

Series 740 Safety Valves

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 as well as CE and CRN Certifications. 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 (Disc) 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, disc 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, disc 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.

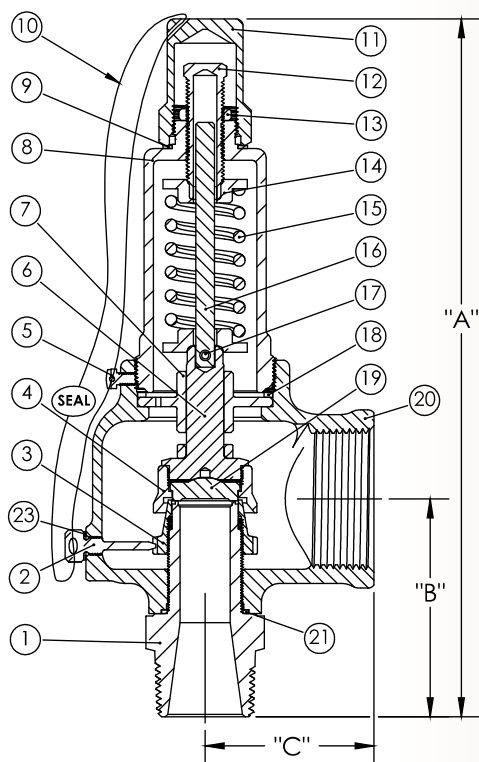
Features:

- Full nozzle – Top guided design
- Short, precise blow-down
- Wide choice of inlet/outlet sizes
- Excellent re-seating characteristics
- Designed for heavy industrial use
- Closed hex cap
- Back-pressure tight
- Drain hole with threaded plug
- Cryogenic compatible

Options:

- O-ring seating options (see charts)
- Packed lift lever
- Open lift lever
- BSPT Piping
- Tri-Clamp Inlets
- Full array of metal options
- API 527 Seating





Series 740 thru 743					
#	DESCRIPTION	740	741	742	743
1	Nozzle	B16	SA479-316 SS	SA479-316 SS	SA479-316 SS
2	Lock Screw	B16	B16	SA479-316 SS	SA479-316 SS
3	Lower Ring	SA351-CF8M	SA351-CF8M	SA351-CF8M	SA351-CF8M
4	Disc Holder	B16	B16	SA479-316 SS	SA479-316 SS
5	Lock Screw	18-8 SS	18-8 SS	18-8 SS	18-8 SS
6	Disc Holder Shaft	B16	B16	SA479-316 SS	SA479-316 SS
7	Disc Guide	B16	B16	SA479-316 SS	SA479-316 SS
8	Bonnet	B16	B16	SA108-1117/SA216	SA479-316 SS
9	Washer	PTFE	PTFE	PTFE	PTFE
10	Seal Wire	Steel / Lead	Steel / Lead	Steel / Lead	Stainless / Lead
11	Hood	B16	B16	SA108-1018	SA479-316 SS
12	Pressure Screw	B16	B16	SA479-316 SS	SA479-316 SS
13	Lock Nut	B16	B16	SA479-316 SS	SA479-316 SS
14	Spring Plate	B16	B16	SA479-316 SS	SA479-316 SS
15	Spring	302/17-7	302/17-7	302/17-7	302/17-7
16	Spring Post	B16	B16	SA479-316 SS	SA479-316 SS
17	Spring Pin	18-8 SS	18-8 SS	18-8 SS	18-8 SS
18	Guide Washer	PTFE	PTFE	PTFE	PTFE
19	Disc	SA479-316 SS	SA479-316 SS	SA479-316 SS	SA479-316 SS
20	Body	B584-C84400	B584-C84400	SA216-WCB	A479-316 SS
21	Nozzle Washer	PTFE	PTFE	PTFE	PTFE
22	Nameplate	Stainless	Stainless	Stainless	Stainless
23	Washer	PTFE	PTFE	PTFE	PTFE

