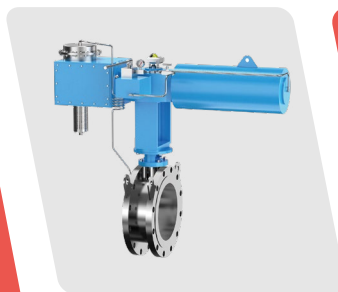


# BasCo<sup>®</sup>

One Source  
For All Your  
Pressure Relief Solutions

BasCo Catalogue

BASCO Rev.24-12







江苏八方安全设备有限公司  
JIANGSU BAFANG SAFETY DEVICE CO., LTD.



# BasCo<sup>®</sup>

## Enterprise Culture

---

-  **Vision:** Continuous innovation to provide a full range of safety pressure relief solutions!
-  **Mission:** Escort for industrial development!
-  **Core values:** We regard quality as life. Life only once!
-  **Spirit:** Dedication, responsibility, pioneering and innovation

# CONTENTS



CONTENTS

## **A** Company / 03-06

- About BasCo
- Certification
- Developmental History
- Test Base

## **B** Products / 07-24

### **Vapour Control**

- Breather Valve
- Flame Arrester
- Emergency Relief Valve
- Nitrogen Blanketing Valve

### **Overpressure Relief**

- Rupture Disk
- Safety Relief Valve
- Buckling Pin Relief Valve

### **Dust Explosion Protection**

- Explosion Venting Panel
- Explosion Isolation Flap Valve
- Flameless Explosion Venting Device
- Spark Detection & Extinguishing System
- AND Explosion Suppression System

## **C** Service / 25-26

- Available services
- Customers

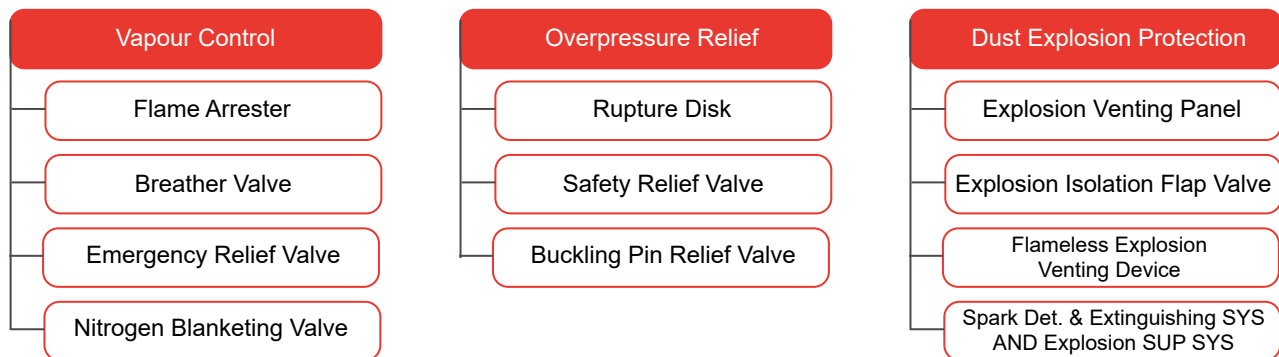
# About BasCo

Jiangsu Bafang Safety Equipment Co., LTD. (trademark **BasCo**) is a high-tech enterprise with independent intellectual property rights, committed to providing the safety pressure relief products and solutions for the society, and serving every customer.

The company has a number of domestic and foreign qualifications, including ISO9001, the People's Republic of China special equipment manufacturing license, ASME, NB, CE, PED, ATEX, CNAS, CCS, DNV, GL, EAC certifications. The main products cover three major application scenarios: vapour control, overpressure relief and dust explosion protection.

Since founded in 2002, BasCo has always been adhering to the concept of science and technology, innovation and development, focusing on the field of safety pressure relief, constantly breaking through bottlenecks, filling gaps, accumulating a large number of patents and technologies, creating scientific and systematic equipment, facilities and mechanisms, training an experienced research, production and marketing senior personnel team, serving tens of thousands of users at home and abroad. BasCo participated in the compilation of more than ten standards, has achieved wide recognition in the industry, and looks forward to win-win cooperation with more domestic and overseas users.

## Products/



# Qualifications

## Certificates: ISO9001, 14001, ASME, NB, CE, PED, ATEX, CNAS, CCS, DNV, GL, EAC



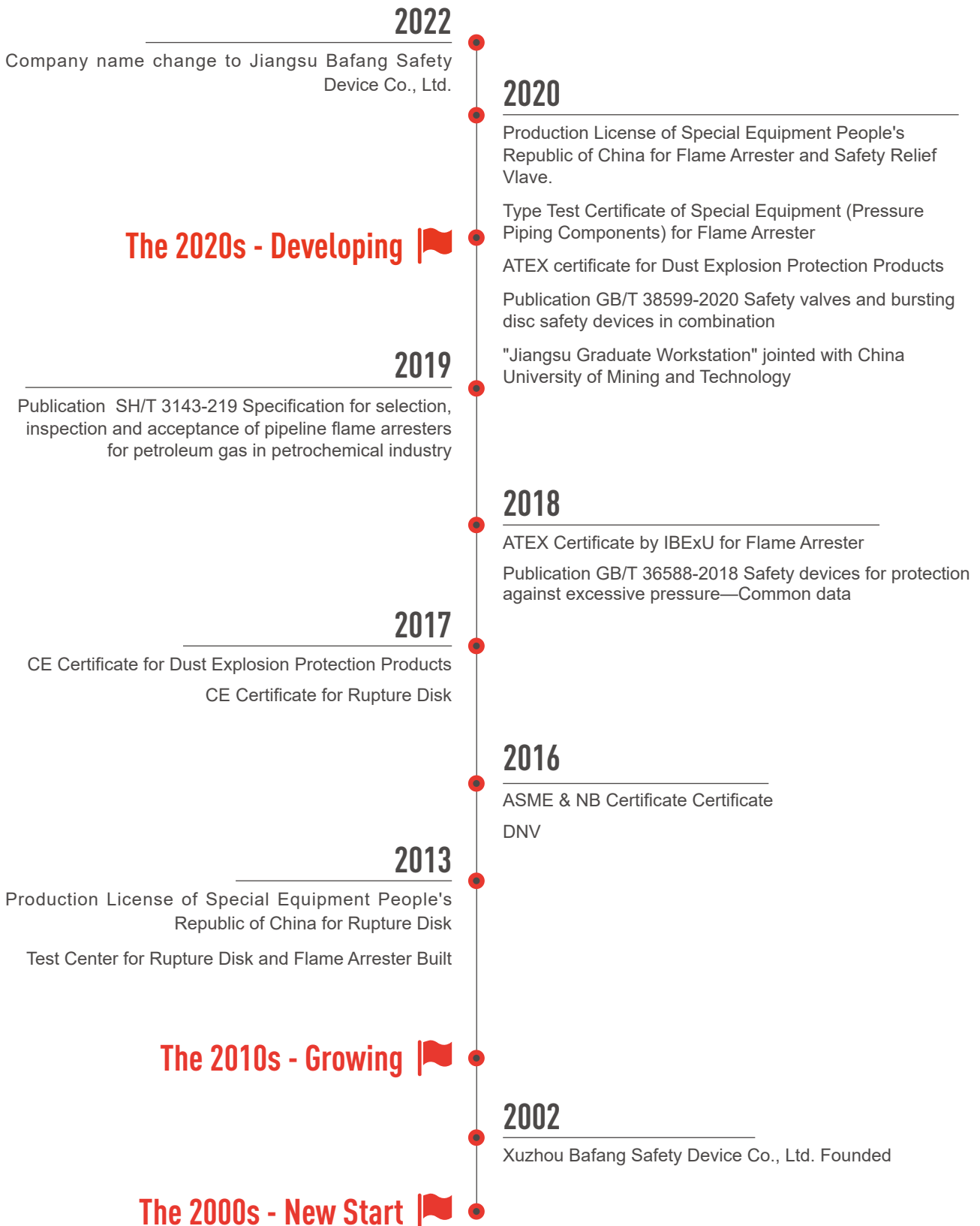
## Patents: Nearly 200 invention patents and utility model patents



