

**PSN International**

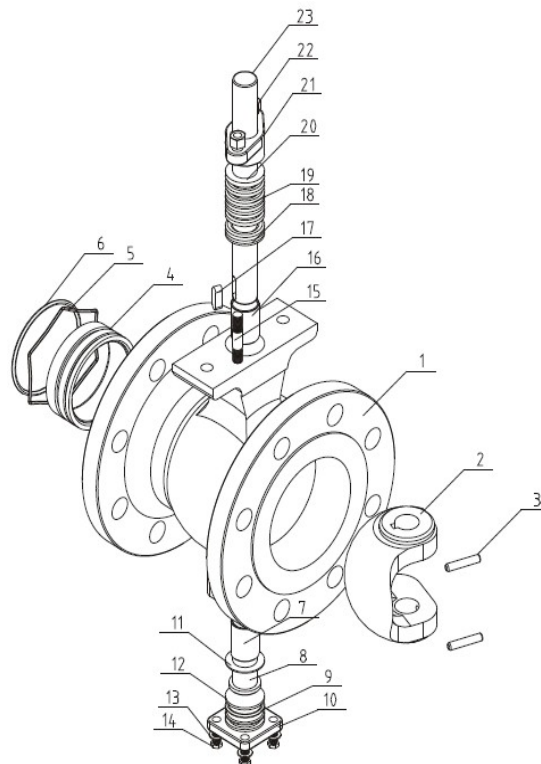
As a solution provider, we do more than valves.

VQF Series V-port Segment Ball Valve (Flange)**ISO9001 & CE Accredited****Overview**

The SAKHI VQF series v-port segment ball valve is primarily designed for flow control, and it can also be used for shut-off operation. The notched port on the segment ball contributes to strong shear stress to cut through media with fibers and particles. Consequently, this v-port segment valve is a good general control valve for most pulp and paper process applications, or similar flow contains fibers and particles.

**Application**

Pulp and Paper/Waste Water Treatment/ Food and Beverage/Chemical Plants/ Power Plants/ Steel Industry/Etc.

1. Design Features**STANDARD PART LIST**

Parts	WCB	CF8	CF8M
1. Body	WCB	CF8	CF8M
2. V-port Segment	CF8+HCr	CF8+HCr	CF8M+HCr
3. Pin	304	304	316
4. Seat	304+STL	304+STL	316+STL
5. Spring	316L		
6. O-ring	VITON		
7. Bearing	304+PTFE	304+PTFE	316+PTFE
8. Lower Stem	304	304	316
9. O-ring	Viton		
10. Packing Gland	WCB	CF8	CF8M
11/12. Gasket	PTFE		
13. Washer	Q235	304	316
14/15 Bolt	25	304	304
16. Bearing	304+PTFE	304+PTFE	316+PTFE
17. Key	304	304	316
18/19/20. Packing	PTFE or Graphite		
21. Packing Gland	WCB	CF8	CF8M
22. Nut	Q235	304	304
23. Upper Stem	304	304	316

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Mob: 9820072360 Email: arun.tejwani@gmail.com

5/C, Thakkar Industrial Estate, Near Sitaram Mills Compound, Chinchpokali, Mumbai – 400 011.



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Body

- Single-piece body prevents leaks caused by separate flanges or locking rings.

V-port Segment Ball:

- Specially designed V-notch ball provides strong cutting stress and tight sealing. Well ground notched ball surface ensures small operating torque and tight seal, especially for metal seated segment valve.

Seat

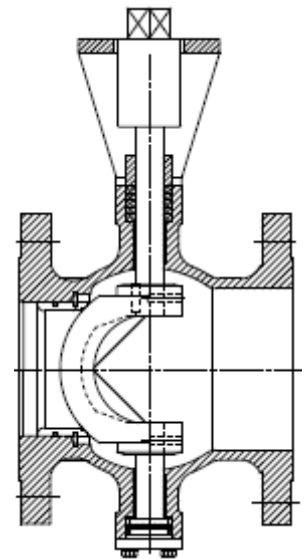
- Special seat design eliminates cavity between seat and valve body. This, consequently, prevents media from jamming between seat and body, ensure reliable sealing.

Seal Surface

- Nitriding/Tungsten Carbide/Satellite Alloy/Nickle Base Alloy plating are available for abrasive media.

Stem

- Stem is finely grounded to match actuator excellently, which prevents rocking motion and potential failure of the v-port segmented valve.
- Close-fit spline or pin-key are available for stem-segment ball connection to provide reliable transmission without motion lost or dead band.



