spirax sarco

TI-D340-02
EN Rev. 04

SV561H
Safety Valve

Description
SV561H is a full nozzle, high capacity Safety Valve, designed with flat seat and metal / metal seal. Its modern design with two adjustment rings, allows the precise adjustment of the differential pressure (blowdown). It is suitable for boiler applications.

Available Types
SV561H valves are available wih NPT threaded connections according to ASME B1.20.1 Standard and test lever.

Construction Standard
The SV561H Safety Valves are designed and manufactured according ASME Code Section I requirements. The building materials comply with ASME Code Section I PG 73.3, and seat tightness complies with requirements of PG-73.5.3 of this code.

Certifications
A typical Test Report is provided as standard for each valve which will include material certification, valve set and hydraulic test pressure in accordance with EN 10204 2.2.

Materials
See pages 2 for details.

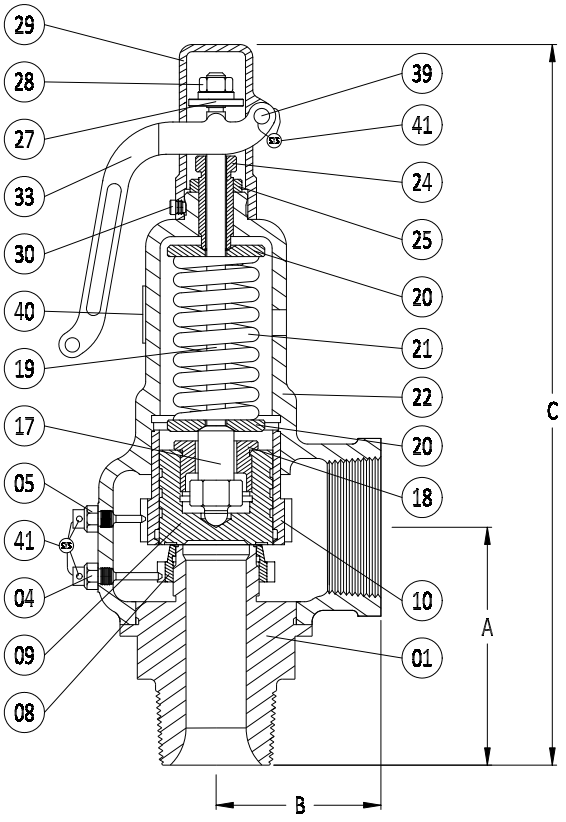
Dimensions & Weight
See pages 2 for details.

Capacity Table
See pages 2 for details.

Limiting Conditions

Set Pressure	Maximum	20,7 bar g
	Minimium	1,0 bar g
Temperature	Maximum	232ºC
	Minimum	120ºC
Maximum backpressure		2,1 bar g

How to order
For the correct sizing and selection of the SV561H, the following information is necessary:
1) Required capacity (flow):
2) Operation pressure and Set pressure
Spirax Sarco has a computer sizing program (PSV Calc) which performs sizing and selection functions. Additionally, it will select materials, configure the complete valve and provide a data sheet.



Standard Materials

Nº	Part		Materials
01	Body (Base)		316 Stainless Steel
08	Lower Adjusting Ring		316 Stainless Steel
04	Lower Lock Screw		Brass
05	Upper Lock Screw		Brass
09	Disc		316 Stainless Steel
10	Upper Adjusting Ring		316 Stainless Steel
17	Lower Stem (Orifices F /G/ H e J)		Brass
18	Stem Retainer		Brass
19	Stem		Brass
20	Spring Washer		Brass
21	Spring	120 a 201 °C	Carbon Steel
21	Spring	202 a 232 °C	302 Stainless Steel
22	Bonnet		SA-395 Gr. 60-40-18
24	Compression Screw		Brass
25	Compression Screw Nut		Carbon Steel
27	Lifting Washer		Brass
28	Lifting Washer Nut		Carbon Steel
29	Cap		Carbon Steel
30	Cap Screw		Carbon Steel
33	Lever		Carbon Steel
39	Lever Pin		Brass
40	Name Plate		316 Stainless Steel
41	Seal Wire		Lead

Steam Capacity - 3% Overpressure - kg/h

Set Pressure (barg)	Orifice / Flow Area (cm²)					
	D	E	F	G	H	J
	0,817	1,453	2,405	3,464	5,433	8,867
1,0	79	141	234	337	529	863
1,5	98	174	288	415	651	1.063
2,0	116	207	343	493	774	1.263
2,5	135	240	397	572	897	1.464
3,0	153	273	451	650	1.019	1.664
3,5	172	305	506	728	1.142	1.864
4,0	190	338	560	807	1.265	2.065
4,5	209	371	614	885	1.388	2.265
5,0	228	405	670	965	1.513	2.469
5,5	247	438	726	1.045	1.639	2.675
6,0	266	472	782	1.126	1.766	2.882
6,5	285	506	838	1.206	1.892	3.088
7,0	304	540	894	1.287	2.019	3.294
7,5	323	574	950	1.368	2.145	3.501
8,0	342	607	1.005	1.448	2.271	3.707
8,5	361	641	1.061	1.529	2.398	3.913
9,0	380	675	1.117	1.609	2.524	4.120
9,5	399	709	1.173	1.690	2.651	4.326
10	418	743	1.229	1.771	2.777	4.532
12	494	878	1.453	2.093	3.283	5.358
14	570	1.013	1.677	2.416	3.789	6.183
16	646	1.148	1.901	2.738	4.294	7.008
18	722	1.284	2.125	3.060	4.800	7.834
20	798	1.419	2.349	3.383	5.306	8.659
20,7	824	1.466	2.427	3.496	5.483	8.948

For sizing purpose using the ASME actual areas, the certified coefficient of discharge Kd for air, gas and steam is 0.859.

lb/h = kg/h x 2,2046

Dimensions and Weights approximate in mm and kg

NPTM x NPTF threaded connections

Connections		Orifice	Effective Area cm ²	Dimensions			Weight
Inlet	Outlet			A	B	C	
½"	¾"	D	0,817	56,0	37,0	175,3	0,9
¾"	1"	E	1,453	63,4	40,0	199,5	1,2
1"	1.¼"	F	2,405	70,0	49,0	227,8	1,9
1.¼"	1.½"	G	3,464	83,0	57,5	252,5	3,4
1.½"	2"	H	5,433	85,0	67,0	289,5	4,5
2"	2.½"	J	8,867	100,4	86,0	327,0	7,6