



NPS 2-4
DN50-100

Steel TRUNNION BALL Valves
SB, TB, FB, DBB, ASD, FSD, AG, ELS

Class 150-600
PN20-110



6D-0449

SB ✓ Split Body, Flanged end
TB ✓ Trunnion Ball
FB ✓ Full Bore

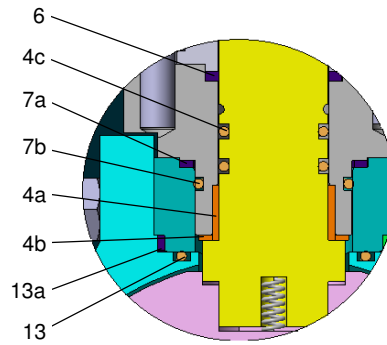
DBB ✓ Double Block & Bleed, Fire Safe
AG ✓ Above Ground
ELS ✓ Emergency Lub. Stem

6D-0449 ✓ API Licence No
API ✓ Design API6D

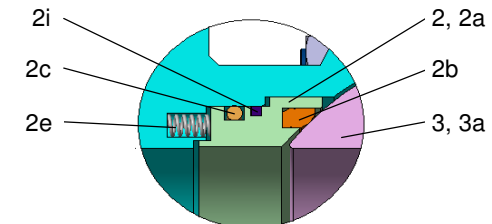
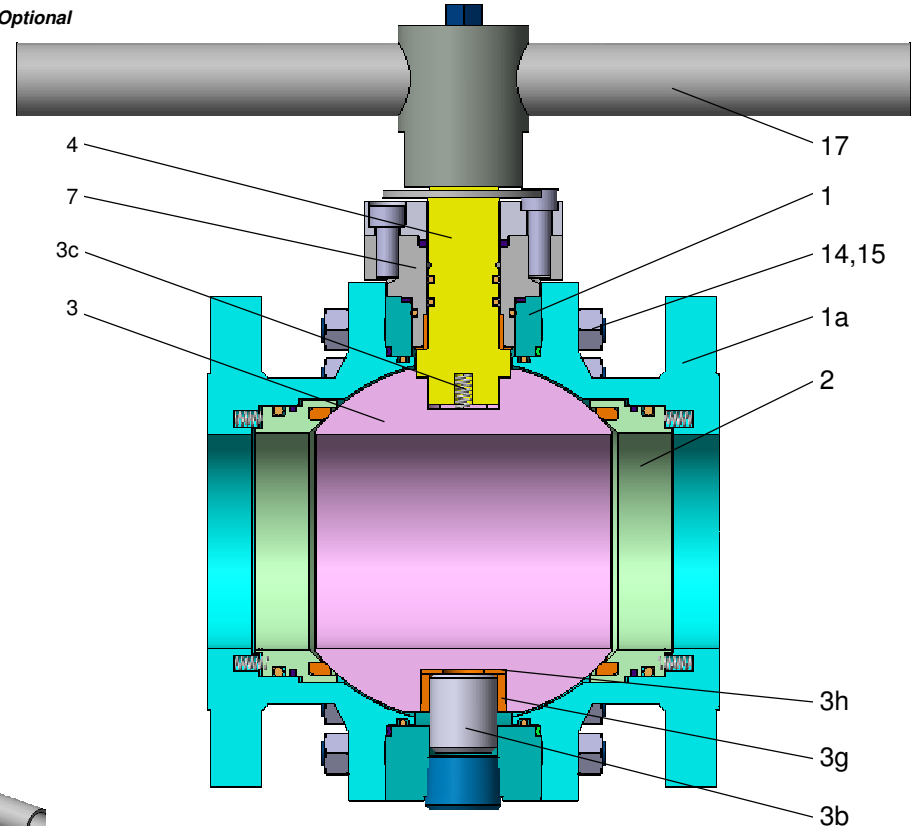
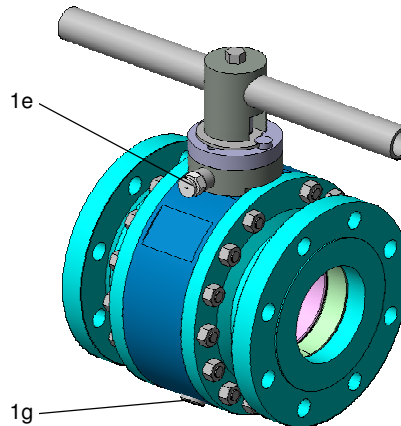
ASD ✓ Anti static device
FSD ✓ Fire Safety Design

