

ZGDB® 德邦阀门股份
DEBON VALVE CO., LTD.

YQDY® 福建永强阀门
FUJIAN YONGQIANG VALVE

BALL VALVE SERIES

球阀系列



球阀概述

Ball valve overview

- » 球阀在管路中主要用来做切断、分配和改变介质的流动方向，它只需要用旋转90度的操作和很小的转动力矩就能关闭严密。球阀最适宜做开关、切断阀使用，V型球阀。
- » 电动阀门除应注意管道参数外，尚应特别注意其使用的环境条件，由于电动阀门中的电动装置是一机电设备，其使用状态受其使用环境影响很大。通常状态下，电动球阀、蝶阀在以下环境使用要特别注意。
- » The ball valve is mainly used to cut off, distribute and change the flow of the medium in the pipeline. direction, it only needs to rotate 90 degrees and a small torque to close Closed tightly. The ball valve is most suitable for use as a switch and shut-off valve, and a V-shaped ball valve.
- » In addition to paying attention to the pipeline parameters, the electric valve should also pay special attention to the ring used. environmental conditions, since the electric device in the electric valve is an electromechanical device, it makes The usage status is greatly affected by its usage environment. Under normal conditions, the electric ball valve. Special attention should be paid to the use of butterfly valves in the following environments.



DN15~1000 | 16Mpa~100Mpa
2"-16" | Class 150~Class 2500

材质清单

产品规范 Product Specification	设计规范 Design spec.	结构长度 Face to Face	连接法兰 Flange End	试验与检验 Test & Check	压力—温度 Pressure-Temp.	产品标识 Marking	供货规范 Supply
	GB/T 12234	GB/T 12221	JB/T 79	JB/T 9092	GB/T 9124	GB/T 12220	JB/T 7926
	API 600	ASME B16.10	ASME B16.5	API 598	ASME B16.34		

材质清单

部件part Name	国标 /GB			美标 /ASME		
阀体/阀盖Body/Bonnet	WCB	ZGCr5Mo	304	A216 WCB	A217 WC6	A351 CF8
闸板Wedge	304	304	304	304	304	304
阀杆Stem	13Cr	25Cr2MoV	304	A182 F6a	A217 WC6	A351 CF8
填料Packing	聚四氟乙烯/PTFE 柔性石墨/Flexible Graphite					
垫片Gasket	304+柔性石墨/Flexible Graphite					
螺栓Bolt	35/35CrMo	25Cr2MoV	304	A193 B7	A193 B7	A193 B8
适用温度Suitable temperature	-29~425°C	-29~550°C	-40~200°C	-29~425°C	-29~540°C	-46~425°C
适用介质Applicable medium	水、油品、蒸汽 Water, Oil, Steam	水、油品、蒸汽 Water, Oil, Steam	硝酸类 Nitric Acid	水、油品、蒸汽 Water, Oil, Steam	水、油品、蒸汽 Water, Oil, Steam	硝酸类 Nitric Acid

国标浮动球阀 GB Floating ball valve

结构特点 Structure characteristics

浮动软密封不锈钢球阀用于PN16~PN63的各种管路上,用于截断或接通管路中的介质,选用不同的材质,可分别适用于水、蒸汽、油品、液化气、天然气、煤气、醋酸、氧化性介质、尿素等多种介质。

- a. 在各种阀门中,球阀的流动阻力最小,全径球阀打开时,球体通道、阀体通道和连接管径相等并成一直径,介质几乎可以毫无损失的流过。
b. 球阀旋转90°即可全开全关,启闭迅速。与相同规格的闸阀、截止阀比较,球阀体积小、重量轻、便于管道安装。

Soft floating seal stainless steel ball valve used for PN16 ~ PN63 various piping, used to truncate or on line in the medium, choose no material, can be respectively suitable for water, steam, oil, liquefied petroleum gas, natural gas, coal gas, acetic acid, oxidizing medium, urea, and other media.

A, in all kinds of valve, ball valve flow resistance of the smallest, full bore ball valve is opened, the sphere channels, the body and connected to equal diameter and diameter, flow medium can be almost no losses.

