



PRODUCTS OVERVIEW

Certifications and tests

Certificates of the company

ISO 9001: Quality Assurance System

"Engineering, Configuring and Assembly of Industrial Valves, Sales and Distribution of Industrial Valves, Filter and Strainers, Setting and Testing of Safety Relief valves and Control valves".

AD-Merkblatt WO/TRD 100: Manufacturing process and Quality System

API Monogram: Standard API 6D. certificate number: 6D-0363

Certificates of the products

CE Pressure equipment CE marking (97/23/EC Directive)

ATEX Conformity with Directive 94/9/EC - (II2GD)

ISO 10497 - API 6D Fire Safe - Lloyd's Type Approval

API 607 - API 6FA

IEC 61508 Safety Integral Level (SIL)

TÜV A352.09 Design of the valves

TA-Luft ISO 15848 Stem tightness for gas emissions

BS 6364 Valves for cryogenic service

EN 161/ EN 23553-1 Automatic shut-off valves for gas burners and gas

equipment

DVGW-EN 13774 Valves for gas distribution with maximum operating

pressure less than or equal to 16 bar

WORCOT UK

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Products of our comprehensive range of valves for the power & process industries.



Pressure Reducing and Desuperheating stations

The WORCOT UK, Pressure Reducing and Desuperheating stations (PRDS) represent the most universal and compact solution for pressure reduction and desuperheating of turbine by-pass lines, discharging both to intermediate or low pressure sections of power stations. The spherical body shape design, together with the high quality of construction materials, allow a more uniform wall thickness than the conventional ones, fabricated by welding bodies, reducing pressure and temperature fatigue effects and improving welded joints quality.



Features

- · Designed to handle high pressure drops
- Body fully machined forgings and casting with welded inlet connection and integral downstream injection chamber
- Can be supplied as a combined unit for pressure/temperature control

Pressure reduction

- · Multi-Stage, Cage-guided unbalanced and balanced plug with pilot
- first pressure reduction stage is performed by a specially drilled cage.
- Seat ring is welded to the body through an easily removable tension free lip-seal
- quick change seat ring is available on request as special construction.
- Labyrinth Disk Stack according to service conditions

Pressure classes

• ASME 150 - 4500

Sizes

- 2" 36" (50mm 900mm)
- · According to service conditions

Materials

- Body Globe and Angle according to customized
- A216-WCB/WCC, A217-WC6, A217-WC9, A217-C12A, A182 F11/F12, A182 F22, A182 F91, other materials under request

Leakage class (according to FCI-70.2)

. up to ANSI class V both for balanced and unbalanced plug

Actuator

- Spring-diaphragm
- Pneumatic Cylinder
- Electrical Motorized
- Electro-Hydraulic

Advantages

- Closed control of pressure and temperature, flexible plant systematization will save energy, good conditioned steam reduces cost in control system.
- Piping arrangement simplified, reduces components and eventually overall cost.
- Shortens pipeline enabling easy piping arrangement. Eliminates auxiliary steam line saving energy.
- Easy maintenance, Fewer components reduce maintenance cost.
- Environment improved, Noise generated may be attenuated to offer quiet environment.
- · Valve vibration is eliminated to assure safe operation.

Desuperheater

The WORCOT UK Desuperheater Systems provide a convenient method of reducing superheated steam or other vapors to temperatures approaching saturation. The super heated fluid passes through a section of pipe into which is fitted the Spray nozzle protrudes into the flow path, introduces coolant flow in the same direction as the super heated fluid.

Desuperheaters

Features

- Superior atomization through multi-nozzle injection
- Available Control of cooling water injection through integral or upstream control valve
- · High rangeability
- . Best mixing of steam and water, even at minimal loads of 5%
- Very short vaporization distances

Applications

- Combined pressure & temperature control
- Steam temperature control
- · Cryogenic temperature control

Design standard

ASME B16.34

Pressure classes

ASME 150 – 2500

Main Header Sizes

6" - 60" (25mm - 1500mm)
 (other sizes under request)

Materials

· Cast carbon, alloy or stainless steel

Advantages

- · Required coolant pressure steam minimum 5 bar
- · Shorten distance of pipe straight
- Small nominal pressure drop







Worcot UK Control valve

The Worcot UK Control valve, Severe service, high pressure and temperature service valves are specially designed using the most recent refinements in control valve technology. We have used to control a wide variety of relatively clean liquids and gases at high-pressure differentials.





