China Valves Technology, Inc.









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# China Valves Technology, Inc.

China Valves Technology is a leading developer, manufacturer and after market service provider of comprehensive flow management products and services in China. Our flow service solutions help customer to resolve any problems and questions in critical industries around the world.

China Valves Technology is a recognized leader in supplying valves, actuators, forging and castings, valve locks and related services to the nuclear power, fossil power, hydropower, oil & gas, chemical and petrochemical, water treatment, mining & metal industries. With approximately 2,400 employees in China and more than 50 distributors in more than 30 countries, we could provide the most convenient services with a local presence.

China Valves Technology has evolved through organic growth and strategic acquisitions. The company was created in 2007 with the merger of two leading fluid motion and control companies-ZD Valve and Kaifeng Valve. China Valves Technology heritage dates back to the 1959 founding of Kaifeng High Pressure Valve Factory, later to be Henan Kaifeng High Pressure Valve Co., Ltd. Now China Valves Technology has 6 wholly-owned subsidiaries, 6 heritage brands, comprehensive product line including over 700 models and 10,000 series.

China Valves Technology goes through the internal resources optimization and external expansion of mergers and acquisitions to integration of China valve industry, try to become one of the leading valve manufacturer and provider of the world. In December 2009, China Valves Technology was successfully listed on NASDAQ (Stock symbol: CVVT), and it became the first Chinese valve company which listed in the United States stock market.

Tier 1 supplier of China National Petroleum Corporation;

Tier 1 supplier of Sinopec Group;

Strategic cooperative partnership with the China Dongfang Electric Corporation;

Sole supplier of the pipeline pressure control valve for Shanghai Turbine Company;

Tier 1 supplier of the high pressure large diameter valve in the oil pipeline in China; Qualified supplier of the China National Nuclear Corporation;

Qualified supplier of China Guangdong Nuclear Power Holding Co., Ltd.

Tier 1 supplier of water treatment companies in Beijing, Shanghai, Guangzhou, Shenzhen, Dalian and other major cities;

Tier 1 supplier of Huaneng Power International Inc., Huadian Power International Corp., China Guodian Corp., China Power Investment Corporation, etc;

Tier 1 supplier of Sinohydro:

Qualified supplier of Bayer, Air Product, Messer, Linde etc.



# Subsidiaries and Brands

China Valves Technology has 6 wholly-owned subsidiaries by the end of 2010, each one is in the dominant position of his own market segments. With a broad product range, strong engineering and rich experience, China Valves Technology delivers valves and actuators engineered to help customers maintain production goals and keep facilities operating at peak efficiency.



## Henan Kaifeng High Pressure Valve Co., Ltd.

Company founded in 1959, which is located in Kaifeng city (one of the 7 ancient capitals of China), Henan province. It used to be a large scale state-owned valve factory in China. The dominant products involves supercritical or ultra supercritical fossil power plant high pressure and temperature valves, abrasive and erosive media refinery&petrochemical valves. A leading valve supplier in fossil power, nuclear power and other industries. As a leading valve supplier in energy industry, "KF" brand is considered as No.1 brand in Chinese valve industry, which was label as "the most competitive brand" by the Chinese Ministry of Commerce.



## Zhengzhou City ZD Valve Co., Ltd.

A leading valves manufacture factory of low pressure butterfly valves, eccentric semi-ball valves, Non-return valves with damping system and kinds of valves applied on water supply and drainage pipelines. The brand "ZD" is the No.1 butterfly valve brand in the water treatment industry of China. ZD Valve occupied more than 40% market share of butterfly valves in municipal water treatment of China. ZD Valve is located in Zhengzhou city, the capital of Henan province.



## China Valves Technology (Changsha) Valve Co., Ltd.

Former Changsha Valves Factory which founded in 1958, with leading products includes hydraulic operated butterfly valves, flow control valves, spherical valves in big size, Changsha Valve is considered to be the best butterfly valve supplier in China hydropower industry. Company has accumulated abundant experiences in fossil power, hydropower, nuclear and water treatment industries. Changsha Valve established China industrial standard of meal seated butterfly valves and power plant butterfly valve. The brand "CSV" has more than fifty years history and occupied 40% market share in butterfly valve of the hydropower industry.















## Shanghai Pudong Hanwei Valve Co., Ltd.

The company is a high-tech enterprise which located in Pudong Airport area, Shanghai. Hanwei Valve is famous for its advanced R&D capabilities in China valve industry. It has several patented products like 24-way rotary valve, District heating ball valve and full welded pipeline ball valve etc. 24-way rotary valve is applied in simulated moving bed adsorption-separation unit and chromatogram separation unit of petrochemical and biological engineering. Hanwei Valve is one of the two suppliers who can provide 24-way rotary valve in the world. Hanwei fully welded pipeline ball valve was well-known in China Oil &Gas industry , also entered the market in the Middle East, Southeast Asia and Central Asia. "HW" brand is considered to be a leading high-tech brand of China valve industry.



## Taizhou Taide Valve Co., Ltd.

Taide Valve is located in Taizhou city, Jiangsu province. Its product line is including Rubber full lined gate valves and butterfly valves which used in water treatment industry. It developed triple-eccentric metal seated cryogenic butterfly recently, which can be used which in Air Separation, LNG, and cryogenic treatment industries widely.



## Yangzhou Rock Valve Lock Technology Co., Ltd.

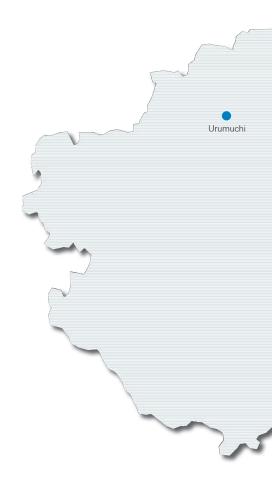
A high-tech enterprise which located in Yangzhou city, Jiangsu province. Its valve mechanical interlock device got China national patent. Yangzhou Rock is the only valve mechanical interlock manufacturer in China, it is considered to be a safety and environmental protection company. Yangzhou Rock is gradually emerging in the area of mechanical interlock, intelligent alarm linkage, remote flexible control and Mechanical latch delay etc.



