

w.ta.[®]

brands you trust.



Bellows Sealed Globe Valves

CRANE[®]

ChemPharma Flow Solutions

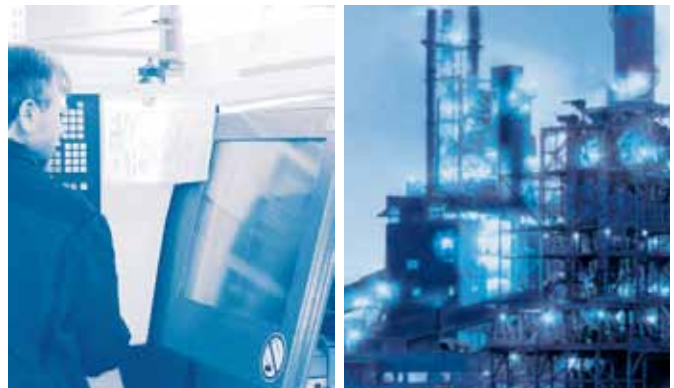
www.cranepharmaceutical.com

THE COMPANY

OVERVIEW

WTA [a CRANE ChemPharma brand] was founded in 1978 in Ludwigshafen in the Rhein region, a major European Centre for the Chemical Industries. The company is currently located in Maxdorf, Germany. Supported by 120 qualified and dedicated engineers and skilled technicians, we design, develop and manufacture a full range of High Quality Bellows Sealed Globe Valves, Strainers, Check Valves, Relief Valves, Change-Over Valves, and Special Valves meeting very stringent specifications required by the Chemical and Petrochemical Industries.

Our Bellows Sealed Globe Valves are extensively specified and in service around the world.



THE PRODUCT RANGE

All standard products are available in high temperature steel, low temperature steel, stainless steel and special steel from DN 15 / NPS 1/2" to DN 600 / NPS 24", in straight type, y-type or corner type.

We supply special valves manufactured from most of the applicable cutting-edge materials (such as Hastelloy, Incoloy, Inconel, Monel, and Titanium). The available pressure classes are in accordance with DIN from PN 16 – PN 160, and in accordance with ASME from 150 lbs up to 2500 lbs. High-quality bellows sealed globe valves with multiple leading safety advances are our main product. Their principal features are: mature construction design and long service life, and they are virtually leak-proof to the atmosphere. The safety design advances are founded on structural solutions that were developed from field experience, and have been proven to be continually successful in numerous chemical applications. Many other types of valves that Crane also manufactures using the above mentioned method complete our product range.



THE BELLOWS SEALED GLOBE VALVE 11.3

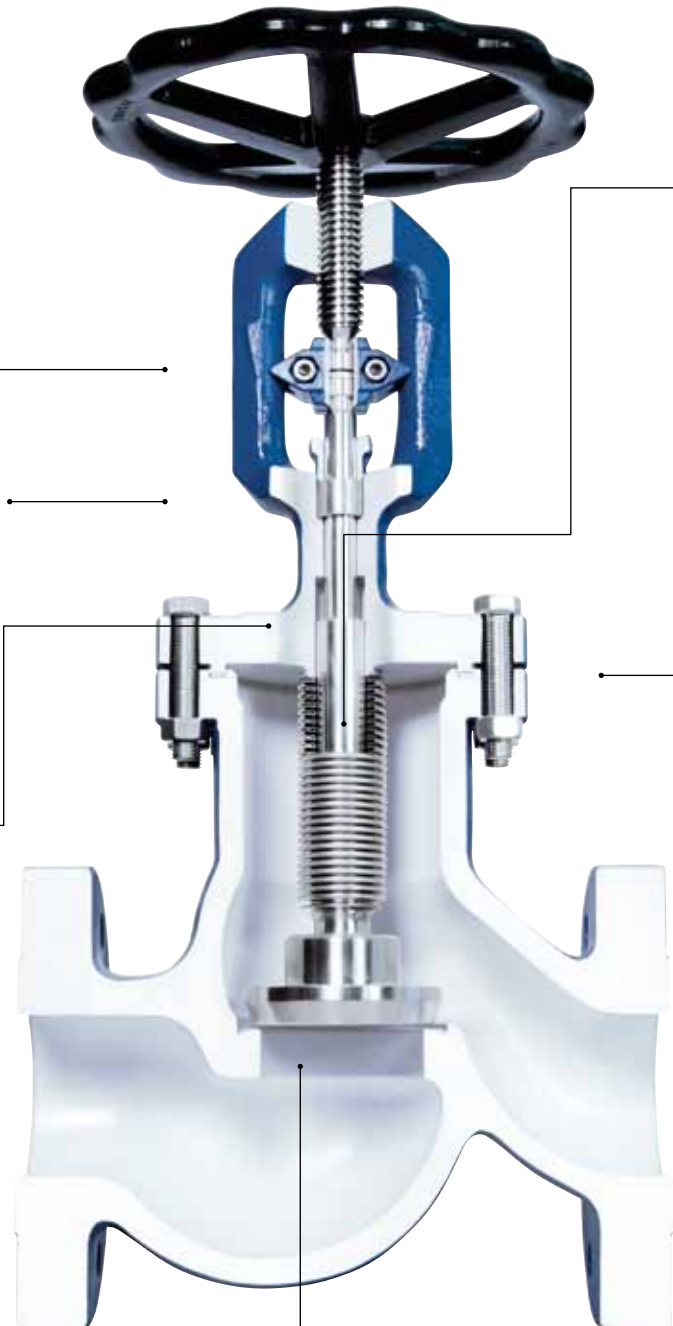
1. 2-part rising stem with outside roll-formed thread; stem coupling with bellows antitorque device and position indicator



