IB-Series Mechanical Fluid Loss Isolation Barrier Valve

RELIABLE MECHANICAL SOLUTION FOR FLUID LOSS CONTROL

OVERVIEW

When the success of your completion project relies on effective flow control and wellbore barriers, the Halliburton IB isolation barrier valve provides a proven solution for initial completions, and any subsequent workovers. Initially designed for electric submersible pump applications, the IB valve isolates the formation below the uppermost gravel pack packer before the upper completion is installed and can be used in frac pack, gravel pack, and standalone screen applications.

In sand control applications, the valve is run into the well (ball open) below the uppermost gravel pack packer as an integral part of the gravel pack assembly. The washpipe, located on the bottom of the gravel pack service tool, is extended through the valve. A collet shifting tool is attached to the end of the washpipe. Upon washpipe retrieval, the collet shifting tool closes the ball and isolates the formation, which enables inflow or positive pressure testing. The lower sandface completion and reservoir is isolated by the closed ball in the IB valve, which permits safe installation of the upper production completion.

The IB valve is opened mechanically using a collet shifting tool attached to the end of the upper completion.

The closure device is a proven, high performance ball mechanism that provides a positive bi-directional seal in brine and oil-based mud environments. The debris-tolerant, non-translating ball design helps eliminate unnecessary movement within the mechanism during opening and closing operations.

The IB4 valve can be considered as the base design. The collet shifting tool opens the ball mechanism while passing through the valve. This eases space out concerns and provides maximum flexibility.

The IB5 fluid loss device provides the collet shifting profile of the IB4 valve, but also includes a secondary larger ID shifting profile. The secondary profile allows the valve to be opened and closed while maintaining the ID through the valve. The IB5 valve is ideally suited for use in stacked frac pack completions in which a reduced ID may be a concern.
FEATURES & BENEFITS
» Provides barrier for safe upper completion installation and testing
» Prevents fluid loss to the reservoir
» Reduces costs on subsea or deep wells
» Provides barrier in a well suspension system
» No well-or depth-specific setup required
» Debris-tolerant, non-translating ball system
» Design provides unlimited mechanical opening/closing of valve

QUALIFICATION TESTING
Qualified in accordance with ISO 28781/API 19V requirements. API 19V monogram available.

Options
» Available to suit 7, 7 5/8, 9 5/8, 9 7/8, and 10 3/4-in. casing
» Ball differential rating up to 10,000 psi (689.5 bar)
» Collapse rating up to 15,000 psi (1034.2 bar)
» Burst rating up to 12,000 psi (827.4 bar)
» Temperature rating to 350°F (176.7°C)