



VFK

Advanced Fluid Control



— *About VFK* —

VFK Fluid Control Co., Ltd., as a wholly owned subsidiary of Jiangsu Xinzhongxin Group, is specialized in providing high quality fluid control products and solutions for petrochemical, electricity, natural gas, nuclear power and other relevant industries and applications. Complying with strict international standards, VFK could develop and manufacture top-level instrumentation valves, pipe & tube fittings, globe valves, filters and accessories for our customers on specific requirements. With reliable products and efficient customer services, VFK has built up excellent reputation among customers and achieved a leading position in industry.

Since inception, VFK has been dedicated to delivering top quality products and service to our customers. Every aspect of the design, development, production and marketing of products is under tight control to meet customers' expectation. VFK's commitments to continuous improvement reflect in whole manufacture cycle, from raw material inspection, production implementation and final safety check, ensuring our products adheres to international quality standards. We stake our reputation on our quality and consider it the foundation for future growth.

VFK believes reliable partnership leads to the long term success. Through our sales and service center networks, VFK not only provides innovative and valuable products and services to our customer, but also brings in common benefits to all stakeholders on basis of sustainable development.

Fittings



Tube Fittings

FEATURES

- ▶ Available in tube sizes from 1/16" to 2" and 2 to 50mm.
- ▶ Operating temperature range: -325~1000°F (-200~538°C)
- ▶ Consistent gauge ability upon initial installation
- ▶ Silver plated nut ensures no galling of body threads
- ▶ The special treatment back ferrule provides a strong mechanical and anti-vibration hold on the tube
- ▶ No torque is transmitted to tubing during installation
- ▶ Diverse materials and configurations are available
- ▶ Install and disassemble conveniently

Weld Fittings

FEATURES

- ▶ Sizes range from 1/8" to 2" and 6 mm to 38 mm
- ▶ Operating temperature range: -325°F~1000°F (-200°C~538°C)
- ▶ Straight fittings are manufactured from quality bar stock. Shaped fittings are made from forging.
- ▶ Quality machining of all ports ensures consistent welding.
- ▶ Radius junction design with elbows provides smooth flow path.
- ▶ All fittings are cleaned to remove oil, grease and loose particles.
- ▶ Every fitting is stamped with size, material and heat code.
- ▶ 316 stainless steel is standard material. Other materials are available upon request.



Pipe Fittings

FEATURES

- ▶ Maximum Pressure: Class 3000(S80), 6000(S160), 9000(XXS)
- ▶ Working Temperature Range: -325°F (-198°C)~1200°F (649°C)
- ▶ Size from 1/16 to 1 in. is available
- ▶ Straight fittings are manufactured from bar stock and shaped fittings are manufactured from close grain forgings
- ▶ Radius junction design with elbows provides smooth flow path
- ▶ Diverse materials and connection types are available
- ▶ Diverse configurations are available
- ▶ All exposed threads protected to prevent damage

Quick-connectors

FEATURES

- ▶ Maximum working pressure: 3000 psig (207 bar)
- ▶ Working temperatures:
 - 10°F (-23°C) to 400°F (204°C) with Fluorocarbon FKM seal
 - 10°F (-23°C)~250°F (121°C) with Buna N seal
- ▶ Materials: Stainless steel or brass
- ▶ Reliable, leak-tight O-ring seal for vacuum or pressure systems
- ▶ Single-end shutoff, double-end shutoff, and full-flow available
- ▶ Simple push-to-connect coupling for quick and easy operation
- ▶ Sturdy locking mechanism with large contact area to ensure reliable stem retention



Valves

Needle Valves



FEATURES

- ▶ Two-stem design: thread hardened upper stem and smooth surface hardened lower stem
- ▶ Upper stem thread lubricant isolated from system media
- ▶ Linearly instead of helical movement of the nonrotating lower stem, avoiding galling damage to the seat and tip, as well as reducing the total friction area between the packing and the lower stem
- ▶ Safety back seating seal in fully open position
- ▶ Panel mounting available
- ▶ Leak-tight performance testing for every valve with nitrogen at the maximum working pressure, but not higher than 6000 psig
- ▶ Maximum working pressure:
 - Stainless steel: 6000 psig (414 bar)
 - Alloy C-276: 6000 psig (414 bar)
 - Alloy 400: 5000 psig (345 bar)
 - Titanium: 3500 psig (241 bar)
 - Brass: 3000 psig (207 bar)
- ▶ Working temperature:
 - PTFE: -65°F (-54°C) to 450°F (204°C)
 - Graphite: -65°F (-54°C) to 1200°F (649°C)

Ball Valves



FEATURES

- ▶ Smooth and low operating torques
- ▶ Traceable materials
- ▶ Variety of handle colors
- ▶ Bi-directional flow for 2-way valves
- ▶ All designs are tested for strength with pure water at 1.5 times the working pressure. Every valve is tested with nitrogen for leak-tight performance at 6000 psig or its maximum working pressure if less than 6000 psig

