

LGF type ball valve

Dimension range	DN 50 - 1000 / NPS 2" - 40"
Pressure range	PN 16 - 420 / Class 150 - 2500
Temperature range	- 60°C - +250°C

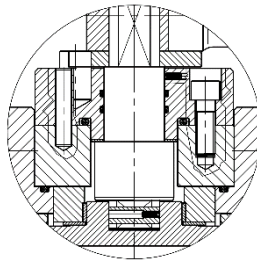
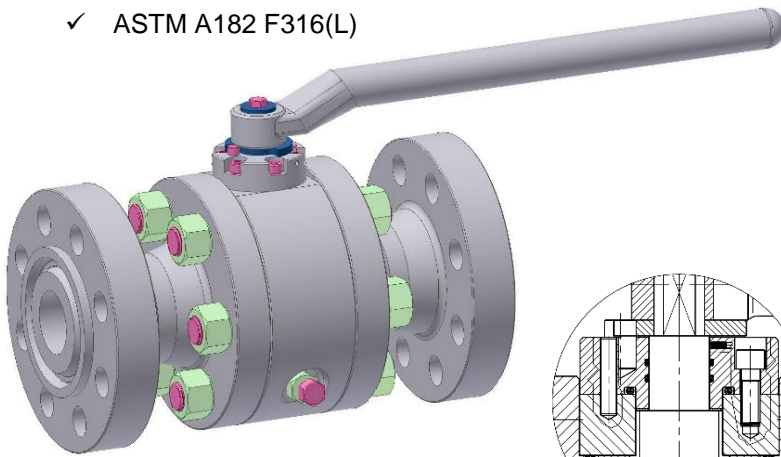
The ball valve is made according to API 6D Standard, with trunnion mounted ball for medium and high pressures. The body is made of 2 or 3 forged steel parts. The seat rings loaded helical springs, resulting high safety closure even in low pressure. In base construction the ball and the seat rings are supplied with nickel coating, but with metal closing and tungsten-carbide coating designs as well. All ball valve are antistatic.

Materials:

- ✓ ASTM A350 LF2
- ✓ ASTM A182 F316(L)

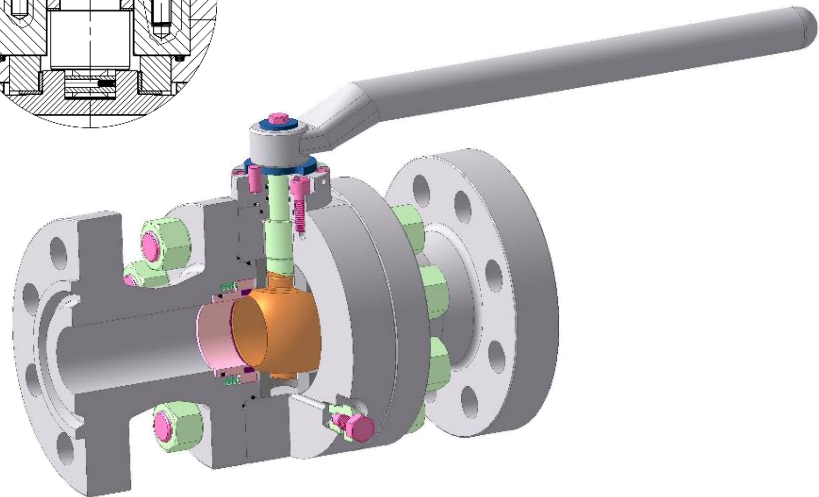
Main features:

- ✓ Trunnion mounted ball
- ✓ 2 or three-piece body
- ✓ Double stem and body seal
- ✓ Spring loaded seat
- ✓ Double block and bleed
- ✓ Drain plug on the body
- ✓ Antistatic design
- ✓ Flanged or butt welded ends



Design possibilities:

