

**INDUSTRY**



**HIGH PRESSURE?  
MY VALVES  
REMAIN RELAXED.**

**Safety valves  
for pressures  
as high as 550 bar.**

**HEROSE of Pressure.**



**As a leading company in the field of industrial valves and fittings, we consistently meet complex challenges with application-oriented engineering solutions.**

Our extensive expertise in dealing with various gases, vapours and liquids is based on more than 140 years of industry-specific knowledge that is rivalled by none in this form.

The cost-effectiveness and safety of your process are always our greatest concern. It is for that reason that we devise the best possible solution for your individual application with the help of first-class materials and components, and comprehensive quality assurance.

In 2017, we entered into a unique cooperation with the Australian-Indian valve manufacturer MACK Valves in order to remain at the forefront of technical development and be able to offer our service worldwide.

**HEROSE of Pressure** – experts in handling compressed media.

**Our Approvals:**



# RELIABLE PROCESSES IN HIGHLY COMPLEX SYSTEMS – EFFICIENTLY REALISED WITH VALVE AND SAFETY CONCEPTS FROM HEROSE.

## CRYOGENIC

Safety at the lowest temperatures? HEROSE valves are internationally certified for handling technical gases and liquefied natural gas in the low temperature range. Applications for the storage and transport of cryogenic gases – we routinely work with temperatures as low as  $-269\text{ }^{\circ}\text{C}$ .



## INDUSTRY

Safety at high pressures? In pressure-loaded systems, HEROSE solutions ensure the best possible functionality and consistently increase the overall efficiency of your system. From safety valves in processes for seawater desalination and compressed air-driven braking systems of high-speed trains to compressors – working with up to 550 bar is part of our daily business.



