

# Valve Selection Guide

Series	Sizes	Metals	TEMP Min/Max	OPTIONS Soft Seats	MAXIMUM Set Pressure	Service	ASME Section I	ASME Section VIII	Non-Code
740	1/2" to 2"	Brss/Brnze	406°F	Yes	300 PSI	Air/Gas/Liquid/Steam		Yes	
741	1/2" to 2"	SS/Brnze	425°F	Yes	750 PSI	Air/Gas/Liquid/Steam		Yes	
742	1/2" to 2"	SS/CBN St	800°F	Yes	750 PSI	Air/Gas/Liquid/Steam		Yes	
743	1/2" to 2"	SS/SS	800°F	Yes	750 PSI	Air/Gas/Liquid/Steam		Yes	
69	1/2" to 3"	Brss/Brnze	450°F	No	450 PSI	Liquid			Yes
69	1/2" to 3"	SS/Bronze	450°F	No	600 PSI	Liquid			Yes
88	1/2 to 3"	Brss/Brnze	406°F	No	250 PSI	Air/Gas/Steam		Yes	
89	1/2 to 3"	Brss/Brnze	406°F	No	250 PSI	Air/Gas		Yes	
88	2 1/2 to 3	Brss/Brnze	406°F	No	300 PSI	Air/Gas/Steam			Yes
560	1/2 to 2 1/2"	Brss/Brnze	406°F	Yes	250 PSI	Steam	Yes	Yes	
563	1/2 to 2 1/2"	SS/Brnze	406°F	Yes	250 PSI	Steam	Yes	Yes	
570	1/2 to 2 1/2"	Brss/Brnze	406°F	Yes	300 PSI	Air/Gas/Steam		Yes	
573	1/2 to 2 1/2"	SS/Brnze	406°F	Yes	300 PSI	Air/Gas/Steam		Yes	
130	1/4" to 1/2"	Brss/Brnze	406°F	No	200 PSI	Air/Gas/Steam		Yes	
125	1/2" to 1"	Brss/Brnze/SS	406°F	No	200 PSI	Air/Gas/Steam		Yes	
135	1/4" to 1/2"	Brss/Brnze/SS	406°F	No	200 PSI	Air/Gas/Steam		Yes	
55/51	1/4" to 1/2"	Brss/Brnze	450°F	No	750 PSI	Liquid			Yes

Refer to each valve for maximum set pressures by size and service.

Measurement	X (factor)=	Equivalent	Measurement	X (factor) =	Equivalent
BAR	14.5	PSI	Kilograms per minute	132.3	Pounds per hour
BAR	1.02	Kilograms per square CM	Kilograms per sq CM	14.22	PSI
BAR	100	Kilopascals	Kilopascals	0.145	PSI
Centimeters	0.3937	Inches	Kilopascals	0.01	BARS
Centimeters	0.03281	Feet	Liters	1000	Cubic centimeters
Cubic Ft per minute	0.02832	Cubic meters per minute	Liters	0.2642	Gallons
Cubic Ft per second	448.8	Gallons per minute	Liters per hour	0.004403	GPM
Cubic meters	264.2	Gallons	Meters	3.281	Feet
SCFM	0.02716	Nm <sup>3</sup> /min	Meters	100	Centimeters
SCFM	1.63	Nm <sup>3</sup> /hr	Pounds	453.6	Grams
Feet	0.3048	Meters	Pounds	0.4536	Kilograms
Feet	30.48	Centimeters	PPH	6.324/M.W.	SCFM
Feet of water	0.8812	Inches of mercury	PPH	0.4536	Kilograms per hour
Feet of water	0.4382	PSI	PPH of liquid	.002/Sp.Gr	GPM
Gallons	3.785	Cubic centimeters	PSI	27.73	Inches of water
Gallons	0.1337	Cubic feet	PSI	0.07031	Kilograms per SQ CM
Gallons	3.785	Liters	PSI	0.7043	Meters of water
Gallons (water)	8.337	Pounds	PSI	0.06895	BAR
GPM	0.002228	Cubic feet per second	PSI	6.895	Kilopascals
GPM	227.0xSG	Kilograms per hour	SQ Centimeter	0.115	Square inch
GPM	3.785	Liters per minutes	SQ Inch	6.4516	Sq Centimeter
GPM	0.2271	M <sup>3</sup> /hr	SQ Inch	645.16	Sq Millimeter
Inches	2.54	Centimeters	Kelvin	=	Centigrade + 273
Inches	0.08333	Feet	Fahrenheit	=	9/5 (Centigrade) + 32
Inches of water	0.03607	PSI	Centigrade	=	5/9 (Fahrenheit) - 32
Kilograms	2.205	Pounds	Fahrenheit	=	9/5 (Kelvin) - 460
Kilograms	35.27	Ounces			

To invert measurements, simply divide by". Go to Aquatrols website for a full list of conversion info/links for conversion calculator.

**SERIES  
69****Aquatrol, Inc.**

*Aquatrol is an American based manufacturer of safety and relief valve products; soon to be celebrating our 70th year anniversary. With this, we are proud to say that all products are manufactured right here, in the USA; allowing us to control all aspects of service and just as importantly, quality.*

*Engineering, sales, manufacturing and assembly is done 'on-site' and by an experienced team of safety and relief valve specialists... allowing our customers to get 'what they need' and 'when they need it'. Our facilities include modern CNC manufacturing, robotics, in-house flow and capacity testing, CAD design and a myriad of other manufacturing specialties.*

**We are growing to fit your needs.**

*New, in 2014 is our Series 740 Safety Relief Valve line of products. This is a high capacity, full nozzle valve, certified by the ASME (Section VIII) for Air-Gas-Steam and Liquid services. Pressures are available up to 750 PSI; with the ability to choose standard brass/bronze metals or carbon steel and stainless steel valve options. See page 4 for more information.*

*The addition of new product allows Aquatrol to crossover with all screwed or portable safety and relief valve manufactures; and, on a world-wide basis. The depth of our offering helps to choose 'the best fit solution' for most applications within the safety and relief valve industrial and commercial marketplace.*

*Not changing from our companies strengths, we strive to offer 100% of our product line in stock. Your valves can be built, set, tested and shipped on a 'just in time' basis. While helping to reduce inventory and expenses, this allows our customers the opportunity to make quick, accurate and timely decisions.*

*We look forward towards being of service.*

*Respectfully,  
—Your Aquatrol Staff*

*Please visit [www.aquatrol.com](http://www.aquatrol.com) for expanded information.*

**SERIES  
742****SERIES  
570**

**Aquatrol**  
VALVE COMPANY, INC.

# Safety Relief Valves *ASME Section VIII - NB Certified for Liquid, Air/Gas and Steam*

**SIZES FROM 1/2" TO 2"**  
**LIQUID/AIR/GAS RATED TO 750 PSI**  
**STEAM TO 300 PSI**  
**TEMPERATURES FROM -320°F TO 800°F**

Aquatrol's new Series 740 safety and relief valve is designed for accuracy and reliability. Engineered for heavy-duty industrial usage. Multiple purpose safety and relief valve for all services: Liquid, Steam and Air/Gas. ASME and National Board Certified for Section VIII service. Pressures are to 750 PSI. Available with the full array of metal and seating options.

**SERIES 740**



### Series 740

Brass, bronze construction with stainless steel ring, seat (disk) and springs. ASME Section VIII to 300 PSI for air/gas and liquid and 250 PSI for steam services.

### Series 741

Stainless steel nozzle, ring, disk and springs. Bronze bonnet, and body. ASME Section VIII to 750 PSI for Liquid and air/gas. 300 PSI for Steam.

### Series 742

Stainless steel nozzle, ring, disk and springs. Carbon steel body and bonnet. Ratings same as 741. Used as an all steel option.

### Series 743

Same as 742, with stainless steel bonnet, body and components. Used where a stainless steel valve is required.

**Usages:** Pressure Vessels, Pumps, Hydraulics, Tanks, Steam Systems, Chemical, Cryogenic, Air and Gas Compressors, Separators, by-pass and over pressure protection. Choose for most industrial applications requiring a safety relief valve.