- ✓ Single piston effect, or double piston effect
- ✓ Reduced bore (venturis) design
- ✓ Metal to metal sealing surfaces with tungsten carbide coating
- ✓ Mounted main seal with „O“ rings
- ✓ Fire safe design
- ✓ Stem and seals secondary greased
- ✓ Bypass version
- ✓ Electric motor operation
- ✓ Pneumatic operation



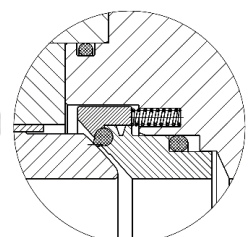
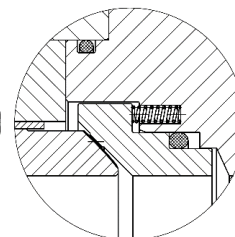
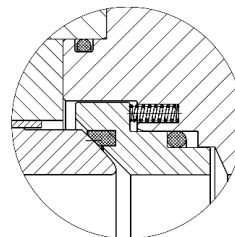
Elastomer insert

Metal to metal

Mounted "O"-ring

Design standards:

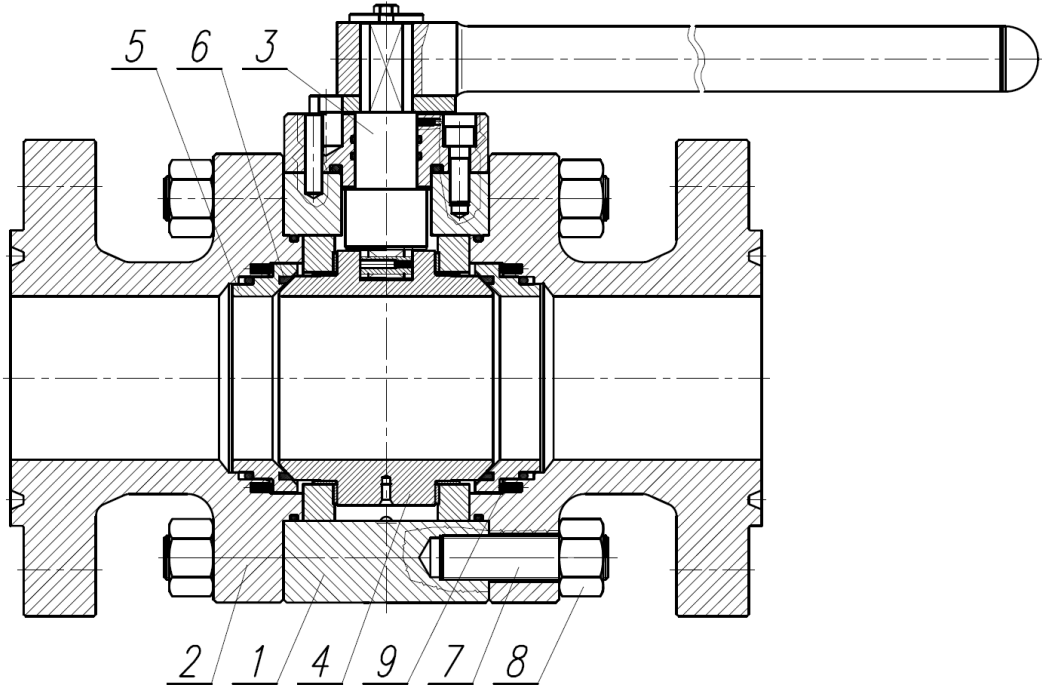
- ✓ Construction: API 6D / ISO 14313
- ✓ Face to face length: ASME B16.10; EN 558
- ✓ Butt welded type: ASME B16.25; EN 12627
- ✓ Flanged type: ASME, EN, GOST szerint
- ✓ Pressure test: API 6D; EN 12266-1
- ✓ NACE design: NACE MR0175 / ISO 15156
- ✓ Leakage rate: ISO 5208:2008 class „A“ for soft seated, class „D“ for metal seated



