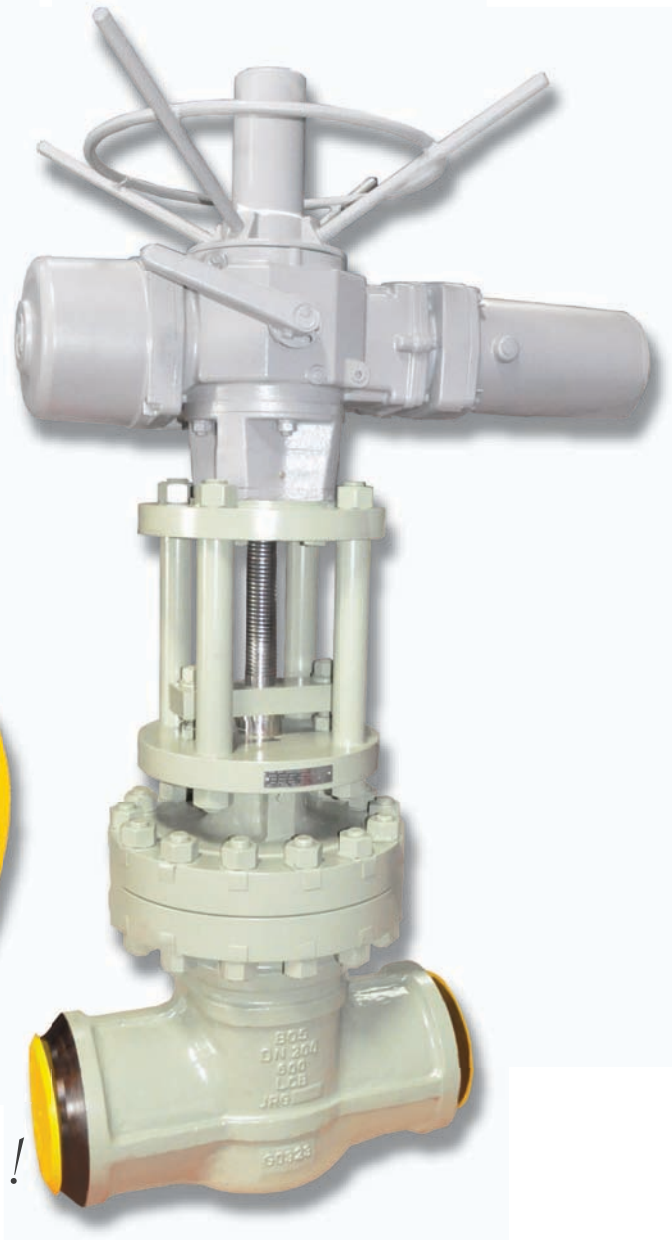
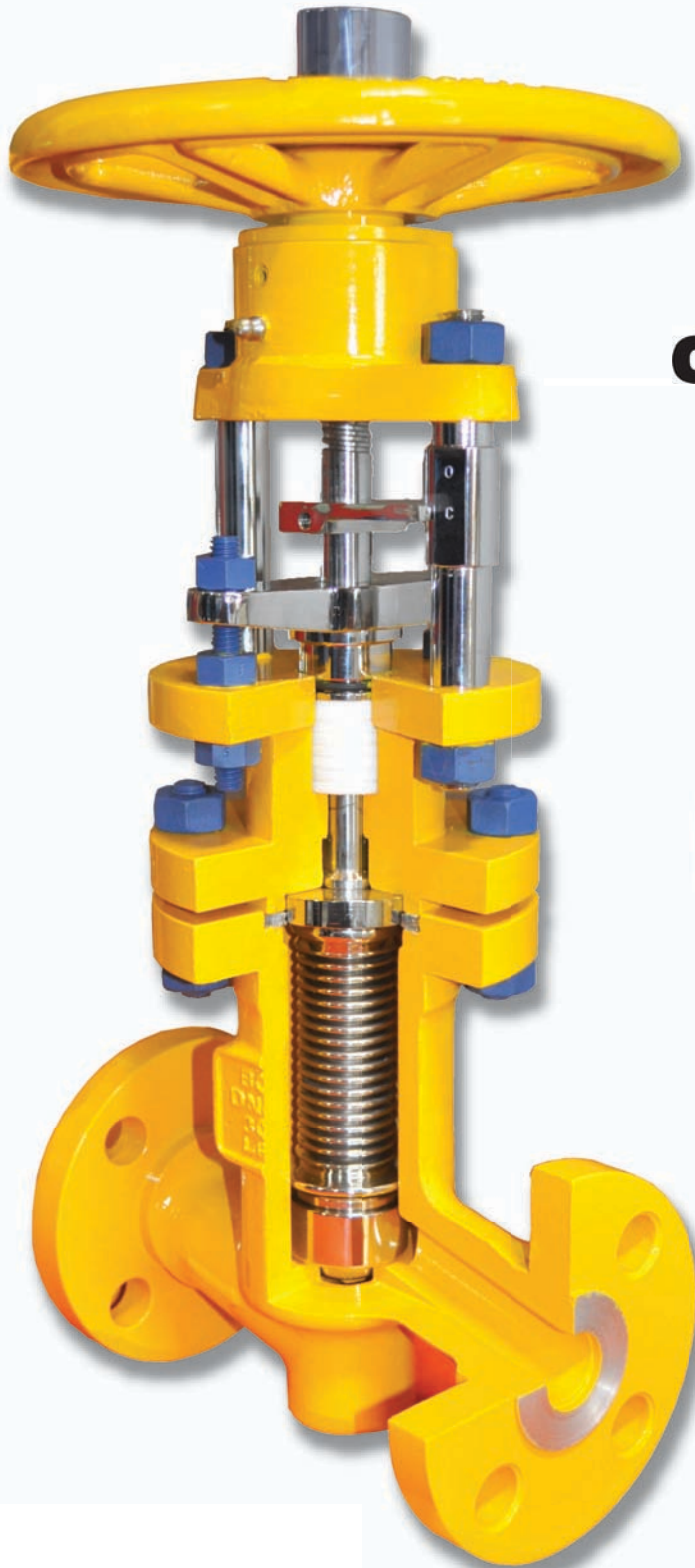


