



**OUTONG GROUP
ZHEJIANG PETROCHEMICAL VALVE CO.,LTD**

Headquarter address: No. 518, Third Road, Binhai Park, Wenzhou Economic & Technical Development Zone
 New factory address: No. 397, Sixth Road, Binhai Park, Wenzhou Economic & Technical Development Zone

Domestic trade
 Tel: 0577-8687 2988
 Fax: 0577-8687 2770
 Zip Code: 325025
 E-mail: outongsh@163.com

International trade
 Tel: +86 577-8585 9956
 Zip Code: 325025
 E-mail: sales@outong-group.com



www.outong-group.com



GENERAL CATALOGUE

**OUTONG GROUP
ZHEJIANG PETROCHEMICAL VALVE CO.,LTD**



CONTENS

- 01/02 Company profile
- 03/04 Production site
- 05/06 High-end equipment
- 07/10 Testing equipment
- 11/14 Product Site
- 15/16 Products range
- 17/42 Products detail
 - Expanding valve series
 - Through Conduit Gate valve series
 - Ball valve series
 - Plug valve series
 - Cast steel valve series
 - Forged steel valve series
 - Butterfly valve series
 - Cryogenic valve series
 - Power plant valve series
 - Instrument valve series
 - Hydrogen valve series
 - Oxygen valve series
 - Insulation jacket valve series
 - High-temperature mixing valve series
 - Bellows valve series
 - Well outlet facilities and Christmas tree
- 43 Casting
- 45 Manufacture base
- 46 Quality guarantee

COMPANY PROFILE

Zhejiang Petrochemical Valve Co., Ltd., founded in 1978, is located in the coast of East China Sea, the national-level Wenzhou Economic & Technical Development Zone. It has the registered capital up to 160 million CNY, covers an area of 85,000 square meters, construction area of 75,400 square meters, and 368 employees, including 111 engineering and technical employees.

It is a national key High & New Tech enterprise, a national Torch-Plan products manufacturer and a national key new-products enterprise, a national Intellectual Property Right pilot demonstration enterprise, and a Science & Technology innovation pilot enterprise in Zhejiang, the executive director of China's Valve Industry Association, the chief of Wenzhou Valve Industry Association, the member of China's petrochemical materials & resources market, top-grade suppliers' network of China National Petroleum Corporation, suppliers' network of China National Offshore Oil Corporation, and valve suppliers' network of China's thermal power system and nuclear power system. It set up Zhejiang High & New Tech Special Valves Research & Development Center and Zhejiang Petrochemical Special Valves Technology Institution.

It set up a complete quality control system, passed the certifications of TS, ISO9001, ISO 14001, OHSAS 18001, API6D, API6A, CE, standard AAA-grade, measurement & management system A-grade, as well as the certifications for products such as CU-TR, ISO15848-1, HIC, SSCC, API607, API6FA.

It set up an advanced physical & chemical laboratory, with advanced testing and inspection equipment portable spectrum analyzer from Germany, high-speed ignition infrared carbon sulfur analyzer, ultrasonic hardness tester, ultrasonic thickness gauge, hydraulic universal material tester, pendulum low-temperature impact tester, magnetic particle flaw detector, X-ray flaw detector, R-ray flaw detector room; Meanwhile it has advanced manufacturing & processing equipment, including 31 high-precision machines such as the 5-axis connecting-rod machining center from Japan, plasma welding machine, electric discharge machine, ultrasonic cleaning machine, paint spraying & drying line, vertical warehouse for finished and half-finished products and so on.

The human civilization is progressing, national Science & Technology is developing quickly, and our innovations are kept updated day by day, Zhejiang Petrochemical Valve Co., Ltd., will do its best to make new contributions for all domestic and foreign customers, and for China's national economic construction!



- ① TS certificate
- ② CE certificate
- ③ API 6D certificate
- ④ API 6A certificate
- ⑤ ATEX explosion-proof certificate
- ⑥ API 607 fire safe certificate
- ⑦ ISO 15848-1 Fugitive emission certificate
- ⑧ SIL Safety integrity level certificate
- ⑨ ISO9001 Quality management system certificate
- ⑩ ISO14001 Environmental management system certificate
- ⑪ OHSAS18001 Occupational health&safety management system certificate



CNC machining workshop

PRODUCTION SITE

- ① CNC vertical machine
- ② CNC inner grinding machine
- ③ CNC ball grinding machine
- ④ CNC plane grinding machine
- ⑤ Automatic welding machine
- ⑥ Heat treatment furnace
- ⑦ Painting & power coating line



We have advanced equipment, strong technical power and a complete modern management system, to guarantee the manufacture quality satisfy the standard requirements.





Dust-free constant temperature machining center workshop

HIGH-END EQUIPMENT

- ① Haihong machining center
- ② Doushan machining center
- ③ MAZAK machining center





Quality testing center



TESTING EQUIPMENT



To guarantee product quality,
We have advanced testing equipment.
We have a strict quality management team.
We set up a complete quality management system.
For quality control on raw materials,
production, finished-products
performance testing and application.