- Features:**
- Full nozzle – top guided design
  - Short, precise blow-down
  - Wide choice of inlet/outlet sizes
  - Excellent reseating characteristics
  - Designed for heavy industrial use
  - Closed hex cap
  - Back pressure tight
  - Drainhole with threaded plug
  - Cryogenic Compatible

- Options:**
- O-ring seating options (see charts)
  - Packed lift lever
  - Open lift lever
  - BSPT piping
  - Full array of metal options
  - O2 Cleaning

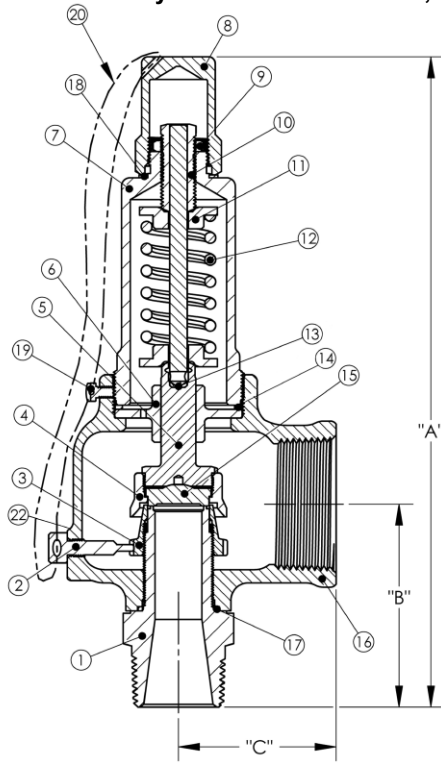


Ordering Information: **Example: 741DC-M3L250**

<b>Series 741</b> - (Stainless nozzle, brass/bronze bonnet, body)	<b>DC</b> - (D orifice – C piping size 1/2 x 1")
<b>M</b> - (metal to metal seating)	<b>3</b> - (packed lift lever)
<b>L</b> - (ASME liquid service)	<b>250</b> - (set pressure PSI)

Series – Nozzle / Metals / Trims	Orifice / Piping size	Seating	Cap	Service
740 – Brass / bronze	<b>D (DC – See chart)</b>	<b>M - Metal to metal</b>	1 – Open lift lever	<b>L - Liquid</b>
<b>741 – Stainless / bronze</b>	E	E - EPDM V - Viton	2 – Closed cap	S - Steam
742 – Stainless / WCB Steel	F	B - Buna P - PTFE	<b>3 – Packed lift lever</b>	A/G – Air/Gas
743 – Stainless / Stainless	G, H and J			

**Note:** Standards (not showing) are indicated on the nameplate (ASME code stamp, Section VIII). Special options are factory serialized. Contact Aquatrol for details.



PARTS IDENTIFICATION & MATERIALS					
ITEM	DESCRIPTION	SERIES 740	SERIES 741	SERIES 742	SERIES 743
1	NOZZLE	BRASS	SS	SS	SS
2	LOCK SCREW	BRASS	BRASS	SS	SS
3	RING	SS 316	SS 316	SS 316	SS 316
4	DISK HOLDER	BRASS	BRASS	SS 316	SS 316
5	DISK HOLDER SHAFT	BRASS	BRASS	SS 316	SS 316
6	DISC GUIDE	BRASS	BRASS	SS 316	SS 316
7	BONNET	BRASS	BRASS	WCB 216	SS 316
8	HOOD	BRASS	BRASS	C1018	SS 316
9	LOCK NUT	BRASS	BRASS	SS 316	SS 316
10	PRESSURE SCREW	BRASS	BRASS	SS 316	SS 316
11	SPRING PLATE	BRASS	BRASS	SS 316	SS 316
12	SPRING	SS 17-7	SS 17-7	SS 17-7	SS 17-7
13	SPRING POST	BRASS	BRASS	SS 316	SS 316
14	DISC GUIDE WASHER	PTFE	PTFE	PTFE	PTFE
15	DISC	SS 316	SS 316	SS 316	SS 316
16	BODY	BRONZE	BRONZE	WCB 216	SS 316
17	NOZZLE WASHER	PTFE	PTFE	PTFE	PTFE
18	GASKET	PTFE	PTFE	PTFE	PTFE
19	LOCK SCREW	BRASS	BRASS	SS 316	SS 316
20	SEAL WIRE	STEEL	STEEL	STEEL	STEEL
21	NAMEPLATE	SS	SS	SS	SS
22	DRAIN PLUG	BRASS	BRASS	SS	SS

LIFT LEVER options (ENG prints)

SERIES 740 - Dimensions										
SERIES	ORIFICE	INLET	OUTLET	FLOW AREA	SIZE ID	DIMENSIONS				WEIGHT LB
						A - Closed Cap	A - Lift Lever	B	C	
740	D	1/2"	3/4"	0.126	DC	7 3/8"	8 1/8"	2 3/8"	1 5/8"	2
740	D	1/2"	1"	0.126	DD	7 3/8"	8 1/8"	2 3/8"	1 5/8"	2
740	D	3/4"	3/4"	0.126	DE	7 3/8"	8 1/8"	2 3/8"	1 5/8"	2
740	D	3/4"	1"	0.126	DF	7 3/8"	8 1/8"	2 3/8"	1 5/8"	2
740	D	1"	1"	0.126	DG	7 3/8"	8 1/8"	2 3/8"	1 5/8"	2
740	E	3/4"	1"	0.217	EC	8 1/8"	9"	2 5/8"	2"	3
740	E	3/4"	1 1/4"	0.217	ED	8 1/8"	9"	2 5/8"	2"	3
740	E	1"	1"	0.217	EG	8 1/8"	9"	2 5/8"	2"	3
740	E	1"	1 1/4"	0.217	EF	8 1/8"	9"	2 5/8"	2"	3
740	F	1"	1 1/2"	0.353	FF	9 1/4"	9 5/8"	2 7/8"	2 1/4"	5
740	F	1 1/4"	1 1/2"	0.353	FH	9 1/4"	9 5/8"	2 7/8"	2 1/4"	5
740	F	1 1/2"	1 1/2"	0.353	FG	9 1/4"	9 5/8"	2 7/8"	2 1/4"	5
740	G	1 1/4"	2"	0.554	GG	10 1/4"	10 5/8"	3 3/8"	2 5/8"	9
740	G	1 1/2"	2"	0.554	GH	10 1/4"	10 5/8"	3 3/8"	2 5/8"	9
740	G	2"	2"	0.554	GF	10 1/4"	10 5/8"	3 3/8"	2 5/8"	9
740	H	1 1/2"	2 1/2"	0.923	HH	11 3/4"	12 1/8"	3 1/2"	2 7/8"	16
740	J	2"	3"	1.418	JJ	14 1/4"	14 1/2"	4"	3 1/4"	24

740, 741, 742 & 743 Available In All Sizes

Metal	ASTM
Brass	SB16/SB62/SB584
CS	SA-216 WCB
SS	SA-479-S31603

Seating Options	Temp	Max PSI
Br/Bronze	406°F	300
Stainless	800°F	750
Viton	400°F	750
EPDM	212°F	750
PTFE	500°F	500

Metal Make-Up, Pressure & Temperature Maximims			
Series	Metals	Temp	Max PSI
740	Br/Bronze	406°F	300
741	SS/Bronze	425°F	750
742	SS/WCB	450°F	750
743	SS/SS	800°F	750

Max PSI for steam service is 300.  
Cryogenic compatible



Capacity ratings based on 10% over pressure of water (liquid)  
NB certified at 90% of measured flow in GPM.

**SERIES 740 CAPACITIES - Liquid • GPM**

SET PRESSURE PSI	ORIFICE D 0.126	ORIFICE E 0.217	ORIFICE F 0.353	ORIFICE G 0.554	ORIFICE H 0.923	ORIFICE J 1.418
5*	11	18	30	47	78	120
10*	14	24	38	60	100	154
15	16	28	45	71	118	181
20	18	31	51	80	133	204
25	20	35	56	88	147	225
30	22	37	61	96	159	245
35	23	40	66	103	172	264
40	25	43	70	110	184	283
45	27	46	75	117	195	300
50	28	48	79	123	206	316
55	29	51	82	129	216	331
60	31	53	86	135	225	346
65	32	55	90	141	234	360
70	33	57	93	146	243	374
75	34	59	96	151	252	387
80	35	61	99	156	260	400
85	37	63	102	161	268	412
90	38	65	105	166	276	424
95	39	67	108	170	283	435
100	40	68	111	175	291	447
125	44	77	124	195	325	499
150	48	84	136	214	356	547
175	52	91	147	231	385	591
200	56	97	157	247	411	632
225	59	103	167	262	436	670
250	63	108	176	276	460	706
275	66	114	184	290	482	741
300	69	119	192	302	504	774
325	71	123	200	315	524	805
350	74	128	208	327	544	836
375	77	133	215	338	563	865
400	79	137	222	349	581	893
425	82	141	229	360	599	921
450	84	145	236	370	617	948
475	86	149	242	380	634	974
500	89	153	248	390	650	999
525	91	157	254			
550	93	161	260			
575	95	164	266			
600	97	168	272			
625	99	171				
650	101	175				
675	103	178				
700	105	181				
725	107	184				
750	108	187				

\* Not ASME/NB under 15 PSI.

Capacity ratings based on SCFM  
(standard cubic feet per minute)  
of Air at 10% over pressure. NB  
certified at 90% of measured flow.



