

SAFETY VALVE

Model
JSV-FF11, FF21, FF22

Full Bore Safety Valve

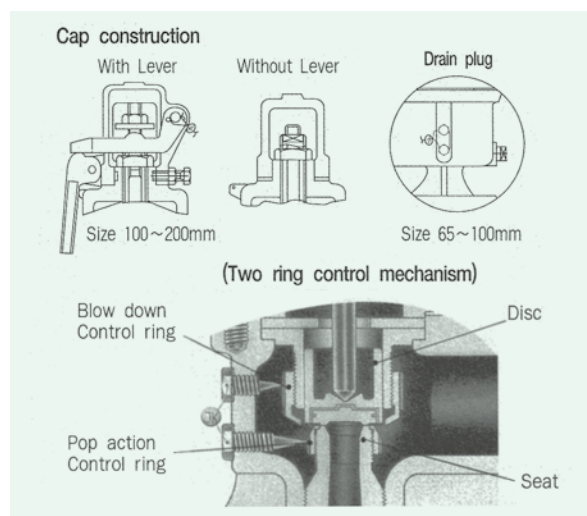
Two ring control
mechanism Spring loaded



Cast iron body
JSV-FF11



Cast steel body
JSV-FF21, FF22



MATERIALS (Standard)

No	Part	JSV-FF11	JSV-FF21	JSV-FF23
a	Cap	Ductile iron		
b	Lever	Ductile iron		
c	Adjusting screw	Brass	Stainless steel	
d	Bonnet	Cast iron	Cast steel	
e	Spring	Oil Tempered Alloy Steel or Spring Steel		
f	Stem	Stainless steel		
g	Disc	Stainless steel	Stainless steel	
h	Seat	Stainless steel	Stainless steel	
i	Body	Cast iron	Cast steel	
j	Blow down ring	Bronze	Stainless steel	
k	Popping ring	Bronze	Stainless steel	

•Stainless steel body is available upon request

Two ring control, for positive adjustment of both blowdown & pop action to insure consistently dependable performance for widest ranges of pressure, temperature and service condition.

Blowdown control ring : Guide ring accurately adjusts to the required blowdown by changing the reactive force of the various flowing media. Blowdown adjustment is independent of pop action, valve lift or capacity.

Pop action control ring : Adjustable nozzle ring assures sharp, controlled pop action-prevents long, worn-out commences to blow off or simmer before popping.

MATERIALS (Standard)

Models		JSV-FF11		JSV-FF21		JSV-FF22
Type		Without lever	With lever	Without lever	With lever	Without lever
Applicable fluid		Liquids	Steam, Air	Liquids	Steam, Air	Gas
Set pressure range		0.35~1.0, 1.0~3.0, 3.0~6.0, 6.0~11.0kgf/cm ² {0.035~0.1, 0.1~0.3, 0.3~0.6, 0.6~1.1MPa}		0.35~1.0, 1.0~3.0, 3.0~6.0, 6.0~12.0, 12.0~22.0kgf/cm ² {0.035~0.1, 0.1~0.3, 0.3~0.6, 0.6~1.2, 1.2~2.2MPa}		
Applicable temperature		Max. 220℃		Max. 250℃		-5~250℃
Connection		Inlet:JIS B 2210 10K RF Flanged Outlet:JIS B 2210 10K FF Flanged		Inlet:JIS B 2210 20K RF Flanged Outlet:JIS B 2210 10K FF Flanged		
Materials	Body	Cast iron		Cast steel		
	Disc & Seat	Stainless steel		Stainless steel(stellited)		
Nozzle type		Semi nozzle		Full nozzle		
Hydrostatic test pressure		1.5 times the setting pressure				

•Other flanges are available upon request. (JIS B 8210, ANSI, DIN). See the 8page for dimensions of JIS B 8210.

•For safety valves in service of 30kgf/cm²{3.0MPa} and over pressure, please inquiry our factory for details.

JSV-FF41 for steam, air and liquids in service of 30kgf/cm²{3.0MPa} (size 20~100mm)

JSV-FF31 series for gas in service of 30kgf/cm²{3.0MPa} (size 20~100mm), JSV-FF22/FF31 series are approved by High Pressure Gas Safety Corporation.