E610-E620-E630 PART LIST for Trim No: 11			
Item	PART NAME	Symb.	material
1	Body	A105	ASTM A105
1a	Body part	A105	ASTM A105
1e	Lubricant fitting	St	Steel
1g	Drain plug	St	Steel
2	Seat ring	A105	ASTM A105
2a	Seat face	ENP	Nickel Plated
2b	Seal Ring	PTFE	PolyTetraFluoroEthylene
2c	O-Ring	NBR	Nitrile Butadiene Rubber 80
2e	Spring	302	AISI 302
2i	Fire safe ring	GRF	GRAPHITE
3	Ball	A105	ASTM A105
3a	Ball face	ENP	Nickel Plated
3b	Trunnion Guide	Cr13	ASTM A276 T.410
3c	Anti Static Device	St.St.	Stainless Steel
3g	Bearing	DB	Bz+Pb+Ptf Mix.
3h	Washer	PTFE	PolyTetraFluoroEthylene
4	Stem	Cr13	ASTM A276 T.410
4a	Bearing	DB	Bz+Pb+Ptf Mix.
4b	Washer	PTFE	PolyTetraFluoroEthylene
4c	O-Ring	NBR	Nitrile Butadiene Rubber 80
6	Packing	GRF	GRAPHITE
7	Gland	A105	ASTMA105
7a	Gasket	Swg	316+Grf
7b	O-Ring	NBR	Nitrile Butadiene Rubber 80
13	Gasket (O-ring)	NBR	Nitrile Butadiene Rubber 80
13a	Safety Ring	GRF	GRAPHITE
14	Stud bolt	B7	ASTM A193 Gr.B7
15	Nut	2H	ASTM A194 Gr.2H
17	Lever	St	Steel
18	Name Plate	S	Stainless plate
19	Paint	EP	Epoxy RAL 3020 (Red)
19a	End Cover	PVC	Plastic

Note: Supplementary T&I Req. & Self Relief Seat Optional



Stem Seal Detail



Seat Detail

TEST PRESSURE					WORKING PRESSURE	
PN	Class	Shell	Closure	Air	-29+38 °C	+100 °C Max
20	150	30 bar	22 bar	6 bar	20 bar	16 bar
50	300	77 bar	56 bar		51 bar	40 bar
110	600	153 bar	112 bar		102 bar	80 bar

Prep. By	Chk. By	App. By	Date	Revision Description	Doc. No-Rev	Origine	Page
Prep.:T. AKYÜREK	Che.:K.KORKMAZ	N.Ergin	01.10.2009	Torque & Kv added.	E6XX.118-9R2	DES	1 / 6



NPS 2-4
DN50-100

Steel TRUNNION BALL Valves
SB, TB, FB, DBB, ASD, FSD, AG, ELS

Class 150-600
PN20-110



6D-0449

- SB ✓ Split Body, Flanged end
- TB ✓ Trunnion Ball
- FB ✓ Full Bore
- AG ✓ Above Ground

- DBB ✓ Double Block & Bleed, Fire Safe
- ASD ✓ Anti static device
- FSD ✓ Fire Safety Design
- ELS ✓ Emergency Lub. Stem

- API ✓ Design API6D
- 6D-0449 ✓ API Licence No

Note: Supplementary T&I Req. Optional

DIMENSIONS & WEIGHT

NPS	ØID	KV	Torque	ØD	b	Øg	ØK	n	ØI	L	H	W	Wt
inc.	mm	m3/h	Nm	mm	mm	mm	mm	no	mm	mm	mm	mm	kg

PN 20 Fig. E610.11 (Stem Lubricant) Class 150

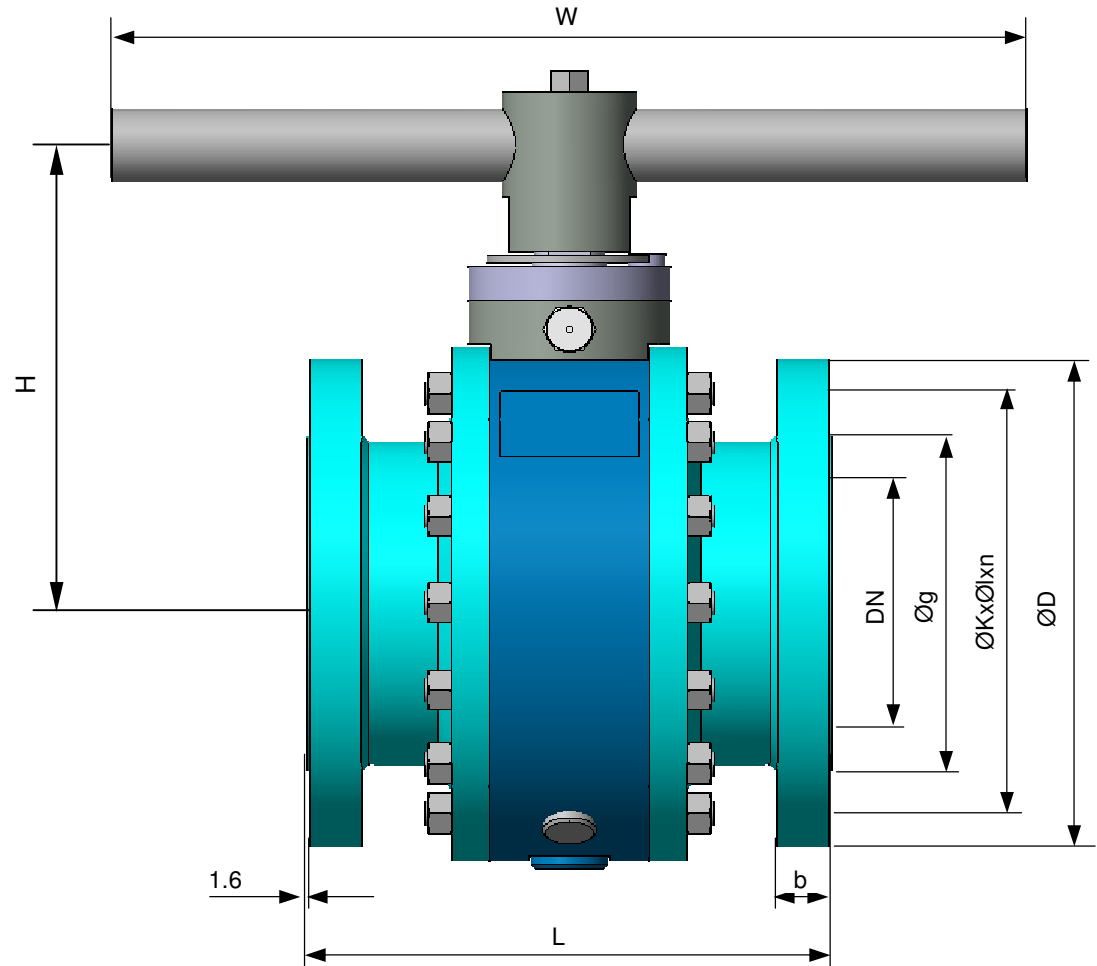
2"	49	326	120	153	16	92	121	4	19	178	155	300	21
3"	74	816	160	191	19	127	152	4	19	203	168	350	32
4"	100	1.540	230	229	24	157	191	8	19	229	205	400	55

