

冠正 缔造完美品质...  
Guanzheng Create Pperfect Quality...

# 球阀系列 >> BALL VALVE SERIES



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# 产品集锦 PRODUCT INTEGRATION



手动浮动球阀  
Manual operation  
float ball valve



手动浮动球阀  
Manual operation  
float ball valve



整体式球阀  
One-piece body  
ball valve



蜗轮动浮动球阀  
Worm-gear actuator  
float ball valve



气动浮动球阀  
Pneumatic actuator  
float ball valve



电动浮动球阀  
Electric actuator  
float ball valve



蜗轮动固定球阀  
Worm-gear actuator  
fixed ball valve



气动固定球阀  
Pneumatic actuator  
fixed ball valve



手动轨道球阀  
Manual operation  
track ball valve



伞齿轮动轨道球阀  
Conical gear actuator  
track ball valve



气动轨道球阀  
Pneumatic actuator  
track ball valve



电动轨道球阀  
Electric actuator  
track ball valve



气动手线球阀  
Pneumatic actuator  
pipeline ball valve



电动管线球阀  
Electric actuator  
pipeline ball valve



蜗轮动三通球阀  
Worm-gear actuator  
three way ball valve



金属密封三通球阀  
Metal seated  
three way ball valve



夹套保温球阀  
Muff heat preservation  
ball valve



V形球阀  
V type ball valve



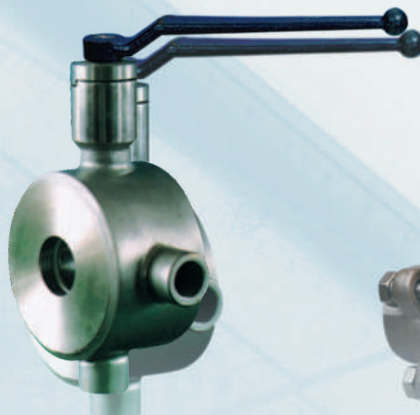
对焊金属密封球阀  
Butt weld metal seated  
ball valve



整体焊接管线球阀  
Fully welded pipeline  
ball valve



对夹式球阀  
Wafer connection  
ball valve



对夹保温球阀  
Wafer heat preservation  
ball valve



内螺纹连接三段式球阀  
Internal screw three stage  
ball valve



内螺纹连接三通球阀  
Internal screw three  
way ball valve



球阀型号编制方法 Model coding system of ball valve



冠 正 阀 门 企 业 标 志 Corporation Logo of GUANZHENG group	特征代号 Code of characteristics	球阀代号 Code of ball valve	驱动方式代号 Code of driving	连接形式代号 Code of connection type	结构形式代号 Code of structure type	密封面材料代号 Code of sealing face material	公称压力值 Code of nominal pressure	阀体材料代号 Code of body material
	G-轨道球阀 Track ball valve	Q-球阀 Ball valve	手动(省略) Manual operation (Omission)	1、内螺纹 Female screw 2、外螺纹 Male screw 4-凸面法兰 Raised face flange	1-浮动直通式 Float through way type	F-氟塑料 Fluorocarbon	1、用MPa的10倍 值表示 It is expressed with a value of ten times of real pressure in MPa. 2、用磅级表示 It is expressed with Class standard values. 3、用K级表示 Unit in K class according to JIS	C-碳钢 Carbon steel
	W-无摩擦高温高压 硬密封球阀 Hard sealed ball valve, non-friction, high-temperature and high-pressure		3-蜗轮传动 Worm-gear actuator	4-密封环法兰 连接 Seat ring flange connection	4-浮动L形三通 Float L-pattern three way	H-合金钢 Alloy steel		C1:WCB
	P-偏心球阀 Eccentric ball valve		6-气动 Pneumatic actuator	4j-密封环法兰 连接 4M-凹凸面法兰 连接 Male-female flange connection	5-浮动T形三通 Float-T-pattern three way	Y-硬质合金 Hard alloy		C2:LF2
	V-V型球阀 V type ball valve		9-电动 Electric actuator	4G-榫槽面法兰 连接 Tongue and groove flange connection	7-固定直通式 Fixed through way type	E-增强聚四氟乙烯 Reinforced PTFE		C3:A105
	B-夹套保温球阀 Muff heat preservation ball valve		7-液动 Hydraulic actuator	6-焊接连接 Weld connection	7A-自泄压 Bleed	D-中温碳纤维 Mid-temperature carbon fibre		P:1Cr18Ni9Ti
	M-整体式球阀 One-piece body ball valve		8-气-液联动 Pneumatic-hydraulic actuator	6D-对焊连接 Butt weld connection	7B-双作用 Double block	N-聚酰胺(尼龙) Polyesteramide (nylon)		R:1Cr18Ni12Mo2Ti
	U-上装式球阀 Top-entry ball valve		8E-气液联动 带紧急切断 Pneumatic-hydraulic with emergent shut-off	6C-承插焊连接 Socket weld joint	8-非整球三通式 The non-single clack three way	Fs-对位聚苯 Polyphenylester		P8:CF8(304)
				7-对夹连接 Wafer connection		M-耐磨碳纤维 Anti-abrasion carbor fibre		P3:CF3(304L)
				8-卡箍 Clip		G-高温耐磨碳纤维 High temperature anti-abrasion carbon fibre		R8:CF8M(316)
				9-卡套 Hoop		S-柔性石墨 Soft graphite		R3:CF3M(316L)

订货须知 Ordering instruction

1. 阀门规格(全通径、缩径)及产品型号; Valve specification (equal diameter, reduced diameter) and product model
2. 阀门的压力等级(公制用公称压力PN表示, 英美制用磅级表示, 日本制用K级表示); Valve pressure class (metric nominal pressure is expressed with PN, UK/ US nominal pressure with pound class(Lb), JIS nominal pressure with K class)
3. 介质成份(是否含腐蚀性、有无纤维、颗粒介质); Medium ingredients( corrosive, fibre-contained, granule mediums or not)
4. 温度范围(°C); Temperature range(°C)
5. 安装场地(露天或室内); Installation site( outdoor or indoor)
6. 环境温度(°C); Ambient temperature(°C)
7. 使用目的(开-关、紧急切断、调节); Using objective (on-off, emergency cut-off, regulation)
8. 法兰端连接尺寸及其密封面形式执行标准; Flange end connection dimension and sealing face type executive standard
9. 对焊端连接尺寸执行标准; Butt weld connection dimension executive standard
10. 阀门结构长度执行标准; Valve face-to-face length executive standard
11. 阀门驱动方式: 手柄、蜗轮-蜗杆传动、气动(国产、国外)、电动(国产、国外)、气液联动、电液联动。Valve actuator type: handle, worm-gear actuator, pneumatic actuator(domestic, imported), electric actuator(domestic, imported), pneumatic-hydraulic actuator, electric-hydraulic.



## 浮动球阀 Float ball valve

### 法兰连接浮动球阀 Flange connecting float ball valve

执行标准 Executive standard

- 设计与制造: GB12237-89, API 608, API 6D, JPI 7S-48, BS5351, DIN3357.
- 法兰尺寸:  
JB/T74-90(JB74-90), GB9112-9131, HGJ44-76, SH3406, ANSI B16.5, JIS B2212-2214, NF E29-211, DIN2543.
- 结构长度: GB12221-89, ANSI B16.10, JIS B2002, NF E29-305, DIN3202.
- 检验和试验: JB/T 9092-99, API 598.
  - Design and making :GB12237-89 ,API 608 ,API 6D ,JPI 7S-48 ,BS5351 ,DIN3357 .
  - Flange size :JB/T74-90(JB74-90) ,GB9112-9131 ,HGJ44-76 ,SH3406; ANSI B16.5 ,JIS B2212-2214 ,NF E29-211 ,DIN2543 .
  - Structure length according to GB12221-89 , ANSI B16.10 , JIS B2002 ,NF E29-305 ,DIN3202.
  - Test according to JB/T 9092-99 ,API 598 .

### 主要零件材料及适用工况 Material of main parts and suitable working conditions

零件名称 Part name	材 料 Material						
阀体 Body	WCB	ZG1Cr18Ni9Ti	CF8(304)	CF3(304L)	ZG1Cr18Ni12Mo2Ti	CF8M(316)	CF3M(316L)
球体、阀杆 Ball ,Stem	2Cr13	1Cr18Ni9Ti	0Cr19Ni9(304)	00Cr19Ni11(304L)	1Cr18Ni12Mo2Ti	0Cr17Ni12Mo2(316)	00Cr17Ni12Mo2(316L)
密封圈 Sealing ring	增强聚四氟乙烯 Reinforced PTFE、对位聚苯 Polyphenylester						
适用介质 Suitable medium	水、蒸汽、 油品等 Water ,steam, oil ,etc.	硝酸等腐蚀性介质 Corrosive media such as nitric acid ,etc.		强氧化性介质 Media of strong oxygenation	醋酸等腐蚀性介质 Corrosive media such as acetic acid ,etc.		尿素等腐蚀性介质 Corrosive media such as urea ,etc.
适用温度 Suitable temperature	-29~180℃ (增强聚四氟乙烯 Reinforced PTFE) 、 -29~300℃ (对位聚苯 Polyphenylester)						

### 产品型号 Type of product

1、国标、法标、德标 National , Gallo and Germanic standard

Q41F-10C	Q41F-10P	Q41F-10Ps	Q41F-10P3	Q41F-10R	Q41F-10Rs	Q41F-10R3
Q41F-16C	Q41F-16P	Q41F-16Ps	Q41F-16P3	Q41F-16R	Q41F-16Rs	Q41F-16R3
Q41F-25	Q41F-25P	Q41F-25Ps	Q41F-25P3	Q41F-25R	Q41F-25Rs	Q41F-25R3
Q41F-40	Q41F-40P	Q41F-40Ps	Q41F-40P3	Q41F-40R	Q41F-40Rs	Q41F-40R3
Q41F-63	Q41F-63P	Q41F-63Ps	Q41F-63P3	Q41F-63R	Q41F-63Rs	Q41F-63R3
Q41F-100	Q41F-100P	Q41F-100Ps	Q41F-100P3	Q41F-100R	Q41F-100Rs	Q41F-100R3

2、美标 American standard

Q41F-150(Lb)C	Q41F-150(Lb)P	Q41F-150(Lb)Ps	Q41F-150(Lb)P3	Q41F-150(Lb)R	Q41F-150(Lb)Rs	Q41F-150(Lb)R3
Q41F-300(Lb)	Q41F-300(Lb)P	Q41F-300(Lb)Ps	Q41F-300(Lb)P3	Q41F-300(Lb)R	Q41F-300(Lb)Rs	Q41F-300(Lb)R3
Q41F-600(Lb)	Q41F-600(Lb)P	Q41F-600(Lb)Ps	Q41F-600(Lb)P3	Q41F-600(Lb)R	Q41F-600(Lb)Rs	Q41F-600(Lb)R3

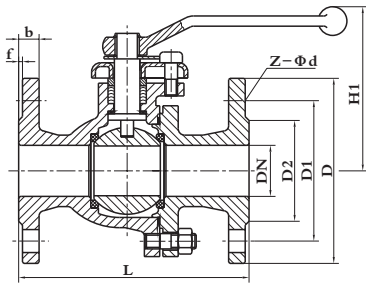
3、日标 Japanese standard

Q41F-10(K)C	Q41F-10(K)P	Q41F-10(K)Ps	Q41F-10(K)P3	Q41F-10(K)R	Q41F-10(K)Rs	Q41F-10(K)R3
Q41F-20(K)C	Q41F-20(K)P	Q41F-20(K)Ps	Q41F-20(K)P3	Q41F-20(K)R	Q41F-20(K)Rs	Q41F-20(K)R3

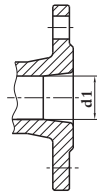
- 注: 1、密封圈材料选用对位聚苯, 则将密封面材料代号“F”换为“Fs”, 示例: Q41Fs-16C  
 2、球阀传动方式有手动、蜗轮动、气动、电动等。  
 3、选用缩径球阀, 在公称通径后加S表示, 示例: Q41Fs-16C DN100S  
 4、若法兰密封面型式与表中规定不同, 则将连接型式代号“4”改为“4M”(凹凸面)、“4G”(榫槽面)或“4J”(环连接面)。  
 示例: Q4J1F-40P。  
 5、球阀若为焊接连接, 则将连接形式代号“4”改为“6”。

Notes:

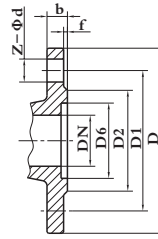
- If sealing ring material adopts Polyphenylester, the material number "F" is replaced with "Fs", say, Q41Fs-16C.
- The actuation modes of ball valve are of manual, worm gear actuator, pneumatic actuator and electric actuator, etc.
- "S" is added behind nominal pressure when reduced ball valve is selected for use, for example, Q41Fs-16C DN100S.
- If the sealing face of flange is not compatible with those listed in the table, the connection type code "4" is revised as "4M" (concave /convex), "4G"(tenon/groove face) or "4J" (ring connective face) . Take a case as : Q4J1F-40P
- If the ball valve is of weld connection type, the connection type code"4" is replaced with "6".



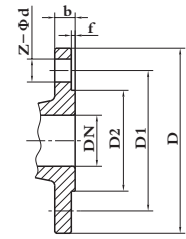
XD·Q41F手动球阀  
Manual operation ball valve



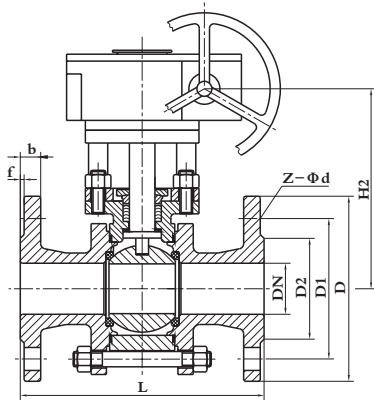
缩径流道  
Reduce diameter pipeline



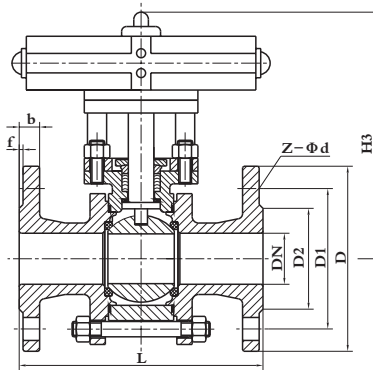
PN4.0、6.3(6.4)  
10.0MPa法兰Flange



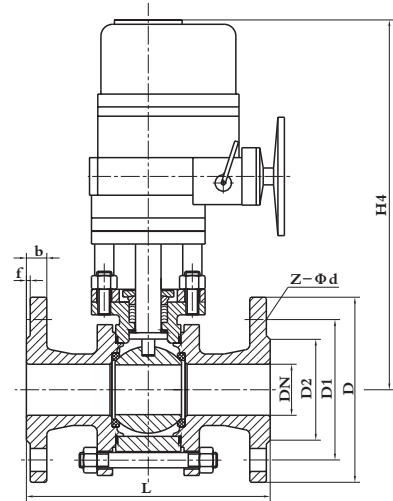
Class 600  
(PN10.0MPa)法兰Flange



XD·Q341F蜗轮动球阀  
Worm-gear actuator ball valve



XD·Q641F气动球阀  
Pneumatic actuator ball valve



XD·Q941F电动球阀  
Electric actuator ball valve

主要连接尺寸及重量(国标) Main connection dimensions and weight (National standard)

公称通径 Nominal Diameter DN (mm)	标准值 Standard value										参考值 Reference value							
	L		d1		D	D1	D2	b	f	Z-Φd	H1	H2	H3	H4	重量 Weight (Kg)			
	全通径 Through way	缩径 Diameter-reducing	全通径 Through way	缩径 Diameter-reducing											Q41	Q341	Q641	Q941
PN1.0(MPa)/PN1.6(MPa)																		
15	108	-	15	-	95	65	45	12	2	4-Φ14	62	-	200	-	2	-	6	-
20	117	-	20	-	105	75	55	14	2	4-Φ14	68	-	204	-	2.5	-	6.5	-
25	127	-	25	-	115	85	65	14	2	4-Φ14	75	-	215	360	4	-	8	8
32	140	-	32	-	140	100	78	16	2	4-Φ18	85	-	240	390	5.5	-	10	13
40	165	-	40	-	150	110	85	16	3	4-Φ18	95	-	264	395	7	-	14	17
50	178	-	50	-	165	125	100	16	3	4-Φ18	110	-	274	405	9	-	16.5	25
65	190	-	65	-	185	145	120	18	3	4-Φ18	130	-	379	490	13	-	38	60
80	203	203	80	65	200	160	135	18	3	4-Φ18/8-Φ18	155	-	389	580	18	-	42	65
100	229	229	100	80	220	180	155	20	3	8-Φ18	180	-	416	595	28	-	53	75
125	356	254	125	100	250	210	185	22	3	8-Φ18	250	380	542	650	55	85	95	97
150	394	267	150	125	285	240	210	22	3	8-Φ23	275	400	572	740	81	108	100	157
200	457	292	200	150	340	295	265	22	3	8-Φ23/12-Φ23	345	450	600	800	140	202	192	218

注：缩径球阀重量约为全通径球阀重量的70%~80%。

Note: The weight of diameter-reducing ball valve is approximately 70~80% that of through way type ball valve.



主要连接尺寸及重量(国标) Main connection dimensions and weight (National standard)

公称 口径 Nominal Diameter DN (mm)	标准值 Standard value														参考值 Reference value							
	L		d1		Lj*		D	D1	D2	D6	b	f	Z-Φd	H1	H2	H3	H4	重量 Weight (Kg)				
	全通径 Through way	缩径 Diameter- reducing	全通径 Through way	缩径 Diameter- reducing	全通径 Through way	缩径 Diameter- reducing												Q41	Q341	Q641	Q941	
	PN2.5(MPa)																					
15	108	-	15	-	-	-	95	65	45	-	16	2	4-Φ14	62	-	200	-	2.5	-	6.5	-	
20	117	-	20	-	-	-	105	75	55	-	16	2	4-Φ14	68	-	204	-	3	-	7	-	
25	127	-	25	-	137	-	115	85	65	-	16	2	4-Φ14	75	-	215	360	4.5	-	8.5	8.5	
32	140	-	32	-	150	-	140	100	78	-	18	2	4-Φ18	85	-	240	390	6	-	11	14	
40	165	-	40	-	175	-	150	110	85	-	18	3	4-Φ18	95	-	264	395	7.5	-	15	18	
50	178	-	50	-	188	-	165	125	100	-	20	3	4-Φ18	110	-	274	470	10	-	18	26	
65	190	-	65	-	202	-	185	145	120	-	22	3	8-Φ18	130	-	379	490	15	-	40	62	
80	203	203	80	65	215	215	200	160	135	-	22	3	8-Φ18	155	-	389	580	20	-	44	67	
100	229	229	100	80	245	245	230	190	160	-	24	3	8-Φ23	180	320	416	595	32	62	57	79	
125	356	254	125	100	372	270	270	220	188	-	26	3	8-Φ26	250	380	542	650	60	90	100	102	
150	394	267	150	125	410	283	300	250	218	-	28	3	8-Φ26	275	400	572	760	92	119	111	168	
200	457	292	200	150	475	310	360	310	278	-	30	3	12-Φ26	330	450	730	820	175	210	205	270	
PN4.0(MPa)																						
15	140	-	15	-	-	-	95	65	45	40	16	2	4-Φ14	62	-	200	-	3	-	7	-	
20	152	-	20	-	-	-	105	75	55	51	16	2	4-Φ14	68	-	204	-	4	-	8	-	
25	165	-	25	-	175	-	115	85	65	58	16	2	4-Φ14	75	-	215	360	5	-	9	9	
32	178	-	32	-	188	-	140	100	78	66	18	2	4-Φ14	85	-	240	390	7	-	13	16	
40	190	-	40	-	200	-	150	110	85	76	18	3	4-Φ14	95	-	264	395	9	-	16	19	
50	216	-	50	-	226	-	165	125	100	88	20	3	4-Φ14	110	-	360	472	12	-	20	29	
65	241	-	65	-	253	-	185	145	120	110	22	3	8-Φ18	130	-	379	530	18	-	43	66	
80	283	283	80	65	295	295	200	160	135	121	22	3	8-Φ18	155	-	452	580	28	-	52	75	
100	305	305	100	80	321	321	235	190	160	150	24	3	8-Φ23	180	320	479	630	46	76	72	89	
125	381	381	125	100	397	397	270	220	188	176	28	3	8-Φ26	250	380	646	710	75	95	118	120	
150	403	403	150	125	419	419	300	250	218	204	30	3	8-Φ26	275	400	666	760	106	135	140	180	
200	502	419	200	150	520	437	375	320	282	260	38	3	12-Φ30	330	450	815	825	190	225	230	290	
PN6.3(MPa)																						
15	140	-	15	-	153	-	105	75	55	40	18	2	4-Φ14	70	-	200	-	6.5	-	7.5	-	
20	152	-	20	-	165	-	130	90	68	51	20	2	4-Φ18	75	-	204	-	6	-	9	-	
25	165	-	25	-	178	-	140	100	78	58	22	2	4-Φ18	85	-	215	360	8	-	11	12	
32	178	-	32	-	191	-	155	110	82	66	24	2	4-Φ23	100	-	240	386	12	-	18	20	
40	190	-	40	-	203	-	170	125	95	76	24	3	4-Φ23	115	-	264	394	14	-	20	23	
50	216	216	50	40	232	232	180	135	105	88	26	3	4-Φ23	130	-	360	472	18	-	39	34	
65	241	241	65	50	257	257	205	160	130	110	28	3	8-Φ23	155	-	379	530	28	-	49	75	
80	283	283	80	65	299	299	215	170	140	121	30	3	8-Φ23	180	320	452	580	40	58	61	85	
100	305	305	100	80	321	321	250	200	168	150	32	3	8-Φ26	210	340	480	630	65	85	86	104	
125	381	381	125	100	397	397	295	240	202	176	36	3	8-Φ30	250	460	646	710	98	120	140	200	
150	403	403	150	125	419	419	345	280	240	204	38	3	8-Φ33	275	480	666	760	140	170	175	250	
PN10.0(MPa)																						
15	165	-	15	-	178	-	105	75	55	40	20	2	4-Φ14	70	-	200	-	5.5	-	8.5	-	
20	190	-	20	-	203	-	130	90	68	51	22	2	4-Φ18	75	-	205	-	7	-	10	-	
25	216	-	25	-	229	-	140	100	78	58	24	2	4-Φ18	85	-	215	360	10	-	15	16	
32	229	-	32	-	242	-	155	110	82	66	24	2	4-Φ23	100	-	240	386	15	-	22	24	
40	241	-	40	-	254	-	170	125	95	76	26	3	4-Φ23	115	-	265	394	18	-	25	27	
50	292	292	50	40	308	308	195	145	112	88	28	3	4-Φ26	130	-	360	472	25	-	40	42	
65	330	330	65	50	346	346	220	170	138	110	32	3	8-Φ26	155	-	380	530	32	-	56	79	
80	356	356	80	65	372	372	230	180	148	121	34	3	8-Φ26	180	320	452	580	46	65	70	91	
100	432	432	100	80	448	448	265	210	172	150	38	3	8-Φ30	210	350	480	630	75	105	108	115	

注：1、缩径球阀重量约为全通径球阀重量的70%~80%。

2、\*Lj为环连接面法兰球阀的结构长度。

Note: 1.The weight of diameter-reducing ball valve is approximately 70~80% that of through way type ball valve.

2.\*Lj stands for the face-to-face length of ring connection flange ball valve.



## 主要连接尺寸及重量(美标、日标)

## Main connection dimensions and weight (American and Japanese standard)

公称通径 Nominal Diameter		标准值 Standard value										参考值 Reference value									
		L		d1		Lj*		D	D1	D2	b	f	Z-Φd	H1	H2	H3	H4	重量 Weight (Kg)			
		全通径 Through way	缩径 Diameter- reducing	全通径 Through way	缩径 Diameter- reducing	全通径 Through way	缩径 Diameter- reducing											Q41	Q341	Q641	Q941
Class 150																					
mm	inch																				
15	1/2	108	-	13	-	119	-	89	60.5	35	11.5	2	4-Φ15	62	-	200	-	2	-	6	-
20	3/4	117	-	19	-	130	-	98	70	43	11.5	2	4-Φ15	68	-	204	-	2.5	-	6.5	-
25	1	127	-	25	-	140	-	108	79.5	51	12	2	4-Φ15	75	-	215	360	4.5	-	8	-
32	1 1/4	140	-	32	-	153	-	117	89	63	13	2	4-Φ15	85	-	240	390	6	-	11	14
40	1 1/2	165	-	38	-	178	-	127	98.5	73	15	2	4-Φ15	95	-	264	395	7.5	-	15	18
50	2	178	-	51	-	191	-	152	120.5	92	16	2	4-Φ19	110	-	274	470	9.5	-	17	26
65	2 1/2	190	-	64	-	203	-	178	139.5	105	18	2	4-Φ19	130	-	379	490	14	-	39	61
80	3	203	203	76	64	216	216	190	152.5	127	19	2	4-Φ19	155	-	389	580	19	-	43	66
100	4	229	229	102	76	242	242	229	190.5	157	24	2	8-Φ19	180	-	416	595	30	-	55	77
125	5	356	254	127	102	369	267	254	216	186	24	2	8-Φ22	250	380	542	650	58	88	98	100
150	6	394	267	152	127	407	280	279	241.5	216	26	2	8-Φ22	275	400	572	740	88	115	107	165
200	8	457	292	203	152	470	305	343	298.5	270	29	2	8-Φ22	345	450	600	800	150	212	202	228
Class 300																					
15	1/2	140	-	13	-	151	-	95	66.5	35	15	2	4-Φ15	62	-	200	-	3	-	7	-
20	3/4	152	-	19	-	165	-	117	82.5	43	16	2	4-Φ19	68	-	204	-	4	-	8	-
25	1	165	-	25	-	178	-	124	89.0	51	18	2	4-Φ19	75	-	215	360	6	-	10	10
32	1 1/4	178	-	32	-	191	-	133	98.5	64	19	2	4-Φ19	85	-	240	390	8	-	15	18
40	1 1/2	190	-	38	-	203	-	156	114.5	73	21	2	4-Φ22	95	-	264	395	10	-	18	22
50	2	216	-	51	-	232	-	165	127.0	92	23	2	8-Φ19	110	-	360	472	13	-	22	32
65	2 1/2	241	-	64	-	257	-	190	149.0	105	25	2	8-Φ22	130	-	379	530	20	-	45	70
80	3	283	283	76	64	299	299	210	168.0	127	29	2	8-Φ22	155	-	452	580	32	-	58	82
100	4	305	305	102	76	321	321	254	200.0	157	32	2	8-Φ22	180	320	479	630	52	82	80	100
125	5	381	381	127	102	397	397	279	235.0	186	35	2	8-Φ22	250	380	646	710	82	105	130	135
150	6	403	403	152	127	419	419	318	270.0	216	37	2	12-Φ22	275	400	666	670	115	145	150	190
200	8	502	419	203	152	518	435	381	330.0	270	42	2	12-Φ25	330	450	815	825	200	240	245	310
Class 600																					
15	1/2	165	-	13	-	163	-	95	66.5	35	15	6.4	4-Φ15	70	-	200	-	5.5	-	9.5	-
20	3/4	190	-	19	-	190	-	118	82.5	43	16	6.4	4-Φ19	75	-	205	-	7	-	11	-
25	1	216	-	25	-	216	-	124	89	51	18	6.4	4-Φ19	85	-	215	360	10	-	15	16
32	1 1/4	229	-	32	-	229	-	133	98.5	63	21	6.4	4-Φ19	100	-	240	386	15	-	22	24
40	1 1/2	241	-	38	-	241	-	156	114.5	73	23	6.4	4-Φ22	115	-	265	394	18	-	25	27
50	2	292	292	51	38	295	295	165	127	92	26	6.4	8-Φ19	130	-	360	472	25	-	40	42
65	2 1/2	330	330	64	51	333	333	190	149	105	29	6.4	8-Φ22	155	-	380	530	32	-	56	79
80	3	356	356	76	64	359	359	210	168	127	32	6.4	8-Φ22	180	320	452	580	46	65	70	91
100	4	432	432	102	76	435	435	273	216	157	38	6.4	8-Φ25	210	350	480	630	75	105	108	115
Class 10K																					
15	-	108	-	15	-	-	-	95	70	52	12	1	4-Φ15	62	-	200	-	2	-	6	-
20	-	117	-	20	-	-	-	100	75	58	14	1	4-Φ15	68	-	204	-	2.5	-	6.5	-
25	-	127	-	25	-	-	-	125	90	70	14	1	4-Φ19	75	-	215	360	4.5	-	8	8
32	-	140	-	32	-	-	-	135	100	80	16	2	4-Φ19	85	-	240	390	6	-	11	14
40	-	165	-	40	-	-	-	140	105	85	16	2	4-Φ19	95	-	264	395	7.5	-	15	18
50	-	178	-	50	-	-	-	155	120	100	16	2	4-Φ19	110	-	274	470	9.5	-	17	26
65	-	190	-	65	-	-	-	175	140	120	18	2	4-Φ19	130	-	379	490	14	-	39	61
80	-	203	203	80	65	-	-	185	150	130	18	2	8-Φ19	155	-	389	580	19	-	43	66
100	-	229	229	100	80	-	-	210	175	155	18	2	8-Φ19	180	-	416	595	30	-	55	77
125	-	356	254	125	100	-	-	250	210	185	20	2	8-Φ23	250	380	542	650	58	88	98	100
150	-	394	267	150	125	-	-	280	240	215	22	2	8-Φ23	275	400	572	740	88	115	107	165
200	-	457	292	200	150	-	-	330	290	265	22	2	12-Φ23	345	450	600	800	150	212	202	228
Class 20K																					
15	-	140	-	15	-	-	-	95	70	52	14	1	4-Φ15	62	-	200	-	3	-	7	-
20	-	152	-	20	-	-	-	100	75	58	16	1	4-Φ15	68	-	204	-	4	-	8	-
25	-	165	-	25	-	-	-	125	90	70	16	1	4-Φ19	75	-	215	360	6	-	10	10
32	-	178	-	32	-	-	-	135	100	80	18	2	4-Φ19	85	-	240	390	8	-	15	18
40	-	190	-	40	-	-	-	140	105	85	18	2	4-Φ19	95	-	264	395	10	-	18	22
50	-	216	-	50	-	-	-	155	120	100	18	2	8-Φ19	110	-	360	473	13	-	22	32
65	-	241	-	65	-	-	-	175	140	120	20	2	8-Φ19	130	-	379	530	20	-	45	70
80	-	283	283	80	65	-	-	200	160	135	22	2	8-Φ23	155	-	452	580	32	-	58	82
100	-	305	305	100	80	-	-	225	185	160	24	2	8-Φ23	180	320	479	630	52	82	80	100
125	-	381	381	125	100	-	-	270	225	195	26	2	8-Φ25	250	380	646	710	82	105	130	135
150	-	403	403	150	125	-	-	305	260	230	28	2	12-Φ25	275	400	666	670	115	145	150	190
200	-	502	419	200	150	-	-	350	305	275	30	2	12-Φ25	330	450	815	825	200	240	245	310

注: 1. 缩径球阀重量约为全通径球阀重量的70%~80%。

2. \*Lj为环连接面法兰球阀的结构长度。

Note: 1.The weight of diameter-reducing ball valve is approximately 70~80% that of through way type ball valve.

2.\*Lj stands for the face-to-face length of ring connection flange ball valve.