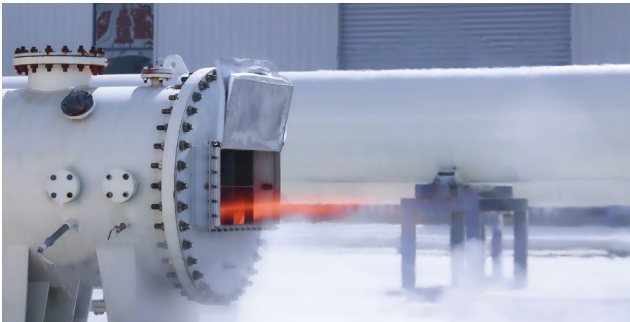
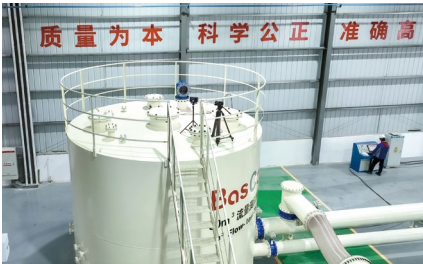
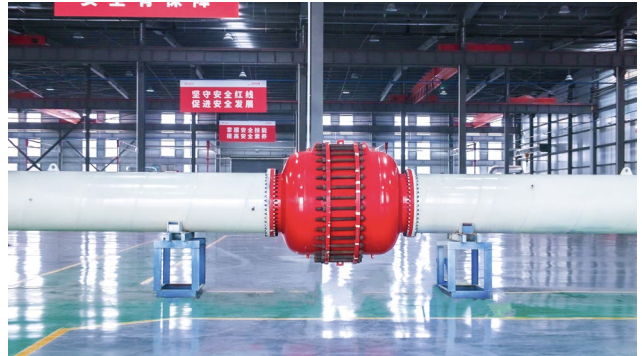
## Participation in Nearly 20 Standards

Standard No.	Standard Title	Participation Date	Issuing Authority
GB 23040	石化行业石油气管道安全泄压装置性能试验方法	2022-04-08 发布	国家市场监督管理总局 国家标准化管理委员会
GB 13242-2021	压力释放装置 性能试验方法	2021-10-01 实施	国家市场监督管理总局 国家标准化管理委员会
GB 13240	安全泄压装置	2018-09-17 发布	国家市场监督管理总局 国家标准化管理委员会
GB 13240	过压保护装置	2020-03-31 发布	国家市场监督管理总局 国家标准化管理委员会
GB 13240	安全阀与爆破片装置	2020-04-30 发布	国家市场监督管理总局 国家标准化管理委员会
GB 13240	低温泄压装置	2021-03-09 发布	国家市场监督管理总局 国家标准化管理委员会
GB 13240	弹簧直动式安全阀	2021-03-09 发布	国家市场监督管理总局 国家标准化管理委员会

# History



Test Base/



7000+m<sup>2</sup>,CNAS、CMA.

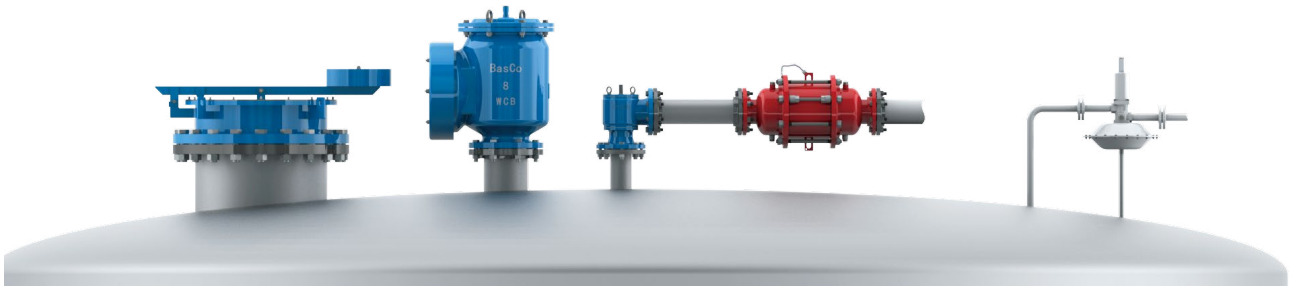
Office and Factory Buildings



# Vapour Control

Flame arresters, breather valves, emergency relief valves, nitrogen blanketing valves etc are mainly use in vapour control scenarios and can greatly reduce the risks of tank exploding due to overpressure or collapsing due to vacuum.

The valves are used stand-alone or in combination according to actual demands.



01

## Flame Arrester

Flame Arrester device fitted to the opening of an enclosure, or to the connecting pipe work of a system of enclosures, and whose intended function is to allow flow but prevent the transmission of flame.

