

GUIDE VALVE LIMITED

GVS® Trunnion Mounted Soft Seated Ball Valves Series B2 & GB2 - 00 (Conventional Seat)



Distributors/Agents



**GLOBAL
SupplyLine**

Global Supply Line are Guide Valve stockists, distributing to Australia, NZ & PNG, and can automate, service & test in our Adelaide Lloyd's 9001 facility, approved by Guide Valve.

Contact us: sales@globalsupplyline.com.au

Stock lists at our website: www.globalsupplyline.com.au



FUGITIVE EMISSION CERTIFIED

www.gvs-vci.com

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.

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).



CANADA

ISO 9001: 2015: 0052985-01

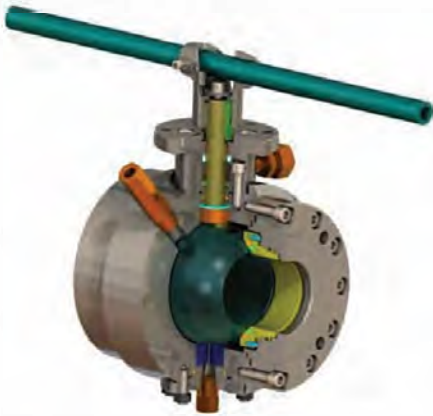


CHINA

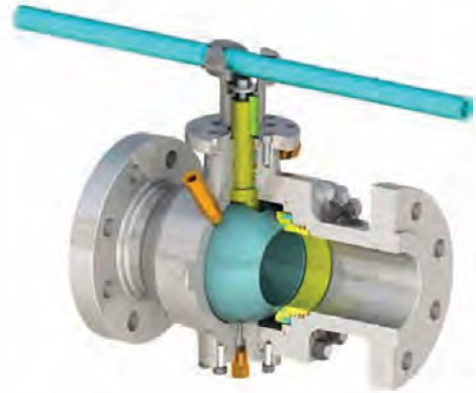
API 6D: 6D-1822
API 6A: 6A-2250
API Spec Q1: Q1-3641
ISO 9001: 2015: ISO-3983



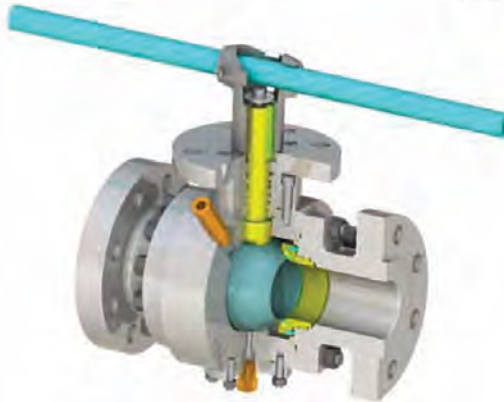
USA



Model B2
Sizes: 2" - 4"
ANSI Class 150#



Model B2
Sizes: 2" - 4"
ANSI Class 300 - 600#



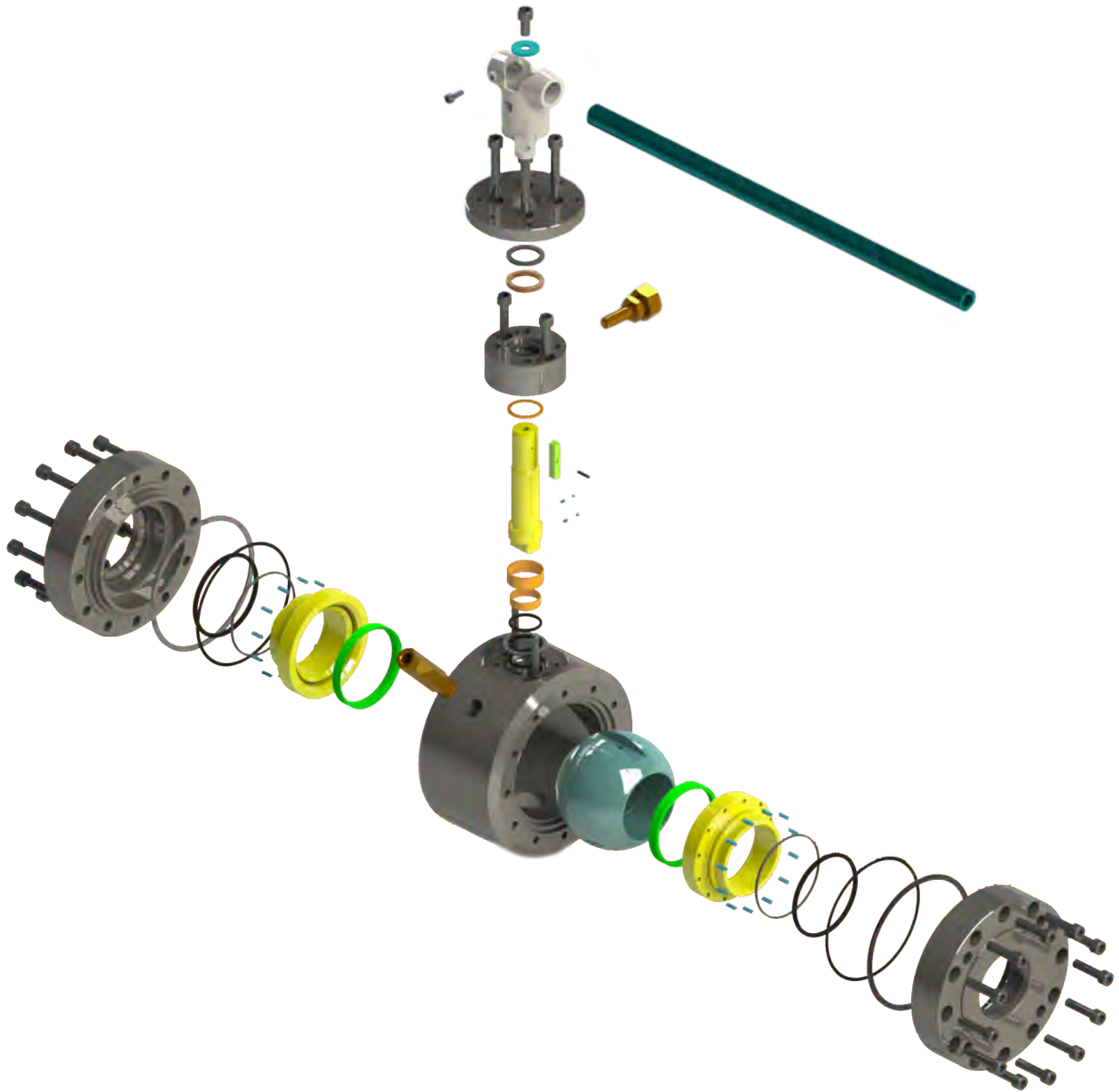
Model B2
Sizes: 2" - 4"
ANSI Class 900 - 1500#