Sever Service and Process Control valves

Features

- Designed to handle high pressure drops
- Elimination of noise
- Flow path designed to prevent blockage through flow contamination
- Trim exit velocity control
- Anti-Cavitation
- Labyrinth Disk Stack
- Hybrid Trim (Disk Stack & Hole Cage)

Applications

- Severe service application
- High pressure letdown
- Cavitation control
- Noise control

Design standard

ASME B16.34

Pressure classes

• ASME 150 - 4500

Sizes

• 3" - 36" (80mm - 900mm) (other sizes under request)

Materials

- A216-WCB/WCC, A352-LCB, A217-WC6, A217-WC9, A217-C5,
- A217-C12, A217-C12A, A351-CF8, 351-CF3, A351-CF8M,
- A351-CF3M, A351-CF8C, Alloy 20, Duplex, Super Duplex, Incoloy,
- Monel, Inconel, Titanium, Other materials under request.

Actuator

- Spring-diaphragm
- Pneumatic Cylinder
- Electrical Motorized
- Electro-Hydraulic

Advantages

- High flow capacity and excellent flow control rangeability.
- Cage-guided construction reduces plug vibration and provides stable performance throughout travel.
- Large variation of trim designs from single stage cage to multi stage
- low noise/anti-cavitation trim designs.
- Quick changed trim for Easy Maintenance.



Parallel Slide Gate valve

The WORCOT UK range of high pressure parallel slide gate valve is primarily designed for isolation of steam and feed water as well as many other applications.

Parallel Slide isolation valves

Features

- · Isolation without thermal binding
- · Bi-directional operation
- · Position seated stops on limit not torque
- · Flat seating surface by Threaded, Welded or integral Seat ring
- Minimum pressure drop across the valve
- Manual and Actuator operated
- Follower eye for very laminar flow is available on request.
 It avoids any turbulences and minimizes the pressure drop

Applications

- Thermal Power station systems
- · High Temperature & Pressure Service
- · Main steam & Feedwater isolation
- · Feedwater heater protection

Design standard

- ASME B16.34 & API-600 / BS-1414
- Face to Face: ASME B16.10
- Flanged Ends: From 2" to 24" as per ASME B16.5, above 24" as per ASME B16.47
- Butt Weld Ends: ASME B16.25

Pressure classes

ASME 600 – 4500

Sizes

2" - 36" (50mm - 900mm)
 (other sizes under request)

Materials

A216-WCB/WCC, A352-LCB, A217-WC6, A217-WC9,
 A217-C5, A217-C12, A217-C12A, A351-CF8, A351-CF3,
 A351-CF8M, A351-CF3M, A351-CF8C, Alloy 20, Duplex,

Super Duplex, Incoloy, Monel, Inconel, Titanium, Other materials under request.

Accessories

- · Bypass, Overpressure protection device,
- · Handwheel with chain, Balance hole, Belows seal
- Limit micro switches



Isolation valve Forging & Casting

The WORCOT UK design of high integrity valves are widely used in the power plant, oil refining, petrochemical and industries. The range consists of very low emission conventional valves, serve with as emphasis on safety, reliability and longevity.

WORCOT UK offer an extensive range of Gate, Globe and Check valves in accordance with ASME B16.34, API 6D, API 600, API 602, API 623 and compatible British and European standards. Also offer resilient seated double block and bleed wedge gate valves, NACE compliant valves, actuated valves and when necessary, bespoke designs to specific customer requirements.



Sizes

2" - 60" (50mm - 1500mm)
 (other sizes under request)

CAST STEEL VALVES

Features

- Several trim combinations available for various services.
- Straight-through port design offering a good flow with minimum frictional loss and turbulence.
- Cast steel valves suitable for works demanding strength, shock resistance, elongation and heat resistance.
- Normal yoke bushing furnished with ductility resistant to high melting point of above 1000 °C.
- Designed for maximum flow with minimum pressure drop if possible.
- Precision-ground seating surfaces and revolving disc providing a long life.
- In the refineries, power plants, utilities and petrochemical/chemical process
- industries have been regarded as of great importance about their excellent performance and reliability.
- By discriminatory blending of carefully selected materials combined with sound design and precision machining/assembly under strict quality controls.
- The products are manufactured in accordance with ASTM, ANSI, or other international standards.