Manufacturing of industrial valves

List of the main components

LGF type ball valve

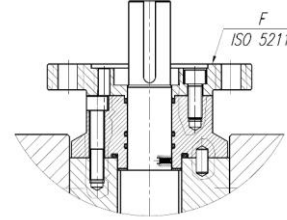
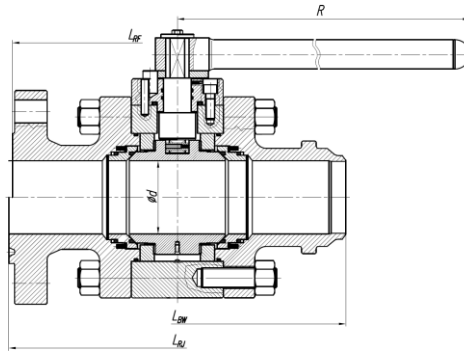


№	Description	Standard design		Metal to metal design	NACE design	Corrosion resistant design
		T=-29°C - +150°C	T=-46°C - +120°C	T=-29°C - +200°C	T=-46°C - +120°C	T=-60°C - +200°C
1	Body	ASTM A350 LF2	ASTM A350 LF2	ASTM A350 LF2	ASTM A350 LF2	ASTM A182 F316(L)
2	Flanged connection	ASTM A350 LF2	ASTM A350 LF2	ASTM A350 LF2	ASTM A350 LF2	ASTM A182 F316(L)
3	Driving stem	EN 10083/1 42CrMo4 +ENP	EN 10083/1 42CrMo4 +ENP	ASTM A276 410	ASTM A182 F51	ASTM A182 F51+ENP
4	Ball	ASTM A350 LF2+ENP ASTM A351 CF8M+ENP	ASTM A350 LF2+ENP ASTM A351 CF8M+ENP	ASTM A182 F6A +WC	ASTM A182 F51 +ENP	ASTM A276 316(L)+ENP ASTM A351 CF8M+ENP
5	Gasket cage	ASTM A350 LF2 +ENP	ASTM A350 LF2 +ENP	ASTM A182 F6A +WC	ASTM A182 F51	ASTM A182 F316(L)
6	Gasket ring	VITON-95 PEEK	VITON-95 DEVLON-V PEEK	-----	VITON-95 DEVLON-V PEEK	PEEK
7	Stud bolt	ASTM A320 L7M	ASTM A320 L7M	ASTM A320 L7M	ASTM A320 L7M	ASTM A193 B8M Cl.2
8	Nut	ASTM A194 2HM	ASTM A194 2HM	ASTM A194 2HM	ASTM A194 2HM	ASTM A194 8M
9	Spring	ASTM A313 302	ASTM A313 302	ASTM A313 302	INCONEL X-750	ASTM A313 302
	„O” ring	VITON	VITON GLT	FFKM	VITON GLT	VITON FVMQ

- ENP = Electroless Nickel Plating
- WC = Tungsten-Carbide coating
- For other mediums, orders on material quality is based on temperature
- The material quality of the “O”-ring can depend on the medium

Manufacturing of industrial valves

Chart of dimension LGF type ball valve



PN 16; Class 150

DN	NPS	d (mm)	L _{RF} (mm)	L _{RJ} (mm)	L _{BW} (mm)	R (mm)	F ISO 5211	Weight ~(kg)	
								RF/RJ	BW
---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---
150	6"	150	394	406	457	600	F14	~175	~160
200	8"	201	457	470	521	---	F16	~280	~265
250	10"	252	533	546	559	---	F16	~410	~385
300	12"	303	610	622	635	---	F16	~650	~610
350	14"	334	686	699	762	---	F25	~850	~802
400	16"	385	762	775	838	---	F25	~1180	~1110
500	20"	487	914	927	991	---	F25	~1900	~1810
600	24"	589	1067	1080	1143	---	F30	~2900	~2730
700	28"	684	1245	---	1346	---	F30	~3900	~3750
800	32"	779	1372	---	1524	---	F35	~5700	~5560
1000	40"	976	1702	---	1702	---	F35	~11050	~9030

