

Safety valves

for use with steam, gas and liquids



spirax
/sarco

Safety valves for steam, gases and liquids

If a fluid system is subjected to pressure in excess of the design pressure, the following could occur:

- Mechanical damage to equipment and surroundings.
- Loss of product and production.
- Damage to the environment.
- Injury and loss of life.

Examples of circumstances which can result in overpressure on process applications include an inadvertently closed or opened valve, component malfunction, a failure in a cooling system, an abnormal process heat input, a power cut or a fire.

Modern organisations are compelled by local health and safety regulations to ensure that their plant and processes incorporate safety devices and precautions which ensure that dangerous conditions are prevented.

A safety valve is required wherever a hazardous overpressure situation could occur.

Spirax Sarco safety valves protect against excess pressure across a broad spectrum of industrial processes.

Systems requiring overpressure protection range in size and complexity from large scale chemical plants to commercial service distribution systems.



Protecting people

A company's most valued asset is secure in the knowledge that their safety has been put first.

Protecting plant

Safeguard plant against major damage from excess pressure and ensure continued efficient production.

Protecting profit

Major shutdowns interfere with production and lose customers.
A continuous supply of products protects a company's image and profits.

Safety valve range

Steam and utilities service	Clean service	Process and high pressure service
SV405	SVL488	SV80
SV604	SVL606	SV81
SV607		
SV615		
SV73		
SV74		



API 527 shut-off tightness.

Suitable for saturated, clean or superheated steam, air and inert gases.

Safety valves up to DN300 and 400 bar set pressure with a wide range of materials, connections and options.

DIN and ASME ranges

Ex-stock and short deliveries (around the world).

In-house design and manufacture, assessed capability to BS EN ISO 9001 and independently approved design and performance.



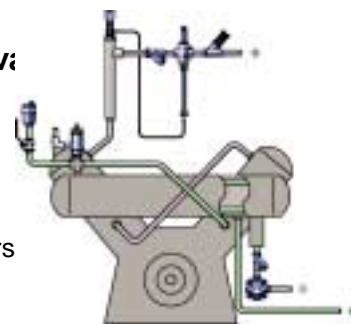
User benefits

- A safe working environment, continued efficient production, profit protection.
- Suitable for pressure relief applications around the world.
- Broad spectrum of fluids catered for.
- Comprehensive solution suitable for applications throughout your plant.
- Guaranteed quality and reliability.
- Proven reliability minimising downtime and maintenance cost.
- Safety valves whenever and wherever you need them.
- Spirax Sarco's guarantee of worldwide knowledge, service and technical support.



SV405 compact full-lift, full-nozzle DIN safety valve

Size: DN20
Set pressure range: 1.0 to 10.0 bar
Body material: Brass
Approvals: Germanischer Lloyds
Applications: OEM, small autoclaves or compressors



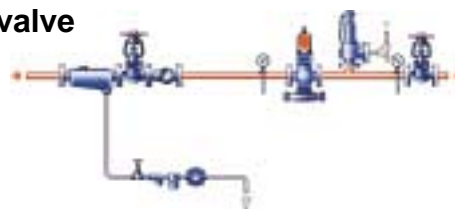
SV604 and SV607 full-lift flanged safety valve

Sizes: DN20 to DN150
Set pressure range: 0.5 to 40 bar
Body material: SV604: Cast steel
 SV607: SG iron
Standards: AD Merkblatt A2, TRD 421 and TRD 721
Approvals: TÜV
Applications: Protection of steam boilers, pipelines, pressure vessels, compressors and receivers; general industrial service applications.



