

XHP-BB

Hydrostatically set big-bore premium production packer

APPLICATIONS

- High-rate production and injection wells with high or low temperatures
- Interventionless single-trip completions, desirable in environments such as deepwater and subsea wells
- Vertical, deviated, and horizontal wellbores
- Through-tubing recompletions

BENEFITS

- Minimized rig time associated with standard setting methods
- Elimination of tubing movement
- Fewer interventions necessary while setting
- Ease of retrievability

FEATURES

- Large-bore ID
- Barrel-type slip design that minimizes casing damage
- Slip location below sealing element
- Hydrostatic setting mechanism with built-in hydraulic contingency
- Robust seal that acts as debris barrier to prevent slip fouling
- Low activation pressures at surface
- Leak-free hydrostatic chamber to ensure packer activation at proper depth
- Cut-to-release retrieval
- Direct connection to well tubing
- Field-proven design based on XHP, XMP, and QUANTUM MAX* HPHT gravel- and frac-pack packers

The XHP-BB* hydrostatically set big-bore premium production packer is designed for high-rate production and injection wells. These wells demand exceptional ruggedness and reliability, and, for harsh environments, require premium metallurgy and elastomers. The packer is qualified for low-temperature use in subsea injection wells, as well as for high-pressure, high-temperature environments. It withstands pressures up to 10,000 psi [68,948 kPa] and temperatures up to 400 degF [204 degC]. The XHP-BB packer is designed for closed systems, such as cased hole wells before perforating and openhole completions isolated by a formation isolation valve.

Main features

- Hydrostatic-set
- Retrievable
- For use in high-pressure and high-rate gas environments

Hydrostatic setting

The XHP-BB packer is installed with the completion tubing and set by pressuring the well at the surface. Rupture discs isolate the setting chamber and ensure accurate activation pressure. Because the packer is hydrostatically set, it is ideal for interventionless single-trip completions. Optionally, it can also be fully set by placing a tubing plug below it and applying pressure.

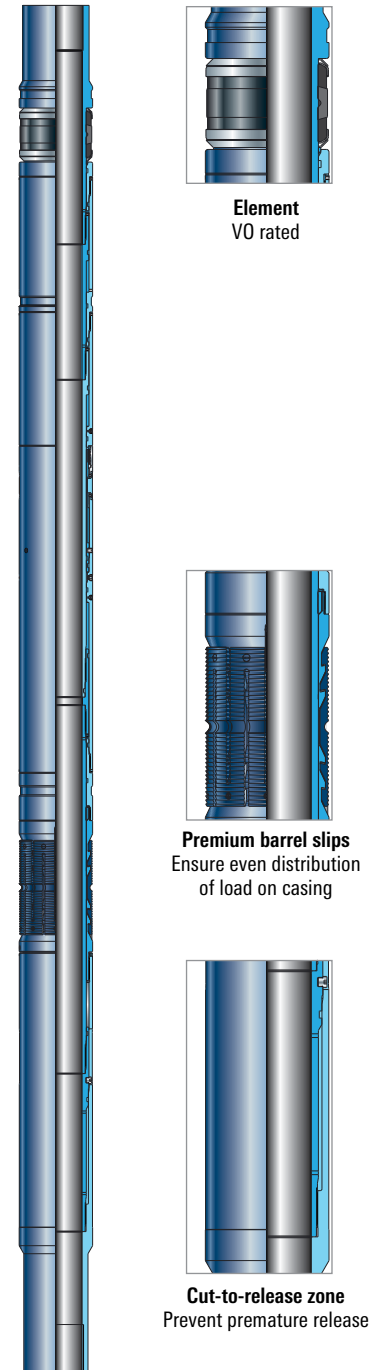
The XHP-BB packer's setting chambers are located between the slips and the element. This architecture eliminates any tubing movement relative to the casing, and as a result, the slips and element are both set consistently and predictably. The slips' barrel-type design minimizes casing damage, and their location below the sealing element prevents buildup of debris above them.

Cut-to-release retrieval

The packer's cut-to-release feature allows multiple through-tubing interventions without the risk of unsetting the packer. The XHP-BB packer is retrieved with a through-tubing intervention tool to shear the setting mechanism and then a subsequent upward pull on the tubing.

Testing beyond ISO standards

Each XHP-BB packer is internally tested with nitrogen to ensure that the hydrostatic chamber is leak-free and will activate the packer at the proper depth. The packer is tested beyond ISO 14310/API 11D1 standards for the flow-by qualification, which ensures that element swab-off rates are quantified, and it meets the ISO 14310/API 11D1 grade V0 standard for the "as-rolled" customer-specific casing.



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XHP-BB Hydrostatically Set Big-Bore Premium Production Packer Specifications

Casing Size, [†] in [mm]	Casing Weight Range, lbm/ft [kg/m]	Max. OD, in [mm]	Nominal ID, [‡] in [mm]	Max. Working Temperature, degF [degC]	Differential Pressure Rating, psi [kPa]
7.000 [177.8]	26–29 [38.69–43.16]	5.810 [147.6]	3.880 [98.6]	400 [204]	10,000 [68,948]
	29–32 [43.16–47.62]	5.910 [150.1]	3.880 [98.6]	400 [204]	
	32–35 [47.62–52.09]	6.000 [152.4]	3.880 [98.6]	400 [204]	
9.625 [244.5]	47–53.5 [69.94–79.62]	8.300 [210.8]	5.920 [150.4]	350 [177]	10,000 [68,948]

[†] Other sizes are available on request.

[‡] ID may vary depending on connection configuration selected.

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