# BELLOSEAL

VALVES  
private limited

euro  
**chlor**



*Created for those in search of perfection...!*

28  
YEARS



valve solution group

## FROM CHAIRMAN'S DESK



We are indeed grateful to all our customers and users of our product for making BOS as one of the leading brands in the world for its Bellow Seal Valve. With an able support of my son Rajesh K Salins as the Managing Director of the company taking this mantel to greater height with our most efficient and able team.

BOS is committed to create a Clean and Green environment and for this BOS has strove hard to maintain the highest quality standards and systems. BOS is not only ISO 9001, but also CE / PED, Ta-Luft, API 591, API 624, Seismic, Functional, Fire Safe Test and many more. Having said this BOS is the only Indian company and the 6th company in the world having Euro Chlor and RusChlor certification, to be used in Caustic Chlorine plants. Today India is self-reliant and need not spend valuable foreign revenue.

Keeping in mind of our very beloved Prime Minister of India Mr. Narendra Modi of his motivation of MAKE IN INDIA, BOS is now moving in supporting this move of making Nuclear Valves for the Indian Nuclear department only. Moving towards making India stronger and self-reliant. BOS for its excellent performance , year after year we have been awarded Central Ministers Mr Suresh Prabhu (2015) and Mr Piyush Goyal (2017). Contributing towards the growth of the nation.

To a humble beginning of 15 people way back 1989 to a workforce of over 500 in 2019 with over 100,000 sq. feet of manufacturing with latest VMC's, CNC's, Laser Welding on Bellows, MSLD to PMI testing equipment's, BOS forges forward to exporting of it valves not only to the Refinery, Petrochemical or Chemical plants, but also to the Solar power projects.

Last but not the least I give Glory and Honour to our Lord to having brought us to this day and I dedicate our company to him. It is my pleasure to welcome our chosen customer.



Award received from  
Shri. Piyush Goyal  
Central Minister (2017)



Award received from  
Shri. Suresh Prabhu  
Central Minister (2015)



Award received from  
Shri. Sudhir Sachchidanand  
Mungantiwar, Hon'ble Cabinet  
Minister - Finance & Planning And  
Forests Departments (2019)

*“Come take a look of what we are and our vision and mission is to make this world a cleaner and greener place to live...!!”*

# INTRODUCTION

Large volume and wide variety of hazardous and toxic materials are currently in use. Coupled with increasingly stringent regulatory requirements positive containment and control measures have become mandatory. BOS are well qualified to provide technological assistance for applications involving hazardous and difficult to- handle fluids and gases.

