

高平台浮动球阀系列 HIGH PLATFORM FLOATING BALL VALVE SERIES



— 产品概述

该系列 O 型球阀具有流通能力大、结构紧凑、密封性能好、寿命长等特点，经济实用、易于维护。广泛应用于石油、化工、天然气、电力、冶金、食品、制药等要求严密切断的场合，也可适用于水、蒸汽、油品、液化气、天然气、煤气等介质。另外可根据客户的需求选择防火型、特殊硬化处理型，提供更安全、更广泛的应用。

— 产品特点

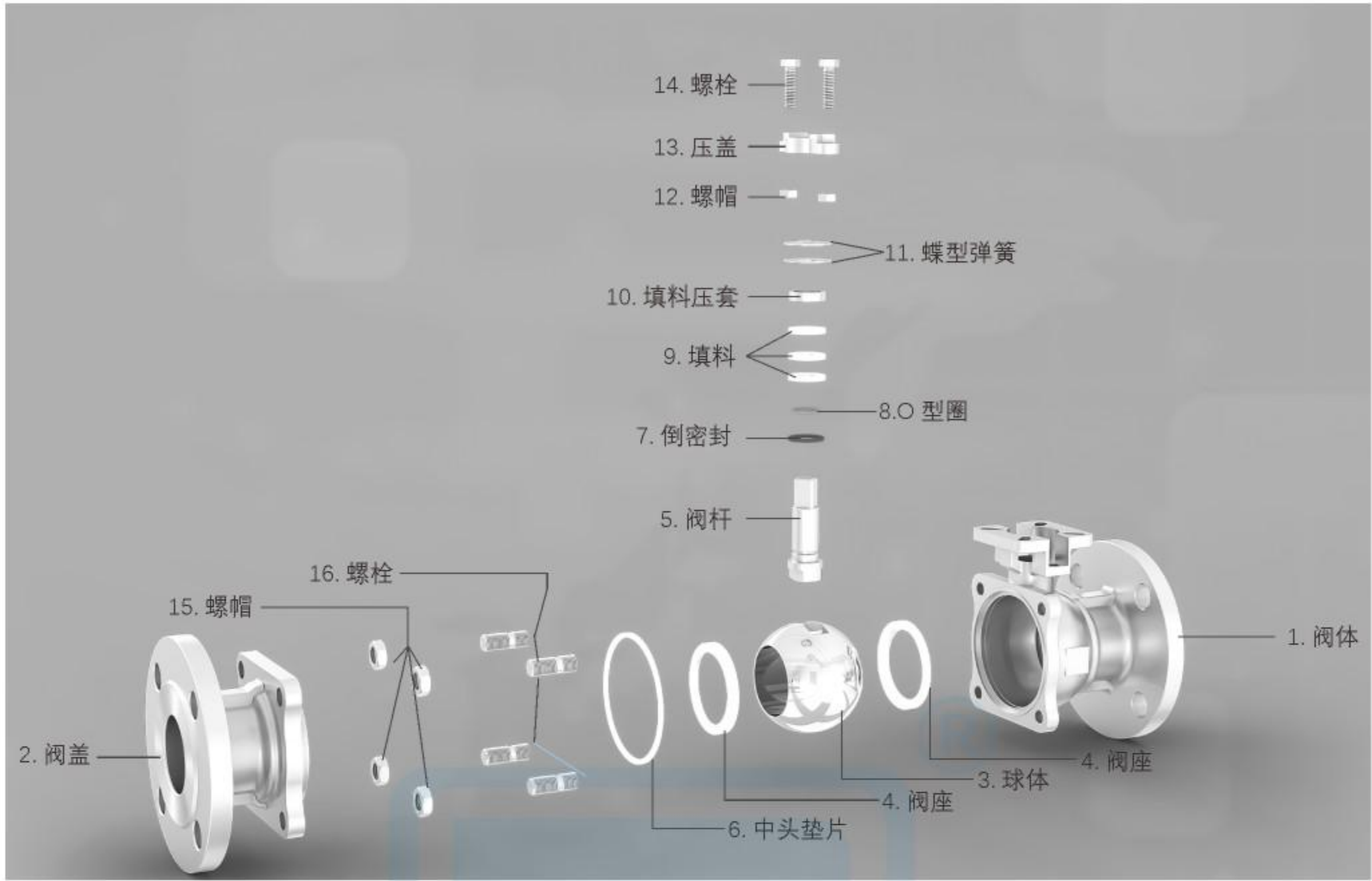
1. 阀体采用精密铸造或锻造，结构紧凑、外观美观。O 型球阀阀芯、阀杆做旋转运动，转动阀芯时阀芯阀座始终紧密接触，具有极强的剪切能力；
2. 可设计阀座由圆柱弹簧或蝶簧预载，具有自动补偿、自密封和阀门中腔自动泄压功能，适用于高温、高压场合；
3. 球阀旋转设计能够保证球阀运行平稳，减少操作扭矩；
4. 双关双断设计保证球阀完全开启和完全关闭。多种密封结构可选择，保证使用寿命及可靠性。密封结构可选用阀前阀座密封（推荐），阀后阀座密封，阀前阀后同时密封（特定工况使用）。密封有软硬密封可选择，密封表面可硬化处理，适用于多种工况；
5. 阀门中腔自动泄压设计，阀门体腔停留介质温度升高而引起异常升压时，不需通过安全阀，而仅靠阀座功能就可自动泄压，提高阀门在输送液体介质时安全性；
6. 紧急注脂救护，在有些特殊场合，由于介质中的异物或火灾造成阀座密封意外失效，注脂阀提供了与注脂枪快速连接，方便快捷地将密封脂注入到阀座密封部位，缓解泄漏；
7. 球阀有防火结构、防静电结构、防阀杆吹出结构设计；
8. 加长型阀杆设计，可适用于低温场合。