High Level R&D Team with Know-How Intellectual Property Wholly Owned

# Sales and Service Network

China Valves Technology and its six subsidiaries established perfect sales and service network in China, and almost cover all capital cities and municipalities. In the international community, China Valves Technology not only establish sales organizations in the developed countries like USA, Germany, Italy, but also gradually infiltrate into the Middle East, Africa, Central Asia and some other developing regions. July 1, 2010, China Valves Technology established the sales headquarter in Pudong, Shanghai. It applies advanced marketing management concepts, and established the modern marketing team. It is the milestone which meant China Valves Technology aiming to be the leader of international enterprises.



# Perfect sales and service network to make you feel warmly safety





# Events

1959	Henan Kaifeng High Pressure Valves Co., Ltd. established
1993	Zhengzhou City ZD Valve Co., Ltd. established
Sep 2007	China Valves Holdings Limited established
Dec 2007	China Valves Holdings Limited joined in OTCBB in the USA
Apr 2009	Acquisition of Taizhou Taide Valve Co., Ltd.
Dec 2009	China Valves Technology, Inc. (CVVT) launched NASDAQ Public Listing.
Jan 2010	Acquisition of Yangzhou Rock Valve Lock Technology Co., Ltd.
Feb 2010	Acquisition and the establishment of Able Delight (Changsha) Valve Co.,
	Ltd., now renamed as China Valves Technology (Changsha) Co., Ltd.
Apr 2010	Acquisition of Shanghai Pudong Hanwei Valves Co., Ltd





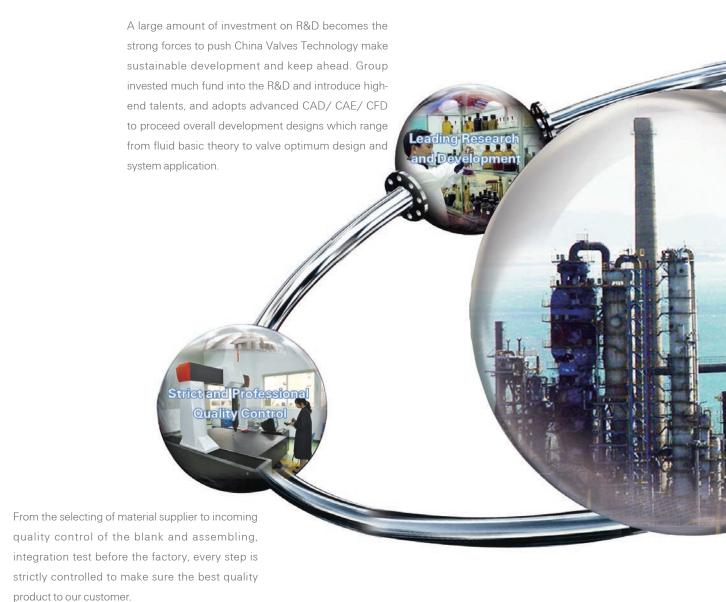






# **Total Fluid Service Supplier**

China Valves Technology is devoting to be the first-class supplier with comprehensive fluid-control solutions.



Customer



China Valves Technology increase investment into manufacture equipments and introduce the international leading machining center. Gantry NC machine, ultralow temperature test equipment, etc, which assure the

# Oriented stomer Value Enhancement

## Gate/Globe/ Check Valve





## High Temperature and High Pressure Forged Valve Gate/Globe/Check valves

In 300MW/600MW/1000MW thermal power plant, main feed water system, high-pressure heater system, main steam system and reheating system etc, and refinery and ethylene etc industry.

Medium: water, steam, petroleum, etc.

## **Features**

- Solid forging body
- Pressure seal bonnet
- Flexible wedge
- Standard top flange design
- Stellite(R) overlay trim
- Reinforced graphite gasket and packing seal

## Style

Class: ANSI 1500#  $\sim$  2900# SPL Size: DN80  $\sim$  DN650 End Connection: Butt weld ANSI B16.25 Temperature: -29 °C  $\sim$  650 °C Material: ASTM A105/F22/F91/F92 DIN WB36

KF



## High Temperature and High Pressure Casting Steel Valve Gate/Globe/Check valves

In 300MW/600MW/1000MW thermal power plant, main feed water system, high-pressure heater system, main steam system and reheating system etc, Refinery and Ethylene etc industry.

Medium: water, steam, petroleum, etc.

## **Features**

- Monoblock casting body
- Pressure seal bonnet
- Wedge or double disc parallet seat
- Standard top flange design
- Stellite(R) overlay trim
- Reinforced graphite gasket and packing seal

## Style

Class: ANSI 1500# ~ 3500# SPL Size: DN80 ~ DN650 End Connection: Butt weld, flange ANSI B16.25 / ANSI B16.5/ ANSI B16.47 Temperature: -29°C ~ 600°C Material: ASTM A216 WCB / A217WC6/A217 WC9 /C12A

ΚF



# API Standard Valves Gate/Globe/Check valves

In oil refining, ethylene, petrochemical, pulp & paper, mining industries etc. Medium:water, steam, petrochemicals, etc.

## Features

- Comply with API 600/ API 6D/ API 602/ API 598
- Monoblock forged or casting body, optimized flow design
- Bolt bonnet or pressure seal bonnet
- Wedge or double disc parallet disc
- Standard top flange design
- Stellite(R) overlay trim or others

## Style

Class: ANSI 150#  $\sim$  2500# SPL Size: DN10 $^{\sim}$ DN800 (1/2"  $\sim$  32") End Connection: Butt weld, flange ANSI B16.25 / ANSI B16.5 Temperature: -29 $^{\circ}$ C  $\sim$  600 $^{\circ}$ C Material: WCB/ WC6/ WC9 1Cr18Ni9Ti CF8/ CF8M Monel, duplex steel, etc.

KF



# Rubber Seated Gate Valve Z4/6/9 45X

Widely used to throttle or control in the pipeline, sewage, municipal construction, petroleum, chemical, food&beverage, pharmacy, textile industry, power plant, shipping, mining, energy sources etc.

## Features

- Body inside diameter is the same with the pipeline
- Full lined body and disc
- Body coated with innocuous epoxy resin
- 3 o-ring stem seal low frication, flexible on-off and zero leakage

## Style

Class: PN1.0MPa ~ 1.6MPa
Size: DN100 ~ DN600
End Connection: Flange
ANSI B16.25/ANSI B16.5
Temperature: -10°C ~ 80°C
Material: Nodular cast iron
Alloy steel
Carbon steel

ΖD



# Gate/Globe/ Check Valve



## Bleed Steam Check Valve H664H/H664Y/H774H

Applied at the steam extraction pipeline and high pressure cylinder exhausting pipeline.

