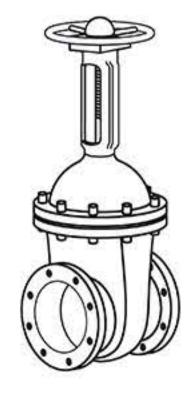
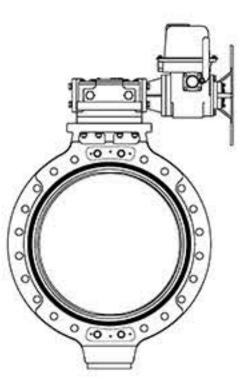
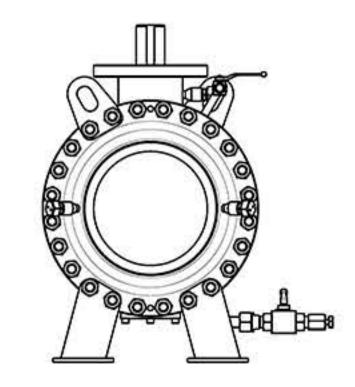


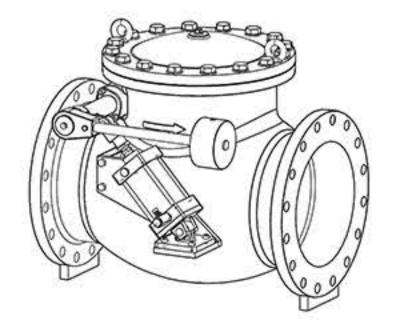
# TOTAL SOLUTIONS FOR FLOW SYSTEM Double Eccentric V-type Ball Valve

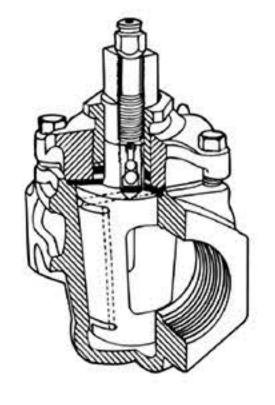


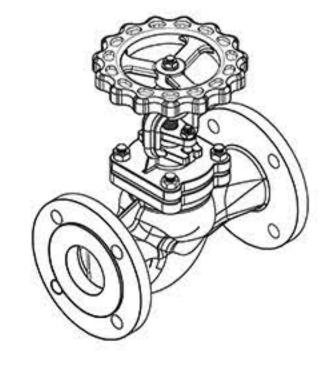












# ABOUT US





ZHENGZHOU JINGGONG VALVE CO., LTD is located in "Hometown of Valve in China" Gaoshan Town, Xingyang City, Henan Province. It is a high-tech enterprise in one line of design, manufacturing, sales and services.

Founded in 1981, after more than 40 years of development, it has become a professional valve manufacturer. With 103,180,000 RMB of registered capital, it covers an area of 26,000 m² and owns professional workshops.

**Aim**: loyal to and customer, optimal management, rigorous and pragmatic and to promote China's valve industry to a higher level and ZZJG brand a leading position.

**Certifications**: ISO9001 Quality System Certification, ISO14001 Environment System Certification, ISO45001 Occupational Health and Safety Management Certification, TS Special Equipment License, European Union CE Certification, etc.

Main products: PN0.25-32MPa, DN50-3000, soft/metal seal butterfly valves, plug valves, ball valves, gate valves, globe valves, check valves, control valves, etc.

**Application**: Water engineering, Electric power, Petroleum, Chemical industry, Petrochemical industry, Heating, Pharmaceuticals, Metallurgy, etc.

www.zzjgvalve.com — www.zzjgvalve.com — www.zzjgvalve.com



# ZZJG CASES

The company strictly controls and checks the quality of every link and process. Product design has been incorporated into a set of extremely rigorous and precise procedures; from design, material selection, manufacturing, assembly to operation, every link must undergo rigorous testing procedures, strict control, and high quality, so that customers can use it. At the same time, we deeply feel our rigorous and pragmatic quality purpose.















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# Double Eccentric V-type Ball Valve



#### Overview

Double Eccentric V-type Ball Valve, also known as cam flex valve, is a new generation of products developed by our company by integrating similar pioneer technology at home product and its structure has the abroad, advantages of small size, full diameter, large flow house coefficient, light opening and closing, and self-cleaning.

The material and its process have unique advantages such as wear resistance and erosion resistance, which can effectively improve the reliability and operation cycle of the valve, effectively reduce the operation and maintenance costs, and save energy and reduce consumption.

### **Applications**

This valve can be used in metallurgy, mining, chemical industry, petrochemical, electric power, environmental protection, municipal administration and other industries.