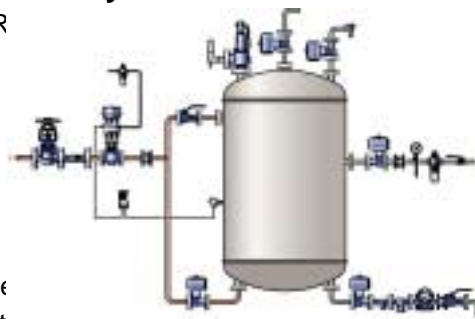
SV615 full-lift, full-nozzle DIN safety valve

Sizes: DN15 to DN50
Set pressure range: 0.3 to 18 bar
Body material: Bronze
Standards: BS 6759 parts 1,2,3
Approvals: SAFed
Applications: Protection of fired and unfired pressure vessels including steam generators, pipelines, compressors, receivers; downstream of pressure reducing valves; general industrial service applications.



SV73 and SV74 semi-nozzle ASME safety valve

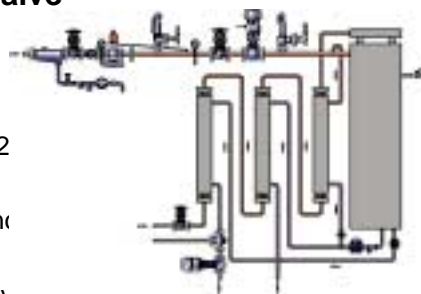
Sizes: 1½ to 6", orifice sizes J to R
Set pressure range: 5 to 300 psi
Body material: SV73: Cast iron
 SV74: Cast steel
Standards: ASME I, ASME VIII and API 526 (SV74)
Approvals: National Board
Applications: Protection of fired and unfired vessels, steam systems, heat exchangers, condensate return systems, boilers, generators, downstream of pressure reducing valves, air systems.





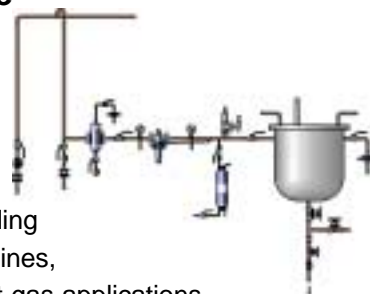
SVL488 full-lift clean service safety valve

- Sizes:** DN25 to DN100
Set pressure range: 0.5 to 14.6 bar
Body material: Stainless steel
Standards: AD Merkblatt A2 and TRD 42
Approvals: TÜV
Applications: Clean service applications in protection of steam boilers, pipelines, pressure vessels; vapour or inert gas applications, compressors and receivers in the food, beverage, pharmaceutical and chemical industries, where FDA compliance is required.



SVL606 full-lift clean service safety valve

- Sizes:** DN25 to DN150
Set pressure range: 0.5 – 36 bar
Body material: Stainless steel
Standards: AD Merkblatt A2 and TRD 421
Approvals: TÜV
Applications: Clean service applications including protection of steam boilers, pipelines, pressure vessels; vapour or inert gas applications, compressors and receivers, in the food, pharmaceutical and chemical industry.



SV80 full-nozzle ASME process safety valve

- Sizes:** ½" to 12", orifice sizes D to W
Set pressure range: 5 to 6 000 psi
Body material: Low temperature LCB cast carbon steel, WCB carbon steel, chrome molybdenum alloy steel, cast stainless steel CF8M or CF8
Standards: ASME VIII and API 526
Approvals: National Board
Applications: Protection of pipes and pressure vessels, cryogenic and corrosive media, sour gases, oxygen; high pressures, temperatures and capacities, variable backpressures; in the food, process, OPC, pharmaceutical and chemical industries.



SV81 full-nozzle ASME process safety valve

- Sizes:** ½" to 1"
Set pressure range: 5 to 3 000 psi
Body material: Cast carbon steel, stainless steel or alloy steel
Standards: ASME VIII
Approvals: National Board
Applications: Thermal relief and protection of pipelines, pressure vessels, intercoolers, aftercoolers, hydraulic lines and systems, compressors, refrigeration; corrosive, gaseous, cryogenic, oxygen, sour gas and liquid duty, in the food, pharmaceutical, chemical and general process industry.



Options and ancillaries

Options

- Sizes DN20 - DN200 flanged PN or ANSI.
- Gas-tight cap
- Soft seat
- Open bonnet
- Sealed levers
- Elastomer or stainless steel bellows
- Test gag
- Stellite facing
- Special spring materials

Ancillaries

- Changeover valve for applications where a stand-by safety valve can be switched in and out without interrupting the process.