Medium: high temperature and high pressure steam.

## **Features**

- Comply with ASME B 16.34/ E101/JB/T3595
- Side or top mounted fast close actuator
- Auto close, with pneumatic actuator fast closing assist
- Disc and seat will auto-center to make seal mated
- With damping counter weight to balance the disc and prevent water hammer
- Streamline runner design, high folw and small flow resistance

## Style

Class: ANSI 150# ~ 900# SPL Size: DN100 ~ DN1000 End Connection: Butt weld, flange ANSI B16.25/ ANSI B16.5/ ANSI B16.47

Temperature:  $-29^{\circ}\text{C} \sim 600^{\circ}\text{C}$ Material: ASTM A 216 WCB/ A217 WC6/A217 WC9

ΚF



## Test Pressure Caps SY61Y

Applied on superheated system and reheating system of the 300MW/600MW/1000MW thermal power plant.

Medium: water, steam, petroleum, etc.

## Features

- One piece forged body
- Pressure seal bonnet
- Sealing surface Stellite overlay
- Butted welded connection.
- With drainage tube after the test, and mininum pressure drop.

## Style

Class: ANSI 1500# ~ 2900# SPL
Size: DN80 ~ DN850
End Connection: Butt weld
ANSI B16.25
Temperature: -29 °C ~ 650 °C
Material: ASTM A105/F22/F91/
F92

ΚF



# Vacuum Valve DK Series (gate / globe valve)

Used at thermal power, oil refining, ethylene, pulp&paper and mining industries etc.

Medium: water, steam, petrochemicals, etc.

## **Features**

- Vacuum test KFA32 87
- Monoblock forged body, and optimized design for the runner.
- Bolt bonnet design
- One piece Solid wedge
- Stem water proof design
- Sealing surface overlay Stellite
- Reinforced graphite gasket and packing seal

## Style

Class: PN1.6MPa ~ PN6.4MPa Size: DN50 ~ DN600 End Connection: Butt weld,flange ANSI B16.25 /ANSI B16.5 Temperature: -29 °C ~ 426 °C Material: ASTM A 216 WCB, etc.





## Cryogenic Valves

Used at air separation, LNG, petroleum, chemical industries, etc. Medium: liquid oxygen, liquid nitrogen, LNG, LPG, etc.

## Features

- Solid cast body
- Sealing surface alloy steel, hard
- alloy and babbit metal areoptional
- Low temperature test
- Multiple drive optional

## Style

Class: ANSI 150# ~ 600#
Size: DN15 ~ DN600
End Connection: Flange
Temperature: ~ -196 °C
Material: LC3, LCB, LCC,
1Cr18Ni9Ti

ΚF

# Gate/Globe/ Check Valve





## Axial-flow Check Valve HW-ACV

In oil and natural gas pipeline system in particular, the export of fuel pumps.

## Features

- Casting or forging body
- Bolt bonnet body or fully welded body
- Specially designed double seal valve seat,zero leakage,reliable
- Low fluid loss Precision designed spring to ensure that could open and seal the valve under low pressure

## Style

Class: ANSI/ASME 150# ~ 2500# (PN1.6 ~ 42.0MPa)
Size: 1/2" ~ 72"(DN15 ~ 1800)
End Connection: ASME / ANSI
B16.5 & B16.47 & B16.25;
API607/API6D
Temperature: -46 °C ~ 540 °C
Material: CS、AS、SS、DSS

НW



## Dual Plate Check Valve HW-DCV

In the oil, gas, petrochemical, shipbuilding, paper&pulp and other fields.

## Features

- Design &Manufacturing: API594; JB/T8937
- Low-noise, low vibration, low pressure drop
- Casting or forging body
- Dual plate design
- Specially designed dual seal valve seat

## Style

Class: ANSI/ASME 150#~ 2500# (PN1.6~42.0MPa)

Size: 2"~48"(DN50~1200)

End Connection: ASME ANSI

B6.5&B16.47; GB,JB,HG;JIS;DIN

Temperature: -46 °C ~ 540 °C

Material: CS, AS, SS, DSS

нw



## Parallel Slide Gate Valve HW-FGV

In oil, natural gas long-distance pipelines and gas fields as open/close control valves.

## Features

- Single plate or double plates, and with conduit ring optional
- Overpressure bleed protection
- Seat and stem are with emergency sealant inject structure
- Fire-safe design in compliance with API607/API16FA
- Full Bore design, convenience for Pipe pig
- Casting or forging body, forging gate

## Style

Class: ANSI/ASME 150 # ~ 2500#
(PN1.6~42.0MPa)
Size: 1/2" ~ 48" (DN15~1200)
End Connection: ASME/ANSI
B16.5& B16.47a & B16.25;
Temperature: -101°C ~ 425°C
Material: A216 WCB/A105
LCB/A350LF2
CF8/A182 F304
CF8M/A182F316
A995 4A/A182 F51

HW/KF



## Multi-functional Damping Check Valve

- H Dx74

In petroleum, mining & metal, power plant, paper& pulp and municipal water network etc.

## Features

- Actuated or free rotate coupling, can Manual/motor open/close valve, and also as a automatic check valve.
- Metal to metal trim, long lasting life
- Tilting disc, short stroke,quick
- Bi-eccentric disc structure with reasonable on and off operation.

## Style

Class: PN0.25MPa~1.6MPa Size: DN500~DN2000 End Connection: Flange Temperature: -30°C~160°C Material: Ductile iron,Carbon steel

ZD



## **Butterfly Valve**



## Hydraulic Damping Tilting Check Valve - HQm47H-6Q

Widely applicable for petrolchemical, power plant, metallurgy and civil irrigation and drainage etc. in pipeline system

## **Features**

- Tilting disc, short stroke,quick close.
- Bi-eccentric disc structure with reasonable on and off operation.
- Full metal sealing disc and seat with long working life
- High flow efficiency and low flow resistance
- Self-lubricating pin bushing, never stuck.

## Style

Class: PN1.6MPa ~ 2.5MPa Size: DN250 ~ DN2000 End Connection: Flange Temperature: -10°C ~ 350°C Material: Nodular cast iron, Carbon steel

ΖD





# Ventilating Butterfly Valve

In the ventilating and gas conduit of metallurgy and petro chemistry.

## Features

- Simple structure, good rigidity, small open torque.
- Louver multiple spindle type with gear operated.
- Shaft sleeve with internal and external types, shaft with seal and flexible rotation.
- Streamline design for disc, with small flow resistance.
- Lining and high temperature resistance types with good heat proof quality, light weight.

