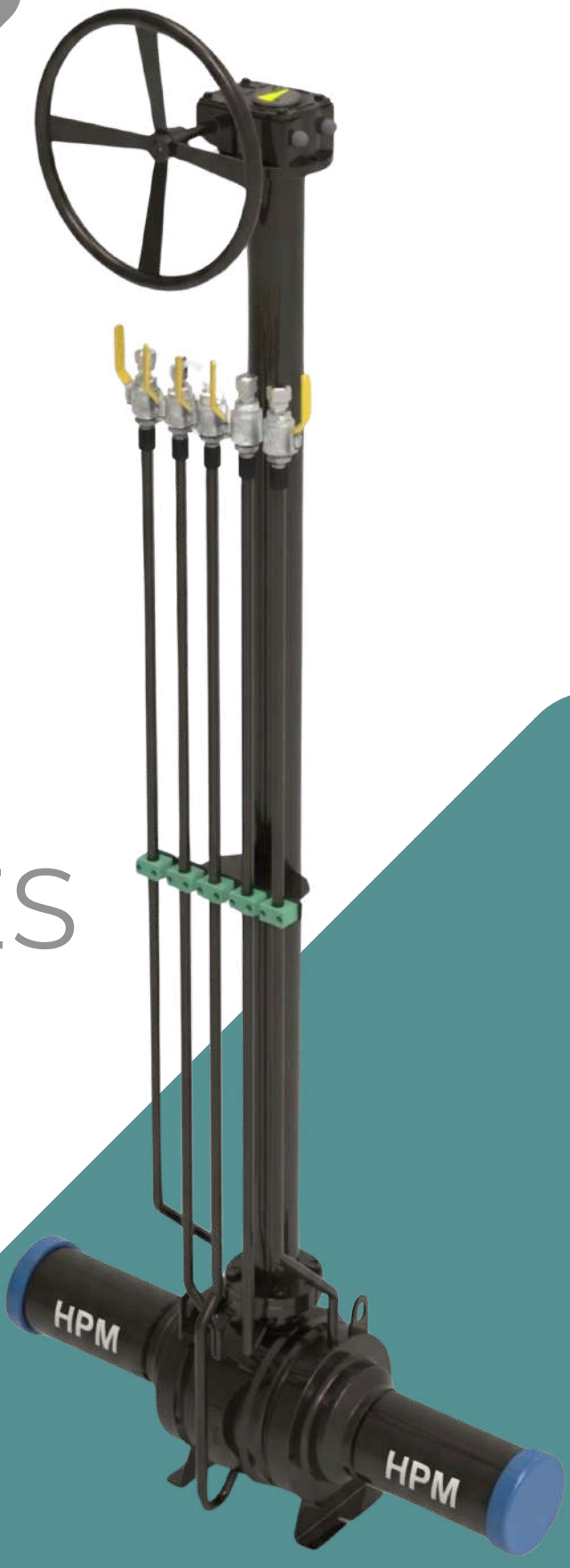
FULLY WELDED BALL VALVES

HPM

Flow Solutions



HPM

Flow Solutions

EUROPE'S INNOVATIVE
VALVE & ACTUATOR FACTORY

HPM Flow Solutions company was established in Bursa, Turkiye for the production of valves and equipment on a 750m2 closed and 250m2 open area. HPM Flow Solutions works to make a difference and offer the best quality to its customers.

About Us

The main product types are:

- Valves for natural gas and oil lines,
  Ball, Plug, Gate, Globe, Check Valves
- Oil and gas wellhead valve and equipment.

As HPM Flow Solutions;

- We constantly inspect our suppliers and contribute to improvement efforts,
- We examine customer requests and expectations in detail and prioritize their satisfaction.
- Strengthens technological and innovative studies, and
- We prioritize the R&D approach.

Best Product & Superior Quality

About

Our Fully Welded Ball Valves

Our Production Range:

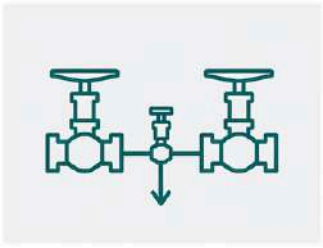
- **Valve Size Range:** 1/2” DN15 to 24” DN600
- **Pressure Range:** ASME CLASS 150 to CLASS 900
- **Temperature Range:** -46℃ to +200℃
- **Valve End Connections:** BW x BW / RF x RF / RTJ x RTJ
- **Body Design:** Side Entry / Top Entry - Trunnion
- **Bore Type:** Full Bore / Reduced Bore
- **Material:** Carbon steel (Forged), Low temperature steel etc.

Fully Welded Ball Valves - Features

- **Full Welded Body Construction:** The forged body and connection ends are fully welded to eliminate potential leak paths and provide maximum resistance to pipeline stresses and soil loads.
- **Compliance with API 6D 25ed.:** Designed, manufactured, and tested in strict accordance with API 6D 25ed. specifications, ensuring full compatibility with international pipeline projects.

