

GUIDE VALVE LIMITED



**GVS® Trunnion Mounted
Soft Seated Ball Valves
Series B2 & GB2**



Guide Valve Limited, established in 1980 with its headquarteres 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, API 6A, and CSA Z245.15 and are available to API 608. Our standard product design of Series B2 & GB2 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 shut-off performance and longevity of in-service life.



CANADA



API 6D: 6D-1342

API 6A: 6A-2204

API Spec Q1: Q1-4181

ISO 9001:2015: 0052985-01



CHINA



API 6D: 6D-1822

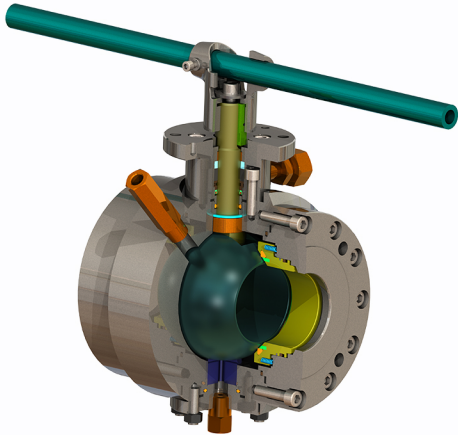
API 6A: 6A-2250

API Spec Q1: Q1-3641

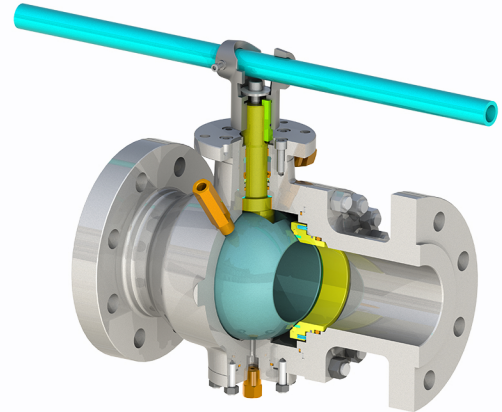
ISO 9001: 2015: ISO - 3983



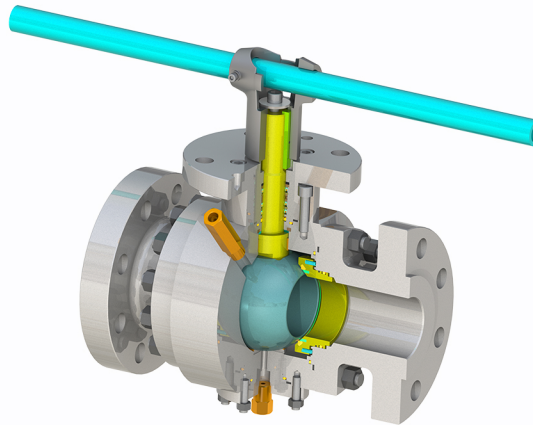
USA



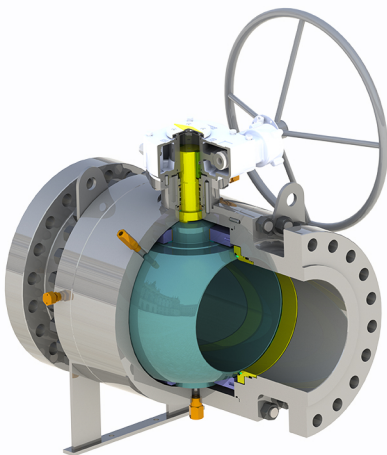
Model B2
ANSI Class 150#
2"- 4" (pg 4-5)



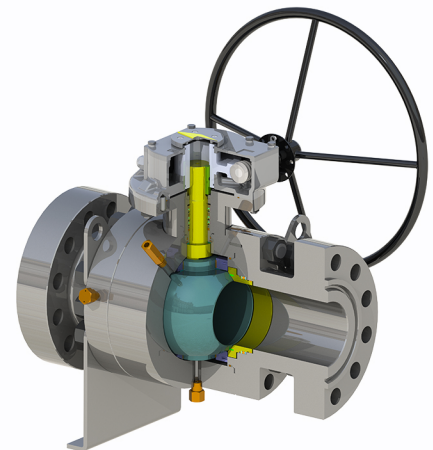
Model B2
ANSI Class 300 - 600#
2"- 4" (pg 6-7)



Model B2
ANSI Class 900 - 1500#
2"- 4" (pg 8-9)



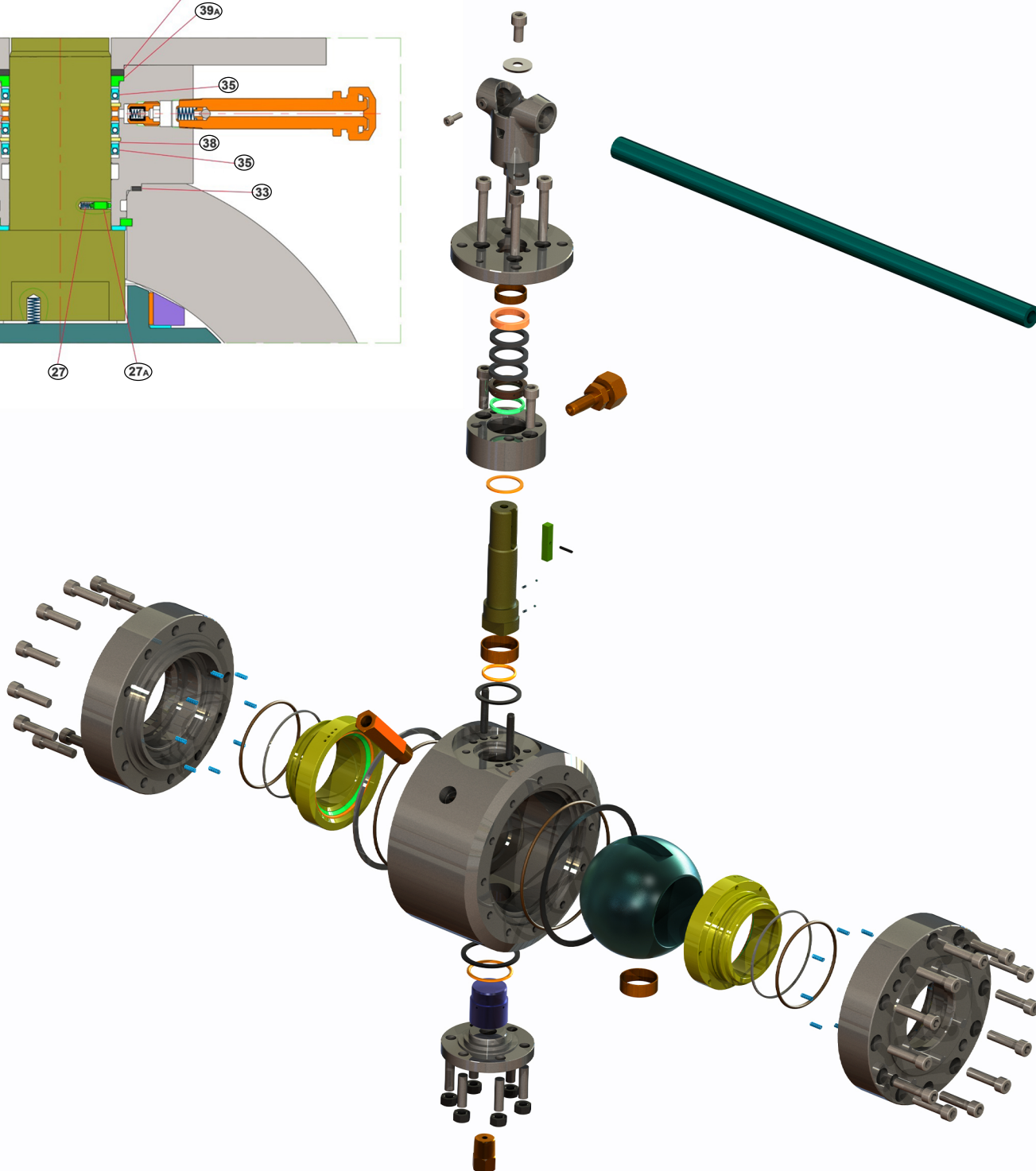
Model GB2
ANSI Class 150 - 900#
6"- 36" (pg 10-11)

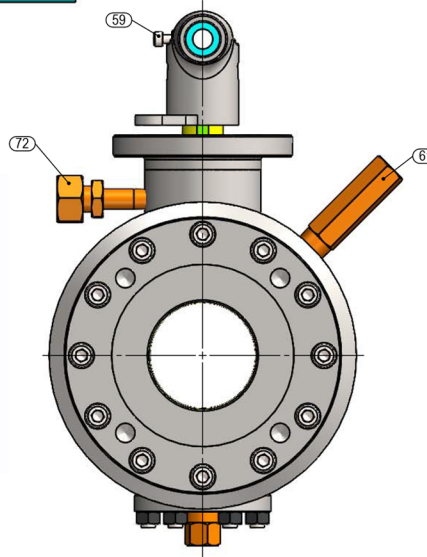
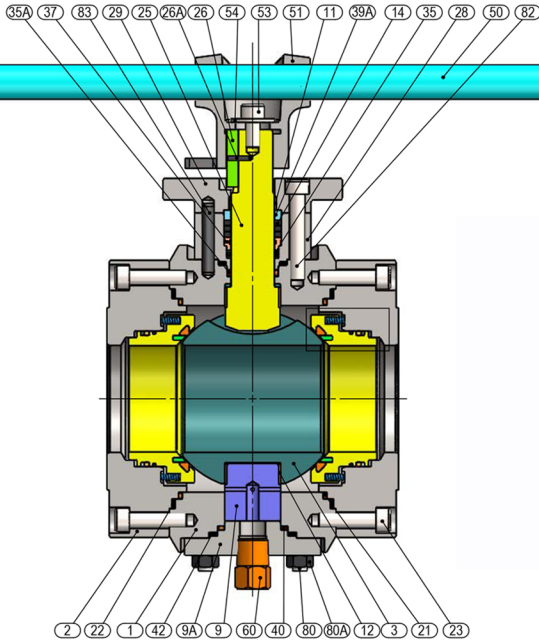