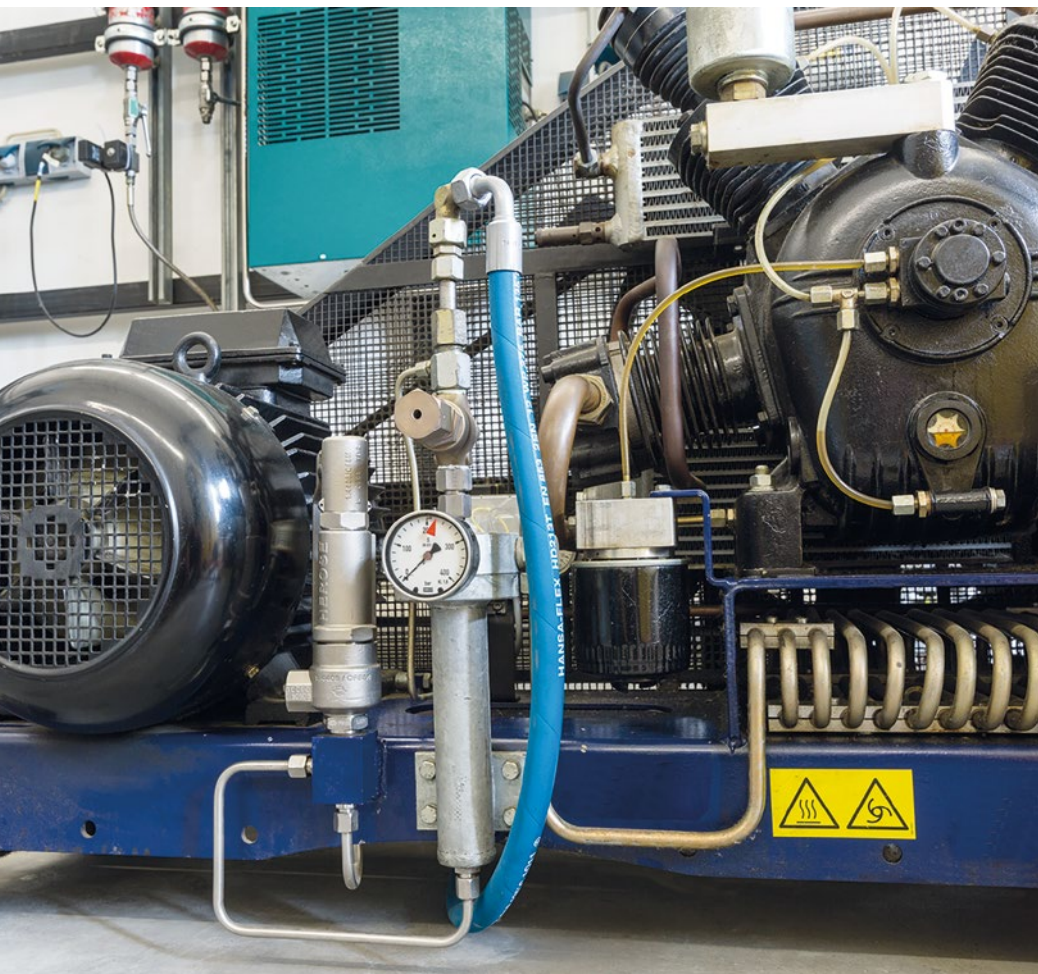
## ENERGY

Safety despite demanding environmental conditions? HEROSE components are produced from high-quality materials and subjected to consistent quality checks to make them suitable for handling media in harsh environments. In order to ensure that a reliable power supply is maintained, seawater- and weather-resistant HEROSE valves are used in oil-immersed transformers to regulate the cooling circuit.



# PROCESS RELIABILITY UNDER HIGH PRESSURES: OUR APPLICATION-SPECIFIC SOLUTIONS FOR YOUR CHALLENGES.

Whether you are working with demanding media or harsh process environments, HEROSE safety valves protect pressurised containers and systems with ease – in any industry, at all times and with the highest reliability.



## Compressed air

Safety valves are essential in systems that work with compressed air in order to protect against undue increase in pressure. Our safety valves guarantee the protection of system components and the people handling them up to a popping pressure of 550 bar. HEROSE components are available worldwide thanks to ASME certifications and are known for their quality and reliability.

## Liquids

Component resistance plays a role in particular where fluid distribution systems have to be protected against overpressure.

For this reason, HEROSE safety valves are available in high-quality and seawater-resistant bronze for applications such as extinguishing equipment and seawater desalination plants.



*Günter Weigl, project manager at Rosenbauer, places his trust in reliable valves from HEROSE for the protection of aircraft extinguishing systems:*

*“This company has been synonymous with the highest quality for years, and that is what we demand from all the materials and components we use.”*



## Steam

In distillation processes, the separation of liquids is made possible by the introduction of heat. This can only take place effectively if all components have a top-quality surface finish. HEROSE valves meet the requirements with top-quality components and various coatings.

*Markus Holstein, CEO of Arnold Holstein GmbH, particularly appreciates not only the quality of HEROSE products, but also the company's reliable service and vision:*

***“The quality is consistently high and customer service is great. What more do you want?”***



## Powder and grains

Compressed powdery and granular media pose a particular challenge to plant components and require the most robust materials and guaranteed functionality. This is in particular essential with pneumatic emptying of silo trailers, for example. HEROSE safety valves meet the highest quality conditions and ensure the stability of your processes. In this regard, membranes that compensate for vibrations and suitable protective hoods play an important role.



# SYSTEM PROTECTION UP TO 550 BAR: THE NEW HIGH-PRESSURE SAFETY VALVE FROM HEROSE.



**NEW!**  
Now available for  
pressures up to 550 bar.

## The challenge:

As an expert in the safe handling of technical gases, vapours and liquids, HEROSE always endeavours to find innovative and sustainable solutions. Going by this guiding principle, we developed a valve that can protect systems and processes up to a significantly higher pressure than was previously possible. An optimised design and increased load capacity means that the new version of the high-pressure safety valve 0681X (d0 = 6mm) ensures reliable system protection up to a pressure of 550 bar.