PN 50 Fig. E620.11 (Stem Lubricant) Class 300

2"	49	326	140	165	23	92	127	8	19	216	155	300	25
3"	74	816	180	210	29	127	168	8	22	283	177	350	52
4"	100	1.540	350	254	32	157	200	8	22	305	205	400	74

PN 110 Fig. E630.11 (Stem Lubricant) Class 600

2"	49	326	150	165	26	92	127	8	19	292	155	300	32
3"	74	816	280	210	32	127	168	8	22	356	177	350	62
4"	100	1.540	540	273	38	157	216	8	26	432	208	400	100



Prep. By	Chk. By	App. By	Date	Revision Description	Doc. No-Rev	Origine	Page
Prep.:T. AKYÜREK	Che.:K.KORKMAZ	N.Ergin	01.10.2009	Torque & Kv added.	E6XX.118-9R2	DES	2 / 6



NPS 6-48
DN150-1200

Steel TRUNNION BALL Valves
SB, TB, FB, DBB or DIB, ASD, FSD, AG, SLS

Class 150-600
PN20-110



6D-0449

SB ✓ Split Body, Flanged end
TB ✓ Trunnion Ball
FB ✓ Full Bore

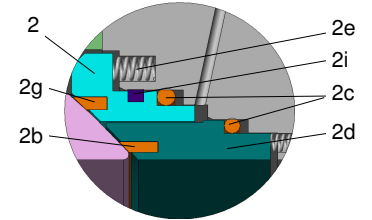
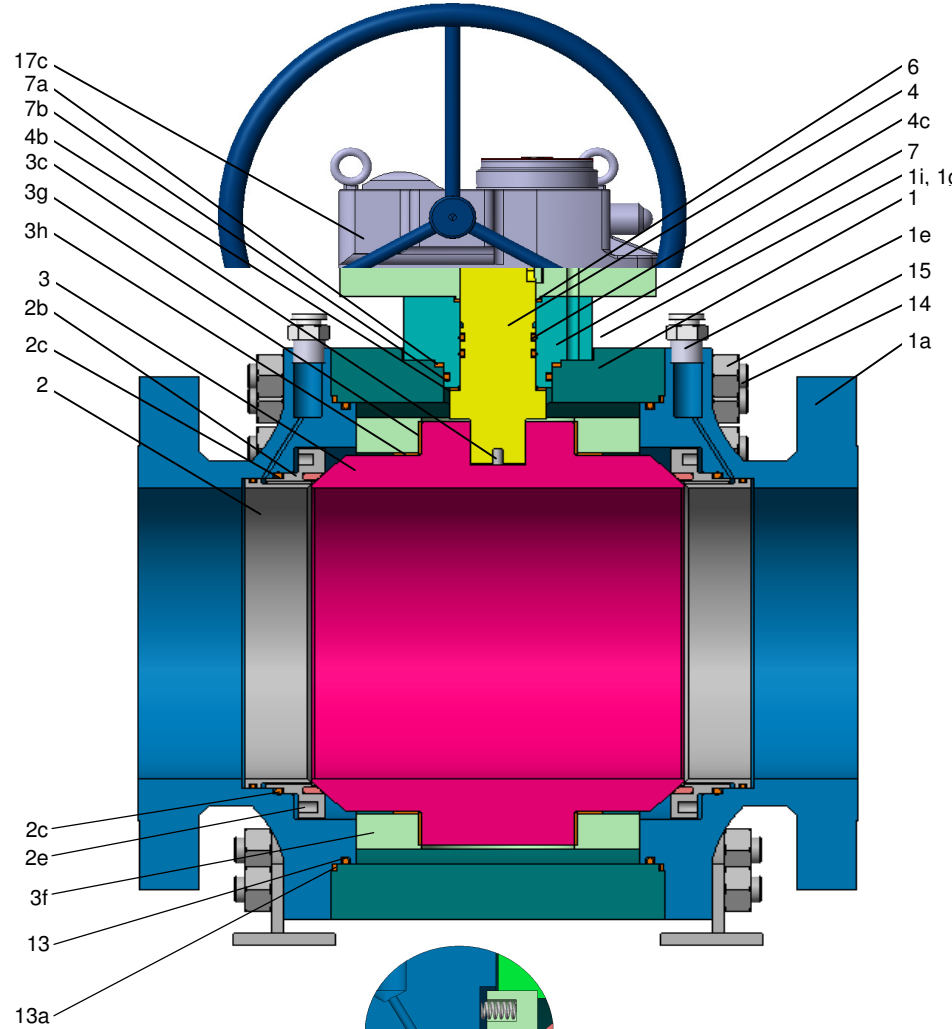
DBB ✓ Double Block & Bleed, Fire Safe
(DIB ✓ Double Isolation Block. **Optional**)
AG ✓ Above Ground