Model GB2
ANSI Class 1500 - 2500#
6"- 24" CL 1500 (pg 12-13)
2"- 12" CL 2500 (pg 12-13)

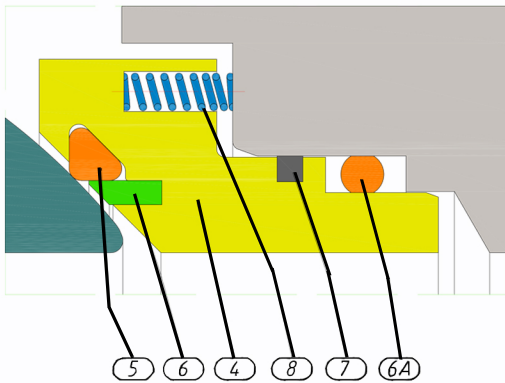
Technical drawing of a mechanical assembly, likely a valve or actuator, showing a cross-section. The drawing includes various components labeled with circled numbers:

- 13: Base or housing component.
- 27: Spring mechanism.
- 27A: Spring mechanism (variant).
- 33: Housing or support structure.
- 35: Actuator or lever arm.
- 36: Seal or gasket.
- 37: Seal or gasket.
- 38: Seal or gasket.
- 39: Seal or gasket.
- 39A: Seal or gasket (variant).
- 43: Small component, possibly a pin or screw.

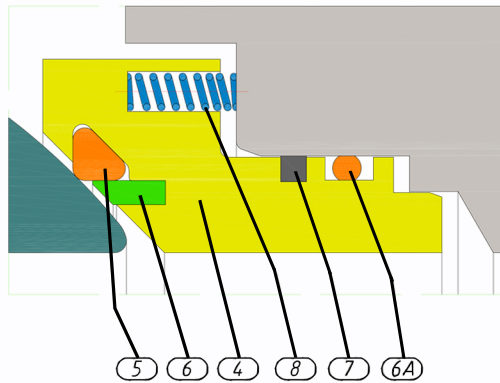




DOUBLE PISTON EFFECT



SELF RELIEVING

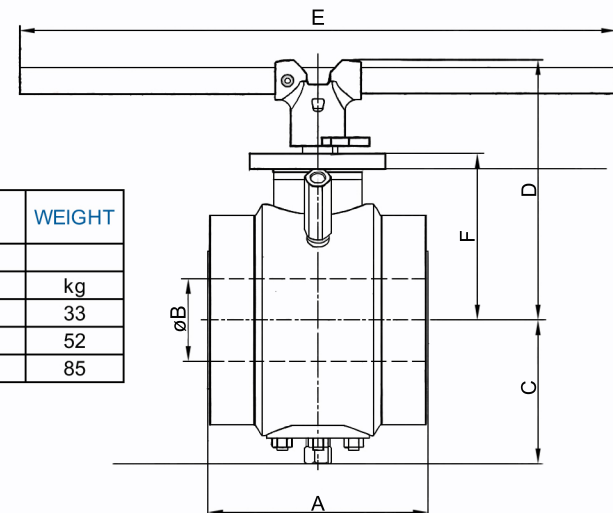


Postion	Part Description
1	Body
2	End adapter
3	Ball
4	Seat ring
5	Seat Delta Elastomeric
6	Seat resin
6A	Seat main o-ring
7	Seat fire-safe seal
8	Seat springs
9	Lower trunnion
9A	Cover plate
10	Stem lower sleeve bearing
11	Stem upper sleeve bearing
12	Trunnion sleeve bearing
13	Stem thrust washer
21	End adapter o-ring
22	Body fire-safe seal
23	Body/end adapter capscrew
25	Stem
26	Stem key
26A	Pin
27	Stem antistatic spring
27A	Stem antistatic piston
28	Lower stem flange
28	Upper stem flange
31	Stem flange o-ring
33	Stem flange metallic fire-safe seal
35	Stem lip seal
35A	Stem o-ring
37	Lantern ring
38	Stem lip seal back-up ring
39	Stem top fire-safe seal
39A	Spacer ring
40	Lower trunnion o-ring
42	Lower trunnion fire-safe seal
43	Stem anti-blowout split ring
50	Lever tube
51	Lever knuckle (locking type)
53	Lever knuckle - stem capscrew
54	Lever knuckle - stem washer
59	Lever knuckle - lever capscrew
60	Drain valve
61	Safety relief valve
72	Stem grease fitting
80	Lower trunnion stud
80A	Lower trunnion nut
81	Lower stem flange capscrew
82	Upper stem flange capscrew
83	Lower stem flange dowel pin

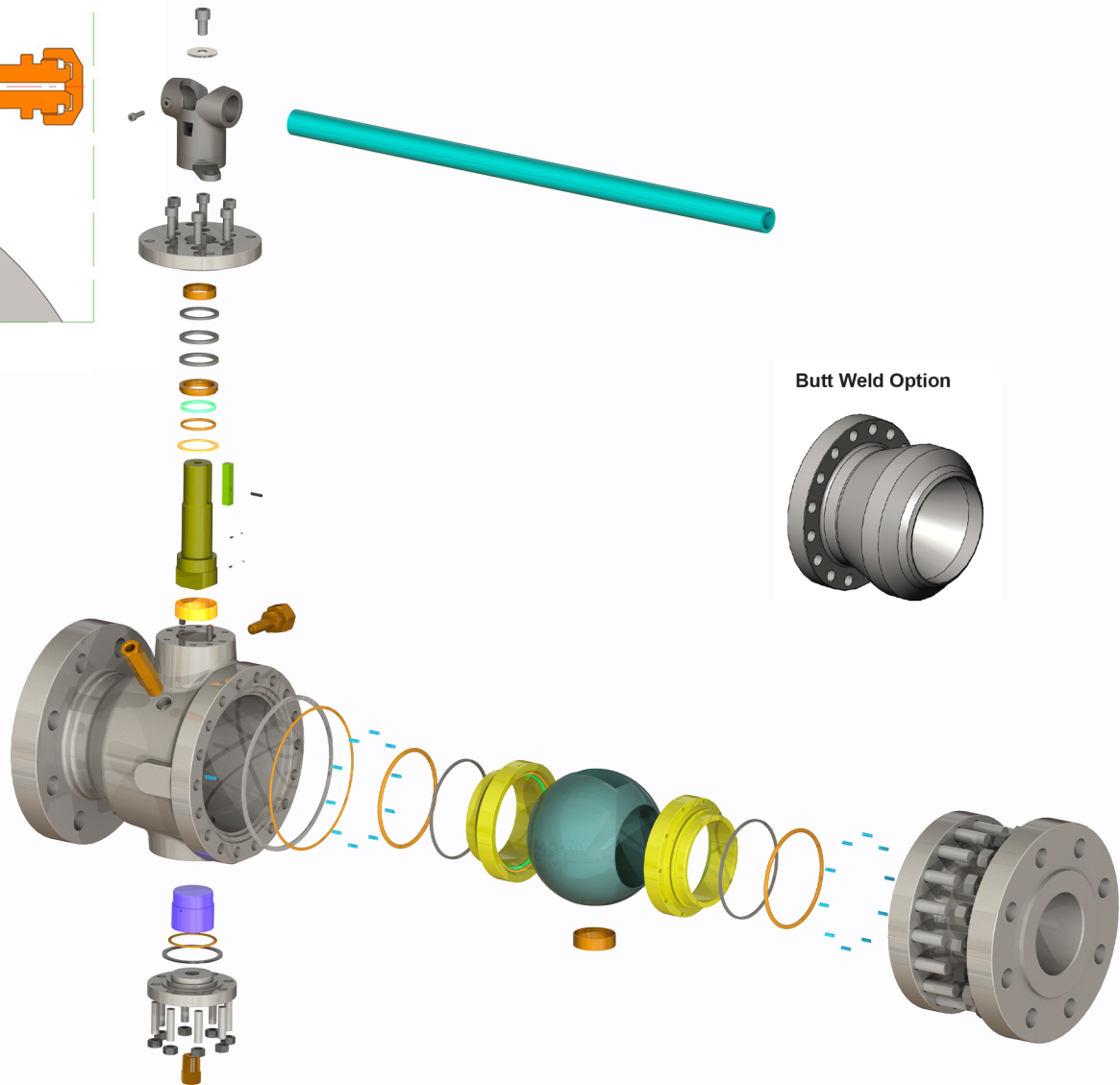
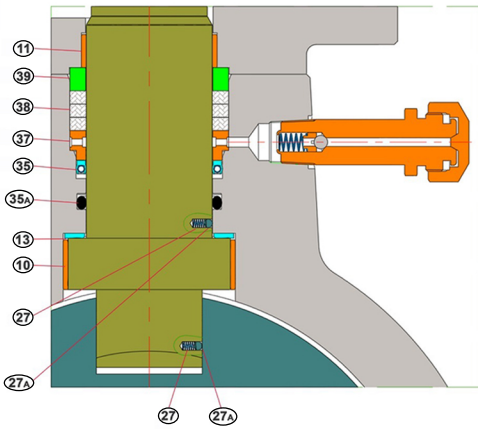
Items 81 is not shown

