

spirax sarco

SV5601 & 5708 Series Bronze Safety Valves ASME Section I & VIII - NB Certified for Air, Gas and Steam

Description

Spirax Sarco Bronze 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.

Sizes from 1/2" to 2-1/2"; NB rated to 250#; Temperatures to 406°F.

Usages

SV5601 Series is used for ASME Section I applications to pressure ratings of 250 psig. V and NB stamped for fired vessels. Boilers, or most areas where steam safety valves are required.

SV5708 Series is used for ASME Section VIII applications to pressure ratings of 250 psig. UV and NB stamped for unfired vessel protection. Used for many applications to protect or relieve pressure for Air, Gas and Steam.

Features

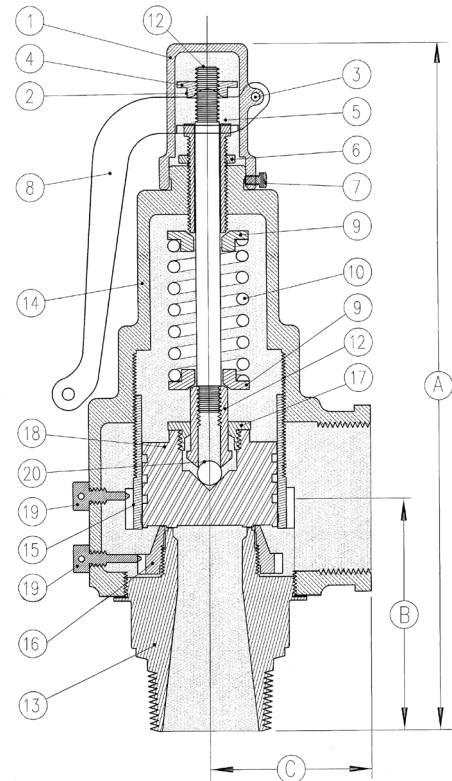
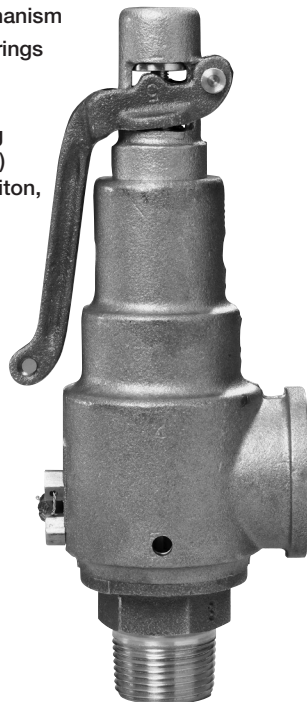
- Designed for durability
- 6 orifices – 12 sizes of piping options
- Top guided seating and discharge
- Full nozzle; high capacity levels
- Excellent re-seating characteristics with pivoting ball-post design
- Short, tuned blow-down and can be adjusted with double ring to meet specific requirements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

Options

- Stainless steel whetted trimming package (seat, disk and interiors)
- O-ring seating. (Teflon, EDPM, Viton, or as specified)
- Bubble tight seating options
- Anti vibrating spring for lift lever
- Packed lift lever
- BPT pipe threading

Ordering

Specify Section I or VIII valves, set pressure psig, capacity requirements when ordering. See opposite page for details.



Parts Identification and Materials

Item	Part Name	Material	ASTM
1	Hood	Cast Brass	
2	Cotter Pin		
3	Lift Lever Pin	Brass	
4	Lifter Nut	Brass	B-16
5	Pressure Screw	Brass	B-16
6	Lock Nut	Brass	B-16
7	Hood Screw	Brass	
8	Lift Lever	Cast Brass	
9	Spring Plate	Brass	B-16
10	Spring	Stainless Steel	
11	Nameplate	Aluminum	
12	Spring Post	Brass	B-16
13	Body	Brass/Cast Brass	B-16/B-61,62
14	Bonnet	Cast Brass	B-61,62
15	Upper Ring	Cast Brass	
16	Lower Ring	Cast Brass	
17	Disc Nut	Brass	B-16
18	Disc	Brass	B-16
19	Regulator Screw	Brass	B-16
20	Ball Bearing	Stainless Steel	

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Sample Specification

3/4" x E x 1" Spirax Sarco Bronze Series Safety Valve shall be fitted with enclosed spring and external lifting lever. Furnish with manufacturer's standard connections and valve body of cast brass with bronze internals. When ordering Safety Valves for use on power boilers, specify (V) code stamp as required by ASME Code Section I.

Installation

Valve should be installed in vertical upright position as close as possible to the connection provided with no unnecessary intervening pipe or fitting. Under no circumstances should there be a shut off valve or restriction of any kind between the safety valve and the connection provided. For full details on proper installation, please refer to the installation, operating and maintenance instructions, IM-3-215-US.