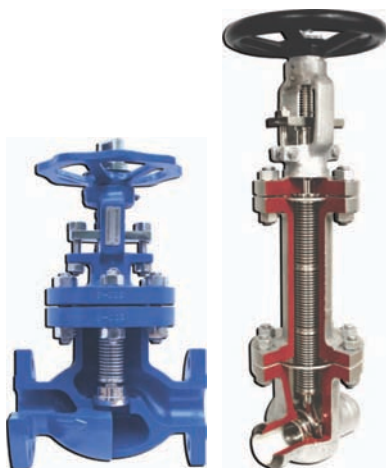
BOS engineers combine more than 28 years of experience in valve design and development with expertise in metallurgical techniques. Their strategic use of Special materials and other high-performance metals makes Bellow Seal Valves the optimum choice worldwide for a broad range of applications. The exceptional versatility, superior operating characteristics, robust construction and consistent dependability of Bell-O-Seal Valves have won us widespread acceptance across the industry, especially chemical and hydrocarbon processing industries.

Typical applications of our valves include: Thermic fluid, Ammonia, Chlorine, Phosgene, Butadiene, Benzene, Ethylene, Hydrochloric acid, Hydrogen, Steam, Fatty acid to name just a fraction of the many possible uses.

BOS's time and again performance tested assures safer operating conditions and compliance with anti-pollution regulation. 'Zero Stem' leakage design eliminates product losses, hazards to humans and the environment, and thus saving costly downtime on maintenance.



## BELLOW SEAL GLOBE AND GATE VALVES



Cast Construction in High and Low temperature Carbon Steel, Stainless and Duplex Stainless and from Special MOC for NACE requirements. Various trims with Metallic Bellow in AISI 321 / 316Ti / Inconel 625 (Multi Ply Bellows).

- Sizes 1/4" NB to 26" NB (Sizes less than 2" in Forged)
- ANSI Class 150 to 2500
- Ends in Screwed, Flanged, Butt Weld Ends & Socket Weld
- Design in Bolted and Welded Bonnet
- Bellows Cyclic Life as per MSS P 117

## CONTROL VALVES



Cast Construction in High and Low temperature Carbon Steel, Stainless Steels With Electric / Pneumatic Diaphragm actuator and Pneumatic Piston Actuator with Various trim options and Bellow Seal Stem for Leak Free Valve to the Atmosphere

- Sizes DN 15 to DN 150
- ANSI Class 150 to 600
- Flanged Ends Design Two Way and Three Way Plug Design to customer's requirement With Accessories that meets Flame Proof requirements.

## GLOBE, GATE AND CHECK VALVES



Cast Construction in High and Low temperature Carbon Steel, Stainless and Duplex Stainless and from Special MOC for NACE requirements. Various trims options.

- Sizes 2" NB to 42" NB
- ANSI Class 150 to 2500
- Ends in Screwed, Socket Weld, Flanged and Butt Weld Ends
- Design in Bolted and Welded Bonnet Special packing in Graphoil / PTFE Packing Rings.

## BALL VALVES



High and Low temperature Carbon Steel, Stainless and Duplex Steels / 2 Ports / Multi-Ports Flanged and in Special MOC for NACE. Fire safe Designed with Soft and Metal Seated Rings, Flanged, Screwed, Butt Weld Ends.