## 主要连接尺寸及重量(法标、德标) Main connection dimensions and weight (France and Germanic standard)

公称通径 Nominal Diameter		标准值 Standard value									参考值 Reference value	
		L	d1		D	D1	D2	b	f	Z-Φd	H1	W(Kg)
			全通径 Through way	缩径 Diameter-reducing								Q41
mm	in	PN1.0(MPa)/PN1.6(MPa)										
10	3/8	130	10	—	90	60	41	16	2	4-Φ14	37	1.6
15	1/2	130	15	11.1	95	65	46	16	2	4-Φ14	39	2
20	3/4	150	20	14.2	105	75	56	18	2	4-Φ14	53	2.5
25	1	160	25	20.6	115	85	65	18	2	4-Φ14	58	4
32	1 1/4	180	32	25.4	140	100	76	18	2	4-Φ18	71	5.5
40	1 1/2	200	40	31.7	150	110	84	18	3	4-Φ18	76	7
50	2	230	50	38	165	125	99	20	3	4-Φ18	86.2	9
65	2 1/2	290	65	50	185	145	118	20	3	4-Φ18	153	13
80	3	310	80	62	200	160	132	20	3	8-Φ18	168	18
100	4	350	100	82.4	220	180	156	20	3	8-Φ18	168	28
125	5	400	125	100	250	210	184	22	3	8-Φ18	182	55
150	6	480	150	100	285	240	211	22	3	8-Φ22	182	81
200	8	600	200	150	340	295	268	24	3	8-Φ22/12-Φ22	269.5	140
PN2.5(MPa)/PN4.0(MPa)												
10	3/8	130	10	—	90	60	41	16	2	4-Φ14	37	1.6
15	1/2	130	15	11.1	95	65	46	16	2	4-Φ14	39	2
20	3/4	150	20	14.2	105	75	56	18	2	4-Φ14	53	2.5
25	1	160	25	20.6	115	85	65	18	2	4-Φ14	58	4
32	1 1/4	180	32	25.4	140	100	76	18	2	4-Φ18	71	5.5
40	1 1/2	200	40	31.7	150	110	84	18	3	4-Φ18	76	7
50	2	230	50	38	165	125	99	20	3	4-Φ18	86.2	9
65	2 1/2	290	65	50	185	145	118	20	3	4-Φ18	153	13
80	3	310	80	62	200	160	132	20	3	8-Φ18	168	18
100	4	350	100	82.4	235	190	156	24	3	8-Φ22	168	28
125	5	400	125	100	270	220	184	26	3	8-Φ26	182	63
150	6	480	150	100	300	250	211	28	3	8-Φ26	182	92
200	8	600	200	150	360/375	310/320	274/284	30/34	3	12-Φ26/12-Φ30	269.5	164/178

注：1、缩径球阀重量约为全通径球阀重量的70%~80%。

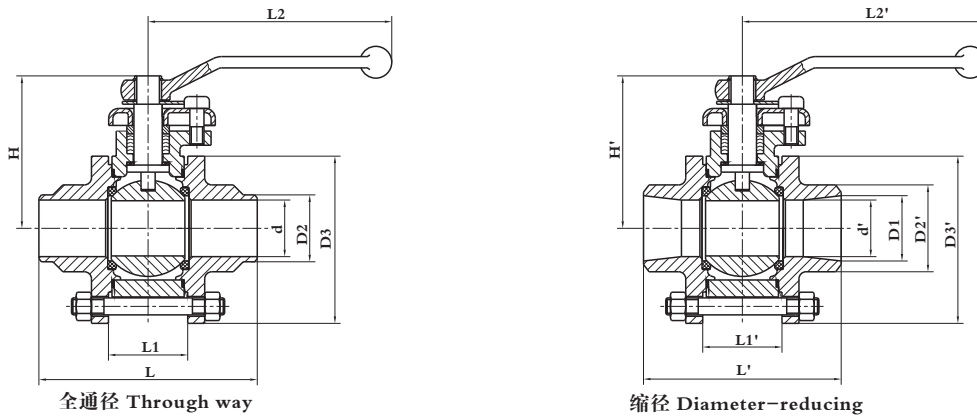
2、PN1.0MPa~PN2.5MPa中DN10~50的尺寸与PN4.0MPa的尺寸相同；PN1.0MPa中DN65~150的尺寸与PN1.6MPa的尺寸相同。

Note: 1.The weight of diameter-reducing ball valve is approximately 70~80% that of through way type ball valve.

2.The dimensions of DN10~50 valves matched with PN1.0MPa~PN2.5MPa are same as those of PN4.0MPa valves. The dimension of DN65~150 valves matched with PN1.0MPa are same as those of PN1.6MPa valves.



对焊连接浮动球阀 Butt weld connection float ball valve



全通径 Through way

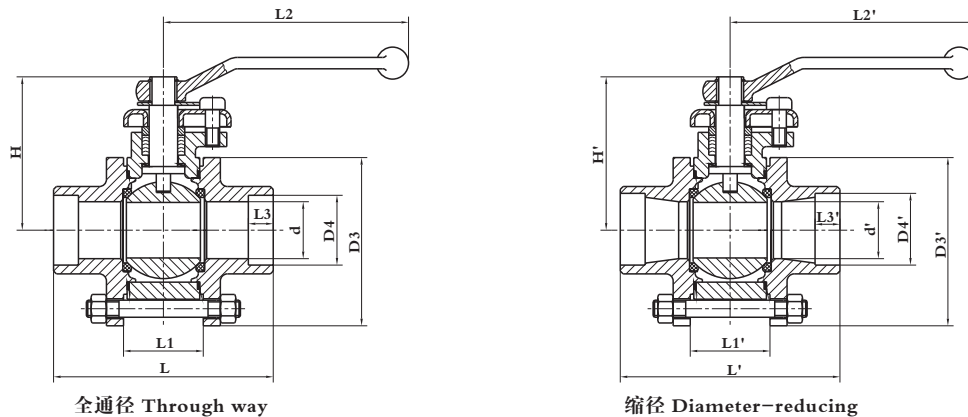
缩径 Diameter-reducing

Q61F型对焊球阀 Q61F type butt weld ball valve

主要连接尺寸 Main connecting dimensions(法标 France standard)

公称通径 Nominal Diameter	d	L	L1	D2	D3	H	L2	d'	D1	L'	L1'	D2'	D3'	H'	L2'
	PN1.0、1.6、2.5、4.0MPa														
8	10	64.4	20.4	14	45×45	37	123	—	—	—	—	—	—	—	—
10	12.6	64.4	20.4	17.2	45×45	37	123	—	—	—	—	—	—	—	—
15	16.2	72.5	24.5	21.4	52×52	39	123	11.1	16.2	64.4	20.4	37	45×45	37	123
20	20.6	85.4	31.4	27	60×60	53	160	14.2	20	72.5	24.5	39	52×52	39	123
25	26	99.3	41.3	34	68×68	58	160	20.6	26	85.4	31.4	53	60×60	53	160
32	31.7	110.4	48.4	42	76×76	71	195	25.4	30	99.3	41.3	58	68×68	58	160
40	40	126.3	56.3	49	88×88	76	195	31.7	40	110.4	48.4	71	76×76	71	195
50	50	142.6	71.4	60.3	143	86.2	250	38	50	126.3	56.3	76	88×88	76	195
65	65	169.5	88.9	76	165	153	480	50	65	142.6	71.4	86.2	143	86.2	250
80	80	214	108.5	89	206	168	480	62	80	169.5	88.9	153	165	153	480
100	100	277	134.6	115	234	182	480	82.4	100	214	108.5	168	206	168	480
125	125	307	134.6	141	234	182	480	100	125	277	134.6	182	234	182	480
150	150	409	189.1	168.5	345	269.5	720	100	150	307	134.6	182	234	182	480
200	200	459.5	248	219	428	316	800	150	200	409	189.1	269.5	345	269.5	720
250	—	—	—	—	—	—	—	200	250	459.5	248	316	428	316	800

承插焊连接浮动球阀 Socket welded joint float ball valve



全通径 Through way

缩径 Diameter-reducing

Q61F型承插焊球阀

Q61F type socket welded joint ball valve

主要连接尺寸 Main connecting dimensions(法标 France standard)

公称通径 Nominal Diameter	d	L	L1	D3	D4	H	L2	L3	d'	L'	L1'	D3'	D4'	H'	L2'	L3'
	PN1.0、1.6、2.5、4.0MPa															
8	10	64.4	20.4	45×45	14.2	37	123	9.5	—	—	—	—	—	—	—	—
10	12.6	64.4	20.4	45×45	17.6	37	123	9.5	—	—	—	—	—	—	—	—
15	16.2	72.5	24.5	52×52	21.8	39	123	9.5	11.1	64.4	20.4	45×45	21.8	37	123	95
20	20.6	85.4	31.4	60×60	27.4	53	160	11.1	14.2	72.5	24.5	52×52	27.4	39	123	11.1
25	26	99.3	41.3	68×68	34.2	58	160	12.7	20.6	85.4	31.4	60×60	34.2	53	160	12.7
32	31.7	110.4	48.4	76×76	43	71	195	14.3	25.4	99.3	41.3	68×68	43	58	160	14.3
40	40	126.3	56.3	88×88	49	76	195	15.9	31.7	110.4	48.4	76×76	49	71	195	15.9
50	—	—	—	—	—	—	—	—	38	126.3	56.3	88×88	61.1	76	195	17.4



## 金属密封浮动球阀 Metal seated float ball valve

### 结构特点 Structure traits

- 1、阀座采用板簧加载的金属密封结构，能适用于较高的温度及各种介质工况。
- 2、采用下装式阀杆，设置倒密封结构，能确保填料处可靠密封。
- 3、设置90°开关带孔定位片，根据需要可以加锁，防止误操作。
- 4、该结构球阀应按规定流向使用。

1. Valve seat adopts spring loaded metal seated construction and is suitable for high temperature working conditions and various mediums.
2. Bottom mounted stem is adopted, inverted sealing structure set up and stuffing seal reliability guaranteed.
3. A 90°C distance spacer with holes is provided, which can be added one lock so as not to result in wrong operations.
4. The structure should be applied according to the rated flow direction.

### 执行标准 Executive standard

- 1、设计与制造：GB12237-89、API 608、API 6D、JPI 7S-48、BS5351、DIN3357。

- 2、法兰尺寸：

JB/T74-90(JB74-90)、GB9112-9131、HGJ44-76、SH3406、ANSI B16.5、JIS B2212-2214、NF E29-211、DIN2543。

- 3、结构长度：GB12221-89、ANSI B16.10、JIS B2002、NF E29-305、DIN3202。

- 4、检验和试验：JB/T 9092-99、API 598。

1.Design and making :GB12237-89 ,API 608 ,API 6D ,JPI 7S-48 ,BS5351 ,DIN3357 .

2.Flange size : JB/T74-90(JB74-90) ,GB9112-9131 ,HGJ44-76 ,SH3406 ; ANSI B16.5 ,JIS B2212-2214 ,NF E29-211 ,DIN2543 .

3.Structure length according to GB12221-89 ,ANSI B16.10 , JIS B2002 ,NF E29-305 ,DIN3202.

4.Test according to JB/T 9092-99 ,API 598 .

### 主要零件材料及适用工况 Material of main parts and suitable working conditions

零件名称 Part name	材料 Material						
阀体 Body	WCB	ZG1Cr18Ni9Ti	CF8(304)	CF3(304L)	ZG1Cr18Ni12Mo2Ti	CF8M(316)	CF3M(316L)
球体、阀杆 Ball ,Stem	2Cr13	1Cr18Ni9Ti	0Cr19Ni9(304)	00Cr19Ni11(304L)	1Cr18Ni12Mo2Ti	0Cr17Ni12Mo2(316)	00Cr17Ni12Mo2(316L)
密封圈 Sealing ring	特种硬化材料 Special hardened material						
填料、垫片 Packing , washer	碳纤维Carbon fibre、柔性石墨Soft graphite						
适用介质 Suitable medium	泥浆、纸浆、含有固体的流体等。 Slurries, pulp stock, solid containing fluid, etc			高温流体、泥浆、纸浆、蒸汽、含固体的 液体等。 High-temperature fluids, slurry, pulp stock, steam, solid containing fluids, etc.		高温、高频、高压 High-temperature, high frequency, high pressure	
适用温度 Suitable temperature	-29~250°C			-29~350°C		-29~500°C	



产品型号 Type of product

1、国标 National standard

Q41Y-16C	Q41Y-16P	Q41Y-16P8	Q41Y-16P3	Q41Y-16R	Q41Y-16R8	Q41Y-16R3
Q41Y-25	Q41Y-25P	Q41Y-25P8	Q41Y-25P3	Q41Y-25R	Q41Y-25R8	Q41Y-25R3
Q41Y-40	Q41Y-40P	Q41Y-40P8	Q41Y-40P3	Q41Y-40R	Q41Y-40R8	Q41Y-40R3
Q41Y-63	Q41Y-63P	Q41Y-63P8	Q41Y-63P3	Q41Y-63R	Q41Y-63R8	Q41Y-63R3

2、美标 American standard

Q41Y-150(Lb)C	Q41Y-150(Lb)P	Q41Y-150(Lb)P8	Q41Y-150(Lb)P3	Q41Y-150(Lb)R	Q41Y-150(Lb)R8	Q41Y-150(Lb)R3
Q41Y-300(Lb)	Q41Y-300(Lb)P	Q41Y-300(Lb)P8	Q41Y-300(Lb)P3	Q41Y-300(Lb)R	Q41Y-300(Lb)R8	Q41Y-300(Lb)R3

3、日标 Japanese standard

Q41Y-10(K)C	Q41Y-10(K)P	Q41Y-10(K)P8	Q41Y-10(K)P3	Q41Y-10(K)R	Q41Y-10(K)R8	Q41Y-10(K)R3
Q41Y-20(K)C	Q41Y-20(K)P	Q41Y-20(K)P8	Q41Y-20(K)P3	Q41Y-20(K)R	Q41Y-20(K)R8	Q41Y-20(K)R3

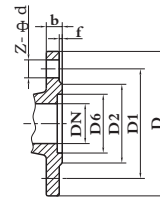
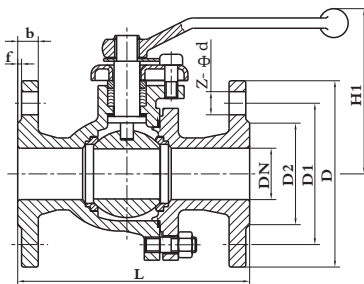
注：1、球阀传动方式有手动、蜗轮动、气动、电动等。

2、若法兰密封面型式与表中规定不同，则将连接型式代号“4”改为“4M”（凹凸面）、“4G”（榫槽面）或“4j”（环连接面）。

示例：Q4j1Y-40P。

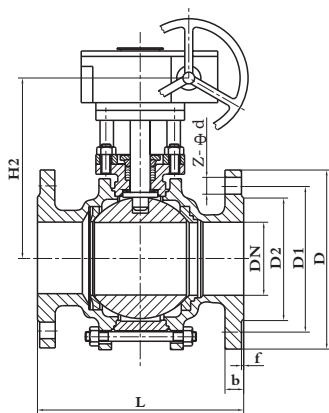
Notes: 1. The actuation modes of ball valve are of manual, worm gear actuator, pneumatic actuator and electric actuator, etc.

2. If the sealing face of flange is not compatible with those listed in the table, the connection type code "4" is revised as "4M" (concave /convex), "4G"(tenon/groove face) or "4j" (ring connective face) . Take a case as : Q4j1Y-40P

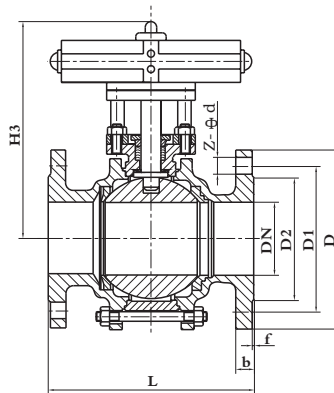


PN4.0、6.3(6.4)MPa 法兰Flange

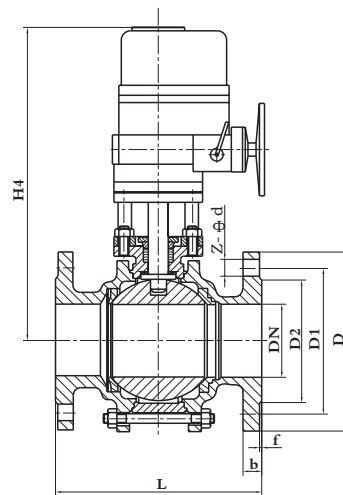
Q41Y手动球阀  
Manual operation ball valve



Q341Y蜗轮球阀  
Worm-gear actuator ball valve



Q641Y气动球阀  
Pneumatic actuator ball valve



Q941Y电动球阀  
Electric actuator ball valve

法兰连接金属密封浮动球阀主要尺寸及重量

与相应的法兰连接浮动球阀尺寸相同(请查阅本样本第3~6页)。

Main dimensions & weights for flanged metal seated ball valve with float ball valve

Identical with the dimensions of flanged ball valve with float ball valve ( For details, see page 3~6 of this catalogue).



## 固定球阀 Fixed ball valve

### 法兰连接固定球阀 Flange connecting fixed ball valve

#### 执行标准 Executive standard

1. 设计与制造: GB12237-89, API 608, API 6D, BS5351, JPI 7S-48, DIN3357。
  2. 法兰尺寸: JB/T74~90(JB74~90), GB9112~9131, HGJ44~76, SH3406, ANSI B16.5, JIS B2212~2214。
  3. 结构长度: GB12221-89, ANSI B16.10, JIS B2002
  4. 检验和试验: JB/T9092-99, API 509
- 1.Design and making :GB12237-89 ,API 608 ,API 6D ,BS5351 ,JPI 7S-48、 DIN3357 .  
2.Flange size : JB/T74~90(JB74~90) ,GB9112~9131 ,HGJ44~76 ,SH3406 ,ANSI B16.5 ,JIS B2212~2214 .  
3.Stucture length according to GB12221-89 ,ANSI B16.10 , JIS B2002.  
4.Test according to JB/T9092-99 ,API 509

#### 主要零件材料及适用工况 Material of main parts and suitable working conditions

零件名称 Part name	材料 Material						
阀体 Body	WCB	ZG1Cr18Ni9Ti	CF8(304)	CF3(304L)	ZG1Cr18Ni12Mo2Ti	CF8M(316)	CF3M(316L)
球体、阀杆 Ball ,Stem	2Cr13	1Cr18Ni9Ti	0Cr19Ni9(304)	00Cr19Ni11(304L)	1Cr18Ni12Mo2Ti	0Cr17Ni12Mo2(316)	00Cr17Ni12Mo2(316L)
密封圈 Sealing ring	增强聚四氟乙烯 Reenforced PTFE、对位聚苯 Polyphenylester						
适用工况 Suitable working status	水、蒸汽、油品等 Water, steam, oil, etc.	硝酸等腐蚀性介质 Corrosive media such as nitric acid, etc.		强氧化性介质 Media of strong oxygenation	醋酸等腐蚀性介质 Corrosive media such as acetic acid, etc.		尿素等腐蚀性介质 Corrosive media such as urea, etc.
适用温度 Suitable temperature	-29~180℃ (增强聚四氟乙烯 Reenforced PTFE)、-29~300℃ (对位聚苯Polyphenylester)						

#### 产品型号 Type of product

##### 1、国标 National standard

Q47F-10C	Q47F-10P	Q47F-10P8	Q47F-10P3	Q47F-10R	Q47F-10R8	Q47F-10R3
Q47F-16C	Q47F-16P	Q47F-16P8	Q47F-16P3	Q47F-16R	Q47F-16R8	Q47F-16R3
Q47F-25	Q47F-25P	Q47F-25P8	Q47F-25P3	Q47F-25R	Q47F-25R8	Q47F-25R3
Q47F-40	Q47F-40P	Q47F-40P8	Q47F-40P3	Q47F-40R	Q47F-40R8	Q47F-40R3
Q47F-63	Q47F-63P	Q47F-63P8	Q47F-63P3	Q47F-63R	Q47F-63R8	Q47F-63R3
Q47F-100	Q47F-100P	Q47F-100P8	Q47F-100P3	Q47F-100R	Q47F-100R8	Q47F-100R3

##### 2、美标 American standard

Q47F-150(Lb)C	Q47F-150(Lb)P	Q47F-150(Lb)P8	Q47F-150(Lb)P3	Q47F-150(Lb)R	Q47F-150(Lb)R8	Q47F-150(Lb)R3
Q47F-300(Lb)	Q47F-300(Lb)P	Q47F-300(Lb)P8	Q47F-300(Lb)P3	Q47F-300(Lb)R	Q47F-300(Lb)R8	Q47F-300(Lb)R3
Q47F-600(Lb)	Q47F-600(Lb)P	Q47F-600(Lb)P8	Q47F-600(Lb)P3	Q47F-600(Lb)R	Q47F-600(Lb)R8	Q47F-600(Lb)R3

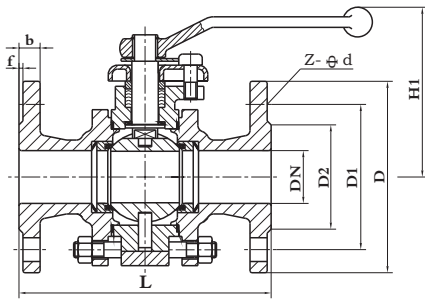
##### 3、日标 Japanese standard

Q47F-10(K)C	Q47F-10(K)P	Q47F-10(K)P8	Q47F-10(K)P3	Q47F-10(K)R	Q47F-10(K)R8	Q47F-10(K)R3
Q47F-20(K)C	Q47F-20(K)P	Q47F-20(K)P8	Q47F-20(K)P3	Q47F-20(K)R	Q47F-20(K)R8	Q47F-20(K)R3

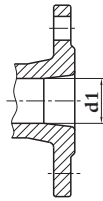
- 注: 1. 密封圈材料选用对位聚苯, 则将密封面材料代号“F”换为“Fs”, 示例: Q47Fs-16C  
2. 球阀传动方式有手动、蜗轮动、气动、电动等。  
3. 选用缩径球阀, 在公称通径后加S表示, 示例: Q47Fs-16C DN100S  
4. 若法兰密封面型式与表中规定不同, 则将连接型式代号“4”改为“4M”(凹凸面)、“4G”(榫槽面)或“4J”(环连接面)。  
示例: Q47F-40P。

#### Notes:

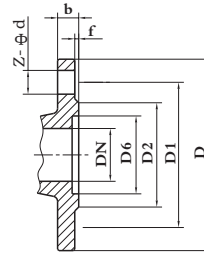
- 1 .If sealing ring material adopts Polyphenylester, the material number "F" is replaced with "Fs", say, Q47Fs-16C
- 2 .The actuation modes of ball valve are of manual, worm gear actuator, pneumatic actuator and electric actuator, etc.
- 3 ."S" is added behind nominal pressure when reduced ball valve is selected for use, for example, Q47Fs-16C DN100S
- 4 .If the sealing face of flange is not compatible with those listed in the table, the connection type code "4" is revised as "4M" (concave /convex), "4G"(tenon/groove face) or "4J" (ring connective face) . Take a case as : Q47F-40P.



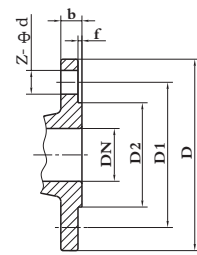
Q47F手动球阀  
Manual operation ball valve



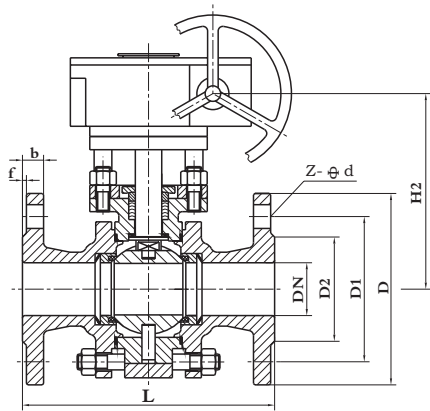
缩径流道  
Reduce diameter pipeline



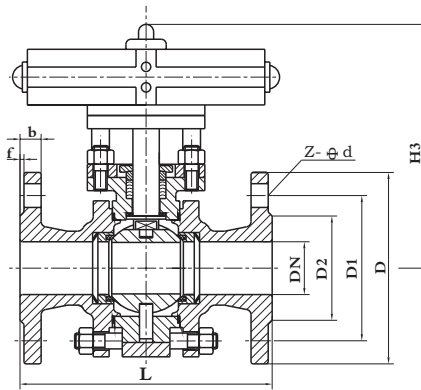
PN4.0、6.3(6.4)、10.0  
16.0MPa法兰Flange



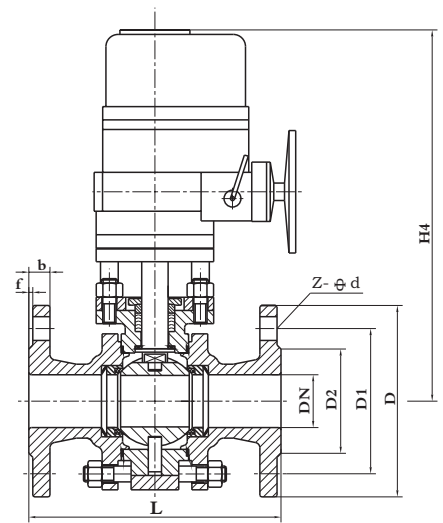
Class 600、900  
(PN10.0、15.0MPa)法兰Flange



Q347F蜗轮动球阀  
Worm-gear actuator ball valve



Q647F气动球阀  
Pneumatic actuator ball valve



Q947F电动球阀  
Electric actuator ball valve

主要连接尺寸及重量(国标) Main connection dimensions and weight (National standard)

公称 口径 Nominal Diameter DN (mm)	标准值 Standard value										参考值 Reference value							
	L		d1		D	D1	D2	b	f	Z-Φd	H1	H2	H3	H4	重量 Weight (Kg)			
	全通径 Through way	缩径 Diameter- reducing	全通径 Through way	缩径 Diameter- reducing											Q41	Q341	Q641	Q941
PN1.0(MPa)/PN1.6(MPa)																		
125	356	254	125	100	250	210	185	22	3	8-Φ18	252	-	542	520	53	-	90	100
150	394	267	150	125	285	240	210	22	3	8-Φ23	272	305	572	538	88	108	130	165
200	457	292	200	150	340	295	265	22/24	3	8-Φ23	342	398	636	580	155	175	203	229
250	533	330	250	200	395/405	350/355	320	24/26	3	12-Φ23/12-Φ26	-	495	726	637	-	230	245	265
300	610	356	300	250	445/460	400/410	368/375	26/28	4	12-Φ23/12-Φ26	-	580	859	684	-	380	399	393
350	686	381	350	300	505/520	460/470	428/435	26/32	4	16-Φ23/16-Φ26	-	625	927	796	-	490	498	514
400	762	406	400	350	565/580	515/525	482/485	26/36	4	16-Φ26/16-Φ30	-	720	1080	842	-	730	818	765
450	864	432	450	350	615/640	565/585	532/545	26/38	4	20-Φ26/20-Φ30	-	770	1120	874	-	920	1037	930
500	914	457	500	400	670/715	620/650	585/608	28/42	4	20-Φ26/20-Φ34	-	840	1150	904	-	1150	1255	1210

注：缩径球阀重量约为全通径球阀重量的70%~80%。

Note: The weight of diameter-reducing ball valve is approximately 70~80% that of through way type ball valve.



## 主要连接尺寸及重量(国标) Main connection dimensions and weight (National standard)

公称 口径 Nominal Diameter DN (mm)	标准值 Standard value														参考值 Reference value							
	L		d1		Lj*		D	D1	D2	D6	b	f	Z-Φd	H1	H2	H3	H4	重量 Weight (Kg)				
	全通径 Through way	缩径 Diameter- reducing	全通径 Through way	缩径 Diameter- reducing	全通径 Through way	缩径 Diameter- reducing												Q41	Q341	Q641	Q941	
PN2.5(MPa)																						
100	229	-	100	-	245	-	230	190	160	-	24	3	8-Φ23	178	-	416	470	33	-	78	85	
125	356	254	125	100	372	270	270	220	188	-	26	3	8-Φ26	252	-	542	542	58	-	107	117	
150	394	267	150	125	410	283	300	250	218	-	28	3	8-Φ26	272	305	572	572	93	117	145	180	
200	457	292	200	150	475	310	360	310	278	-	30	3	12-Φ26	342	398	736	736	160	185	220	246	
250	533	330	250	200	551	348	425	370	332	-	32	4	12-Φ30	-	495	890	890	-	245	280	300	
300	610	356	300	250	628	374	485	430	390	-	36	4	16-Φ30	-	580	910	910	-	395	450	444	
350	686	381	350	300	704	399	555	490	480	-	40	4	16-Φ34	-	625	1020	1020	-	516	570	586	
400	762	406	400	350	780	424	620	550	505	-	44	4	16-Φ36	-	720	1080	1080	-	756	920	860	
450	864	432	450	350	882	450	670	600	555	-	46	4	20-Φ36	-	770	1120	1120	-	958	1140	1073	
500	914	457	500	400	-	-	730	660	610	-	48	4	20-Φ41	-	840	1150	1150	-	1200	1360	1315	
PN4.0(MPa)																						
100	305	-	100	-	321	-	235	190	160	150	24	3	8-Φ23	178	-	479	479	55	-	80	100	
125	381	381	125	100	397	397	270	220	188	176	28	3	8-Φ26	252	-	646	646	81	-	108	125	
150	403	403	150	125	419	419	300	250	218	204	30	3	8-Φ26	272	305	666	666	110	140	150	190	
200	502	419	200	150	520	437	375	320	282	260	38	3	12-Φ30	-	398	814	814	-	220	235	258	
250	568	457	250	200	586	475	450	385	345	313	42	3	12-Φ34	-	495	890	890	-	365	460	480	
300	648	402	300	250	666	520	515	450	408	364	46	4	16-Φ34	-	580	910	910	-	530	745	654	
350	762	572	350	300	780	590	580	510	465	422	52	4	16-Φ36	-	625	1020	1020	-	740	830	980	
400	838	610	400	350	856	628	660	585	535	474	58	4	16-Φ41	-	720	1080	1080	-	900	920	1100	
450	914	660	450	350	932	678	685	610	560	524	60	4	20-Φ41	-	760	1120	1120	-	1170	1250	1650	
500	991	711	500	400	-	-	755	670	612	576	62	4	20-Φ48	-	840	1150	1150	-	1340	1550	1870	
PN6.3(MPa)																						
50	216	-	50	-	232	-	180	135	105	88	26	3	4-Φ23	107	-	360	360	16	-	33	50	
65	241	241	65	50	257	257	205	160	130	110	28	3	8-Φ23	142	-	379	379	28	-	45	65	
80	283	283	80	65	299	299	215	170	140	121	30	3	8-Φ23	152	-	452	452	36	-	55	80	
100	305	305	100	80	321	321	250	200	168	150	32	3	8-Φ26	178	-	479	479	66	-	81	111	
125	381	381	125	100	397	397	295	240	202	176	36	3	8-Φ30	252	-	646	646	98	130	175	170	
150	403	403	150	125	419	419	345	280	240	204	38	3	8-Φ34	272	365	666	666	120	150	240	220	
200	502	419	200	150	518	435	415	345	300	260	44	3	12-Φ36	-	398	736	736	-	280	280	290	
250	568	457	250	200	584	473	470	400	352	313	48	3	12-Φ41	-	445	790	790	-	480	540	500	
300	648	502	300	250	664	518	530	460	412	364	54	4	16-Φ41	-	515	870	870	-	640	760	710	
350	762	572	350	300	778	588	600	525	475	422	60	4	16-Φ41	-	550	1020	1020	-	870	980	1030	
400	838	610	400	350	854	626	670	585	525	474	66	4	16-Φ48	-	615	1080	1080	-	110	1300	1350	
PN10.0(MPa)																						
50	292	-	50	-	308	-	195	145	122	88	28	3	4-Φ26	160	-	360	360	25	-	64	66	
65	330	330	65	50	346	346	220	170	138	110	32	3	8-Φ26	180	-	379	379	35	-	73	98	
80	356	356	80	65	372	372	230	180	148	121	34	3	8-Φ26	204	-	452	452	50	-	130	120	
100	432	432	100	80	448	448	265	210	172	150	38	3	8-Φ30	240	-	479	479	76	-	175	170	
125	508	508	125	100	524	524	315	250	210	176	42	3	8-Φ34	280	320	646	646	98	130	230	220	
150	559	559	150	125	575	575	355	290	250	204	46	3	12-Φ34	-	356	666	666	-	150	260	250	
200	660	660	200	150	676	676	430	360	312	260	54	3	12-Φ41	-	398	736	736	-	350	450	530	
250	787	787	250	200	803	803	505	430	382	313	60	3	12-Φ41	-	445	790	790	-	580	590	640	
300	838	838	300	250	854	854	585	500	442	364	70	4	16-Φ48	-	515	870	870	-	790	920	970	
350	889	889	350	300	911	911	655	560	498	422	76	4	16-Φ54	-	550	1020	1020	-	980	1100	1130	
400	991	991	400	350	1013	1013	715	620	558	474	80	4	16-Φ54	-	615	1080	1080	-	1300	1540	1520	
PN16.0(MPa)																						
50	368	-	50	-	384	-	215	165	132	88	36	3	8-Φ25	160	-	380	380	37	-	80	82	
65	419	419	65	50	435	435	245	190	152	110	44	3	8-Φ30	180	-	395	395	52	-	120	125	
80	381	381	80	65	397	397	260	205	168	121	46	3	8-Φ30	240	-	480	480	78	-	155	160	
100	457	457	100	80	473	473	300	240	200	150	48	3	8-Φ34	240	290	532	532	110	160	195	210	
125	559	559	125	100	575	575	355	285	238	176	60	3	8-Φ41	-	340	670	670	-	190	250	270	
150	610	610	150	125	630	630	390	318	270	204	66	3	12-Φ41	-	385	703	703	-	220	480	350	
200	737	737	200	150	759	759	480	400	345	260	78	3	12-Φ48	-	430	750	750	-	450	620	580	
250	838	838	250	200	860	860	580	485	425	313	88	3	12-Φ54	-	475	820	820	-	760	960	870	
300	965	965	300	250	993	993	665	570	510	364	100	4	16-Φ54	-	530	900	900	-	1050	1380	1350	

注: 1. 缩径球阀重量约为全通径球阀重量的70%~80%。

2. \*Lj为环连接面法兰球阀的结构长度。

Note: 1.The weight of diameter-reducing ball valve is approximately 70~80% that of through way type ball valve.

2.\*Lj stands for the face-to-face length of ring connection flange ball valve.



