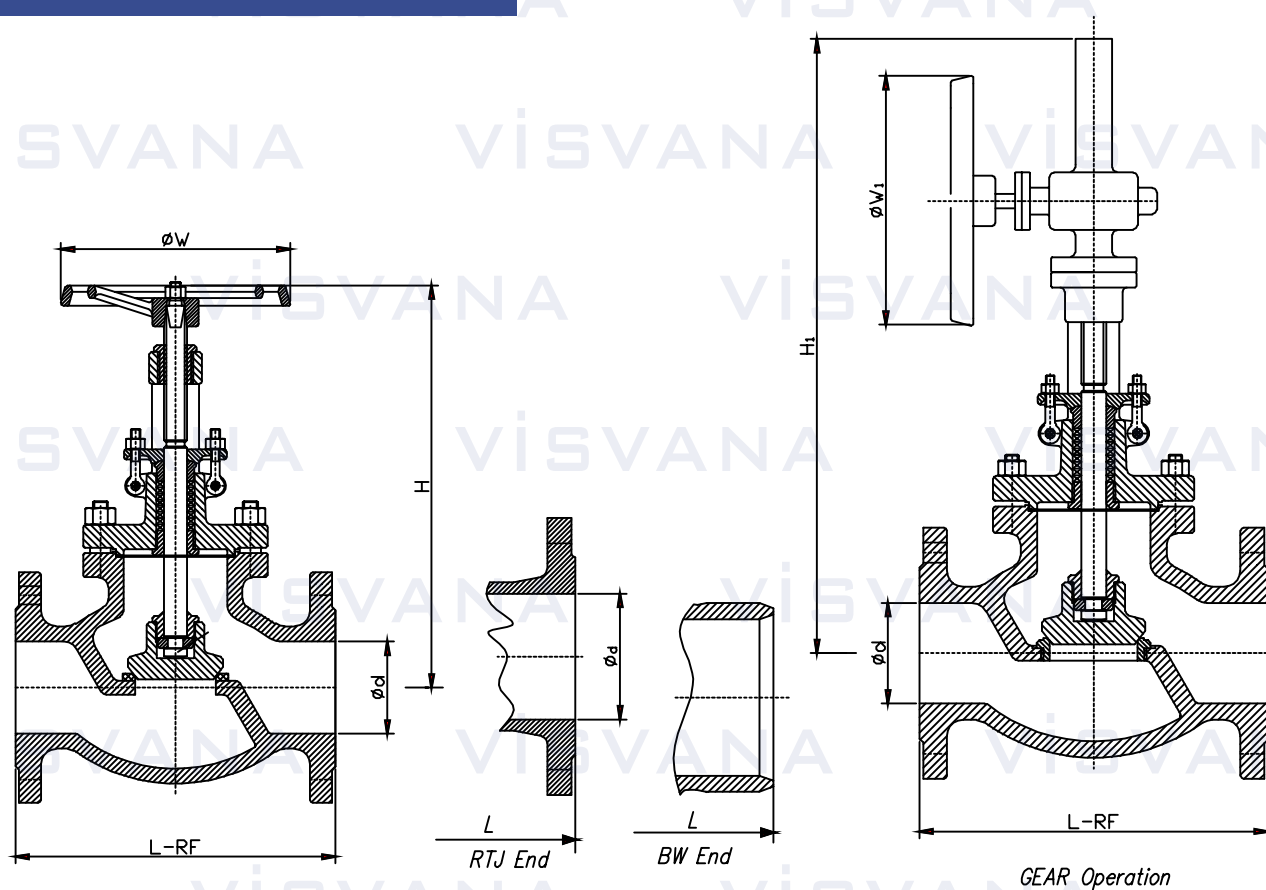
Standards

Design and Manufacture	BS 1873 and ASME B16.34
Inspection and Test	API598
End Flange dimension	ASME B16.5
BW end dimension	ASME B16.25
Socket-weld dimension	ASME B16.11
Face to face	ASME B16.10
Pressure-temperature ratings	ASME B16.34

Part and material list

Parts name		Carbon steel to ASTM		Alloy Steel to ASTM				Stainless Steel to ASTM			
1	Body	A216WCB	A352LCB	A217WC1	A217WC6	A217WC9	A217WC5	A351CF8	A351CF8M	A351CF3	A351CF3M
9	Bonnet	A216WCB	A352LCB	A217WC1	A217WC6	A217WC9	A217WC5	A351CF8	A351CF8M	A351CF3	A351CF3M
6	Bolt	A193 B7	A320 L7	A193 B7	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8
5	Nut	A194 2H	A194 2H	A194 2H	A194 4	A194 4	A194 4	A194 8	A194 8	A194 8	A194 8
11	Gland	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	304	316	304L	316L
12	Gland Flange	A216WCB	A352LCB	A217WC1	A217WC6	A217WC9	A217WC5	A351CF8	A351CF8M	A351CF3	A351CF3M
3	Disc	A216WCB	A352LCB	A217WC1	A217WC6	A217WC9	A217WC5	A351CF8	A351CF8M	A351CF3	A351CF3M
7	Gasket	SS Spiral Wound W/graphite or SS Spiral Wound W/PTFE, or Reinforced PTFE									
10	Packing	Braided graphite or Die-formed graphite ring or PTFE									
13	Stem Nut	Copper alloy or A439 D2									
14	Hand Wheel	Ductile iron or Carbon steel									

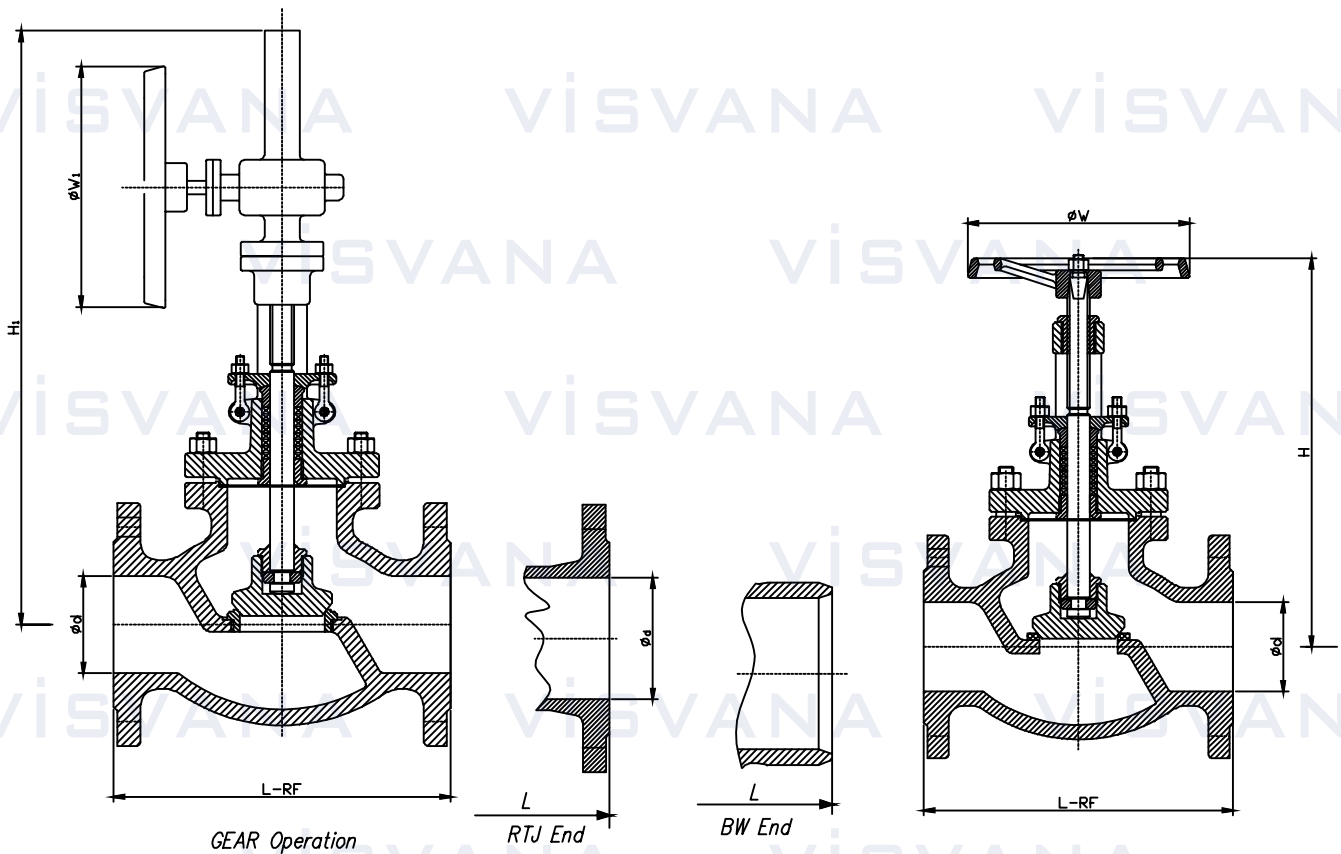
Noted: The chart above only lists out some common composition of steel globe valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.



