



**Contributing to
safer and smarter
pipe network
flow control**

Full Welding Ball Valve

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Any change of data will not be informed separately.





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INTRODUCTION BRIEF

Founded in 2012, KAMROO Holding Group is an innovative integrator focusing on "smart" manufacturing of valves. The core products are suitable for tough working applications such as low temperature, high temperature, high pressure, strong corrosion, and solids mixed medium. KAMROO products are suitable for industries such as Oil&Gas, Refinery, Chemical, Natural Gas, Power Plant, Metallurgy, Electronics, and new energy. The equivalent standards cover many industrial pipelines fields.

KAMROO strives to create an automation, digital, and intelligent platform, integrates profound technical accumulation and professional wisdom of the team. We also provide superior product support and technical services for domestic and international clients, as well as provide customized solutions for end user.

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KAMROO adheres to customer-oriented principle and guarantees system compatibility. We will continue to maintain the attitude and belief of concentration and ingenuity, adhering to safer, more reliable and smarter pipeline flow control technology and advanced design concepts to help you optimize the working application, improve the efficiency and save the costs.

With a flexible and open attitude, KAMROO listens to the voice of the market and embraces multiculturalism. KAMROO focuses on the construction of a global service system, and strives to become the preferred partner in the field of flow control. No matter where you are in the world, we look forward to keeping in close contact with you to understand your specific needs and provide precise services.





API607 Cert



API 641 Cert



API 6D cert



FE Cert



EAC Cert



CE Cert



ISO 14001:2015



ISO 45001:2018



ISO 9001:2015

QUALIFICATION CERTIFICATE

FULLY WELDED BALL VALVE

DESIGN STANDARDS	API6D, ASME B16.34, ASME B16.5, API 607, BS6755, ISO5211, etc.
SIZE RANGE	NPS2~NPS48, DN50~DN1200
NOMINAL PRESSURE	CLASS150~CLASS2500
CONNECTION	RF, RTJ, BW, etc.
MATERIALS	ASTM A105, ASTM A216 WCB, ASTM A352 LCB, ASTM A350 LF2, ASTM A351 CF8, ASTM A182 F304, ASTM A351 CF8M, ASTM A182 F316, A995 4A, etc.
APPLICABLE TEMPERATURE	-29°C~180°C
APPLICABLE MEDIUM	Water, Oil, Gas, etc.
OPERATION	Lever, Gear, Pneumatic, Electric, Hydraulic, etc.

FIRE SAFE DESIGN

According to API 607/BS6755 specification. In the event of a fire at the valve site, the sealing ring made of secondary sealing non-metallic material is decomposed or destroyed at high temperature, and the primary metal seal can be quickly attached to the ball to seal. The unique two-stage sealing seat structure design ensures the reliability of valve seat fire protection.

ANTI-STATIC DESIGN

The electrostatic extraction device of spring and small ball is used to form an electrostatic channel between the ball and the valve body through the valve stem, so that the static electricity caused by the friction between the ball and the sealing ring is led to the earth through the valve body, which can prevent fire or explosion and other hazards caused by electrostatic sparks.

SEALING EMERGENCY RESCUE AND VALVE LUBRICATION

When the valve seat and stem seals are damaged and leaked, the sealing grease injected by the grease injection valve can achieve instantaneous sealing. In normal operation, the valve stem and ball can be lubricated by injecting grease to make the valve opening and closing more flexible and convenient.

MIDDLE CAVITY SELF-PRESSURE RELIEF FUNCTION

When the pressure in the valve chamber is abnormally elevated, the piston valve seat structure can ensure that the pressure in the valve chamber is pushed away from the valve seat, so that the pressure in the valve chamber is released to ensure the safety of the valve.

EXTENDING SHAFT

For the buried valve, according to the needs of installation and operation, the stem of the valve can be lengthened, and the size can be customized according to the requirements of customers. All emergency grease injection devices for sewage pipes and exhaust pipes are lengthened accordingly. Other relevant pipes shall be close to the extended part of the valve. The drain valve, vent valve and grease injection valve shall be connected to the ground for installation, so as to facilitate regular maintenance of the main valve. The valve surface is coated with corrosion resistant asphalt, polyurethane or epoxy resin according to the specification to adapt to the buried installation and use conditions.

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TOP FLANGE ARRANGEMENT

The flange on the valve is designed according to ISO 5211, which facilitates the installation of any type of drive by means of brackets and coupling sleeves.

EXTENSION BONNET

For valves that are required to work at low temperatures, by extending the bonnet, the distance between the valve body and stem seal area is increased, avoiding the effect of temperature on the seal. The extended height is according to the provisions of the standard, as well as customer requirements.