2. Full size safety gland packing made of pure graphite; can also be supplied in PTFE if requested



3. Metal back seat with stroke limiter in open position and bellows anti-vibration device



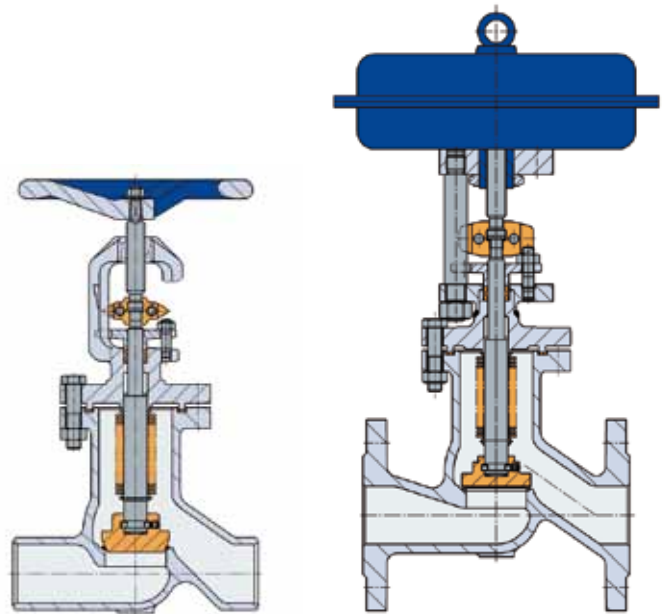
4. Multiple wall, fully flushed stainless steel bellows, secured against torsion, designed for 10,000 cycles; fully welded



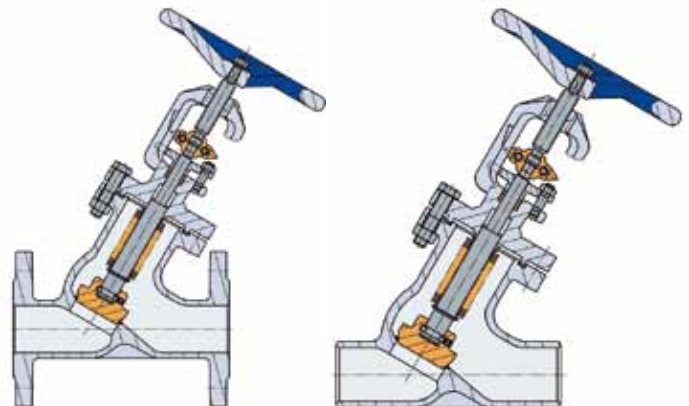
Model 11.3

Bellows sealed globe valve for chemical applications with safety gland packing in straight type, y-type or corner type; with flanges or butt weld ends; can be supplied in carbon steel 1.0619/WCB, stainless steel 1.4408/CF8M, low temperature carbon steel 1.6220/LCB/LCC, and special materials. Operation is also possible with pneumatic or electric actuators.