ANSI 150

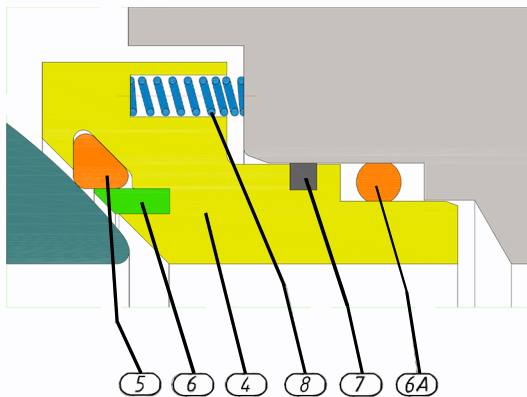
VALVE SIZE	BORE SIZE								WEIGHT
		RF	RTJ	BW	C	D	E	F	
NPS	B	A							
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2"	49.2	178	191	216	114	196	450	129	33
3"	74.6	203	216	283	133	240	550	154	52
4"	101.6	229	241	305	159	291	700	179	85



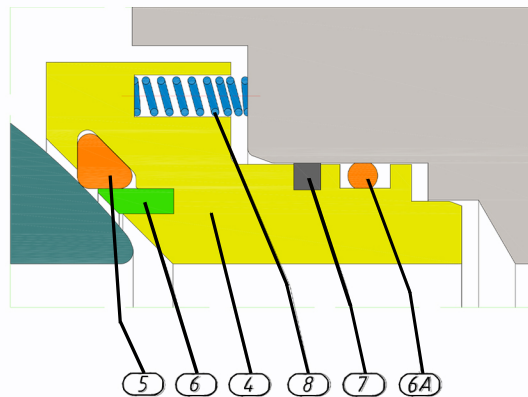
STEM SEAL SUB-ASSEMBLY DETAIL

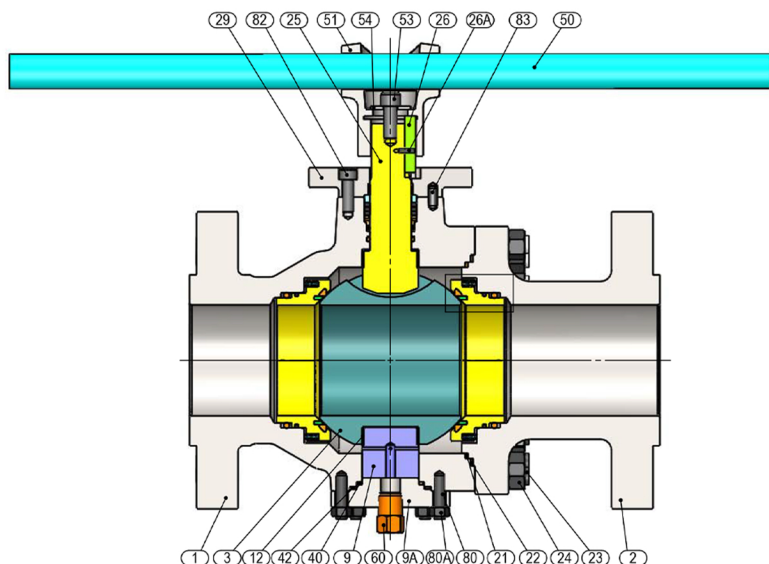


DOUBLE PISTON EFFECT



SELF RELIEVING





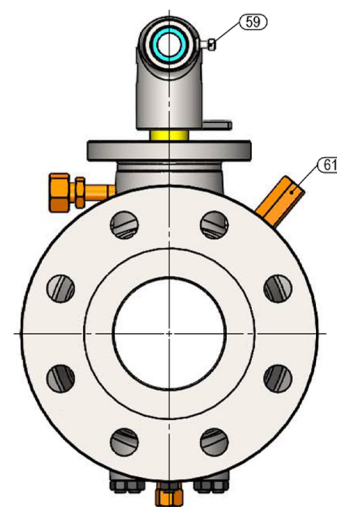
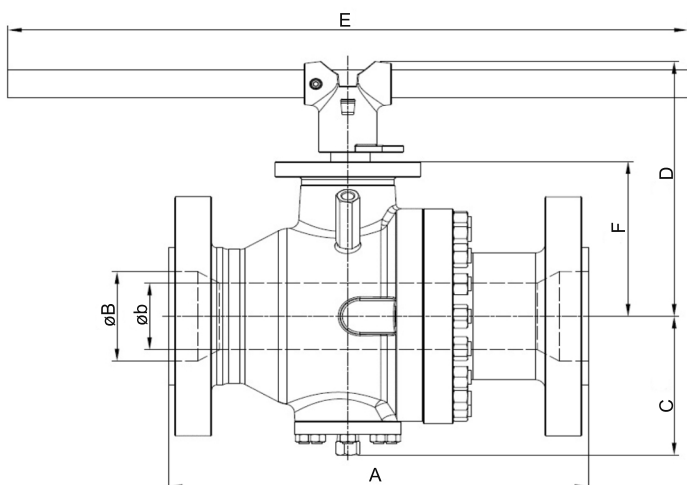
Postion	Part Description
1	Body
2	End adapter
3	Ball
4	Seat ring
5	Seat Delta Elastomeric
6	Seat resin
6A	Seat main o-ring
7	Seat fire-safe seal
8	Seat springs
9	Lower trunnion
9A	Cover plate
10	Stem lower sleeve bearing
11	Stem upper sleeve bearing
12	Trunnion sleeve bearing
13	Stem thrust washer
21	End adapter o-ring
22	Body metallic fire-safe seal
23	Body/end adapter stud
24	Body/end adapter nut
25	Stem
26	Stem key
26A	Pin
27	Stem antistatic spring
27A	Stem antistatic ball
29	Upper stem flange
35	Stem lip seal
35A	Stem o-ring
37	Lantern ring
38	Stem packing
39	Gland ring
40	Lower trunnion o-ring
42	Lower trunnion fire-safe seal
50	Lever tube
51	Lever knuckle (locking type)
53	Lever knuckle - stem capscrew
54	Lever knuckle - stem washer
59	Lever knuckle - lever capscrew
60	Drain valve
61	Safety relief valve
72	Stem grease fitting
80	Lower trunnion stud
80A	Lower trunnion nut
82	Upper stem flange capscrew
83	Upper stem flange dowel pin

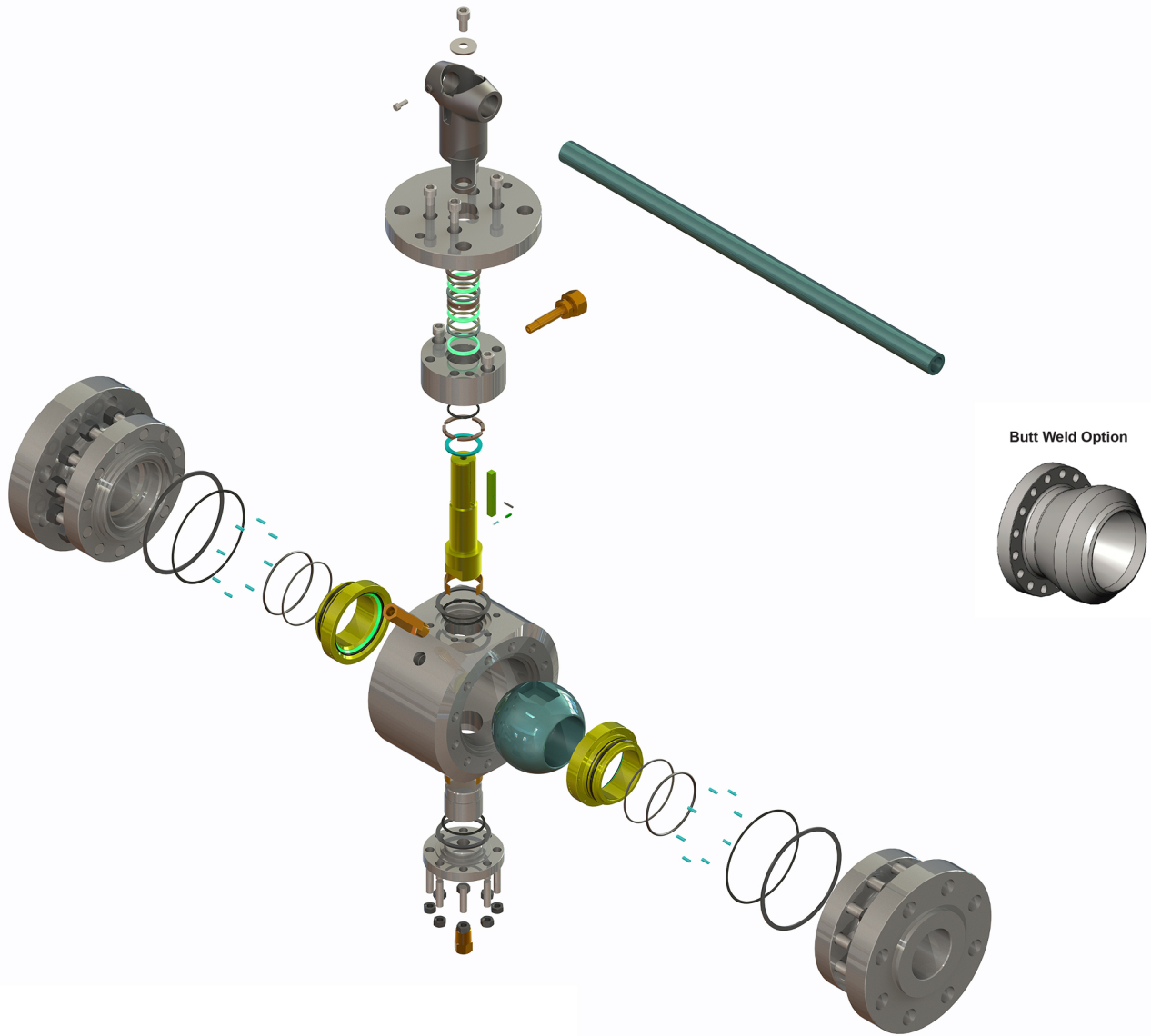
ANSI 300

VALVE SIZE	BORE SIZE								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"	49.2	216	232	216	114	196	450	126	28
3"x2"	76.2x49.2	283	298	283	114	196	450	126	40
3"	74.6	283	298	283	133	237	550	152	51
4"x3"	101.6x74.6	305	321	305	133	237	550	152	81
4"	101.6	305	321	305	159	291	700	177	85
6"x4"*	151.6x101.6	403	419	457	159	291	700	177	130

