LIBERTY LIFT

TOOLWORX SUITE

THE HALO™

An All-In-One Gas & Solids Separator

DESIGNED BY THE LEADERS IN SEPARATION TECHNOLOGY

From the creators of The Super Max Production System comes The HALO, a production separator designed for low-to-mid-range production levels (0-269 Bbls./Day). With 13 patents in the realm of artificial lift downhole tools and hundreds of years of combined artificial lift analysis and problem well troubleshooting, this team has been at the forefront of artificial lift technology that is utilized worldwide.

A THREE STEP SOLUTION

In the first step, The HALO's separation area is used to decrease downward fluid velocity, allowing gas to exit naturally from the intake slots. In the second step, The HALO utilizes a precision-cut, dual-channel vortex to maximize fluid velocity and trap solids in the solids channel. The solids then drop through the dedicated sand drain, which ends directly above the entrance to the mud anchor. This patented technology makes The HALO the only gas and solids separator on the market that moves sand discharge away from the pump suction.

NO PACKER REQUIRED AND FULLY VERSATILE

Designed to be fully functional without the need of a packer, The HALO is the most versatile separator on the market and boasts a 40 percent increase in gas separation efficiency. The tubing anchor can be set either above or below the 20-foot tool and is designed to run in, above or below the perforations, depending on what the well requires. It also provides a larger separation area than the any other tool in the industry.

BUILT TO LAST

The Liberty Lift ToolWorx products are designed and manufactured to withstand even the harshest well conditions. With greater wall thicknesses and several coating options, The HALO is designed to fit any corrosive condition. The ToolWorx products outperform AND outlast any other separators on the market today.

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US Patent No. 10605064B1

THE HALO

HOW IT WORX

1. **Fluid enters the intake slots located at the top of the tool. Once inside, fluid velocity is reduced to minimize turbulence and emulsion. As fluid and solids are forced downward, gas naturally rises and exits the intake slots.**

2. **Gas-free fluid then reaches the dual-channel spiral, which forces fluid and solids into a centrifugal motion, moving solids towards the ID of the tool barrel and into the lower solids channel while most of the lighter fluid is retained in the higher channel.**

3. **All solids in the solids channel are drained into the mud joints via the solids drain.**

4. **Solids then settle in the mud joint and clean, gas and solid-free fluid rises up the dip tube and straight to the pump.**

LIBERTY LIFT SOLUTIONS

DOWNHOLE TOOLS

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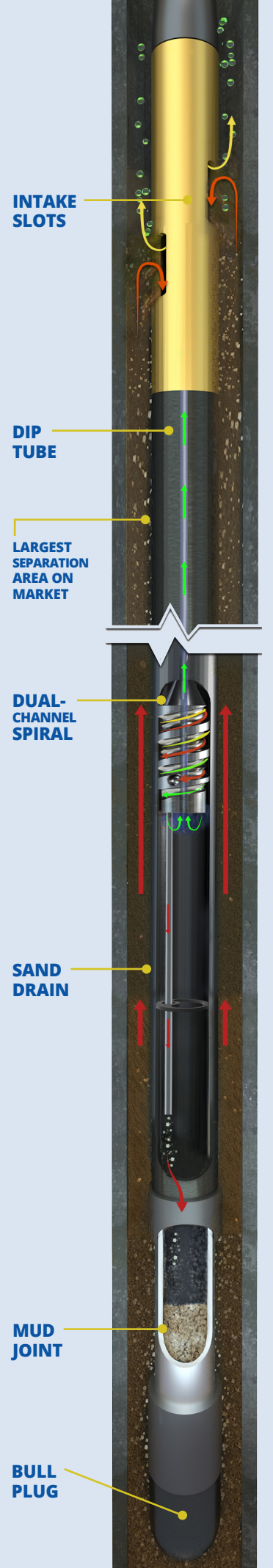

COMPETITIVE ADVANTAGES

IMPROVED PERFORMANCE

- Tool with largest annulus for gas separation on the market
- Decreased fluid velocity before entering the dual-channel spiral
- Reduced turbulence created within tool

GREATER SUCTION/ DISCHARGE VELOCITY RATIO

- Precision manufacturing allows for consistent cyclonic action
- Dual-channel spiral increases capture of fine sand particles
- Patented drain allows for discharge directly into mud anchor and away from pump suction
- Precision Machine-Cut Spiral
- Effective on mesh sizes 20-100

PATENTED SAND DRAIN

Using state-of-the-art, patented drain technology, ours is the only tool on the market that moves sand discharge away from the pump suction.

HALO SPECS

- 5.5" Application (20' total)

Gas Separator Portion
- OD: 3.75"
- Length: 15'

Sand Separator Portion
- OD: 3.75"
- Length: 5'
- Production: 263 bbls

RUNNING ORDER

- Pump Assembly
- 4' Lift Sub
- The Halo Gas & Solids Separator
- Mud Joints
- Bull Plug