

Guide Valve Limited



**GVS® Trunnion Mounted
Soft Seated Ball Valves**



COMPANY PROFILE

Guide Valve Limited, established in 1980 with its headquarters in Ontario, Canada, specializes in the manufacturing of valves.

We are the manufacturer of the trademark brands such as, GVS®, VCI®, Lowe & GVS®-Malema. Our products are based on the most advanced technologies and are used in all sectors from petrochemical refining, process to transportation and distribution of the end product.

GVS® valves are designed, manufactured & tested according to API 6D & CSA Z245.15 and are available to API 608. Our standard product design of Series B1 & GB1 are the trunnion mounted, bolted body forged type ball valves of Double Piston Effect (DIB) with our unique Protector / Scraper double soft seated seal feature. This double seat feature was developed to assure a superior seat to ball soft seat shut-off performance and longevity of in-service life.



CANADA



AP 6D: 6D-1342
ISO 9001:2015: 0052985-01



CHINA

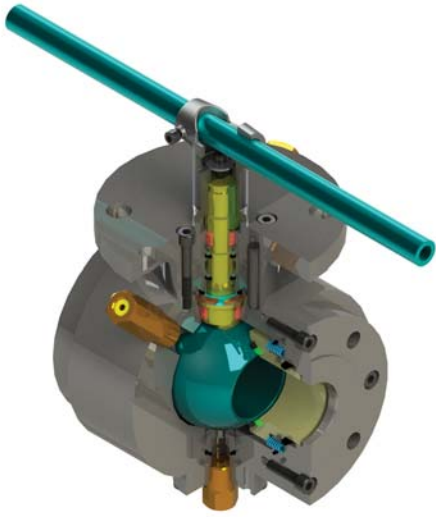


API 6D: 6D-1822
API Spec Q1: Q1-3641
ISO 9001:2015: ISO-3983

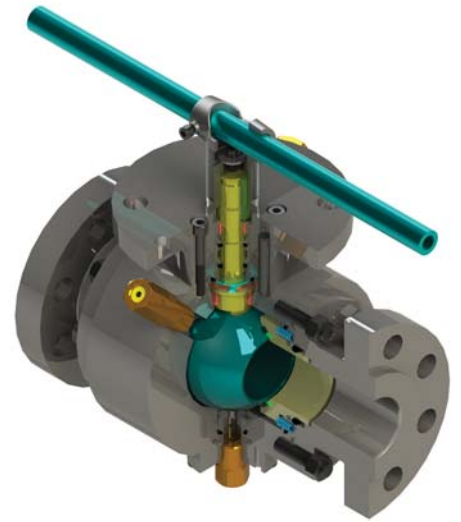


USA

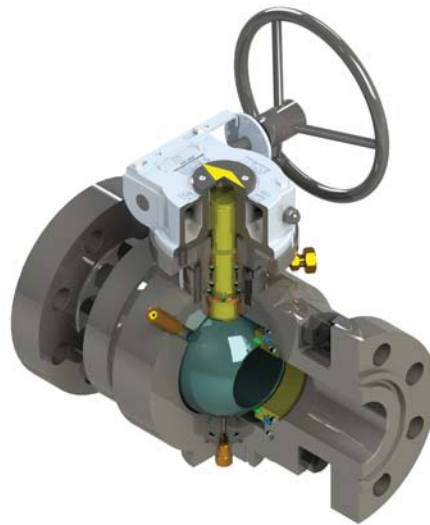
PRODUCT SERIES



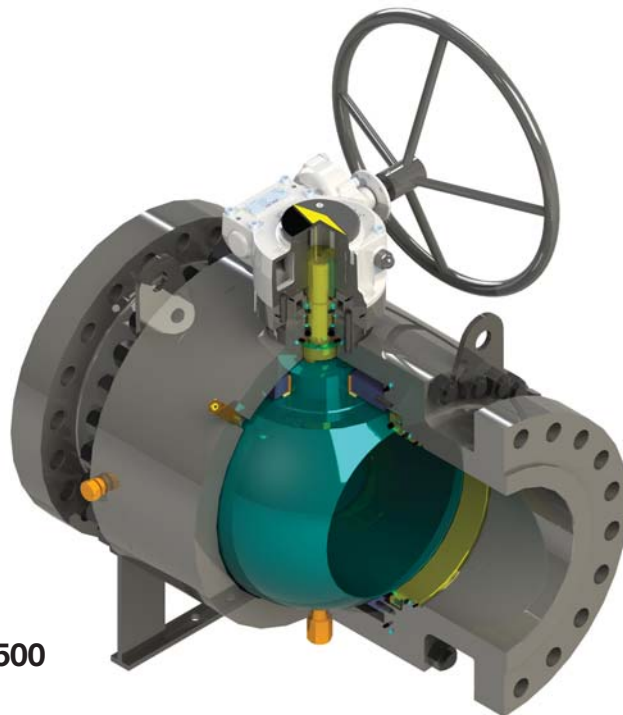
Model B1
ANSI Class 150



Model B1
ANSI Class 300 to 900

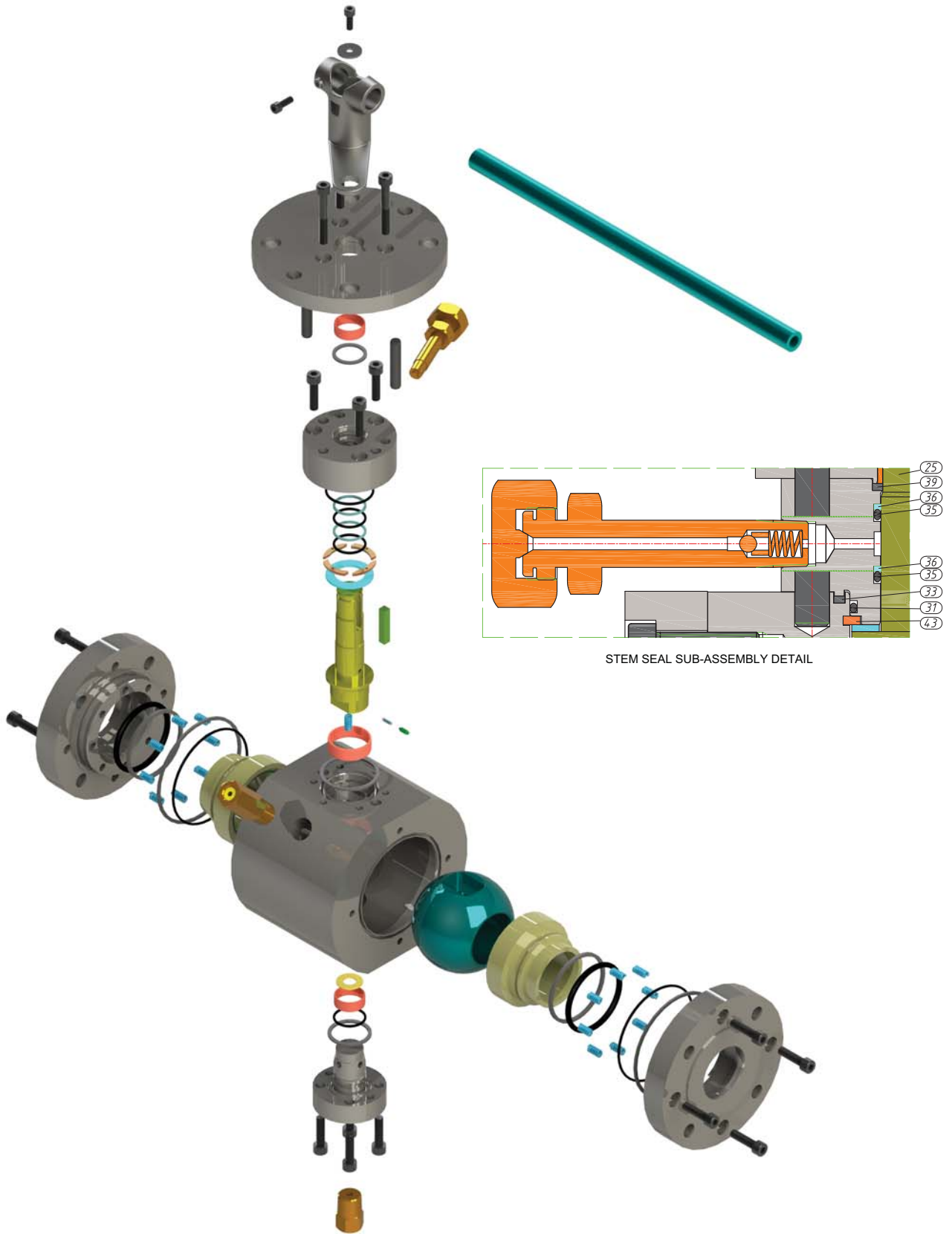


Model B1
ANSI Class 1500

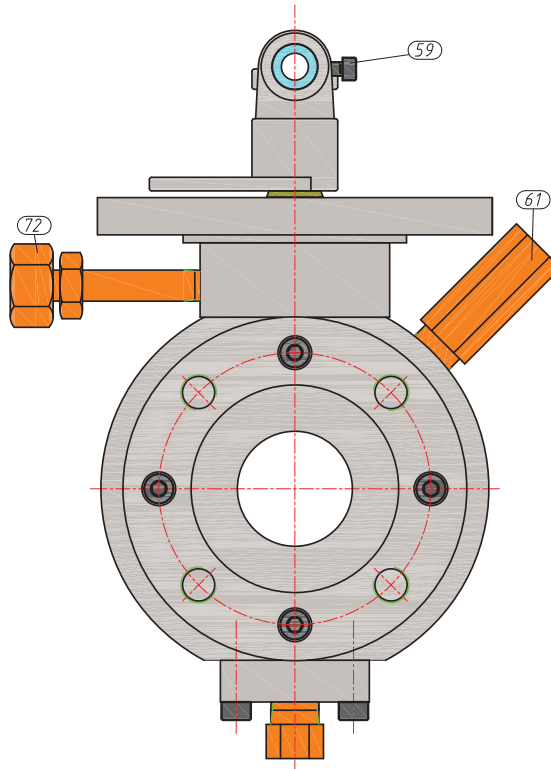
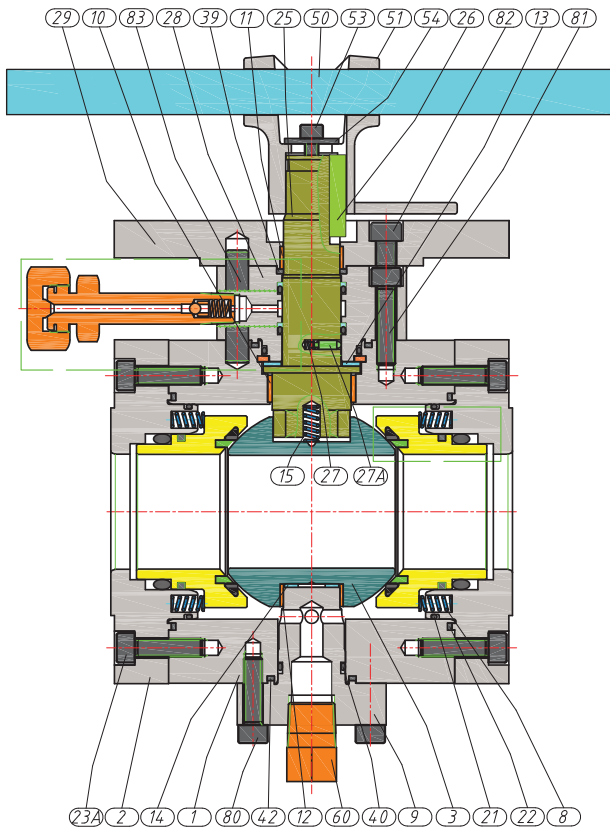


Model GB1
ANSI Class 150 to 2500

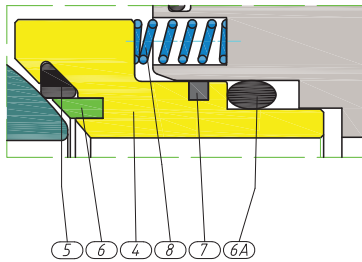
B1-EXPLODED VIEW-ANSI CLASS 150 WAFER BODY



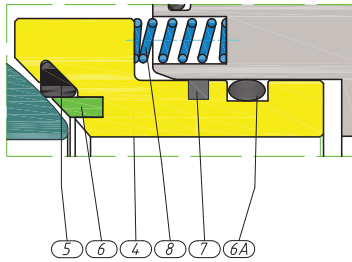
B1-SECTION VIEW-ANSI CLASS 150 WAFER BODY



