

MonoFlex

Dual-connection fracturing fluid delivery technology

APPLICATIONS

Hydraulic fracturing

BENEFITS

- Expedite rig-up and rig-down with only two connections
- Minimize nonproductive time by
 - minimizing potential leak paths
 - reducing tortuosity and turbulence to improve erosion resistance and promote uninterrupted service life
- Optimize frac delivery by limiting friction effects downstream of the pumping equipment
- Improve well site footprint
- Increase pump rate capability as compared with conventional frac iron
- Reduce HSE risk by limiting assembly risks for personnel

FEATURES

- Flexible, nonrigid materials that simplify frac equipment setup on location
- Robust, erosion-resistant combination of rubber compounds and steel cables for cover and lining
- Measurable torque and metal sealing for API flange connection option
- Ability to inspect the technology in the field

MonoFlex* dual-connection fracturing fluid delivery technology speeds up multiwell pad rig-up, reduces nonproductive time, and limits HSE risks with a flexible, erosion-resistant conduit that can be used on any part of the fracturing fluid delivery system. Operators have used the technology to connect frac pumps with the missile trailer, missile trailer with the instrumentation skid, and frac trees with zipper manifolds and trunk lines.

MonoFlex technology has been proven in field applications since 2018. By simplifying frac fluid flow paths and minimizing the number of connections and flowlines compared with conventional options, the technology has streamlined operations and optimized proppant and fracturing fluid delivery in more than 1,000 wells across North America.

Improve wellsite flexibility and performance

Conventional treating iron systems require over 50 connections per well from the manifold to the frac tree. The robust, simplified MonoFlex technology has only two connections, reducing possible leak paths, assembly risks for personnel, and risks of mismatched connections. The flexibility provided by MonoFlex technology also improves freedom of movement to accommodate vertical and horizontal misalignment between the frac tree and the frac manifold.

The result is a cleaner wellsite footprint and reduced risk of potential job interruptions throughout the fracturing operation.



The 5-in MonoFlex technology is a flexible way to simplify fracturing fluid delivery with a clean wellsite footprint.

Maximize fracturing uptime and efficiency

With fewer connections between the pumping equipment and the wellbore, MonoFlex technology expedites mobilization and time to first production. The system is typically rigged up before the frac pumping crew arrives. During the time-critical fracturing operation, its erosion-resistant design helps minimize time required for inspection, maintenance, and repair.

MonoFlex Technology Specifications[†]

Nominal Diameter, in	2	3	4	5	6
Max. injection rate, bbl/min [m ³ /min]	13 [2.1]	30 [4.8]	65 [10.3]	110 [17.5]	155 [24.6]

[†] All bore sizes are rated to 15,000 psi [103.4 MPa] working pressure and temperature range of -40 to 158 degF [-40 to 70 degC].