## 主要连接尺寸及重量(美标、日标) Main connection dimensions and weight (American and Japanese standard)

公称通径 Nominal Diameter		标准值 Standard value										参考值 Reference value									
		L		d1		Lj*		D	D1	D2	b	f	Z-Φd	H1	H2	H3	H4	重量 Weight (Kg)			
		全通径 Through way	缩径 Diameter- reducing	全通径 Through way	缩径 Diameter- reducing	全通径 Through way	缩径 Diameter- reducing											Q41	Q341	Q641	Q941
		Class 150																			
mm	inch																				
100	4	229	-	102	-	242	-	229	190.5	157	24	2	8-Φ19	178	-	416	470	33	-	78	85
125	5	356	254	127	102	369	267	254	216	186	24	2	8-Φ22	252	-	542	520	58	-	107	117
150	6	394	267	152	127	407	280	279	241.5	216	26	2	8-Φ22	272	305	572	538	93	117	145	180
200	8	457	292	203	152	470	305	343	298.5	270	29	2	8-Φ22	342	398	736	580	160	185	220	246
250	10	533	330	254	203	546	343	406	362	324	31	2	12-Φ25	-	495	890	637	-	245	280	300
300	12	610	356	305	254	623	369	483	432	381	32	2	12-Φ25	-	580	910	684	-	395	450	444
350	14	686	381	337	305	699	394	533	476	413	35	2	12-Φ29	-	625	1020	796	-	516	570	586
400	16	762	406	387	337	775	419	597	540	470	37	2	16-Φ29	-	720	1080	842	-	756	920	860
450	18	864	432	438	337	877	445	635	578	533	40	2	16-Φ32	-	770	1120	874	-	958	1140	1070
500	20	914	457	489	387	927	470	699	635	584	43	2	20-Φ32	-	840	1150	904	-	1200	1360	1315
		Class 300																			
100	4	305	-	102	-	321	-	254	200	157	32	2	8-Φ22	178	-	479	480	60	-	85	105
125	5	381	381	127	102	397	397	279	235	186	35	2	8-Φ22	252	-	646	542	95	-	114	130
150	6	403	403	152	127	419	403	318	270	216	37	2	12-Φ22	272	305	666	568	118	145	155	195
200	8	502	419	203	152	518	435	381	330	270	42	2	12-Φ25	-	398	814	594	-	240	255	278
250	10	568	457	254	203	584	473	445	387.5	324	48	2	16-Φ39	-	495	890	638	-	400	495	520
300	12	648	502	305	254	664	518	521	451	381	51	2	16-Φ32	-	580	910	737	-	580	795	700
350	14	762	572	337	305	778	588	584	514.5	413	54	2	20-Φ32	-	625	1020	816	-	790	880	1030
400	16	838	610	387	337	854	626	648	571.5	470	58	2	20-Φ35	-	720	1080	850	-	940	960	1140
450	18	914	660	432	337	930	676	711	628.5	533	61	2	24-Φ35	-	760	1120	885	-	1200	1280	1680
500	20	991	711	483	387	730	727	775	686	584	64	2	24-Φ35	-	840	1150	994	-	1400	1610	1930
		Class 600																			
50	2	292	-	51	-	295	-	165	127	92	26	6.4	8-Φ19	160	-	360	380	25	-	64	66
65	2 1/2	330	330	64	51	333	333	190	149	105	29	6.4	8-Φ22	180	-	379	4324	35	-	93	98
80	3	356	356	76	64	359	359	210	168	127	32	6.4	8-Φ22	204	-	452	434	50	-	130	120
100	4	432	432	102	76	435	435	273	216	157	38	6.4	8-Φ25	240	-	479	456	76	-	175	170
125	5	508	508	127	102	511	511	330	266.5	186	45	6.4	8-Φ29	280	320	646	525	98	130	230	220
150	6	559	559	152	127	562	562	356	292	216	48	6.4	12-Φ29	-	356	666	554	-	150	260	250
200	8	660	660	200	152	663	663	419	349	270	56	6.4	12-Φ32	-	398	736	594	-	350	450	2530
250	10	787	787	248	200	790	790	508	432	324	64	6.4	16-Φ35	-	445	790	704	-	580	590	640
300	12	838	838	298	248	841	841	559	489	381	67	6.4	20-Φ35	-	515	870	730	-	790	920	970
350	14	889	889	327	298	892	892	603	527	413	70	6.4	20-Φ38	-	550	1020	786	-	980	1100	1130
400	16	991	991	375	327	994	994	686	603	470	77	6.4	20-Φ41	-	615	1080	867	-	1300	1540	1520
		Class 900																			
50	2	368	-	47	-	371	-	216	165.1	92	38.5	3	8-Φ26	160	-	380	400	37	-	80	82
65	2 1/2	419	419	57	47	422	422	244	190.5	105	41.5	3	8-Φ29	180	-	395	440	52	-	120	125
80	3	381	381	73	57	384	384	241	190.5	127	38.5	3	8-Φ26	240	-	480	465	78	-	155	160
100	4	457	457	98	73	460	460	292	234.9	157	44.5	3	8-Φ32	249	290	532	510	110	160	195	210
125	5	559	559	121	98	562	562	349	279.4	186	51.0	3	8-Φ35	-	340	670	550	-	190	250	270
150	6	610	610	146	121	613	613	381	317.5	216	56.0	3	12-Φ32	-	385	703	580	-	220	480	350
200	8	737	737	190	146	740	740	470	393.7	270	63.5	3	12-Φ39	-	430	750	610	-	450	620	580
250	10	838	838	238	190	841	841	545	469.9	324	70.0	3	16-Φ39	-	475	820	735	-	760	960	870
300	12	965	965	282	238	968	968	610	533.4	381	79.5	4	20-Φ39	-	530	900	760	-	1050	1380	1350
		JIS 10K																			
100	-	229	-	100	-	-	-	210	175	155	18	2	8-Φ19	178	-	416	470	33	-	78	85
125	-	356	254	125	100	-	-	250	210	185	20	2	8-Φ23	252	-	542	520	58	-	107	117
150	-	394	267	150	125	-	-	280	240	215	22	2	8-Φ23	272	305	572	538	93	117	145	180
200	-	457	292	200	150	-	-	330	290	265	22	2	12-Φ23	342	398	736	580	160	185	220	246
250	-	533	330	250	200	-	-	400	355	325	24	2	12-Φ25	-	495	890	637	-	245	280	300
300	-	610	356	300	250	-	-	445	400	370	24	3	16-Φ25	-	580	910	684	-	395	450	444
350	-	686	381	350	300	-	-	490	445	415	26	3	16-Φ25	-	625	1020	796	-	516	570	586
400	-	762	406	400	350	-	-	560	510	475	28	3	16-Φ27	-	720	1080	842	-	756	920	860
450	-	864	432	450	350	-	-	620	565	530	30	3	20-Φ27	-	770	1120	874	-	958	1140	1070
500	-	914	457	500	400	-	-	675	620	585	30	3	20-Φ27	-	840	1150	904	-	1200	1360	1315
		JIS 20K																			
100	-	305	-	100	-	-	-	225	185	160	24	2	8-Φ23	178	-	479	480	60	-	85	105
125	-	381	381	125	100	-	-	270	225	195	26	2	8-Φ25	252	-	466	542	90	-	110	125
150	-	403	43	150	125	-	-	305	260	230	28	2	12-Φ25	272	305	666	568	110	138	148	190
200	-	502	419	200	150	-	-	350	305	275	30	2	12-Φ25	-	398	814	594	-	230	245	268
250	-	568	457	250	200	-	-	430	380	345	34	2	12-Φ27	-	495	890	638	-	390	480	505
300	-	648	502	300	250	-	-	480	430	395	36	3	16-Φ27	-	580	910	737	-	560	775	680
350	-	762	572	350	300	-	-	540	480	440	40	3	16-Φ33	-	625	1020	816	-	770	860	1010
400	-	838	610	400	350	-	-	605	540	495	46	3	16-Φ33	-	720	1080	850	-	920	940	1120
450	-	914	660	450	350	-	-	675	605	560	48	3	20-								



## 金属密封固定球阀 Metal seated fixed ball valve

### 结构特点 Structure traits

- 1、采用板簧预载的可动阀座结构，密封力设计合理，启闭灵活，密封可靠。
  - 2、根据用户的需要，可设计成适用于含固体颗粒、料浆等介质的结构或耐较高温度的结构。
  - 3、采用下装式阀杆，设计倒密封结构，能确保填料处可靠密封。
1. Spring loaded moving valve seat construction is adopted with reasonable seal force in design to make easy operation and reliable sealing performance.
  2. According to customer's requirements, a construction can be designed to make the item to be suitable for mediums containing solid articles or durable for high temperature.
  3. Bottom mounted stem is adopted, inverted sealing structure set up and stuffing seal reliability guaranteed.

### 执行标准 Executive standard

- 1、设计与制造：GB12237-89、API 608、API 6D、BS5351、JPI 7S-48、DIN3357。
  - 2、法兰尺寸：JB/T74~90(JB74~90)、GB9112~9131、HGJ44~76、SH3406、ANSI B16.5、JIS B2212~2214。
  - 3、结构长度：GB12221-89、ANSI B16.10、JIS B2002
  - 4、检验和试验：JB/T9092-99、API 509
- 1.Design and making :GB12237-89 ,API 608 ,API 6D ,BS5351 ,JPI 7S-48、DIN3357 .
  - 2.Flange size : JB/T74~90(JB74~90) ,GB9112~9131 ,HGJ44~76 ,SH3406 ,ANSI B16.5 ,JIS B2212~2214 .
  - 3.Stucture length according to GB12221-89 ,ANSI B16.10 , JIS B2002.
  - 4.Test according to JB/T9092-99 ,API 509

### 主要零件材料及适用工况 Material of main parts and suitable working conditions

零件名称 Part name	材料 Material						
阀体 Body	WCB	ZG1Cr18Ni9Ti	CF8(304)	CF3(304L)	ZG1Cr18Ni12Mo2Ti	CF8M(316)	CF3M(316L)
球体、阀杆 Ball ,Stem	2Cr13	1Cr18Ni9Ti	0Cr19Ni9(304)	00Cr19Ni11(304L)	1Cr18Ni12Mo2Ti	0Cr17Ni12Mo2(316)	00Cr17Ni12Mo2(316L)
密封圈 Sealing ring	特种硬化材料 Special hardened material						
适用介质 Suitable medium	泥浆、纸浆、含有固体的流体等。 Slurries, pulp stock, solid containing fluid, etc			泥浆、纸浆、蒸汽、含有固体的流体等 Slurries, pulp stock steam, solid containing fluid, etc		高温、高频、高压 High-temperature, high frequency, high pressure	
适用温度 Suitable temperature	-29~150℃			-29~250℃		-29~500℃	



产品型号 Type of product

1' 国标 National standard

Q47Y-16C	Q47Y-16P	Q47Y-16P8	Q47Y-16P3	Q47Y-16R	Q47Y-16R8	Q47Y-16R3
Q47Y-25	Q47Y-25P	Q47Y-25P8	Q47Y-25P3	Q47Y-25R	Q47Y-25R8	Q47Y-25R3
Q47Y-40	Q47Y-40P	Q47Y-40P8	Q47Y-40P3	Q47Y-40R	Q47Y-40R8	Q47Y-40R3
Q47Y-63	Q47Y-63P	Q47Y-63P8	Q47Y-63P3	Q47Y-63R	Q47Y-63R8	Q47Y-63R3

2' 美标 American standard

Q47Y-150(Lb)C	Q47Y-150(Lb)P	Q47Y-150(Lb)P8	Q47Y-150(Lb)P3	Q47Y-150(Lb)R	Q47Y-150(Lb)R8	Q47Y-150(Lb)R3
Q47Y-300(Lb)	Q47Y-300(Lb)P	Q47Y-300(Lb)P8	Q47Y-300(Lb)P3	Q47Y-300(Lb)R	Q47Y-300(Lb)R8	Q47Y-300(Lb)R3

3、目标 Japanese standard

Q47Y-10(K)C	Q47Y-10(K)P	Q47Y-10(K)P8	Q47Y-10(K)P3	Q47Y-10(K)R	Q47Y-10(K)R8	Q47Y-10(K)R3
Q47Y-20(K)C	Q47Y-20(K)P	Q47Y-20(K)P8	Q47Y-20(K)P3	Q47Y-20(K)R	Q47Y-20(K)R8	Q47Y-20(K)R3

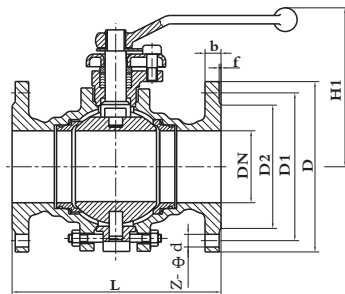
注：1、球阀传动方式有手动、蜗轮动、气动、电动等。

2、若法兰密封面型式与表中规定不同，则将连接型式代号“4”改为“4M”（凹凸面）、“4G”（榫槽面）或“4J”（环连接面）。

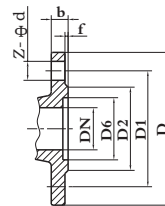
示例： Q4j1Y-40P。

Notes: 1. The actuation modes of ball valve are of manual, worm gear actuator, pneumatic actuator and electric actuator, etc.

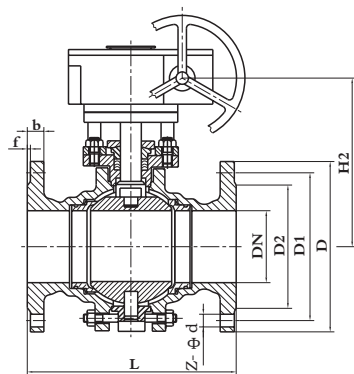
2. If the sealing face of flange is not compatible with those listed in the table, the connection type code "4" is revised as "4M" (concave /convex), "4G"(tenon/groove face) or "4j" ( ring connective face) . Take a case as : Q4j1Y-40P



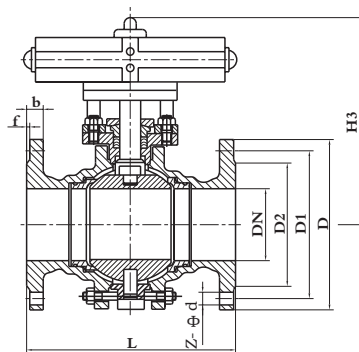
Q47Y 手动球阀  
Manual operation ball valve



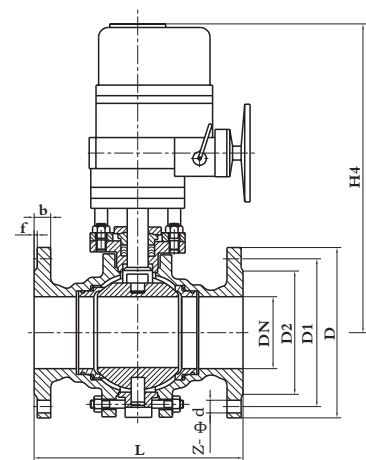
PN4.0、6.3(6.4)MPa 法兰Flange



Q347Y 蜗轮球阀  
Worm-gear actuator ball valve



Q647Y 气动球阀  
Pneumatic actuator ball valve



Q947Y 电动球阀  
Electric actuator ball valve

法兰连接金属密封固定球阀主要尺寸及重量

与相应的法兰连接固定球阀尺寸相同(请查阅本样本第11~13页)。

Main dimensions & weights for flanged metal seated ball valve with fixed ball valve

Identical with the dimensions of flanged ball valve with fixed ball valve ( For details, see page 11~13 of this catalogue).



## 整体焊接管线球阀 Fully welded pipeline ball valve

### 概述 General

本阀门是根据API（美国石油协会）6D标准研制的、并经过不断的改进以满足管路的开闭，阀体采用三段焊接结构、重量轻、强度高、紧凑形设计不仅免除了阀体中法兰，而且减小了总体外形尺寸和外漏点。阀门根据用户要求采用各种规范的材料进行改造。整体焊接式球阀已经广泛地应用于煤气输送、集中供热管网、离岸平台、油田、化学工厂等部门。

The valve is designed in accordance with API 6D and improved progressively so as to meet requirements of operations to pipeline applied, The body adopts three section welded structure with light weight, high robustness and compact construct, such a structure not only avoids flanges in the body but also decreases its outline size and leakage points. The valve can be remade with various standard materials according to user's requirements. unitary welded ball valves are already widely used in gas transport, integrated heating pipe network, offshore platform, oil fields and chemical plants, etc.

### 主要零件及材料 Main parts and materials

零件名称 Parts name	碳钢 Carbon steel	不锈钢 Stainless steel
阀体 Body	WCB, A105, LCB	CF8, CF8M, 304, 316
球体 Ball	A105+HCr	CF8, CF8M, 304, 316
阀杆 Stem	2Cr13	304, 316
阀座 Seat ring	2Cr13	304, 316
密封圈 Sealing ring	PTFE、石墨 graphite、特种硬化材料 Special hardened material	
弹簧 Spring	18-8、17-4PH	18-8、17-4PH
轴承 Bearing	金属衬 PTFE PTFE lined metal	

### 产品型号 Type of product

美标 American standard

Qw47F-150(Lb)C	Qw47S-150(Lb)C	Qw47Y-150(Lb)C	Qw47F-150(Lb)P	Qw47S-150(Lb)P	Qw47Y-150(Lb)P
Qw47F-300(Lb)	Qw47S-300(Lb)	Qw47Y-300(Lb)	Qw47F-300(Lb)P	Qw47S-300(Lb)P	Qw47Y-300(Lb)P
Qw47F-600(Lb)	Qw47S-600(Lb)	Qw47Y-600(Lb)	Qw47F-600(Lb)P	Qw47S-600(Lb)P	Qw47Y-600(Lb)P
Qw47F-900(Lb)	Qw47S-900(Lb)	Qw47Y-900(Lb)	Qw47F-900(Lb)P	Qw47S-900(Lb)P	Qw47Y-900(Lb)P
Qw47F-1500(Lb)	Qw47S-1500(Lb)	Qw47Y-1500(Lb)	Qw47F-1500(Lb)P	Qw47S-1500(Lb)P	Qw47Y-1500(Lb)P

注：1、球阀传动方式有手动、蜗轮动、气动、液动、电动等。

2、球阀若为焊接连接则将连接形式代号“4”改为“6”。

Notes: 1. The actuation modes of ball are of manual, worm-gear actuator, pneumatic actuators, hydraulic actuators and electric actuators, etc.

2. If the ball valve is of weld connection type the connection type code "4" is replaced with "6".

### 设计特征 Design features

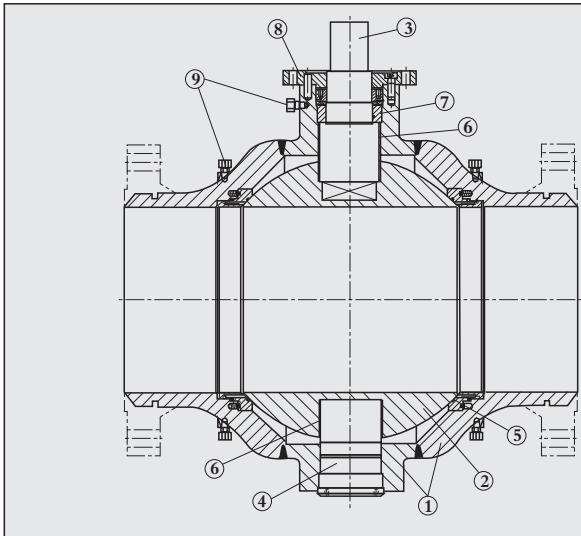
- 1、全焊接阀体 Fully welded body
- 2、凸耳安装 Trunnion mounted
- 3、弹簧载荷式阀座 Spring energized seated
- 4、金属密封或软密封 Metal or soft seated
- 5、双关断及泄放功能 Double block and bleed
- 6、全通径或缩径 Full or reduced bore
- 7、法兰连接或焊接端面 Flanged or welded ends
- 8、防挤出阀杆 Anti blow out stem
- 9、在全开或全闭位置的充分输送管压力下可移除阀杆密封 Removable stem seals under full line pressure in fully opened or closed position
- 10、防静电装置 Anti static device
- 11、自润滑轴承 Self lubricated bearings
- 12、按照API 6D、API 6FA、BS 6755及NACE 01-75（最新版）标准  
In accordance with API 6D, API 6FA, BS 6755 and NACE 01-75 (latest edition)

### 任选项 Options

- 1、紧急密封注入器 Emergency sealing injection
- 2、阀杆加长 Stem extension
- 3、加长输送管以用于排泄、通风及紧急密封注入器 Extended lines for drain, vent and emergency sealing injection
- 4、特殊镀层 Special coatings
- 5、地下安装 Underground installation
- 6、直接给阀门添置旁路 Bypass directly at the valve
- 7、锁定装置 Locking device
- 8、其它设计特征和要求 Other design features on request



### 整体焊接式球阀 Fully welded ball valve

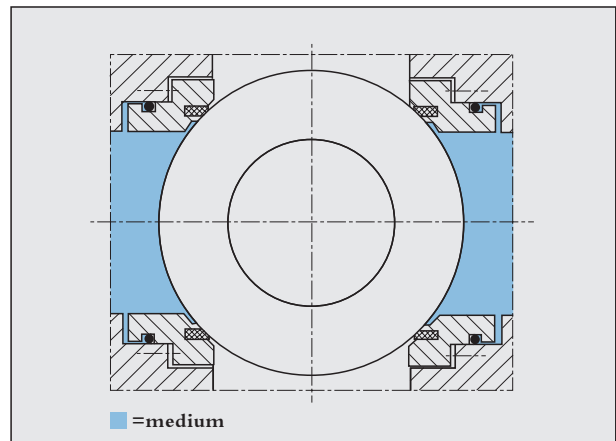


- ①、阀体 Body
- ②、球体 Ball
- ③、阀杆 Stem
- ④、凸耳 Trunnion
- ⑤、密封环 Seat-rings
- ⑥、自润滑轴承 Self lubricating bearings
- ⑦、阀杆防挤出装置  
Anti-blow-out device of the stem
- ⑧、顶端安装法兰  
Top mounting flange for gearboxes or actuators
- ⑨、紧急密封注入器  
Emergency sealing injection as an option

### 双关断及泄放功能 Double block and bleed

内腔压力可以通过阀体上的排放连接装置释放，独立的上下端密封确保全开或全闭状态下阀腔的紧急切断，这使得可以通过阀腔检查密封效果。

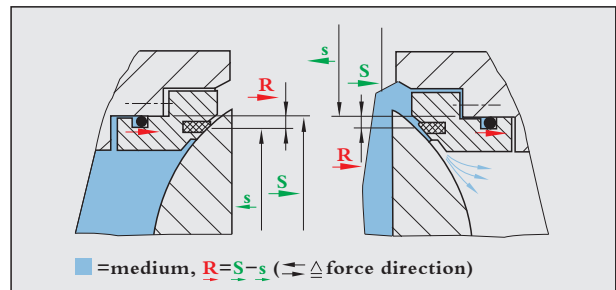
The cavity can be relieved via vent or drain connections at the body. The independent upstream and downstream sealings ensure a tight shut-off at the body cavity in fully opened and closed position. This allows for verifying the tightness of the ball valve in line via the cavity.



### 自释放密封设计 Self-relieving seat design

该阀座系统设计用来自动排放阀腔内的过度压力，浮动阀座设计使得可以释放管道中的过压。

This seat system is designed to automatically vent any excessive build-up pressure in the body cavity. The floating seat design allows for relieving the overpressure in the pipeline.



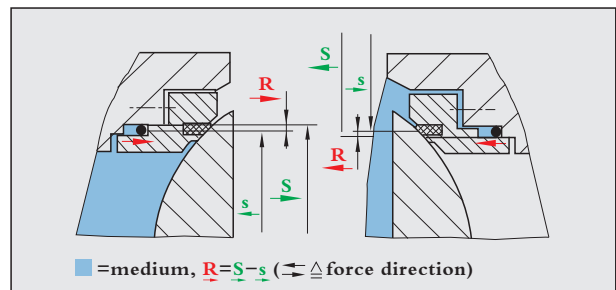
### 双向密封系统 Bi-directional seating system

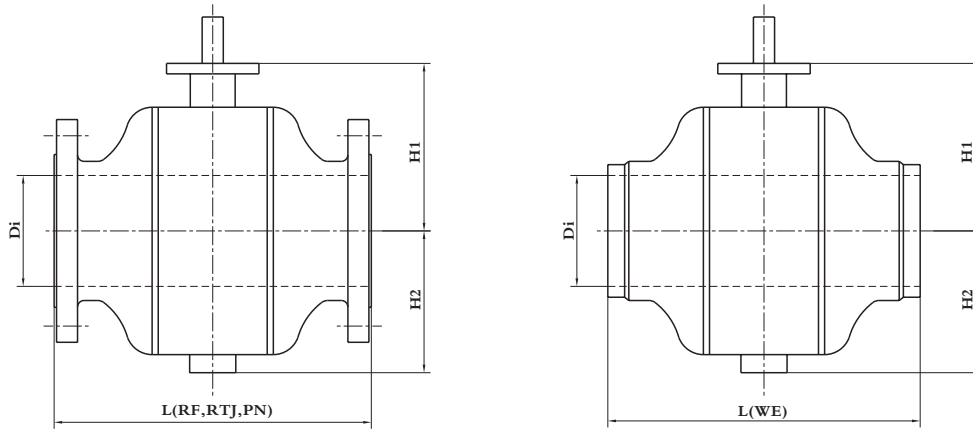
按照这种设计，每一密封环在两个方向提供完全密封，该系统使得阀腔中的过量压力不能自释放。

这使得可以利用泄放阀腔压力或给阀腔加压来检验球阀的密封效果。

At this design, each seat ring will provide a total sealing in both directions. This system does not enable the self-relieving of the excessive pressure in the cavity.

This allows for verifying the tightness of the ball valve in line by bleeding or pressurizing the cavity.





主要连接尺寸及重量 Main connection dimensions and weights

公称通径 Nominal Diameter		标准值 Standard value				参考值 Reference value			
DN(mm)	NPS(inch)	Di	L(RF)	L(RTJ)	L(WE)	H1	H2	重量 Weight(Kg)	
								法兰 Flange	焊接 Welded-ends
ANSI Class 150									
25	1	25	127		216	35	27	4.5	2
50	2	51	178	191	241	63	45	12	6
80	3	78	203	216	283	100	70	28	20
100	4	102	229	241	305	113	86	45	32
150	6	152	394	406	400	166	157	85	59
200	8	203	457	470	460	201	192	130	90
250	10	254	533	546	600	283	249	295	265
300	12	305	600	622	700	325	313	505	450
350	14	336	686	699	800	353	340	680	610
400	16	387	762	775	900	435	406	960	850
450	18	438	864	876	950	470	450	1190	1050
500	20	489	914	927	1000	512	488	1565	1390
550	22	540	1016	1028.7	1219	649	551	1880	1710
600	24	591	1067	1080	1245	688	594	2120	1890
700	28	686	1245		1295	742	661	2940	2650
750	30	736	1295		1346	785	711	3480	3190
800	32	781	1372		1397	852	774	4030	3630
900	36	876	1524		1499	912	830	5410	4910
ANSI Class 300									
25	1	25	140		216	35	27	4.5	2
50	2	51	216	232	241	63	45	12	6
80	3	78	283	298	283	100	95	28	20
100	4	102	305	321	305	113	108	45	32
150	6	152	403	419	400	198	165	89	59
200	8	203	502	518	460	233	201	135	90
250	10	254	568	584	600	283	249	310	265
300	12	305	648	664	700	325	313	520	450
350	14	336	762	778	800	353	340	710	610
400	16	387	838	854	900	435	406	990	850
450	18	438	914	930	950	470	450	1250	1050
500	20	489	991	1010	1000	512	488	1605	1390
550	22	540	1092	1114	1219	649	551	1950	1710
600	24	591	1143	1165	1245	688	594	2210	1890
700	28	686	1346	1372	1295	742	661	3030	2650
750	30	736	1397	1422	1346	785	711	3620	3190
800	32	781	1524	1553	1397	852	774	4180	3630
900	36	876	1727	1756	1499	912	830	5650	4910



主要连接尺寸及重量 Main connection dimensions and weights

公称口径 Nominal Diameter		标准值 Standard value				参考值 Reference value			
DN(mm)	NPS(inch)	Di	L(RF)	L(RTJ)	L(WE)	H1	H2	重量 Weight(Kg)	
								法兰 Flange	焊接 Welded-ends
ANSI Class 600									
25	1	25	216	216	216	55	29	6	3
50	2	51	292	295	292	78	61	17	10
80	3	78	356	359	356	160	116	41	32
100	4	102	432	435	432	192	135	72	56
150	6	152	559	562	559	228	178	147	115
200	8	203	660	663	660	295	224	270	225
250	10	254	787	791	787	343	275	430	365
300	12	305	838	841	838	403	320	690	605
350	14	336	889	892	889	451	363	980	830
400	16	387	991	994	991	492.5	400	1310	1080
450	18	438	1092	1095	1092	548	458	1770	1490
500	20	489	1194	1200	1194	603.5	504	2210	1830
550	22	540	1295	1305	1219	649	551	2720	2250
600	24	591	1397	1407	1245	688	594	3150	2550
700	28	686	1549	1562	1295	742	661	4380	3610
750	30	736	1651	1664	1346	785	711	5380	4470
800	32	781	1778	1794	1397	852	774	6150	5050
900	36	876	2083	2099	1499	912	830	8700	7050
ANSI Class 900									
25	1	25	216	216	216	55	29	7	3
50	2	51	368	372	292	78	61	23	10
80	3	78	381	384	356	160	116	49	32
100	4	102	457	460	432	192	135	83	56
150	6	152	610	613	559	228	178	185	115
200	8	203	737	740	660	295	224	395	230
250	10	254	838	841	787	343	275	620	405
300	12	305	965	968	838	413	330	920	670
350	14	324	1029	1038	889	461	373	1280	920
400	16	375	1130	1140	991	505	412.5	1620	1210
450	18	425	1219	1232	1092	563	471	2100	1650
500	20	473	1321	1334	1194	621.5	519	2680	2040
550	22	524	1422	1435	1245	671	566	3420	2750
600	24	572	1549	1568	1295	708	615	4290	3420
700	28	667	1549	1562	1359	772	685	6100	4950
750	30	714	1651	1664	1422	820	740	7590	5950
800	32	762	1778	1794	1486	887	805	8950	7100
900	36	857	2083	2099	1625	945	865	12400	9930
ANSI Class 1500									
25	1	25	254	257	254	60	35	21	13
50	2	51	368	372	368	85	70	35	18
80	3	78	470	473	410	175	131	73	48
100	4	102	546	549	470	212	155	126	88
150	6	146	705	711	580	253	203	255	165
200	8	194	832	841	710	330	254	625	410
250	10	241	991	1000	820	388	310	845	650
300	12	289	1130	1146	940	463	382	1430	1120
350	14	318	1257	1276	1075	527	433	1930	1430
400	16	362	1384	1407	1200	575	482.5	2950	2160



## 轨道球阀 Track ball valve

### 概述 General

轨道球阀是新型实用产品，具有旋转球芯90度摆切断的一种高科技球阀。

国内目前所用Q型球阀均是在给定预紧力下球芯与阀座摩擦进行开与关，经常导致密封面损坏，阀门泄漏和卡死现象，轨道球阀就是针对上述常见缺陷进行更新设计使球芯旋转90度再开关的新型球阀，该球阀能使密封面而无摩擦结合，达到无泄漏的安全目的，并大大提高了阀门的使用寿命。

因此，本产品非常适合易燃、易爆、易挥发、剧毒等环境条件下安全可靠作业。广泛使用于化工、石油、轻工、医药、纺织、造纸、环保、军事设施、机场等输送管道内介质切断或流通。

This track ball valve is of practice and patent products which is one of high-scientific and technical ball valve with rotary ball-coil 90 degree for cutting off. The normal Q shaped ball valve are opened and closed usually under the pre-fastened power and with the friction between the ball-coil and seat, therefore, the damages of sealing surface, leakages and dead clipping will be happened, in order to overcome the above shortcoming, the orbit ball valve can rotate the ball-coil 90 degree and then swing the novel ball valve and ensure the non-friction combination of sealing surface, so that, it has reached the standards of secure valve without leakage, meanwhile, it can improve the valve's life span utmost.

This product is especially suitable for the secure and reliable operation under the conditions of flammable, explosive, volatilizing and tonic, for carrying and cutting off the flow in the lines of chemical, petroleum, light industry, pharmacy, spinning, paper making, environment protection, military facilities and airport facility.

### 工作原理 Working principle

阀门关闭工作状态：

顺时针转动手轮，阀杆上设有准确导向槽使球体顺时针转动90度，在阀杆的楔臂作用下球体向前摆动迫使球体密封面靠贴阀座密封面，达到密封效果。

阀门开启工作状态：

逆时针转动手轮使阀杆上升，球芯在阀杆楔臂和阀杆准确导向槽的作用下，先离开密封面(无摩擦)后球体逆时针转动90度，达到开启。

Working conditions while close the valve :Clockwise rotate the hand wheel, the precise guiding groove in the stem will make the ball rotate 90 degree clockwise and the ball will swing forward under the action of wedging arm and make the sealing surface of ball close to the sealing surface of seat so as to get the sealing effect.

Working conditions while open the valve Life the hand wheel counterclockwise, the ball-coil under the action of wedging arm and the precise guiding groove will move away from the sealing surface(non-friction)and then ball rotate 90 degree counterclockwise so as to open the valve.

### 结构特性 Structure traits

体积小、结构紧凑、使用与安装方便、寿命长。

具有无摩擦密封结构设计，阀门开启时球体转动前先离开密封面而后转动，密封面之间接触没有刮擦作用，延长阀门的使用期。

阀门关闭时，由阀杆向下施加机械楔入挤压密封，可以得到紧密密封效果。

随介质温度变化，管道的应力不会造成对阀门机械性能与密封性能的影响。

阀门关闭时，球体在旋转过程中，球体与阀座保持着一定空间，由于球体的转动流量会减少，流速增大从而达到冲洗密封面的作用，使其保持清洁。

备用推力轴承，球体转动90度扭矩小。

Impact, convenient application and mounting, long life span. Of the non-friction sealing structure, which can move away from the sealing surface and then rotate ball while the valve is to be open, meanwhile, the non scrape between the sealing surface also will prolong the serving span of valve.

Due to the downward mechanical wedge jamming the sealing, while you close the valve, the perfect tightness effect can be got. No influence from the pipe stress to the valve's mechanical performance and sealing property, no matter the variation of the media temperature.

While close the valve, the space between the ball and seat will keep in a certain distance that will decrease the flux through the rotation ball and speed up the flow velocity to clean the sealing surface.

