

How to change the sprue sleeve for drilling operations

Article Overview

Changing a sprue sleeve involves using a shifting tool to disengage the old sleeve, installing the new sleeve, and verifying proper alignment and sealing before resuming operations.

Preparation

- o Equalize Pressure: Before attempting to move or remove the sleeve, equalize the tubing and annulus pressures to prevent damage to the shifting tool or sleeve due to differential pressure .
- o Select the Correct Tools: Use a standard sleeve shifting tool compatible with the sleeve type. Tools can be run on slickline, wireline, coiled tubing, or jointed tubing .
- o Inspect the Sleeve and Tool: Check for debris, scale, or erosion that may prevent smooth operation. Grease O-rings and ensure the shifting tool is in good condition .

Removing the Old Sleeve

- o Engage the Sleeve: Lower the shifting tool to the sleeve depth and engage the inner sleeve using the tool's collet or latch mechanism .
- o Shift the Sleeve: Apply downward or upward jarring as required to move the sleeve to the open or closed position. Confirm movement by checking shear pins or flow indicators .
- o Extract the Sleeve: Once disengaged, carefully pull the sleeve out of the tubing string. If the sleeve is stuck, apply vibration, pressure, or chemical treatments to free it, or mill it out if necessary .

Installing the New Sleeve

- o Position the Sleeve: Run the new sleeve into the tubing string to the correct depth, using centralizers, stop collars, or packers to maintain alignment .
- o Engage and Lock: Use the shifting tool to move the sleeve into the desired position (open, closed, or equalizing). Ensure the collet or latch engages properly and that the sleeve is fully seated .
- o Verify Sealing: Check that the packoff assembly or O-rings are properly seated to prevent fluid migration between the tubing and annulus .

Testing and Operation

- o Flow Test: Circulate fluid through the sleeve to confirm proper operation and flow path. Adjust flow rate using chokes if installed .
- o Monitor for Leaks: Ensure no leakage occurs around the sleeve ports. If leaks are detected, recheck the packoff or consider isolation measures .
- o Document Position: Record the sleeve's final position and operational status for future reference and maintenance planning .

Troubleshooting Common Issues

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- o Stuck Sleeve: Apply pressure, vibration, or chemical treatments; if unsuccessful, mill out the sleeve .
- o Debris or Scale: Clean the sleeve and surrounding tubing before installation .
- o High Differential Pressure: Equalize pressures before shifting to prevent tool damage . By following these steps, you can safely and effectively change a sprue sleeve, ensuring proper flow control and minimizing downtime in drilling operations.

After a SXO sleeve has been pulled from the hole, it is recommended you change the Vee Packing and O-rings and also check

Sprue Gating Recommendations for Sulfone Polymers Udel®; polysulfone (PSU), Veradel®; polyethersulfone (PESU), Radel®;

Discover the full aspects of sprue bushings in plastic injection molds. Learn what a sprue bushing is, how it

A nipple profile in the top sub and a polished bore in the bottom sub are standard features, which allow accessory tools such as a

When desired, the sliding sleeve can be shifted open or closed using standard wireline methods and a B-type shifting tool. The tool is

Our portfolio of sliding sleeves enables you to adjust flow and manage pressure along the wellbore by choosing which zones remain

Tubing-mounted sliding sleeves can be opened and closed to selectively control fluid flow from different zones in a well. They are

Sliding sleeves are run in line with the tubing string, either alone or with multiple sleeves in a single string

Frac sleeves for multistage hydraulic fracturing and stimulation that reduce opex, risks, and environmental

Our elastomeric and non-Elastomeric sliding sleeves are both offered in "Up to Open" and "Down to Open" configurations, giving

We can install several SSDs in the completion string and selectively open or close them using the appropriate

A shifting tool and wireline or CT are used to shift the sleeve open or closed. Alternatively, an external shroud can be run in the

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Traditionally, a wellhead system requires a drilling lockdown sleeve (LDS) during drilling operations to ensure that the

The document discusses injection molding and sprue bush design. It provides an overview of injection molding, describing the

In the injection molding process, the importance of the sprue cannot be overlooked, as it serves as a bridge connecting

The equalizing holes in the inner sleeve provide pressure equalization between the tubing and casing annulus as the sleeve is

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