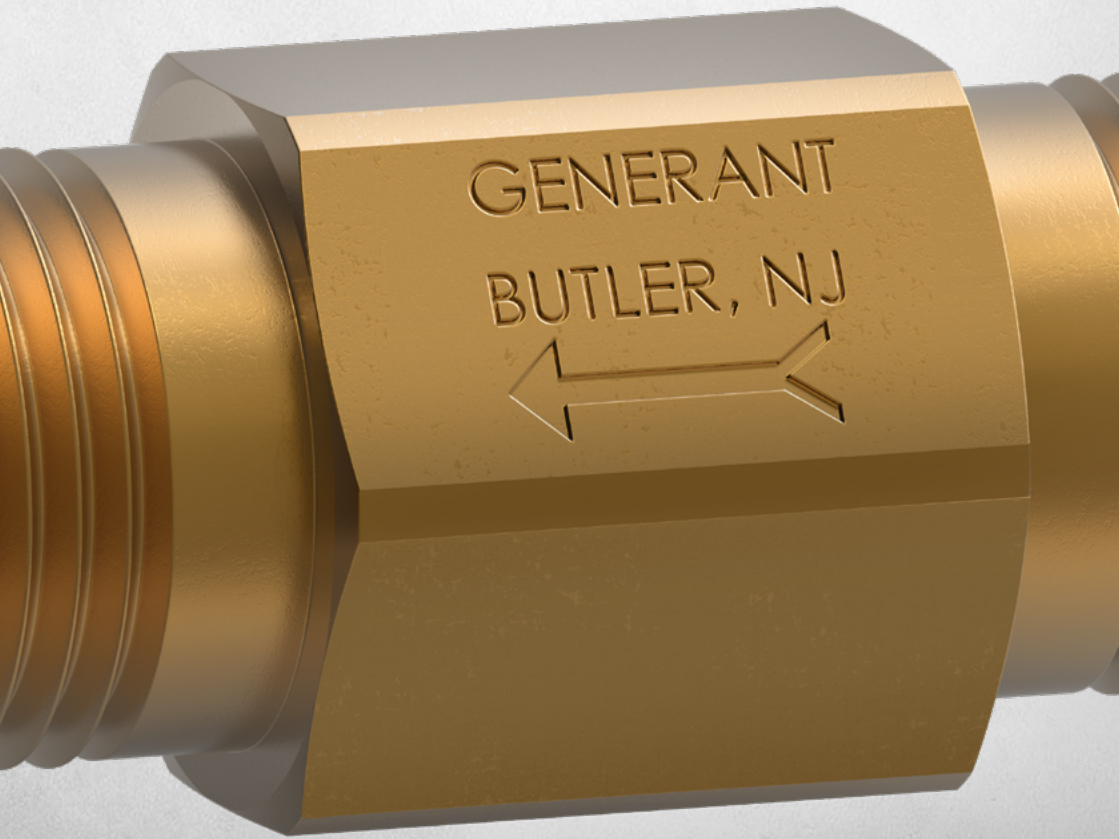


**HEROSE**

**One portfolio.  
Endless applications.**

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**GENERANT**

# HEROSE and GENERANT

**Proven gas control solutions for applications in the fields of cryogenics, industrial gases and specialty gases.**

**Setting new standards for modern gas applications together.**

Through the exclusive partnership between HEROSE and GENERANT, HEROSE is expanding its portfolio for cryogenic, industrial and specialty gas applications on the European market.

For over 20 years, the two companies have enjoyed a successful partnership in the field of high-quality gas control and safety solutions. The combination of HEROSE's engineering expertise and European market presence with Generant's long-standing experience in valve and gas control technology results in all-in-one solutions for modern industrial gas applications.

**HEROSE and GENERANT deliver modern gas control solutions for safe, efficient and future-oriented industrial applications.**

## Key applications

- › Cryogenic and industrial gas applications
- › Microbulk and liquefied gas cylinder systems
- › Specialty gas applications
- › Pressure control and safety solutions
- › Analytical and process gas systems
- › Medical devices

## GENERANT products by type



## Technical expertise for demanding gas applications

Modern gas applications place high demands on safety, precision and system integration. HEROSE and GENERANT offer tailored solutions for industrial, cryogenic and high-precision gas applications.