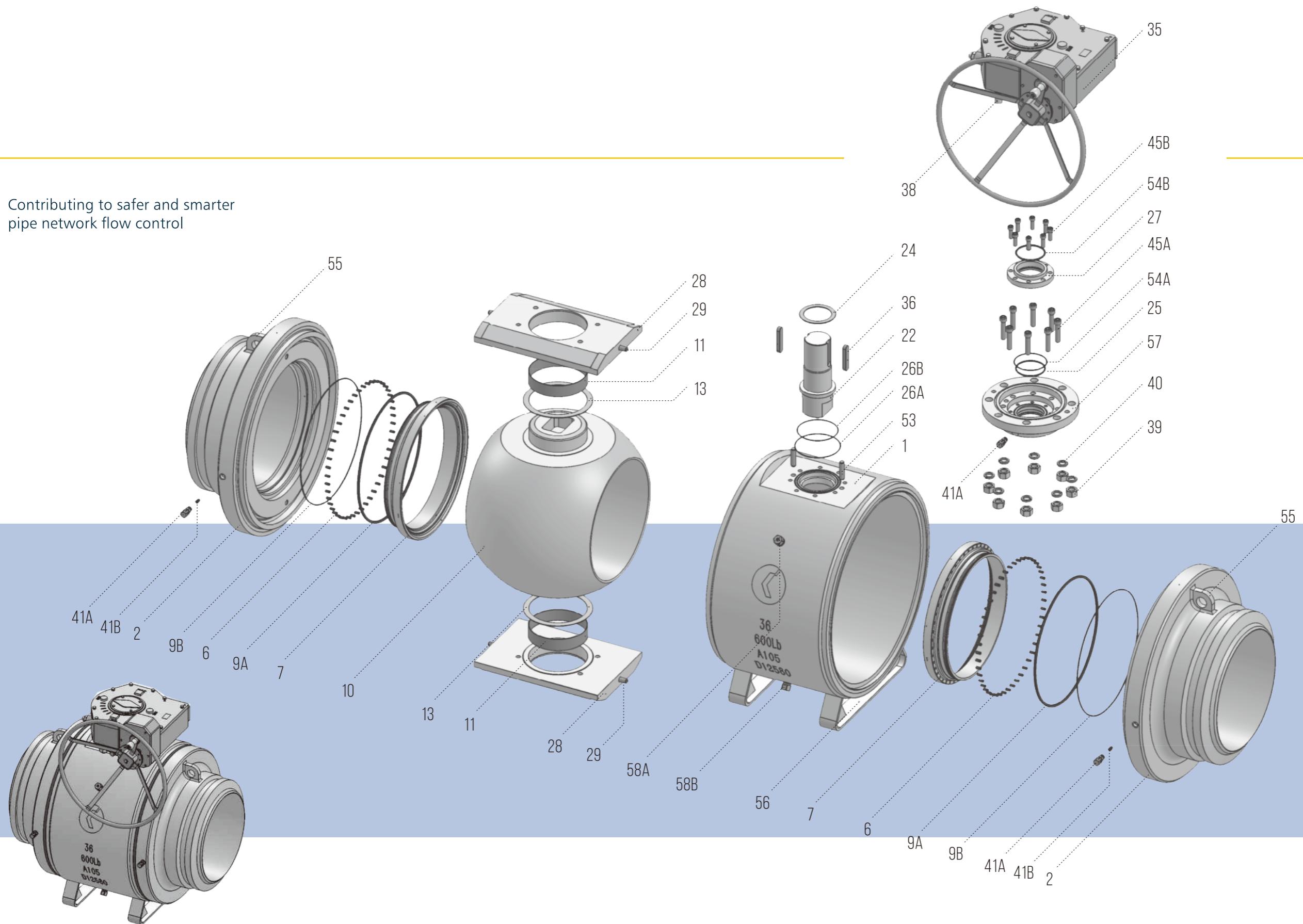
VALVE STRUCTURE

The valve adopts three-body side forging welding structure, and the ball is fixed by the built-in support plate structure of the valve body, which eliminates the excessive torque caused by the huge sealing load formed by the ball and the sealing seat driven by the inlet pressure. The surface finish of the ball is mirror-like, and the use of inlaid bushings with good self-lubricity enables small opening and closing torques even at the highest operating pressure.

WELDING STRUCTURAL CHARACTERISTICS

The welding of the left and right body and the middle body adopts typical narrow gap submerged arc multi-layer welding. The special flux used in welding has the required current carrying capacity and slag removal effect, and the welding layer particles are fine, which can meet the performance of high toughness weld metal. 100% ultrasonic inspection and hardness test of welds to ensure the welding quality of welds.