Position	Part Description
1	BODY
2	END ADAPTER
3	BALL
4	SEAT RING
5	SEAT - DELTA
6	SEAT - DELTA PROTECTOR
6A	O-RING, SEAT
7	FIRE SAFE SEAL, SEAT
8	SPRING, SEAT
9	TRUNNION
10	SLEEVE BEARING, STEM LOWER
11	SLEEVE BEARING, STEM UPPER
12	SLEEVE BEARING, TRUNNION
13	THRUST WASHER, STEM
14	THRUST WASHER, BALL
15	SPRING, BALL ANTISTATIC
21	O-RING, END ADAPTER
22	FIRE-SAFE SEAL, BODY
23A	CAPSCREW, BODY/END ADAPTER
25	STEM
26	STEM KEY
27	SPRING, STEM ANTISTATIC
27A	PISTON, STEM ANTISTATIC
28	STEM FLANGE, LOWER
29	STEM FLANGE, UPPER
31	O-RING, STEM FLANGE
33	FIRE-SAFE SEAL, STEM FLANGE
35	O-RING, STEM
36	BACK-UP RING, STEM
39	FIRE-SAFE SEAL, STEM TOP
40	O-RING, TRUNNION
42	FIRE-SAFE SEAL, TRUNNION
43	SPLIT RING
50	LEVER TUBE
51	LEVER KNUCKLE (LOCKING TYPE)
53	CAPSCREW, LEVER KNUCKLE
54	WASHER, LEVER KNUCKLE
59	CAPSCREW, LEVER
60	DRAIN VALVE
61	SAFETY RELIEF VALVE
72	GBH GREASE FITTING, STEM
80	CAPSCREW, TRUNNION
81	CAPSCREW, LOWER STEM FLANGE
82	CAPSCREW, UPPER STEM FLANGE
83	DOWEL PIN, LOWER STEM FLANGE



SEAT SUB-ASSEMBLY DETAIL
DOUBLE PISTON EFFECT SEAT DESIGN

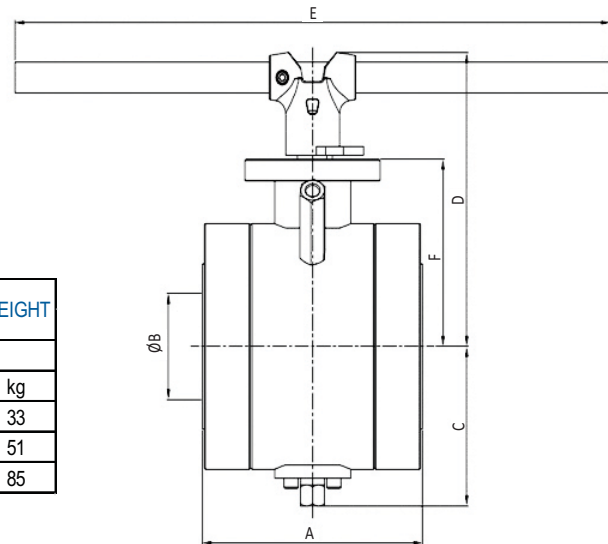


SEAT SUB-ASSEMBLY DETAIL
SINGLE PISTON EFFECT SEAT DESIGN

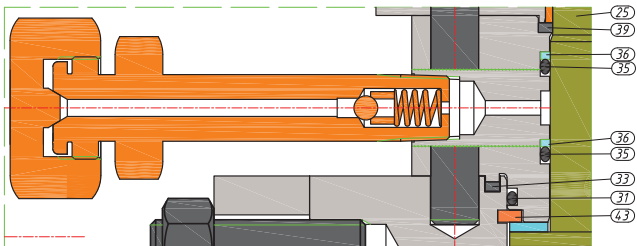
PIPELINE MOUNTING STUD	
SIZE	LENGTH
UNC	inch
5/8-11	3
5/8-11	3 1/4
5/8-11	3 1/4

ANSI 150

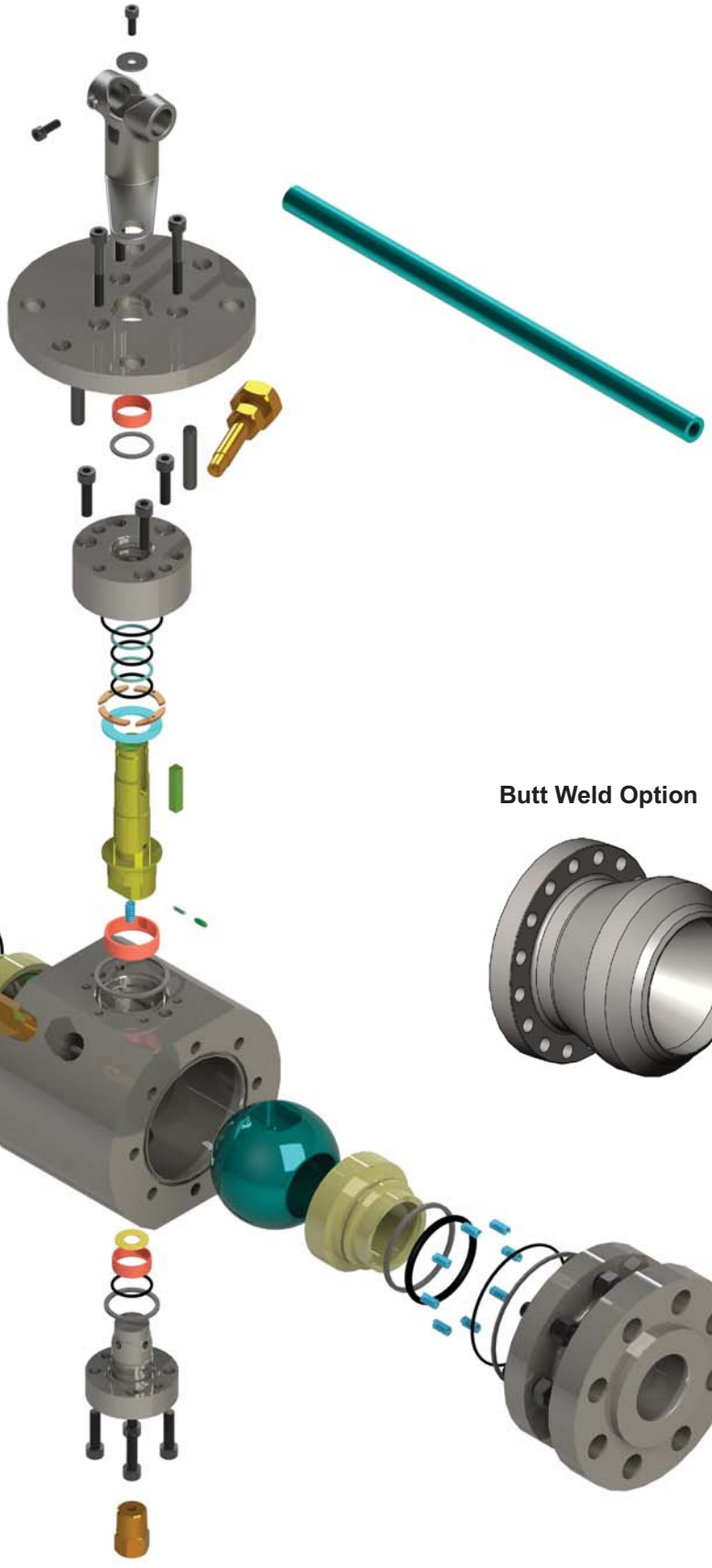
VALVE SIZE	BORE SIZE	PIPELINE MOUNTING STUD			C	D	E	F	WEIGHT
		RF	RTJ	BW					
NPS	B	A							
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2	51	178	191	216	120	208	400	129	33
3	76.2	203	216	283	153	249	500	147	51
4	102	229	241	305	178	321	700	189	85



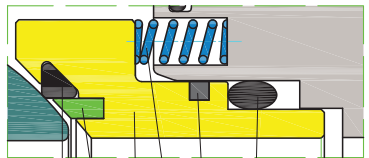
B1-EXPLODED VIEW-ANSI CLASS 300 TO 900 & 2" ANSI CLASS 1500



STEM SEAL SUB-ASSEMBLY DETAIL

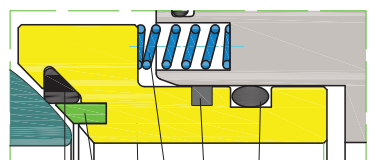


Butt Weld Option



- 5
- 6
- 4
- 8
- 7
- 6A

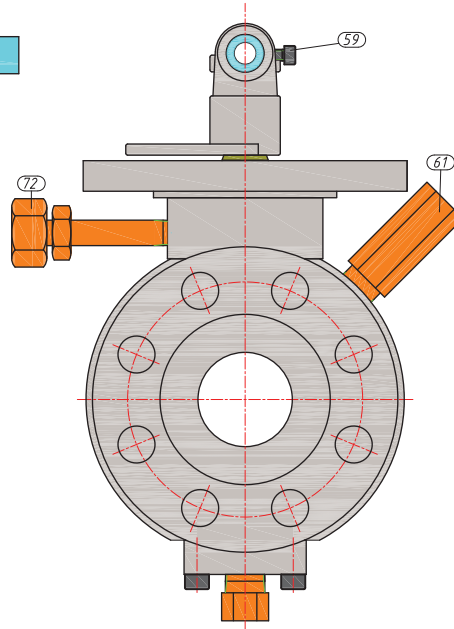
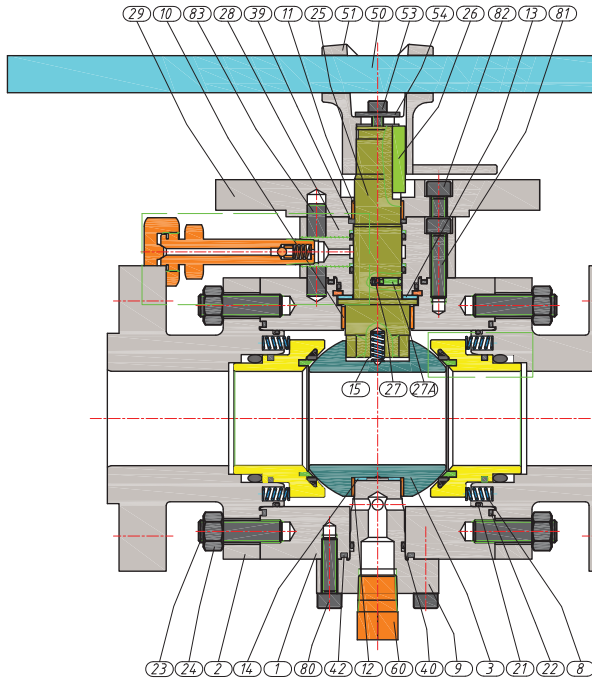
SEAT SUB-ASSEMBLY DETAIL
DOUBLE PISTON EFFECT SEAT DESIGN



- 5
- 6
- 4
- 8
- 7
- 6A

SEAT SUB-ASSEMBLY DETAIL
SINGLE PISTON EFFECT SEAT DESIGN

B1-SECTION VIEW-ANSI CLASS 300 TO 900 & 2" ANSI CLASS 1500



Position	Part Description
1	BODY
2	END ADAPTER
3	BALL
4	SEAT RING
5	SEAT - DELTA
6	SEAT - DELTA PROTECTOR
6A	O-RING, SEAT
6B	BACK-UP RING, SEAT
7	FIRE SAFE SEAL, SEAT
8	SPRING, SEAT
9	TRUNNION
10	SLEEVE BEARING, STEM LOWER
11	SLEEVE BEARING, STEM UPPER
12	SLEEVE BEARING, TRUNNION
13	THRUST WASHER, STEM
14	THRUST WASHER, BALL
15	SPRING, BALL ANTISTATIC
20	BACK-UP RING, END ADAPTER
21	O-RING, END ADAPTER
22	FIRE-SAFE SEAL, BODY
23	STUD, BODY/END ADAPTER
24	NUT, BODY/END ADAPTER
25	STEM
26	STEM KEY
27	SPRING, STEM ANTISTATIC
27A	PISTON, STEM ANTISTATIC
28	STEM FLANGE, LOWER
29	STEM FLANGE, UPPER
31	O-RING, STEM FLANGE
32	BACK-UP RING, STEM FLANGE
33	FIRE-SAFE SEAL, STEM FLANGE
35	O-RING, STEM
36	BACK-UP RING, STEM
39	FIRE-SAFE SEAL, STEM TOP
40	O-RING, TRUNNION
41	BACK-UP RING, TRUNNION
42	FIRE-SAFE SEAL, TRUNNION
43	SPLIT RING
50	LEVER TUBE
51	LEVER KNUCKLE (LOCKING TYPE)
53	CAPSCREW, LEVER KNUCKLE
54	WASHER, LEVER KNUCKLE
59	CAPSCREW, LEVER
60	DRAIN VALVE
61	SAFETY RELIEF VALVE
72	GBH GREASE FITTING, STEM
80	CAPSCREW, TRUNNION
81	CAPSCREW, LOWER STEM FLANGE
82	CAPSCREW, UPPER STEM FLANGE
83	DOWEL PIN, LOWER STEM FLANGE

