

Multistage fracturing (MSF) completions – No matter the challenge or preferred technique, our comprehensive portfolio has the multistage fracturing technologies that you need. Whether you want to perform ball-activated completions in open or cemented installations or prefer to function sliding sleeves with coiled tubing, we have unique and proprietary technologies that will save you time and money, maximizing your efficiency. We offer state-of-the-art solutions for plug-and-perf and toe prep operations, eliminating the risk associated with intervention using tubing-conveyed perforating, while ensuring well control and reliability. In tight reservoirs where stimulation requires sand and proppant control, our Bullmastiff™ technology significantly reduces the number of well interventions.

Frac sleeves: i-Frac™, i-Valve™, Voyager™, Bulldog™ | **Frac plugs:** Setter™ composite frac plug, VapR™ dissolvable frac plug | **Toe prep solutions:** BPS™ (Burst Port System), i-Opener™, Defender™ multi-open-close (MOC), wet shoe | **MSF w/sand control:** Bullmastiff | **Open-hole packers:** i-Solate™, Voyager 15XT | **Accessories:** Ultra-reach flotation collar (URFC), flow lock subs, Cup-Cup/packer straddle system, GripR™ open-hole anchor

Well construction completions – Improve well integrity and reduce downtime with our comprehensive portfolio of field-proven well construction technologies covering every application and well environment including high-pressure gas wells, conventional oil, offshore, long laterals and ERD, geothermal, and SAGD applications. Maintain well integrity with our reliable liner top packers—rigorously tested to the latest API 11D1/ISO 14310 and API 19LH standards with options tested up to 15,000 psi (103 MPa) or 600°F (315°C). Our cementing systems which include stage cement tools designed to minimize intervention help you achieve a better cement bond. Optimize decision-making during downhole operations with our game-changing i-Con™ Real Time monitoring system, reducing NPT and overall well construction costs.

Liner top packers: TXP, VXP | **Liner hangers:** GS, GSL, GSP, GSP II | **Liner hanger packers:** SURESET™, MSF | **Cementing systems:** Cement heads, liner wiper plugs and cementing systems, PureFlow™ stage cementing tool | **Downhole monitoring tools:** i-Con Real Time, i-Con memory sub | **Accessories:** Tieback seal assemblies, tieback packers, setting sleeves, hold down subs, landing collars

Conventional completions – We offer a full suite of upper completion solutions including sub-surface safety valves, production packers, and flow control products to fulfill your conventional completion needs. Our Sentinel™ sub-surface safety valve is API 14A V1 rated and tested to exceed the requirements set forth the latest API 14A 12th edition standard. The Sentinel is rated for working pressures up to 10,000 psi (69 MPa) and temperatures up to 300°F (150°C). We provide a full range of packers and completion accessories including mechanical, hydraulic, permanent, and retrievable seal bore versions. Our packers are manufactured under API 11D1 standards to ensure a high level of quality and product assurance. Elmar™ flow control products include a full suite of premium and standard flow control products and accessories. Our premium flow control products manufactured under API 14L guidelines.

Sub-surface safety valves: Sentinel tubing retrievable and wireline sub-surface safety valves | **Packers:** Mechanical, hydraulic, seal bore | **Flow control:** Elmar premium flow control, nipples, sliding sleeves | **Accessories:** Expansion joints, on-off connectors, entry guides, seal bore accessories

Advanced completions – Offshore and complex, long horizontal wells require downhole tools that can be activated without the need for expensive control lines, wireline, or coiled tubing intervention. Our ReAct™ (remote-activation) technologies allow pre-programmed and teachable downhole valves to be activated remotely by manipulation of pressure, or by adjusting the flow rate, without the need for costly wellbore intervention. The ReAct portfolio provides solutions for challenges related to inflow control (for water shutoff or zonal isolation), complex lower completion deployment, interventionless production packer setting, sequential wellbore cleanup in preparation for flow-through sand screen completions, and maintaining barrier qualified circulation above the production packer. These technologies lead the market in providing the cost-effective intervention-free solutions to meet the challenges of offshore and complex wells.

ReAct: Circulation valve | Inflow valve | Clean out valve | Tracer valve | Electronic liner shoe | Tubing filler sub

Intervention tools – We offer various intervention completion tools that can be customized to your well. Our coiled tubing completions portfolio includes flow-activated diversion tools, high-impact percussion hammers for fishing and shifting, and hydraulic shifting tools to operate our sliding sleeves. Our wireline completions portfolio includes scale removal tools, wireline drift tools, and slickline jars. Our tools can be used in workover applications.

Coiled tubing tools: i-Flow™, i-Shift™, i-Stroke™ | **Wireline tools:** i-Broach™, i-Drift™, i-Jar™, i-Shift™, i-Tip™

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NOV Completion Tools



Your one source for completion tools from well construction to completions, including multistage fracturing.

As a strategic partner, we work with you to provide optimal completion solutions for your reservoir that will save you time and money. Our comprehensive solutions include products, field service, and technical support throughout the project. We are a global company that can support your needs wherever you are.

With a focus on technology, we offer an expansive variety of completion products that will enhance the well interface to enable optimal performance from your reservoir. Our innovative products enable customers to improve the performance of the reservoir, reducing capital expenditure, saving time, and increasing production.

You can count on us to install and provide top-quality completion products and services for your well requirements.

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Intervention Tools