02

## Breather Valve

A breather valve is a safety device that can not only ensure the sealing of the storage tank within a certain pressure range, but also release overpressure or vacuum to protect tanks. It can be used in atmospheric storage tanks, pipelines and other scenarios to adjust the pressure and prevent fluid from leaking, so as to protect equipment safety and reduce fluid loss and environmental pollution.

03

## Emergency Relief Valve

An emergency relief valve is used to adjust the pressure when the pressure rises or drops sharply. It is a safety device that can provide emergency protection for storage tanks. For example, when the storage tank is in a fire case or on sharp overpressure or vacuum conditions that a breather valve cannot cope with, an emergency relief valve with mass flow rate can ensure the tank safety. It can also be used as a manhole for easy maintenance.

04

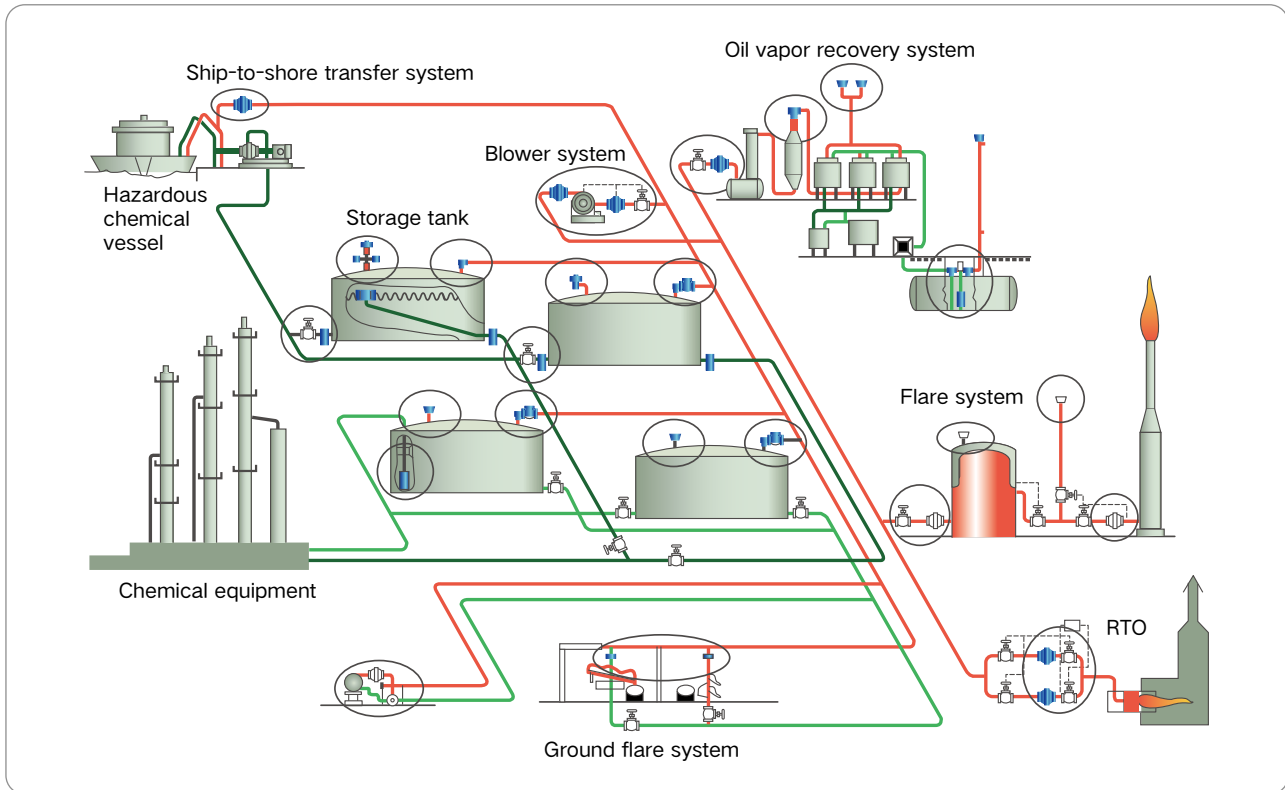
## Nitrogen Blanketing Valve

A nitrogen blanketing valve is a safety device that provides inert gas (nitrogen) protection for tanks to maintain the micro-positive pressure. It can balance the pressure in tanks, reduce fluid evaporation, prevent pollution etc. to protect equipment and reduce production losses.



## Typical Applications

Safety relief devices of vapour control system are widely used in hazardous chemicals ships, ship-to-shore transportation system, chemical equipment, oil loading and unloading system, petrochemical storage tanks, waste gas treatment system, ground flare system, incinerators etc. to provide a solid guarantee for the continuous and stable operation of the systems.



### Petrochemical storage tanks

Oil and gas collection and treatment for vault storage tanks, underground storage tanks, horizontal storage tanks and multiple vault storage tanks



### Combustion and flare systems

Incinerator feeding lines, elevated or ground flares, emergency relief, tank venting



### Chemistry and Pharmaceutical chemicals

Combustible liquid storage tanks, incinerators, Zone 0 blowers or vacuum pumps, heavy oil/ residue/asphalt storage tanks, industrial stirring machines and process containers



### Flame arrester for integrated device components

Zone 0 blowers, Zone 0 vacuum pumps



### Biogas system, sewage treatment

And landfill gas systems, tank tops and gas phase tubes, desulfurization device, gas tank venting pipeline, emergency vents



### Cryogenic tank

Propylene storage tank, ethylene storage tank, liquid oxygen, liquid nitrogen and liquid argon storage tank, liquid ammonia storage tank, LNG storage tank



### Shipbuilding/Offshore platforms and handling systems

River hazardous chemical vessels, bunker and discharge systems for tankers, production, storage and discharge systems for drilling platforms, replacement/recovery pipelines for trains and tank cars

## ■ BasCo Vapour Control System/



Patented design



Innovative process and  
strict material selection



R&D and testing



ATEX,CCS,EAC,ASME,CE  
Certified



Comply with international standards

(SY/T0511,API2000,  
ISO16852,GB/T13347,SH/T3413,  
ISO/IEC 80079-49)