— Product description

This series of O-type ball valves have the characteristics of large circulation capacity, compact structure, good sealing performance, long life, etc., economical and practical, easy to maintain. It is widely used in petroleum, chemical, natural gas, electric power, metallurgy, food, pharmaceutical and other occasions with strict requirements. It can also be applied to water, steam, oil, liquefied gas, natural gas, coal gas and other media. In addition, fire-proof type and special hardening type can be selected according to the needs of customers to provide safer and wider applications.

— Features

1. The valve body adopts precision casting or forging, with compact structure and beautiful appearance. The spool and stem of the O-type ball valve make a rotating movement. When the spool is turned, the valve seat and the valve seat are always in close contact and have a strong shearing ability;
2. The valve seat can be designed to be preloaded by cylindrical spring or butterfly spring, with automatic compensation, self-sealing and automatic pressure relief compensation, self-sealing and automatic pressure relief pressure occasions;
3. The rotating design of the valve ball can ensure the smooth operation of the valve ball and reduce the operating torque;
4. Double-closing and double-breaking design ensures that the valve ball is fully opened and completely closed. Various sealing structures are available to ensure the service life and reliability. The sealing structure can choose the front seat sealing (recommended), the rear seat sealing, and the front sealing at the same time (used in specific working conditions). The seal has soft and hard seals, and the sealing surface can be hardened, which is suitable for a variety of working conditions;
5. The automatic pressure relief design of the valve middle cavity. When the medium temperature of the valve body cavity rises and causes abnormal pressure increase, it does not need to pass the safety valve, but increase, it does not need to pass the safety valve, but can automatically relieve pressure only by the function of the valve seat, improving the safety of the valve when conveying liquid medium.
6. Emergency fat injection rescue, in some special occasions, due to foreign objects in the medium or fire caused by the accidental failure of the valve seat seal, the grease injection valve provides a quick connection to the grease injection gun, which is convenient and quick to inject the sealing grease into the seat sealing part To mitigate the leak;
7. The ball valve has fireproof structure, antistaticstructure, and anti-stem blowout structure design;
8. The elongated stem design is suitable for low temperature applications.



主要零件材料 Material parts materials

NO.	零件名称 PART NAME	材料 MATERIAL
1	阀体 Body	WCB、CF8、CF8M、CF3M 等
2	阀盖 Bonnet	WCB、CF8、CF8M、CF3M 等
3	球体 Ball body	SS304、SS316、SS316L、SS316L + STL 等
4	阀座 Seat	PTFE、PPL、金属密封等 (Metal seal, etc.)
5	阀杆 Stem	304、SS316、316L、17-4PH、S20910
6	中头垫片 Middle head gasket	PTFE、PPL、金属垫片 (Metal gasket)
7	倒密封 Inverted seal	PTFE、PPL、不锈钢缠绕石墨 (Stainless steel spiral graphite)
8	O 型圈 O-ring	氟橡胶 (VITON)
9	填料 Filler	PTFE、PPL、柔性石墨 (Flexible graphite)
10	填料压套 Filling clamping ring	SS304
11	蝶形弹簧 Butterfly spring	SS304
12	螺帽 NUT	2H、SS304
13	压盖 Gland of valve	CF8
14	螺栓 Screw	B7、SS304
15	螺帽 NUT	2H、SS304
16	螺栓 Screw	B7、SS304