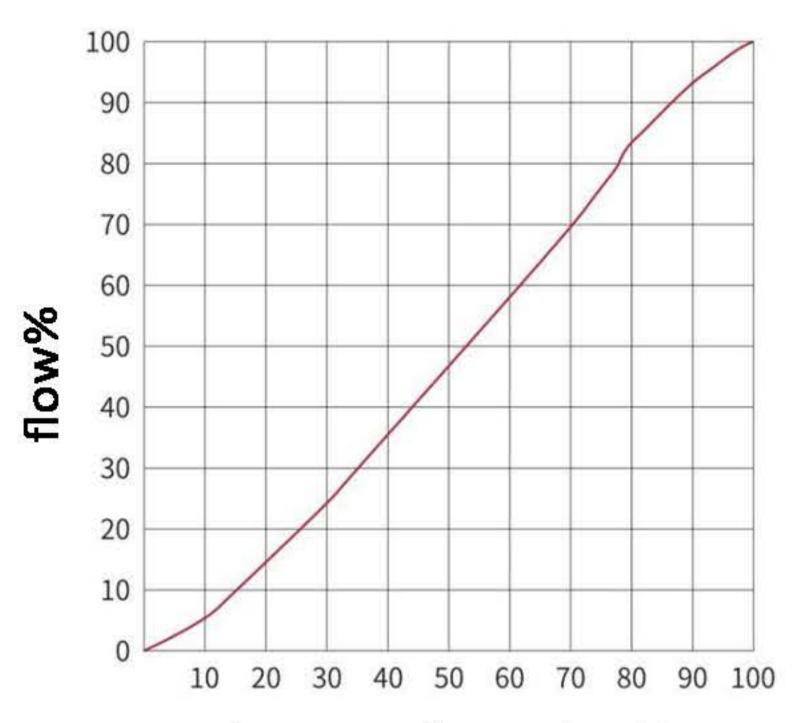
## **Working Principle**

The upper shaft of the double eccentric v-type ball valve drives the spool (an eccentric fan-shaped hemisphere arranged in the valve cavity) to rotate 90° around the upper and lower valve shafts. When rotating clockwise, the valve is closed, the valve core enters the valve seat, under the action of eccentricity, the valve core pressurizes the valve seat, the tighter the fun, after the sealing surface wears, the valve seat can compensate for the wear under the promotion of the spring; when the counterclockwise rotation, the valve opens, under the action of eccentricity, the valve core can be quickly separated from the valve seat, and the rest of the stroke has no contact, no wear, and the opening and closing is light.



Technical Parameters						
Size range	DN25~900mm NPS1"~36"					
Pressure	PN1.0~25MPa Class150~1500					
Body material	CF8, CF8M, CF3, CF3M, A890 4A, alloy steel					
Operation	manual, worm gear, hydraulic, electric, pneumatic, electric-hydraulic, etc.					
Applicable temperature	0~425°C					
Applicable medium	Grey water, slag water, slurry, ash powder, weakly corrosive medium, etc.					

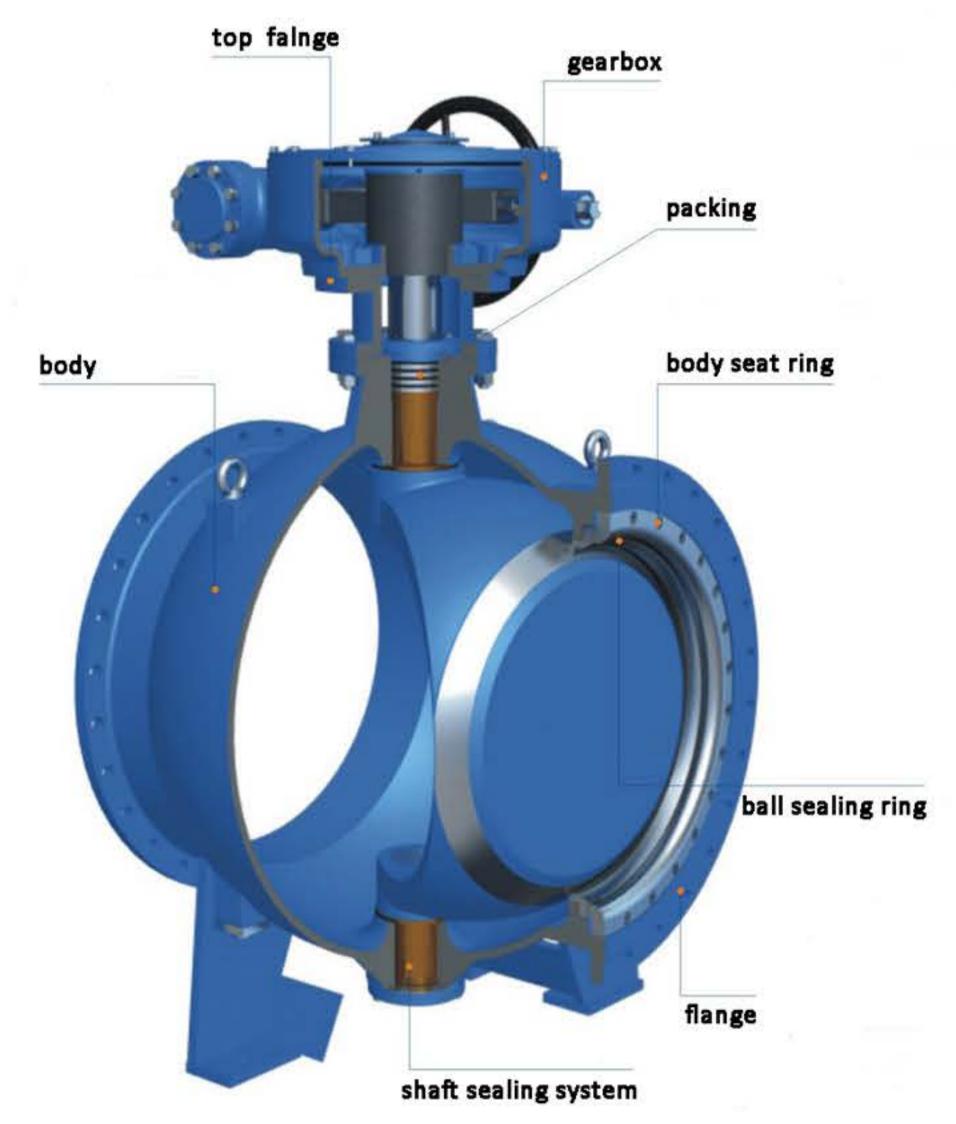
#### Double Eccentric V-type Ball Valve Flow Characteristic Curve