With pushing bearing and short rotating torque for 90 degree.

### 执行标准 Executive standard

- 1、设计与制造：GB12237-89、ANSI B16.34。
- 2、法兰尺寸：JB/T74-90(JB74-90)、GB9112-9131、HGJ44-76、SH3406、ANSI B16.5。
- 3、结构长度：GB12221-89、ANSI B16.10。
- 4、检验和试验：JB/T9092-99、API 598。
- 1.Design and making :GB12237-89, ANSI B16.34.
- 2.Flange size : JB/T74-90(JB74-90), GB9112-9131, HGJ44-76, SH3406, ANSI B16.5
- 3.Structure length according to GB12221-89, ANSI B16.10.
- 4.Test according to JB/T9092-99, API 598.



### 主要零件材料 Material of main parts

零件名称 Name of parts	材 料 Material					温度范围 Area of temperature
	碳素钢 Carbon steel	合金钢 Alloy steel	不锈钢耐酸钢 Stainless and acid resistant steel	牌号 Brand name	代号Code	
阀体、阀盖 Body, Bonnet	铸钢 Cast steel	铬钼铸钢 Cr-Mo cast steel	铬镍钛铸钢 Cr-Ni-Ti cast steel 铬镍钼钛铸钢 Cr-Ni-Mo-Ti cast steel	ZG230-450 ZG1Gr5Mo ZG1Cr18Ni9Ti ZG1Cr18Ni12Mo2Ti	C I R P	-29~425℃ -29~650℃ -196~600℃ -196~600℃
阀杆 Stem	铬不锈钢 Cr stainless steel	特殊材料合金钢 Peculiar material alloy steel	铬镍钼钛铸钢 Cr-Ni-Mo-Ti cast steel	2Cr13 ZG1Cr18Ni9Ti		-29~550℃ -196~600℃
球体 Ball body			铬镍钛铸钢 Cr-Ni-Ti cast steel 铬镍钼钛铸钢 Cr-Ni-Mo-Ti cast steel	ZG1Cr18Ni9Ti ZG1Cr18Ni12Mo2Ti		
阀座密封面 Seat sealing surface	铬不锈钢 Cr stainless steel		钴铬钨合金 Co-Cr-W alloy steel	2Cr13 TDCoCr1-X TDCoCr2-X TDCoCr3-X	H Y	-29~550℃ -196~600℃
				聚四氟乙烯 PTFE	PTFE	F
手轮 Handwheel	球墨铸铁 Graphite die iron			QT400-15		
螺母 Nut	优质碳素钢 Quality carbon steel	铬不锈钢 Chrome stainless steel	铬镍钢 Cr-Ni steel	35/45 2Cr13 1Cr18Ni9		
填料 Stuffing	柔性石墨 Soft graphite		聚四氟乙烯 PTFE	F4		

### 产品型号 Type of product

#### 1、国标 National standard

GQ41F-16C	GQ41F-16I	GQ41F-16P	GQ41F-16R
GQ41F-25	GQ41F-25I	GQ41F-25P	GQ41F-25R
GQ41F-40	GQ41F-40I	GQ41F-40P	GQ41F-40R
GQ41F-64	GQ41F-64I	GQ41F-64P	GQ41F-64R
GQ41F-100	GQ41F-100I	GQ41F-100P	GQ41F-100R
GQ41F-160	GQ41F-160I	GQ41F-160P	GQ41F-160R

#### 2、美标 American standard

GQ41F-150(Lb)C	GQ41F-150(Lb)I	GQ41F-150(Lb)P	GQ41F-150(Lb)R
GQ41F-300(Lb)	GQ41F-300(Lb)I	GQ41F-300(Lb)P	GQ41F-300(Lb)R
GQ41F-400(Lb)	GQ41F-400(Lb)I	GQ41F-400(Lb)P	GQ41F-400(Lb)R
GQ41F-600(Lb)	GQ41F-600(Lb)I	GQ41F-600(Lb)P	GQ41F-600(Lb)R
GQ41F-900(Lb)	GQ41F-900(Lb)I	GQ41F-900(Lb)P	GQ41F-900(Lb)R
GQ41F-1500(Lb)	GQ41F-1500(Lb)I	GQ41F-1500(Lb)P	GQ41F-1500(Lb)R
GQ41F-2500(Lb)	GQ41F-2500(Lb)I	GQ41F-2500(Lb)P	GQ41F-2500(Lb)R

注：1、密封面材料选用铬不锈钢或钴铬钨合金时，则将密封面材料代号“F”换为“H”或“Y”。

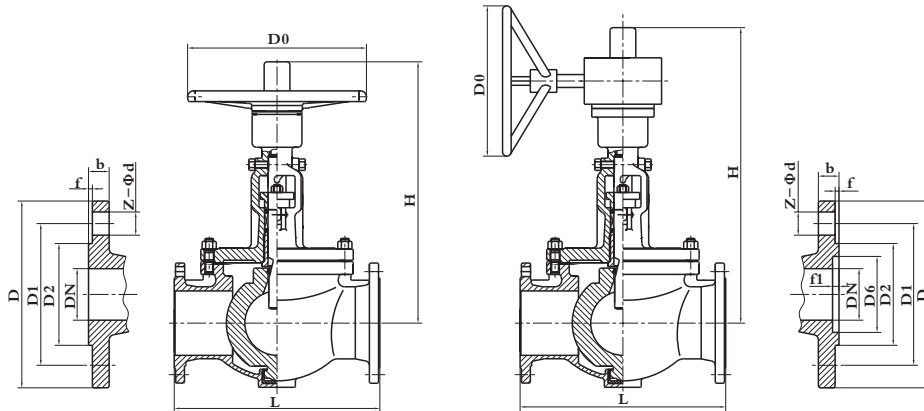
2、轨道球阀传动方式有手动、蜗轮动、气动、电动等。

Notes: 1. If sealing face material uses chromium stainless steel or CoCrW alloy, the sealing face material code "F" should be changed as "H" or "Y".

2. Track ball valves have the actuation options of manual, worm gear actuator, pneumatic actuator and electric actuator, etc.



法兰连接轨道球阀 Flanged track ball valve



GQ41F手动球阀  
Manual operation ball valve

GQ341F蜗轮动球阀  
Worm-gear actuator ball valve

主要连接尺寸(国标)Main connection dimensions(National standard)

公称口径 Nominal Diameter DN(mm)	标准值 Standard value							参考值 Reference value	
	L	D	D1	D2	b	f	Z-Φd	H	D0
	PN1.6(MPa)/PN2.5(MPa)								
25	216	115	85	65	14/16	2	4-Φ14	343	200
32	216	140	100	78	16/18	2	4-Φ18	360	200
40	216	150	110	85	16/18	3	4-Φ18	378	200
50	216	165	125	100	16/20	3	4-Φ18	380	200
65	290	185	145	120	18/22	3	4-Φ18/8-Φ18	390	300
80	310	200	160	135	20/22	3	8-Φ18	400	300
100	350	220/230	180/190	155/160	20/24	3	8-Φ18/8-Φ23	508	300
150	480	285/300	240/250	210/218	24/30	3	8-Φ23/8-Φ26	690	400
200	600	340/360	295/310	265/278	26/34	3	12-Φ23/12-Φ26	780	500
250	730	405/425	355/370	320/332	30/36	3	12-Φ26/12-Φ30	990	600
300	850	460/485	410/430	375/390	30/40	4	12-Φ26/16-Φ30	1180	600
350	980	520/555	470/490	435/448	34/44	4	16-Φ26/16-Φ34	1250	650
400	1100	580/620	525/550	485/505	36/48	4	16-Φ30/16-Φ36	1560	650
450	1200	640/670	585/600	545/555	40/50	4	20-Φ30/20-Φ36	1630	700
500	1250	715/730	650/660	608/610	44/52	4	20-Φ34/20-Φ36	1700	700
600	1450	840/845	770	718	48/56	5	20-Φ36/20-Φ41	1880	800
700	1650	910/960	840/875	788/815	50/60	5	24-Φ36/24-Φ42	2100	800
800	1850	1025/1085	950/990	898/930	52/64	5	24-Φ41/24-Φ48	2210	800
900	2050	1125/1185	1050/1090	998/1025	54/66	5	28-Φ41/28-Φ48	2320	800
1000	2250	1255/1320	1170/1210	1110/1140	56/68	5	28-Φ42/28-Φ58	2430	800

主要连接尺寸(国标)Main connection dimensions(National standard)

公称口径 Nominal Diameter DN(mm)	标准值 Standard value									参考值 Reference value	
	L	D	D1	D2	D6	b	f	f1	Z-Φd	H	D0
	PN4.0(MPa)										
25	216	115	85	65	58	16	2	4	4-Φ14	343	200
32	216	140	100	78	66	18	2	4	4-Φ18	360	200
40	216	150	110	85	76	18	3	4	4-Φ18	378	200
50	216	165	125	100	88	20	3	4	4-Φ18	380	200
65	290	185	145	120	110	22	3	4	8-Φ18	390	300
80	310	200	160	135	121	22	3	4	8-Φ18	400	300
100	350	235	190	160	150	24	3	4.5	8-Φ23	508	300
150	480	300	250	218	204	30	3	4.5	8-Φ26	690	400
200	600	375	320	282	260	38	3	4.5	12-Φ30	780	500
250	730	450	385	345	313	42	3	4.5	12-Φ34	990	600
300	850	515	450	408	364	46	4	4.5	16-Φ34	1180	600
350	980	580	510	465	422	52	4	5	16-Φ36	1250	650
400	1100	660	585	535	474	58	4	5	16-Φ41	1560	650
450	1200	685	610	560	524	60	4	5	20-Φ41	1630	700
500	1250	755	670	612	576	62	4	5	20-Φ42	1700	700
600	1450	890	795	730	676	62	5	5	20-Φ48	1880	800
700	1650	995	900	835	778	68	5	5	24-Φ48	2100	800
800	1850	1140	1030	960	883	76	5	5	24-Φ58	2210	800



主要连接尺寸(国标) Main connection dimensions(National standard)

公称通径 Nominal Diameter DN(mm)	标准值 Standard value									参考值 Reference value	
	L	D	D1	D2	D6	b	f	f1	Z-Φd	H	D0
PN6.3(MPa)											
25	216	140	100	78	58	22	2	4	4-Φ18	343	200
32	216	155	110	82	66	24	2	4	4-Φ23	360	200
40	216	170	125	95	76	24	3	4	4-Φ23	378	200
50	216	180	135	105	88	26	3	4	4-Φ23	380	200
65	290	205	160	130	110	28	3	4	8-Φ23	390	300
80	310	215	170	140	121	30	3	4	8-Φ23	400	300
100	350	250	200	168	150	32	3	4.5	8-Φ26	508	300
150	480	345	280	240	204	38	3	4.5	8-Φ30	690	400
200	600	405	345	300	260	44	3	4.5	12-Φ36	780	500
250	730	470	400	352	287	48	3	4.5	12-Φ36	990	600
300	850	530	460	412	364	54	4	4.5	16-Φ36	1180	600
350	980	600	525	475	422	60	4	5	16-Φ41	1250	650
400	1100	670	585	525	474	66	4	5	16-Φ42	1560	650
500	1250	800	705	640	576	70	4	5	20-Φ48	1700	700
600	1450	930	820	750	676	76	5	6	20-Φ58	1880	800
PN10.0(MPa)											
25	230	140	100	78	58	24	2	4	4-Φ18	387	200
32	230	155	110	82	66	24	2	4	4-Φ23	410	200
40	260	170	125	95	76	26	3	4	4-Φ23	430	250
50	300	195	145	112	88	28	3	4	4-Φ26	478	250
65	340	220	170	138	110	32	3	4	8-Φ26	520	300
80	380	230	180	148	121	34	3	4	8-Φ26	559	300
100	430	265	210	172	150	38	3	4.5	8-Φ30	575	400
150	550	355	290	250	204	46	3	4.5	12-Φ34	870	500
200	650	430	360	312	260	54	3	4.5	12-Φ36	1202	600
250	775	505	430	382	313	60	3	4.5	12-Φ41	1326	600
300	900	585	500	442	364	70	4	4.5	16-Φ42	1508	600
350	1025	655	560	498	422	76	4	5	16-Φ48	1700	600
400	1150	715	620	558	474	80	4	5	16-Φ48	1902	600
PN16.0(MPa)											
25	230	140	100	72	58	28	2	4	4-Φ23	387	200
32	230	165	115	85	66	30	2	4	4-Φ25	410	200
40	260	175	125	92	76	32	3	4	4-Φ27	430	250
50	300	215	165	132	88	36	3	4	8-Φ25	478	250
65	340	245	190	152	110	44	3	4	8-Φ30	520	300
80	380	260	205	168	121	46	3	4	8-Φ30	559	300
100	430	300	240	200	150	48	3	4.5	8-Φ34	575	400
150	550	390	318	270	204	66	3	4.5	12-Φ41	870	500
200	650	480	400	345	260	78	3	4.5	12-Φ48	1202	600
250	775	580	485	425	313	88	3	4.5	12-Φ54	1326	600
300	900	665	570	510	364	100	4	4.5	16-Φ54	1508	600



主要连接尺寸(美标) Main connection dimensions(American standard)

公称通径 Nominal Diameter DN(mm)		标准值 Standard value							参考值 Reference value	
DN(mm)	NPS(inch)	L	D	D1	D2	b	f	Z-Φd	H	D0
		Class 150		ANSI B16.5(DN25~600)			API 605(DN700~1000)			
25	1	216	108	79.5	51	12	2	4-Φ15	343	200
32	1 1/4	216	117	89	64	13	2	4-Φ15	360	200
40	1 1/2	216	127	98.5	73	15	2	4-Φ15	378	200
50	2	216	152	120.5	92	16	2	4-Φ19	380	200
65	2 1/2	241	178	139.5	105	18	2	4-Φ19	390	250
80	3	282	190	152.5	127	19	2	4-Φ19	400	300
100	4	305	229	190.5	157	24	2	4-Φ19	508	300
150	6	403	279	241.5	216	26	2	8-Φ22	690	400
200	8	502	343	298.5	270	29	2	8-Φ22	780	500
250	10	673	406	362	324	31	2	12-Φ25	990	600
300	12	762	483	432	381	32	2	12-Φ25	1180	600
350	14	825	533	476	413	35	2	12-Φ29	1250	650
400	16	902	597	540	470	37	2	16-Φ29	1560	650
450	18	991	635	578	533	40	2	16-Φ32	1630	700
500	20	991	699	635	584	43	2	20-Φ32	1700	700
600	24	1194	813	749.5	692	48	2	20-Φ35	1880	800
700	28	1346	837	795.5	762	44.4	2	40-Φ22.2	2100	800
800	32	1524	941	900.1	863.6	46	2	48-Φ22.2	2210	800
900	36	1727	1057	1009.6	971.6	52.4	2	44-Φ25.4	2320	800
1000	40	1880	1157	1120.8	1079.5	55.6	2	44-Φ28.6	2430	800
		Class 300		ANSI B16.5(DN25~600)			API 605(DN700~1000)			
25	1	216	124	89	51	18	2	4-Φ19	343	200
32	1 1/4	216	133	98.5	64	19	2	4-Φ19	360	200
40	1 1/2	216	156	114.5	73	21	2	4-Φ22	378	200
50	2	216	165	127	92	23	2	8-Φ19	380	200
65	2 1/2	241	190	149	105	26	2	8-Φ22	390	250
80	3	282	210	168.5	127	29	2	8-Φ22	400	300
100	4	305	254	200	157	32	2	8-Φ22	508	300
150	6	403	318	270	216	37	2	12-Φ22	690	400
200	8	502	381	330	270	42	2	12-Φ25	780	500
250	10	673	445	387.5	324	48	2	16-Φ29	990	600
300	12	762	521	451	381	51	2	19-Φ32	1180	600
350	14	825	584	514.5	413	54	2	20-Φ32	1250	650
400	16	902	648	571.5	470	58	2	20-Φ35	1560	650
450	18	991	811	628.5	533	61	2	24-Φ35	1630	700
500	20	991	775	686	584	64	2	24-Φ35	1700	700
600	24	1194	914	813	692	70	2	24-Φ41	1880	800
700	28	1346	921	857.2	787.4	88.9	2	36-Φ34.9	2100	800
800	32	1524	1054	977.9	901.7	103.2	2	32-Φ41.3	2210	800
900	36	1727	1172	1089	1009.6	103.2	2	32-Φ44.4	2320	800
1000	40	1880	1273	1190.6	1114.4	115.9	2	40-Φ44.4	2430	800
		Class 400		ANSI B16.5(DN25~600)			API 605(DN700~1000)			
25	1	216	124	88.9	51	17.5	6.4	4-Φ19	343	200
32	1 1/4	216	133	98.4	64	21	6.4	4-Φ19	360	200
40	1 1/2	216	156	114.3	73	22.5	6.4	4-Φ22	378	200
50	2	241	165	127	92	22.5	6.4	8-Φ19	415	250
65	2 1/2	292	190	149.2	105	29	6.4	8-Φ22	440	300
80	3	356	210	168.3	127	32	6.4	8-Φ22	492	300
100	4	432	254	200	157	35	6.4	8-Φ26	545	400
150	6	559	318	269.9	216	41.5	6.4	12-Φ26	750	500
200	8	660	381	330.2	270	48	6.4	12-Φ29	933	600
250	10	787	445	387.3	324	54	6.4	16-Φ32	1197	600
300	12	838	520	450.8	381	57.5	6.4	16-Φ35	1313	650
350	14	889	585	514.3	413	60.5	6.4	20-Φ35	1450	650
400	16	991	650	571.5	470	63.5	6.4	20-Φ39	1590	700
450	18	1092	710	628	533	67	6.4	24-Φ39	1720	700
500	20	1194	775	685.8	584	70	6.4	24-Φ42	1805	800
600	24	1397	915	812.8	692	76.5	6.4	24-Φ48	1945	800
700	28	1346	914	838.2	762	95.2	6.4	24-Φ41.3	2100	800
800	32	1524	1035	952.5	873.1	108	6.4	28-Φ44.4	2210	800
900	36	1727	1156	1066.8	918.1	119.1	6.4	28-Φ47.6	2320	800
1000	40	1880	1270	1174.8	1092.2	130.2	6.4	32-Φ50.8	2430	800

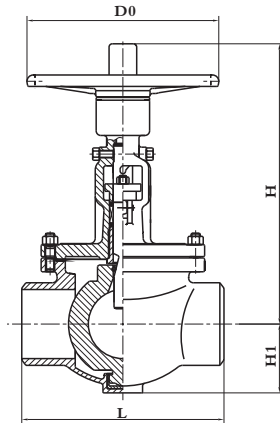


主要连接尺寸(美标) Main connection dimensions(American standard)

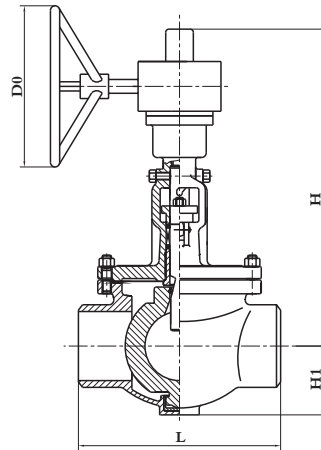
公称直径 Nominal Diameter DN(mm)		标准值 Standard value							参考值 Reference value	
DN(mm)	NPS(inch)	L	D	D1	D2	b	f	Z-Φd	H	D0
		Class 600			ANSI B16.5(DN25~600)		API 605(DN700~1000)			
25	1	216	124	89	51	18	6.4	4-Φ19	343	200
32	1 1/4	229	133	98.4	64	21	6.4	4-Φ19	360	200
40	1 1/2	241	156	114.5	73	23	6.4	4-Φ22	378	200
50	2	292	165	127	92	26	6.4	8-Φ19	430	300
65	2 1/2	318	190	149	105	29	6.4	8-Φ22	460	300
80	3	356	210	168	127	32	6.4	8-Φ22	492	300
100	4	432	273	216	157	38	6.4	8-Φ25	575	400
150	6	559	356	292	216	48	6.4	12-Φ29	773	500
200	8	660	419	349	270	56	6.4	12-Φ32	933	600
250	10	787	508	432	324	64	6.4	16-Φ35	1197	600
300	12	838	559	489	381	67	6.4	20-Φ35	1313	650
350	14	889	603	527	413	70	6.4	20-Φ38	1450	650
400	16	991	686	603	470	77	6.4	20-Φ41	1590	700
450	18	1092	743	654	533	83	6.4	20-Φ44	1720	700
500	20	1194	813	724	584	89	6.4	24-Φ44	1805	800
600	24	1397	940	838	692	102	6.4	24-Φ52	1945	800
700	28	1346	952	863.6	784.2	115.9	6.4	24-Φ47.6	2100	800
800	32	1524	1086	984.2	895.4	130.2	6.4	28-Φ54	2210	800
900	36	1727	1213	1104.9	1009.6	146	6.4	28-Φ60.3	2320	800
1000	40	1880	1321	1212.8	1111.2	158.8	6.4	32-Φ60.3	2430	800
Class 900 ANSI B16.5										
25	1	254	149	101.6	51	29	6.4	4-Φ26	378	250
32	1 1/4	254	159	111.6	64	29	6.4	4-Φ26	410	250
40	1 1/2	295	178	123.8	73	32	6.4	4-Φ29	457	250
50	2	305	216	165.1	92	38.5	6.4	8-Φ26	478	250
65	2 1/2	371	244	190.5	105	41.5	6.4	8-Φ29	502	300
80	3	384	241	190.5	127	38.5	6.4	8-Φ29	559	300
100	4	460	292	234.9	157	44.5	6.4	8-Φ32	575	400
150	6	613	381	317.5	216	56	6.4	12-Φ32	773	500
200	8	740	470	393.7	270	63.5	6.4	12-Φ39	980	600
250	10	841	545	469.9	324	70	6.4	16-Φ39	1160	600
300	12	968	610	533.4	381	79.5	6.4	20-Φ39	1326	700
350	14	1038	640	558.8	413	86	6.4	20-Φ42	1508	700
400	16	1140	705	615.9	470	89	6.4	20-Φ45	1730	700
Class 1500 ANSI B16.5										
25	1	254	149	101.6	51	29	6.4	4-Φ26	378	250
32	1 1/4	254	159	111.1	64	29	6.4	4-Φ26	410	250
40	1 1/2	305	178	123.8	73	32	6.4	4-Φ29	457	250
50	2	371	216	165.1	92	38.5	6.4	8-Φ26	478	250
65	2 1/2	419	244	190.5	105	41.5	6.4	8-Φ29	522	300
80	3	473	267	203.2	127	48	6.4	8-Φ32	559	300
100	4	549	311	241.3	157	54	6.4	8-Φ35	705	400
150	6	711	394	317.5	216	83	6.4	12-Φ39	845	500
200	8	841	483	393.7	270	93	6.4	12-Φ45	1145	650
250	10	1000	585	482.6	324	108	6.4	16-Φ51	1326	650
300	12	1146	675	571.5	381	124	6.4	16-Φ54	1508	700
Class 2500 ANSI B16.5										
25	1	254	159	107.9	51	35	6.4	4-Φ26	457	250
32	1 1/4	254	184	130.2	64	38.5	6.4	4-Φ29	457	250
40	1 1/2	371	203	146	73	44.5	6.4	4-Φ32	478	300
50	2	454	235	171.4	92	51	6.4	8-Φ29	522	400
65	2 1/2	473	267	196.8	105	57.5	6.4	8-Φ32	559	400
80	3	584	305	228.6	127	67	6.4	8-Φ35	730	500
100	4	683	356	273	157	76.5	6.4	8-Φ42	845	600
150	6	927	483	368.3	216	108	6.4	8-Φ54	1159	600
200	8	1036	550	438.1	270	127	6.4	12-Φ54	1534	600



对焊接轨道球阀 Butt weld connection track ball valve



GQ61F手动球阀  
Manual operation ball valve



GQ361F蜗轮动球阀  
Worm-gear actuator ball valve

主要连接尺寸(国标) Main connection dimensions (National standard)

公称通径 Nominal Diameter DN(mm)	L	H	H1	D0	L	H	H1	D0	L	H	H1	D0
	PN1.6(MPa)				PN2.5(MPa)				PN4.0(MPa)			
25	216	343	58	200	216	343	58	200	216	343	58	200
32	216	360	68	200	216	360	68	200	216	360	68	200
40	216	378	73	200	216	378	73	200	216	378	73	200
50	216	380	80	200	216	380	80	200	216	380	80	200
65	290	390	90	300	290	390	90	300	290	390	90	300
80	310	400	98	300	310	400	98	300	310	400	98	300
100	350	508	108	300	350	508	115	300	350	508	115	300
150	480	690	140	400	480	690	150	400	480	690	150	400
200	600	780	168	500	600	780	180	500	600	780	188	500
250	730	990	203	600	730	990	213	600	730	990	223	600
300	850	1180	230	600	850	1180	243	600	850	1180	255	600
350	980	1250	260	650	980	1250	273	650	980	1250	285	650
400	1100	1560	290	650	1100	1560	305	650	1100	1560	328	650
450	1200	1630	320	700	1200	1630	330	700	1200	1630	340	700
500	1250	1700	353	700	1250	1700	365	700	1250	1700	378	700
600	1450	1880	420	800	1450	1880	420	800	1450	1880	445	800
650	1450	1990	440	800	1450	1990	450	800	1450	1990	475	800
700	1650	2100	455	800	1650	2100	478	800	1650	2100	498	800
800	1850	2210	470	800	1850	2210	506	800	1850	2210	518	800
900	2050	2320	485	800	2050	2320	534	800	2050	2320	541	800
1000	2250	2430	500	800	2250	2430	562	800	2250	2430	564	800
PN6.4(MPa)				PN10.0(MPa)				PN16.0(MPa)				
25	216	343	68	200	230	387	68	200	230	387	70	200
32	216	360	75	200	230	410	75	200	230	410	83	200
40	216	378	83	200	260	430	83	250	260	430	86	250
50	216	380	88	200	300	478	88	250	300	478	108	250
65	290	390	100	300	340	520	110	300	340	520	123	300
80	310	400	105	300	380	559	115	300	380	559	130	300
100	350	508	125	300	430	575	133	400	430	575	150	400
150	480	690	170	400	550	870	175	500	550	870	195	500
200	600	780	203	500	650	1202	215	600	650	1202	240	600
250	730	990	235	600	775	1326	250	600	775	1326	290	600
300	850	1180	265	600	900	1508	293	600	900	1508	333	600
350	980	1250	298	650	1025	1700	328	600	1025	1700	368	600
400	1100	1560	335	650	1150	1902	358	600	1150	1902	398	600
450	1200	1630	375	700	1275	2050	420	700	1275	2050	430	600
500	1250	1700	400	700	1400	2320	485	700	1400	2320	460	700
600	1450	1880	465	800	1450	2480	510	800	1450	2480	520	700
650	1450	1990	490	800	1450	2550	520	800	1450	2550	550	800
700	1650	2100	518	800	1650	2620	528	800	1650	2620	568	800
800	1850	2210	546	800	1850	2720	556	800	-	-	-	-
900	2050	2320	574	800	2050	2800	584	800	-	-	-	-
1000	2250	2430	602	800	2250	2930	612	800	-	-	-	-



主要连接尺寸(美标) Main connection dimensions(American standard)

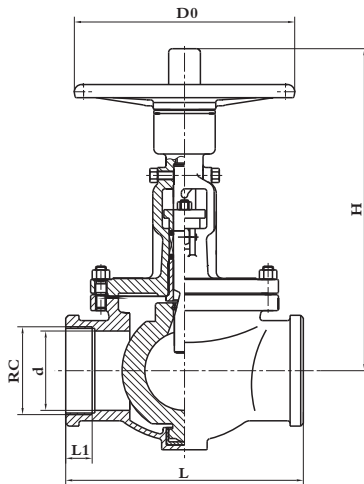
公称通径 Nominal Diameter		L	H	H1	D0	L	H	H1	D0	L	H	H1	D0
mm	inch	Class 150				Class 300				Class 400			
25	1	216	343	54	200	216	343	62	200	216	343	62	200
32	1 1/4	216	360	58	200	216	360	67	200	216	360	67	200
40	1 1/2	216	378	64	200	216	378	78	200	216	378	78	200
50	2	216	380	76	200	216	380	83	200	216	415	83	250
65	2 1/2	241	390	89	300	241	390	95	300	241	440	95	300
80	3	295	400	95	300	295	400	105	300	295	492	105	300
100	4	368	508	115	350	368	508	128	350	368	545	128	400
150	6	508	690	140	450	508	690	159	450	508	750	159	500
200	8	594	780	172	500	594	780	191	500	594	933	191	600
250	10	673	990	203	600	673	990	223	600	673	1197	223	600
300	12	762	1180	242	600	762	1180	261	600	762	1313	260	650
350	14	826	1250	267	700	826	1250	292	700	826	1450	293	650
400	16	991	1560	299	700	991	1560	324	700	991	1590	325	700
450	18	1092	1630	318	700	1092	1630	356	700	1092	1720	355	700
500	20	1143	1700	350	700	1143	1700	386	700	1143	1805	388	800
600	24	1245	1880	407	800	1245	1880	457	800	1245	1945	458	800
700	28	1346	2100	455	800	1346	2100	498	800	1346	2100	518	800
800	32	1524	2210	470	800	1524	2210	518	800	1524	2210	546	800
900	36	1727	2320	485	800	1727	2320	541	800	1727	2320	574	800
1000	40	1880	2430	500	800	1880	2430	564	800	1880	2430	602	800

主要连接尺寸(美标) Main connection dimensions(American standard)

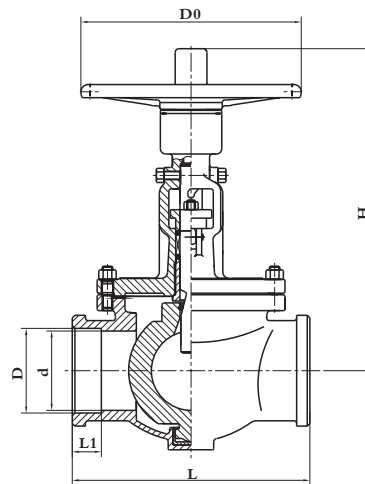
公称通径 Nominal Diameter		L	H	H1	D0	公称通径 Nominal Diameter		L	H	H1	D0	公称通径 Nominal Diameter		L	H	H1	D0
mm	inch	Class 600				mm	inch	Class 900				mm	inch	Class 1500			
25	1	216	343	62	200	25	1	254	387	75	250	25	1	254	387	75	250
32	1 1/4	216	360	67	200	32	1 1/4	254	410	80	250	32	1 1/4	254	410	80	250
40	1 1/2	216	378	78	200	40	1 1/2	305	457	89	250	40	1 1/2	305	457	89	250
50	2	216	415	83	250	50	2	305	478	108	250	50	2	371	478	108	300
65	2 1/2	241	440	95	300	65	2 1/2	371	502	122	300	65	2 1/2	419	522	122	300
80	3	295	492	105	300	80	3	384	559	121	300	80	3	473	559	134	400
100	4	368	545	137	400	100	4	460	575	146	400	100	4	549	705	156	500
150	6	473	750	178	500	150	6	613	773	191	500	150	6	711	845	192	600
200	8	660	933	210	600	200	8	740	980	235	600	200	8	841	1145	242	700
250	10	787	1197	254	600	250	10	841	1160	273	600	250	10	968	1326	293	700
300	12	838	1313	279	650	300	12	968	1326	305	700	300	12	1038	1508	338	700
350	14	889	1450	302	650	350	14	1038	1508	320	700	Class 2500					
400	16	991	1590	343	700	400	16	1140	1730	353	700	mm	inch	L	H	H1	D0
450	18	1092	1720	372	700	450	18	1219	1910	372	800	25	1	254	457	80	250
500	20	1194	1805	407	800	500	20	1321	2070	407	800	32	1 1/4	254	457	92	250
600	24	1397	1945	470	800	600	24	1540	2320	470	800	40	1 1/2	371	478	102	300
700	28	1346	2100	528	800	-	-	-	-	-	-	50	2	454	522	118	400
800	32	1524	2210	556	800	-	-	-	-	-	-	65	2 1/2	473	559	134	400
900	36	1727	2320	584	800	-	-	-	-	-	-	80	3	549	730	153	500
1000	40	1880	2430	612	800	-	-	-	-	-	-	100	4	711	845	178	600
-	-	-	-	-	-	-	-	-	-	-	-	150	6	841	1159	242	600
-	-	-	-	-	-	-	-	-	-	-	-	200	8	968	1534	275	600



内螺纹及承插焊连接轨道球阀 Internal screw and socket welded track ball valve



GQ11F内螺纹连接球阀  
Internal screw connection ball valve



GQ61F承插焊连接球阀  
Socket welded screw ball valve

内螺纹球阀主要连接尺寸 Internal screw ball valve main connection dimension

公称通径 Nominal Dimeter		标准值 Standard value				参考值 Reference value	
		L	d	RC	L1	H	D0
DN(mm)	NPS(inch)	Class 150		Class 300	Class 400		
25	1	110	25	1	17	310	150
32	1 1/4	120	32	1 1/4	19	320	200
40	1 1/2	135	40	1 1/2	20	360	200
50	2	170	50	2	22	410	200
		Class 600		Class 900			
15	1/2	90	15	1/2	16	260	150
20	3/4	100	20	3/4	18	280	150
25	1	120	25	1	22	310	150
32	1 1/4	140	32	1 1/4	22	320	200
40	1 1/2	170	40	1 1/2	24	360	200
50	2	200	50	2	25	410	200

承插焊球阀主要连接尺寸 Socket welded screw ball valve main connection dimension

公称通径 Nominal Dimeter		标准值 Standard value			参考值 Reference value		
		L	d	D	L1	H	D0
DN(mm)	NPS(inch)	Class 150		Class 300	Class 400		
25	1	120	25	34.5	12	310	150
32	1 1/4	140	32	43	14	320	200
40	1 1/2	170	40	49	15	360	200
50	2	200	50	61	16	410	200
		Class 600		Class 900			
15	1/2	90	15	22.5	10	260	150
20	3/4	100	20	28.5	11	280	150
25	1	120	25	34.5	12	310	150
32	1 1/4	140	32	43	14	320	200
40	1 1/2	170	40	49	15	360	200
50	2	200	50	61	16	410	200



## 无摩擦高温高压硬密封球阀

### Hard sealed ball valve, non-friction, high-temperature and high-pressure

#### 概述 General

无摩擦高温高压硬密封球阀是我公司引进国外先进技术，经我公司技术攻关、解剖、测试、研究并吸收了其他阀门的优点而设计、制作的一种具有多用途、高寿命的阀门。

本阀门的设计原理采用与楔式闸阀启闭相近的密封原理，即将两块带有燕尾槽的球面阀瓣装入带有双燕尾槽的锥体上，通过螺杆的旋转来带动锥体的上下运动，锥体向下运动前首先带动滑销动作，使锥体旋转90°，然后向下运动，使阀瓣球形密封面撑开与阀座密封块收紧，脱离阀座密封面，然后滑销动作，锥体旋转90°完成一个启闭周期程序。

采用本结构的阀门有以下优点：

- 1、在启闭时阀瓣与阀座密封面不产生摩擦、密封性能好，使用寿命长，是其他同种材质阀门使用寿命的十几到几十倍。
- 2、使用范围广，通过变换材质可用于650℃以下的水、蒸汽、油品、酸碱等介质的管路上。
- 3、密封件由锥体、球面阀瓣、阀座组成，采取强制密封，无泄漏。
- 4、本阀门启闭扭矩小而且关闭灵活。
- 5、结构简单紧凑、体积小、双向密封。

The hard sealed ball valve, non-friction, high-temperature and high-pressure is multi-purpose and long life span valve which is designed and made by introducing the abroad advanced the technique, through the research, analysis, testing and absorbing the merits of other valve.