6D-0449 ✓ API Licence No
API ✓ Design API6D
SLS ✓ Secondary Lubricant Seal

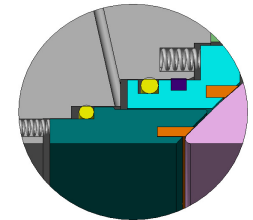
ASD ✓ Anti static device
FSD ✓ Fire Safety Design

Note: Supplementary T&I Req. Optional

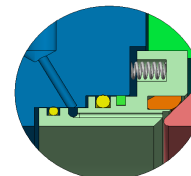
E610-E620-E630 PART LIST for Trim No: 118			
Item	PART NAME	Symb.	material
1	Body	A105	ASTM A105
1a	Body part	A105	ASTM A105
1e	Lubricant fitting	St	Steel
1g	Drain plug	St	Steel
1i	Vent plug	ST	Steel
2	Seat ring	A105+ENP	ASTM A105+ENP
2b	Seal Ring	PTFE	PolyTetraFluoroEthylene
2c	O-Ring	NBR	Nitrile Butadiene Rubber 80
2d	Lubring	A105+ENP	ASTM A105+ENP
2e	Spring	302	AISI 302
2g	Secondary Ring	PTFE	PolyTetraFluoroEthylene
2i	Fire safe ring	GRF	GRAPHITE
3	Ball	A105+ENP	ASTM A105+ENP
3c	Anti Static Device	St.St.	Stainless Steel
3f	Retainer	ST	Steel
3g	Bearing	DB	Bz+Pb+Ptfе Mix.
3h	Washer	PTFE	PolyTetraFluoroEthylene
4	Stem	Cr13	ASTM A182Gr.F6
4b	Washer	PTFE	PolyTetraFluoroEthylene
4c	O-Ring	NBR	Nitrile Butadiene Rubber 80
6	Packing	GRF	GRAPHITE
7	Gland	A105	ASTMA105
7a	Gasket	Swg	316+Grf
7b	O-Ring	NBR	Nitrile Butadiene Rubber 80
13	Gasket (O-ring)	NBR	Nitrile Butadiene Rubber 80
13a	Safety Ring	GRF	GRAPHITE
14	Stud bolt	B7	ASTM A193 Gr.B7
15	Nut	2H	ASTM A194 Gr.2H
17c	Part turn Gearbox	G	Master Gear
18	Name Plate	S	Stainless plate
19	Paint	EP	Epoxy RAL 3020 (Red)
19a	End Cover	PVC	Plastic



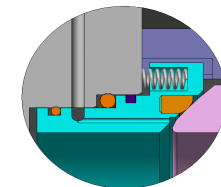
Double Piston Effect Seat
(Standard) 26" to 48"



Self Relief Seat
(Optional-If required) 26" to 48"



Self Relief Seat (Optional) 4" to 24"



Double Piston Effect Seat (Standard) 4" to 24"

		TEST PRESSURE			WORKING PRESSURE	
PN	Class	Shell	Closure	Air	-29+38 °C	+100 °C Max
20	150	30 bar	22 bar	6 bar	20 bar	16 bar
50	300	77 bar	56 bar		51 bar	40 bar
110	600	153 bar	112 bar		102 bar	80 bar