**SERIES 740**



**SERIES 740**



**SERIES 742**



**SERIES 740 CAPACITIES - AIR • SCFM**

SET PRESSURE PSI	ORIFICE D 0.126	ORIFICE E 0.217	ORIFICE F 0.353	ORIFICE G 0.554	ORIFICE H 0.923	ORIFICE J 1.418
5*	46	79	129	202	337	518
10**	56	97	157	247	411	632
15	66	114	186	292	486	746
20	76	132	214	336	560	860
25	86	149	242	381	634	975
30	97	167	271	425	709	1089
35	108	186	302	475	790	1214
40	119	205	333	524	872	1340
45	130	225	364	573	954	1465
50	141	244	396	622	1035	1591
55	152	263	427	671	1117	1716
60	163	282	458	720	1199	1842
65	174	301	489	769	1280	1967
70	186	321	520	818	1362	2093
75	197	340	552	867	1444	2218
80	208	359	583	916	1525	2344
85	219	378	614	965	1607	2469
90	230	398	645	1014	1689	2595
95	241	417	676	1063	1771	2720
100	252	436	708	1112	1852	2846
125	308	532	864	1358	2261	3474
150	364	628	1020	1603	2669	4101
175	419	725	1176	1848	3078	4729
200	475	821	1332	2093	3486	5356
225	530	917	1488	2339	3895	5984
250	586	1013	1644	2584	4303	6612
275	642	1109	1800	2829	4712	7239
300	697	1206	1956	3075	5120	7867
325	753	1302	2112	3320	5529	8494
350	809	1398	2268	3565	5937	9122
375	864	1494	2424	3810	6346	9750
400	920	1590	2580	4056	6754	10377
425	976	1686	2736	4301	7162	11005
450	1031	1783	2893	4546	7571	11632
475	1087	1879	3049	4792	7979	12260
500	1142	1975	3205	5037	8388	12888
525	1198	2071	3361			
550	1254	2167	3517			
575	1309	2263	3673			
600	1365	2360	3829			
625	1421	2456				
650	1476	2552				
675	1532	2648				
700	1588	2744				
725	1643	2841				
750	1699	2937				

\* Not ASME/NB under 15 PSI.



Capacity ratings based on pounds per hour of saturated steam at 10% over pressure. NB certified at 90% of accumulated flow.

**SERIES 740 CAPACITIES - Steam • Lbs/Hr**

SET PRESSURE PSI	ORIFICE D 0.126	ORIFICE E 0.217	ORIFICE F 0.353	ORIFICE G 0.554	ORIFICE H 0.923	ORIFICE J 1.418
5*	129	223	362	569	947	1455
10*	157	272	442	694	1156	1776
15	186	321	521	819	1365	2097
20	214	370	601	945	1573	2417
25	243	420	681	1070	1782	2738
30	271	469	761	1195	1991	3058
35	302	523	848	1333	2220	3411
40	334	577	936	1471	2450	3764
45	365	631	1024	1609	2679	4116
50	396	685	1111	1747	2909	4469
55	427	739	1199	1884	3138	4822
60	459	793	1287	2022	3368	5174
65	490	847	1374	2160	3597	5527
70	521	901	1462	2298	3827	5880
75	552	955	1550	2436	4056	6232
80	584	1009	1637	2574	4286	6585
85	615	1063	1725	2711	4515	6938
90	646	1117	1813	2849	4745	7290
95	678	1171	1900	2987	4974	7643
100	709	1225	1988	3125	5204	7995
110	771	1333	2164	3401	5663	8701
120	834	1441	2339	3676	6122	9406
130	896	1550	2514	3952	6581	10111
140	959	1658	2690	4227	7040	10817
150	1021	1766	2865	4503	7499	11522
160	1084	1874	3040	4779	7958	12227
170	1146	1982	3216	5054	8417	12933
180	1209	2090	3391	5330	8876	13638
190	1271	2198	3567	5606	9335	14343
200	1334	2306	3742	5881	9794	15048
210	1397	2414	3917	6157	10253	15754
220	1459	2522	4093	6433	10712	16459
230	1522	2630	4268	6708	11171	17164
240	1584	2738	4443	6984	11630	17870
250	1647	2846	4619	7260	12089	18575
260	1709	2955	4794	7535	12548	19280
270	1772	3063	4970	7811	13007	19985
280	1834	3171	5145	8087	13467	20691
290	1897	3279	5320	8362	13926	21396
300	1959	3387	5496	8638	14385	22101

\* Not ASME/NB under 15 PSI. ASME/NB requires a lift lever for all steam services.

METRIC CONVERSION KEY	
Inches x 25.4 = Millimeters	LBS x .4536 = Kilograms
SCFM x .02716 = Nm <sup>3</sup> /min	GPM x 3.785 = Liters per minute
PPH x .4536 = Kilograms per hour	PSI x .06895 = Bar / PSI x 6.895 = Kilopascals
Fahrenheit = 9/5 (centigrade) +32	TO INVERT CONVERSIONS; "DIVIDE BY"



# Safety Valves *ASME Section I and VIII - NB Certified for Air/Gas and Steam*

**SIZES FROM 1/2" TO 2 1/2"  
RATED TO 300 PSI  
TEMPERATURES TO 425°F**

Aquatrol's Series 560/570 valve line is a high capacity safety valve used for boilers, piping lines and vessel protection. Designed and engineered for heavy-duty industrial use. ASME approved and National Board flow-rated for capacity.

**SERIES 560**



**SERIES 560**



### Series 560

Use for ASME Section I applications to pressure ratings of 250 PSI. {V} and {NB} stamped for fired vessels. Boilers, or most areas where steam safety valves are required.

### Series 570

Use for ASME Section VIII applications to pressure ratings of 300 PSI. {UV} and {NB} stamped for unfired vessel protection. Used for many applications to protect or relieve pressure for Air, Gas or Steam.

### Series 563-573

Stainless steel whetted trimming.

**Usages:** Steam Boilers, Air Compressors, Dryers, Receivers, Pressure Vessels, Piping Systems, Accumulators, Reducing Stations, Tanks, Inter/After Coolers, Cooking Equipment, Autoclaves, Sterilizers or wherever higher capacity pressure protection or relief may be required.

- Features:**
- Designed for durability
  - 6 orifices – 12 sizes of piping options
  - Top guided seating and discharge
  - Full nozzle; high capacity levels
  - Excellent re-seating characteristics with pivoting ball-post design
  - Short, tuned blow-down and can be adjusted with double heavy ring
  - Heavy duty hood and lever mechanism
  - Standard 17-7 stainless steel springs

- Options:**
- Stainless steel trimming package nozzle (body), disk (all sizes)
  - O-ring seating. (PTFE, EPDM, Viton, or as specified)
  - Bubble tight seating options
  - Anti vibrating spring for lift lever
  - BSPT pipe threading

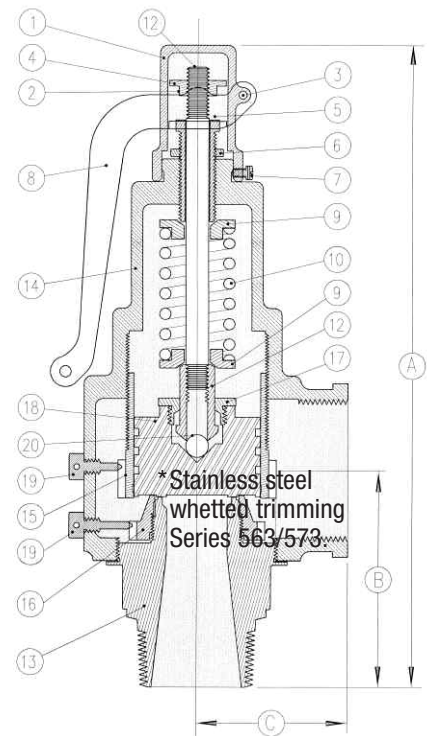


Ordering Information: <b>Example: 560DC-MA250</b>	
<b>Series 560</b> - (brass/bronze body)	<b>DC</b> - (D orifice – C piping size 1/2" x 3/4")
<b>M</b> - (metal to metal seating)	<b>A</b> - (Section I Steam)
<b>P</b> - (packed lift lever)	<b>250</b> - (set pressure PSI)

Series – Nozzle / Metals / Trims	Orifice / Piping size	Seating	Service ID	Variation
560/570 – Brass / Bronze	DC	<b>M - Metal to metal</b>	A - Section I Steam	B - BSPT x BSPT Connection
563/576 – Brass / Stainless	DD	E - EPDM V - Viton	K - Section VIII Air/Gas	C - Polished Chrome Plating
	ED	B - Buna P - PTFE	<b>L - Section VIII Steam</b>	O - Oxygen Cleaning
	EE thru JJ			<b>P - Packed Lift Lever</b>