5. Stainless steel cam-profiled bonnet gasket coated with pure graphite, mounted in tongue and groove bonnet flanges

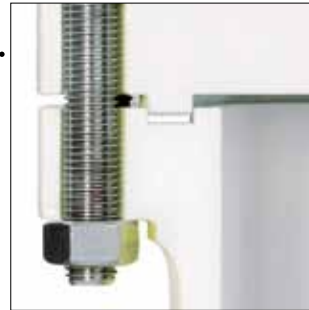
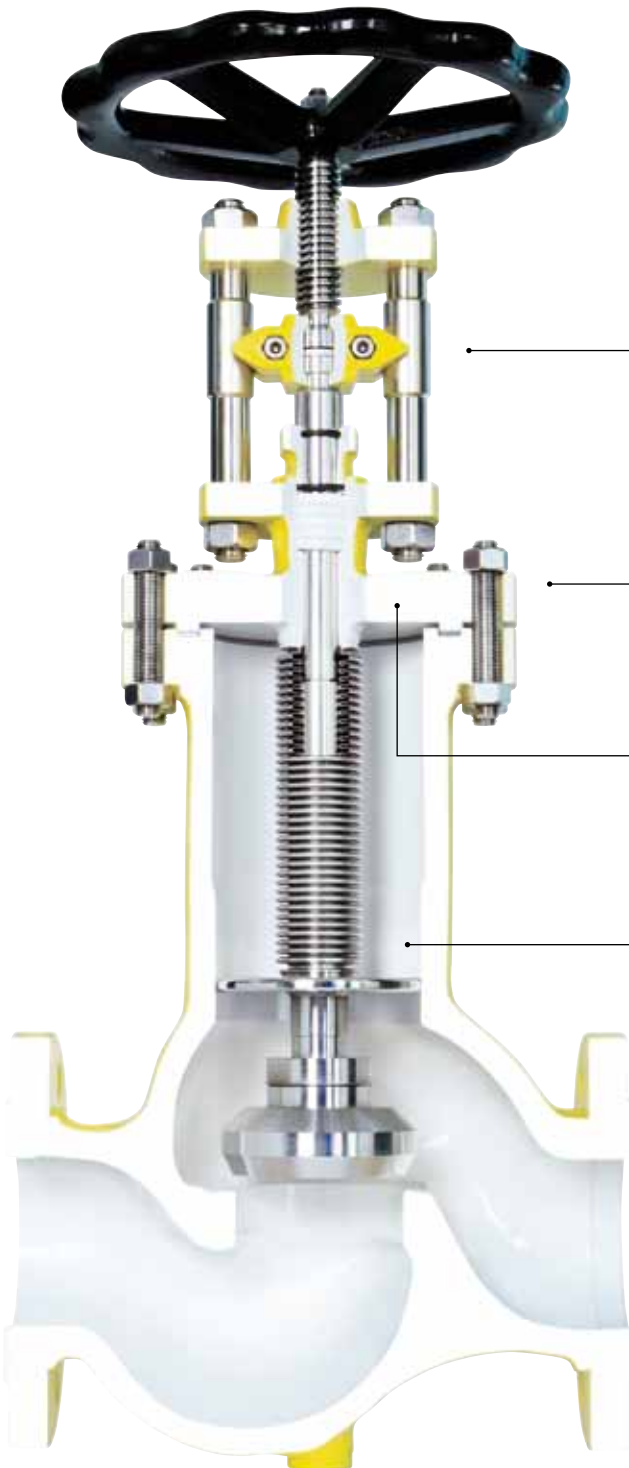


6. Conically shaped plug made of hardened chromium steel 1.4021/AISI 420, or hard-surfaced with stellite 6; body seat hard-surfaced with stainless steel 1.4370/AISI 307 or stellite 21

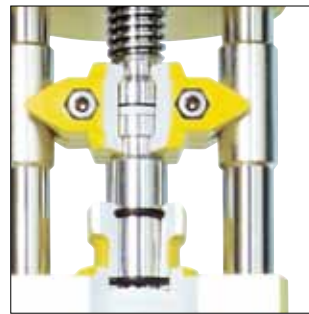


THE CHLORINE VALVE EC11.35

Design and testing according to Chlorine Institute Pamphlet 6 and Euro Chlor Specification GEST 89/140 and GEST 98/247



1. Bonnet flange in tongue and groove design; bolting by stud bolts made of 1.7225/ A320 Grade L7M with a nut at each end made of 1.7218/ A194 Grade 7M; bonnet gasket is PTFE coated



