Ball Valves

Side Entry

Trunnion Mounted

- Design: 2 or 3 pieces (Bolted Body or Fully Welded)
- Size/Class:
  - ANSI/ASME classes from 150 to 4500 - Sizes from ½" to 56"according to API 6D
  - API classes from 3000 to 15000 - Sizes up to 11" according to API 6A
  - Special bore diameters and/or design pressures available upon request
- Trim Construction: Direct Trunnion or Plate Supported Ball with Floating Seats
- Ball/Seat Sealing: Spring Energized Seats, Soft seal with Thermoplastic Seat Inserts or Metal to Metal seal with Hardfaced Ball and Seats, Single or Double Block & Bleed configuration in closed or open/closed position
- Over-Pressure Relief: Self-Relieving or Double Piston Effect Seats with Relief Valve
- End connections: RF, RTJ, BW, HUB or Norsok L-005 compact Flanges
- Seals: Elastomer O-Rings, PTFE V-Pack or PTFE/Elgiloy Spring Energized Lip Seals
- Fire Safe Gaskets: Graphite
- Operation: Lever or Gearbox, Hydraulic or Pneumatic Actuator, Electric Motor
- Application Services: Upstream/Downstream, High Pressure, High Temperature, Cryogenic, Subsea, Emergency Shutdown, HIPPS.

Floating

- Design: 2 or 3 pieces (Bolted Body or Fully Welded)
- Size/Class:
  - ANSI/ASME classes from 150 to 1500 - Sizes from ½" to 6"according to API 6D
- Application Services: Commodity Services, High Temperature, Cryogenic.

