

# HIGH PERFORMANCE BALL VALVES

Gastight and with  
metal-to-metal sealing.

Safe.  
Long-lasting.  
Low maintenance.





# CUSTOMISED BALL VALVES, EVEN FOR EXTREME CONDITIONS

## METALLIC SEALING GASTIGHT BALL VALVES FOR SEVERE SERVICE APPLICATIONS

Designed to individual customer requirements, Hartmann ball valves guarantee the highest levels of safety and availability – even under extreme operating conditions. As a reliable shut-off valve, they resist aggressive media, extreme pressures and temperatures or frequent actuating operations. The metal-to-metal sealing between ball and seat rings with high quality hardfacing provides an especially long service life and minimises maintenance requirements.

## TECHNICAL CHARACTERISTICS

- **Nominal bore:** DN8 up to DN1000 (¼" up to 40")
- **Pressures:** Vacuum up to 1035 bar (15.000 psi)
- **Temperatures:** -200 °C (-328 °F) to + 550 °C (1022 °F)
- **Design:** 2-way, 3-way, 4-way ball valves, floating or trunnion-mounted ball design
- **Sealing system:** Metallic sealing with 0-bubble leakage rate (A)
- **Connections:** flange, butt weld, socket weld, threaded
- **Body material:** Carbon Steel, Stainless Steel, Duplex, Superduplex, Hastelloy, Incolloy, Inconel, Monel, Titanium and others
- **Functions:**
  - Double Isolation and Bleed (DIB) – two barriers in one or both directions
  - Double Block and Bleed (DBB) – valve can be tested while mounted in the pipeline
- **Regulations and Standards:** API 6A, API 6D, ASME, PED, DGRL, DIN ISO
- **Certified for:** Fire-safe, TA Luft, SIL and more



### BALL VALVE TYP AST

- trunnion-mounted ball
- suitable for high cycle operations



### TWIN BALL VALVE

- double ball valve for double safety
- up to four barriers in the length of a standard valve
- replacement of existing valves



### SCRAPER VALVE

- shut-off valve and scraper launcher/receiver
- space- and cost-saving substitution of expensive scraper launching systems
- NEW: with multiple safety barrier

## TYPICAL APPLICATIONS

- Low temperature / cryogenic
- High temperature
- High pressure
- High cycles, up to 200.000 cycles/year
- Quick closing valves
- Media with solids (also abrasive, corrosive)
- Block design / Twin ball valves
- Pigging systems / Scraper valves
- Pipeline ball valves
- Heating jacket ball valves
- Multi-way ball valves
- Media such as: crude oil, natural gas, sour gas, syngas, oxygen, hydrogen, helium, steam, geothermal water, coal powder, slurry, slag & ashes, catalysts, polymers, cellulose, abrasive and degreasing media



Pigging ball valve with multiple safety barrier



Heating jacket ball valve for high temperature applications



Oxygen ball valve made of EIGA compliant materials

# ADVANTAGES OF THE METALLIC SEALING SYSTEM

Valves with metal sealing systems are much more resistant against wear than soft sealing systems. The Hartmann metal-to-metal ball valves are additionally characterised by their gas tightness and extremely long service life. Less downtimes and extended maintenance cycles lead to reduced life cycle costs. These benefits especially pay off at high pressures, high temperatures or extreme high cycles.

## SOFT SEALING BALL VALVES

Every medium flow entrains debris. When closing the valve, the particles strike the seal at high velocity. With soft sealing or PMSS systems, this leads to damages on seat and ball. The ball valve starts to leak which results in expensive down times and repairs.



The uncoated ball is damaged at the inlet side.

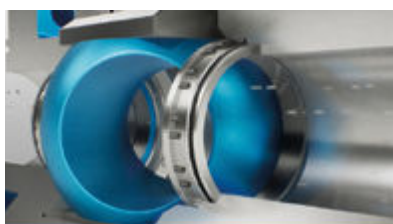


The soft seal is damaged on the downstream side.



Embedded particles lead to scratches on the ball.

## METAL-TO-METAL SEALING SYSTEM



Hartmann seals are metal-to-metal.

The metal-to-metal sealing between ball and seat ring prevents damages and leaks. The hard coating protects the ball. In addition, the seat ring is equipped with a sharp edge to whip down the dirt. Gastight – even at high cycles a leak rate of A or 0 is achieved. For lower maintenance costs and a maximum service life of your valves.



**VIDEO: WHY METALLIC SEALING SYSTEM?**

<https://youtu.be/m0QRafwLe7E>

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