



## SHANGHAI EVAN FLOW CONTROL CO.,LTD.

Add: 405-No.2199 Qilianshang Rd.S, Jiading District,  
Shanghai, China

Tel/Fax: +86-21 5679 6985  
<http://www.evaflows.com>

E-mail: [service@evaflows.com](mailto:service@evaflows.com)

Your local EVAN Representative



## Cryogenic Valve



## About EVAN

Shanghai EVAN Flow Control Co., Ltd.(EVAN) is an enterprise integrating design, manufacturing and sales of fluid equipment products. The company mainly provides professional technical support to domestic and foreign customers, and provides forged and cast multi turn and quarter turn alloy, stainless steel and copper alloy valves (such as GGC valve, ball valve, strainer, cryogenic GGC valve, ball valve and butterfly valve, Double block and bleed valve, etc.) According to API standard and EN standard, So as to meet the requirements of various fields and working conditions and customized various special and harsh application areas according to customer requirements.

We have been embracing the concept of "win-win cooperation" and looking for partners in various regions of the world to work together.

## Advanced Manufacturing & Quality Control

The latest computer technology has been extensively applied in EVAN manufacturing, which includes a large number of numeric control machines (machining center, CNC horizontal and vertical lathe, and CNC drilling machine) and ERP management system.

Additionally, the data through all factories has been connected and shared. These facilitate resource integration, boost productivity, evidently enhancing machining quality and tightening process control.



EVAN developed comprehensive and advanced inspection and test facilities to control the quality from rough castings or forgings to final products, which enable us to perform ultrasonic testing, radiographic test, liquid penetrant test, magnetic-particle test,

spectrum analysis, Material Positive Identification (MPI), impact test, tensile test, hardness test, fire safe test, cryogenic test, vacuum test, low fugitive emission test, high pressure gas test and hydrostatic test.



## Cryogenic Ball Valve-2PC Type

Cryogenic ball valve is one of the important flow control equipment in cryogenic pipeline systems, especially suitable for services requiring valves featuring high sealing performance, swift on-off and low flow-resistance. EVAN leverages most advanced design principle and most stringent manufacturing standard to design and manufacture cryogenic ball valve which helps EVAN cryogenic ball valve build up an reputation for reliable sealing performance. Low operation torque, high stability in cryogenic service and long lifespan. Presently, EVAN cryogenic ball valves have been installed in several LNG liquefaction plants and terminals.



### EVAN Cryogenic Floating Ball Valve Series Mainly Including:

- BBG Series: Cryogenic Forging 2PC Floating Ball Valve
- BG Series: Cryogenic Casting 2PC Floating Ball Valve
- BDG Series: Cryogenic Top Entry Floating Ball Valve

### EVAN Cryogenic TM Ball Valve Series Mainly Including:

- BSG Series: Cryogenic Forging Side Entry TM Ball Valve
- BEG Series: Cryogenic Top Entry TM Ball Valve



### Application:

- LNG
- Air Separation
- Ethene
- LPG

All EVAN cryogenic ball valves are designed per ISO 17292, API 6D, BS 6364 and SHELL SPE 77/200, with ambient temperature test in conformity with API 598 and API 6D, cryogenic test per BS 6364 and ISO15848, and safe test based on API 607 and API 6FA. The high flexibility of body and trim material selection enables conformance to low temperature and cryogenic service. For details please refer to how to order on page 2. For special applications, we can accordingly offer customized design and material.



### Side Entry Cryogenic Ball Valve

#### Product Description

The cryogenic ball valves in EVAN VALVE are suitable for working condition of -196°C. The products are widely used in liquefied natural gas, liquefied petroleum gas, air separation and other low temperature industries. Ultra-low temperature ball valves use the world's most advanced technology, using LIP SEAL sealing ring, this type of valves in application to maintain excellent sealing performance. The whole series of products pass the fire protection, low leakage certification.