B, ball valve can be rotated 90° seated fully open, opening and closing fast. Compared with the same specifications of the gate valve, globe valve, ball valve, small volume, light weight, easy to pipeline installation.

标准与规范 Standards and norms

设计标准 Design standard	结构长度 Face to Face	法兰连接尺寸 Flange End	试验与检验 Test & Check	压力-温度 Pressure-Temp.
GB/T 12237 API6D	GB/T 12221	JB/T 79 HG20592	JB/T 9092 GB/T 13927	GB/T 12224 ASME B16.34

性能参数 performance parameters

序号 NO.	项目名称 Project name	项目名称 Project name			
		PN16	PN25	PN40	PN64
1	公称压力 (MPa)	1.6	2.5	4.0	6.4
2	壳体强度试验压力 (MPa) Shell strength test pressure	常温下公称压力的1.5倍 1.5 Times the nominal pressure at room temperature			
3	高压密封试验压力 (MPa) High pressure seal test pressure	常温下公称压力的1.1倍 1.1 Times the nominal pressure at room temperature			
4	常温下工作压力 (MPa) Operating pressure at room temperature	≤1.6	≤2.5	≤4.0	≤6.4

主要零件材料 Materials for Main Parts

名称 Name	材料 Material								
阀体/阀盖 Body/Bonnet	CF8	CF3	CF8M	CF3M	WCB	LCB	WC6	WC9	C5
球体 Ball	CF8	CF3	CF8M	CF3M	WCB Hcr	CF8	CF8	CF8	CF8
阀杆 Stem	F304	F304L	F316	F316L	2CR13	F304	F304	F304	F304
阀座 Seat	PTFE/PPL/304								
填料/垫片 Packing/Gasket	PTFF					石墨 Graphite			
螺栓 Bolt	不锈钢 Stainless Steel					35CrMoA			
螺母 Nut	不锈钢 Stainless Steel					45、35CrMoA			
手柄 Handle	铸钢 Cast Steel								

