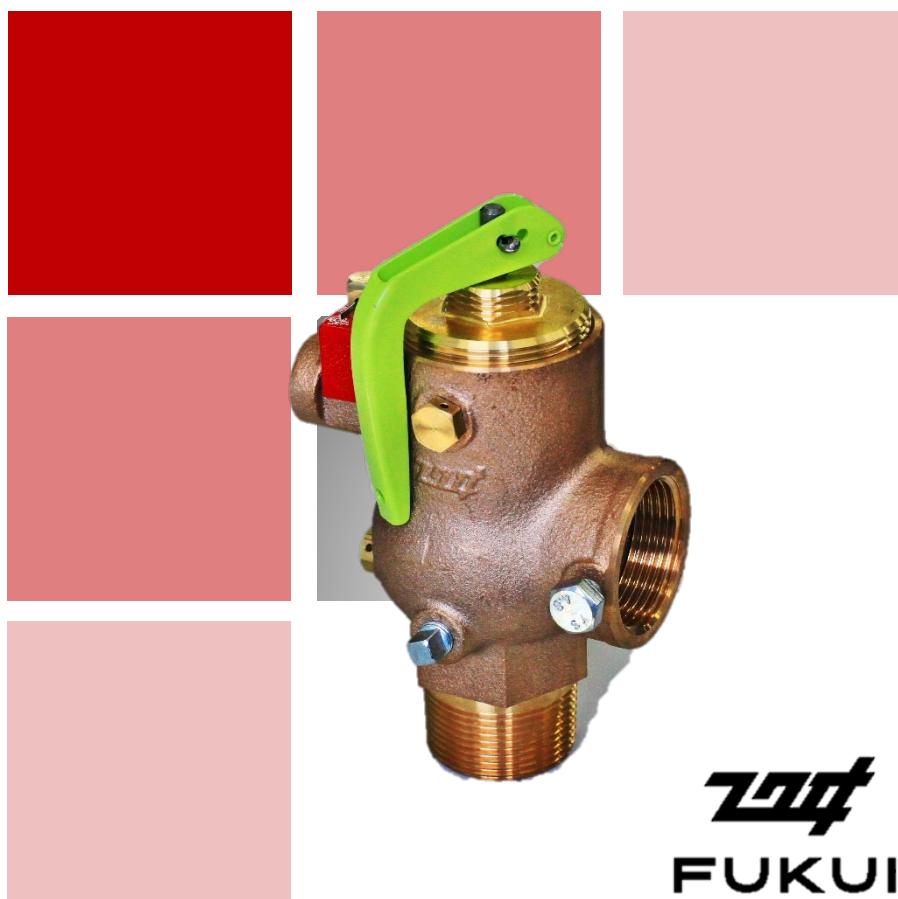




FUKUI

SP-1 Series

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◆ Features

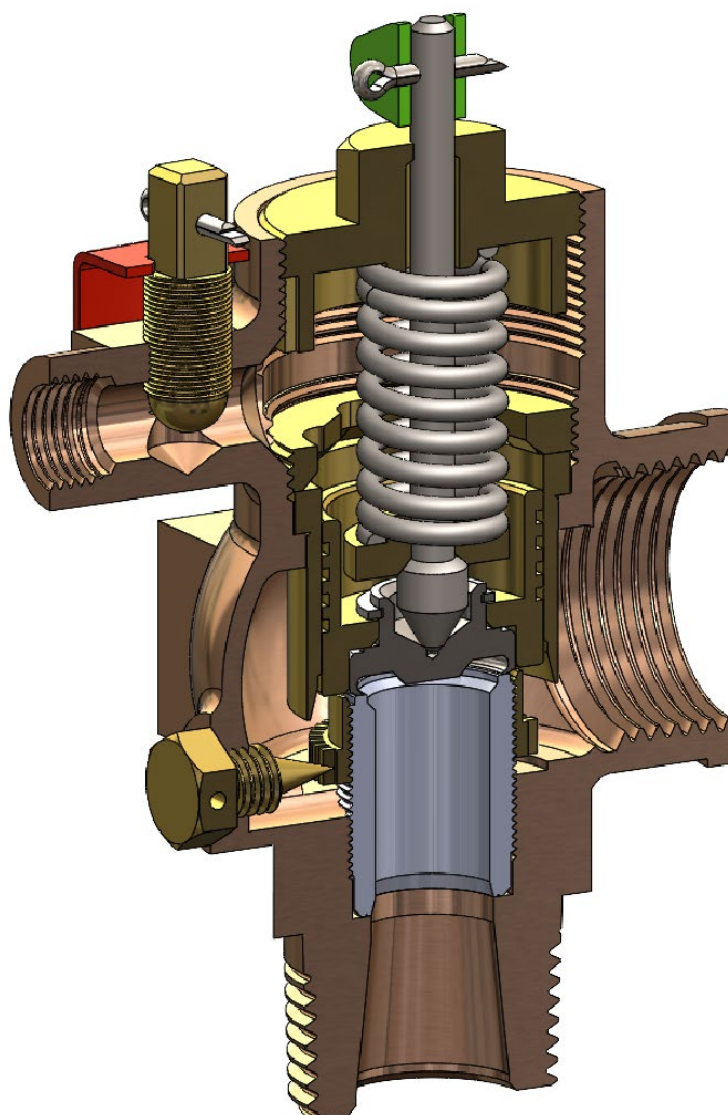
The SP-1 series is a low lift pressure relief valve developed for package boilers or small capacity compressors that can be used for steam and air service. The body material is made of bronze casting.

◆ Structure

The SP-1 series adopts an integrated cast structure for the body and bonnet to simplify the construction. As one of its key features, it incorporates a back-pressure needle for blowdown adjustment.