- Size: 2"~24" (DN50~DN600);
- Rating: ASME Class 150~2500 (PN16~PN420);
- Body material: Stainless steel
- Connection: RF, BW, RTJ;
- Operation: Manual, pneumatic, electric and hydraulic



### Top Entry Cryogenic Ball Valve

#### Product Description

It is suitable for working temperature of -196°C, and the products are widely used in LNG, LPG, air separation and other low-temperature industries. The top entry cryogenic ball valves that developed by EVAN VALVE apply the most advanced technology in the world, and adopt LIP SEAL sealing ring, and is widely used in natural gas, liquefied petroleum gas, air separation and other low-temperature industries. This type of valve maintains excellent sealing performance in application. This series of top entry valves can be maintained on-line.

- Size: 2"~28" (DN50~DN700);
- Rating: ASME Class 150~1500(PN16~PN250) ;
- Design Std.: API 6D BS 6364 GB/T 24925;
- Body material: Stainless steel
- Connection: RF, BW, RTJ
- Operation: Manual, pneumatic, electric and hydraulic

### Cryogenic Ball Valve-2PC Type

#### Product Description

Mainly used in liquefied natural gas, liquefied petroleum gas and other low-temperature medium of industrial pipeline system.

- Size: NPS 1/2-24 (DN 15-600)
- Rating: Class 150-1500 (PN 20-250)
- Applicable medium: LNG、LPG、LEG、LO<sub>2</sub>、LN<sub>2</sub>、LAr
- Suitable temperature: -46°C, -101°C, -196°C
- Connection form: Flange, Butt welding



### Cryogenic Ball Valve-Side Mounted

#### Product Description

Mainly used in liquefied natural gas, liquefied petroleum gas and other low-temperature medium of industrial pipeline system.

- Size: NPS 1/2-24 (DN 15-600)
- Rating: Class 150-1500 (PN 20-250)
- Applicable medium: LNG、LPG、LEG、LO<sub>2</sub>、LN<sub>2</sub>、LAr
- Suitable temperature: -46°C, -101°C, -196°C
- Connection form: Flange, Butt welding





### Cryogenic Butterfly Valve

#### Product Description

The cryogenic butterfly valve in EVAN VALVE is designed with triple-eccentric structure, it is suitable for working temperature of -196 °C, using raising structure for the stuffing box, the products are widely used in liquefied natural gas, liquefied petroleum gas, air separation and other low-temperature industries. All parts production and manufacture are completely interchangeable, this can realize on-line maintenance and replacement.

- Size: 2"~60" (DN50~DN1500) ;
- Rating: ASME Class 150~1500(PN16~PN250) ;
- Design Std.: API 609 BS 6364 GB/T 24925 ;
- Body material: Stainless steel
- Connection: WAFER, LUG, RF, BW ;
- Operation: Gear, electric, pneumatic, hydraulic



### Side/Top Entry Cryogenic Butterfly Valve

#### Product Description

The body material CF8M-DT that used for the top entry cryogenic butterfly valve is developed independently by EVAN VALVE. This material is not need to do cryogenic treatment, and its size variation is small. The butterfly valve is designed with top entry, triple-eccentric structure, this series of top entry valve can be maintained on site, it is suitable for working temperature of -196°C, the products are widely used in liquefied natural gas, liquefied petroleum gas, and other low-temperature industries. The whole series of products pass the fire protection, low leakage certification.

- Size: 2"~48" (DN50~DN1200) ;
- Rating: ASME Class 150~600 (PN16~PN100) ;
- Design Std.: API 609 BS 6364 GB/T 24925 ;
- Body material: Stainless steel
- Connection: Wafer, LUG, RF, BW ;
- Operation: Gear, electric, pneumatic, hydraulic

### Cryogenic Gate Valve

#### Product Description

The cryogenic gate valves designed by EVAN VALVE are suitable for working temperature of -196°C, using raising structure for the stuffing box, and can be designed with the top entry structure, products are widely used in liquefied natural gas, liquefied petroleum gas, air separation and other low-temperature industries. All parts production and manufacture are completely interchangeable, this can realize on-line maintenance and replacement.