Note: Not all options are available with all valve types. Please consult your local Spirax Sarco representative.



Spirax Sarco test and development facilities

Our in-house dynamic test facility uses the latest in rapid data capture software to record and assess the performance characteristics of each valve under development. Performance testing is possible on steam, air and water with a maximum pressure capability of 45 bar.



Machining, assembly, setting and despatch

Spirax Sarco products are all manufactured in an ISO 9001 conforming environment. Most valves are designed and developed in-house and benefit from the significant investment Spirax Sarco continue to make, starting with the design schemes produced using our extensive 3D CAD system and culminating with the manufacture of component parts in our state-of-the-art machining facility centres using the latest machine tool technology and finally to the point where our trained assembly staff assemble, set and pack each valve before despatch from our distribution centre to each customer. Delivery is paramount and many of our standard products are available same day or overnight.



Sizing and selection

Spirax Sarco can supply the correct valve for most pressure relief applications and has available comprehensive sales and technical support literature with extensive sizing charts covering common fluids. Help is always available for any sizing or selection task and sizing software is employed to ensure rapid sizing and data sheet production.

Certification assures quality

All Spirax Sarco safety valves are independently approved to Internationally recognised standards and are compliant with the requirements of the European Pressure Equipment Directive 97/23/EC.

Shut-off is a critical feature of any safety valve and every Spirax Sarco safety valve is tested to ensure compliance with the exacting American Petroleum Institute standard 'API 527 Seat Tightness of Pressure Relief Valves'.



Spirax Sarco safety valve approvals

	Association of Technical Supervision	National Board of Boiler and Pressure Vessel Inspectors		Safety Assessment Federation Type Approval Service	Lloyds Register of Shipping	Germanischer Lloyds	Korean Industrial Safety Committee	Office of Technical Inspection	Safety Quality Licensing Office
	TÜV	NB (UV)	NB (V)	SAFed TAS	LROS	GL	KISCO	UDT	SQLO
Country of approval	Germany	USA and Canada		UK	UK	Germany	Korea	Poland	China
Approval standards	AD Merkblatt A2, TRD 421, TRD 721, DIN 3320	ASME I (V) ASME VIII (UV)		BS 6759 parts 1, 2 & 3 Pressure Equipment Directive 97/23/EC		Pressure Equipment Directive 97/23/EC	KSB 6216		
Safety valves	SV405					•			
	SV604	•			•	•	•	•	•
	SV607	•			•	•	•	•	•
	SV615			•			•		•
	SV73		•	•		•			
	SV74		•	•		•			
	SVL488	•					•		
	SVL606	•				•	•	•	•
	SV80		•				•		
	SV81		•				•		

Global capabilities

A partnership with Spirax Sarco provides knowledge, service and products worldwide for the control and efficient use of steam and other industrial fluids.

Spirax Sarco have their own companies and sales offices spanning the globe, plus a large number of authorised distributors, providing total coverage.

Technical support

The strength of our worldwide Group is used to meet local needs.

We have over 800 sales engineers on hand to offer technical support, guidance and system design expertise.

After sales service

Help is only a phone call away – our worldwide network of service engineers can offer assistance with installation, commissioning, troubleshooting and maintenance. We hold comprehensive local stocks of products worldwide. Spirax Sarco offer a range of tailored service packages, from steam system audits and process efficiency investigations to comprehensive steam system management contracts.

Worldwide training

Our philosophy is to share our knowledge with our customers on the efficient use and application of steam and industrial fluids. We do so with the help of over 35 training centres spread around the globe, and our range of correspondence courses, which so far have been completed by over a million students.

Product range

Steam traps and pipeline ancillaries, EL, PN and self-acting control systems, automation, flowmetering, condensate removal and energy recovery, packaged systems, boiler controls ...



Some of the products may not be available in certain markets.

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