Prep. By Prep.:T. AKYÜREK	Chk. By Che.:K.KORKMAZ	App. By N.Ergin	Date 01.10.2009	Revision Description Torque & Kv added.	Doc. No-Rev E6XX.118-9R2	Origine DES	Page 3 / 6
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NPS 6-48
DN150-1200

Steel TRUNNION BALL Valves Class 150
SB, TB, FB, DBB or DIB, ASD, FSD, AG, SLS PN20



6D-0449

- SB ✓ Split Body, Flanged end
- TB ✓ Trunnion Ball
- FB ✓ Full Bore
- AG ✓ Above Ground

- DBB ✓ Double Block & Bleed, Fire Safe
- (DIB ✓ Double Isolation Block. **Optional**)
- ASD ✓ Anti static device
- FSD ✓ Fire Safety Design

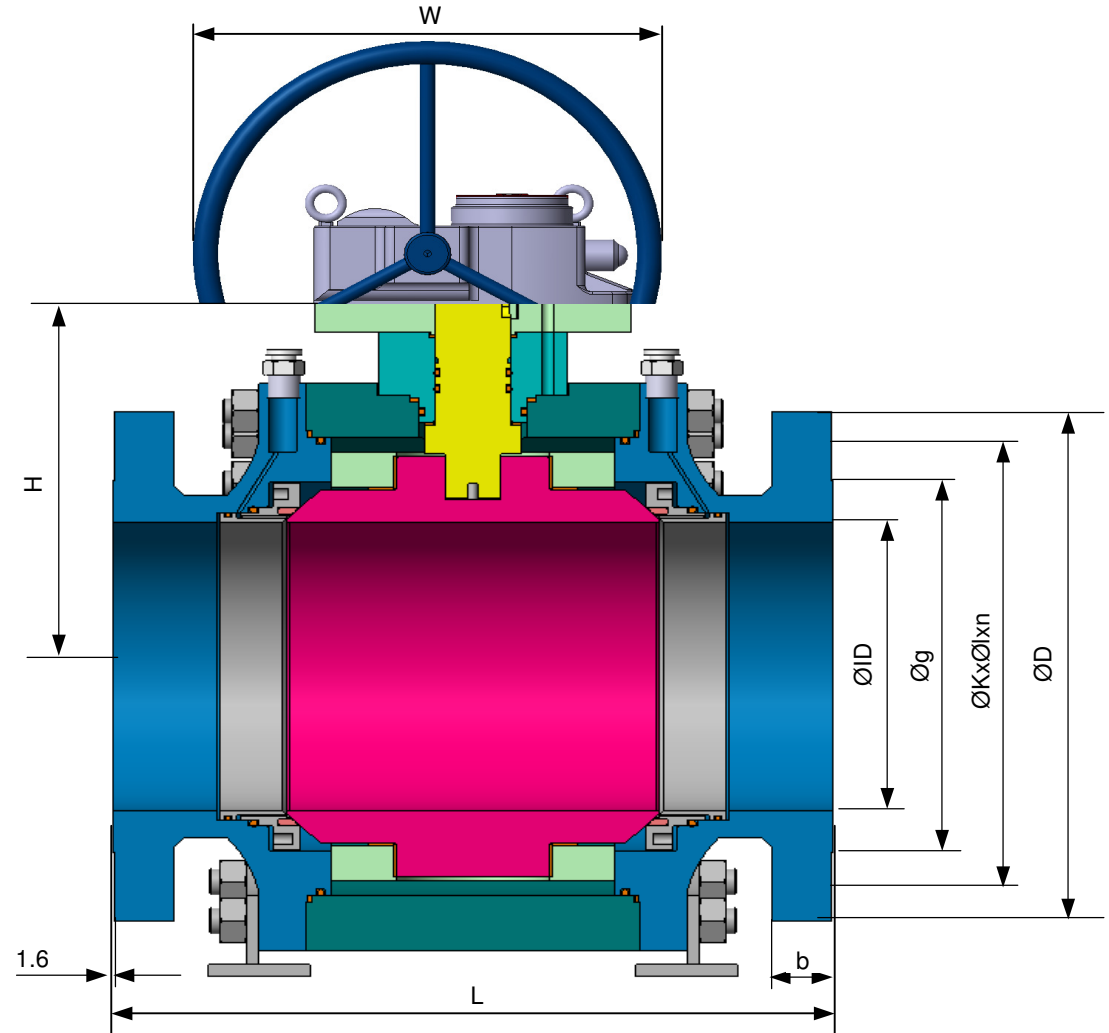
- API ✓
- 6D-0449 ✓
- SLS ✓ Secondary Lubricant Seal

Note: Supplementary T&I Req. Optional

DIMENSIONS & WEIGHT

NPS ØID KV Torque ØD b Øg ØK n ØI L H W Wt
inc. mm m3/h Nm mm mm mm mm no mm mm mm mm kg

