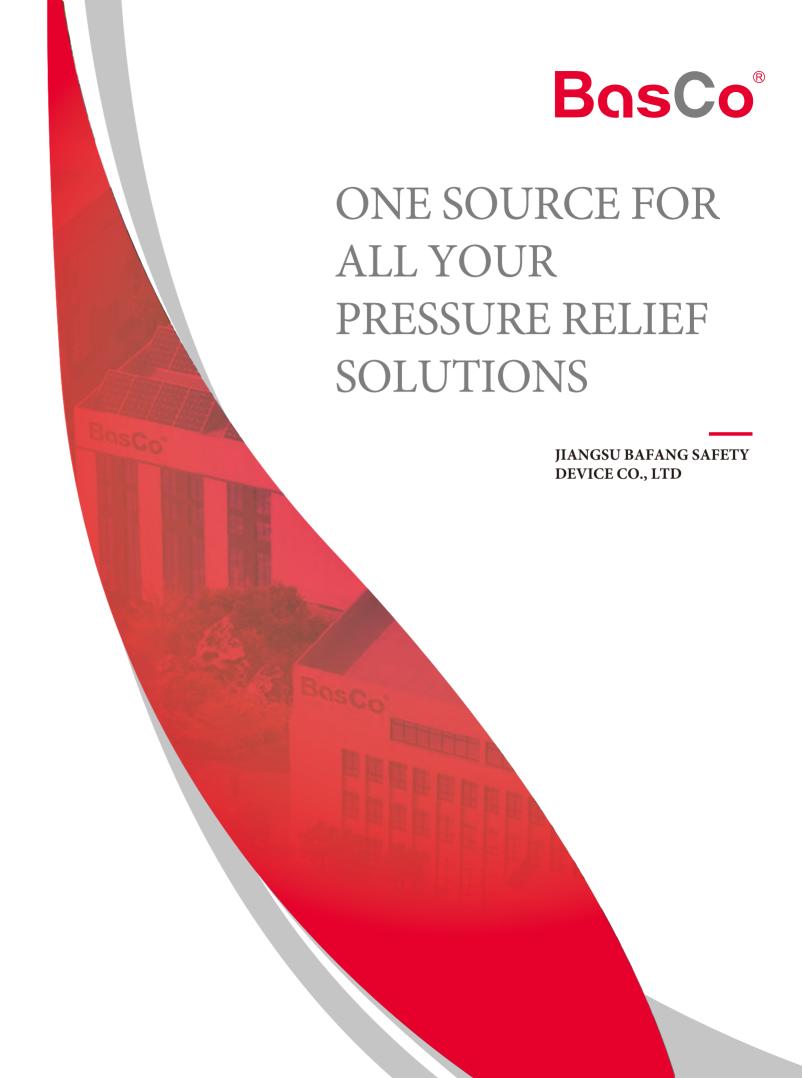
revitalizing the country by relying on science and technology; innovative development





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- **08** BasCo Product System
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- BasCo Valves in Storage and Transport System
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- **28** Typical Applications and Cases
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01 PAGE | Introduction | CompanyIntroduction | PAGE 02

ONE SOURCE FOR ALL YOUR PRESSURE RELIEF SOLUTIONS



Customized solutions

product customization/

product optimization/

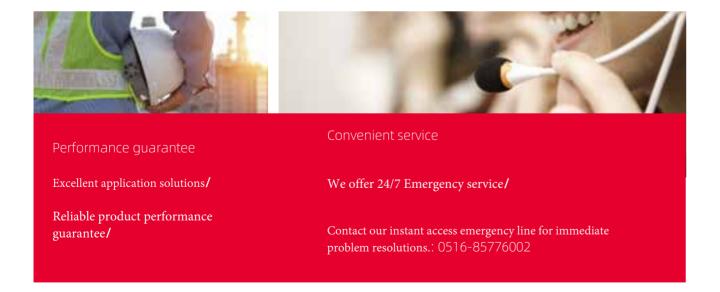


Excellent engineering

Regional sales engineer/

Headquarter sales engineer/

Technical engineer team/



Near-perfect quality control system, commitment to continuous improvement, enabling management, safe working environment, pursuit of excellence in operations.

Company

Introduction

Jiangsu Bafang Sayfty Device Co.Ltd.(Registered as 'BasCo') is committed to finding pressure relief solutions for our customers that maximize their productivity and performance while keeping them safe.

> The main products include flame arrestors, rupture discs, dust explosion venting device, safety relief valves, breather valves, emergency relief valves, blanketing valves, buckling pin valves, etc.



The brand BasCo ° is built on the basis of safety and excellent quality, driving the profit by the customers' satisfaction for performance, personalized solutions and reliability, aimed at providing users' personalized innovative solutions that meet and exceed operational needs.