Class 150 & JIS 10K Gate Valve

Class	Size		Dimensions (mm)								Weight (Kg)	
	NPS	DN	L			d	H	H1	W	W1	H.W	G.O
			RF	RTJ	BW							
150	1/2	15	108	119	108	13	185		100		4	
	3/4	20	117	130	117	19	190		100		4.5	
	1	25	127	140	127	25	211		100		5.5	
	1 1/4	32	140	152	140	32	220		135		8.5	
	1 1/2	40	165	178	165	38	240		135		12	
	2	50	203	216	203	51	328		200		18	
	2 1/2	65	216	229	216	64	360		250		26	
	3	80	241	254	241	76	373		280		43	
	4	100	292	305	292	102	400		300		54	
	5	125	356	369	356	127	435		350		71	
	6	150	406	419	406	152	528	556	350	310	95	114
	8	200	495	508	495	203	680	658	400	310	160	158
	10	250	622	635	622	254	775	805	450	460	299	259
	12	300	698	711	698	305	880	955	500	460	373	378
	14"	350	787	800	787	337		1100		460		640
	16"	400	914	927	914	387		1175		460		920
	20"	500	978	991	978	488		1450		600		1650
	24"	600	1295	1308	1295	590		1690		600		2200

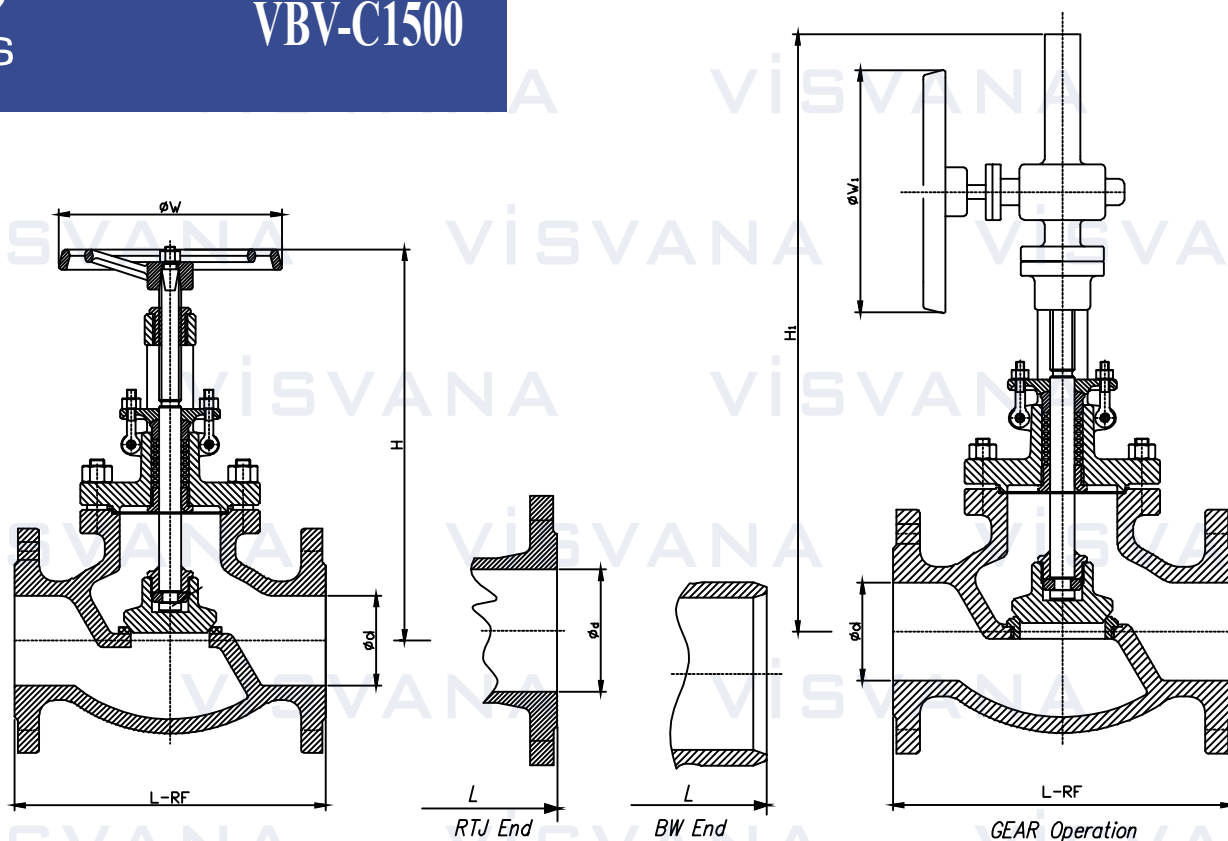
Noted: We may provide other different actuators according to the customer's request, such as pneumatisch, electric, hydraulic actuators, the details of them according to the actual valve working condition.



Class 300 & JIS 20K Cast Steel Globe Valve

Class	Size		Dimensions (mm)								Weight (Kg)	
	NPS	DN	L			d	H	H1	W	W1	H.W	G.O
			RF	RTJ	BW							
300	1/2	15	152	164	152	13	184		120		5	
	3/4	20	178	191	178	19	226		160		6.5	
	1	25	203	216	203	25	233		160		9	
	1 1/4	32	216	229	216	32	253		160		12	
	1 1/2	40	229	241	229	38	273		160		16	
	2	50	267	283	267	51	346		200		29	
	2 1/2	65	292	308	292	64	390		250		44	
	3	80	318	333	318	76	403		280		59	
	4	100	356	371	356	102	474		350		87	
	5	125	400	416	400	127	540		350		181	
	6	150	444	460	444	152	635	690	450	310	162	177
	8	200	559	575	559	203	870	950	550	460	281	389
	10	250	622	638	622	254	950	990	600	460	355	409
	12	300	711	727	711	305	1030	1155	700	460	575	635
	14	350	838			336		1155		600		880
	16	400	864			387		1325		600		1300
	18	450	977			431		1473		720		1600
	20	500	1016			482		1574		720		2100

Noted: We may provide other different actuators according to the customer's request, such as pneumatic, electric, hydraulic actuators, the details of them according to the actual valve working condition.



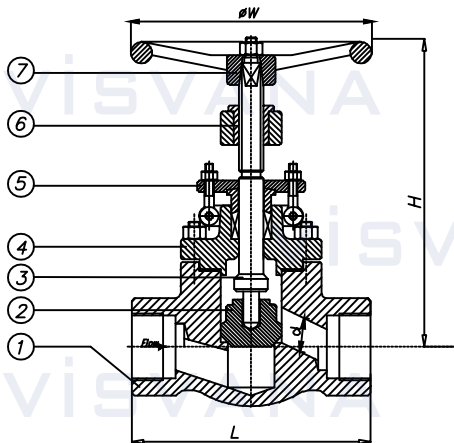
Class 600 & Class 1500 Globe Valve

Class	Size		Dimensions (mm)								Weight (Kg)	
	NPS	DN	L			d	H	H1	W	W1	H.W	G.O
			RF	RTJ	BW							
600	2	50	292	295	292	51	360		250		35	
	2 1/2	65	330	333	330	64	410		280		42	
	3	80	356	359	356	76	465		280		66	
	4	100	432	435	432	102	545	575	400	310	117	148
	5	125	508	511	508	127	625	660	500	310	243	208
	6	150	559	562	559	152	785	975	550	460	263	334
	8	200	660	664	660	200	930	1120	650	460	469	544
	10	250	787	791	787	248		1219		600		875
	12	300	838	841	838	298		1570		600		1280
900	2	50	368	371	368	48	480		350		55	
	2 1/2	65	419	422	419	57	520		350		68	
	3	80	381	384	381	73	564	630	400	310	113	128
	4	100	457	460	457	98	685	720	450	310	179	210
	5	125	559	562	559	127	780	840	550	460	270	325
	6	150	610	613	610	146	950	1015	650	460	429	480
	8	200	737	740	737	190	1050		700		815	
1500	2	50	368	371	368	48	505		350		137	
	2 1/2	65	419	422	419	57	550		400		141	
	3	80	470	473	470	70	630	765	450	310	261	320
	4	100	546	549	546	92	808	890	460	310	336	397
	6	150	705	711	705	137	930	1020	610	530	966	1035
	8	200	832	841	832	178	1140	1230	610	530	1210	1280

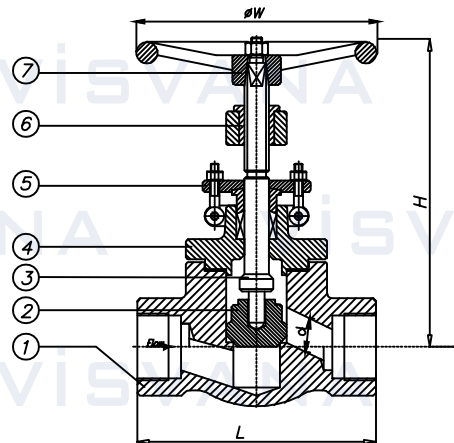
Noted: We may provide other different actuators according to the customer's request, such as pneumatic, electric, hydraulic actuators, the details of them according to the actual valve working condition.