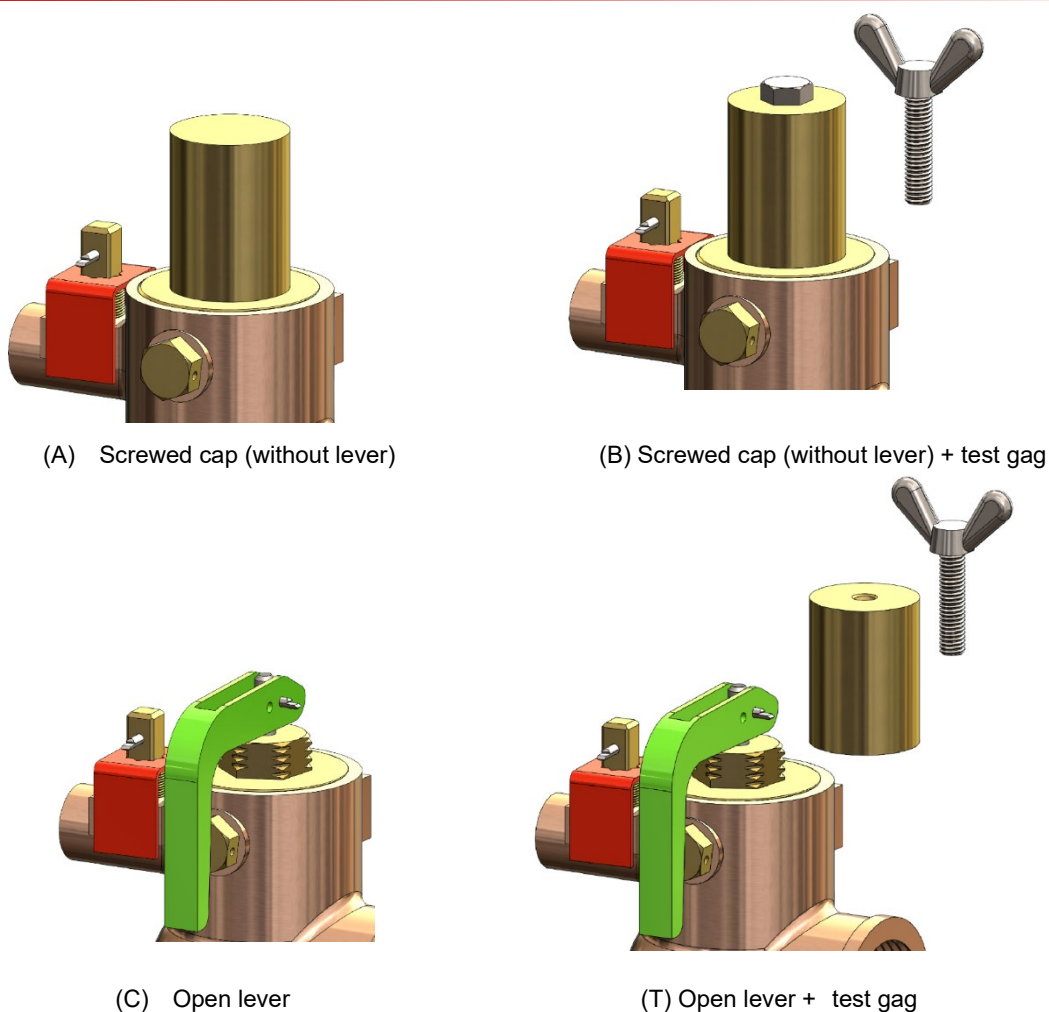
SP-1 Structure

- ◆ Semi nozzle
- ◆ Lower ring adjustment function
- ◆ Body-nozzle integrated design
- ◆ Blowdown adjustment needle



