

QUANTUM MAX

HPHT gravel- and frac-pack packer



Rated up to 15,000 psi
[103.4 MPa]



Rated up to 177 degC
[350 degF]

APPLICATIONS

- Cased hole gravel packs and frac packs
- Openhole gravel packs
- Stand-alone screen applications
- Production or drillstem testing packer
- Single and multizone completions
- Vertical, highly deviated, and horizontal wellbores

BENEFITS

- Large-bore design maximizes production
- Improved performance parameters increase reliability and reduce risk

FEATURES

- Sealbore retrievable packer
- Hydraulic setting with various QUANTUM MAX* HPHT gravel- and frac-pack packer service tools
- Barrel-slip design that distributes tensile and compressive loading on casing
- X-series hydrogenated nitrile butadiene rubber (HNBR) or Aflas® element, with high flow-by capability
- Torque-through feature that allows rotation

The QUANTUM MAX HPHT gravel- and frac-pack packer is part of the premium sealbore retrievable packers family. The QUANTUM MAX packer is the core component of the high-pressure, high-temperature (HPHT) gravel-pack system and is suitable for STIMPAC* fracturing and gravel-packing service treatments. It can also be used as a stand-alone production or drillstem test (DST) packer.

Main features

- Hydraulic-set
- Retrievable
- For use in HPHT gravel- and frac-pack application
- ISO 14310 and API 11D1 V0 qualified

Qualifications and certifications

All QUANTUM MAX packers are either V3 or V0 qualified. Various sizes and configurations have been further qualified in excess of ISO 14310 V0 standards. The QUANTUM MAX packer's flow-wetted components are manufactured from materials that comply with NACE standard MR0175 for sulfide stress cracking-resistant metallic materials.

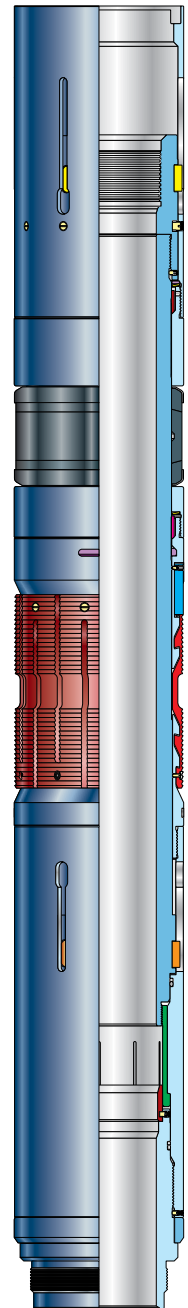
Barrel slip design

The QUANTUM MAX packer uses a barrel slip design, permitting high tensile and compressive loading without deformation to the casing. The one-piece X-series elements withstand differential pressures at both high and low temperatures. The element design also permits high run-in-hole speeds and circulations rates without concern for swab setting of the packer. Elements are available in HNBR and Aflas materials.

Multiple sizes

Available in a variety of common oilfield casing sizes, the QUANTUM MAX packer's large-bore design facilitates multiple completions and maximizes productivity. All components within the packer are rotationally locked, permitting rotation while running in hole. The QUANTUM MAX packer can be retrieved by its own retrieving tool. If required, it can be milled.

The QUANTUM MAX packer can be set by a variety of tools, including the Type 3 and Type 4, the cased hole gravel- and frac-pack tools, and openhole antiswab tools.



QUANTUM MAX HPHT gravel- and frac-pack packer.

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QUANTUM MAX HPHT Gravel- and Frac-Pack 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 [MPa]
5.000 [127.0]	18 [26.8]	4.106 [104.3]	2.688 [68.3]	350 [177]	10,000 [68.9]
5.000 [127.0]	21.4 [31.8]	3.956 [100.5]	2.688 [68.3]	350 [177]	10,000 [68.9]
5.500 [139.7]	15.5–17 [23.1–25.3]	4.722 [119.9]	3.000 [76.3]	350 [177]	10,000 [68.9]
5.500 [139.7]	20 [29.8]	4.608 [117.0]	3.000 [76.3]	350 [177]	10,000 [68.9]
5.500 [139.7]	23 [34.2]	4.500 [114.3]	3.000 [76.3]	350 [177]	10,000 [68.9]
7.000 [177.8]	26–29 [38.7–43.2]	6.000 [152.4]	4.000 [101.7]	350 [177]	10,000 [68.9]
7.000 [177.8]	32–35 [47.6–52.1]	5.810 [147.6]	4.000 [101.7]	350 [177]	10,000 [68.9]
7.625 [193.7]	26.4–29.7 [39.3–44.2]	6.690 [169.9]	4.000 [101.7]	350 [177]	10,000 [68.9]
7.625 [‡] [193.7]	33.7–39 [50.2–58.0]	6.440 [163.6]	4.000 [101.7]	350 [177]	12,500 [86.2]
9.625 [244.5]	47–53.5 [69.9–79.6]	8.300 [210.8]	4.750 [120.7]	350 [177]	10,000 [68.9]
9.625 [§] [244.5]	53.5 [79.6]	8.430 [214.1]	5.650 [143.5]	350 [177]	15,000 [103.4]
9.625 [§] [244.5]	47–53.5 ^{††} [69.9–79.6]	8.430 [214.1]	6.000 [152.5]	350 [177]	10,000 [68.9]
9.625 [244.5]	43.5–47 [64.7–69.9]	8.442 [214.4]	6.000 [152.5]	350 [177]	10,000 [68.9]
9.625 [244.5]	53.5 [79.6]	8.300 [210.8]	6.000 [152.5]	350 [177]	10,000 [68.9]
9.625 [§] [244.5]	47–53.5 [69.9–79.6]	8.420 [213.9]	6.000 [152.5]	350 [177]	10,000 [68.9]
10.750 [273.1]	55.5 [82.6]	9.340 [237.2]	6.000 [152.5]	250 [121]	5,000 [34.5]
10.750 [273.1]	60.7–65.7 [90.3–97.7]	9.340 [237.2]	6.000 [152.5]	250 [121]	10,000 [68.9]

[†] Additional temperature and pressure ratings available on request.

[‡] Including 7½-in, 46.1 ppf casing.

[§] Including heavy-weight 9½-in, 10-in, and 10¼-in casing with 8½-in drift.

^{††} Available in 8.500-in special drift only.

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