



FracRight Solo Sleeve

Hydraulic Multi-Stage Fracturing Sleeve

The FracRight Solo Sleeve with integral ball seat ensures a pressure tight seal to withstand the most challenging of fracturing operations.

FracRight Multi-Stage System Overview

The FracRight System is a drop ball activated fracturing system that enables the installation of multiple sleeves, one for each zone to be stimulated, maximising production. The sleeves are shifted open by pumping a ball from surface allowing for subsequent stimulation of the selected zone. FracRight combines a range of Tendeka's field-proven technologies into a single high-quality system.

FracRight Solo Sleeve

Tendeka's FracRight Solo Sleeve has been designed to meet the high demands of today's fracturing and stimulation applications. Each sleeve is opened in sequence as part of the FracRight multi-stage fracturing system and can be deployed in open hole or cemented applications.

The solo sleeve offers a high flow port area which is functioned to open by circulating the ball down to the integral ball seat. A pressure differential is applied and shears the sleeve into a locked open position. The ball is held on seat during stimulation to protect the lower zones from overburden. The precision of the ball design ensures a pressure tight seal against the ball seat, making the Solo Sleeve a reliable and hard-wearing solution for fracturing operations.

Features

- Locking ring to hold sleeve in the open position once activated
- Interchangeable ball seat to easily reconfigure sleeve
- Adjustable shear settings
- Seat sizes in 1/8" stages

Benefits

- Seat can be easily milled to give full bore access after stimulation is complete
- Can be deployed in open hole or cemented applications
- Fracture individual stages at high flow rates
- Same dependable design for either open hole or cemented installations

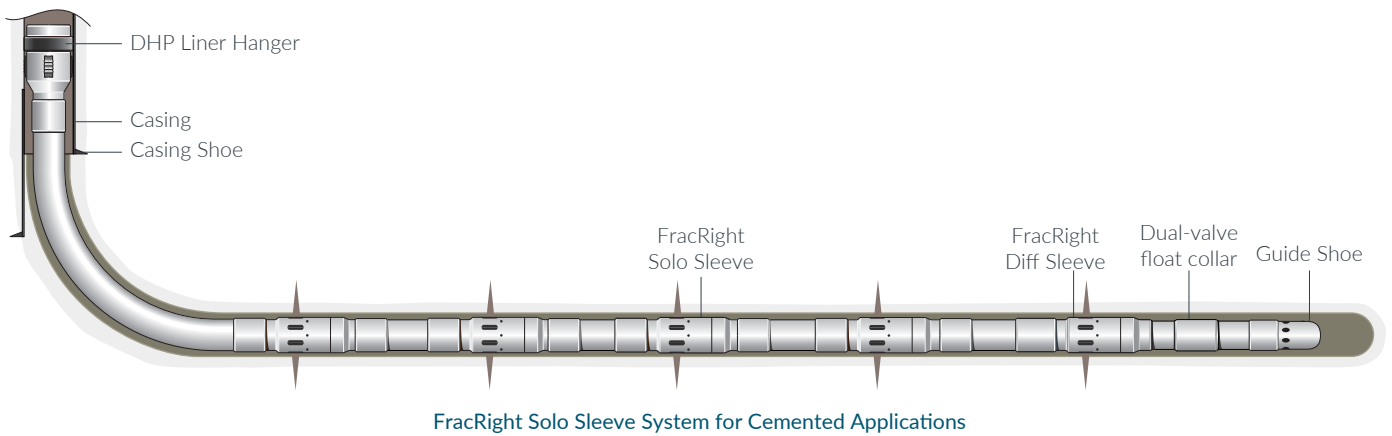
Technical Specifications

	4.5"	5.5"
Maximum OD	5.500" (139mm)	7.485" (190mm)
Minimum ID	3.920" (100mm)	4.548" (116mm)
Length	30.2" (0.77m)	50.9" (1.3m)
Standard Thread Connection	4.5", 13.5lbs/ft BTC	5.5", 15.5lbs/ft BTC
Pressure Rating	10,000psi (689bar)	10,000psi (689bar)
Length	30.2"(0.8m)	36.5" (0.9m)
Temperature Rating	300°F (150°C)	300°F (150°C)
Tensile Rating	395,000lbs	820,000lbs/ft
Flow Port Area	15.2in ²	17.3in ²





FracRight Solo Sleeve System



Stage Treatment

This is an actual stage treatment through Tendeka's FracRight sleeve. At 6-8 minutes in, the operator performed a casing pressure test. At approximately 26 minutes, the pressure signature shows the ball has clearly landed and sealed on seat in the sleeve. Pressure is increased, and the sleeve shifts with 2000psi increase as designed. The stage slurry is then pumped followed by the displacement fluid.

The entire stage including pressure test is completed in under 95 minutes with no wireline unit or frac plugs needed. Operator is then ready to move to next stage and repeat the ball drop and pumping procedure.

Pressure, Rate, & Concentration