产品技术参数 Product Specifications

公称压力 Nominal pressure	PN1.6~42MPa、ANSI150LB~2500LB
公称通径 Nominal diameter (mm)	DN15~DN1000
连接形式 Connection Type	法兰 Flange、螺纹 Thread、对焊 Butt welding、承插焊 Socket welding
阀体材料 Body material	LCB、WCB、CF8、CF8M、CF3、CF3M 等
阀座形式 Valve seat form	软阀座、金属阀座 (密封面硬化处理) Soft seat、metal seat (hardened sealing surface)
适用温度 proper temperature	软阀座: -20~ + 200℃ 金属阀座: -196~ + 400℃ Soft seat: -20~ + 200℃ Metal seat: -196~ + 400℃
泄漏等级 Leakage level	ANSI VI
设计标准 design standards	GB/T12237、ASME B16.34
结构长度 Structure length	GB/T12221、ASME B16.10
检测标准 Testing standards	GB/T13927、API598
操作方式 Operation method	手动、气动、电动等 Manual、pneumatic、electric、etc.
可选项 Optional	防静电设计、防火设计、禁油处理、禁铜处理、球面特殊处理、按客户要求涂漆 Anti-static design、fire protection design、oil-free treatment、Copper Prohibition、Spherical special treatment、Customers request painting

产品结构特点

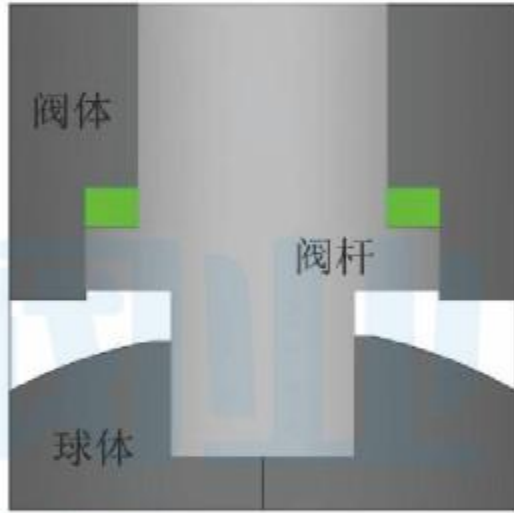
Product structure design features

阀杆防吹出结构设计(见图1)

阀杆防吹出结构设计，下端大上端小的阀杆在上端盖和螺丝的定位下，即使在阀腔异常的情况下，也能保证阀杆不会被介质吹出。

Valve stem anti-blowing structure design (see picture 1)

Valve stem anti-blowing structure design, the lower end is larger and the upper end is smaller. Under the positioning of the upper end cover and screws, even in the valve cavity is abnormal. In the case of, it can also ensure that the valve stem will not be blown out by the medium.



防静电设计 (见图2)

固定球阀通过防静电设计使球体、阀杆、阀体形成静电通道。从而将球体与阀座开关过程中由于摩擦产生的静电通过阀体引到大地，防止静电火花可能引起的火灾或爆炸危险。

Anti-static design (See picture 2)

The fixed ball valve adopts anti-static design to make the ball, stem and valve Thebody forms an electrostatic channel. So that the ball and the seat are switched. During the process, static electricity generated by friction is led to the ground through the valve body, Prevent the risk of fire or explosion caused by static sparks.