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CAST STEEL

No.	Part Name	Carbon Steel	Stainless Steel
1	Body	ASTM A216 WCB	ASTM A351 CF8M
2	Bonnet	ASTM A216 WCB	ASTM A351 CF8M
6	Spring	INCONELX-750	INCONELX-750
7a	Seat Ring	ASTM A105+ENP	ASTM A182 F316
7b	Seat Insert	VITON AED	VITON AED
9a	O-ring	VITON AED	VITON AED
9b	Fire Safe Ring	GRAPHITE	GRAPHITE
10	Ball	ASTM A105+ENP	ASTM A182 F316
11	Sliding Bearing	304+PTFE	304+PTFE
13	Bearing	304+PTFE	304+PTFE
14	Anti Static Device	316SS	316SS
22	Stem	ASTM A4140+ENP	ASTM A182 F316
24	Bearing	304+PTFE	304+PTFE
25	O-ring	VITON AED	VITON AED
26	O-ring	VITON AED	VITON AED
27	Gland	ASTM A216 WCB	ASTM A351 CF8M
28	Yoking plate	ASTM A216 WCB	ASTM A351 CF8M
29	Yoking plate pin	ASTM A276 410	ASTM A276 316
30	Packing	GRAPHITE	GRAPHITE
35	Gear	组合件	Assembling unit
36	Key	ANSI 1045	ASTM A276 304
38	Bolt	ASTM A193 B7	ASTM A193 B8M
39	Nut	ASTM A194 2H	ASTM A194 8M
40	Springs	65Mn	304SS
41a	Injection Valve	Carbon Steel	Carbon Steel
41b	Check Valve	Carbon Steel	Carbon Steel
45a	Bolt	ASTM A193 B7	ASTM A193 B8M
45b	Bolt	ASTM A193 B7	ASTM A193 B8M
53	Locking pin	ANSI 1045	ASTM A276 304
54	O-ring	VITON AED	VITON AED
55	Lifting Point	Carbon Steel	Carbon Steel
56	Yoking	Carbon Steel	Carbon Steel
57	Connecting Board	ASTM A105	ASTM A182 F316
58	Venting Valve	Carbon Steel	Stainless Steel

Optional Body/Bonnet Material:

A216 WCB/WCC, A352 LCB/LCC, A351 CF8/CF3/CF8M/CF3M, A890 4A/5A/6A, B148 C95800, Alloy Steel etc..

FORGED STEEL

	Carbon Steel	Stainless Steel
	ASTM A105	ASTM A182 F316
	ASTM A105	ASTM A182 F316
	INCONELX-750	INCONELX-750
	ASTM A105+ENP	ASTM A182 F316
	VITON AED	VITON AED
	VITON AED	VITON AED
	GRAPHITE	GRAPHITE
	ASTM A105+ENP	ASTM A182 F316
	304+PTFE	304+PTFE
	304+PTFE	304+PTFE
	316SS	316SS
	ASTM A4140+ENP	ASTM A182 F316
	304+PTFE	304+PTFE
	VITON AED	VITON AED
	VITON AED	VITON AED
	ASTM A105	ASTM A182 F316
	ASTM A105	ASTM A182 F316
	ASTM A105	ASTM A182 F316
	ASTM A276 410	ASTM A276 316
	GRAPHITE	GRAPHITE
	Assembling unit	Assembling unit
	ANSI 1045	ASTM A276 304
	ASTM A193 B7	ASTM A193 B8M
	ASTM A194 2H	ASTM A194 8M
	65Mn	304SS
	Carbon Steel	Carbon Steel
	Carbon Steel	Carbon Steel
	ASTM A193 B7	ASTM A193 B8M
	ASTM A193 B7	ASTM A193 B8M
	ANSI 1045	ASTM A276 304
	VITON AED	VITON AED
	Carbon Steel	Carbon Steel
	Carbon Steel	Carbon Steel
	ASTM A105	ASTM A182 F316
	Stainless Steel	Stainless Steel

