Features of high quality bellows sealed valves

Easy and Safe Operation
» Metal-metal backseat provides mechanical stop which avoids stem from being ejected. (A)
» Large diameter and robust nodular cast iron / steel hand-wheel. (B)
» ACME oversized thread prevents valve from blocking under severe working conditions. (C)
» Position indicator. (D)

Zero Emissions
» German manufactured multilayer bellows. (E)
» Backseat locks valve in open position avoiding any leakage in case of broken bellows. (A)
» Tongue and grooved body and bonnet joint with graphite gaskets. (F)
» TA-LUFT certified graphite safety packing. (G)

Zero Seat Leakage
» Plug and seat stellited. (H)
» 360º Free rotating plug enhances cleaning of impurities and allows closing surface to be different every cycle, decreasing wear down and guaranteeing tightness for longer. (I)
» Conical plug reduces closing surfaces and therefore increases tightness. (J)
» Two point guided stem [K]
Nine Competitor Advantages

1. Completely welded **multiple layer stainless steel bellows** are secured against torsion and designed to last for over 30,000 operations according to MSS SP-117, guaranteeing long life tightness through stem.

2. **Standard 360° free rotation and conical plug** provides a tighter closure while maintaining seat clean from shards. Both seat and plug are made out of hardened chromium steel 1.4021 or hardened with stellite.

3. **TA-LUFT certified** full size safety gland packing made of pure graphite together with our bellows, provide a fully reliable 0 environmental emission rate.

4. Stainless steel cam profiled bonnet gasket coated with pure graphite, mounted in **tongue and grooved bonnet** flanges reinforces enclosure tightness.

5. **Metal back seat** is a key safety feature since it avoids stem from being ejected while stops leakage in case of a broken bellows.

6. **Oversized hand-wheel** for easy handling. Position Indicator allows user to know the opening/closing position of the valve without having to operate it.

7. **Two piece stem** stops closing torque from being transmitted to bellows and plug. Upper stem is easily changeable to adapt different actuators. Both temperature and dilatation in stem are reduced, diminishing probability of the valve blocking.

8. **Extended Bellows and Bonnet** enhances safety for the operator since temperature effect is easily dissipated while increasing bellows life span.

9. Columns included in standard design allow these valves to be **automated** therefore becoming a control valve. This may also perform **regulation** when including throttling plug.
Critical applications

DIN bellows sealed valves have become highly popular nowadays due to the mass consumption industry demand has generated. Unfortunately this increase in demand has led to a drastic reduction in quality performance in search of cheaper prices, and therefore missing this valve’s main target, being a maintenance free stop valve. Overall, chemical applications must indeed comply with highest quality standards in order to guarantee safety in operation and therefore BVALVE rejects to follow this trend.

In turn, BVALVE is pleased to present its new premium BV25066HP, specially designed for chemical applications and manufactured in compliance with highest quality standards, while keeping highly competitive prices.

Application

BVALVE’s figure BV25066HP is specifically designed for common and critical services in the chemical industry. These include applications with complex mediums such as corrosive, toxic, flammable, combustible and volatile gases or fluids.

Figure BV25066HP’s bellows is protected from the hazardous effects of medium’s flow velocity, therefore displaying excellent performance in applications where erosion, vaporization and high velocity are present.

Potential processes suitable for this valve are isocyanates, such as TDI, MDI or HDI, bleaches, alkylation processes, anhydrous hydrofluoric acid, sulfuric acid, hydrocyanic acid, pesticides, insecticides, chlorofluorocarbon compounds (CFC), hydrofluorocarbon compounds (HFC), PTFE, ethylene oxide, dry chlorine (Cl₂), phosgene or anhydrous hydrochloric acid among others.

Bellows as a Leakage Barrier

Our Stainless Steel 316Ti German manufactured bellows is welded to the stem, becoming a definitive metallic barrier between the process medium and the atmosphere, and hence guaranteeing zero leakage performance. Still, for a higher security, safety TA-LUFT approved packing is applied in design. Furthermore, our multiple layer bellows are designed to last at least 30,000 cycles according to MSS SP-117 manufacturing standard.

Multi Layer Bellows

» Double, triple and quadruple layer bellows depending on the size of the valve.
» Bellows designed to support 30,000 operation cycles.
» Bellows are welded to the stem and not to the disc, preventing the transmission of vibrations to the bellows, and therefore extending the life of the bellows.
High quality guaranteed

Applied Manufacturing Standards
BV25066HP is manufactured according to:
» Design Standard: EN 12516-1
» Face to Face Dimension: EN 558-1
» Flanged Ends: EN 1092-1
» Test & Inspection: EN 12266
» Bellows Life Cycle: MSS SP-117
» Unfired Pressure Vessels: EN 13445
» Upper Stem Thread: ISO 2901 (GB/T5796)
» Pressure Equipment Directive (PED): 2014/68/EU

Inspection and Quality Control
All of the processes related with BV25066HP are performed according to ISO 9001, therefore guaranty a complete traceability of materials and tests applied. Besides, our manufacturing procedures are also approved by the TÜV organism.

BV25066’s standard tests are conducted according to EN 12266 and/or API 598. Moreover, 100% of our valves are tested at high pressures before being supplied, having to fulfill a zero bubble per minute criteria for them to be accepted. Still, other standards may be applied under request.

BV25066HP units go through inspection and material certificates according to EN 10204-3.1. Additionally to hydrostatic and leakage testing, others may be applied such as penetrant test (PT), magnetic test (MT) or radiographic test (RT).

Certification
BV25066HP fulfills pressure equipment directive (PED) under TÜV notified body assessment.
Accessories and options

**End Connections**
- Flanges DIN PN40 Acc. EN 1092-1 RF
- Butt Weld DIN PN40 Acc. EN 12627 Fig.4.

**Accessories**
- Automation by assembly of actuators
- Mechanical Limit Switch Box
- Inductive Limit Switch Box
- Solenoids
- Positioners
- Throttling and Soft Sealing Plug
- Change-over Valves
- Chain Locking Device
- Packing and Gasket in PTFE (+200°C) or Gylon (+280°C)
- Soft Sealing in Gylon or PTFE
- Soft Sealing in Gylon or PTFE

**Optional features**
- Special Flange Sealing Surface
- Free from Oil and Grease Treatment
- X Ray Test for Flange Connection
- X Ray Test for Butt Weld Connection

**Optional plug types**
- Conical plug (standard)
- Throttling plug
- Plug with soft sealing
- Throttling plug with soft sealing
**BV25066HP**  PN40 EN 1092-1
Stainless Steel CF8M (1.4408)

Temperature min.  -60ºC
Temperature max.  +400ºC

**COMPONENT MATERIALS**

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<tr>
<td>1</td>
<td>Body</td>
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**ZERO LEAKAGE:**
DIN: Rate A acc.EN12266-1

**WORKING CONDITIONS**

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