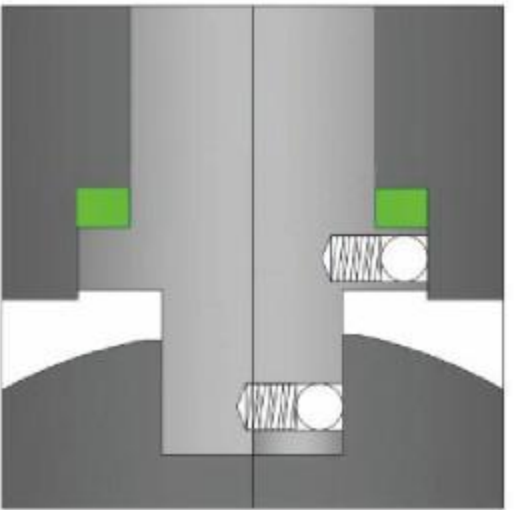


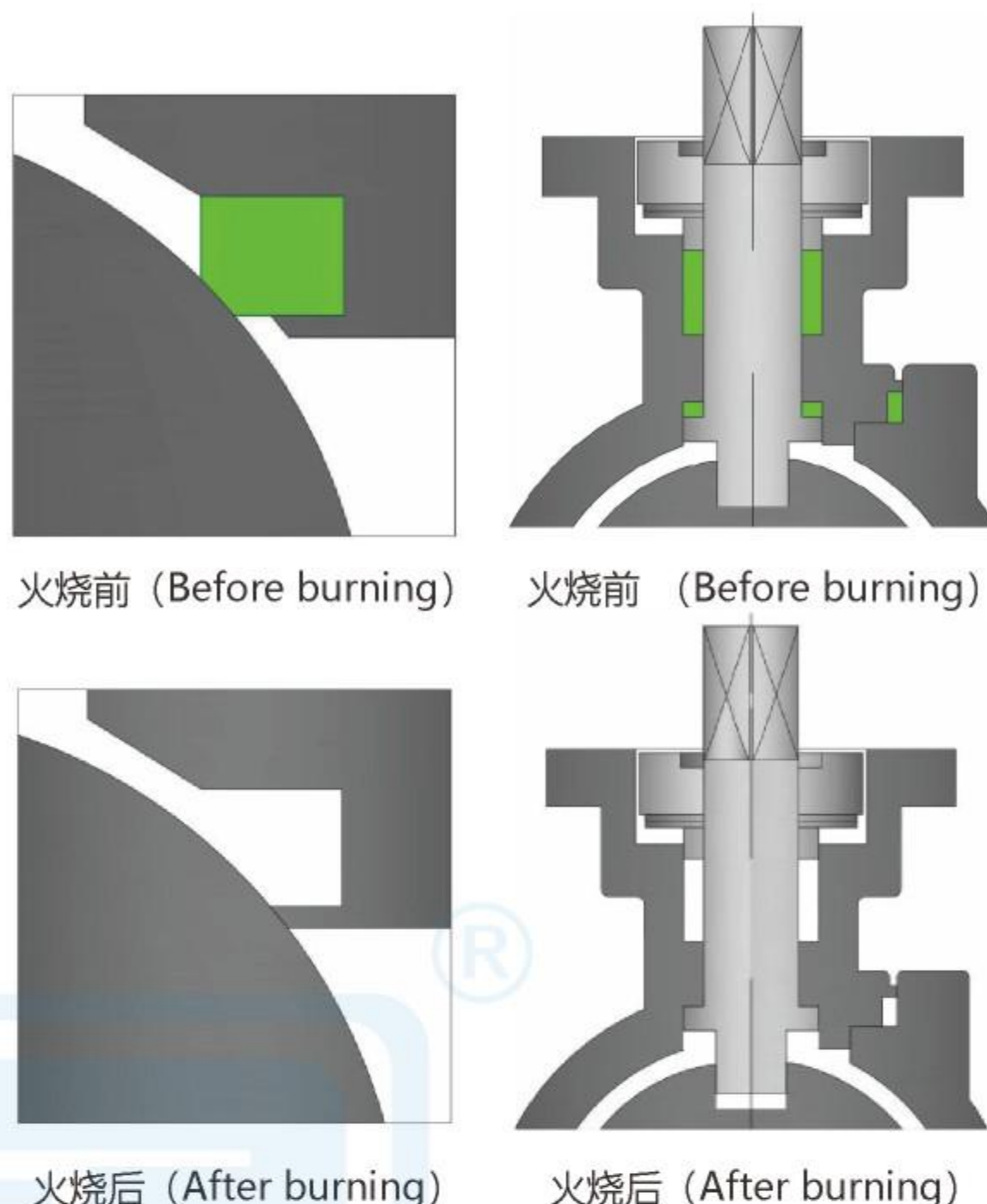
图 2 (picture 2)

防火结构设计

当发生火灾时，当非金属材料制作的阀座及密封件在高温下损坏后，特别设计的金属对金属辅助密封结构，有限的防止介质大量泄漏。

Fireproof structure design

In the event of a fire, when the valve seats and seals made of non-metallic materials are damaged at high temperatures, the specially designed metal-to-metal auxiliary sealing structure can prevent a large amount of medium leakage.