For over 75 years, GENERANT has been developing and manufacturing high-quality valve and gas control solutions for a wide range of industrial applications. The portfolio includes:

- › Pressure regulators
- › Relief valves
- › Check valves
- › Cryogenic components
- › Special gas solutions

By combining GENERANT products with technical experience and local support from HEROSE, customers benefit from:

- › Tailored system solutions
- › Simpler integration
- › Reduced complexity
- › Greater process reliability
- › A single point of contact in Europe
- › tocking within the EU

# Industries served

GENERANT valves satisfy the most demanding applications in the industries we serve. Our valves have benefited from the experience and expertise gained through more than 75 years of meeting customers' needs.



## Cryogenic and industrial gas

GENERANT is a leading manufacturer of pressure and flow control devices engineered to meet the demanding requirements of cryogenic and industrial gas applications.



## Oil and gas markets

Many valve types are used in the exploration, extraction, transporting, refining and distribution phases of energy and gas markets, including in many high-pressure designs.



## Power generation

GENERANT valves are utilised in many power generation applications across the world, including capacitors and other energy protection applications.



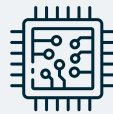
## Chemical processing

Numerous valve types are supplied for the chemical manufacturing and petrochemical processing industries operating in harsh environments.



## Pharmaceuticals and biotechnology

Many types of valves are used in instrument control circuits, gas blanketing, and process control applications. This package includes numerous regulated approvals.



## Semi-conductor manufacturing

The manufacturing processes utilise many unique gases that require the robust, reliable and safe controls from GENERANT, including valves for many clean energy installations.



## Research instrumentation

GENERANT's engineering experience and in-house manufacturing flexibility provide research labs and testing facilities with fluid control circuitry.



## Medical devices

A firm understanding of the regulatory requirements has allowed GENERANT to develop custom-designed product solutions for oxygen and other regulated applications.

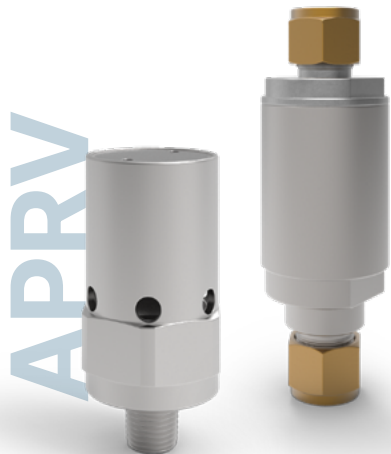
## Engineered custom solutions for your applications

Whether the application requires modifications to existing products or complete custom designs, the dedicated GENERANT design team can find a solution for you. Together, we will work with you throughout the design process from regulatory compliance analysis and conceptualisation to design validation and production.

With the knowledge and expertise to apply applicable standards, ensuring regulatory compliance, we provide a comprehensive design solution for the simplest to the most demanding of applications. From relief valves for medical breathing equipment to robust hydraulic check valves for elevator lifts – we customise the valve to your needs.

## Absolute Pressure Relief Valves

The GENERANT series APRV (absolute pressure relief valve) is a spring-reference overpressure protection device for applications requiring constant set pressure, independent of changes in ambient pressure (altitude). The valve was developed primarily for use with liquid helium dewars and has been extensively tested to verify that it can withstand the extreme cold environment (FS Seals). Valves come factory preset with set pressures ranging from 1.02 to 1.65 bara. Relief pressure can be discharged to atmosphere or to a downstream connection.



### Absolute Pressure Relief Valve

**Size:** 1/4", 1/2" | 6 mm, 15 mm  
**Temperature:** -62 °C to 176 °C  
**Pressure:** 1.02 bara to 1.65 bara  
**Material:** Nickel-plated, brass, aluminum

## Relief Valves

Factory preset and 100% tested for opening pressure and reset. This extensive product offering includes low pressure/high accuracy and high pressure/high flow designs. GENERANT pressure relief valves are relied upon in many diverse industries. This wide product range provides product solutions for many different liquid and gas applications.