## The solution:

The usual high quality standards at HEROSE are reflected in the precise and reliable product response even at such high pressures. The proven functioning of safety valves in conjunction with the engineering expertise of HEROSE means it is possible to protect systems in a variety of new application areas. In order to protect the specific system, as a rule the valve opens automatically in the event of inadmissible pressure increases – and this is guaranteed at up to 550 bar.

## Technical data:

Sizes:	d <sub>0</sub> 6, 10, 14, 18
Pressures:	up to 550 bar
Temperatures:	-270 °C till +400 °C
Fittings:	Thread, Flange
Connections:	Stainless steel



# HIGH PRESSURE WHILE REFUELLING VEHICLES WITH NATURAL GAS? EVERYTHING UNDER CONTROL WITH HEROSE VALVES.

In pump skids for the refuelling of vehicles with natural gas, high-quality and reliable system components play a crucial role in ensuring the safety of the system and its users. In these skids, natural gas is compressed by a high-pressure pump to 300 bar or more in order to then make it available in a high-pressure evaporator as CNG (Compressed Natural Gas) for refuelling of vehicles. To protect the system against impermissible pressure increases, the new HEROSE high-pressure safety valve offers a quality solution for up to 550 bar of system pressure.



One company that specialises in the construction of such pump skids for cryogenic industrial gases and LNG is the Italian company Vanzetti Engineering. This market leader has been working with HEROSE in a variety of applications for years; they place a high value on the excellent quality and reliability of HEROSE solutions, as well as on the company's extensive experience in applications including the handling of high system pressures.

# REMARKABLE TIGHTNESS IN SAFETY VALVES: THE NEW O-RING CONCEPT BY HEROSE.

**NEW!**  
Higher tightness  
in a complete range  
of seals.

## The challenge:

The sealing of all system components is of the highest priority when handling technical gases. Common metallic seals often provide extremely less leak tightness in safety valves for these applications. This results in unwanted escape of the contained medium. In order to be able to guarantee system protection and running costs through accurately working safety valves, HEROSE has risen to the challenge and expanded its range with a special O-ring sealing concept.

## The solution:

This makes significantly increased tightness of safety valves possible. The leak tightness of these O-rings, which are made of soft-sealing material (FKM or NBR), is defined by the API 527 standard, which results in significantly increased zero bubble tightness and minimised loss of media. This sealing concept is available for the series 0685X and 0681X as well as a great variety of system conditions.



## Technical data:

Sizes:	d <sub>0</sub> 10, 14, 18
Pressure:	up to 250 bar
Temperatures:	0°C till +70°C
Connections:	Thread, Flange
Materials O-Ring:	FKM, NBR

# SUSTAINABLY REDUCE THE MAINTENANCE COSTS OF PRESSURE VESSELS? OUR EXTENSIVE RANGE OF SEALS MAKES IT POSSIBLE.

Due to high pressures and cost-intensive media, the tightness of the system plays a major role in the filling of industrial pressure containers or the refuelling of vehicles with gases. However, the safety of the system as well as its acquisition and maintenance costs are also decisive factors for filling station operators.

A large number of worldwide manufacturers and plant operators trust in HEROSE solutions when handling substances such as helium and hydrogen. Flagship products are safety valves that use the O-ring sealing concept and therefore offer a significantly increased seat tightness compared to conventional concepts. Comprehensive process reliability can be guaranteed even after multiple responses by the safety valve. Maintenance costs can thus be reduced significantly and the total costs of the plant operation sustainably reduced.

# UNCOMPROMISING SAFETY: GUARANTEED FUNCTIONALITY THROUGH MAXIMUM QUALITY IS STANDARD BUSINESS PRACTICE FOR US.

HEROSE specialises in the development and sustainable production of innovative, practical solutions and bringing them up to series-production stage. The reliability of our products to ensure the safety of your process is always our primary concern. We guarantee this through company-wide DIN EN ISO 9001:2015-certified processes, such as comprehensive material and functional tests.

