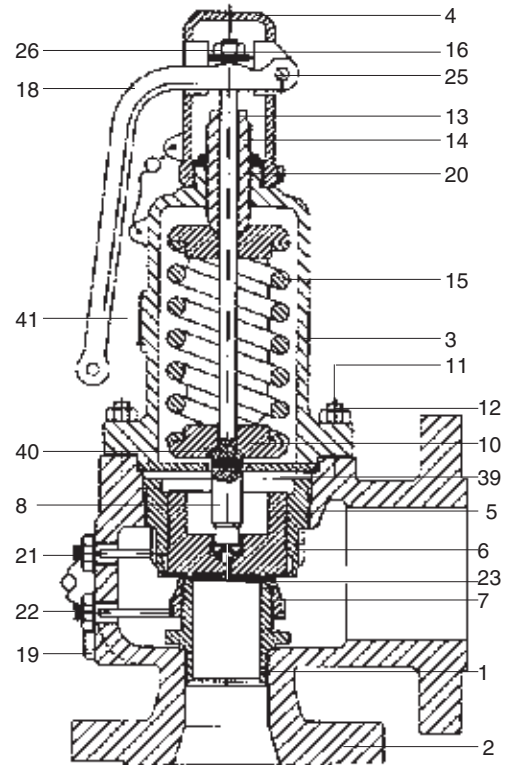


# spirax/sarco

## Safety Valves SV73 Series

The **SV73** Series valves are built in conformance to Section I and VIII of the ASME boiler and pressure vessel code. They are primarily intended for use on power boilers and unfired pressure vessels where ASME Section I or VIII stamped valves are required. The orifice areas listed are actual orifice areas and should not be confused with the API effective orifice areas shown in most safety valve catalogs.

Model	SV73	
<b>Sizes</b>	1-1/2" x 2-1/2" to 3" x 4"	3" x 4" to 6" x 8"
<b>Connections</b>	Inlet - Female NPT or ANSI 250 Fig. Outlet - Female - NPT	Inlet - ANSI 250 Fig. Outlet - ANSI 125 Fig.
<b>Construction</b>	Cast Iron body with Stainless Steel Trim	
<b>Options</b>	Drip pan elbow See TI-3-2141-US	



### Limiting Operating Conditions (Steam)

Max. Operating Pressure (PMO) 250 psig (17 barg)

Max. Operating Temperature 406°F (208°C)

See TI-3-2121-US for sizing data.

### Construction Materials

No.	Part	Material
1	Seat	ASTM A351 Grade CF8
2	Body	ASTM A126 Class B
3	Bonnet (open)	ASTM A126 Class B
4	Cap	Grey Iron
5	Disc	ASTM A217 CA15
6	Upper Adjusting Ring	ASTM A351 Grade CF8
7	Lower Adjusting Ring	ASTM A351 Grade CF8
8	Spindle	ASTM A479 Type 410
10	Spring Washers	ASTM A105
11	Bonnet Stud	ASTM A193 Grade B7
12	Bonnet Nut	ASTM A194 Grade 2H
13	Adjusting Screw	ASTM A479 Type 410
14	Adjusting Screw Nut	Carbon Steel
15	Spring	Aluminized Carbon Steel
16	Release Ring	Carbon Steel
18	Lever	Grey Iron
19	Protective Plug	Carbon Steel
20	Cap Set Screw	Carbon Steel
21	Upper Adjusting Ring	Stainless Steel
22	Lower Adjusting Ring	Stainless Steel
23	Disc Ball	Stainless Steel
24	Pin Washer	Carbon Steel
25	Lever Pin	Carbon Steel
26	Lock Nut	Carbon Steel
39	Plate	Carbon Steel
40	Spindle Pin	Carbon Steel
41	Name Plate	Stainless Steel

### Typical Applications

Protection of steam system downstream of pressure regulating stations, on inlet to such equipment as air coils, heat exchangers and process vessels. Also for use on flash recovery vessels on condensate return systems to protect vessels. Air systems to protect accumulation vessels and air equipment from over-pressurization. Steam boilers and generators.

### Installation

Safety valves must be installed in a vertical upright position and drained via connection 19.

Avoid having the operating pressure too near the safety valve set pressure. A very minimum differential of 5 psig or 10% (whichever is greater) is recommended. An even greater differential is desirable, when possible, to assure better seat tightness and valve longevity.

Avoid discharge piping where its weight is carried by the safety valve. Even though supported separately, changes in temperature alone can cause piping strain. We recommend that drip pan elbows or flexible connections be used where possible.

For full details on proper installation, please refer to the installation, operating and maintenance instructions, IM-S13-33.

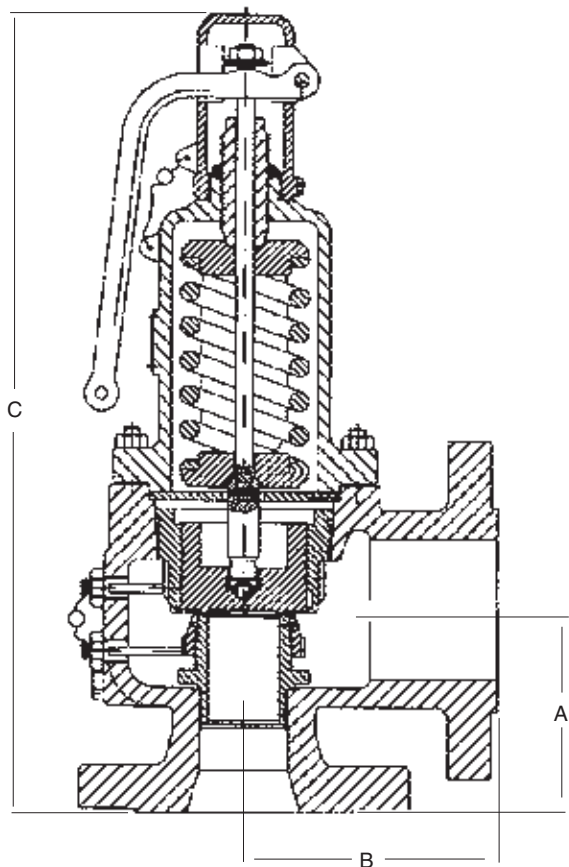
### Maintenance

Develop a regular program of visual inspection. Inspection should include checking for clogged drains, discharge pipe, and dirt build-up around the valve seat.