MAX TEMP BRASS BRONZE 406°F

PARTS IDENTIFICATION & MATERIALS			
ITEM	DESCRIPTION	SERIES 570	SERIES 573
1	HOOD	BRONZE	BRONZE
2	COTTER PIN	STEEL	STEEL
3	LIFT LEVER PIN	BRASS	BRASS
4	LIFTER NUT	BRASS	BRASS
5	PRESSURE SCREW	BRASS	BRASS
6	LOCK NUT	BRASS	BRASS
7	HOOD SCREW	BRASS	BRASS
8	LIFT LEVER	BRONZE	BRONZE
9	SPRING PLATE	BRASS	BRASS
10	SPRING	SS-316 OR 17-7	SS-316 OR 17-7
11	NAMEPLATE	ALUMINUM	ALUMINUM
12	SPRING POST	BRASS	BRASS
13	BODY (NOZZLE)	BRASS/BRONZE	SS-316
14	BONNET	BRONZE	BRONZE
15	UPPER RING	BRONZE	BRONZE
16	LOWER RING	BRONZE	BRONZE
17	DISC NUT	BRASS	BRASS
18	DISC	BRASS	SS-316
19	REGULATOR SCREW	BRASS	BRASS
20	SWIVEL BEARING	SS-316	SS-316



**SERIES 560/570 - Dimensions / Air-Gas-Steam**

SERIES	FLOW AREA	FLOW AREA	INLET (in)	OUTLET (in)	SIZE I.D.	-----DIMENSIONS-----			WEIGHT LB
						A	B	C	
560	D	0.125	1/2"	3/4"	C	7 3/8"	2 1/2"	1 1/2"	1.9
560	D	0.125	3/4"	3/4"	D	7 3/8"	2 1/2"	1 1/2"	2.2
560	E	0.221	3/4"	1"	D	7 5/8"	2 1/2"	1 5/8"	2.8
560	E	0.221	1"	1"	E	7 5/8"	2 1/2"	1 5/8"	3.0
560	F	0.352	1"	1 1/4"	E	8 3/4"	2 7/8"	1 3/4"	4.0
560	F	0.352	1 1/4"	1 1/4"	F	8 3/4"	2 7/8"	1 3/4"	4.2
560	G	0.567	1 1/4"	1 1/2"	F	9 5/8"	3 1/4"	2 1/4"	6.7
560	G	0.567	1 1/2"	1 1/2"	G	9 5/8"	3 1/4"	2 1/4"	6.9
560	H	0.899	1 1/2"	2"	G	9 3/4"	3 5/8"	2 1/2"	11.4
560	H	0.899	2"	2"	H	11"	3 5/8"	2 1/2"	11.6
560	J	1.463	2"	2 1/2"	H	11"	3 7/8"	3 1/8"	15.6
560	J	1.463	2 1/2"	2 1/2"	J	12 1/2v	3 7/8"	3 1/8"	16.3

Metric Equivalents: Centimeters = Inches x 2.540 Kg = Lbs x .4536

\*Size I.D. Note New Identification.

Metal	ASTM
Brass	SB16/SB62/SB584
SS	SA-479-S31603

Seating Options	Temp	Max PSI
Br/Bronze	406°F	300
Stainless	450°F	300
Viton	400°F	300
EPDM	212°F	300
PTFE	500°F	300

Metal Make-Up, Pressure & Temperature Maximims			
Series	Metals	Temp	Max PSI
570	Br/Bronze	406°F	300
573	SS/Bronze	450°F	300
560	Br/Bronze	406°F	300
563	SS/Bronze	425°F	300

Max PSI for steam service is 300  
Cryogenic compatible

Capacity ratings based on pounds per hour of saturated steam at 3% over pressure. NB certified at 90% of accumulated flow.



<b>SERIES 560 CAPACITIES - Steam • ASME SECTION I</b>						
SET PRESSURE PSI	ORIFICE D .125	ORIFICE E .221	ORIFICE F .352	ORIFICE G .567	ORIFICE H .899	ORIFICE J 1.463
5*	120	211	337	542	860	1400
10*	147	260	414	667	1058	1722
15	175	309	492	792	1256	2044
20	202	358	569	917	1454	2367
25	230	406	647	1042	1653	2689
30	257	455	725	1167	1851	3012
35	285	504	802	1292	2049	3334
40	312	552	880	1417	2247	3657
45	340	601	957	1542	2445	3979
50	368	650	1035	1667	2643	4302
55	395	699	1113	1792	2842	4624
60	423	747	1190	1917	3040	4947
65	450	796	1268	2042	3238	5269
70	478	846	1347	2170	3440	5598
75	507	896	1427	2298	3644	5930
80	535	946	1507	2427	3848	6262
85	563	996	1587	2556	4052	6595
90	592	1046	1667	2685	4256	6927
95	620	1097	1747	2813	4461	7259
100	649	1147	1826	2942	4665	7591
110	705	1247	1986	3199	5073	8255
120	762	1347	2146	3457	5481	8920
130	819	1448	2306	3714	5889	9584
140	876	1548	2466	3972	6297	10248
150	932	1648	2626	4229	6706	10913
160	989	1749	2785	4487	7114	11577
170	1046	1849	2945	4744	7522	12241
180	1103	1949	3105	5002	7930	12905
190	1159	2050	3265	5259	8338	13570
200	1216	2150	3425	5517	8747	14234
210	1273	2251	3585	5774	9155	14898
220	1330	2351	3744	6031	9563	15563
230	1386	2451	3904	6289	9971	16227
240	1443	2552	4064	6546	10379	16891
250	1500	2652	4224	6804	10788	17556
260*	1557	2752	4384	7061	11196	18220
270*	1613	2853	4544	7319	11604	18884
280*	1670	2953	4703	7576	12012	19548
290*	1727	3053	4863	7834	12421	20213
300*	1784	3154	5023	8091	12829	20877

\* Not ASME/NB under 15 PSI.

Section I (V)-National Board Certified

BAR = PSI x .06895 Kilograms = PPH x .4536

\*Not ASME/NB over 250 PSI.



Capacity ratings based on SCFM (standard cubic feet per minute) of Air at 10% over pressure. NB certified at 90% of measured flow.

**SERIES 570 CAPACITIES - Air/Gas • ASME SECTION VIII**

SET PRESSURE PSI	ORIFICE D .125	ORIFICE E .221	ORIFICE F .352	ORIFICE G .567	ORIFICE H .899	ORIFICE J 1.463
5*	45	79	125	202	320	521
10*	54	96	153	246	391	636
15	64	113	181	291	461	751
20	74	131	208	335	532	865
25	84	148	236	380	602	980
30	94	165	263	424	673	1095
35	104	184	294	473	750	1221
40	115	204	324	522	828	1348
45	126	223	355	571	906	1474
50	137	242	385	620	983	1600
55	147	261	415	669	1061	1726
60	158	280	446	718	1138	1853
65	169	299	476	767	1216	1979
70	180	318	506	816	1294	2105
75	191	337	537	865	1371	2231
80	201	356	567	914	1449	2358
85	212	375	598	963	1526	2484
90	223	394	628	1012	1604	2610
95	234	413	658	1061	1681	2736
100	245	432	689	1109	1759	2863
110	266	471	750	1207	1914	3115
120	288	509	810	1305	2069	3368
130	309	547	871	1403	2225	3620
140	331	585	932	1501	2380	3873
150	352	623	993	1599	2535	4125
160	374	661	1053	1697	2690	4378
170	396	699	1114	1795	2845	4630
180	417	738	1175	1892	3000	4883
190	439	776	1236	1990	3156	5135
200	460	814	1296	2088	3311	5388
210	482	852	1357	2186	3466	5640
220	503	890	1418	2284	3621	5893
230	525	928	1479	2382	3776	6145
240	547	966	1539	2480	3931	6398
250	568	1005	1600	2577	4087	6650
260	590	1043	1661	2675	4242	6903
270	611	1081	1722	2773	4397	7156
280	633	1119	1782	2871	4552	7408
290	655	1157	1843	2969	4707	7661
300	676	1195	1904	3067	4863	7913

\* Not ASME/NB under 15 PSI.

$BAR = PSI \times .06895$      $NM^2/HR = SCFM \times 1.630$

Section VIII (UV)-National Board Certified

Capacity ratings based on pounds per hour of saturated steam at 10% over pressure. NB certified at 90% of accumulated flow.