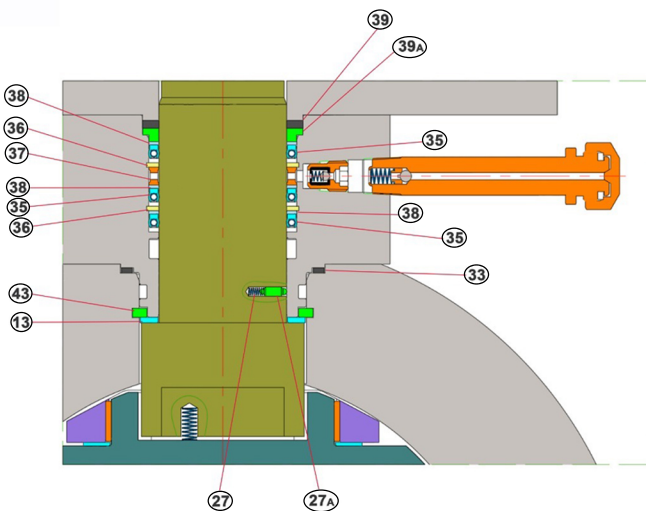
ANSI 600

VALVE SIZE	BORE SIZE								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"	49.2	292	295	292	114	196	450	126	34
3"x2"	74.6x49.2	356	359	356	114	196	450	126	55
3"	74.6	356	359	356	133	237	550	152	58
4"x3"	101.6x74.6	432	435	432	133	237	550	152	91
4"	101.6	432	435	432	159	291	700	177	104
6"x4"*	151.6x101.6	559	562	559	159	291	700	177	175

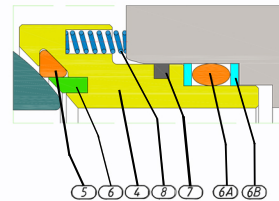




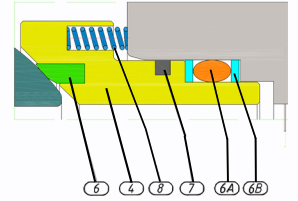
STEM SEAL SUB-ASSEMBLY DETAIL



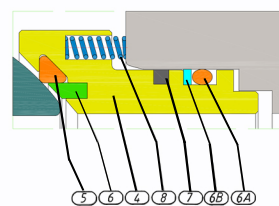
ANSI 900: DOUBLE PISTON EFFECT



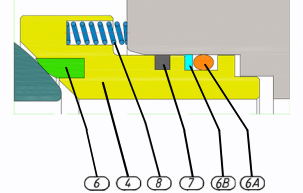
ANSI 1500: DOUBLE PISTON EFFECT

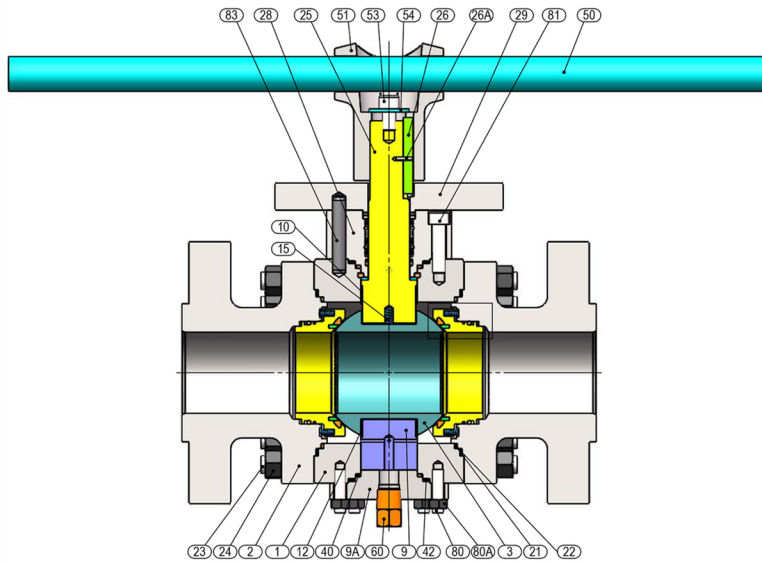


ANSI 900: SELF RELIEVING



ANSI 1500: SELF RELIEVING





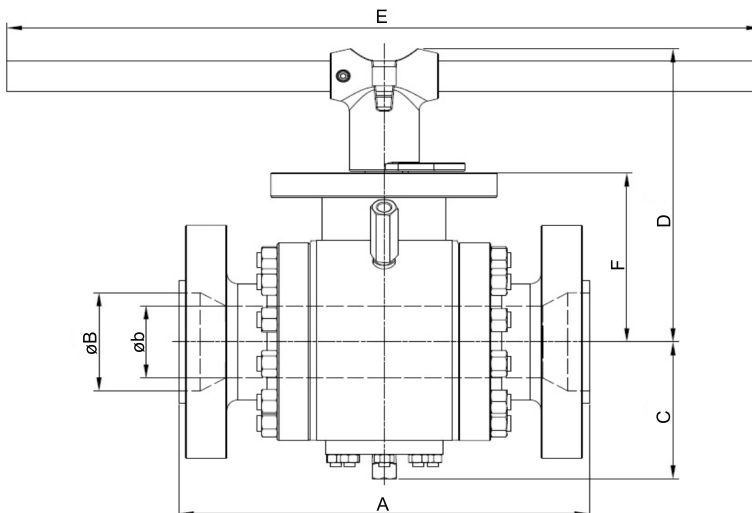
ANSI 900

VALVE SIZE	BORE SIZE								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"	49.2	368	371	368	121	235	500	139	67
3"x2"	74.6x49.2	381	384	381	121	235	500	139	80
3"	74.6	381	384	381	142	303	700	175	102
4"x3"	101.6x74.6	457	460	457	142	303	700	175	140
4"	101.6	457	460	457	187	356	960	214	220
6"x4"	151.6x101.6	610	613	610	190	356	960	214	264

ANSI 1500

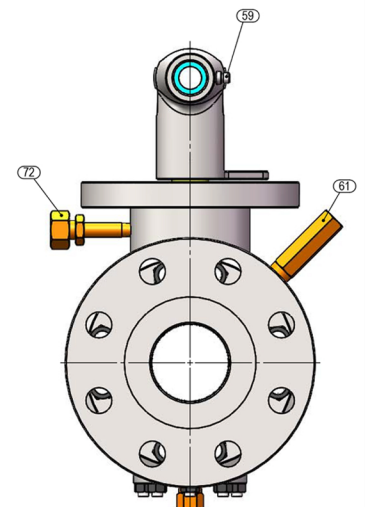
VALVE SIZE	BORE SIZE								WEIGHT
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2"	49.2	368	371	368	121	235	500	139	67
3"x2"	74.6x49.2	470	473	470	132.5	235	500	139	80
3"	74.6	470	473	470	142	303	700	175	108
4"x3"	101.6x74.6	546	549	546	142	303	700	175	146
4"	101.6	546	549	546	187	256	400*	214	225
6"x4"	146.1x101.6	705	711	705	187	256	400*	214	270

