



Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO#:	
Rep:	
Wholesale Dist.:	

DESCRIPTION

ASME Section VIII capacity certified safety relief valve for overpressure protection of steam, air/gas and liquid systems, pressure vessels, piping and similar equipment.

FEATURES

- ASME Section VIII Certified Capacities
- 5 - 1200 psig Set Pressures @ 800° F max*
- 1/2" - 2" Inlet Connections
- Bronze, Carbon or Stainless Steel Construction
- Lapped Metal Seats; O-ring and PCTFE Seats Optional
- Screwed Cap or Packed Lift Lever Configuration
- Made in the USA**

APPROVALS

- ASME Section VIII Div 1 Pressure Vessels for Steam, Air/Gas and Liquids
- CRN 0G8547.5C
- Directive 2011/65/CE (RoHS) Compliant (530-540)
- Pressure Equipment Directive 2014/68/EU (PED)
- Oxygen Cleaning to CGA 4.1 (Optional)

**Set pressures and temperatures vary by model. Refer to catalog for sizing and selection information*

STANDARD MATERIALS LIST

BODY	ASTM B584 Bronze ASTM A216 Carbon Steel ASTM A351 Stainless Steel
NOZZLE	ASTM B16 Brass ASTM A479 Stainless Steel
SPRING	Stainless Steel
SEAT	Stainless Steel

CAPACITY, SCFM (NM3/HR)

NATIONAL BOARD CAPACITY CERTIFIED, SECTION VIII AIR

SET PRESSURE PSIG (BAR)	D ORIFICE	E ORIFICE	F ORIFICE
15 (1.03)	67 (107)	118 (189)	185 (298)
100 (6.90)	255 (409)	449 (721)	706 (1135)
500 (34.48)	1153 (1853)	2032 (3267)	3197 (5138)
SET PRESSURE PSIG (BAR)	G ORIFICE	H ORIFICE	J ORIFICE
15 (1.03)	304 (488)	474 (762)	776 (1247)
100 (6.90)	1158 (1862)	1808 (2907)	2959 (4756)
500 (34.48)	5246 (8433)	8189 (13164)	13399 (21538)

AVAILABLE CONFIGURATIONS

MODEL NUMBER	ORIFICE	SIZE	INSTALLED HEIGHT IN. (MM)
5xxDCB	D	1/2M x 1F	6.97 (177)
5xxDCD*		1/2M x 3/4F	6.97 (177)
5xxddb		3/4M x 1F	6.97 (177)
5xxDDD*		3/4M x 3/4F	6.97 (177)
5xxED	E	3/4M x 1-1/4F	8.45 (215)
5xxEE		1M x 1-1/4F	8.45 (215)
5xxFE	F	1M x 1-1/2F	9.64 (245)
5xxFF		1-1/4M x 1-1/2F	9.64 (245)
5xxGF	G	1-1/4M x 2F	12.62 (321)
5xxGG		1-1/2M x 2F	12.62 (321)
5xxHG	H	1-1/2M x 2-1/2F	14.42 (367)
5xxHH		2M x 2-1/2F	14.42 (367)
5xxJH	J	2M x 3F	16.50 (419)

**Bronze Body Only*

PART NUMBER MATRIX

52	3	J	H	B	K	M	AA	0425	Q
SERIES BODY/TRIM MATERIAL	CAP	ORIFICE LETTER	INLET SIZE	CONNECTION	SERVICE	SEAT	SPECIAL OPTIONS	SET PRESSURE	SUFFIX
51 - BRONZE/BRASS	1 - SCREWED CAP	D	C - 1/2"	B - MNPT X NPT	J - SEC VIII LIQUID	M - METAL	FACTORY ISSUED LETTERS/NUMBERS FOR SPECIAL OPTIONS OR FEATURES	SET PRESSURE, PSIG (4 DIGITS)	Q - PERFORMANCE (CALIBRATION) TEST REPORTS
52 - BRONZE/STAINLESS	2 - SCREWED + GAG	E	D - 3/4"	D - 3/4" OUTLET (MODEL 510 & 520 D ORIFICE ONLY)	K - SEC VIII AIR/GAS	B - BUNA-N		VACUUM "HG" PREFIX + 2 DIGITS	
53 - CARBON/STAINLESS	3 - PACKED LEVER	F	E - 1"		L - SEC VIII STEAM	E - EPR			
54 - ALL STAINLESS	4 - PACKED + GAG	G	F - 1-1/4"		M - NON CODE LIQUID	K - PCTFE			
		H	G - 1-1/2"		N - NON CODE AIR	N - NEOPRENE	"AA" - DEFAULT SETTING		
		J	H - 2"	P - NON CODE STEAM	Z - KALREZ*	"CE" - CE/PED			
				Q - VACUUM	S - SILICONE	"HT" - HIGH TEMP SPRING			
					V - VITON	"OX" - CLEANED FOR OXYGEN			

**Not all configurations available together*

500 SERIES

MULTI-PURPOSE SAFETY RELIEF

ASME SECTION VIII - STEAM

• Pounds per hour (kilograms per hour) saturated steam at 10% overpressure. National Board Certified. Ratings are 90% of actual.