- Customized personalized safety relief solution can protect the safety and machinery equipment.
- Reliable one-stop service ensure the supply chain security of users continuously.
- Help users to cope with pressure management challenges by unique design and certification of the professional institutions.

BasCo

Values



BasCo Certification and standard

Certification

Special equipment of flame arrester manufacturing license Special equipment of rupture disc manufacturing license Special equipment of safety valves manufacturing license Flame Arresters ATEX certification Flame Arrestors CCS certification Rupture Disc Device ASME certification Rupture Disc Device NB certification Rupture Disc Device PED certification

FPB Breather Valves ATEX certification
Breather Valves CCS certification
Breather Valves ATEX certification
Emergency Relief Valves ATEX certification
Buckling Pin Valves ASME certification
Buckling Pin Valves NB certification
Explosion Vents ATEX certification
Flameless Relief Device ATEX certification

Coedit Standard

GB/T 36588-2018 General Data of Overpressure Protection Safety Device

GB/T 38599-2020 Combination of Safety Valve and Rupture Disc Device

NB/T 10355-2019 Tube Bundle Container

SH/T 3413-2019 Standard for Selection, Inspection and Acceptance of Flame

Arresters for Petrochemical and Petroleum Gas Pipelines

GB/T 12241-2021 General Requirements for Safety Valves

GB/T 12242-2021 Test Method for Performance of Pressure Relief Device

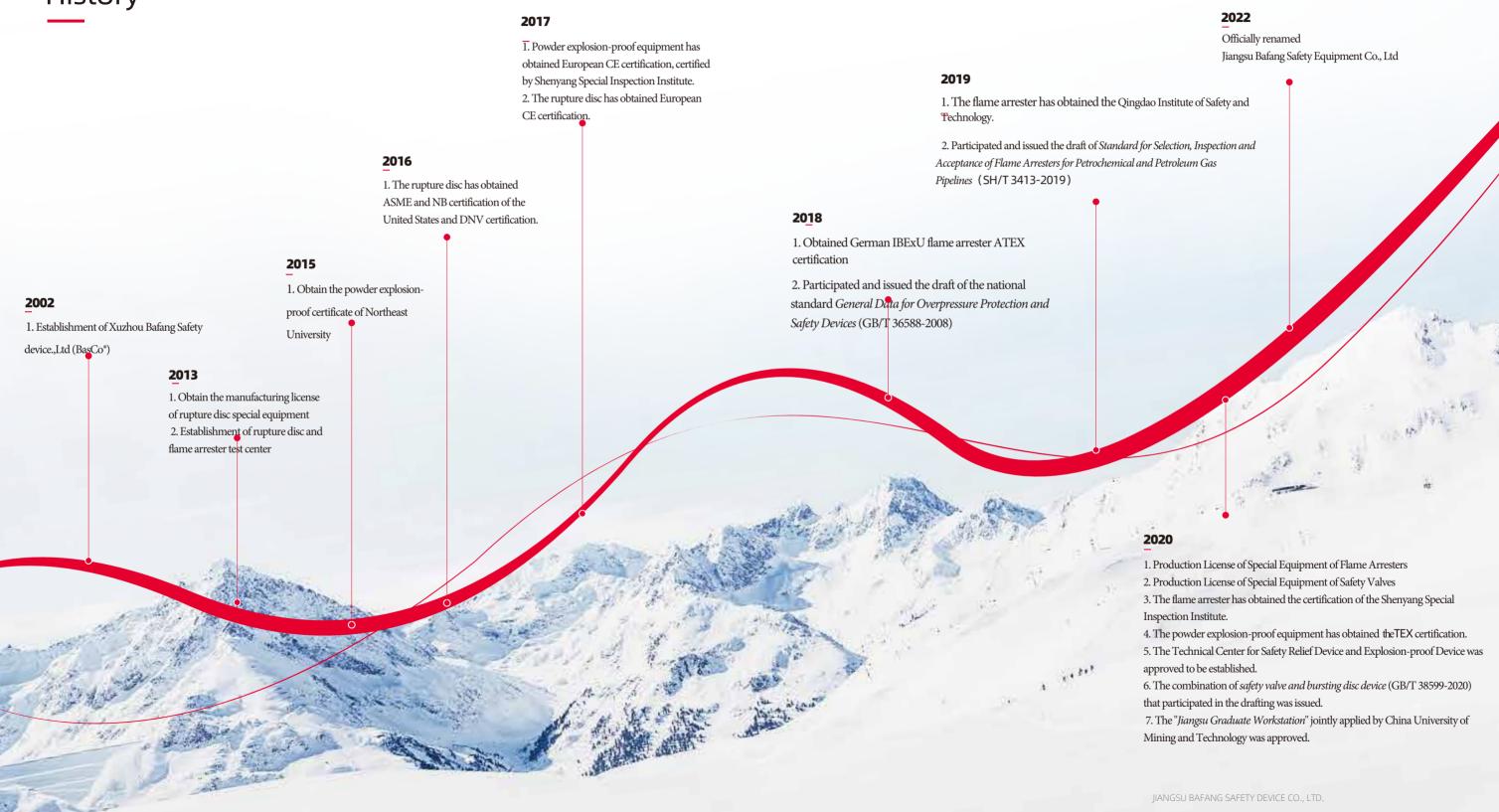
GB/T 12243-2021 Spring-loaded Safety Valve