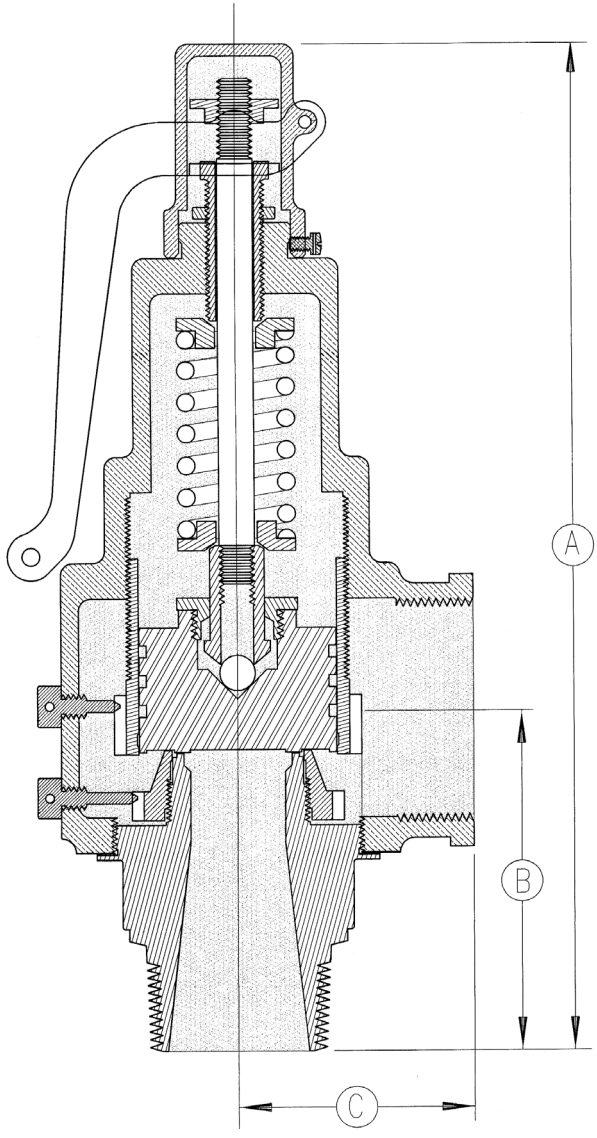
Maintenance

This product is factory sealed for tamper-proof operation, and no repair parts are available. Test the safety valve every 6 months (depending on plant age and condition), preferably by raising the system pressure to the safety valve's set pressure or operating the hand lever. For full details on proper maintenance, please refer to the installation, operating and maintenance instructions, IM-3-215-US.

ORIFICE I.D.	ORIFICE SIZE	INLET (in)	OUTLET (in)	SIZE I.D.	DIMENSIONS			WEIGHT (lbs)
					A	B	C	
D	0.125	1/2"	3/4"	C	7.312"	2.468"	1.5"	1.9
D	0.125	3/4"	3/4"	D	7.312"	2.468"	1.5"	2.2
E	0.221	3/4"	1"	D	7.625"	2.5"	1.625"	2.8
E	0.221	1"	1"	E	7.625"	2.5"	1.625"	3.0
F	0.352	1"	1-1/4"	E	8.625"	2.75"	1.75"	4.0
F	0.352	1-1/4"	1-1/4"	F	8.625"	2.75"	1.75"	4.2
G	0.567	1-1/4"	1-1/2"	F	9.25"	3.218"	2.25"	6.7
G	0.567	1-1/2"	1-1/2"	G	9.25"	3.218"	2.25"	6.9
H	0.899	1-1/2"	2"	G	10.875"	3.625"	2.5"	11.4
H	0.899	2"	2"	H	10.875"	3.625"	2.5"	11.6
J	1.463	2"	2-1/2"	H	12.062"	3.937"	3.125"	15.6
J	1.463	2-1/2"	2-1/2"	J	12.062"	3.937"	3.125"	16.3

Nameplate Identification

NO =	Model Identification
G =	Orifice
H =	Piping Size
SIZE =	M x F Piping Size
SET =	Set Pressure (psig)
CAP =	SCFM Air/Gas
AQC =	Internal Tracking (QA)
DATE =	Month/Year
V =	Fired Vessel (Sec. I)
UV =	Unfired Vessel (Sec. VIII)
NB =	National Board Certified



SV5601 & 5708 Series Bronze Safety Valves

ASME Section I & VIII - NB Certified for Air, Gas and Steam

Capacities - Steam - ASME Section I - Series 5601

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

SET PRESSURE PSIG	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	213	377	601	967	1534	2496
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	506	895	1426	2297	3642	5927
80	535	946	1507	2427	3848	6262
85	563	996	1586	2555	4050	6591
90	592	1046	1667	2685	4256	6927
95	620	1096	1746	2812	4459	7256
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

*NOTE: Set pressures below 15 psi are not ASME coded and are not certified.

SV5601 & 5708 Series Bronze Safety Valves

ASME Section I & VIII - NB Certified for Air, Gas and Steam

Capacities - Steam - ASME Section VIII - Series SV 5708

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

SET PRESSURE PSIG	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

***NOTE: Set pressures below 15 psi are not ASME coded and are not certified.**

SV5601 & 5708 Series Bronze Safety Valves

ASME Section I & VIII - NB Certified for Air, Gas and Steam

Capacities - Air/Gas - ASME Section VIII - Series 5708

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

SET PRESSURE PSIG	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

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