## Style

Class: PN0.05MPa
Size: DN100~DN6000
End Connection: Flange
Temperature: -10°C~600°C
Material: Carbon steel, Alloy
steel, Stainless steel





# Butterfly Valve Centric / Eccentric/ Tripleeccentric/Special Series

Applied to kinds of industrial flow control and water treatment industry at large diameter and middle pressure.

## **Features**

- Design &manufacture acc. to API 609; GB/T12238; JB/T8527; JB/T8692
- Centric / eccentric/ tripleeccentric design.
- Streamline design for the disc.
- Anti-blowout stem, with multistage seal:
- Flange, butt welding and wafer type are optional.

## Style

Class: ANSI/ASME 150#~600# (PN1.6~10.0MPa) Size: 1"~126" (DN25~3200) End Connection: ASME/ANSI B16.5&B16.47&B16.25 Temperature: -196°C~900°C Material: Nodular cast iron,

Grey cast iron, Cast steel,
Duplex steel, Alloy
steel, Stainless steel.

HW/ZD



## Bi-directional Metal Seated Butterfly Valve D371Hs/D341Hs/Ds341Hs

Used to throttle or control the medium flux in the pipeline of water, sewage,construction,petroleum,c hemical,foodstuff,pharmacy,textile industry,electric power,shipping,me tallurgy,energy sources etc.

## Features

- Compact structure, small volume, light weight, convenience for operation.
- Semi-axle structure, high strong disc ,big flow area, small resistance.
- Double-eccentric structure, more close and more tight, with reliable sealing performance.
- Bi-directional sealing function, not limited by medium flow direction for installation.

## Style

Class: PN0.25MPa ~ 4.0MPa Size: DN100 ~ DN3600 End Connection: Flange and wafer Temperature: -30°C ~ 200°C Material: Nodular cast iron, Alloy steel, Carbon steel

ΖD

# **Butterfly Valve**











## Bi-eccentricity Soft Seated Butterfly Valve D371Xs/D341Xs/Ds341Xs

Widely used to throttle or control the medium flow in the pipeline of water, sewage, construction, petrole um, chemical, foodstuff, pharmacy, te xtile industry, electric power, shippin g, metallurgy, energy sources etc.

## Features

- Bidirection seal.
- With the bi-eccentric sealing structure, reliable sealing performance.
- Seal on disk or body.
- Disc adopts semi-axle structure with high strength, high flow capacity and small resistance.
- Expansion valve flange end as optional, can flex freely or be fixed as rigidity according to the working condition.

## Style

Class: PN0.25MPa ~ 4.0MPa Size: DN100 ~ DN3600 End Connection: Flange, Wafer Temperature: -10°C ~ 80°C Material: Nodular cast iron, Carbon steel

ZD/CSV

## Vacuum Butterfly Valve

In the air cooled condenser system of power generation unit and etc.

## **Features**

- Reliable seal without any leakage from two directions
- Self-lubricating bushing with small frictional coefficient.
- The valve shaft seal adopt selfcompensating structure which make sure the vacuum.
- Electric tracing is optional.

## Style

Class: PNO.25MPa ~ 1.0MPa
Size: DN1000 ~ DN3600
Medium: Water, vapor, air, etc.
Temperature: ≤ 200 °C
Material: Carbon steel, Stainless
steel

## Butt Weld End Metal Seated Butterfly Valve

Used to the pipeline of metallurgy, petrochemical, thermal power plant and heating power system.

## Features

- Butt welding end connection.
- Triple-eccentricity metallic hard seat
- With high temperature resistant, corrosion resistance and long service time

## Style

Class: PN0.05MPa ~ 2.5MPa
Size: DN80 ~ DN1200
Medium: Coal gas, water, vapor, air, etc.
Temperature: ≤ 400 °C

Material: Carbon steel, Stainless steel

## Triple Offset Metal Seated Butterfly Valve D3P371H/D3P341H/ D3P971H/D3P971H

Widely used to throttle or control the medium flow in the pipeline of water, sewage, construction, petrole um,chemical,foods&beverage,phar macy,textile industry,power,shippin g,metallurgy,energy sources etc.

## Features

- Full metal seat and disc, safe and erode-resistance, long service time
- Sealing couple with selfcompensating feature, can realize flexible operation at low and high temperature, and without any block.
- Adopting triple-eccentricity structure, almost no friction between seat and disc
- High temperature resistance, high corrosion resistance.

## Stvle

Class: PN1.0MPa ~ 4.0MPa
Size: DN100 ~ DN2000
End Connection: Flange
Temperature: -196°C ~ 425°C
Material: Carbon Steel ,Stainless
steel, Duplex and special
materials.

ZD/CSV

CSV

CSV



# **Butterfly Valve**



#### **Butterfly Valve for Butterfly Valve for Pumping Hydropower Station** Station

In large and middle sized industry pipeline or pumping station such as water supply works, power plant, metallurgy, irrigation, drainage, etc. Substituting gate valve and check valve and equipped at the pump outlet and performs the functions of cutting off and nonreturn.

## **Features**

running away.

 Body and disc are cast-welded and external of valve body adopt the T type strengthen structure.

Widely equipped at the inlet of water

turbine and can be automatically

operated as per procedures so that

control water to connect and cut off,

and can prevent water turbine from

- With an automatic locking device after full open.
- Double eccentric structure to reduce the weight of counterweight.
- Manual operating device can operate the valves when electricity is failure.
- Time of opening and closing valve is adjustable.

## Style

Class: PNO.25MPa ~ 4.0MPa Size: DN300 ~ DN6000 Medium: Water, Water with sediment, etc Temperature: ≤80 °C

Material: Carbon steel

CSV/ZD



## **Features**

- It can keep the hydraulic pressure automatically, so the weight hammer won't drop.
- The valve won't twitter.
- Small flow resistance coefficient.
- Closing procedure involves fast and slow closing stages, can eliminate water hammer.
- It can realize the local control. remote control and interlock motion between pump and valve

Class: PNO.25MPa ~ 2.5MPa Size: DN300 ~ DN3400 Medium: Water, Seawater, Water with sediment, etc.Temperature: ≤ 80°C

CSV



## Fast Closing Butterfly Valve **Equipped Pneumatic System** and Weight Hammer

Widely applied at the outlet of blower fan or compressor in many industries such as metallurgy, mining, petrifaction, thermal power, etc; can prevent the return of medium and perform the functions as non return and fast emergent close so as to protect the safety of blower fan and pipeline system.