SP-1 Structure

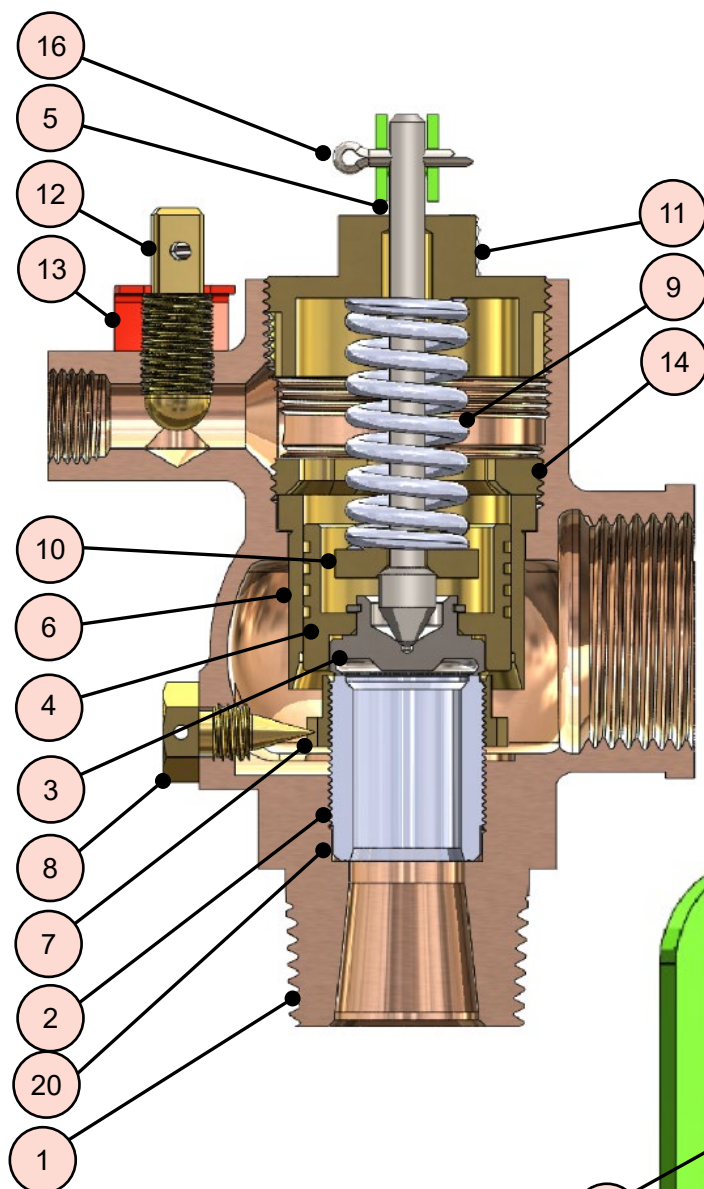
Cap code



Type Code

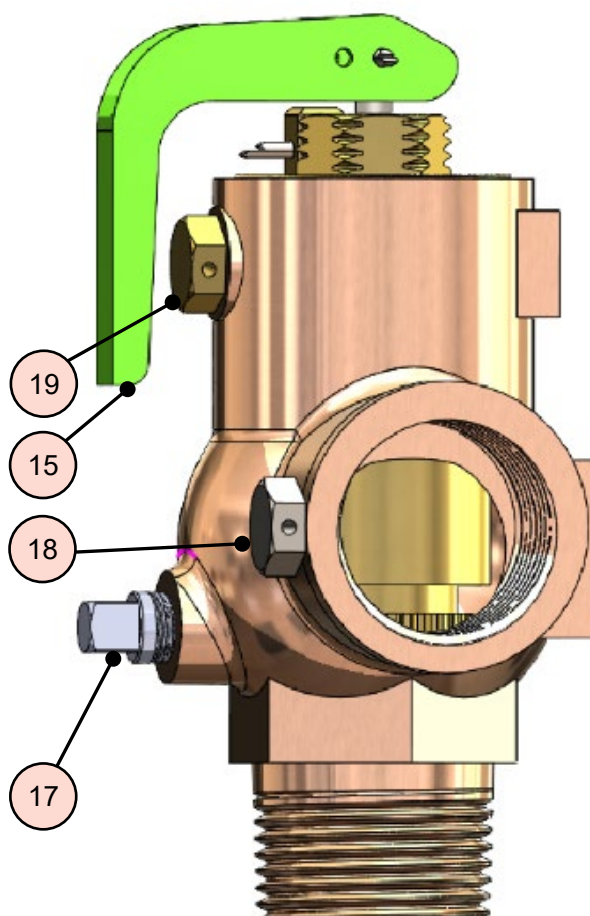
SP-1		(A)				
		Cap code				
		(A)	Screwed cap (without lever)			
		(B)	Screwed cap (without lever) + test gag			
		(C)	Open lever			
		(T)	Open lever + test gag			
Type Code ① + ②						
②	②	Specification		①	②	Specification
SP-1 (For steam)	Blank	Pipe threads R		SP-1 (For Steam)	B19	JIS B 8210(1994) 10K Flange
	F1	JIS B2220 10K Flange			B29	JIS B 8210(1994) 20K Flange
	F2	JIS B2220 20K Flange			A1	ASME Class 150 Flange
SP-1A (For Air)	B1	JIS B 8210(1986) 10K Flange		SP-1A (For Air)	A2	ASME Class 300 Flange
	B2	JIS B 8210(1986) 20K Flange			J1	JPI Class 150 Flange
	—	—			J2	JPI Class 300 Flange

◆ Cross-sectional view and standard material



No.	Part Name	Material
1	Body	CAC406
2	Nozzle	SUS403
3	Disc	SUS630
4	Holder	C3604
5	Spindle	SUS403
6	Guide	C3604
7	Lower ring	C3604
8	Lower ring rock bolt	C3604
9	Spring	Spring Steel
10	Spring washer	C3604
11	Adjusting screw	C3771
12	Adjusting needle	C3604
13	Needle lock plate	STEEL
14	Guide lock plate	CAC406
15	Lever	STEEL
16	Sprit pin	STEEL
17	Plug	SS400
18	Lock bolt	SS400
19	Lock bolt	C3604
20	Nozzle O-ring	PTFE

* Greater than size 32



SP-1 Structural view

◆ Actual area

Size	Throat Diameter mm	Area mm ²	Seat diameter mm	Nominal lift mm
20	15	176	19	3.3
25	19	283	22	4.4
32	24	452	28	5.5
40	30	706	35	6.8
50	38	1134	44	8.7

