

## Series 69 Relief Valves

Series 69 is a non-code, industry standard relief valve used for liquid relief and by-pass. Engineered and designed for heavy duty, industrial and commercial usages. A single piece bonnet to eliminate leakage while allowing for simple cleaning. Easy removable sealed hex-cap to adjust pressure.



**SERIES  
69**

### **Series 69**

Series 69 relief valves are calibrated (set to pressure) based on a range of flow-rates (GPM) versus seat size and set pressure. Standard valve is set to pressure to achieve flow rate maximum and minimums within each set pressure range. See capacity chart for details.

**Usages:** Include liquid by-pass, regulation, continuous relief and over-protection. Used on pumping stations, tanks, hydraulics, fluid / piping lines, oil fields, gas lines and more where a Liquid or Water Relief Valve is needed.

**Features:**

- Field adjustable by simple removal of the hex-cap
- Metal to metal precision lapped seating
- Back pressure tested at factory
- Ease of cleaning and maintenance with simple bonnet removal.
- Stainless steel springs
- Single piece leak free bonnet

**Options:**

- BSPT connections
- Female inlet
- Viton embedded o-ring at hex cap
- Packed lift lever
- Wide range WR adjustable (150 PSI increments)
- Stainless steel body and disk
- Low Lead Configurations (for a potable Water Relief Valve)
- PTFE Seating
- Adjustable wheel handle
- Tamper proof wire seal
- O2 Cleaning

### **Wide Range:**

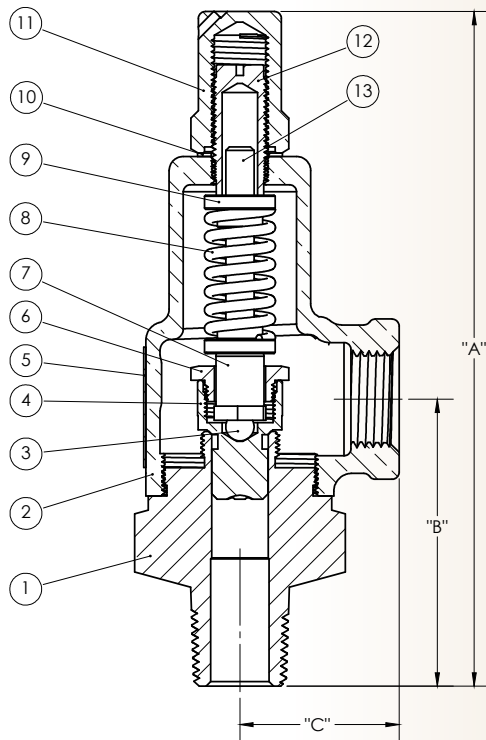
Series 69 is available with a wider adjustable range (as an option). Valves are set to the mid-level pressure (or as specified). Typical wide-range is 150 PSI increments.

Note: Flow rates are not showing.

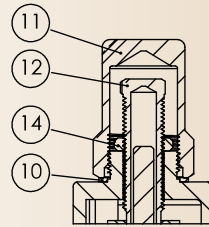


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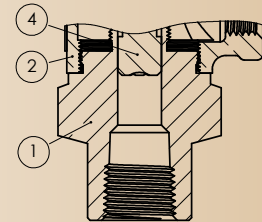
**Packed Lever**



<b>Series 69</b>			
Item	Description	Brass Option	Stainless Option
1	Body	B16/B283	316 Stainless
2	Bonnet	B584	B584
3	Ball	Stainless	Stainless
4	Disc	B62	316 Stainless
5	Nameplate	Stainless	Stainless
6	Disc Nut	B16	B16
7	Spring Support	B16	B16
8	Spring	302/17-7	302/17-7
9	Spring Plate	B16	B16
10	Washer	Nylon	Nylon
11	Hood	B16	B16
12	Pressure Screw	B16	B16
13	Spring Post	B16	B16
14	Lock-nut	B16	B16