degree of opening%

Valve	diameter		Standard channel valve, ball opening (%)									
in	mm	10	20	30	40	50	60	70	80	90	100	
3	80	8.40	18.90	33.60	46.20	63.00	92.40	147.00	210.00	309.20	420.00	
4	100	15.40	34.70	61.60	84.70	115.50	169.40	269.50	385.00	585.00	770.00	
6	150	36.00	81.00	144.00	198.00	270.00	369.00	630.00	900.00	1368.00	1800.00	
8	200	68.00	153.00	272.00	374.00	510.00	748.00	1190.00	1700.00	2584.00	3400.00	
10	250	118.00	265.00	472.00	649.00	885.00	1298.00	2065.00	2950.00	4484.00	5900.00	
12	300	160.00	360.00	640.00	880.00	1200.00	1760.00	2800.00	4000.00	6080.00	8000.00	
14	350	240.00	540.00	960.00	1320.00	1800.00	2640.00	4200.00	6000.00	9120.00	12000.00	
16	400	280.00	630.00	1120.00	1540.00	2100.00	3080.00	4900.00	7000.00	10640.00	14000.00	
18	450	360.00	310.00	1440.00	1980.00	2700.00	3960.00	6300.00	90000.00	13680.00	13000.00	
20	500	440.00	990.00	1760.00	2420.00	3300.00	4840.00	7700.00	11000.00	16720.00	22000.00	