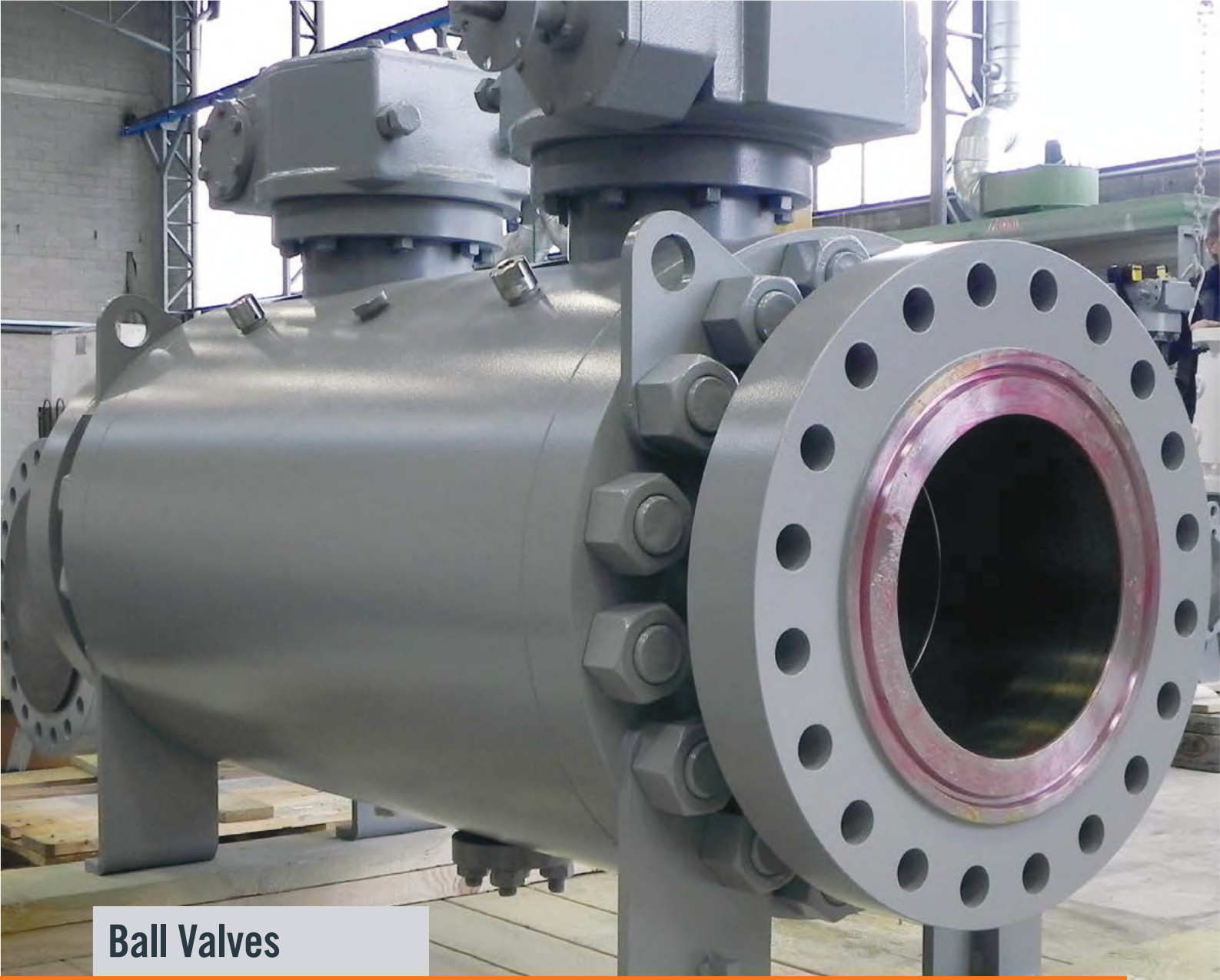
Ball Valves

Top Entry

Trunnion Mounted

- Design:1 Piece Body with Bolted Bonnet
- Size/Class:
  - ANSI/ASME classes from 150 to 4500 Sizes from ½" to 56" according to API 6D
  - API classes from 3000 to 15000 - Sizes up to 11" according to API 6A
  - Special bore diameters and/or design pressures available upon request
- Trim Construction: Direct Trunnion with Floating Seats
- Ball/Seat Sealing: Spring Energized Seats, Soft seal with Thermoplastic Seat Inserts or Metal to Metal seal with Hardfaced Ball and Seats, Single or Double Block & Bleed configuration in closed or open/closed position
- Over-Pressure Relief: Self-Relieving or Double Piston Effect Seats with Relief Valve
- End connections: RF, RTJ, BW, HUB or Norsok L-005 compact Flanges
- Body/Bonnet Gasket: Soft with O-Ring or Lip Seal Design, Metal with Ring Joint
- Seals:Elastomer O-Rings, PTFE V-Pack or PTFE/Elgiloy Spring Energized Lip Seals
- Fire Safe Gaskets: Graphite
- Operation: Lever or Gearbox, Hydraulic or Pneumatic Actuator, Electric Motor

- Application Services: Upstream/ Downstream, High Pressure, High Temperature, Cryogenic, Subsea, Emergency Shutdown, HIPPS.

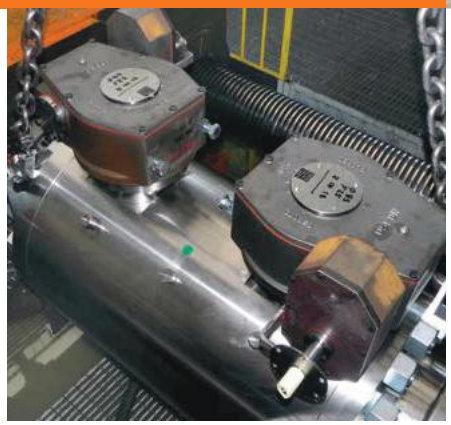


Ball Valves

Double Block & Bleed

Trunnion Mounted

- Product range:
  1. 1" ½ up to 12"
  2. 150# up to 2500#, API 6A
  3. RF, RTJ, WE,BW, HUB
- Face to face in accordance to client requirements
- Space and weight saving valve
- Price reduction in comparison of two valves installation
- Suitable for skid, tank, pipe direct installation in Oil & Gas field
- Integrally forged material
- Available as single block, double block, double block with vent
- As per standard side entry valve type, these valves may be supplied with a large number of materials
- Bolted or welded bonnet
- Suitable also for subsea service.



Ball Valves

Sub-Sea

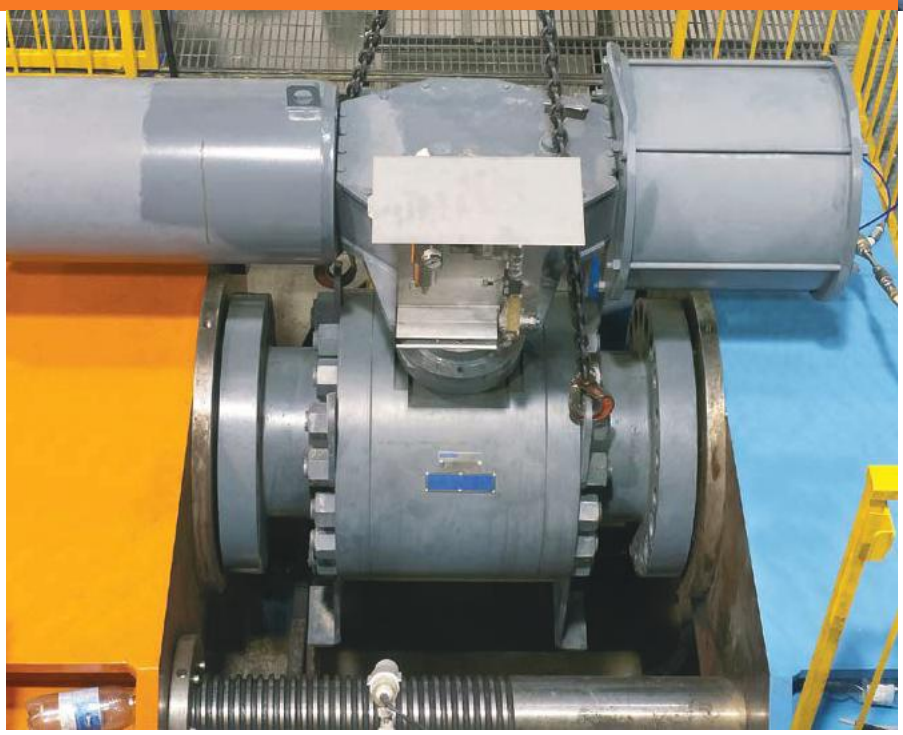
- Product range:
  1. 1" ½ up to 60"
  2. 150# up to 2500#, API 6A
  3. RF, RTJ, WE,BW, HUB
- Valves are in accordance with API 6DSS
- Generally fully welded valves, to prevent possible water passing through valve body
- Suitable for 3.000 m water depth installation (10.000 feet)
- Offered with materials suitable for subsea environment
- C/w subsea gear inclusive of ROV device
- ROV for vertical or horizontal operation
- Available also with Double block and bleed, modular type design.