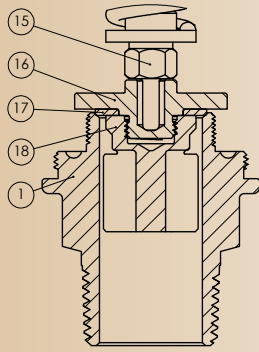


Hood Configuration  
for 1" and up

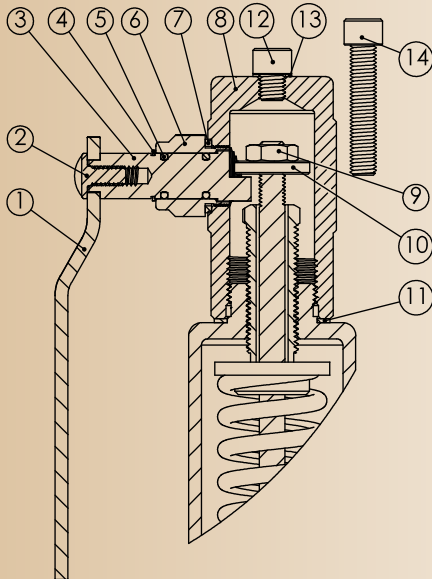


Female Connections  
"A" Dimensions same as Male

<b>Series 69</b>							
Size I.D.	Inlet	Outlet	DN	Dimensions - In. (mm)			Weight Lb - (Kg)
				A	B	C	
A1	1/2"	1/2"	15	6" (152)	2-1/2" (64)	1-3/8" (35)	1.7 (0.8)
A2	1/2"	3/4"	15	6" (152)	2-1/2" (64)	1-3/8" (35)	1.7 (0.8)
B1	3/4"	3/4"	20	6-1/4" (159)	2-5/8" (67)	1-1/2" (38)	2.2 (1)
B2	3/4"	1"	20	6-1/4" (159)	2-5/8" (67)	1-1/2" (38)	2.2 (1)
C1	1"	1"	25	7-3/8" (187)	2-7/8" (73)	1-3/4" (44)	3 (1.4)
C2	1"	1-1/4"	25	7-3/8" (187)	2-7/8" (73)	1-3/4" (44)	3 (1.4)
D1	1-1/4"	1-1/4"	32	8-1/4" (210)	3-3/8" (86)	2" (51)	4 (1.8)
D2	1-1/4"	1-1/2"	32	8-1/4" (210)	3-3/8" (86)	2" (51)	4 (1.8)
E1	1-1/2"	1-1/2"	40	9-1/2" (241)	3-1/2" (89)	2-1/8" (54)	5.8 (2.6)
E2	1-1/2"	2"	40	9-1/2" (241)	3-1/2" (89)	2-1/8" (54)	5.8 (2.6)
F1	2"	2"	50	11" (279)	3-7/8" (98)	2-5/8" (67)	9.7 (4.4)
F2	2"	2-1/2"	50	11" (279)	3-7/8" (98)	2-5/8" (67)	9.7 (4.4)
G1	2-1/2"	2-1/2"	65	13" (330)	5-1/4" (133)	3-5/8" (92)	19 (8.6)
G2	2-1/2"	3"	65	13" (330)	5-1/4" (133)	3-5/8" (92)	19 (8.6)
H1	3"	3"	80	13-1/4" (337)	5-5/8" (143)	3-5/8" (92)	19 (8.6)

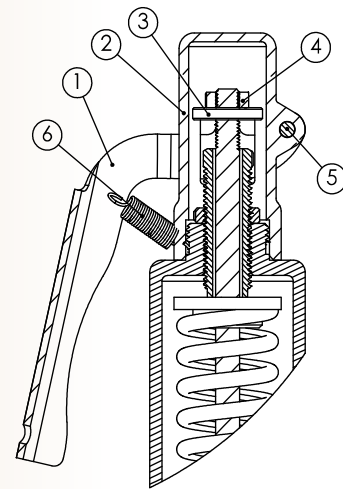


<b>PTFE Soft Seat</b>		
Item	Description	Material
1	Body	B16/C377
15	Support	B16
16	Disc	B16
17	Insert	PTFE
18	Disc Wings	B16

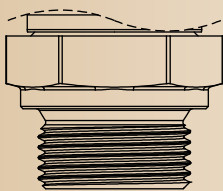


<b>Packed Lift Lever Options</b>				
Item	Description	Material Options		
		Brass	Carbon Steel	Stainless Steel
1	Handle	B16 Brass	B16 Brass/Plated	B16 Brass/Plated
2	Handle Screw	Steel/Plated	Steel/Plated	Steel/Plated
3	Cam	B16 Brass	SA479-316 SS	SA479-316 SS
4	Retaining Ring	Steel/Plated	17-7 SS	17-7 SS
5	O-Rings	Viton	Viton	Viton
6	Cam Nut	B16 Brass	SA479-316 SS	SA479-316 SS
7	O-Ring	PTFE	PTFE	PTFE
8	Hood	B16 Brass	SA108-C1018	SA479-316 SS
9	Jam Nut	18-8 Stainless	18-8 Stainless	18-8 Stainless
10	Lifter Nut	B16 Brass	SA479-316 SS	SA479-316 SS
11	Hood Seal	PTFE	PTFE	PTFE
12	Plug	18-8 Stainless	18-8 Stainless	18-8 Stainless
13	Washer	PTFE	PTFE	PTFE
14	Gag Screw	18-8 Stainless	18-8 Stainless	18-8 Stainless