- ① Spectrometer
- ② Thickness gauge
- ③ Hardness tester
- ④ Gamma ray detection RT
- ⑤ Magnetic particle detection MT
- ⑥ Ultrasonic flaw detection UT
- ⑦ Dye-penetration test PT
- ⑧ Universal testing machine
- ⑨ Metallographic analyzer
- ⑩ Low temperature impact tester
- ⑪ Vernier caliper
- ⑫ Coordinate measuring machine





TESTING EQUIPMENT

One of the most advanced high-temperature thermal simulation testers, and the temperature simulated can reach 700°C



- ① API 6A high pressure laboratory
- ② Multi-function test bench
- ③ High temperature tester
- ④ Low temperature tester





01



02

PRODUCT SITE

- 01 Cast-steel gate valve
- 02 Electric through conduit gate valve
- 03 Pressure-balanced and Lifting metal-seal plug valve
- 04 Forged-steel 3-piece trunnion ball valve
- 05 Fully-welded ball valve



03



04



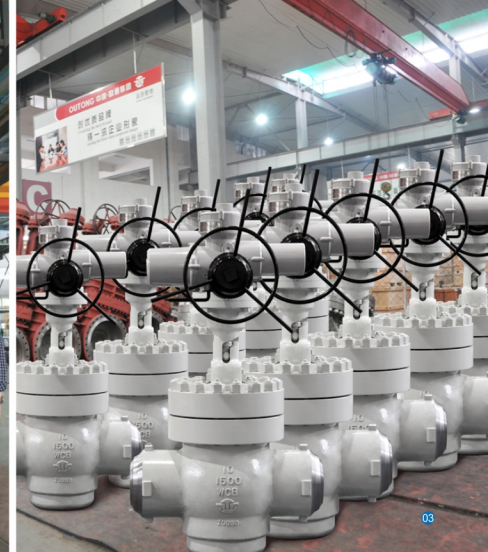
05



01



02



03

PRODUCT SITE

- ① Electric Ball Valve
- ② Wellhead Equipment And Christmas Tree
- ③ Expanding Valve Series
- ④ Spacecraft Wind Tunnel Heat Valve In Installation
- ⑤ Forged-steel Through Conduit Gate Valve With Diversion Hole
- ⑥ Top entry hemisphere valve



04



05

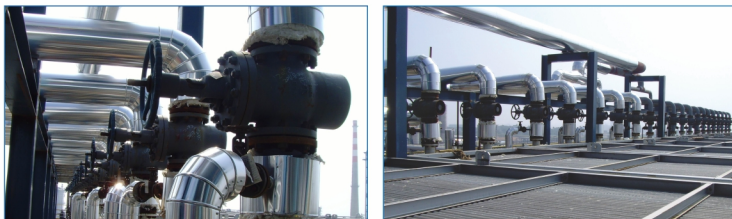


06

EXPANDING VALVE SERIES



Expanding metal-seal valve is a new type of cut-off valve developed by our company and Sinopec Engineering Incorporation, and its seal assembly has no friction when it opens or closes, so it is easy to operate with a long service life; the opening time is only 1/10 of a gate valve, and the installation space is only 2/3 of a gate valve, therefore it is widely used in petrochemical industry to replace a common gate valve.



EXPANDING VALVE SERIES



EXPANDING SPHERICAL GATE VALVE

Product parameters

- Product specification: NPS2-NPS36
- Pressure rating: CL150-CL 1500
- Design standard: JB/T10673
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc
- Applicable medium: water, steam, oils, corrosive media, etc.



EXPANDING METAL-SEAL BALL VALVE

Product parameters

- Product specification: NPS2-NPS36
- Pressure rating: CL150-CL 1500
- Design standard: JB/T10673
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc
- Applicable medium: water, steam, oil, corrosive medium, etc.





FORGED-STEEL THROUGH CONDUIT GATE VALVE WITH DIVERSION HOLE

Product parameters

- **Product specification:** NPS2~NPS60
- **Pressure rating:** CL150~CL2500
- **Design standard:** API6D
- **Connection pattern:** RF, RTJ, BW
- **Structure pattern:** single-plate/double-plate
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** petroleum, natural gas, etc.



FORGED-STEEL THROUGH CONDUIT GATE VALVE WITHOUT DIVERSION HOLE

Product parameters

- **Product specification:** NPS2~NPS60
- **Pressure rating:** CL150~CL2500
- **Design standard:** API6D
- **Connection pattern:** RF, RTJ, BW
- **Structure pattern:** single-plate/double-plate
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** petroleum, natural gas, etc.



