



Cert. No. LRQ 0963008

ISO 9001

SV405 Safety Valve

Description

The SV405 is a full nozzle safety valve for steam and air service in non-critical industrial processes requiring low flow, low pressure and temperature.

Available types

The SV405 is available with a brass body, stainless steel nozzle and Viton 'O' ring seat seal as standard.

Applications

The SV405 is designed to protect against overpressure in general process applications such as sterilisers, small compressors and pressure vessels.

Standards and approvals

Seat tightness complies with API standard 527.

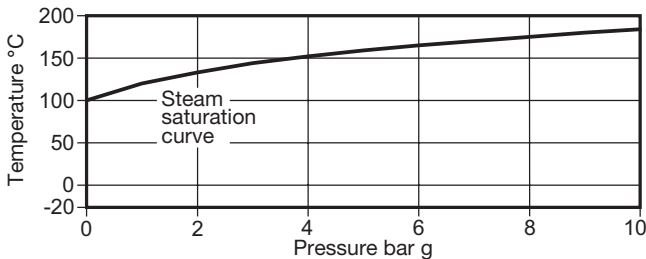
This product fully complies with the requirements of the European Pressure Equipment Directive 97/23/EC and carries the CE mark.

Sizes and pipe connections

Inlet Screwed 1/2" or 3/4" BSP taper male BS 21 R

Outlet Screwed 3/4" BSP parallel female BS 21 Rp

Pressure / temperature limits



Set pressure range	Maximum	10 bar g	
	Minimum	1 bar g	
Backpressure	Maximum	10% of set pressure	
Temperature	Viton seat	Minimum	-20°C
		Maximum	+200°C
Performance data	Overpressure	Steam	10%
		Gas	10%
	Blowdown limits	Steam, gas	10%
		Derated coefficient of discharge values	Steam, gas

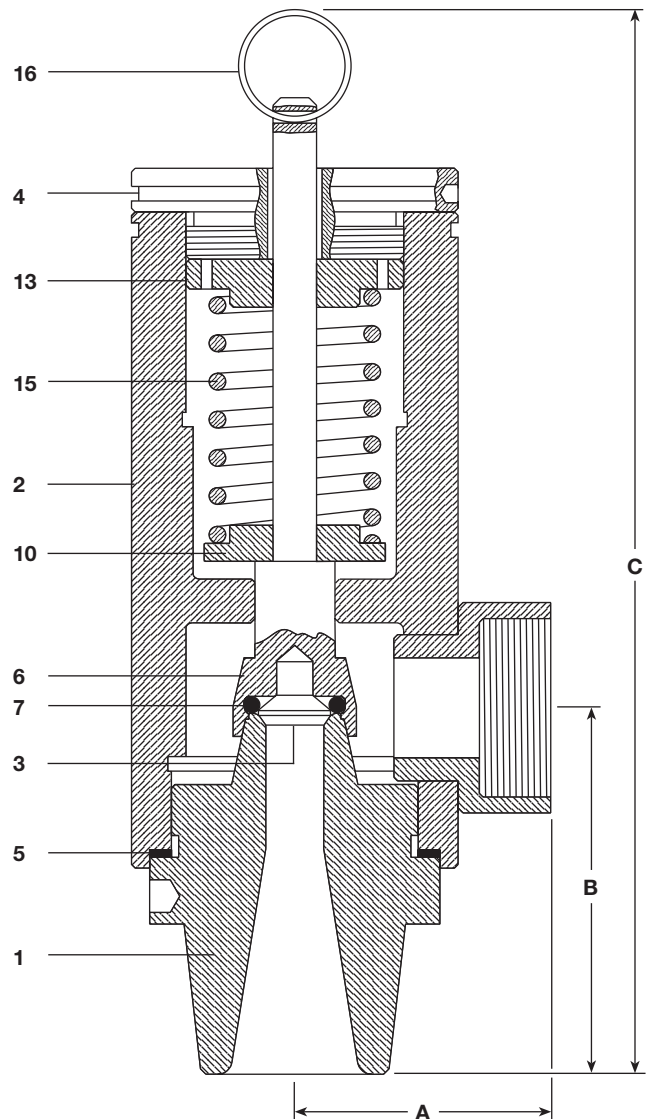
Designed for a maximum cold hydraulic test pressure of 20 bar g

Dimensions, orifice, lift and weight (approximate) in mm and kg

A	B	C	Orifice	Lift	Weight
37	49	124	8	3	1.01

Materials

No.	Part	Material	
1	Nozzle	Stainless steel	X5 CrNi 18.10
2	Body	Brass	EN 121640 CW614N
3	Screw	Steel	A2
4	Cap	Brass	EN 121640 CW614N
5	Gasket	PTFE	
6	Disc holder	Stainless steel	X20 CrNi 17
7	'O' ring	Viton	FPM 75
10	Spring plate	Brass	EN 121640 CW614N
13	Adjusting screw	Brass	EN 121640 CW614N
15	Spring	Si-Cr	EN 10270-2 FD Si Cr
16	Pull ring	Spring steel	



Sizing

For the majority of applications, the valve capacity can be selected from the flow capacity table below, alternatively it can be calculated in accordance with ASME VIII UG -131/API RP 520.
Kd = 0.78. Flow area = 0.50 cm².

Flow capacity (in accordance with EN ISO 4126)

Saturated steam and air with 10% overpressure

Set pressure bar g	Dry saturated steam kg/h	Air (0°C @ 1013 mbar) Nm ³ /h
1.0	42	61
1.5	53	75
2.0	63	88
2.5	74	103
3.0	84	119
3.5	95	134
4.0	105	149
4.5	115	164
5.0	126	179
5.5	136	194
6.0	146	209
6.5	156	224
7.0	167	239
7.5	177	255
8.0	187	270
8.5	197	285
9.0	208	300
9.5	218	315
10.0	228	330

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P257-02) supplied with the product.

Installation note:

The SV405 should always be installed with the centre line of the spring housing vertically above the valve.

How to order

Example: 1 off Spirax Sarco SV405 safety valve having ¾" BSP inlet x ¾" BSP outlet connections, with a set pressure of 5 bar.