Cast steel valves Product range

- Gate valve
- Globe valve
- Swing Check valve
- Tilting Check valve
- Dual Plate Check valve

Design standard

- ASME B16.34 & API-600 / BS-1414
- Face to Face: ASME B16.10
- Flanged Ends: From 2" to 24" as per ASME B16.5, above 24" as per ASME B16.47
- Butt Weld Ends: ASME B16.25

Pressure classes

• ASME 150 - 2500

Materials

- Carbon Steel: ASTM A216-WCB or Equivalent
- . Alloy Steel: ASTM A217-WC6, WC9, C5, C12, C12A or Equivalent
- Stainless Steel: ASTM A351-CF8, CF8M, CF3, CF3M, CN7M, or Equivalent
- Duplex Stainless Steel: ASTM A995-1A, 2A, 4A, 5A or Equivalent
- Special Alloy Steel : Inconel 625, Incoloy 825, Hastelloy C, Monel, Al-Bronze
- Other materials under request.

Accessories

. Bypass, Locking device, Chain wheel, Extension stem, Gearbox etc.

FORGED STEEL VALVES

Features

Serves as efficient stop valves with flow in either direction. They are commonly used where a minimum of pressure drop
is important because they offer practically no resistance to flow when fully open. Throttling is not conducive to accurate
and consistent flow control. Also the valves may be damaged by the high velocity across the seats. The function best
for fully open or fully closed.

Body and Bonnet

- · Bolted bonnet or welded bonnet
- · Outside screw & yoke
- Solid wedge disc
- Renewable seat

Pressure Seal Products range

- Gate valve
- Globe valve
- Swing Check valve
- Lift Check valve

Design standard

- ASME B16.34 & API-600 / BS-1414
- Face to Face: ASME B16.10
- Flanged Ends: From 2" to 24" as per ASME B16.5
- Butt Weld Ends: ASME B16.25

Pressure classes

• ASME 600 - 2500

Sizes

½" - 2" (15mm - 50mm)
 (other sizes under request)

Materials

 ASTM A105, A182-F5, A182-F9, A182-F11, A182-F22, A182-F304, A182-F316, A182-F304L, A182-F316L, A182-F321, A182-F347, A182-F51, A182-F91, A350-LF2
 Other materials under request.

Products Connection

- · Socket welding, Threaded
- Butt welding, Flanged

Accessories

• Locking device, Extension stem, etc.







Isolation valve Special Service





Pressure classes

• ASME 150 - 1500

Sizes

2" - 60" (50mm - 1500mm)
 (other sizes under request)

CRYOGENIC VALVES

The WORCOT UK Cryogenic valves are specially engineered and designed for piping systems used in the storage and transport of liquefied gasses such as LNG and liquid nitrogen and oxygen. The main structural feature of these valves is an extended bonnet with an enclosed vapor chamber to isolate packing from the cryogenic fluid and thereby allow packing to function properly.

WORCOT UK Cryogenic designs and liquid nitrogen testing facilities go much further to assure proven performance in this most demanding application.

Features

· Valves for cryogenic liquefied industrial gases

When liquefied at cryogenic temperatures, the volume of industrial gases reduces by a factor of up to 600 and therefore enables economic solutions for transport and storage. Our kno w-how in the development and manufacture of cryogenic valves guarantees maximum process reliability in the handling of industrial gases.

Valves for cryogenic liquefied natural gas

Natural gas is liquefied at a temperature of -161°C and enables this versatile fuel to be supplied without depending on pipelines. We use our many years of experience in the field of industrial air gases to provided valves which are optimized for small-scale LNG applications.

Cryogenic Products range

- Gate valve
- Globe valve
- · Check valve
- · Safety valve
- Butterfly valve

Body and Bonnet

 As for the materials constituting for low temperature and special consideration must be paid to the materials used at pressure parts as in the case of body and bonnet for Service Temperature range -46 to - 256 °C

Design standard

- ASME B16.34 & API-600 / BS-1414
- Face to Face: ASME B16.10
- Flanged Ends: From 2" to 24" as per ASME B16.5, above 24" as per ASME B16.47
- Butt Weld Ends: ASME B16.25

Materials

 ASTM: Brass & Bronze, Carbon steel Gr. LCB/LC, A351-CF8, CF8M, CF3, CF3M or Equivalent

Accessories

Bypass, Locking device, Chain wheel, Extension stem, Gearbox etc.

Triple Offset Butterfly Valve

The WORCOT UK Triple-offset butterfly valve high-performance in a rotary package, Its patented seating concept and adjustable travel actuator reduces dynamic unbalanced forces and permits the tight shut off of Metal to Metal sealing.

