

# Hydraulic Ball Valve (HBV)

Protect the formation and reduce OPEX with remote opening and closing



The Caledyne Hydraulic Ball Valve (HBV) delivers reliable isolation between the upper and lower completion and enables interventionless opening and closing via hydraulic control lines, saving rig time and reducing OPEX. When sufficient lubricator height is not available, the HBV can also isolate the well and create a lubricator section, allowing longer strings to be installed.

In addition to an unlimited number of hydraulic open/close cycles, the HBV also offers unlimited mechanical cycles using a fully independent mechanical shifting function. An interlock mechanism and auto-release shifting profiles ensure the ball valve is always in the fully open or closed position before the shifting

tool disengages. This provides positive confirmation of valve closure and eliminates the risk of the shifting tool becoming hung up inside the valve or for pressure or flow accidentally closing the valve.

The HBV features a fully spherical ball valve design to improve strength, and because the ball is always in contact with the upper and lower ball seats, the risk of debris settling inside the rotating mechanism is eliminated, helping operators to avoid costly remedial operations. A unique jam nut provides an elastomeric backup to the primary ferrule metal seal and enables external pressure testing on the rig floor to verify sealing prior to running the valve.

## Applications

- Formation isolation when installing the upper completion
- Alternate option for lubricator valve
- Packer setting
- Workover-related activities requiring a remote-actuated barrier

## Features and benefits

- Optimized design with fewer parts
  - Reduces tool complexity
- Hydraulic control lines from surface
  - Enable remote actuation
  - Eliminate the time, cost, and HSE risks associated with mechanical operation
- Fully spherical ball valve geometry
  - Delivers improved strength
  - Prevents debris from settling inside the rotating mechanism
- Internal equalizing mechanism across the ball
  - Reduces the load required to open the ball under high differential pressures
- Smooth internal bore
  - Minimizes the risk of debris accumulation

To help ensure long-term, sand-free production, the HBV can be combined with field-proven sand control systems from the Baker Hughes, a GE company (BHGE) portfolio.

Contact your local BHGE representative today to learn more about how the HBV can reduce your OPEX while delivering reliable formation isolation.



HBV Specifications	
Parameter	9 <sup>5</sup> / <sub>8</sub> in. x 5 <sup>1</sup> / <sub>2</sub> in.
Maximum OD	8.040 in. (204.2 mm)
Minimum ID	4.562 in. (115.85 mm)
Pressure rating across ball	5,000 psi (34.5 MPa)
Pressure rating across housing	10,000 psi (68.9 MPa)

[bhge.com](http://bhge.com)

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