



FLOWGUN™ COMPLETION SYSTEM
A NEW DIRECTION IN PERFORATING TECHNOLOGY



A COMPLETE COMPLETIONS SOLUTION

Completions just became infinitely easier. The FlowGun well completion system from Nine Energy Service offers completely interventionless, casing-conveyed perforating technology. In one groundbreaking system, you now have greater efficiency, control and flexibility.

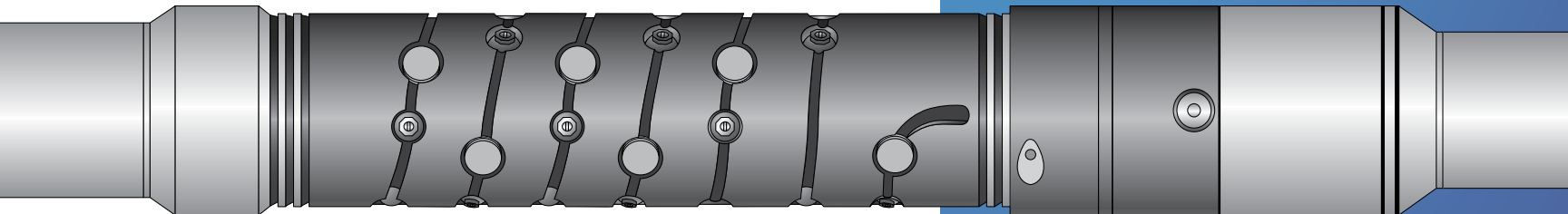
ON-TARGET PERFORATION

The FlowGun boosts the efficiency of a traditional open hole, multi-stage ball drop perforating system by allowing greater frac location control within a cemented horizontal wellbore. Perforation modules can be deployed at desired intervals along the casing string, and fracs initiate during the installation of the liner. Pressure-activated, the FlowGun system eliminates the need to run wireline or coil tubing and requires no electronic detonation. It provides:

- Enhanced production efficiency
- Greater mechanical reliability
- Faster completions
- Superior safety

EXTENDED CAPABILITIES

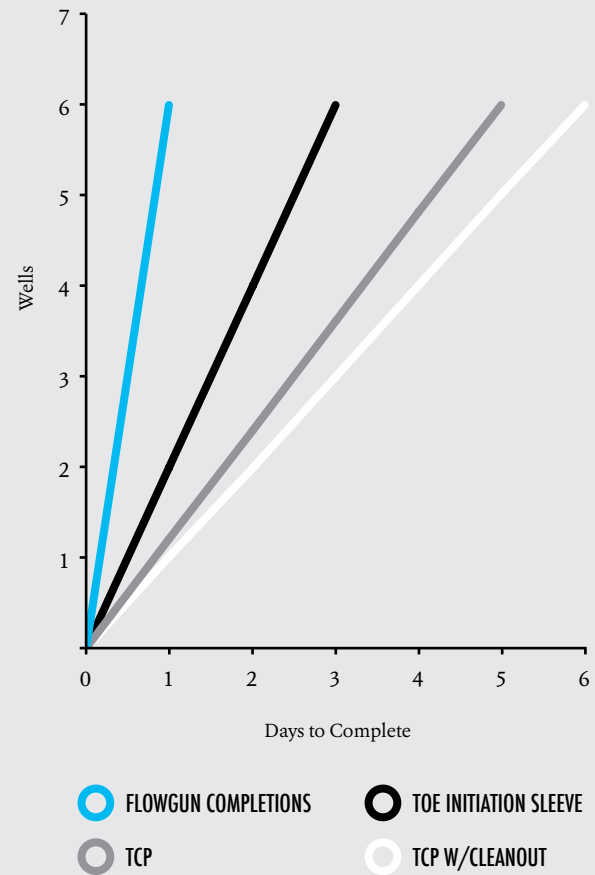
With FlowGun, you can extend your wellbore reach past 18,000 feet, beyond coil-tubing and wireline limitations. Much like a plug 'n' perf design, the system can be configured to convey a single or multiple modules. No sleeves to shift, exposing formation. No wet shoe required. Just unfettered operational performance.



