





Pump-Down Kit Available for Horizontal Applications

LONG RANGE SERIES (GEN 2)

INNOVATION REVEALED

The latest innovation in the Long Range™ line of composite plugs: The Generation 2 Long Range™ allows the same vast possibilities as the previous design, yet has a significant reduction in the amount of aluminum content. This improvement greatly increases removal efficiency, and in an industry where time equals money, it doesn't take long to add up the cost savings.

BETTER MATERIALS FOR BETTER RESULTS

Although the slim plug design has existed for decades, Magnum's incorporation of composite material has created new downhole solutions for a range of conditions. Specifically, the millable and easily removable Long Range plug has made it possible for wells previously marked for abandonment to be re-completed—thus increasing overall production and profitability.

- · Can be deployed on wireline or coiled tubing
- Unique pump-down element design requires less fluid and pump pressure to deploy plug horizontally
- Dependable cast iron slips secure plug in place
- Positive lock-up feature to ensure lock-up of multiple plugs in a single wellbore
- · Custom O.D. available upon request
- Patented Technology

OPTIONAL PUMP-DOWN KIT AVAILABLE

The optional pump-down aid serves to increase fluid efficiency by taking advantage of fluid that would otherwise simply bypass the BHA during WL pumpdown conveyance. Additionally, this pump-down feature relieves stresses to the plug associated with fluid bypass.

LET US SHOW YOU WHAT WE'RE MADE OF

See for yourself why operators throughout the nation's major shale plays choose the Magnum Long Range[™] composite frac plug to capitalize on their investments. Visit nineenergyservice.com for more information, or contact your Nine Energy Service representative.





CASING SPECS				PLUG SPECS						OPERATING RANGES	
O.D. inch (mm)	Weight Range lb/ft (kg/m)	Min I.D. inch (mm)	Max I.D. inch (mm)	O.D. inch (mm)	Ball Drop Min. I.D. inch (mm)	Flo-Back Min. inch (mm)	Length inch (mm)	Ball Size inch (mm)	Setting Tool	Low Temp/High PSI	Mid Temp/ High PSI
4-1/2 (114.3)	15.10-21.60 (22.5-32.2)	3.500 (88.9)	3.826 (97.2)	3.06 (77.7)	0.50 (12.7)	0.50 (12.7)	35.0 (889.5)	2.13 (54.0)	Magnum "A-1" or 2-1/8" Multi-	250°F (121°C) 10K psi (68.9 Mpa) Yellow Composite/ HSN Elastomer	300°F (149°C) 10K psi (68.9 Mpa) Blue Composite/ Buna-N Elastomer
4-1/2 (114.3)	9.50-18.80 (14.1-28.0)	3.640 (92.5)	4.090 (103.9)	3.19 (81.0)	0.50 (12.7)	0.50 (12.7)	35.0 (889.5)	2.13 (54.0)			
5.00	18.00-21.40 (26. <i>7</i> -31.8)	4.126 (104.8)	4.276 (108.6)	3.50 (88.9)	0.50 (12.7)	0.50 (12.7)	34.30 (871.2)	2.13 (54.0)	Stage		
(127.0)	18.00 (26.7)	4.276 (104.8)	4.276 (104.8)	3.75 (95.3)	0.50 (12.7)	0.50 (12.7)	34.1 (866.1)	2.13 (54.0)	Magnum		
5-1/2 (139.7)	20.00-32.60 (29.8-48.6)	4.250 (108.0)	4.778 (121.4)	3.75 (95.3)	0.50 (12.7)	0.50 (12.7)	34.1 (866.1)	2.13 (54.0)	"A-1", Baker #20 or 3-5/8" Compact		
5-1/2 (139.7)	17.00-26.80 (25.3-39.9)	4.500 (114.3)	4.892 (124.3)	3.92 (99.6)	0.50 (12.7)	0.50 (12.7)	31.8 (807.7)	2.13 (54.0)			

 ${\it Casing Specs are according to API Tubing/Casing Dimension Chart Information.}$

Optional pump down kit sizes

DART OD IN. (MM)	DUROMETER	MATERIAL		
3.25 (82.6)				
3.75 (95.3)	70	Nitrile		
4.000 (101.6)	70			
6.00 (152.4)				

For more information, and to find a representative near you, visit nineenergyservice.com