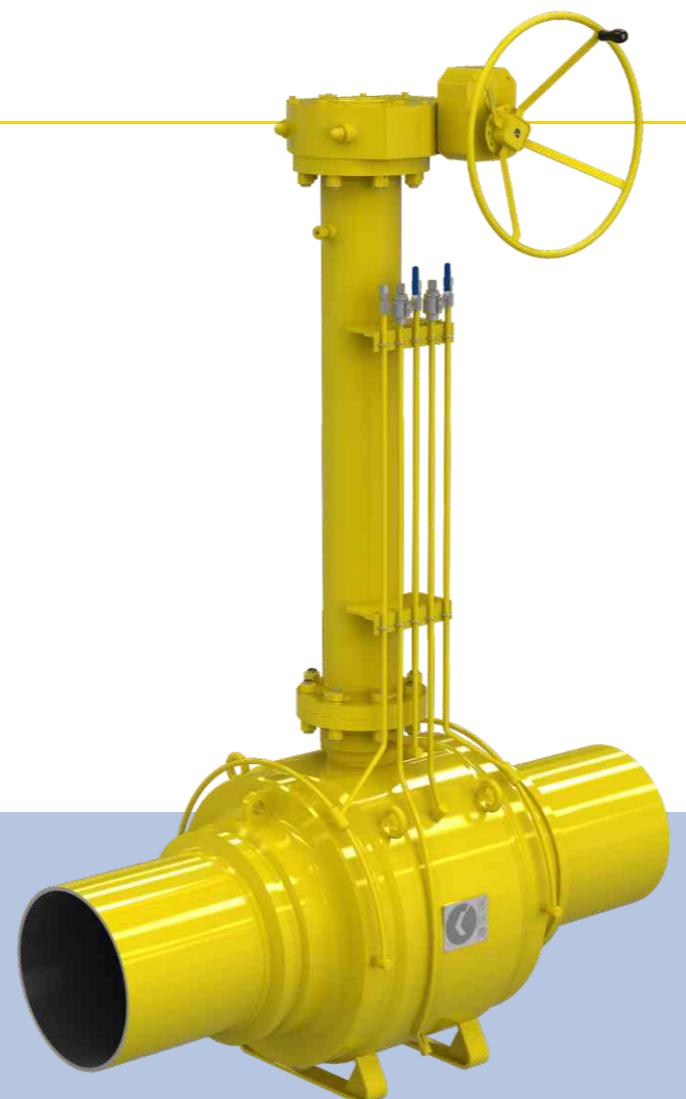
METAL SEAT

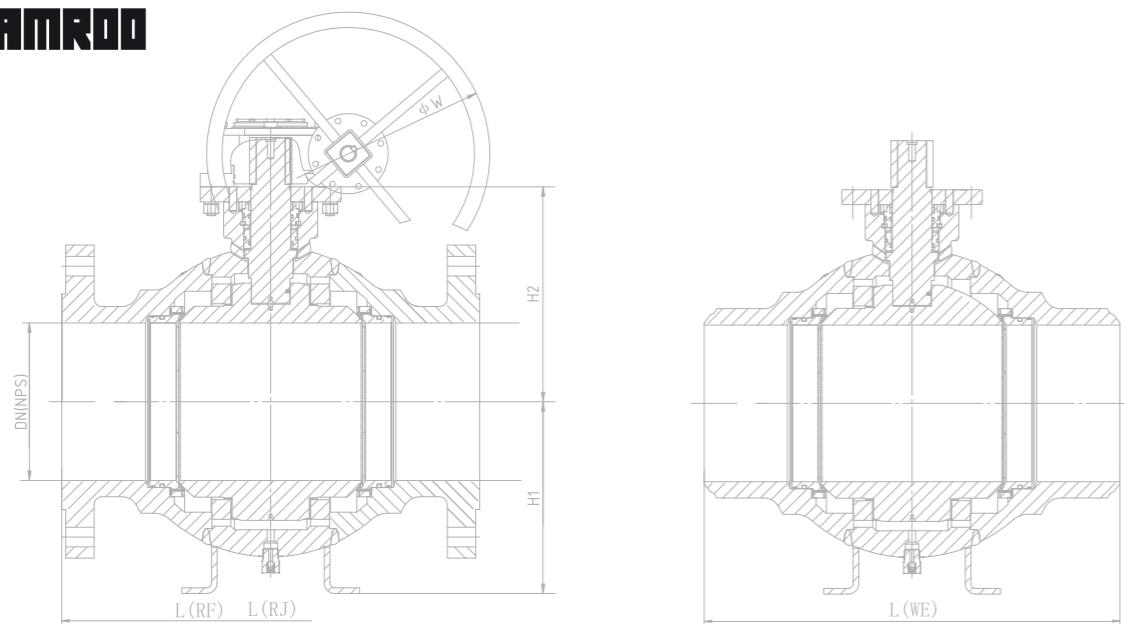
	Carbon Steel	Stainless Steel
	ASTM A105	ASTM A182 F316
	ASTM A105	ASTM A182 F316
	INCONELX-750	INCONELX-750
	ASTM A105+Ni55	ASTM A182 F316+STL
	VITON AED	VITON AED
	VITON AED	VITON AED
	GRAPHITE	GRAPHITE
	ASTM A105+Ni60	ASTM A182 F316+STL
	304+PTFE	304+PTFE
	304+PTFE	304+PTFE
	316SS	316SS
	ASTM A4140+ENP	ASTM A182 F316
	304+PTFE	304+PTFE
	VITON AED	VITON AED
	VITON AED	VITON AED
	ASTM A105	ASTM A182 F316
	ASTM A105	ASTM A182 F316
	ASTM A105	ASTM A182 F316
	ASTM A276 410	ASTM A276 316
	GRAPHITE	GRAPHITE
	Assembling unit	Assembling unit
	ANSI 1045	ASTM A276 304
	ASTM A193 B7	ASTM A193 B8M
	ASTM A194 2H	ASTM A194 8M
	65Mn	304SS
	Carbon Steel	Carbon Steel
	Carbon Steel	Carbon Steel
	ASTM A193 B7	ASTM A193 B8M
	ASTM A193 B7	ASTM A193 B8M
	ANSI 1045	ASTM A276 304
	VITON AED	VITON AED
	Carbon Steel	Carbon Steel
	Carbon Steel	Carbon Steel
	ASTM A105	ASTM A182 F316
	Carbon Steel	Stainless Steel

