



Model 2100B is designed for critical applications involving hazardous media.

chlor euro 17.

2013 APPROVAL
according to
NEW GEST 06/318



descote is known worldwide by the chemical industry as THE VALVE SPECIALIST for HAZARDOUS MEDIA. This expertise is recognized by our EuroChlor valve approvals and recommendations by the Chlorine Institute.

General applications

Model 2100B is designed for dangerous, corrosive, inflammable, pyrophoric media such as chlorine, fluorine, hydrogen chloride, hydrogen fluoride, phosgene, chlorosilanes, nitrogen trifluoride (NF₃) etc. and all category M fluids as per ASME B31.3.

Model 2100B
is EuroChlor GEST 06/318
approved under certificate n°13/03
for size 1" to 6" (DN25 to DN150)

descote valves and actuators are certified SIL 3 CAPABLE according to IEC 61508. Model 2100B is particularly recommended for applications where the bellows has to be protected from the flow: liquefied gas, erosion, flashing, high velocity, etc.

It is commonly used on the following processes and production units: Chlor-alkali, PCA (polycarbonate), TDI, MDI, and HDI (Isocyanates), bleaching, AHF Alkylation (P.P. and UOP, alkylation and LAB processes), ECH (Epichlorhydrin), VCM, pesticides, insecticides, CFC's, HFA, HFC, PTFE, 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 2500 and 2020 for the above applications (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.

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Bellows Sealed Globe Valve Model 2100B

technical data

Features

Ease of operation

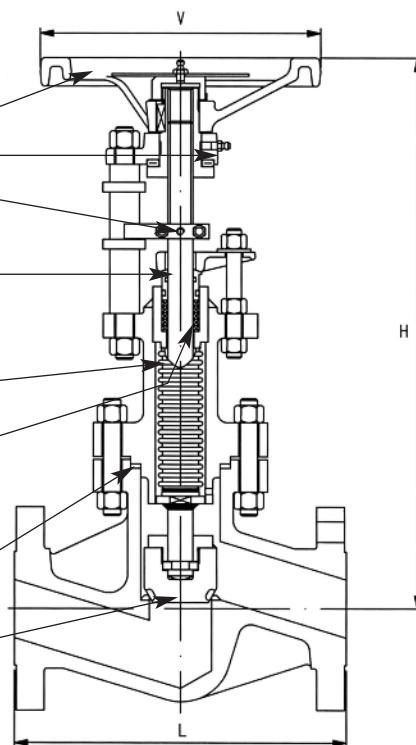
- Large diameter, long lasting heavy duty handwheel
- Yoke bushing with needle bearings and lubrication fittings
- Position indicator, torsion limiter
- One-piece, non rotating stem is cold rolled for concentricity and polished to ensure packing integrity and smooth operation

Zero emissions

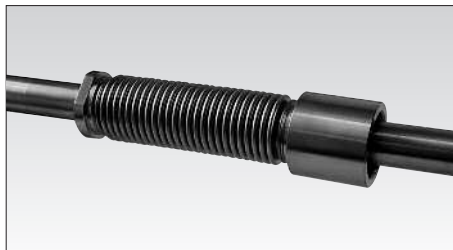
- Stem sealed by multi wall hydroformed bellows
- Long bellows fully housed in an extended bonnet for protection against erosion
- For added safety, dual sealing to the atmosphere is ensured, by means of
 - additional stuffing box along the stem
 - metallic gasket and sealweld on the bonnet
- Fully entrapped body/bonnet gasket ensures joint integrity

Zero seat leakage

- Hard faced, knife edge seating to cut through process impurities
- High quality level 2 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 - Class B Products

Dimensions	DN 10 to 300 - 3/8" to 12"	
Rating	PN25/40/64/100 - ANSI Class 150/300/600	Up to PN420 - ANSI Class 2500
Temperature	-101°C to +400°C / -150°F to +750°F	-196°C to +800°C / -320°F to +1500°F

Applicable construction standards

- ASME B16.34, ASME B31.3 (cat. M), ASME III, ASME VIII
- EN 13709 / EN12569 / TRD 100 / TRD 110 / AD A4 / AD W0 / HP 0 / TRB 801 Nr.45
- EN 13709 / CODAP / RCC.M
- BS 1873
- JIS B, GOST, HG and other standards
- NACE, Fire security, etc.

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

End connections

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

Face to face dimensions

Valves are manufactured according to international dimensional standards: ISO 5752 - ASME B16.10 - NF EN 558 - BS 2080 - JIS B2002 - HG - GOST...

Standard	Class A Products	mm inch	Forged					Cast					
			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"
PN16/25/40		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 300 GVF	L (1)	152	178	203	229	267	318	356	444	559	622	711
PN50 BVF	Cl 300 BVF	L (2)	140	152	165	190	216	283	305	403	-	-	-
JIS 20K serie 24		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	288	322	322	420	435	523	548	782	782	970	1100
		V	150	175	175	225	225	350	350	750	750	750	1000
PN110	Cl 600	L	165	190	216	241	292	356	432	559	660	787	838
PN64/100		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	750	750	750	750	1000

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- (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/ ANSI Class 600 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 the 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 fulfill customers specific needs.

(ASTM standards)	Class A BoM			Class B materials selection
	type 22	type 25	type 26	
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	Hastelloy® C276	A182 Gr 304, 304L, 316, 316L, 316H
bellows	Hastelloy® C276	Hastelloy® C276	Hastelloy® C276	A351 CF8, CF3, CF8M, CF3M
stem	Stainless Steel/Duplex	Hastelloy® C276	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	

* Graphite available acc. to temperature limits

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 inspection and quality control 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:

- an individual identification number
- a 3.1 certificate for traceability of materials, tests, examinations and controls.

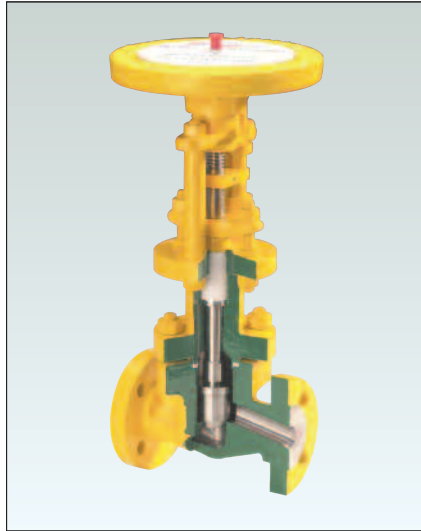
The valve identification number provides complete traceability for the lifetime of the valve.

Bellows Sealed Globe Valve Model 2100B

range extension



Model 2100B can be delivered with pneumatic, electrical or hydraulic actuators.



Gland packed globe valve Model 1500B.



Bellows sealed globe valve Model 2500. Bellows exposed to the flow.



Model 2100B can be assembled with special leak detection for emission monitoring.



Liquefied gas storage valves Model 2200.



Model 2020 bellows sealed instrumentation globe valves.



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



descote s.a.s

9 avenue Jean Jaurès
69320 Feyzin - France

Phone: +33 4 72 89 25 00

Fax: +33 4 72 89 25 25

E-mail : info@descote.com

Web : www.descote.com