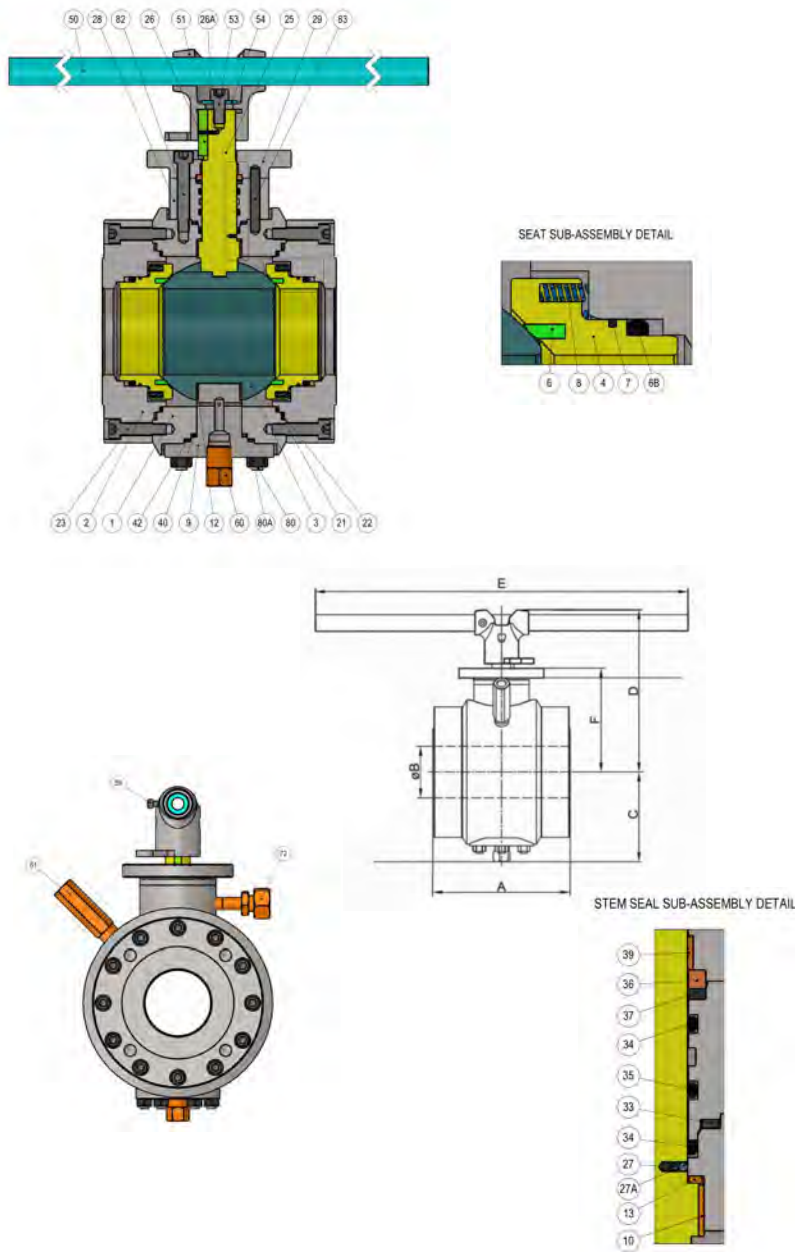


Model GB2
Sizes: 6" - 48"
ANSI Class 150 - 900#



Model GB2
Sizes: 6" - 36" ANSI Class 1500#
Sizes : 2" - 24" ANSI Class 2500#

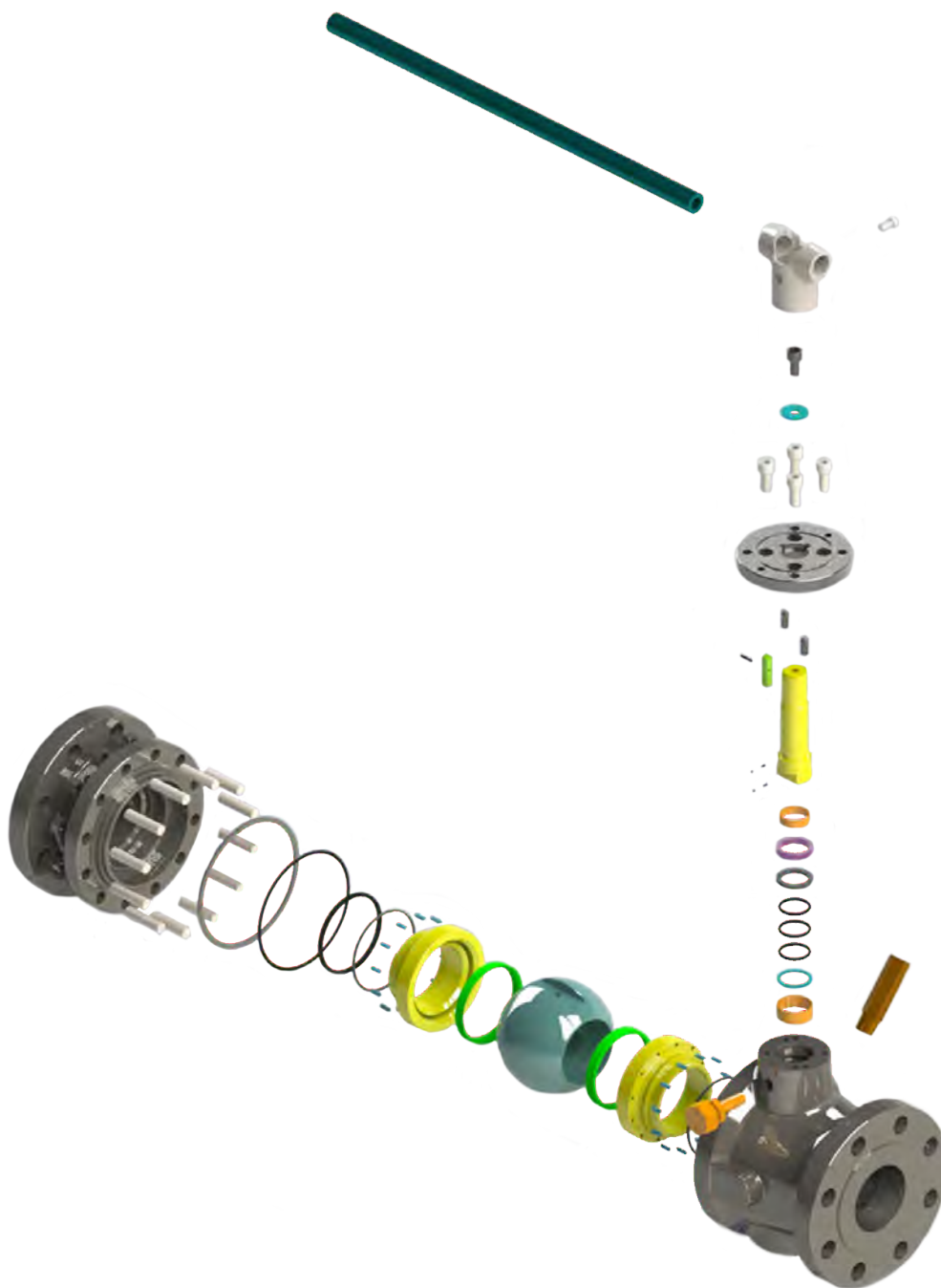


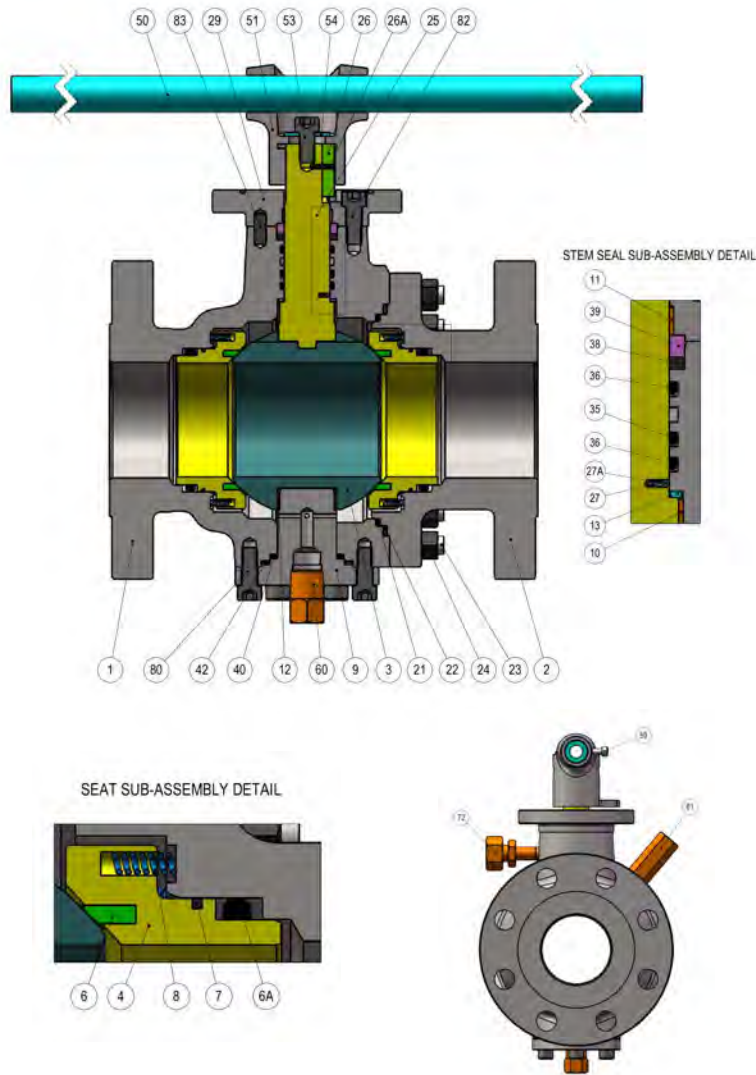


Item	Part Description
1	Body
2	End adapter RF
3	Ball
4	Seat
6	Seat insert
6B	Seat main O-ring
7	Seat fire-safe seal
8	Seat springs
9	Lower trunnion
10	Stem lower sleeve bearing
12	Trunnion sleeve bearing
13	Stem thrust washer
21	End adapter O-ring
22	Body SPW gasket
23	Body/end adapter capscrew
25	Stem
26	Stem key
26A	Pin
27	Stem antistatic spring
27A	Stem antistatic piston
28	Lower stem flange
29	Upper stem flange
33	Stem flange SPW gasket
34	Stem O-ring
35	Stem main O-ring
36	Gland ring
37	Stem stop fire-safe seal
39	Stem upper sleeve bearing
40	Lower trunnion O-ring
42	Lower trunnion SPW gasket
50	Lever tube
51	Lever knuckle (locking type)
53	Lever knuckle - stem capscrew
54	Lever knuckle - stem washer
59	Lever knuckle - lever capscrew
60	Bleeder fitting
61	Safety relief valve(When required)
72	Stem grease fitting
80	Lower trunnion stud
80A	Lower trunnion nut
82	Upper stem flange capscrew
83	Lower stem flange dowel pin

ANSI 150

Valve Size	Bore Size								Weight
		RF	RTJ	BW					
NPS	B	A			C	D	E	F	
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





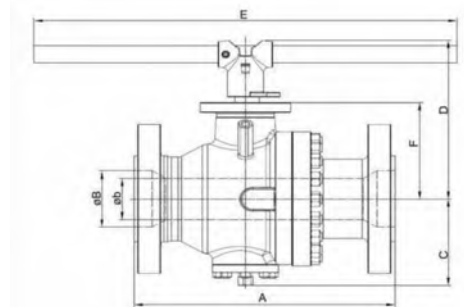
Item	Part Description
1	Body RF
2	End adapter RF
3	Ball
4	Seat
6	Seat insert
6A	Seat main O-ring
7	Seat fire-safe seal
8	Seat springs
9	Lower trunnion
10	Stem lower sleeve bearing
11	Stem upper sleeve bearing
12	Trunnion sleeve bearing
13	Stem thrust washer
21	End adapter O-ring
22	Body SPW gasket
23	Body/end adapter stud
24	Body/end adapter nut
25	Stem
26	Stem key
26A	Pin
27	Stem antistatic spring
27B	Stem antistatic ball
29	Upper stem flange
35	Stem main O-ring
36	Stem O-ring
38	Stem top fire-safe seal
39	Spacer ring
40	Lower trunnion O-ring
42	Lower trunnion SPW gasket
50	Lever tube
51	Lever knuckle (locking type)
53	Lever knuckle - stem capscrew
54	Lever knuckle - stem washer
59	Lever knuckle - lever capscrew
60	Bleeder fitting
61	Safety relief valve(When required)
72	Stem grease fitting
80	Lower trunnion capscrew
82	Upper stem flange capscrew
83	Lower stem flange dowel pin