GB/T 40011-2021 Low Temperature Pilot Safety Valve

JB/T 14254-2022 Buckling Pin Valve



Company History



Partial

Certificates





Special equipment manufacturin















Product System

/Breather valve RUPTURE DISC VALVES IN STORAGE AND TRANSPORT SYSTEM /Emergency pressure relief valve SAFETY VALVE /Explosion Isolation Flap Valve BUCKLING PIN VALVE DUST EXPOLSION VENTING DEVICES

/Flameless ExplosionVenting Device

Rupture Disc

Bursting disc is a non-reclosed pressure relief device that can instantly burst and release media under the setting bursting pressure and temperature. It can realize pressure relief for specific pressure value in various applications, which can prevent overpressure or vacuum to protect personnel environment and equipment safety.







finstantly



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BasCo provides a full range of Rupture disc products, which have obtained China's special equipment manufacturing license, American ASME, NB certification, European CE certification and other qualification certificates. It complies with GB/T 567, ASME VIII, API 520, ISO4126 and other domestic and foreign standards. According to the actual working conditions of users, Basco can provide safe and reliable personalized solutions and products.

02

Basco Rupture Disc Series

Forward Acting Reverse Acting Nonmetal Rupture Graphite rupture disc Disc

Basco Rupture Disc Application

Rupture Disc for Tank

Sanitary Rupture Disc

Bi-directional Rupture Disc

Special Explosion Vent

Bolt Type Rupture Disc

Buckling Rod Rupture disc Special Purpose Rupture Disc

...

Basco Appendix

Rupture Disc Holder

Leakage Device

BI Warning Indicator

03

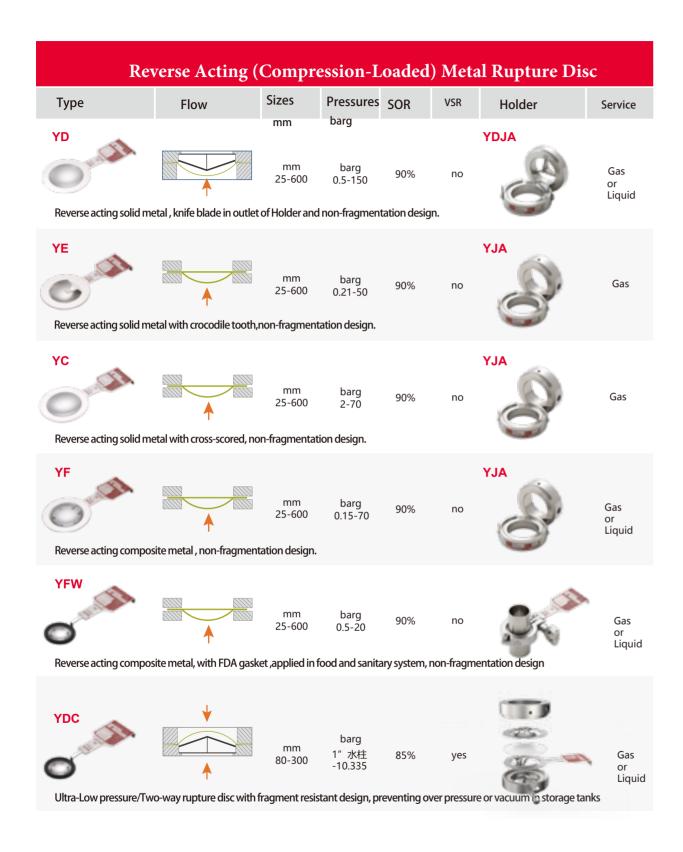
BasCo

Contact us for more product information.