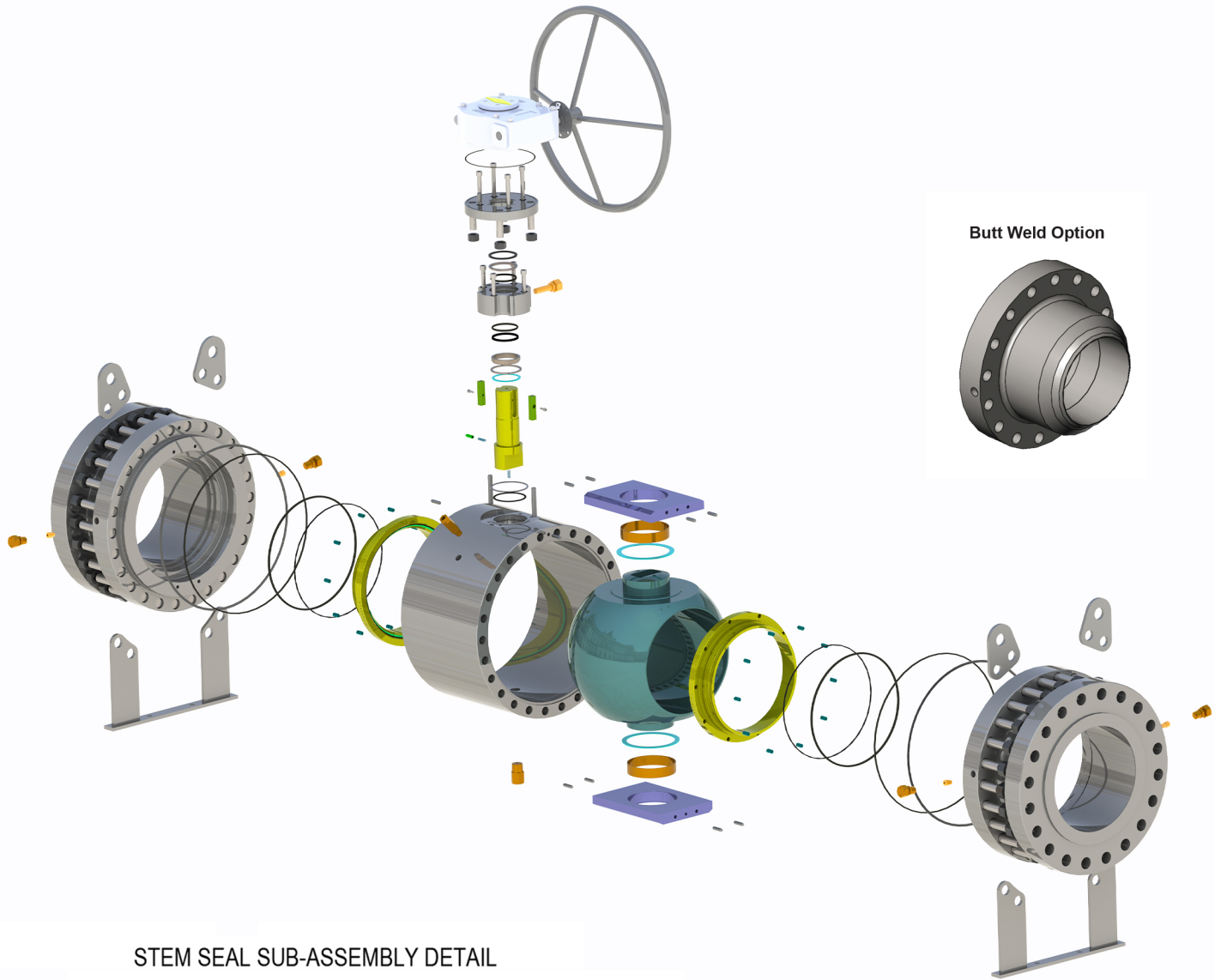
* Gear operated. Handwheel diameter.



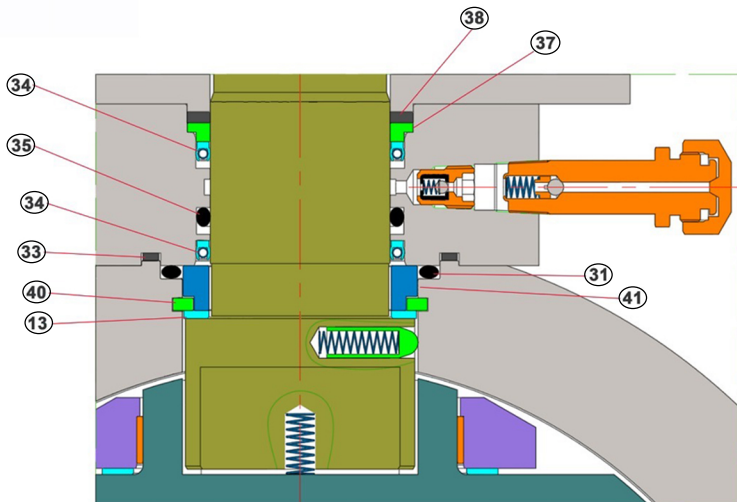
Postion	Part Description
1	Body
2	End adapter
3	Ball
4	Seat ring
5	Seat Delta Elastomeric
6	Seat resin
6A	Seat main o-ring
6B	Seat back-up ring
7	Seat fire-safe seal
8	Seat springs
9	Lower trunnion
9A	Cover plate
10	Stem lower sleeve bearing
12	Trunnion sleeve bearing
13	Stem thrust washer
15	Ball antistatic spring
21	End adapter o-ring
22	Body fire-safe seal
23	Body/end adapter studs
24	Body/end adapter nuts
25	Stem
26	Stem key
26A	Pin
27	Stem antistatic spring
27A	Stem antistatic piston
28	Lower stem flange
29	Upper stem flange
31	Stem flange o-ring
33	Stem flange metallic fire-safe seal
35	Stem lip seal
35A	Stem lower o-ring
35B	Stem lower back-up ring
36	Stem back-up ring
37	Lantern ring
38	Stem lip seal back-up ring
39	Stem top fire-safe seal
39A	Spacer ring
040	Lower trunnion o-ring
42	Lower trunnion fire-safe seal
43	Stem anti-blowout split ring
50	Lever tube
51	Lever knuckle (locking type)
53	Lever knuckle - stem capscrew
54	Lever knuckle - stem washer
59	Lever knuckle - lever capscrew
60	Drain valve
61	Safety relief valve
72	Stem grease fitting
80	Lower trunnion stud
80A	Lower trunnion nut
81	Lower stem flange capscrew
82	Upper stem flange capscrew
83	Lower stem flange dowel pin

Item 82 is not shown

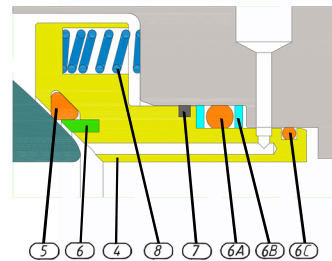




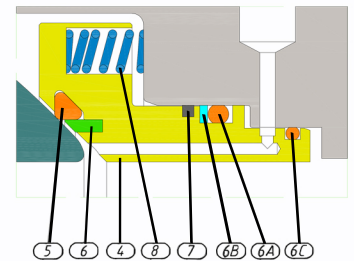
STEM SEAL SUB-ASSEMBLY DETAIL

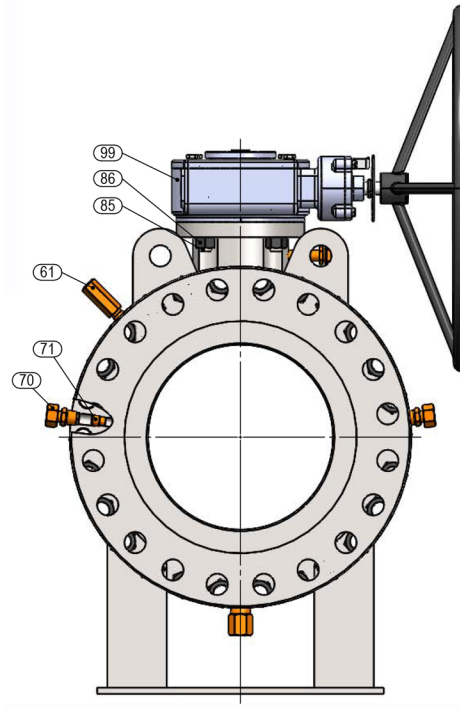
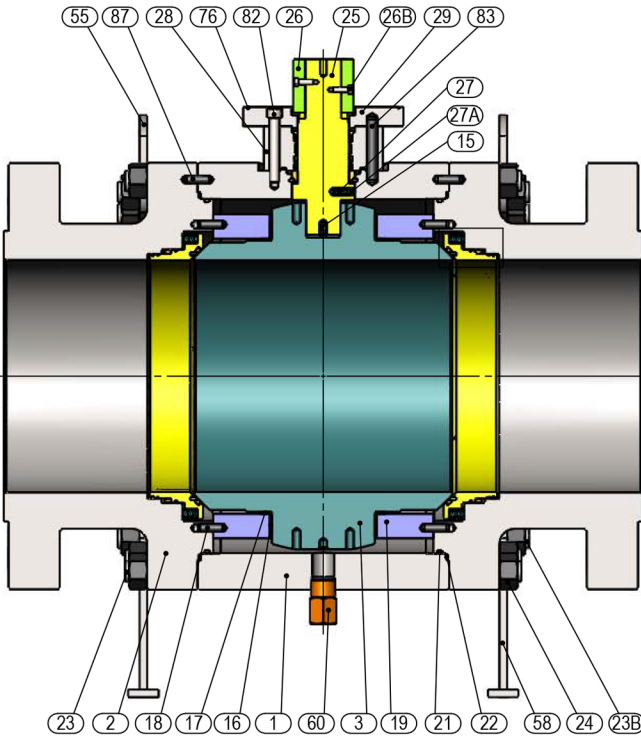


DOUBLE PISTON EFFECT



SELF RELIEVING





ANSI 150											
VALVE SIZE	BORE SIZE	RF		RTJ	BW						
NPS	B(xb)	A		C	D	E	F	RF			
inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
6"	151.6	394	406	457	205	287	400	245	190		
8"x6"	202.3x151.6	457	470	521	205	287	400	245	228		
8"	202.3	457	470	521	278.5	325.5	400	283.5	305		
10"x8"	252.4x202.3	533	546	559	278.5	325.5	400	283.5	366		
10"	252.4	533	546	559	361	360	400	318.5	453		
12"x10"	303.2x252.4	610	622	635	361	360	400	318.5	543		
12"	303.2	610	622	635	411	407	600	359	720		
14"x10"	336x303.2	686	699	762	361	360	400	318.5	706		
14"	336.0	686	699	762	451	444	600	393	987		
16"x12"	387x336	762	775	838	411	407	600	359	936		
16"	387	762	775	838	495	481	600	425	1254		
18"	438	864	876	914	530	557	600	477	1901		
20"x16"	438x387	914	927	991	495	481	600	425	1630		
20"	489	914	927	991	580	581.5	600	518	2548		
24"x20"	590x489	1087	1080	1143	580	581.5	600	518	3313		
24"	590	1087	1080	1143	715	690	700	605	3860		
30"x24"	737x590	1295	/	1397	715	690	700	605	4632		
30"	737	1295	/	1397	873	826	700	727	6225		
36"x30"	876x737	1524	/	1727	873	826	700	727	8059		
36"	876	1524	/	1727	1035	1036	800	936	10637		