**SERIES 570 CAPACITIES - Steam • ASME SECTION VIII**

SET PRESSURE PSI	ORIFICE D .125	ORIFICE E .221	ORIFICE F .352	ORIFICE G .567	ORIFICE H .899	ORIFICE J 1.463
5	125	221	352	567	900	1464
10	153	270	430	692	1098	1787
15	180	319	507	817	1296	2109
20	208	367	585	942	1494	2431
25	235	416	663	1067	1692	2754
30	263	465	740	1192	1890	3076
35	293	518	826	1330	2108	3431
40	323	572	911	1467	2326	3786
45	354	625	996	1605	2544	4141
50	384	679	1082	1742	2762	4495
55	414	733	1167	1880	2980	4850
60	445	786	1252	2017	3198	5205
65	475	840	1338	2155	3416	5559
70	505	893	1423	2292	3634	5914
75	536	947	1508	2430	3852	6269
80	566	1001	1594	2567	4070	6624
85	596	1054	1679	2705	4288	6978
90	627	1108	1764	2842	4506	7333
95	657	1161	1850	2979	4724	7688
100	687	1215	1935	3117	4942	8043
110	748	1322	2106	3392	5378	8752
120	808	1429	2276	3667	5814	9461
130	869	1536	2447	3942	6250	10171
140	930	1644	2618	4217	6686	10880
150	990	1751	2789	4492	7122	11590
160	1051	1858	2959	4767	7558	12299
170	1111	1965	3130	5042	7994	13009
180	1172	2072	3301	5317	8430	13718
190	1233	2179	3471	5592	8866	14428
200	1293	2287	3642	5866	9302	15137
210	1354	2394	3813	6141	9737	15846
220	1415	2501	3983	6416	10173	16556
230	1475	2608	4154	6691	10609	17265
240	1536	2715	4325	6966	11045	17975
250	1596	2822	4495	7241	11481	18684
260*	1657	2930	4666	7516	11917	19394
270*	1718	3037	4837	7791	12353	20103
280*	1778	3144	5008	8066	12789	20813
290*	1839	3251	5178	8341	13225	21522
300*	1899	3358	5349	8616	13661	22231

\* Not ASME/NB under 15 PSI.

BAR = PSI x .06895 Kilograms = PPH x .4536

\*Not ASME/NB over 250 PSI.

# Liquid Relief Valves

**SIZES FROM 1/2" TO 3"**  
**PRESSURES TO 600 PSI**  
**TEMPERATURES TO 450°F**

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.



### 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.

New (WR) wide range adjustable and available in 150 PSI increments.

**Usages:** Include liquid by-pass, regulation, continuous relief and overprotection. Used on pumping stations, tanks, hydraulics, fluid / piping lines, oil fields, gas lines and more.

- 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
  - Stainless seating (disc and seat area)
  - NEW – Wide range WR adjustable (150 PSI increments)
  - Stainless steel body and disk\*\*
  - Adjustable wheel handle
  - Tamper proof wire seal

### Model Choices:

- 69A – Brass/bronze valve with stainless steel springs
- 69B – Brass/bronze valve with stainless steel seating inserts, disk and springs
- 69C – Stainless steel body / disk with bronze bonnet, stainless steel springs

### Wide Range:

Series 69 is now 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 on flow charts and vary by set pressure points.

Ordering Information: **EXAMPLE: 69A1-AH-250**

**SERIES 51**

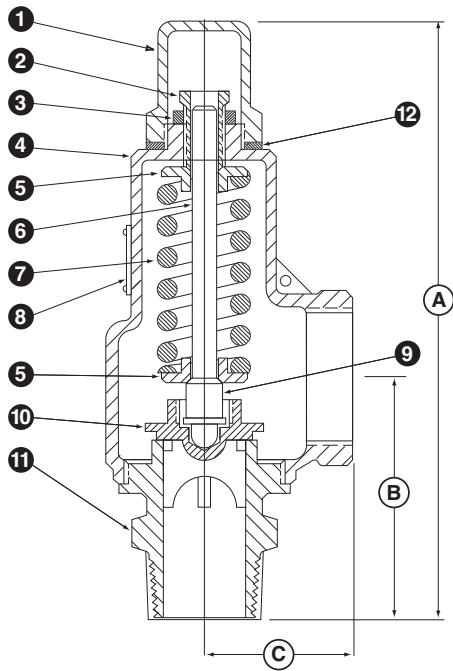


**SERIES 55**



Series	Sizes	Metals	Cap Options	Valve Options	Set Pressure
69	A1, A2 Thru H1	<b>A – Brass/Bronze</b>	<b>H – Std Hex Cap</b>	B – BSPT	<b>250 PSI</b>
		B – Bronze with SST seat and disk	P – Packed lever	F – Female inlet	
		C – SST body and disc	W – Wheel handle	V- Viton sealed cap	

\*\*69C AVAILABLE IN 1/2" 3/4" AND 1" ONLY. SEE CHARTS FOR ORDERING INFORMATION ON SERIES 51 & 55.



PARTS IDENTIFICATION & MATERIALS				
ITEM	DESCRIPTION	69A	69B	69C
1	HEX CAP	BRASS	BRASS	BRASS
2	PRESSURE SCREW	BRASS	BRASS	BRASS
3	LOCK NUT	BRASS	BRASS	BRASS
4	BONNET	BRONZE	BRONZE	BRONZE
5	SPRING PLATE	BRASS/SS	BRASS/SS	BRASS/SS
6	SPRING POST	BRASS	BRASS	BRASS
7	SPRING	STAINLESS	STAINLESS	STAINLESS
8	NAME PLATE	ALUMINUM	ALUMINUM	ALUMINUM
9	SPRING PLATE SUPPORT	BRASS/STEEL	BRASS/STEEL	BRASS/STEEL
10	DISK	BRONZE	STAINLESS	STAINLESS
11	BODY	BRS/BRNZE	BRS/SS	STAINLESS
12	HEX CAP SEAL/DISK	PTFE	PTFE	PTFE
13	SEATING INSERT		STAINLESS	
14	OPTIONAL SEAL WIRE	NOT SHOWING		

SERIES 69, 51 & 55 - Dimensions / Liquid								
SERIES	SIZE ID	INLET SIZE	OUTLET SIZE	-----DIMENSIONS-----			MAX. SET PRESSURE LIQUID	WEIGHT LB
				A	B	C		
69	A1	1/2"	1/2"	6"	2 1/2"	1 3/8"	600	1.7
69	A2	1/2"	3/4"	6"	2 1/2"	1 3/8"	600	1.7
69	B1	3/4"	3/4"	6 1/4"	2 5/8"	1 1/2"	600	2.2
69	B2	3/4"	1"	6 1/4"	2 5/8"	1 1/2"	600	2.2
69	C1	1"	1"	7 3/8"	2 7/8"	1 3/4"	600	3
69	C2	1"	1 1/4"	7 3/8"	2 7/8"	1 3/4"	600	3
69	D1	1 1/4"	1 1/4"	8 1/4"	3 3/8"	2"	500	4
69	D2	1 1/4"	1 1/2"	8 1/4"	3 3/8"	2"	500	4
69	E1	1 1/2"	1 1/2"	9 1/2"	3 1/2"	2 1/8"	500	5.8
69	E2	1 1/2"	2"	9 1/2"	3 1/2"	2 1/8"	500	5.8
69	F1	2"	2"	11"	3 7/8"	2 5/8"	400	9.7
69	F2	2"	2 1/2"	11"	3 7/8"	2 5/8"	400	9.7
69	G1	2 1/2"	2 1/2"	13"	5 1/4"	3 5/8"	300	19
69	G2	2 1/2"	3"	13"	5 1/4"	3 5/8"	300	19
69	H1	3"	3"	13 3/16"	5 5/8"	3 5/8"	300	19
51	A=1/4 B=3/8 C=1/2	1/4"-3/8"-1/2"	1/2"	5 1/4"	1 3/8"	1 1/8"	750	0.875
55	A=1/4 B=3/8 C=1/2	1/4"-3/8"-1/2"	1/2"	3"	1 3/4"	1 1/8"	200	0.875

STANDARD VALVE FOR LIQUID RELIEF IS "SAME SIZED OUTLET" (UNLESS OTHERWISE SPECIFIED)  
 STAINLESS STEEL TRIMMING RECOMMENDED FOR PRESSURE SETTINGS OVER 300 PSI (OR FOR CHEMICAL REACTIVE PURPOSES)  
 2-1/2 & 3" MAX SET PRESSURE 300 PSI  
**WHEN ORDERING, PLEASE SPECIFY SERIES, SIZE ID, & SET PRESSURE**