#### Structure

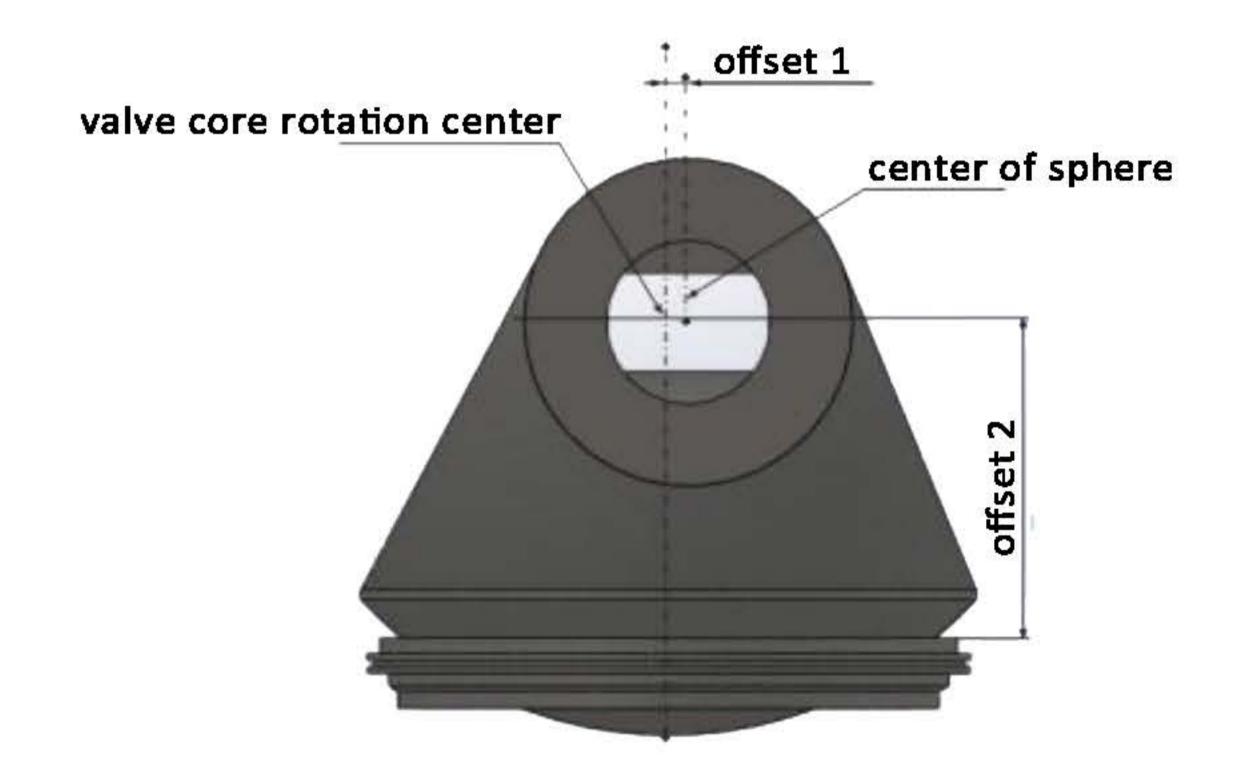




#### Technical features

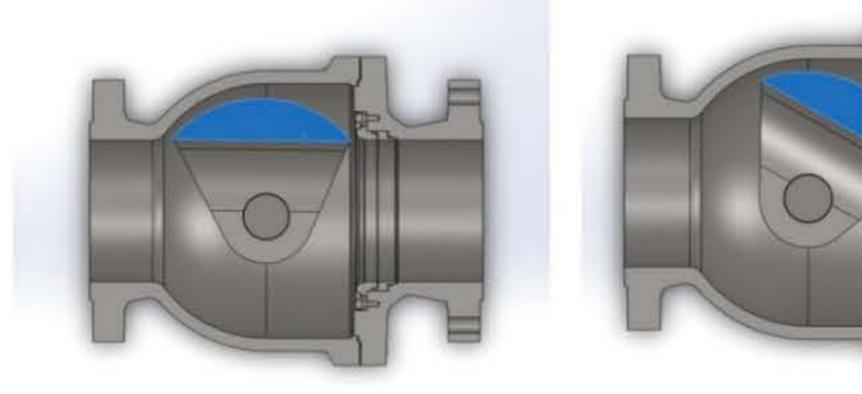
#### 1) Double eccentric design, forced sealing

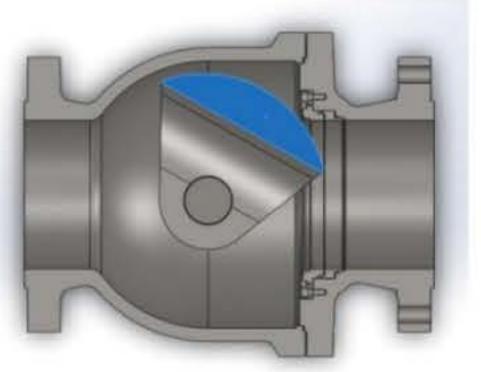
Double eccentric design, the spool does cam movement more and more tight, to achieve forced sealing. When rotated clockwise, the valve closes and the spool enters the seat. Under the action of eccentricity, the spool pressurizes the seat and closes tighter and tighter to achieve a reliable seal. The valve core only contacts the valve seat instantaneously at the moment of opening and closing, and the rest of the stroke has no contact and no wear, and the opening and closing is light, which can effectively reduce the wear of the sealing pair to extend valve life.

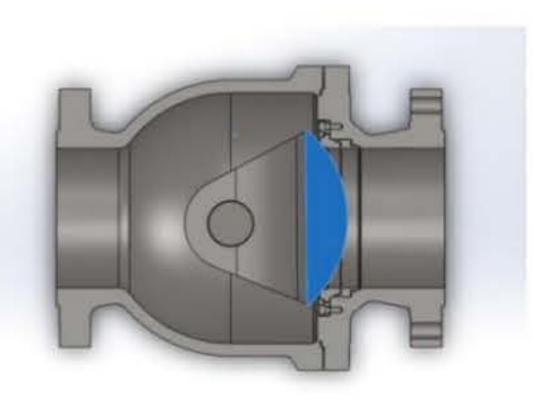


#### 2) Single-seat, full-bore design

After the valve is opened, there is no flow blocking element in the valve cavity, which can avoid the generation of eddy current; after closing, there is no material retention in the valve cavity, which reduces the wear of the material to the valve cavity, and the cemented carbide spray welding of the sealing pair has high hardness and high wear resistance, and the adhesive materials and sundries of the sealing pair can be sheared when closed, forming a self-cleaning function.

