

Safety devices for your process

Protection assurance for your system



First for Steam Solutions

EXPERTISE | SOLUTIONS | SUSTAINABILITY

spirax
sarco

The team you want on your side

Spirax Sarco: Company History

Founded in 1910, Spirax Sarco has been headquartered in Cheltenham, England, since 1937. It is a publicly traded company that has delivered strong performance on the London Stock Exchange for more than 30 years.

Its solid financial performance enables Spirax Sarco to continuously expand its business worldwide. The company offers a complete solutions package to ensure total customer satisfaction.

In 2008, Spirax Sarco Brazil began local manufacturing of Safety and Relief Valves, and has since obtained certifications and achieved rigorous approvals to serve the most diverse applications and meet the needs of both domestic and international customers.

The team you want on your side

Spirax Sarco Brazil is currently the Spirax Group's worldwide center of excellence for the manufacture and sale of Safety Relief Valves.

Spirax Sarco provides Knowledge, Services, and Products worldwide for the control and effective use of steam and related industrial fluids.

For more than 110 years, Spirax Sarco has been committed to working together with steam users to maintain and improve their systems, always aiming to increase efficiency and save energy. Spirax Sarco is the world leader in the control and efficient use of steam, compressed air, gas, and other industrial fluids.





Solutions for Every Segment

More efficiency, safety, and results for your operation!

Our team of specialists is ready to transform your processes, ensuring compliance with regulatory standards and maximum performance.

With experience across multiple industries, we offer tailored solutions to optimize your production and reduce costs, serving segments such as food and beverage, rubber and tires, pharmaceutical and chemical, laundry and hospitality, metallurgy, oil, petroleum and gas, pulp and paper, plastics and resins, steelmaking, textiles, and sugar and ethanol mills.

Discover how we can take your operation to the next level — get in touch and learn about our complete solutions!

Safety and Relief Valve Solutions

Application Engineering

Our engineers are technically trained and able to propose innovations that improve the productivity and efficiency of your industrial plant, always aiming to increase your company's competitiveness and the safety of your process.

Technical Sizing Software

Spirax Sarco offers customers a modern, exclusive technical software developed specifically to correctly size the valve to meet process requirements quickly and effectively.

Documentation Accessible via QR Code

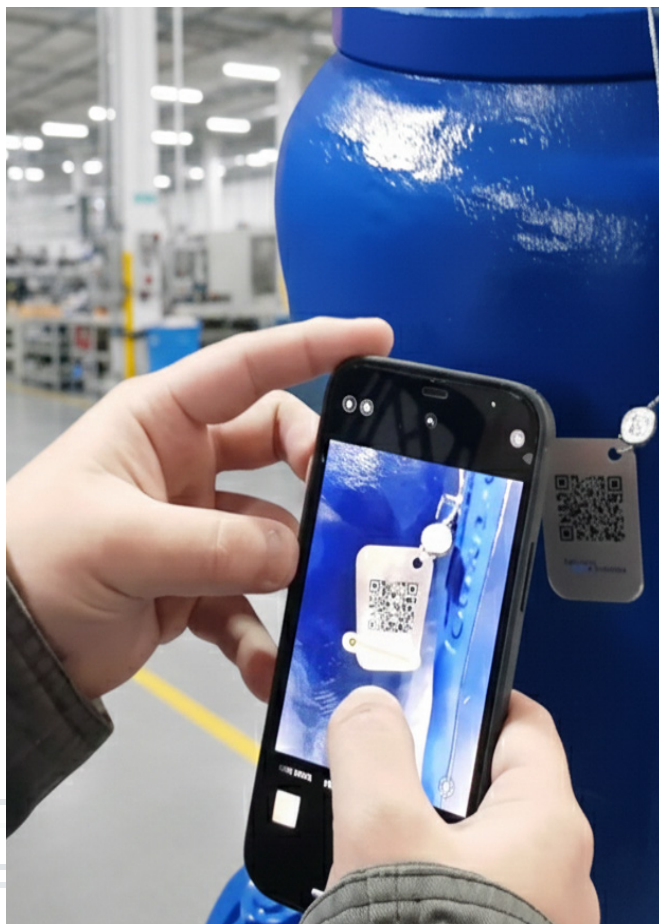
All Spirax Sarco safety and relief valves are supplied with a QR Code for access to their complete documentation. Simply point your smartphone camera at the QR Code attached to the valve, and you're set! This portal provides access to information such as: Data Sheet, Technical Brochure, Installation and Maintenance Manual, Quality Certificate, etc.