Features

- No friction Long life seats
- Bi-directional tight sealing
- Geometry design angle cone disc sealing components
- Zero leakage API 598

Applications

- Steam & Water Isolation & control
- Extraction steam isolation
- Oil & Gas isolation & control
- General Services
- Cryogenics

Design standard

ASME B16.34, API 600

Pressure classes

● ASME 150 - 600

Sizes

• 3" - 60" (80mm - 1500mm)

Materials

 A216-WCB/WCC, A352-LCB, A351-CF8, A351-CF3
 A351-CF8M, A351-CF3M, Alloy 20, Duplex, Super Duplex, Titanium, Other materials under request.

Body type

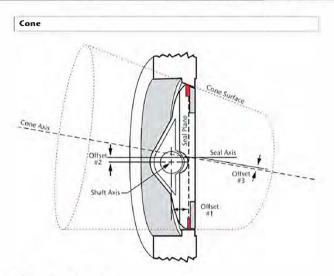
Wafer, Lugged, Flanged

Industries

- Power Plant
- Petrochemicals
- Oil & Gas
- Desalination



Triple offset butterfly valves



Geometry

1st Offset

To allow displacement of the seat the shaft is offset from the center line of the seat and body seal.

2nd Offset - Double offset

The center line of the bore, this creates a cam action during operation to lift the seat out of the seal resulting on friction during the first opening and final closing.

3rd Offset - Triple offset

The third offset is the geometry design of the sealing components not the shaft positions, the sealing components are each machined into as offset conical profile resulting in a right angled cone.



Butterfly & Dual Plate Check valve

The WORCOT UK Butterfly valve produced can be used to petrochemical, chemical, water supply and drainage, pulp & paper, sugar mill and industries. In order to enhance the quality of valve. We are equipped with automated production, the introduction of high-precision end automated processing equipment and special automated monitoring equipment. We use of machining centers, CNC machines and other high-precision automated processing equipment and advanced multi-function computer test bench, test monitoring equipment to ensure product processing accuracy and interchangeability of the parts and components, thus ensuring the valves quality and reliable to use.

Metal seal / PTFE lined / Rubber lined

Features

- · Single & double offset designed
- Seal clamped into valve body
- · Resilient seated, Metal seated, Fire-safe
- Used for temperatures up to 900 °C in Metal seal design, 220 °C in PTFE design and 120 °C in Rubber lined
- Designed as a low cost solution for controlling low temperature corrosive fluids
- · Body & shaft material are fully isolated from the process fluid
- · Suitable for isolation & control

Applications

- Geothermal systems
- LNG/Cryogenics
- · Cooling water isolation & control
- · Flue gas isolation & control
- Process and Pipe line

Design standard

ASME B16.34

Pressure classes

ASME 150 – 900

Sizes

• 2" - 64" (50mm - 1600mm)

Materials

- Body: Carbon steels, Cast Iron, Ductile iron, Alloy steels,
 Stainless steels, Nickel Aluminum Bronze, Titanium
- Disc: Ductile Iron, EPDM & PTFE Lining, Duplex,
 Nickel Aluminum Bronze, Other materials under request.
- Seat: EPDM, NBR, Fluoro Rubber, PTFE, FKM,
 Carbon steels, Stainless steels, Duplex,
 Super Duplex, Incoloy, Monel, Inconel, Titanium,
 Other materials under request.

Body type

· Wafer, Lugged, Flanged, Butt Welded





Ball valve

The WORCOT UK ball valve is recognized as a top of the valve industry and creates remarkable growth by participating in large-scale projects base on our high-level technology and a wealth of experience in the field.

We are specialized in manufacturing and supplying various industrial ball valve such as Cryogenic ball valve, High pressure ball valve and Metal seat ball valve. All our section will pay every efforts to meet the needs of all customers in the world with manufacturing the products in the better quality, on time delivery and the advanced technology.