PN 25-40; Class 300

DN	NPS	d (mm)	L _{RF} (mm)	L _{RJ} (mm)	L _{BW} (mm)	R (mm)	F ISO 5211	Weight ~(kg)	
								RF/RJ	BW
50	2"	49	216	232	216	350	F10	~30	~24
65	2 1/2"	62	241	257	241	400	F10	~41	~32
80	3"	74	283	298	283	500	F12	~56	~45
100	4"	100	305	321	305	600	F12	~110	~88
150	6"	150	403	419	457	---	F14	~182	~152
200	8"	201	502	518	521	---	F16	~310	~280
250	10"	252	568	584	559	---	F16	~495	~465
300	12"	303	648	664	635	---	F16	~660	~620
350	14"	334	762	778	762	---	F25	~942	~850
400	16"	385	838	854	838	---	F25	~1230	~995
500	20"	487	991	1010	991	---	F25	~2050	~1660
600	24"	589	1143	1165	1143	---	F30	~3500	~2900
700	28"	684	1346	1372	1346	---	F35	~4300	~3750
800	32"	779	1524	1553	1524	---	F35	~6150	~5500
1000	40"	976	1926	1938	1926	---	F45	~11500	~9850

PN 63; Class 400

DN	NPS	d (mm)	L _{RF} (mm)	L _{RJ} (mm)	L _{BW} (mm)	R (mm)	F ISO 5211	Weight ~(kg)	
								RF/RJ	BW
50	2"	49	292	295	292	400	F10	~35	~28
65	2 1/2"	62	330	333	330	500	F12	~44	~33
80	3"	74	356	359	356	600	F12	~56	~40
100	4"	100	406	410	406	800	F12	~120	~98
150	6"	150	495	498	495	---	F14	~220	~190
200	8"	201	597	600	597	---	F16	~375	~325
250	10"	252	673	676	673	---	F16	~560	~490
300	12"	303	762	765	762	---	F25	~790	~700
350	14"	334	826	829	826	---	F25	~1050	~955
400	16"	385	902	905	902	---	F25	~1370	~1190
500	20"	487	1054	1060	1054	---	F30	~2230	~2040
600	24"	589	1232	1241	1232	---	F30	~3850	~3530
700	28"	684	1397	1410	1397	---	F35	~4900	~4470
800	32"	779	1651	1667	1651	---	F35	~6950	~6730
1000	40"	976	2085	2903	2085	---	F40	~12000	~10050

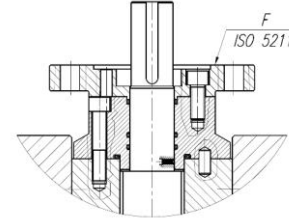
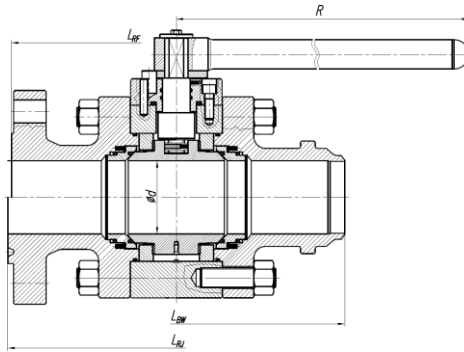
PN 100; Class 600

