

Liquid Seal Head

Pressure Control Equipment | Stuffing Boxes

Features

- Provides primary seal and maintains pressure integrity when running into/out of well
- Effective on high-pressure or hostile wells, offering a seal with less friction
- Manufactured from materials with low-friction characteristics
- Requirement of a grease supply system capable of surpassing the expected well pressure

Benefits

- Minimal grease requirement
- Less friction than a conventional stuffing box
- Reduces drag on the wire



The Hunting Liquid Seal Head is used in conjunction with a conventional Hydraulic Slickline Stuffing Box to create the primary seal on a slickline, while maintaining pressure integrity when running in and out of the well.

These devices are particularly effective on high-pressure or hostile wells as they offer a seal with much less friction than a conventional stuffing box would on its own.

Pressure control is achieved by passing the wire through several closely-fitting flow tubes and pumping grease into the annulus between the wire and the flow tube, at a pressure slightly above well pressure. The close tolerance between the wire and the flow tubes, combined with the design of the interface between each flow tube, creates a sequential pressure drop such that there is no residual well pressure while the wireline exits the top of the flow tubes. This is exactly the same principle used for a braided line grease injection control head.

The hydraulic slickline stuffing box, which is mounted on top of the liquid seal head, serves mainly an emergency pack off should the grease injection system fail, but also services the duties of wiping the wire and to guiding the slickline from the bottom hay pulley into the top of the Liquid Seal Head.

A grease supply system capable of surpassing the expected well pressure is required. However, due to the design of the Hunting Liquid Seal Head, the volume of grease required is minimal if flow tubes are sized correctly.

In order to avoid damaging expensive slicklines and to ensure the minimum possible drag on the wire, the flow tubes are manufactured from materials with very low-friction characteristics.

Hunting Liquid Seal Heads are available to suit any pressure and service, with any quick union, and can be set up to suit any size of wire from 0.092-inches to 0.160-inches. Changing the wire size simply requires the installation of a new set of flow tubes, which can be achieved very quickly.