Series 740 thru 743												
Orifice	Flow Area In2 (mm2)	Inlet	Outlet	DN	Size I.D.	Dimensions - In. (mm)					Weight Lb (Kg)	
						A Closed Cap		A Lift Lever	B	C		
D	.125 (80.6)	1/2"	3/4"	15	C	7-3/8" (187)	8-1/8" (206)	2-3/8" (60)	1-5/8" (41)	2 (0.9)		
D	.125 (80.6)	1/2"	1"	15	D	7-3/8" (187)	8-1/8" (206)	2-3/8" (60)	1-5/8" (41)	2 (0.9)		
D	.125 (80.6)	3/4"	3/4"	20	E	7-3/8" (187)	8-1/8" (206)	2-3/8" (60)	1-5/8" (41)	2 (0.9)		
D	.125 (80.6)	3/4"	1"	20	F	7-3/8" (187)	8-1/8" (206)	2-3/8" (60)	1-5/8" (41)	2 (0.9)		
D	.125 (80.6)	1"	1"	25	G	7-3/8" (187)	8-1/8" (206)	2-3/8" (60)	1-5/8" (41)	2 (0.9)		
E	.217 (140.0)	1/2"	1"	15	A	8-1/8" (206)	9" (229)	2-5/8" (67)	2" (51)	3 (1.4)		
E	.217 (140.0)	1/2"	1-1/4"	15	B	8-1/8" (206)	9" (229)	2-5/8" (67)	2" (51)	3 (1.4)		
E	.217 (140.0)	3/4"	1"	20	C	8-1/8" (206)	9" (229)	2-5/8" (67)	2" (51)	3 (1.4)		
E	.217 (140.0)	3/4"	1-1/4"	20	D	8-1/8" (206)	9" (229)	2-5/8" (67)	2" (51)	3 (1.4)		
E	.217 (140.0)	1"	1"	25	G	8-1/8" (206)	9" (229)	2-5/8" (67)	2" (51)	3 (1.4)		
E	.217 (140.0)	1"	1-1/4"	25	F	8-1/8" (206)	9" (229)	2-5/8" (67)	2" (51)	3 (1.4)		
E	.217 (140.0)	1-1/4"	1-1/4"	32	H	8-1/8" (206)	9-1/4" (235)	2-7/8" (73)	2" (51)	3 (1.4)		
F	.353 (227.7)	1"	1-1/2"	25	F	9-1/4" (235)	9-5/8" (244)	2-7/8" (73)	2-1/4" (57)	5 (2.3)		
F	.353 (227.7)	1-1/4"	1-1/2"	32	H	9-1/4" (235)	9-5/8" (244)	2-7/8" (73)	2-1/4" (57)	5 (2.3)		
F	.353 (227.7)	1-1/2"	1-1/2"	40	G	9-1/4" (235)	9-5/8" (244)	2-7/8" (73)	2-1/4" (57)	5 (2.3)		
G	.554 (357.4)	1-1/4"	2"	32	G	10-1/4" (260)	10-5/8" (270)	3-3/8" (86)	2-5/8" (67)	9 (4.1)		
G	.554 (357.4)	1-1/2"	2"	40	H	10-1/4" (260)	10-5/8" (270)	3-3/8" (86)	2-5/8" (67)	9 (4.1)		
G	.554 (357.4)	2"	2"	50	F	10-1/4" (260)	10-5/8" (270)	3-3/8" (86)	2-5/8" (67)	9 (4.1)		
H	.923 (595.5)	1-1/2"	2-1/2"	40	H	11-3/4" (298)	12-1/8" (308)	3-1/2" (89)	2-7/8" (73)	16 (7.3)		
H	.923 (595.5)	2"	2-1/2"	50	J	11-3/4" (298)	12-1/8" (308)	3-1/2" (89)	2-7/8" (73)	16 (7.3)		
H	.923 (595.5)	2-1/2"	2-1/2"	65	K	11-3/4" (298)	12-1/8" (308)	3-1/2" (89)	2-7/8" (73)	16 (7.3)		
J	1.418 (914.8)	2"	3"	50	J	14-1/4" (362)	14-1/2" (368)	4" (102)	3-1/4" (83)	18 (8.2)		
J	1.418 (914.8)	2-1/2"	3"	65	K	14-1/4" (362)	14-1/2" (368)	4" (102)	3-1/4" (83)	18 (8.2)		
J	1.418 (914.8)	3"	3"	80	L	14-1/4" (362)	14-1/2" (368)	4" (102)	3-1/4" (83)	18 (8.2)		