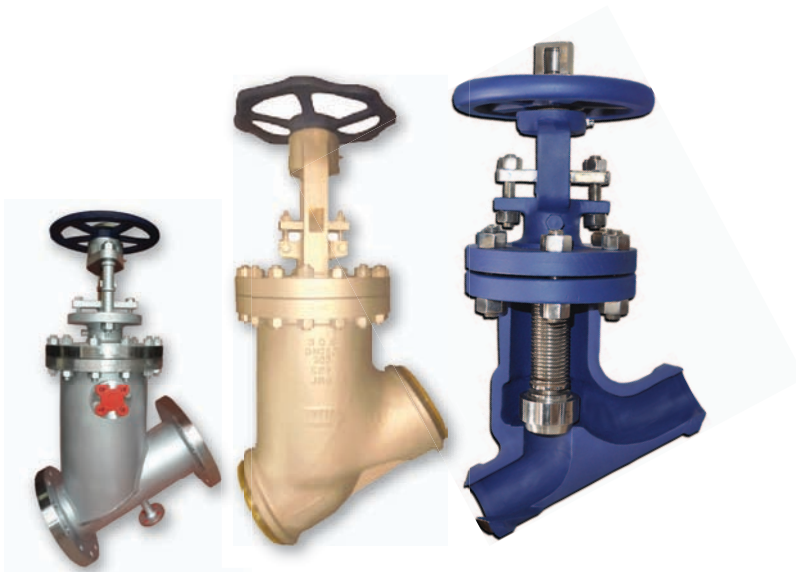
### FLOATING DESIGN :

- Sizes available from 2"NB to 10"NB ANSI.
- Class rating 150 to 300.

### TRUNNION MOUNTED DESIGN :

- Sizes available 3"NB to 24"NB
- ANSI Class Rating 150 to 2500

## BELLOW SEAL Y - TYPE GLOBE VALVES



Cast / Forged Construction best suited for Fatty Acid Applications.

- Sizes 1/2" NB to 16"NB
- ANSI Class 150 / 300 / PN25 / PN40
- Ends in Butt and Socket Weld Ends
- MOC : 316L / 317L / 317 LMN / 904 / 904L
- Bellows in Hastelloy C276 / 316Ti

## MOLTEN SALT GLOBE & GATE VALVES



Cast / Forged Construction in Carbon Steel, Stainless Steels.

- Sizes 1/2" NB to 12"NB
- ANSI Class 150 and 1500
- Ends in Flanged, Butt and Socket Weld Ends
- With special stem and packing's arrangements

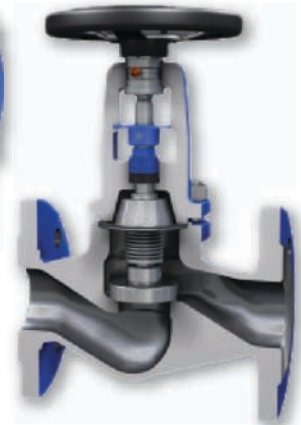
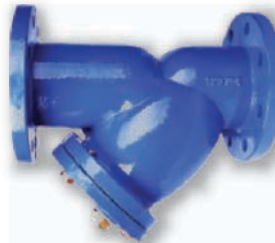
## FORGED STEEL VALVES GLOBE, GATE, CHECK AND BALL VALVES



Forged A105, LF2, F304, F316, F304L, F316L, F11, F22 and valves for NACE with Various trim options

- Sizes 1/4" NB to 2"NB
- ANSI Class 800
- Ends in Screwed, Flanged and Socket Weld
- Design in Bolted and Welded Bonnet Special packing in Grafoil / PTFE Packing Rings.

## DIN BELLOW SEAL GLOBE VALVES & Y TYPE STRAINER



Cast Construction in GG25 / GGG40.3 / WCB / CF8M

- Sizes 1/2" NB to 12"NB
- PN 16 / 25 / 40
- Ends in Flanged, Butt and Socket Weld Ends

# VALVES FOR CHLORINE SERVICE

## Material of Construction

- Low Temperature Carbon Steel ASTM A 352 Gr LCB / LCC with a carbon content of 0.25% or less, Carbon Equivalent of 0.43% on heat analysis and 0.45% on product analysis which minimises the risk of hydrogen cracking during welding
  - Impact requirements for Low Carbon Steel meets 27J as per recommendations of Euro Chlor
  - Studs / Bolts and nuts are of ASTM A 320 Gr L7 or L7M to meet Impact testing requirements at -101°C
  - Multiply bellow in Hastelloy C276
  - Conical plug in LF2+Stellite / Monel / Hastelloy C276
  - Stem in Stainless Steel / Monel / Hastelloy C276
  - Follow guidelines for MOC for contact parts with chlorine as per GEST 79/82 11th Edition
- Other MOC are available on request