国标浮动球阀 GB Floating ball valve

Q41/341/641/941P-25~64/

JB/T 79.2-1994 JB/T 79.1-1994

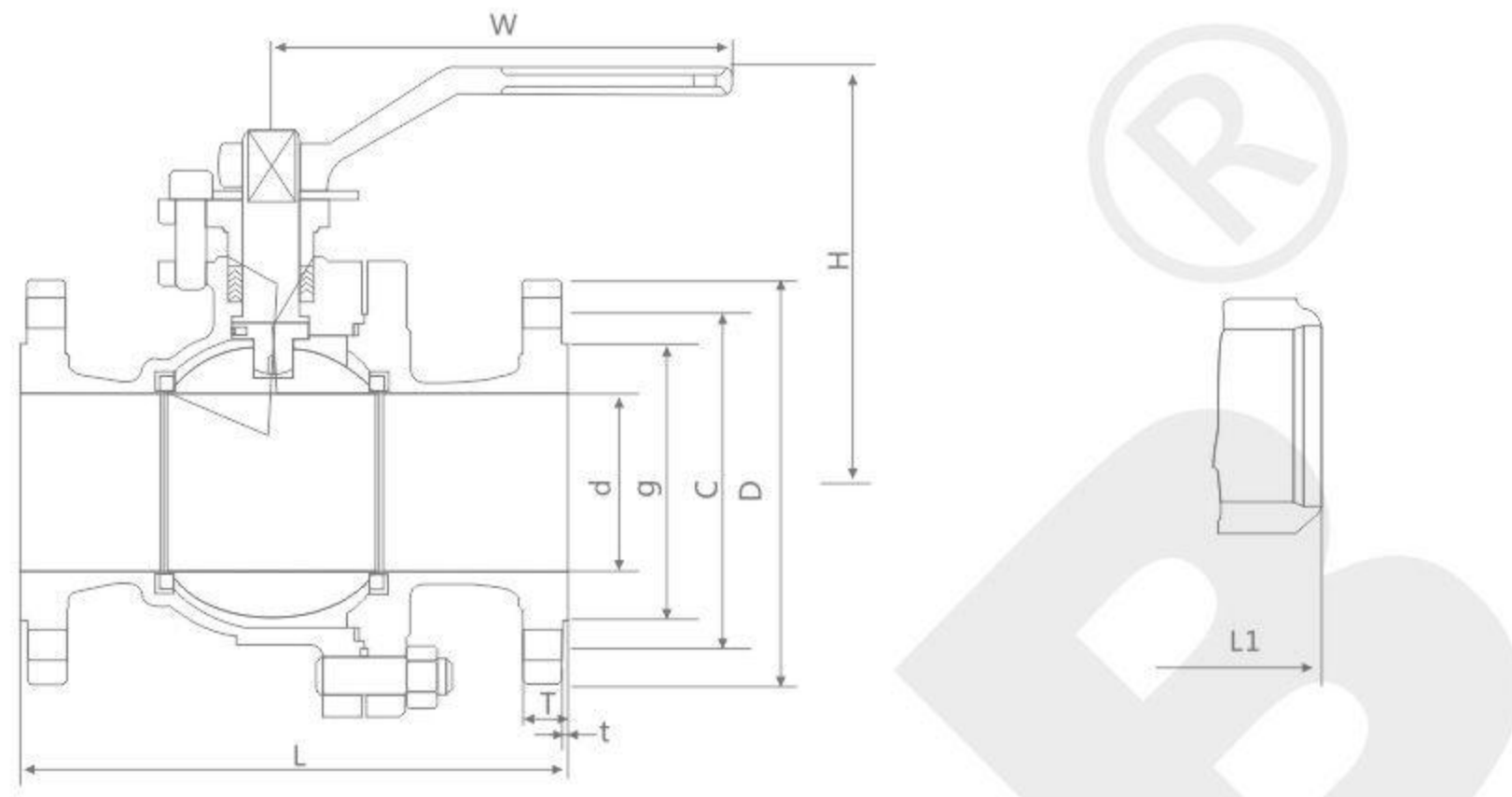
主要外形和连接尺寸 Main external and connection dimension

单位 Unit:mm

公称口径 DN	主要外形和连接尺寸 Main external and connecting dimensions										WT (kg)	
	L	D	D1	D2	b	Y	f2	Z-Φd	H	W		
	Q41F-16C		Q41F-16P	Q641F-16C	Q641F-16P	Q9B41F-16C	Q9B41F-16P					
15	130	95	65	45	14	-	-	4-Φ14	78	140	3	
20	140	105	75	55	14	-	-	4-Φ14	84	160	4	
25	150	115	85	65	14	-	-	4-Φ14	95	180	5	
32	165	135	100	78	17	-	-	4-Φ18	150	250	9	
40	180	145	110	85	17	-	-	4-Φ18	150	300	11	
50	200	160	125	100	18	-	-	4-Φ18	170	350	15	
65	220	180	145	120	19	-	-	4-Φ18	195	350	19	
80	250	195	160	135	20	-	-	8-Φ18	215	400	27	
100	280	215	180	155	21	-	-	8-Φ18	250	500	38	
125	320	245	210	185	22	-	-	8-Φ18	265	600	58	
150	360	280	240	210	24	-	-	8-Φ23	270	800	81	
200	400	335	295	265	26	-	-	12-Φ23	330	800	95	
250	533	405	355	320	28	-	-	12-Φ25	450	1300	140	
	Q41F-25		Q41F-25P	Q641F-25	Q641F-25P	Q9B41F-25	Q9B41F-25P					
15	130	95	65	45	16	-	-	4-Φ14	103	100	3	
20	140	105	75	55	16	-	-	4-Φ14	112	160	4	
25	150	115	85	65	16	-	-	4-Φ14	123	160	6	
32	165	135	100	78	18	-	-	4-Φ18	150	250	10	
40	180	145	110	85	18	-	-	4-Φ18	156	250	14	
50	200	160	125	100	20	-	-	4-Φ18	172	350	20	
65	220	180	145	120	22	-	-	8-Φ18	197	350	25	
80	250	195	160	135	22	-	-	8-Φ18	222	450	30	
100	280	230	190	160	24	-	-	8-Φ23	253	450	40	
125	320	270	220	188	28	-	-	8-Φ25	275	600	65	
150	360	300	250	218	30	-	-	8-Φ25	286	800	85	
200	400	360	310	278	34	-	-	12-Φ25	340	1200	100	
250	533	425	370	332	36	-	-	12-Φ30	470	1400	165	
	Q41F-40		Q41F-40P	Q341F-40	Q341F-40P	Q641F-40	Q641F-40P	Q9B41F-40	Q9B41F-40P			
15	130	95	65	45	16	40	4	4-Φ14	103	100	3	
20	140	105	75	55	16	51	4	4-Φ14	112	160	4	
25	150	115	85	65	16	58	4	4-Φ14	123	160	6	
32	180	135	100	78	18	66	4	4-Φ18	150	250	10	
40	200	145	110	85	18	76	4	4-Φ18	156	250	14	
50	220	160	125	100	20	88	4	4-Φ18	172	350	20	
65	250	180	145	120	22	110	4	8-Φ18	197	350	25	
80	280	195	160	135	22	121	4	8-Φ18	222	450	30	
100	320	230	190	160	24	150	4.5	8-Φ23	253	450	40	
125	400	270	220	188	28	176	4.5	8-Φ25	275	600	65	
150	400	300	250	218	30	204	4.5	8-Φ25	286	800	85	
200	550	375	320	282	38	260	4.5	12-Φ30	340	1200	100	
250	568	445	385	345	42	313	4.5	12-Φ34	470	1400	165	