## Features

- Triple-eccentricity metal sealing.
- With small operation torque, little wear, high accuracy sealing.
- The emergent close can be fast and reliable (≤1s) assisted with air cylinder and counterweight.
- It can realize the remote control.
- Design of closure damper at terminal.

## Style

Class: PNO.25MPa ~ 1.0MPa Size: DN300 ~ DN1600 Medium: Compressed air. Hot air

Temperature: ≤300 °C

CSV



## **Butterfly Valve Special for TRT Coal Gas Dust Exhaust** System

In the medium of blast furnace coal gas which included dust; can be operated frequently and is an important part of TRT dust removal system in steel plant.

## **Features**

- Main sealing pair of the valve adopts specialmaterials with excellent performance of high temperature resistance. corrosion resistance, radiation resistance, solvent resistance and self lubricating.
- The shaft seal adopt the structure of dust prevention.

## Style

Class: PNO.25MPa ~ 0.6MPa Size: DN400 ~ DN800 Medium: Blast furnace coal gas included dust Temperature: ≤350°C

CSV

# **Ball Valve**





## Spherical Valve for **Hydropower Stations**

In the high water head hydropower station or pump storage power plant as inlet valve; can be automatically operated as per procedures so that control water to connect and cut off, and can prevent water turbine from running away.

## Features

- Body and ball of the valve adopt high quality carbon steel or alloy
- Main seal has both maintenance seal in upstream and working seal in downstream, and the seal is reliable.
- Small flow resistance coefficient.
- Self-lubricating bushings, with flexible and long service life.

## Style

Class: PNO.6MPa ~ 10.0MPa Size: DN650 ~ DN3000 Medium: Water, Water with sediment, etc.

Temperature: ≤80 °C

CSV



## Forge Body Trunnion Ball Valve - HW-BB

In the nature gas and oil pipeline, the industries of petrochemical, medicine, city constructions, etc.

- Anti-static design in compliance with BS5351/API6D
- Cavity self-relief under overpressure
- Seat and stem are with emergency sealant injector and structure
- Fire-safe design in compliance with API607/API6FA
- Full bore or reduced bore design

## Style

Class: ANSI/ASME 150# ~ 2500# (PN 1.6 ~ 42.0MPa) Size: 2" ~ 56" (DN50 ~ 1400) End Connection: ASME/ANSI B16.5&B16.47a&B16.25; GB,JB,HG;JIS;DIN Temperature:  $-196^{\circ}C \sim 250^{\circ}C$ Material: ASTM A105, A350, LF2, A694, A182 F6a, F304, F316, F316L

HW



## Forging Fully Welded Trunnion Ball Valve - HW-WB

In oil, nature gas pipeline and the industries of liquefied gas, coal gas. etc.

## Features

- Design & Manufacturing: API6D; GB/T19672
- Anti-static design in compliance with BS5351/API6D
- Seat and stem are with emergency sealant injector and structure
- Fire-safe design in compliance with API607/API6FA
- Forged body and ball, welded body, eliminating medium leakag

## Style

Class: ANSI/ASME 150# ~ 1500# (PN1.6 ~ 25.0MPa) Size: 2" ~ 56" (DN50 ~ 1400) End Connection: ASME/ANSI B16.5 &B16.47a & B16.25; GB, JB, HG; JIS; DIN Temperature: -46°C ~ 150°C Material: ASTM A105, A350, LF2, A694, A182 F304, F316, F316L, F51

HW



## Forging Fully Welded G **Type Trunnion Mounted Ball Valve**

## - HW-GWB

In oil, nature gas pipeline and the industries of liquefied gas, coal gas,etc

## Features

- Design & Manufacturing: API6D;GB/T19672
- Anti-static design in compliance with BS5351/API6D
- Cavity self-relief under overpressure
- Seat and stem are with emergency sealant injector and structure
- Fire-safe design in compliance with API607/API6FA
- Full bore design

## Style

Class: ANSI/ASME 150# ~ 1500# (PN1.6 ~ 25.0MPa) Size:  $6" \sim 56"$  (DN 150  $\sim 1400$ ) End Connection: ASME/ANSI B16.5&B16.47a&B16.25; GB, JB, HG; JIS; DIN Temperature:  $-46^{\circ}C \sim 150^{\circ}C$ Material: ASTM A105, A350, LF2, A694, A182 F304, F316, F316L

HW



## **Ball Valve**



## Fully Welded District Heating Ball Valve

- HW-WMB

In city heating system, heating electric pipeline network, petrochemical, oil, nature gas, medical, etc.

## Features

- Design & Maufacturing: API608;GB/T12237;BS5351;D209
- Anti-static design in compliance with BS5351/API6D
- Cavity self relief under overpressure
- Fire-safe design in compliance with API607/API6FA
- Full bore or reduced bore design
- The body made of seamless steel pipe of carbon steel or stainless steel,or made of formed welding structure of rolling plate

## Style

Class: ANSI/ASME 150# ~ 400#

(PN1.6 ~ 6.3MPa)

Size: 1/2" ~ 42" (DN15 ~ 1050)

End Connection: ASME / ANSI
B16.5&B16.47a & B16.25,

GB,JB,HG,JIS,DIN

Temperature: -196°C ~ 250°C

Material:
P265GH,16Mn,20R,16MnR,
A182,F304,F304L,F316,F316L

HW



## Metal to Metal Seated Ball Valve

- HW-YBB

In the industries of petrochemical, papermaking, sewage treatment, mines, ocean platform, etc.

## Features

- Anti-static design in compliance with BS5351
- Cavity self-relief under overpressure
- Fire-safe design in compliance with API607/API6FA
- Full bore or reduced bore design
- Forging or casting body, forging ball with surface treatment

## Style

Class: ANSI/ASME 150# ~ 2500# (PN1.6 ~ 42.0MPa)

Size: 1/2" ~ 24"(DN15 ~ 600)

End Connection: ASME / ANSI
B16.5 & B16.47a & B16.25,
GB, JB, HG, JIS, DIN

Temperature: -196°C ~ 550°C

Material: ASTM A105, A182
F11, F22, A216(WCB),
F304, F304L, F316,
F316L, CF8, CF8M,
CF3, CF3M

HW



## Top Entry Trunnion Mounted Ball Valve

- HW-UBB

In the nature gas and oil pipeline, the industries of petrochemical, medicine, city constructions, etc.