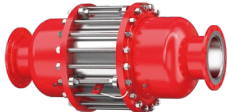
Successful projects

## Breather Valve/PVRV Series/

Model	Size Range	Pressure Range	Vacuum Range	Temp. Range	Gas Group (IEC/NEC)
 <p>5100 End of Line Breather Valve</p>	1.5"(DN40) ~ 12"(DN 300)	0.2 ~ 100 KPa (2.0 ~ 1000mbar)	0.2 ~ 4.3 KPa (2.0 ~ 43mbar)	-45~260°C	N/A
 <p>5200 In Line Breather Valve</p>	1.5"(DN 40) ~ 12"(DN 300)	0.2 ~ 100 KPa (2.0 ~ 1000mbar)	0.2 ~ 4.3 KPa (2.0 ~ 43mbar)	-45~260°C	N/A
 <p>5300 Pressure Relief Valve</p>	1.5"(DN 40) ~ 12"(DN 300)	0.2 ~ 100 KPa (2.0 ~ 1000mbar)	N/A	-45~260°C	N/A
 <p>5400 Vacuum Relief Valve</p>	1.5"(DN 50) ~ 12"(DN 300)	N/A	0.2 ~ 100 KPa (2.0 ~ 1000mbar)	-45~260°C	N/A
 <p>5500 Pilot-operated Breather Valve</p>	2"(DN 50) ~ 12"(DN 300)	0.9 ~ 100 KPa (9 ~ 1000mbar)	0.2 ~ 4.3KPa (2.0 ~ 43mbar)	-196~260°C	N/A
 <p>5600 End of Line Breather Valve Integrated with Flame Arrester</p>	2"(DN 50) ~ 12"(DN 300)	0.2 ~ 5 KPa (2.0 ~ 50mbar)	0.2 ~ 100 KPa (2.0 ~ 1000mbar)	-45~260°C	II A/D II B3/C II C/B
 <p>5800 In Line Breather Valve Integrated with Flame Arrester</p>	2"(DN 50) ~ 12"(DN 300)	0.35 ~ 100 KPa (3.5 ~ 1000mbar)	0.2 ~ 4 KPa (2.0 ~ 40mbar)	-45~260°C	II A/D II B3/C II C/B

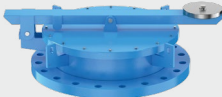
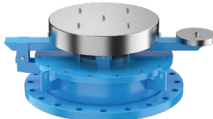

\*Content for reference only. Please contact us for more information.

## Flame Arrester Series/

Model		Size Range	Gas Group ( IEC/NEC )
	6100 End of Line Flame Arrester	1"(DN25) ~ 40"(DN 1000)	II A/D II B3/C II C/B
	6200 In Line Flame Arrester	1"(DN 25) ~ 40"(DN 1000)	
	6400 In Line Stable Detonation Flame Arrester	1"(DN 25) ~ 40"(DN 1000)	
	6500 In Line Unstable Detonation Flame Arrester	1"(DN 25) ~ 12"(DN 300)	

\*Content for reference only.Please contact us for more information.

## Emergency Relief Valve & Nitrogen Blanketing Valve/

Model	Size Range	Pressure Range	Vacuum Range
 7100 Emergency Pressure Relief Valve	16"(DN400)、20" ( DN 500 ) 、24"(DN 600)	0.7 ~ 100KPa (7 ~ 1000mbar)	N/A
 7200 Emergency Pressure Vacuum Relief Valve	16"(DN 400)、20" ( DN 500 ) 、24"(DN 600)	0.7 ~ 10KPa (7 ~ 100mbar)	0.2 ~ 1.7KPa (2 ~ 17mbar)
 8100 Nitrogen Blanketing Valve	1/2" ~ 3"	0.2 ~ 14KPa (2 ~ 140mbar)	N/A

\*Content for reference only.Please contact us for more information.

# Overpressure Relief

Overpressure relief products include rupture disk, safety relief valve and buckling pin relief valve with their own characteristics. According to the actual working conditions, proper selections, use alone or in combination, can protect systems effectively.



01

## Rupture Disk

A Rupture Disk safety device is a non-reclosing pressure relief device used to protect pressure equipment such as pressure vessels, piping, gas cylinders or other enclosures from excessive pressure and/or excessive vacuum.



02

## Safety Valve

A Safety Valve is a kind of overpressure protection device on pressure related equipment, containers and pipelines. They are used in steam/hot water boilers, LPG tank trucks, producing wells, High-pressure bypass, pressure pipelines, and pressure vessels for overpressure relief to protect system safety.



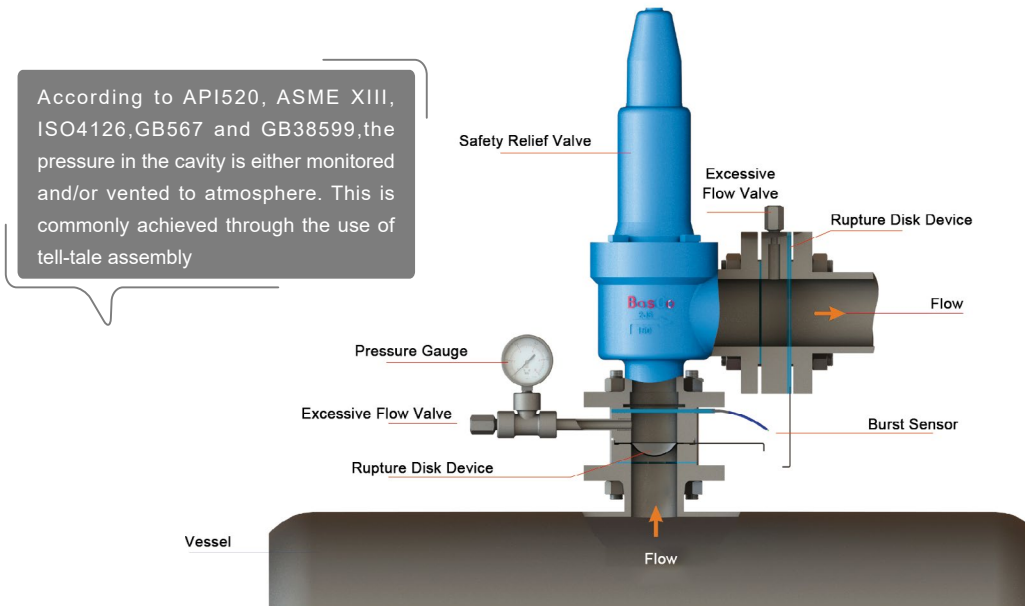
03

## Buckling Pin Relief Valve

A buckling pin relief valve is a non-reclosing pressure relief device. As a revolutionary new type of safety pressure relief equipment, it can replace the traditional equipment such as bursting disc with better performances in many scenes, and also be used to deal with many problems that are difficult to be solved by the traditional equipment. It plays a huge role in chemical industry, metallurgy, oil and gas production, food processing, pipeline transport, pulp and paper, drilling (mud pump pressure relief), flare system, light industry, nuclear power, dust removal, fire protection, aviation and other fields.