We have a cryogenic, water and air test bench for simulation of extreme conditions and for testing our valves. Qualified specialists manufacture our products on state-of-the-art CNC machines, degrease all components regardless of the intended use with specially developed systems and ensure full traceability through consistent component identification.



*Leak testing*



*Materials testing*

We offer our customers reliable solutions through the highest degree of safety and see an opportunity in every challenge we face. Successful solutions for extreme temperatures ranging from  $-269^{\circ}\text{C}$  to  $+400^{\circ}\text{C}$ , special valves for air separation and valves for the liquefaction of natural gas are examples of our drive to innovate ever more effective and efficient concepts.



*Labelling of pressure-bearing components*



*Free of oil and grease*

# PRODUCTS AND SERVICES

AVAILABLE ON ALL CONTINENTS? –

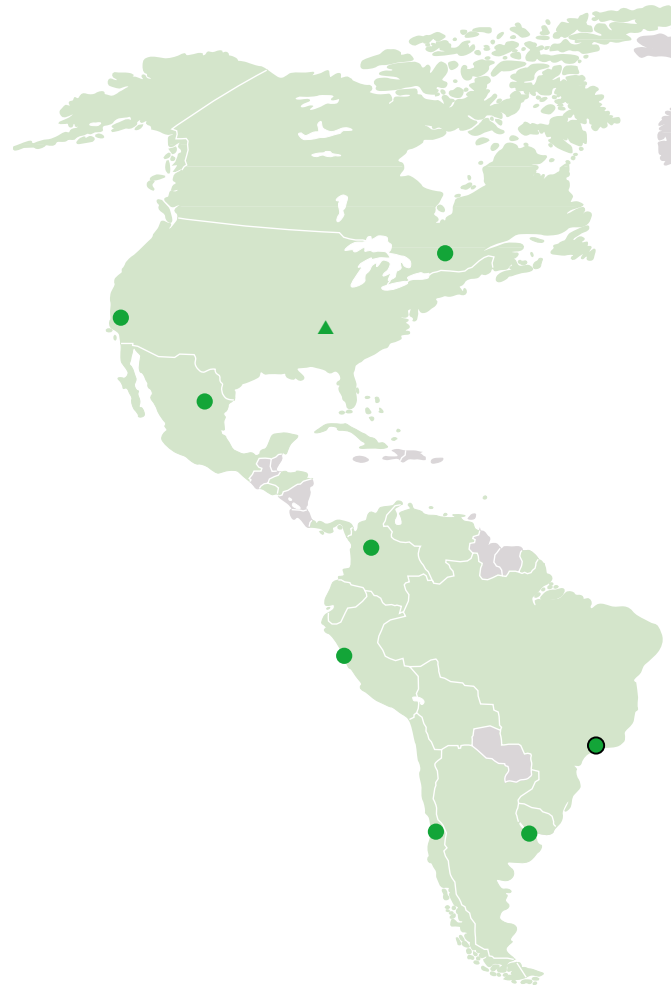
WE ARE BY YOUR SIDE

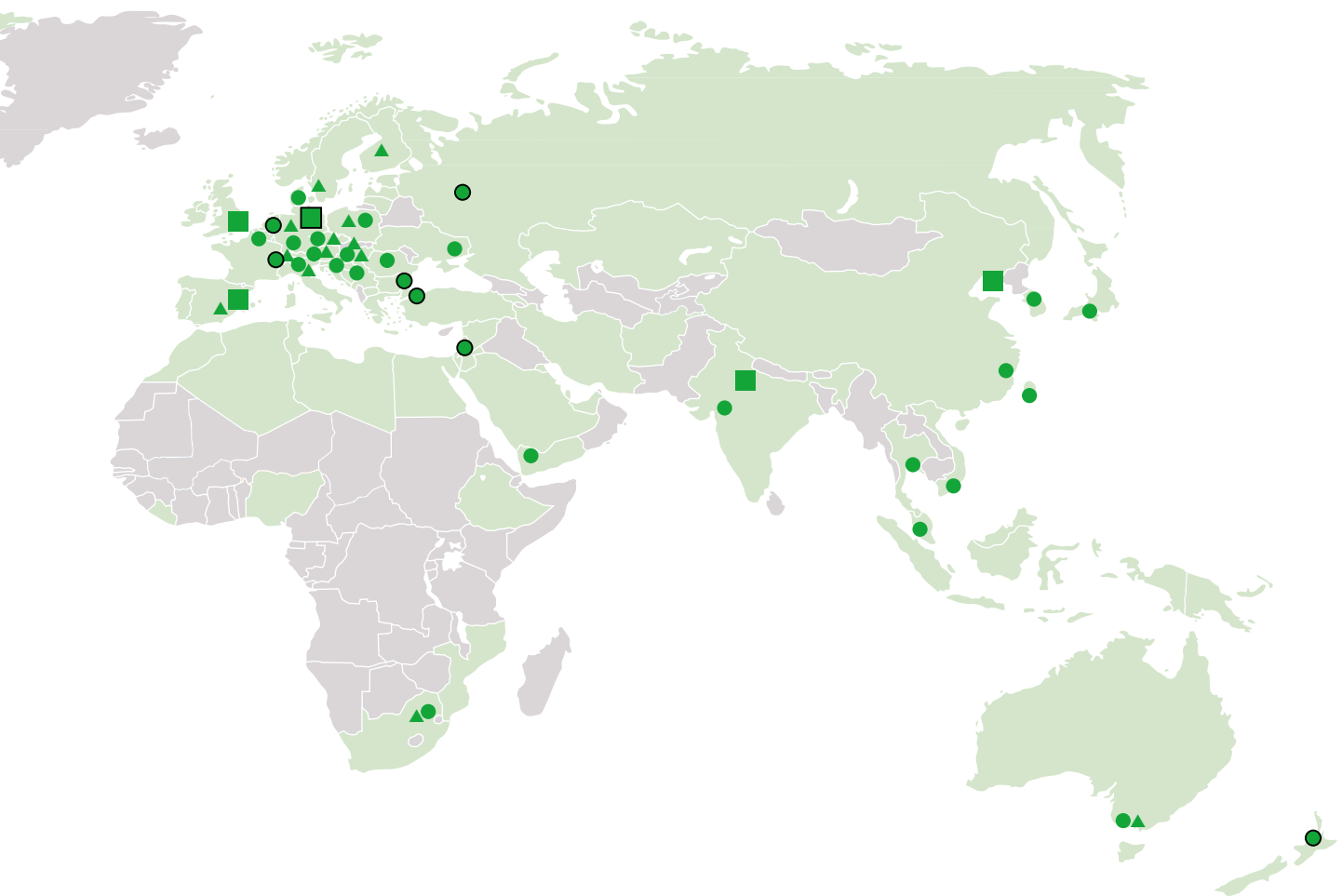
ALL OVER THE WORLD.

A global network of local offices and partners makes it possible for us to offer pioneering solutions in more than eighty countries. Thanks to our high-quality valves and fittings, reliable system protection and optimised maintenance options are ensured at all times. In addition to implementing application-optimised valve and safety concepts, customers place their trust in the flexibility of our processes and appreciate our policy of personal consulting. Our customer service is there to ensure that through professional installation and maintenance of all valves and fittings, even sensitive components and products are properly installed in your systems and work reliably.

## **HEROSE of Pressure:**

- Many years of experience in applications involving sophisticated technical media
- Highest technical reliability of the valves and fittings
- Consistent quality assurance and materials of the highest quality
- Worldwide service and maintenance options





- Headquarter
  - International subsidiaries
  - HEROSE partner with authorised service centre
  - HEROSE partner
  - ▲ Authorised service partner
- For the addresses of our partners and authorised service centres please visit [herose.com](http://herose.com)*
- Current HEROSE sales regions

# HEROSE



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