API FORGED STEEL GLOBE VALVE

VDBS-800 / VDBS-900
VDBS-1500 / VDBS-2500



Welded Bonnet
Socket-welding End



Bolted Bonnet
Socket-welding End



Standards

Design and Manufacture	API 602	Part Name			Material	
Inspection and Test	API 598	1	Body	ASTM A105	ASTM A182F304	ASTM A182F316
Socket-weld dimension	ASME B16.11	2	Disc	ASTM A105	ASTM A182F304	ASTM A182F316
End threads dimension	ASME B1.20.1	3	Stem	ASTM A182F6	ASTM A182F304	ASTM A182F316
Pressure-temperature ratings	ASME B16.34	4	Bonnet	ASTM A105	ASTM A182F304	ASTM A182F316
		5	Gland Flange	ASTM A105	ASTM A182F304	ASTM A182F316
		6	Stem Nut	ASTM A276410		
		7	Handwheel	ASTM A197		

Class 150 & Class 1500 Forged Globe Valve

Class	Size		Dimensions (mm)				NPT	Weight (Kg)
	NPS	DN	L	d	H	W		
150 - 800	1/2"	15	79	10	158	100	1/2"	2.0
	3/4"	20	92	13	158	100	3/4"	2.2
	1"	25	111	17.5	192	125	1"	2.5
	1 1/4"	32	120	23	227	160	1 1/4"	5.5
	1 1/2"	40	152	28.5	240	160	1 1/2"	7.0
	2"	50	172	35	279	180	2"	11.5
900 - 1500	1/2"	15	92	10	187	125	1/2"	3.5
	3/4"	20	111	13	187	125	3/4"	4.0
	1"	25	120	17.5	227	160	1"	6.3
	1 1/4"	32	152	23	242	160	1 1/4"	8.0
	1 1/2"	40	172	28.5	278	180	1 1/2"	12.5
	2"	50	220	35	325	200	2"	19.5
2500	1/2"	15	150	11	293	160	1/2"	10.8
	3/4"	20	150	11	293	160	3/4"	12.0
	1"	25	170	14	344	200	1"	13.5
	1 1/4"	32	200	16	383	250	1 1/4"	18.5
	1 1/2"	40	200	25	383	250	1 1/2"	22.0
	2"	50	250	28	442	300	2"	37.0

THE FEATURES OF GLOBE VALVE

Bolted bonnet: outside screw and yoke: rising stem: metallic seating surfaces.

BODY AND BONNET CONNECTION

The body and bonnet of class 150~class900 globe valves are usually with studs and nuts. And the body and bonnet of class 1500~class2500 globe valve are usually of pressure seal design.

GASKET OF COVER FLANGE

Stainless steel+flexible graphite wounded gasket is used for class 150 and class 300 globe valve. Stainless steel+flexible graphite wounded gasket is used for class600, and ring joint gasket is also optional for class600. ring joint gasket is used for class900 globe valve. Pressure seal design is used for class 1500~class2500 globe valve.

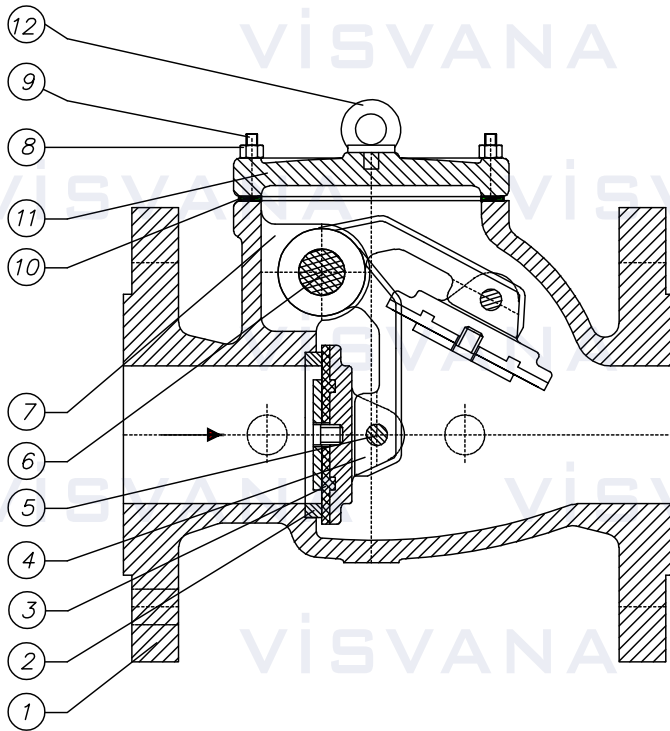
ACTUATION

Hand Wheel, impact hand Wheel%gear box is usually used for globe valve actuation. Chain Wheel and electric actuator can be also used for globe valve actuation if being requested by the customers.

SEAT

For carbon steel globe valve, the seat is usually forged steel. The sealing surface of the seat is spray welded, with hard alloy specified by the customer. The seat has two types: welded on seat and integral seal, for stainless globe valve, integral seat is usually adopted, or to weld hard alloy directly integrally. If the customer has any other request about the seat, please kindly advise before placing the order.

API SWING CHECK VALVE



STANDARD MATERIAL To API 600

Trim Code	Seat Ring Surface Part No.2	Disc Surface Part No.3	Hing pin Part No.6
1	F6	F6	F6
2	F304	F304	F304
5	Stellite	Stellite	F6
8	Stellite	F6	F6
9	Monel	Monel	Monel
10	F316	F316	F316
13	Alloy 20	Alloy 20	Alloy 2

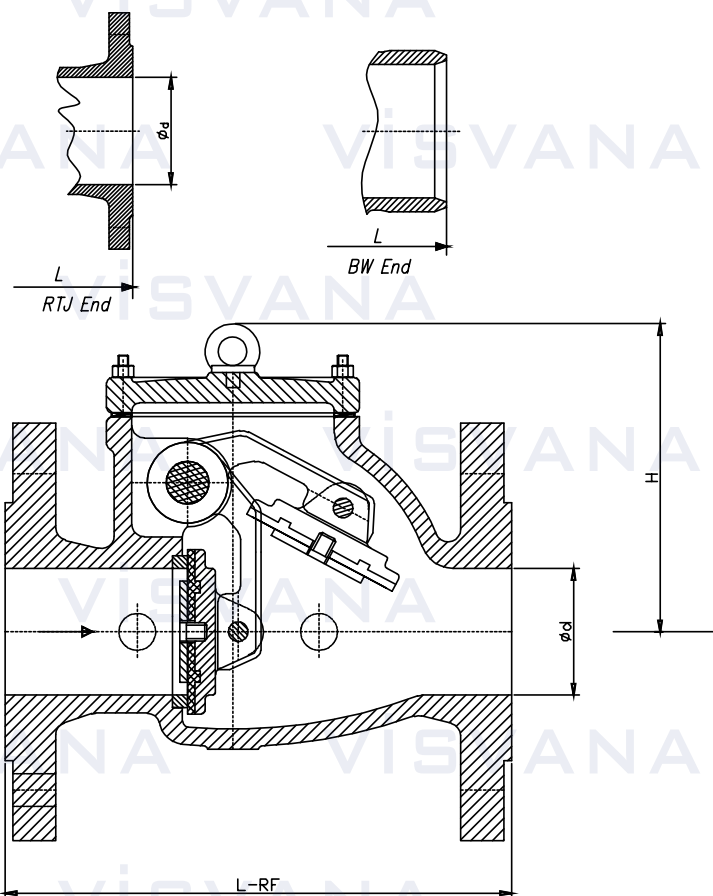
Standards

Design and Manufacture	BS 1868-1873, ASME B16.34, API6D
Inspection and Test	API598, API6D
End Flange dimension	ASME B16.5
End Flange dimension	ASME B16.47A MSS SP-44
End Flange dimension	ASME B16.47B API605
BW end dimension	ASME B16.25
Face to face	ASME B16.10
Pressure-temperature ratings	ASME B16.34
Wall thickness dimension	API600 and BS 1868

Standard Material Specifications

Parts name		Carbon steel to ASTM		Alloy Steel to ASTM				Stainless Steel to ASTM			
1	Body	A216 WCB	A352 LCB	A217 WC1	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
11	Cover	A216 WCB	A352 LCB	A217 WC1	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
3	Disc	A216 WCB	A352 LCB	A217 WC1	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
4	Hinge	A216 WCB	A352 LCB	A217 WC1	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
9	Bolt	A193 B7	A320 L7	A193 B7	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8
8	Nut	A194 2H	A194 4	A194 2H	A194 4	A194 4	A194 4	A194 8	A194 8	A194 8	A194 8
5	Disc Nut	A194 2H	410	410	410	410	410	304	316	304L	316L
10	Gasket	SS Spiral Wound W/graphite, or SS Spiral Wound W/PTFE, of Reinforced PTFE									
12	Eye Bolt	Steel									
7	Yoke	A216 WCB	A352 LCB	A217 WC1	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M

Noted: The chart above only lists out some common composition of steel globe valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.

