

Jettisonable Ball Seal (JABS)

A bi-directional and gas tight barrier

Applications

Downhole barrier for single-zone completions or the lower zone of a multiple-zone completion. Any other fluid loss, zonal isolation, and barrier applications.

Features and benefits

- Integrates seamlessly into sandface completions
- Eliminates the need for both a fluid loss device and a formation barrier
- 10,000 psi bi-directional barrier and tested to API 19V (ISO 28781) for Type C, Q1 qualification rating makes it suitable for ongoing development and exploration
- Ball seal may be jettisoned with pressure, mechanically, or piston force
- No finite pressure cycle count within custom jettison pressure
- Capable of being used to set packers, perform integrity tests, or acting as a barrier for subsequent operations

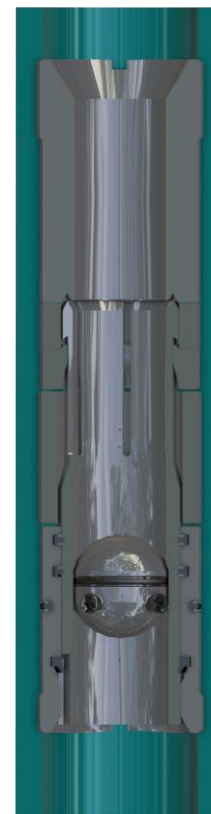
The lack of simple and adequate qualified downhole barriers has led to overcomplicated designs with expensive contingency options.

The Jettisonable Ball Seal (JABS) is a bi-directional gas tight barrier that combines fluid loss and formation isolation into a seamless integral package. It is a custom single-acting (one-time) valve for use in single-zone completions or the lower zone in a multiple-zone completion.

The ball seal is set into the grapple prior to mobilization. The grapple assembly is then installed into the mandrel via washpipe after treatment of the sandface.

The JABS is qualified to 10,000 psi differential from below and up to 10,000 psi differential from above based on shear pin selection.

The ball seal may be jettisoned via pressure, mechanical force, or piston force from above.



Typical properties

Valve size	Max OD (in.)	Pre set Min. ID (in.)	Post Jettison Min. ID (in.)	Required screen drift min. (in.)	Recommended washpipe OD (in.)
3.500 x 1.600	3.500	1.800	1.600	1.901	1.660
4.000 x 1.812	4.000	2.042	1.812	2.165	1.660
5.000 x 2.400	5.000	2.650	2.400	2.867	2.375
6.625 x 3.650	6.625	3.940	3.650	4.283	3.500
7.625 x 3.875	7.625	4.315	3.875	4.653	3.500
7.625 x 4.500	7.625	4.940	4.500	5.283	4.500

All sizes rated up to 10,000 psi differential across the ball

All sizes rated up to 15,000 psi burst/collapse. (excluding thread ratings)