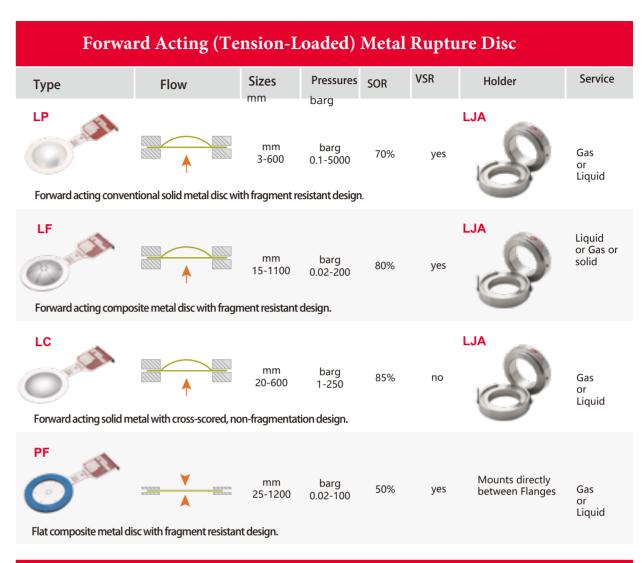


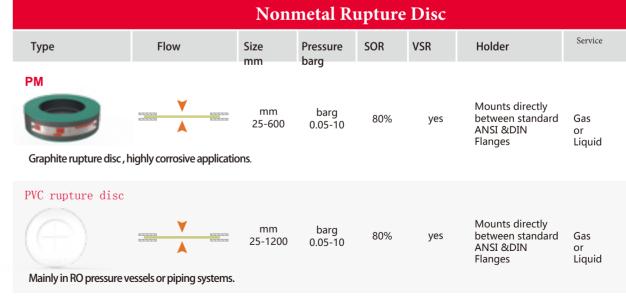


11 | PAGE Rupture Discs









13 | PAGE Valves in Storage and Transport System

valves in **Storage and Transpsrt** system



Storage and Transport system valves mainly includes: flame arrester、breather valve、emergency pressure relief valve、blanketing valve etc. They can be used alone or in combination.



Flame Arrestor

The flame arrester is a safety device installed in the outlet or pipeline of the storage tank, which allows the medium to flow and can prevent the flame from passing through. It can be used to block flashback in scenarios with potential ignition sources such as storage tanks or equipment connecting pipes to prevent fire and explosion accidents of fuel gas system.



Breather valve

Breather valve is a kind of valve that can not only ensure the sealing of the storage tank within a certain pressure range, but also release the pressure or inhale gas in case of overpressure or vacuum . To protect the safety device of the tank, reduce medium loss and environmental pollution, it can be used to adjust pressure balance and prevent medium leakage in atmospheric storage tanks and pipelines.



Emergency Relief Valve

The emergency relief valve is a safety device that can provide emergency protection for the storage tank, for example, the storage tank is in a fire condition or the breather valve cannot cope with the sudden overpressure or vacuum condition. It can be used for largeflow pressure relief in atmospheric storage tanks and other scenarios, as an entrance and exit for personnel, to protect the safety of containers and facilitate maintenance.



Blanketing Valve

Blanketing Valve is a safety device that provides inert gas (nitrogen) protection for the storage tank to maintain the non-flammable environment and maintain the normal working pressure of the storage tank. To protect the equipment safety and reduce production losses,, it can be used to balance the pressure in the container, reduce the evaporation of the medium, prevent the pollution of the medium in the atmospheric storage tank and other scenarios.

02

/End-of-Line Breather Valve、In-Line Breather Valve、Pressure Relief Valve、Vacuum Relief Valve、Pilot-operated Breather

Valve、PVRV with Integrated Flame Arrestor

/ End-of-Line Flame Arrestor、 In-Line Deflagration Flame Arrestor、 In-Line Detonation Flame Arrestor、 Unstable

Detonation Flame Arrestor

Emergency Relief Valve Series / Emergency Pressure Relief Valve Emergency Pressure Vacuum Relief Valve

These valve products are non-standard equipment, which need to be customized according to the actual working conditions, taking many parameters into account to ensure the using effects. BasCo provides a full range of storage and transportation system valves, which has obtained third-party type, quality system certification and a complete testing system. According to the actual working conditions of users, Basco can provide safe and reliable personalized solutions and products.





Contact us for more certification information



6100 End-of-Line Flame Arrestor

Size Available: 1" (25mm)-40" (1000mm) Features: Maximum flow, Less pressure Drop, Easy Cleaning, Less Clogging

venting and flame protection for vertical vent applications.



6400 Detonation Flame Arrestor

Size Availabl: 1" (25mm)-40" (1000mm)

Features: Less Clogging, Less Maintenance, Easy Cleaning, Maximum flow



5100 End-of-Line Pressure Vacuum Relief Valve

Size Available: 1.5" (40mm)-12" (300mm) Features: Dual guide system provides for smoother valve stroke, less flutter and valve wear.

For the allowable leakage, it exceeds the most stringent standard and ensures a very high setting accuracy (±3%) 10% overpressure to full lift.



6200 In-Line Deflagration Flame Arrestor

Size Available: 1" (25mm)-40" (1000mm) Features:Less pressure drop, Less Clogging,Less, Maintenance, Easy Cleaning, Maximum flow



6500 Unstable Detonation Flame Arrestor

Size Available: 1" (25mm)-40" (1000mm) Features: Less Clogging, Less Maintenance, Easy Cleaning, Maximum flow

Model 6500 is designed for unrestricted unstabledetonation.