US CUSTOMARY UNITS LB/HR.

ORIFICE LETTER AREA (IN. ²)	D 0.1295	E 0.2282	F 0.3589	G 0.5890	H 0.9195	J 1.5044
SET PRESSURE PSIG						
5*	122	216	339	557	869	1,422
10*	168	295	465	762	1,190	1,947
15	188	331	520	853	1,332	2,180
20	216	381	600	984	1,536	2,513
25	245	432	679	1,114	1,740	2,846
30	274	482	759	1,245	1,943	3,180
35	305	538	846	1,388	2,168	3,546
40	337	593	934	1,532	2,392	3,913
45	368	649	1,021	1,676	2,616	4,280
50	400	705	1,108	1,819	2,840	4,646
55	431	760	1,196	1,963	3,064	5,013
60	463	816	1,283	2,106	3,288	5,380
65	494	872	1,371	2,250	3,512	5,746
70	526	927	1,458	2,393	3,736	6,113
75	558	983	1,546	2,537	3,960	6,479
80	589	1,038	1,633	2,680	4,184	6,846
85	621	1,094	1,721	2,824	4,408	7,213
90	652	1,150	1,808	2,968	4,632	7,579
95	684	1,205	1,896	3,111	4,857	7,946
100	715	1,261	1,983	3,255	5,081	8,313
125	873	1,539	2,421	3,972	6,201	10,146
150	1,031	1,817	2,858	4,690	7,322	11,979
175	1,189	2,095	3,295	5,408	8,442	13,812
200	1,346	2,373	3,733	6,126	9,562	15,645
225	1,504	2,651	4,170	6,843	10,683	17,478
250	1,662	2,929	4,607	7,561	11,803	19,312
275	1,820	3,207	5,045	8,279	12,924	21,145
300	1,977	3,485	5,482	8,997	14,044	22,978
325	2,135	3,763	5,919	9,714	15,165	24,811
350	2,293	4,041	6,357	10,432	16,285	26,644
375	2,451	4,319	6,794	11,150	17,405	28,477
400	2,608	4,597	7,231	11,867	18,526	30,311
425	2,766	4,875	7,669	12,585	19,646	32,144
450	2,924	5,153	8,106	13,303	20,767	33,977
475	3,082	5,431	8,543	14,021	21,887	35,810
500	3,239	5,709	8,981	14,738	23,008	37,643
525	3,397	5,987	9,418	15,456	-	-
550	3,555	6,266	9,855	16,174	-	-
575	3,713	6,544	10,293	16,892	-	-
600	3,870	6,822	10,730	17,609	-	-
625	4,028	7,100	-	-	-	-
650	4,186	7,378	-	-	-	-
675	4,344	7,656	-	-	-	-
700	4,501	7,934	-	-	-	-
725	4,659	8,212	-	-	-	-
750	4,817	8,490	-	-	-	-
775	4,975	8,768	-	-	-	-
800	5,132	9,046	-	-	-	-
825	5,290	9,324	-	-	-	-
850	5,448	9,602	-	-	-	-
875	5,606	9,880	-	-	-	-
900	5,763	10,158	-	-	-	-
Approx. 1 psi Increment	6.3	11.1	17.5	28.7	44.8	73.3

METRIC UNITS KG/HR.