ANSI 300

VALVE SIZE	BORE SIZE	SEAT			BODY				WEIGHT
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2	51	216	232	216	120	208	400	129	36
3x2	76.2x51	283	298	283	120	208	400	129	40
3	76.2	283	298	283	153	249	500	147	55
4x3	102x76.2	305	321	305	153	249	500	147	65
4	102	305	321	305	178	321	700	189	101
6x4*	152.4x102	403	419	457	178	321	700	189	138

ANSI 600

VALVE SIZE	BORE SIZE	SEAT			BODY				WEIGHT
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2	51	292	295	292	120	208	400	129	40
3x2	76.2x51	356	359	356	120	208	400	129	45
3	76.2	356	359	356	153	249	500	147	64
4x3	102x76.2	432	435	432	153	249	500	147	86
4	102	432	435	432	178	321	700	189	132
6x4*	152.4x102	559	562	559	178	321	700	189	200

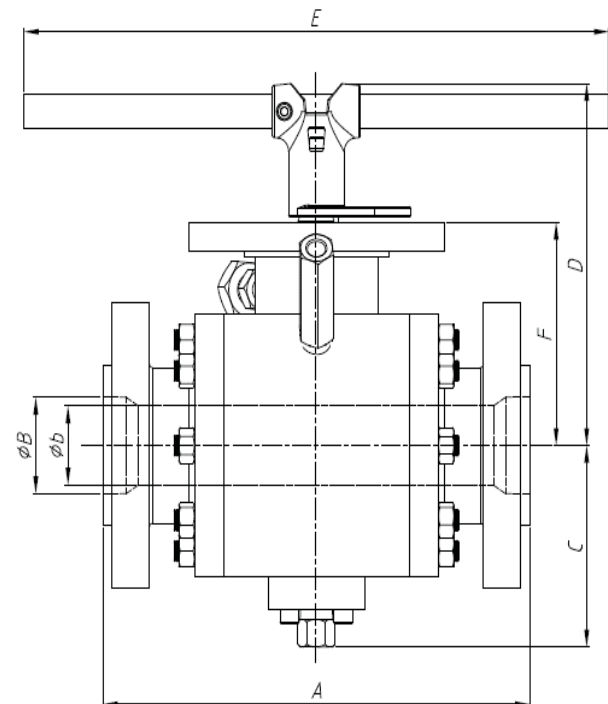
ANSI 900

VALVE SIZE	BORE SIZE	SEAT			BODY				WEIGHT
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2	51	368	371	368	121	235	500	139	63
3x2	76.2x51	381	384	381	121	235	500	139	75
3	76.2	381	384	381	165	306	700	174	110
4x3	102x76.2	457	460	457	165	306	700	174	148
4	102	457	460	457	187	356	960	214	220
6x4*	152.4x102	610	613	610	190	356	960	214	264

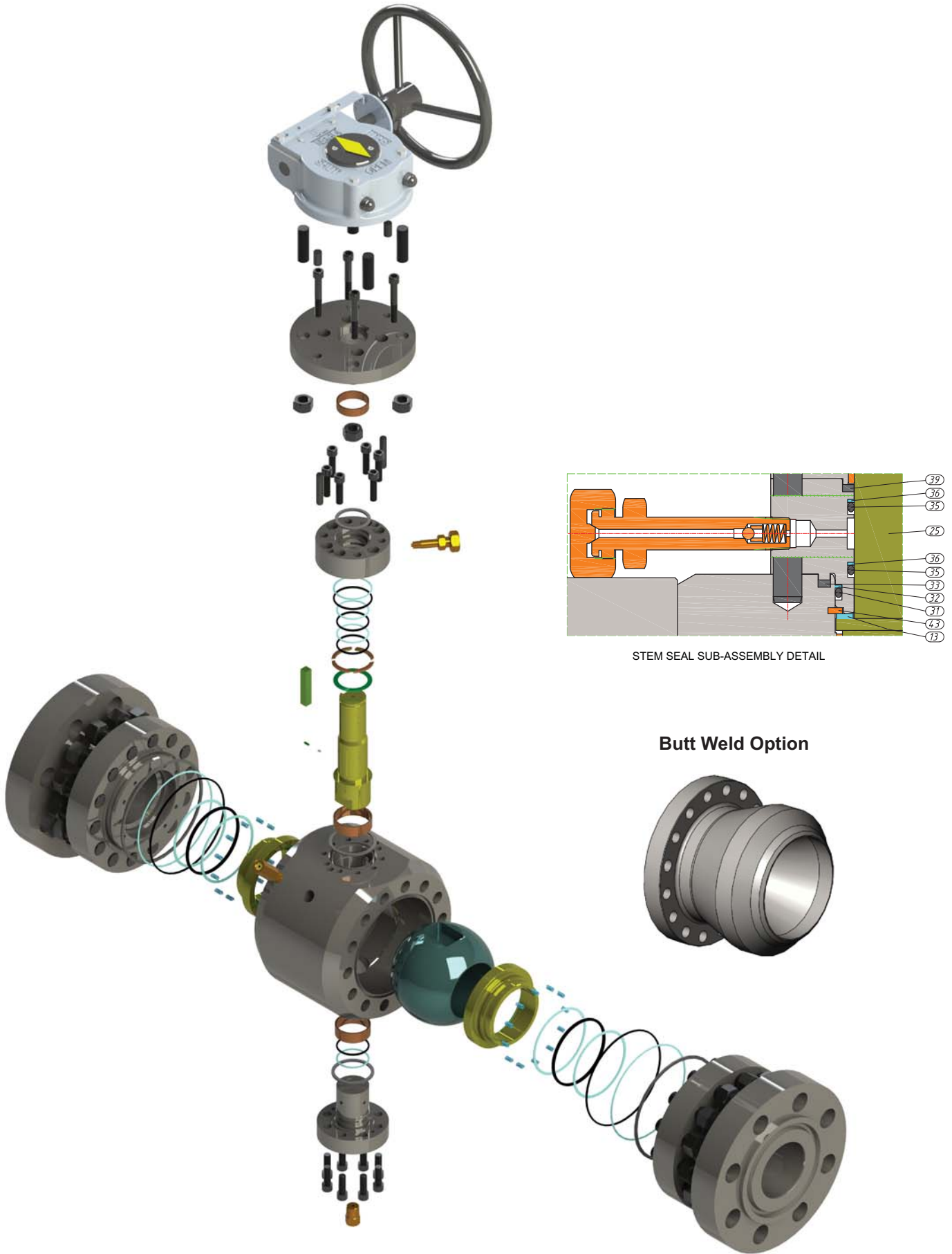
ANSI 1500

VALVE SIZE	BORE SIZE	SEAT			BODY				WEIGHT
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2	51	368	371	368	121	235	500	139	63
3x2	76.2x51	470	473	470	132.5	235	500	139	75

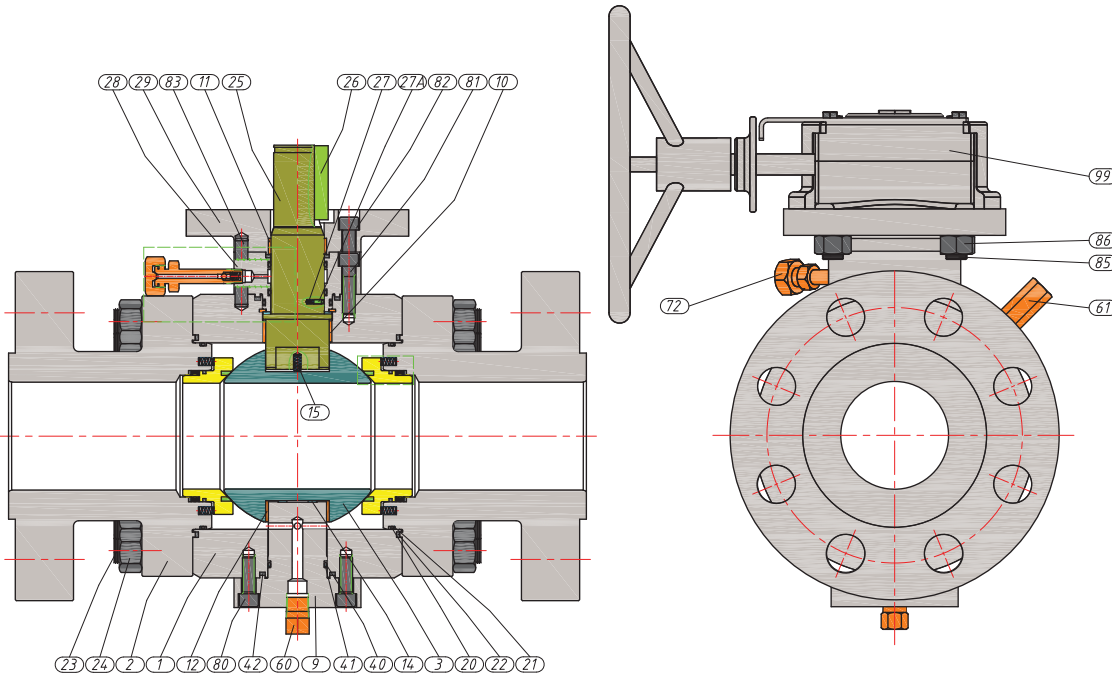
* For gear operated option please contact GVL.



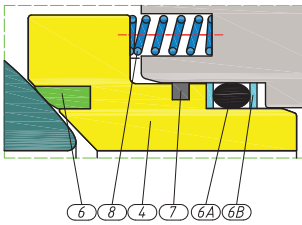
B1-EXPLODED VIEW-3" & 4" ANSI CLASS 1500



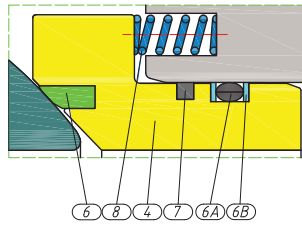
B1-SECTION VIEW-3" & 4" ANSI CLASS 1500



Position	Part Description
1	BODY
2	END ADAPTER
3	BALL
4	SEAT RING
6	SEAT
6A	O-RING, SEAT
6B	BACK-UP RING, SEAT
7	FIRE SAFE SEAL, SEAT
8	SPRING, SEAT
9	TRUNNION
10	SLEEVE BEARING, STEM LOWER
11	SLEEVE BEARING, STEM UPPER
12	SLEEVE BEARING, TRUNNION
13	THRUST WASHER, STEM
14	THRUST WASHER, BALL
15	SPRING, BALL ANTISTATIC
20	BACK-UP RING, END ADAPTER
21	O-RING, END ADAPTER
22	FIRE-SAFE SEAL, BODY
23	STUD, BODY/END ADAPTER
24	NUT, BODY/END ADAPTER
25	STEM
26	STEM KEY
27	SPRING, STEM ANTISTATIC
27A	PISTON, STEM ANTISTATIC
28	STEM FLANGE, LOWER
29	STEM FLANGE, UPPER
31	O-RING, STEM FLANGE
32	BACK-UP RING, STEM FLANGE
33	FIRE-SAFE SEAL, STEM FLANGE
35	O-RING, STEM
36	BACK-UP RING, STEM
39	FIRE-SAFE SEAL, STEM TOP
40	O-RING, TRUNNION
41	BACK-UP RING, TRUNNION
42	FIRE-SAFE SEAL, TRUNNION
43	SPLIT RING
60	DRAIN VALVE
61	SAFETY RELIEF VALVE
72	GBH GREASE FITTING, STEM
80	CAPSCREW, TRUNNION
81	CAPSCREW, LOWER STEM FLANGE
82	CAPSCREW, UPPER STEM FLANGE
83	DOWEL PIN, LOWER STEM FLANGE
84	DOWEL PIN, GEAR OP
85	STUD, GEAR OP
86	NUT, GEAR OP
99	GEAR OP WITH HANDWHEEL (LOCKABLE)



SEAT SUB-ASSEMBLY DETAIL
DOUBLE PISTON EFFECT SEAT DESIGN

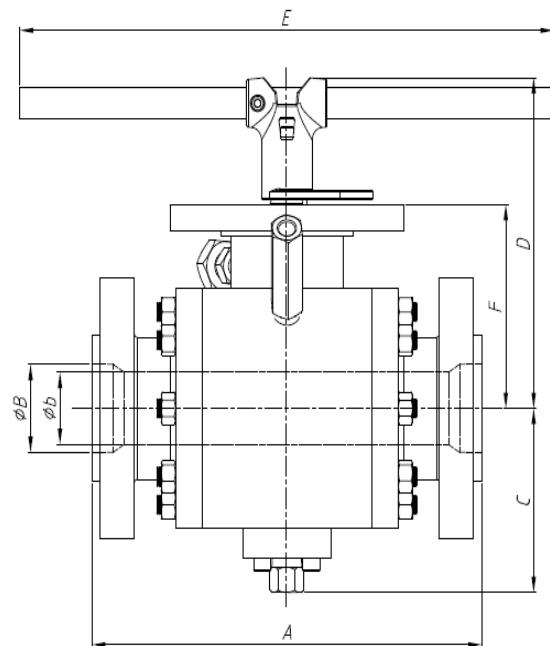


SEAT SUB-ASSEMBLY DETAIL
SINGLE PISTON EFFECT SEAT DESIGN

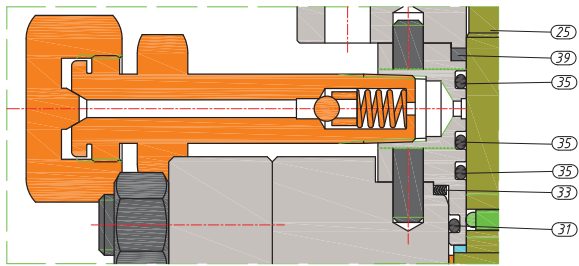
ANSI 1500

VALVE SIZE	BORE SIZE	END CONNECTION			DIMENSIONS				WEIGHT
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A							RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
3	76.2	470	473	470	165	306	700	174	115
4x3	102x76.2	546	549	546	165	306	700	174	154
4	102	546	549	546	187	256	400*	214	225
6x4	146.1x102	705	711	705	187	256	400*	214	270

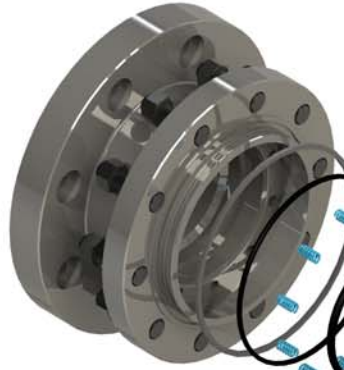
* Gear operated. Handwheel diameter.