Check and Relief Valves



FEATURES

- ▶ In-line pattern stainless steel, Nickel-based alloys
- ▶ Alloy 400 (Monel) poppet design provide large flows
- ▶ Minimum of chatter and fluctuation Viton O-ring seats/Seals.
- ▶ Maximum operating pressure: 6000 psig (413 bar) @70°F (21°C)
- ▶ Working temperature range: -10°F (-23°C) to 400°F (204°C)
- ▶ Check valve's opening pressure: 1/3 psig to 25 psig
- ▶ Relief valve set pressure: 50 to 6000 psig
- ▶ Prevent reversed flow low pressure in-line relief valve. Vent valve to purge system

Bellows-sealed Valves



FEATURES

- ▶ Working temperatures from: -20°F to 900°F (-28°C to 482°C)
- ▶ Hydraulically-formed multilayer bellows for enhanced cycle life
- ▶ Nonrotating stem tip to eliminate galling within the seat area
- ▶ Externally presurized bellows design for maximum strength
- ▶ Strictly controlled bellows stroke to improve safety and cycle life
- ▶ Replaceable bellows and stem tip assembly
- ▶ Regulating conical, and spherical stem tips available
- ▶ Panel and bottom mounting

Valves



Filters

FEATURES

- ▶ Tee-type Filters
- ▶ Easy replacement of filter elements
- ▶ Available by-pass
- ▶ Provided purging and sampling
- ▶ Maximum operating pressure : 6000 psig(413 bar) @ 70°F(649°C)
- ▶ Operating Temperature range : -10°F(-29°C) to 400°F(204°C)
- ▶ Filter elements range: 1 to 150 micron
- ▶ Trap foreign particles
- ▶ Protect sensitive equipment, sampling system



Matel-seated Ball Valves

FEATURES

- ▶ Two-piece forged body designs
- ▶ Ball and seats mate-lapped for 100% contact ensures absolute shutoff
- ▶ Free floating ball design provides seat wear compensation
- ▶ The ball is forced to load into the seat by a high-strength Belleville spring
- ▶ The ball and seat are in full constant contact, isolating the body cavity from flow to prevent build-up of solids
- ▶ Mate-lapped ball and seat of same material and coating to match thermal expansion rates
- ▶ Advanced HVOF custom trim coating technology with hardness in excess of 900HV
- ▶ An advanced packing chamber design and live-loading provide long lasting, maintenancefree, stem packing tightness.
- ▶ Flow arrow forged into mounting flange visible above insulation
- ▶ Low operating torque
- ▶ Blowout-proof stem
- ▶ Positive handle stop



Ultrahigh Pressure Ball Valves

FEATURES

- ▶ One-piece, trunnion mounted style, ideal for severe duty applications.
- ▶ Two-way and three-way valve configurations.
- ▶ PEEK seats offer excellent resistance to chemicals, heat, and wear/abrasion.
- ▶ Full-port flow path minimizes pressure drop.
- ▶ 316 cold worked stainless steel construction.
- ▶ Fluorocarbon FKM o-rings for operation from 0°F (-17.8°C) to 400°F (204°C).
- ▶ Wide selection of o-rings available.
- ▶ Wide selection of tube and pipe end fittings available.
- ▶ Electric and pneumatic actuator options



Ultrahigh Pressure Needle Valves

FEATURES

- Tubing sizes from 1/4" to 9/16".
- ▶ No-rotating stem and bar stock body design
- ▶ Easy to assemble and replace packing
- ▶ Metal-to-metal seating achieves ideal shutoff, longer stem tip/seat service lifetime for abrasive flow, excellent corrosion resistance and greater durability for repeated on/off cycles
- ▶ PTFE is the standard packing material, RPTFE glass and graphite also available Extend stuffing box valve with Graphite can be operate to 1200°F(649°C)
- ▶ The material of packing gland and stem sleeve have been selected to achieve reduced handle torque and extended thread cycle life.
- ▶ The material of valve body is 316SS, the material of valve-stem is 17-4PH SS
- ▶ Options for vee or regulating stem tips
- ▶ The locking device of packing gland is reliable.
- ▶ Five flow patterns are available.

Manifolds/Gauge Valves /DBB

Gauge Valves



FEATURES

- ▶ Maximum working pressure:
 - ▶ Stainless steel: up to 6000 psig (414 bar) Alloy 400: up to 5000 psig (345 bar)
- ▶ Working temperature:
 - PTFE packing: - 65°F to 450°F (- 54°C to 232°C)
 - Graphite packing: -65°F to 1200°F (-54°C to 649°C)
- ▶ Non-rotating lower stem, ball tip and plug tip designs
- ▶ Variety of materials for seat and packing
- ▶ Safety back seating seals in fully open position
- ▶ Rolled spindle operating threads
- ▶ Lubricant for stem thread isolated from the media
- ▶ Bonnet locking pin fitted as standard
- ▶ Steady and durable fastening of the handle by double lock-pins Leak-tight
- ▶ performance testing for every valve with nitrogen at the maximum working pressure