ORIFICE LETTER AREA (CM. ²)	D 0.8352	E 1.4721	F 2.3155	G 3.8001	H 5.9321	J 9.7058
SET PRESSURE BARG						
0.4*	60	105	165	271	423	692
0.8*	82	145	228	374	583	955
1.1	88	154	243	398	622	1,018
2	122	214	337	553	863	1,412
3	163	287	451	741	1,156	1,892
4	204	360	566	930	1,451	2,374
5	246	433	681	1,118	1,746	2,857
6	287	506	797	1,307	2,041	3,339
7	329	580	912	1,496	2,336	3,821
8	370	653	1,027	1,685	2,630	4,304
9	412	726	1,142	1,874	2,925	4,786
10	453	799	1,257	2,063	3,220	5,269
12	536	945	1,487	2,441	3,810	6,233
14	619	1,092	1,717	2,818	4,400	7,198
16	702	1,238	1,947	3,196	4,989	8,163
18	786	1,384	2,178	3,574	5,579	9,128
20	869	1,531	2,408	3,952	6,169	10,093
22	952	1,677	2,638	4,329	6,758	11,058
24	1,035	1,823	2,868	4,707	7,348	12,022
26	1,118	1,970	3,098	5,085	7,938	12,987
28	1,201	2,116	3,329	5,463	8,527	13,952
30	1,284	2,262	3,559	5,840	9,117	14,917
32	1,367	2,409	3,789	6,218	9,707	15,882
34	1,450	2,555	4,019	6,596	10,297	16,846
36	1,533	2,701	4,249	6,974	-	-
38	1,616	2,848	4,479	7,351	-	-
40	1,699	2,994	4,710	7,729	-	-
42	1,782	3,140	-	-	-	-
44	1,865	3,287	-	-	-	-
46	1,948	3,433	-	-	-	-
48	2,031	3,579	-	-	-	-
50	2,114	3,726	-	-	-	-
52	2,197	3,872	-	-	-	-
54	2,280	4,019	-	-	-	-
58	2,446	4,311	-	-	-	-
62	2,612	4,604	-	-	-	-
65	2,736	-	-	-	-	-
69	2,902	-	-	-	-	-
72	3,026	-	-	-	-	-
76	3,192	-	-	-	-	-
79	3,316	-	-	-	-	-
82	3,441	-	-	-	-	-
Approx. 0.1 bar Increment	4.15	7.32	11.51	18.89	29.48	48.24

Maximum Set Pressure Limits for Steam Service

510 Series - 250 psig/17.3 barg

520 Series - 300 psig/20.7 barg

530 Series - 900 psig/62.1 barg

540 Series - 900 psig/62.1 barg

Note: For steam service beyond 300 psig or 550 °F specify option "HT" high temperature stainless steel alloy spring.

*Pressure settings below 15 psig/1.03 barg are non-ASME code.

SAFETY RELIEF VALVES

500 SERIES

MULTI-PURPOSE SAFETY RELIEF

ASME SECTION VIII - AIR

Standard cubic feet per minute (normalized cubic meters per hour) of air at 10% overpressure. National Board Certified. Ratings are 90% of actual.

US CUSTOMARY UNITS SCFM

ORIFICE LETTER AREA (IN. ²)	D 0.1295	E 0.2282	F 0.3589	G 0.5890	H 0.9195	J 1.5044
SET PRESSURE PSIG						
5*	39	69	108	178	277	454
10*	54	96	151	248	387	633
15	67	118	185	304	474	776
20	77	136	213	350	547	895
25	87	154	242	397	619	1,013
30	97	172	270	443	692	1,132
35	109	191	301	494	772	1,262
40	120	211	332	545	851	1,393
45	131	231	363	596	931	1,523
50	142	251	395	648	1,011	1,654
55	154	271	426	699	1,091	1,784
60	165	290	457	750	1,170	1,915
65	176	310	488	801	1,250	2,045
70	187	330	519	852	1,330	2,176
75	198	350	550	903	1,410	2,306
80	210	370	581	954	1,489	2,437
85	221	389	612	1,005	1,569	2,567
90	232	409	644	1,056	1,649	2,698
95	243	429	675	1,107	1,729	2,828
100	255	449	706	1,158	1,808	2,959
125	311	548	862	1,414	2,207	3,611
150	367	647	1,017	1,669	2,606	4,264
175	423	746	1,173	1,925	3,005	4,916
200	479	845	1,329	2,180	3,404	5,569
225	535	944	1,484	2,436	3,802	6,221
250	592	1,043	1,640	2,691	4,201	6,874
275	648	1,142	1,796	2,947	4,600	7,526
300	704	1,240	1,951	3,202	4,999	8,179
325	760	1,339	2,107	3,458	5,398	8,831
350	816	1,438	2,263	3,713	5,796	9,484
375	872	1,537	2,418	3,969	6,195	10,136
400	928	1,636	2,574	4,224	6,594	10,789
425	985	1,735	2,730	4,480	6,993	11,441
450	1,041	1,834	2,885	4,735	7,392	12,094
475	1,097	1,933	3,041	4,991	7,791	12,746
500	1,153	2,032	3,197	5,246	8,189	13,399
525	1,209	2,131	3,352	5,501	-	-
550	1,265	2,230	3,508	5,757	-	-
575	1,321	2,329	3,664	6,012	-	-
600	1,378	2,428	3,819	6,268	-	-
625	1,434	2,527	-	-	-	-
650	1,490	2,626	-	-	-	-
675	1,546	2,725	-	-	-	-
700	1,602	2,824	-	-	-	-
725	1,658	2,923	-	-	-	-
750	1,715	3,022	-	-	-	-
775	1,771	3,121	-	-	-	-
800	1,827	3,220	-	-	-	-
825	1,883	3,319	-	-	-	-
850	1,939	3,418	-	-	-	-
875	1,995	3,517	-	-	-	-
900	2,051	3,616	-	-	-	-
950	2,163	-	-	-	-	-
1000	2,276	-	-	-	-	-
1050	2,388	-	-	-	-	-
1100	2,501	-	-	-	-	-
1150	2,613	-	-	-	-	-
1200	2,725	-	-	-	-	-
Approx. 1 psi Increment	2.2	4.0	6.2	10.2	16.0	26.1