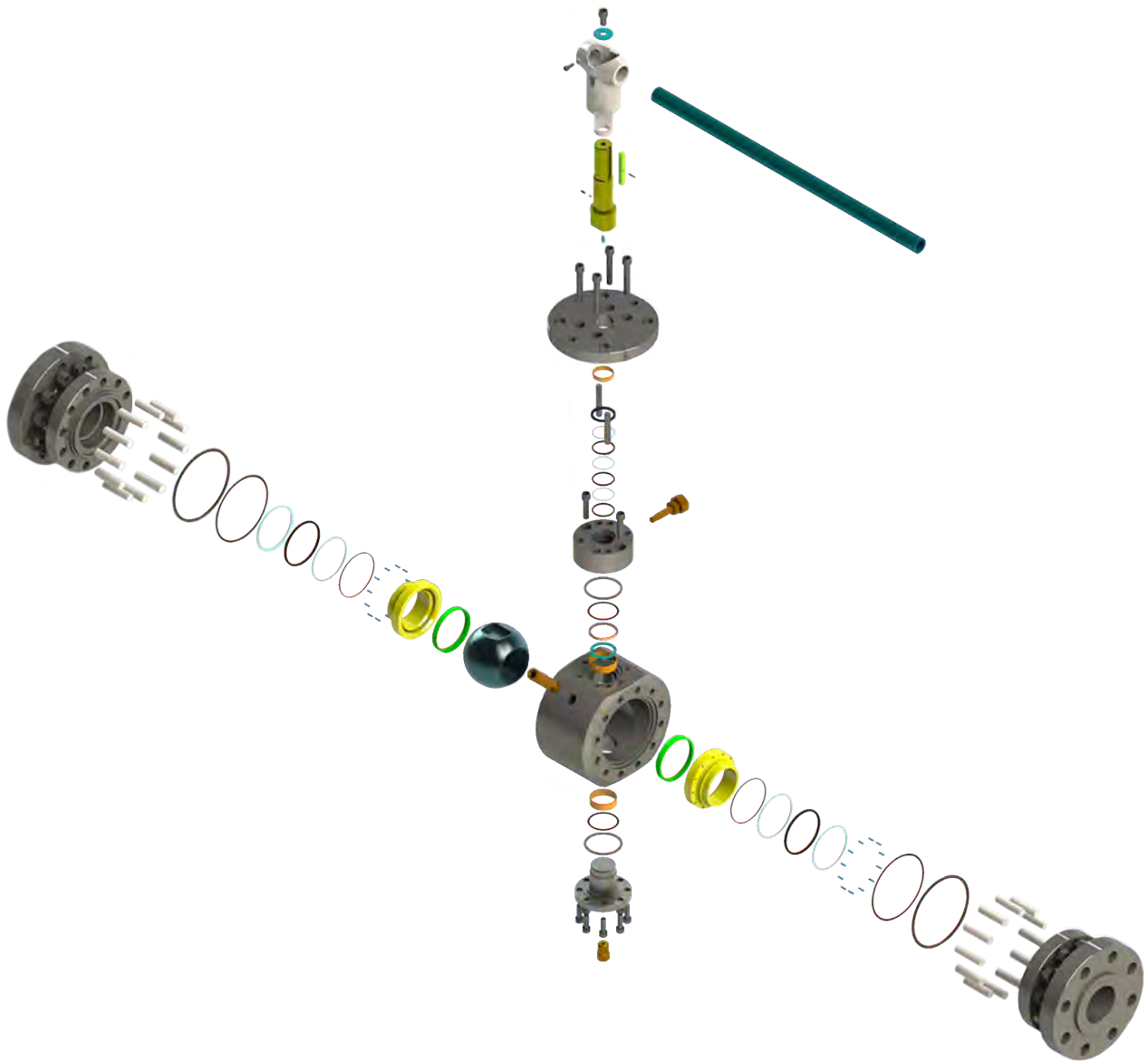
ANSI 300

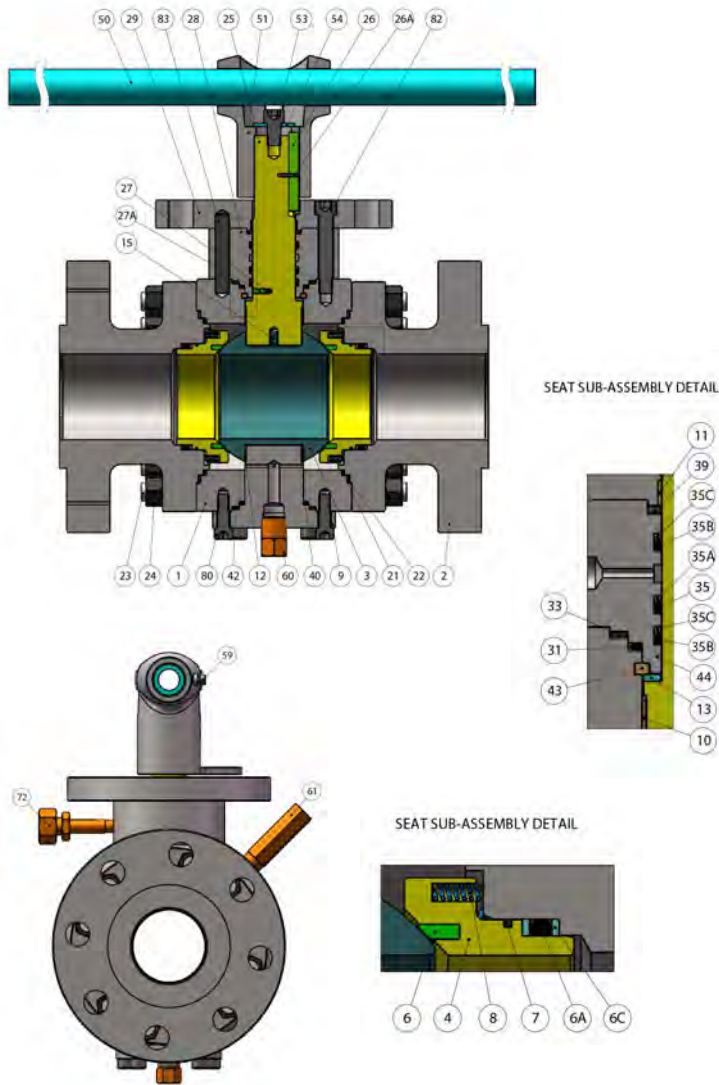
Valve Size	Bore Size	RF			Weight			
		mm	mm	mm	mm	mm	mm	mm
NPS	B(xb)	A			C	D	E	F
inch	mm	mm	mm	mm	mm	mm	mm	mm
2"	49.2	216	232	216	114	196	450	126
3"x2"	76.2x49.2	283	298	283	114	196	450	126
3"	74.6	283	298	283	133	237	550	152
4"x3"	101.6x74.6	305	321	305	133	237	550	152
4"	101.6	305	321	305	159	291	700	177
6"x4"	151.6x101.6	403	419	457	159	291	700	177

ANSI 600

Valve Size	Bore Size	RF			Weight			
		mm	mm	mm	mm	mm	mm	mm
NPS	B(xb)	A			C	D	E	F
inch	mm	mm	mm	mm	mm	mm	mm	mm
2"	49.2	292	295	292	114	196	450	126
3"x2"	76.2x49.2	356	359	356	114	196	450	126
3"	74.6	356	359	356	133	237	550	152
4"x3"	101.6x74.6	432	435	432	133	237	550	152
4"	101.6	432	435	432	159	291	700	177
6"x4"	151.6x101.6	559	562	559	159	291	700	177







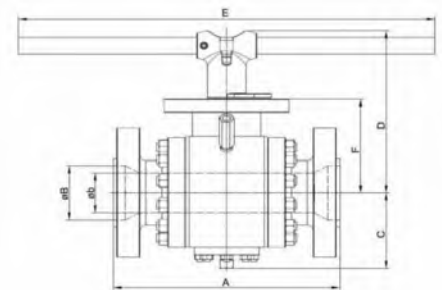
Item	Part Description
1	Body
2	End adapter RF
3	Ball
4	Seat
6	Seat insert
6A	seat main O-ring
6C	Seat back-up ring
7	Seat fire-safe seal
8	Seat springs
9	Lower trunnion
10	Stem lower sleeve bearing
11	Stem upper sleeve bearing
12	Trunnion sleeve bearing
13	Stem thrust washer
15	Ball antistatic spring
21	End adapter O-ring
22	Body SPW gasket
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 SPW gasket
35	Stem main O-ring
35A	Stem back-up ring
35B	Stem O-ring
35C	Stem back-up ring
39	Stem top fire-safe seal
40	Lower trunnion O-ring
42	Lower trunnion SPW gasket
43	Split ring
44	Stem antiblowout spacer
50	Lever tube
51	Lever knuckle (locking type)
53	Lever knuckle - stem capscrew
54	Lever knuckle - stem washer
59	Lever knuckle - lever capscrew
60	Bleeder fitting
61	Safety relief valve(When required)
72	Stem grease fitting
80	Lower trunnion capscrew
82	Upper stem flange capscrew
83	Lower stem flange dowel pin