Valves Individually Tested Before Delivery

Performance tests are carried out individually on every valve produced by Spirax Sarco. At our facilities, it is possible to perform tests with steam at 70 bar(g) and with air and water at a maximum pressure of 420 bar(g).

Safety and Relief Valve Training Course

The course provides participants with the fundamental concepts of safety devices, their operating principles, and the main considerations of NR-13, applied to the correct use of Safety and Relief Valves.



Ensure the Safety of Your Industrial Plant

Discover the world of technology and high performance that **Spirax Sarco** can provide for you and your business.

Safety Relief Valves

A safety and relief valve is required whenever an overpressure condition may occur. **Spirax Sarco** Safety and Relief Valves provide overpressure protection across the most varied industrial processes.

Systems requiring overpressure protection vary in size and complexity, from large petrochemical plants to commercial distribution service systems.

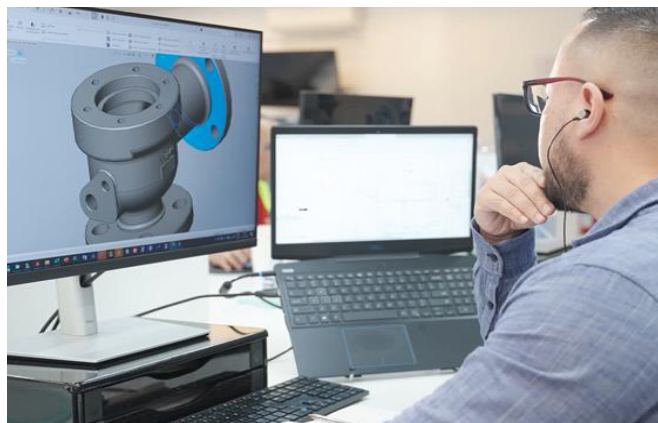
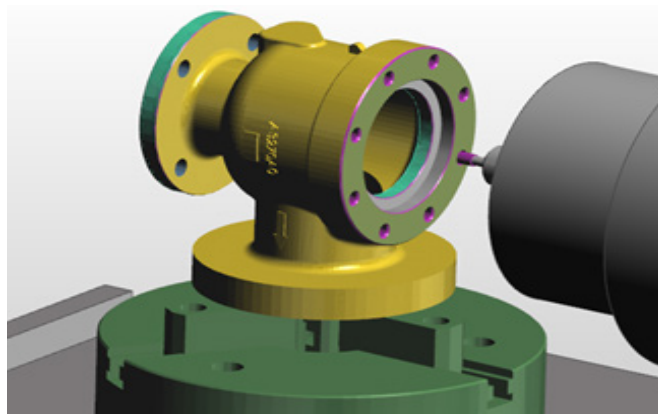
If a system or equipment is exposed to pressure above its design conditions, the following may occur:

- Accidents and loss of human life;
- Mechanical damage to the equipment and its surroundings;
- Loss of product and production;
- Environmental damage.

Some examples of circumstances that can result in overpressure in process applications include: a valve opened or closed at the wrong moment, component malfunction, cooling system failures, abnormal process heating, a power outage, or fire.

Responsible organizations work in accordance with local health and safety regulations which addresses boilers and pressure vessels.