Flow Direction →

2. Technical Specification

Size Range

1" ~20" (DN25~DN500)

Pressure Rate

DIN PN10, 16, 25, 40,63; ANSI
150,300,600

Body Material

WCB, CF8, CF8M, CF3M, etc.

Ball/Seat:

Metal Seat

CF8+HCr/304+STL, CF8M+HCr/316+STL,
CF3+HCr/304L+STL, etc.

Nitriding/Tungsten Carbide/Satellite
Alloy/Nickle Base Alloy plating are
available for abrasive media.

Soft Seat

Devlon/PEEK/PCTFE are available

End Connection

Flange Type

Face to Face

ISA S75.04, IEC/DIN 534-3-2

Temp. Range:

-29°C ~ 240°C with Soft Seat

-29°C ~ 350°C with Metal Seat

Seal Tightness:

Metal Seat

Class V (standard), Class VI (with
Tungsten Carbide coated trim)

Soft Seat

Class VI

Valve Trim Rotation

Clockwise to close

Flow Characteristic

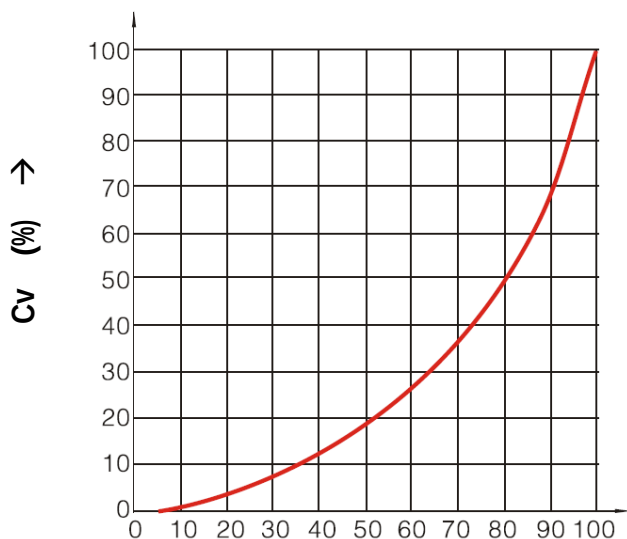
Equal Percentage



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3. Flow Characteristic



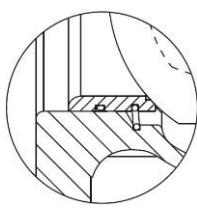
Size	CV
DN25	36
DN32	56
DN40	94
DN50	152
DN65	262
DN80	358
DN100	540
DN125	906
DN150	1424
DN200	2176
DN250	3532

Size	CV
DN300	5732
DN350	8245
DN400	10651
DN450	12878
DN500	16343

*The rated Cv value is for reference only.

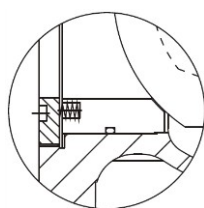
4. Seat Options

Metal Seat A



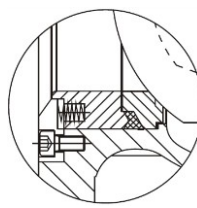
Flow Direction

Metal Seat B



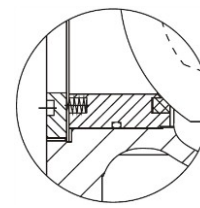
Flow Direction

High Temp Metal Seat C.



Flow Direction

Soft Seat D



Flow Direction

Metal Seat A/ Metal Seat B

Seat	304/316+STL	
Spring	17-7PH/316L	
O-ring	Viton	High Temp. Viton
Packing	PTFE	Graphite
Temp. Range	-29~150°C	-29~220°C

High Temp Metal Seat C

Seat	304/316+STL
Spring	17-7PH/316L
O-ring	Graphite
Packing	Graphite
Temp. Range	-29~350°C

Soft Seat D

Seat	DEVLON	PCTFE	PEEK
Spring	17-7PH/316L		
O-ring	Viton		
Packing	PTFE		Graphite
Temp. Range	-29~120°C	-29~120°C	-29~150°C