## Product Features

- Protected bellows design from hazardous and corrosive media to extend bellow life
- Zero leakage through stem and seats as fitted with metallic bellow
- High stem finish to surface finish 0.4µ Ra
- Stem sealing by multiply bellow in Hastelloy C276
- Stem out of roundness of less than 0.01mm
- Secondary safety gland packing of PTFE
- T&G body-bonnet joint ensures joint integrity and no leakage at the body-bonnet joint
- Position indicator and anti torque device
- Thrust bearings for easy operation
- Handwheel diameters meet the recommendations as per Euro Chlor
- Bellow guaranteed for high cyclic life
- Stem with back seat arrangement to prevent over compression of bellows and provided anti-blowout design
- The body / bonnet meet the radiographic quality as per Level II and provides the highest repeatable casting quality across changes in cross sections
- Clean room standards followed for assembly

## Final Check

- Valves are dried in oven before despatch to a minimum of 120 deg celcius
- Unpainted machined and threaded surfaces are coated with chloro-fluorinated rust inhibitor
- Blanking of end flanges to prevent moisture entry
- All valves are lubricated with chlorofluorinated grease
- Helium Leak Test of Valves with Acceptance criteria  $1 \times 10^{-4}$  std cc/sec of helium

## Plants

Methanes / VCM / EDC / ECH / Pesticides / Insecticides  
HFC / Halogenated Plants / Chloro Alkali  
TDI / MDI / Isocyanates etc

## Applications

Liquid Chlorine, Dry Gas Chlorine, HCL, Fluorine Pyrophoric Media, Hydrogen Fluoride, Phosgene, Nitrogen Trifluoride, Cat M Fluids as per ASME B 31.3

## Optionals

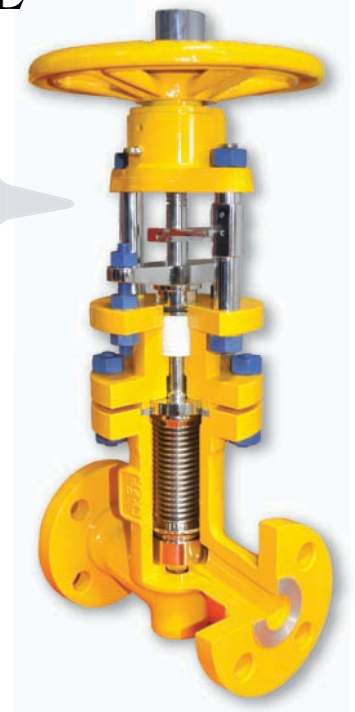
- Electric and Pneumatic valves actuated according to GEST 06/318 & 17/492. (Under approval)
  - Complete valve in ASTM A 494 GR. CW12MW / ASTM A 494 GR. CY-40 / 904L / 317LMN
- Other MOC available on request

## Temperature Range

Standard	Unit	Temperature Low Carbon Steel
Euro Chlor GEST 06/318	°C	-40 to 120
	°F	-40 to 248



## BELLOW SEAL GLOBE VALVES



## Approvals

- Approved by Euro Chlor GEST 06/318 certificate no. 17/01 & 18/01 & RusChlor certificate no. 00040
- In compliance to The Chlorine Institute Pamphlet 6
- Fugitive Emission Type Tested as per ISO 15848 Part 1
- Quality Management System as per ISO 9001-2015
- Design / Manufacturing process approved by TUV-Germany for Chlorine Valves
- Control of documents as per PED 2014 / 68 / EU

## Pressure Rating

Class 150, 300 and PN 40.  
Lower and Higher class rating available on request

## Size Range

DN 25 to DN 150  
Higher sizes are available on request

## End Connections

Flanged Ends to ASME B16.5 / EN 1092-1

## Documentation

Certification as per EN10204 Type 3.1 for Body / Bonnet, internals and Impact Test Certification

## VALVES FOR CHLORINE SERVICE



**CONTROL VALVES**



**BALL VALVES**



**BELLOWS SEAL  
GLOBE VALVES  
IN EXOTIC MOC**

Low temperature carbon steel like ASTM A 352 Gr. LCB / LCC (optional other grades and exotic alloys). ASTM A 494 GR. CW-12MW, ASTM A 494 GR. CY-40.