2. Bellows anti-torque device with integrated position indicator for open and closed positions



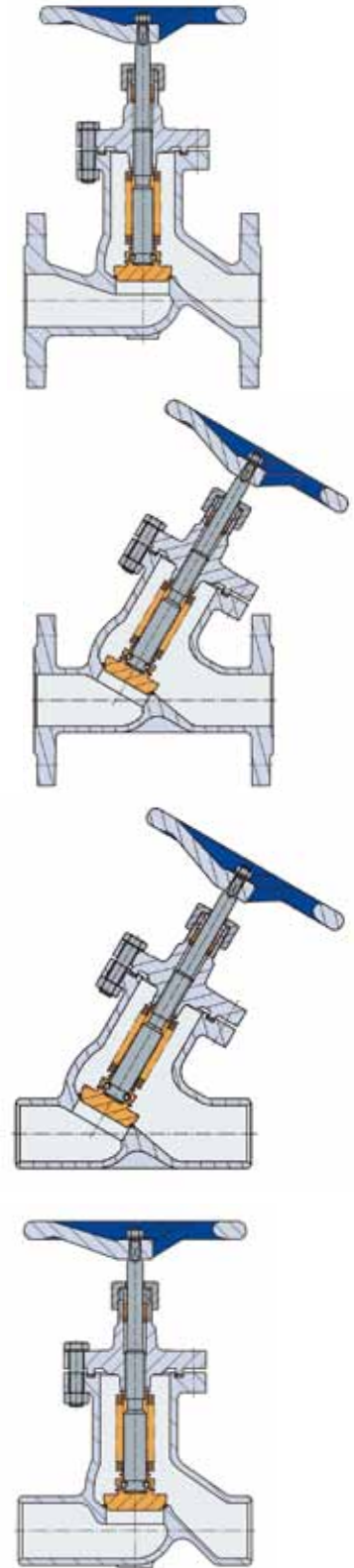
3. Protected multiple wall bellows made of 2.4819/ Hastelloy C276, designed for 10,000 cycles, installed beyond main flow area



4. Safety gland packing made of PTFE silk; gland follower with double O-ring seal to prevent ingress of water into the packing area

THE BELLOWS SEALED GLOBE VALVE 11.9

Compact globe valve with fully flushed bellows in straight type, y-type or corner type; with flanges or butt weld ends and safety gland packaging; can be supplied in carbon steel 1.0619/WCB, stainless steel 1.4408/CF8M, low temperature carbon steel 1.6220/LCB/LCC, and special materials



Design details:

- Stem with internal rollformed stem thread and rising hand wheel
- Full size safety gland packing made of pure graphite
- Multiple wall, fully flushed stainless steel bellows, designed for 10,000 cycles
- Stainless steel cam profiled bonnet gasket coated with pure graphite, mounted in tongue and groove bonnet flanges
- Metal back seat

THE COMPACT MANIFOLD V21.9

Steam distributor V21.9

Condensate collector V21.9/K

Compact condensate collector with integrated bellows sealed globe valves made of 1.0619/WCB or 1.0460/A105 respectively with flanges or butt weld ends; the condensate collector is also equipped with an immersion tube to avoid water hammer.

Use:

Steam heating systems as well as consolidation of condensate pipework. Replacement of conventional manifolds whose individual components previously had to be fabricated at greater cost.

Operation:

One-piece compact body with 4, 8 or 12 connections positioned sideways in order to make it even more compact. The manifolds are produced in modules of 4 connections and can be extended to multiples of 4, by welding the modules next to each other. This whole modular construction can be bolted on site by means of threaded holes situated under the manifolds. In the condensate collector, the discharged condensate flows down through a condensate drain (pipe) welded inside the manifold, and forms a water bed in which the internal pipe is immersed. Water hammer is thereby prevented. The accumulated condensate is discharged upwards via the immersion tube.



Advantages:

- Reduced planning expenses due to standard components
- Simplified procurement of compact units
- Low weight and small space requirements
- Costs saving due to lower insulation requirements
- Safe operation, maintenance-free bellows sealed valves
- Supplied ready for fitting, tested, mounted and painted

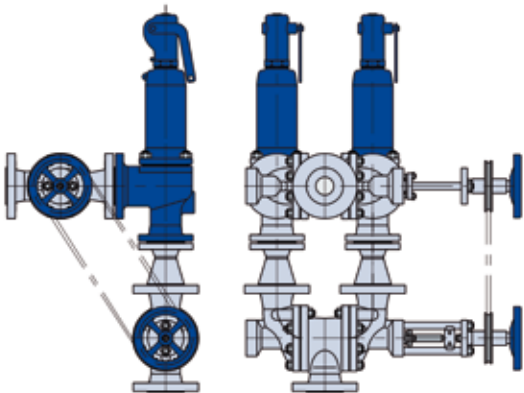
THE CHANGE-OVER VALVE 11.7/11.8

11.7 Three-way change-over valve with gland packing

Three-way change-over valve with safety gland packing in flange design in accordance with EN 1092-1 and ASME B 16.5 respectively; can be supplied in carbon steel 1.0619/WCB, stainless steel 1.4408/CF8M, low temperature carbon steel 1.6220/LCB/LCC, and special materials.

Design details:

- Extremely low resistance coefficients due to optimal flow deflection. Owing to the valve's inherent safety characteristics, valves can be combined to the greatest extent with change-over valves of the same nominal size
- Compact, lightweight design
- Reducing pieces (e.g. when mounting on safety valves) can be welded on directly



Use:

For maintenance or recalibration purposes: switching between 2 parallel safety valves in order to guarantee continuous plant operation. Plants are protected against undue excess pressure by switching over to the relevant standby safety valves. Full blow off capacity is maintained when the changeover valve switches over from one side to the other. When using changeover valves in tandem, both hand wheels are linked via a chain wheel in order to assure simultaneous operation.

11.8 Three-way change-over valve with bellows

Three-way change-over valve with safety gland packing and bellows in flange design in accordance with EN 1092-1 and ASME B 16.5 respectively; can be supplied in carbon steel 1.0619/WCB, stainless steel 1.4408/CF8M, low temperature carbon steel 1.6220/LCB/LCC and special materials.

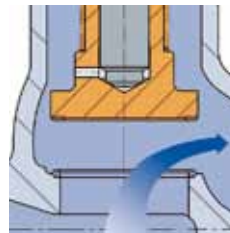


THE STOP-CHECK VALVE 19.1

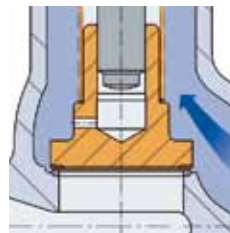
Stop-check valve with spring in straight type, y-type or corner-type; with flanges or butt weld ends and safety gland packing; can be supplied in carbon steel 1.0619 / WCB, stainless steel 1.4408 / CF8M, low temperature carbon steel 1.6220 / LCB / LCC, and special materials.

Operating mode: The stop-check valve combines the functional characteristics of a check valve with those of a bellows sealed globe valve. Only one valve is needed in a section where previously two valves had to be used.

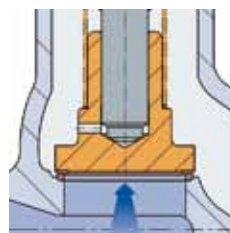
If the valve stem is in the open position (hand wheel in upper position), the valve works like a conventional check valve; the medium can move in the flow direction; the plug closes in the event of backflow. Spring loaded plug holds the valve in closed position so that the valve can be mounted in any position. If the valve stem is in the closed position (hand wheel in lower position), the valve works like a conventional stop valve; the plug remains closed with flow from any direction.



Check function: stem in open position; plug at the top, medium flows in flow direction



Check function: stem in open position; plug closes in the event of backflow



Stop function: stem in closed position; plug seals tight

NON-RETURN AND RELIEF VALVES, STRAINERS, AND FILTERS



14.1 Non-return valves

Spring loaded non-return valve with spring in straight type, y-type or corner type; with flanges or butt weld ends; can be supplied in carbon steel 1.0619/WCB, stainless steel 1.4408/CF8M, low temperature carbon steel 1.6220/LCB/LCC, and special materials. Stainless steel cam profiled bonnet gasket coated with pure graphite, mounted in tongue and groove bonnet flanges. Metal back seat with spring loaded plug; opening pressure approx. 0.2 bar/2.9 psi.



14.3 Relief valve with hand wheel cover

Spring loaded relief valve in straight type, y-type or corner type; with flanges or butt weld ends. With multiple-wall, fully flushed stainless steel bellows, secured against torsion, designed for 10,000 cycles. Mainly used as bypass valve in small circuits. With lockable hand wheel cover and stem lock nut to prevent alteration of the set opening pressure. Changing the opening pressure takes place after removal of the hand wheel cover by turning the hand wheel; by so doing the outer pressure spring is tensioned and adjusted to a defined pressure. The valve is not compensated against backpressure!



18.3 Full bore Strainer with circular screen

Strainer with flanges or butt weld ends; can be supplied in carbon steel 1.0619/WCB, stainless steel 1.4408/CF8M, low temperature carbon steel 1.6220/LCB/LCC, and special materials. With stainless steel cam profiled bonnet gasket coated with pure graphite, mounted in tongue and groove bonnet flanges. Circular screen made of stainless steel 1.4571/316TI, mesh size 2mm/0.079 inch, from DN 150/6" with additional support cage made of perforated sheet metal to reinforce the screen. Custom design can be supplied with fine screen of various mesh sizes.

SPECIAL DESIGNS

One of our many strengths is our ability to supply customer specified variants of our existing special valve designs. While in some instances fabrication of non-standard valves calls for innovative designs and/or novel materials, our custom designed valves can be supplied at competitive prices with short delivery times!



Insulated cover



Isolation design



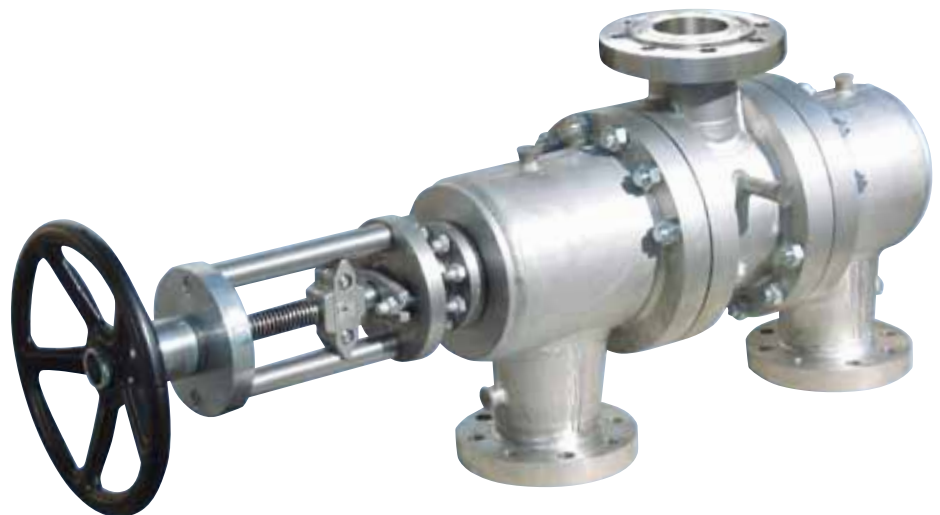
Hand wheel cover



Counter hand wheel



Liquid salt valves with heated gland packing



Heating jacket design

STANDARD AND SPECIAL MATERIALS

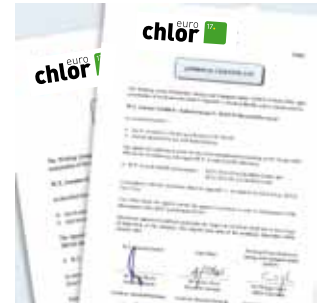
Standard valves are supplied in three material variants; in heat-resistant carbon steel 1.0619/WCB, in corrosion resistant stainless steel 1.4408/CF8M, and in low temperature carbon steel 1.6220/LCB/LCC. In addition, we have the ability to process practically all materials that can be casted, or are malleable and/or weldable. Nickel-based alloys are commonly used as special materials.

The most frequently used materials are Hastelloy, Incoloy, Inconel and Monel; however, Titanium or pure Nickel also form part of the range that can be delivered.

Steel and stainless steel valves are very frequently equipped with bellows made of high quality materials such as Hastelloy. Finishing the plug/ seat area by reinforcement with special materials is possible in exactly the same manner.



APPROVALS AND CERTIFICATES



Euro Chlor Certificates



Gost-Certificate



TÜV ISO 9001:2008

TÜV AD 2000 HP0

TÜV Quality-Assurance System acc. to Directive 97/23/EG

TÜV System of Transferring the Marking of Materials

CRANE/WTA manufacturers declaration to Directive 94/9/EC (ATEX)

Euro Chlor Certificates GEST 89/140 and 98/247

TÜV-CERT TA-Luft 2002/Pkt. 5.2.6.4

DIN-GOST-TÜV

Rostechnadzor

Fire-Safe Inspection Certificates

Canada Registrations



TÜV-Pfalz/TA-Luft 2002/ Pkt. -5.2.6.4



Fire-Safe-Certificate

Since before the introduction and certification of WTA's quality management system compliant with DIN EN ISO 9000 in 1993, WTA has continued its program of perpetual advancement in its standards for quality and engineering. WTA has obtained numerous certifications from relevant authorized organizations documenting the implementation of such new standards, in some cases to comply with customer-specific requirements.



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