## Typical Applications/

A rupture disk has a single or multi-layer diaphragm structure with a determined bursting point, which can achieve pressure relief for specific pressure values in a variety of applications, protecting vessels and pipelines from accidental overpressure damage. The series use of a bursting disc and a safety valve is a common combination of use cases. The characteristics of zero leakage of the bursting disc can effectively isolate the medium, lower the safety valve material requirements and extend the service life of the safety valve, thereby reducing costs of safety valves.



### Chemical products industry

Large chemical reactor, heat exchanger, separator



### Oil/gas industry

Deepwater casing, drill pipe testing, completion tools, pumping processes, transfer processes, storage process packers and anchors, rod pumps, progressive chamber pumps, well tops, refining processes, drilling



### Food processing industry

Fermenter, heat exchanger, separator, cryogenic vessel

■ **BasCo Overpressure Relief/**



Patented design



R&D and testing



TS,NB,ASME,CE,EAC  
Certified





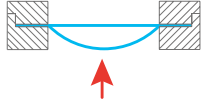





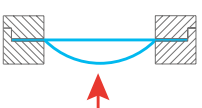


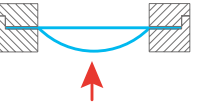


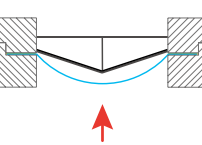


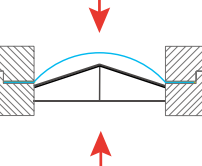



Successful projects












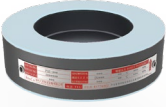


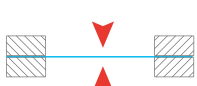


Comply with international standards  
(GB/T 567,GB/T 12241-12243, ASME XIII,  
API 520,API 526,API 527,ISO4126,eac)

## Rupture Disk/

Reverse Acting(Compression-Loaded)Metal Rupture Disk							
Type	Flow	Size mm	Pressure barg	Operating Ratio	Vacuum Support	Holder	Fluid Phase
<b>YC</b> 		15~250	2.5~195	90%	No	<b>YJX</b> 	Gas
Reverse acting solid metal with cross-scored, non-fragmentation design							
<b>YCP</b> 		25~150	0.8~33	90%	No	<b>YJX</b> 	Gas Liquid
Reverse acting solid metal with groove prefabricated notch technology, non-fragmentation design							
<b>YF</b> 		15~600	0.15~100	90%	No	<b>YJX</b> 	Gas Liquid
Reverse acting with slots type, composed of a serrated pressure film and a sealing film, non-fragmentation design							
<b>YFW</b> 		25~100	0.5~10	90%	No		Gas Liquid
Sanitary rupture disk with a FDA sanitary gasket for food hygiene industries, non-fragmentation design							
<b>YE</b> 		20~300	1~15	90%	No	<b>YJA</b> 	Gas
Reverse acting with alligator tooth, composed of a single solid metal and a tooth shaped ring.							
<b>YD</b> 		25~200	1.5~30	90%	No	<b>YDJA</b> 	Gas
Reverse acting solid metal with knife blade in outlet of Holder, non-fragmentation design.							
<b>YDC</b> 		50~250	0.01~10	85%	Yes		Gas Liquid
Ultra-Low pressure/Two-way rupture disk, preventing against overpressure or vacuum in storage tanks, with few fragments							



Forward Acting (Tension-Loaded) Metal Rupture Disk							
Type	Flow	Size mm	Pressure barg	Operating Ratio	Vacuum Support	Holder	Fluid Phase
<b>LC</b> 		15~400	2.5~285	85%	No	<b>LJX</b> 	Gas Liquid
Forward acting solid metal with cross-scored, non-fragmentation design.							
<b>LF</b> 		15~1200	0.02~150	80%	Yes	<b>LJX</b> 	Gas Liquid Solid
Forward acting composite metal disc with few fragments design.							
<b>LP</b> 		6~100	1~1000	70%	Yes	<b>LJX</b> 	Gas Liquid
Forward acting conventional solid metal disc with few fragments design.							
Flat Metal Rupture Disk							
Type	Flow	Size mm	Pressure barg	Operating Ratio	Vacuum Support	Holder	Fluid Phase
<b>PF</b> 		15~1200	0.02~150	50%	Yes	ANSI or DIN Flanges	Gas Liquid
Flat composite metal disc with slots, few fragments design.							
Non-metallic Rupture Disk							
Type	Flow	Size mm	Pressure barg	Operating Ratio	Vacuum Support	Holder	Fluid Phase
<b>PM</b> 		25~400	0.2~50	80%	Yes	ANSI or DIN Flanges	Gas Liquid
Graphite rupture disk, anti-corrosion							
<b>PC</b> 		25~400	0.5~10	80%	Yes	ANSI or DIN Flanges	Gas Liquid
Lexiglass rupture disk, mainly used in water treatment, reverse osmosis pressure vessels and pipelines							

\*Content for reference only. Please contact us for more information.

## ■ Safety Relief valve/

	Model	Set Pressure
	Threaded Safety Relief valve	0.1~25MPa
	Flanged Safety Relief valve	0.1~25MPa
	Pilot-operated Safety Relief valve	0.1~25MPa
	Safety Relief valve for Steam	0.1~10MPa

\*Content for reference only.Please contact us for more information.

**Buckling Pin Relief Valve/**

	Model	Size Range	Set Pressure
	<p>9110 Angled Type BPRV</p>	<p>2"~40"</p>	<p>0.1MPa~3MPa</p>
	<p>9180 Angled Type BPRV</p>	<p>2"~4"</p>	<p>3MPa~42MPa</p>
	<p>9200 Smart Type BPRV</p>	<p>0.5"~1"</p>	<p>1MPa~42MPa</p>
	<p>9300 Emergency Relief BPRV</p>	<p>16"~24"</p>	<p>30KPa~2.0MPa</p>
	<p>9800 Pilot-operated BPRV</p>	<p>3"~80"</p>	<p>3KPa~2MPa</p>

\*Content for reference only. Please contact us for more information.