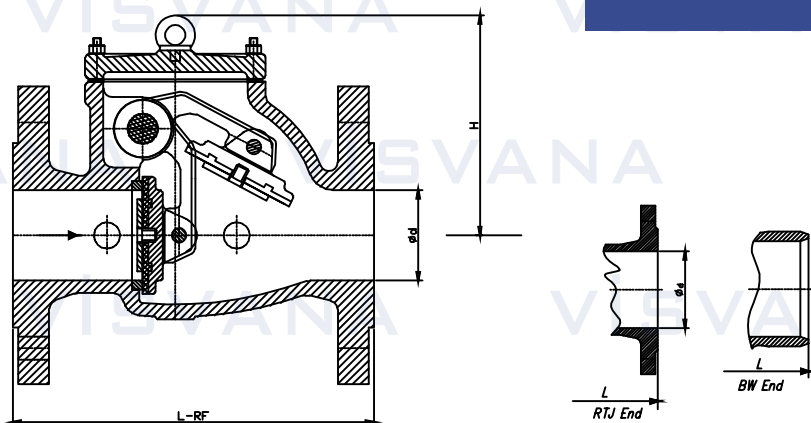


Class 150 & Class 300 Swing Check Valve

Size		Class 150 Dimensions (mm)						Class 300 Dimensions (mm)					
NPS	DN	L			d	H	Weight (Kg)	L			d	H	Weight (Kg)
		RF	RTJ	BW				RF	RTJ	BW			
2	50	203	216	203	51	138	14	267	283	267	51	150	22
2 1/2	65	216	229	216	64	160	19	292	308	292	64	178	35
3	80	241	254	241	76	172	24	318	333	318	76	223	44
4	100	292	305	292	102	245	43	356	371	356	102	255	57
5	125	330	343	330	127	260	59	400	416	400	127	280	80
6	150	356	368	356	152	280	72	445	460	445	152	310	120
8	200	495	508	495	203	347	124	533	549	533	203	355	194
10	250	622	635	622	254	390	196	622	638	622	254	445	290
12	300	699	711	699	305	435	330	711	727	711	305	485	450
14	350	787	800	787	337	465	417	838	854	838	337	515	587
16	400	864	876	864	387	525	503	864	879	864	387	560	761
18	450	978	991	978	438	580	630	978	994	978	432	620	1030
20	500	978	991	978	489	615	791	1016	1035	1016	483	685	1191
24	600	1295	1308	1295	591	710	960	1346	1368	1346	584	760	1892
26	650	1295		1295	633	840	1250	1346	1372	1346	633	850	2300
28	700	1448		1448	684	920	1580	1499	1524	1499	684	920	2600
30	750	1524		1524	735	980	1950	1594	1619	1594	735	1150	3200
32	800	1727		1727	779	1016	2800	1727		1727	779	1260	3700
36	900	1956		1956	874	1092	3200	2083		2083	874	1390	4300

API SWING CHECK VALVE

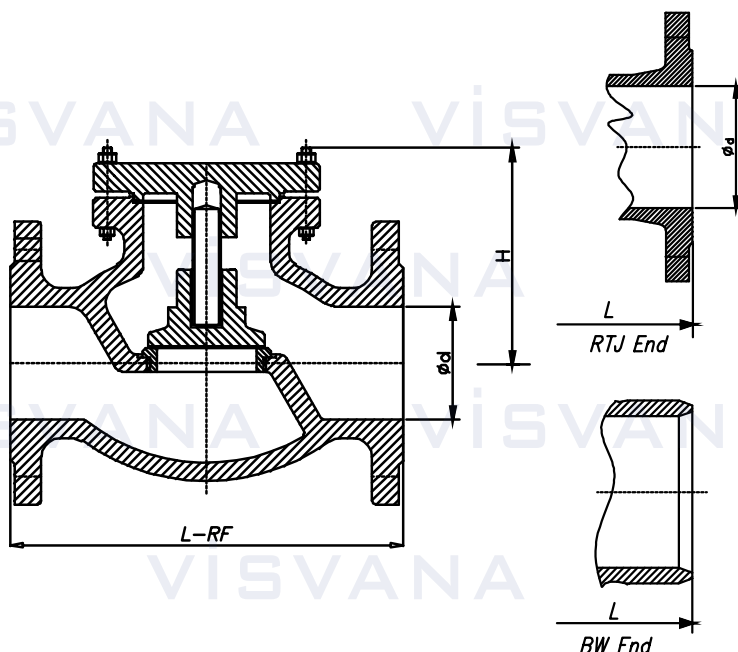
VCS-C600 / VCS-C900
VCS-C1500 / VCS-C2500



Class 600 & Class 2500 Swing Check Valve

Size		Class 600 Dimensions (mm)						Class 900 Dimensions (mm)					
NPS	DN	L			d	H	Weight (Kg)	L			d	H	Weight (Kg)
		RF	RTJ	BW				RF	RTJ	BW			
2	50	292	295	292	51	170	26	368	371	368	51	183	72
2 1/2	65	330	333	330	64	178	35	419	422	419	64	220	75
3	80	356	359	356	76	225	59	381	384	381	73	280	102
4	100	432	435	432	102	275	99	457	460	457	98	315	134
5	125	508	511	508	127	320	155	559	562	559	127	360	200
6	150	559	562	559	152	385	208	610	613	610	146	390	354
8	200	660	664	660	200	445	357	737	740	737	190	460	514
10	250	787	791	787	248	500	561	838	841	838	238	540	754
12	300	838	841	838	298	570	752	965	968	965	283	640	818
14	350	889	892	889	327	590	889	1029	1038	1029	311	680	1180
16	400	991	994	991	375	650	1285	1130	1140	1130	356	780	1909
18	450	1092	1095	1092	419	778	1800	1219	1232	1219	400	845	2500
20	500	1194	1200	1194	464	970	2150	1321	1334	1321	444	1050	2960
24	600	1397	1407	1397	559	1100	3200	1549	1568	1549	533	1200	4600

Size		Class 1500 Dimensions (mm)						Class 2500 Dimensions (mm)					
NPS	DN	L			d	H	Weight (Kg)	L			d	H	Weight (Kg)
		RF	RTJ	BW				RF	RTJ	BW			
2	50	368	371	368	48	265	67	451	454	451	38	285	93
2 1/2	65	419	422	419	57	240	75	508	514	508	48	305	100
3	80	470	473	470	70	303	188	578	584	578	57	350	196
4	100	546	549	546	92	340	210	673	683	673	73	410	410
5	125	673	676	673	127	380	294	794	807	794	96	490	440
6	150	705	711	705	137	430	473	914	927	914	111	540	868
8	200	832	841	832	178	500	634	1022	1038	1022	146	620	970
10	250	991	1000	991	222	605	1140	1270	1292	1270	184	705	1700
12	300	1130	1146	1130	264	785	1939	1422	1445	1422	219	855	2080
14	350	1257	1276	1257	289	830	2000						
16	400	1384	1407	1384	330	950	2700						
18	450	1537	1559	1537	371	1080	3960						
20	500	1664	1686	1664	416	1145	4400						



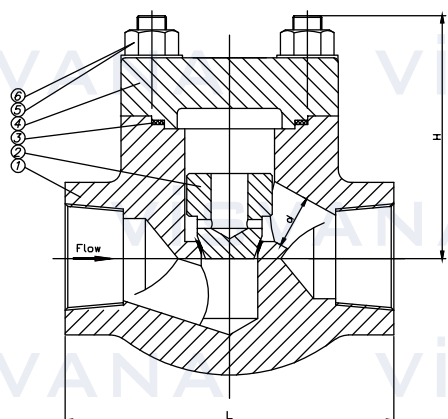
Class 150 & Class 900 Lift Check Valve

Size		Class 150 Dimensions (mm)						Class 300 Dimensions (mm)					
NPS	DN	L			d	H	Weight (Kg)	L			d	H	Weight (Kg)
		RF	RTJ	BW				RF	RTJ	BW			
1/2	15	108	119	108	13	76	3	152	162	152	13	78	5
3/4	20	117	130	117	19	76	4	178	191	178	19	82	6
1	25	127	140	127	25	98	5	203	216	203	25	102	8
1 1/4	32	140	153	140	32	102	7	216	229	216	32	106	11
1 1/2	40	165	178	165	38	115	8	229	242	229	38	118	13
2	50	203	216	203	51	140	15	267	283	267	51	140	26
2 1/2	65	216	229	216	64	162	22	292	308	292	64	164	33
3	80	241	254	241	76	168	28	318	333	318	76	178	50
4	100	292	305	292	102	194	42	356	371	356	102	195	86
5	125	356	368	356	127	210	60	400	416	400	127	223	120
6	150	406	419	406	152	226	75	445	460	445	152	245	180
8	200	495	508	495	203	250	118	533	549	533	203	280	220
10	250	622	635	622	254	275	194	622	638	622	254	336	310
12	300	699	711	699	305	332	320	711	727	711	305	380	510