Block and Bleed Manifolds(DBB)



FEATURES

- Maximum working pressure: up to 6000 psig (414 bar)
- ▶ Working temperature up to 1200°F (649°C) with Graphite packing
- ▶ Color coded valve function identification
- ▶ Every design is hydraulic pressure tested in accordance with API 598 and EN 12266-1. Every set is tested with nitrogen for leak-tight performance at 6000 psig
- ▶ Fire-tested design in accordance with API 607 and BS 6755 part 2
- ▶ Flanged connections comply with ANSI B16.5 RF and RTJ
- ▶ Pressure ratings in accordance with ANSI B16.34

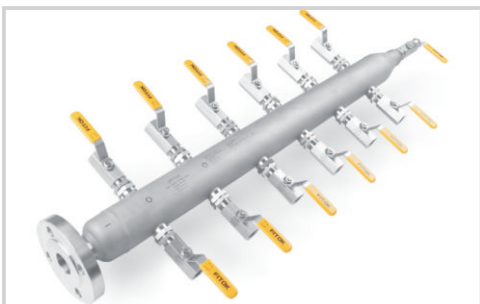
Instrument Manifolds



FEATURES

- ▶ Maximum working pressure: · Stainless steel: up to 6000 psig (414 bar) · Alloy C-276: up to 6000 psig (414 bar) · Alloy 400: up to 5000 psig (345 bar)
- ▶ Working temperature :
 - PTFE packing: - 65°F to 450°F (-54°C to 232°C)
 - Graphite packing: - 65°F to 1200°F (- 54°C to 649°C)
- ▶ Orifice: 0.157 (4.0 mm), CV: 0.35
- ▶ Two-stem design: thread hardened upper stem and smooth surface hardened lower stem
- ▶ Upper stem thread lubricant isolated from system media
- ▶ Linear instead of helical movement of the nonrotating lower stem avoids galling damage to the seat and tip, as well as reduces the total friction area between the packing and the lower stem
- ▶ Safety back seating seals in fully open position
- ▶ Leak-tight performance testing for every valve with nitrogen at the maximum working pressure

Air Headers Manifolds



FEATURES

- ▶ Distribution lines available upon request
- ▶ Ball valve, plug valve, needle valve available for distribution lines and drain port
- ▶ Color coded handles available
- ▶ Leak-tight performance testing for every valve under nitrogen condition at the maximum working pressure

Forged Globe Valves

One Forged Body Y-pattern



FEATURES

- ▶ One-piece, forged, bonnetless globe valves eliminate the potential for body-to-bonnet joint leakage, and not require cut or disassemble the bonnet for servicing.
- ▶ 65 inclined body reduces pressure drop compared with T-type.
- ▶ The non-rotating stem hardened and polished to reduce operating torque.
- ▶ Linearly instead of helical movement of the non-rotating stem reduces the total friction area between the packing and stem.
- ▶ Packing chamber burnished and combination graphite rings individually pre-stressed for tight seal.
- ▶ Stellite disc, seat and backseat provide excellent long service life even in severe services.
- ▶ Fully guided disc assures seat and disc precise alignment in spite of side thrust caused by high velocity flow, and prevents stem from scoring and galling, and provides longer disc seal and body life.
- ▶ Double orifice design Protects seating faces because part of the erosive flow energy dissipates through disc.
- ▶ Two flat slots design at the internal bottom of the disc prevent the disc from rotating, so avoid high-speed rotating disc and seat contact, damage to disc and seat.
- ▶ Backseat bevel on the stem, not on the disc, meet specifications API-602.
- ▶ Large clearance between stem and disc allows disc to move freely.
- ▶ Dust cover and sleeve protect stem threads from dirt, dust and sand.
- ▶ Fully enclosed stem driving lubrication system with two needle roller bearings ensures low operating torque.
- ▶ Upper stem position indicates if valve is open or closed.
- ▶ Optional live-loading packing, disc springs keep packing tight for long periods of time without maintenance.
- ▶ Stop, regulating, and stop check discs are available.
- ▶ Optional handwheel colors are available.

Forged Steel Y-pattern

FEATURES

- ▶ Integral bonnet (bonnetless) and loose backseat (fixed backseat optional).
- ▶ High temperature vacuum brazed in seat ring with thickness > 5 mm (1/5")
- ▶ Also in sizes exceeding 2"
- ▶ Body materials: A105N, F22, F91, F316 and others on request
- ▶ Graphite with integral or stainless steel reinforced anti extrusion rings
- ▶ Gland bolting connected to valve-body Provides additional protection against the yoke unscrewing. Provides for anti-blow out design of stem.
- ▶ Removable backseat Stem, disc and packing are easily accessible and removable in-line. Repairable and repackable within minutes. Optional screwed-in backseat.
- ▶ Integral bonnet design Eliminates the risk of leakage across, body-to-bonnet connections. Provides a more rigid construction. Eliminates body welds or threading on pressure containing parts. Enables easy in-line maintenance, reducing overall costs.





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