

Evo-RED[®] Bridge Plug

ELIMINATES INTERVENTIONS DURING WELL OPERATIONS



HCT1779-060b

OVERVIEW

The Evo-RED[®] bridge plug provides a highly efficient method of deploying and retrieving a downhole barrier. What makes it unique is that it incorporates a computer-controlled ball valve that can be remotely opened and closed multiple times without the need for any control lines or interventions.

Each time the ball valve is activated, an intervention is eliminated from the operation, saving significant rig time while helping reduce operation and personnel risks.

The Evo-RED bridge plug can be used in a wide range of well operations and is particularly effective as a downhole barrier during workovers or completion operations, minimizing interventions and personnel on site.

HOW IT WORKS: A TYPICAL OPERATION

The Evo-RED bridge plug is run in hole with the ball valve normally in the open position and the slips and element relaxed. Typically, the assembly is deployed on the Halliburton electronically controlled DPU[®] downhole power unit, which mechanically sets the bridge plug when the target depth has been reached.

At this stage, the ball valve remains open and the flow of the well is unrestricted. The valve can be commanded to close at any time using one of the preprogrammed triggers, such as applying between 1,000 and 1,500 psi for 10 minutes. With the ball valve closed, the device provides a testable downhole barrier (rated up to ISO 14310 V0) capable of holding up to 7,500 psi from above and below.

FEATURES

- » Remotely operated (opened and closed) multiple times without intervention
- » Long battery life up to 41 months
- » Logging capability
- » Large flow area when open
- » Reliable deployment
- » Debris tolerant
- » Built-in backup mechanical equalization aids retrieval

BENEFITS

- » Remote activation minimizes the number of interventions
- » Large flow area allows well fluids to wash through the assembly, aiding deployment and retrieval
- » Minimized outside diameter (OD), retained packing element, anti-preset and anti-reset features aid deployment and retrieval
- » Large internal diameter and an element positioned above the slips help reduce debris
- » Can be pre-installed onshore for completion operations and retrieved with the tubing during workover operations, reducing the number of interventions for each operation to just one
- » When pre-installed onshore, no dedicated offshore personnel are required during the operation.

The well can be equalized at any time by commanding the Evo-RED® bridge plug to open using another preprogrammed trigger. This process can be repeated up to 30 times during a single job, providing significant operational flexibility and eliminating an intervention each time.

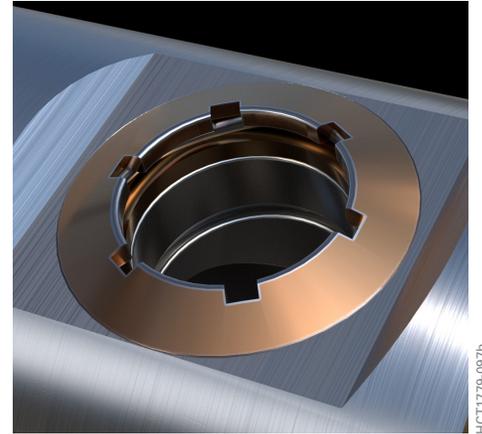
The assembly is retrieved in a single run using a standard GS pulling tool with a PX0 anti-pre-shear adapter. This latches into the top of the Evo-RED bridge plug and activates the internal equalizing mechanism, which aids recovery and doubles as a backup should the electronics fail. The slips and element retract and are secured in place by the anti-reset mechanism.

The large flow ports on the ball valve and extensive bypass features aid recovery by allowing significant fluid to flow through the assembly, while the minimized OD helps prevent them from fouling on other equipment during retrieval.

eRED® Electronic Remote Equalizing Device Specifications

Available Sizes (To Suit Tubing/Casing Size)	3 1/2 in. (9.2 lb/ft) 4 1/2 in. (11.6, 12.6, 13.5 lb/ft) 5 1/2 in. (17, 20, 23 lb/ft) 7 in. (23, 26, 29, 32 lb/ft)
Maximum Differential Across Closed Assembly	Up to 7,500 psi (517 bar)
Temperature Range	39 to 284°F (4 to 140°C)
Maximum Differential Pressure While Opening	Up to 5,000 psi (345 bar)
Flow Area	Up to 10 bbl/min
Battery Life	Up to 41 months
ISO Qualification	ISO 14310 up to V0

Due to the significant number of design variables, the information provided is for guidance only. Always refer to the product data sheet for the latest specifications



Close-up of the eRED® Valve flow port

APPLICATIONS

The Evo-RED bridge plug replaces applications in which an intervention plug is used, eliminating repeated interventions and reducing personnel onboard while saving rig time and the associated costs and risks. Multiple assemblies can be used during a single operation, multiplying all the benefits.

- » Packer setting device
- » Deep-set barrier
- » Shallow-set barrier for blowout preventer (BOP) / Christmas tree change out
- » Liner deployment and setting device
- » Barrier in temporary abandonments or light well intervention operations
- » Barrier in tubing-conveyed perforating gun firing and stimulation operations
- » Self-actuating flow control device
- » Shut-in tool for pressure buildup tests during well testing, allows data logging through the valve or via anchored gauges

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

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