KLEIN BELLOWS SEALED GLOBE VALVE

MODEL 1900FR MEGASTAR

Bellows sealed globe valve for high temperature applications

FEATURES

- One-piece, non-rotating stem
- Metal bellows welded to the stem
- Multi-walled, hydro formed bellows
- Guaranteed for 30.000 cycles at design pressure at 20°C
- Self cleaning bellows
- Hard faced conical seating
- In full compliance with PED 97/23 EC

GENERAL APPLICATION

Designed for steam applications and heat transfer fluids up to a maximum temperature of 425°C (+800°F) and other process fluids using gaseous chlorine.

TECHNICAL DATA

Sizes:	DN 15 - DN 50
Temperature:	up to 425°C
Flange acc.:	SW, BW and threaded
Pressure range:	ISO PN 100/ANSI Class 600/800

QUALITY ASSURANCE

Design and manufacturing are ISO 9001, version 2000, approved.

ATEX CERTIFICATION

Valves can also be delivered in conformity with ATEX 94/9/CE, group II, cat.2. directive upon request.

PED COMPLIANCE

With module H, cat. III, Pressure Equipment Directive (PED) 97/23 EC.

KLEIN BELLOWS SEALED GLOBE VALVE

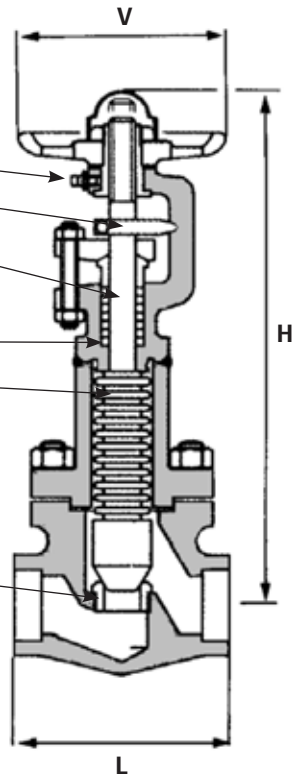
MODEL 1900FR MEGASTAR

FEATURES

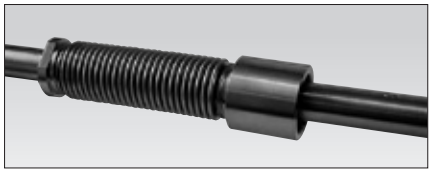
Ease of operation
- Yoke bushing and lubricator
- Position indicator, torsion limiter
- One-piece, non-rotating stem

Zero emission
- Secondary stem sealing by additional safety packing
- Multi wall hydroformed bellows, protected from the flow

Zero seat leakage
- Hard faced conical seating



BELLOWS TO ELIMINATE FUGITIVE EMISSIONS



Metal bellows welded to the stem and bonnet provides a continuous metallic barrier between the process fluid and the atmosphere to achieve zero emissions.
For added security there is also a safety packing for secondary sealing.
The bellows are multi walled, hydroformed and guaranteed for 30 000 cycles at design pressure of the valve at 20°C.

MANUFACTURING RANGE

Class A - standard products - finished valves, raw materials and semi finished components always available.
Class B - made to order products - these are products adapted to meet specific 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

Pattern	Rating	End type	Dimensions	ADDITIONAL RANGE - CLASS B PRODUCTS
Straight	ISO PN 100 - ANSI Class 600/800	SW / BW	DN 15 to 50 (1/2" to 2")	For flanged valves or other dimensions, please refer to
		Threaded	DN 15 to 50 (1/2" to 2")	Model 1900

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 emission monitoring requirements.

KLEIN BELLOWS SEALED GLOBE VALVE
MODEL 1900FR MEGASTAR

FACE TO FACE DIMENSIONS

Manufactured to international standards: ISO 5752 - ANSI B16.10 - NF EN558 - BS 2080 - DIN 3202 - JISB2002.
Face to face for threaded and welded end valves are manufacturer's standard.
Dimensions are available on the technical datasheet.

MATERIAL SELECTION

The range is based upon the most widely used materials, Class A Bill of Materials (BoM).
Additionally, we offer a class B materials selection to fulfill customers' specific needs.

CLASS A MATERIAL SELECTION

	Type 20	Type 320
Body/bonnet	A105 & CS	AISI 316
Disc	AISI 420 + Stellite Gr6	AISI 316L
Bellows	AISI 316 Ti	AISI 316 Ti
Stem	AISI 420	AISI 420
Seating	AISI 410	AISI 410
Gasket	SS + Graphite	SS + Graphite
Packing	Graphite	Graphite
Bolts & nuts	B7/2H	SS

CLASS B MATERIAL SELECTION

Body/bonnet: low temperature carbon steel,
A351 CF3, CF8, CF3M, Monel®, Hastelloy®
Bellows: Inconel®, Hastelloy®
Gaskets and packing according to customer's needs

TESTS

All valves are tested according to different international standards such as ISO 5208, API 598, DIN 3230, BS 6755.
Special testing such as helium test can be performed upon request.
Note: for maximum admissible ΔP, please refer to DIN 3356.

IN-HOUSE THERMAL OILS AND HIGH TEMPERATURE TEST

Our testing equipment includes:
- a thermal oil boiler with a circulating pump with a maximum capacity of 6 bar/+330°C (90 psig/+626°F)
- a testing bench using steam with a maximum capacity of 30 bar/+ 236°C (435 psig/+ 457°F).

We can therefore:
- qualify designs and materials at engineering stage
- provide customer with testing under real service conditions.