5200 In-Line Breather Valve

Size Available: 1.5" (40mm)-12" (300mm)

Features: Dual guide system provides for smoother valve stroke,

less flutter and valve wear.

API2000 standard) and provides excellent set point accuracy (+/-3%).



5300 Pressure Relief Valve

SizeAvailable: 1.5" (40mm)-12" (300mm) Features: Dual guide rail valve system reduces valve wear and allowable leakage, which is far lower than API2000, easy to replace valve core and valve seat on site.



5620 PVRV with Integrated Flame Arrestor

Size Available: 2" (50mm)-12" (300mm)

Features: The combination of fire resistance and respiratory function provides overpressure and vacuum protection. At the same time, it can prevent flame propagation. Large ventilation and small leakage; High sealing performance; Convenient replacement of valve core and valve seat on site.



7100 Emergency Pressure Relief Valve

Size Available: 16" (400mm)-24" (600mm) Features: The use of advanced sealing technology for a permissible leakage superior to API 2000, Pressure Set Point accuracy ($\pm 3\%$) is guaranteed.



5500 Pilot-operated Breather Valv

Size Available: 2" (50mm)-12" (300mm) Features: With high sealing, the valve can be fully opened when it reaches the set pressure.

Temperature application range - 180 °C - 206 °C



5800 In-Line PVRV with Integrated Flame Arrestor

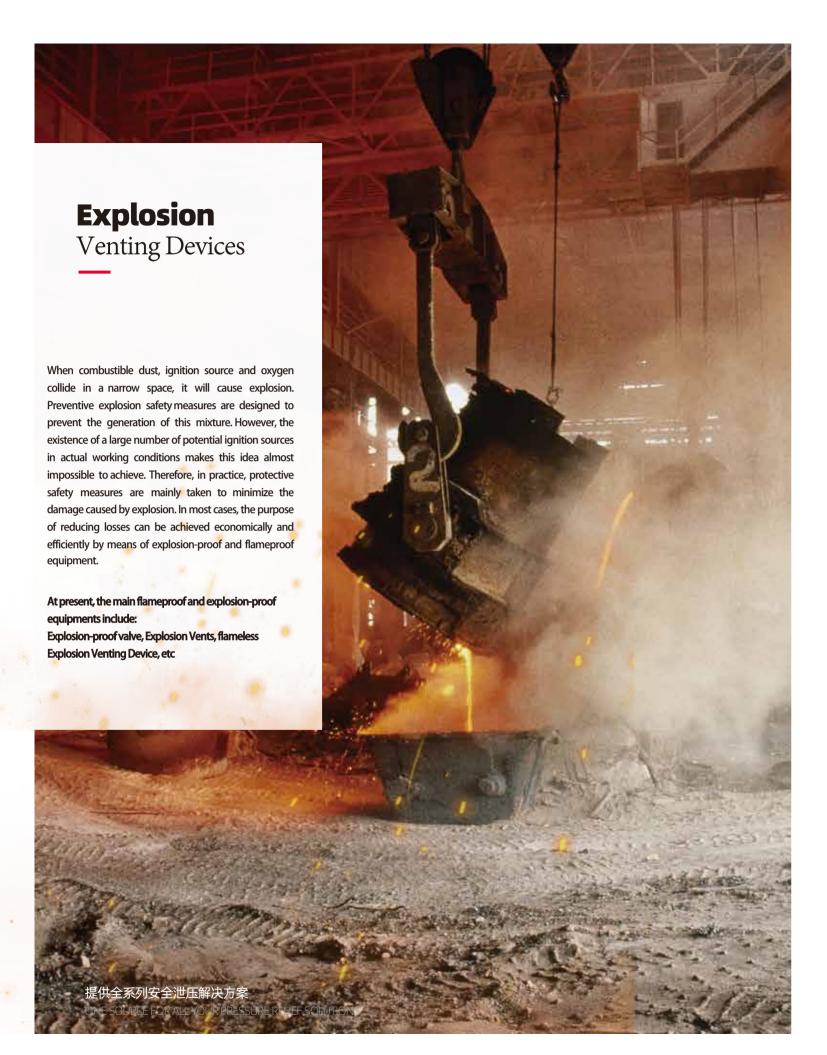
Size Available: 16" (400mm)-24" (600mm) Features: Stainless steel and FEP for valve seat and trim, with resistance to corrosion 10% overpressure to full lift.