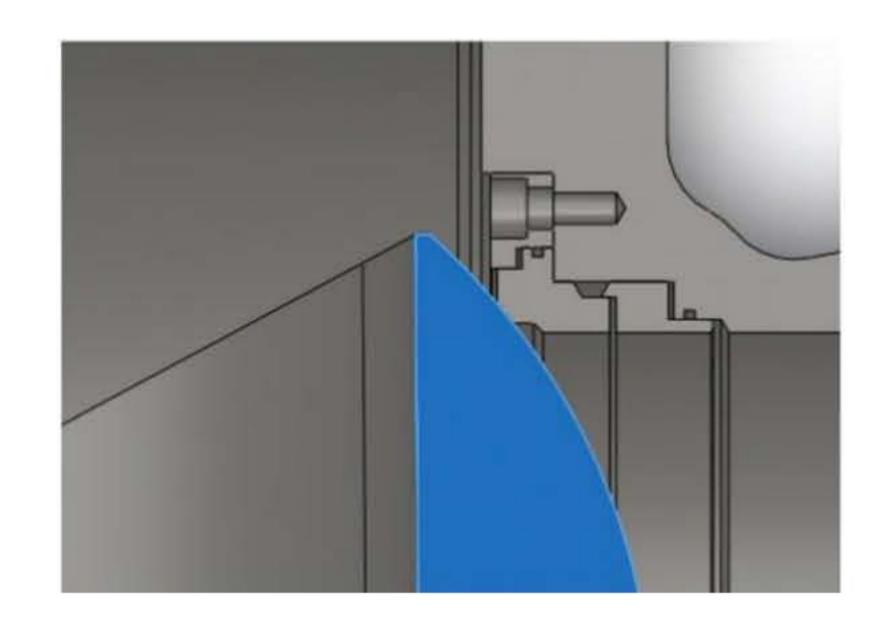




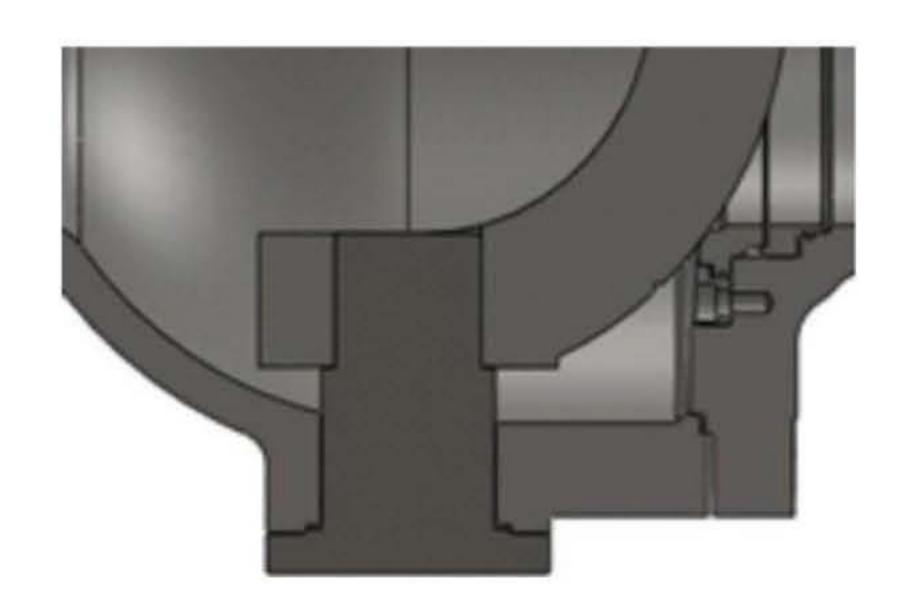


#### 3) Floating seat design

The floating valve seat can absorb the influence of thermal expansion and contraction caused by temperature changes on parts under high temperature or large temperature difference working conditions, ensuring the reliability of valve sealing performance.



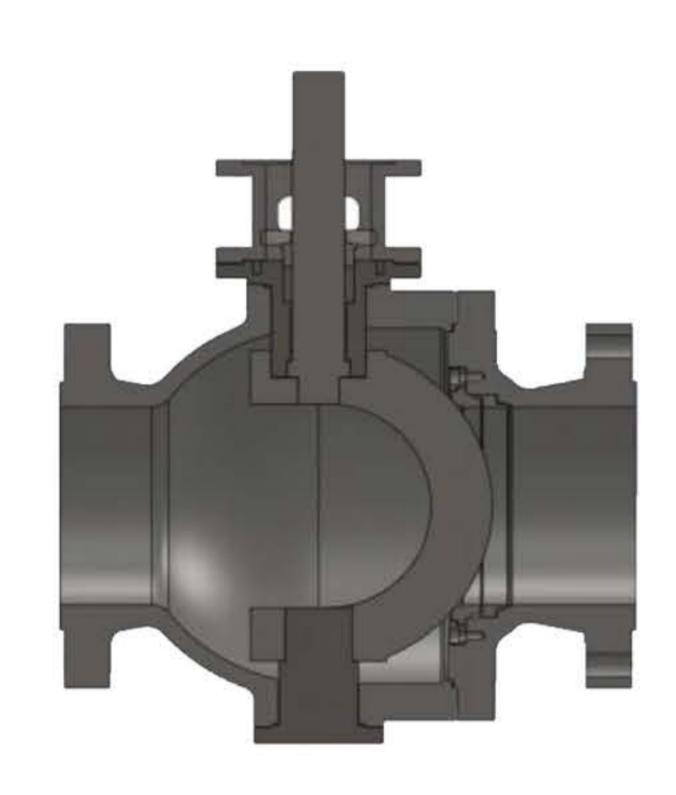
#### 4) Wear-resistant design of upper and lower support shafts