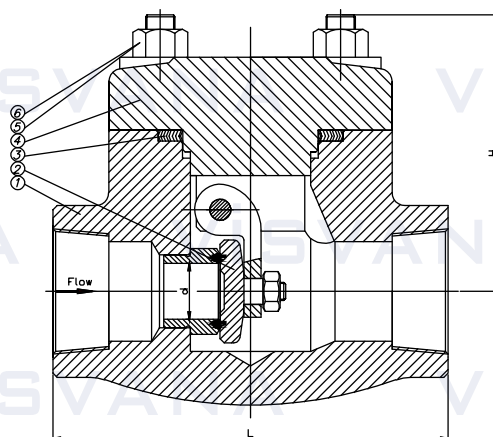
Size		Class 150 Dimensions (mm)						Class 300 Dimensions (mm)					
NPS	DN	L			d	H	Weight (Kg)	L			d	H	Weight (Kg)
		RF	RTJ	BW				RF	RTJ	BW			
2	50	292	295	292	51	152	32	368	371	368	48	180	50
2 1/2	65	330	333	330	64	167	45	419	422	419	57	200	65
3	80	356	359	356	76	178	68	381	384	381	73	235	88
4	100	432	435	432	102	215	98	457	460	457	98	270	140
5	125	508	511	508	125	240	155	559	562	559	125	300	210
6	150	559	562	559	152	279	230	610	613	610	146	350	300
8	200	660	664	660	200	328	300	737	740	737	190	400	390

API FORGED STEEL CHECK VALVE

VDCS-C800 / VDCS-C900
VDCS-C1500 / VDCS-C2500



Swing Check Valve



Lift Check Valve

PARTS AND MATERIAL LIST

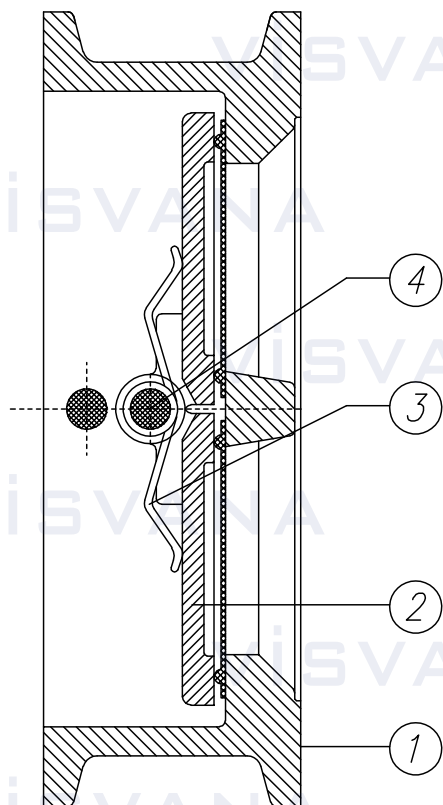
Part Name	Material			
1	Body	ASTM A105	ASTM A182 F304	ASTM A182 F316
2	Disc	ASTM A105	ASTM A182 F304	ASTM A182 F316
3	Gasket	Graphite+SS304	Graphite+SS316	Graphite+SS316
4	Bonnet	ASTM A105	ASTM A182 F304	ASTM A182 F316
5	Bolt	A193 B7	A193 B8	A193 B8
6	Nut	A194 2H	A194 8	A194 8

Standards

Design and Manufacture	API 602.
Inspection and Test	API 598.
Socket-weld dimension	ASME B16.11.
End Threads dimension	ASME B1.20.1.
Pressure-temperature ratings	ASME B16.34.

Class	Size		Piston Check Valve					Swing Check Valve				
	NPS	DN	Dimensions (mm)			NPT	Weight (Kg)	Dimensions (mm)			NPT	Weight (Kg)
			L	d	H			L	d	H		
150-800	1/2"	15	79	10	54.5	1/2"	1.4	79	13	54.5	1/2"	1.3
	3/4"	20	92	13	54.5	3/4"	1.9	92	13	54.5	3/4"	1.7
	1"	25	111	17.5	72	1"	2.6	111	18	72	1"	2.4
	1 1/4"	32	120	23	81	1 1/4"	4.2	120	24	81	1 1/4"	4.0
	1 1/2"	40	152	28.5	94	1 1/2"	5.3	120	29	94	1 1/2"	5.1
	2"	50	172	35	112	2"	9.0	140	36.8	112	2"	8.8
900-1500	1/2"	15	92	10	73	1/2"	2.4	92	13	73	1/2"	2.2
	3/4"	20	111	13	73	3/4"	2.9	111	13	73	3/4"	2.7
	1"	25	120	17.5	84	1"	4.6	120	18	84	1"	4.4
	1 1/4"	32	152	23	97	1 1/4"	6.5	120	24	97	1 1/4"	6.3
	1 1/2"	40	172	28.5	115	1 1/2"	10.5	140	29	115	1 1/2"	10.3
	2"	50	220	35	132	2"	15.5	160	36.8	132	2"	15.3
2500	1/2"	15	150	11	102	1/2"	7.8					
	3/4"	20	150	14	102	3/4"	8.5					
	1"	25	170	19	107	1"	12.0					
	1 1/4"	32	200	25	128	1 1/4"	18.2					
	1 1/2"	40	200	28	128	1 1/2"	19.5					
	2"	50	250	35	143	2"	27.0					

API WAFER TYPE CHECK VALVE



Dual Plate
Check Valve

STANDARDS

1. Design and manufacture: API 594, API 6D
2. Face to face: API 594, API 6D; DIN 3202;
3. Pressure-temperature ratings: ASME B 16.34
4. Inspection and test: API 598, API 6D
5. End flange dimension: ASME B16.5, ASME B16.47, API605, MSS SP-44, ISO7005-1, DIN2543-2548

STRUCTURE FEATURES

1. It is short in face to face dimensions, being 1/4-1/8 times that of traditional flange type check valve
2. It is compact in volume size and light in weight of about 1/4-1/20 times that of traditional flange type check valve.
3. The disc closes quickly with less water hammer pressure.
4. It is convenient in installation, being available for use on level or vertical pipelines.
5. Flow passage is fluent with less flow resistance.
6. It acts sensitively with good sealing effect.
7. Disc travel is short with less impact force caused by valve closing.
8. It is compact in integral structure with nice outline view.
9. It is longer for service life with high reliability.

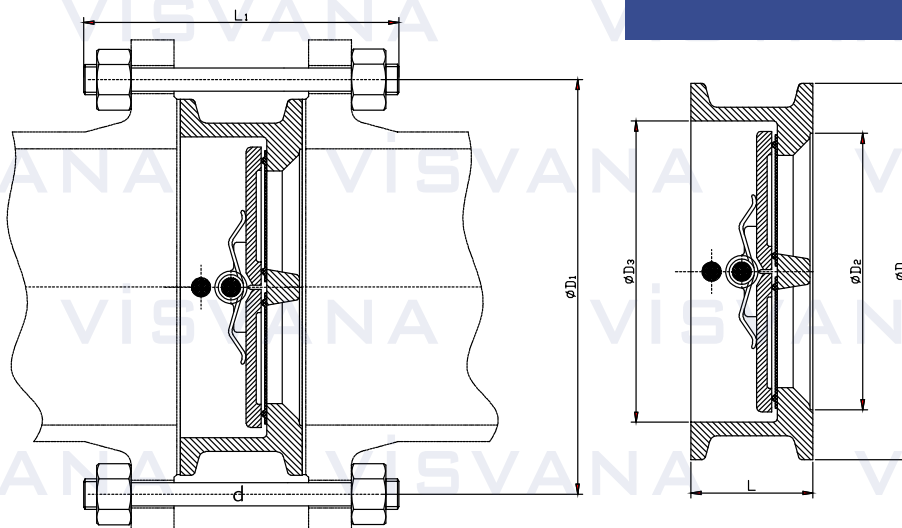
Materials for main parts

Part Name		Material							
1	Body	A216 WCB	A352 LCB	A217 WC6	A217 WC9	A217 C5	A217 C5	A351 CF8	A351 CF8M
2	Disc	A351 CF8	A351 CF8	A217 WC6	A217 WC9	A217 C5	A217 C5	A351 CF8	A351 CF8M
3	Stem	A182 F6a	A182 F304	A182 F304	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316
4	Spring	Stainless steel/inconel							

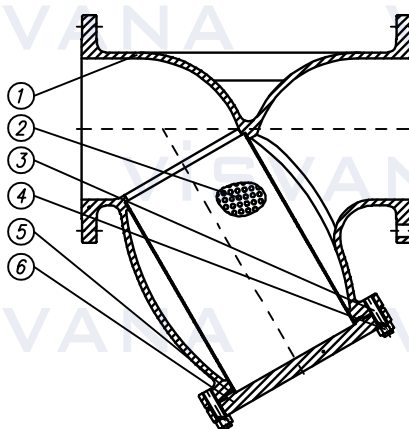
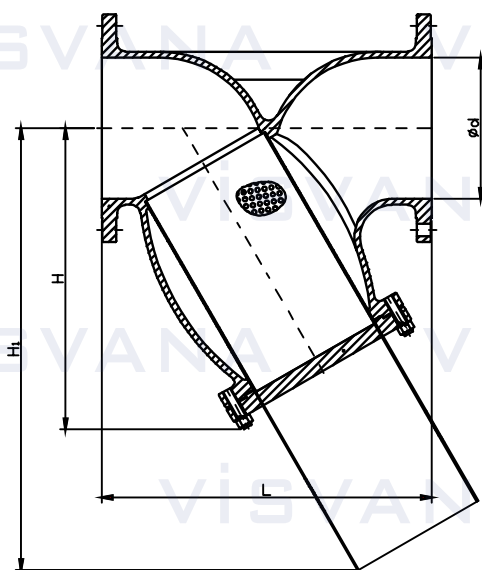
Noted: the chart above only lists out some common composition of steel ball valve parts, we may provide other different parts material composition according to the customer's request or the actual valve working condition.