ANSI 900

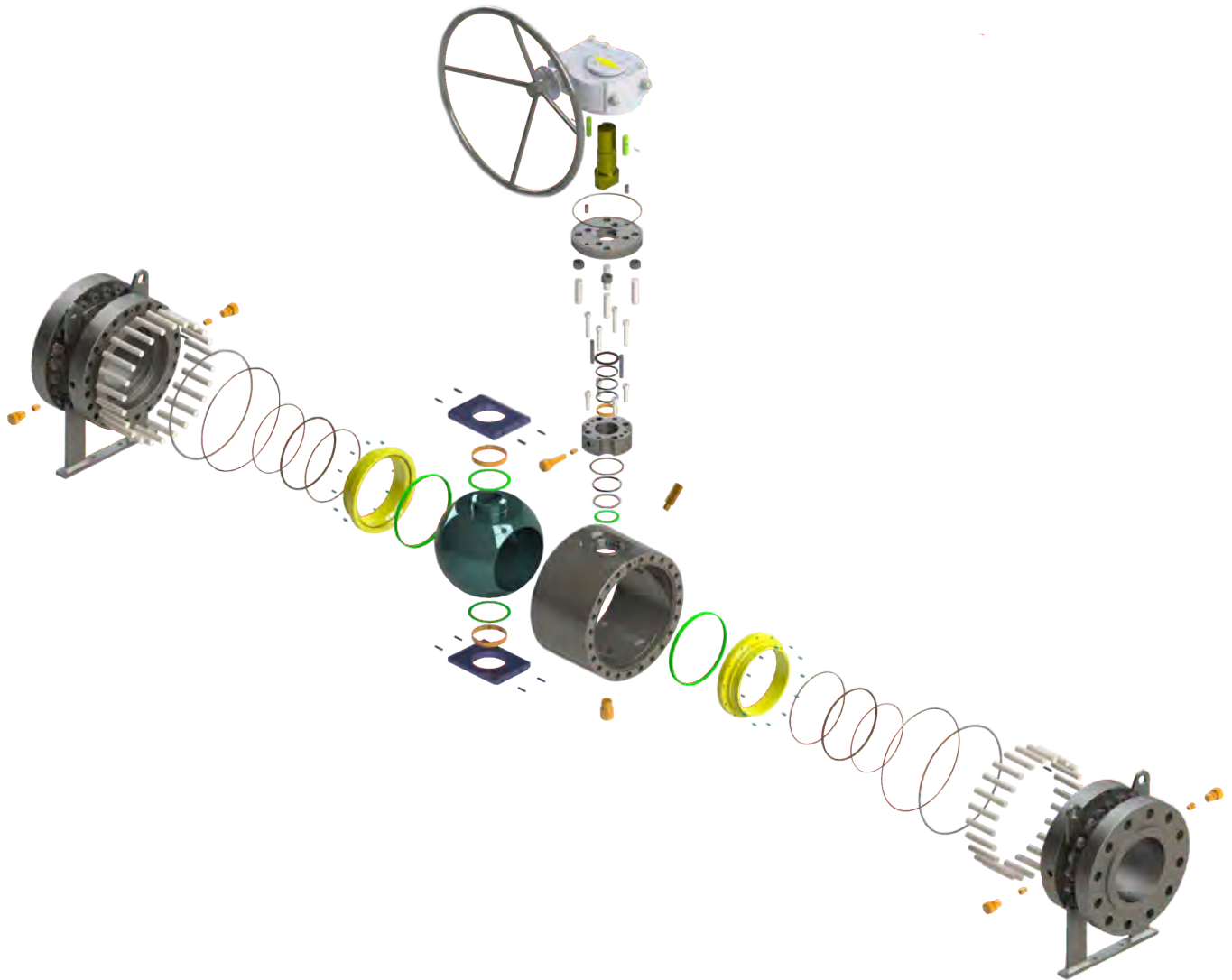
Valve Size	Bore Size	RF							Weight
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2"	49.2	368	371	368	121	235	500	139	67
3"×2"	76.2×49.2	381	384	381	121	235	500	139	80
3"	74.6	381	384	381	142	303	700	175	102
4"×3"	101.6×74.6	457	460	457	142	303	700	175	140
4"	101.6	457	460	457	187	356	960	214	220
6"×4"	151.6×101.6	610	613	610	190	356	960	214	264

ANSI 1500

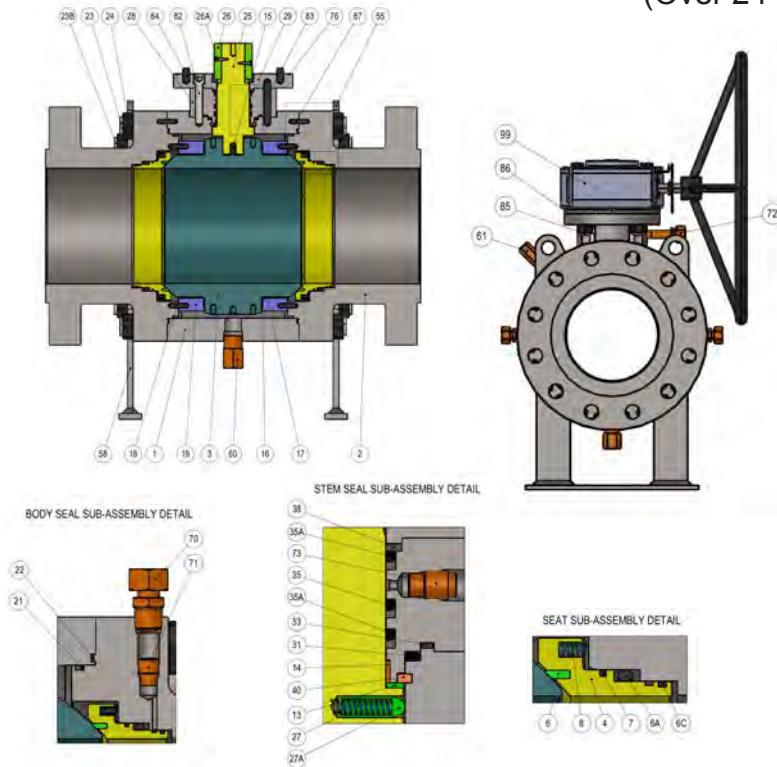
Valve Size	Bore Size	RF							Weight
		RF	RTJ	BW	C	D	E	F	
NPS	B(xb)	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
2"	49.2	368	371	368	121	235	500	139	67
3"×2"	76.2×49.2	470	473	470	132.5	235	500	139	80
3"	74.6	470	473	470	142	303	700	175	108
4"×3"	101.6×74.6	546	549	546	142	303	700	175	146
4"	101.6	546	549	546	187	256	400*	214	225
6"×4"	146.1×101.6	705	711	705	187	256	400*	214	270



(Over 24" design, see -04 catalogue)



(Over 24" design, see -04 catalogue)



Item	Part Description
1	Body
2	End adapter RF
3	Ball
4	Seat
6	Seat insert
6A	Seat main O-ring
6C	Seat grease O-ring
7	Seat fire-safe seal
8	Seat springs
13	Stem thrust washer
14	Stem sleeve bearing
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 SPW gasket
23	Body/end adapter studs (standard)
23B	Body/end adapter studs (longer)
24	Body/end adapter nuts
25	Stem
26	Stem key
26A	Stem key capscrew
27	Stem antistatic spring
27A	Stem antistatic piston
28	Lower stem flange
29	Upper stem flange
31	Stem flange O-ring
33	Stem flange SPW gasket
35	Stem main O-ring
35A	Stem O-ring
38	Stem top fire-safe seal
40	Split ring
55	Lifting lugs
58	Valve support legs
60	Bleeder fitting
61	Safety relief valve(When required)
70	Seat grease fitting
71	Seat inner check valve
72	Stem grease fitting
73	Stem inner check valve
76	Weather seal
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)

ANSI 150

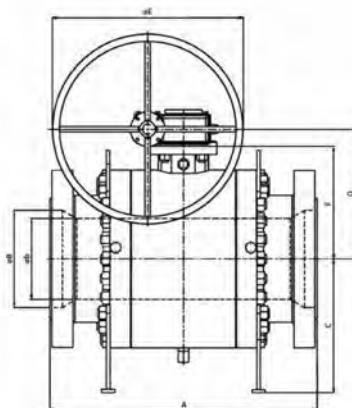
Valve Size	Bore Size	End Connection			Dimensions				Weight
		RF	RTJ	BW	C	D	E	F	
NPS	NPS	mm	mm	mm	mm	mm	mm	mm	kg
6"	151.6	394	406	457	205	287	400	245	190
8"×6"	202.3×151.6	457	470	521	205	287	400	245	228
8"	202.3	457	470	521	278.5	325.5	400	283.5	305
10"×8"	252.4×202.3	533	546	559	278.5	325.5	400	283.5	366
10"	252.4	533	546	559	361	360	400	318.5	453
12"×10"	303.2×252.4	610	622	635	361	360	400	318.5	543
12"	303.2	610	622	635	411	407	600	359	720
14"×10"	336×303.2	686	699	762	364	360	400	318.5	706
14"	336	686	699	762	451	444	600	393	987
16"×15"	387×336	762	775	838	411	407	600	359	936
16"	387	762	775	838	495	481	600	425	1254
18"	438	864	876	941	530	557	600	477	1901
20"×16"	438×387	914	927	991	495	481	600	425	1630
20"	489	914	927	991	580	581.5	600	518	2548
24"×20"	590×489	1067	1080	1143	580	581.5	600	518	3313
24"	590	1067	1080	1143	715	690	700	805	3860
30"×24"	737×590	1295	/	1397	715	690	700	605	4632