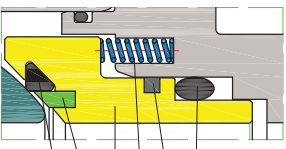
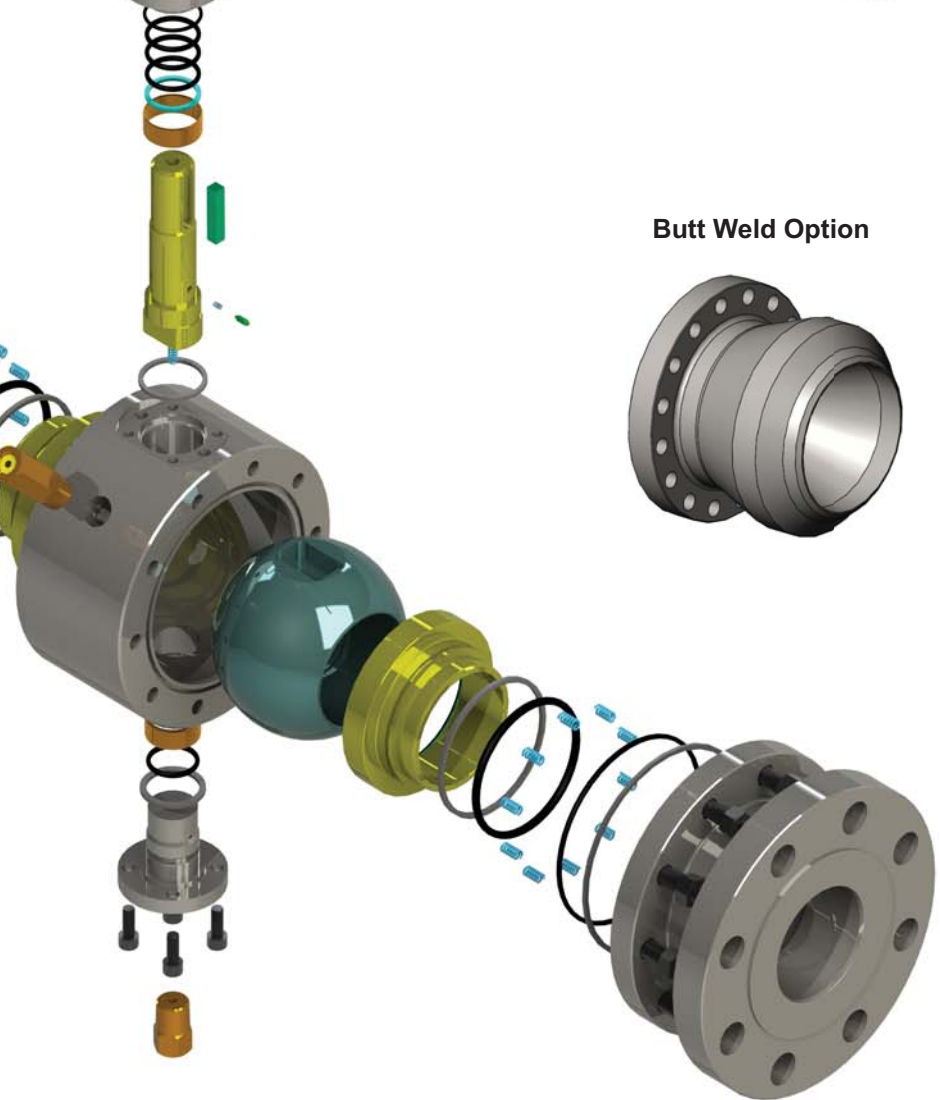
B1 (LIGHT WEIGHT)-EXPLODED VIEW ANSI CLASS 300 & 600



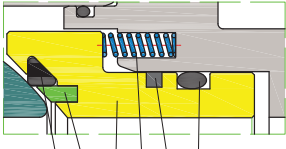
STEM SEAL SUB-ASSEMBLY DETAIL



Butt Weld Option



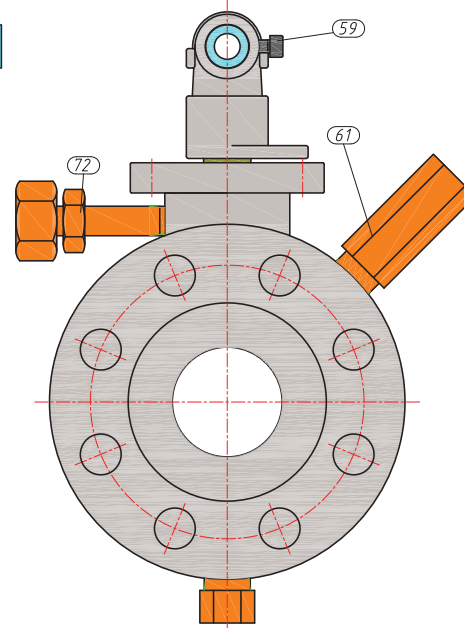
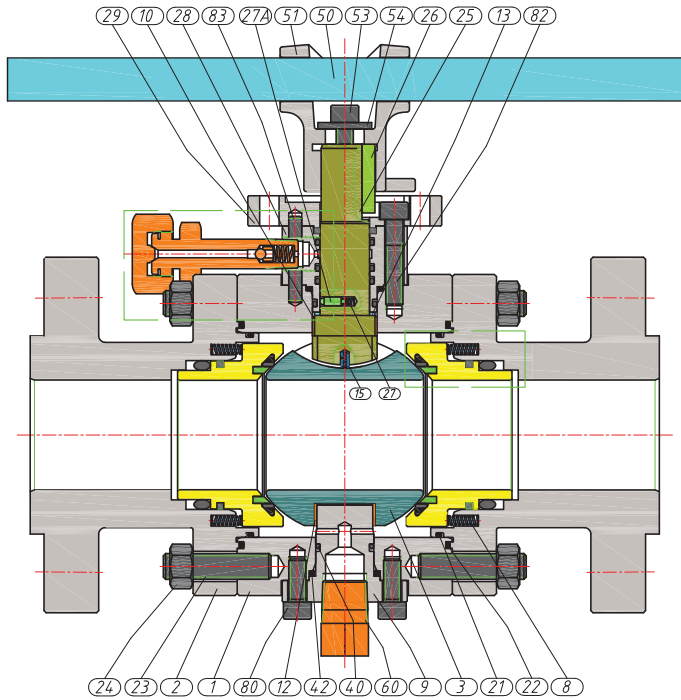
SEAT SUB-ASSEMBLY DETAIL
DOUBLE PISTON EFFECT SEAT DESIGN



SEAT SUB-ASSEMBLY DETAIL
SINGLE PISTON EFFECT SEAT DESIGN

Not Available To API 608

B1 (LIGHT WEIGHT)-SECTION VIEW ANSI CLASS 300 & 600



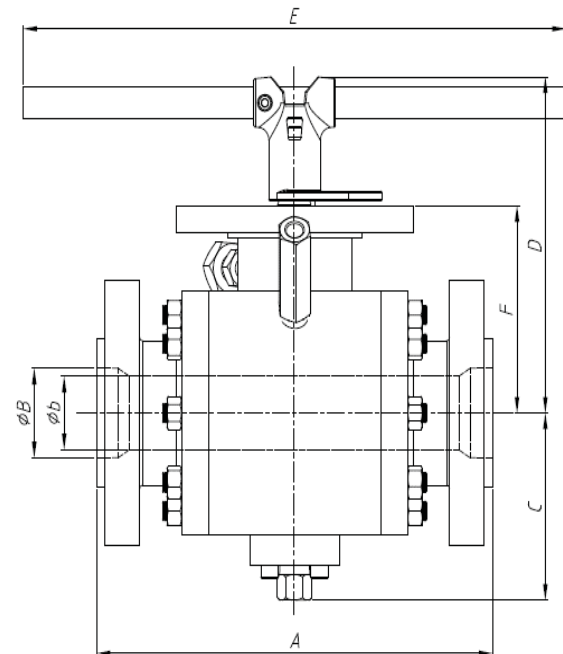
Position	Part Description
1	BODY
2	END ADAPTER
3	BALL
4	SEAT RING
5	SEAT - DELTA
6	SEAT - DELTA PROTECTOR
6A	O-RING, SEAT
7	FIRE SAFE SEAL, SEAT
8	SPRING, SEAT
9	TRUNNION
10	SLEEVE BEARING, STEM LOWER
12	SLEEVE BEARING, TRUNNION
13	THRUST WASHER, STEM
15	SPRING, BALL ANTISTATIC
21	O-RING, END ADAPTER
22	FIRE-SAFE SEAL, BODY
23	STUD, BODY/END ADAPTER
24	NUT, BODY/END ADAPTER
25	STEM
26	STEM KEY
27	SPRING, STEM ANTISTATIC
27A	PISTON, STEM ANTISTATIC
28	STEM FLANGE, LOWER
29	STEM FLANGE, UPPER
31	O-RING, STEM FLANGE
33	FIRE-SAFE SEAL, STEM FLANGE
35	O-RING, STEM
39	FIRE-SAFE SEAL, STEM TOP
40	O-RING, TRUNNION
42	FIRE-SAFE SEAL, TRUNNION
50	LEVER TUBE
51	LEVER KNUCKLE (LOCKING TYPE)
53	CAPSCREW, LEVER KNUCKLE
54	WASHER, LEVER KNUCKLE
59	CAPSCREW, LEVER
60	DRAIN VALVE
61	SAFETY RELIEF VALVE
72	GBH GREASE FITTING, STEM
80	CAPSCREW, TRUNNION
81	CAPSCREW, LOWER STEM FLANGE
82	CAPSCREW, UPPER STEM FLANGE
83	DOWEL PIN, LOWER STEM FLANGE

ANSI 300

VALVE SIZE	BORE SIZE	A			C				WEIGHT
		RF	RTJ	BW	D	E	F	RF	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2	51	216	232	216	103	185	400	111	28
3x2	76.2x51	283	298	283	105	185	400	111	35
3	76.2	283	298	283	127	227	500	144.5	47
4x3	102x76.2	305	321	305	127	227	500	144.5	59
4	102	305	321	305	154	277	700	163.5	80
6x4*	152.4x102	403	419	457	160	277	700	163.5	100

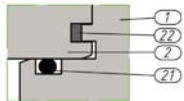
ANSI 600

VALVE SIZE	BORE SIZE	A			C				WEIGHT
		RF	RTJ	BW	D	E	F	RF	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2	51	292	295	292	103	185	400	111	30
3x2	76.2x51	356	359	356	105	185	400	111	41
3	76.2	356	359	356	127	227	500	144.5	60
4x3	102x76.2	432	435	432	137.5	227	500	144.5	78
4	102	432	435	432	154	277	700	163.5	109
6x4*	152.4x102	559	562	559	177.5	277	700	163.5	130

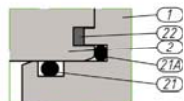


* For gear operated option please contact GVL.