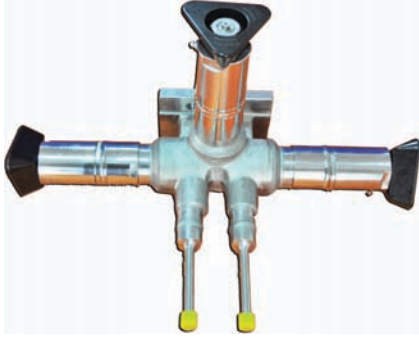
**Applications :** Liquid & Dry gas chlorine, HCL, Fluorine Pyrophoric media, Hydrogen Fluoride, Phosgene, Nitrogen Trifluoride, Cat M Fluids as per ASME B31.3

- **Sizes :** DN25 to DN150
- **Pressure ratings** class 150, 300 / PN40
- **End Flanges :** EN1092-1 & ASME B16.5
- (other Sizes available on request)

(\* Control valve and Ball valve under Euro Chlor approval process.)

***CHLORINE  
EXPERTISE  
FROM INDIA***

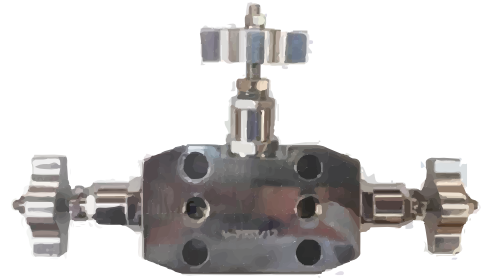
# VALVES FOR NUCLEAR SERVICE



**HP BELLOW SEALED 3 VALVE MANIFOLD**



**BELLOW SEALED TYPE GLOBE VALVES FOR SODIUM SERVICE**



**GLAND SEAL 3 VALVE MANIFOLD**



**TITANIUM BALL VALVE**



**ELECTRIC OPERATED GLOBE VALVE**



**SS BALL VALVE**



**BELLOW SEALED INSTRUMENTATION GLOBE VALVE**



**GLAND SEALED ISOLATION VALVE**



**BELLOW SEALED BELLOW OPERATED VALVE**



**HP BELLOW SEAL ISOLATION VALVE**



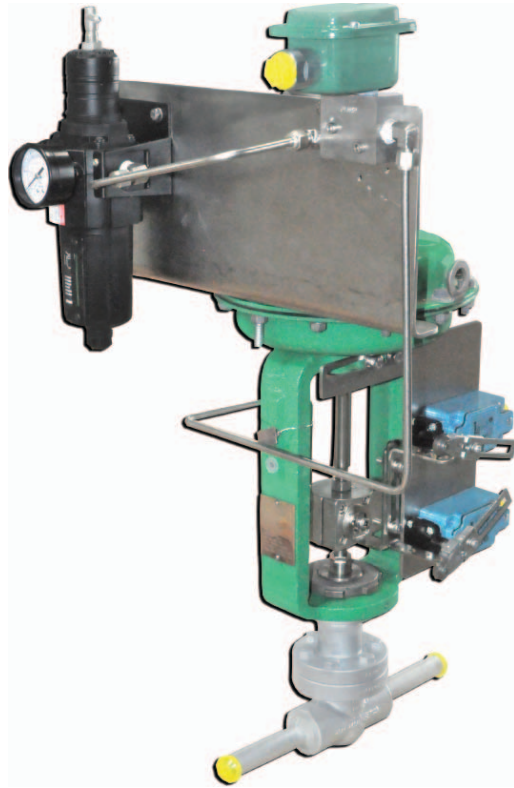
**BELLOW SEALED ISOLATION VALVE**



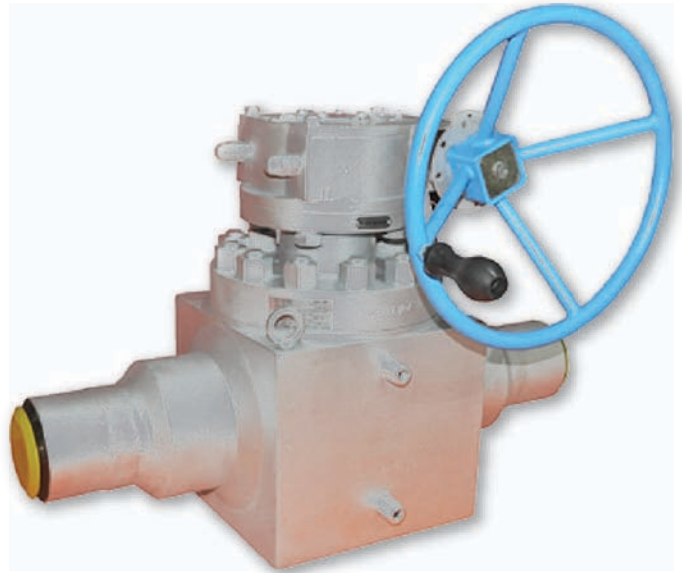
**BELLOW SEAL VALVE WITH K-MASS PROTECTION ACTUATOR**



## VALVES FOR SPECIAL APPLICATION



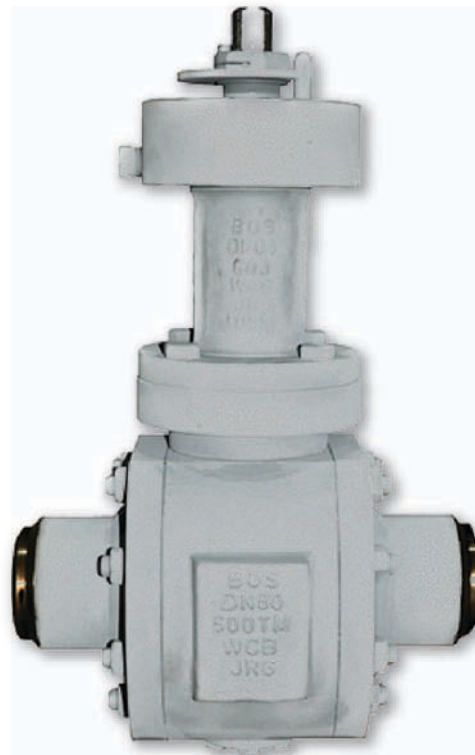
**CONTROL VALVES ON-OFF**



**TOP ENTRY BALL VALVE**



**GEAR OPERATED BALL VALVES**



**HIGH TEMPERATURE BALL VALVE  
FOR HTF APPLICATION**

# GIGANTIC BELLOW SEALED VALVES FOR SPECIAL APPLICATION



## QUALITY ASSURANCE SYSTEMS

Are being followed in accordance with ISO9001:2015/PED/CE requirements to achieve a high degree of efficiency in operations. Constant efforts are made for the improvement of techniques, keeping in pace with the latest technology and standards. The inspection and testing activities are carried out in different stages of manufacturing to ensure the product compliance to standard & legal requirements.