API WAFERTYPE CHECK VALVE

VWDC-C150 VWDC-C300



Class	Size		Dimensions (mm)				Weight (Kg)	Pipeline Flanges					
	NPS	DN	L	D	D2	D3		D1	Number of bolts	d		L1	
										In	mm	RF	RTJ
150	2	50	60	103	51	56	2	120,5	4	5/8	M16	140	155
	2 1/2	65	67	122	65	73	3	139,5	4	5/8	M16	150	165
	3	80	73	135	80	88	4	152,5	4	5/8	M16	160	175
	4	100	73	173	102	108	6	190,5	8	5/8	M16	170	185
	5	125	86	195	127	132	8	216.0	8	3/4	M20	190	205
	6	150	98	220	152	160	13	241,5	8	3/4	M20	205	220
	8	200	127	277	203	210	25	298,5	8	3/4	M20	240	255
	10	250	146	337	254	266	39	362.0	12	7/8	M24	270	285
	12	300	181	407	305	310	54	432.0	12	7/8	M24	310	325
	14	350	184	448	350	355	80	476.0	12	1	M27	325	340
	16	400	191	512	400	405	117	540.0	16	1	M27	340	355
	18	450	203	547	450	455	138	578.0	16	1 1/8	M30	365	380
	20	500	219	604	500	505	163	635.0	20	1 1/8	M30	385	400
	24	600	222	715	600	605	331	749,5	20	1 1/4	M33	405	420
	28	700	305	773	700	700	380	795,5	40	3/4	M20	455	
	30	750	305	824	746	750	425	846.0	44	3/4	M20	455	
	32	800	305	878	796	800	560	900.0	48	3/4	M20	460	
	36	900	368	983	898	910	640	1009,5	44	7/8	M24	540	
	42	1050	432	1142	1050	1055	960	1171,5	48	1	M27	625	
	48	1200	524	1302	1200	1205	1400	1335.0	44	1 1/8	M30	740	
300	2	50	60	110	51	58	3	127.0	8	5/8	M16	155	175
	2 1/2	65	67	128	65	73	4	149.0	8	3/4	M20	175	195
	3	80	73	147	80	88	6	168,5	8	3/4	M20	190	210
	4	100	73	179	102	108	8	200.0	8	3/4	M20	195	215
	5	125	86	214	127	132	15	235.0	8	3/4	M20	215	235
	6	150	98	249	152	160	18	270.0	12	3/4	M20	230	250
	8	200	127	305	203	210	31	330.0	12	7/8	M24	280	300
	10	250	146	359	254	266	51	387,5	16	1	M27	315	335
	12	300	181	420	305	310	77	451.0	16	1 1/8	M30	365	385
	14	350	222	483	350	355	117	514,5	20	1 1/8	M30	410	430
	16	400	232	537	400	405	190	571,5	20	1 1/4	M33	435	455
	18	450	264	594	450	455	200	628,5	24	1 1/4	M33	475	495
	20	500	292	652	500	505	265	686.0	24	1 1/4	M33	510	535
	24	600	318	772	600	608	410	813.0	24	1 1/2	M39	560	585
	30	750	368	882	735	740	660	921.0	36	1 3/8	M36	650	
	36	900	483	1044	873	880	1020	1089.0	32	1 5/8	M42	800	
	42	1050	568	1196	1035	1045	1540	1244,5	36	1 3/4	M45	920	
	48	1200	629	1365	1179	1190	2260	1416.0	40	1 7/8	M48	1010	

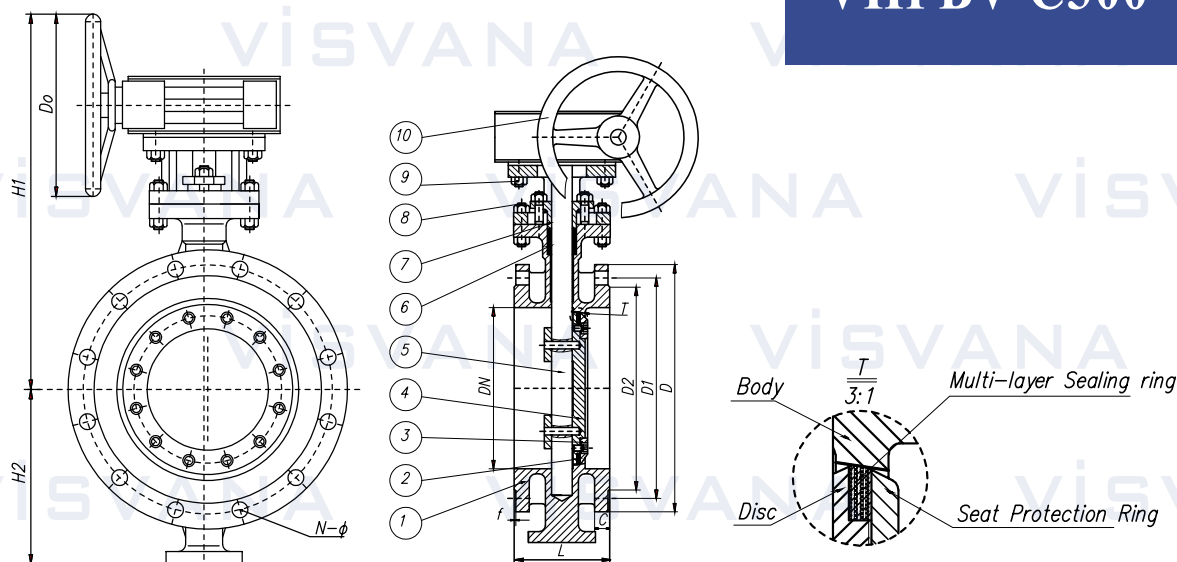


PARTS AND MATERIAL LIST

Part Name	Material			
1	Body	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M
2	Screen	ASTM 182 F304	ASTM 182 F304	ASTM 182 F316
3	Bonnet Bolt	ASTM 193 B7	ASTM 193 B8	ASTM 193 B8
4	Bonnet Nut	ASTM 194 2H	ASTM 194 8	ASTM 194 8
5	Gasket	Graphite+SS304	Graphite+SS304	Graphite+SS316
6	Bonnet	ASTM A216 WCB	ASTM A351 CF8	ASTM A351 CF8M

Class 150 & Class 300 /JIS 10K - JIS 20K Y Strainer

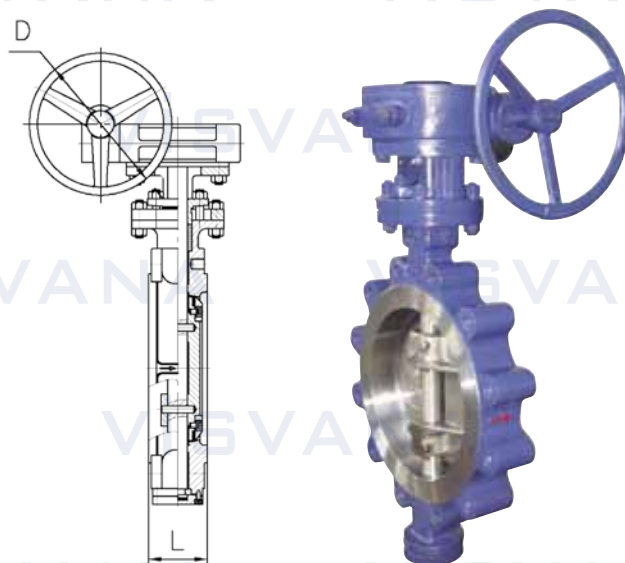
Size		Class 150				Class 300				Class 600			
NPS	DN	Dimensions (mm)			Wt(Kg) W.H	Dimensions (mm)			Wt(Kg) W.H	Dimensions (mm)			Wt(Kg) W.H
		L	H	H ₁		L	H	H ₁		L	H	H ₁	
1/2	15	108	67	92	2	152	70	95	3				
3/4	20	117	73	105	2	178	80	110	4				
1	25	127	87	117	3	203	115	135	5				
1 1/4	32	140	100	138	4	216	105	142	7				
1 1/2	40	165	120	155	5	229	128	155	9				
2	50	203	145	185	13	267	152	184	16	292	210	350	19
2 1/2	65	216	170	220	15	292	185	236	20	330			
3	80	241	190	250	18	318	204	266	24	356	260	430	40
4	100	292	245	340	22	356	265	335	30	432			
5	125	356	290	400	42	400	280	386	50	508	310	510	51
6	150	406	325	450	50	444	335	460	70	559	385	520	161
8	200	495	370	500	91	559	420	595	115	660	455	620	243
10	250	622	455	635	205	622	500	710	270	787	505	635	463
12	300	699	525	735	297	711	575	781	380	838	660	780	765
14	350	787	610	885	394	838	650	938	520	889	720	990	998
16	400	914	800	1160	570	914	740	1055	608	991	840	1120	1230
18	450	978	965	1365	680								
20	500	978	1100	1550	830								