750 ~ 900NB see -04 trim Dual Seat Catalogue

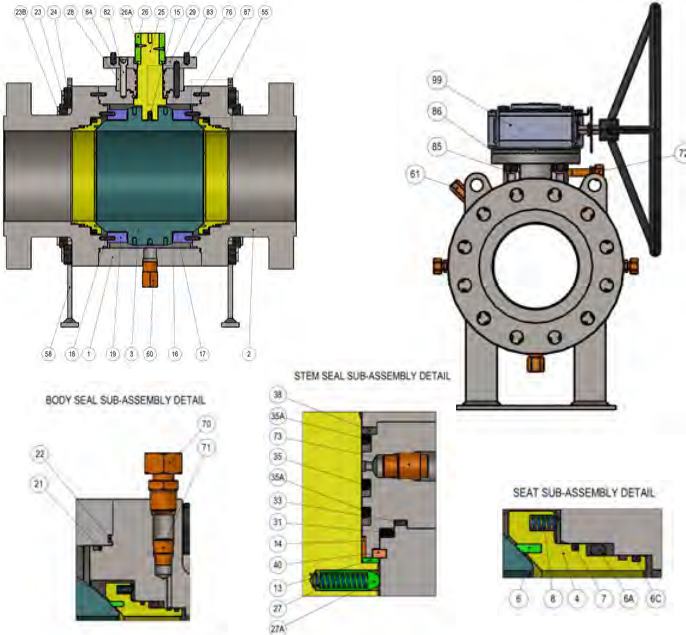
ANSI 300

Valve Size	Bore Size	End Connection			Dimensions				Weight
		RF	RTJ	BW	C	D	E	F	
NPS	NPS	mm	mm	mm	mm	mm	mm	mm	kg
6"	151.6	403	419	457	205	287	400	245	210
8"×6"	202.3×151.6	502	518	521	205	287	400	245	265
8"	202.3	502	518	521	330	325.5	600	283.5	358
10"×8"	252.4×202.3	568	584	559	330	325.5	600	283.5	510
10"	252.4	568	584	559	361	360	600	318.5	510
12"×10"	303.2×252.4	648	664	635	361	360	600	318.5	681
12"	303.2	648	664	635	401	407	600	359	790
14"×10"	336×303.2	762	778	762	361	360	600	318.5	886
14"	336	762	778	762	451	444	600	393	1174
16"×15"	387×336	838	854	838	401	407	600	359	1027
16"	387	838	854	838	494	480	600	425	1558
18"	438	914	930	941	540	541	700	477	2195
20"×16"	438×387	991	1010	991	494	480	700	425	1907
20"	489	991	1010	991	634	582	700	518	2832
22"	540	1092	1114	1092	680	610	700	580	3256
24"×20"	590×489	1143	1165	1143	634	582	700	518	3681
24"	590	1143	1165	1143	715	690	700	605	4289
30"×24"	737×590	1397	1422	1397	715	690	700	605	5187

750 ~ 900NB see -04 trim Dual Seat Catalogue



(Over 24" design, see -04 catalogue)



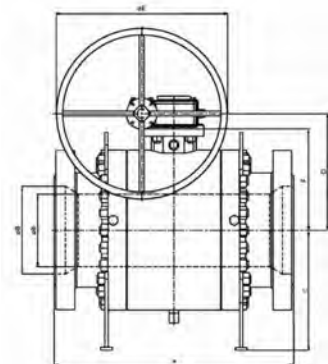
ANSI 600

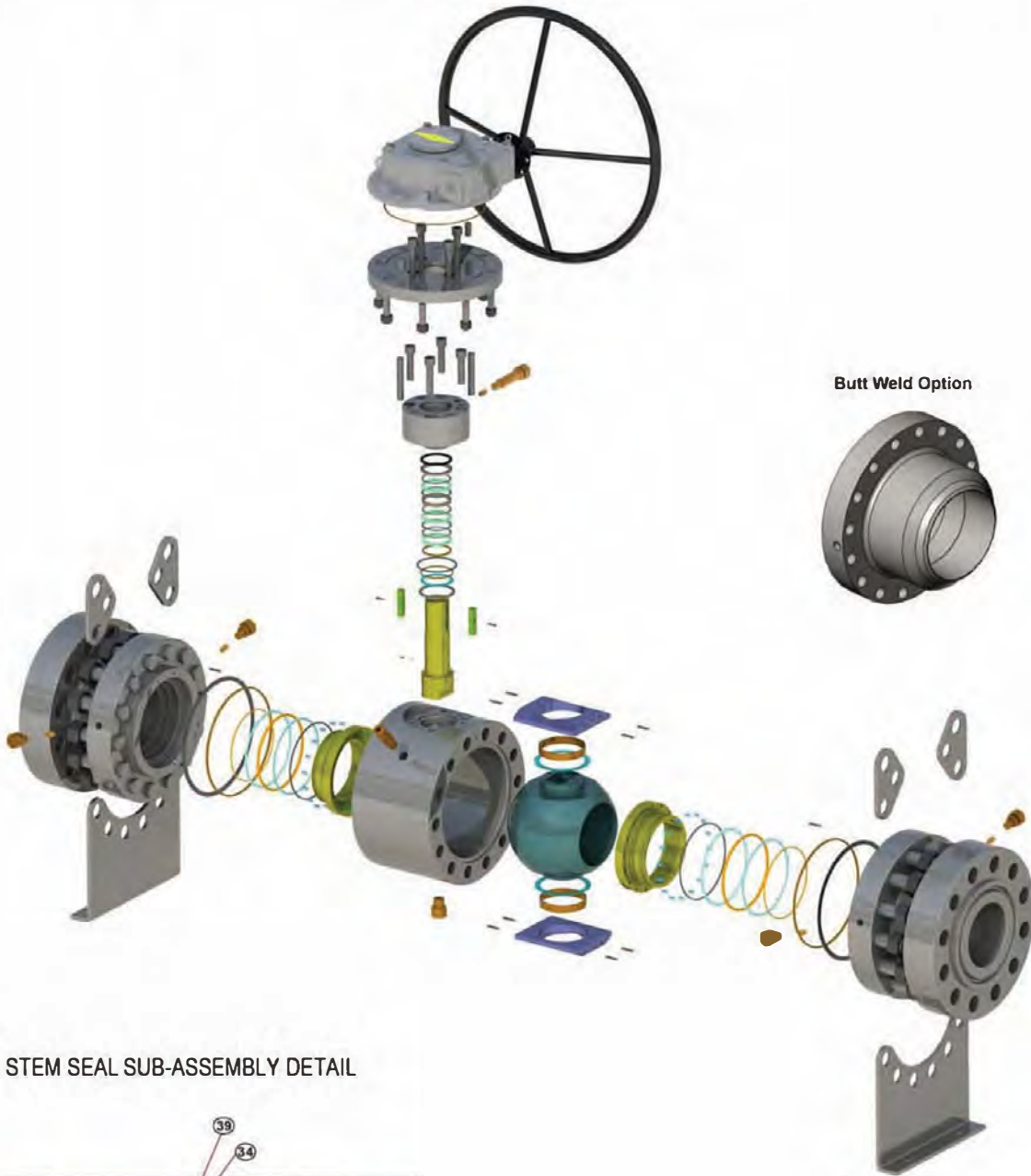
Valve Size	Bore Size	RF							Weight
		mm	mm	mm	mm	mm	mm	mm	
NPS	NPS	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
6"	152.4	559	562	559	291.5	287	600	245	263
8"×6"	203.2×152.4	660	664	660	291.5	287	600	245	275
8"	203.2	660	664	660	340	325.5	600	283.5	377
10"×8"	254×203.2	787	791	787	340	325.5	600	283.5	454
10"	254	787	791	787	370	374.5	600	318.5	575
12"×10"	305×254	838	841	838	370	374.5	600	318.5	620
12"	305	838	841	838	421	415	600	359	753
14"×10"	337×305	889	892	889	421	374.5	600	318.5	897
14"	337	889	892	889	451	444	600	393	1119
16"×12"	387.4×337	991	994	991	421	415	600	359	979
16"	387.4	991	994	991	570	502	700	440	1486
18"	438.2	1092	1095	1092	530	557	700	477	2092
20"×16"	438.2×387.4	1194	1200	1194	570	502	700	440	1931
20"	489	1194	1200	1194	650	618	700	533	2699
22"	540	1295	1305	1295	650	610	700	580	3103
24"×20"	591×489	1397	1407	1397	724	618	700	533	3175
24"	591	1397	1407	1397	724	690	700	605	4343
30"×24"	737×591	1651	1664	1651	724	690	700	605	5087

ANSI 900

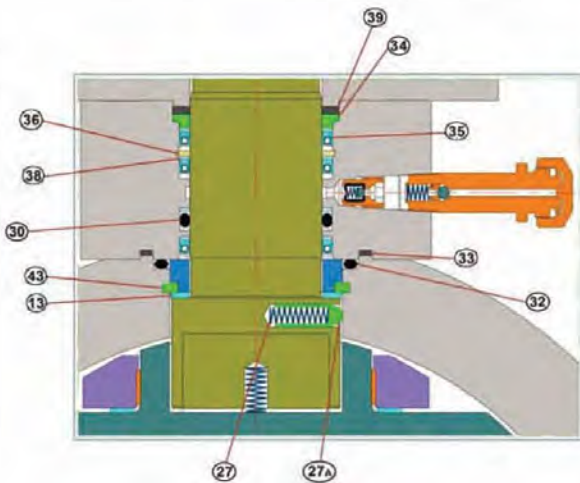
Valve Size	Bore Size	RF							Weight
		mm	mm	mm	mm	mm	mm	mm	
NPS	NPS	A			C	D	E	F	RF
inch	mm	mm	mm	mm	mm	mm	mm	mm	kg
6"	152.4	610	613	610	294	287	600	245	362
8"×6"	203.2×152.4	737	740	737	294	287	600	245	434
8"	203.2	737	740	737	400	339.5	600	283.5	575
10"×8"	254×203.2	838	841	838	400	339.5	600	283.5	690
10"	254	838	841	838	470	403.5	600	348.5	1040
12"×10"	305×254	965	968	965	470	403.5	700	348.5	1248
12"	305	965	968	965	434.5	440	600	385	1386
14"×10"	324×305	1029	1038	1029	470	403.5	600	348.5	1352
14"	324	1029	1038	1029	510	490	700	423	1793
16"×12"	375×324	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"×16"	425.5×375	1321	1334	1321	600	530	700	466	2861
20"	473.1	1321	1334	1321	705	678	700	590	3998
24"×20"	571.5×473.1	1549	1568	1549	705	678	700	590	5096
24"	571.5	1549	1568	1549	787	730	700	628.5	6434
30"×24"	714.4×571.5	1880	1902	1880	787	730	700	628.5	7536