# Dust explosion protection

Dust explosion protection products mainly include Explosion Venting Panel, Flameless Venting Device and Explosion Isolation Flap Valve. They are used stand-alone or in combination according to actual demands.

01

## Explosion Venting Panel

An explosion venting panel is a non-reclosing safety pressure relief device which opens to vent overpressure or shockwave of an explosion at specified static bursting pressure. It can be used in dust collector, silo, pipeline and other scenes for venting powder explosions. It is suitable for outdoor equipment.

02

## Explosion Isolation Flap Valve

An explosion isolation flap valve is a passive flameproof device that maintains a normally open state in normal operation, and when the air flow is reversed due to a dust explosion, the valve flap is closed under the action of the shock wave and kept long enough to avoid the spread of flame. It can be used in the dust collector pipeline, bunker pipeline and other scenes to prevent secondary explosions or multiple explosions to reduce the loss caused by explosions.

03

## Flameless Venting Device

A flameless venting device is a safe pressure relief device that opens to vent at specified static bursting pressure and prevents the flame from spreading to the outside of the protected equipment. It can be used in the dust collector, pipeline and other scenarios to prevent dust secondary explosion to protect personnel and equipment safety.

04

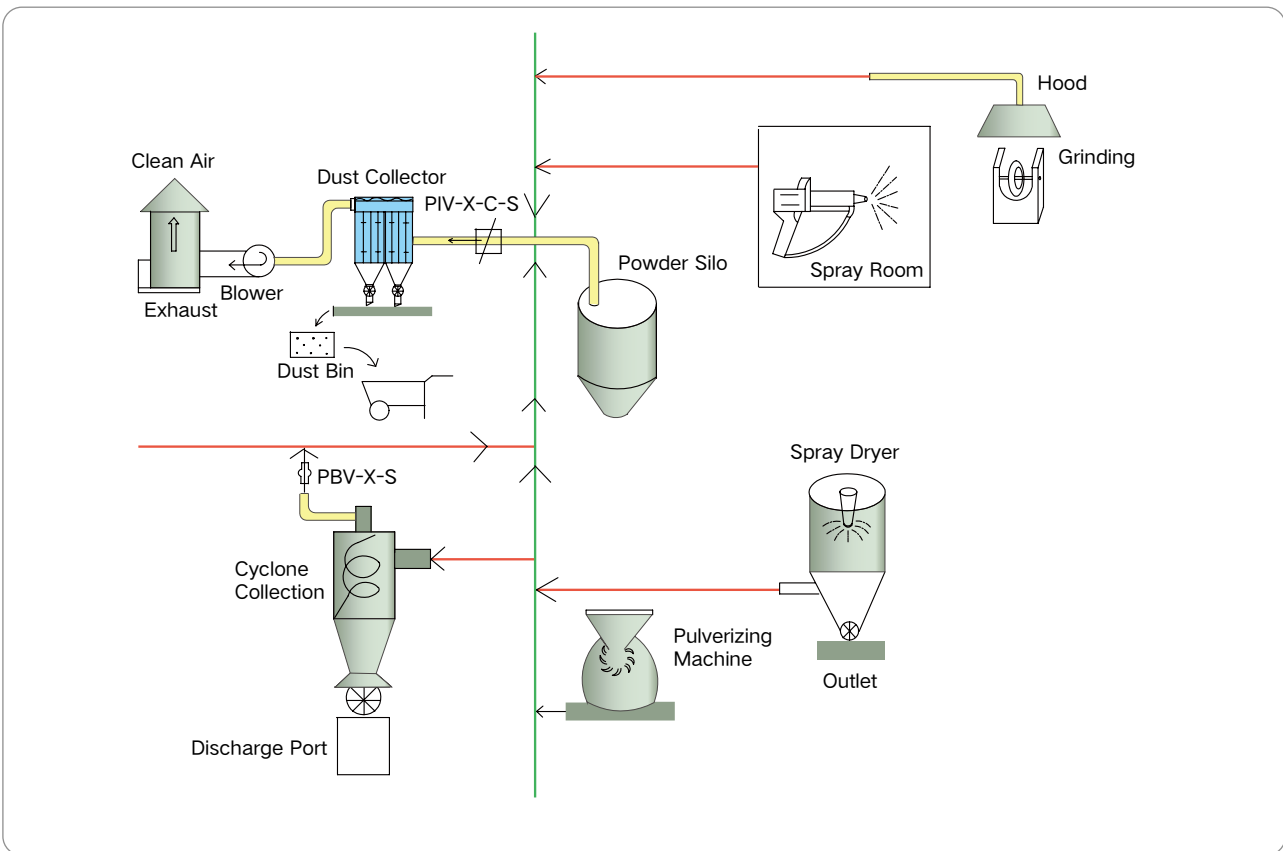
## Spark Detection & Extinguishing System AND Explosion Suppression System

A spark detection & extinguishing system can prevent dust fire and explosion. Before the spark reaches the downstream of the production section or the dust collector, the silo and other equipment, the spark probe detects the spark or overheating particles and feeds back to the extinguishing device. Then the spark is extinguished, so as to ensure safety. An Explosion suppression system is designed to control the overpressure suppression caused by dust explosions inside industrial processes and ensure that explosions do not occur in the early stages of the explosion, thereby protecting human life and property. At the same time, explosion detection and suppression can also be used to prevent the spread of flames.

## Typical Applications/

When combustible dust, ignition source and oxygen collide in a narrow space, it will cause an explosion. Preventive explosion safety measures are designed to prevent the production of this mixture, but the existence of a large number of potential ignition sources in actual conditions makes this idea almost impossible to achieve. Therefore, in practice, protective safety measures are mainly taken to minimize the damage caused by explosions. In most cases, loss reduction can be achieved cost-effectively through explosion venting and isolation devices.

The combination of dust explosion protection products in the dust removal system is a typical scenario to reduce dust explosion losses through explosion venting and isolation devices. When an explosion occurs in the dust collector, the pressure wave can be released and the flame can be prevented by using a flameless explosion venting device and an explosion venting panel, which effectively prevents the damage of the dust collector caused by the dust explosion; An explosion isolation flap valve is used to prevent the spread of explosive airflow and flame, so as to prevent the secondary explosion of the dust source and prevent the spread of the explosion.