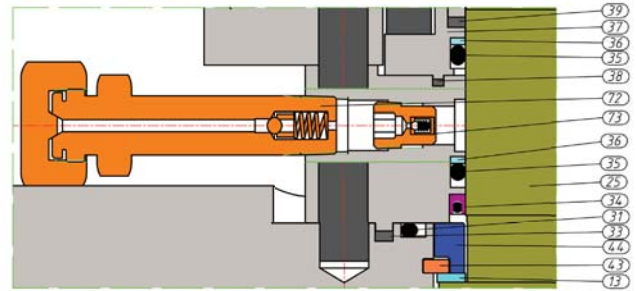
GB1-EXPLODED VIEW-ANSI CLASS 150 TO 900



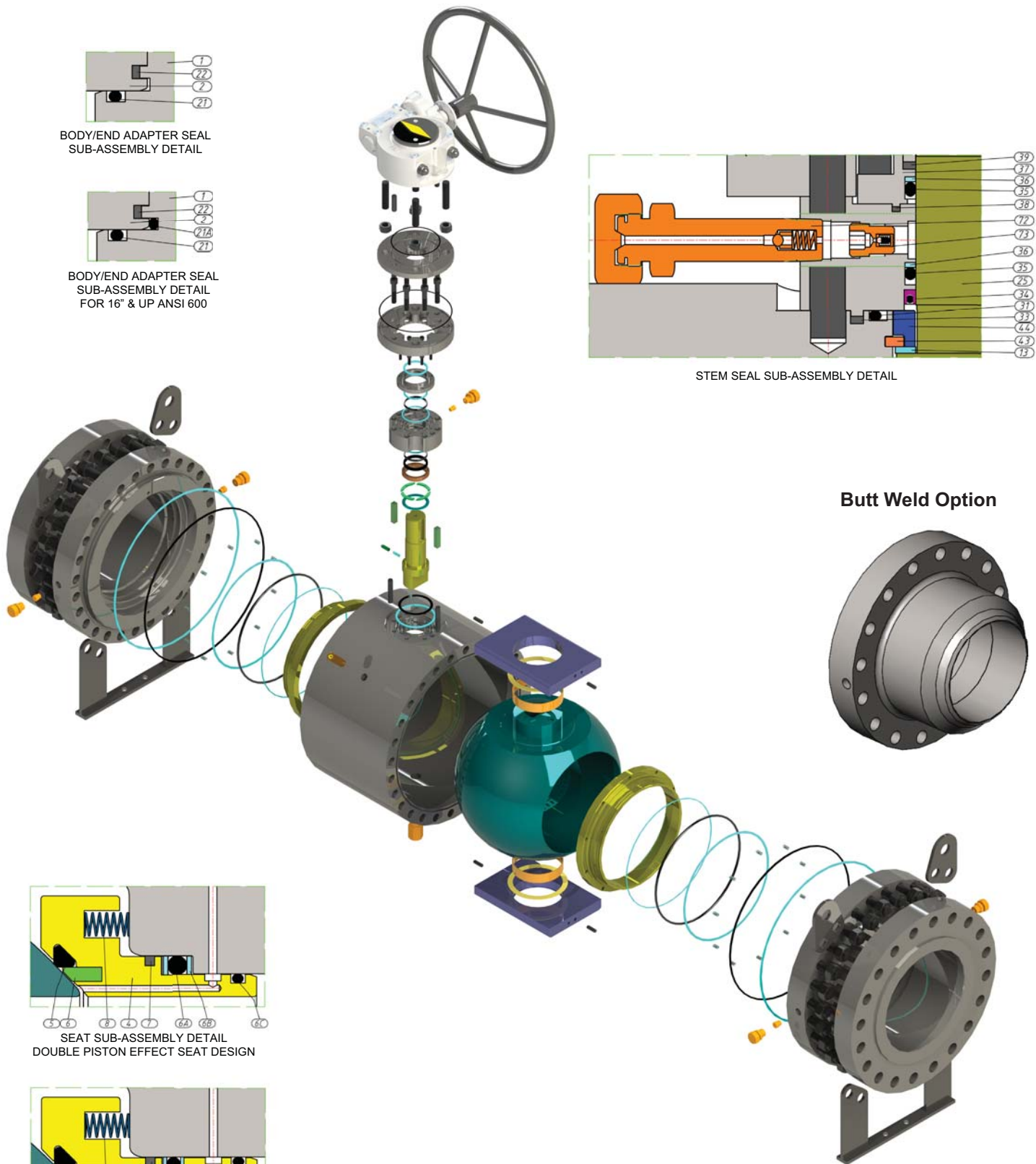
BODY/END ADAPTER SEAL SUB-ASSEMBLY DETAIL



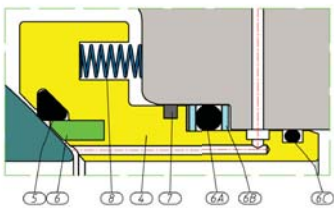
BODY/END ADAPTER SEAL SUB-ASSEMBLY DETAIL FOR 16" & UP ANSI 600



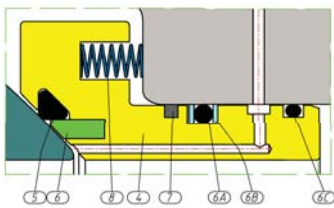
STEM SEAL SUB-ASSEMBLY DETAIL



Butt Weld Option

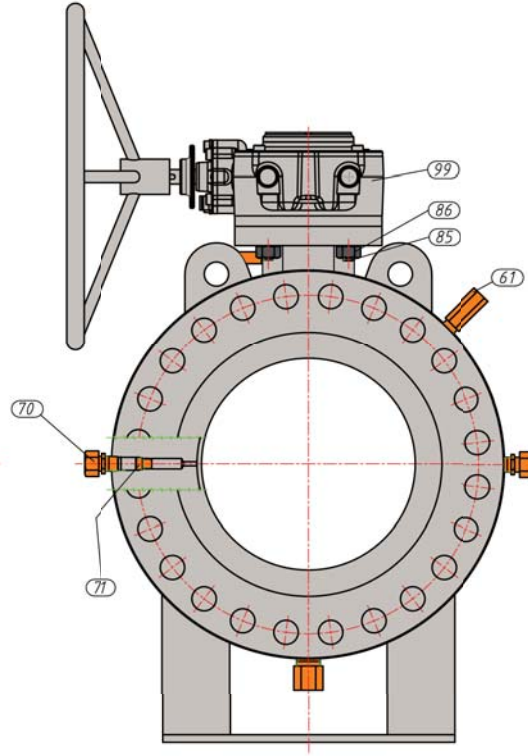
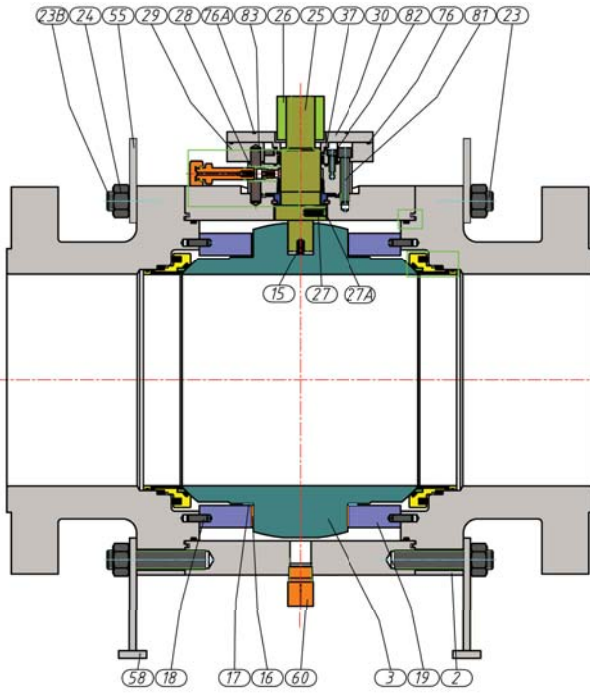


SEAT SUB-ASSEMBLY DETAIL DOUBLE PISTON EFFECT SEAT DESIGN



SEAT SUB-ASSEMBLY DETAIL SINGLE PISTON EFFECT SEAT DESIGN

GB1-SECTION VIEW-ANSI CLASS 150 TO 900



Position	Part Description
1	BODY
2	END ADAPTER
3	BALL
4	SEAT RING
5	SEAT - DELTA
6	SEAT - DELTA PROTECTOR
6A	O-RING, SEAT
6B	BACK-UP RING, SEAT
6C	O-RING, SEAT GREASE
7	FIRE SAFE SEAL, SEAT
8	SPRING, SEAT
13	THRUST WASHER, STEM
15	SPRING, BALL ANTISTATIC
16	SLEEVE BEARING, TRUNNION
17	THRUST WASHER, BALL
18	PIN, TRUNNION SUPPORT
19	TRUNNION SUPPORT
20	BACK-UP RING, END ADAPTER
21	O-RING, END ADAPTER
21A	O-RING, BODY
22	FIRE-SAFE SEAL, BODY
23	STUD, BODY/END ADAPTER
23B	STUD, BODY/END ADAPTER (LONG)
24	NUT, BODY/END ADAPTER
25	STEM
26	STEM KEY
26B	CAPSCREW, STEM KEY
27	SPRING, STEM ANTISTATIC
27A	PISTON, STEM ANTISTATIC
28	STEM FLANGE, LOWER
29	STEM FLANGE, UPPER
30	STOP FLANGE
31	O-RING, STEM FLANGE
33	FIRE-SAFE SEAL, STEM FLANGE
34	U SHAPE SEAL RING
35	O-RING, STEM
36	BACK-UP RING, STEM
37	RETAINER FLANGE
38	FIRE-SAFE SEAL, RETAINER FLANGE
39	FIRE-SAFE SEAL, STEM TOP
43	SPLIT RING
44	SPACER
55	LIFTING LUG
58	VALVE SUPPORTING LEG
60	DRAIN VALVE
61	SAFETY RELIEF VALVE
70	GBH GREASE FITTING, SEAT
71	INNER CHECK VALVE, SEAT
72	GBH GREASE FITTING, STEM
73	INNER CHECK VALVE, STEM
76	WEATHER SEAL
76A	WEATHER SEAL
81	CAPSCREW, LOWER STEM FLANGE
82	CAPSCREW, UPPER STEM FLANGE
83	DOWEL PIN, LOWER STEM FLANGE
84	DOWEL PIN, GEAR OP
85	STUD, GEAR OP
86	NUT, GEAR OP
99	GEAR OP WITH HANDWHEEL (LOCKABLE)

ANSI 150

VALVE SIZE		BORE SIZE			WEIGHT						
NPS	B(xb)	RF	RTJ	BW	C	D	E	F	RF		
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg		
6	152.4	394	406	457	205	287	400	245	190		
8x6	203.2x152.4	457	470	521	205	287	400	245	228		
8	203.2	457	470	521	278.5	325.5	400	283.5	305		
10x8	254x203.2	533	546	559	278.5	325.5	400	283.5	366		
10	254	533	546	559	361	360	400	318.5	453		
12x10	305x254	610	622	635	361	360	400	318.5	543		
12	305	610	622	635	411	407	600	359	720		
14x10	337x305	686	699	762	361	360	400	318.5	706		
14	337	686	699	762	451	444	600	393	987		
16x12	387.4x337	762	775	838	411	407	600	359	936		
16	387.4	762	775	838	495	481	600	425	1254		
18	438.2	864	876	914	530	557	700	477	1901		
20x16	438.2x387.4	914	927	991	495	481	600	425	1630		
20	489	914	927	991	580	581.5	700	518	2548		
24x20	591x489	1067	1080	1143	580	581.5	700	518	3313		
24	591	1067	1080	1143	715	690	700	605	3860		
30x24	737x591	1295	/	1397	715	690	700	605	4632		
30	737	1295	/	1397	873	826	700	727	6225		
32	781.1	1372	/	1524	950	900	700	800	7470		
36x30	876x737	1524	/	1727	873	826	700	727	8093		
36	876	1524	/	1727	1035	1036	800	936	10837		

ANSI 600

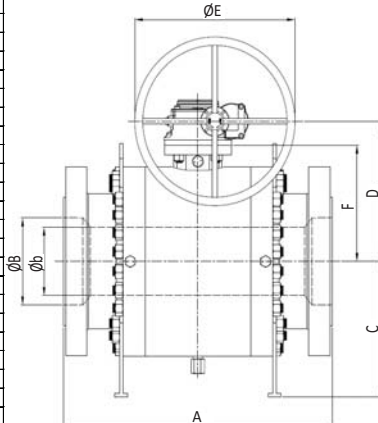
VALVE SIZE		BORE SIZE			WEIGHT						
NPS	B(xb)	RF	RTJ	BW	C	D	E	F	RF		
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg		
6	152.4	559	562	559	291.5	287	600	245	325		
8x6	203.2x152.4	660	664	660	291.5	287	600	245	339		
8	203.2	660	664	660	340	325.5	600	283.5	466		
10x8	254x203.2	787	791	787	340	325.5	600	283.5	561		
10	254	787	791	787	370	374.5	600	318.5	710		
12x10	305x254	838	841	838	370	374.5	600	318.5	765		
12	305	838	841	838	421	415	600	359	930		
14x10	337x305	889	892	889	421	374.5	600	318.5	1107		
14	337	889	892	889	451	444	600	393	1382		
16x12	387.4x337	991	994	991	421	415	600	359	1209		
16	387.4	991	994	991	570	502	700	440	1834		
18	438.2	1092	1095	1092	530	557	700	477	2583		
20x16	438.2x387.4	1194	1200	1194	570	502	700	440	2384		
20	489	1194	1200	1194	650	618	700	533	3332		
22	540	1295	1305	1295	680	610	700	580	3831		
24x20	591x489	1397	1407	1397	650	618	700	533	3920		
24	591	1397	1407	1397	724	690	700	605	5362		
30x24	737x591	1651	1664	1651	724	690	700	605	6280		
30	737	1651	1664	1651	900	846	700	749	8138		
32	781.1	1778	1794	1778	950	900	700	800	9765		
36x30	876x737	2083	2099	2083	900	846	700	749	10579		
36	876	2083	2099	2083	1035	1036	800	936	15000		