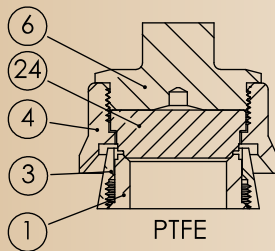
Seating Materials

Material	Names	Min Temp °F (°C)	Max Temp °F (°C)	*Use for:
FKM	Viton-A	-13° (-25°)	446° (230°)	Acetone, Air, Alcohol, Benzine, Butane, Ethylene, Ethylene Glycol, Ethyl Alcohol, Gasoline, Isobutyl Alcohol, Kerosene, Lube Oil, Natural Gas, Naphtha, Nitrogen, Propane, Water, Xylene
Nitrile	Buna-N	-40° (-40°)	250° (121°)	Air, Butane, Carbon Dioxide, Diesel Oil, Ethyl Chloride, Ethyl Ether, Fuel Oil, Gasoline, Helium, Hydrogen Sulphide, Kerosene, Natural Gas, Nitrogen, Oxygen (Gas), Propane
EPDM		-40° (-40°)	303° (151°)	Steam, Water, Hot Water, Acetone, Beer, Brake Fluid, Hydrogen Gas, Sulfur Dioxide, Acids, Alkalies
FFKM	Kalrez®	-10° (-23°)	550° (288°)	Aromatic Hydrocarbons, Chlorinated Hydrocarbons, Polar Solvents (ketones, esters, ethers), Inorganic and Organic Acids, Water, and Steam (Steam service up to 380°F (193°C) saturated)
PTFE		-300° (-184°)	450° (232°)	Cryogenic Service including Argon, Carbon Dioxide, Helium, Hydrogen, Nitrogen, Oxygen, Steam

Note:

This is just a partial listing.

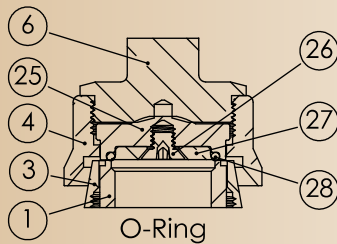
Visit www.aquatrol.com for links to websites with more specific applications.



PTFE

PTFE Seating

#	DESCRIPTION	740	741	742	743
1	Nozzle	B16	SA479-316 SS	SA479-316 SS	SA479-316 SS
3	Lower Ring	SA351-CF8M	SA351-CF8M	SA351-CF8M	SA351-CF8M
4	Disc Holder	B16	B16	SA479-316 SS	SA479-316 SS
6	Disc Holder Shaft	B16	B16	SA479-316 SS	SA479-316 SS
24	Disc	PTFE	PTFE	PTFE	PTFE



