

# SERIES 69 RELIEF VALVES



## Series 69

The Aquatrol Series 69 is an 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.

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
- Ease of cleaning and maintenance with simple bonnet removal.
- Stainless steel springs
- Single piece - 100% 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
- Tamper proof wire seal
- O2 Cleaning

## Wide Range:

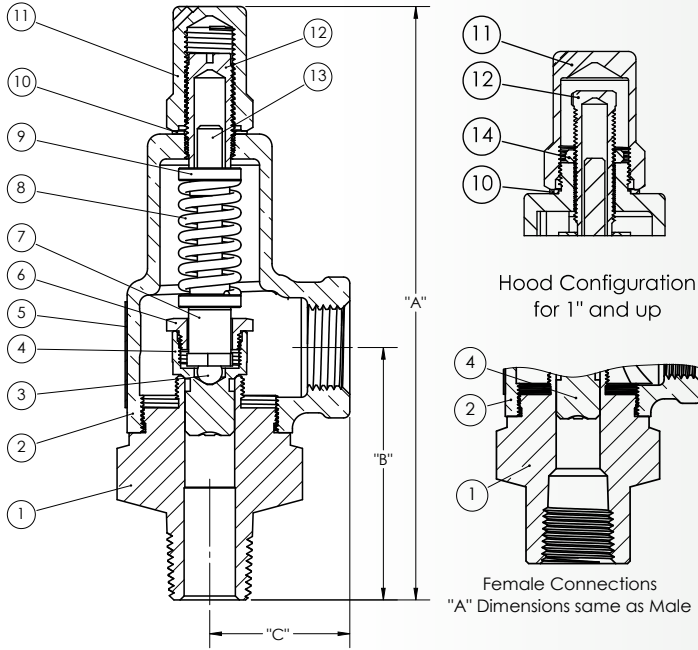
Series 69 is available with a wider adjustable range (as an option). Valves are set to the mid-level pressure (or as specified). Typical wide-range is 150 PSI increments. Note: Flow rates are not showing.

## Series 51 - 55

Series 51 liquid valves are smaller with a maximum pressure of 750 P.S.I.

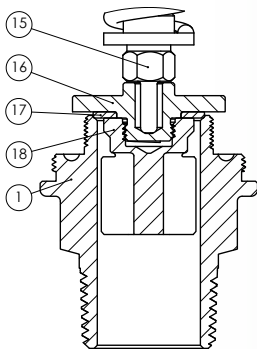
Series 55 are small compact (liquid) water relief valves with a maximum pressure of 200 P.S.I.



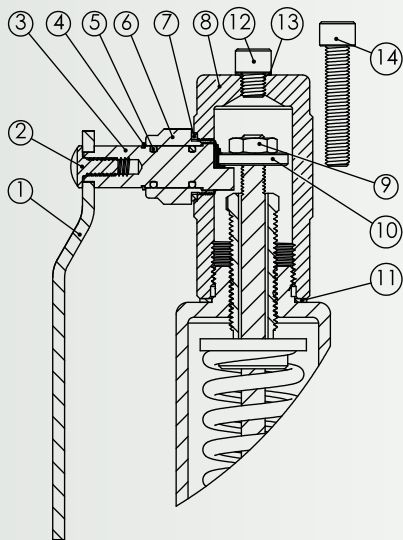


SERIES 69			
Item	Description	Brass Option	Stainless Option
1	Body	B16/B283	316 Stainless
2	Bonnet	B584	B584
3	Ball	Stainless	Stainless
4	Disc	B62	316 Stainless
5	Nameplate	Stainless	Stainless
6	Disc Nut	B16	B16
7	Spring Support	B16	B16
8	Spring	302/17-7	302/17-7
9	Spring Plate	B16	B16
10	Hood Seal	PTFE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

SERIES 69 – 51 – 55								
Series	Size I.D.	Inlet	Outlet	DN	Dimensions – In. (mm)			Weight Lb - (Kg)
					A	B	C	
69	A1	1/2"	1/2"	15	6" (152)	2-1/2" (64)	1-3/8" (35)	1.7 (0.8)
69	A2	1/2"	3/4"	15	6" (152)	2-1/2" (64)	1-3/8" (35)	1.7 (0.8)
69	B1	3/4"	3/4"	20	6-1/4" (159)	2-5/8" (67)	1-1/2" (38)	2.2 (1)
69	B2	3/4"	1"	20	6-1/4" (159)	2-5/8" (67)	1-1/2" (38)	2.2 (1)
69	C1	1"	1"	25	7-3/8" (187)	2-7/8" (73)	1-3/4" (44)	3 (1.4)
69	C2	1"	1-1/4"	25	7-3/8" (187)	2-7/8" (73)	1-3/4" (44)	3 (1.4)
69	D1	1-1/4"	1-1/4"	32	8-1/4" (210)	3-3/8" (86)	2" (51)	4 (1.8)
69	D2	1-1/4"	1-1/2"	32	8-1/4" (210)	3-3/8" (86)	2" (51)	4 (1.8)
69	E1	1-1/2"	1-1/2"	40	9-1/2" (241)	3-1/2" (89)	2-1/8" (54)	5.8 (2.6)
69	E2	1-1/2"	2"	40	9-1/2" (241)	3-1/2" (89)	2-1/8" (54)	5.8 (2.6)
69	F1	2"	2"	50	11" (279)	3-7/8" (98)	2-5/8" (67)	9.7 (4.4)
69	F2	2"	2-1/2"	50	11" (279)	3-7/8" (98)	2-5/8" (67)	9.7 (4.4)
69	G1	2-1/2"	2-1/2"	65	13" (330)	5-1/4" (133)	3-5/8" (92)	19 (8.6)
69	G2	2-1/2"	3"	65	13" (330)	5-1/4" (133)	3-5/8" (92)	19 (8.6)
69	H1	3"	3"	80	13-1/4" (337)	5-5/8" (143)	3-5/8" (92)	19 (8.6)
51	1/4"-3/8"-1/2"	1/4"-3/8"-1/2"	1/2"	15	5-1/4" (133)	2-1/4" (57)	1-1/8" (29)	1 (0.5)
55	1/4"-3/8"-1/2"	1/4"-3/8"-1/2"	1/2"	15	3" (76)	1-3/4" (44)	1-1/8" (29)	0.6 (0.3)

