

# FULL BORE SAFETY VALVES

## FSF-1P/FSF-2P

### Technical Data

Low lift safety valves

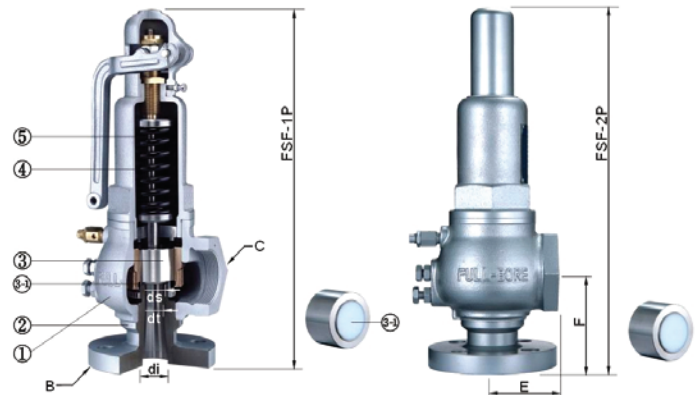
Material: Body-FC; Valve Seat-CF8

Orifice size: 1"(25mm), 1½"(40mm), 2"(50mm)

Working pressure: 1~10 kgf/cm<sup>2</sup> (14~150 psig)  
11~16 kgf/cm<sup>2</sup> (156~227 psig)

Working temp.: -5°C~196°C

Working fluid: Noncorrosive gas, air, steam  
(FSF-2P sealing type is suitable for using in water system)



FSF-1P  
Lever 1"~2"

FSF-2P  
Sealing 1"~2"

### General Material List

NO.	Type		FSF-1P Lever	FSF-2P Sealing
	Parts Name			
1.	Valve Body		FC	
2.	Valve Seat		CF8	
3.	Disc		SUS304	
3-1.	Soft Seal		Teflon (PTFE)	
4.	Spring		Steel	
5.	Stem		SUS304	
Working Pressure			1~10 kgf/cm <sup>2</sup>	11~16 kgf/cm <sup>2</sup>
Working Temp.			-5°C~196°C	
Working Fluid			Noncorrosive gas, air, steam	

### Dimensions

LEVER SERIES				
ITEM	SIZE	SIZE		
		1"	1½"	2"
E		60	70	85
F		85	100	115
Lift		4.8	7.3	9.5
Wt. kg		6.5	12	17.5

SEALING SERIES				
ITEM	SIZE	SIZE		
		1"	1½"	2"
FSF-1P FSF-2P		310	385	440
Inlet B		1"	1½"	2"
Outlet C (PT)		1¼"	2"	2½"
Inlet Orifice di		25	40	50
Throat Orifice dt		19	29	38
Valve Seat Orifice ds		22.5	34.0	44.0
Effective Discharge area mm <sup>2</sup>		283.5	660.5	1134.1

(unit:mm)

### Blowout Capacity

Please refer the Blowout Capacity Table on next page.

### Ordering Information

FSF-1P / FSF-2P	Code	Valve Seat			
↓	0	CF8			
		Code	Pressure Rating		
	1	1~10 kg/cm <sup>2</sup>	2	11~16 kg/cm <sup>2</sup>	
	Code	Size			
		(A) 1" JIS 10K (B) 1½" JIS 10K (C) 2" JIS 10K			
↓	↓	↓	↓	Complete Ordering Code	