FORGED-STEEL 1-PIECE FLOATING BALL VALVE

Product parameters

- **Product specification:** NPS1/2~NPS10
- **Pressure rating:** CL150~CL300
- **Design standard:** API608, ISO17292
- **Connection pattern:** NPT, SW, RF, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



FORGED-STEEL 2-PIECE FLOATING BALL VALVE

Product parameters

- **Product specification:** NPS1/2~NPS10
- **Pressure rating:** CL150~CL600
- **Design standard:** API608, ISO17292
- **Connection pattern:** NPT, SW, RF, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



CAST-STEEL THROUGH CONDUIT GATE VALVE WITH DIVERSION HOLE

Product parameters

- **Product specification:** NPS2~NPS60
- **Pressure rating:** CL150~CL2500
- **Design standard:** API6D
- **Connection pattern:** RF, RTJ, BW
- **Structure pattern:** single-plate/double-plate
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** petroleum, natural gas, etc.



CAST-STEEL THROUGH CONDUIT GATE VALVE WITHOUT DIVERSION HOLE

Product parameters

- **Product specification:** NPS2~NPS60
- **Pressure rating:** CL150~CL2500
- **Design standard:** API6D
- **Connection pattern:** RF, RTJ, BW
- **Structure pattern:** single-plate/double-plate
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** petroleum, natural gas, etc.



FORGED-STEEL 2-PIECE FLOATING BALL VALVE

Product parameters

- **Product specification:** NPS1/2~NPS6
- **Pressure rating:** CL150~CL300
- **Design standard:** API608, ISO17292
- **Connection pattern:** NPT, SW, RF, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive media, etc.



CAST-STEEL 3-PIECE FLOATING BALL VALVE

Product parameters

- **Product specification:** NPS1/2~NPS10
- **Pressure rating:** CL150~CL300
- **Design standard:** API608, ISO17292
- **Connection pattern:** NPT, SW, RF, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive media, etc.



CAST-STEEL 3-PIECE TRUNNION BALL VALVE

Product parameters

- **Product specification:** NPS2~NPS60
- **Pressure rating:** CL150~CL1500
- **Design standard:** API608, ISO17292, API6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



CAST-STEEL TOP-ENTRY TRUNNION BALL VALVE

Product parameters

- **Product specification:** NPS2~NPS36
- **Pressure rating:** CL150~CL1500
- **Design standard:** API608, ISO17292, API6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



TOP-ENTRY BEVEL BALL VALVE

Product parameters

- **Product specification:** NPS1/2~NPS10
- **Pressure rating:** CL150~CL300
- **Design standard:** API608, ISO17292
- **Connection pattern:** NPT, SW, RF, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



WEAR-RESISTANT METAL SEAL BALL VALVE

Product parameters

- **Product specification:** NPS1/2~NPS36
- **Pressure rating:** CL150~CL2500
- **Design standard:** API608, ISO17292, API6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** black water, gray water, slurry, etc.



FORGED-STEEL 3-PIECE TRUNNION BALL VALVE

Product parameters

- **Product specification:** NPS2~NPS60
- **Pressure rating:** CL150~CL2500
- **Design standard:** API608, ISO17292, ADI6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



CAST-STEEL 2-PIECE TRUNNION BALL VALVE

Product parameters

- **Product specification:** NPS2~NPS24
- **Pressure rating:** CL150~CL1500
- **Design standard:** API608, ISO17292, ADI6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



FULLY-WELDED BALL VALVE

Product parameters

- **Product specification:** NPS2~NPS60
- **Pressure rating:** CL150~CL2500
- **Design standard:** ADI6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** petroleum, natural gas, etc.



FULLY-WELDED BALL VALVE

Product parameters

- **Product specification:** NPS2~NPS60
- **Pressure rating:** CL150~CL2500
- **Design standard:** ADI6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** petroleum, natural gas, etc.



SOFT-SEAL PLUG VALVE

Product parameters

- **Product specification:** NPS1/2~NPS24
- **Pressure rating:** CL150~CL600
- **Design standard:** ADI6D, API599
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



PLUG VALVE

Product parameters

- **Product specification:** NPS1/2~NPS24
- **Pressure rating:** CL150~CL600
- **Design standard:** ADI6D, API599
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



PRESSURE-BALANCED PLUG VALVE

Product parameters

- **Product specification:** NPS2~NPS4
- **Pressure rating:** CL150~CL2500
- **Design standard:** ADI6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** petroleum, natural gas, etc.



LIFTING METAL-SEAL PLUG VALVE

Product parameters

- **Product specification:** NPS2~NPS48
- **Pressure rating:** CL150~CL2500
- **Design standard:** API599, ASME B16.34
- **Connection pattern:** NPT, SW, RF, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.

The metal-seal plug valve has the advantages such as low flow resistance and quick opening, as well as no friction on the seal surface in opening and it is quite easy to open. It is suitable for the pipes with high-temperature and low-temperature corrosive media, especially suitable for technical pipelines with great pressure differences of pump outlets; it is quite easy to operate, and it can open and close very quickly. They are mainly applied in normal-pressure decompression, catalysis, coking and hydrogenation; the lifting hard-seal plug valve with blowing hole has been used in the heating furnace outlet of Daqing Refinery's coking unit for a period, and there is no jam or leak under the high temperature with particles. Before, a similar plug valve was used, and it was likely to be damaged; therefore, the user is quite satisfied with this product. Sinopec Group, Sinopec Engineering Incorporation, Luoyang Petrochemical Engineering Corporation Ltd., Zhejiang Petrochemical Valve Co., Ltd., had obtained the patent for the product, and the patent number: ZL201120309287.8.