Ensure the safety of your industrial plant



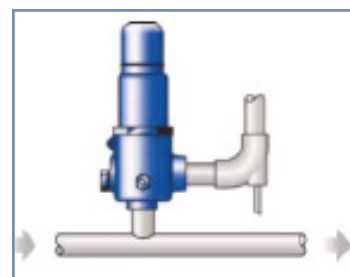
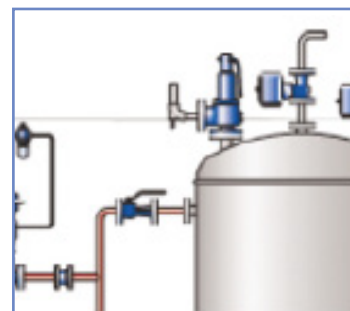
Bring your plant into compliance with Safety Standards

Protect Your Plant

Protect your plant against damage resulting from excess pressure and ensure efficient, continuous production.

Protect Your Profit

Major shutdowns negatively affect your production. A continuous supply of products protects customers' image and profits.



Product Range

Process & High Pressure	Boilers	Steam & Industrial Utilities
SV80H SV81H	SV66H SV44H SV47H SV561H	SV80H SV81H SV44H SV47H SV568H SV17H

Certified Safety

National Market Leadership

Spirax Sarco is certified as a manufacturer with the technological expertise to design Safety Relief Valves with capacity certification by the NBBI (The National Board of Boiler and Pressure Vessel Inspectors) in accordance with the ASME Code Sec. VIII and Sec. XIII (UV) for different fluids — steam, gas, and liquid — and Safety Valves in accordance with ASME Code Sec. I (V) for boiler applications.



**THE
NATIONAL BOARD**
OF BOILER AND PRESSURE VESSEL INSPECTORS

Safety and Relief Valve Sizing Software

Applications

The Safety and Relief Valve Sizing Software developed by **Spirax Sarco** — PSV Calc — is an intuitive, easy-to-use program offering numerous advantages over other software available on the market, including:

- Specification of Safety and Relief Valves, both conventional and balanced types;
- Specification of Safety and Relief Valves for “Steam,” “Gases,” “Vapors,” “Liquids,” and even “Two-Phase” conditions;
- Pre-registration of fluids commonly used in industry;
- Analysis of the consistency between process data and the characteristics of the selected valve, preventing the user from generating common specification errors, based on ASME Sec. I, ASME Sec. VIII, and ASME Sec. XIII codes, as well as API STD 520 and API STD 526 standards;
- Orifice sizing calculation report, as well as individual analysis of each variable involved in the calculation (graphically or mathematically);
- Calculation of “reaction force” and “noise” generated during valve opening — important information for installation flexibility and environmental condition calculations;
- Useful auxiliary tools such as “Unit Conversions” and “Flow Conversion.”



SV80H Safety and Relief Valve



UV



Description

These valves are of the full nozzle type with orifices from D to T, standardized by API STD 526, plus other super capacity orifices.

Applications

Developed for effective overpressure protection in processes or equipment, including extreme service conditions such as high flow rates, high pressures, high temperatures, corrosive media, viscous liquids, and high back pressures.

Standards and Approvals

Designed and built in accordance with the ASME Codes Sec. VIII and Sec. XIII., with capacities certified by the NBBI. CE Mark. Materials of construction and pressure/temperature limits comply with API STD 526. Also meet API STD 527 requirements for seat tightness testing. Can be supplied with materials in accordance with NACE MR-01-75 for sour-gas service.

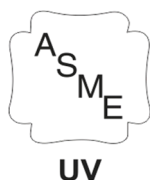
Specifications

Inlet connections	1" (DN25) to 12" (DN300)
Outlet connections	2" (DN50) to 16" (DN400)
Orifices	D to T (API STD 526) — T2, U, V and W (super capacity)
Connection types	Flanged
Connection class	150# to 2500#
Max. set pressure	414 bar(g)
Back pressure	Per API STD 526
Blowdown	5 to 10% (adjustable)
Temperature	-267 °C to 538 °C
Construction type	Conventional and balanced (bellows)
Bonnet	Closed and open
Materials	Body and bonnet in Carbon Steel and Alloy Steel; internals in Stainless Steel. Special alloys available for specific applications.
Accessories	Resilient seat, test lever, and steam jacket
Codes	ASME Sec. VIII / XIII
Applications	Steam, gases, and liquids. Pressure vessels, piping, compressors, accumulators, and general equipment.
Certification	ASME Sec. VIII / XIII (UV) and CE



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SV81H Safety and Relief Valve



Description

These valves are of the full nozzle type. They meet the requirements of most industrial processes and can be used in gas, vapor, or liquid service.

