

# SPECIAL-BALL-VALVE

### CAVITY FREE BOTTOM OUTLET BALL VALVE

- > Special individual manufacturing
- > Exotic materials
- > Short lead times

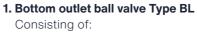
Size range 1/2" to 4" Pressure max. 300 lb / sq.in. Temperature range -50 °C to +500 °C

Beregerst

Results. No experiments.

### **SPECIAL INDIVIDUAL MANUFACTURING** MADE BY ATEC





- > Vessel pad flange
- > Bottom outlet ball valve
- > Combination mounting flange

With help of the combination mounting flange you can assemble the bottom outlet ball valve to the vessel pad flange. Further more you can use the combination mounting flange as forwarding flange for the pipe.



#### 2. Bottom outlet ball valve Type Sampling

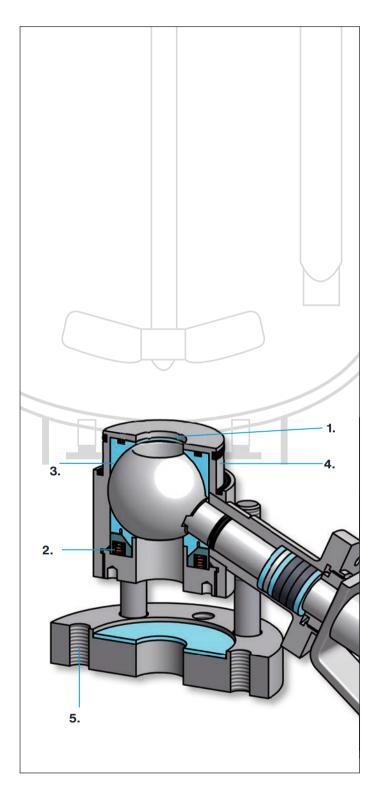
- > Sampling ball
- > Heating jacket
- > Flush connection through combination mounting flang
- > Extended neck and stem

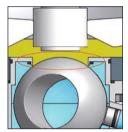


#### 3. Bottom outlet ball valve Type Thread

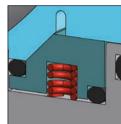
- > Angular stem for easy and space saving assemble of pneumatic actuator
- > Bottom outlet as thread acc. to ASME

### CAVITY FREE BOTTOM OUTLET BALL VALVE LOW SUMP AREA





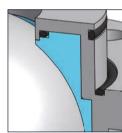
**1. Low sump area** seamless connection to vessel inner wall.



2. Spring loaded sealing system

Guarantees almost same torque at different temperatures.

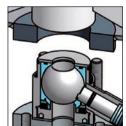
Longer life time through spring loaded sealing system.



#### 3. Cavity free

Almost no residual product in the ball valve housing.

Almost no crystallization, polymerization and agglomeration of product.



### 4. Vessel connection

Pad flange acc. to ASME, Pad flange bore to be increased to ball valve insert diameter.

Already welded in pad flange please consult with ATEC.

5 Ca Ca CT W

5. Outlet connection

Combination mounting flange acc. to ASME

Clamp acc. to ASME Thread acc. to ASME Weld end acc. to ASME

## CAVITY FREE BOTTOM OUTLET BALL VALVE



#### Applicable to:

Gaseous media, fluid, emulsion, syrup, paste etc.

#### **Operating conditions:**

max. 500 °C, max. 300 lb / sq.in., suitable for vacuum service, exceeding parameters on request.

#### **Design:**

cavity free, low sump area, angled stem design, adjustable and maintenance free stem sealing, additional specific spring loaded sealing system, sealing pressure adjustable by means of spiral coil springs.

#### Additional:

Heating jacket, flushing connection, antistatic-design, Fire-Safe design, stem sealing acc. to TA-Luft, sealing material with FDA-Conformity, PTFE adapter for laboratory bottle.

Material:

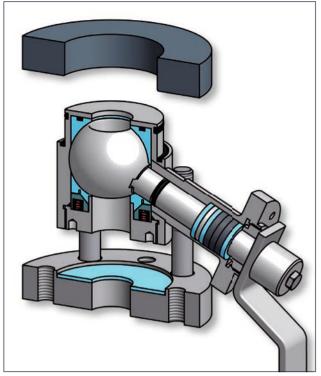
316 Ti, 316 L

#### **Special material:**

alloy 904 L, 318 LN, alloy 22, alloy 59, alloy c-4, titanium, zirconium etc.

#### **Ball sealing:**

PTFE, PTFE fi ber glass, PTFE carbon, TFM, PEEK, PEEK fi ber glass, impregnated activated carbon, metallic sealing system.



#### O-Ring:

Viton, EPDM, FEP-Viton, FEP-Viton, FEP Silicon, Kalrez etc.

#### Stem sealing:

PTFE, pure graphite and additional o-ring

#### Springs:

316 Ti, alloy c-4

#### Connection to vessel:

Pad flange acc. to DIN 28117 / 28142 and ASME, pad flange bore must be increased to insert diameter of ball valve. Pad flange contour can be adapted to vessel shape.

#### Connection ball valve:

Combination mounting flange Welding neck flange acc. to ASME B16.5 Clamp acc. to ASME, Thread acc. to ASME, Weld end acc. to ASME, PTFE adapter for laboratory bottle.

#### **Tightness:**

acc. to API 598

Actuator mounting flange:

acc. to ISO 5211



### **ADVANTAGES**

- Almost no cavity between ball and housing
- Almost no residual product in the ball valve housing
- Approximately same torque at different temperatures
- Longer life time through spring loaded sealing system
- Cavity free ball valve suitable for the use as bottom outlet ball valve in stirrer vessel
- Special design sizes
- Short delivery time of customized ball valves and spare parts



#### Results. No experiments.



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