

Obex EcoLock® Casing Annulus Packer

MECHANICAL BARRIER SUPPORT PLUS OPTIONAL INTEGRAL MULTIPLE-STAGE CEMENTING CAPABILITY

OVERVIEW

Reliable and effective annular barriers are critical to well management for safety and performance. When sustained casing pressure (SCP) occurs, it is an indication that well integrity has been compromised, often resulting from a failed barrier. SCP results in fugitive emissions and can lead to a loss of production and costly remediation.

In less challenging, low-pressure environments, cement designs or inflatable packers are typically utilized to mitigate SCP. Expansive and self-healing cement additives are costly and cannot always eliminate SCP due to the severity of the pressure cycles encountered during unconventional completions jobs. Inflatable packers, while cost effective, are designed to provide a short-term barrier for lifting cement and are not reliable barriers for long-term zonal isolation. Additionally, because inflatable packers are hydraulically set through valving systems, their setting process may not reliably indicate whether a proper set and seal is achieved.

The Obex EcoLock® casing annulus packer, which is part of the Halliburton Obex® family of compression-set packers, provides a cost-effective mechanical barrier to mitigate SCP and deliver life of the well integrity.

EXCEPTIONAL RELIABILITY TO PREVENT SUSTAINED CASING PRESSURE

» **Superior Sealing** – The Obex EcoLock packer is designed for casing-to-casing applications to provide V6-rated isolation assurance. Incorporating years of Halliburton cementing experience and directly repurposing the element design from our field-proven Obex GasLock® gas-tight packer allows the Obex EcoLock packer to offer exceptional reliability as a mechanical barrier. The Obex EcoLock packer operates by setting the packer elements with a seated free fall plug and applied internal casing pressure. An internal continuous ratchet mechanism keeps the packer compressed from the initiation of the setting until it is fully set. Premium backup shoes keep the packer elements energized to prevent low pressure gas or fluid from migrating against the previous casing string. This sealing capability results in zero weak points in the packoff, to thereby mitigate sustained casing pressure and deliver an effective seal for the life of the well.

Isolation Assurance >

The Obex EcoLock® casing annulus packer provides V6-rated mechanical barrier support to prevent low pressure gas or fluid migration.



FEATURES

- » Mechanically set
- » Field-proven packer element and internal ratchet mechanism
- » Bidirectional packer element ratings up to 4,000 psi at 200°F

BENEFITS

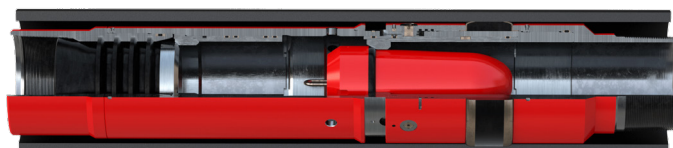
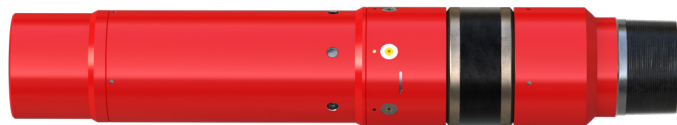
- » Promotes well integrity in a compact robust design
- » Packer setting seats are easy to drill using PDC or rock bits
- » Supports multiple-stage cementing with optional integral cementing ports and closing sleeve
- » Easy, fullbore drillout of setting plug and seat

» **Engineered for Performance** – The Obex EcoLock packer design utilizes a drive-pin setting system that eliminates potential leak paths from the setting operation. Furthermore, the assembly process does not rely on welding. These features remove the risks associated with fluid losses in the well, which could compromise holding pressure and prevent the packer from fully setting. When the drive-pins shear at the end of the packer stroke it is an indication that the setting system has delivered the required setting force to the elements and the packer is set.

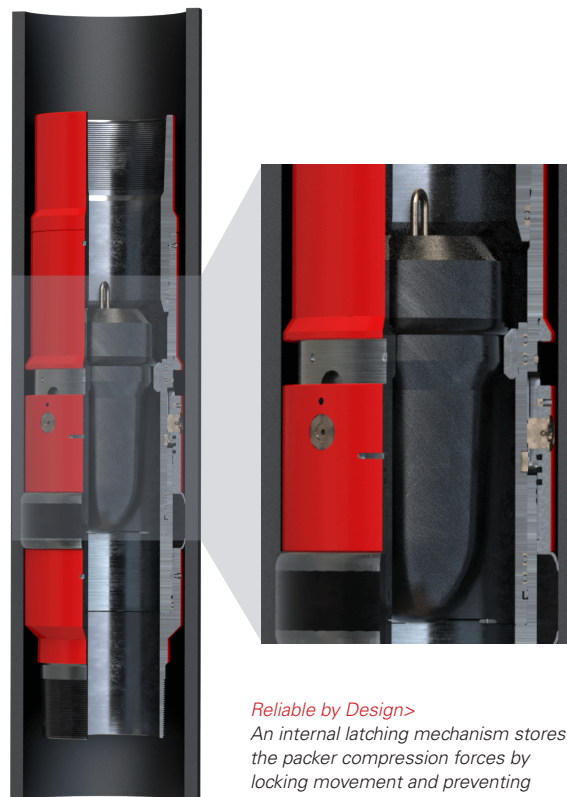
» **Hydromechanical Setting Method** – Like all the packers in the Obex family, the Obex EcoLock packer is mechanically set and not inflated. The setting process does not rely on narrow hydraulic channels, which thereby eliminates the packoff risk found in expandable and inflatable packer options. Because there are no exposed setting chambers or yielded materials in the mechanical setting process, the Obex EcoLock packer can meet or exceed casing ratings to offer further increased dependability.

OPTIONAL MULTIPLE-STAGE CEMENTING CAPABILITY

The Obex EcoLock packer can also support multiple-stage cementing when cementing ports and an internal closing sleeve are integrated into the packer above the sealing element.



Multiple-Stage Cementing Support > The Obex EcoLock® casing annulus packer provides V6-rated mechanical barrier support to prevent low pressure gas or fluid migration and can support multiple-stage cementing when run as a packer collar with optional integral cementing ports and closing sleeve.



Reliable by Design>

An internal latching mechanism stores the packer compression forces by locking movement and preventing the seals from relaxing. This feature maintains the energized seal for the life of the well.

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

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