8100 Blanketing Valve

Size Available: 1/2"、1"

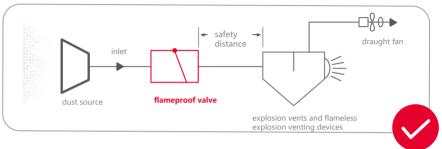
Features: Effective operation with Nitrogen Supply pressure from 10PSIG to 200PSIG, Standard NPT inlet and outlet ANSI150lb.or 300lb Flange connection, Supply line filter option is available



Explosion Venting Devices Typical Application Examples:

Explosion Venting Devices can be combined in the dust removal system.

In case of explosion in the dust collector, the pressure wave can be released and the flame propagation can be prevented by using the flameless relief device with the explosion vent, so as to effectively prevent the dust collector damage. Explosion-proof valve is used to prevent the propagation of explosive gas flow and flame, so that it can prevent the secondary explosion of dust source and the propagation of explosion.



This type of product is non-standard equipment, which need to be customized according to the actual working conditions, taking many parameters into account to ensure the using effects. BasCo provides a full range of storage and transportation system valves, which has obtained third-party type, quality system certification and a complete testing system. According to the actual working conditions of users, Basco can provide safe and reliable personalized solutions and products.





19 | PAGE BasCo Explosion Vents BasCo Flameless Explosion Venting Device | PAGE 20

BasCo Explosion Vents

The explosion vent is a non-reclosed safety pressure relief device that breaks and opens the pressure relief inlet under a certain static opening pressure. It can be used for powder explosion pressure relief in dust remover, silo, pipeline and other scenes to protect equipment safety and reduce losses. It can be directly discharged without affecting personnel equipment that applied to outdoor equipment.









- Standard Materials: SS/PTFE/SS
- satisfy the applications of food processing
- Operating Ratio: PF 50%, LF type 80%
- Professional customization according to technical parameters of user equipment can be designed.

Burst Pressure Tolerance		
Relieving Pressure	Tolerance	
0.01-01 barg	±0.017 barg	
0.1-1 barg	±0.034 barg	

BasCo Flameless Explosion Venting Device

It is mainly used for the protection of dust explosions and it can effectively prevent the huge loss caused by dust secondary explosions. Flameless relief device can be used for the protection of indoor or outdoor dust explosion, without other operating costs, easy installation, and no pressure relief pipe is needed.

Technical Features

- Material: carbon steel shell + stainless steel mesh
- Square, rectangular and round configurations are available
- Burst ratings from 0.1 thrum 1barg
- Mount into standard flanges



Flameless Explosion Venting
Device (circle)



BasCo One-way Explosion Isolation Flap valve

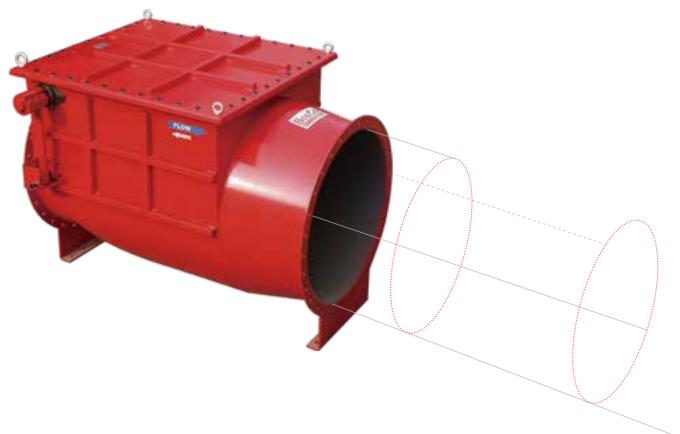
The flameproof valve is a passive flameproof device that keeps normally open during normal operation. When the air flow is reversed due to dust explosion, the valve disc is closed under the action of shock wave and kept for a long enough time to avoid flame propagation. It can be used to prevent secondary explosion or multiple explosions in the dust collector pipeline, silo pipeline and other scenes to reduce the loss caused by explosion.

Maintenance and material

- Reasonable structure design, less pressure loss.
- The pipeline needs to be removed for on-site maintenance.
- It is not necessary to disassemble the interface to complete the replacement of the bursting disc and the cleaning valve disc
- closing alarm device of the fire arresting element.
- Disc impact protection device.
- Reserved injection hole.

The type and specification can be customized.

Product Drawing



BasCo Two-way Explosion Isolation Flap valve

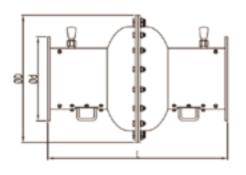
The two-way flameproof valve push the floating ball using the shock wave generated by the explosion and block the flame and shock wave generated by the explosion. It is often used for the explosion isolation at the clean air outlet side of the cleaner with explosion source, trace dust delivery and dust collector on both sides. It can be used to prevent secondary explosion or multiple explosions in the dust collector pipeline, silo pipeline and other scenes to reduce the loss caused by explosion.