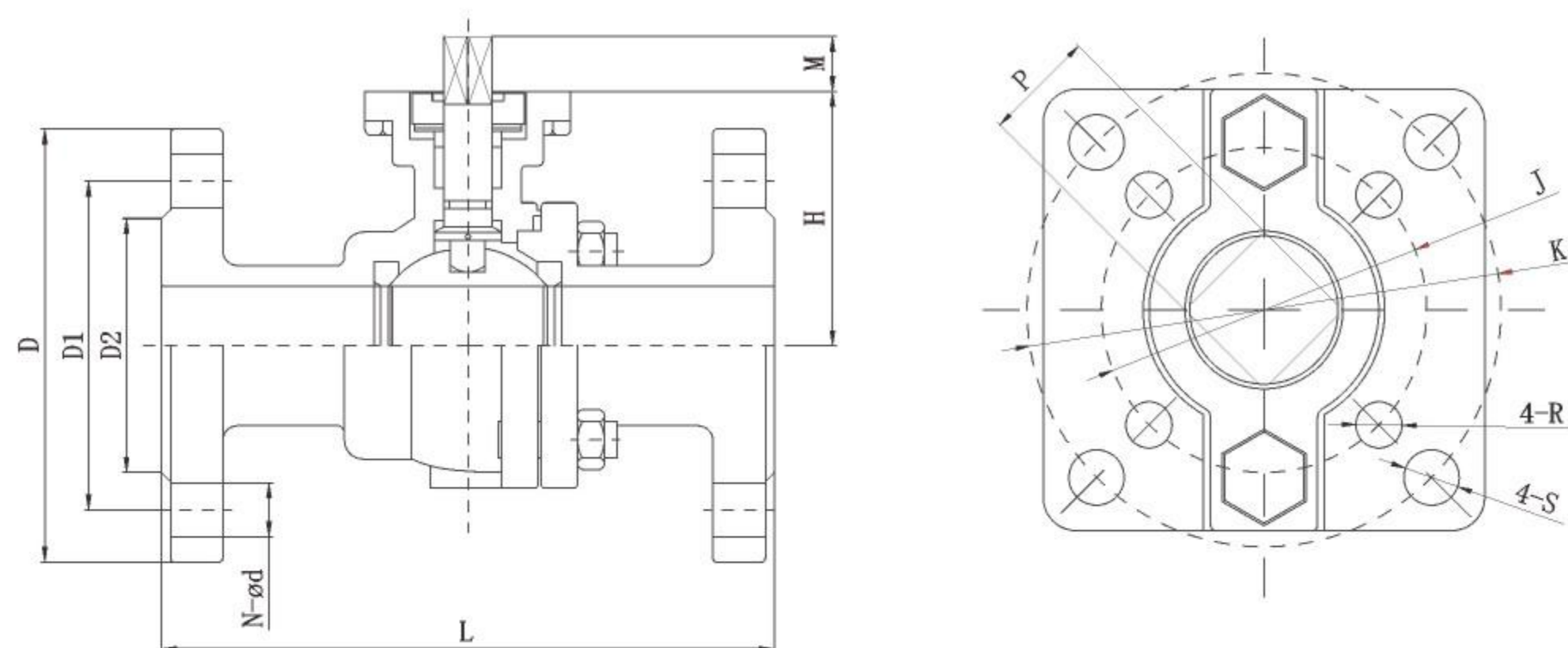


KV值_{rated}

SIZE	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400
Kv	21	38	72	112	170	275	380	512	941	1451	2220	3590	5130	7360	8750	11800

软密封浮动球阀力矩表 Torque table of soft seal floating ball valve

SIZE	PN16	PN25	PN40	PN63	PN100	PN160	CL150	CL300	CL600	CL900	CL1500
DN15	3	5	7	15	19	30	5	8	19	24	32
DN20	5	7	10	30	35	56	7	12	35	44	55
DN25	10	11	24	50	68	108	13	20	68	85	115
DN32	13	15	30	65	100	160	18	29	100	125	145
DN40	16	18	35	80	130	208	22	38	130	163	171
DN50	25	30	50	100	190	304	30	60	190	238	296
DN65	50	60	100	200			60	110			
DN80	65	80	150	300			80	140			
DN100	125	140	250	400			130	260			
DN125	250	300	450				250	600			
DN150	340	400	585				470	930			
DN200	485	680	996				780	1550			



GB PN16~40 主要外形尺寸表 Main dimensions table

Unit: mm

SIZE	压力	L	D2	D1	D	N-ø d	M	H	J	K	P	R	S
DN15	PN16~40	130	45	65	95	4-ø 14	11	48	36	42	9	6	6
DN20	PN16~40	130	58	75	105	4-ø 14	11	53	36	42	9	6	6
DN25	PN16~40	140	68	85	115	4-ø 14	13	64	42	50	11	6	7
DN32	PN16~40	165	78	100	140	4-ø 18	13	71	42	50	11	6	7
DN40	PN16~40	165	88	110	150	4-ø 18	16	76	50	70	14	7	9
DN50	PN16~40	203	102	125	165	4-ø 18	16	85	50	70	14	7	9
DN65	PN16	222	122	145	185	8-ø 18	19	104	70	102	17	9	11
	PN25/PN40	241	122	145	185	8-ø 18	19	104	70	102	17	9	11
DN80	PN16	241	138	160	200	8-ø 18	19	114	70	102	17	9	11
	PN25/PN40	283	138	160	200	8-ø 18	19	114	70	102	17	9	11
DN100	PN16	305	158	180	220	8-ø 18	19	140	70	102	17	9	11
	PN25/PN40	305	162	190	235	8-ø 22	19	140	70	102	17	9	11
DN125	PN16	356	188	210	250	8-ø 18	24	183	102	125	22	11	14
	PN25/PN40	381	188	220	270	8-ø 26	24	183	102	125	22	11	14
DN150	PN16	394	212	240	285	8-ø 22	29	202	125	140	27	14	18
	PN25/PN40	403	218	250	300	8-ø 26	29	202	125	140	27	14	18
DN200	PN16	457	268	295	340	12-ø 22	29	253	125	140	27	14	18
	PN25	502	268	310	365	12-ø 26	29	253	140	165	27	18	22
	PN40	502	285	320	375	12-ø 30	29	253	140	165	27	18	22