The advantages on quality and technology

- The research & development department, in the initial stage of design, adopted FEA finite element analysis software on stress, thermal power, deformation fatigue, to improve its reliability greatly.
- The production department has 2 large CNC vertical lathe and 2 high-precision CNC vertical internal grinding machines, for DN1000 plug valve. The high-precision grinding machine can process on the seal surfaces of body and plug on a same grinding bench, and the surface roughness is up to Ra0.4, and interchange between them is not needed, therefore the seal performance is quite good.
- The quality control department requires that each valve shall be tested according to API598 standard and API6D standard, to ensure zero leak, therefore it is suitable for the work conditions with high-temperature, high-pressure steams and high pressure differences of pump outlets.





CAST-STEEL GATE VALVE

Product parameters

- **Product specification:** NPS2-NPS60
- **Pressure rating:** CL150-CL2500
- **Design standard:** API600
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



CAST-STEEL GLOBE VALVE

Product parameters

- **Product specification:** NPS2-NPS24
- **Pressure rating:** CL150-CL2500
- **Design standard:** BS1837, API623
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



AXIAL CHECK VALVE

Product parameters

- **Product specification:** NPS2-NPS24
- **Pressure rating:** CL150-CL2500
- **Design standard:** BS1837, API623
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



TILTING-DISC CHECK VALVE

Product parameters

- **Product specification:** NPS2-NPS60
- **Pressure rating:** CL150-CL2500
- **Design standard:** API6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



CAST-STEEL SWING CHECK VALVE

Product parameters

- **Product specification:** NPS2-NPS60
- **Pressure rating:** CL150-CL2500
- **Design standard:** BS1868, API594
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



CAST-STEEL LIFTING CHECK VALVE

Product parameters

- **Product specification:** NPS2-NPS24
- **Pressure rating:** CL150-CL2500
- **Design standard:** BS1868, API6D
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



CAST-STEEL DUAL-PLATE CHECK VALVE

Product parameters

- **Product specification:** NPS2-NPS60
- **Pressure rating:** CL150-CL2500
- **Design standard:** API594
- **Connection pattern:** WAFER, LUG, RF, RTJ
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



HAMMER SLOWLY-CLOSING CHECK VALVE

Product parameters

- **Product specification:** NPS2-NPS60
- **Pressure rating:** CL150-CL2500
- **Design standard:** API594
- **Connection pattern:** WAFER, LUG, RF, RTJ
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



CAST-STEEL PRESSURE SEAL Y-PATTERN GLOBE VALVE

Product parameters

- Product specification: NPS2~NPS24
- Pressure rating: CL600~CL2500
- Design standard: ASME B16.34
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



CAST-STEEL PRESSURE SEAL GLOBE VALVE

Product parameters

- Product specification: NPS2~NPS36
- Pressure rating: CL600~CL2500
- Design standard: ASME B16.34
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



FORGED-STEEL GATE VALVE

Product parameters

- Product specification: NPS1/2~NPS2
- Pressure rating: CL150~CL2500
- Design standard: API602, ASME B16.34
- Connection pattern: NPT, SW, RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



FORGED-STEEL GLOBE VALVE

Product parameters

- Product specification: NPS1/2~NPS2
- Pressure rating: CL150~CL2500
- Design standard: API602, ASME B16.34
- Connection pattern: NPT, SW, RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



FORGED-STEEL PRESSURE SEAL GLOBE VALVE

Product parameters

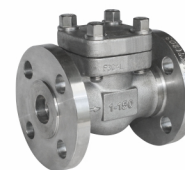
- Product specification: NPS2~NPS24
- Pressure rating: CL600~CL2500
- Design standard: ASME B16.34
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



FORGED-STEEL PRESSURE SEAL CHECK VALVE

Product parameters

- Product specification: NPS2~NPS36
- Pressure rating: CL600~CL2500
- Design standard: ASME B16.34
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



FORGED-STEEL SWING CHECK VALVE

Product parameters

- Product specification: NPS1/2~NPS2
- Pressure rating: CL150~CL2500
- Design standard: API602, ASME B16.34
- Connection pattern: NPT, SW, RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



FORGED-STEEL LIFTING CHECK VALVE

Product parameters

- Product specification: NPS1/2~NPS2
- Pressure rating: CL150~CL2500
- Design standard: API602, ASME B16.34
- Connection pattern: NPT, SW, RF, RTJ, BW, WAFER
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



CENTER-LINE BUTTERFLY VALVE

Product parameters

- Product specification: NPS2-NPS72
- Pressure rating: 150Psi~232Psi
- Design standard: API609
- Connection pattern: WAFER, LUG, RF
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



DOUBLE ECCENTRIC BUTTERFLY VALVE

Product parameters

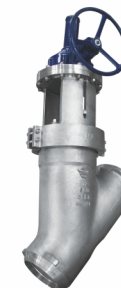
- Product specification: NPS2-NPS144
- Pressure rating: CL150-CL300
- Design standard: API609
- Connection pattern: WAFER, LUG, RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



POWER PLANT GATE VALVE

Product parameters

- Product specification: NPS2-NPS24
- Pressure rating: CL1500-CL3500
- Design standard: API600, ASME B16.34
- Connection pattern: BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: hot steam, hot oils, etc.



