

SPECIAL-BALL-VALVE **TYPE BS**

CAVITY FREE BOTTOM OUTLET BALL VALVE

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

Size range 1" to 10"
Pressure max. 300 lb / sq.in.
Temperature range -50 °C to +500 °C



Results.
No experiments.

SPECIAL INDIVIDUAL MANUFACTURING MADE BY ATEC



1. Bottom outlet ball valve 4" / 3" Type CIP

- > heatable pad flange acc. to customer request
- > flushing connection
- > TA-Luft
- > antistatic device
- > oil free and free of grease
- > Wetted parts Ra < 0,2µm
- > outlet connection threaded acc. to ASME



2. Bottom outlet ball valve 5" / 3" Type Rapid Fastening

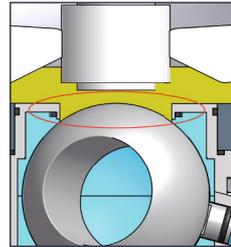
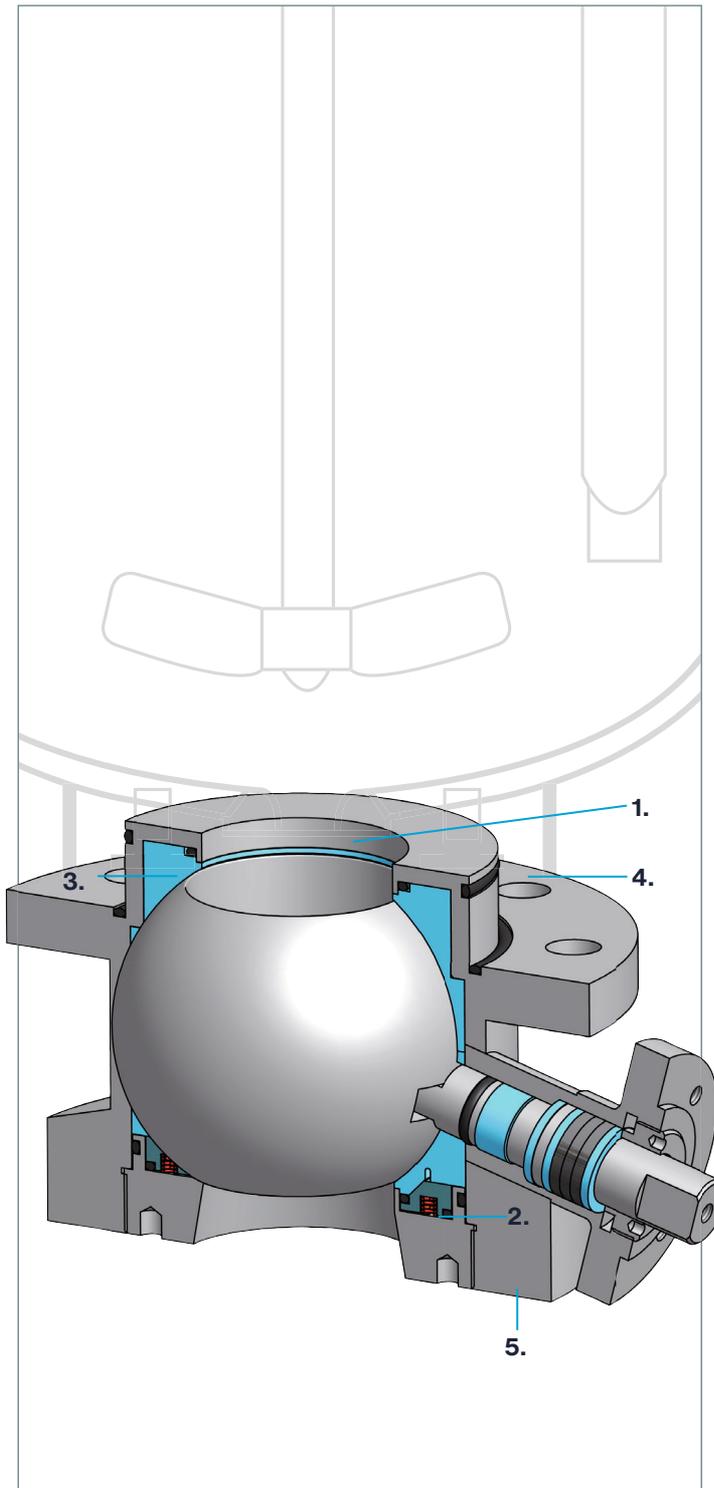
- > seal half out of PTFE / 25 % carbon
- > rapid fastening clamp
- > outlet connection clamp acc. to ASME