DIMENSIONS

Model JSV-FF11

(mm)

Size (ND) Inlet × Throat × Outlet (di) × dia × (do)	Seat opening dia. ds	Throat dia. dt	Throat area A (mm ²)	Lift ℓ	End to end		Height H	Weight (kg)	End connection	
					L ₁	L ₂			Inlet	Outlet
20 × 15 × 40 (¾" × 1½")	17.5	15	176.71	3.75	100	90	295	11.4	JIS B 2210 10K RF Flanged	JIS B 2210 10K FF Flanged
25 × 19 × 50 (1" × 2")	22	19	283.52	4.75	100	97	338	12		
32 × 24 × 65 (1¼" × 2½")	29	24	452.39	5	118	110	408	17		
40 × 30 × 65 (1½" × 2½")	35	30	706.86	7.5	118	110	408	17		
50 × 38 × 80 (2" × 3")	44	38	1,134.11	9.5	128	120	469	21		
65 × 49 × 100 (2½" × 4")	57	49	1,885.74	12.25	145	140	563	34		
80 × 61 × 125 (3" × 5")	71	61	2,922.47	15.25	165	158	611	48		
100 × 76 × 150 (4" × 6")	88	76	4,536.47	19	195	185	720	77		

Model JSV-FF21/JSV-FF22

(mm)

Size (ND) Inlet × Throat × Outlet (di) × dia × (do)	Seat opening dia. ds	Throat dia. dt	Throat area A (mm ²)	Lift ℓ	End to end		Height H	Weight (kg)	End connection	
					L ₁	L ₂			Inlet	Outlet
15 × 11.5 × 25 (½" × 1")	14.5	11.5	103.86	3	96	88	289	6.5	JIS B 2210 20K RF Flanged	JIS B 2210 10K FF Flanged
20 × 15 × 40 (¾" × 1½")	17.5	15	176.71	3.75	100	100	299	10		
25 × 19 × 50 (1" × 2")	22	19	283.52	4.75	100	104	338	14		
32 × 24 × 65 (1¼" × 2½")	29	24	452.39	5	115	119	406	21		
40 × 30 × 65 (1½" × 2½")	35	30	706.86	7.5	115	119	406	23		
50 × 38 × 80 (2" × 3")	44	38	1,134.11	9.5	128	130	476	28		
65 × 49 × 100 (2½" × 4")	57	49	1,885.74	12.25	144	150	565	37.5		
80 × 61 × 125 (3" × 5")	71	61	2,922.47	15.25	162	168	622	55		
100 × 76 × 150 (4" × 6")	88	76	4,536.47	19	190	203	731	94		
125 × 95 × 200 (5" × 8")	110	95	7,088.23	24	220	232	907	140		
150 × 110 × 200 (6" × 8")	127	110	9,503.34	27.5	225	230	953	165		
200 × 150 × 200 (8" × 10")	170	150	17,671.50	37.5	285	280	1,121	317		

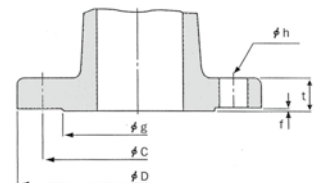
- Size means nominal inside diameter of inlet (di) and outlet (do)
- Weights are based on our standard flanged products and they may be slightly different according to specifications required.

KS B 6216 is equal to JIS B 8210

Inlet flange (KS B 6216) (FULL BORE TYPE)-1988

(mm)

Press (kgf/cm ²) (MPa)	Size	Flange				Bolt hole			Bolt size
		D	t	f	g	c	No	h	
10 {1.0}	15	95	16	1	51	70	4	15	M12
	20	125	22	1	67	90	4	19	M16
	25	130	22	1	70	95	4	19	M16
	32	140	24	2	81	105	4	19	M16
	40	155	24	2	96	120	8	19	M16
	50	165	26	2	105	130	8	19	M16
	65	200	28	2	130	160	8	23	M20
	80	210	30	2	140	170	8	23	M20
	100	245	32	2	175	205	8	23	M20
	125	280	34	2	205	235	12	25	M22
20 {2.0}	15	95	16	1	51	70	4	15	M12
	20	130	22	1	70	95	4	19	M16
	25	135	22	1	75	100	4	19	M16
	32	160	24	2	90	120	4	23	M20
	40	165	24	2	105	130	8	19	M16
	50	185	26	2	115	145	8	23	M20
	65	210	30	2	140	170	8	23	M20
	80	230	32	2	150	185	8	25	M22
	100	265	36	2	185	220	8	25	M22
	125	290	38	2	210	245	12	25	M22
200	150	350	42	2	260	300	12	27	M24
	200	410	46	2	310	350	12	33	M30



KS B 1511 is equal to JIS B 2210

Outlet flange (KS B 1511)

(mm)

Press (kgf/cm ²) (MPa)	Size	Flange				Bolt hole			Bolt Size
		D	t			C	No	h	
10 {1.0}	15	95	12	16		70	4	15	M12
	20	100	14	18		75	4	15	M12
	25	125	14	18		90	4	19	M16
	32	135	16	20		100	4	19	M16
	40	140	16	20		105	4	19	M16
	50	155	16	20		120	4	19	M16
	65	175	18	22		140	4	19	M16
	80	185	18	22		150	8	19	M16
	100	210	18	24		175	8	19	M16
	125	250	20	24		210	8	23	M20
	150	280	22	26		240	8	23	M20
	200	330	22	26		290	12	23	M20
	250	400	24	30		355	12	25	M22