**Chemical products industry**

Dust collector, cyclone separator, flash dryer, conveyor



**Food processing industry**

Mixer and agitator, dust collector, cyclone, Separators, flash dryers, conveyors



**Equipment manufacturing**

Dust removal machine, cyclone separator, flash dryer, Crusher, bucket elevator and bucket bin

## ■ Dust explosion protection/



Patented design



R&D and testing



ATEX Certified



Successful projects

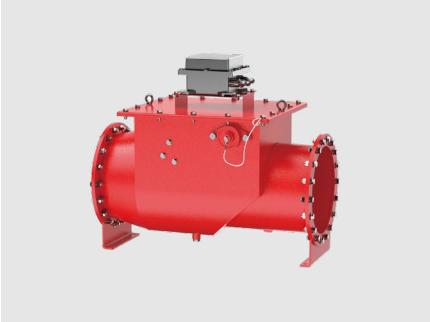
**Explosion Venting Panel/**

Model	Material	Temp. Range	Pstat Range	
	EP	304 TEF 304	-40 ~ 260°C	0.005 ~ 0.100Mpa
	EPS	304	-40 ~ 80°C	0.005 ~ 0.100MPa
	EL	304 TEF 304	-40 ~ 260°C	0.005 ~ 0.100MPa
	ELS	304	-40 ~ 80°C	0.005 ~ 0.100MPa

\*Content for reference only. Please contact us for more information.

## Explosion Isolation Flap Valve/

### One-way Explosion Isolation Flap Valve



Material: CS Housing + SS Disk, SS Housing + SS Disk

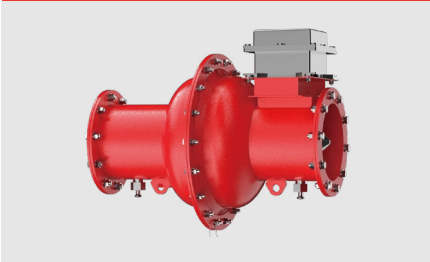
Applicable Dust: Kst  $\leq 200$  barg·m/s , St1

Horizontal installation (vertical installation on some conditions)

Option: burst sensor device to detect whether the disc is closed or not

Certified by ATEX2014/34/EU and EN14460

### Two-way Explosion Isolation Flap Valve



Material: CS Housing + SS Disk, SS Housing + SS Disk

Applicable Dust: St1 and St2 Dust

Horizontal or vertical installation

Maximum medium wind speed 25m/s

\*Content for reference only. Please contact us for more information.

## Flameless Explosion Venting Device Series/

### Flameless Explosion Venting Device



Material: CS Housing + SS Mesh, SS Housing + SS Mesh

Customized Flange Connection

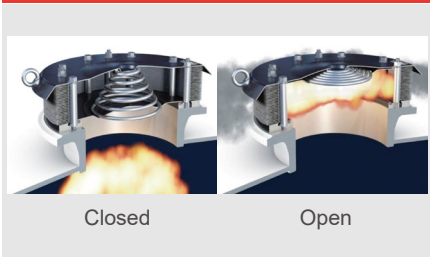
Model: EP/EPS/EL/ELS

Option: Burst Sensor

Shape: Round, Rectangular, Square, etc

Certified by ATEX2014/34/EU and EN16009

### Flameless Venting Valve



After venting an explosion , it can be reused through simple maintenance.

Installation in any position: horizontal, vertical, tilt angle

Quick opening and closing at high accuracy

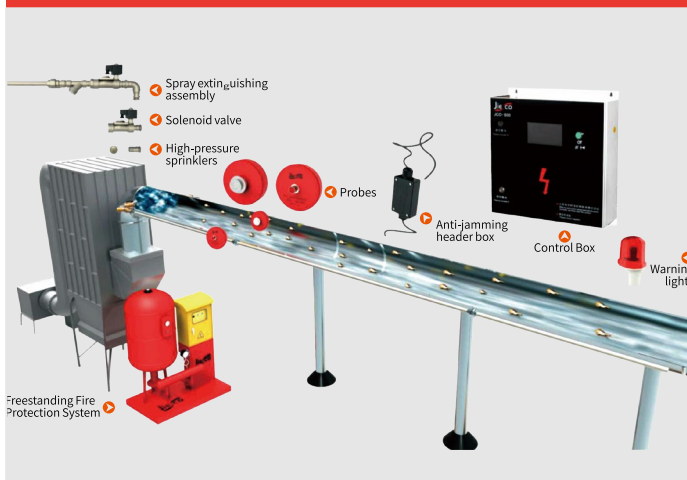
Output on/off signal

\*Content for reference only. Please contact us for more information.



**Spark Detection & Extinguishing System AND Explosion Suppression System/**

**Intelligent spark detection and extinguishing system**



For the first time in the world, the detection sensing device is installed directly to the detection surface, without the need for a light guide column, and will not let go of any safety risks.

304SS pilot solenoid valve, and 304 SS high pressure nozzle with invention patents

Intelligent control of the electric box, record time of all on-off ,spark occurrence and extinguishment.

Extra low water pressure alarm signal device to ensure the safety of high-pressure water supply in real time

Anti-interference hub box can filter external power interference and noise interference.

**Explosion Suppression System**



Detection: activated by dynamic pressure and optical sensors

Activation: In the event of an actual explosion, the signal detector sends a signal to the control unit and activates the suppressor bottle to open and quickly inject the suppressor agent.

Millisecond response speed

Dual activation in fault prevention

Pressure indicator as standard

Low pressure indicator, pressure switch (optional)