ASME CLASS150 主要外形尺寸表 Main dimensions table

Unit: mm

SIZE	L	D2	D1	D	N-ø d	M	H	J	K	P	R	S
NPS1/2	108	34.9	60.3	90	4-ø 16	11	48	36	42	9	6	6
NPS3/4	117	42.9	69.9	100	4-ø 16	11	53	36	42	9	6	6
NPS1	127	50.8	79.4	110	4-ø 16	13	64	42	50	11	6	7
NPS1-1/4	140	63.5	88.9	115	4-ø 16	13	71	42	50	11	6	7
NPS1-1/2	165	73.0	98.4	125	4-ø 16	16	76	50	70	14	7	9
NPS2	178	92.1	120.7	150	4-ø 19	16	85	50	70	14	7	9
NPS2-1/2	190	104.8	139.7	180	4-ø 19	19	104	70	102	17	9	11
NPS3	203	127.0	152.4	190	4-ø 19	19	114	70	102	17	9	11
NPS4	229	157.2	190.5	230	8-ø 19	19	140	70	102	17	9	11
NPS5	356	185.7	215.9	255	8-ø 22	24	183	102	125	22	11	14
NPS6	394	215.9	241.3	280	8-ø 22	29	202	125	140	27	14	18
NPS8	457	269.9	298.5	345	8-ø 22	29	253	125	140	27	14	18

