

# QUANTUM Standard Seal Units

Used as part of a QUANTUM seal assembly

## APPLICATION

- Completion seals between packer and tubing

## BENEFITS

- Increased reliability
- Improved sealing between packers and tubing

## FEATURES

- Seals are debris- and movement-tolerant
- Bonded seals can be unloaded under differential pressure
- Seal units used with anchors and locators optimize seal placement in polished bores
- Materials comply with NACE MR0175 standards
- Higher-performance seals are available for H<sub>2</sub>S service

As part of the assembly for QUANTUM\* gravel-pack packers, QUANTUM standard seal units consist of an anchor latch, snap latch or no-go locator, seal units, and a guide shoe. They provide an efficient leak-proof seal between the packer and the production tubing. Standard seal units contain two bonded seals and a seal spacer.

## Seal types

The bonded seal is tolerant to damage from debris, tubing movement, and unloading of seals under pressure. Standard seal material is nitrile, which is recommended for non-H<sub>2</sub>S environments. For H<sub>2</sub>S environments, Viton® seals can be specified. Aflas® and chevron-type sealing systems are also available.

## Available seal units

These seal units are available for the QUANTUM packer long-string seal assembly, lower-zone multiseal assembly, and the standard production seal assembly. Special seal units are provided with locators and anchors to ensure proper seal placement in the polished bore of the QUANTUM packer.

## Seal materials

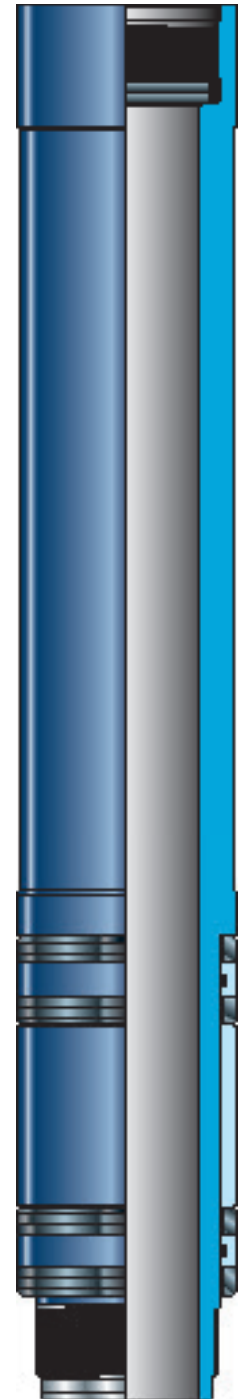
Seal units are made from alloy steel, are heat treated for H<sub>2</sub>S service, and are manufactured from materials that comply with NACE MR0175 standards for sulfide stress cracking-resistant metallic materials.

## QUANTUM Standard Seal Units Specifications

Size, <sup>†</sup> in [mm]	OD, in [mm]	ID, in [mm]	Pressure Rating, <sup>‡</sup> psi [kPa]
2.688 [68.3]	2.676 [68.0]	1.955 [49.7]	9,000 [62,055]
3.000 [76.2]	2.985 [75.8]	2.340 [59.4]	10,000 [68,950]
3.250 [82.6]	3.210 [81.5]	2.375 [60.3]	9,300 [64,124]
4.000 [101.6]	3.960 [100.6]	3.030 [77.0]	9,100 [62,745]
4.750 [120.7]	4.710 [119.6]	3.490 [88.7]	8,600 [59,297]
6.000 [152.4]	5.960 [151.4]	4.740 [120.4]	7,800 [53,781]

<sup>†</sup> Other sizes are available on request. Contact your local Schlumberger representative.

<sup>‡</sup> Values shown are for 80,000-psi [551,600-kPa] material derated for 250 degF [121 degC] with a 20% safety factor.



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