O-Ring

O-Ring Seating

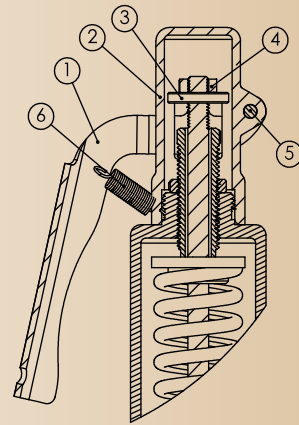
#	DESCRIPTION	740	741	742	743
1	Nozzle	B16	SA479-316 SS	SA479-316 SS	SA479-316 SS
3	Lower Ring	SA351-CF8M	SA351-CF8M	SA351-CF8M	SA351-CF8M
4	Disc Holder	B16	B16	SA479-316 SS	SA479-316 SS
6	Disc Holder Shaft	B16	B16	SA479-316 SS	SA479-316 SS
25	O-Ring Disc	SA479-316 SS	SA479-316 SS	SA479-316 SS	SA479-316 SS
26	Screw	18-8 SS	18-8 SS	18-8 SS	18-8 SS
27	Disc Insert	SA479-316 SS	SA479-316 SS	SA479-316 SS	SA479-316 SS
28	O-Ring	Various	Various	Various	Various

Series	Inlet Sizes	Metals	Min. Temp °F (°C)	Max. Temp ^{3,4} °F (°C)	Max Pressure ^{1,2} PSI (Bar)	Services	Certifications
740	1/2" to 3"	Brass/Bronze	-320° (-196°)	406° (208°)	300 (20.7)	Air / Gas / Steam / Liquid	ASME VIII, CE, CRN
741	1/2" to 3"	Stainless/Bronze	-320° (-196°)	425° (218°)	750 (51.7)	Air / Gas / Steam / Liquid	ASME VIII, CE, CRN
742	1/2" to 3"	Stainless/Carbon	-20° (-29°)	425° (218°)	750 (51.7)	Air / Gas / Steam / Liquid	ASME VIII, CE, CRN
743	1/2" to 3"	Stainless	-320° (-196°)	425° (218°)	750 (51.7)	Air / Gas / Steam / Liquid	ASME VIII, CE, CRN

- 1) Maximum set pressure for steam service is 300 PSI (20.7 Bar)
- 2) Maximum set pressure for steam on Series 740 is 250 PSI (17.2 Bar)
- 3) Maximum temperatures depend upon seating material.
- 4) Contact Aquatrol for temps over 425°F (218°C)

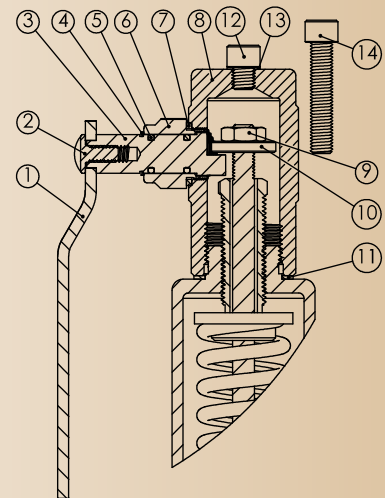
Open Lift Lever Options

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

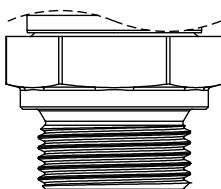


Packed Lift Lever Options

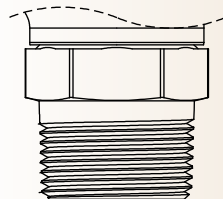
Item	Description	Material Options		
		Brass	Carbon Steel	Stainless Steel
1	Handle	B16 Brass	B16 Brass/Plated	B16 Brass/Plated
2	Handle Screw	Steel/Plated	Steel/Plated	Steel/Plated
3	Cam	B16 Brass	SA479-316 SS	SA479-316 SS
4	Retaining Ring	Steel/Plated	17-7 SS	17-7 SS
5	O-Rings	Viton	Viton	Viton
6	Cam 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



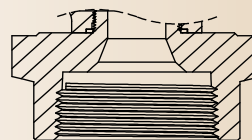
Inlet Options:



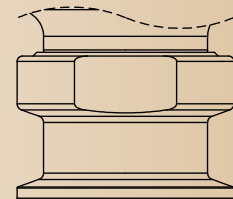
BSPP



NPT or BSPT



NPT or BSPT



Tri-Clamp

Lifting Device as required by the ASME, ASME Section VIII: UG136(3)

Each pressure relief valve on air, water at the valve inlet that exceeds 140°F (60°C), excluding over-pressure or relief events, or steam service shall have a substantial lifting device which when activated will release the seating force on the disc when the pressure relief valve is subjected to a pressure of at least 75% of the set pressure of the valve.