◆ Pressure-temperature rating

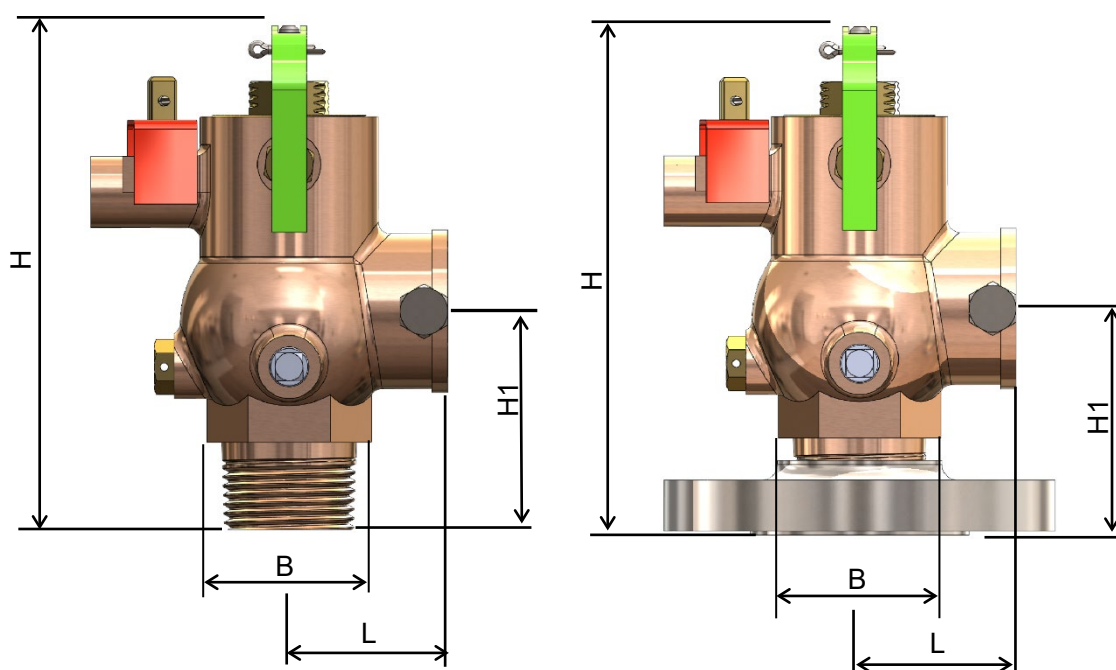
Size	Pressure (MPa)		Temperature(°C)	
	minimum	maximum	minimum	maximum
20	0.098	2.16	-5	220
25				
32				
40				
50				

◆ Dimensions and weight

Dimension and weight						Unit: mm,kg
Size	Pipe Thread					
	Thread size Inlet /Outlet	Center to face		Hight H	Weight	Wrench size B
		H1	L			
20	R 1	55	40	130	1.0	36
25	R1 1/4	70	45	160	1.6	46
32	R1 1/2	75	55	180	2.5	50
40	R 2	85	60	205	4.0	65
50	R2 1/2	100	75	245	6.6	80
Size	JIS B 2220 10K Flange*					
	Flange Nominal dia	Center to face		Hight H	Weight	Wrench size B
		H1	L			
20	20A	63	40	138	1.7	36
25	25A	76	45	166	2.7	46
32	32A	84	55	189	3.9	50
40	40A	91	60	211	5.4	65
50	50A	104	75	249	8.2	80
Size	JIS B 2220 20K Flange*					
	Flange Nominal Dia	Center to face		Hight H	Weight	Wrench size B
		H1	L			
20	20A	66	40	141	1.8	36
25	25A	81	45	171	2.8	46
32	32A	88	55	193	4.1	50
40	40A	95	60	215	5.6	65
50	50A	108	75	253	8.3	80

* Pipe thread

Flange





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The product photos and structures are representative examples. Product specifications in the catalog may be changed without notice for product improvement or quality enhancement.