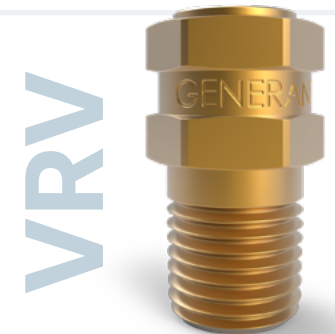


### Cryogenic Relief Valve

**Size:** 1/4" to 1/2" | 6 mm to 15 mm  
**Temperature:** -254 °C to 190 °C  
**Pressure:** 0.7 bar to 51.7 bar  
**Material:** Brass, stainless steel

### Vent Relief Valve

**Size:** 1/8" to 1" | 3 mm to 25 mm  
**Temperature:** -220 °C to 205 °C  
**Pressure:** 0.03 bar to 10.3 bar  
**Material:** Brass, stainless steel, aluminium



### Liquid Cylinder Valve

**Size:** 1/4" | 6 mm  
**Temperature:** -196 °C to 176 °C  
**Pressure:** 1.5 bar to 34.5 bar  
**Material:** Brass

# HPRV



### High Pressure Relief Valve

**Size:** 1/8" to 3/4" | 3 mm to 20 mm  
**Temperature:** -220 °C to 204 °C  
**Pressure:** 0.7 bar to 166 bar  
**Material:** Brass, stainless steel

# GEM



### Combination Pressure Build - Economiser Regulator

**Size:** 1/4" | 6 mm  
**Temperature:** -196 °C to 65 °C  
**Pressure:** 3.4 bar to 34.5 bar  
**Inlet pressure:** 41.4 bar  
**Outlet pressure:** 34.5 bar  
**Material:** Brass

## Pressure Regulators

With unique features, GENERANT has been manufacturing all-brass pressure regulators for over 50 years. Today, we offer spring- and pilot operated configurations.

### Cryogenic Regulator, Mini (Pressure Reducing)

**Size:** 1/4" | 6 mm  
**Temperature:** -196 °C to 93 °C  
**Pressure:** 1 bar to 36.2 bar  
**Inlet pressure:** 41.4 bar  
**Outlet pressure:** 36.2 bar  
**Material:** Brass

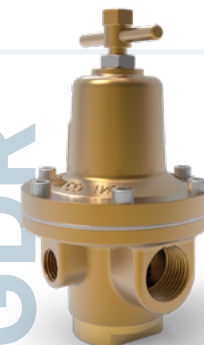
# CRM



### Gas Delivery Regulator (pressure-reducing)

**Size:** 1/4" to 1" | 6 mm to 25 mm  
**Temperature:** -51 °C to 107 °C  
**Pressure:** 0.1 bar to 31 bar  
**Inlet pressure:** 40.0 bar  
**Outlet pressure:** 31.0 bar  
**Material:** Brass

# GDR



### Back Pressure Regulator (Back Pressure / Economizer)

**Size:** 1/4" | 6 mm  
**Temperature:** -196 °C to 93 °C  
**Pressure:** 1 bar to 41.4 bar  
**Inlet pressure:** 51.7 bar  
**Outlet pressure:** 41.4 bar  
**Material:** Brass

# BPR



# BLD



### Cryogenic Pressure Regulator (Pressure build)

**Size:** 1/2" | 15 mm  
**Temperature:** -196 °C to 93 °C  
**Pressure:** 1 bar to 41.4 bar  
**Inlet pressure:** 41.4 bar  
**Outlet pressure:** 41.4 bar  
**Material:** Brass

### Back Pressure Regulator (High-Flow Economizer)

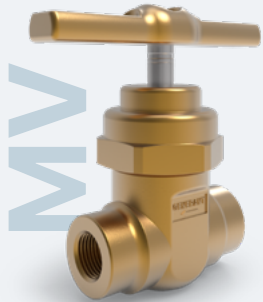
**Size:** 3/8" to 1/2" | 12 mm to 15 mm  
**Temperature:** -196 °C to 93 °C  
**Pressure:** 1 bar to 41.4 bar  
**Inlet pressure:** 51.7 bar  
**Outlet pressure:** 41.4 bar  
**Material:** Brass, stainless steel

# BPRX



## High Pressure Gas Control Valves

These high-pressure cylinder filling application valves are industry leaders in gas cylinder filling plants, with GENERANT developing the master shut-off/control valve line. These valves provide consistent, low operating torque throughout the entire operating pressure range of the valve to 380 bar in oxygen service, as well as in an actuated version.