Series 740 thru 743 - Threaded Inlet - Part Numbers

740		ED	1	V	3	J	1	125
Series	Description	Orifice/Size ID	Connection	Seating	Cap	Service	Options	Set
740	Brass/Bronze	DC- 1/2" x 3/4"	1- NPT MxF	M- Metal	1- Lift lever	K- ASME VIII-Air/gas	1- None	Ex.125
741	316 SS/Bronze	DD- 1/2" x 1"	2- NPT FxF	P- PTFE	2- Closed cap	L- ASME VIII-Steam	2- Chrome Plating	
742	316 SS/Carbon	DE- 3/4" x 3/4"	3- BSPT MxF	R- PCTFE	3- Packed lift lever	J- ASME VIII-Liquid		
743	316 Stainless	DF- 3/4" x 1"	4- BSPT FxF	V- Viton	4- Lift Lever with Anti-Vibe Spring	P- CE - Air/gas	3- O2 Cleaned	
		DG- 1" x 1"	8- BSPP MxF	B- Buna		E- CE - Steam	4- API Seating	
		EA- 1/2" x 1"	9- BSPP FxF	K- Kalrez		D- CE - Liquid	5- O2 Clean / API Seating	
		EB- 1/2" x 1-1/4"		E- EPDM	5- Closed Cap with Test Gag	N- Non-code Air/gas		
		EC- 3/4" x 1"			6- Packed Lever with Test Gag	T- Non-code Steam		
		ED- 3/4" x 1-1/4"				U- Non-code Liquid		
		EG- 1" x 1"						
		EF- 1" x 1-1/4"						
		EH- 1-1/4" x 1-1/4"						
		FF- 1" x 1-1/2"						
		FH- 1-1/4" x 1-1/2"						
		FG- 1-1/2" x 1-1/2"						
		GG- 1-1/4" x 2"						
		GH- 1-1/2" x 2"						
		GF- 2" x 2"						
		HH- 1-1/2" x 2-1/2"						
		HJ- 2" x 2-1/2"						
		HK- 2-1/2" x 2-1/2"						
		JJ- 2" x 3"						
		JK- 2-1/2" x 3"						
		JL- 3" x 3"						

Note:
This chart is for threaded inlets only.



Series 740 thru 743 - Tri-Clamp Inlet - Part Numbers

743		ED	5	M	1	L	1	125
Series	Description	Orifice/Size ID	Connection	Seating	Cap	Service	Options	Set
740	Brass/Bronze	DE- 3/4" x 3/4"	5- Tri-clamp x NPT	M- Metal	1- Lift lever	K- ASME VIII - Air/gas	1- None	Ex.125
741	316 SS/Bronze	DF- 3/4" x 1"		P- PTFE	2- Closed cap	L- ASME VIII - Steam	2- Chrome Plating	
742	316 SS/Carbon	DH- 1" x 3/4"	6- Tri-clamp x BSPT	R- PCTFE	3- Packed lift lever	J- ASME VIII - Liquid		
743	316 Stainless	DG- 1" x 1"		V- Viton	4- Lift Lever with Anti-Vibe Spring	P- CE - Air/gas	3- O2 Cleaned	
		DJ- 1-1/2" x 3/4"		B- Buna		E- CE - Steam	4- API Seating	
		DK- 1-1/2" x 1"		K- Kalrez		D- CE - Liquid	5- O2 Clean / API Seating	
		EC- 3/4" x 1"		E- EPDM	5- Closed Cap with Test Gag	N- Non-code Air/gas		
		ED- 3/4" x 1-1/4"			6- Packed Lever with Test Gag	T- Non-code Steam		
		EG- 1" x 1"				U- Non-code Liquid		
		EF- 1" x 1-1/4"						
		EJ- 1-1/2" x 1"						
		EK- 1-1/2" x 1-1/4"						
		FF- 1" x 1-1/2"						
		FG- 1-1/2" x 1-1/2"						
		GE- 1" x 2"						
		GH- 1-1/2" x 2"						
		HH- 1-1/2" x 2-1/2"						
		HJ- 2" x 2-1/2"						
		JG- 1-1/2" x 3"						
		JJ- 2" x 3"						