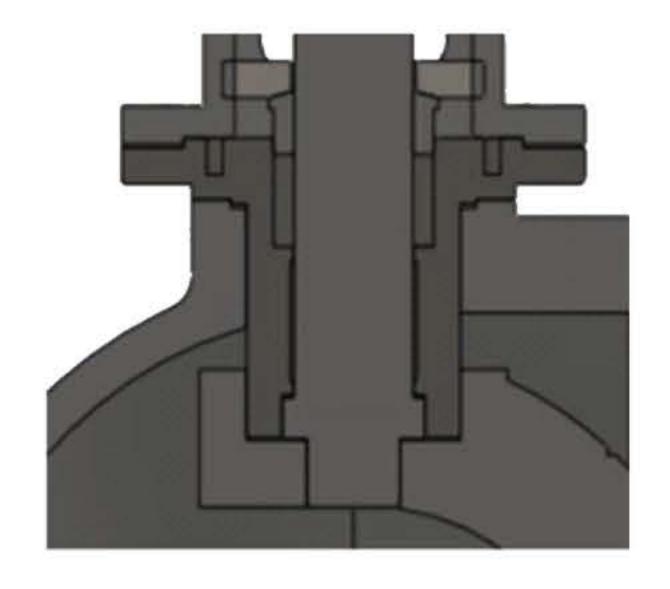
The contact parts between the upper and lower support shafts and the valve core are sprayed with cemented carbide wear-resistant treatment to improve the strength, ensure the wear resistance of long-term use, and meet the requirements of frequent opening and closing of the process.

#### 5) Fixed ball design

The valve core is fixed by the upper and lower support shafts, which solves the influence of the medium force on the seal, and the valve stem only bears the opening and closing torque to ensure that the valve stem will not be stuck in extreme cases.



#### 6) Stem blow-out resistant design



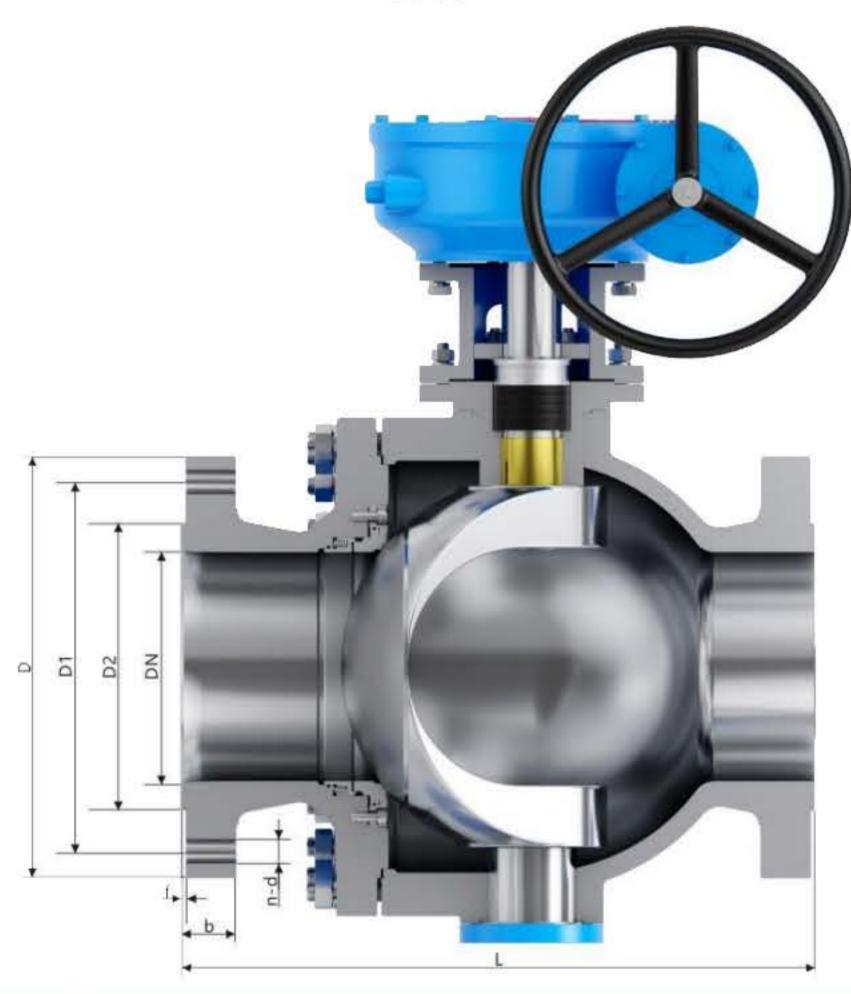
The valve core is fixed by the upper and lower support shafts, which solves the influence of the medium force on the seal, and the valve stem only bears the opening and closing torque to ensure that the valve stem will not be stuck in extreme cases.