- Size: 2"~60" (DN50~DN1500) ;
- Rating: ASME Class 150~2500 ;
- Design Std.: API 600 BS 6364 GB/T 24925 ;
- Body material: Stainless steel
- Connection: Wafer, LUG, RF, BW ;
- Operation: Gear, electric, pneumatic, hydraulic



### Cryogenic Globe Valve

#### Product Description

The cryogenic globe valves designed by CHASE VALVE are suitable for working temperature of -196°C. By adopting the most advanced design concept, high precision processing control and strict process management, the cryogenic valve has many outstanding advantages, such as reliable sealing, low operating torque, high low temperature stability and long service life, etc. Products are widely used in liquefied natural gas, liquefied petroleum gas, air separation and other low-temperature industries.

- Size: 1/2"~24" (DN15~DN600) ;
- Rating: ASME Class 150~2500 (PN16~PN420) ;
- Design Std.: API 623 BS 1873 BS 6364 GB/T 24925 ;
- Body material: Stainless steel
- Connection: RF, BW, RTJ ;
- Operation: Manual, pneumatic, electric and hydraulic





### Cryogenic Axial Flow Check Valve

#### Product Description

The cryogenic axial flow checks in EVAN VALVE are suitable for working temperature of  $-196^{\circ}\text{C}$ , which are the high performance that designed according to API 6D and ASME B16.34. It is widely used in pipeline system of low temperature and high circulation requirement, which can not only prevent the harm of liquid backflow, but also improve the circulation performance of pipeline. At the same time, the valve also has the advantages of reducing the harm of water hammer, reducing noise and rapid reaction. The products are widely used in liquefied natural gas, liquefied petroleum gas, air separation and other low-temperature industries.

- Size: 2"~10" (DN50~DN250) ;
- Rating: ASME CLASS 150~1500 (PN16~PN250) ;
- Design Std.: API6D BS6364 GB/T24925;
- Body material: Stainless steel
- Connection: RF, BW, RTJ



### Cryogenic Swing Check Valve

#### Product Description

The cryogenic swing check valves designed by EVAN VALVE are suitable for working temperature of  $-196^{\circ}\text{C}$ . By adopting the most advanced design concept, high precision processing control and strict process management, the ultra-low temperature valve has many outstanding advantages, such as reliable sealing, high stability at low temperature and long service life, etc. Products are widely used in liquefied natural gas, liquefied petroleum gas, air separation and other low-temperature industries.

- Size: 2"~48" (DN50~DN1200) ;
- Rating: ASME Class 150~600 (PN16~PN100) ;
- Design Std.: API 609 BS 6364 GB/T 24925 ;
- Body material: Stainless steel
- Connection: Wafer, LUG, RF, BW ;
- Operation: Gear, electric, pneumatic, hydraulic

### Cryogenic Pneumatic Film Control Valve

#### Product Description

Pneumatic thin film low temperature control valve is used in low temperature, cryogenic occasions, using a long neck valve cover structure, with pneumatic thin film actuator. It has the advantages of compact structure, light weight and good stability. The body is made of precision cast austenitic stainless steel with good low temperature resistance.

- Size: NPS 1/2-24 (DN 15-600)
- Rating: Class 150-1500 (PN 20-250)
- Applicable medium: LNG、LPG、LEG、 $\text{LO}_2$ 、 $\text{LN}_2$ 、LAR
- Suitable temperature:  $-46^{\circ}\text{C}$ ,  $-101^{\circ}\text{C}$ ,  $-196^{\circ}\text{C}$
- Connection form: Flange, Butt welding



### Cryogenic Emergency Shut-off Valve

#### Product Description

The emergency shut-off valve is mainly used to cut off liquid ammonia, liquefied petroleum gas, liquefied natural gas and other storage tank imports and exports and pipelines. Can be widely used in petroleum, chemical industry, metallurgy and other industrial production departments. The source of the emergency shut-off valve requires filtered (compressed air) nitrogen.

- Size: NPS 1/2-24 (DN 15-600)
- Rating: Class 150-1500 (PN 20-250)
- Applicable medium: LNG、LPG、LEG、 $\text{LO}_2$ 、 $\text{LN}_2$ 、LAR
- Suitable temperature:  $-46^{\circ}\text{C}$ ,  $-101^{\circ}\text{C}$ ,  $-196^{\circ}\text{C}$
- Connection form: Flange, Butt welding