美标法兰浮动球阀
API Flanged floating ball valve

Q41F-150Lb



应用标准

球阀符合API 608/API 6D标准
球阀符合ISO 10434/ISO 14313标准
防火标志采用API 607 标准
防静电采用API 608标准
符合ASME B 16.34标准
结构长度符合ASME B 16.10标准
法兰尺寸符合ASME B 16.5标准
对接焊符合ASME B 16.25标准
试验与检验符合API 598/API 6D标准

Applicable standards

BALL VALVES, API 608/API 6D
BALL VALVES, ISO 10434/ISO 14313
FIRE DURABLE, API 607
ANTI STATIC, API 608
VALVES, ASME B 16.34
FACE TO FACE, ASME B 16.10
END FLANGES, ASME B 16.5
BUTT WELDING ENDS, ASME B 16.25
INSPECTION AND TEST, API 598/API 6D

设计描述

全通径设计
螺栓连接
浮动结构
防脱阀杆
防火设计
静电装置
切断装置
ISO5211 固定盘
法兰/焊接端
蜗轮操作

Design description:

FULL PORT DESIGN
BB, BOLTED BONNET, SPLIT BODY
FLOATING BALL TYPE
BLOW-OUT PROOF STEM
FIRE DURABLE CONSTRUCTION
ANTI STATIC DEVICE
STOPPER DEVICE
ISO5211 MOUNTING PAD
FLANGED OR BUTT WELDING ENDS
AVAILABLE WITH BG OPERATOR

各部件材质 Materials of parts

序号 NO	零件名称 Part Name	ASTM材质 ASTM Material		
		碳钢Carbon Steel	CF8M	CF8
1	阀体Body	A216-WCB	A351-CF8M	CF8
2	阀盖Bonnet	A216-WCB	A351-CF8M	CF8
3	球Ball	A182-F3041)	A182-F316	F304
4	阀杆Stem	A276-304	A276-316	F304
5	阀座Seat seat		R.PTFE	
6	垫片Gasket	石墨+3042) Graphite+3042)	PTFE	PTFE
7	阀盖螺栓Valve cover bolt	A193-B7	A193-B8M	A193-B8M
8	阀盖螺母Valve cover nut	A194-2H	A194-8M	A194-8M
9	填料Packing		PTFE	PTFE
10	填料压板Packing press plate	A216-WCB	CF8	CF8
11	填料螺栓Packing bolt	A193-B7	A193-B8M	A193-B8M
12	定位片Positioning sheet	碳钢Carbon Steel	F304	F304
13	手柄Handle		碳钢Carbon Steel	

注释: 1、A105+ENP 可选择的 Note:1).A105+ENP optional 2、缠绕石墨垫片 2).Spiral wound construction.