	Main Design & Manufacturing Standards							
Standard content	Standard	Standard name						
	BS 5351	Steel Ball Valves for the Petroleum, Petrochemical and Allied Industries						
	API 6D	Specification for Pipeline and Pipeline Valves						
Design and manufacturing	GB/T 12237	General purpose industrial valves-Flanged and butt-weld end steel ball valves						
	ISO 521	Machine chucking reamers with cylindrical shanks and Morse taper shanks						
	ISO 17292	Metal ball valves for petroleum, petrochemical and allied industries						
	ASME B16.10	Face-to-Face and End-to-End Dimensions of Valves						
Structure length standard	ISO 5752	Metal valves for use in flanged pipe systems Face-to-face and centre-to-face dimensions						
	GB/T 12221	Metal valves - Face to face, end to end, center to face and center to end dimensions						
	ASME B16.5	Pipe Flanges and Flanged Fittings: NPS 1/2 through NPS 24, Metric/Inch Standard						
	ASME B16.7	Forged Slip On Flanges						
Flange standard	HG/T 20592	Steel pipe flanges (PN designated)						
	SH/T 3406	Specification for steel pipe flanges in petrochemical engineering						
	API 598	Valve Inspection and Testing						
	GB/T 13927	Industrial valves - Pressure testing						
Pressure test standard	ISO 5208:2015	Industrial valves - Pressure testing of metallic valves, MOD						
	MSS SP-61	Pressure Testing of Valves						

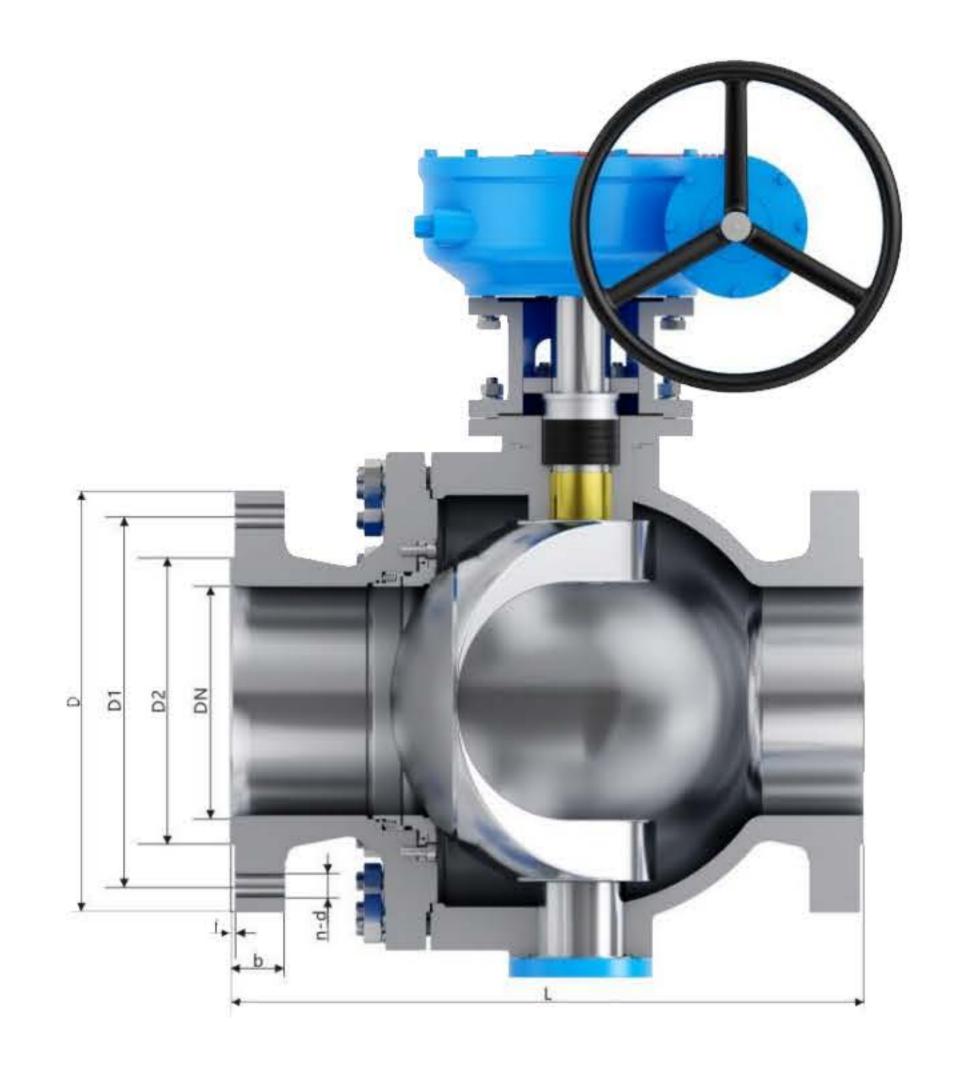
Parts	Material
Body	WCB, CF8, CF3, CF8M,CF3M
Core	WCB, CF8, CF3, CF8M,CF3M+nickel-based alloy
Shaft	20Cr13, 304, 316, 17-4PH
Seat	A105, 304, 316+nickel-based alloy