FULL WELDED BODY CONSTRUCTION

Leak-tight integrity with no body joints

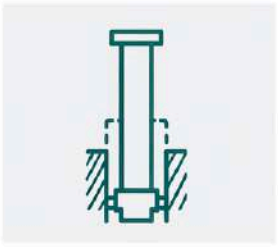


DOUBLE BLOCK AND BLEED (DBB) CAPABILITY

Positive isolation with cavity pressure relief

FIRE-SAFE CERTIFIED DESIGN

API 607 / ISO 10497 compliant

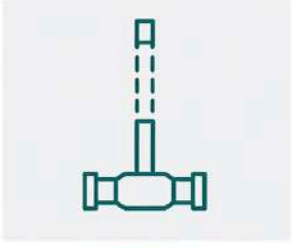


BLOW-OUT PROOF STEM

Internal stem retention for maximum safety

LOW OPERATING TORQUE

Optimized design for smooth operation



OPTIONAL EXTENDED STEM

Suitable for cryogenic and buried service

VERSATILE TEMPERATURE AND MEDIA RANGE

Suitable for a wide range of temperatures and media

CORROSION PROTECTION FOR BURIED SERVICE

Special coating and design for long-term underground reliability

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Features

- **Double Block and Bleed (DBB) Capability:** Allows for the venting and draining of the body cavity while the valve is in either the fully open or fully closed position, ensuring safety during maintenance.
- **Fire-Safe Certified Design:** Engineered and tested to meet ISO 10497 standards, featuring secondary metal-to-metal sealing to maintain integrity in the event of a fire.
- **Anti-Static Device:** Ensures electrical continuity between the ball, stem, and body to prevent static electricity build-up and eliminate the risk of ignition.
- **Blow-out Proof Stem:** The stem is designed with an integral shoulder to ensure it cannot be ejected from the body under high internal pressure.
- **Low Operating Torque:** High-precision machined balls and low-friction bearings ensure smooth operation and reduced actuator sizing requirements.
- **Emergency Sealant Injection System:** Equipped with injection fittings for the stem and seat areas, allowing for the introduction of emergency sealant to restore sealing in case of seat damage.
- **Corrosion Protection for Buried Service:** External surfaces are protected with high-performance epoxy coatings or specialized cladding (CRA) options for long-term underground durability.
- **Versatile Temperature and Media Range:** Capable of operating across a wide range of temperatures (from Cryogenic to High Temp) and suitable for natural gas, crude oil, and refined products.
- **Optional Extended Stem:** Custom-length stem extensions are available for underground installations, bringing the operator/actuator to ground level for easy access.

Design & Test

SEAT CONFIGURATIONS

PSSM – Primary Soft / Secondary Metal Seat
Soft seat provides tight shut-off as the primary sealing element, while the metal seat acts as a secondary backup. This configuration ensures reliable sealing performance under normal operating conditions and maintains integrity in case of soft seat degradation due to temperature or fire exposure.
Suitable for general service applications requiring bubble-tight shut-off.

PMSS – Primary Metal / Secondary Soft Seat
Metal seat serves as the primary sealing element, providing high resistance to temperature, pressure, and wear. The soft seat functions as a secondary seal, ensuring tight shut-off under low-pressure conditions.
Ideal for applications involving high temperature and demanding service conditions where durability is critical.

Metal-to-Metal Seat
Both primary and secondary sealing surfaces are metal, offering maximum resistance to high temperature, pressure, and abrasive media. This design prioritizes durability and reliability over soft sealing performance.
Recommended for severe service applications where erosion, corrosion, or extreme operating conditions are present.

SEAT SELECTION DEPENDS ON PRESSURE, TEMPERATURE AND MEDIA CHARACTERISTICS

QUALITY ASSURANCE & TESTING

Non-Destructive Examination (NDE) (RT, UT, MT, VT)
All critical components and welds are inspected in accordance with applicable standards to ensure material integrity and weld quality.

Pressure Testing (Hydrostatic Shell & Seat / Pneumatic Gas Seat)
Each valve is pressure tested to verify body strength and seat tightness under both liquid and gas conditions.

Functional & Torque Testing
Operational performance is verified through functional cycling and torque measurement to ensure smooth operation and compliance with design limits.

Fugitive Emission Testing
Low emission performance is validated to meet environmental and safety requirements for critical applications.

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Certifications

API 6D
CERT. NO
6D-2248

CE-PED
NOBO NO
0408

FIRE SAFE
ISO 10497
/ API 6FA

FUGITIVE
EMISSION
ISO 15848-1

ISO 17292
BALL VALVE
APPROVAL

ISO 9001

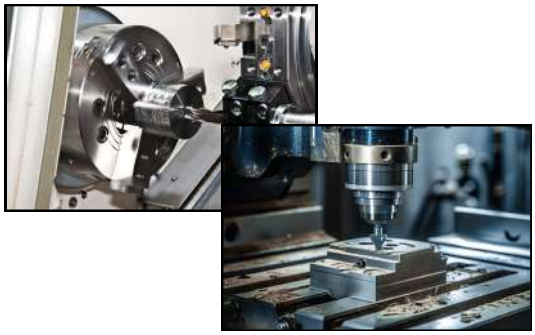
ISO 14001

ISO 45001

SIL-3
CERTIFICATE

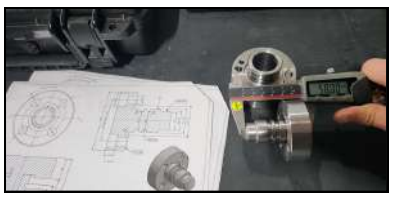
In-house Semi-Automatic GTAW (TIG), MIG and SAW
with Welding positioner facility from 1 mm wall thickness.

Pressure & Func. Test Benches
Advanced SCADA enabled Pressure test bench.



Machining - Latest Technology Machining center and Universal Turning machine.

Assembly Line



Notes

GET IN TOUCH

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Valves & Equipment

For Petroleum and Natural Gas Industry