This valve's designing principle is of the similar sealing principle of the wedging gate valve's opening and closing, that is, mount the dual-block spherical clack with swallowtail slot into cone with dual-face swallowtail slot and drive the upwards & downwards movement of cone through the rotation of screw stem, before the cone move downwards, it will drive the sliding-pin first and rotate the cone 90 degree, then move downwards and enable the opened clack spherical sealing face tighten to the sealing block of seat, subsequently, it will move away from the sealing surface of seat and drive the sliding-pin to complete one opening and closing circle by rotating 90 degree of the cone.

The following are merits of this structure :

1. Without relative friction damages between clack and the sealing surface of seat while opening and closing, meanwhile, the tightness is perfect life span is long and the serving life is tens times of other same material.
2. Wide application, can be applied to the pipes for carrying the water, steam, oils and acids and alkali under the 650℃.
3. The sealing elements consists of cone, spherical clack and seat, which is adopting the coercion tightness and without leakage.
4. Short torque of opening and closing, flexible.
5. Impact structure, small volume and dual-directional sealing.

#### 执行标准 Executive standard

- 1、设计与制造：GB12237-89。
  - 2、法兰尺寸：JB/T74-90(JB74-90)、GB9112-9131、HGJ44-76、SH3406。
  - 3、结构长度：GB12221-89。
  - 4、检验和试验：JB/T9092-99。
1. Design and making :GB12237-89 .
  2. Flange size : JB/T74-90(JB74-90) ,GB9112-9131 ,HGJ44-76 ,SH3406 .
  3. Structure length according to GB12221-89 .
  4. Test according to JB/T9092-99 .



### 主要零件材料 Material of main parts

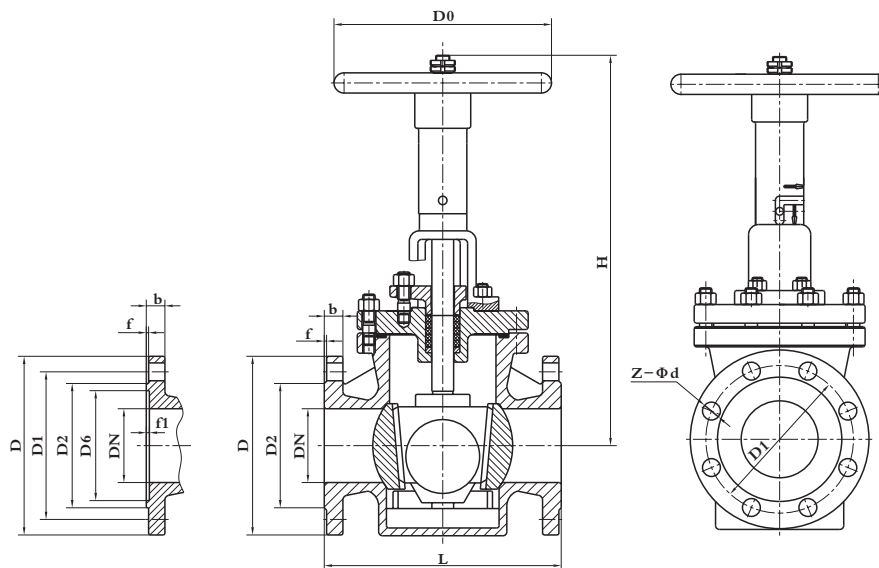
零件名称 Part name	材料 Material		
	碳素钢(C) Carbon steel	不锈钢(P) Stainless steel	不锈钢(R) Stainless steel
阀体 Body	WCB	ZG1Cr18Ni9Ti	ZG1Cr18Ni12Mo2Ti
阀座 Seat	1Cr18Ni9Ti	1Cr18Ni9Ti	1Cr18Ni9Ti
密封瓣 Sealing clack	2Cr13	1Cr18Ni9Ti	1Cr18Ni9Ti
球塞 Ball piston	ZG2Cr13	ZG1Cr18Ni9Ti	ZG1Cr18Ni12Mo2Ti
填料 Stuffing	柔性石墨 Soft graphite		
阀盖 Bonnet	WCB	ZG1Cr18Ni9Ti	ZG1Cr18Ni12Mo2Ti
阀杆 Stem	2Cr13	1Cr18Ni9Ti	1Cr18Ni12Mo2Ti

### 性能规范 Performance criterion

试验项目 Test style	公称压力 Nominal pressure (MPa)				
	1.6	2.5	4.0	6.4	10.0
强度试验 Intensity test	1.6	3.75	6.0	9.6	15.0
密封试验(水) Sealing test (water)	1.76	2.75	4.4	7.04	11.0
上密封试验(水) Upper sealing test (water)	1.76	2.75	4.4	7.04	11.0
低压密封试验(空气) Low-pressure sealing test (air)	0.6				

### 产品型号 Type of product

WQ41H-16C	WQ41H-16P	WQ41H-16R
WQ41H-25	WQ41H-25P	WQ41H-25R
WQ41H-40	WQ41H-40P	WQ41H-40R
WQ41H-63	WQ41H-63P	WQ41H-63R
WQ41H-100	WQ41H-100P	WQ41H-100R



WQ41H型球阀

WQ41H type ball valve



主要连接尺寸及重量 Main connection and weights

公称通径 Nominal Diameter DN(mm)	标准值 Standard value									参考值 Reference value		
	L	D	D1	D2	D6	b	f	f1	Z-Φd	H	D0	W(Kg)
PN1.6(MPa)/PN2.5(MPa)												
40	240	150	110	85	-	16/18	3	-	4-Φ18	340	200	21.6/23.4
50	250	165	125	100	-	16/20	3	-	4-Φ18	371	240	34.8/36.8
65	270	185	145	120	-	18/22	3	-	4-Φ18/8-Φ18	393	240	39.6/42.3
80	280	200	160	135	-	20/22	3	-	8-Φ18	435	280	55.2/58.6
100	300	220/230	180/190	155/160	-	20/24	3	-	8-Φ18/8-Φ23	500	320	75.6/82.6
125	325	250/270	210/220	185/188	-	22/28	3	-	8-Φ18/8-Φ26	614	360	130.5/115
150	350	285/300	240/250	210/218	-	24/30	3	-	8-Φ23/8-Φ26	674	400	160.8/255.6
200	400	340/360	295/310	265/278	-	26/34	3	-	12-Φ23/12-Φ26	864	400	230.4/348
250	450	405/425	355/370	320/332	-	30/36	3	-	12-Φ26/12-Φ30	969	450	327.6/356.5
300	500	460/485	410/430	375/390	-	30/40	4	-	12-Φ26/16-Φ30	1145	560	454.8/478.8
PN4.0(MPa)/PN6.3(MPa)												
40	190/240	150/170	110/125	85/95	76	18/24	3	4	4-Φ18/4-Φ23	340/360	-	32/44.4
50	216/250	165/180	125/135	100/105	88	20/26	3	4	4-Φ18/4-Φ23	386/371	280	34.8/48
65	241/280	185/205	145/160	120/130	110	22/28	3	4	8-Φ18/8-Φ23	393	280	45.6/51.6
80	283/310	200/215	160/170	135/140	121	22/30	3	4	8-Φ18/8-Φ23	498/455	320	61.2/72
100	305/350	235/250	190/200	160/168	150	24/32	3	4.5	8-Φ23/8-Φ26	558/551	380/360	97.2/106.8
125	381/400	270/295	220/240	188/202	176	28/36	3	4.5	8-Φ26/8-Φ30	634/628	400	128/140
150	403/450	300/345	250/280	218/240	204	30/38	3	4.5	8-Φ26/8-Φ34	720/718	400/450	186/248.4
200	419/550	375/405	320/345	282/300	260	38/44	3	4.5	12-Φ30/12-Φ36	876/873	450/560	318/392.4
250	457/650	450/470	385/400	345/352	313	42/48	3	4.5	12-Φ34/12-Φ36	1059/1050	560/640	444/560.4
300	502/750	515/530	450/460	408/412	364	46/54	4	4.5	16-Φ34/16-Φ36	1201/1470	640	660/708
PN10.0(MPa)												
40	240	170	125	95	76	26	3	4	4-Φ23	360	-	72
50	250	195	145	112	88	28	3	4	4-Φ26	490	360	78
65	280	220	170	138	110	32	3	4	8-Φ26	540	400	84
80	310	230	180	148	121	34	3	4	8-Φ26	572	400	120
100	350	265	210	172	150	38	3	4.5	8-Φ30	573	400	132
125	400	315	250	210	176	42	3	4.5	8-Φ34	744	560	220
150	450	355	290	250	204	46	3	4.5	8-Φ34	800	560	300
200	550	430	360	312	260	54	3	4.5	12-Φ36	800	560	432
250	650	505	430	382	313	60	3	4.5	12-Φ41	1050	-	728
300	750	585	500	442	364	70	4	4.5	16-Φ42	1200	-	920.4



## 偏心球阀 Eccentric ball valve

### 概述 General

偏心调节球阀是在引进国外先进技术的基础上研制开发的高性能调节阀。偏心调节球阀综合了常规调节阀、蝶阀、球阀的优点，具有流通能力大、可调范围广、安全可靠、启闭速度快等优点，是一种用途广泛的调节阀。

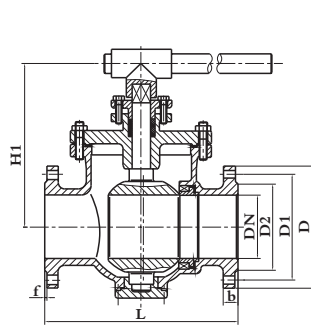
Eccentric adjusting ball valve is a high performance ball valve developed on the basis of introduced advanced techniques from abroad, combine advantages of general regulation valve, butterfly valve, ball valve with particulars of big capacity, wide adjustable range, safe and reliable abilities, quick operation and is one kind of wide application regulation valves.

### 结构特点 Structure traits

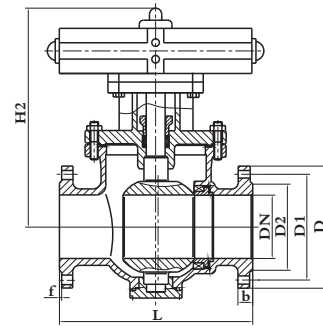
- 1、阀体采用整体式结构设计，泄漏点少，安全可靠。
  - 2、阀瓣与阀杆采用三偏心结构设计，开启时阀瓣与阀座能迅速脱离，有效防止密封面的摩擦损伤，并减少操作扭矩。关闭时能迅速增大密封比压，有效地减少阀门的泄漏。
  - 3、偏心调节球阀流通能力大，与其它结构的调节阀相比，在相同流量下可以采用较小口径。
  - 4、偏心调节球阀的可调范围广，其可调的最大流量与最小流量的比值可达200:1，因此，它适用于多种应用场合。
  - 5、阀座密封面采用增强聚四氟乙烯、弹性金属密封圈、硬质合金及特种硬化材料等多种材料制造，能适用于多种压力、温度及介质工况。
1. Valve body adopts whole type structural design for few leakage points and safe & reliable performance.
  2. Valve clack and stem adopt triple eccentric construct, so the clack can quickly break away from the seat when opened so that the frictional damage of sealing faces is effectively prevented and operative torque reduced, sealing pressure differential rapidly increases when closed so as to effectively decrease valve leakage.
  3. The flow capacity of eccentric hemi-spherical adjusting ball valve is large. Compared with the structure of other ball valve, it can adopt smaller bore under the same capacity.
  4. Eccentric adjusting ball valve has wide adjusting range with 200:1 ratio of adjustable max. capacity and min. capacity and can be use in various different occasions.
  5. The seat face can adopt reinforced PTFE, stretchy metal sealing ring, hard alloy or special hardened material and be suitable for various pressures, temperatures and working conditions of medium.

### 执行标准 Executive standard

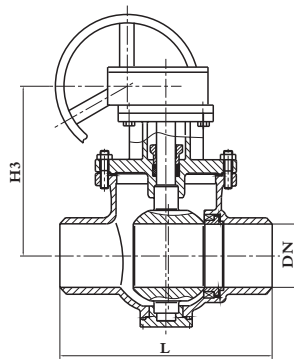
- 1、设计与制造：GB12237-89、ANSI B16.34。
  - 2、法兰尺寸：JB/T74~90(JB74~90)；GB9112~9131；HGJ44~76；SH3406；ANSI B16.5。
  - 3、结构长度：GB12221-89、ANSI B16.10。
  - 4、检验和试验：JB/T9092-99、API 598。
1. Design and making :GB12237-89 , ANSI B16.34 .
  2. Flange size : JB/T74~90(JB74~90) ,GB9112~9131 ,HGJ44~76 ,SH3406 ,ANSI B16.5 .
  3. Structure length according to GB12221-89 ,ANSI B16.10 .
  4. Test according to JB/T9092-99 ,API 598 .



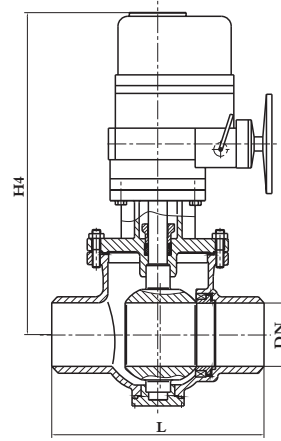
PQ47F手动球阀  
Manual operation ball valve



PQ647F气动球阀  
Pneumatic actuator ball valve



PQ347蜗轮动球阀  
Worm-gear actuator ball valve



PQ947电动球阀  
Electric actuator ball valve

主要零件材料及适用工况 Main parts material and suitable working conditions

零件名称 Part name	阀体 Body	WCB	ZG1Cr18Ni9Ti	ZG1Cr18Ni12Mo2Ti
	球体 ball	2Cr13	1Cr18Ni9Ti	1Cr18Ni12Mo2Ti
	密封圈 Sealing ring	增强聚四氟乙烯 Reefored PTFE		
	阀杆 Stem	2Cr13	1Cr18Ni9Ti	1Cr18Ni12Mo2Ti
	填料 Packing	聚四氟乙烯 PTFE		
适用工况 Suitable working conditions	适用介质 Suitable medium	水、蒸汽、油品等 Water ,steam ,oil ,etc.	硝酸等腐蚀性介质 Corrosive media such as nitric acid ,etc.	醋酸等腐蚀性介质 Corrosive media such as acetic acid ,etc.
	适用温度 Suitable temperature	聚四氟乙烯PTFE -29~180℃		

产品型号 Type of product

PQ47F-10C	PQ47F-10P	PQ47F-10R
PQ47F-16C	PQ47F-16P	PQ47F-16R
PQ47F-25	PQ47F-25P	PQ47F-25R
PQ47F-40	PQ47F-40P	PQ47F-40R
PQ47F-64	PQ47F-64P	PQ47F-64R
PQ47F-100	PQ47F-100P	PQ47F-100R
PQ47F-160	PQ47F-160P	PQ47F-160R
PQ47F-150(Lb)C	PQ47F-150(Lb)P	PQ47F-150(Lb)R
PQ47F-300(Lb)C	PQ47F-300(Lb)P	PQ47F-300(Lb)R
PQ47F-600(Lb)C	PQ47F-600(Lb)P	PQ47F-600(Lb)R
PQ47F-900(Lb)C	PQ47F-900(Lb)P	PQ47F-900(Lb)R
PQ47F-1500(Lb)C	PQ47F-1500(Lb)P	PQ47F-1500(Lb)R
PQ47F-2500(Lb)C	PQ47F-2500(Lb)P	PQ47F-2500(Lb)R

注：1、若球阀为蜗轮蜗杆传动、气动、电动，则在连接代号“4”前加“3”、“6”、“9”。

2、若球阀连接形式为焊接连接，则将连接形式代号“4”改为“6”。

Notes: 1. If worm gear drive ,pneumatic and electric actuated is adopted, "3","6"or"9" is added before the connection type code "4".

2. If ball valve adopts weld connection type, the connection type code "4" is changed as "6"



主要连接尺寸及重量(国标) Main connection and weights (National standard)

公称通径 Nominal Diameter		标准值 Standard value								参考值 Reference value				重量 Weight (Kg)			
		L		D	D1	D2	b	f	Z-Φd	H1	H2	H3	H4				
mm	in	法兰 Flange	对焊 Butt weld											PN1.0(MPa)			
		15	1/2	108	165	95	65	45	14	2	4-Φ14	145		210	346	4.5	
20	3/4	117	190	105	75	55	14	2	4-Φ14	152		220	352	5.5			
25	1	127	216	115	85	65	14	2	4-Φ14	162		235	364	7			
32	1 1/4	140	229	135	100	78	16	2	4-Φ18	175		255	382	11.5			
40	1 1/2	165	241	145	110	85	16	3	4-Φ18	188		280	406	17			
50	2	178	292	160	125	100	16	3	4-Φ18	205	228	308	430	22	31		
65	2 1/2	190	330	180	145	120	18	3	4-Φ18	222	248	340	460	28	39		
80	3	203	356	195	160	135	20	3	4-Φ18	242	270	380	494	41	52		
100	4	229	432	215	180	155	20	3	8-Φ18	265	294	430	538	58	71		
125	5	356	508	245	210	185	22	3	8-Φ18		322	490	588		103		
150	6	394	559	280	240	210	22	3	8-Φ23		358	560	644		180		
200	8	457	660	335	295	265	24	3	8-Φ23		406	640	704		290		
250	10	533	787	390	350	320	26	4	12-Φ23		468	730	766		400		
300	12	610	838	440	400	368	26	4	12-Φ23		538	830	830		540		
350	14	686	889	500	460	428	28	4	16-Φ23		610	940	922		734		
400	16	762	991	565	515	482	28	4	16-Φ25		682	1060	1020		1005		
450	18	864	1092	615	565	532	30	4	20-Φ25		755	1180	1114		1372		
500	20	914	1194	670	620	585	30	4	20-Φ25		832	1300	1204		1880		
600	24	1067	1397	780	725	685	34	5	20-Φ30		922	1420	1290		2648		
700	28	1245	1549	895	840	800	38	5	24-Φ30		1015	1540	1375		3828		
800	32	1372	1778	1010	950	905	42	5	24-Φ34		1110	1650	1448		5462		
PN1.6(MPa)																	
15	1/2	108	165	95	65	45	14	2	4-Φ14	145		210	346	4.5			
20	3/4	117	190	105	75	55	14	2	4-Φ14	152		220	352	5.5			
25	1	127	216	115	85	65	14	2	4-Φ14	162		235	364	7			
32	1 1/4	140	229	135	100	78	16	2	4-Φ18	175		255	382	11.5			
40	1 1/2	165	241	145	110	85	16	3	4-Φ18	188		280	406	17			
50	2	178	292	160	125	100	16	3	4-Φ18	205	228	308	430	22	31		
65	2 1/2	190	330	180	145	120	18	3	4-Φ18	222	248	340	460	28	39		
80	3	203	356	195	160	135	20	3	8-Φ18	242	270	380	494	41	52		
100	4	229	432	215	180	155	20	3	8-Φ18	265	294	430	538	58	71		
125	5	356	508	245	210	185	22	3	8-Φ18		322	490	588		103		
150	6	394	559	280	240	210	24	3	8-Φ23		358	560	644		182		
200	8	457	660	335	295	265	26	3	12-Φ23		406	640	704		292		
250	10	533	787	405	355	320	30	3	12-Φ25		468	730	766		404		
300	12	610	838	460	410	375	30	4	12-Φ25		538	830	830		545		
350	14	686	889	520	470	435	34	4	16-Φ25		610	940	922		745		
400	16	762	991	580	525	485	36	4	16-Φ30		682	1060	1020		1020		
450	18	864	1092	640	585	545	40	4	20-Φ30		755	1180	1114		1392		
500	20	914	1194	705	650	608	44	4	20-Φ34		832	1300	1204		1910		
600	24	1067	1397	840	770	718	48	5	20-Φ41		922	1420	1290		2688		
700	28	1245	1549	910	840	788	50	5	24-Φ41		1015	1540	1375		3878		
800	32	1372	1778	1020	950	898	52	5	24-Φ41		1110	1650	1448		5522		

注：参考重量仅列出手动球阀与蜗轮动球阀的重量

Note: Only weight of manual operation and worm-gear actuator ball valves are listed as reference weights.



主要连接尺寸及重量(国标) Main connection and weights (National standard)

公称通径 Nominal Diameter		标准值 Standard value									参考值 Reference value				重量 Weight (Kg)		
		L		D	D1	D2	D6	b	f	Z-Φd	H1	H2	H3	H4			
mm	in	法兰 Flange	对焊 Butt weld												PN2.5(MPa)		
		15	1/2	140	165	95	65	45	-	16	2	4-Φ14	150		218	354	4
20	3/4	152	190	105	75	55	-	16	2	4-Φ14	158		228	360	5		
25	1	165	216	115	85	65	-	16	2	4-Φ14	166		245	374	7.5		
32	1 1/4	178	229	135	100	78	-	18	2	4-Φ18	180		265	392	11.5		
40	1 1/2	190	241	145	110	85	-	18	3	4-Φ18	195		290	416	16		
50	2	216	292	160	125	100	-	20	3	4-Φ18	216	240	320	442	21	30	
65	2 1/2	241	330	180	145	120	-	22	3	8-Φ18	234	260	355	475	28	39	
80	3	283	356	195	160	135	-	22	3	8-Φ18	252	280	394	508	41	52	
100	4	305	432	230	190	160	-	24	3	8-Φ23	278	308	445	552	58	72	
125	5	381	508	270	220	188	-	28	3	8-Φ25		345	512	610		104	
150	6	403	559	300	250	218	-	30	3	8-Φ25		390	592	676		180	
200	8	502	660	360	310	278	-	34	3	12-Φ25		455	690	754		284	
250	10	568	787	425	370	332	-	36	3	12-Φ30		528	790	826		390	
300	12	648	838	485	430	390	-	40	4	16-Φ30		604	895	895		540	
350	14	762	889	550	490	448	-	44	4	16-Φ34		682	1012	994		752	
400	16	838	991	610	550	505	-	48	4	16-Φ34		768	1145	1105		1020	
450	18	914	1092	660	600	555	-	50	4	20-Φ34		855	1280	1214		1450	
500	20	991	1194	730	660	610	-	52	4	20-Φ41		942	1410	1314		2010	
600	24	1143	1397	840	770	718	-	56	5	20-Φ41		1030	1530	1400		2850	
700	28	1346	1549	955	875	815	-	60	5	24-Φ48		1130	1655	1490		4102	
800	32	1524	1778	1070	990	930	-	64	5	24-Φ48		1260	1800	1600		5830	
PN4.0(MPa)																	
15	1/2	140	165	95	65	45	40	16	2	4-Φ14	150		218	354	4		
20	3/4	152	190	105	75	55	51	16	2	4-Φ14	158		228	360	5		
25	1	165	216	115	85	65	58	16	2	4-Φ14	166		245	374	7.5		
32	1 1/4	178	229	135	100	78	66	18	2	4-Φ18	180		265	392	11.5		
40	1 1/2	190	241	145	110	85	76	18	3	4-Φ18	195		290	416	16		
50	2	216	292	160	125	100	88	20	3	4-Φ18	216	240	320	442	21	30	
65	2 1/2	241	330	180	145	120	110	22	3	8-Φ18	234	260	355	475	28	39	
80	3	283	356	195	160	135	121	22	3	8-Φ18	252	280	394	508	41	52	
100	4	305	432	230	190	160	150	24	3	8-Φ23	278	308	445	552	58	72	
125	5	381	508	270	220	188	176	28	3	8-Φ25		345	512	610		104	
150	6	403	559	300	250	218	204	30	3	8-Φ25		390	592	676		180	
200	8	502	660	375	320	282	260	38	3	12-Φ30		455	690	754		288	
250	10	568	787	445	385	345	313	42	3	12-Φ34		528	790	826		398	
300	12	648	838	510	450	408	364	46	4	16-Φ34		604	895	895		552	
350	14	762	889	570	510	465	422	52	4	16-Φ34		682	1012	994		765	
400	16	838	991	655	585	535	474	58	4	16-Φ41		768	1145	1105		1060	
450	18	914	1092	680	610	560	524	60	4	20-Φ41		855	1280	1214		1470	
500	20	991	1194	755	670	612	576	62	4	20-Φ48		942	1410	1314		2038	
600	24	1143	1397	890	795	730	678	62	5	20-Φ54		1030	1530	1400		2915	
700	28	1346	1549	995	900	835	768	68	5	24-Φ54		1130	1655	1490		4168	
800	32	1524	1778	1135	1030	960	876	76	5	24-Φ58		1260	1800	1600		5960	

注：参考重量仅列出手动球阀与蜗轮动球阀的重量

Note: Only weight of manual operation and worm-gear actuator ball valves are listed as reference weights.



主要连接尺寸及重量(国标) Main connection and weights (National standard)

公称通径 Nominal Diameter		标准值 Standard value									参考值 Reference value				重量 Weight (Kg)	
		L		D	D1	D2	D6	b	f	Z-Φd	H1	H2	H3	H4		
mm	in	法兰 Flange	对焊 Butt weld												Q47F	Q347F
PN6.4(MPa)																
15	1/2	165	165	105	75	55	40	18	2	4-Φ14	162		228	364	4.8	
20	3/4	190	190	125	90	68	51	20	2	4-Φ18	170		245	376	6	
25	1	216	216	135	100	78	58	22	2	4-Φ18	180		265	394	9	
32	1 1/4	229	229	150	110	82	66	24	2	4-Φ23	194		290	416	14	
40	1 1/2	241	241	165	125	95	76	24	3	4-Φ23	210		320	446	19	
50	2	292	292	175	135	105	88	26	3	4-Φ23	232	262	356	478	25	34
65	2 1/2	330	330	200	160	130	110	28	3	8-Φ23	256	285	398	518	33.5	44
80	3	356	356	210	170	140	121	30	3	8-Φ23	278	308	445	560	49	60
100	4	406	432	250	200	168	150	32	3	8-Φ25		342	510	618		87
125	5	457	508	295	240	202	176	36	3	8-Φ30		390	592	690		125
150	6	495	559	340	280	240	204	38	3	8-Φ34		440	676	760		216
200	8	597	660	405	345	300	260	44	3	12-Φ34		510	772	838		346
250	10	673	787	470	400	352	313	48	3	12-Φ41		600	892	928		478
300	12	762	838	530	460	412	364	54	4	16-Φ41		690	1020	1020		664
350	14	826	889	595	525	475	422	60	4	16-Φ41		780	1158	1140		918
400	16	902	991	670	585	525	474	66	4	16-Φ48		870	1295	1255		1272
500	18	1054	1194	800	705	640	576	70	4	20-Φ54		1010	1510	1414		2445
600	20	1232	1397	930	820	750	678	76	5	20-Φ58		1110	1635	1405		3500
PN10.0(MPa)																
15	1/2	165	165	105	75	55	40	20	2	4-Φ14	178		235	372	5	
20	3/4	190	190	125	90	68	51	22	2	4-Φ18	186		255	388	6.5	
25	1	216	216	135	100	78	58	24	2	4-Φ18	197		278	408	9.5	
32	1 1/4	229	229	150	110	82	66	24	2	4-Φ23	212		305	432	14.5	
40	1 1/2	241	241	165	125	95	76	26	3	4-Φ23	232	258	338	464	19.5	28
50	2	292	292	195	145	112	88	28	3	4-Φ25	256	285	380	502	28	41
65	2 1/2	330	330	220	170	138	110	32	3	8-Φ25		312	426	546		54
80	3	356	356	230	180	148	121	34	3	8-Φ25		340	476	590		72
100	4	432	432	265	210	172	150	38	3	8-Φ30		375	542	650		105
125	5	508	508	310	250	210	176	42	3	8-Φ34		430	632	730		152
150	6	559	559	350	290	250	204	46	3	12-Φ34		488	722	806		262
200	8	660	660	430	360	312	260	54	3	12-Φ41		585	848	912		428
250	10	787	787	500	430	382	313	60	3	12-Φ41		680	972	1008		598
300	12	838	838	585	500	442	364	70	4	16-Φ48		780	1110	1110		830
350	14	889	889	655	560	498	422	76	4	16-Φ54		880	1260	1242		1148
400	16	991	991	715	620	558	474	80	4	16-Φ54		970	1395	1355		1590
PN16.0(MPa)																
15	1/2	216	216	110	75	52	40	24	2	4-Φ18	205		255	390	7	
20	3/4	229	229	130	90	62	51	26	2	4-Φ23	215		278	410	9	
25	1	254	254	140	100	72	58	28	2	4-Φ23	226		305	434	13	
32	1 1/4	279	279	165	115	85	66	30	2	4-Φ25	245	275	335	462	20	32
40	1 1/2	305	305	175	125	92	76	32	3	4-Φ27	270	300	380	506	27	40
50	2	368	368	215	165	132	88	36	3	8-Φ25		340	435	558		58
65	2 1/2	419	419	245	190	152	110	44	3	8-Φ30		380	494	614		76
80	3	381	381	260	205	168	121	46	3	8-Φ30		420	556	670		102
100	4	457	457	300	240	200	150	48	3	8-Φ34		465	632	740		148
125	5	559	559	355	285	238	176	60	3	8-Φ41		530	732	830		213
150	6	610	610	390	318	270	204	66	3	12-Φ41		610	845	930		366
200	8	737	737	480	400	345	260	78	3	12-Φ48		720	982	1046		598
250	10	838	838	580	485	425	313	88	3	12-Φ54		830	1122	1158		838
300	12	965	965	655	570	510	364	100	3	16-Φ54		940	1270	1270		1162

注：参考重量仅列出手动球阀与蜗轮动球阀的重量。

Notes: Only weight of manual operation and worm-gear actuator ball valve are listed as reference weights.



