

GET INSPIRED.

SINCE
1889



PUMP PROTECTION IN PERFECTION.

PROVIDING SOLUTIONS – EXCEEDING EXPECTATIONS – IMPRESSING CUSTOMERS

HISTORY.

1889

COMPANY FOUNDED BY
HEINRICH SCHROEDER

1950

CONSTRUCTION OF
THE FIRST AUTOMATIC
RECIRCULATION
VALVE MODEL GD + SD

2010

CONSTRUCTION OF
THE NEW COMPANY
HEADQUARTERS
IN GUMMERSBACH

GET INSPIRED.



For more than 60 years we have been designing and manufacturing protective pump fittings of the highest quality. Every product we make is unique – specifically designed for the customer's pump and plant specifications. Our valves protect centrifugal pumps from damage, lower plant operating costs and also reduce energy consumption, because valves from Schroeder Valves operate without the need for external power.

Our protective pump fittings meet the highest standards of safety, as they often need to be used under the harshest of conditions. Thanks to their sophisticated design and the use of high-quality materials in their construction, they are able to withstand high pressures, extreme temperatures and a wide range of process media – and do so over long periods, with minimal downtime.

Our customers the world over are impressed with the high quality of our valves, their reliability, long service life and low maintenance requirement.

**EXPERIENCE PEACE
OF MIND.**



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Quality products require quality service. This is why service has always been one of the cornerstones of our business. Schroeder Valves is known for its comprehensive support and quick response times concerning both the procurement process as well as maintenance and repairs.

Our staff provide you with an all-round service that covers everything from product support to documentation. If required, our engineers can also develop custom solutions for you – a challenge they always greet with relish.

Our maintenance personnel are located globally and are quickly on site to provide you with comprehensive support or technical advice. We have offices around the world to ensure that there's always an expert on hand with whom you can talk about the best solution for protecting your pumps, wherever you happen to be.

APPRECIATE SAFETY.



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Excessive temperature increases, cavitation, dry running, high noise emission, vibrations, failures. The challenges associated with operating pumps are great. We tackle them on a daily basis – with technology that ensures safe operation. Because the operational safety of your plant is of the utmost importance to us.

This applies especially in plants that pose a high potential risk, such as nuclear power plants or in the chemical industry, where it is absolutely imperative for pumps to operate reliably. If this cannot be guaranteed, there is acute danger for both people and the environment.

Our valves protect centrifugal pumps effectively against damage that can occur due to the partial evaporation of the pump's contents when running under low load conditions. In so doing, they reliably prevent against accidents, complete breakdowns and wear.

ACHIEVE SUCCESS TOGETHER.



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It's not for nothing that valves made by Schroeder Valves are protecting pumps the world over. Thanks to our technical know-how and enthusiasm for precision products, we set new benchmarks with regard to quality and expertise.

In order to ensure that our products are 100% of the highest quality, we've built a test centre that's a one of its kind in the world. Every valve we manufacture is shipped only after it has been tested for 100% pressure and functional reliability.

Our superbly trained staff are on hand to offer their technical expertise, to share their knowledge and to exchange ideas. Should you need assistance, you can get in touch with your personal contact at any time.

EXPERIENCE COMPETENCE.





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We have over six decades of experience in developing and manufacturing protective pump fittings. Time during which our expertise has grown steadily – expertise that has been demonstrated on countless occasions.

Thanks to the traditionally close cooperation with our customers we are intimately familiar with their requirements and expectations. Our design engineering department then incorporates these into product modifications and innovations.

The combination of skilled employees, a modern production facility and an efficient organisational structure is the basis for our high level of customer satisfaction and low level of complaints.

PRODUCTS.

THE SHP SERIES

SHP series automatic recirculation valve for high pressure applications, low-wear operation and high load fluctuations

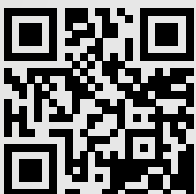
The SHP series automatic recirculation valve protects pumps and equipment from damage that can occur due to the flow rate falling below the permissible minimum. The innovative design ensures that pumps and equipment are reliably protected, even in situations involving highly fluctuating pump loads and long periods of operation under extreme partial load conditions. This is achieved using a special fully automatic minimum flow control system that ensures the release of a modulating adaptive minimum flow. In addition, the wear-intensive extreme partial load range is deliberately overridden. The shut-off and pressure reduction functions are both functionally and physically separate from each other. This makes the SHP Series the ideal fitting for applications involving very flexible operating conditions, such as those commonly found in modern power plants, for example.

