

ReacXion fully dissolvable frac plugs

Consistent, repeatable setting and isolation with fullbore production without milling



- Energy Consumption Reduction:**
 Reduce diesel consumption by more than 5,700 L/50-stage well* by eliminating coiled tubing milling
- Emissions Reduction:**
 Reduce CO₂e emissions by 31,000 kg[†] by using 100 dissolvable plugs instead of 100 composite plugs
- Pressure:**
 Rated up to 10,000 psi [69 MPa]
- Temperature:**
 Rated up to 300 degF [148 degC]

*Typical reduction in duration of CT operations is 32 h for 50 frac plugs. Typical diesel consumption during milling is 4,327 L per 24-h period. Emissions factor is 2.712 kg of CO₂e per liter of diesel.

Where they are used

- Any plug-and-perf multistage fracturing operations in freshwater or brine
- Extended-reach laterals
- Difficult milling conditions
- Underpressured reservoirs
- Isolation for refracturing operations

How they enhance performance

- Add flexibility with one tool that works from fracturing to fullbore production without the expense of milling
- Tune dissolution performance with the optimal material for freshwater or brine

How they improve plug-and-perf operations

ReacXion* fully dissolvable frac plugs require minimal field assembly or can be delivered preassembled with Unity* single-use wireline adapter kit and frac plug setting tools to eliminate the potential for human error and operational delays. A proprietary field-proven coating protects the plug and prevents early dissolution, enabling plug placement in the well several hours before isolation is required.

ReacXion plugs have an antipreset design that eliminates the risk of presetting while pumping into the well. To complete isolation, a dissolvable ball is pumped down to the integral ball seat before fracturing begins. Optionally, the plug can be configured for deployment with the ball in place.

How these frac plugs support emissions reduction goals

Conventional frac plugs require milling out before production can start. These milling runs are performed as part of well cleanout operations, typically with a coiled tubing (CT) unit. Daily diesel consumption for a CT milling operation ranges from 4,000 L to 6,000 L. The fuel is required for pumps, injector heads, water treatment, cranes, and other ancillary support. Each liter of diesel adds CO₂e emissions to the atmosphere.

ReacXion frac plugs, on the other hand, easily dissolve in the presence of common wellbore fluids after fracturing is complete, considerably simplifying cleanout operations and reducing time to production. The time savings results in reduced diesel consumption and hence, lower CO₂e emissions.

How they deliver fullbore production and eliminate milling

ReacXion plugs are smaller by volume than other dissolvable plugs, which eliminates production constraints. Their field-proven materials ensure predictable fullbore



Scan the QR code for up-to-date specifications and ratings.



A typical aluminum can (left) for scale and ReacXion Nano (center) and ReacXion (right) plugs.

dissolution in freshwater or common oilfield brines, depending on the version selected. Improved material selection also enables fast, controlled dissolution of the elastomer.

What is the latest technology?

- ReacXion fully dissolvable frac plugs are full casing weight spanning and have a higher temperature rating.
- ReacXion Nano* compact fully dissolvable frac plugs are shorter with tighter casing weight ranges.
- ReacXion Slim* high-expansion fully dissolvable frac plugs are reduced-OD plugs for applications with casing restrictions or deformations.
- Unity setting tool enables efficient preassembly.

Which ReacXion plug is right for me?

	ReacXion Nano Frac Plug	ReacXion Frac Plug
Temperature rating, degF [degC]	Up to 275 [135]	Up to 300 [148]
Pressure rating, psi [MPa]	Up to 10,000 [69]	Up to 10,000 [69]
Length	Compact	Standard
Compatibility with Unity setting tool	Select sizes	Select sizes
Casing sizes, in	4.5, 5, or 5.5 [†]	4.5, 5, 5.5, or 6
Casing weight spanning	Partial	Full
Ball-in-place configuration	Field configurable	Factory configurable

All specifications are subject to change without notice.
[†]Scan QR code for up-to-date ratings and sizes.

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