POWER PLANT GLOBE VALVE

Product parameters

- Product specification: DN50-DN200
- Pressure rating: P54-100V-P57-170V
- Design standard: NB/T47044
- Connection pattern: BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: hot steam, hot oils, etc.



TRIPLE ECCENTRIC BUTTERFLY VALVE

Product parameters

- Product specification: NPS2-NPS144
- Pressure rating: CL150-CL600
- Design standard: API609
- Connection pattern: WAFER, LUG, RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



FLUE BUTTERFLY VALVE

Product parameters

- Product specification: DN100-DN5000
- Pressure rating: ≤PN6
- Design standard: JB/T 8692
- Connection pattern: RF, BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: air, industrial gas, etc.



POWER PLANT GATE VALVE

Product parameters

- Product specification: DN50-DN500
- Pressure rating: P54-100V-P57-170V
- Design standard: NB/T47044
- Connection pattern: BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: hot steam, hot oils, etc.



POWER PLANT CHECK VALVE

Product parameters

- Product specification: DN50-DN500
- Pressure rating: P54-100V-P57-170V
- Design standard: NB/T47044
- Connection pattern: BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: hot steam, hot oils, etc.



CRYOGENIC BALL VALVE

Product parameters

- Product specification: NPS1/2~NPS10
- Pressure rating: CL150~CL2500
- Design standard: API602, ISO 17292, API6D, BS6364
- Connection pattern: NPT, SW, RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: ethylene, propylene, LNG, corrosive medium, etc.



CRYOGENIC GATE VALVE

Product parameters

- Product specification: NPS1/2~NPS64
- Pressure rating: CL150~CL2500
- Design standard: API602, API600, BS6364
- Connection pattern: NPT, SW, RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: ethylene, propylene, LNG, corrosive medium, etc.



CRYOGENIC GLOBE VALVE

Product parameters

- Product specification: NPS1/2~NPS10
- Pressure rating: CL150~CL2500
- Design standard: API602, BS1873, API623, BS6364
- Connection pattern: NPT, SW, RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: ethylene, propylene, LNG, corrosive medium, etc.



CRYOGENIC BUTTERFLY VALVE

Product parameters

- Product specification: NPS2~NPS48
- Pressure rating: CL150~CL600
- Design standard: API609, BS6364
- Connection pattern: WAFER, UG, RF, BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: ethylene, propylene, LNG, corrosive medium, etc.



CRYOGENIC CHECK VALVE

Product parameters

- Product specification: NPS1/2~NPS48
- Pressure rating: CL150~CL2500
- Design standard: API602, ASME B16.34, BS6364
- Connection pattern: NPT, SW, RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, etc.
- Applicable medium: ethylene, propylene, LNG, corrosive medium, etc.



ELECTRIC THROUGH CONDUIT GATE VALVE

Product parameters

- Product specification: NPS2-NPS60
- Pressure rating: CL150-CL2500
- Design standard: API6D
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: petroleum, natural gas, etc.



ELECTRIC GLOBE VALVE

Product parameters

- Product specification: NPS2-NPS24
- Pressure rating: CL150-CL2500
- Design standard: BS 1873, API 623
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



ELECTRIC BALL VALVE

Product parameters

- Product specification: NPS2-NPS60
- Pressure rating: CL150-CL2500
- Design standard: API 608, ISO 17292, API 6D
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



PNEUMATIC PLUG VALVE

Product parameters

- Product specification: NPS1/2-NPS24
- Pressure rating: CL150-CL600
- Design standard: API 6D, API 599
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



PNEUMATIC THROUGH CONDUIT GATE VALVE

Product parameters

- Product specification: NPS2-NPS60
- Pressure rating: CL150-CL2500
- Design standard: API 6D
- Connection pattern: RF, RTJ, BW
- Applicable medium: petroleum, natural gas, etc.



PNEUMATIC GATE VALVE

Product parameters

- Product specification: NPS2-NPS60
- Pressure rating: CL150-CL2500
- Design standard: API 600
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.



PNEUMATIC BALL VALVE

Product parameters

- Product specification: NPS2-NPS60
- Pressure rating: CL150-CL2500
- Design standard: API 608, ISO 17292, API 6D
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



PNEUMATIC REGULATING VALVE

Product parameters

- Product specification: NPS1/2-NPS24
- Pressure rating: CL150-CL2500
- Design standard: GB/T 17213, GB/T 4213
- Connection pattern: RF, RTJ, BW
- Body materials: carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- Applicable medium: water, steam, oils, corrosive medium, etc.