3. Bottom outlet ball valve Type Crust Crusher

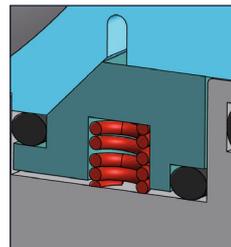
- > seat rings out of TECA PEEK
- > 10° angled stem
- > ball with spikes to crush the congested product
- > outlet acc. to ASME

CAVITY FREE BOTTOM OUTLET BALL VALVE LOW SUMP AREA



1. Low sump area

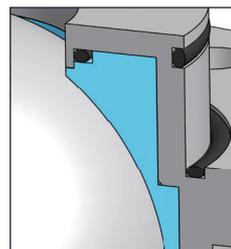
seamless connection to vessel inner wall.



3. Spring loaded sealing system

Guarantees almost same torque at different temperatures

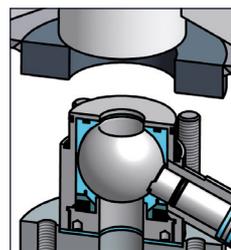
Longer life time through spring loaded sealing system.



3. Cavity free

Almost no residual product in the ball valve housing.

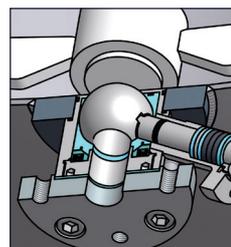
Almost no crystallization, polymerization and agglomeration of product.



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. Outlet connection

Welding neck flange acc. to ASME, clamp acc. to ASME, thread acc. to ASME, weld end acc. to ASME, PTFE adapter for laboratory bottle.

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 adaptor for laboratory bottle.

Material:

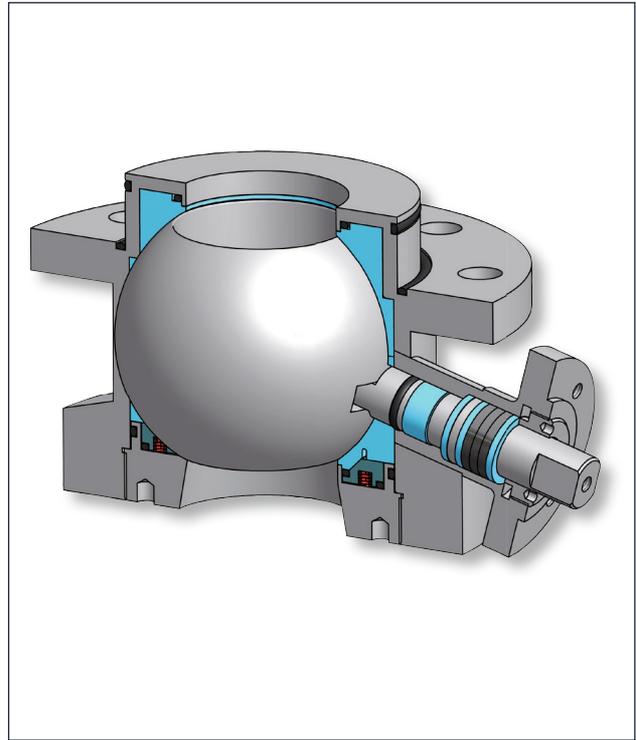
316 Ti, 316 L

Special material:

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

Ball sealing:

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

**O-Ring:**

Viton, EPDM, 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 can be increased to insert diameter of ball valve. Pad flange contour can be adapted to vessel radius.

Connection ball valve:

Welding neck flange acc. to ASME B16.5
Clamp acc. to ASME,
Thread acc. to ASME,
Weld end acc. to ASME,
PTFE adaptor 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.