ASME CLASS300 主要外形尺寸表 Main dimensions table

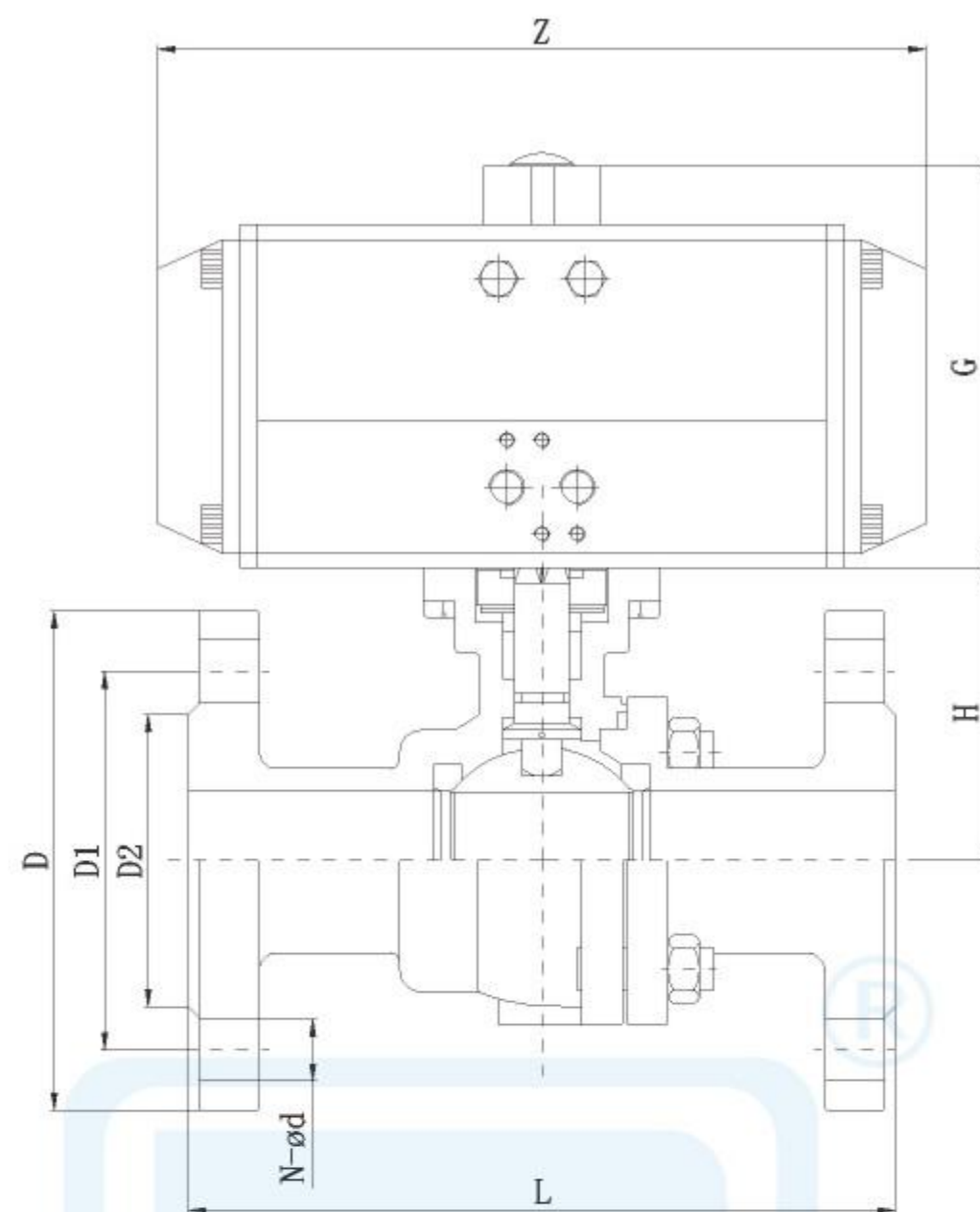
Unit: mm

SIZE	L	D2	D1	D	N-ø d	M	H	J	K	P	R	S
NPS1/2	140	34.9	66.7	95	4-ø 16	11	48	36	42	9	6	6
NPS3/4	152	42.9	82.6	115	4-ø 19	11	53	36	42	9	6	6
NPS1	165	50.8	88.9	125	4-ø 19	13	64	42	50	11	6	7
NPS1-1/4	178	63.5	98.4	135	4-ø 19	13	71	42	50	11	6	7
NPS1-1/2	190	73.0	114.3	155	4-ø 22	16	76	50	70	14	7	9
NPS2	216	92.1	127.0	165	8-ø 19	16	85	50	70	14	7	9
NPS2-1/2	241	104.8	149.2	190	8-ø 22	19	104	70	102	17	9	11
NPS3	283	127.0	168.3	210	8-ø 22	19	114	70	102	17	9	11
NPS4	305	157.2	200.0	255	8-ø 22	19	140	70	102	17	9	11
NPS5	381	185.7	235.0	280	8-ø 22	24	183	102	125	22	11	14
NPS6	403	215.9	269.9	320	12-ø 22	29	202	125	140	27	14	18
NPS8	502	269.9	330.2	380	12-ø 26	29	253	140	165	27	18	22

JIS 10K 主要外形尺寸表 Main dimensions table

Unit: mm

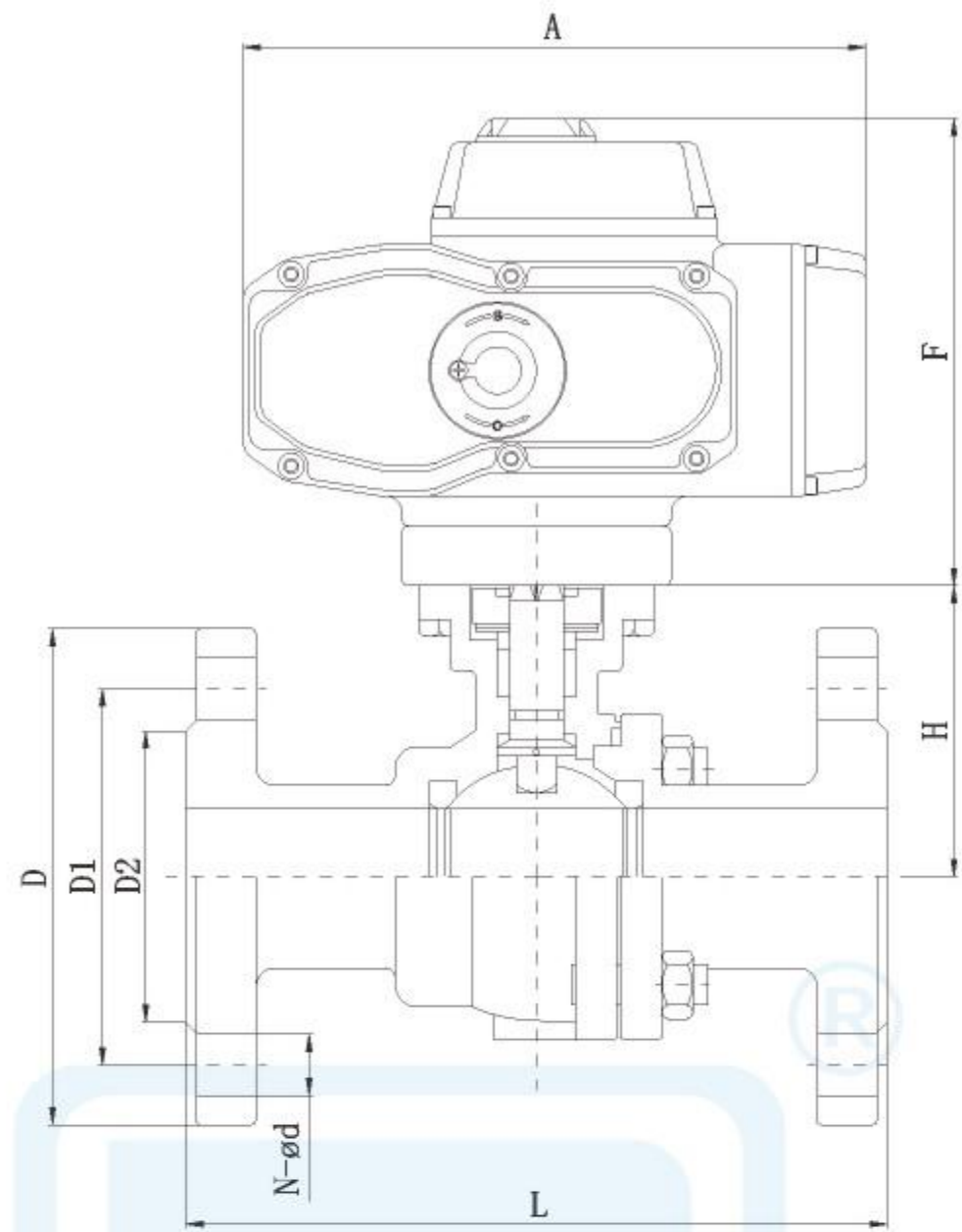
SIZE	L	D2	D1	D	N-ø d	M	H	J	K	P	R	S
15A	108	51	70	95	4-ø 15	11	48	36	42	9	6	6
20A	117	56	75	100	4-ø 15	11	53	36	42	9	6	6
25A	127	67	90	125	4-ø 19	13	64	42	50	11	6	7
32A	140	76	100	135	4-ø 19	13	71	42	50	11	6	7
40A	165	81	105	140	4-ø 19	16	76	50	70	14	7	9
50A	178	96	120	155	4-ø 19	16	85	50	70	14	7	9
65A	190	116	140	175	4-ø 19	19	104	70	102	17	9	11
80A	203	126	150	185	8-ø 19	19	114	70	102	17	9	11
100A	229	151	175	210	8-ø 19	19	140	70	102	17	9	11
125A	356	182	210	250	8-ø 23	24	183	102	125	22	11	14
150A	394	212	240	280	8-ø 23	29	202	125	140	27	14	18
200A	457	262	290	330	12-ø 23	29	253	125	140	27	14	18