Applications

Designed for effective overpressure protection in oil and gas, refining, chemical, and petrochemical processes. Typical applications include product lines, compressors, pumps, air receivers, pressure vessels, and reactors. Controlled fluids include corrosive and flammable media, high pressures, and high temperatures.

Standards and Approvals

Designed and built in accordance with the ASME Codes Sec. VIII and Sec. XIII. and API STD 520, with capacities certified by the NBBI. CE Mark. Also meet API STD 527 requirements for seat tightness testing. Can be supplied with materials per NACE MR-01-75 for sour-gas service.

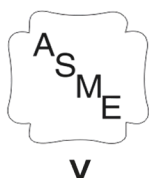
Specifications

Inlet connections	½" (DN15) to 2" (DN50)
Outlet connections	1" (DN25) to 2½" (DN65)
Orifices	0.554 cm ² to 3.664 cm ²
Connection types	Threaded (NPT and BSP), flanged, and welded
Connection class	150# to 2500#
Max. set pressure	275 bar(g)
Back pressure	27.5 bar(g) (maximum)
Blowdown	15% maximum (fixed)
Temperature	-267 °C to 400 °C
Construction type	Conventional
Bonnet	Closed
Materials	Body (base) and internals in Stainless Steel; bonnet in Carbon Steel. Special alloys available for specific applications.
Accessories	Resilient seat and test lever
Codes	ASME Sec. VIII / XIII
Applications	Steam, gases, and liquids. Pressure vessels, piping, compressors, accumulators, and general equipment.
Certification	ASME Sec. VIII / XIII (UV) and CE



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SV66H Safety Valve



Description

SV66H Safety Valves are high capacity full nozzle valves with standard F to Q orifices. The SV66H has a modern design with two adjustment rings, allowing precise blowdown adjustments. Designed for application in boilers and organic fluid vaporizers (ASME Section I).

Applications

SV66H Safety Valves are designed for effective overpressure protection in boilers and vaporizers, including service conditions such as high pressures and high temperatures.

Standards and Certificates

The SV66H Safety Valves are designed and built in accordance with the ASME Code Sec. I, with capacities certified by the NBBI and the CE Mark. Materials of construction meet the requirements of ASME Sec. I Code PG-73.3, and seat tightness tests are performed per the requirements of item PG-73.5.3 of this code. Material certificates are supplied per BS-EN 10204 Type 2.2 for primary pressure-containing parts.

Specifications

Inlet connections	1½" (DN40) to 4" (DN100)
Outlet connections	2" (DN50) to 6" (DN150)
Orifices	F to P (API STD 526)
Connection types	Flanged
Connection class	300# to 1500#
Max. set pressure	83 bar(g)
Blowdown	4 to 6% (adjustable)
Max. operating temperature	538 °C
Bonnet	Open
Lever	Open
Materials	Carbon Steel, Stainless Steel, and other alloys
Codes	ASME Sec. I
Applications	Saturated and Superheated Steam
Certification	ASME Sec. I (V) and CE



Modern test facilities that ensure greater accuracy and reliability

SV561H Safety Valve



Specifications

Inlet connections	1" (DN25) to 2" (DN50)
Outlet connections	1¼" (DN32) to 2½" (DN65)
Connection types	Threaded NPT (ASME B1.20.1)
Max. set pressure	20.7 bar(g)
Blowdown	5 to 6% (adjustable)
Max. operating temperature	232 °C
Construction type	Conventional
Materials	Body (base) and internals in Stainless Steel; bonnet in Cast Iron
Codes	ASME Sec. I
Applications	Steam
Overpressure	3% (ASME Sec. I)