Technical Features

- Size Available: DN100-DN600 will
- not produce toxic and harmful
- substances when triggered. The type and specification can be customized.
- Simple maintenance and quick reset.
- Good internal aerodynamic structure and smooth internal surface

Product Drawing

Structure Drawing











Static state agent flow state

explosion off state



The safety valve is an overpressure protection device on pressure equipment, vessels and pipelines. It can be used for overpressure relief in steam or hot water boilers, liquefied petroleum gas tank cars, production wells, high-pressure bypass of steam power generation equipment, pressure pipes, pressure vessels and other scenarios to protect equipment safety.











ONE SOURCE FOR ALL YOUR PRESSURE RELIEF SOLUTIONS

At present, the main safety valve equipment includes conventional safety valve, compact safety valve, pilot safety valve and bellows balanced safety valve.

The safety valve is non-standard equipment, which needs to be customized according to the actual working conditions, and many parameters are considered to ensure the using effect. BasCo * provides a full range of safety valves and has obtained the manufacturing license for special equipment of safety valves, which can provide users with safe and reliable personalized solutions and products.

02

There are some certificates.

Contact us for more certification

information.



BasCo Safety Valves









Thread Type A21-15

NS **A42-18**

NS **A48-21.1**

NS **A48-21.1**



Rupture pin valve, also known as bursting pin valve, buckling pin valve and bursting pin valve, is a non-reclosing safety relief

As a revolutionary new type of safety relief equipment, the buckling pin valve can replace the traditional equipment such as rupture disc to play a better role in many scenarios, and can also be used to solve many problems that are difficult to be solved by traditional equipment. Therefore, it can play a huge role in chemical industry, metallurgy, oil and gas production, food processing, pipeline transportation, pulp and paper making, drilling (mud pump pressure relief), flare system, light industry, nuclear power, dust removal, fire protection, aviation and other fields!

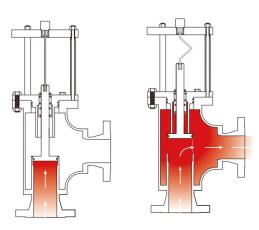
02

The buckling pin valve is a non-standard equipment, which needs to be customized according to the actual working conditions. Taking many parameters into account to ensure the using effect.

BasCo, as the drafting unit of the buckling pin valve standard, began to promote this revolutionary pressure relief equipment in China in 2008. BasCo has a complete product system of buckling pin valve, which has obtained third-party type and quality system certification, and can provide users with safe and reliable personalized solutions and products.

03

Schematic diagram



Buckling Pin Valve Series

BasCo Buckling Pin Valve		
9100 Angle pin valve	9400 Straight pin valve	9700 Special pin valve
9200 Small-sized pin valve	9500 Low-pressure bi-directional pin valve	9800 Heavy calibre pin valve
9300 Emergency relief pin valve	9600 High pressure pin valve	9900 Emergency off pin valve







9180series Angle pin valve		
Size	1inch— 40inch	
Pressure	10 Кра— 2 Мра	



9	200series	Small-sized pin valve
S	ize	4ft— 1inch
P	ressure	1 Мра— 33 Мра



9300series Emergency relief pin valve	
Size	1inch— 40inch
Pressure	10 Kpa— 2 Mpa



9800series Buckling Pin Relief Valve	
Size	3inch—80inch
Pressure	3.5 Kpa— 16 Mpa



29 | PAGE Applications and Solutions

Applications and Solutions | PAGE 30

Application and Case

Bursting disc is a pressure relief element with single-layer or multi-layer diaphragm structure, which can determine the bursting point and be realized in a variety of applications. For the pressure relief of specific pressure value, it can protect the container and pipeline from accidental overpressure damage.

need more, contact us.

Application (Some stress scenarios)



Chemical products industry

Large chemical reactor, heat exchanger, separator



Oil/gas industry

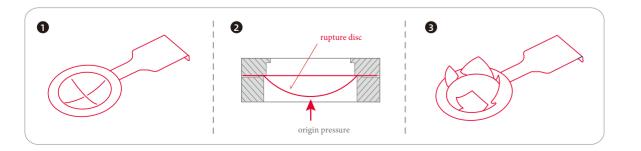
Deepwater casing, drill pipe testing, completion tools, pumping process, transportation process, storage process packer and anchor, sucker rod pump, progressive cavity pump, oil well top, oil refining process, drilling



Food processing industry

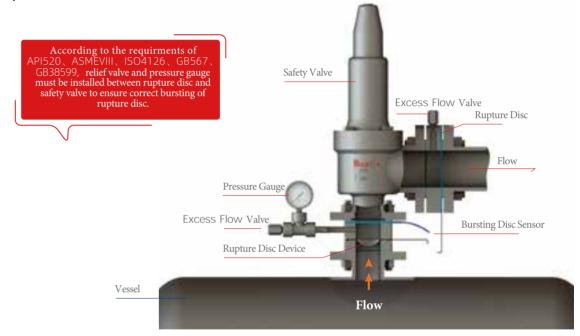
Fermentation tank, heat exchanger, separator, low-temperature container

Rupture Disc Relief Principal



Rupture Disc in Combination with Safety Relief Valve

The feature of zero leakage of rupture disc can effectively isolate the medium, reduce the material requirements of safety valve, extend the service life of safety valve, thus reduce the use cost of safety valve.