ANSI 300

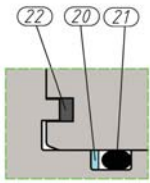
VALVE SIZE		BORE SIZE			WEIGHT						
NPS	B(xb)	RF	RTJ	BW	C	D	E	F	RF		
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg		
6	152.4	403	419	457	205	287	400	245	210		
8x6	203.2x152.4	502	518	521	205	287	400	245	265		
8	203.2	502	518	521	330	325.5	600	283.5	398		
10x8	254x203.2	568	584	559	330	325.5	600	283.5	510		
10	254	568	584	559	361	366	600	318.5	510		
12x10	305x254	648	664	635	361	366	600	318.5	681		
12	305	648	664	635	401	407	600	359	790		
14x10	337x305	762	778	762	361	366	600	318.5	886		
14	337	762	778	762	451	444	600	393	1174		
16x12	387.4x337	838	854	838	401	407	600	359	1027		
16	387.4	838	854	838	494	480	600	425	1558		
18	438.2	914	930	914	540	541	700	477	2195		
20x16	438.2x387.4	991	1010	991	494	480	600	425	1907		
20	489	991	1010	991	634	582	700	518	2832		
22	540	1092	1114	1092	680	610	700	580	3256		
24x20	591x489	1143	1165	1143	634	582	700	518	3681		
24	591	1143	1165	1143	715	690	700	605	4289		
30x24	737x591	1397	1422	1397	715	690	700	605	5147		
30	737	1397	1422	1397	873	826	700	727	6917		
32	781.1	1524	1553	1524	950	900	700	800	8300		
36x30	876x737	1727	1756	1727	873	826	700	727	8992		
36	876	1727	1756	1727	1035	1036	800	936	12750		

ANSI 900

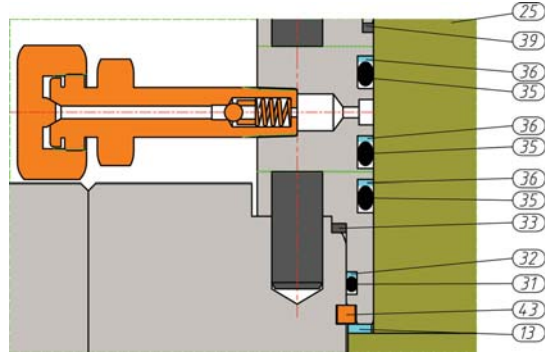
VALVE SIZE		BORE SIZE			WEIGHT						
NPS	B(xb)	RF	RTJ	BW	C	D	E	F	RF		
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg		
6	152.4	610	613	610	294	287	600	245	362		
8x6	203.2x152.4	737	740	737	294	287	600	245	434		
8	203.2	737	740	737	400	339.5	600	283.5	575		
10x8	254x203.2	838	841	838	400	339.5	600	283.5	690		
10	254	838	841	838	470	403.5	600	348.5	1040		
12x10	305x254	965	968	965	470	403.5	600	348.5	1248		
12	305	965	968	965	434.5	440	700	385	1386		
14x10	324x305	1029	1038	1029	470	403.5	600	348.5	1362		
14	324	1029	1038	1029	510	490	700	423	1793		
16x12	375x324	1130	1140	1130	500	440	700	385	1801		
16	375	1130	1140	1130	600	530	700	466	2200		
18	425.5	1219	1232	1219	660	608	700	507	3099		
20x16	425.5x375	1321	1334	1321	600	530	700	466	2861		
20	473.1	1321	1334	1321	705	678	700	590	3998		
24x20	571.5x473.1	1549	1568	1549	705	678	700	590	5096		
24	571.5	1549	1568	1549	787	730	700	628.5	6434		
30x24	714.4x571.5	1880	1902	/	787	730	700	628.5	7536		
30	714.4	1880	1902	/	945	905	800	800	9765		
36x30	857x714.4	2286	2315	/	945	905	800	800	12695		
36	857	2286	2315	/	1100	988	800	1050	18000		



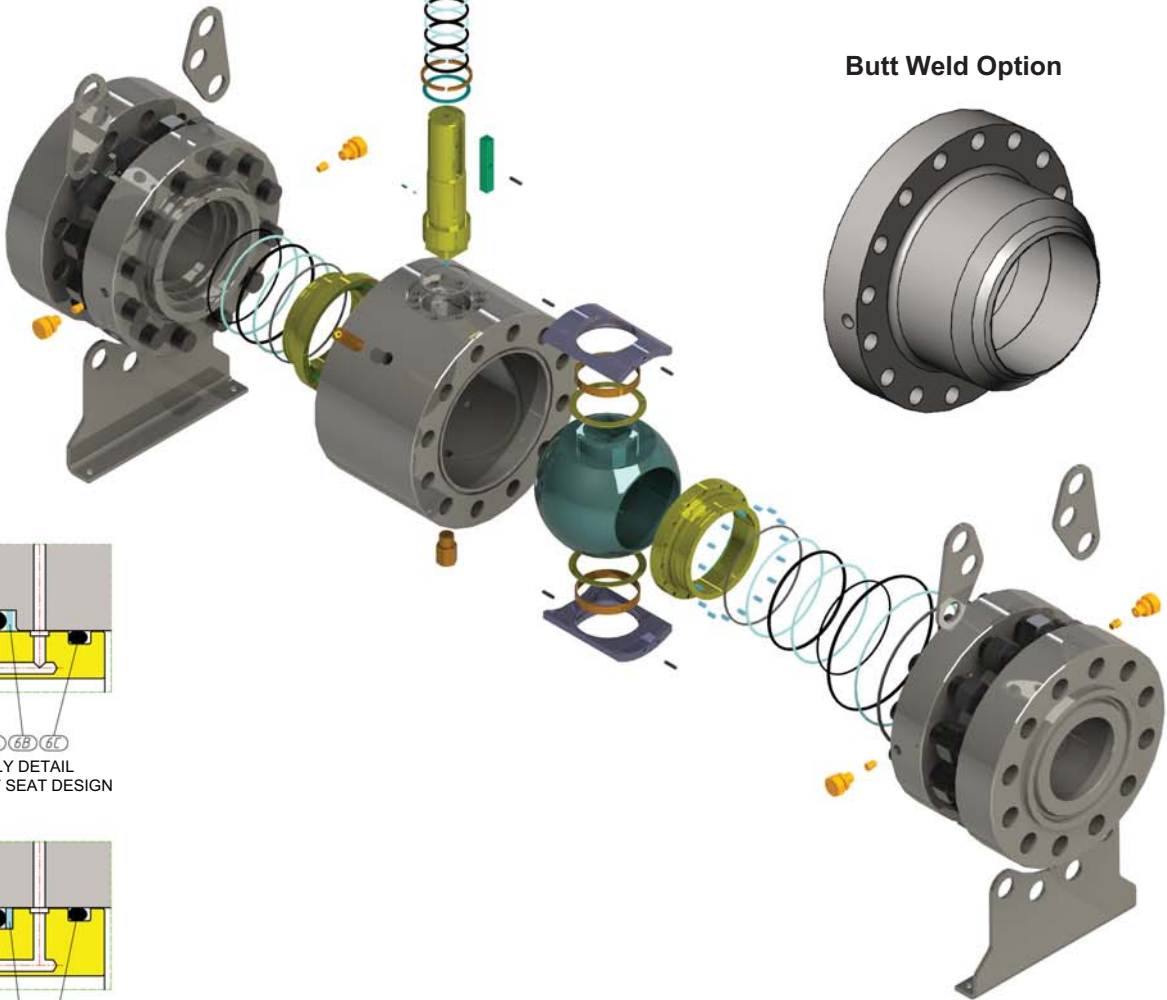
GB1-EXPLODED VIEW-2" TO 16" ANSI CLASS 2500 & 6" TO 24" ANSI CLASS 1500



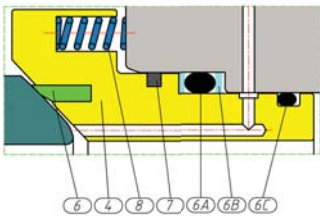
BODY SEAL
SUB-ASSEMBLY DETAIL



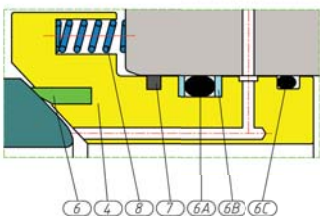
STEM SEAL SUB-ASSEMBLY DETAIL



Butt Weld Option

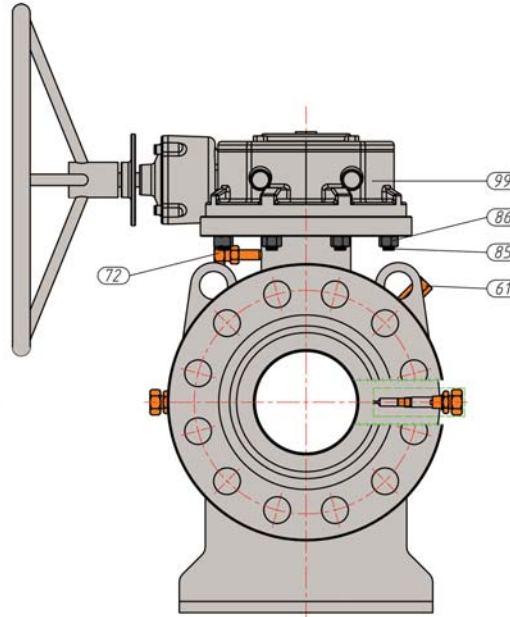
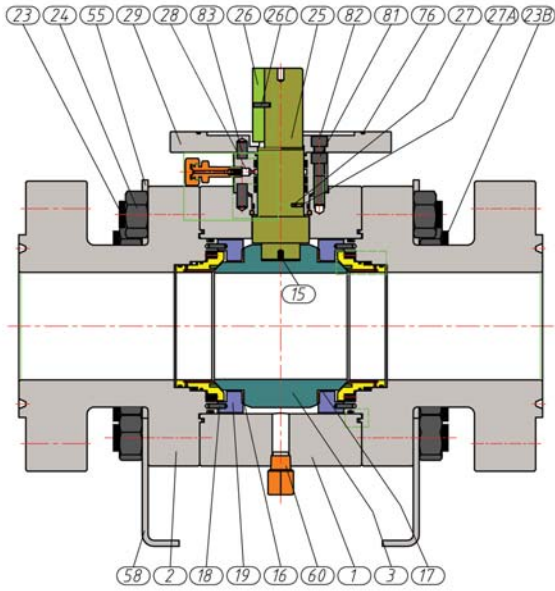