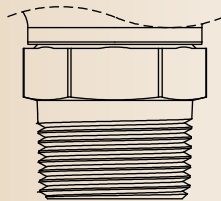
<b>Open Lift Lever Options</b>				
Item	Description	Material Options		
		Brass	Carbon Steel	Stainless Steel
1	Handle	C1018/Plated	C1018/Plated	C1018/Plated
2	Hood	Anodized Alum.	Anodized Alum.	Anodized Alum.
3	Lifter Nut	B16 Brass	SA479-316 SS	SA479-316 SS
4	Jam Nut	18-8 Stainless	18-8 Stainless	18-8 Stainless
5	Lift Lever Pin	B16 Brass	SA479-316 SS	SA479-316 SS
6	Spring	Optional Anti-Vibration Spring		Stainless



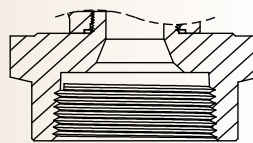
### Inlet Options:



BSPP



NPT or BSPT



NPT or BSPT

## Series 69 Part Numbers

69	C	1	A	1	M	3	U	1	125
Series	Inlet	Outlet	Metals	Connection	Seating	Cap	Service	Options	Set
69	A- 1/2" B- 3/4" C- 1" D- 1-1/4" E- 1-1/2" F- 2" G- 2-1/2" H- 3"	1- Same Size as Inlet  2- Next Larger than Inlet	A- Brass/Bronze 316 SS Nozzle-Disc w/Bronze B- No Lead Nozzle-Disc w/Bronze L- 316 SS/ No Lead Bronze M-	1- NPT MxF 2- NPT FxF 3- BSPT MxF 4- BSPT FxF 8- BSPP MxF 9- BSPP FxF	M- Metal P- PTFE	1- Lift lever 2- Closed cap 3- Packed lift lever 4- Lift Lever Anti-Vibration Spring 5- Closed Cap with Test Gag 6- Packed Lever with Test Gag 8- Closed Cap With O-Ring W- Wheel Handle	U- Non-Code Liquid	1- None 2- Chrome Plating 3- O2 Cleaned	Ex.125

<b>Series 69 Liquid Capacity GPM at 25% Over Set Pressure</b>								
Flow Factor	1.586	3.088	4.820	6.821	8.769	13.019	17.540	22.135
PSI	A 1/2"	B 3/4"	C 1"	D 1-1/4"	E 1-1/2"	F 2"	G 2-1/2"	H 3"
5	4.0	8	12	17	22	33	44	55
10	5.6	11	17	24	31	46	62	78
20	7.9	15	24	34	44	65	88	111
30	9.7	19	30	42	54	80	107	136
40	11.2	22	34	48	62	92	124	157
50	12.5	24	38	54	69	103	139	175
60	13.7	27	42	59	76	113	152	192
70	14.8	29	45	64	82	122	164	207
80	15.9	31	48	68	88	130	175	221
90	16.8	33	51	72	93	138	186	235
100	17.7	35	54	76	98	146	196	247
120	19	38	59	84	107	159	215	271
140	21	41	64	90	116	172	232	293
160	22	44	68	96	124	184	248	313
180	24	46	72	102	132	195	263	332
200	25	49	76	108	139	206	277	350
225	27	52	81	114	147	218	294	371
250	28	55	85	121	155	230	310	391
275	29	57	89	126	163	241	325	410
300	31	60	93	132	170	252	340	429
325	32	62	97	137	177	262		
350	33	65	101	143	183	272		
375	34	67	104	148	190	282		
400	35	69	108	153	196	291		
450	38	73	114	162	208			
500	40	77	121	171	219			
550	42	81	126					
600	43	85	132					

<b>Series 69 Liquid Capacity LPM at 25% Over Set Pressure</b>								
Flow Factor	1.586	3.088	4.820	6.821	8.769	13.019	17.540	22.135
Bar	A 1/2"	B 3/4"	C 1"	D 1-1/4"	E 1-1/2"	F 2"	G 2-1/2"	H 3"
.2	11	22	35	49	63	94	126	160
.5	18	35	55	78	100	148	200	252
1	26	50	78	110	141	210	283	357
2	36	70	110	155	200	297	400	504
3	44	86	135	190	245	363	490	618
4	51	100	155	220	283	420	565	713
5	57	111	174	246	316	469	632	798
6	63	122	190	269	346	514	692	874
7	68	132	206	291	374	555	748	944
8	72	141	220	311	400	593	799	1009
9	77	149	233	330	424	629	848	1070
10	81	157	246	348	447	663	894	1128
12	89	172	269	381	489	727	979	1236
14	96	186	291	411	529	785	1058	1335
16	102	199	311	440	565	839	1131	1427
18	108	211	330	466	600	890	1199	1513
20	114	223	347	492	632	938	1264	1595
22	120	233	364	516	663	984		
24	125	244	381	538	692	1028		
26	130	254	396	560	721	1070		
28	135	263	411	582	748			
30	140	273	425	602	774			
32	145	281	439	622	799			
34	149	290	453	641	824			
36	153	299	466					
38	158	307	479					
40	162	315	491					
41.3	164	320	499					