



## STINGER™ DISSOLVABLE ALLOY FRAC PLUG

This product may be covered by one or more patents or pending patent applications.

### FIELD-PROVEN FOR FASTER AND GREATER SAVINGS.

Delivering the most advanced dissolvable technology in the industry, the Stinger™ Dissolvable Alloy Frac Plug from Nine provides greater savings in multi-well plug-and-perf operations. And currently, it offers the leading solution to work consistently and predictably in all temperature applications.

By dissolving, operators avoid the time, risks and costs associated with conventional completions—operators save in upfront Authorization for Expenditure (AFE) costs. Because they get to production faster, operators also see an Increased Rate of Return (IRR). The Stinger also eliminates the need for coil, which can result in weeks of downtime and up to \$1 million in costs if stuck downhole.

The Stinger is the shortest available, featuring a single as opposed to dual slips. This design is made possible thanks to the unique sealing mechanism that eliminates the need for a mandrel and allows for a smaller element, improving dissolution.

The Stinger features a larger ID to accommodate immediate flowback and freshwater magnesium, which works in all environments, including high-chloride reuse water.

### Features

- Customizable to wellbore applications
- Compact and robust design
- Standard RIH conveyance method
- Ceramic gripping buttons
- Reduces the need for coiled tubing intervention
- Ball in Place models for water savings
- PDR available upon request. Increased water savings and help to navigate challenging deviated wellbores

The Stinger™ is the industry's shortest and most advanced dissolvable technology available.





Casing Size O.D. inch (mm)	Casing Weight Range lb/ft (kg/m)	Casing I.D. inch (mm)	Tool Description	Max. Conveyance O.D. inch (mm)	Max. PDR O.D. inch (mm)	Compressed PDR O.D. inch(mm)*	I.D. inch (mm)	RIH Length inch (mm)	Ball Size inch (mm)	Pressure Rating psi (Mpa)
3.5 (88.9)	9.2 (13.7)	2.99 (76.0)	Ball in Place / Ball Drop	2.68 (68.1)	N/A	N/A	0.70 (17.8)	5.45 (138.4)	1.00 (25.4)	10,000 (69)
4.0 (101.6)	11.0 (16.4)	3.48 (88.3)	Ball in Place / Ball Drop	3.13 (79.5)	N/A	N/A	0.787 (20.0)	5.81 (147.6)	1.125 (28.6)	10,000 (69)
**4.5H (114.3)	17.0 (25.3)	3.74 (95.0)	Ball in Place / Ball Drop	3.49 (88.6)	3.62 (91.9)	3.60 (91.4)	1.00 (25.4)	7.20 (182.9)	1.25 (31.75)	10000 (69)
			Ball Drop						1.75 (44.5)	
4.5 (114.3)	13.5-15.1 (20.1-22.5)	3.92-3.83 (99.6-97.2)	Ball in Place / Ball Drop	3.49 (88.6)	3.62 (91.9)	3.60 (91.4)	1.00 (25.4)	7.10 (180.3)	1.25 (31.75)	10,000 (69)
			Ball Drop						1.75 (44.5)	
	11.6-13.5 (17.3-20.1)	4.00-3.92 (101.6-99.6)	Ball in Place / Ball Drop	3.65 (92.7)	3.90 (99.1)	3.76 (95.5)	1.00 (25.4)	7.11 (180.6)	1.25 (31.75)	10,000 (69)
			Ball Drop						1.75 (44.5)	
5.0 (127.0)	23.2 (34.5)	4.04 (102.7)	Ball in Place / Ball Drop	3.65 (92.7)	3.90 (99.1)	3.76 (95.5)	1.00 (25.4)	7.11 (180.6)	1.25 (31.75)	10,000 (69)
			Ball Drop						1.75 (44.5)	
	20.3-21.4 (30.2-31.8)	4.16-4.13 (105.6-104.8)	Ball in Place / Ball Drop	3.78 (96.0)	4.03 (102.4)	3.89 (98.8)	1.00 (25.4)	7.20 (182.9)	1.25 (31.75)	10,000 (69)
			Ball Drop						1.75 (44.5)	
	18.0 (26.8)	4.28 (108.6)	Ball in Place / Ball Drop	3.92 (99.6)	4.05 (102.9)	4.03 (102.4)	1.00 (25.4)	6.80 (172.7)	1.25 (31.75)	10,000 (69)
			Ball Drop						1.75 (44.5)	
5.5 (139.7)	23.0-26.0 (34.2-38.7)	4.67-4.55 (118.6-115.5)	Ball in Place / Ball Drop	4.18 (106.2)	4.31 (109.5)	4.29 (109.0)	1.50 (38.1)	7.31 (185.7)	1.75 (44.5)	10,000 (69)
			Ball Drop						2.875 (73.0)	
	20.0-23.0 (29.8-34.2)	4.78-4.67 (121.4-118.6)	Ball in Place / Ball Drop	4.37 (111.0)	4.62 (117.3)	4.48 (113.8)	1.50 (38.1)	6.60 (167.6)	1.75 (44.5)	10,000 (69)
			Ball Drop						2.50 (63.5)	
	17.0-20.0 (25.3-29.8)	4.89-4.78 (124.3-121.4)	Ball in Place / Ball Drop	4.47 (113.5)	4.62 (117.3)	4.58 (116.3)	1.50 (38.1)	7.00 (177.8)	1.75 (44.5)	10,000 (69)
			Ball Drop						2.50 (63.5)	
							6.78 (172.2)	2.875 (73.0)		

\* Under certain conditions this value may not be the minimum value that the PDR could be compressed. Please contact Nine Energy Service technical support for tighter ID scenarios.

\*\* This is Nine's heavy casing weight option for 4.5" casing.

For more information, and to find a representative near you, visit [nineenergyservice.com](http://nineenergyservice.com)