## Features

- Anti-static design in compliance with BS5351/API6D
- Cavity self-relief under overpressure
- Seat and stem are with emergency sealant injector
- Repair and upkeep on-line
- Fire-safe design in compliance with API607/API6FA
- Full bore or reduced bore design

## Style

CSV



## Floating Ball Valve - One-Piece Casting/Two-Piece Casting/Fully Welded

Main applies for the industries of nature gas, oil products, chemical industry, metallurgy, city construction, medicine, environment, foods, etc.

## **Features**

- Anti-static design in compliance with BS5351
- Cavity self-relief under overpressure
- Fire-safe design in compliance with API607 / API6FA
- Anti-blowout stem, several-level sealing of stem
- Full bore or reduced bore design

## Style

Class: ANSI/ASME 150# ~ 900#
(PN1.6 ~ 15.0MPa)
Size: 1/2" ~ 12"(DN15 ~ 300)
End Connection: ASME/ANSI
B16.5 & B16.25, GB, JB, HG, JIS, DIN
Temperature: -196°C ~ 250°C
Material: ASTMA105,A216(WCB),
A351, A352 (LCB),
A182F304, F316,
F316L, CF8, CF8M,CF3M

HW

# **Ball Valve**





# Automatic Circumference Valve

Widely used at the centrifugal pump protection system of power station, chemical plant, petrochemical unit, etc.

Can be installed at the outlet of pump to assure small flow recycling when pump is under capacity, and protect pump steady operation. This valve also name as pump protection valve or least flow valve.

## Features

- Induct flow automatically
- Flow checking function
- Recirculating control
- Multi-stage pressure reducing

## Style

Class: PN2.5 ~ 25MPa
Size: DN40 ~ DN350
End Connection: Flange
Temperature: ≤200°C
Material: Nodular cast iron,
Carbon steel,

Stainlesssteel

ΚF



# Eccentric Semi-ball Valve PQS34/7Y

Widely used to throttle, control and cutoff in the pipeline of petroleum, chemical, metallurgy, electric power, Pulp & Paper, thermal power, water supply and drainage etc, especially used in transporting the medium containing granular solid, slag and fibre etc.

## Features

- Full bore flow design, small pressure drop, high efficiency and energy saving.
- Reliable metal seated, optimized eccentric structure.
- Super hard sealing surface with excellent performance to cut the granular solid and slag.
- Quarter -turn, small opening torque, fast and easy for opening and closing.
- High abrasion and corrosion resistance for sealing surface, and with long service life.

## Style

Class: PN0.6MPa ~ 4.0MPa
Size: DN80 ~ DN2800
End Connection: Flange
Temperature: -29°C ~ 425°C
Material: Nodular cast iron, Alloy
steel ,Carbon steel Stainless steel.

ΖD



## Inline Type Sleeve Valve 810 Series

Widely applied at the middle or termination of pipelines such as water supply, water diversion, hydro power station and circulating water; function as pressure regulator valve, flow regulator valve or the bypass valve of drain valve.

## Features

- Large control scope of flow and pressure.
- Small noise and light vibration.
- Anti-blocking plug and automatic cleaning
- Track the pressure and flow of valve automatically.

## Style

Class: PN1.0MPa  $\sim 2.5$ MPa (valve back minimum pressure 0.02MPa)

Size: DN300 ~ DN1800

Medium: Water

Temperature: Normal temperature





# Submerged Type Sleeve Valve 811 Series

Widely applied at the pipelines such as water supply, water diversion, water power station and circulating water; immerged in the stilling pool and function as drain valve to regulate the pipe water flow, reduce pressure and dissipate energy.

## **Features**

- Large control scope of flow and pressure
- Small noise and light vibration.
- With excellent ability of cavitation erosion resistance.
- Anti-blocking plug and automatic cleaning.

## Style

Class: PN0.6MPa  $\sim 2.5$ MPa (valve back minimum pressure 0.02MPa)

Size:  $6" \sim 56"$  (DN150  $\sim 1400$ )

Medium: Water

Temperature: Normal temperature

CSV



# Ball Valve/ Valve Interlock



## Y Shape and Straight-way Type Sleeve Valve 305 Series

Widely applied at the pipelines such as water supply, water diversion, water power station and circulating water;and used to regulate the pipe water flow, pressure and also function as cutting off fluid.

## Features

- Large control scope of flow and pressure
- Small noise and light vibration.
- With high adjustment precision
- With excellent ability of cavitation erosion resistance.
- Good performance of flow and pressure regulation.

## Style

Class: PN1.0MPa  $\sim 2.5$ MPa (valve back minimum pressure 0.01MPa)

Size: DN150 ~ DN600 Medium: Water Temperature: Normal temperature

**CSV** 



## Steam Control Valve

In turbine industry or municipal heat steam extraction pipe line of power plant.

## Features

- Adopt single stage sleeve with small holes to adjust the pressure and flow.
- Straight flow channel pattern, without vortex and prevent the noise.
- Throttling components adopt the alloy steel with abrasion resistance.
- The valve can be operated continuously, with little vibration, low noise, less wear and long operating life.

## Style

Class: ANSI 150# ~ 300# Size: DN700 ~ DN1050 Medium: Vapor Temperature: ≤425°C Material: Carbon steel

ΚF



## Quarter-Turn Valve Interlock Lock15/lock25

Applied to lever operated valves, which at the key position of locking, transmiting and revealing (on site and control room) of the oil field, petroleum, chemical, metallury, gas and other high risk industries.

## Features

- Two keys with different codes are equipped with each valve.
- With compact and substantial structure and flexible operations, stainless steel modes make it with long service life.
- Easy to installation, without changing the performance and shape of the controlled valve, applied to any kinds of valves.

## Style

Linear coded-card key design; made of stainless steel, resisting high temperature to 700°C, low temperature for test to -57°C; manual operating won't break the locking position and influence the normal operating of the valve; without wearing parts, free maintenance; with perfect corrosion resistance, dust resistance, water resistance performance.

Lock



## Multiturn Valve Interlock Lock15/25/50

Applied to hand wheel operated valves, which at the key position of locking, transmiting and revealing (on site and control room) of the oil field, petroleum, chemical, metallury, gas and other high risk industries.

## Features

- Two keys with different codes are equipped with each valve.
- With compact and substantial structure and flexible operations, stainless steel modes make it with long service life.
- Easy to installation, without changing the performance and shape of the controlled valve, applied to any kinds of valves.