# Double Eccentric V-type Ball Valve



Pressure CL	Diameter		Dimensions (mm)							
	DN	NPS	L			D1	Da	- d	L L	f
		INFS	Flange	BW	D	DI	D2	n-d	b	
	100	4	229	305	229	190.5	157	8-Ф19	24	2
	125	5	356	381	254	216	186	8-Ф22	24	2
	150	6	394	457	279	241.5	216	8-Ф22	25.5	2
	200	8	457	521	343	298.5	270	8-Ф22	29	2
	250	10	533	559	406	362	324	12-Ф25	31	2
	300	12	610	635	483	432	381	12-Φ25	32	2
	350	14	686	762	533	476	413	12-Ф29	35	2
Class150	400	16	762	838	597	540	470	12-Ф29	37	2
PN20	450	18	864	914	635	578	533	16-Ф32	40	2
	500	20	914	991	699	635	584	20-Ф32	43	2
	600	24	1067	1143	813	749.5	692	20-Ф35	48	2
	650	26	1143	1245	786	744.5	711	36-Ф22	40	2
	700	28	1245	1346	837	795.5	762	40-Ф22	43	2
	750	30	1295	1397	887	846	813	44-Φ22	43	2
	800	32	1372	1524	941	900	864	48-Ф22	44	2
	900	36	1524	1727	1057	1009.5	972	44-Ф26	51	2
	100	4	305	305	254	200	157	8-Ф22	32	2
	125	5	381	381	279	235	186	8-Ф22	35	2
	150	6	457	457	318	270	216	12-Ф22	37	2
	200	8	521	521	381	330	270	12-Ф25	41.5	2
	250	10	559	559	445	387.5	324	16-Ф29	48	2
	300	12	635	635	521	451	381	16-Ф32	51	2
	350	14	762	762	584	514.5	413	20-Ф32	54	2
Class300	400	16	838	838	648	571.5	470	20-Ф35	58	2
PN50	450	18	914	914	711	628.5	533	24-Ф35	61	2
	500	20	991	991	775	686	584	24-Ф35	64	2
	600	24	1143	1143	914	813	692	24-Φ41	70	2
	650	26	1245	1245	867	803.5	737	32-Ф36	87	2
	700	28	1346	1346	921	857	787	36-Ф36	87	2
	750	30	1397	1397	991	921	845	36-Ф39	92	2
	800	32	1524	1524	1054	978	902	32-Ф42	102	2
	900	36	1727	1727	1172	1089	1010	32-Ф45	102	2





Pressure CL	Diameter		Dimensions (mm)								
	DM	NPS	L		D	D1	D2	n d	b	f	
	DN		Flange	BW		DI	UZ	n-d	D	J.I.	
	50	2	368	368	216	165.1	92	8-Ф26	38.5	7	
	65	2.5	419	419	244	190.5	105	8-Ф29	41.5	7	
	80	3	381	381	241	190.5	127	8-Ф26	38.5	7	
	100	4	457	457	292	234.9	157	8-Ф32	44.5	7	
	125	5	559	559	349	279.4	186	8-Ф35	51	7	
	150	6	610	610	381	317.5	216	12-Ф32	56	7	
Class900	200	8	737	737	470	393.7	270	12-Ф39	63.5	7	
PN150	250	10	838	838	545	469.9	324	16-Ф39	70	7	
	300	12	965	965	610	533.4	381	20-Ф39	79.5	7	
	350	14	1029	1029	640	558.8	413	20-Ф42	86	7	
	400	16	1130	1130	705	615.9	470	20-Ф45	89	7	
	450	18	1219	1219	785	686	533	20-Ф51	102	7	
	500	20	1321	1321	855	749.5	584	20-Ф55	108	7	
	600	24	1549	1549	1040	901.5	692	20-Ф68	140	7	
	25	1	254	254	150	101.6	51	4-Φ26	28.5	7	
	40	1.5	305	305	180	123.6	73	4-Φ29	32	7	
	50	2	368	368	215	165.1	92	8-Ф26	38.5	7	
	65	2.5	419	419	245	190.5	105	8-Φ29	41.5	7	
	80	3	470	470	265	203.2	127	8-Ф32	48	7	
	100	4	546	546	310	241.3	157	8-Ф35	54	7	
	125	5	673	673	375	292.1	186	8-Ф42	73.5	7	
Class1500	150	6	705	705	394	317.5	216	12-Ф39	83	7	
PN260	200	8	832	832	483	393.7	270	12-Ф45	92	7	
	250	10	991	991	585	482.6	324	12-Ф51	108	7	
	300	12	1130	1130	675	571.5	381	16-Ф54	124	7	
	350	14	1257	1257	750	635	413	16-Ф60	133.5	7	
	400	16	1384	1384	825	705	470	16-Ф68	146.5	7	
	450	18	1537	1537	915	774.5	533.5	16-Ф74	162	7	
	500	20	1664	1664	985	832	584.5	16-Ф80	178	7	

# ZZJG VALVE MORE VALUE





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