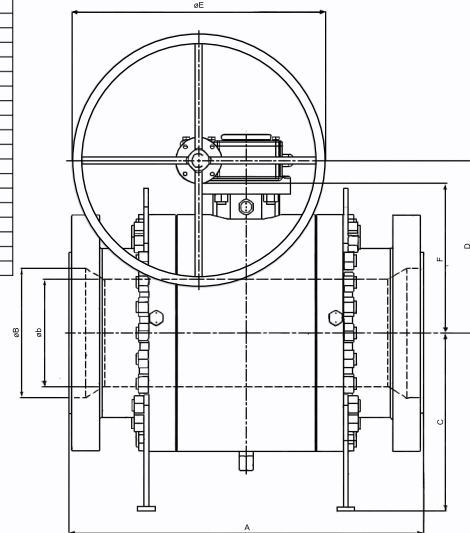
ANSI 600											
VALVE SIZE	BORE SIZE	RF		RTJ	BW						
NPS	B(xb)	A		C	D	E	F	RF			
inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
6"	151.6	559	562	559	291.5	287	600	245	325		
8"x6"	202.3x151.6	660	664	660	291.5	287	600	245	339		
8"	202.3	660	664	660	340	325.5	600	283.5	466		
10"x8"	252.4x202.3	787	791	787	340	325.5	600	283.5	561		
10"	252	787	791	787	370	374.5	600	318.5	710		
12"x10"	303.2x252.4	838	841	838	370	374.5	600	318.5	765		
12"	303	838	841	838	421	415	600	359	930		
14"x10"	336x303.2	889	892	889	421	374.5	600	318.5	1107		
14"	336	889	892	889	451	444	600	393	1382		
16"x12"	387x336	991	994	991	421	415	600	359	1209		
16"	387	991	994	991	570	502	700	440	1834		
18"	438	1092	1095	1092	530	557	700	477	2563		
20"x16"	438x387	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		
24"x20"	590x489	1397	1407	1397	650	618	700	533	3920		
24"	590	1397	1407	1397	724	690	700	605	5362		
30"x24"	737x590	1651	1664	1651	724	690	700	605	6280		
30"	737	1651	1664	1651	900	846	700	749	8138		
32"	781	1778	1794	1778	950	900	700	800	9765		
36"x30"	876x737	2083	2099	2083	900	846	700	749	10579		
36"	876	2083	2099	2083	1035	1036	800	936	15000		

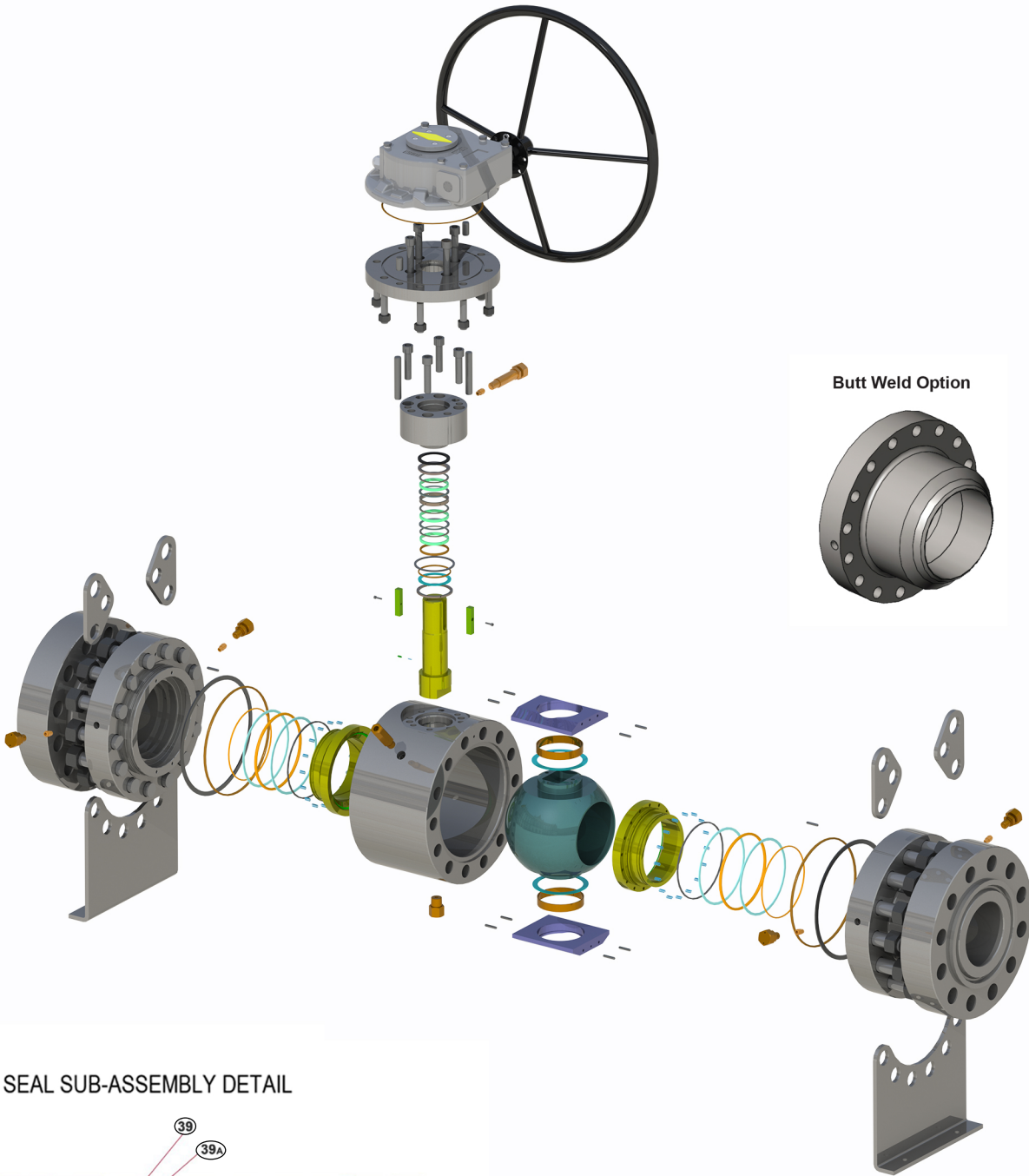
ANSI 300											
VALVE SIZE	BORE SIZE	RF		RTJ	BW						
NPS	B(xb)	A		C	D	E	F	RF			
inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
6"	151.6	403	419	457	205	287	400	245	210		
8"	202.3	502	518	521	205	287	400	245	265		
8"x6"	202.3x151.6	502	518	521	330	325.5	600	283.5	358		
10"x8"	252.4x202.3	568	584	559	330	325.5	600	283.5	510		
10"	252.4	568	584	559	361	366	600	318.5	510		
12"x10"	303.2x252.4	648	664	635	361	366	600	318.5	681		
12"	303.2	648	664	635	401	407	600	359	790		
14"x10"	336x303.2	762	778	762	361	366	600	318.5	896		
14"	336	762	778	762	451	444	600	393	1174		
16"x12"	387x336	838	854	838	401	407	600	359	1027		
16"	387	838	854	838	494	480	600	425	1558		
18"	438	914	930	914	540	541	700	477	2195		
20"x16"	438x387	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		
24"x20"	590x489	1143	1165	1143	634	582	700	518	3681		
24"	590	1143	1165	1143	715	690	700	605	4289		
30"x24"	737x590	1397	1422	1397	715	690	700	605	5147		
30"	737	1397	1422	1397	873	826	700	727	6917		
32"	781	1524	1553	1524	950	900	700	800	8300		
36"x30"	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	RF		RTJ	BW						
NPS	B(xb)	A		C	D	E	F	RF			
inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
6"	151.6	610	613	610	294	287	600	245	362		
8"x6"	202.3x151.6	737	740	737	294	287	600	245	434		
8"	202.3	737	740	737	400	339.5	600	283.5	575		
10"x8"	252.4x202.3	838	841	838	400	339.5	600	283.5	690		
10"	252.4	838	841	838	470	403.5	600	348.5	1040		
12"x10"	303.2x252.4	965	968	965	470	403.5	600	348.5	1248		
12"	303.2	965	968	965	434.5	440	700	385	1386		
14"x10"	324x303.2	1029	1038	1029	470	403.5	600	348.5	1352		
14"	324	1029	1038	1029	510	490	600	425	1793		
16"x12"	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		
20"x16"	425.5x375	1321	1334	1321	600	530	700	466	2861		
20"	473.1	1321	1334	1321	705	678	700	590	3998		
24"x20"	571.5x473.1	1549	1566	1549	705	678	700	590	5096		
24"	571.5	1549	1566	1549	787	730	700	628.5	6434		
30"x24"	714.4x571.5	1880	1902	/	787	730	700	628.5	7536		
30"	714.4	1880	1902	/	945	905	800	800	9765		
36"x30"	857x714.4	2286	2315	/	945	905	800	800	12695		
36"	857	2286	2315	/	1100	988	800	1050	18000		