METRIC UNITS KG/HR.

ORIFICE LETTER AREA (CM ²)	D 0.8352	E 1.4721	F 2.3155	G 3.8001	H 5.9321	J 9.7058
SET PRESSURE BARG						
0.4*	67	119	187	307	479	784
0.8*	94	165	260	427	667	1,091
1.1	110	195	306	503	784	1,283
2	153	270	425	697	1,089	1,781
3	205	362	569	934	1,458	2,386
4	258	454	714	1,172	1,830	2,994
5	310	546	859	1,411	2,202	3,603
6	362	639	1,005	1,649	2,574	4,211
7	415	731	1,150	1,887	2,946	4,819
8	467	823	1,295	2,125	3,317	5,428
9	519	916	1,440	2,363	3,689	6,036
10	572	1,008	1,585	2,601	4,061	6,644
12	676	1,192	1,875	3,078	4,805	7,861
14	781	1,377	2,166	3,554	5,548	9,078
16	886	1,561	2,456	4,031	6,292	10,295
18	991	1,746	2,746	4,507	7,036	11,511
20	1,095	1,931	3,037	4,983	7,779	12,728
22	1,200	2,115	3,327	5,460	8,523	13,945
24	1,305	2,300	3,617	5,936	9,267	15,162
26	1,409	2,484	3,907	6,413	10,010	16,378
28	1,514	2,669	4,198	6,889	10,754	17,595
30	1,619	2,853	4,488	7,365	11,498	18,812
32	1,724	3,038	4,778	7,842	12,241	20,029
34	1,828	3,222	5,069	8,318	12,985	21,245
36	1,933	3,407	5,359	8,795	-	-
38	2,038	3,591	5,649	9,271	-	-
40	2,142	3,776	5,939	9,747	-	-
42	2,247	3,961	-	-	-	-
44	2,352	4,145	-	-	-	-
46	2,457	4,330	-	-	-	-
48	2,561	4,514	-	-	-	-
50	2,666	4,699	-	-	-	-
52	2,771	4,883	-	-	-	-
54	2,875	5,068	-	-	-	-
58	3,085	5,437	-	-	-	-
62	3,294	5,806	-	-	-	-
65	3,450	-	-	-	-	-
69	3,659	-	-	-	-	-
72	3,815	-	-	-	-	-
76	4,020	-	-	-	-	-
79	4,177	-	-	-	-	-
82	4,381	-	-	-	-	-
Approx. 0.1 bar Increment	5.24	9.23	14.51	23.82	37.18	60.84

Maximum Set Pressure Limits for Air/Gas Service
 510 Series - 300 psig/20.7 barg
 520 Series - 1200 psig/82.7 barg
 530 Series - 1200 psig/82.7 barg
 540 Series - 1200 psig/82.7 barg

SAFETY RELIEF VALVES

500 SERIES

MULTI-PURPOSE SAFETY RELIEF

ASME SECTION VIII - WATER

• U.S. gallons per minute (cubic meters per hour) of water at 10% over pressure. National Board Certified. Ratings are 90% of actual.