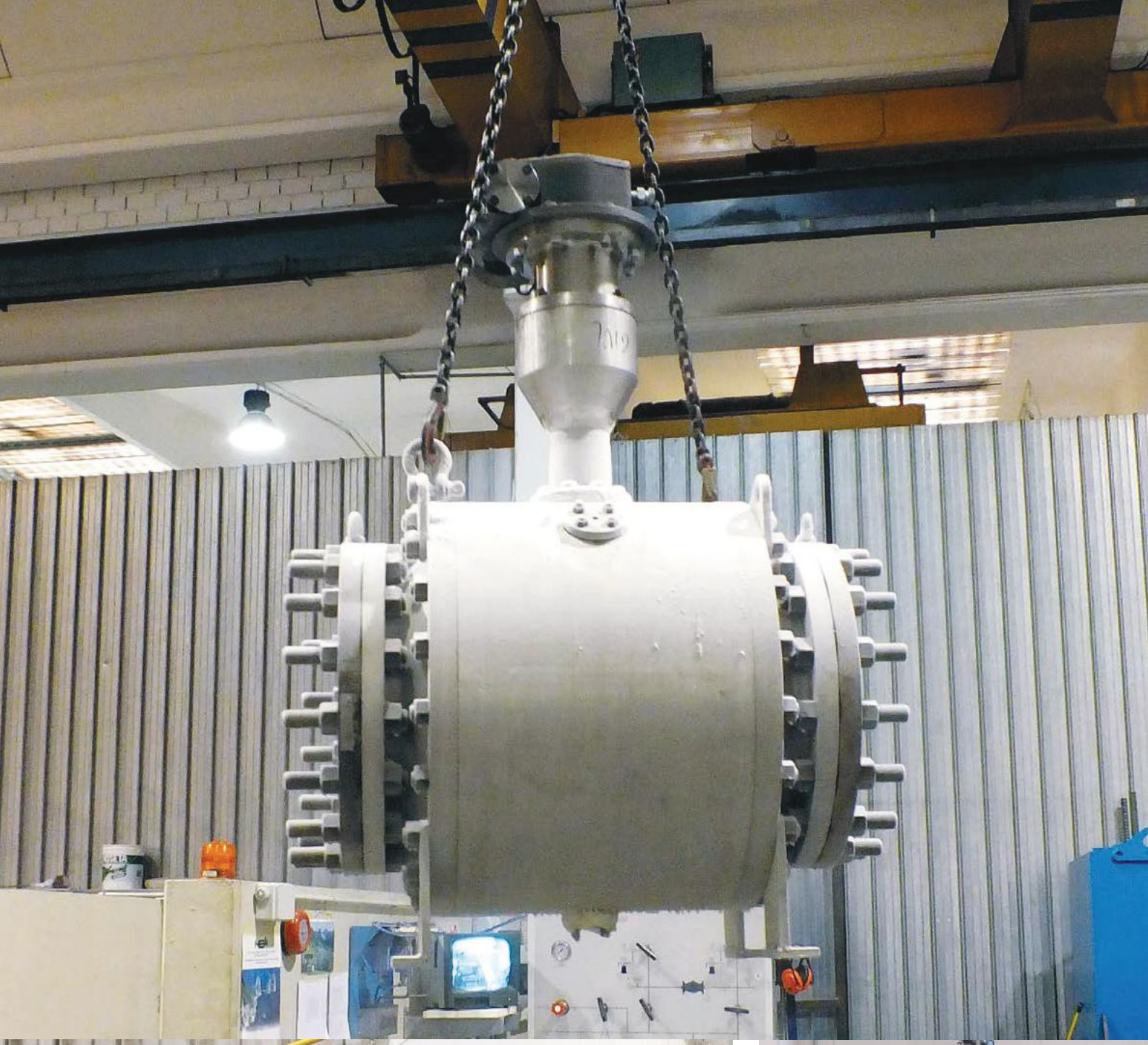
Special Test

ViarValvole, in addition to API6D standard tests, is available to perform all special testing requested by the applicable project specification.

Already in house **ViarValvole** is able to carry out the following tests:

- High Pressure gas tests (3 bunkers, up to 60")
- Cryogenic tests up to -196°C
- High temperature tests
- Hyperbaric test (to simulate installation up to 2.500 m)
- Sand slurry test (Test loop for high sand percentage)



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