Features

- low-maintenance continuous operation
- high and maximum pressure range
- all conceivable load conditions
- low pressure loss
- continuous control response with deliberate overriding of high-wear extreme partial load range
- high energy efficiency
- operational safety and reliability
- long service life
- automatic regulation of the pump's minimum required flow rate
- modulating bypass flow control

Areas of application

- specifically designed for high and extreme pressures up to 400 bar
- modern power plants with highly variable operating conditions
- protection of injection pumps as used for crude oil extraction, for instance
- descaling equipment



<http://www.schroeder-valves.com/en/products/>

THE SSV SERIES

Automatic recirculation valve with bypass throttle or bypass non-return valve with modulating bypass flow control

The automatic recirculation valve from our SSV series automatically protects centrifugal pumps against wear, complete breakdown and damage that can result from dry running or operating under low-load conditions. The valve is distinguished by its historically proven high level of reliability and extremely low pressure loss over time. It is neither susceptible to interference and requires little maintenance, nor does it require an additional power supply or a control unit, thus ensuring low operating costs.

- automatic regulation of the pump's minimum required flow rate
- integrated non-return valves in the main feed line and bypass line
- lower NPSH value for the system (NPSHA) and the pump (NPSHR)
- economic pump design (smaller size, no special design required for low NPSHR value)
- low flow rate at the operating point, thanks to automatic closing of the bypass line
- lower required drive/motor rating
- more energy efficient, lower plant costs

THE SMA SERIES

Minimum flow valve with "on/off" control

The Schroeder SMA 63/64 minimum flow control system automatically protects centrifugal pumps from damage that can occur due to the partial evaporation of the pump's contents when running under low load conditions. Once the main flow falls below a predetermined value, the valve opens its bypass, allowing the minimum volume to be safely diverted, even if the feed volume in the main direction of flow drops to zero. This valve also operates without external power.

- the maximum load is 400 bar (feed pressure)
- the recommended range is between PN 250 and PN 400 i.e. ANSI CLASS 2500
- the bypass volume can be up to 35% of the main flow



PRODUCTS.

THE SSD SERIES

Multiport throttles for uniform pressure reduction

Schroeder multiport throttles are used to reduce the pressure and flow rate of liquids. The multiport throttles are available with nominal diameters from DN20 to DN500, pressure steps up to PN 640 and are approved for use with media temperatures of up to 400 °C. They are also suitable for use with pressures exceeding 400 bar and can be used in a modular fashion.

The throttle bodies are manufactured as standard from pressure vessel steel 1.0460 (P250GH, ASTM A105), but can also be fabricated from other types of stainless steel to suit the medium. The throttles are made from a suitable grade of stainless steel and are produced in a variety of forms so as to ensure optimal integration into existing systems.

Cavitation-preventing design

Available in stainless steel on request

Long-lasting

Low maintenance



THE SDV SERIES

Back pressure device

Our back pressure device does not allow the static pressure in the upstream pipe to fall below a defined minimum value. It does this independently of the flow volume. This means that the specified minimum pressure is maintained, from the nominal flow rate to the smallest volume. Normally back pressure devices are used to avoid cavitation and partial evaporation in the pumping medium. By increasing the pressure level in the system component to be protected, they stop local steam pressure from falling below requirements. The SDV has an integrated return function, i.e. the system is also protected against reverse flow if needed.

Design

Products are designed in compliance with the AD 2000 Codes of Practice for Pressure Vessels. They receive the CE mark and Declaration of Conformity under Pressure Equipment Directive DGR 97/23 EC. They are certified according to module H1 (DGR 97/23 EC) which covers all risk groups in categories I to IV.

Precise adjustment to accommodate any flow rate

For high pressures, including exceeding 400 bar

Can be used in a modular fashion

THE SR/SA SERIES

High pressure control and shut-off valve with different actuators

The Schroeder SR/SA valve type is designed for controlling liquid media under high and extreme pressures. The control valve is able to safely withstand pressures up to 600 bar and media temperatures of up to 400 °C. It is suitable for use both as a stand-alone shut-off valve (type SA) as well as for flow control (type SR).

Features

- can be fitted with all types of actuators (electric, pneumatic, hydraulic)
- there is an intrinsic medium actuated version available for valves with "open/closed" functionality that works without the need for external power
- the use of actuators and sensors allows the valve to be fully integrated in modern process technology
- highly efficient minimum flow control that can be monitored or adjusted at any time via the process control system



THE SMV SERIES

Multi-functional valve with venting nozzle for media with a low boiling point

The Schroeder SMV series multi-functional valve is an automatic recirculation valve that is equipped with an automatic venting nozzle in addition to the minimum flow control and non-return device in the main feed. It permanently ensures that the stationary pump and standby pump are automatically vented and thus remain filled with liquid at all times.

Areas of application

- in the process engineering of special technical liquefied gases – in cryogenic engineering, storage vessel engineering and for the filling of liquefied gases
- in all pumping plants that pump fluids close to their boiling points
- for pumping media containing dissolved gases
- for pumps that are equipped with gas injectors due to modern sealing systems or similar devices





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SCAN ME