Application —Fermentation tank



Industrial fermentation tank is an important equipment in the food and beverage processing industry. It is necessary to clean and disinfect the fermentation tank frequently to ensure the sanitary requirements of the product.

These deaning processes usually lead to very high temperatures, which increase the pressure in the container. When the temperature drops sharply, vacuum conditions will be generated. The bursting disc can effectively prevent pressure fluctuation from damaging the tank during these processes.



Storage and transport System valve



Petrochemical storage tank

Underground storage tank Horizontal storage tank

Oil and gas collection and treatment on the roof of multiple dome roof tanks



Combustion and Torch system

Elevated or ground flare emergency evacuation

Gas phase outlet of storage tank and top of gas storage tank



Shipbuilding/ offshore platforms and handling systems

system
Drilling platform production,
storage and unloading system
Replacement/recovery pipeline of
train and tanker





Chemical and pharmaceutical chemicals

Combustible liquid storage tank



Mixer and process container



Flame arresters for integrated equipment components

Zone 0 fan system Zone 0 vacuum pump system



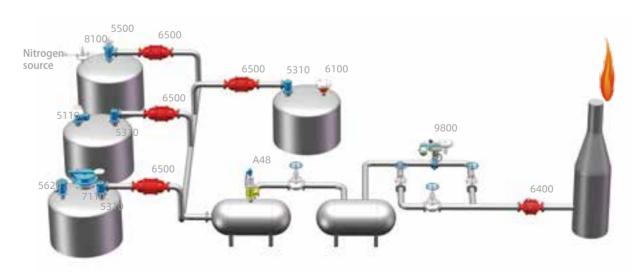
Storage Tank

• Used for storage tank: pressure relief valve, fire arresting breather valve, emergency relief valve, blanketing valve, fire arrestor.



Enclosed Ground Flare System

• The application of breather valve, flame-resistant breather valve, emergency relief valve, blanketing valve, end-ofline flame arrester, deflagration and detonation arrestor, safety valve, buckling pin valve, etc. in Enclosed Ground Flare system.



Protective Equipment



Chemical products industry

Dust collector, cyclone separator, flash dryer, conveyor



Food processing industry

Mixer and agitator, dust collector, cyclone separator, flash dryer, conveyor



Equipment manufacturing

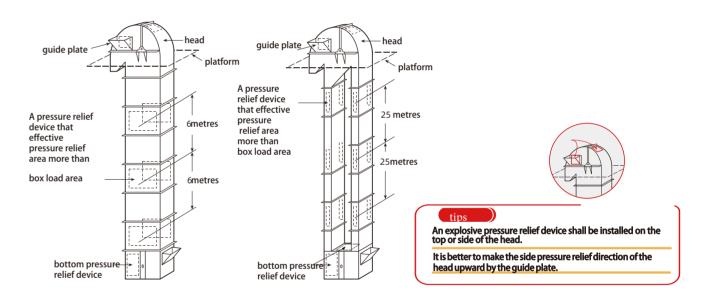
Dust remover, cyclone separator, flash dryer, pulverizer, bucket elevator and bucket bin

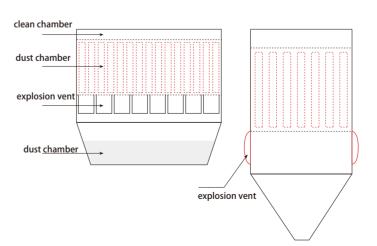




Bucket Elevator

In the chemical industry, belt conveyor and chain conveyor are widely used for material transportation. Many materials are prone to dust, resulting in a large amount of dust in the confined space. The existence of potential ignition sources such as conveyor parts failure makes the potential risk of explosion. Therefore, the feed chute, discharge chute and conveyor need to be protected by multiple bursting plates.





Dust Collector

The dust collector can be used to reduce dust emission, prevent dust accumulation around sensitive equipment, and reduce production waste. A large amount of dust in the dust collector also means the potential risk of violent explosion, and causes secondary explosion through the connecting pipe. The explosion damage can be effectively reduced by selecting appropriate combination of explosion vent, flameless relief device and flameproof valve.

35 | PAGE Service and Contact | PAGE 36



Service and Contact

Design consulting Test and inspection Qualification certification consultation Training

Logistics choice Production and processing Project solution Scenario solution