A FASTER PATH TO PRODUCTION

The bottom hole assembly is conveyed into the wellbore, taking FlowGun clusters into targeted depths. After the wellbore is cemented, the first stage is pressure activated and perf charges are fired.

In four hours, you can pressure test surface iron and wellbore, detonate guns, displace acid and place stage one.



ENHANCED SAFETY, EVERY STEP OF THE WAY

Offering a highly controlled perforating process, the FlowGun system can help you enhance safety and mitigate wellsite hazards. With no electronic detonators, there's no risk of surface or premature detonation. FlowGun clusters cannot detonate electronically, eliminating premature firing due to stray voltage. FlowGun technology further supports safe operations by:

- Reducing overhead loads
- Requiring fewer wellsite personnel for operation
- Reducing trucking hours and third-party services
- Minimizing environmental impact

FlowGun is a highly controlled process. The FlowGun well completion system is subject to rigorous inspection from start to finish, ensuring field implementation. A detailed checklist is provided to ensure every step is followed to ensure proper quality.

INTERVENTIONLESS INNOVATION

The FlowGun well completion system manages several downhole jobs with one tool and one crew—dramatically boosting efficiency by eliminating an entire phase of the completion process. Offering accuracy, flexibility and reliability, the FlowGun can help:

- Reduce costs
- Increase frac control
- Enhance wellsite safety
- Improve rig-to-market efficiency

When you're ready for a new direction in horizontal drilling, the FlowGun from Nine can get you there.

PRESSURE TEST OPTIONS

OPTION 1

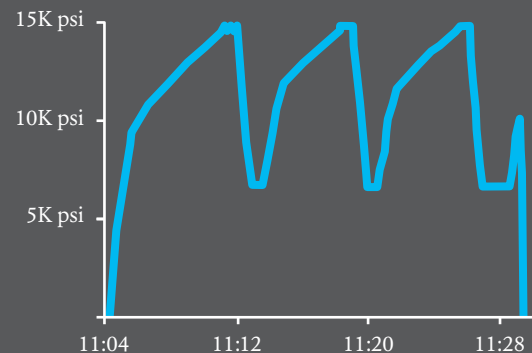
- Offers low-pressure test for Frac Stage 1 and full-pressure test prior to Frac Stage 2
- Performs pressure test at 1,000 psi below calculated fire pressure
- Fires guns at Frac Stage 1
- Pumps down CBP for Stage 2 isolation, pressure test and perforating

OPTION 2

- Offers 4.15" baffle/dissolvable ball and performs pressure test at 1,000 psi below calculated fire pressure
- Fires guns and drops 4.375" dissolvable ball to seat and then performs pressure test
- Balls will dissolve in +/- 24 hours after Frac Stage 1

OPTION 3

- Offers new pressure test function that has been successful in field trials
- Can perform pressure test and hold for as long as needed and can bleed off if leak occurs
- Back up pressure to obtain full pressure test, bleed off and then fire guns



A PROVEN PERFORMER

We have installed hundreds of FlowGun systems, achieving a 100 percent rate of successful detonation. In fact, of the jobs set up for a first full stage, all but one were successfully fracked—and that one was still unsuccessful after numerous re-perf attempts.

BETTER SOLUTION AT A LOWER COST

By choosing FlowGun over traditional wireline or coil-tubing solutions, you're getting a solution that's statistically more effective. Better yet, you eliminate an entire phase of the completion process, along with all the associated costs. That means you're not paying for additional water, tank trucking, BOP rental, coil tubing, chemicals, crew and labor. Contact your local sales representative for pricing.

TWO GUNS, NO CONTEST

The FlowGun comes in two available models, based on your application requirements.

	7000 SERIES	7800 SERIES
Inside diameter	3.826"	4.67"
Outside diameter	7.125"	7.965"
Max. shots per gun	18	18
EHD	.5"	.5"
Penetration	16"	16"
Length	71.55"	74.420"
Burst	15,000 lbs.	15,000 lbs.
Collapse	15,000 lbs.	15,000 lbs.
Tensile	220,000 lbs.	180,000 lbs.
Torque (thru tool)	10,000 lbs.	10,000 lbs.
Torque (max. during make up)	6,000 lbs.	6,000 lbs.



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