

High Temperature Solutions (Q-SAGD™ & Q-WARP™)

General Description

The Q-SAGD™ & Q-WARP™ are part of Ruma Products suite of high temperature solutions designed for steam-assisted gravity drainage applications (SAG-D). In this type of enhanced oil recovery (EOR) application, steam is injected at elevated pressures into a heavy oil reservoir through an injector well for the purpose of reducing oil viscosity within the reservoir and enable crude production through an adjacent production well.

The Q-WARP™ design features two water-swelling elements straddling an HT elastomer section located in the center of the swellable packer. The design, intended for installation in SAG-D production wells and geothermal applications, utilizes the outer water-swelling elements to protect the HT elastomer section and confine it in place during oil production while maintaining a reliable long-term seal. The Q-WARP™ also utilizes Ruma Products' unique slip-on O-ring free core assembly design.



The Q-SAGD™ was designed for simple onsite slip-on installation onto casing or tubing in SAGD injection wells. The design features a high-temperature (HT) swelling element in combination with Ruma Products' unique slip-on O-ring free design, eliminating the need for bonding agents throughout the swellable packer assembly.

The Q-SAGD™ (injection wells) and Q-WARP™ (production wells) are a unique solution for high temperature SAG-D wells and can be utilized in other high temperature applications such as geothermal well zonal isolation.

Features

- Reduced overall length: 1.5ft-long packer assembly with modular running guide system for safe and reliable onsite installation.
- High temperature capability.
- Elastomer color-coding for easy recognition.

Product Specifications

- 240° C (464° F) temperature rating
- Available for most casing and tubing sizes without upset from 2-7/8" up to 9-5/8"
- Low alloy carbon steel & stainless-steel running guide options available
- 500 psi differential pressure rating at maximum temperature rating.