Note:
This chart is for Tri-Clamp inlets only

Liquid Capacity

Series 740 thru 743 Capacities Liquid GPM – ASME Section VIII						
Set PSI	Orifice area in ² Flow Coefficient = .791					
	“D” .126	“E” .217	“F” .353	“G” .554	“H” .923	“J” 1.418
5	11	18	30	47	78	121
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	226
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	83	130	216	332
60	31	53	86	135	225	346
65	32	55	90	141	235	360
70	33	57	93	146	243	374
75	34	59	96	151	252	387
80	36	61	100	156	260	400
85	37	63	103	161	268	412
90	38	65	106	166	276	424
95	39	67	108	170	284	436
100	40	68	111	175	291	447
125	44	76	124	195	325	500
150	49	84	136	214	356	547
175	53	90	147	231	385	591
200	56	97	157	247	411	632
225	60	103	167	262	436	671
250	63	108	176	276	460	707
275	66	113	185	290	483	741
300	69	118	193	302	504	774
325	72	123	201	315	525	806
350	74	128	208	327	544	836
375	77	132	215	338	563	866
400	79	137	223	349	582	894
425	82	141	229	360	600	922
450	84	145	236	370	617	948
475	87	149	243	381	634	974
500	89	153	249	391	651	1000
525	91	157	255			
550	93	160	261			
575	95	164	267			
600	97	168	273			
625	99	171				
650	101	174				
675	103	178				
700	105	181				
725	107	184				
750	109	187				

Series 740 thru 743 Capacities Liquid LPM – ASME Section VIII						
Set Bar	Orifice area mm ² Flow Coefficient = .791					
	“D” 81.3	“E” 140.0	“F” 227.7	“G” 357.4	“H” 595.5	“J” 914.8
0.2	35	60	98	153	255	392
0.5	46	79	129	202	336	517
1	60	103	168	264	439	675
2	81	140	227	357	594	913
3	99	171	278	436	726	1116
4	115	197	321	503	839	1289
5	128	220	359	563	938	1441
6	140	242	393	617	1027	1578
7	151	261	424	666	1110	1705
8	162	279	454	712	1186	1822
9	172	296	481	755	1258	1933
10	181	312	507	796	1326	2038
11	190	327	532	835	1391	2137
12	198	342	556	872	1453	2232
13	206	356	578	908	1512	2323
14	214	369	600	942	1569	2411
15	222	382	621	975	1624	2496
16	229	394	642	1007	1678	2577
17	236	407	661	1038	1729	2657
18	243	418	681	1068	1779	2734
19	250	430	699	1097	1828	2809
20	256	441	717	1126	1876	2882
22	269	462	752	1181	1967	3022
24	280	483	786	1233	2055	3157
26	292	503	818	1284	2139	3286
28	303	522	849	1332	2219	3410
30	314	540	879	1379	2297	3529
32	324	558	907	1424	2373	3645
34	334	575	935	1468	2446	3757
36	344	592	962			
38	353	608	989			
40	362	624	1014			
42	371	639				
44	380	654				
46	388	669				
48	397	683				
51.72	412	709				

Set pressures below 15 PSI (1.03 Bar) are NON-Code.

Maximum back-pressure is 10% of set pressure or 50 PSI (3.45 Bar) whichever is less.

