

SOLIDrill

Modular compact wellhead system

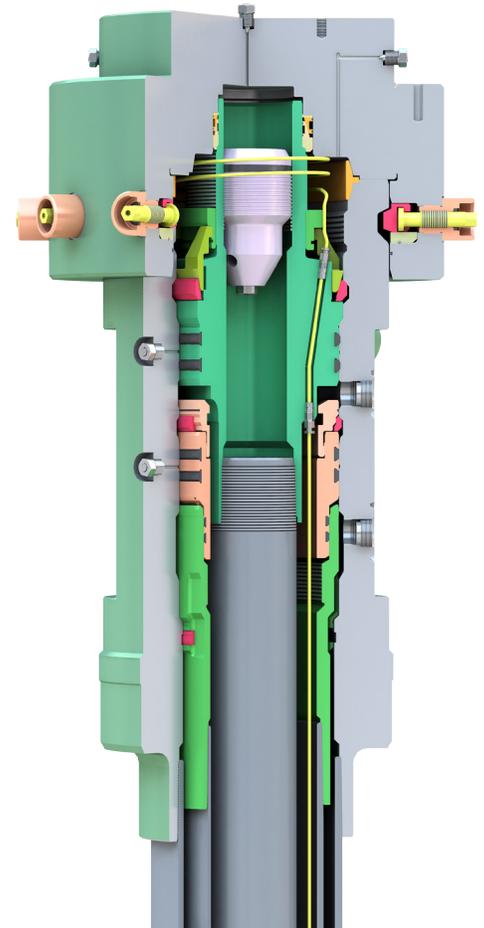
FEATURES

- Debris tolerance design through proprietary profiles and features.
- Alignment: utilizes a self-aligning hanger and centralizing features to provide the most reliable installation experience.
- Versatility: has the ability to accommodate different casing programs from a single system as well as minimal tooling, and a wide range of tubing programs including single, dual and completions with ESP cable penetrator.
- Hanger retention: optional temporary lockdown when landing casing hangers to facilitate the cementing process.
- Position indication to ensure correct land off for worry-free installations.
- Time savings: incorporates our quick connectors and diverter connections and reduced BOP connections resulting in typical rig time savings as much as 50%.
- Safety: reduces exposure to potential open hole and lost time accidents by reducing the number of BOP connections, wellhead penetrations (no lockscrews) and through-BOP/diverter operations.
- Sealing capabilities: utilizes Cameron state of the art sealing technology including Dovetail and metal-to-metal seals, with optional Metal End Cap (MEC) seals for the packoff for critical services.
- Feedback capability (optional) on housing misalignment.
- Low maintenance: the reliability, standardization, lack of plastic packing or lockscrews and the availability of continuous control lines reduce maintenance costs.

Correctly installing the wellhead is crucial to drilling- and workover-operation success. But most conventional installations involve landing tubing hangers on top of the casing hanger packoff's flat area where debris can accumulate. This condition causes the wellhead to be misaligned, preventing its proper installation and resulting in nonproductive time. For operators conducting drilling and workovers involving complex land or deepwater wells, these challenges are accentuated.

Now such conditions can be mitigated with the SOLIDrill* modular compact wellhead system. The wellhead is designed to endure extreme operating conditions, pressures up to 10,000 psi and severe kickoff well angles up to 60° kickoff at 80 m, while increasing safety and efficiency. Its proprietary design reduces the possibility of hanger tilt and secures reliable hanger alignment, while reducing wellhead debris. The SOLIDrill wellhead system has a compact, unitized housing and provides operational flexibility in a single system. The system is available in either two- or three-stage arrangements with 11-in and 13 $\frac{5}{8}$ -in nominal sizes.

Each of these unique attributes helps reduce wellhead installation time, so operators can maximize drilling uptime to get to first oil quicker.



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