Test the safety valve every 6 months (depending on plant's age and condition) either by raising the system pressure to the valve's set pressure or operating the hand lever.

When safety valves require repair, service adjustments or set pressure changes, work shall be accomplished by the manufacturer, or holders of "VR" stamps.

# Safety Valves SV73 Series



Dimensions (nominal) in inches and millimeters							
Inlet	Outlet	Size	Orifice	A	B	D	Weight
				(mm)	(mm)	(mm)	(kg)
1-1/2" (NPT)	2-1/2" (NPT)	J	4-1/4"	108	89	15-3/4"	28 lb 15
2" (NPT)	3" (NPT)	K	4-5/8"	117.5	102	17-1/4"	42 lb 19
2-1/2" (NPT)	4" (NPT)	L	5-1/2"	140	124	18-1/2"	65 lb 29.5
3" (NPT)	4" (NPT)	M	5-5/8"	143	130	24-1/4"	75 lb 34
1-1/2" (ANSI 250)	2-1/2" (NPT)	J	4-1/4"	108	89	15-3/4"	37.5 lb 17
2" (ANSI 250)	2-1/2" (NPT)	J	4-1/4"	108	89	15-3/4"	38.5 lb 17.5
2" (ANSI 250)	3" (NPT)	K	4-5/8"	117.5	102	17-1/4"	47.5 lb 21.5
2-1/2" (ANSI 250)	3" (NPT)	K	4-5/8"	117.5	102	17-1/4"	48.5 lb 22
2-1/2" (ANSI 250)	4" (NPT)	L	5-1/2"	140	124	19-1/2"	74 lb 33.5
3" (ANSI 250)	4" (NPT)	L	5-1/2"	140	124	19-1/2"	75 lb 34
3" (ANSI 250)	4" (NPT)	M	5-3/8"	143	130	24-1/4"	84 lb 38
3" (ANSI 250)	4" (ANSI 125)	L	5-1/2"	140	140	19-1/2"	81.5 lb 37
3" 3" (ANSI 250)	4" (ANSI 125)	M	5-3/8"	143	140	24-1/4"	91.5 lb 41.5
4" (ANSI 250)	6" (ANSI 125)	N	6-3/4"	171.5	184	26-1/8"	137 lb 62
4" (ANSI 250)	6" (ANSI 125)	P	6-3/4"	171.5	184	28-1/2"	167.5 lb 76
6" (ANSI 250)	8" (ANSI 125)	Q	9-1/4"	235	235	34-1/2"	331 lb 150
6" (ANSI 250)	8" (ANSI 125)	R	10-7/8"	276	254	43-7/8"	381.5 lb 173

## SV7 Safety Valve Nomenclature

7 3 A J 15 to 250

**\*Set Pressure**

Must specify set pressure anywhere from 15 psig to 250 psig

**Designation & Orifice Letter**

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| J - 1.347 Orifice Area in Sq. In. | N - 4.643 Orifice Area in Sq. In.  |
| K - 1.967 Orifice Area in Sq. In. | P - 6.83 Orifice Area in Sq. In.   |
| L - 3.055 Orifice Area in Sq. In. | Q - 11.811 Orifice Area in Sq. In. |
| M - 3.845 Orifice Area in Sq. In. | R - 17.123 Orifice Area in Sq. In. |

**Size**

- |                                  |                               |
|----------------------------------|-------------------------------|
| A - 1-1/2" NPT x 2-1/2" NPT      | H - 2-1/2" ANSI 250 x 3" NPT  |
| B - 2" NPT x 3" NPT              | I - 2-1/2" ANSI 250 x 4" NPT  |
| C - 2-1/2" NPT x 4" NPT          | J - 3" ANSI 250 x 4" NPT      |
| D - 3" NPT x 4" NPT              | L - 3" ANSI 250 x 4" ANSI 125 |
| E - 1-1/2" ANSI 250 x 2-1/2" NPT | N - 4" ANSI 250 x 6" ANSI 125 |
| F - 2" ANSI 250 x 2-1/2" NPT     | Q - 6" ANSI 250 x 8" ANSI 125 |
| G - 2" ANSI 250 x 3" NPT         |                               |

**Construction**

3 - Cast Iron

**Series Number**

Always 7 Series

## How to Specify

To simplify selection and specifying of Spirax Sarco safety valves, use the following type numbering system. The type numbering system is ideal as the digit which comprises a specific type number has a distinct significance. The digits describe the basic valve series, materials of construction, connection type, boiler code conformance, inlet and outlet connections, orifice size and set pressure.

## How to Order

To properly process your order and avoid delay, please specify the following:

1. Quantity
2. Inlet and Outlet Size
3. Spirax Sarco Type Number
4. Inlet Connection Type
5. Set Pressure
6. Allowable Overpressure
7. Required Capacity
8. Code Requirements, if any.

\*All valves are set to ASME Code Section VIII unless otherwise specified.