SEAT SUB-ASSEMBLY DETAIL
DOUBLE PISTON EFFECT SEAT DESIGN



SEAT SUB-ASSEMBLY DETAIL
SINGLE PISTON EFFECT SEAT DESIGN

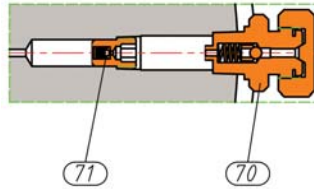
GB1-SECTION VIEW-2" TO 16" ANSI CLASS 2500 & 6" TO 24" ANSI CLASS 1500



Position	Part Description
1	BODY
2	END ADAPTER
3	BALL
4	SEAT RING
6	SEAT
6A	O-RING, SEAT
6B	BACK-UP RING, SEAT
6C	O-RING, SEAT GREASE
7	FIRE SAFE SEAL, SEAT
8	SPRING, SEAT
13	THRUST WASHER, STEM
15	SPRING, BALL ANTISTATIC
16	SLEEVE BEARING, TRUNNION
17	THRUST WASHER, BALL
18	PIN, TRUNNION SUPPORT
19	TRUNNION SUPPORT
20	BACK-UP RING, END ADAPTER
21	O-RING, END ADAPTER
22	FIRE-SAFE SEAL, BODY
23	STUD, BODY/END ADAPTER
23B	STUD, BODY/END ADAPTER (LONG)
24	NUT, BODY/END ADAPTER
25	STEM
26	STEM KEY
26C	DOWEL PIN, STEM KEY
27	SPRING, STEM ANTISTATIC
27A	PISTON, STEM ANTISTATIC
28	STEM FLANGE, LOWER
29	STEM FLANGE, UPPER
31	O-RING, STEM FLANGE
32	BACK-UP RING, STEM FLANGE
33	FIRE-SAFE SEAL, STEM FLANGE
35	O-RING, STEM
36	BACK-UP RING, STEM
39	FIRE-SAFE SEAL, STEM TOP
43	SPLIT RING
55	LIFTING LUG
58	VALVE SUPPORTING LEG
60	DRAIN VALVE
61	SAFETY RELIEF VALVE
70	GBH GREASE FITTING, SEAT
71	INNER CHECK VALVE, SEAT
72	GBH GREASE FITTING, STEM
81	CAPSCREW, LOWER STEM FLANGE
82	CAPSCREW, UPPER STEM FLANGE
83	DOWEL PIN, LOWER STEM FLANGE
84	DOWEL PIN, GEAR OP
85	STUD, GEAR OP
86	NUT, GEAR OP
99	GEAR OP WITH HANDWHEEL (LOCKABLE)

ANSI 1500

VALVE SIZE	BORE SIZE	A							WEIGHT
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
6	146.1	705	711	705	299	316	600	264	488
8x6	194x146.1	832	841	832	299	316	600	264	586
8	194	832	841	832	380	361	700	306	776
10x8	241x194	991	1000	991	380	361	700	306	931
10	241	991	1000	991	490	469	700	400	1404
12x10	289x241	1130	1146	1130	490	469	700	400	1684
12	289	1130	1146	1130	535	510	700	455	1871
14x10	317x241	1257	1276	1257	490	469	700	400	1825
14	317	1257	1276	1257	600	550	700	510	2421
16x12	362x289	1384	1407	1384	535	510	700	455	2432
16	362	1384	1407	1384	645	626	700	565	2971
18	408	1537	1559	/	710	668	700	590	4184
20x16	456x362	1664	1686	/	645	626	700	565	3862
20	456	1664	1686	/	755	718	700	635	5397
24x20	548x456	/	1972	/	755	718	700	635	6879

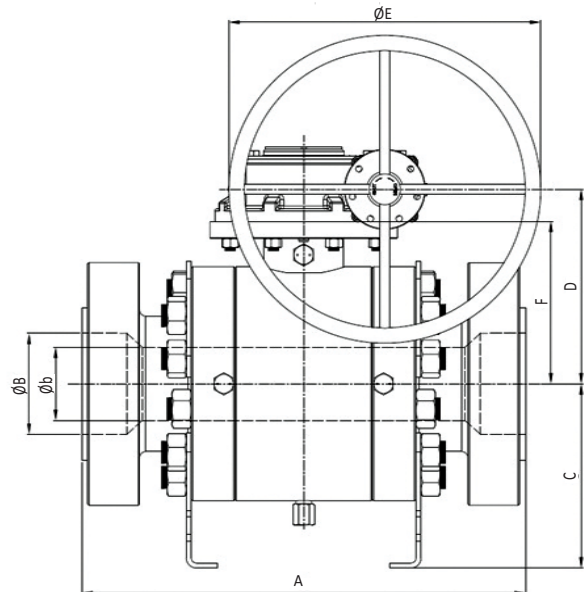


SEAT GREASE FITTING SUB-ASSEMBLY DETAIL
(NOT APPLICABLE TO 2"-4" ANSI CLASS 2500)

ANSI 2500

VALVE SIZE	BORE SIZE	A							WEIGHT
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A			C	D	E	F	RTJ
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2	44.5	451	454	451	125	262	700*	149	97
3x2	64x44.5	578	584	578	152.5	262	700*	149	126
3	64	578	584	578	164	232	400	190	230
4x3	89x64	673	683	673	178	232	400	190	299
4	89	673	683	673	189	263	500	215	375
6x4	133.4x89	914	927	914	197.5	263	500	215	487
6	133.4	914	927	914	380	395	600	290	733
8x6	181x133.4	1022	1038	1022	380	395	600	290	879
8	181	1022	1038	1022	435	480	700	425	1164
10x8	225x181	1270	1292	1270	435	480	700	425	1397
10	225	1270	1292	1270	510	560	700	490	2106
12x10	267x225	1422	1455	1422	510	560	700	490	2527
12	267	1422	1455	1422	600	650	700	590	2806

* Lever operated. Lever length.



DESIGN FEATURES

FEATURES

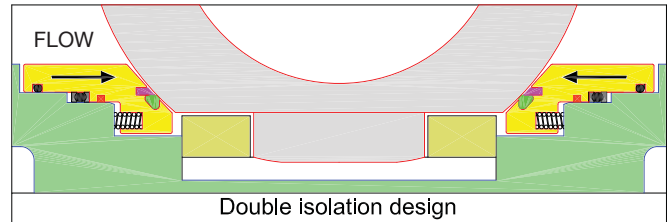
- Bolted body type
- Full and reduced bore
- All forged steel components
- Firesafe certified, anti-static devices
- Trunnion mounted, double block and bleed
- Anti-blow out stem design per API 608
- Double piston effect, self relieving seats, or combination of the two seat designs
- Bubble tight seat seals
- Emergency stem and seat sealing
- Minimum three stem seals for series B1
- Minimum four stem seals for series GB1
- Low operating torque
- Ball loads are distributed over large surface areas of two self lubricating bearings, enabling them to work under a low specific pressure thus reducing wear
- Very low bending loads are exerted on the trunnions

EMERGENCY SEAT SEALING

As an excess of impurities in fluids may have a harmful effect on seat ring seals, GVS® Series GB1 valves are equipped for emergency restoration of seals.

This consists of special holes and grooves in the seat rings and valve body through which sealants are injected.

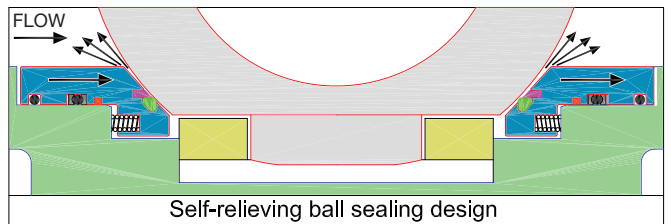
Each body injection port is equipped with an inner check valve and a grease button head fitting.



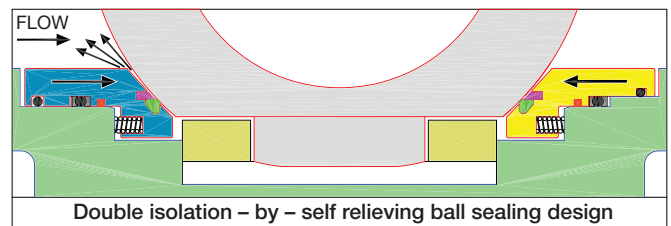
Double isolation design

API 6D - DIB-1

Optional Valve Seat Sealing Designs

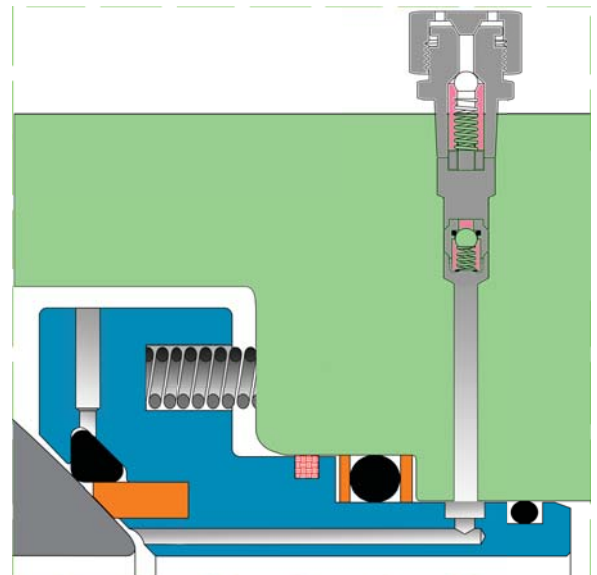


Self-relieving ball sealing design



Double isolation - by - self-relieving ball sealing design

API 6D - DIB-2

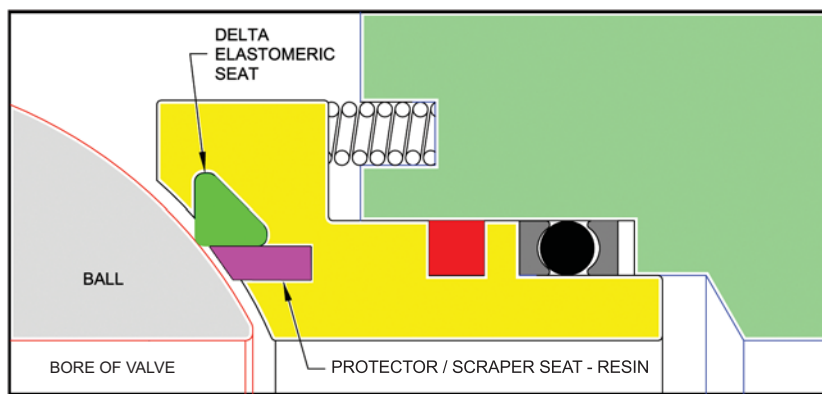
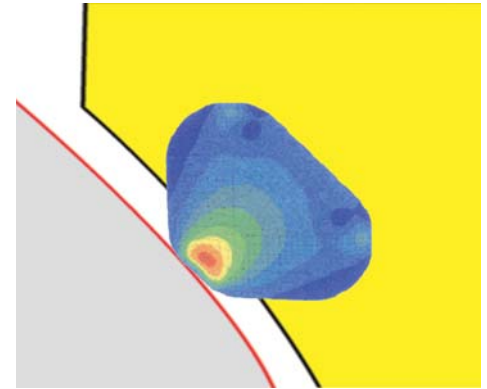


DESIGN FEATURES

DELTA SEAT SEAL

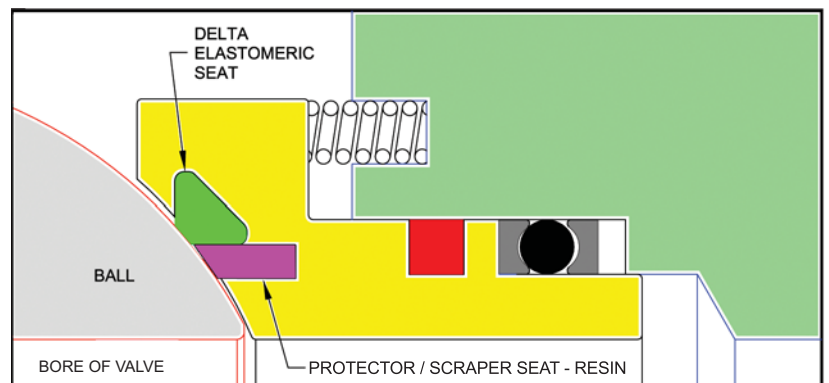
This seat insert is shaped like a triangle “Delta” with rounded corners, which is housed by means of a metal seat. This unique geometry offers several advantages:

Due to the high elasticity of the seat insert, it may ensure sealing even on partly damaged ball surfaces.



At low pressure, the resin seat is more of a “Protector” for it does not touch the ball’s outer surface. This is why we state that the insert seat is a protector. The “Delta” elastomeric shaped seat is always in full contact to the ball at low & high pressure, providing a seat to ball shut-off at all times.

At higher pressure, the complete seat assembly is being pushed against the ball, and the insert resin seat “Protector” eventually does come in contact to the ball’s outer surface. At this elevated pressure, the protector acts as a seat seal in addition of being a protector and also acting as a scraper thus wiping off any debris that may be against the ball’s outer surface.