Item	Part Description
1	Body
2	End adapter RF
3	Ball
4	Seat
6	Seat insert
6A	Seat main O-ring
6C	Seat grease O-ring
7	Seat fire-safe seal
8	Seat springs
13	Stem thrust washer
14	Stem sleeve bearing
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 SPW gasket
23	Body/end adapter studs (standard)
23B	Body/end adapter studs (longer)
24	Body/end adapter nuts
25	Stem
26	Stem key
26A	Stem key cap screw
27	Stem antistatic spring
27A	Stem antistatic piston
28	Lower stem flange
29	Upper stem flange
31	Stem flange O-ring
33	Stem flange SPW gasket
35	Stem main O-ring
35A	Stem O-ring
38	Stem top fire-safe seal
40	Split ring
55	Lifting lugs
58	Valve support legs
60	Bleeder fitting
61	Safety relief valve(When required)
70	Seat grease fitting
71	Seat inner check valve
72	Stem grease fitting
73	Stem inner check valve
76	Weather seal
82	Upper stem flange cap screw
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)

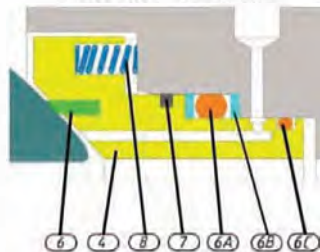




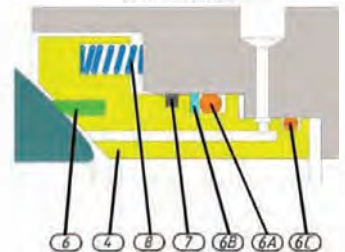
STEM SEAL SUB-ASSEMBLY DETAIL

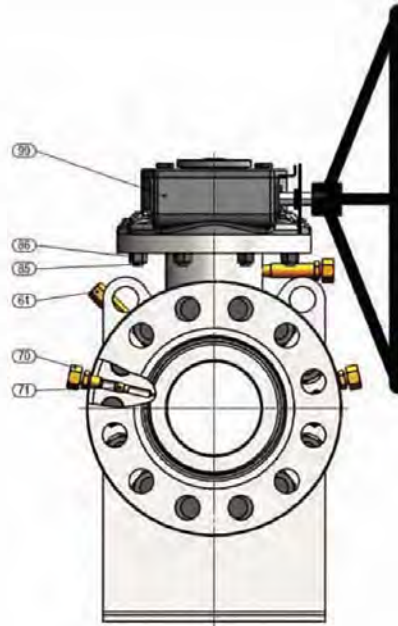
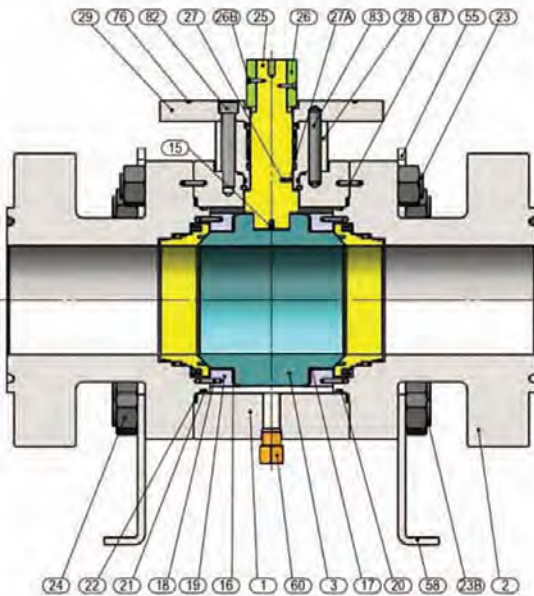


DOUBLE PISTON EFFECT



SELF RELIEVING





Position	Part Description
1	Body
2	End adapter
3	Ball
4	Seal 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
30	Stem o-ring
31	Stem flange o-ring
32	Bonnet to body o-ring
33	Stem flange metallic fire-safe seal
34	Spacer ring
35	Stem lip seal
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
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)

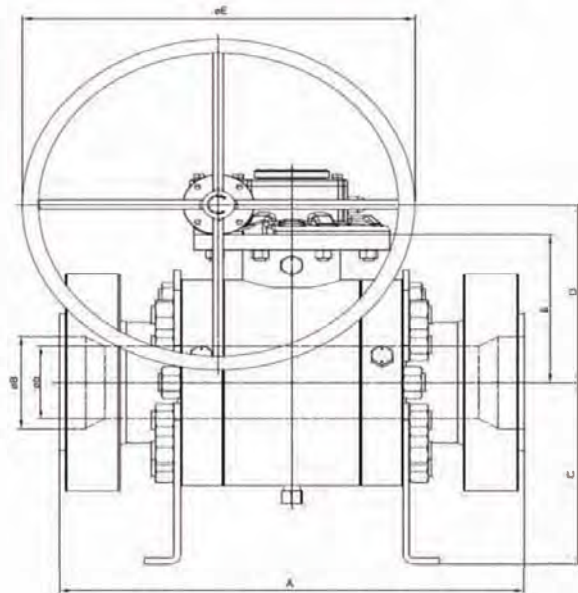
Items 81, 84 are not shown
Items 55, 58, 70, 71, 73 are not applicable to 2" - 4" class 2500

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	
6"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"	287x225	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 design
- Bubble tight seat seals
- Emergency stem and seat sealing
- NACE MR0175 SOUR
- Interchangeable seats with no machining requirements
- Tested to 80 PSI for seat-to-ball shut-off

Fugitive Emission Certified to:

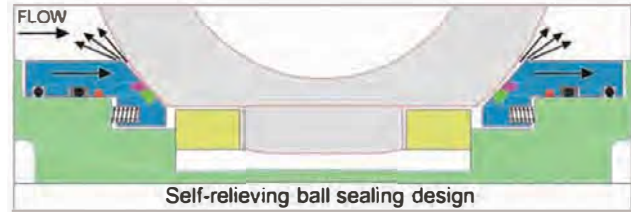
API STANDARD 641
 ISO 15848-1: ENDURANCE CLASS CO3
 TIGHTNESS CLASS AM
 ISO 15848-1: ENDURANCE CLASS CO2
 TIGHTNESS CLASS CH

Firesafe Certified to:

API STANDARD 607
 API STANDARD 6FA
 B.S. 6755 PART 2
 ISO 10497: 2010



Standard Seat Sealing Design



ANTI-EXPLOSIVE DECOMPRESSION SEAL (AED)

All of the elastic compounds present 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 the gas in contact with it, from the temperature and the exercised pressure.

The instance described previously 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 the **AED** type and possess an Anti-Explosive Decompression Feature that prevents the above from occurring.

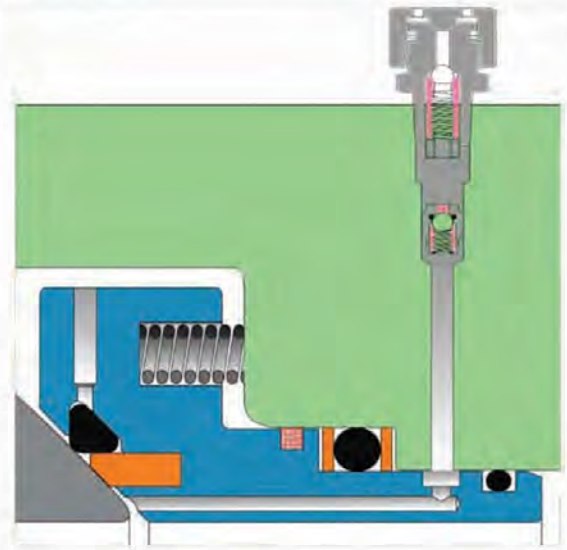
EMERGENCY SEAT SEALING

Available on dual and single seat versions.

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

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

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

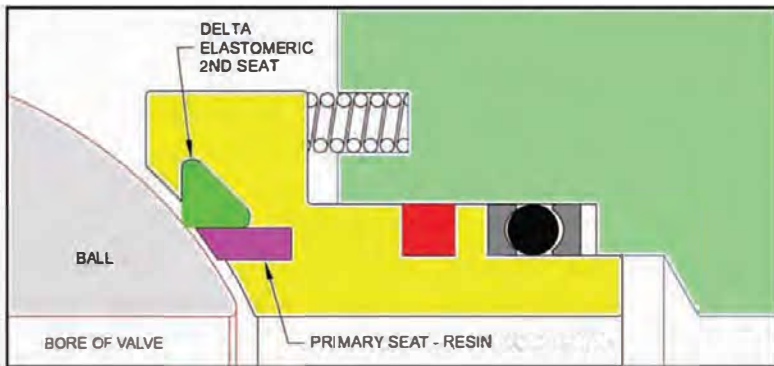
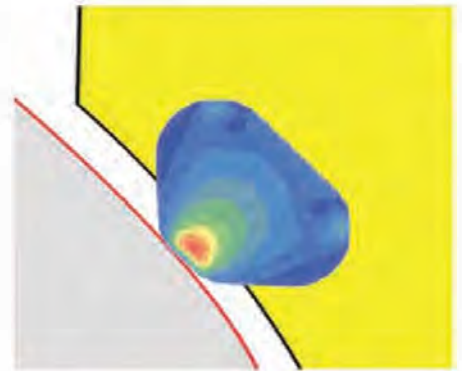


DUAL SEAT DELTA SEAT BACK UP SEAT

The dual seat design is recommended for buried service, welded body, dirty service, large diameter, and for customers willing to pay a very small extra charge to guarantee an extremely long life, even on clean service in 150 - 900 class (and 1500 class 50NB only).