主要连接尺寸及重量(美标) Main connection and weights (American standard)

公称通径 Nominal Diameter		标准值 Standard value								参考值 Reference value				重量 Weight (Kg)			
		L		D	D1	D2	b	f	Z-Φd	H1	H2	H3	H4				
mm	in	法兰 Flange	对焊 Butt weld											Class 150 PN2.0MPa			
15	1/2	108	165	89	60.5	35	11.0	1.6/2	4-Φ15	145		210	346	3.5			
20	3/4	117	190	98	70.0	43	11.5	1.6/2	4-Φ15	152		220	352	4.5			
25	1	127	216	108/110	79.5	51	12.5	1.6/2	4-Φ15/4-Φ16	162		235	364	6.5			
32	1 1/4	140	229	117/120	89.0	64	13.5	1.6/2	4-Φ15/4-Φ16	175		255	382	10			
40	1 1/2	165	241	127/130	98.5	73	15.0	1.6/2	4-Φ15/4-Φ16	188		280	406	14			
50	2	178	292	152/150	120.5	92	16.0	1.6/2	4-Φ19/4-Φ20	205	228	308	430	18.5	27.5		
65	2 1/2	190	330	178/180	139.5	105	18.0	1.6/2	4-Φ19/4-Φ20	222	248	340	460	25	36		
80	3	203	356	190	152.5	127	19.5	1.6/2	4-Φ19/4-Φ20	242	270	380	494	36.5	47.5		
100	4	229	432	229/230	190.5	157	24.0	1.6/2	8-Φ19/8-Φ20	265	294	430	538	55	68		
125	5	356	508	254/255	216.5	186	24.0	1.6/2	8-Φ22		322	490	588		97		
150	6	394	559	279/280	241.5	216	26.0	1.6/2	8-Φ22		358	560	644		165		
200	8	457	660	343/345	298.5	270	29.0	1.6/2	8-Φ22		406	640	704		264		
250	10	533	787	406/405	362.0	324	31.0	1.6/2	12-Φ25/12-Φ26		468	730	766		363		
300	12	610	838	483/485	432.0	381	32.0	1.6/2	12-Φ25/12-Φ26		538	830	830		510		
350	14	686	889	533/535	476.0	413	35.0	1.6/2	12-Φ29/12-Φ30		610	940	922		702		
400	16	762	991	597/600	540.0	470	37.0	1.6/2	16-Φ29/16-Φ30		682	1060	1020		974		
450	18	864	1092	635	578.0	533	40.0	1.6/2	16-Φ32/16-Φ33		755	1180	1114		1334		
500	20	914	1194	699/700	635.0	584	43.0	1.6/2	20-Φ32/20-Φ33		832	1300	1204		1850		
600	24	1067	1397	813/815	749.5	692	48.0	1.6/2	20-Φ35/20-Φ36		922	1420	1290		2626		
700	28	1245	1549	927	863.5	800	72.0	2	28-Φ35		1015	1540	1375		3816		
800	32	1372	1778	1060	978.0	915	81.0	2	28-Φ41		1110	1650	1448		5502		
Class 300 PN5.0MPa																	
15	1/2	140	165	95	66.5	35	15.0	1.6/2	4-Φ15	150		218	354	4			
20	3/4	152	190	117	82.5	43	16.0	1.6/2	4-Φ19	158		228	360	5.5			
25	1	165	216	124/125	89.0	51	18.0	1.6/2	4-Φ19/4-Φ20	166		245	374	8			
32	1 1/4	178	229	133/135	98.5	64	19.5	1.6/2	4-Φ19/4-Φ20	180		265	392	12			
40	1 1/2	190	241	156/155	114.5	73	21.0	1.6/2	4-Φ22	195		290	416	17			
50	2	216	292	165	128.0	92	23.0	1.6/2	8-Φ19/8-Φ20	216	240	320	442	22	31		
65	2 1/2	241	330	190	149.0	105	26.0	1.6/2	8-Φ22	234	260	355	475	30	41		
80	3	283	356	210	168.5	127	29.0	1.6/2	8-Φ22	252	280	394	508	44	55		
100	4	305	432	254/255	200.0	157	32.0	1.6/2	8-Φ22	278	308	445	552	63	77		
125	5	381	508	279/280	235.0	186	35.0	1.6/2	8-Φ22		345	512	610		108		
150	6	403	559	318/320	270.0	216	37.0	1.6/2	12-Φ22		390	592	676		186		
200	8	502	660	381/380	330.0	270	42.0	1.6/2	12-Φ25/12-Φ26		455	690	754		292		
250	10	568	787	445	387.5	324	48.0	1.6/2	16-Φ29/16-Φ30		528	790	826		402		
300	12	648	838	521/520	451.0	381	51.0	1.6/2	16-Φ32/16-Φ33		604	895	895		560		
350	14	762	889	584/585	514.5	413	54.0	1.6/2	20-Φ32/20-Φ33		682	1012	994		778		
400	16	838	991	648/650	571.5	470	58.0	1.6/2	20-Φ35/20-Φ36		768	1145	1105		1056		
450	18	914	1092	711/710	628.5	533	61.0	1.6/2	24-Φ35/24-Φ36		855	1280	1214		1500		
500	20	991	1194	775	686.0	584	64.0	1.6/2	24-Φ35/24-Φ36		942	1410	1314		2064		
600	24	1143	1397	914/915	813.0	692	70.0	1.6/2	24-Φ41/24-Φ42		1030	1530	1400		2960		
700	28	1346	1547	1035	940.0	800	86.0	2	28-Φ45		1130	1655	1490		4070		
800	32	1524	1778	1149	1054.0	915	99.0	2	25-Φ52		1260	1800	1600		6010		

注：1、表中以分数表示者，分子为ANSI B16.5尺寸，分母为GB9112~9131、SH3406尺寸。

2、参考重量仅列出手动球阀与蜗轮动球阀的重量。

Notes: 1. As for fractions in table, numerators refer to dimensions in accordance with ANSI B16.5 and denominators in accordance with GB9112~9131, SH3406.

2. Only weight of manual operation and worm-gear actuator ball valve are listed as reference weight.



主要连接尺寸及重量(美标) Main connection and weights (American standard)

公称通径 Nominal Diameter		标准值 Standard value							参考值 Reference value				重量 Weight (Kg)			
		L		D	D1	D2	b	f	Z-Φd	H1	H2	H3			H4	
mm	in	法兰 Flange	对焊 Butt weld										Class 600 PN10.0MPa			
		15	1/2	165	165	95	66.5	35.0	15.0	6.4/7	4-Φ15/4-Φ16	178		235	372	4.5
20	3/4	190	190	118/120	82.5	43.0	16.0	6.4/7	4-Φ19/4-Φ20	186		255	388	6		
25	1	216	216	124/125	89.0	51.0	18.0	6.4/7	4-Φ19/4-Φ20	197		278	408	8.5		
32	1 1/4	229	229	133/135	98.5	63.5	21.0	6.4/7	4-Φ19/4-Φ20	212		305	432	13.5		
40	1 1/2	241	241	156/155	114.5	73.0	23.0	6.4/7	4-Φ22	232	258	338	464	25		
50	2	292	292	165	127.0	92.0	26.0	6.4/7	8-Φ19/8-Φ20	256	285	380	502		50	
65	2 1/2	330	330	190	149.0	105.0	29.0	6.4/7	8-Φ22		312	426	546		68	
80	3	356	356	210	168.0	127.0	32.0	6.4/7	8-Φ22		340	476	590		108	
100	4	432	432	273/275	216.0	157.0	38.5	6.4/7	8-Φ25/8-Φ26		375	542	650		160	
125	5	508	508	330	266.5	186.0	45.0	6.4/7	8-Φ29/8-Φ30		430	632	730		265	
150	6	559	559	356/355	292.0	216.0	48.0	6.4/7	12-Φ29/12-Φ30		488	722	806		422	
200	8	660	660	419/420	349.0	270.0	56.0	6.4/7	12-Φ32/12-Φ33		585	848	912		606	
250	10	787	787	508/510	432.0	324.0	64.0	6.4/7	16-Φ35/16-Φ36		680	972	1008		808	
300	12	838	838	559/560	489.0	381.0	67.0	6.4/7	20-Φ35/20-Φ36		780	1110	1110		1090	
350	14	889	889	603/605	527.0	413.0	70.0	6.4/7	20-Φ38/20-Φ39		880	1260	1242		1546	
400	16	991	991	686/685	603.0	170.0	77.0	6.4/7	20-Φ41/20-Φ42		970	1395	1355		2000	
450	18	1092	1092	743/745	654.0	533.0	83.0	6.4/7	20-Φ44/20-Φ45		1030	1498	1432		3050	
500	20	1194	1194	813/815	724.0	584.0	89.0	6.4/7	24-Φ44/24-Φ45		1115	1615	1520		4370	
600	24	1397	1397	940	838.0	692.0	102.0	6.4/7	24-Φ52		1240	1765	1635		6250	
700	28	1549	1549	1073	965.0	800.0	112.0	6.4/7	28-Φ55		1380	1920	1755		8940	
800	32	1778	1778	1194	1080.0	915.0	118.0	6.4/7	28-Φ61		1520	2090	1890			
Class 900 PN15.0MPa																
25	1	254	254	149/150	101.5	51.0	29.0	6.4/7	4-Φ26	226		305	434	10		
32	1 1/4	279	279	159/160	111.0	63.5	29.0	6.4/7	4-Φ26	245	275	335	462	15		
40	1 1/2	305	305	178/180	124.0	73.0	32.0	6.4/7	4-Φ29/4-Φ30	270	300	380	506		45	
50	2	368	368	216/215	165.0	92.0	38.5	6.4/7	8-Φ26		340	435	558		55	
65	2 1/2	419	419	244/245	190.5	105.0	41.5	6.4/7	8-Φ29/8-Φ30		380	494	614		75	
80	3	381	381	241/240	190.5	127.0	38.5	6.4/7	8-Φ26		420	556	670		122	
100	4	457	457	292/295	235.0	157.0	44.5	6.4/7	8-Φ32/8-Φ33		465	632	740		185	
125	5	559	559	349/350	279.5	186.0	51.0	6.4/7	8-Φ35/8-Φ36		530	732	830		292	
150	6	610	610	381/380	317.5	216.0	56.0	6.4/7	12-Φ32/12-Φ33		610	845	930		453	
200	8	737	737	470	393.5	270.0	63.5	6.4/7	12-Φ39		720	982	1046		686	
250	10	838	838	546/545	470.0	324.0	70.0	6.4/7	16-Φ39		830	1122	1158		875	
300	12	965	965	610	533.5	381.0	79.5	6.4/7	20-Φ39		940	1270	1270		1195	
350	14	1029	1029	641/640	559.0	413.0	86.0	6.4/7	20-Φ42		1040	1418	1400		1720	
400	16	1130	1130	705	616.0	470.0	89.0	6.4/7	20-Φ45		1140	1565	1525		2230	
450	18	1219	1219	787/785	686.0	533.0	102.0	6.4/7	20-Φ52		1240	1708	1642		3340	
500	20	1321	1321	857/855	749.5	584.0	108.0	6.4/7	20-Φ56		1340	1840	1744		4650	
600	24	1549	1549	1041/1040	901.5	692.0	140.0	6.4/7	20-Φ68		1450	1975	1845		9980	

注：1、表中以分数表示者，分子为ANSI B16.5尺寸，分母为GB9112~9131、SH3406尺寸。

2、参考重量仅列出手动球阀与蜗轮球阀的重量。

Notes: 1. As for fractions in table, numerators refer to dimensions in accordance with ANSI B16.5 and denominators in accordance with GB9112~9131, SH3406.

2. Only weight of manual operation and worm-gear actuator ball valve are listed as reference weight.



主要连接尺寸及重量(美标) Main connection and weights(American standard)

公称通径 Nominal Diameter		标准值 Standard value								参考值 Reference value				重量 Weight (Kg)			
		L		D	D1	D2	b	f	Z-Φd	H1	H2	H3	H4				
mm	in	法兰 Flange	对焊 Butt weld											Class 1500 PN25.0MPa			
		40	1 1/2	305	305	178/180	124.0	73	32.0	6.4/7	4-Φ29/4-Φ30	-	325	420	546	-	60
50	2	368	368	216/215	165.0	92	38.5	6.4/7	8-Φ26	-	375	490	612	-	72		
65	2 1/2	419	419	244/245	190.5	105	41.5	6.4/7	8-Φ29/8-Φ30	-	425	560	680	-	93		
80	3	470	470	267/270	203.0	127	48.0	6.4/7	8-Φ32/8-Φ33	-	475	642	756	-	152		
100	4	546	546	311/310	241.5	157	54.0	6.4/7	8-Φ35/8-Φ36	-	530	732	840	-	213		
125	5	673	673	375	292.0	186	73.5	6.4/7	8-Φ42	-	615	850	948	-	345		
150	6	705	705	394/395	317.5	216	83.0	6.4/7	12-Φ39	-	730	990	1076	-	486		
200	8	832	832	483/485	393.5	270	92.5	6.4/7	12-Φ45	-	850	1142	1226	-	735		
250	10	991	991	585	482.5	324	108.0	6.4/7	12-Φ52	-	980	1310	1365	-	983		
300	12	1130	1130	675	571.5	381	124.0	6.4/7	16-Φ54/16-Φ56	-	1128	1505	1505	-	1326		
350	14	1257	1257	750	635.0	413	133.5	6.4/7	16-Φ60	-	1260	1685	1668	-	1956		
400	16	1384	1374	825	705.0	470	146.5	6.4/7	16-Φ67/16-Φ68	-	1400	1868	1828	-	2534		
Class 2500 PN42.0MPa																	
50	2	451	451	235	171.5	92	51.0	6.4/7	8-Φ29/8-Φ30	-	425	560	682	-	98		
65	2 1/2	508	508	267/270	197.0	105	57.5	6.4/7	8-Φ32/8-Φ33	-	475	642	762	-	135		
80	3	578	578	305/750	228.5	127	67.0	6.4/7	8-Φ35/8-Φ36	-	540	742	856	-	187		
100	4	673	673	356/355	273.0	157	76.5	6.4/7	8-Φ42	-	625	860	968	-	252		
125	5	794	794	419/420	324.0	186	92.5	6.4/7	8-Φ48	-	735	998	1096	-	413		
150	6	914	914	483/485	368.5	216	108.0	6.4/7	8-Φ54/8-Φ56	-	870	1162	1246	-	596		
200	8	1022	1022	552/550	438.0	270	127.0	6.4/7	12-Φ54/12-Φ56	-	1005	1335	1418	-	885		
250	10	1270	1270	673/675	539.5	324	165.5	6.4/7	12-Φ67/12-Φ68	-	1185	1562	1600	-	1235		
300	12	1422	1422	762/760	619.0	381	184.5	6.4/7	12-Φ74/12-Φ76	-	1375	1800	1800	-	1626		

注：1、表中以分数表示者，分子为ANSI B16.5尺寸，分母为GB9112~9131、SH3406尺寸。

2、参考重量仅列出手动球阀与蜗轮动球阀的重量。

Notes: 1. As for fractions in table, numerators refer to dimensions in accordance with ANSI B16.5 and denominators in accordance with GB9112~9131, SH3406.

2. Only weight of manual operation and worm-gear actuator ball valve are listed as reference weight.



## V型球阀 V type ball valve

### 产品特点 Structure traits

1. 采用板簧加载的可动阀座结构，阀座与球芯不会产生卡阻或脱离等问题，密封可靠，使用寿命长。
  2. V型切口的球芯与金属阀座之间具有剪切作用，特别适用于含纤维、微小固体颗粒、料浆等介质。
  3. 全开时流通能力大，压力损失小，且介质不会沉积在阀体中腔。
  4. 结构新颖、紧凑，通用性强。蜗轮传动V型切断球阀还具有精确调节并可靠定位的能力，流量特性为近似等百分比，可调范围广，最大可调比为100:1。
1. The spring loaded adjusting valve seat construct is adopted to eliminate the problems valve seat and clack get stuck and blocked or broken away, so the sealing performance is reliable and service life long.
  2. Type-V incision clack has incision effectiveness with metal seat and is particularly suitable for mediums with fibre, granule and/or slurry.
  3. Capacity is quite large and pressure loss small when fully opened, so medium cannot sedimentate in the valve chamber.
  4. With novel and compact structure and good general applications, type-V worm gear actuated incision ball valve also has precision adjusting and positioning abilities with flow characteristics of approximate equivalent percentage and wide adjustment range( max. adjustable ratio is 100:1).

### 执行标准 Executive standard

1. 设计与制造: GB12237-89、ANSI B16.34。
  2. 法兰尺寸: JB/T74-90(JB74-90)、GB9112-9131、HGJ44-76、SH3406、ANSI B16.5。
  3. 检验和试验: JB/T9092-99、API 598。
1. Design and making :GB12237-89 , ANSI B16.34 .
  2. Flange size :JB/T74-90(JB74-90) ,GB9112-9131 ,HGJ44-76 ,SH3406 ,ANSI B16.5 .
  3. Test according to JB/T9092-99 ,API 598 .

### 主要零件材料及适用工况 Material of main parts and suitable working conditions

零件名称 Part name	材料 Material						
阀体Body	WCB	ZG1Cr18Ni9Ti	CF8(304)	CF3(304L)	ZG1Cr18Ni12Mo2Ti	CF8M(316)	CF3M(316L)
球体、阀杆 Ball, stem	2Cr13	1Cr18Ni9Ti	0Cr19Ni9(304)	00Cr19Ni11(304L)	1Cr18Ni12Mo2Ti	0Cr17Ni12Mo2(316)	00Cr17Ni12Mo2(316L)
密封面 Sealing face	特种硬化材料 Special hardened material						
适用工况 Suitable working status	泥浆、纸浆、含有固体的流体等。 Slurries, pulp stock, solid containing fluid, etc			高温流体、泥浆、纸浆、蒸汽、含固体的液体等。 High-temperature fluids, slurry, pulp stock, steam, solid containing fluids, etc.		高温、高频、高压 High-temperature, high frequency, high pressure	
适用温度 Suitable temperature	-29~250℃			-29~350℃		-29~500℃	

### 产品型号 Type of product

#### 1、国标:Chinese standard

VQ347Y-16C	VQ347Y-16P	VQ347Y-16P8	VQ347Y-16P3	VQ347Y-16R	VQ347Y-16R8	VQ347Y-16R3
VQ377Y-16C	VQ377Y-16P	VQ377Y-16P8	VQ377Y-16P3	VQ377Y-16R	VQ377Y-16R8	VQ377Y-16R3
VQ347Y-25	VQ347Y-25P	VQ347Y-25P8	VQ347Y-25P3	VQ347Y-25R	VQ347Y-25R8	VQ347Y-25R3
VQ377Y-25	VQ377Y-25P	VQ377Y-25P8	VQ377Y-25P3	VQ377Y-25R	VQ377Y-25R8	VQ377Y-25R3

#### 2、美标:American standard

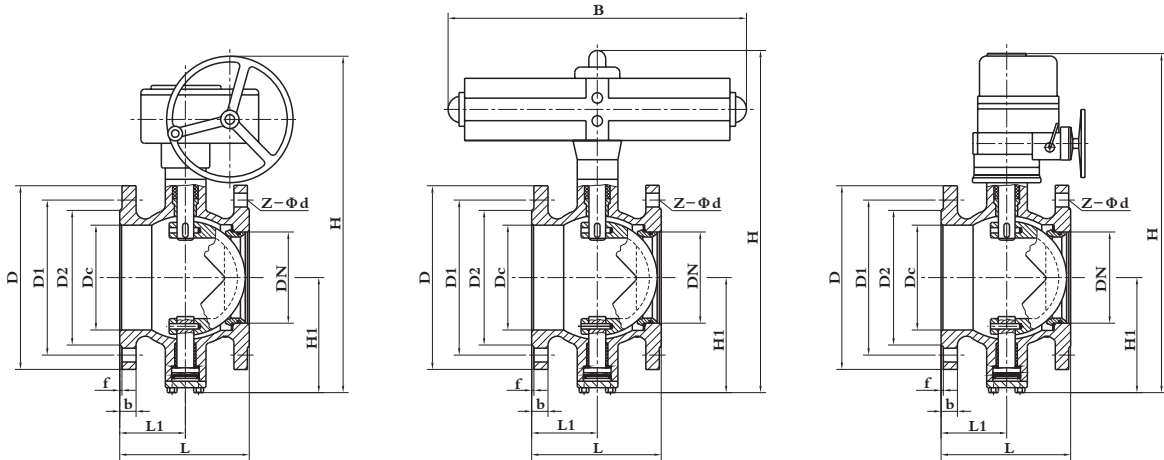
VQ347Y-150(Lb)C	VQ347Y-150(Lb)P	VQ347Y-150(Lb)P8	VQ347Y-150(Lb)P3	VQ347Y-150(Lb)R	VQ347Y-150(Lb)R8	VQ347Y-150(Lb)R3
VQ377Y-150(Lb)C	VQ377Y-150(Lb)P	VQ377Y-150(Lb)P8	VQ377Y-150(Lb)P3	VQ377Y-150(Lb)R	VQ377Y-150(Lb)R8	VQ377Y-150(Lb)R3

注：球阀传动方式有蜗轮动、气动、电动等。

Notes: Ball valves have the actuation options of worm gear actuator, pneumatic actuator and electric actuator, etc.



法兰连接V型球阀 Flange connection V type ball valve



蜗轮动(VQ341)Worm-gear actuator

气动(VQ641)Pneumatic actuator

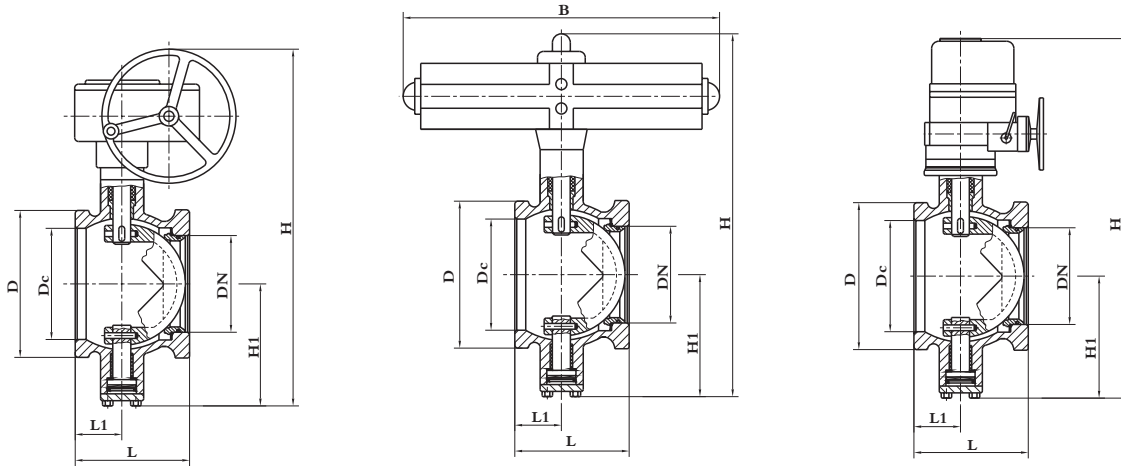
电动(VQ941)Electric actuator

主要连接尺寸及重量 Main connection dimensions and weights

公称通径 Nominal Diameter	标准值 Standard value									参考值 Reference value							
	Dc	L	L1	D	D1	D2	b	f	Z-Φd	H			H1	B	W(Kg)		
										VQ347	VQ647	VQ947			VQ347	VQ647	VQ947
DN(mm)	PN1.6(MPa)																
50	60	124	62	165	125	100	16	3	4-Φ18	225	248	365	92	400	11	13	16
65	75	145	72.5	185	145	120	18	3	4-Φ18	235	255	375	100	400	13	15	18
80	89	165	82.5	200	160	135	20	3	8-Φ18	260	270	380	108	400	15	17	20
100	113	194	97	220	180	155	20	3	8-Φ18	270	278	390	117	400	17	19	23
125	140	210	105	250	210	185	22	3	8-Φ18	320	335	405	140	455	22	25	28
150	164	229	114.5	285	240	210	22	3	8-Φ23	340	358	420	177	455	30	36	40
200	205	243	121.5	340	295	265	24	3	12-Φ23	390	405	510	200	700	60	68	75
250	259	297	148.5	405	355	320	26	3	12-Φ26	420	449	540	252	700	90	100	110
300	300	338	169	460	410	375	28	4	12-Φ26	510	550	605	270	700	180	205	207
mm	PN2.5(MPa)																
50	60	124	62	165	125	100	20	3	4-Φ18	225	248	365	92	400	11	13	16
65	75	145	72.5	185	145	120	22	3	8-Φ18	235	255	375	100	400	13	15	18
80	89	165	82.5	200	160	135	22	3	8-Φ18	260	270	380	108	400	15	17	20
100	113	194	97	230	190	160	24	3	8-Φ23	270	278	390	117	400	18	22	25
125	140	210	105	270	220	188	26	3	8-Φ26	320	335	405	140	455	23	26	32
150	164	229	114.5	300	250	218	28	3	8-Φ26	340	358	420	177	455	40	56	60
200	205	243	121.5	360	310	278	30	3	12-Φ26	390	405	510	200	700	62	70	79
250	259	297	148.5	425	370	332	32	3	12-Φ30	420	449	540	252	700	93	105	120
300	300	338	169	485	430	390	36	4	16-Φ30	510	550	605	270	700	190	220	225
mm inch	Class 150																
50 2	60	124	62	152	120.5	92	16.0	3	4-Φ19	225	248	365	92	400	11	13	16
65 2 1/2	75	145	72.5	178	139.5	105	17.5	3	4-Φ19	235	255	375	100	400	13	15	18
80 3	89	165	82.5	190	152.5	127	19.5	3	4-Φ19	260	270	380	108	400	15	17	20
100 4	113	194	97	229	190.5	157	24.0	3	8-Φ19	270	278	390	117	400	18	22	25
125 5	140	210	105	254	216.5	186	24.0	3	8-Φ22	320	335	405	140	455	23	26	32
150 6	164	229	114.5	279	241.5	216	25.5	3	8-Φ22	340	358	420	177	455	40	56	60
200 8	205	243	121.5	343	298.5	270	29.0	3	8-Φ22	390	405	510	200	700	62	70	79
250 10	259	297	148.5	406	362	324	30.5	3	12-Φ25	420	449	540	252	700	93	105	120
300 12	300	338	169	483	432	381	32.0	4	12-Φ25	510	550	605	270	700	190	120	225



对夹连接V型球阀 Wafer connection V type ball valve



蜗轮动(VQ371) Worm-gear actuator

气动(VQ671) Pneumatic actuator

电动(VQ971) Electric actuator

主要连接尺寸及重量 Main connection dimensions and weights

公称通径 Nominal Diameter	标准值 Standard value				参考值 Reference value								
	Dc	L	L1	D	H			H1	B	W(Kg)			
					VQ371	VQ671	VQ971			VQ371	VQ671	VQ971	
DN(mm)	PN1.6(MPa)												
25	38	50	25	64	200	222	340	57	400	8	10	12	
40	49	60	25	82	205	228	350	63	400	9	11	14	
50	60	75	32	100	225	248	365	92	400	10	12	15	
65	75	85	38	120	235	255	375	100	400	12	14	16	
80	89	100	45	131	260	270	380	108	400	13	15	18	
100	113	115	50	158	270	278	390	117	400	15	17	21	
125	140	135	55	180	320	335	405	140	455	20	22	25	
150	164	160	65	216	340	358	425	177	455	28	33	36	
200	205	200	80	268	390	405	510	200	700	56	64	70	
250	259	240	92	326	420	449	540	252	700	84	94	102	
	PN2.5(MPa)												
25	38	50	25	64	200	222	340	57	400	8	10	12	
40	49	60	25	82	205	228	350	63	400	9	11	14	
50	60	75	32	100	225	248	365	92	400	10	12	15	
65	75	85	38	120	235	255	375	100	400	12	14	16	
80	89	100	45	131	260	270	380	108	400	14	15	17	
100	113	115	50	158	270	278	390	117	400	16	18	21	
125	140	135	55	180	320	335	405	140	455	21	22	28	
150	164	160	65	216	340	358	420	177	455	36	50	54	
200	205	200	80	268	390	405	510	200	700	28	63	73	
250	259	240	92	326	420	449	540	252	700	87	97	112	
mm	inch	Class 150											
25	1	38	50	25	65	200	222	340	57	400	8	10	12
40	1 1/2	49	60	25	84	205	228	350	63	400	9	11	14
50	2	60	75	32	102	225	248	365	92	400	10	12	15
65	2 1/2	75	85	38	121	235	255	375	100	400	12	14	17
80	3	89	100	45	134	260	270	380	108	400	14	16	18
100	4	113	115	50	172	270	278	390	117	400	16	20	21
125	5	140	135	55	196	320	335	405	140	455	21	23	27
150	6	164	160	65	221	340	358	420	177	455	37	51	54
200	8	205	200	80	278	390	405	510	200	700	58	65	73
250	10	259	240	92	338	420	449	540	252	700	87	98	112



## 夹套保温球阀 Muff heat preservation ball valve

### 概述 General

由于阀门口径与管道口径一致，介质呈直线流动，阻力小，最适合容易凝固、高粘度的液体介质。整体式夹套设计，更能均匀地保温、保冷。夹套、阀体外侧与夹套接管焊接，允许蒸汽或冷水的最高压力为1MPa。

Because the valve bore diameter is same as that of pipe, medium flows linearly with small resistance, it is most suitable for easily solidified or high viscosity liquid media. Plus, its whole type muff design makes more even heatpreserving performance. The external side of the muff and valve welded with muff connective pipe and withstand max. 1MPa pressure of steam or cold water.

### 执行标准 Executive standard

- 1、设计与制造：GB12237-89、API 608、API 6D、JPI 7S-48、BS5351。
  - 2、法兰尺寸：JB/T74-90(JB74-90)；GB9112-9131；HGJ44-76；SH3406；ANSI B16.5；JIS B2212-2214。
  - 3、结构长度：GB12221-89；ANSI B16.10；JIS B2002。
  - 4、检验和试验：JB/T 9092-99、API 598。
- 1.Design and making :GB12237-89 ,API 608 ,API 6D ,JPI 7S-48 ,BS5351 .  
2.Flange size : JB/T74-90(JB74-90) ,GB9112-9131 ,HGJ44-76 ,SH3406 ; ANSI B16.5 ,JIS B2212-2214.  
3.Structure length according to GB12221-89 ; ANSI B16.10 ; JIS B2002.  
4.Test according to JB/T 9092-99 ,API 598 .