**SERIES 69 CAPACITIES** - Liquid Capacity in Gallons Per Minute (GPS) at 25% Over Pressure

SET PRESSURE 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	7.7	12	17	22	33	44	55
10	5.6	10.9	17	24	31	46	62	78
15	6.9	13	21	30	38	56	76	96
20	7.9	15	24	34	44	65	88	111
25	8.9	17	27	38	49	73	98	124
30	9.7	19	30	42	54	80	107	136
35	10.5	20	32	45	58	86	116	146
40	11	22	34	48	62	92	124	157
45	12	23	36	51	66	98	132	166
50	13	24	38	54	69	103	139	175
55	13	26	40	57	73	108	145	184
60	14	27	42	59	76	113	152	192
65	14	28	43	62	79	117	158	200
70	15	29	45	64	82	122	164	207
75	15	30	47	66	85	126	170	214
80	16	31	48	68	88	130	175	221
85	16	32	50	70	90	134	181	228
90	17	33	51	72	93	138	186	235
95	17	34	53	74	95	142	191	241
100	18	35	54	76	98	145	196	247
110	19	36	57	80	103	153	206	260
120	19	38	59	84	107	159	215	271
130	20	39	61	87	112	166	224	282
140	21	41	64	90	116	172	232	293
150	22	42	66	93	120	178	240	303
160	22	44	68	96	124	184	248	313
170	23	45	70	99	128	190	256	323
180	24	46	72	102	131	195	263	332
190	24	48	74	105	135	201	270	341
200	25	49	76	108	139	206	277	350
210	26	50	78	111	142	211	284	359
220	26	51	80	113	145	216	291	367
230	27	52	82	116	149	221	297	375
240	27	54	84	118	152	225	304	383
250	28	55	85	121	155	230	310	391
275	29	57	89	127	162	241	325	410
300	31	60	93	132	170	252	340	429
325	32	62	97	138	177	262		
350	33	65	101	143	183	272		
375	34	67	104	148	190	282		
400	35	69	108	153	196	291		
425	37	71	111					
450	38	73	114					
475	39	75	118					
500	40	77	121					
525	41	79	124					
550	42	81	126					
575	43	83	129					
600	43	85	132					

Recommended: Stainless Steel Trim Package for pressure settings over 300 PSI. (Disk and seat insert).  
 LITERS PER MINUTE = GPM x 3.785 BAR = PSI x .06895

**SERIES 51 & 55 CAPACITIES** - Water Capacity in Gallons Per Minute (GPS) at 25% Over Pressure

PSI SET PRESSURE	10	20	30	40	50	75	100	150	200	300	400	500	750
	3.3	4.6	5.7	6.5	7.3	8.9	10.3	12.7	14.6	17.9	20.7	23.1	28.3



# Safety Valve Air-Gas-Steam ASME Section VIII - NB Certified for Air, Gas and Steam Applications

**SIZES FROM 1/2" TO 3"**  
**PRESSURE TO 250#**  
**TEMPERATURES TO 406°F**

Series 88 and 89 are multiple purpose safety valves for steam, air or gas protection. Designed for durability, yet an economical choice for safety and relief applications. UV stamped; factory set and sealed. Choose for a variety of applications.



**SERIES 88**



**SERIES 89**

## Series 88 & 89

- Usages:**
- Over pressure protection
  - Pressure vessels
  - Piping systems
  - Tanks
  - Compressors
  - Dryers, Inter and Aftercoolers
- Features:**
- Adjustable tuned blow-down
  - Precision lapped metal-to-metal seating.
  - Stainless steel springs
  - Ruggedly constructed
  - Closed seal hex cap or lever\* option
  - Wide variety of inlet and outlet options
  - Disk-guided seat provides quick, accurate and excellent re-seating
- Options:**
- Stainless steel inserts (seat and disk)
  - Stainless steel body and disk
  - Chrome plating/polishing
  - Oxygen cleaning
  - Female inlet
  - BSPT connections

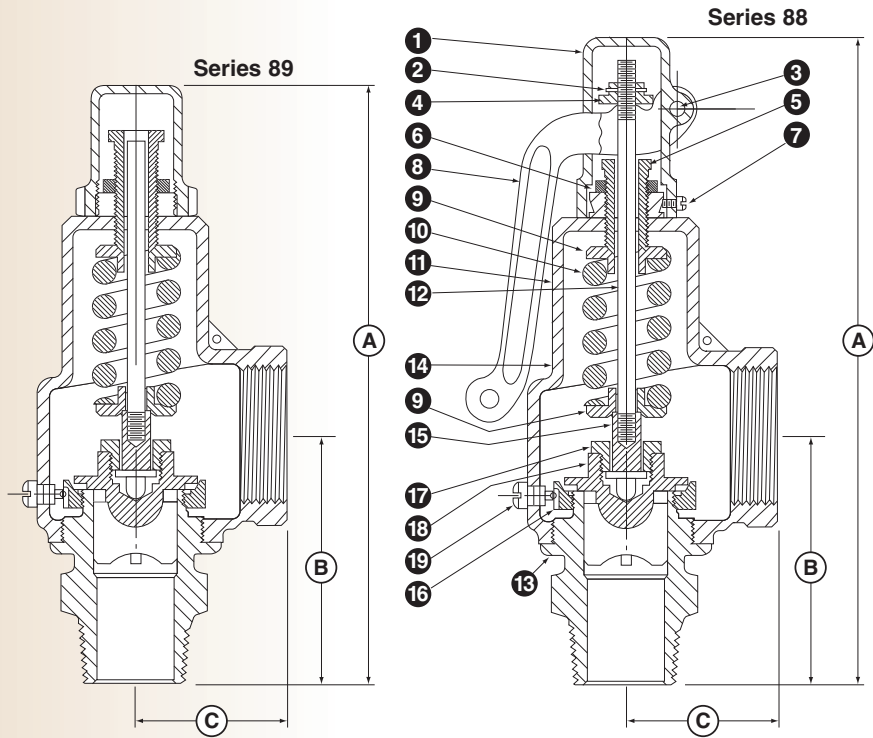
Ordering Information: **EXAMPLE: 88A21-BC-250**



Series	Sizes	Metals	Valve Options	Set Pressure
88 – Lift Lever	A1, A2 Thru H1	A – Brass/Bronze	B – BSPT	250 PSI
89 – Closed Cap		<b>B – Stainless Inserts</b>	<b>C – Chrome Plated</b>	
			F – Female inlet	
			O – Oxygen Cleaning	

*\*LIFT LEVER IS REQUIRED BY THE NATIONAL BOARD FOR STEAM SERVICES.  
 2-1/2" AND 3" ARE NOT NB CERTIFIED. PLEASE SEE CAPACITY AND SIZE CHARTS.*

PARTS IDENTIFICATION & MATERIALS		
ITEM	PART NAME	MATERIAL
1	HOOD	BRASS/BRONZE
2	COTTER PIN	STEEL *
3	LIFT LEVER PIN	BRASS
4	LIFTER NUT	BRASS/STEEL *
5	PRESSURE SCREW	BRASS
6	LOCK NUT	BRASS
7	HOOD SCREW	BRASS
8	LIFT LEVER	BRONZE
9	SPRING PLATE	BRASS/STEEL *
10	SPRING	STAINLESS STEEL
11	NAME PLATE	ALUMINUM
12	SPRING POST	BRASS/STEEL
13	BODY	BRASS/SS
14	BONNET	BRONZE
15	SPRING PLATE SUPPORT	BRASS
16	REGULATOR RING	BRONZE
17	SPRING PLATE	BRASS
18	DISK	BRASS/BRONZE/SS
19	REGULAR SCREW	BRASS
* ZINC PLATED STEEL		



SERIES 88 & 89 - Dimensions / Air-Gas-Steam										
SERIES	VALVE SIZE	OUTLET SIZE	SEAT SIZE	DIMENSIONS				MAX. SET PRESSURE AIR/GAS/STEAM	WEIGHT SERIES 88	WEIGHT SERIES 89
				SERIES 88 A	SERIES 89 A	B	C			
88-A1	1/2"	1/2"	A-1/2"	6 7/8"	6"	2 1/8"	1 3/8"	300	2	1.5
88-A2	1/2"	3/4"	A-1/2"	6 7/8"	6"	2 1/8"	1 3/8"	300	2	1.5
88-B1	3/4"	3/4"	B-3/4"	7 1/8"	6 1/4"	2 5/8"	1 1/2"	300	2.5	2
88-B2	3/4"	1"	B-3/4"	7 1/8"	6 1/4"	2 5/8"	1 1/2"	300	2.5	2
88-C1	1"	1"	C-1"	7 7/8"	7 7/8"	2 7/8"	1 3/4"	300	3.375	3
88-C2	1"	1 1/4"	C-1"	7 7/8"	7 7/8"	2 7/8"	1 3/4"	300	3.375	3
88-D1	1 1/4"	1-1/4"	D-1 1/4"	8 3/4"	8 3/4"	3 3/8"	2"	300	4.625	4.5
88-D2	1 1/4"	1 1/2"	D-1 1/4"	8 3/4"	8 3/4"	3 3/8"	2"	300	4.625	4.5
88-E1	1 1/2"	1-1/2"	E-1 1/2"	9 7/8"	9 7/8"	3 1/2"	2 1/8"	300	7	6.5
88-E2	1 1/2"	2"	E-1 1/2"	9 7/8"	9 7/8"	3 1/2"	2 1/8"	300	7	6.5
88-F1	2"	2"	F-2"	11 1/4"	11 1/4"	3 7/8"	2 5/8"	300	10.125	9.25
88-F2	2"	2 1/2"	F-2"	11 1/4"	11 1/4"	3 7/8"	2 5/8"	300	10.125	9.25
88-G1	2 1/2"	2 1/2"	G-2 1/2"	13 7/8"	12 3/4"	5 1/4"	3 5/8"	300	22.25	21
88-G2	*2 1/2"	3"	G-2 1/2"	13 7/8"	12 3/4"	5 1/4"	3 5/8"	300	22.25	21
88-H1	*3"	3"	H-3"	15"	13 1/4"	5 1/4"	3 5/8"	300	23	22