## Blowout Capacity Table

### – Air

orifice set press.	Air Blowout Capacity (kg/h)		
	1" (25)	1½" (40)	2" (50)
1 kgf/cm <sup>2</sup>	373	869	1493
2 kgf/cm <sup>2</sup>	569	1325	2275
3 kgf/cm <sup>2</sup>	764	1780	3056
4 kgf/cm <sup>2</sup>	960	2235	3838
5 kgf/cm <sup>2</sup>	1155	2691	4620
6 kgf/cm <sup>2</sup>	1351	3146	5402
7 kgf/cm <sup>2</sup>	1546	3602	6184
8 kgf/cm <sup>2</sup>	1741	4057	6966
9 kgf/cm <sup>2</sup>	1937	4512	7748
10 kgf/cm <sup>2</sup>	2132	4968	8530
11 kgf/cm <sup>2</sup>	2328	5423	9312
12 kgf/cm <sup>2</sup>	2523	5879	10093
13 kgf/cm <sup>2</sup>	2719	6334	10875
14 kgf/cm <sup>2</sup>	2914	6789	11657
15 kgf/cm <sup>2</sup>	3110	7245	12439
16 kgf/cm <sup>2</sup>	3305	7700	13221
17 kgf/cm <sup>2</sup>	3501	8155	14003
18 kgf/cm <sup>2</sup>	3696	8611	14785
19 kgf/cm <sup>2</sup>	3892	9066	15567
20 kgf/cm <sup>2</sup>	4087	9522	16349

### – Water

orifice set press.	Water Blowout Capacity (L/Min)		
	1" (25)	1½" (40)	2" (50)
1 kgf/cm <sup>2</sup>	110	256	439
2 kgf/cm <sup>2</sup>	155	362	621
3 kgf/cm <sup>2</sup>	190	443	760
4 kgf/cm <sup>2</sup>	219	511	878
5 kgf/cm <sup>2</sup>	245	572	981
6 kgf/cm <sup>2</sup>	269	626	1075
7 kgf/cm <sup>2</sup>	290	676	1161
8 kgf/cm <sup>2</sup>	310	723	1241
9 kgf/cm <sup>2</sup>	329	767	1317
10 kgf/cm <sup>2</sup>	347	808	1388
11 kgf/cm <sup>2</sup>	364	848	1456
12 kgf/cm <sup>2</sup>	380	886	1520
13 kgf/cm <sup>2</sup>	396	922	1583
14 kgf/cm <sup>2</sup>	411	956	1642
15 kgf/cm <sup>2</sup>	425	990	1700
16 kgf/cm <sup>2</sup>	439	1023	1756
17 kgf/cm <sup>2</sup>	452	1054	1810
18 kgf/cm <sup>2</sup>	466	1085	1862
19 kgf/cm <sup>2</sup>	478	1114	1913
20 kgf/cm <sup>2</sup>	491	1143	1963

### – Steam

orifice set press.	Steam Blowout Capacity (kg/h)		
	1" (25)	1½" (40)	2" (50)
1 kgf/cm <sup>2</sup>	230	536	921
2 kgf/cm <sup>2</sup>	347	809	1388
3 kgf/cm <sup>2</sup>	464	1081	1856
4 kgf/cm <sup>2</sup>	581	1353	2323
5 kgf/cm <sup>2</sup>	698	1625	2790
6 kgf/cm <sup>2</sup>	814	1897	3258
7 kgf/cm <sup>2</sup>	931	2170	3725
8 kgf/cm <sup>2</sup>	1048	2442	4192
9 kgf/cm <sup>2</sup>	1165	2714	4660
10 kgf/cm <sup>2</sup>	1282	2986	5127
11 kgf/cm <sup>2</sup>	1399	3258	5595
12 kgf/cm <sup>2</sup>	1515	3530	6062
13 kgf/cm <sup>2</sup>	1632	3803	6529
14 kgf/cm <sup>2</sup>	1749	4075	6997
15 kgf/cm <sup>2</sup>	1866	4347	7464
16 kgf/cm <sup>2</sup>	1983	4619	7931
17 kgf/cm <sup>2</sup>	2100	4891	8399
18 kgf/cm <sup>2</sup>	2216	5164	8866
19 kgf/cm <sup>2</sup>	2333	5436	9333
20 kgf/cm <sup>2</sup>	2450	5708	9801