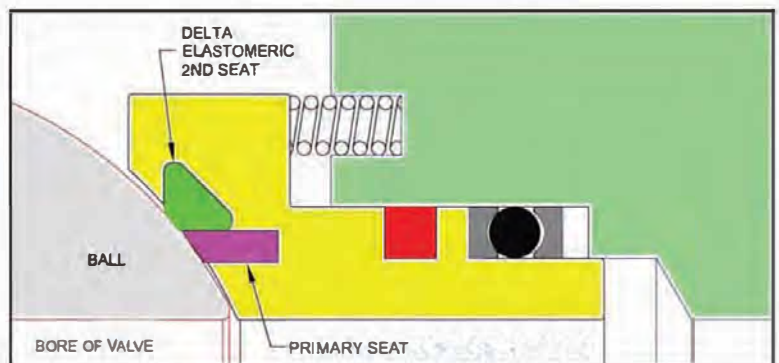
This backup seat insert is shaped like a triangle "Delta" with rounded corners, which is housed by means of the metal seat. This unique geometry offers several advantages:

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



At low pressure, the resin seat is wiper and a "Protector", for at much lower pressure 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 with the ball at low & high pressure, providing a seat-to-ball shut-off at all times.

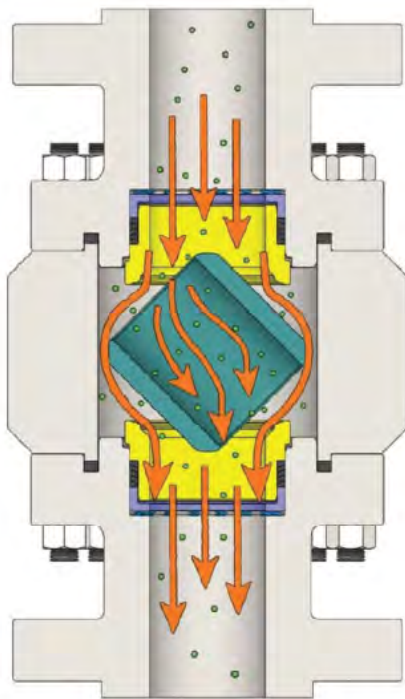
At higher pressure, the complete seat assembly is being pushed against the ball, and the insert resin seat "Protector" eventually does come into contact with the ball's outer surface. At this elevated pressure, the protector acts as a seat seal in addition to being a protector and also acting as a scraper,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



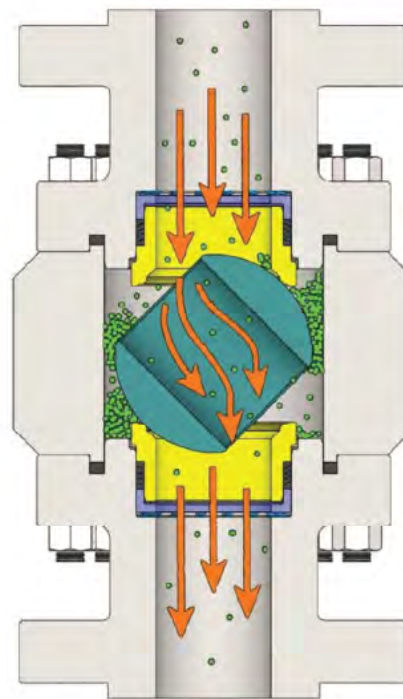
RECESSED BALL & SPECIAL TRIM - DIRTY SERVICE

The valve includes a recessed ball design. This means that the ball geometry is modified around the seating area to improve how the valve behaves during operation.

The purpose of the recessed ball is to reduce direct damage to the sealing interface and help manage material that may accumulate near the seats or inside the valve cavity.



Recessed Ball Valve



Typical Ball Valve

Recessed ball feature detail

Technical Benefit

The recessed ball design helps to:

- protect the ball-to-seat contact area;
- reduce direct particle impact on the sealing zone;
- limit repeated scratching during operation;
- improve sealing stability;
- increase expected service life compared with a standard ball geometry.

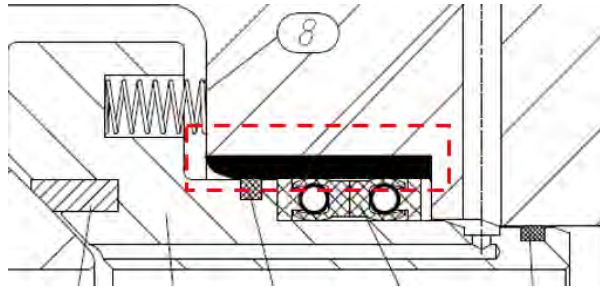
Link with the Leakage Problem

If leakage is caused by repeated damage at the ball-seat interface, a standard ball geometry may expose the sealing area directly to particles and debris. The recessed ball reduces this exposure and therefore directly targets one of the suspected leakage mechanisms.

RECESSED BALL & SPECIAL TRIM - DIRTY SERVICE - CONTINUED

316 Stainless Steel Cladding in the Seat Pocket Area

The design can also include 316 stainless steel cladding in the seat pocket area. The seat pocket is the region of the valve body where the seat is installed and supported.



316 SS cladding in the seat pocket area

Technical Benefit

The 316 SS cladding helps to:

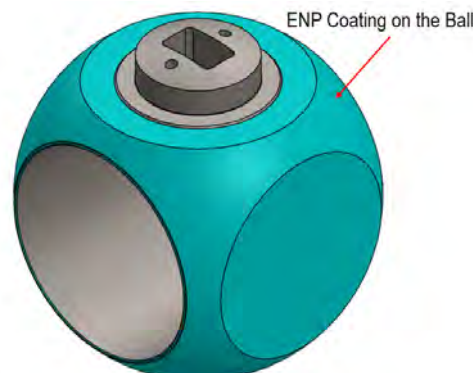
- improve corrosion resistance in the seat housing area;
- protect the surface behind the seat;
- maintain correct seat positioning;
- reduce leakage paths behind the seat;
- improve long-term sealing reliability.

Link with the Leakage Problem

Even with an improved seat insert, leakage may continue if the seat pocket is damaged. The cladding protects the support area so that the seat can maintain its correct position and compression against the ball.

ENP Coating on the Ball

An ASTM A350 LF2 with a .1µm ENP (high hardness) coating is superior to a 316SS ball. ENP stands for Electroless Nickel Plating. It is commonly used to improve hardness, corrosion resistance, and surface .



DOUBLE BLOCK & BLEED

GB2 DIB-1: DOUBLE ISOLATION IN ONE BODY.

Isolation. Thermal Relief. Fewer Joints.



DOUBLE ISOLATION

Two independent piston-effect seats isolate the line on both sides, in a single trunnion-mounted body.



COMPACT FOOTPRINT

Replaces two ball valves and a bleed valve in series with one engineered body.



EXTERNAL RELIEF PATH

An external tubing and check valve assembly vents trapped cavity pressure to the line side when thermal expansion occurs.

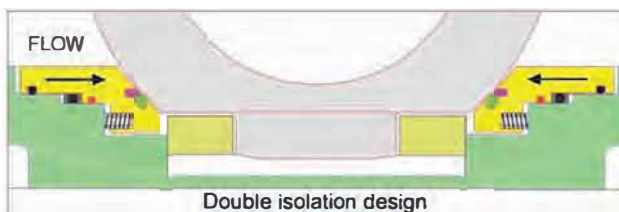


FEWER LEAK PATHS

Fewer flanged joints and maintenance points than a conventional two-valve arrangement.