STANDARD VALVE FOR AIR, GAS AND STEAM IS "NEXT SIZED OUTLET" (UNLESS OTHERWISE SPECIFIED)  
 BAR = PSI x .06895 Centimeters = Inches x 2.540 KG = LBS x .4536  
 \*2 1/2" & 3" ORIFICE AND PRESSURES OVER 250 PSI-NOT ASME/NB.  
 PLEASE SPECIFY SERIES, SIZE, SERVICE AND SET PRESSURE.  
 SET PRESSURES OVER 250 PSI ARE NON-CODE

WHEN ORDERING, PLEASE SPECIFY SERIES, SIZE ID, & SET PRESSURE



**SERIES 88 & 89 CAPACITIES - Air/Gas Capacities in Cu. Ft. Per Minute (SCFM) ASME**

SET PRESSURE 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*	15	21	52	80	111	168	305	385
10*	18	26	63	97	136	205	372	470
15	21	30	74	115	160	242	439	555
20	24	35	86	132	185	279	506	640
25	27	40	97	150	209	316	573	725
30	31	44	108	167	234	353	640	810
35	34	49	121	186	261	394	714	903
40	38	55	133	206	288	435	788	997
45	41	60	146	225	315	475	861	1090
50	45	65	158	244	342	516	935	1184
55	48	70	171	264	368	557	1009	1277
60	52	75	184	283	395	598	1083	1370
65	56	80	196	302	422	638	1156	1464
70	59	85	209	321	449	679	1230	1557
75	63	90	221	341	476	720	1304	1650
80	66	96	234	360	503	760	1378	1744
85	70	101	246	379	530	801	1452	1837
90	73	106	259	398	557	842	1525	1931
95	77	111	271	418	584	883	1599	2024
100	80	116	284	437	611	923	1673	2117
110	87	126	309	475	665	1005	1821	2304
120	94	136	334	514	719	1086	1968	2491
130	102	147	359	553	773	1168	2116	2678
140	109	157	384	591	827	1249	2263	2865
150	116	167	409	630	881	1330	2411	3051
160	123	177	434	668	934	1412	2558	3238
170	130	188	459	707	988	1493	2706	3425
180	137	198	484	745	1042	1575	2854	3612
190	144	208	509	784	1096	1656	3001	3798
200	151	218	534	822	1150	1738	3149	3985
210	158	229	559	861	1204	1819	3296	4172
220	165	239	584	899	1258	1901	3444	4359
230	172	249	609	938	1312	1982	3591	4546
240	179	259	634	977	1366	2063	3739	4732
250	187	269	659	1015	1420	2145	3887	4919
260*	194	280	684	1054	1473	2226	4034	5106
270*	201	290	709	1092	1527	2308	4182	5293
280*	208	300	734	1131	1581	2389	4329	5479
290*	215	310	759	1169	1635	2471	4477	5666
300*	222	321	784	1208	1689	2552	4624	5853

\* Not ASME/NB under 15 PSI.

BAR = PSI x .06895    NM<sup>2</sup>/HR = SCFM x 1.630

\*2 1/2" & 3" AND PRESSURES OVER 250 PSI - NOT ASME/NB

**SERIES  
88****SERIES 88 CAPACITIES - Steam Capacity in Pounds Per Hour (#/Hr)**

SET PRESSURE PSI	A 1 1/2"	B 3/4"	C 1"	D 1 1/4"	E 1 1/2"	F 2"	G 2 1/2"	H 3"
5*	41	59	145	223	313	472	855	1079
10*	50	72	177	273	382	576	1043	1317
15	59	85	209	322	451	680	1232	1555
20	68	98	241	371	520	784	1420	1792
25	77	111	273	420	589	888	1609	2030
30	86	124	305	469	658	992	1797	2268
35	96	139	340	523	734	1107	2004	2529
40	106	153	375	578	810	1221	2211	2791
45	116	168	410	632	886	1335	2418	3052
50	126	182	445	686	962	1450	2626	3314
55	136	196	481	740	1038	1564	2833	3575
60	146	211	516	794	1114	1679	3040	3836
65	156	225	551	848	1190	1793	3247	4098
70	166	239	586	902	1265	1907	3454	4359
75	176	254	621	956	1341	2022	3662	4621
80	186	268	656	1011	1417	2136	3869	4882
85	196	282	691	1065	1493	2251	4076	5144
90	206	297	727	1119	1569	2365	4283	5405
95	216	311	762	1173	1645	2479	4490	5667
100	226	325	797	1227	1721	2594	4697	5928
110	246	354	867	1335	1873	2823	5112	6451
120	266	383	937	1444	2024	3051	5526	6974
130	285	412	1008	1552	2176	3280	5941	7497
140	305	440	1078	1660	2328	3509	6355	8020
150	325	469	1148	1768	2480	3738	6769	8543
160	345	498	1219	1876	2632	3967	7184	9066
170	365	526	1289	1985	2783	4195	7598	9589
180	385	555	1359	2093	2935	4424	8012	10112
190	405	584	1429	2201	3087	4653	8427	10635
200	425	613	1500	2309	3239	4882	8841	11158
210	445	641	1570	2418	3391	5111	9256	11681
220	465	670	1640	2526	3542	5339	9670	12204
230	485	699	1711	2634	3694	5568	10084	12726
240	504	727	1781	2742	3846	5797	10499	13249
250	524	756	1851	2851	3998	6026	10913	13772
260*	544	785	1921	2959	4150	6255	11327	14295
270*	564	814	1992	3067	4301	6483	11742	14818
280*	584	842	2062	3175	4453	6712	12156	15341
290*	604	871	2132	3284	4605	6941	12570	15864
300*	624	900	2203	3392	4757	7170	12985	16387

\* Not ASME/NB under 15 PSI.

BAR = PSI x .06895 Kilograms = PPH x .4536

\*2 1/2" &amp; 3" AND PRESSURES OVER 250 PSI - NOT ASME/NB

# Safety Valve Steam-Air-Gas ASME Section VIII - NB Certified for Air, Gas and Steam applications.

**SIZES 1/4", 3/8", 1/2", 3/4", 1"**  
**PRESSURE TO 200#**  
**TEMPERATURES TO 425°F (STEAM)**

Our Series 120's, and 130's (air, gas and steam) safety valves are designed for safety and pressure relief/regulation for light and medium capacity applications; where a smaller sized valve is needed. Many are manufactured to meet specific field and OEM applications.

**SERIES 125**



**SERIES 120**



**SERIES 130**



**SERIES 135**



**STAINLESS BODY AND DISK**

## Series 120-126 / 130-135

**Usages:** High quality smaller valve, Compressors, Receivers, Gas lines, Steam lines, Air and Gas receivers, Piping system/tanks, Steam cleaners, sterilizers, Autoclaves

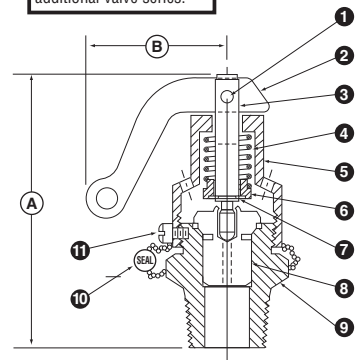
- Features:**
- Fixed blow-down
  - Brass/bronze construction
  - Metal-to-metal seating
  - Rugged, yet economical
  - Stainless steel springs
  - Factory set and sealed
  - Excellent seat tightness

- Options:**
- Stainless seat and disk
  - Polishing and chrome plating
  - Oxygen cleaning
  - Variety of inlets/outlets and lift levers or pull ring
  - Many configurations (not shown)