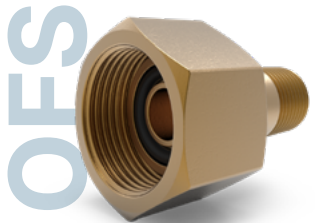


### High Pressure Gas Control Valve

**Size:** 1/2" to 1" | 6 mm to 25 mm  
**Temperature:** -40 °C to 74 °C  
**Pressure:** up to 380 bar  
**Material:** Brass

### Pneumatically Actuated High Pressure Gas Control Valve

**Size:** 1/2" to 1" | 6 mm to 25 mm  
**Temperature:** -40 °C to 74 °C  
**Pressure:** up to 380 bar  
**Material:** Brass

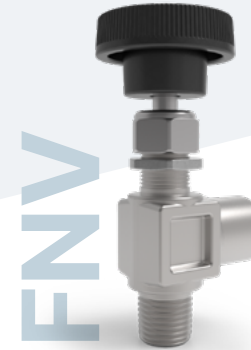


### O'Ring Face Seal Fitting

**Size:** 1/2" NPT and pipe connections  
**Temperature:** -54 °C to 190 °C  
**Pressure:** up to 413.7 bar  
**Material:** Brass

## Needle Valves

We have been manufacturing brass and stainless steel needle valves at GENERANT for over 75 years. The forged and machined body needle valve options are used as economic metering valves where positive shut-off and coarse metering are desired. For extremely accurate flow metering, we offer the alternative PMV series, providing precise control of fluids and gases.

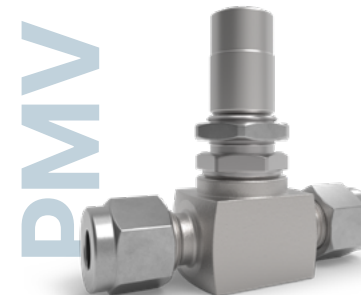


### Forged Needle Valve

**Size:** 1/8" to 1/2" | 3 mm to 15 mm  
**Temperature:** -196 °C to 232 °C  
**Pressure:** up to 345 bar  
**Material:** Brass, stainless steel

### Screwed Bonnet Needle Valve

**Size:** 1/8" to 1/2" | 3 mm to 15 mm  
**Temperature:** -196 °C to 204 °C  
**Pressure:** up to 345 bar  
**Material:** Brass, stainless steel



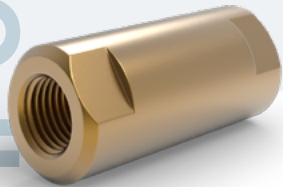
### Precision Metering Valve

**Size:** 1/8" to 1/4" | 3 mm to 6 mm  
**Temperature:** -46 °C to 82 °C  
**Pressure:** up to 68.9 bar  
**Material:** Brass, stainless steel

## Check Valves

GENERANT check valves are supplied in many designs, ranging from ultra-low cracking pressures for a variety of applications to severe-service designs rated up to 689.5 bar. Available in fixed and adjustable cracking pressures, and a variety of materials, these check valves provide solutions for the most demanding applications.

HPCV



### High Pressure Check Valve

**Size:** 1/4" to 1/2" | 6 mm to 15 mm  
**Temperature:** -73 °C to 204 °C  
**Pressure:** up to 689.5 bar  
**Material:** Brass, stainless steel

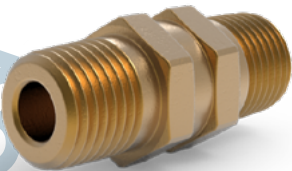
### Poppet Check Valve

**Size:** 1/8" to 1/2" | 3 mm to 15 mm  
**Temperature:** -62 °C to 232 °C  
**Pressure:** up to 206 bar  
**Material:** Brass, stainless steel

PCV



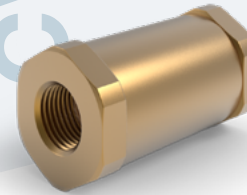
ICV



### Inline Check Valve

**Size:** 1/8" to 3/4" | 3 mm to 20 mm  
**Temperature:** -62 °C to 205 °C  
**Pressure:** up to 55 bar  
**Material:** Brass, stainless steel

CV



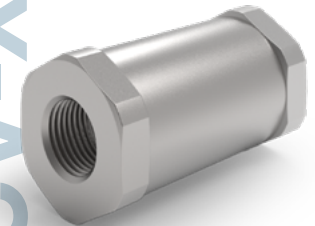
### Check Valve

**Size:** 1/8" to 1" | 3 mm to 25 mm  
**Temperature:** -62 °C to 204 °C  
**Pressure:** up to 310 bar  
**Material:** Brass, carbon steel and stainless steel (303 & 316)