## QUALITY POLICY

We at Bell O Seal Valves Private Limited (BOS) are committed to Supply Quality Valves and to meet low emission norms laid down by the environmentalist and to meet the critical demands and requirements of Oil and Gas, Petrochemical, Chemical and Power industries to the satisfaction of our customers.

We at BOS are committed to satisfy all the applicable Quality Management System requirements, as well look at continually improve the Product, Process and System requirements.

We at BOS are committed to ensure that this policy is communicated, understood, applied, implemented and maintained at all levels of our organization to ensure the the policy laid would help in improvement of the organisation and by and large more efficiency in the system to betterment of the end product.



## CREDENTIALS AND CERTIFICATIONS

- ISO 9001:2015 CERTIFICATION
- CE-PED CERTIFICATION
- API 591 CERTIFICATION WITH TUV
- API 624 CERTIFICATION WITH TUV
- IBR CERTIFICATION
- TA-LUFT CERTIFICATION
- FUGITIVE EMISSION CERTIFICATION WITH TUV
- TSG CERTIFICATION

worldwide sales



**BELLOWSEAL**  
VALVES  
private limited

Head Office : C-106, Morya House, Off New Link Road, Andheri (W), Mumbai - 400053. India.

Tel: +91 (22) 6679 1773 / 74 / 75

Email : [sales@bellowsealindia.com](mailto:sales@bellowsealindia.com) Website : [www.bellowseal.com](http://www.bellowseal.com)

Factory : Subramanyanagar, Puttur Village, Dist. Udipi, PO.SantheKatte - 576 105, Karnataka, India.

Tel.: +91 (820) 2581730 / 31 / 2581157