PN 20 Fig. E610G.118 (Stem & Seat Lubricant) Class 150													
6"	150	3.720	480	280	26	216	241	8	22	394	220	400	154
8"	201	6.800	750	345	29	270	299	8	22	457	272	500	310
10"	252	11.950	1.200	405	30	324	362	12	26	533	320	500	447
12"	303	18.600	1.650	485	32	381	432	12	26	610	330	500	723
14"	334	23.500	2.800	535	35	413	476	12	29	686	357	500	891
16"	385	30.900	3.700	600	37	470	540	16	29	762	397	500	1050
18"	436	40.900	5.200	635	40	533	578	16	33	864	437	500	1450
20"	487	49.300	6.500	700	43	584	635	20	33	914	495	500	1950
22"	538	57.000	10.000	750	46	641	692	20	36	1000	555	500	2450
24"	589	78.000	13.000	815	48	692	749	20	36	1067	615	500	3000
26"	633	93.500	18.000	870	50	749	806	24	36	1143	658	500	3950
30"	735	122.000	25.000	985	54	857	914	28	36	1295	702	500	5490
32"	779	141.000	29.000	1060	57	914	978	28	42	1372	750	500	7190
36"	874	178.500	35.000	1170	61	1022	1086	32	42	1524	840	500	9990
40"	976	225.500	44.000	1290	64	1124	1200	36	42	1850	950	500	13520
42"	1020	252.000	54.000	1345	67	1194	1257	36	42	1900	980	500	15520
46"	1120	301.500	64.000	1455	69	1295	1365	40	42	2100	1.100	500	19520
48"	1166	326.000	86.000	1510	70	1359	1422	44	42	2180	1.200	500	23520



Prep. By	Chk. By	App. By	Date	Revision Description	Doc. No-Rev	Origine	Page
Prep.:T. AKYÜREK	Che.:K.KORKMAZ	N.Ergin	01.10.2009	Torque & Kv added.	E6XX.118-9R2	DES	4 / 6



NPS 6-48
DN150-1200

Steel TRUNNION BALL Valves

Class 300

SB, TB, FB, DBB or DIB, ASD, FSD, AG, SLS

PN50



6D-0449

- SB ✓ Split Body, Flanged end
- TB ✓ Trunnion Ball
- FB ✓ Full Bore
- AG ✓ Above Ground

- DBB ✓ Double Block & Bleed, Fire Safe
- (DIB ✓ Double Isolation Block. **Optional**)
- ASD ✓ Anti static device
- FSD ✓ Fire Safety Design

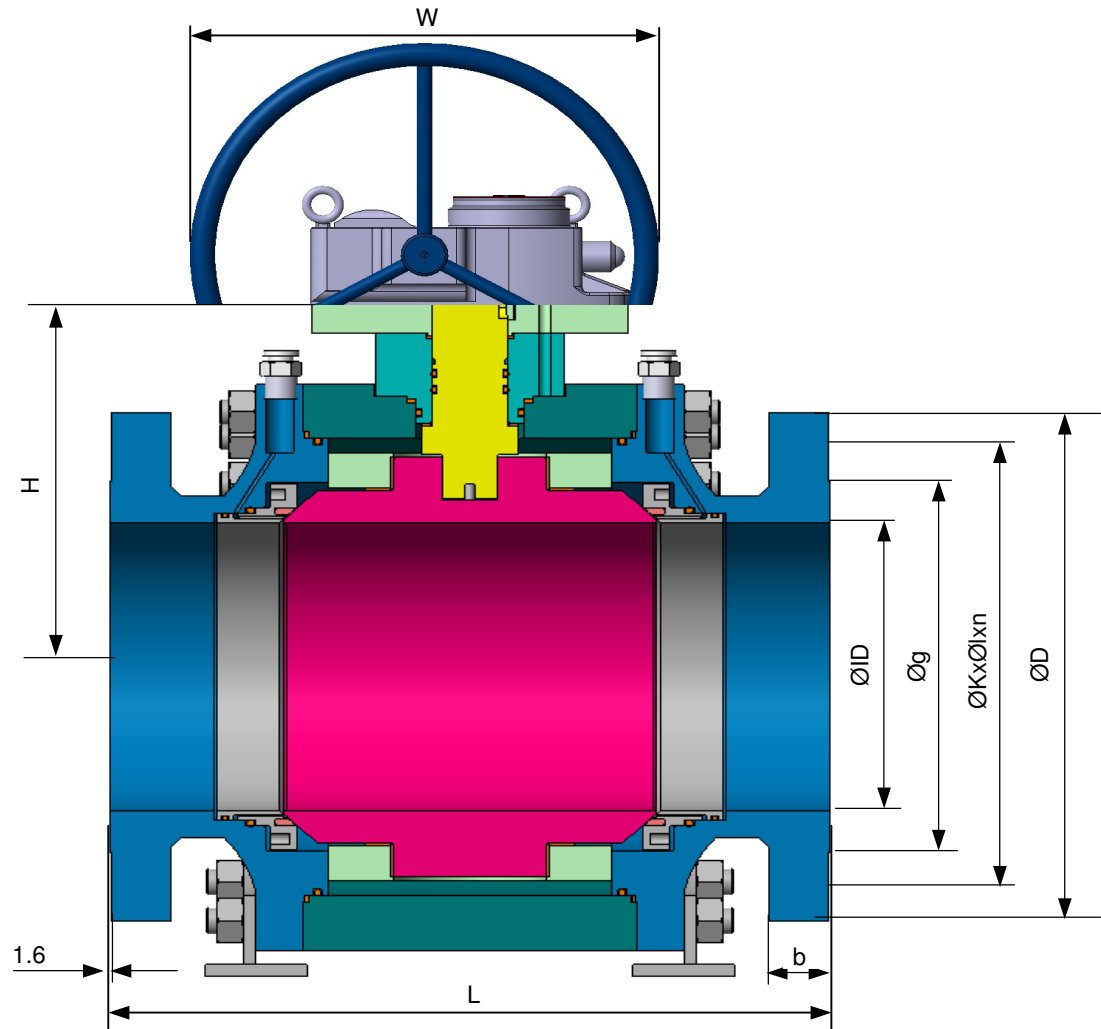
- API ✓
- 6D-0449 ✓
- SLS ✓ Secondary Lubricant Seal