### 主要零件材料及适用工况 Main parts material and suitable working conditions

零件名称 Part name	阀体Body	WCB	CF8(304)	CF8M(316)
	阀盖Bonnet	25	1Cr18Ni9Ti	0Cr18Ni12Mo2Ti
	球体Ball	2Cr13	1Cr18Ni9Ti	0Cr18Ni12Mo2Ti
	密封圈Sealing ring	聚四氟乙烯 PTFE 对位聚苯 Polyphenylester		
	阀杆Stem	2Cr13	1Cr18Ni9Ti	0Cr18Ni12Mo2Ti
	填料Packing	聚四氟乙烯 PTFE		
	夹套Muff	25	25	25
适用工况 Suitable working conditions	适用介质 Suitable medium	水、蒸汽、油品等 Water,steam,oil,etc.	硝酸等腐蚀性介质 Corrosive media such as nitric acid, etc.	醋酸等腐蚀性介质 Corrosive media such as acetic acid,etc.
	适用温度 Suitable temperature	聚四氟乙烯 PTFE -29~180℃ 对位聚苯 Polyphenylester-29~300℃		

### 产品型号 Type of product

XD · BQ41F-16C	XD · BQ41F-16P <sub>8</sub>	XD · BQ41F-16R <sub>8</sub>
XD · BQ41F-25	XD · BQ41F-25P <sub>8</sub>	XD · BQ41F-25R <sub>8</sub>
XD · BQ41F-150(Lb)C	XD · BQ41F-150(Lb)P <sub>8</sub>	XD · BQ41F-150(Lb)R <sub>8</sub>
XD · BQ41F-300(Lb)	XD · BQ41F-300(Lb)P <sub>8</sub>	XD · BQ41F-300(Lb)R <sub>8</sub>
XD · BQ41F-10(K)C	XD · BQ41F-10(K)P <sub>8</sub>	XD · BQ41F-10(K)R <sub>8</sub>
XD · BQ41F-20(K)C	XD · BQ41F-20(K)P <sub>8</sub>	XD · BQ41F-20(K)R <sub>8</sub>

注：1、密封圈材料选用对位聚苯，则将密封面材料代号“F”换为“Fs”，示例：XD · BQ41Fs-16C。

2、球阀传动方式有手动、气动、电动等。

3、若为对夹连接球阀则将连接形式代号“4”改为“7”。

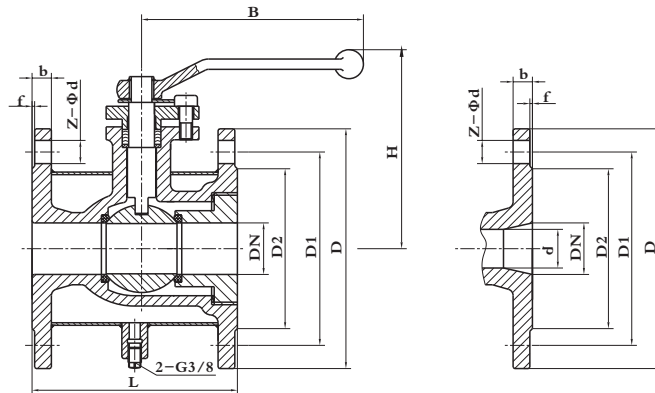
Note : 1. If sealing ring material adopts Polyphenylester, the material number "F" is replaced with "Fs", say, XD · BQ41Fs-16C

2. The actuation modes of ball valve are of manual, pneumatic actuator and electric actuator, etc.

3. If the ball valve is of wafer connection type, the connection type code "4" is replaced with "7".



法兰连接保温球阀 Flange connection heat preservation ball valve



XD·BQ41F型法兰连接球阀 XD·BQ41F type flange connection ball valve

主要连接尺寸(国标) Main connection dimension(National standard)

公称通径 Nominal Diameter DN(mm)	标准值 Standard value								参考值 Reference value	
	L	规格 standard	D	D1	D2	b	f	Z-Φd	H	B
15	108	25	115	85	65	14	2	4-Φ14	80	140
20	117	32	140	100	78	16	2	4-Φ18	118	160
25	127	40	150	110	85	16	3	4-Φ18	147	180
32	140	50	165	125	100	16	3	4-Φ18	155	250
40	165	65	185	145	120	18	3	4-Φ18	160	300
50	178	80	200	160	135	20	3	8-Φ18	160	300
65	190	100	220	180	155	20	3	8-Φ18	210	350
80	203	125	250	210	185	22	3	8-Φ18	240	350
100	229	150	285	240	210	24	3	8-Φ23	250	500
125	254	200	340	295	265	26	3	12-Φ23	292	600
150	267	250	405	355	320	30	3	12-Φ26	300	800
200	292	300	460	410	375	30	4	12-Φ26	320	800

主要连接尺寸(国标) Main connection dimension(National standard)

公称通径 Nominal Diameter DN(mm)	标准值 Standard value								参考值 Reference value	
	L	规格 standard	D	D1	D2	b	f	Z-Φd	H	B
15	108	25	115	85	65	16	2	4-Φ14	80	140
20	117	32	140	100	78	18	2	4-Φ18	118	160
25	127	40	150	110	85	18	3	4-Φ18	147	180
32	140	50	165	125	100	20	3	4-Φ18	155	250
40	165	65	185	145	120	22	3	8-Φ18	160	300
50	178	80	200	160	135	22	3	8-Φ18	160	300
65	190	100	230	190	160	24	3	8-Φ23	210	350
80	203	125	270	220	188	28	3	8-Φ26	240	350
100	229	150	300	250	218	30	3	8-Φ26	250	500
125	254	200	360	310	278	34	3	12-Φ26	292	600
150	267	250	425	370	332	36	3	12-Φ30	300	800
200	292	300	485	430	390	40	4	16-Φ30	320	800



全通径球阀主要连接尺寸(美标、日标)

Main connection dimension of through way ball valve(American and Japanese standard)

公称通径 Nominal Diameter		标准值 Standard value								参考值 Reference value	
DN(mm)	NPS(inch)	L	规格 standard	D	D1	D2	b	f	Z-Φd	H	B
			Class 150								
20	3/4	117	1 1/2"	127	98.5	73	15	2	4-Φ15	103	160
25	1	127	2"	152	120.5	92	16	2	4-Φ19	108	160
40	1 1/2	165	2 1/2"	178	139.5	105	18	2	4-Φ19	126	230
50	2	178	3"	190	152.5	127	19	2	4-Φ19	135	230
80	3	203	6"	279	241.5	216	26	2	8-Φ22	193	400
100	4	229	8"	343	298.5	270	29	2	8-Φ22	265	650
150	6	394	10"	406	362	324	31	2	12-Φ25	355	1053
200	8	457	12"	483	432	381	32	2	12-Φ25	410	1414
Class 300											
20	3/4	117	1 1/2"	156	114.5	73	21	2	4-Φ22	103	160
25	1	127	2"	165	127	92	23	2	8-Φ19	108	160
40	1 1/2	165	2 1/2"	190	149	105	26	2	8-Φ22	126	230
50	2	178	3"	210	168.5	127	29	2	8-Φ22	135	230
80	3	203	6"	318	270	216	37	2	12-Φ22	193	400
100	4	229	8"	381	330	270	42	2	12-Φ25	265	650
150	6	394	10"	445	387.5	324	48	2	16-Φ29	355	1053
200	8	457	12"	521	451	381	51	2	19-Φ32	410	1414
JIS 10K											
20	-	117	40	140	105	85	16	3	4-Φ19	103	160
25	-	127	50	155	120	100	16	3	4-Φ19	108	160
40	-	165	65	175	140	120	18	3	4-Φ19	126	230
50	-	178	80	185	150	130	18	3	8-Φ19	135	230
80	-	203	150	280	240	215	22	3	8-Φ23	193	400
100	-	229	200	330	290	265	22	3	12-Φ23	265	650
150	-	394	250	400	355	325	24	3	12-Φ25	355	1053
200	-	457	300	445	400	370	24	4	16-Φ25	410	1414
JIS 20K											
20	-	117	40	140	105	85	18	3	4-Φ19	103	160
25	-	127	50	155	120	100	18	3	8-Φ19	108	160
40	-	165	65	175	140	120	20	3	8-Φ19	126	230
50	-	178	80	200	160	135	22	3	8-Φ23	135	230
80	-	203	150	305	260	230	28	3	12-Φ25	193	400
100	-	229	200	350	305	275	30	3	12-Φ25	265	650
150	-	394	250	430	380	345	34	3	12-Φ27	355	1053
200	-	457	300	480	430	395	36	4	16-Φ27	410	1414

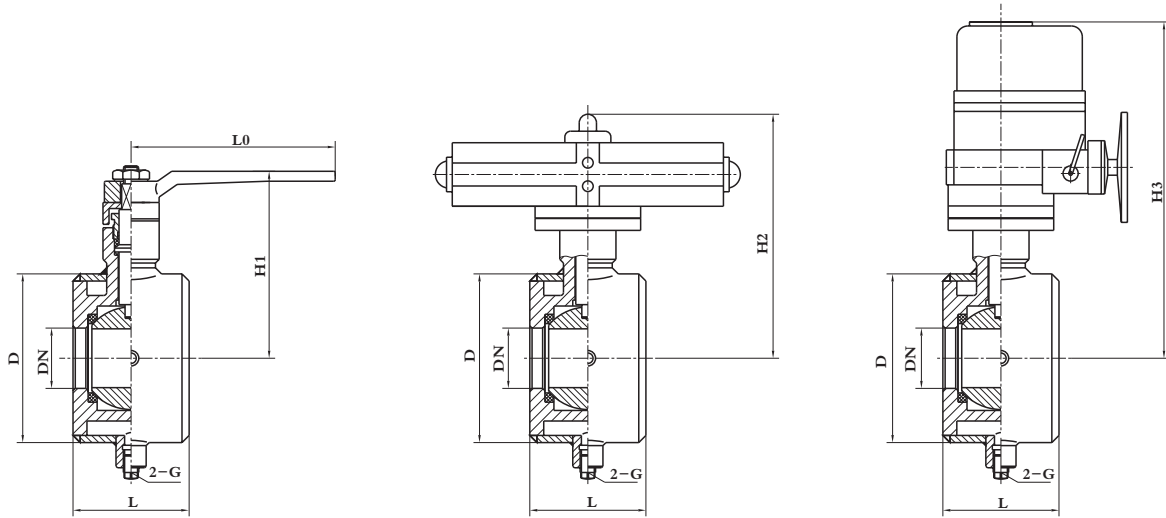
缩径球阀主要连接尺寸(美标、日标)

Main connection dimension of diameter-reducing ball valve(American and Japanese standard)

公称通径 Nominal Diameter		标准值 Standard value								参考值 Reference value		
DN(mm)	NPS(inch)	L	d	规格 standard	D	D1	D2	b	f	Z-Φd	H	B
				Class 150								
100	4	229	76	6"	279	241.5	216	26	2	8-Φ22	193	400
150	6	267	127	8"	343	298.5	270	29	2	8-Φ22	335	1053
200	8	292	152	10"	406	362	324	31	2	12-Φ25	355	1053
Class 300												
100	4	229	76	6"	318	270	216	37	2	12-Φ22	193	400
150	6	267	127	8"	381	330	270	42	2	12-Φ25	335	1053
200	8	292	152	10"	445	387.5	324	48	2	16-Φ29	355	1053
JIS 10K												
100	-	229	76	150	280	240	215	22	3	8-Φ23	193	400
150	-	267	127	200	330	290	265	22	3	12-Φ23	335	1053
200	-	292	152	250	400	355	325	24	3	12-Φ25	355	1053
JIS 20K												
100	-	229	76	150	305	260	230	28	3	12-Φ25	193	400
150	-	267	127	200	350	305	275	30	3	12-Φ25	335	1053
200	-	292	152	250	430	380	345	34	3	12-Φ27	355	1053



对夹连接保温球阀 Wafer connection heat preservation ball valve



手动(XD · BQ71) Manual operation

气动(XD · BQ671) Pneumatic actuator

电动(XD · BQ971) Electric actuator

主要连接尺寸及重量 Main connection dimension and weights

公称通径 Nominal Diameter		配管法兰规格 Pipe flange specifications		尺寸 Dimension (mm)						G	W(Kg)		
DN(mm)	NPS(inch)	mm	inch	L	D	L0	H1	H2	H3		Q71	Q671	Q971
PN1.0、1.6(MPa)/PN2.5(MPa)													
15	1/2	15×32	1/2×1 1/4	50	84	140	140	285	380	G3/8	1.7	5.1	8.7
20	3/4	20×40	3/4×1 1/2	55	94	180	150	295	390	G3/8	2	5.4	9
25	1	25×50	1×2	60	109	200	160	305	400	G1/2	2.9	6.3	10
32	1 1/4	32×50	1 1/4×2	70	109	200	178	327	418	G3/4	3.8	10.2	11
40	1 1/2	40×65	1 1/2×2 1/2	80	129	200	180	330	420	G3/4	5.8	12.2	13
50	2	50×80	2×3	90	144	250	195	345	435	G3/4	8.5	15	16
65	2 1/2	65×100	2 1/2×4	110	164/170	300	205	430	445	G3/4	13	32	20
80	3	80×125	3×5	120	194/198	350	215	440	515	G3/4	18	37	52
100	4	100×150	4×6	140	220/228	450	245	470	545	G3/4	28	47	62
125	5	125×200	5×8	160	275/288	600	270	670	630	G3/4	40	59	83
150	6	150×200	6×8	180	275/288	720	290	710	650	G3/4	56	75	95
Class 150/10K													
15	1/2	15×32	1/2×1 1/4	50	75/84	140	140	285	380	G3/8	1.7	5.1	8.7
20	3/4	20×40	3/4×1 1/2	55	85/89	180	150	295	390	G3/8	2	5.4	9
25	1	25×50	1×2	60	103/104	200	160	305	400	G1/2	2.9	6.3	10
32	1 1/4	32×50	1 1/4×2	70	103/104	200	178	327	418	G3/4	3.8	10.2	11
40	1 1/2	40×65	1 1/2×2 1/2	80	122/124	200	180	330	420	G3/4	5.8	12.2	13
50	2	50×80	2×3	90	135/134	250	195	345	435	G3/4	8.5	15	16
65	2 1/2	65×100	2 1/2×4	110	173/159	300	205	430	445	G3/4	13	32	20
80	3	80×125	3×5	120	196/190	350	215	440	515	G3/4	18	37	52
100	4	100×150	4×6	140	222/220	450	245	470	545	G3/4	28	47	62
125	5	125×200	5×8	160	279/270	600	270	670	630	G3/4	40	59	83
150	6	150×200	6×8	180	279/270	720	290	710	650	G3/4	56	75	95



## 整体式球阀 One-piece body ball valve

### 概述 General

整体式球阀具有结构简单, 造型美观, 开关灵活, 使用寿命长, 节约能源, 经济效益显著等特点, 其结构长度标准选用球阀长系列的结构长度, 与截止阀结构长度相符合, 可以替代原管路上的截止阀, 扩大了球阀的使用范围。适用介质为蒸汽、水、导热油及酸类, 其最高温度可达350℃。

One-piece body ball valves have characteristics of simple structure, good feature, flexible operation, long life, energy saving, obvious economic efficiency, etc, whose face-to-face length adopts the one of long series of ball valve and are accordant to globe valve length. As such, it can replace the globe valve originally mounted in the pipeline and enlarge the scope of ball valves. Suitable mediums are steam, water, heat-transferring oil and acids with max. 350℃ temperature.

### 执行标准 Executive standard

- 1、设计与制造: GB12237-89、API 608、API 6D。
  - 2、法兰尺寸: JB/T74~90(JB74~90); GB9112~9131; HGJ44~76; SH3406; ANSI B16.5。
  - 3、结构长度: GB12221-89; ANSI B16.10。
  - 4、检验和试验: JB/T 9092-99、API 598。
- 1.Design and making :GB12237-89 ,API 608 ,API 6D .  
2.Flange size : JB/T74~90(JB74~90) ,GB9112~9131 ,HGJ44~76 ,SH3406; ANSI B16.5 .  
3.Structure length according to GB12221-89; ANSI B16.10.  
4.Test according to JB/T 9092-99 ,API 598 .

### 主要零件材料及适用工况 Main parts material and suitable working conditions

零件名称 Part name	阀体Body	WCB	ZG1Cr18Ni9Ti	ZG1Cr18Ni12Mo2Ti
	球体Ball	2Cr13	1Cr18Ni9Ti	1Cr18Ni12Mo2Ti
	密封圈Sealing ring	增强聚四氟乙烯 Reenforced PTFE 对位聚苯 Polyphenylester、复合石墨 Compound graphite		
	阀杆Stem	2Cr13	1Cr18Ni9Ti	1Cr18Ni12Mo2Ti
	填料Packing	聚四氟乙烯 PTFE		
适用工况 Suitable working conditions	适用介质 Suitable medium	水、蒸汽、油品等 Water,steam,oil,etc.	硝酸等腐蚀性介质 Corrosive media such as nitric acid, etc.	醋酸等腐蚀性介质 Corrosive media such as acetic acid,etc.
	适用温度 Suitable temperature	聚四氟乙烯 PTFE -29~180℃ 对位聚苯 Polyphenylester-29~300℃ 复合石墨 Compound graphite-28~350℃		

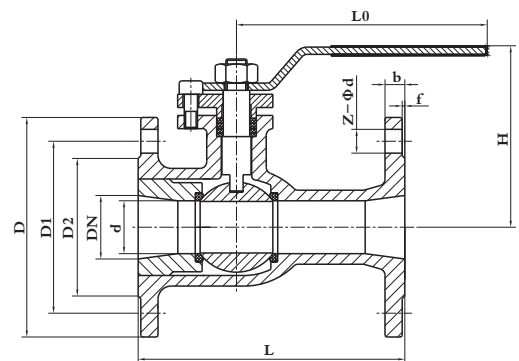
### 产品型号 Type of product

MQ41F-16C	MQ41F-16P	MQ41F-16R
MQ41F-25	MQ41F-25P	MQ41F-25R
MQ41F-150(Lb)C	MQ41F-150(Lb)P	MQ41F-150(Lb)R
MQ41F-300(Lb)	MQ41F-300(Lb)P	MQ41F-300(Lb)R

注: 密封圈材料选用对位聚苯, 则将密封面材料代号“F”换为“Fs”,

示例: MQ41Fs-16C

Note : If sealing ring material adopts Polyphenylester, the material number "F" is replaced with "Fs", say, MQ41Fs-16C.



MQ41F型球阀  
MQ41F type ball valve



主要连接尺寸及重量(国标) Main connection dimension and weights (National standard)

公称通径 Nominal Diameter	标准值 Standard value								参考值 Reference value		
	d	L	D	D1	D2	b	f	Z-Φd	H	L0	W (Kg)
DN(mm)	PN1.6(MPa)										
15	9.5	130	95	65	45	14	2	4-Φ14	85	130	2
20	12.5	150	105	75	55	14	2	4-Φ14	95	130	2.5
25	17	160	115	85	65	14	2	4-Φ14	103	150	4.2
32	23	180	140	100	78	16	2	4-Φ18	105	170	5.9
40	28	200	150	110	85	16	3	4-Φ18	120	170	7.7
50	36	230	165	125	100	16	3	4-Φ18	195	300	9.7
65	51	290	185	145	120	18	3	4-Φ18	195	300	14.5
80	57	310	200	160	135	20	3	8-Φ18	215	300	20.9
100	76	350	220	180	155	20	3	8-Φ18	253	350	36.3
125	88	400	250	210	185	22	3	8-Φ18	285	390	53
150	101	480	285	240	210	24	3	8-Φ23	290	490	77
200	144	600	340	295	265	26	3	12-Φ23	290	490	127
DN(mm)	PN2.5(MPa)										
15	9.5	130	95	65	45	16	2	4-Φ14	85	130	2.5
20	12.5	150	105	75	55	16	2	4-Φ14	95	130	3.2
25	17	160	115	85	65	16	2	4-Φ14	103	150	5.3
32	23	180	140	100	78	18	2	4-Φ18	105	170	7.1
40	28	200	150	110	85	18	3	4-Φ18	120	170	9.6
50	36	230	165	125	100	20	3	4-Φ18	195	300	12.3
65	51	290	185	145	120	22	3	8-Φ18	195	300	17.9
80	57	310	200	160	135	22	3	8-Φ18	215	300	26.8
100	76	350	230	190	160	24	3	8-Φ23	253	350	45.6
125	88	400	270	220	188	28	3	8-Φ26	285	390	72.6
150	101	480	300	250	218	30	3	8-Φ26	290	490	98
200	144	600	360	310	278	34	3	12-Φ26	290	490	156

主要连接尺寸及重量(美标) Main connection dimension and weights (American standard)

公称通径 Nominal Diameter	标准值 Standard value								参考值 Reference value		
	d	L	D	D1	D2	b	f	Z-Φd	H	L0	W (Kg)
DN(mm)	Class 150										
1/2	13	108	89	60.5	35	11.5	2	4-Φ15	85	130	2.1
3/4	17	117	98	70	43	11.5	2	4-Φ15	95	130	2.8
1	22	127	108	79.5	51	11.5	2	4-Φ15	103	150	4.5
1 1/2	32	165	127	98.5	73	14.5	2	4-Φ15	120	170	7.9
2	38	178	152	120.5	92	16.0	2	4-Φ19	195	300	10.3
3	59	203	190	152.5	127	19.5	2	4-Φ19	215	300	21.6
4	76	229	229	190.5	157	24.0	2	8-Φ19	253	350	37.6
6	102	267	279	241.5	216	25.5	2	8-Φ22	290	390	79
8	152	292	343	298.5	270	29.0	2	8-Φ22	290	450	132
10	203	330	406	362.0	324	30.2	2	12-Φ25	340	500	152
DN(mm)	Class 300										
1/2	13	108	95	66.5	35	15	2	4-Φ15	85	130	2.4
3/4	17	117	117	82.5	43	16	2	4-Φ19	95	130	3.4
1	22	127	124	89.0	51	17.5	2	4-Φ19	103	150	5.1
1 1/2	32	165	156	114.5	73	21.0	2	4-Φ22	120	170	8.3
2	38	178	165	127.0	92	22.5	2	8-Φ19	195	300	11.5
3	59	203	210	168.5	127	29.0	2	8-Φ22	215	300	23.1
4	76	229	254	200.0	157	32.0	2	8-Φ22	253	350	39.7
6	102	267	318	270.0	216	37.0	2	12-Φ22	290	390	83
8	152	292	381	330.0	270	41.5	2	12-Φ25	290	450	138
10	203	330	445	337.0	324	47.6	2	16-Φ29	340	500	162



### 三通球阀 Three way type ball valve

法兰连接 L形(Q44)三通球阀 Flange connection L figure(Q44) three way type ball valve  
T形(Q45)三通球阀 T figure(Q45)

### 用途及结构 Uses and structure

L形三通球阀用于介质流向的切换,能使相互垂直的两个通道连通。T形三通球阀用于介质的分流、合流及流向切换, T形孔道可以使三个通道互相连通或使其中的两个通道连通。三通球阀一般采用两阀座结构,亦可根据用户要求采用四阀座结构。

L type three way ball valves are used to switch directions of medium flow and can have two intervertical passages linked. T type three way ball valves are used to divide, combine or swith directions of medium flow, T type bore construct can make the three passages or two of the three passages linked. Three way ball valves, generally speaking, adopt a two seats construct and can also use four seats construct according to user's requirements.

### 执行标准 Executive standard

- 1、设计与制造: GB12237-89、API 608、API 6D、JPI 7S-48、BS5351。
  - 2、法兰尺寸:  
JB/T74~90(JB74~90)、GB9112~9131、HGJ44~76、SH3406、ANSI B16.5、JIS B2212~2214。
  - 3、结构长度: GB12221-89、ANSI B16.10、JIS B2002。
  - 4、检验和试验: JB/T 9092-99、API 598。
- 1.Design and making :GB12237-89 ,API 608 ,API 6D ,JPI 7S-48 ,BS5351 .
  - 2.Flange size :  
JB/T74~90(JB74~90) ,GB9112~9131 ,HGJ44~76 ,SH3406 ,ANSI B16.5 ,JIS B2212~2214.
  - 3.Structure length according to GB12221-89 ,ANSI B16.10 ,JIS B2002.
  - 4.Test according to JB/T 9092-99 ,API 598 .

### 主要零件材料及适用工况 Material of main parts and suitable working conditions

零件名称 Part name	材料 Material						
阀体 Body	WBC	ZG1Cr18Ni9Ti	CF8(304)	CF3(304L)	ZG1Cr18Ni12Mo2Ti	CF8M(316)	CF3M(316L)
球体、阀杆 Ball,Stem	2Cr13	1Cr18Ni9Ti	00Cr19Ni11(304)	00Cr19Ni11(304L)	1Cr18Ni12Mo2Ti	0Cr17Ni12Mo2(316)	0Cr17Ni12Mo2(316L)
密封圈 Sealing ring	增强聚四氟乙烯 Reenforced PTFE、对位聚苯 Polyhenylester						
适用工况 Suitable working status	水、蒸汽、 油品等 Water,steam, oil,etc	硝酸等腐蚀性介质 Corrosive media such as nitric acid ,etc.		强氧化性介质 Media of strong oxygenation	醋酸等腐蚀性介质 Corrosive media such as acetic acid,etc.		尿素等腐蚀性介质 Corrosive media such as urea,etc.
适用温度 Suitable temperature	-29~180℃(增强聚四氟乙烯 Reenforced PTFE)、-29~300℃ (对位聚苯Polyphenylester)						

### 产品型号 Type of product

#### 1、国标 Chinese standard

Q44F-16C	Q44F-16P	Q44F-16P8	Q44F-16P3	Q44F-16R	Q44F-16R8	Q44F-16R3
Q45F-16C	Q45F-16P	Q45F-16P8	Q45F-16P3	Q45F-16R	Q45F-16R8	Q45F-16R3
Q44F-25	Q44F-25P	Q44F-25P8	Q44F-25P3	Q44F-25R	Q44F-25R8	Q44F-25R3
Q45F-25	Q45F-25P	Q45F-25P8	Q45F-25P3	Q45F-25R	Q45F-25R8	Q45F-25R3
Q44F-40	Q44F-40P	Q44F-40P8	Q44F-40P3	Q44F-40R	Q44F-40R8	Q44F-40R3
Q45F-40	Q45F-40P	Q45F-40P8	Q45F-40P3	Q45F-40R	Q45F-40R8	Q45F-40R3

#### 2、美标 American standard

Q44F-150(Lb)C	Q44F-150(Lb)P	Q44F-150(Lb)P8	Q44F-150(Lb)P3	Q44F-150(Lb)R	Q44F-150(Lb)R8	Q44F-150(Lb)R3
Q45F-150(Lb)C	Q45F-150(Lb)P	Q45F-150(Lb)P8	Q45F-150(Lb)P3	Q45F-150(Lb)R	Q45F-150(Lb)R8	Q45F-150(Lb)R3

#### 3、日标 Japanese standard

Q44F-10(K)C	Q44F-10(K)P	Q44F-10(K)P8	Q44F-10(K)P3	Q44F-10(K)R	Q44F-10(K)R8	Q44F-10(K)R3
Q45F-10(K)C	Q45F-10(K)P	Q45F-10(K)P8	Q45F-10(K)P3	Q45F-10(K)R	Q45F-10(K)R8	Q45F-10(K)R3

注: 1、如选用四阀座结构,则将型号中代号“Q”改为“Qs”,示例: Qs45F-16C。

2、密封圈材料选用对位聚苯,则将密封面材料代号“F”换为“Fs”, 示例: Q44Fs-16C。

Notes:1.If the four seats construct is chosen,the code"Q" in themodel should be changed as "Qs",as a case in Qs45F-16C.  
2.If sealing ring uses polyphenylester,the code"F"of sealing face material is changes as "Fs",as a case in Q44Fs-16C



主要连接尺寸及重量(国标) Main connection dimensions and weights (National standard)

公称通径 Nominal Diameter DN(mm)	标准值 Standard value									参考值 Reference value		
	L	L1	D	D1	D2	D6	b	f	Z-Φd	H	B	W (Kg)
	PN4.0(MPa)											
15	130	65	95	65	45	40	16	2	4-Φ14	62	100	3.5
20	150	75	105	75	55	51	16	2	4-Φ14	68	160	4.5
25	160	80	115	85	65	58	16	2	4-Φ14	75	160	6
32	180	90	140	100	78	66	18	2	4-Φ18	85	250	8.5
40	200	100	150	110	85	76	18	3	4-Φ18	95	250	10.5
50	230	115	165	125	100	88	20	3	4-Φ18	110	300	14
65	290	145	185	145	120	110	22	3	8-Φ18	130	400	20
80	310	155	200	160	135	121	24	3	8-Φ18	155	500	32
100	350	175	235	190	160	150	26	3	8-Φ23	180	600	50
125	400	200	270	220	188	176	28	3	8-Φ26	250	800	80
150	480	240	300	250	218	204	30	3	8-Φ26	275	1000	120

主要连接尺寸及重量(美标、日标) Main connection dimensions and weights (American and Japanese)

公称通径 Nominal Diameter		标准值 Standard value								参考值 Reference value		
		L	L1	D	D1	D2	b	f	Z-Φd	H	B	W (Kg)
DN(mm)	inch	Class 150										
15	1/2	130	65	89	60.5	35	-	2	4-Φ15	62	100	2.5
20	3/4	150	75	98	70	43	-	2	4-Φ15	68	160	3.0
25	1	160	80	108	79.5	51	11.5	2	4-Φ15	75	160	5.0
32	1 1/4	180	90	117	89	64	13.0	2	4-Φ15	85	200	7
40	1 1/2	200	100	127	98.5	73	14.5	3	4-Φ15	95	200	9
50	2	230	115	152	120.5	92	16.0	3	4-Φ19	110	250	12
65	2 1/2	290	145	178	139.5	105	17.5	3	4-Φ19	130	300	16
80	3	310	155	190	152.5	127	19.5	3	4-Φ19	155	400	21
100	4	350	175	229	190.5	157	24.0	3	8-Φ19	180	500	36
125	5	400	200	254	216.5	186	24.0	3	8-Φ22	250	600	68
150	6	480	240	279	241.5	216	25.5	3	8-Φ22	275	800	105
		JIS K10										
15	-	130	65	95	70	52	12	2	4-Φ15	62	100	2.5
20	-	150	75	100	75	58	14	2	4-Φ15	68	160	3.0
25	-	160	80	125	90	70	14	2	4-Φ19	75	160	5.0
32	-	180	90	135	100	80	16	2	4-Φ19	85	200	7
40	-	200	100	140	105	85	16	3	4-Φ19	95	200	9
50	-	230	115	155	120	100	16	3	4-Φ19	110	250	11
65	-	290	145	175	140	120	18	3	4-Φ19	130	300	16
80	-	310	155	185	150	130	18	3	8-Φ19	155	400	22
100	-	350	175	210	175	155	18	3	8-Φ19	180	500	36
125	-	400	200	250	210	185	20	3	8-Φ23	250	600	70
150	-	480	240	280	240	215	22	3	8-Φ23	275	800	105



## 法兰连接金属密封三通球阀 Flanged metal seated three way ball valve

### 用途 Uses

本阀门适用于工作温度 $\leq 200^{\circ}\text{C}$ 的含固体颗粒介质、粉状介质及易结晶介质管路系统作三通切换用。

The said valve is suitable for solid granule contained mediums, powder mediums or easily crystallized mediums with max.  $200^{\circ}\text{C}$  working temperature in pipeline systems as three way device to switch and control mediums.

### 结构特点 Structure traits

1. 采用非整球的结构设计，完全解决了中腔易沉积介质及污物等问题。
2. 结构紧凑，启闭迅速，流道通畅，流体阻力小。
3. 采用板簧加载的可动阀座结构，密封性能好，使用寿命长。
4. 球体表面与金属阀座之间具有剪切作用，特别适用于含纤维、固体颗粒、料浆等介质。

1. The non-single clack design is adopted to completely resolve the problems of medium and dirt sedimentating, etc.
2. Structure compact, operation quick, flow easy and flow resistance small.
3. With spring loaded adjusting valve seat construct, it has good sealing ability and long service life.
4. Incision effectiveness between clack surface and metal seat make it particularly suitable for mediums with fiber, granule and/or slurry.

### 执行标准 Executive standard

1. 设计与制造: GB12237-89, API 608, API 6D, JPI 7S-48, BS5351.
2. 法兰尺寸: JB/T74-90(JB74-90), GB9112-9131, HGJ44-76, SH3406, ANSI B16.5, JIS B2212-2214.
3. 结构长度: GB12221-89, ANSI B16.10, JIS B2002.
4. 检验和试验: JB/T 9092-99, API 598.

1. Design and making :GB12237-89 ,API 608 ,API 6D ,JPI 7S-48 ,BS5351 .
2. Flange size : JB/T74-90(JB74-90) ,GB9112-9131 ,HGJ44-76 ,SH3406; ANSI B16.5 ,JIS B2212-2214.
3. Structure length according to GB12221-89 , ANSI B16.10 ,JIS B2002.
4. Test according to JB/T 9092-99 ,API 598 .

### 主要零件材料及适用工况 Material of main parts and suitable working conditions

零件名称 Part name	材料 Material						
阀体、阀盖 Body, Bonnet	WCB	ZG1Cr18Ni9Ti	CF8(304)	CF3(304L)	ZG1Cr18Ni12Mo2Ti	CF8M(316)	CF3M(316L)
球体、阀杆 Ball, Stem	2Cr13	1Cr18Ni9Ti	00Cr19Ni11(304)	00Cr19Ni11(304L)	1Cr18Ni12Mo2Ti	0Cr17Ni12Mo2(316)	0Cr17Ni12Mo2(316L)
密封面 Sealing face	特种硬化材料 Special hardened material						
填料 Packing	增强聚四氟乙烯 Reinforced PTFE、对位聚苯 Polyhenylester						
适用工况 Suitable working status	泥浆、纸浆、含有固体的流体等。 Slurries, pulp stock, solid containing fluid, etc			泥浆、纸浆、蒸汽、含有固体的流体等 Slurries, pulp stock steam, solid containing fluid, etc		高温、高频、高压 High-temperature, high frequency, high pressure	
适用温度 Suitable temperature	-29~150 $^{\circ}\text{C}$			-29~250 $^{\circ}\text{C}$		-29~500 $^{\circ}\text{C}$	

### 产品型号 Type of product

#### 1、国标 Chinese standard

Q348Y-10C	Q348Y-10P	Q348Y-10P8	Q348Y-10P3	Q348Y-10R	Q348Y-10R8	Q348Y-10R3
Q348Y-16C	Q348Y-16P	Q348Y-16P8	Q348Y-16P3	Q348Y-16R	Q348Y-16R8	Q348Y-16R3
Q348Y-25	Q348Y-25P	Q348Y-25P8	Q348Y-25P3	Q348Y-25R	Q348Y-25R8	Q348Y-25R3

#### 2、美标 American standard

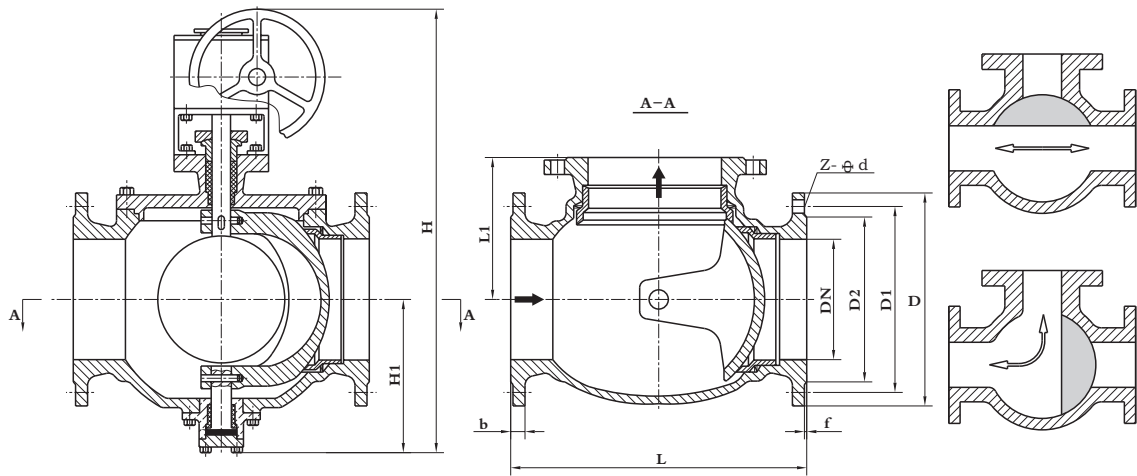
Q348Y-150(Lb)C	Q348Y-150(Lb)P	Q348Y-150(Lb)P8	Q348Y-150(Lb)P3	Q348Y-150(Lb)R	Q348Y-150(Lb)R8	Q348Y-150(Lb)R3
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#### 3、日标 Japanese standard

Q348Y-10(K)C	Q348Y-10(K)P	Q348Y-10(K)P8	Q348Y-10(K)P3	Q348Y-10(K)R	Q348Y-10(K)R8	Q348Y-10(K)R3
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注：球阀传动方式有手动（ $\text{DN} \leq 150$ ）、蜗轮动、气动、电动等。

Note :The actuation modes of ball valve are of manual ( $\text{DN} \leq 150$ ) ,worm gear actuator,pneumatic actuator and electric actuator, etc.