GB PN16 主要外形尺寸表 Main dimensions table

Unit: mm

SIZE	L	D2	D1	D	N-ø d	H	双作用 (DA)			单作用 (SR)		
							SIZE	G	Z	SIZE	G	Z
DN15	130	45	65	95	4-ø 14	48	SPA52	92	147	SPR52	92	147
DN20	130	58	75	105	4-ø 14	53	SPA52	92	147	SPR63	108	168
DN25	140	68	85	115	4-ø 14	64	SPA52	92	147	SPR75	120	184
DN32	165	78	100	140	4-ø 18	71	SPA63	108	168	SPR83	129	204
DN40	165	88	110	150	4-ø 18	76	SPA75	120	184	SPR92	137	262
DN50	203	102	125	165	4-ø 18	85	SPA83	129	204	SPR105	153	268
DN65	222	122	145	185	8-ø 18	104	SPA92	137	262	SPR125	185	296
DN80	241	138	160	200	8-ø 18	114	SPA125	185	296	SPR140	202	390
DN100	305	158	180	220	8-ø 18	140	SPA140	202	390	SPR160	227	454
DN125	356	188	210	250	8-ø 18	183	SPA160	227	454	SPR190	260	525
DN150	394	212	240	285	8-ø 22	202	SPA190	260	525	SPR210	285	532
DN200	457	268	295	340	12-ø 22	253	SPA210	285	532	SPR240	318	610



GB PN16 主要外形尺寸表 Main dimensions table

Unit: mm

SIZE	L	D2	D1	D	N-ø d	H	A	F	SIZE
DN15	130	45	65	95	4-ø 14	48	165	138	SP50
DN20	130	58	75	105	4-ø 14	53	165	138	SP50
DN25	140	68	85	115	4-ø 14	64	165	138	SP50
DN32	165	78	100	140	4-ø 18	71	165	138	SP50
DN40	165	88	110	150	4-ø 18	76	212	169	SP100
DN50	203	102	125	165	4-ø 18	85	212	169	SP100
DN65	222	122	145	185	8-ø 18	104	259	203	SP200
DN80	241	138	160	200	8-ø 18	114	259	203	SP400
DN100	305	158	180	220	8-ø 18	140	259	203	SP400
DN125	356	188	210	250	8-ø 18	183	259	203	SP600
DN150	394	212	240	285	8-ø 22	202	284	230	SP1000
DN200	457	268	295	340	12-ø 22	253	284	230	SP1000