US CUSTOMARY UNITS GPM

ORIFICE LETTER AREA (IN. ²)	D 0.1295	E 0.2282	F 0.3589	G 0.5890	H 0.9195	J 1.5044
SET PRESSURE PSIG						
5*	13	24	37	61	95	156
10*	14	24	38	63	98	161
15	14	25	40	65	102	167
20	16	29	45	74	115	189
25	18	32	50	82	127	208
30	19	34	54	89	138	226
35	21	37	58	96	149	244
40	22	40	62	102	160	261
45	24	42	66	108	169	277
50	25	44	70	114	178	292
55	26	46	73	120	187	306
60	28	48	76	125	195	320
65	29	50	79	130	203	333
70	30	52	82	135	211	345
75	31	54	85	140	218	357
80	32	56	88	145	226	369
85	33	58	91	149	233	381
90	34	59	93	153	239	392
95	35	61	96	158	246	402
100	36	63	98	162	252	413
125	40	70	110	181	282	462
150	44	77	121	198	309	506
175	47	83	130	214	334	546
200	50	89	139	229	357	584
225	53	94	148	242	378	619
250	56	99	156	256	399	653
275	59	104	163	268	418	685
300	62	108	171	280	437	715
325	64	113	178	291	455	744
350	66	117	184	302	472	772
375	69	121	191	313	489	799
400	71	125	197	323	505	826
425	73	129	203	333	520	851
450	75	133	209	343	535	876
475	77	136	215	352	550	900
500	79	140	220	361	564	923
525	81	143	226	370	-	-
550	83	147	231	379	-	-
575	85	150	236	388	-	-
600	87	153	241	396	-	-
625	89	157	-	-	-	-
650	91	160	-	-	-	-
675	92	163	-	-	-	-
700	94	166	-	-	-	-
725	96	169	-	-	-	-
750	97	171	-	-	-	-
775	99	174	-	-	-	-
800	100	177	-	-	-	-
825	102	180	-	-	-	-
850	104	183	-	-	-	-
875	105	185	-	-	-	-
900	107	188	-	-	-	-
950	109	-	-	-	-	-
1000	112	-	-	-	-	-

METRIC UNITS M3/HR.

ORIFICE LETTER AREA (CM ²)	D 0.8352	E 1.4721	F 2.3155	G 3.8001	H 5.9321	J 9.7058
SET PRESSURE BARG						
0.4*	2.0	3.6	5.6	9.2	14.4	23.6
0.8*	2.9	5.1	8.0	13.1	20.4	33.3
1.1	3.3	5.9	9.3	15.2	23.8	38.9
2	4.4	7.7	12.1	19.8	30.9	50.6
3	5.3	9.4	14.8	24.2	37.8	61.8
4	6.1	10.8	17.0	28.0	43.6	71.4
5	6.9	12.1	19.0	31.3	48.8	79.8
6	7.5	13.3	20.9	34.2	53.4	87.4
7	8.1	14.3	22.5	37.0	57.7	94.5
8	8.7	15.3	24.1	39.5	61.7	101.0
9	9.2	16.2	25.6	41.9	65.5	107.1
10	9.7	17.1	26.9	44.2	69.0	112.9
12	10.6	18.8	29.5	48.4	75.6	123.7
14	11.5	20.3	31.9	52.3	81.6	133.6
16	12.3	21.7	34.1	55.9	87.3	142.8
18	13.0	23.0	36.1	59.3	92.6	151.5
20	13.7	24.2	38.1	62.5	97.6	159.7
22	14.4	25.4	39.9	65.6	102.3	167.5
24	15.1	26.5	41.7	68.5	106.9	174.9
26	15.7	27.6	43.4	71.3	111.3	182.0
28	16.3	28.7	45.1	74.0	115.5	188.9
30	16.8	29.7	46.7	76.6	119.5	195.5
32	17.4	30.6	48.2	79.1	123.4	202.0
34	17.9	31.6	49.7	81.5	127.2	208.2
36	18.4	32.5	51.1	83.9	-	-
38	18.9	33.4	52.5	86.2	-	-
40	19.4	34.2	53.9	88.4	-	-
42	19.9	35.1	-	-	-	-
44	20.4	35.9	-	-	-	-
46	20.8	36.7	-	-	-	-
48	21.3	37.5	-	-	-	-
50	21.7	38.3	-	-	-	-
52	22.2	39.0	-	-	-	-
54	22.6	39.8	-	-	-	-
58	23.4	41.2	-	-	-	-
62	24.2	42.6	-	-	-	-
65	24.8	-	-	-	-	-
69	25.6	-	-	-	-	-

Maximum Set Pressure Limits for Liquid Service

510 Series - 300 psig/20.7 barg

520 Series - 1000 psig/68.9 barg

530 Series - 1000 psig/68.9 barg

540 Series - 1000 psig/68.9 barg

Note:

To determine water capacity at 25% overpressure, multiply the capacity at 10% by 1.066.

*Pressure settings below 15 psig/1.03 barg are non-ASME code.

SAFETY RELIEF VALVES