Class 150 & Class 300 Triple Offset Flange Butterfly Valve

Class	Size		Dimensions (mm)				Weight (Kg)
	NPS	DN	L	H ₁	H ₂	D	
150	2	50	108	305	115	160	21
	2 1/2	65	112	315	125	160	24
	3	80	114	330	135	160	27
	4	100	127	360	140	160	28
	5	125	140	450	170	280	30
	6	150	140	475	175	280	50
	8	200	152	525	240	280	75
	10	250	165	570	270	280	105
	12	300	178	630	315	320	155
	14	350	190	675	345	350	190
	16	400	216	720	395	350	230
	18	450	222	805	405	350	300
	20	500	229	895	430	400	380
	24	600	267	950	500	400	490
	26	650	267	960	515	400	580
	28	700	292	1030	520	400	660
	30	750	308	1080	545	450	740
	32	800	318	1135	620	450	820
300	36	900	330	1175	620	450	1100
	40	1000	410	1270	720	500	1430
	44	1100	450	1335	768	500	2200
	2	50	150	315	115	500	32
	2 1/2	65	170	325	125	160	39
	3	80	180	340	135	160	42
	4	100	190	435	140	160	45
	5	125	200	475	170	280	48
	6	150	210	510	220	280	80
	8	200	230	520	240	280	120
	10	250	250	625	270	280	168
	12	300	270	670	320	350	248
	14	350	290	765	370	350	304
	16	400	310	840	410	350	368
	18	450	330	910	420	400	480
	20	500	350	980	460	400	608
	24	600	390	1080	540	400	784
	26	650	390	1130	585	450	928
	28	700	430	1175	640	450	1056
	30	750	430	1265	700	500	1184
	32	800	470	1300	765	500	1312
	36	900	510	1380	820	500	1760
	40	1000	550	1460	890	500	2288

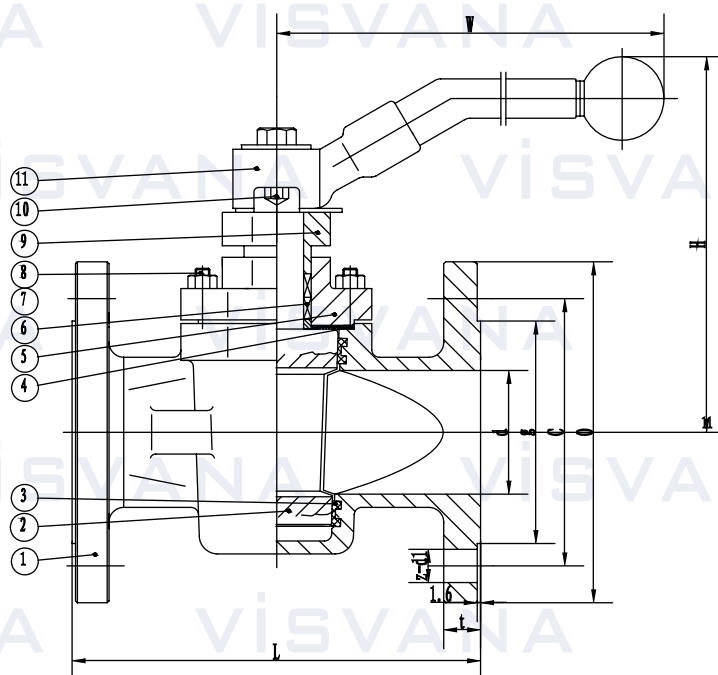
Noted: We may provide other different actuators according to the customer's request, such as pneumatic, electric, hydraulic actuators, the details of them according to the actual valve working condition.



Class	Size		Dimensions (mm)				Weight (Kg)
	NPS	DN	L	H ₁	H ₂	D	
150	2	50	43	305	105	160	14
	2 1/2	65	46	315	115	160	15
	3	80	48	330	125	160	17
	4	100	54	360	150	160	20
	5	125	57	450	160	280	27
	6	150	57	475	185	280	31
	8	200	64	525	245	280	45
	10	250	71	540	275	280	86
	12	300	81	660	315	320	105
	14	350	92	470	330	350	135
	16	400	102	730	365	350	150
	18	450	114	810	390	350	218
	20	500	127	885	430	400	289
	24	600	154	940	470	400	407
	26	650	165	955	490	400	445
	28	700	165	1050	505	400	470
	30	750	190	1050	525	450	590
	32	800	190	1185	580	450	680
300	36	900	203	1205	625	450	900
	40	1000	216	1260	685	500	1000
	48	1200	254	1395	790	500	1550
	2	50	43	315	115	160	19
	2 1/2	65	46	325	125	160	22
	3	80	48	340	140	160	35
	4	100	54	440	150	280	30
	5	125	57	480	180	280	41
	6	150	59	515	220	280	47
	8	200	73	530	250	280	68
	10	250	83	640	300	350	130
	12	300	92	685	335	350	158
	14	350	117	780	375	350	216
	16	400	133	830	380	400	225
	18	450	149	915	420	400	327
	20	500	159	985	475	400	434
	24	600	181	1085	540	450	610
	26	650					
	28	700					
	30	750					
	32	800					
	36	900					

Noted: We may provide other different actuators according to the customer's request, such as pneumatic, electric, hydraulic actuators, the details of them according to the actual valve working condition.

API SLEEVE TYPE SOFT SEALING PLUG VALVE

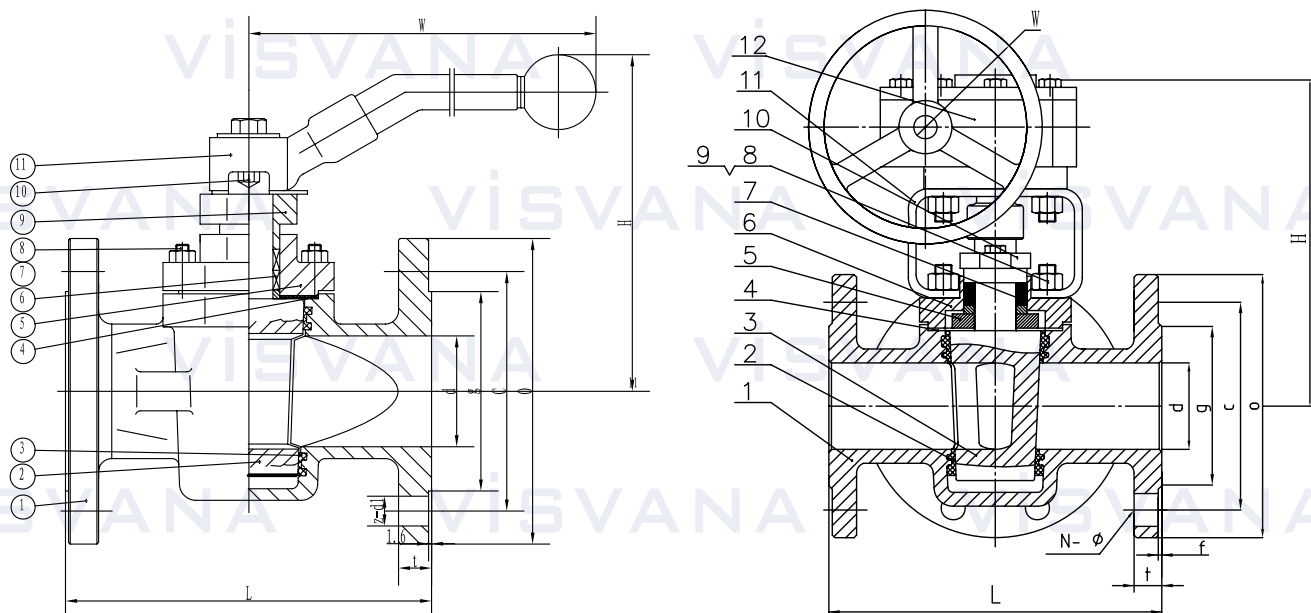


Standards

Design standard	API 599, API 6D
Face to face	ASME B16.10. API 6D
Butt welding end	ASME B16.25
End flange	ASME B16.5
Test and Inspection	API 598