### PARTS IDENTIFICATION & MATERIALS

ITEM	PART NAME	MATERIAL
1	STEM PIN	BRASS
2	LIFT LEVER	STEEL*
3	SPRING POST	BRASS
4	SPRING	STAINLESS STEEL
5	BONNET	BRASS/BRONZE
6	SPRING PLATE	BRASS
7	RETAINING RING STAINLESS	STEEL
8	DISC	BRONZE/SS
9	BODY	BRASS/SS
		*STEEL PLATED

**EXAMPLE** of Series 130.  
 Please visit website for additional valve series.



\*FIXED BLOW-DOWN CAN BE CUSTOMIZED TO YOUR APPLICATION

\*LIFT LEVER IS REQUIRED BY THE NATIONAL BOARD FOR STEAM SERVICE



**SERIES 120, 121 & 125, 126 - Dimensions / Air-Gas-Steam**

SERIES	VALVE SIZE	SEAT SIZE	OUTLET SIZE	-----DIMENSIONS-----			MAX. SET PRESSURE	WEIGHT LB
				A	B	C		
126-121	*1/2"	3/4"	3/4"	3 7/8"	2 1/8"	1 1/4"	200	3/4
126-121	*3/4"	3/4"	3/4"	3 7/8"	2 1/8"	1 1/4"	200	7/8
126-121	***1"	3/4"	3/4"	3 7/8"	2 1/8"	1 1/4"	200	7/8
126-121	1"	1"	1"	4 1/4"	2 3/8"	1 1/2"	200	1 1/4
125-120	*1/2"	3/4"	3/4"	3 3/8"	2 1/8"	1 1/4"	200	1/2
125-120	*3/4"	3/4"	3/4"	3 3/8"	2 1/8"	1 1/4"	200	5/8
125-120	***1"	3/4"	3/4"	3 3/8"	2 1/8"	1 1/4"	200	5/8
125-120	***1"	1"	1"	3 5/8"	2 3/8"	1 1/2"	200	1 1/8

**SERIES 133**



\*ALSO AVAILABLE WITH FEMALE N.P.T. INLET. 1" SEAT NOT ASME CERTIFIED  
 BLOWDOWN HELD TO APPROXIMATELY 20% OF SET PRESSURE. SPECIFY SERIES, SIZE, SERVICE & SET PRESSURE.

**SERIES 120-121-125-126 CAPACITIES - Air-Gas Capacity in Cu. Ft. Per Minute (SCFM)**

SET PRESSURE	5	10	15	20	25	40	50	75	100	125	150	175	200
3/4" Seat	24	29	34	39	44	61	72	101	129	158	186	215	243
SET PRESSURE	5	10	15	20	25	40	50	75	100	125	150	175	200
***1" Seat	27	33	39	45	51	70	84	117	150	183	216	249	282

ASME Code Section VIII (UV)-National Board Certified

**SERIES 135**



**SERIES 120-121-125-126 CAPACITIES - Steam Capacity in Pounds Per Hour (#/Hr.)**

SET PRESSURE	5	10	15	20	25	40	50	75	100	125	150	175	200
3/4" Seat	66	81	95	110	124	171	203	283	363	443	523	603	683
SET PRESSURE	5	10	15	20	25	40	50	75	100	125	150	175	200
***1" Seat	85	104	123	141	160	220	261	364	468	571	674	777	880

ASME Code Section VIII (UV)-National Board Certified

**SERIES 130, 132, 133 & 135 - Dimensions / Air-Gas-Steam**

SERIES	VALVE SIZE	SEAT SIZE	OUTLET SIZE	-----DIMENSIONS-----			MAX. SET PRESSURE	WEIGHT LB
				A	B	C		
133	1/4"-3/8"-1/2"	1/2"	1/2"	3 5/8"	1 5/8"	1 5/8"	200	10
132	1/4"-3/8"-1/2"	1/2"		5 5/8"			200	8
130	1/4"-3/8"-1/2"	1/2"		3 1/8"			200	6
135	1/4"-3/8"-1/2"	1/2"	1/2"	3 5/8"	1 5/8"	1 1/4"	200	8

**SERIES 140**



**SERIES 130-132-133-135 CAPACITIES - Air-Gas Capacity in Cu. Ft. Per Minute (SCFM)**

SET PRESSURE	5	10	15	20	25	30	40	50	60	70	75	80
All Series	9	11	13	15	17	19	24	28	33	37	39	41
SET PRESSURE	90	100	110	125	130	140	150	160	175	180	190	200
All Series	46	50	55	61	64	68	72	77	84	86	90	95

ASME Code Section VIII (UV)-National Board Certified

**SERIES 130-132-133-135 CAPACITIES - Steam Capacity in Pounds Per Hour (#/Hr.)**

SET PRESSURE	5	10	15	20	25	30	40	50	60	70	75	80
All Series	26	31	37	43	48	54	66	79	91	104	110	116
SET PRESSURE	90	100	110	125	130	140	150	160	175	180	190	200
All Series	128	141	153	172	178	191	203	215	234	240	253	265

\*\*\* Not ASME/NB under 15 PSI.

ASME Code Section VIII (UV)-National Board Certified

## When Ordering...

1. Service Steam, Air, Gas or Liquid
2. Set Pressure Point In PSI
3. Inlet Size x Outlet Size
4. Aquatrol Valve Series Number
5. Special Options If Required

### Options *(See Each Particular Valve For Details)*

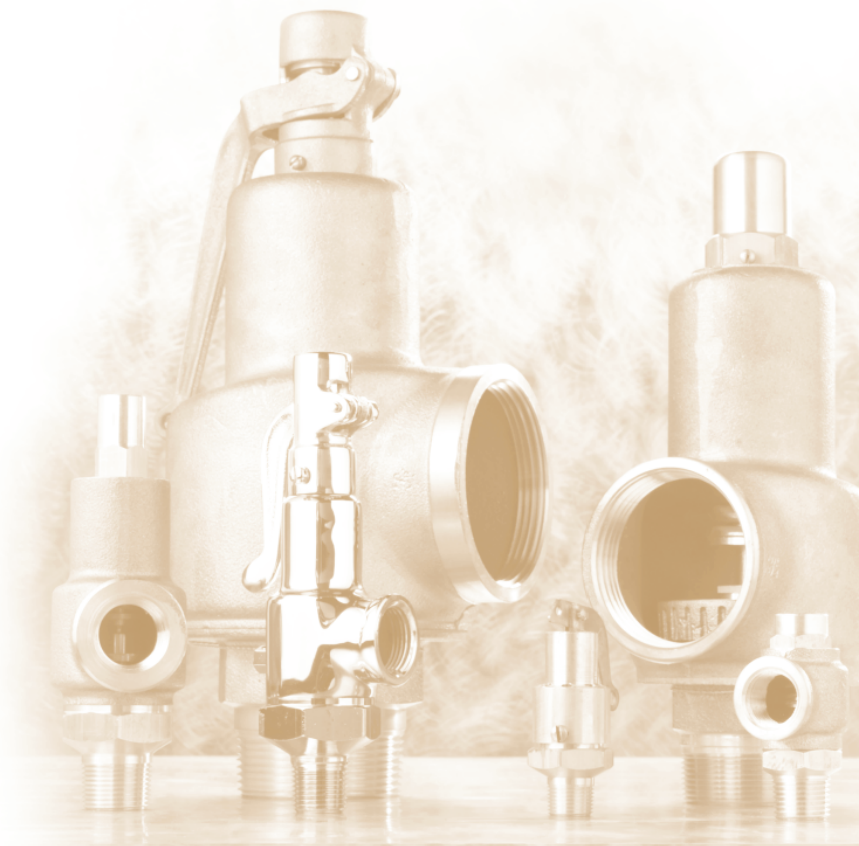
- Packed Lift Levers
- Soft Seating, O-Ring Seating
- Female Inlets
- Oversized Inlets
- Various Steel(s) and Brass Grades
- BSPT Connections
- Polishing/Chrome Plating
- Closed Caps *(as applicable by ASME code)*
- Others

### Industries Served *(By Aquatrol Valves)*

- Chemical/Pharmaceutical
- Marine/Mining
- Power/Energy
- Water Works
- Manufacturing
- Food/Beverage
- Construction
- Oil/Gas

### Visit [www.aquatrol.com](http://www.aquatrol.com):

- CAD files of valves / Cut sheets
- Operating and installation manuals
- Basic sizing guidelines
- Cleaning instructions
- Flow/pressure charts /metric
- Glossary of safety and relief valve terms
- AND INDUSTRY GATEWAYS (LINKS) TO
  - Chemical compatibility charts
  - Equivalency links
  - VMA
  - ASME
  - The National Board



**ASME Section I and VIII Safety Valve  
Manufacturer. Steam, Air, Gas and  
Liquid Applications.**



***Air/Gas***



**NEW —  
Series 740**

***Steam***



***Liquid***



***Specialty***



**NEW —  
Series 742**

***Aquatrol***  
VALVE COMPANY, INC.