HYDROGEN GLOBE VALVE

Product parameters

- **Product specification:** NPS1/2~NPS20
- **Pressure rating:** CL150~CL2500
- **Design standard:** JB/T 11484, NACE MR0175, BS1873, API623, ASME B16.34, API602
- **Connection pattern:** SW, RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, etc.
- **Applicable medium:** hydrogen, hydrogen sulfide, etc.



HYDROGEN Y-PATTERN GLOBE VALVE

Product parameters

- **Product specification:** NPS1/2~NPS20
- **Pressure rating:** CL150~CL2500
- **Design standard:** JB/T 11484, NACE MR0175, BS1873, API623, ASME B16.34, API602
- **Connection pattern:** SW, RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, etc.
- **Applicable medium:** hydrogen, hydrogen sulfide, etc.



OXYGEN GLOBE VALVE

Product parameters

- **Product specification:** NPS1/2~NPS20
- **Pressure rating:** CL150~CL900
- **Design standard:** JB/T 10530, JB/T 12955, BS1873, API623, ASME B16.34, API602
- **Connection pattern:** NPT, SW, RF, RTJ, BW
- **Body materials:** stainless steel, Nickel-base alloy, etc.
- **Applicable medium:** oxygen, etc.



OXYGEN CHECK VALVE

Product parameters

- **Product specification:** NPS1/2~NPS40
- **Pressure rating:** CL150~CL900
- **Design standard:** JB/T 12955, BS 1868, API6D, API594, ASME B16.34, API602
- **Connection pattern:** NPT, SW, RF, RTJ, BW
- **Body materials:** stainless steel, Nickel-base alloy, etc.
- **Applicable medium:** oxygen, etc.



HYDROGEN GATE VALVE

Product parameters

- **Product specification:** NPS1/2~NPS20
- **Pressure rating:** CL150~CL2500
- **Design standard:** JB/T 11484, NACE MR0175, API600, ASME B16.34, API602
- **Connection pattern:** SW, RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, etc.
- **Applicable medium:** hydrogen, hydrogen sulfide, etc.



HYDROGEN CHECK VALVE

Product parameters

- **Product specification:** NPS1/2~NPS20
- **Pressure rating:** CL150~CL2500
- **Design standard:** JB/T 11484, NACE MR0175, BS 1868, ASME B16.34, API602
- **Connection pattern:** SW, RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, etc.
- **Applicable medium:** hydrogen, hydrogen sulfide, etc.



OXYGEN BALL VALVE

Product parameters

- **Product specification:** NPS1/2~NPS40
- **Pressure rating:** CL150~CL900
- **Design standard:** JB/T 12955, API608, ISO 17292, API6D
- **Connection pattern:** NPT, SW, RF, RTJ, BW
- **Body materials:** stainless steel, Nickel-base alloy, etc.
- **Applicable medium:** oxygen, etc.



OXYGEN BUTTERFLY VALVE

Product parameters

- **Product specification:** NPS1/2~NPS40
- **Pressure rating:** CL150~CL600
- **Design standard:** JB/T 12955, API609
- **Connection pattern:** WAFER, LUG, RF, RTJ, BW
- **Body materials:** stainless steel, Nickel-base alloy, etc.
- **Applicable medium:** oxygen, etc.



JACKET GATE VALVE

Product parameters

- **Product specification:** NPS2~NPS24
- **Pressure rating:** CL150~CL600
- **Design standard:** API600, ASME B16.34
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



JACKET GLOBE VALVE

Product parameters

- **Product specification:** NPS2~NPS24
- **Pressure rating:** CL150~CL600
- **Design standard:** BS 1873, ASME B16.34
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



JACKET BUTTERFLY VALVE

Product parameters

- **Product specification:** NPS2~NPS48
- **Pressure rating:** CL150~CL600
- **Design standard:** API609, ASME B16.34
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



JACKET CHECK VALVE

Product parameters

- **Product specification:** NPS2~NPS24
- **Pressure rating:** CL150~CL600
- **Design standard:** BS 1868, ASME B16.34
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



JACKET BALL VALVE

Product parameters

- **Product specification:** NPS2~NPS24
- **Pressure rating:** CL150~CL600
- **Design standard:** API609, ASME B16.34
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.



JACKET PLUG VALVE

Product parameters

- **Product specification:** NPS2~NPS48
- **Pressure rating:** CL150~CL600
- **Design standard:** API599, ASME B16.34
- **Connection pattern:** RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, duplex steel, Nickel-base alloy, etc.
- **Applicable medium:** water, steam, oils, corrosive medium, etc.