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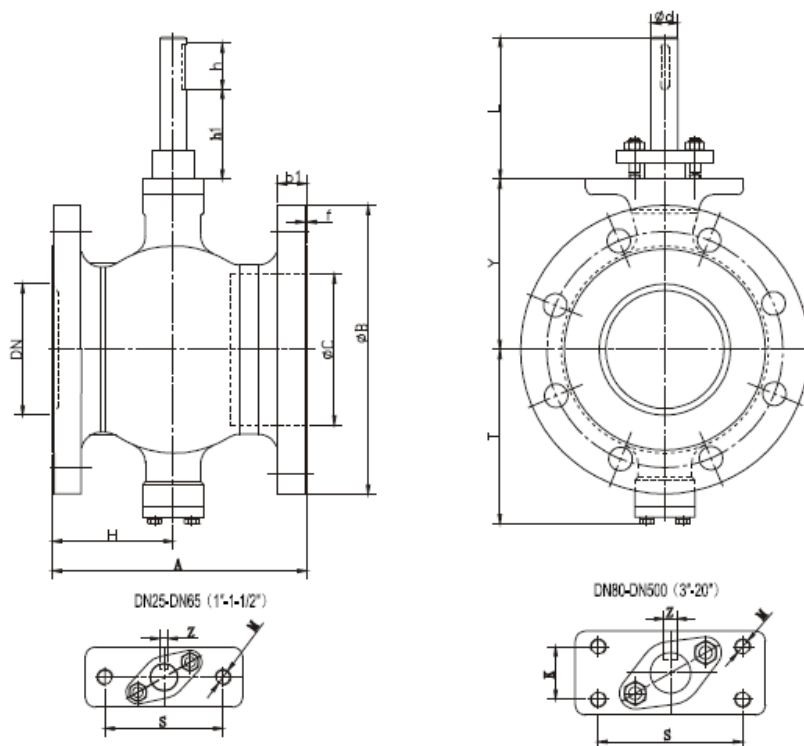
5. Valve Torque (1.3 Safety Factor)

Size	150LB 10 Bar Pressure Metal Seat	150LB 10 Bar Pressure Soft Seat	150LB 20 Bar Pressure Metal/Soft Seat	300LB 35 Bar Pressure Metal/Soft Sea	600LB 70 Bar Pressure Metal/Soft Sea
DN25	20	20	30	85	210
DN32	25	25	36	105	320
DN40	30	30	40	180	380
DN50	35	35	42	190	730
DN65	50	50	62	380	930
DN80	60	80	95	380	1000
DN100	80	120	140	530	1000
DN125	110	180	220	720	2200
DN150	170	300	360	1180	2500
DN200	240	500	590	1750	3800
DN250	430	900	1100	2800	6500
DN300	600	1400	1500	4000	10000
DN350	1200	2000	2500	7800	13100
DN400	1800	3200	4000	9000	18000
DN450	3000	4500	5600	13700	24000
DN500	4600	6500	8200	15500	31000



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ANSI 150

DN	A	B	b1	f	C	T	Y	L	d	h	S	K	M	Z	Weight (kg)
1"	102	108	14.5	2	38	81	73	75	16	3	75	/	2-M10	5	5.4
1 1/4"	102	115	14.5	2	45	86	78	75	16	3	75	/	2-M10	5	7.3
1 1/2"	114	127	14.5	2	50	90	80	75	16	3	75	/	2-M10	5	8.4
2"	124	152	16.3	2	62	93	90	75	16	3	75	/	2-M10	5	10.5
2 1/2"	145	180	18	2	73	108	105	75	16	3	75	/	2-M10	5	13.2
3"	165	191	19.5	2	90	123	118	75	20	3	90	28	4-M10	6	17.7
4"	194	230	24	2	115	138	130	75	20	3	90	28	4-M10	6	24.7
5"	194	255	24.3	2	134	148	145	80	25	4	90	28	4-M10	8	34.5
6"	229	280	26	2	164	170	170	94	30	5	110	40	4-M12	8	50.7
8"	243	340	29	2	206	200	201	94	30	5	110	40	4-M12	8	72.7
10"	297	405	30.6	2	260	240	237	98	40	6	135	40	4-M16	12	116
12"	338	485	32.2	2	316	286	282	98	40	6	135	40	4-M16	12	169
14"	400	535	35.4	2	372	330	337	125	50	6	140	64	4-M16	14	249
16"	400	595	37	2	420	367	372	172	60	8	170	80	4-M20	18	326
18"	520	635	40.1	2	470	422	432	172	70	9	190	90	4-M24	20	410
20"	600	700	44	2	516	490	498	180	80	1	190	90	4-M24	22	510

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