Description

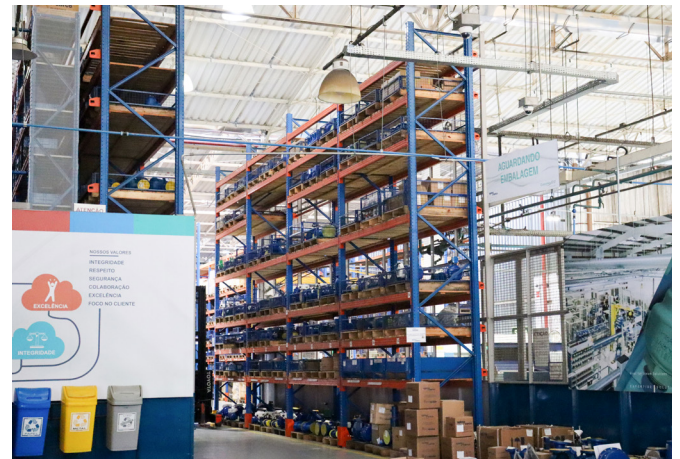
SV561H is a full nozzle, high capacity Safety Valve, designed with flat seat and metal / metal sealing. Its modern design with two adjustment rings, allows the precise adjustment of the differential pressure (blowdown).

Applications

The SV561H valves are used in Boilers and Steam Generators.

Standards and Certificates

Built to the requirements of the ASME Code Sec. I. Material certificate per EN 10203 2.2.



**A national stockpile to
meet all demand**

SV568H Safety Valve



Specifications

Inlet connections	½" (DN15) to 2½" (DN65)
Outlet connections	¾" (DN20) to 2½" (DN65)
Connection types	Threaded NPT (ASME B1.20.1)
Max. set pressure	20.7 bar(g)
Blowdown	7% maximum (adjustable)
Max. operating temperature	232 °C
Construction type	Conventional
Materials	Body (base) and internals in Stainless Steel; bonnet in Cast Iron
Codes	ASME Sec. VIII / XIII
Applications	Steam, Gases, and Vapors
Overpressure	10% (ASME Sec. VIII / XIII)

Description

SV568H is a full nozzle high capacity valves Safety Valve, designed with flat seat and metal / metal sealing. Its modern design with two adjustment rings, allows the precise adjustment of the differential pressure (blowdown).

Applications

The SV568H valves are used in gas and vapor service.

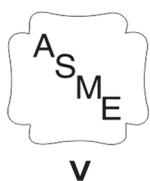
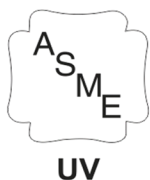
Standards and Certificates

Built in accordance with the requirements of the ASME Codes Sec. VIII and ASME Sec. XIII. Material certificate per EN 10203 2.2.



Local manufacturing
with ready-to-ship
capacity

SV47H Safety Valve



Specifications

Inlet connections	1½" (DN40) to 6" (DN150)
Outlet connections	2½" (DN65) to 8" (DN200)
Orifices	J to R (API STD 526)
Connection types	Flanged
Connection class	300# (inlet) and 150# (outlet)
Max. set pressure	20.7 bar(g)
Blowdown	5 to 7% (adjustable)
Temperature	up to 343 °C
Construction type	Conventional
Bonnet	Open
Materials	Cast Iron body and Stainless Steel internals
Codes	ASME Sec. I and ASME Sec. VIII / XIII
Applications	Steam, Gases, and Vapors. Boilers and pressure vessels.
Certification	ASME Sec. I (V), ASME Sec. VIII / XIII (UV), CE, and CRN

Description

SV47H Safety Valves are high capacity valves with standard orifices from J to R. They have a modern design with two adjusting rings, allowing precise blowdown adjustment. Designed for use in boilers, organic fluid vaporizers and pressure vessels.

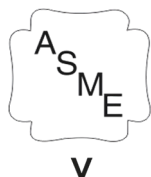
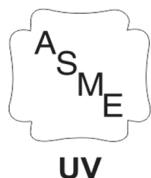
Applications

Protection of steam systems downstream of pressure-reducing stations, at the inlet of equipment such as air coils, heat exchangers, and process vessels. Also for use in flash-steam recovery tanks in condensate-return systems to protect the vessels. Air systems to protect accumulation vessels and air equipment from excessive pressure. Steam boilers and generators.