## Style

Linear coded-card key design; made of stainless steel, resisting high temperature to 700°C, low temperature for test to -57°C; manual operating won't break the locking position and influence the normal operating of the valve; without wearing parts, free maintenance; with perfect corrosion resistance, dust resistance, water resistance performance.

Lock

# Valve Interlock/ **Special Valve**





## Vessel Closure Lock Lock-G

This type of lock can be applied to all types of vessel/access closures; in pig trap applications especially where the closure incorporates a bleed device.

## **Features**

- Applied to the circular hatch of pressure pipeline and pressure vessel, can be opened and closed fast; can realize fast opening and closing the end cover of the pig receiver & launcher, filter and other pressure equipment; can replace the blind flange of the frequent-switch pipeline and pressure vessel of the refining, chemical, medical, papermaking, national defending, water supply and drainage work, etc.
- Interlock system composed of key and other equipments prevent the risk of working conditions effectively. Style

Linear coded-card key design; made of stainless steel, resisting high temperature to 700°C, low temperature for test to -57°C; manual operating won't break the locking position and influence the normal operating of the valve; without wearing parts, free maintenance; with perfect corrosion resistance, dust resistance, water resistance performance.

Lock



## Actuated Valve Lock Lock-E

This type of lock can be applied on power actuated valves occurs in Pig Lanucher/Receiver system, Scraper Traps and Sand Filter system etc.

## **Features**

- Interlock system applied on all kinds of electrical switches and between electric appliance and other equipment are available.
- Strict interlock system can be achieved through mechanical interlock system and other interlock system.

## Style

Linear coded-card key design; made of stainless steel, resisting high temperature to 700°C, low temperature for test to -57°C; manual operating won't break the locking position and influence the normal operating of the valve; without wearing parts, free maintenance; with perfect corrosion resistance, dust resistance, water resistance performance.

Lock



## Anti-Tamper lock in Oil Pipeline - Lock-A

It can be applied on the damageable valves in the long pipeline.

#### **Features**

With against spoiling interlock and anti-theft structure, which protect the valve effectively.

## Style

Linear coded-card key design; made of stainless steel, resisting high temperature to 700°C, low temperature for test to -57°C; manual operating won't break the locking position and influence the normal operating of the valve; without wearing parts, free maintenance; with perfect corrosion resistance, dust resistance, water resistance performance.

Lock



and high pressure.

optimize pipeline design ■ Pressure seal bonnet

Feed Water Heater Isolation

As main feed water high pressure

heater bypass valve of the 300MW/

Medium: water of high temperature

Valve - J764Y (three-way

valve)

600MW power station.

- Wedge or double disc parallet seat of the outlet gate valve
- Yoke with Standard top flange design
- Stellite (R) overlay trim
- Reinforced graphite gasket and packing seal

Class: PN200MPa ~ PN320MPa Size: DN200 ~ DN350 End Connection: Butt weld

ANSI B16.25

Temperature: -29°C ~ 426°C Material: ASTM A216 (WCB)

KF



# **Special Valve**



## Plunger Valve U Series

Applied at petroleum, chemical, metallurgy, thermal power, and papermaking industries, etc.

Medium: steam, water, natural gas, hydrogen, light oil, alkanes, hydro carbons, etc.

## Features

- Through way type/ straight way type of body
- Flanged connection
- Manual / electric/ pneumatic operation are optional
- Multiple body materials optional

## Style

Class: PN1.6 ~ PN4.0MPa
Size: DN15 ~ DN300
End Connection: Flange
Temperature: -29°C ~ 550°C
Material: Carbon steel,
Stainless steel.

KF



## 24-way Rotary Valve HW-RV

24-way rotary valve is a special high tech product combined with mechanical, electric, instrumental, hydro-integration, it is the key equipment of simulating moving bed molecular sieve absorption-separetion unit.

## Features

The 24-way rotary valve can use the fixed beds equipment to switch the stream input and output ports continuously and regularly to make the molecular sieve absorption-separation unit to realize advanced simulating moving bed absorption-separation process with easy automatic operation and reliable operation, it can not be replaced by any other valves.

## Style

DesignPressure:3.16MPa (450psig) /1.93MPa (275psig) Size: 34" ~ 52" (DN800 ~ 1400) End Connection: Hoop and Flange Design Temp: 232°C (450 F)

HW



## Tank Bottom Valve HW-FJV

Widely used in the industries of nature gas, oil products, chemical industry, metallurgy, city construction, medicine,dyestuff,farm chemical, environment, foods, etc

## **Features**

- Design & Manufacturing: HG5-12; HG5 - 2.6.10; HG5 - 1423 1425; HG5 - 3.7.11
- Casting or forging body
- The disc can select the design of up side or down side as per actual status
- The seal surface is corrosion resistant and flush resistant with reliable seal
- Test & Inspection:HG5-12;

## Style

(PN1.6 ~ 25.0MPa) Size: 1/2" ~ 12" (DN15 ~ 300) End Connection:

Class: ANSI/ASME 150# ~ 1500#

HG5-2,3,6,7,10,11; HG5-1423 1425

Temperature: -29°C ~ 550°C Material: CS,SS,DSS

HW



## Slide Valve (Knife Gate

## Valve)

## - HW-HZV

Widely used in the industries of sewage, slurry, syrup, air, combination of dregs-water, water supplying, mine, etc.

## Features

- Design & Manufacturing:GB/ T12234, JB/T8691, ASME B16.34, MSS SP81
- Casting or forging body
- Soft seats or metal seated seal as per requirement
- Lift type gate structure which canwipe out glues on the seal surface
- Seal gland box design which forms safe and reliable seal
- Test & Inspection: API598; GB/ T13927

## Style

Class: ANSI/ASME 150# ~ 300#

(PN1.6 ~ 5.0MPa)

Size: 1/2" ~ 60" (DN15 ~ 1500)

End Connection: ASME/ANSI

B16.5, GB, JB, HG, JIS, DIN

Temperature: -29°C ~ 550°C

Material: CS, SS, DSS, Ti-alloy

ΗW

## Special Valve/ Castings and Forgings





## Air Release Valve QSP1.0 (1.6, 2.5, 4.0)

Widely used in water pipeline and thermodynamic cycle pipeline.