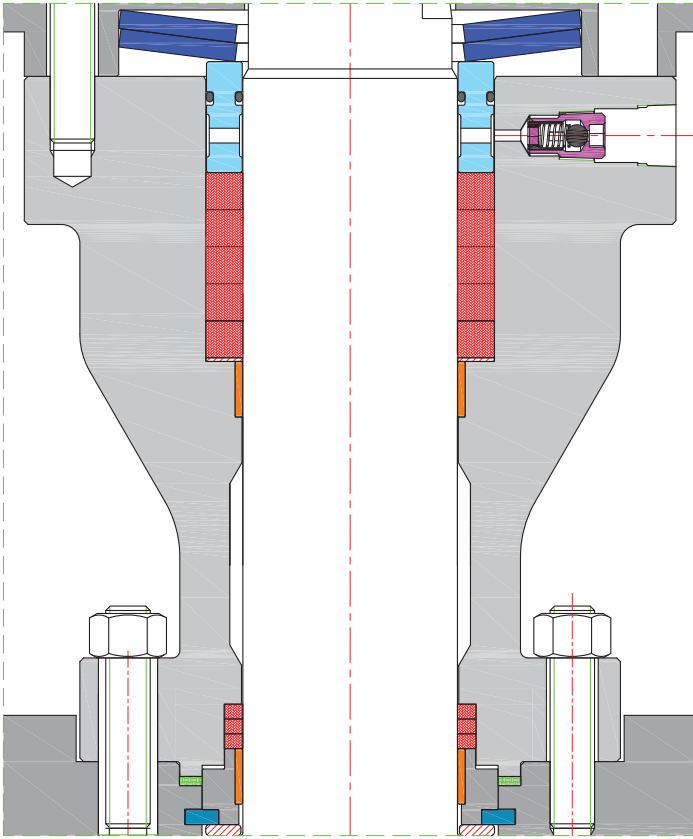


ANTI-EXPLOSIVE DECOMPRESSION SEAL

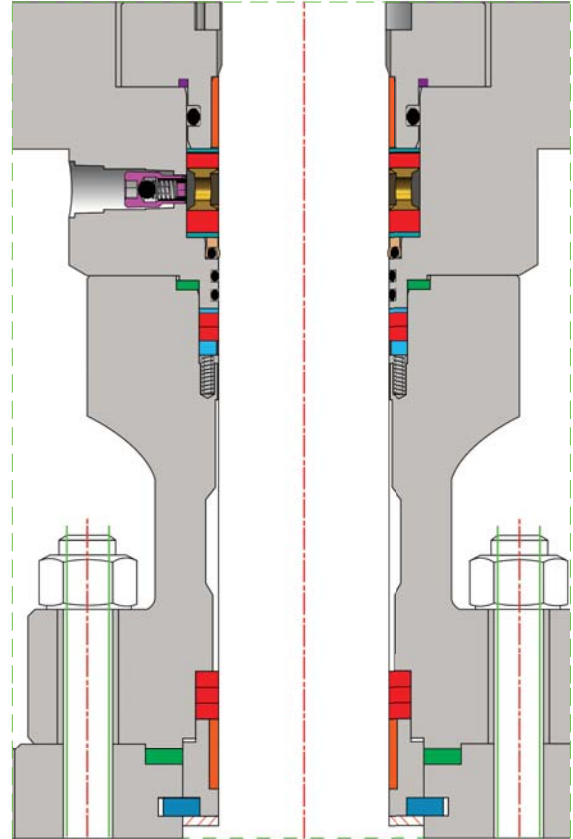
All of the elastic compounds present a permeability to gases at different levels. The pressured gas penetrates below the o-ring surface forming air pockets in the intermolecular spaces. The quantity of gas absorbed depends on the type of compound and of the gas in contact with it, from the temperature and the exercised pressure.

The instance described previous can be the cause of damage to the o-ring, if it is followed by an abrupt reduction in pressure and the consequent dilation of the ring, the gas included in the compound has an explosive behavior. The explosion of the air pockets contained in the compound causes the laceration of the o-ring surfaces. All GVS® B1 and GB1 series valves have AED, “Anti-Explosive Decompression” o-rings. Therefore the above “Explosive Decompression” can not occur.

FUGITIVE EMISSION / FIRESAFE



UP TO + 350°C (662°F) DESIGN



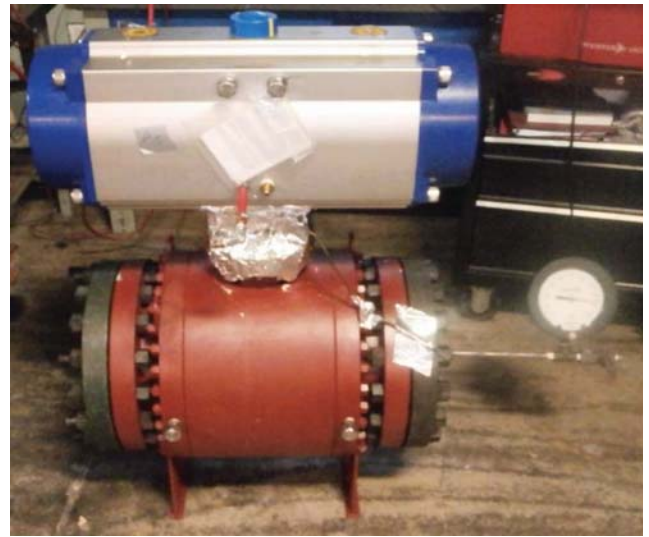
UP TO + 240°C (464°F) DESIGN



FIRESAFE CERTIFICATION

GVS® ball valves are “FIRESAFE” certified to meet international standards.

- API 607
- API 6FA
- BS 6755 Part 2



FUGITIVE EMISSION CERTIFICATION

- ISO 15848-2:2006
- ANSI/ISA S93.00.01

Certificate of Authority to use the Official API Monogram
License Number: 6D-1822

The American Petroleum Institute hereby grants to

JIANGSU YUZUAN MACHINERY CO., LTD.
 No. 369 Caofeng Road
 Wuzhong District, Suzhou City
 People's Republic of China

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and API-6D and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with the certificate number: **6D-1822**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Ball Valves and Plug Valves

American Petroleum Institute

CERTIFICATE OF AUTHORIZATION

This is to certify the named company as having had the adequacy of their quality program verified for the scope shown below in accordance with the Ontario Technical Standards and Safety Act, 2000 and the Boilers and Pressure Vessels Regulation.

Company Name:
 GUIDE VALVE LIMITED
 B-115 SARAFIA CRESCENT
 VAUGHAN, ON L4K 4Y7

Scope:
 Fabrication of Welded and Non-Welded Category C type Flange only at the Above Location Only in accordance with CSA Standard B51 Boiler, Pressure Vessel and Pressure Piping Code.

Authorized:
 Expires: 2
 Certificate Number: Q

TECHNICAL STANDARDS AND SAFETY AUTHORITY

14th Floor, Centre Tower
 3300 Bloor Street West
 Toronto, Ontario
 Canada M8X 2K4
 Tel: 416.734.2300
 Fax: 416.231.6163
 Toll Free: 1.877.662.8772
 www.tssa.org

Certificate of Authority to use the Official API Monogram
License Number: 6D-1342

The American Petroleum Institute hereby grants to

GUIDE VALVE LIMITED
 51 Terecar Drive #1
 Woodbridge, ON
 Canada

the right to use the Official API Monogram® on manufactured products under the conditions in the official publications of the American Petroleum Institute entitled API Spec Q1® and API-6D and in accordance with the provisions of the License Agreement.

In all cases where the Official API Monogram is applied, the API Monogram shall be used in conjunction with the certificate number: **6D-1342**

The American Petroleum Institute reserves the right to revoke this authorization to use the Official API Monogram for any reason satisfactory to the Board of Directors of the American Petroleum Institute.

The scope of this license includes the following: Ball Valves and Plug Valves

American Petroleum Institute

CERTIFICATE OF REGISTRATION

intertek
 Total Quality Assured

This is to certify that the management system of:

Guide Valve Limited

Main Site: 51 Terecar Drive, Woodbridge, Ontario, L4L 0B5, Canada
 has been registered by Intertek as conforming to the requirements of:

ISO 9001:2015

The management system is applicable to:
 The design and manufacturing of valves.

Certificate Number: 0527985-01
 Initial Certification Date: 06 September 2016
 Date of Certification Decision: 03 August 2017
 Issuing Date: 03 August 2017
 Valid Until: 05 September 2019

ANAB ACCREDITED
 MANAGEMENT SYSTEMS CERTIFICATION BODY

Calin Moldoveanu
 President, Business Assurance
 Intertek NA, Inc.,
 10000, Suite 303 E.

Fugitive Emission Test Report
ANSI/ISA S93.00.01

Performed for
Guide Valve Limited
www.gvs-vci.com

2 inch Class 600 Trunnion Mount Ball Valve
 Product Code: 2" GVS B1-600-RF-L-02

Project Number: 214167
 November 7, 2014

Performed by
YARMOUTH RESEARCH AND TECHNOLOGY, LLC

434 Walnut Hill Road
 North Yarmouth, ME 04097 USA
 (207) 829-5359
info@yarmouthresearch.com
www.yarmouthresearch.com

Fire Test Report
ANSI/API Standard 607, 6th Edition, 2010
ISO 10497: 2010
API Standard 6FA, Third Edition, April 1999

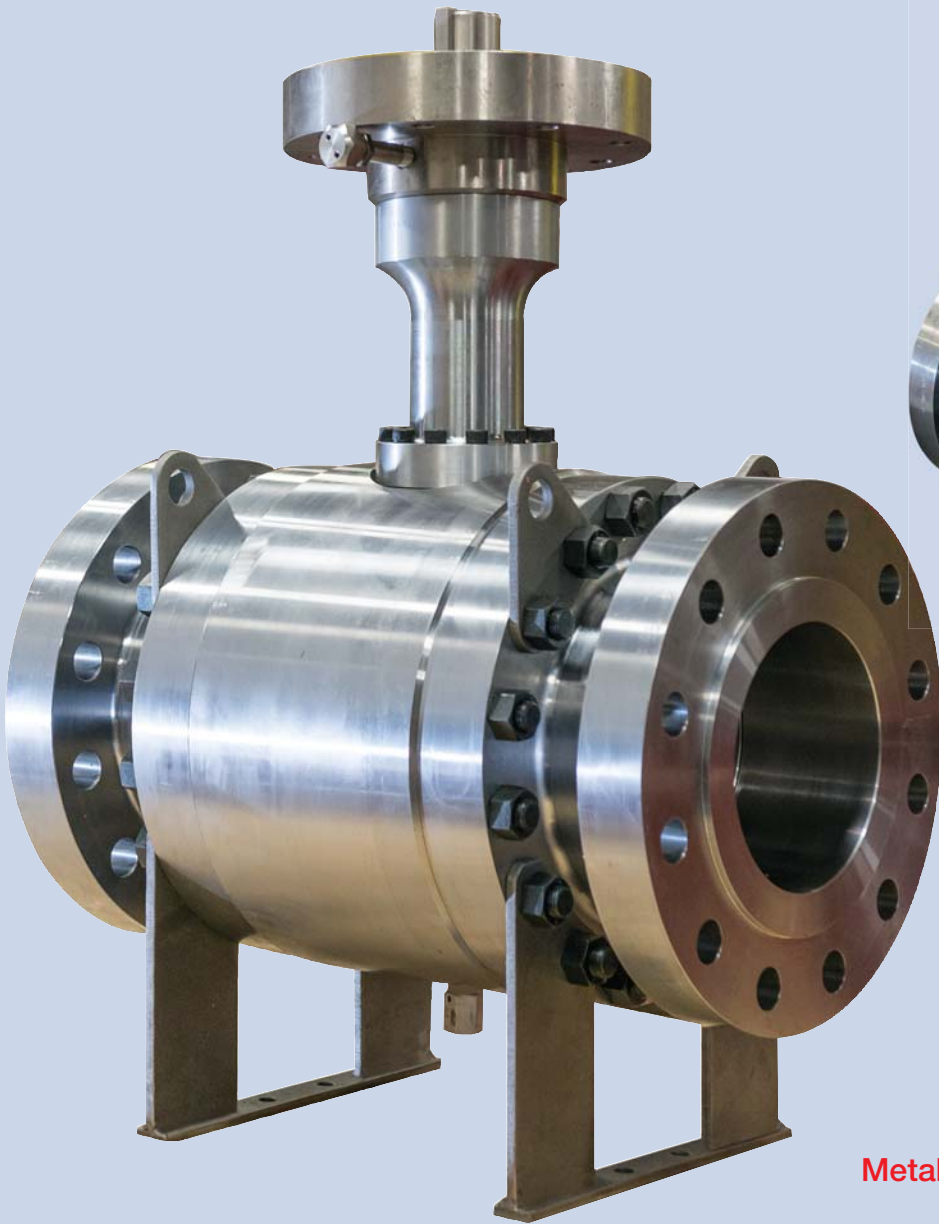
Performed for
Guide Valve Limited
www.gvs-vci.com

6 inch Class 1500 Trunnion Mounted Ball Valve
 Valve Code: 6" GB1-1500-RTJ-G

Project Number: 215086
 Test Date: March 26, 2015

Performed by
YARMOUTH RESEARCH AND TECHNOLOGY, LLC

434 Walnut Hill Road
 North Yarmouth, ME 04097 USA
 (207) 829-5359
info@yarmouthresearch.com
www.yarmouthresearch.com



**Metal to Metal and Triple Seal Seated
Trunion Ball Valves are available.**

Guide Valve Limited

51 Terecar Dr., Unit 1
Woodbridge, ON CANADA L4L 0B5
Tel: 905-761-7877
Fax: 905-761-7917

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Houston, Texas USA 77063

Toll Free: 1-888-824-5693

Distributor / Agent: