



Model 2500 is designed for critical applications involving hazardous media.

descote is known worldwide by the chemical industry as THE VALVE SPECIALIST for HAZARDOUS MEDIA.

General applications

Model 2500 is designed for all dangerous, corrosive, inflammable, pyrophoric, noxious media such as Volatile Organic Compounds (VOC's), Hazardous Liquefied Gas (HLG), Hazardous Air Pollutants (HAP), etc.

Model 2500 is particularly recommended when solidification, polymerization problems, etc. are encountered.

It is commonly used on the following processes and production units: PCA (polycarbonate), HCN, pesticides, Ethylene oxide, etc.

And on many other processes using dry chlorine (Cl₂), phosgene (CoCl₂), dry hydrogen chloride (A. HCl), anhydrous fluorhydric acid (A. HF), etc.



descote also manufactures gland type globe valve Model 1500B and bellows sealed globe valves Model 2100B and 2020 (see documentation). Selection of the most appropriate valve design depends upon many factors including local and international standards and regulations. It should also include service conditions, maintenance, safety and emissions monitoring requirements. In addition, descote proposes a wide range of technical solutions such as double containment, central monitoring, zero ppm, etc. descote valve specialists are there to help you with your choice.

Quality Assurance

Design and manufacturing is ISO 9001 approved. Our manufacturing processes are also approved by the TÜV.

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Bellows Sealed Globe Valve Model 2500

technical data

Features

Ease of operation

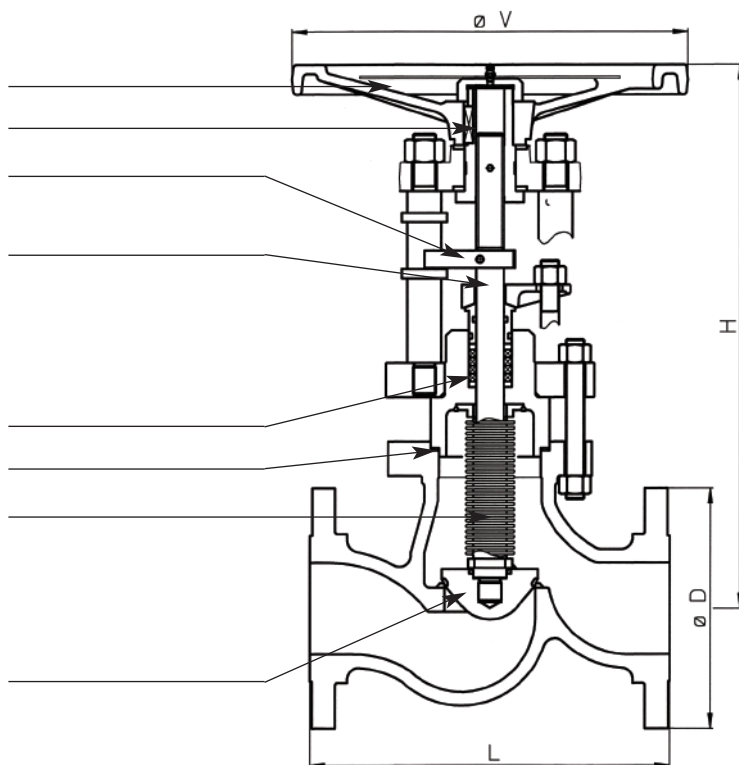
- Large diameter, long lasting heavy duty handwheel
- Yoke bushing with needle bearings and lubrication fittings
- Position indicator, torsion limiter
- One-piece, non rotating stem is cold rolled for concentricity and polished to ensure packing integrity and smooth operation

Zero emissions

- Stem sealed by multi wall hydroformed bellows
- Secondary sealing by an additional emergency stuffing box
- Fully entrapped body/bonnet gasket ensures joint integrity
- Long bellows, exposed to the flow for self cleaning
- Additional back seat on stem

Zero seat leakage

- Hard faced, knife edge seating to cut through process impurities
- High quality level 2/3 castings, as per ASTM E446



Bellows to eliminate fugitive emissions



Metal bellows welded to the stem and bonnet provide a continuous metallic barrier between the process fluid and the atmosphere to achieve zero emissions. For added security there is also a stuffing box for secondary sealing. The bellows are multi walled, hydroformed and guaranteed for 10 000 full cycles at the maximum design pressure for the valve. All bellows can be equipped with a leak detection port for continuous monitoring.

Manufacturing range

We classify our manufacturing range as follows:

Class A – our most standard products – finished valves, raw materials and semi-finished components always available.

Class B – made to order products – these are class A products adapted to meet specific customer requirements, they may use alternative materials, have accessories fitted (e.g. limit switches), have minor design changes (e.g. special flange drilling) or have special tests and controls.

| | Standard range - class A products | Additional range - class B products |
|-------------|---|---------------------------------------|
| Dimensions | DN 10 to 300 - 3/8" to 12" | |
| Rating | ISO PN25/40/64/100 - ANSI Class 150/300/600 lbs | Up to ISO PN420 - ANSI Class 2500 lbs |
| Temperature | -101°C to +400°C / -150°F to +750°F | -196°C to +800°C / -320°F to +1500°F |

Applicable construction standards

- ANSI B16.34, ANSI B31.3 (cat. M), ASME III, ASME VIII
- DIN 3840 / TRD 100 / TRD 110 / AD A4 / AD W0 / HP 0 / TRB 801 Nr.45
- AFNOR NFE 29350 / CODAP / RCC.M
- BS 1873
- JIS B8243, STOOMWEZEN, UNI, SA
- NACE, Fire security, etc.

The standard of construction is always adapted to the customer and the country of utilization.

End connections

| | End type | DN | ISO PN | ANSI Class | |
|----|----------|-------------------------|---------------|-----------------------|--|
| 1. | BW | 10 to 300 (3/8" to 12") | PN20 to PN420 | Class 150 to 2500 lbs | |
| 2. | Threaded | 10 to 50 (3/8" to 2") | PN20 to PN420 | Class 150 to 2500 lbs | |
| 3. | SW | 10 to 50 (3/8" to 2") | PN20 to PN420 | Class 150 to 2500 lbs | |
| 4. | Flanges | 10 to 300 (3/8" to 12") | PN20 to PN420 | Class 150 to 2500 lbs | available in RF, Male and Female, Tongue & Groove, RTJ, etc. |

Bellows Sealed Globe Valve Model 2500

technical data

Face to face dimensions

Valves are manufactured according to international dimensional standards : ISO 5752 - ANSI B16.10 - NF EN 558 - BS 2080 - DIN 3202 - JIS B2002

| Class A Products | | mm inch | Forged | | | | | | Cast | | | | |
|------------------|-----------|------------|------------|------------|----------|--------------|----------|----------|-----------|-----------|-----------|------------|------------|
| ISO | ANSI | | 15 1/2" | 20 3/4" | 25 1" | 40 1 1/2" | 50 2" | 80 3" | 100 4" | 150 6" | 200 8" | 250 10" | 300 12" |
| PN25/40 | | L | 130 | 150 | 160 | 200 | 230 | 310 | 350 | 480 | 600 | 730 | 850 |
| PN20 | Cl 150 | L | 152 | 178 | 127 | 165 | 203 | 241 | 292 | 406 | 495 | 622 | 698 |
| PN50 GVF | Cl 300GVF | L (1) | 152 | 178 | 203 | 229 | 267 | 318 | 356 | 444 | 559 | 622 | 711 |
| PN50 BVF | Cl 300BVF | L (2) | 140 | 152 | 165 | 190 | 216 | 283 | 305 | 403 | - | - | - |
| JIS 20K | | L | 152 | 178 | 203 | 229 | 267 | 318 | 356 | 444 | 559 | 622 | 711 |
| JIS 20K SPECIAL | | L (3) | 140 | 160 | 180 | 240 | 300 | 310 | 350 | 400/440 | 540 | - | - |
| | | H | 235 | 260 | 260 | 360 | 375 | 440 | 475 | 605 | 620 | 800 | 900 |
| | | V | 150 | 175 | 175 | 225 | 225 | 350 | 350 | 500 | 730 | 730 | 1000 |
| PN100 | Cl 600 | L | 165 | 190 | 216 | 241 | 292 | 356 | 432 | 559 | 660 | 787 | 838 |
| PN100 DIN | | L | 210 | 230 | 230 | 260 | 300 | 380 | 430 | 550 | 650 | 775 | 900 |
| | | H | 289 | 289 | 289 | 434 | 434 | 541 | 612 | 792 | 808 | 910 | 1100 |
| | | V | 225 | 225 | 225 | 275 | 275 | 500 | 730 | 730 | 730 | 730 | 1000 |

(1) GVF Face to Face standard is interchangeable with globe valves

(2) BVF Face to Face standard is interchangeable with gate, plug and ball valves - ISO PN50/ ANSI Class 300 lbs

(3) Valves are interchangeable with some Japanese manufacturers special dimensions

Materials selection

We manufacture valves in a wide range of materials, from carbon steels to special alloys. Materials are selected according to actual service conditions (fluid, temperature, pressure, etc.) and environmental circumstances (tropical location) to ensure optimum life of the valve:

- our standard manufacturing range is based upon the most widely used materials, Class A Bill of Materials (BoM)
- in addition, descote offers a Class B materials selection to fulfil customers specific needs.

(ASTM standards)

| | Class A BoM | | | Class B materials selection |
|--------------------------|----------------------|----------------------|---------------------|---|
| | type 51 | type 52 | type 55 | |
| body & bonnet | A350 LF2 or A352 LCC | A350 LF2 or A352 LCC | A350LF2 or A352 LCC | A105 / A216 WCC, A350 LF3 / A352 LC3 |
| disc | A350 LF2 | A350 LF2 | A350 LF2 | A182 Gr 304, 304L, 316, 316L, 316H |
| bellows | AISI 316L/316Ti | Hastelloy® C276 | Hastelloy® C276 | A351 CF8, CF3, CF8M, CF3M |
| stem | AISI 316L | Stainless Steel | Hastelloy® C276 | Alloy 20, Duplex, MONEL®400, Monel®K500 |
| seating | Stellite 21 | Stellite 21 | Stellite 21 | Soft seatings, |
| gasket | PTFE | PTFE | PTFE | Inconel, Hastelloy® |
| packing | PTFE | PTFE | PTFE | For other materials, please consult descote |
| bolts & nuts | L7M/7M | L7M/7M | L7M/7M | |

Inspection and quality control

descote production specifications have very strict non destructive testing and examination requirements. These are based upon:

National and international standards (API 600, ASME B31.3.)

+ industrial standards (EuroChlor, Chlorine Institute)

+ customers specific requirements

+ our own industrial experience

These requirements are systematically used and include the following examinations:

- X-ray, U.S., magnetic particle, dye-pen on welds and machined parts, wall thickness, dimensions, surface finish and hardness.

descote provides this high level of control and NDT to complement customer specifications.

Tests

All valves are tested according to international standards.

In addition, we systematically perform:

- 100% HP gas seat test with an acceptance criteria of 0 bubble 2 minutes duration minimum.

This testing ensures zero seat leakage on every valve delivered.

Certificates and traceability

descote applies the ISO 9001 standard to the complete production process. This procedure systematically includes:

- unique serial number
- a 3.1B certificate for traceability of materials, tests, examinations and controls.

The valve serial number provides complete traceability for the lifetime of the valve.

Bellows Sealed Globe Valve Model 2500

range extension



Model 2500 can be delivered with pneumatic, electrical or hydraulic actuators.



Gland type globe valve Model 1500B.



Bellows sealed globe valve Model 2100B.
Bellows protected from the flow.



Model 2500 can be assembled with special leak detection for emission monitoring.



Liquefied gas storage valves Model 2200.



Model 2020 bellows sealed instrumentation globe valve.



descote valves are available in angle pattern or 3 way valve for use with dual safety relief valves.



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