Parts and material list

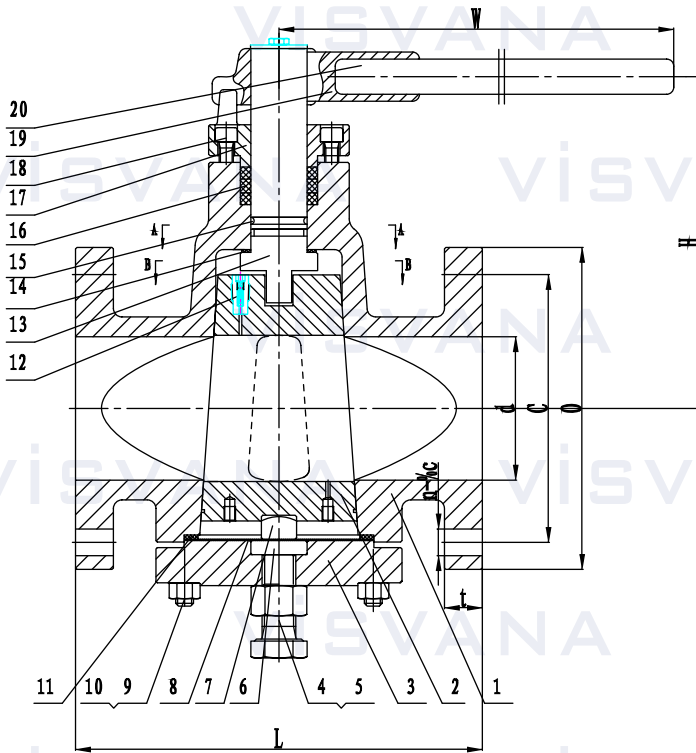
Parts name		Carbon steel to ASTM		Alloy Steel to ASTM				Stainless Steel to ASTM			
1	Body	A216 WCB	A352 LCB	A217 WCI	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
2	Sleeve	PTFE									
3	Plug	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
4	Cover	A216 WCB	A352 LCB	A217 WCI	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
5	Gasket	Flexible Graphite+SS, PTFE									
6	Adjusting gasket	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
7	Adjusting bolt	A193 B7	A320 L7	A193 B7	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8
8	Bolt	A193 B7	A320 L7	A193 B7	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8
9	Nut	A194 2H	A194 4	A194 2H	A194 4	A194 4	A194 4	A194 8	A194 8	A194 8	A194 8
10	Yoke	A216 WCB	A216 WCB	A216 WCB	A216 WCB	A216 WCB	A216 WCB	A216 WCB	A351 CF8	A351 CF8	A351 CF8
11	Worm	Cast iron or Carbon Steel									



Class 150 & Class 300 Sleeve Soft Sealing Plug Valve

Size		Class 150					Class 300				
NPS	DN	Dimensions (mm)				Wt(Kg) W.H	Dimensions (mm)				Wt(Kg) W.H
		L	d	H	Do		L	d	H	Do	
1/2	15	108	13	110	175	8,5	140	13	110	175	9,5
3/4	20	117	19	115	175	9,5	152	19	115	175	10,5
1	25	127	25	115	175	10,5	165	25	115	175	12
1 1/4	32	140	32	135	220	12	178	32	135	220	14
1 1/2	40	165	38	140	280	14	190	38	140	280	16
2	50	178	49	150	305	18	216	49	150	305	20
2 1/2	65	190	62	165	350	22	241	62	165	350	24
3	80	203	74	180	405	26	283	74	180	405	29
4	100	229	100	380	300	40	305	100	380	300	53
5	125	254	127	460	300	60	381	127	460	300	75
6	150	267	150	520	320	70	403	150	520	320	85
8	200	292	201	580	320	130	419	201	580	320	185
10	250	330	252	620	350	219	457	252	620	350	230
13	300	356	303	680	380	381	502	303	680	380	390
14	350	381	334	760	450	570	762	334	760	450	550

API LUBRICATED PLUG VALVE



Standards

Design standard	API 599, API 6D
Face to face	ASME B16.10. API 6D
Butt welding end	ASME B16.25
End flange	ASME B16.5
Test and Inspection	API 598

Specifications

Construction type : Pressure Balance;

Inverted Plug Valve

Operator type : Handwheel, Gear Operation

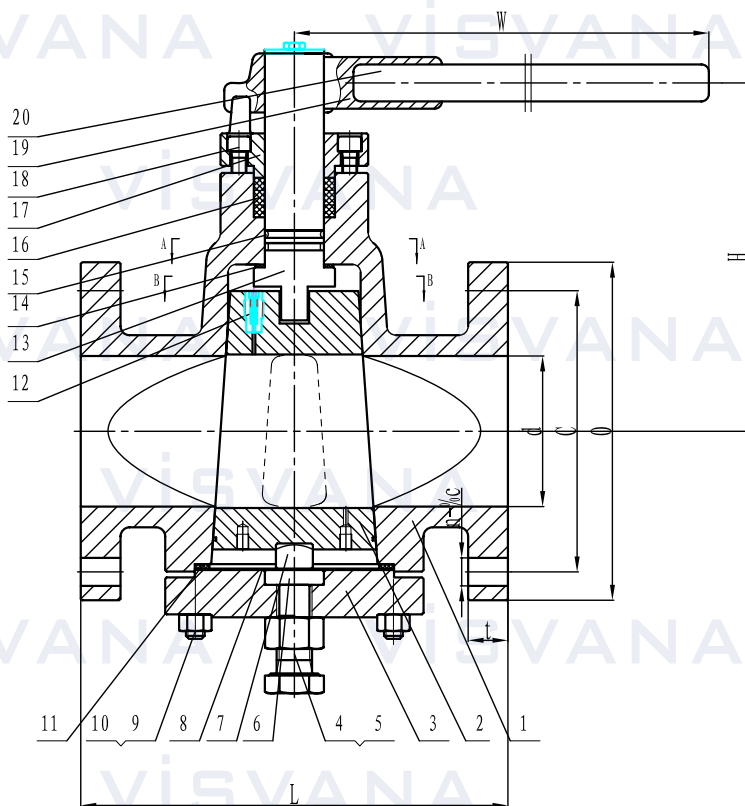
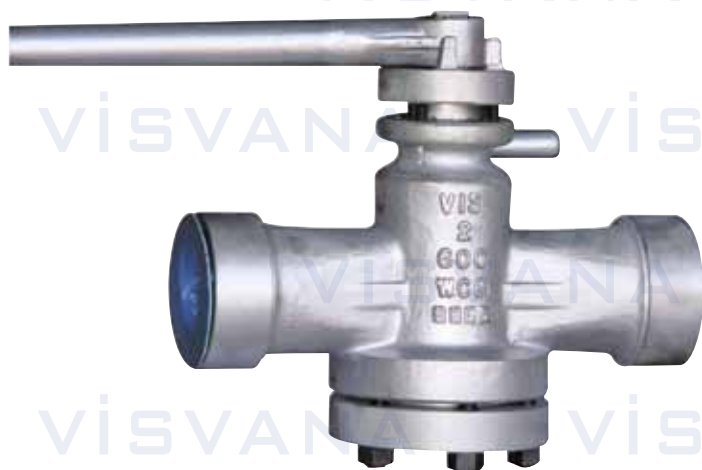
Parts and material list

Parts name		Carbon steel to ASTM		Alloy Steel to ASTM				Stainless Steel to ASTM			
1	Bolt	A193 B7	A320 L7	A193 B7	A193 B16	A193 B16	A193 B16	A193 B8	A193 B8	A193 B8	A193 B8
2	Nut	A194 2H	A194 4	A194 2H	A194 4	A194 4	A194 4	A194 8	A194 8	A194 8	A194 8
3	Cover	A216 WCB	A352 LCB	A217 WCI	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
4	Gasket	Flexible Graphite+SS, PTFE									
5	Plug	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
6	Body	A216 WCB	A352 LCB	A217 WCI	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
7	Check Valve	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
8	Stem	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L
9	O-ring	NBR or Viton									
10	Packing	Flexible Graphite+SS, PTFE									
11	Gland	A216 WCB	A352 LCB	A217 WCI	A217 WC6	A217 WC9	A217 C5	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M
12	Nozzle	SS	SS	SS	SS	SS	SS	SS	SS	SS	SS
13	Wrench	Ductile Iron or Carbon Steel									



VB2FL-C150
VB2FL-C300

API LUBRICATED PLUG VALVE



Class 150 & Class 300 Inverted Pressure Blanket Lubricated Plug Valve

Size		Class 150					Class 300				
NPS	DN	Dimensions (mm)				Wt(Kg) W.H	Dimensions (mm)				Wt(Kg) W.H
		L	d	H	W		L	d	H	W	
1/2	15	108	13	180	400	10	140	13	180	400	12
3/4	20	117	19	180	400	12	152	19	180	400	14
1	25	127	25	185	500	14	165	25	185	500	16
1 1/4	32	140	32	200	500	17	178	32	200	600	19
1 1/2	40	165	38	214	600	19	190	38	210	600	21
2	50	178	49	215	600	21	216	49	215	820	24
2 1/2	65	190	62	250	820	29	241	62	250	1000	31
3	80	203	74	270	820	33	283	74	270	1000	36
4	100	229	100	300	300	48	305	100	300	300	61
5	125	254	127	340	300	75	381	127	340	300	86
6	150	267	150	365	320	98	403	150	365	320	130
8	200	292	201	400	320	125	419	201	400	320	190
10	250	330	252	450	350	171	457	252	450	350	255
12	300	356	303	510	380	230	502	303	510	380	380
14	350	381	334	590	380	370	762	334	590	380	560