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FULLY WELDED BALL VALVE

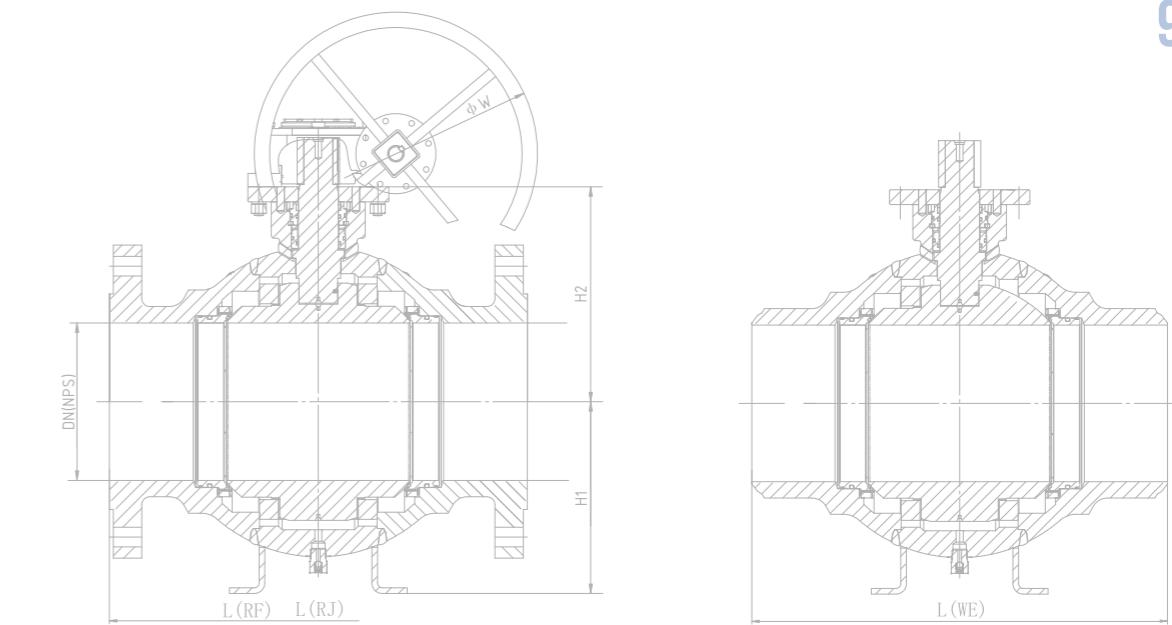




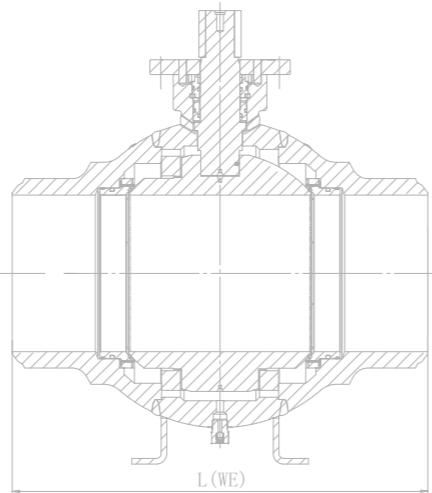
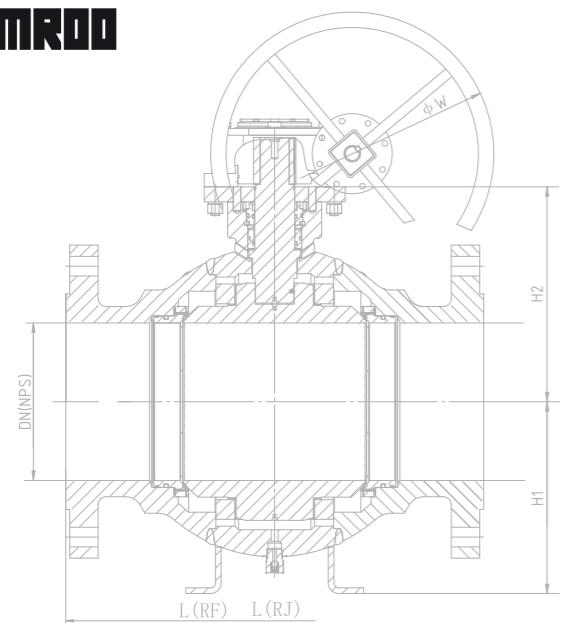
Remark: "/" in table are non-standard size, please confirm with KAMROO