## Features

- Exhausting quickly no matter whether there are multi section of water and air column.
- High-speed air flow of outlet has no effect on the floating ball, make sure that overfall or fast air flow would not drive the ball up.
- Floating ball not standing against the outlet, free of stucking.
- Fast opening and slow closing, and efficient exhaust function improves the utilization of flow cross-section of pipeline, reduces resistance and saves energy, and secure the pipeline.

## Style

Class: PN1.0MPa ~ 4.0MPa
Size: DN15 ~ DN600
End Connection: Flange
Temperature: -10°C ~ 80°C
Material: Nodular cast iron,
Carbon steel

ΖD



# Three-way Control Valve U943\*Q/C

Widely used to control flow direction of filtrated water and back washing water in the filter's inlet and outlet of steel mill.

## **Features**

- Electric actuation adopting, more convenient than pneumatic and hydraulic controls, steady operation and no vibration, free from climate effect.
- With throtting function, saving a maintenance valve.
- Bring strong annular flow to make self cleaning effect when closing and opening
- 2 valves replace 4 conventional filter changover valves.

## Style

Class: PN0.6MPa ~ 1.0MPa Size: DN200 ~ DN800 End Connection: Flange Temperature: 0°C ~ 80°C Material: Carbon Steel

ΖD



## Sluice Gate

Municipal sewage treatment plant and water supply plant, cutt off and regulate flow.

## Features

- Erosive resist, durable design.
- Compact body, 1/3 weight of traditional iron valve.
- Special seal design, bi-direction seal.
- On line seat change and repair

## Style

Class: 5 meter water pressure
Size: DN300x300 ~ DN200x2000
End Connection: Lug
Temperature: -10°C ~ 80°C
Material: OCr19Ni9、2Cr13、
1Cr13、ZQA19-4

ΖD

Standard: GB / T 3006



## Steel Castings, Forged Steel, Castings

All kinds of castings of valve body and components are available: gate valve, globe valve, check valve, regulating valve, safety valve, ball valve, butterfly valve, high temperature and high pressure valve, low temperature valve and pump body, etc.

## Material:

ASTM/ A216, A217, A351, A352, A487 and carbon cast steel, heat resistant steel, low temperature steel, stainless steel and other more than twenty steel in national standard, such as WCB, WCC,WB36,WC1,WC6,WC9,LCB,LC3,LCC,CF8,CF8M,CF3M,CF8C,ZG35CrMoRe,ZG28NiCrMo,etc. Weight: maximum weight/unit: 6 tops

## Standard:

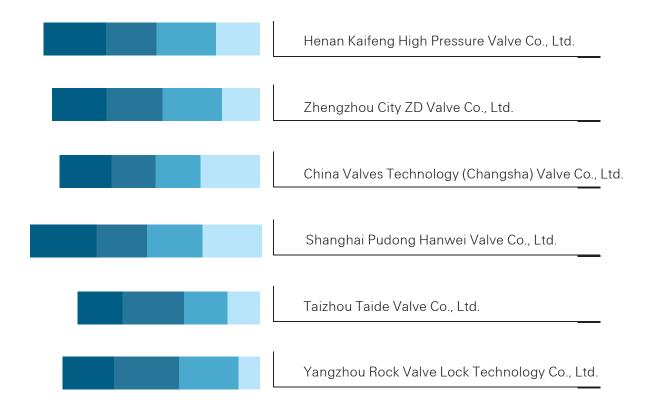
GB、ASTM、EN(DIN)、JIS

ΚF



## Industrial Innovation

The focus on Delicacy production management, promotion on R&D and reduction of manufacturing cost, makes our production more and more competitive. China Valves Technology pays more strength on technical innovation and production R&D. The corporate talent pool, include 19 industrial specialists who take special government allowances, 36 registered senior engineers, 160 engineers, and by support of 23 external professors, well-known experts. With the talent concentrate and form a top valve R&D team in domestic. China Valves Technology has built long-term and strategic relationships with many domestic universities and research institutes (e.g. Lanzhou University of Technology, Hefei General Machinery Research Institute, Xi'an Thermo Technical Research Institute, National Steel & Iron Institute, etc), and even engineering technology center of Cambridge University. About 90 item new products we have R&D independently and collaboratively in recent 3 years .



# Main Partners









































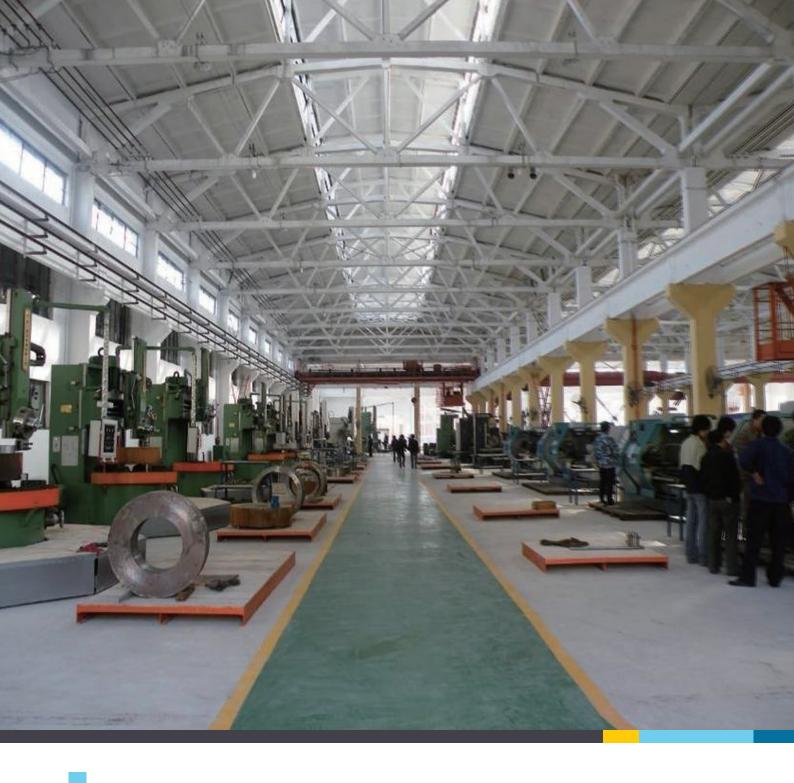




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The first domestic made valves applied in main feed water and main steam system in supercritical 1000MW power unit The first domestic made large diameter ball valve in oil pipeline in China;

The first monoblock body casted metal sealing eccentric butterfly valve of DN3600 in China;

The first hydraulic control metal sealing butterfly valve of DN5500 in China;

The supplier of 24 way distributing valve in petrochemical industry

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