Certificates and Standards

A test report is supplied as standard for each valve, including valve setting and hydrostatic pressure testing. Seat tightness tests are performed per the requirements of item PG-73.5.3 for Sec.I valves or API STD 527 for Sec. VIII/XIII valves. Material certificate per EN 10203 2.2. Designed and built in accordance with the ASME Codes Sec. I, ASME Codes Sec. VIII and ASME Sec. XIII., with capacities certified by the NBBI. CE Mark.

SV44H Safety Valve



CRN



Specifications

Inlet connections	1½" (DN40) to 6" (DN150)
Outlet connections	2" (DN50) to 8" (DN200)
Orifices	F to R (API STD 526)
Connection types	Flanged
Connection class	300# (inlet) and 150# (outlet)
Max. set pressure	20.7 bar(g)
Blowdown	5 to 7% (adjustable)
Temperature	up to 400 °C
Construction type	Conventional
Bonnet	Open
Materials	Carbon Steel body and Stainless Steel internals
Codes	ASME Sec. I and ASME Sec. VIII / XIII
Applications	Steam, Gases, and Vapors. Boilers and pressure vessels.
Certification	ASME Sec. I (V), ASME Sec. VIII / XIII (UV), CE, and CRN

Description

SV44H Safety Valves are high capacity valves with standard orifices from F to R. They have a modern design with two adjusting rings, allowing precise blowdown adjustment. Designed for use in boilers, organic fluid vaporizers and pressure vessels.

Applications

Protection of steam systems downstream of pressure-reducing stations, at the inlet of equipment such as air coils, heat exchangers, and process vessels. Also for use in flash-steam recovery tanks in condensate-return systems to protect the vessels. Air systems to protect accumulation vessels and air equipment from excessive pressure. Steam boilers and generators.

Certificates and Standards

A typical manufacturer's test report is supplied as standard for each valve, including valve setting and hydrostatic pressure testing. Seat tightness tests are performed per the requirements of item PG-73.5.3 for Sec. I valves or API STD 527 for Sec. VIII/XIII valves.. Designed and built in accordance with the ASME Codes Sec. I, ASME Codes Sec. VIII and ASME Sec. XIII., with capacities certified by the NBBI. Material certificate per EN 10203 2.2. CE Mark.

SV17H Safety and Relief Valve



Specifications

Inlet connections	1" (DN25) to 6" (DN150)
Outlet connections	1½" (DN40) to 10" (DN250)
Orifices	4.45 cm² to 122.72 cm²
Connection types	Flanged
Connection class	150# to 300#
Max. set pressure	40.0 bar(g)
Blowdown	15% maximum (fixed)
Temperature	-29 °C to 425 °C
Construction type	Conventional
Bonnet	Closed and open
Materials	Cast Iron or Carbon Steel body; Stainless Steel internals
Accessories	Test lever
Codes	ASME Sec. XIII
Applications	Steam, Gases, Vapors, and Liquids
Overpressure	10% (ASME Sec. VIII / XIII)

Description

The SV17H Safety and Relief Valves are high-capacity valves designed to open fully (full lift) at 10% overpressure. They have a flat seat and metal/metal sealing and can be applied in vapor, gas, or liquid service.

Applications

The SV17H is used on saturated steam lines, compressors, and compressed-air receiver vessels, industrial-water and other liquid lines, as well as general pressure vessels.

Standards and Certificates

Designed and built in accordance with the requirements of the ASME Code Sec. XIII and Sec. VIII.. Material certificate per EN 10204 2.2.

Metrology laboratory
equipped with modern
equipment





We provide **global solutions** and **local expertise** through our network of operating companies, manufacturing units, sales offices, and distributors **worldwide**. Discover how we can help you optimize your system and achieve your goals at spiraxsarco.com/br.

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