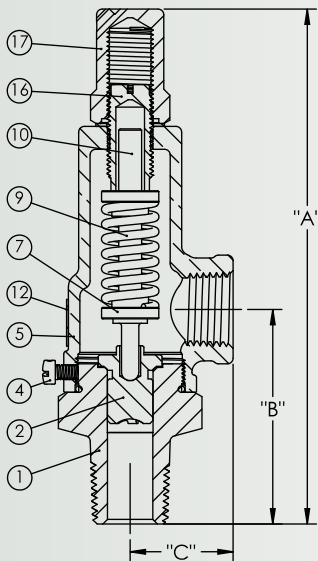


PTFE SOFT SEAT OPTION			
Item	Description	Brass	Stainless
1	Body	B16/C377	316 Stainless
15	Support	B16	B16
16	Disc	B16	316 Stainless
17	Insert	PTFE	PTFE
18	Disc Wings	B16	316 Stainless



### PACKED LIFT LEVER OPTION

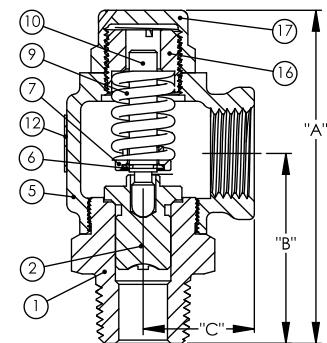
Item	Description	Material
1	Handle	B16 Brass
2	Handle Screw	Steel/Plated
3	Cam	B16 Brass
4	Retaining Ring	Steel/Plated
5	O-Rings	Viton
6	Cam Nut	B16 Brass
7	O-Ring	PTFE
8	Hood	B16 Brass
9	Jam Nut	18-8 Stainless
10	Lifter Nut	B16 Brass
11	Hood Seal	PTFE
12	Plug	Gag Screw Option 18-8 / PTFE
13	Seal	
14	Gag Screw	



Series 51

### SERIES 51 AND 55

Item	Description	Brass Option	Stainless Option
1	Body	B16	316 Stainless
2	Disc	Bronze	316 Stainless
4	Lock Screw	B16	B16
5	Bonnet	Bronze	Bronze
6	Support	Stainless	Stainless
7	Spring Plate	Brass	Brass
9	Spring	Stainless	Stainless
10	Spring Post	B16	B16
12	Nameplate	Stainless	Stainless
16	Pressure Screw	B16	B16
17	Hood	B16	B16



Series 55

### SERIES 51 AND 55 GPM @ 25% OVER SET PRESSURE

Series	PSI	10	20	30	40	50	75	100	150	200	300	400	500	600	750
51	GPM	3.3	4.6	5.7	6.5	7.3	8.9	10	13	14	18	21	23	25	28

Series	PSI	10	20	30	40	50	75	100	150	200
55	GPM	3.3	4.6	5.7	6.5	7.3	8.9	10	13	14

### SERIES 51 AND 55 PART NUMBERS

55		B	A	1	M	2	U	1	125
Series/Description	Inlet/Outlet	Metals	Connection	Seating	Cap	Service	Options	Set	
55	Side Outlet	A- Brass	1- NPT MxF	M- Metal	2- Closed Cap	U- Non-code	1- None	Ex.125	
	Closed Cap	B- Bronze	2- NPT FxF			Liquid	2- Chrome Plating		
51		C- 316 SS					3- O2 Cleaned		
		B- Bronze							

## 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 B- 316 SS Nozzle-Disc w/Bronze L- No Lead Nozzle-Disc-Bonnet M- 316 Nozzle-Disc/No Lead Bonnet	1- NPT MxF 2- NPT FxF 3- BSPT MxF 4- BSPT FxF	M- Metal P- PTFE	2- Closed cap 3- Packed lift lever 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

### SERIES 69 LIQUID CAPACITY GPM AT 25% OVER SET PRESSURE

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					
500	40	77	121					
550	42	81	126					
600	43	85	132					

### SERIES 69 LIQUID CAPACITY LPM AT 25% OVER SET PRESSURE

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"
0.2	11	22	35	49	63	94	126	160
0.5	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		
27.5	134	261	407	576	741	1100		
28	135	263	411					
30	140	273	425					
32	145	281	439					
34	149	290	453					
36	153	299	466					
38	158	307	479					
40	162	315	491					
41.3	164	320	499					