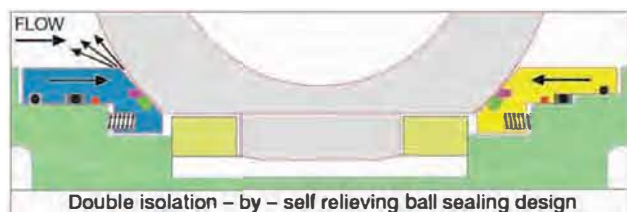
GUIDE VALVE
LIMITED

Optional Valve Seat Sealing Designs



Double isolation design

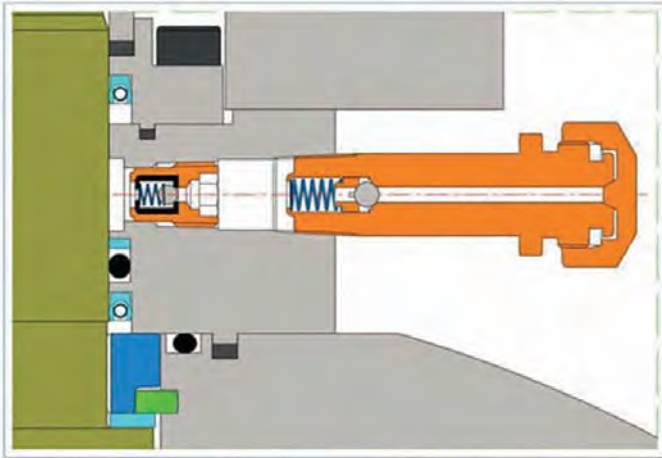
DIB-1



Double isolation – by – self relieving ball sealing design

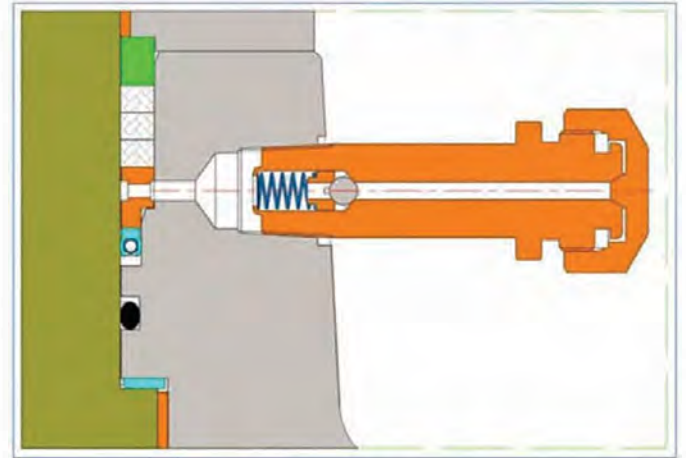
DIB-2

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



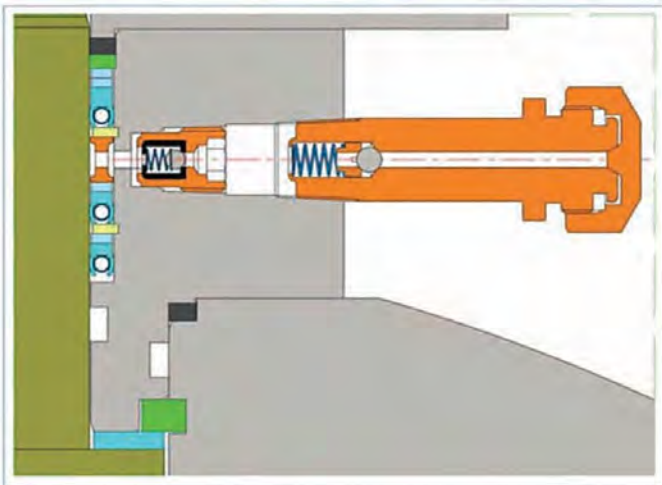
+ 200°C

CERTIFICATION IN PROCESS



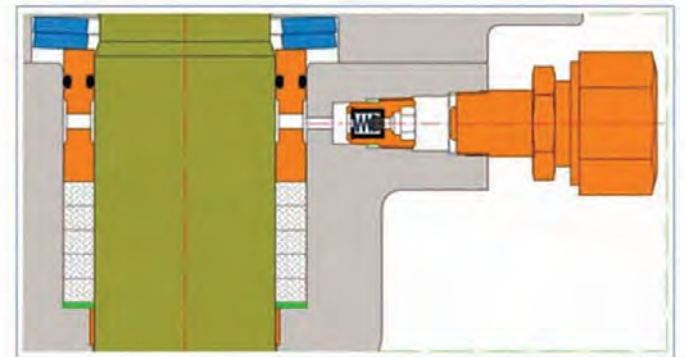
+ 240°C

API STANDARD 641

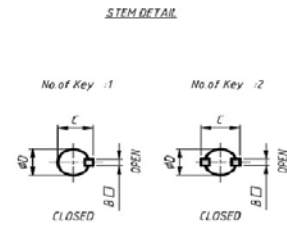
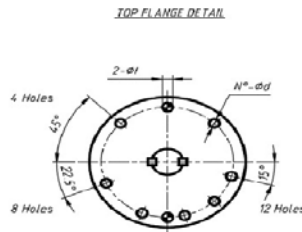
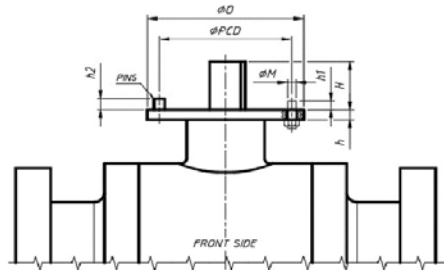


+ 240°C

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



+ 350°C



2" – 4" Up To Class 1500

Size	Class	No. of key	D	B	C	H	O	PCD	I	M	N-d	h	h1	h2	ISO Flange
2	150	1	22	6	25	31.5	125	102	8	M10	4 11	15	20	10	F10
2	300	1	22	6	25	31.5	125	102	8	M10	4 11	15	21	10	F10
2	600	1	22	6	25	31.5	125	102	8	M10	4 11	15	25	10	F10
2	900	1	28	8	32	38.5	175	140	14	M16	4 18	20	20	10	F14
2	1500	1	28	8	32	38.5	175	140	14	M16	4 18	20	20	10	F14
3	150	1	28	8	32	31.5	125	102	8	M10	4 11	15	13	10	F10
3	300	1	28	8	32	31.5	125	102	8	M10	4 11	15	13	10	F10
3	600	1	28	8	32	31.5	125	102	8	M10	4 11	15	13	10	F10
3	900	1	35	9	39.5	60	210	165	14	M20	4 22	25	21	10	F16
3	1500	1	35	9	39.5	60	210	165	14	M20	4 22	25	21	10	F16
4	150	1	35	9	39.5	45.5	150	125	10	M12	4 13	18	12	10	F12
4	300	1	35	9	39.5	45.5	150	125	10	M12	4 13	18	12	10	F12
4	600	1	35	9	39.5	45.5	150	125	10	M12	4 13	18	12	10	F12
4	900	1	45	13	51.5	63.5	210	165	12	M20	4 22	25	26	10	F16
4	1500	1	45	13	51.5	63.5	210	165	12	M20	4 22	25	26	10	F16

6" – 24" Up To Class 900

Size	Class	No. of key	D	B	C	H	O	PCD	I	M	N-d	h	h1	h2	ISO Flange
6	150	2	45	13	59.8	50	210	165	12	M20	4 22	25	26	10	F16
6	300	2	45	13	59.8	50	210	165	12	M20	4 22	25	26	10	F16
6	600	2	45	13	59.8	50	210	165	12	M20	4 22	25	26	10	F16
6	900	2	55	13	67	53.5	210	165	12	M20	4 22	25	26	10	F16
8	150	2	45	13	59.8	50	210	165	12	M20	4 22	25	26	10	F16
8	300	2	45	13	59.8	50	210	165	12	M20	4 22	25	26	10	F16
8	600	2	55	13	67	54.5	210	165	12	M20	4 22	25	26	10	F16
8	900	2	55	13	67	54.5	210	165	12	M20	4 22	25	26	10	F16
10	150	2	55	13	67	53.5	210	165	12	M20	4 22	25	26	10	F16
10	300	2	55	13	67	53.5	210	165	12	M20	4 22	25	26	10	F16
10	600	2	65	16	79	62.5	210	165	12	M20	4 22	25	26	10	F16
10	900	2	75	16	88	67	300	254	16	M16	8 18	35	20	12	F25
12	150	2	55	13	67	53.5	210	165	12	M20	4 22	25	26	10	F16
12	300	2	65	16	79	62.5	210	165	12	M20	4 22	25	26	10	F16
12	600	2	65	16	79	62.5	210	165	12	M20	4 22	25	26	10	F16
12	900	2	75	16	88	67	300	254	16	M16	8 18	35	20	12	F25
14	150	2	75	16	88	67	300	254	16	M16	8 18	35	20	12	F25
14	300	2	75	16	88	67	300	254	16	M16	8 18	35	20	12	F25
14	600	2	75	16	88	67	300	254	16	M16	8 18	35	20	12	F25
14	900	2	90	19	106	95.5	350	298	22	M20	8 22	35	21	14	F30
16	150	2	75	16	88	67	300	254	16	M16	8 18	35	20	12	F25
16	300	2	75	16	88	67	300	254	16	M16	8 18	35	20	12	F25
16	600	2	90	19	106	95.5	350	298	22	M20	8 22	35	21	14	F30
16	900	2	90	19	106	95.5	350	298	22	M20	8 22	35	21	14	F30
18	150	2	90	19	106	95.5	350	298	22	M20	8 22	35	21	14	F30
18	300	2	90	19	106	95.5	350	298	22	M20	8 22	35	21	14	F30
18	600	2	100	19	117	95.5	350	298	22	M20	8 22	35	21	14	F30
18	900	2	120	25	142	121.5	415	356	30	M30	8 32	48	35	15	F35
20	150	2	90	19	106	95.5	350	298	22	M20	8 22	35	21	14	F30
20	300	2	90	19	106	95.5	350	298	22	M20	8 22	35	21	14	F30
20	600	2	100	19	117	95.5	350	298	22	M20	8 22	35	21	14	F30
20	900	2	120	25	142	121.5	415	356	30	M30	8 32	48	35	15	F35
24	150	2	120	25	142	121.5	415	356	30	M30	8 32	48	35	15	F35
24	300	2	120	25	142	121.5	415	356	30	M30	8 32	48	35	15	F35
24	600	2	120	25	142	121.5	415	356	30	M30	8 32	48	35	15	F35
24	900	2	120	25	142	121.5	415	356	30	M30	8 32	48	35	15	F35



REGISTRATION NO. Q1-3641

Certificate of Registration

The American Petroleum Institute certifies that the quality management system of

GUIDE VALVE WUXI LIMITED
Building M, No. 30 Wanquan Road
Xishan District
Wuxi, Jiangsu
People's Republic of China

Intertek
Total Quality Assured.

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This is to certify that:

Guide V

Main Site: 51 Terera
Woodbridge, Ontario
has been registered

ISO 9001

The management system
The design and



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1, PSL 2, PSL 3, PSL 4

Inchul Liddar
President, American Petroleum Institute

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www.gvs-vci.com

sales@gvs-vci.com

Toll Free: 1-888-824-5693

Distributor / Agent:



GLOBAL SupplyLine

Global Supply Line are Guide Valve stockists, distributing Aust., NZ & PNG, and can automate, service & test in our Adelaide Lloyd's 9001 facility, approved by Guide Valve.

Contact us: sales@globalsupplyline.com.au

Stock lists at our website: www.globalsupplyline.com.au