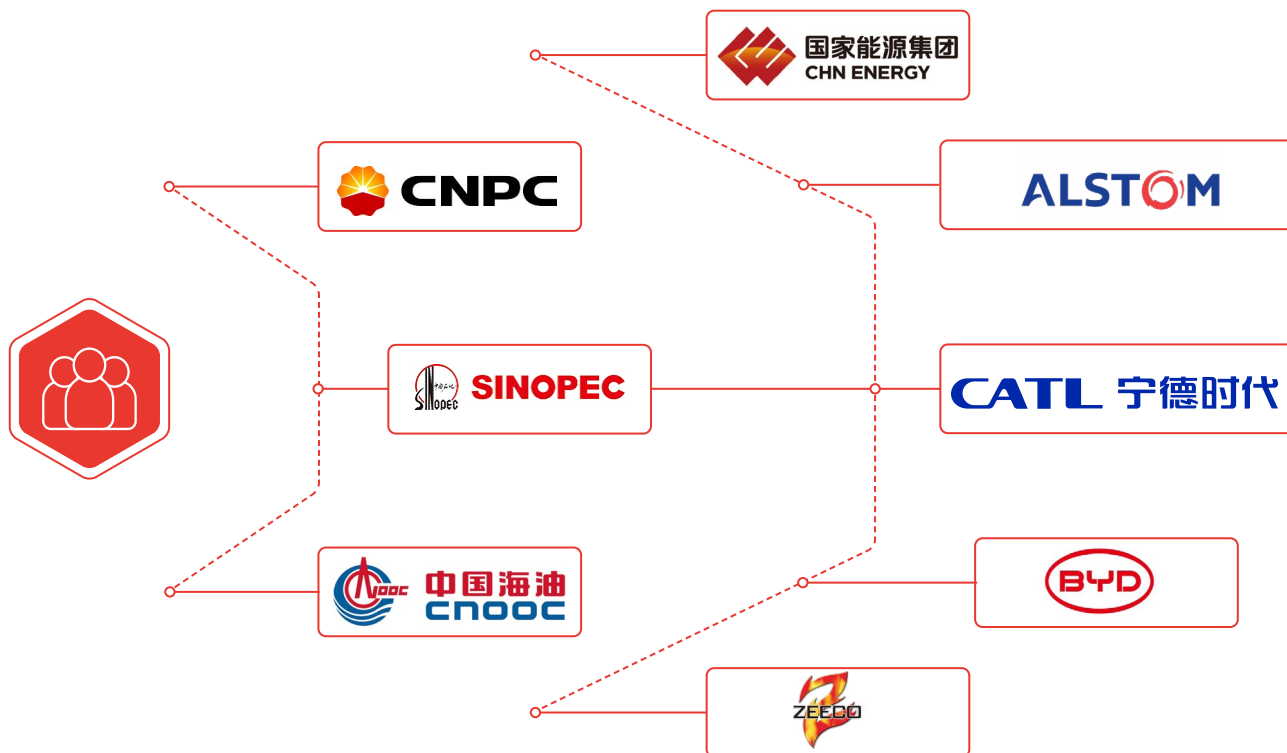
\*Content for reference only.Please contact us for more information.

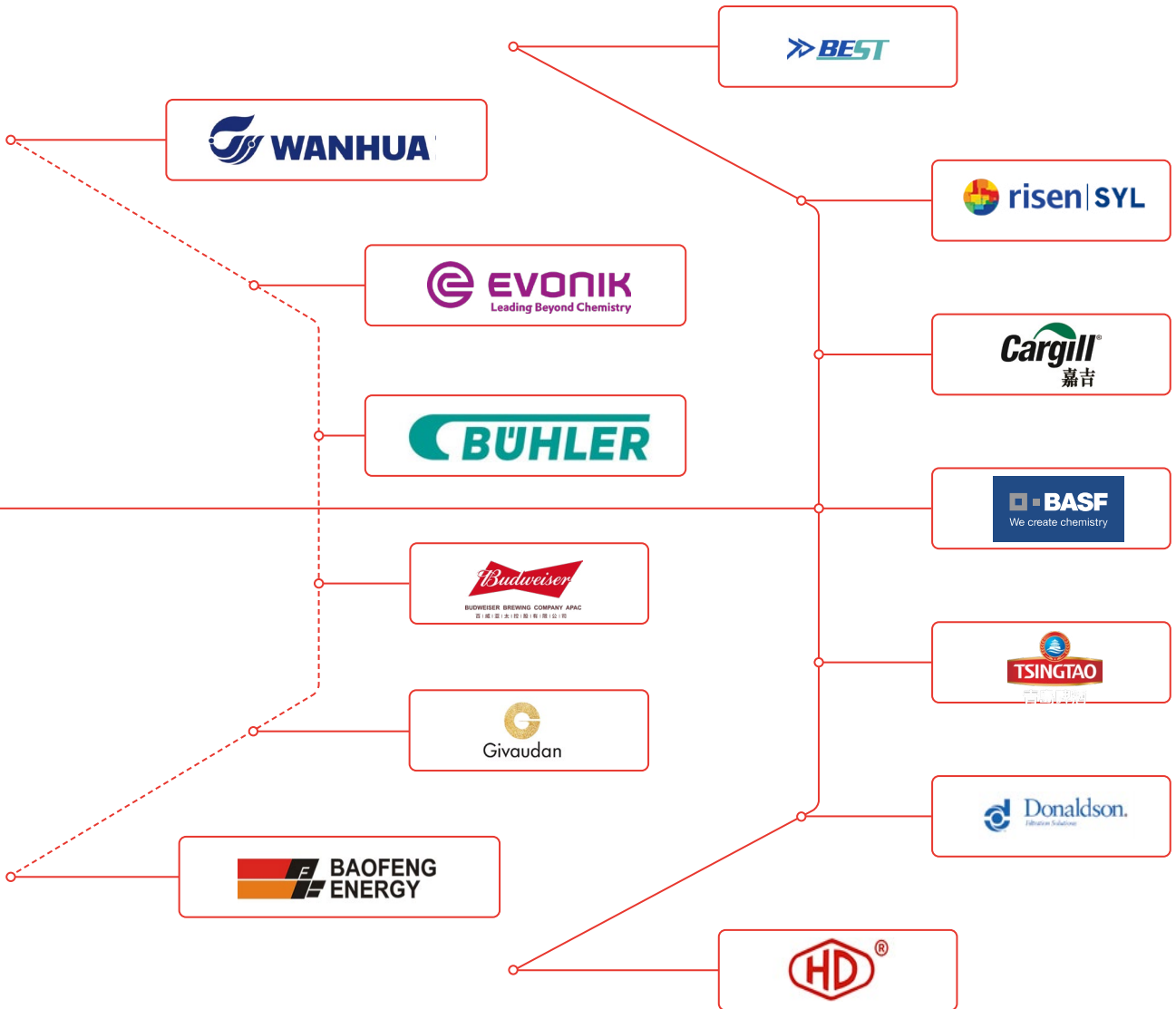
# Services

Type selection design consulting / qualification consulting / project solutions / scenario solutions / Production and processing / testing / logistics / training

# Partners

We are proud to have the opportunity to collaborate with our partners!





**BasCo**<sup>®</sup>

**江苏八方安全设备有限公司**  
Jiangsu Bafang Safety Device Co., Ltd.

web : [www.basco.cc](http://www.basco.cc)

tel : 0516-85776002

E-mail : [sales@basco.cc](mailto:sales@basco.cc)

Add: South Side of Shidai Road ,Quanshan District,Xuzhou City,  
Jiangsu Province,China



Wechat

[www.basco.cc](http://www.basco.cc)