DN	NPS	d (mm)	L _{RF} (mm)	L _{RJ} (mm)	L _{BW} (mm)	R (mm)	F ISO 5211	Weight ~(kg)	
								RF/RJ	BW
50	2"	49	292	295	292	400	F10	~37	~30
65	2 1/2"	62	330	333	330	500	F12	~60	~51
80	3"	74	356	359	356	600	F12	~73	~62
100	4"	100	432	435	432	800	F12	~130	~110
150	6"	150	559	562	559	---	F14	~248	~205
200	8"	201	660	664	660	---	F16	~467	~385
250	10"	252	787	791	787	---	F16	~580	~452
300	12"	303	838	841	838	---	F25	~970	~822
350	14"	334	889	892	889	---	F25	~1325	~1155
400	16"	385	991	994	991	---	F30	~1680	~1420
500	20"	487	1194	1200	1194	---	F30	~2520	~2140
600	24"	589	1397	1407	1397	---	F35	~4210	~3760
700	28"	684	1549	1562	1549	---	F35	~5300	~4750
800	32"	779	1778	1794	1778	---	F35	~8150	~7500
1000	40"	976	2380	2415	2380	---	F35	~11000	~10300

* For weights with lever-arm design manually in case of power unit design without gearbox and actuator are inclusive. Valves are manufactured according to EN 558-1 length to customer request.

Manufacturing of industrial valves

Chart of dimension LGF type ball valve



PN 160; Class 900

DN	NPS	d (mm)	L _{RF} (mm)	L _{RJ} (mm)	L _{BW} (mm)	R (mm)	F ISO 5211	Weight ~(kg)	
								RF/RJ	BW
50	2"	49	368	371	368	500	F10	~43	~37
65	2 1/2"	62	419	422	419	600	F12	~65	~54
80	3"	74	381	384	381	700	F12	~82	~66
100	4"	100	457	460	457	800	F14	~134	~112
150	6"	150	610	613	610	----	F14	~302	~250
200	8"	201	737	740	737	----	F16	~505	~420
250	10"	252	838	841	838	----	F25	~780	~620
300	12"	303	965	968	965	----	F25	~1060	~875
350	14"	322	1029	1038	1029	----	F30	~1460	~1220
400	16"	373	1130	1140	1130	----	F30	~1830	~1530
500	20"	471	1321	1334	1321	----	F35	~3400	~2890
600	24"	570	1549	1568	1549	----	F35	~5400	~4910

PN 250; Class 1500

DN	NPS	d (mm)	L _{RF} (mm)	L _{RJ} (mm)	L _{BW} (mm)	R (mm)	F ISO 5211	Weight ~(kg)	
								RF/RJ	BW
50	2"	49	368	371	368	600	F10	~58	~51
65	2 1/2"	62	419	422	419	700	F12	~92	~70
80	3"	74	470	473	470	800	F12	~115	~88
100	4"	100	546	549	546	----	F14	~180	~160
150	6"	144	705	711	705	----	F16	~410	~335
200	8"	192	832	841	832	----	F25	~735	~615
250	10"	239	991	1000	991	----	F30	~1120	~925
300	12"	287	1130	1146	1130	----	F30	~1550	~1310
350	14"	315	1257	1276	1257	----	F35	~1930	~1690
400	16"	360	1384	1407	1384	----	F35	~2360	~1950
500	20"	454	1664	1686	1664	----	F35	~4300	~3770
600	24"	546	1943	1972	1943	----	F40	~6500	~6050

PN 420; Class 2500

DN	NPS	d (mm)	L _{RF} (mm)	L _{RJ} (mm)	L _{BW} (mm)	R (mm)	F ISO 5211	Weight ~(kg)	
								RF/RJ	BW
50	2"	42	451	454	451	---	F10	~97	~64
65	2 1/2"	52	508	514	508	---	F12	~126	~87
80	3"	62	578	584	578	---	F12	~340	~322
100	4"	87	673	683	673	----	F14	~370	~243
150	6"	131	914	927	914	----	F16	~890	~549
200	8"	179	1022	1038	1022	----	F25	~1590	~1066

* For weights with lever-arm design manually in case of power unit design without gearbox and actuator are inclusive. Valves are manufactured according to EN 558-1 length to customer request.