CLASS 150

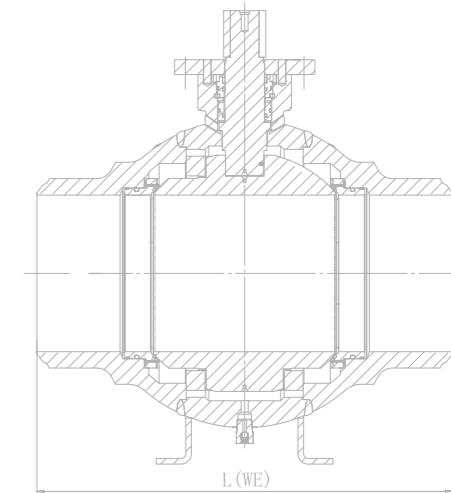
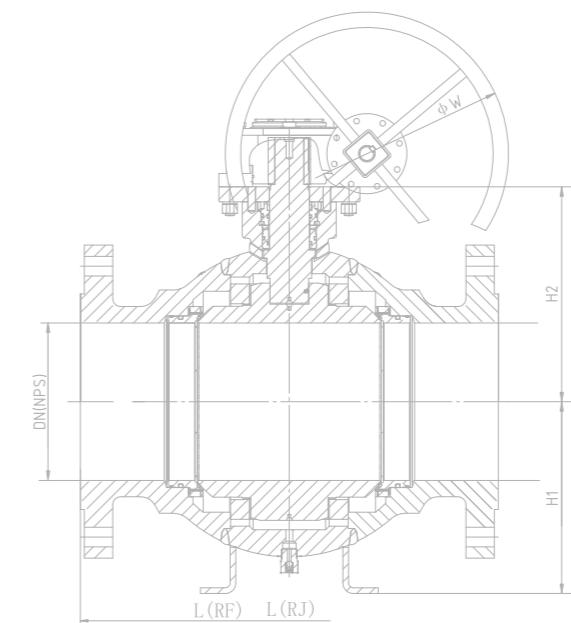
DN	NPS	L					Weight (kg)		
		RF	WE	RJ	H1	H2	W	RF/RJ	Torque (N.M)
50	2	178	216	191	99	210	300	25	42
65	2 1/2	191	241	203	110	215	350	35	68
80	3	203	283	216	120	225	400	40	92
100	4	229	305	241	148	255	650	95	145
150	6	394	457	406	190	207	460	230	210
200	8	457	521	470	235	255	600	295	625
250	10	533	559	546	285	310	600	430	835
300	12	610	635	622	320	350	600	620	1150
350	14	686	762	699	360	390	750	900	1560
400	16	762	838	775	415	435	750	1220	2375
450	18	864	914	876	450	475	750	1550	2850
500	20	914	991	927	505	515	750	1950	3580
550	22	991	1092	1004	510	560	750	2350	4275
600	24	1067	1143	1080	590	610	750	3050	5650
650	26	1143	1245	1156	650	655	750	3250	6520
700	28	1245	1346	1285	690	725	750	3700	7380
750	30	1295	1397	1308	750	810	750	5300	8380
800	32	1372	1524	1385	780	830	750	6000	9370
850	34	1473	1626	1486	820	860	750	8550	12065
900	36	1524	1727	1537	850	880	750	9845	14760
1000	40	1727	1780	1985	940	920	750	13560	18465
1050	42	1829	1829	2115	980	945	750	14280	29210
1200	48	1995	1995	2418	1120	1085	750	21800	44500