Lifting Device as required by the ASME,
ASME Section VIII: UG136(3)

Each pressure relief valve on air, water at the valve inlet that exceeds 140°F (60°C), excluding over-pressure or relief events, or steam service shall have a substantial lifting device which when activated will release the seating force on the disc when the pressure relief valve is subjected to a pressure of at least 75% of the set pressure of the valve.

Air Capacity

Series 740 thru 743 Capacities Air SCFM – ASME Section VIII						
Set PSI	Orifice area in ² Flow Coefficient = .878					
	“D” .126	“E” .217	“F” .353	“G” .554	“H” .923	“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	87	149	243	381	634	975
30	97	167	271	425	709	1089
35	108	186	302	474	790	1214
40	119	205	333	523	872	1340
45	130	224	365	572	954	1465
50	141	243	396	621	1035	1591
55	152	263	427	671	1117	1716
60	164	282	458	720	1199	1842
65	175	301	490	769	1281	1967
70	186	320	521	818	1362	2093
75	197	339	552	867	1444	2218
80	208	359	583	916	1526	2344
85	219	378	615	965	1607	2469
90	231	397	646	1014	1689	2595
95	242	416	677	1063	1771	2720
100	253	436	708	1112	1852	2846
125	309	532	865	1357	2261	3474
150	364	628	1021	1602	2670	4101
175	420	724	1177	1847	3078	4729
200	476	820	1333	2093	3487	5356
225	532	916	1490	2338	3895	5984
250	587	1012	1646	2583	4304	6612
275	643	1108	1802	2828	4712	7239
300	699	1204	1958	3073	5121	7867
325	755	1300	2115	3319	5529	8494
350	811	1396	2271	3564	5938	9122
375	866	1492	2427	3809	6346	9750
400	922	1588	2583	4054	6755	10377
425	978	1684	2740	4299	7163	11005
450	1034	1780	2896	4545	7572	11632
475	1089	1876	3052	4790	7980	12260
500	1145	1972	3208	5035	8389	12888
525	1201	2068	3365			
550	1257	2164	3521			
575	1312	2260	3677			
600	1368	2356	3833			
625	1424	2452				
650	1480	2549				
675	1536	2645				
700	1591	2741				
725	1647	2837				
750	1703	2933				

Series 740 thru 743 Capacities Air Nm³/hr – ASME Section VIII						
Set Bar	Orifice area in ² Flow Coefficient = .878					
	“D” 81.3	“E” 140.0	“F” 227.7	“G” 357.4	“H” 595.5	“J” 914.8
0.2	71	122	199	312	520	799
0.5	86	148	241	378	630	967
1	111	191	311	488	813	1248
2	161	277	451	707	1179	1811
3	215	371	604	948	1579	2425
4	270	466	758	1189	1981	3044
5	325	560	912	1431	2384	3662
6	380	655	1066	1672	2786	4280
7	435	750	1220	1914	3189	4899
8	490	844	1373	2156	3591	5517
9	545	939	1527	2397	3994	6136
10	600	1034	1681	2639	4396	6754
11	655	1128	1835	2880	4799	7373
12	710	1223	1989	3122	5201	7991
13	765	1318	2143	3364	5604	8609
14	820	1412	2297	3605	6007	9228
15	875	1507	2451	3847	6409	9846
16	930	1601	2605	4088	6812	10465
17	985	1696	2759	4330	7214	11083
18	1040	1791	2913	4572	7617	11702
19	1095	1885	3067	4813	8019	12320
20	1150	1980	3221	5055	8422	12938
22	1260	2169	3529	5538	9227	14175
24	1369	2359	3837	6021	10032	15412
26	1479	2548	4145	6505	10837	16649
28	1589	2737	4453	6988	11642	17886
30	1699	2926	4760	7471	12447	19123
32	1809	3116	5068	7954	13252	20359
34	1919	3305	5376	8437	14057	21596
36	2029	3494	5684			
38	2139	3683	5992			
40	2249	3873	6300			
42	2359	4062				
44	2469	4251				
46	2578	4441				
48	2688	4630				
51.7	2892	4980				

Set pressures below 15 PSI (1.03 Bar) are NON-Code.