Floating & Trunnion Ball Valve

Features

- Top & Side Entry Ball valves
- Cryogenic
- 3-Way Ball valve
- Double Block & Bleed valve
- · Resilient seated, Metal seated, Fire-safe
- Jacketed Ball valve
- Fully-weld Ball valve

Applications

- Geothermal systems
- LNG/Cryogenics
- Cooling water isolation & control
- · Flue gas isolation & control
- Process and Pipe line

Design standard

ASME B16.34 / BS5351, ASME B16.10, API 6FA, API 598, API 6D

Pressure classes

• ASME 150 - 2500

Sizes

• 2" - 60" (50mm - 1500mm)

Materials

- Body: Carbon steels, Cast Iron, Ductile iron, Alloy steels,
 Stainless steels, Nickel Aluminum Bronze, Titanium
- Disc: Ductile Iron, EPDM & PTFE Lining, Duplex,
 Nickel Aluminum Bronze, Other materials under request.
- Seat: EPDM, NBR, Fluoro Rubber, PTFE, FKM, Carbon steels,
 Stainless steels, Duplex, Super Duplex, Incoloy, Monel, Inconel,
 Titanium, Other materials under request.

Body type

Wafer, Lugged, Flanged, Butt Welded



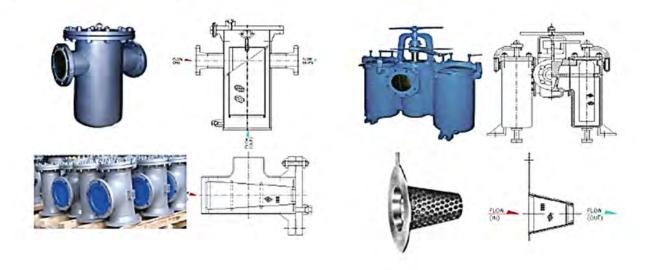


Strainer & Filter

The WORCOT UK Filters & Strainers do the best to protect the pumps, filters, nozzle, flow meters, valves, heat exchangers, condensers, oil burners, boilers and other plant components from the damaging due to pipeline debris.

We have led the way with designs that meet the growing demands of process and manufacturing industries, utilities and municipalities.

Strainer & Filter



Body type

- Y-Type
- T-Type
- Duplex Type
- Bucket Type
- Cone Type

Connection

ASME B16.5 (Flange), ASME B16.47 (Flange),
 MSS SP 44, ASME B16.25 (Butt weld)

Pressure classes

ASME 150 - 600

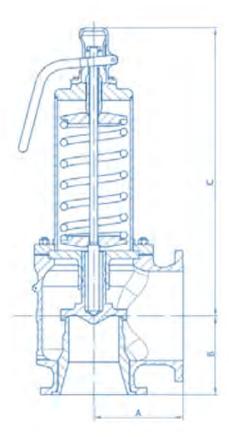
Sizes

• 1/2" - 48"



Materials

 A216-WCB/WCC, A352-LCB, A351-CF8, A351-CF3 A351-CF8M, A351-CF3M, Alloy 20, Duplex, Super Duplex, Titanium, Other materials under request.



Entlas Safety Device



Safety & Relief valve

The ENTLAS is a Safety and Safety Relief valve of Worcot UK™, manufactures full range of safety and relief valves, including spring loaded safety valves, pilot operated valves and thermal relief valves. The Entlas offers effective pressure relief in gas, liquid and steam applications to meet the safety demands of the power plant, boiler, oil & gas, processing, refining, petrochemical and industries.

All valve are fully compliant with API520 and API 526 codes, and also offer customized solutions with all necessary mechanical and instrumentation components and take guarantee of entire safety system.

Safety and Relief valves

Feature

- Full lift
- · Semi or full nozzle design
- · Metal to Metal, PTFE, Viton Seated
- · Side rods design allows ease of maintenance
- · Electronic valve tester adaptor on the rod flange

Applications

- · Oil & Gas processes
- LNG processes
- Steam processes
- Boiler
- Steam utility

Design standard

 ASME Section VIII, API STD 520, API STD 526, ASME B16.34, ISO 4126, EN-4126-1/7, API STD 527, MSS-SP-55, EN-4126-1

Pressure classes

ASME 150 – 4500

Sizes

½" - 24" (15mm - 600mm)
 According to service conditions

Materials

 A216 WCB/WCC, A217 WC6, A217 WC9, Stainless Steel A351 CF-3M, Duplex, Hastelloy, Titanium

Body type

· Flanged, Threaded, Welded

Accessories

- Lifting device
- Lift indicator
- Nozzle ring / Blowdown ring
- Bellows

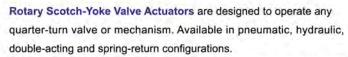
- · Stellite in the seat
- · Test gag
- Packing lever
- Special spring
- · Heating jacket

Actuator

WORCOT UK Actuator, facilities in England, South Korea, China and the United States. With a comprehensive suite of valve automation solutions backed by a dedicated team of field service engineers, our actuator section is the total valve control. All of our design, application, engineering and project management activities are conducted from our vast experience team. The valve automation is our business and competency, allowing us to outperform companies whose focus is often diluted across multiple disciplines along with our valve products.