美标法兰浮动球阀
API Flanged floating ball valve

主要连接尺寸 Main connection dimensions

公称压力 Nominal pressure	Size DN	Dimensions(mm)									
		d	L	D	C	g	T	t	H	W	n-Φ
class 150Lb	1/2"	15	108	89	60.5	35	12.7	1.6	87.5	142	4-15
	3/4"	20	117	98	70.0	43	12.7	1.6	87.5	142	4-15
	1"	25	127	108	79.5	51	13	1.6	91.5	142	4-15
	1 1/4"	32	140	117	89	64	14.5	1.6	107	190	4-15
	1 1/2"	40	165	127	98.5	73	15	1.6	128	200	4-15
	2"	50	178	152	120.5	92	16	1.6	136	200	4-19
	2 1/2"	65	190	178	139.5	105	18	1.6	158	300	4-19
	3"	80	203	190	152.5	127	19	1.6	196	350	4-19
	4"	100	229	229	190.5	157	24	1.6	212	700	4-19
	5"	125	256	254	215.9	186	24	1.6	252	1100	8-22
	6"	150	394	279	241.5	261	26	1.6	272	1100	8-22
	8"	200	457	343	298.5	270	29	1.6	342	1500	8-22
	10"	250	533	406	362	324	30	1.6	345	1500	12-25
	12"	305	610	483	432	381	32	1.6	385		12-25
	14"	337	686	535	476	413	35	1.6	430		12-29
16"	387	762	597	540	470	37	1.6	470		16-29	
18"	489	914	698	635	582	43	1.6	590		16-32	

主要连接尺寸 Main connection dimensions

公称压力 Nominal pressure	Size DN	Dimensions(mm)										
		d	L	D	C	g	T	t	H	W	n-Φ	
class 300Lb	1/2"	15	140	95	66.5	35	15	1.6	87.5	142	4-15	
	3/4"	20	152	117	82.5	43	16	1.6	87.5	142	4-15	
	1"	25	165	124	89.0	51	18	1.6	91.5	142	4-19	
	1 1/4"	32	178	133	98.5	64	19	1.6	107	190	4-19	
	1 1/2"	40	190	156	114.5	73	21	1.6	128	200	4-22	
	2"	50	216	165	127	92	23	1.6	136	200	8-19	
	2 1/2"	65	241	190	149	105	26	1.6	158	300	8-22	
	3"	80	283	210	168.5	127	29	1.6	202	350	8-22	
	4"	100	305	254	200	157	32	1.6	218	700	8-22	
	5"	125	381	279	235	186	35	1.6	252	1100	8-22	
	6"	150	403	318	270	216	37	1.6	272	1100	12-22	
	8"	200	502	381	330	270	41	1.6	342	1500	12-25	
	10"	250	568	444	387.5	324	48	1.6	345	1500	16-29	
	class 600Lb	1/2"	15	165	95	66.5	35	15	6.4	59	160	4-16
		3/4"	20	190	117	82.5	43	16	6.4	63	160	4-19
1"		25	216	124	89.0	51	18	6.4	75	230	4-19	
1 1/4"		32	229	133	98.5	64	21	6.4	85	300	4-19	
1 1/2"		40	241	156	114.5	73	22.3	6.4	95	400	4-22	
2"		50	292	165	127	92	25.4	6.4	107	700	8-19	
4"		100	432	273	216	157.2	38	6.4	178	1100	8-25	
5"		125	491	330	267	186	44.5	6.4	225	1100	8-29	
6"		152	559	356	282	216	47.2	6.4	250	1500	12-29	
8"		203	660	419	349	282	55.7	6.4	294	1500	12-32	