CLASS 300

DN	NPS	L					Weight (kg)		
		RF	WE	RJ	H1	H2	W	RF/RJ	Torque (N.M)
50	2	216	216	232	99	210	300	28	75
65	2 1/2	241	241	257	110	215	350	40	117
80	3	283	283	298	120	225	400	50	159
100	4	305	305	321	148	255	650	105	250
150	6	403	457	419	190	207	460	230	410
200	8	502	521	518	235	255	600	295	935
250	10	568	559	584	285	310	600	460	1300
300	12	648	635	664	320	350	600	670	1790
350	14	762	762	778	360	390	750	1000	2415
400	16	838	838	854	415	435	750	1320	3850
450	18	914	914	930	450	475	750	1650	4645
500	20	991	991	1010	505	515	750	2000	5870
550	22	1092	1092	1114	510	560	750	2550	7970
600	24	1143	1143	1165	590	610	750	3100	9718
650	26	1245	1245	1270	650	655	750	3300	10795
700	28	1346	1346	1372	690	725	750	3750	11715
750	30	1397	1397	1422	750	810	750	5500	14025
800	32	1524	1524	1553	780	830	750	6500	15775
850	34	1626	1626	1654	820	860	750	8590	20075
900	36	1727	1727	1756	850	880	750	9895	24375
1000	40	1930	1930	1985	940	920	750	13620	29625
1050	42	2083	2083	2115	980	945	750	14780	44130
1200	48	2170	2170	2418	1120	1085	750	22300	67140

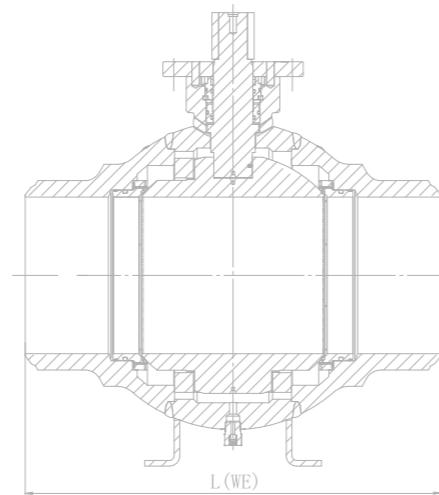
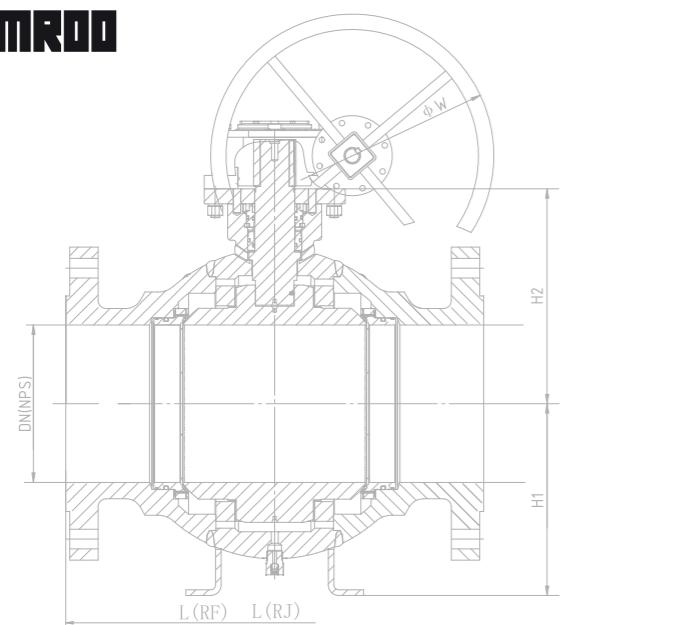

CLASS 600

DN	NPS	L						Weight (kg)		
		RF	WE	RJ	H1	H2	W	RF/RJ	Torque (N.M)	
50	2	292	292	295	99	210	300	38	125	
65	2 1/2	330	330	333	110	215	350	50	198	
80	3	356	356	359	120	225	400	60	270	
100	4	432	432	435	148	255	650	120	430	
150	6	559	559	562	210	230	460	330	685	
200	8	660	660	664	275	280	600	450	1635	
250	10	787	787	791	305	330	600	710	2320	
300	12	838	838	841	350	375	600	1000	3210	
350	14	889	889	892	390	405	750	1370	5595	
400	16	991	991	994	440	450	750	1650	6985	
450	18	1092	1092	1095	475	500	750	2400	10980	
500	20	1194	1194	1200	520	550	750	3000	15010	
550	22	1295	1295	1305	575	620	750	3550	18585	
600	24	1397	1397	1407	630	665	750	4300	23420	
650	26	1448	1448	1461	670	710	750	4500	28265	
700	28	1549	1549	1562	710	760	750	4900	32625	
750	30	1651	1651	1664	770	820	750	6900	39375	
800	32	1778	1778	1794	830	880	750	8000	46125	
850	34	1930	1930	1946	850	910	750	9400	52590	
900	36	2083	2083	2099	925	960	750	10850	59065	
1000	40	2337	2159	2366	975	985	750	14670	73875	
1050	42	2439	2175	2467	1100	995	750	21050	88875	
1200	48	2540	2435	2540	1265	1230	750	27100	107137	