Note: Supplementary T&I Req. Optional

DIMENSIONS & WEIGHT													
NPS	ØID	KV	Torque	ØD	b	Øg	ØK	n	ØI	L	H	W	Wt
inc.	mm	m3/h	Nm	mm	mm	mm	mm	no	mm	mm	mm	mm	kg

PN 50 **Fig. E620G.118 (Stem & Seat Lubricant)** **Class 300**

6"	150	3.720	750	320	37	216	270	12	22	403	220	400	167
8"	201	6.800	1.200	380	41	270	330	12	26	502	272	500	335
10"	252	11.950	2.200	445	48	324	387	16	29	568	320	600	498
12"	303	18.600	3.000	520	51	381	451	16	32	648	330	600	846
14"	334	23.500	4.400	585	54	413	514	20	32	762	357	600	1000
16"	385	30.900	5.900	650	57	470	572	20	35	838	397	600	1265
18"	436	40.900	7.800	710	61	533	629	24	35	914	437	600	1800
20"	487	49.300	11.500	775	64	584	686	24	35	991	495	600	2410
22"	538	57.000	15.000	840	67	641	743	24	42	1092	555	600	2950
24"	589	78.000	21.000	915	70	692	813	24	42	1143	615	600	3630
26"	633	93.500	23.000	970	73	749	876	28	45	1245	658	600	4350
30"	735	122.000	28.000	1090	78	857	997	28	48	1397	702	600	6050
32"	779	141.000	34.000	1150	82	914	1054	28	51	1524	750	600	8020
36"	874	178.500	45.000	1270	88	1022	1168	32	55	1727	840	600	12520
40"	976	225.500	70.000	1240	92	1086	1156	32	45	1850	950	600	14520
42"	1020	252.000	75.000	1290	94	1137	1206	32	45	1900	990	600	17980
46"	1120	301.500	93.000	1415	100	1245	1321	28	51	2100	1.100	600	22980
48"	1166	326.000	120.000	1465	102	1308	1372	32	51	2180	1.200	600	25980



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Prep.:T. AKYÜREK	Che.:K.KORKMAZ	N.Ergin	01.10.2009	Torque & Kv added.	E6XX.118-9R2	DES	5 / 6



NPS 6-48
DN150-1200

Steel TRUNNION BALL Valves Class 600
SB, TB, FB, DBB or DIB, ASD, FSD, AG, SLS PN110



6D-0449

- SB ✓ Split Body, Flanged end
- TB ✓ Trunnion Ball
- FB ✓ Full Bore
- AG ✓ Above Ground

- DBB ✓ Double Block & Bleed, Fire Safe
- (DIB ✓ Double Isolation Block. **Optional**)
- ASD ✓ Anti static device
- FSD ✓ Fire Safety Design