The high-temperature mixing valves are not standard products, and they are used for sulfur recovery and tail gas treatment. These valves are designed and developed by our company and Qilu Design Institution. They were made in September 1999, and they started to be used in Shengli Refinery, Shanghai Jinshan Petrochemical and Qingyang Petrochemical, up to now they still have good performance and stable quality; they are widely used in refining and petrochemical industry. Our company organized province-level appraisal on June 28, 2001, and obtained the conclusion that "The products are up to the advanced level in the world". We had applied for the invention patent for them, the patent number: ZL00111165.5.



HIGH-TEMPERATURE MIXING VALVE

Main characteristics

- The demineralized water is used for cooling on the valve.
- The heat-flow channel has Al₂O₃ fire-proof earth lining.
- The valve has pneumatic-manual switching and regulation functions.
- The valve's heat flow temperature is 1400°C, cold flow temperature is 160°C, and mixed flow temperature is 260°C

Product parameters

- **Product specification:** 150/50-600-800/250-800
- **Pressure rating:** PN16, PN25, CL150
- **Design standard:** JB/T11483
- **Connection pattern:** RF
- **Body material:** carbon steel
- **Applicable medium:** Hydrogen sulfide, sulfur dioxide, etc.



FORGED-STEEL BELLOWS GATE VALVE

Product parameters

- **Product specification:** NPS1/2-NPS20
- **Pressure rating:** CL150-CL600
- **Design standard:** API600, API602
- **Connection pattern:** NPT, SW, RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, etc.
- **Applicable medium:** biphenyl, toxic and harmful, flammable and explosive medium, etc.



FORGED-STEEL BELLOWS GLOBE VALVE

Product parameters

- **Product specification:** NPS1/2-NPS20
- **Pressure rating:** CL150-CL600
- **Design standard:** BS1873, API623, API602
- **Connection pattern:** NPT, SW, RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, etc.
- **Applicable medium:** biphenyl, toxic and harmful flammable and explosive medium, etc.



CAST-STEEL BELLOWS GATE VALVE

Product parameters

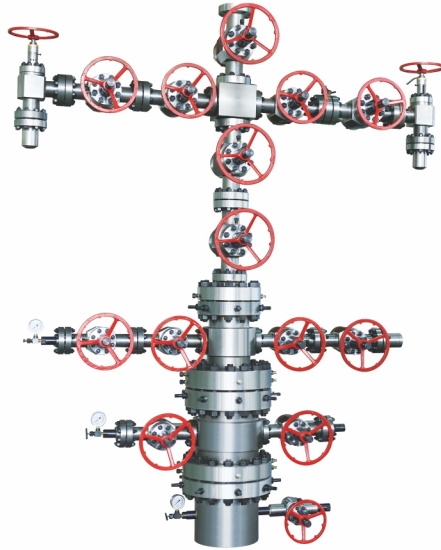
- **Product specification:** NPS1/2-NPS20
- **Pressure rating:** CL150-CL600
- **Design standard:** API600, API602
- **Connection pattern:** NPT, SW, RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, etc.
- **Applicable medium:** biphenyl, toxic and harmful, flammable and explosive medium, etc.



CAST-STEEL BELLOWS GLOBE VALVE

Product parameters

- **Product specification:** NPS1/2-NPS20
- **Pressure rating:** CL150-CL600
- **Design standard:** BS1873, API623, API602
- **Connection pattern:** NPT, SW, RF, RTJ, BW
- **Body materials:** carbon steel, alloy steel, stainless steel, etc.
- **Applicable medium:** biphenyl, toxic and harmful, flammable and explosive medium, etc.



4-WAY OIL PIPE JOINT

The 4-way oil pipe joint is installed on the top of the jacket, when the last jacket is installed, you can install the 2-way oil pipe joint, to support the oil pipe pillar and make the oil pipe suspender or jacket/oil pipe space sealed. For a finished well, the Christmas tree will be installed on the flanges of the 4-way oil pipe joint through the differential-diameter joint of the oil pipes.

Functions

- To support the oil pipe suspender and seal in the oil pipe joint.
- To provide a seal hole for suspender and seal insulator.
- To ensure secondary seal for the previous jacket on the top (refer to the bottom hole-diameter seal in this part)
- To provide a side-way outlet between the oil pipe and jacket.
- To support the finished well and be used for the test on the spilling-proof unit.

Characteristics

- The design and manufacture comply with API 6A, NACE MR0175 standards.
- It is conical by 45°, with a strong support capability.
- The side-way outlet can be connected by screw threads or flanged stud.
- The bottom can be used for BT, P, Y, CS non-metal secondary seal, or HM, YM metal secondary seal.

WELLHEAD EQUIPMENT AND CHRISTMAS TREE

The company passed API 6A certification, with a professional team for product design, manufacture and testing. It has the imported advanced high-precision 5-axis interconnected boring & milling machining center, to guarantee processing precision, and ensure that the products comply with the requirements in standards.