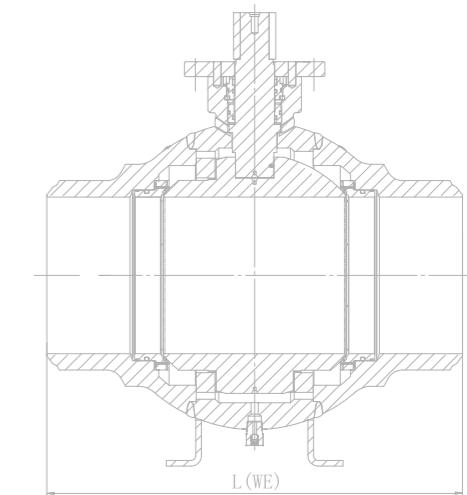
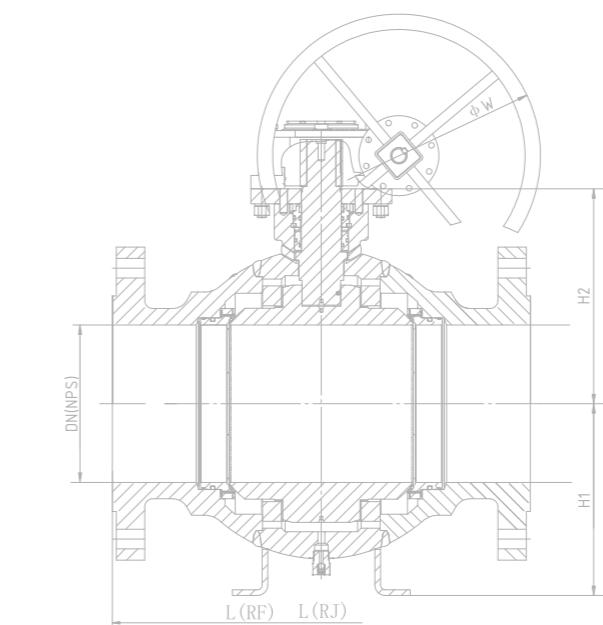

CLASS 900

DN	NPS	L						Weight (kg)		
		RF	WE	RJ	H1	H2	W	RF/RJ	Torque (N.M)	
50	2	368	368	371	110	220	650	45	215	
65	2 1/2	419	419	422	120	225	800	60	350	
80	3	381	381	384	125	235	800	75	485	
100	4	457	457	460	175	275	1050	135	895	
150	6	610	610	613	245	260	460	430	1690	
200	8	737	737	740	285	320	600	520	3910	
250	10	838	838	841	335	365	600	820	5615	
300	12	965	965	968	360	460	600	1050	9630	
350	14	1029	1029	1038	385	600	750	1530	13435	
400	16	1130	1130	1140	470	600	750	2160	17920	
450	18	1219	1219	1232	520	600	750	3400	21280	
500	20	1321	1321	1334	560	750	750	4200	27100	
550	22	1422	1422	1435	620	750	750	4600	40305	
600	24	1549	1549	1568	650	750	750	5400	50510	
650	26	1651	1651	1673	660	750	750	7000	61750	
700	28	1753	1753	1775	715	750	750	8600	72675	
750	30	1880	1880	1902	780	750	750	11000	83600	
800	32	2032	2032	2054	820	750	750	12500	100320	
850	34	2159	2159	2188	865	750	750	/	112850	
900	36	2286	2286	2315	920	750	750	/	125400	

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CLASS 1500

DN	NPS	L					Weight (kg)		
		RF	WE	RJ	H1	H2	W	RF/RJ	Torque (N.M)
50	2	368	368	371	110	220	650	45	385
65	2 1/2	419	419	422	120	225	800	60	610
80	3	470	470	473	125	235	800	85	815
100	4	546	546	549	175	275	1050	150	1490
150	6	705	705	711	225	250	460	565	2875
200	8	832	832	841	275	305	600	735	7070
250	10	991	991	1000	325	360	600	840	10900
300	12	1130	1130	1146	350	385	600	1195	15780
350	14	1257	1257	1276	385	410	750	1570	24030
400	16	1384	1384	1407	460	445	750	2440	29050
450	18	1537	1537	1559	500	505	750	3185	40750
500	20	1664	1664	1686	550	540	750	4628	52430
550	22	/	/	/	/	/	/	/	/
600	24	/	/	1972	635	625	750	7285	71050


CLASS 2500

DN	NPS	L					Weight (kg)		
		RF	WE	RJ	H1	H2	W	RF/RJ	Torque (N.M)
50	2	451	451	454	115	230	1000	65	630
65	2 1/2	508	508	514	135	245	1200	100	985
80	3	578	578	584	150	265	460	135	1345
100	4	673	673	683	185	315	460	258	2465
150	6	914	914	927	250	325	600	585	4745
200	8	1022	1022	1038	320	350	600	775	11680
250	10	1270	1270	1292	385	415	750	1430	17990
300	12	1422	1422	1445	410	455	750	2310	26050

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