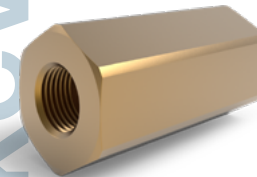
### Cryogenic Liquid Check Valve

**Size:** 1/4" to 1" | 6 mm to 25 mm  
**Temperature:** -267 °C to 177 °C  
**Pressure:** up to 68.9 bar  
**Material:** Brass, stainless steel

CV-XX3



KCV



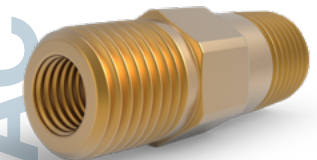
### Cryogenic Check Valve

**Size:** 1/2" to 3/4" | 15 mm to 20 mm  
**Temperature:** -251 °C to 93 °C  
**Pressure:** up to 482.6 bar  
**Material:** Brass, ASTM B16

### Adjustable Check Valve

**Size:** 1/4" to 1/2" | 6 mm to 15 mm  
**Temperature:** -62 °C to 232 °C  
**Pressure:** up to 206 bar  
**Material:** Brass, stainless steel

ACV

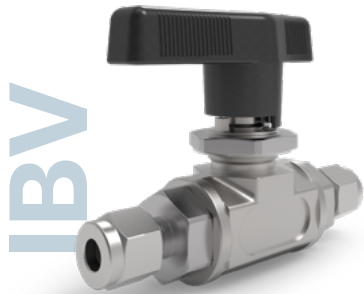
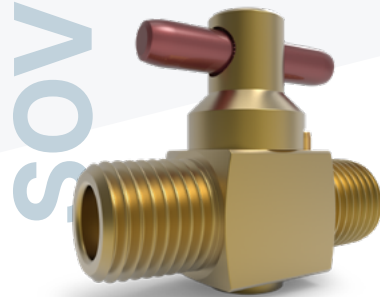


## Ball & Plug Valves

This range includes high-flow brass and stainless steel quarter-turn and plug valves. The valves are available in a variety of standard configurations, delivering low operating torque and zero-leak shut-off. For low-pressure systems, we offer the Series 4000, a snap-action, quick-opening valve.

### Shut-Off Valve

**Size:** 1/8" to 1/2" | 3 mm to 15 mm  
**Temperature:** -54 °C to 190 °C  
**Pressure:** up to 207 bar  
**Material:** Brass, stainless steel

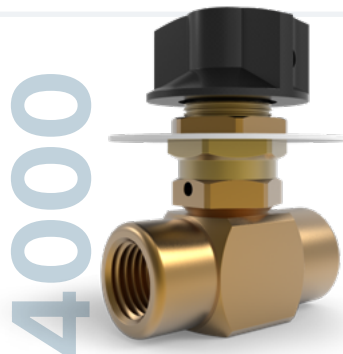


### Instrument Ball Valve

**Size:** 1/4" to 3/4" | 6 mm to 20 mm  
**Temperature:** -54 °C to 93 °C  
**Pressure:** up to 413 bar  
**Material:** Stainless steel

### Quick Opening Valve

**Size:** 1/8" to 1/4" | 3 mm to 6 mm  
**Temperature:** -29 °C to 149 °C  
**Pressure:** up to 8.6 bar  
**Material:** Brass



## Cryogenic Liquid Cylinder Accessories

This GENERANT range of liquid cylinder accessories is provided as standard on OEM equipment for most cryogenic DOT 4L liquid cylinders. From Safety Relief Valves to CGA Self-Locking Connectors, GENERANT understands your cylinder needs.



## Engineered around your application

Whether you need 50, 500 or 50,000 units, GENERANT delivers solutions tailored to your specific application requirements. From customised product adaptations to fully engineered designs, our team supports customers with scalable solutions that combine performance, reliability and regulatory compliance.

## Certified quality



DIN EN ISO  
4126-1

DIN EN  
1626

DIN EN  
13648-1

DIN EN ISO  
9001

# One partnership. One portfolio. Endless possibilities.

Together, HEROSE and GENERANT deliver advanced gas control solutions for critical applications across a wide range of industries.

Combining engineering expertise, local support and proven technologies, we help customers improve safety, reliability and operational efficiency.

**Let's discuss your application.**

## HEROSE and GENERANT

Enabling critical gas applications through advanced gas control solutions.



**Jascha Bolzmann**

Technical Inside Sales

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