- API ✓
- 6D-0449 ✓
- SLS ✓ Secondary Lubricant Seal

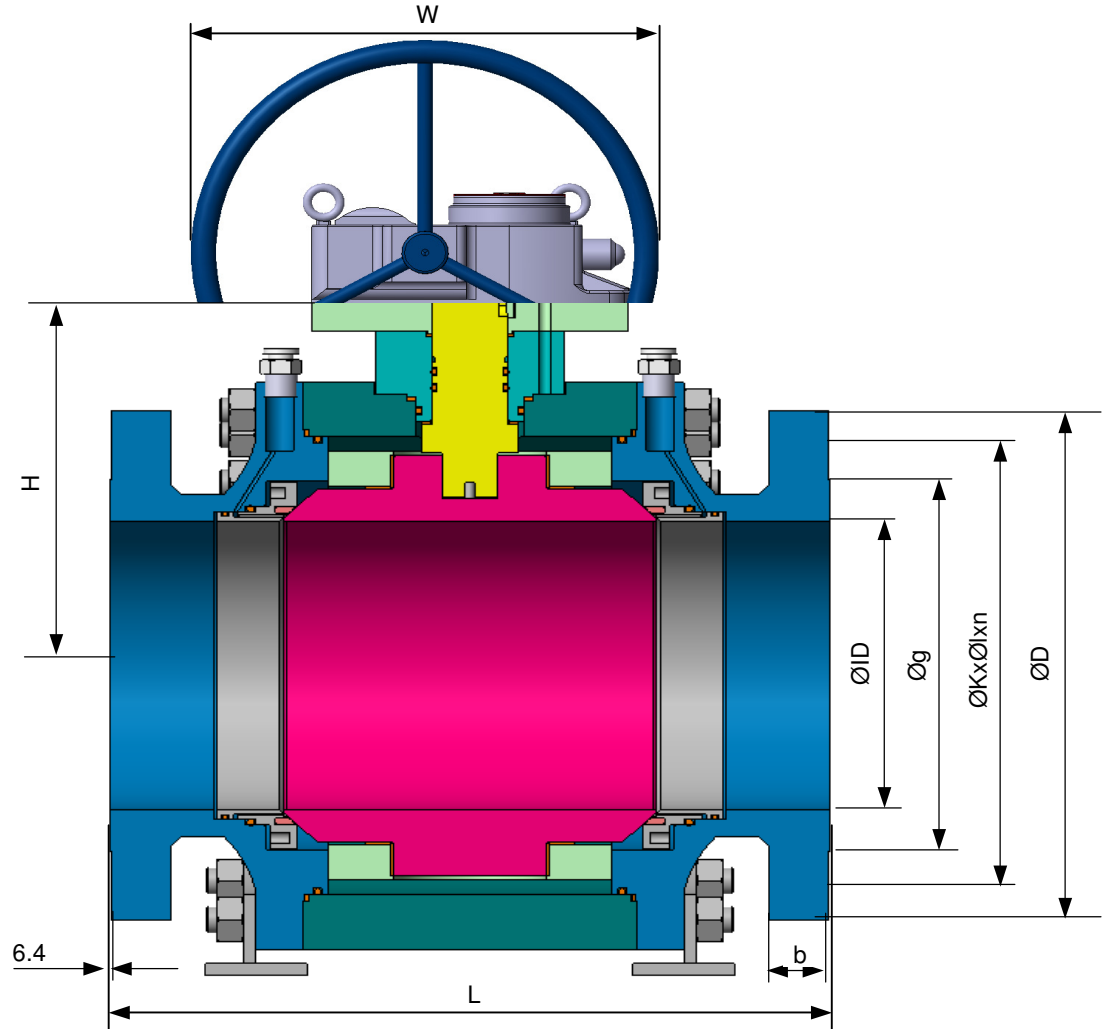
Note: Supplementary T&I Req. Optional

DIMENSIONS & WEIGHT

NPS	ØID	KV	Torque	ØD	b	Øg	ØK	n	ØI	L	H	W	Wt
inc.	mm	m3/h	Nm	mm	mm	mm	mm	no	mm	mm	mm	mm	kg

PN 110 Fig. E630G.118 (Stem & Seat Lubricant) Class 600

6"	150	3.720	1.200	356	48	216	292	12	30	559	226	400	237
8"	201	6.800	2.300	419	56	270	349	12	32	660	278	500	474
10"	252	11.950	3.600	508	64	324	432	16	35	787	330	600	780
12"	303	18.600	5.500	559	67	381	489	20	35	838	360	700	1076
14"	334	23.500	7.200	603	70	413	527	20	38	889	393	700	1265
16"	385	30.900	11.200	686	76	470	603	20	41	991	432	700	1760
18"	436	40.900	15.000	743	83	533	654	20	45	1092	472	700	2100
20"	487	49.300	19.000	813	89	584	724	24	45	1194	520	700	2866
22"	538	57.000	24.000	870	95	641	778	24	48	1295	580	700	3500
24"	589	78.000	32.000	940	102	692	838	24	51	1397	640	700	4785
26"	633	93.500	38.000	1015	108	749	914	28	51	1448	695	700	6150
30"	735	122.000	66.000	1130	114	857	1022	28	54	1651	750	700	8070
32"	779	141.000	75.000	1194	117	914	1080	28	60	1778	810	700	11170
36"	874	178.500	94.000	1314	124	1022	1194	28	67	2083	885	700	14980
40"	976	225.500	145.000	1320	159	1111	1213	32	60	2200	980	700	18980
42"	1020	252.000	160.000	1403	168	1168	1283	28	67	2250	1.060	700	20980
46"	1120	301.500	190.000	1510	179	1276	1391	32	68	2350	1.200	700	25800
48"	1166	326.000	260.000	1594	189	1334	1461	32	73	2400	1.300	700	28800



Prep. By	Chk. By	App. By	Date	Revision Description	Doc. No-Rev	Origine	Page
Prep.:T. AKYÜREK	Che.:K.KORKMAZ	N.Ergin	01.10.2009	Torque & Kv added.	E6XX.118-9R2	DES	6 / 6