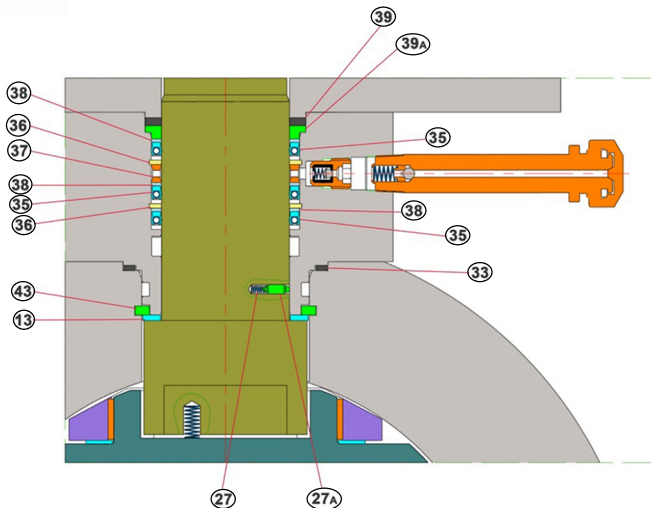
Postion	Part Description
1	Body
2	End adapter
3	Ball
4	Seat ring
5	Seat Delta Elastomeric
6	Seat resin
6A	Seat main o-ring
6C	Seat grease o-ring
7	Seat fire-safe seal
8	Seat springs
13	Stem thrust washer
15	Ball antistatic spring
16	Trunnion sleeve bearing
17	Ball thrust washer
18	Trunnion support pin
19	Trunnion support
21	End adapter o-ring
22	Body metallic fire-safe seal
23	Body/end adapter studs
24	Body/end adapter nuts
25	Stem
26	Stem key
26B	Stem key capscrow
27	Stem antistatic spring
27A	Stem antistatic piston
28	Lower stem flange
29	Upper stem flange
31	Stem flange o-ring
33	Stem flange fire-safe seal
34	Stem lip seal
35	Stem o-ring
37	Spacer ring
38	Stem top fire-safe seal
40	Stem anti-blowout split ring
41	Stem anti-blowout spacer
55	Lifting lugs
58	Valve support legs
60	Drain valve
61	Safety relief valve
70	Seat grease fitting
71	Seat inner check valve
72	Stem grease fitting
73	Stem inner check valve
76	Weather seal
81	Lower stem flange capscrow
82	Upper stem flange capscrow
83	Lower stem flange dowel pin
84	Stem flange/gearbox dowel pin
85	Stem flange/gearbox studs
86	Stem flange/gearbox nuts
87	Body/end adapter dowel pin
99	Gearbox with handwheel(lockable)

Item 81 is not shown

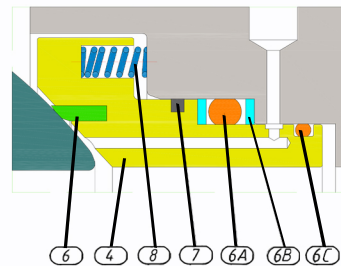




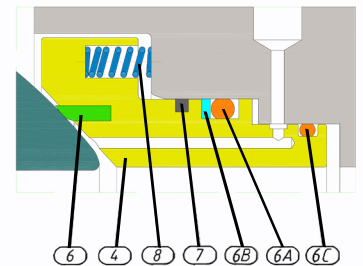
STEM SEAL SUB-ASSEMBLY DETAIL

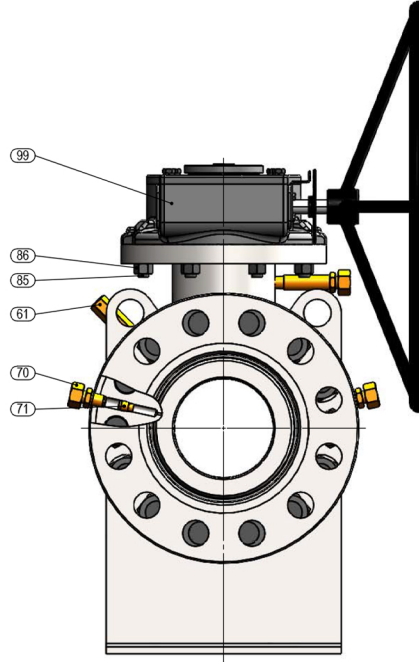
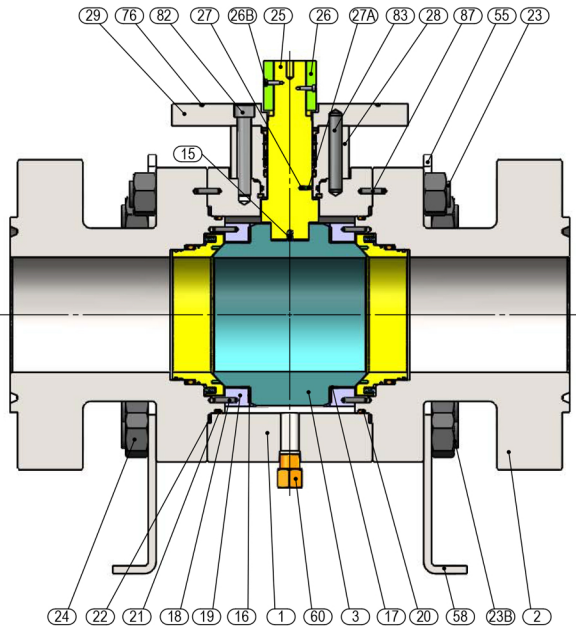


DOUBLE PISTON EFFECT



SELF RELIEVING





Postion	Part Description
1	Body
2	End adapter
3	Ball
4	Seat ring
6	Seat resin
6A	Seat main o-ring
6B	Seat back-up ring
6C	Seat grease o-ring
7	Seat fire-safe seal
8	Seat springs
13	Stem thrust washer
15	Ball antistatic spring
16	Trunnion sleeve bearing
17	Ball thrust washer
18	Trunnion support pin
19	Trunnion support
20	End adapter back-up ring
21	End adapter o-ring
22	Body metallic fire-safe seal
23	Body/end adapter studs
24	Body/end adapter nuts
25	Stem
26	Stem key
26B	Stem key capscrew
27	Stem antistatic spring
27A	Stem antistatic piston
28	Lower stem flange
29	Upper stem flange
31	Stem flange o-ring
32	Stem flange back-up ring
33	Stem flange metallic fire-safe seal
35	Stem lip seal
35A	Stem lower o-ring
35B	Stem lower back-up ring
36	Stem back-up ring
37	Lantern ring
38	Stem lip seal back-up ring
39	Stem top fire-safe seal
39A	Spacer ring
43	Stem anti-blowout split ring
55	Lifting lugs
58	Valve support legs
60	Drain valve
61	Safety relief valve
70	Seat grease fitting
71	Seat inner check valve
72	Stem grease fitting
73	Stem inner check valve
76	Weather seal
81	Lower stem flange capscrew
82	Upper stem flange capscrew
83	Lower stem flange dowel pin
84	Stem flange/gearbox dowel pin
85	Stem flange/gearbox studs
86	Stem flange/gearbox nuts
87	Body/End adapter dowel pin
99	Gearbox with handwheel(lockable)

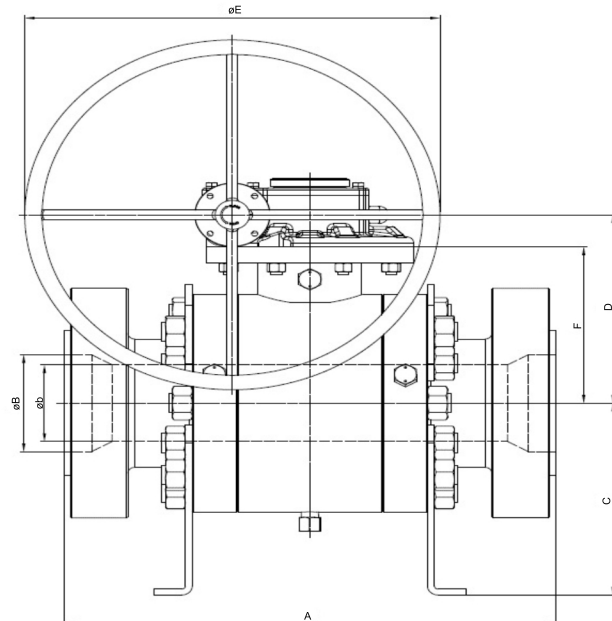
Items 81, 84 are not shown
Items 55, 58, 70, 71, 73 are not applicable to 2"-4" class 2500

ANSI 1500

VALVE SIZE	BORE SIZE	RF	RTJ	BW						WEIGHT
NPS	B(xb)	A			C	D	E	F	RF	
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg	
6"	146	705	711	705	299	316	600	264	488	
8"x6"	194x146	832	841	832	299	316	600	264	586	
8"	194	832	841	832	380	361	700	306	776	
10"x8"	241x194	991	1000	991	380	361	700	306	931	
10"	241	991	1000	991	490	469	700	400	1404	
12"x10"	289x241	1130	1146	1130	490	469	700	400	1684	
12"	289	1130	1146	1130	535	510	700	455	1871	
14"x10"	317x241	1257	1276	1257	490	469	700	400	1825	
14"	317	1257	1276	1257	600	550	700	510	2421	
16"x12"	361x289	1384	1407	1384	535	510	700	455	2432	
16"	361	1384	1407	1384	645	626	700	565	2971	
18"	408	1537	1559	/	710	668	700	590	4184	
20"x16"	456x361	1664	1686	/	645	626	700	565	3862	
20"	456	1664	1686	/	755	718	700	635	5397	
24x20"	548x456	/	1972	/	755	718	700	635	6879	

ANSI 2500

VALVE SIZE	BORE SIZE	RF	RTJ	BW						WEIGHT
NPS	B(xb)	A			C	D	E	F	RTJ	
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg	
2"	44	451	454	451	123	292	700*	162	101	
3"x2"	64x44	578	584	578	123	292	700*	162	130	
3"	64	578	584	578	164	232	400	190	230	
4"x3"	89x64	673	683	673	178	232	400	190	299	
4"	89	673	683	673	189	263	500	215	375	
6"x4"	132.4x89	914	927	914	197.5	263	500	215	487	
6"	132.4	914	927	914	380	395	600	290	733	
8"x6"	181x132.4	1022	1038	1022	380	395	600	290	879	
8"	181	1022	1038	1022	435	480	700	425	1164	
10"x8"	225x181	1270	1292	1270	435	480	700	425	1397	
10"	225	1270	1292	1270	510	560	700	490	2106	
12"x10"	267x225	1422	1455	1422	510	560	700	490	2527	
12"	267	1422	1455	1422	600	650	700	590	2806	