- It is composed of jacket joint, oil pipe joint and drilling/Christmas tree, and the drilling/ Christmas tree can be on one side or on both sides.
- Wellhead and drilling/Christmas tree can be attached with under-well safety valves, above-well safety valves, pneumatic or hydraulic control systems for remote automatic control on the opening or closing of the well.
- Throttling valve: adjustable or fixed throttling valve.

Product design standard

- API Spec 6A-20th
- NACE MR0175-2003
- GB/T22513-2008

Product technical specification

- **Work pressure:** 2000PSI~20000PSI
- **Material grade:** AA, BB, CC, DD, EE, FF, HH
- **Nominal diameter:** 2 1/16"~4 1/16"
- **Temperature grade:** L, P, R, S, T, U, V
- **Performance grade:** PR1, PR2
- **Specification grade:** PSL1, PSL2, PSL3, PSL3G, PSL4
- **Body materials:** carbon steel, stainless steel, molybdenum-chrome steel, alloy steel, and various standard and non-standard castings.

PIPE-CASING UNIT

We designed and produced the pipe-casing units with the pressure rating from 2000PSI to 20000PSI, to satisfy the requirements on the casing procedures of various sizes in drilling wells and finished wells, and we can design and produce according to users' special requirements.

- The product structure can be split or integrated;
- The installed casing suspender's structure can be coupled or axial, and the suspenders of the 2 patterns are interchangeable, easy and quick to use.
- The product design and manufacture comply with API Spec 6A-20th and NACE MR0175-2003 standards.



CASTING



Relay on production equipment, adopting latest industry concept and strong technology power, we produce high quality final products conforming international standard.



OUTONG GROUP
ZHEJIANG PETROCHEMICAL VALVE CO, LTD
 Headquarter
 Started in 2008
 Land area: 33350m²
 Factory area: 30000m²
 Main products: gate valve, globe valve, check valve, butterfly valve, cryogenic valve, high-temperature mixing valve, open metal-seal valve, power plant valve, etc.



▲ Address: No. 518, Third Road, Binhai Park, Wenzhou Economic & Technical Development Zone.

ZHEJIANG PETROCHEMICAL VALVE CO, LTD
 New factory
 Started in 2015
 Land area: 38000m²
 Factory area: 35000m²
 Main products: ball valve, plug valve, plate valve, oxygen valve, hydrogen valve, instrument valve, oil well valve, etc.



▲ Address: No. 397, Sixth Road, Binhai Park, Wenzhou Economic & Technical Development Zone

ZHEJIANG PETROCHEMICAL VALVE CO, LTD.
 Rough and finished products warehouse
 Started in 2015
 Land area: 26680m²
 Factory area: 20000m²
 Main products: rough treatment, rough inspection, rough storage, finished products storage, packaging, etc.



▲ Address: A201, Second Road, Binhai Park, Wenzhou Economic & Technical Development Zone.

OUTONG GROUP
QINGTIAN WANXIN VALVE TECHNOLOGY CO, LTD.
 Started in 2004 and extended in 2010
 Land area: 83333m²
 Factory area: 75000m²
 Business scope: castings(carbon steel, stainless steel, alloy steel) and casting machining.



▲ Address: Unit 1, No.8, Shangyeyuan, Chiyuan Industrial Zone, Chuanliao, Qingtian, Zhejiang

OUTONG GROUP
WENZHOU METAL MANUFACTURING CO.LTD.
 Started in 2005
 Land area: 49669m²
 Factory area: 40000m²
 Business scope: castings(carbon steel, stainless steel, alloy steel) and casting machining



▲ Address: Yuehu community no. 26-28, pengyue industrial base, taishun county, wenzhou city, zhejiang province, China

OUTONG GROUP
ZHEJIANG OUCHUANG CASTING CO. LTD
 Started in 2008
 Land area: 6666m²
 Factory area: 6000m²
 Business scope: castings(carbon steel, stainless steel, alloy steel) and casting machining



▲ Address: No.9 jinhai second road, Airport industrial zone, wenzhou city, zhejiang province, China

- 1 The various valves made by our company are designed and manufactured according to China's GB, American ANSI, API and German DIN standards.
- 2 The entry inspection, in-process inspection, pressure test and final inspection are done on all products according to the requirements of ISO 9001 Quality Management System and TS (Special Equipment Manufacture License) standard, to prevent any unqualified component or part from going to the next step in production, and prevent any disqualified products from leaving the factory.
- 3 We have complete and advanced testing equipment and methods, to guarantee that the chemical performance and mechanical properties of their main parts meet the requirements of GB standard.
- 4 We have advanced manufacturing equipment and technologies (processing, build-up welding and heat treatment, etc.) to guarantee that the size precision, surface finish, hardness, mechanical properties, corrosion-proof performance meet the requirements of GB standard.
- 5 We have the valve assembly procedure to follow for professional assembly, to guarantee perfect appearance, internal cleanness and size precision.
- 6 Follow the requirements in standards and "Valve Pressure Test Procedure", to inspect and make pressure test on each valve, and guarantee that 100% are qualified. Disqualified valves are not allowed to go out of the factory.