XD · Q348Y 蜗轮动三通球阀  
Worm-gear actuator three way type ball valve

主要连接尺寸及重量 Main connection dimensions and weights

公称通径 Nominal Diameter	标准值 Standard value								参考值 Reference value			
	L	L1	D	D1	D2	b	f	Z-φd	H	B	W (Kg)	
DN(mm)	PN1.0(MPa)/PN1.6(MPa)											
50	203	101.5	165	125	100	16	3	4-φ18	260	90	24/26	
65	222	111	185	145	120	18	3	4-φ18	270	100	42/44	
80	241	120.5	200	160	135	18/20	3	4-φ18/8-φ18	290	110	48/50	
100	305	152.5	220	180	155	20	3	8-φ18	320	120	75/78	
125	356	178	250	210	185	22	3	8-φ18	380	140	120/125	
150	394	197	285	240	210	22	3	8-φ23	430	180	175/180	
200	457	228.5	340	295	265	22/24	3	8-φ23/12-φ23	500	220	250/255	
250	533	266.5	395/405	350/355	320	24/26	3	12-φ23/12-φ26	600	320	320/340	
300	610	305	455/460	400/410	368/375	24/28	4	12-φ23/12-φ26	650	350	430/440	
DM(mm)	PN2.5(MPa)											
50	203	101.5	165	125	100	20	3	4-φ18	260	90	27	
65	222	111	185	145	120	22	3	8-φ18	270	100	45	
80	241	120.5	200	160	135	22	3	8-φ18	290	110	52	
100	305	152.5	230	190	160	24	3	8-φ23	320	120	80	
125	356	178	270	220	188	26	3	8-φ26	380	140	135	
150	394	197	300	250	218	28	3	8-φ26	430	180	190	
200	457	228.5	360	310	278	30	3	12-φ26	500	220	260	
250	533	266.5	425	370	332	32	3	12-φ30	600	320	350	
300	610	305	485	430	390	36	4	16-φ30	650	350	450	
mm	inch	Class 150										
50	2	203	101.5	152	120.5	92	16	2	4-φ19	260	90	26
65	2 1/2	222	111	178	139.5	105	18	2	4-φ19	270	100	44
80	3	241	120.5	190	152.5	127	19	2	4-φ19	290	110	50
100	4	305	152.5	229	190.5	157	24	2	4-φ19	320	120	78
125	5	356	178	254	216.0	186	24	2	8-φ22	380	140	125
150	6	394	197	279	241.0	216	26	2	8-φ22	430	180	180
200	8	457	228.5	343	298.5	270	29	2	8-φ22	500	220	255
250	10	533	266.5	406	362	324	31	2	12-φ25	600	320	340
300	12	610	305	483	432	381	32	2	12-φ25	650	350	440
DM(mm)	JIS 10K											
50	203	101.5	155	120	100	16	3	4-φ19	260	90	27	
65	222	111	175	140	120	18	3	4-φ19	270	100	45	
80	241	120.5	185	150	130	18	3	4-φ19	290	110	52	
100	305	152.5	210	175	155	18	3	4-φ19	320	120	80	
125	356	178	250	210	185	20	3	8-φ23	380	140	135	
150	394	197	280	240	215	22	3	8-φ23	430	180	180	
200	457	228.5	330	290	265	22	3	12-φ23	500	220	255	
250	533	266.5	400	355	325	24	3	12-φ25	600	320	340	
300	610	305	445	400	370	24	4	16-φ25	650	350	440	



## 上装式球阀 Top-entry type ball

### 概述 General

上装式球阀是在引进国外先进技术的基础上研制开发的新产品。它将普通球阀分体式阀体设计成全新型结构的整体斜面球阀，近年来国外已普遍采用该类型阀门取代闸阀、截止阀、柱塞阀等型式的阀门。该阀是当前国内唯一可以取代闸阀的可靠产品，它广泛用于石油、化工、冶金、电力、轻纺、医药、环保等工业部门的仪表和工艺管道，除适用于一般介质外，还可以适用于其它阀门无法适用的污水和含纤维、颗粒状、高精度的流体介质。

双斜面结构在弹簧的作用下，具有自动调整阀座与阀体、球体之间的密封性，使之在中压、低压工况下均具有良好的密封性能。球体与各阀座高精度配合，保证了球体与阀座间的有效密封，高硬度球体表面保持球体经久耐用。

本球阀在阀体和阀座之间专门设置了防火金属环，当阀座烧损后，球体则压紧在防火金属环上，起到一定程度的密封；在球体和阀杆之间设置有予紧弹簧，可使静电经由管道导入地下；为防止因阀门内压力异常的升高，发生阀杆飞出的危险，在阀杆下端设有凸肩，可防止阀杆飞出；确保系统安全。

阀杆伸出阀盖处的密封，一改过去填料缠绕于阀杆上的压实型式，采用填料片之间的平面和阀杆、阀盖的凸肩平面，靠弹子紧力使平面间压实密封，减轻了开启力矩。本球阀为上装式，仅需将阀盖螺母拧下，拆下阀盖，即可取出阀体内全部零件，进行维修或更换，所以拆装非常方便。

Top-entry type ball valve is a newly made product based on the advanced technology of foreign countries .It is designed from the separate valve body of the common ball valve into a new type integral sloping valve ,The said valve has been commonly used in many foreign countries in the recent years in place of gate valve ,globe valve ,pillar valve and other valve ,It is the most ideal valve which is now used in a wide range such as instrument and technics pipe of petrochemical ,metallurgical ,electrical ,textile ,medical industries and the departments of environmental protection etc. industry department ,The valve can be applied not only commonly medium ,but also to the control of the water and fibred ,grained ,sticky fluid ,which other valves can not be applied to .

Double sloping is designed and the tightness between seat and body and ball can be adjusted automatically with the help of the spring so that the better tightness can be gained under the conditions of medium or low pressure .The highly precise fit between ball and seat ensures the effective tightness between them and the ball with hard surface ensures durability of the ball .

A fire-proof metal ring is set between ball and seat in case the accidental fire breaks out or high temperature damages the valve seat and too much leakage occurs .when the seat is burned and damaged ,the ball is compacted tightly upon the ring to ensure some degree of tightness .A spring is set between ball and stem so that static-electricity will lead to the ground through the pipe ,In order to prevent the danger caused by the high pressure inside the valve ,a shoulder is designed at the lower part of the stem and the stem will not be driven off .Thus safety will be ensured .

We used to put packing around the stem and compact to ensure tightness of the stem which sticks out of the cover ,But now we apply the pre-tightness force of the spring to the surface between the packing and that between the stem shoulder and the cover shoulder to ensure tightness ,The opening torque will be reduced .This ball valve is easy to disassembly as it is top-entry type ,if you screw off the cover nut and take out the cover ,you can easily take out all the parts from inside the valve so that the part can be repaired or replaced .

### 执行标准 Executive standard

1、设计与制造：GB12237-89、API 608、API 6D、JPI 7S-48、BS5351

2、法兰尺寸：

JB/T74-90(JB74-90)、GB9112-9131、HGJ44-76、SH34006、ANSI B16.5、JIS B2212-2214

3、结构长度：GB12221-89、ANSI B16.10、JIS B2002

4、检验和试验：JB/T9092-99、API 598

1 .Design and making :GB12237-89、GB12237-89、API 608、API 6D、JPI 7S-48、BS5351

2 .Flange size :

JB/T74-90(JB74-90)、GB9112-9131、HGJ44-76、SH34006、ANSI B16.5、JIS B2212-2214

3 .Structure length according to GB12221-89、ANSI B16.10、JIS B2002

4.Test according to JB/T9092-99、API 598



### 主要零件材料 Material of main parts

零件名称 Part name	碳钢 (C) Carbon steel			不锈钢 (P) Stainless steel			不锈钢 (R) Stainless steel		
	-30~180℃	-30~300℃	-30~425℃	-30~180℃	-30~300℃	-30~425℃	-30~180℃	-30~300℃	-30~425℃
阀体Body	WCB			ZG1Cr18Ni9Ti			ZG1Cr18Ni12Mo2Ti		
球体Ball	WCB H.Cr			1Cr18Ni9Ti H.Cr			1Cr18Ni12Mo2Ti H.Cr		
阀座护套Seat ring sheath	1Cr18Ni9Ti			1Cr18Ni9Ti			1Cr18Ni12Mo2Ti		
阀座Seat ring	SFBN-2	柔性石墨 Soft graphite	M252	SFBN-2	柔性石墨 Soft graphite	M252	SFBN-2	柔性石墨 Soft graphite	M252
阀座衬板Seat lining board	1Cr18Ni9Ti			1Cr18Ni9Ti			1Cr18Ni12Mo2Ti		
垫圈Washer	FBN-2	柔性石墨 Soft graphite	膨胀石墨 Expansion graphite	SFBN-2	柔性石墨 Soft graphite	膨胀石墨 Expansion graphite	SFBN-2	柔性石墨 Soft graphite	膨胀石墨 Expansion graphite
予紧弹簧Pre-tightness spring	1Cr18Ni9Ti			1Cr18Ni9Ti			1Cr18Ni12Mo2Ti		
阀杆Stem	2Cr13 H.Cr			1Cr18Ni9Ti			1Cr18Ni12Mo2Ti		
填料Packing	FBN-2	柔性石墨 Soft graphite	膨胀石墨 Expansion graphite	FBN-2	柔性石墨 Soft graphite	膨胀石墨 Expansion graphite	SFBN-2	柔性石墨 Soft graphite	膨胀石墨 Expansion graphite
阀盖Bonet	WCB			ZG1Cr18Ni9Ti			ZG1Cr18Ni12Mo2Ti		
填料垫Packing washer	45 Zn			1Cr18Ni9Ti			1Cr18Ni12Mo2Ti		
压紧螺母Gland nut	45 Zn			1Cr18Ni9Ti			1Cr18Ni9Ti		
限位挡片 Position-setting stopper	Q235-A Zn			ZG230-450			ZG230-450		
手柄Handle	ZG230-450			ZG230-450			ZG230-450		
挡销Pin	45 Zn			45 Zn			45 Zn		
适用介质 Suitable medium	水、蒸汽、油品等 Water, steam, oil, etc			硝酸等腐蚀性介质 Corrosive media such as nitric acid, etc.			醋酸等腐蚀性介质 Corrosive media such as acetic acid, etc.		

注：H.Cr镀硬铬；Zn镀锌。

Note :H.Cr hard chrome plated; Zn Zinc plated.

### 产品型号 Type of product

#### 1、国标 Chinese standard

UQ41F-16C	UQ41F-16P	UQ41F-16R
UQ41F-25	UQ41F-25P	UQ41F-25R
UQ41F-40	UQ41F-40P	UQ41F-40R
UQ41F-63	UQ41F-63P	UQ41F-63R

#### 2、美标 American standard

UQ41F-150(Lb)C	UQ41F-150(Lb)P	UQ41F-150(Lb)R
UQ41F-300(Lb)	UQ41F-300(Lb)P	UQ41F-300(Lb)R

#### 3、日标 Japanese standard

UQ41F-10(K)C	UQ41F-10(K)P	UQ41F-10(K)R
UQ41F-20(K)C	UQ41F-20(K)P	UQ41F-20(K)R

注：1、若阀座材料为柔性石墨或碳纤维制品，则将密封面材料代号F换为“S”或“M”。

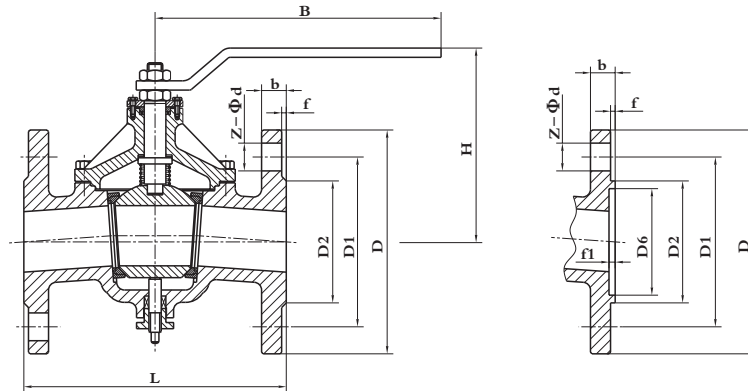
2、若连接形式为内螺纹连接或承插焊连接，则将连接形式代号4换为“1”或“6”。

Notes: 1.If seat material uses soft graphite or carbon fibre product, the sealing face material code "F" should be changed as "S" or "M".

2.If connection type adopts female screw or socket weld connection, the connection type code "4" should be changed as "1" or "6".



法兰连接上装式球阀 Flange connection top-entry type ball valve



XD · UQ41F型球阀 XD · UQ41F type ball valve

主要连接尺寸及重量(国标) Main connection dimensions and weights (National standard)

公称通径 Nominal Diameter DN(mm)	标准值 Standard value							参考值 Reference value		
	L	D	D <sub>1</sub>	D <sub>2</sub>	b	f	Z-Φd	H	B	W(Kg)
PN1.6(MPa) / PN2.5(MPa)										
15	130	95	65	45	14/16	2	4-Φ14	60	150	2.2/2.4
20	150	105	75	55	14/16	2	4-Φ14	65	150	2.4/2.9
25	140	115	85	65	14/16	2	4-Φ14	75	150	5.0/6.0
32	165	140	100	78	16/18	2	4-Φ18	90	150	6.5/6.8
40	165	150	110	85	16/18	3	4-Φ18	95	230	7.0/8.6
50	203	165	125	100	16/20	3	4-Φ18	110	230	9.1/11.3
65	222	185	145	120	18/22	3	4-Φ14/8-Φ18	145	450	17/19
80	241	200	165	135	20/22	3	8-Φ18	150	450	20/23
100	305	220/230	180/190	155/160	20/24	3	8-Φ18/8-Φ23	180	450	30/34
125	356	250/275	210/220	185/188	22/28	3	8-Φ18/8-Φ26	250	600	52/57
150	394	285/300	240/250	210/218	24/30	3	8-Φ23/8-Φ26	270	700	73/80
200	457	340/335	295/310	265/278	26/34	3	8-Φ23/8-Φ26	345	950	123/132
250	533	405/425	355/370	320/332	26/36	3	12-Φ26/12-Φ30	395	950	162/173

主要连接尺寸及重量(国标) Main connection dimensions and weights (National standard)

公称通径 Nominal Diameter DN(mm)	标准值 Standard value									参考值 Reference value		
	L	D	D <sub>1</sub>	D <sub>2</sub>	D <sub>6</sub>	b	f	f <sub>1</sub>	Z-Φd	H	B	W(Kg)
PN4.0(MPa) / PN6.3(MPa)												
15	130	95/105	65/75	45/55	40	16/18	2	4	4-Φ14	60/65	150	3.2
20	150	105/130	75/90	55/68	51	16/20	2	4	4-Φ14/4-Φ18	65/70	150	3.0
25	160	115/140	85/100	65/78	58	16/22	2	4	4-Φ14/4-Φ18	75/85	150	5.5
32	180	140/155	100/110	78/82	66	18/24	2	4	4-Φ18/4-Φ23	90/100	150	8.5/9
40	200	150/170	110/125	85/95	76	18/24	3	4	4-Φ18/4-Φ23	95/110	230	9/9.5
50	230	165/180	125/135	100/105	88	20/26	3	4	4-Φ18/4-Φ23	110/130	230	9.8/11
65	290	185/205	145/160	120/130	110	22/28	3	4	8-Φ18/8-Φ23	145/160	450	19/21
80	310	200/215	160/170	135/140	121	22/30	3	4	8-Φ18/8-Φ23	150/170	450	25
100	350	235/250	190/200	160/168	150	24/32	3	4.5	8-Φ23/8-Φ26	180/200	450	39/51
125	400	270/295	220/240	188/202	176	28/36	3	4.5	8-Φ26/8-Φ30	250/285	650	65/80
150	480	300/345	250/280	218/240	204	30/38	3	4.5	8-Φ26/8-Φ34	270/330	700	80/95
200	600	375/405	320/345	283/300	260	38/44	3	4.5	8-Φ30/12-Φ36	345/395	950	140/145



主要连接尺寸及重量(美标) Main connection dimensions and weights (American standard)

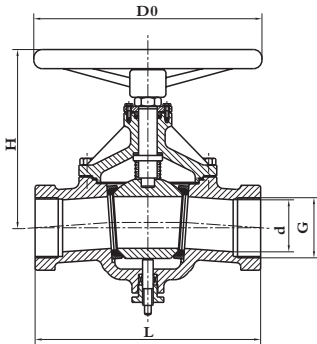
公称通径 Nominal Diameter		标准值 Standard value							参考值 Reference value		
DN(mm)	NPS(inch)	L	D	D <sub>1</sub>	D <sub>2</sub>	b	f	Z-Φd	H	B	W(Kg)
Class 150/Class 300											
15	1/2	108	89/95	60.5/66.5	35	12/14.3	2	4-Φ16	60	150	2.5/3.2
20	3/4	117	98/117	70/82.5	43	12/16	2	4-Φ16/4-Φ19	65	150	2.8/3.5
25	1	127	108/124	79.5/89	51	12/17.5	2	4-Φ16/4-Φ19	75	150	6/7.5
32	1 1/4	140	117/133	89/98.5	64	13/19	2	4-Φ16/4-Φ19	90	150	7.1/8.5
40	1 1/2	165	127/156	110/114.5	73	15/21	2	4-Φ16/4-Φ22	95	230	7.5/9
50	2	178	152/165	120.5/127	92	16/22.3	2	4-Φ19/8-Φ19	110	230	11/13
65	2 1/2	190	178/190	139.5/149	105	18/26	2	4-Φ19/8-Φ22	145	450	18/19
80	3	203	190/210	152.5/168	127	19/29	2	4-Φ19/8-Φ22	150	450	23/25
100	4	229	229/254	190.5/200	157	24/32	2	8-Φ19/8-Φ22	180	450	35/39
125	5	254	254/279	216/235	186	24/35	2	8-Φ22/8-Φ22	250	650	59/65
150	6	267	279/318	241.5/270	216	26/36.6	2	8-Φ22/12-Φ22	270	700	78/80
200	8	292	343/381	298.5/330	270	29/41.3	2	8-Φ22/12-Φ25	345	950	130/140
250	10	330	406/445	362/387.5	324	32/48	2	12-Φ25/16-Φ29	395	950	161/172

主要连接尺寸及重量(日标) Main connection dimensions and weights (Japanese standard)

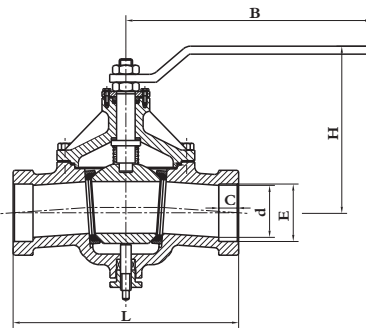
公称通径 Nominal Diameter		标准值 Standard value							参考值 Reference value		
DN(mm)		L	D	D <sub>1</sub>	D <sub>2</sub>	b	f	Z-Φd	H	B	W(Kg)
JIS 10K/JIS 20K											
15		108	95	70	52/51	12/14	1	4-Φ15	60	150	2.5/3.2
20		117	100	75	58/56	14/16	1	4-Φ15	65	150	2.8/3.5
25		127	125	90	70/67	14/16	1	4-Φ19	75	150	6/7.5
40		165	140	105	85/81	16/18	2	4-Φ19	95	230	7.5/9
50		178	155	120	100/96	16/18	2	8-Φ19	110	230	11/13
65		190	175	140	116	18/20	2	8-Φ19	145	450	18/19
80		203	185/200	150/160	120/132	18/22	2	8-Φ19/8-Φ23	150	450	23/25
100		229	210/225	175/185	161/160	20/24	2	8-Φ19/8-Φ23	180	450	35/39
125		254	250/270	210/225	182/195	20/26	2	8-Φ23/8-Φ25	250	650	59/65
150		267	280/305	240/260	215/230	22/28	2	8-Φ23/12-Φ25	270	700	78/80
200		292	330/350	290/305	265/275	22/30	2	12-Φ23/12-Φ25	345	950	130/140
250		330	400/430	355/380	324/345	24/34	2	12-Φ25/12-Φ27	395	950	161/172



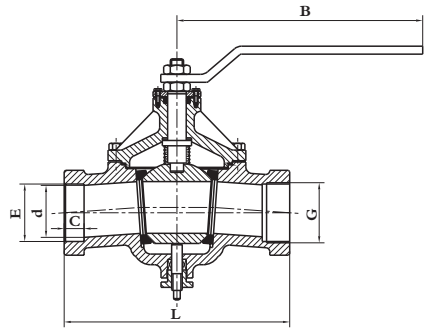
内螺纹、承插焊连接上装式球阀 Internal screw and socket welded joint top-entry type ball valve



XD · UQ11F-64内螺纹连接式  
Internal screw connection type  
(GB7307-87 PN1.6、2.5、4.0、6.4MPa)



XD · UQ61F-64承插焊连接式  
Socket welded joint type  
(ANSI B16.11、JIS B2308)



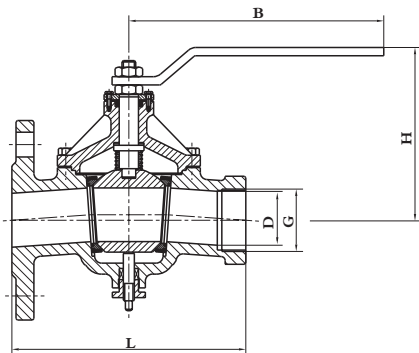
XD · UQ<sup>1</sup>/<sub>6</sub>1F-64内螺纹承插焊连接式  
Internal screw and socket welded joint type  
(GB7307-87 ANSI B16.11、JIS B2308)

主要连接尺寸及重量 Main connection dimensions and weights

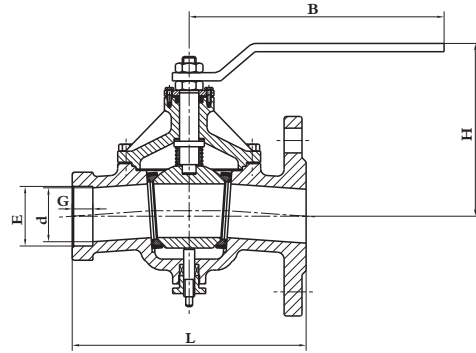
DN inch	内螺纹 Internal screw						承插焊 Socket welded							内螺纹承插焊 Internal screw and socket welded							
	d	L	H	G(in)	D0	W(Kg)	d	L	E	C	H	B	W(Kg)	D	L	H	G(in)	E	C	B	W(Kg)
3/8	-	-	-	-	-	-	10	80	14.5	10	77	130	0.65	10	80	77	3/8	18.5	10	130	0.65
1/2	14	90	60	1/2	100	0.8	15	90	22.5	10	78	130	1.4	15	90	78	1/2	22.5	10	130	1.6
3/4	19	100	65	3/4	100	1.9	20	110	28.5	13	82	130	1.9	20	110	82	3/4	28.5	13	130	2.0
1	25	115	75	1	125	3	25	120	34.5	13	88	130	2.5	25	120	88	1	34.5	13	130	2.8
1 1/2	40	150	95	1 1/2	125	4.5	40	170	48.7	15	95	150	4.1	40	170	95	1 1/2	48.7	15	150	3.5
2	51	180	110	2	125	6	50	180	61.3	18	110	150	5.8	50	180	110	2	61.3	18	150	4.7

法兰—内螺纹、法兰—承插焊连接上装式球阀

Flange—internal screw and flange—socket welded joint top-entry type ball valve



XD · UQ<sup>1</sup>/<sub>4</sub>1F法兰—内螺纹连接式  
Flange—internal screw connection type  
(GB9113、PN1.6、2.5、4.0MPa)  
(GB7303)



XD · UQ<sup>1</sup>/<sub>4</sub>1F法兰—承插焊连接式  
Flange—socket welded joint type  
(GB9113、PN1.6、2.5、4.0MPa)  
(ANSI 16.11)

主要连接尺寸及重量 Main connection dimensions and weights

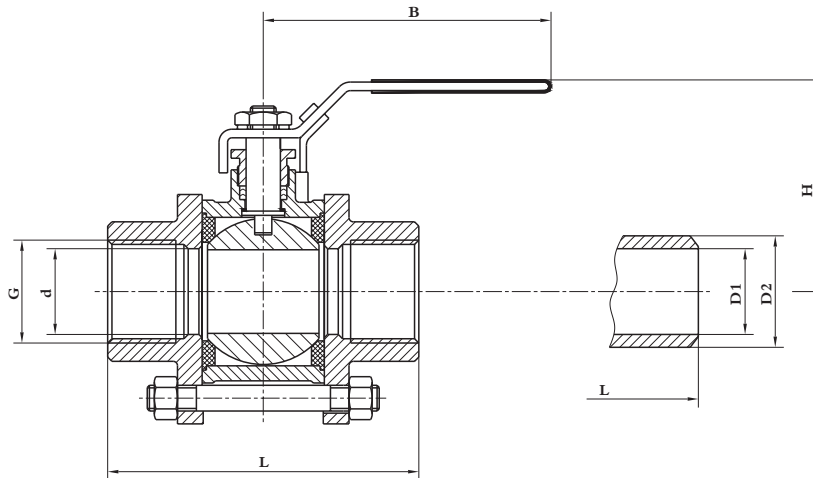
DN (inch)	法兰—内螺纹 Flange—internal screw						法兰—承插焊 Flange—socket welded						
	D	L	H	G(inch)	B	W(Kg)	d	L	E	C	H	B	W(Kg)
1/2	15	108	60	1/2	130	1.7	15	108	22.5	10	65	130	1.6
3/4	20	130	65	3/4	130	2.1	20	130	28.5	13	80	130	2
1	25	150	75	1	130	4	25	150	34.5	13	80	130	3.9
1 1/2	40	160	95	1 1/2	150	5	40	160	48.7	15	125	150	4.7
2	50	178	110	2	150	6.5	50	178	61.3	18	125	150	6.1

注:球阀一端的法兰尺寸,可按各有关法兰标准及要求选用

Note:As for the flange size of one end of the valve,apply the standard and requirement of the flange concerned.



SQ<sub>6</sub><sup>1</sup> 1型三段式 内螺纹 对焊 连接球阀 SQ<sub>6</sub><sup>1</sup> type three-stage female-crew butt-weld connected ball valve



主要零件材料及适用工况 Main parts material and suitable working conditions

连接方式 Type of connection		内螺纹连接 Internal screw connection			对焊连接 Butt weld connection		
零件名称 Part name	阀体阀盖 Body, Bonnet	WCB	CF8(304)	CF8M(316)	WCB	CF8(304)	CF8M(316)
	球体、阀杆 Ball, stem	2Cr13	0Cr19Ni9	0Cr17Ni12Mo2	2Cr13	0Cr19Ni9	0Cr17Ni12Mo2
	密封圈、填料 Sealing ring, Packing	增强聚四氟乙烯 Reinforced PTFE、对位聚苯 Polyphenylester					
适用工况 Suitable working conditions	适用介质 Suitable medium	水、蒸汽、油品等 Water, steam, oil, etc	硝酸等腐蚀性介质 Corrosive media such as nitric acid, etc.	醋酸等腐蚀性介质 Corrosive media such as acetic acid, etc.	水、蒸汽、油品等 Water, steam, oil, etc	硝酸等腐蚀性介质 Corrosive media such as nitric acid, etc.	醋酸等腐蚀性介质 Corrosive media such as acetic acid, etc.
	适用温度 Suitable temperature	-29~180℃(增强聚四氟乙烯 Reinforced PTFE)、-29~300℃(对位聚苯 Polyphenylester)					

产品型号 Type of product

SQ11F-25	SQ11F-25P8	SQ11F-25R8	SQ61F-25	SQ61F-25P8	SQ61F-25R8
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注：密封圈材料选用对位聚苯，则将密封面材料代号“F”换为“Fs”，示例：SQ61Fs-25  
 Note: If sealing ring material erial adopts polyphenylester, the material number "F" is replaced with "Fs", say, SQ61Fs-25.

主要连接尺寸及重量 Main connection dimension and weights

公称通径 Nominal diameter		内螺纹连接 Internal screw connection						对焊连接 Butt weld connection			
mm	inch	D	L (mm)	H	管螺纹G Union screw	B	重量 (Kg) Weight	尺寸 Dimensions(mm)			重量 (Kg) Weight
								L	D1	D2	
10	3/8	10	60	57	3/8"	95	0.34	70	10	18	0.32
15	1/2	15	75	68	1/2"	110	0.47	75	15	24	0.48
20	3/4	20	80	70	3/4"	110	0.68	90	20	28	0.68
25	1	25	90	80	1"	140	1.2	100	25	34	1.2
32	1 1/4	32	110	85	1 1/4"	140	1.9	110	32	41	1.9
40	1 1/2	38	125	100	1 1/2"	180	2.7	128	38	49	2.7
50	2	50	144	110	2"	180	3.9	154	50	62	3.8
65	2 1/2	64	186	130	2 1/2"	200	7.1	193	64	78	7.0
80	3	78	206	150	3"	250	11.5	222	78	94	11.4
100	4	98	240	170	4"	250	20.5	273	98	124	20.3



对夹连接球阀 Wafer connection ball valve

概述 General

对夹连接球阀具有结构紧凑、密封可靠、重量轻、安装方便、启闭轻松等特点。

Wafer spherical ball valve has the characteristics of compact structure, reliable sealing ability, light weight, convenient mounting, easy operation, etc.

主要零件材料及适用工况 Main parts material and suitable working conditions

零件名称 Part name	材料 Material							
阀体 Body	WBC	ZG1Cr18Ni9Ti	CF8(304)	CF3(304L)	ZG1Cr18Ni12Mo2Ti	CF8M(316)	CF3M(316L)	钛 Ti
球体、阀杆 Ball, Stem	2Cr13	1Cr18Ni9Ti	00Cr19Ni11(304)	00Cr19Ni11(304L)	1Cr18Ni12Mo2Ti	0Cr17Ni12Mo2(316)	0Cr17Ni12Mo2(316L)	钛 Ti
密封圈 Sealing ring	增强聚四氟乙烯 Reinforced PTFE、对位聚苯 Polyphenylester							
适用工况 Suitable working status	水、蒸汽、油品等 Water, steam, oil, etc	硝酸等腐蚀性介质 Corrosive media such as nitric acid, etc.		强氧化性介质 Media of strong oxygenation	醋酸等腐蚀性介质 Corrosive media such as acetic acid, etc.		尿素等腐蚀性介质 Corrosive media such as urea, etc.	氧化性腐蚀介质醋酸 Corrosive media of oxygenation acetic acid
适用温度 Suitable temperature	-29~180℃(增强聚四氟乙烯 Reinforced PTFE)、-29~300℃ (对位聚苯 Polyphenylester)							

产品型号 Type of product

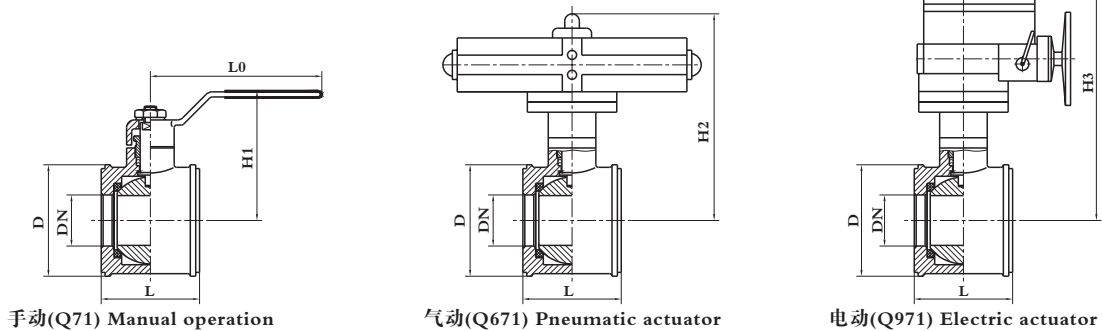
Q71F-10C	Q71F-10P	Q71F-10P8	Q71F-10P3	Q71F-10R	Q71F-10Rs	Q71F-10Ti
Q71F-16C	Q71F-16P	Q71F-16P8	Q71F-16P3	Q71F-16R	Q71F-16Rs	Q71F-16Ti
Q71F-25	Q71F-25P	Q71F-25P8	Q71F-25P3	Q71F-25R	Q71F-25Rs	Q71F-25Ti
Q71F-150(Lb)C	Q71F-150(Lb)P	Q71F-150(Lb)P8	Q71F-150(Lb)P3	Q71F-150(Lb)R	Q71F-150(Lb)Rs	Q71F-150(Lb)Ti
Q71F-10(K)C	Q71F-10(K)P	Q71F-10(K)P8	Q71F-10(K)P3	Q71F-10(K)R	Q71F-10(K)Rs	Q71F-10(K)Ti

注：1、密封圈材料选用对位聚苯，则将密封面材料代号“F”换为“Fs”，示例： Q71Fs-16C。

2、球阀传动方式有手动、气动、电动等。

Note: 1. If sealing ring material adopts polyphenylester, the material number "F" is replaced with "Fs", say, Q71Fs-16C.

2. The actuation modes of ball valve aer of manual, pneumatic actuator and electric actuator, etc.



手动(Q71) Manual operation

气动(Q671) Pneumatic actuator

电动(Q971) Electric actuator

公称通径 Nominal Diameter	尺寸 Dimension(mm)	重量 Weight (Kg)													
		L	D			L0	H1	H2	H3	Q71		Q671		Q971	
			①	②	③					钢 Steel	钛 Ti	钢 Steel	钛 Ti	钢 Steel	钛 Ti
15	1/2	40	53	47	58	140	80	225	320	0.9	0.5	4.2	3.8	7.8	7.4
20	3/4	45	63	57	63	180	80	228	320	1.3	0.8	4.5	4	8.2	7.6
25	1	50	73	66	74	180	100	235	340	1.6	1.0	5.8	5	8.6	8
32	1 1/4	60	84	75	84	200	110	260	350	2.6	1.5	9.0	8	9.5	8.4
40	1 1/2	70	94	85	89	200	120	270	360	3.8	2.2	10.5	8.5	11	9.4
50	2	80	109	103	104	250	130	280	370	5	3.0	11.5	9.5	12	10
65	2 1/2	110	129	122	124	300	140	360	380	7.5	4.5	26.5	23.5	14.5	11.5
80	3	120	144	135	134	350	150	380	450	11	6.5	30	25.5	45	40.5
100	4	140	164	173	159	450	180	420	490	17	10	38	31	51	44

注：①为PN1.0、2.5MPa球阀的数值，其中PN2.5MPa，DN100的D值为170；②为Class150球阀的数值；③为10K球阀的数值。

Note: ①Refers to nominal diameters when PN of ball valves is 1.0, 1.6 or 2.5 MPa, among which the value D of Dn100 is 170 when PN is 2.5 MPa.

②Refers to values of Class 150 ball valve;

③Refers to the valves of 10K ball valve