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

Fugitive Emission Certified to:

API STANDARD 641

ISO 15848-1: ENDURANCE CLASS CO3 TIGHTNESS CLASS AM

ISO 15848-1: ENDURANCE CLASS CO2 TIGHTNESS CLASS CH

Firesafe Certified to:

API STANDARD 607

API STANDARD 6FA

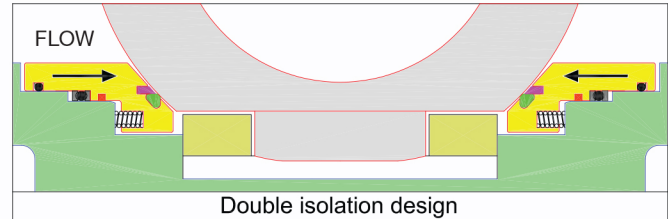
B.S. 6755 PART 2

ISO 10497 : 2010

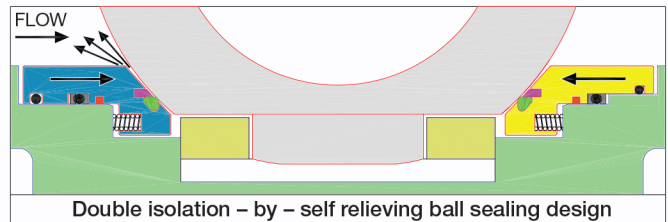
EMERGENCY SEAT SEALING

As an excess of impurities in fluids may have a harmful effect on seat ring seals GVS® 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..

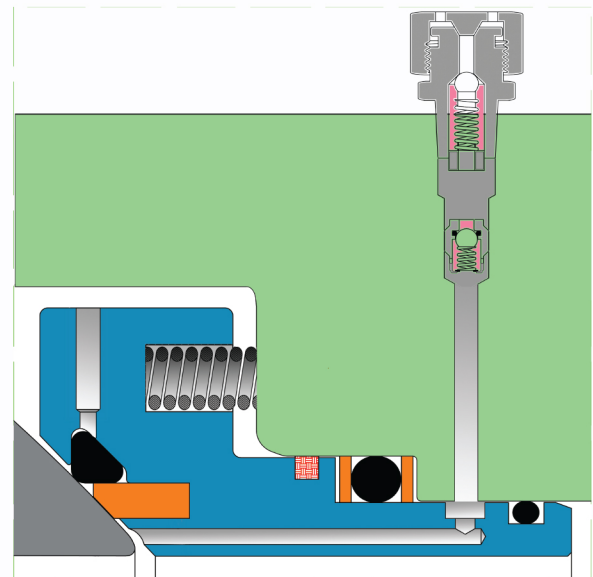
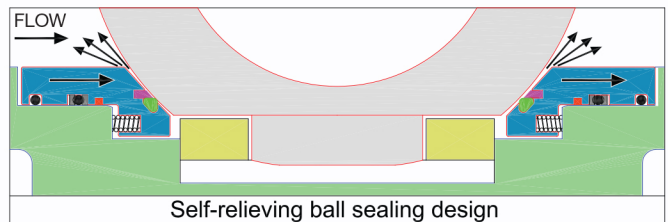
Optional Valve Seat Sealing Designs



DIB-1



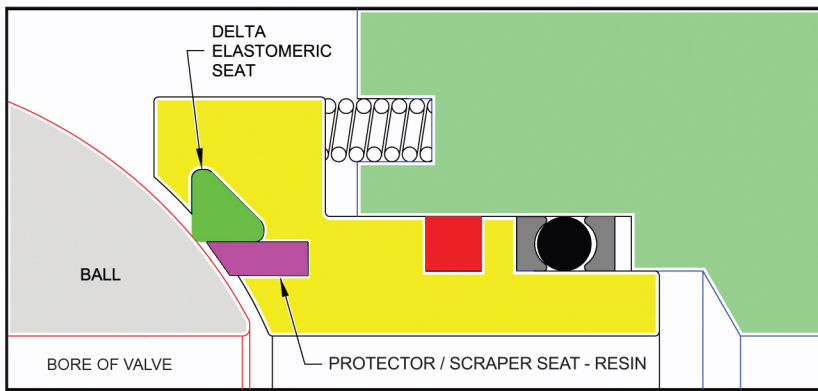
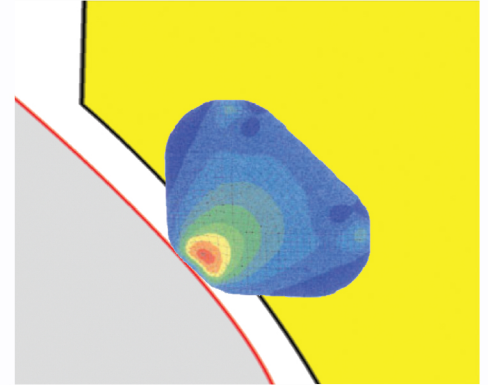
DIB-2



DELTA SEAT SEAL

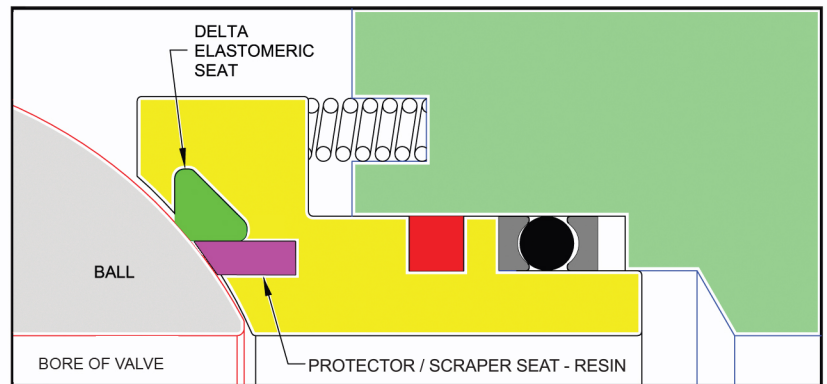
This seat insert is shaped like a triangle “Delta” with rounded corners, which is housed by means of a metal seat. This unique geometry offers several advantages:

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.



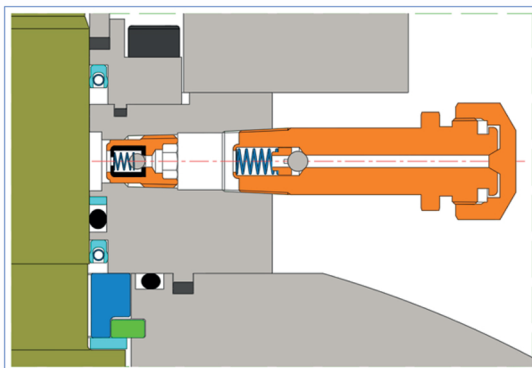
ANTI-EXPLOSIVE DECOMPRESSION SEAL (AED)

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.

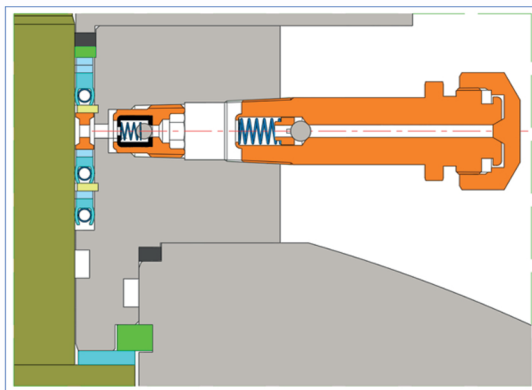
All o-rings in our GVS Series B2 & GB2 are of **AED** type and possess an Anti-Explosive Decompression Feature that prevents the above from occurring.

**ISO 15848-1
ENDURANCE CLASS CO3 TIGHTNESS CLASS AM**



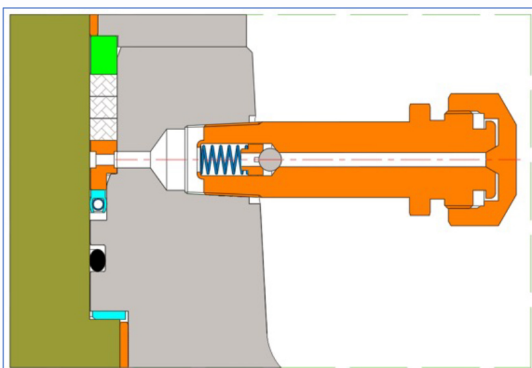
+ 200°C

API STANDARD 641



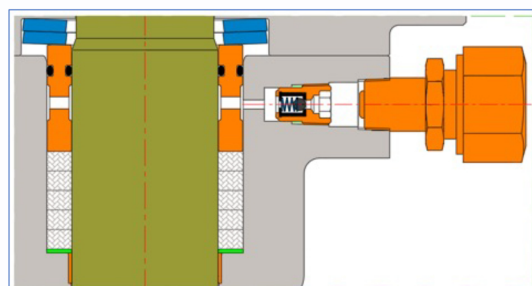
+ 240°C

CERTIFICATION IN PROCESS



+ 240°C

**API STANDARD 641
ISO 15848-1
ENDURANCE CLASS CO2 TIGHTNESS CLASS CH**



+ 350°C

API 6D: 6D-1342
API 6A: 6A-2204
API Spec Q1: Q1-4181
ISO 9001 :2015: 0052985-01



API 6D: 6D-1822
API 6A: 6A-2250
API Spec Q1: Q1-3641
ISO 9001 :2015: ISO-3983



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