Maximum back-pressure is 10% of set pressure or 50 PSI (3.45 Bar) whichever is less.

Lifting Device as required by the ASME,
ASME Section VIII: UG136(3)

Each pressure relief valve on air, water at the valve inlet that exceeds 140°F (60°C), excluding over-pressure or relief events, or steam service shall have a substantial lifting device which when activated will release the seating force on the disc when the pressure relief valve is subjected to a pressure of at least 75% of the set pressure of the valve.

Steam Capacity

Series 740 thru 743 Capacities Steam Lbs/hr – ASME Section VIII						
Set PSI	Orifice area in ² Flow Coefficient = .878					
	“D” .126	“E” .217	“F” .353	“G” .554	“H” .923	“J” 1.418
5	129	223	362	569	947	1455
10	158	272	442	694	1156	1776
15	186	321	522	819	1365	2097
20	215	370	602	944	1573	2417
25	243	419	682	1070	1782	2738
30	272	468	761	1195	1991	3058
35	303	522	849	1333	2220	3411
40	334	576	937	1470	2450	3764
45	366	630	1025	1608	2679	4116
50	397	684	1113	1746	2909	4469
55	428	738	1200	1884	3138	4822
60	460	792	1288	2022	3368	5174
65	491	846	1376	2159	3598	5527
70	522	900	1464	2297	3827	5880
75	554	954	1551	2435	4057	6232
80	585	1008	1639	2573	4286	6585
85	616	1062	1727	2710	4516	6938
90	648	1116	1815	2848	4745	7290
95	679	1170	1903	2986	4975	7643
100	710	1224	1990	3124	5204	7995
125	867	1493	2429	3813	6352	9759
150	1024	1763	2868	4502	7500	11522
175	1180	2033	3307	5190	8648	13285
200	1337	2303	3746	5879	9795	15048
225	1494	2573	4185	6568	10943	16812
250	1651	2843	4624	7257	12091	18575
275	1807	3112	5063	7946	13238	20338
300	1964	3382	5502	8635	14386	22101

Series 740 thru 743 Capacities Steam Kg/hr – ASME Section VIII						
Set Bar	Orifice area in ² Flow Coefficient = .878					
	“D” 81.3	“E” 140.0	“F” 227.7	“G” 357.4	“H” 595.5	“J” 914.8
0.2	53	92	149	234	390	599
0.5	64	111	181	284	472	726
1	83	143	233	366	610	936
2	121	208	338	531	884	1358
3	162	278	453	711	1184	1819
4	203	349	568	892	1486	2283
5	244	420	684	1073	1788	2747
6	285	491	799	1254	2090	3211
7	327	562	915	1436	2392	3675
8	368	633	1030	1617	2694	4139
9	409	704	1146	1798	2996	4603
10	450	775	1261	1979	3298	5066
11	491	846	1377	2161	3600	5530
12	533	917	1492	2342	3902	5994
13	574	988	1608	2523	4204	6458
14	615	1059	1723	2704	4506	6922
15	656	1130	1839	2886	4808	7386
16	698	1201	1954	3067	5110	7850
17	739	1272	2070	3248	5411	8314
18	780	1343	2185	3429	5713	8777
19	821	1414	2301	3611	6015	9241
20	862	1485	2416	3792	6317	9705
20.7	891	1535	2497	3919	6529	10030



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Lifting Device as required by the ASME,
ASME Section VIII: UG136(3)

Each pressure relief valve on air, water at the valve inlet that exceeds 140°F (60°C), excluding over-pressure or relief events, or steam service shall have a substantial lifting device which when activated will release the seating force on the disc when the pressure relief valve is subjected to a pressure of at least 75% of the set pressure of the valve.