All our product solutions have been driven by market requirements, from conceptual design through to production, installation, operation and maintenance. Our quality consciousness coupled with our experience of supplying valve automation systems for the most demanding applications gives us the ability to provide 3rd party approved for use in SIL3 certified systems and customized conditions for our customers with satisfactorily solutions.





- Fabricated all steel construction as standard for excellent corrosion resistance and lightweight designs. Stainless steel designs also available.
- Torque outputs up to 680,000 Nm.
- Hydraulic valve actuators Lloyds certified for operation down to -65°C.



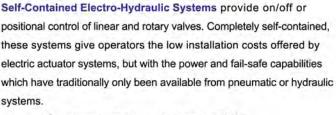
Linear Piston Valve Actuators are designed to operate any I inear valve or mechanism and are available in pneumatic, hydraulic, double-acting and spring-return configurations.

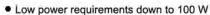
- Thrust outputs up to 289,134 N
- Scragged (set removal) springs to ensure optimum and stable performance.



Valve Positioning Systems provide precise hydraulic positioning of choke, control, globe or ball valves via continual modulation or stepping control.

- Suitable for use with spring-return and double-acting valve actuators
- · System designs using biodegradable fluid available
- All common communication protocols supported including HART and Foundation Fieldbus





- Fail-close and fail-last designs available
- Partial valve stroke testing function with comprehensive diagnostics package available to permit the implementation of cost effective preventive maintenance programs
- All common communication protocols supported including HART and Foundation Fieldbus





Plug valve

The SVENSEAL Plug valves have supplied and contributed to the outstanding performance for the processes of companies. Now today the SVENSEAL is the one of Worcot UK™, Whether it is for a new constructions or MRO job, SVENSEAL Plug valves are there for the benefits of our customers.

With modem technology in manufacturing, SVENSEAL is able to provide high quality, yet economical manufacturing, provides our customers with the most competitive prices. As a manufacturing center for Double Block & Bleed valves with high grade expertise and state of the art technology.



Double Block & Bleed Valves

Features

- Designed to meet Oil & Gas transmission, loading, unloading needs. Line sealing is achieved by body and wedges cut from each side of the plug with or without the assistance of soft seat rings.
- The sealing is positively made on each side of the plug (double block), and the media kept in the plug port area can be bleed into upstream or to the container to prevent from explosion.
- The Valve can be used for assuring metering accuracy and SCADA systems.

Applications

- · Geothermal systems
- LNG/Cryogenics
- · Flue gas isolation & control
- · Process and Pipe line

Design standard

ASME B16.34 / BS5351, ASME B16.10, API 6FA, API 598, API 6D

Products Range

- Standards Twin Slip Double Block and Bleed Valve
- Pressure Rating : ANSI Class 150/300/600/900/1500
- · Size: 2"~ 24"
- Temperature Range : -20°F(-29°C) TO + 350°F(+176.7°C)
- · Connections : Flanged, Screwed, Welded (Butt, Socket)
- · Wrench, enclosed gear operated or actuated
- Full Bore Twin Slip Double Block and Bleed Valves
- Pressure Rating: ANSI Class 150/300/600/900/1500
- · Size: 2"~ 24"
- Temperature Range : -20°F(-29°C) TO + 350°F(+176.7°C)
- · Connections : Flanged, Screwed, Welded (Butt, Socket)
- · Hand wheel, enclosed gear operated or actuated
- · 4-Way Twin Slip Double Block and Bleed Valves
- Pressure Rating: ANSI Class 150/300/600/900/1500
- Size : 2"~ 24"
- Temperature Range: -20°F(-29°C) TO + 350°F(+176.7°C)
- . Connections: Flanged, Screwed, Welded (Butt, Socket)
- · Hand wheel, enclosed gear operated or actuated

Materials

- Body: Carbon steels, Cast Iron, Ductile iron, Alloy steels, Stainless steels, Nickel Aluminum Bronze, Titanium
- Seat: EPDM, NBR, Fluoro Rubber, PTFE, FKM, Carbon steels, Stainless steels, Duplex, Super Duplex, Incoloy, Monel, Inconel, Titanium, Other materials under request.





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