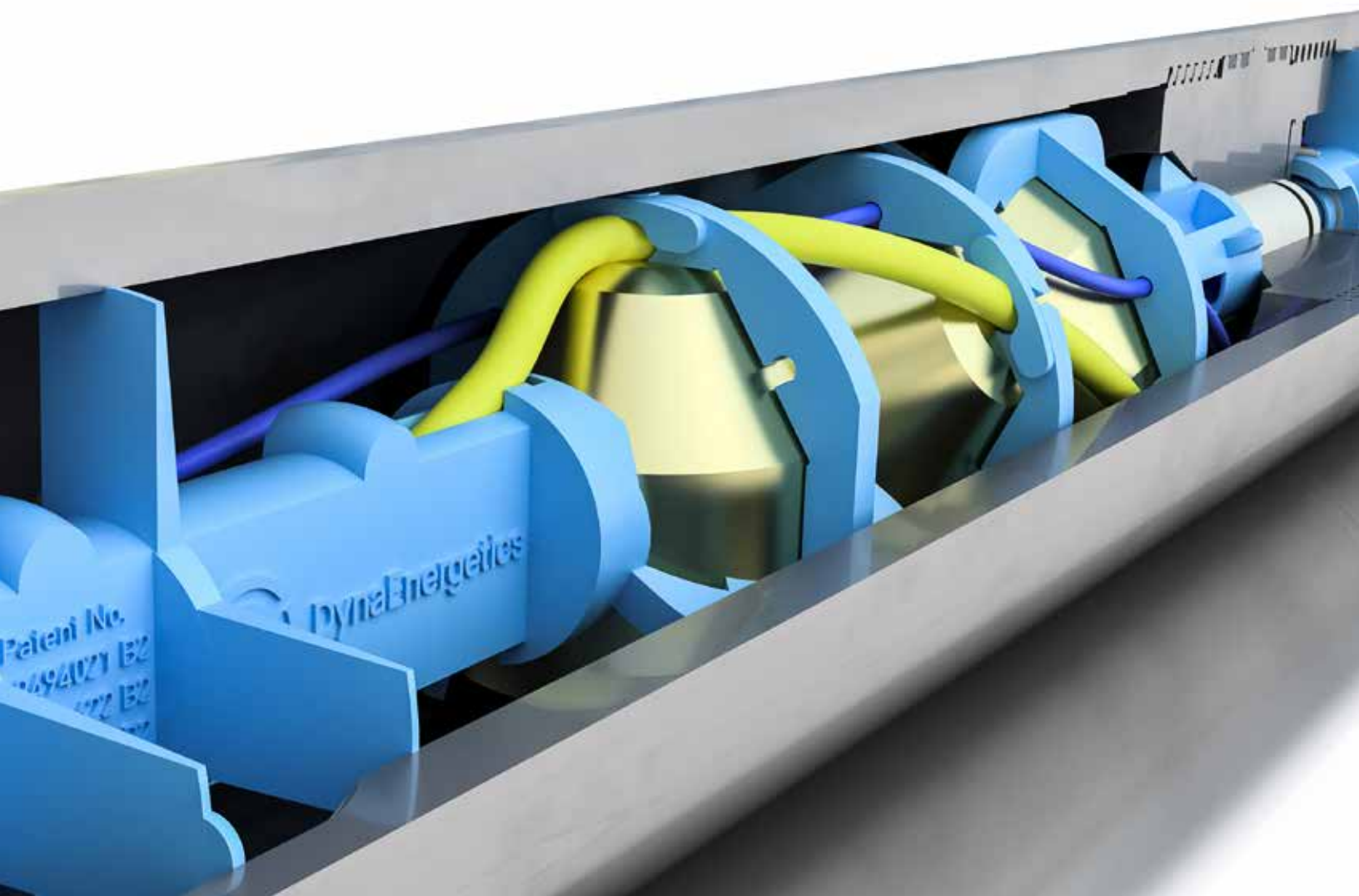


DynaStage™

Factory-Assembled,
Performance-Assured™
Perforating System



DYNASTAGE CHANGES THE GAME

Factory-assembled, performance-assured well perforating system, redefines operational simplicity.

1 HIGH EFFICIENCY PLUG-N-PERF
The DynaStage easy-to-use solution significantly reduces assembly and disassembly times resulting in increased frac stage completions per day.

2 REMOTE LOCATIONS
DynaStage can be delivered directly to the job site eliminating the need for gun-assembly personnel and infrastructure.

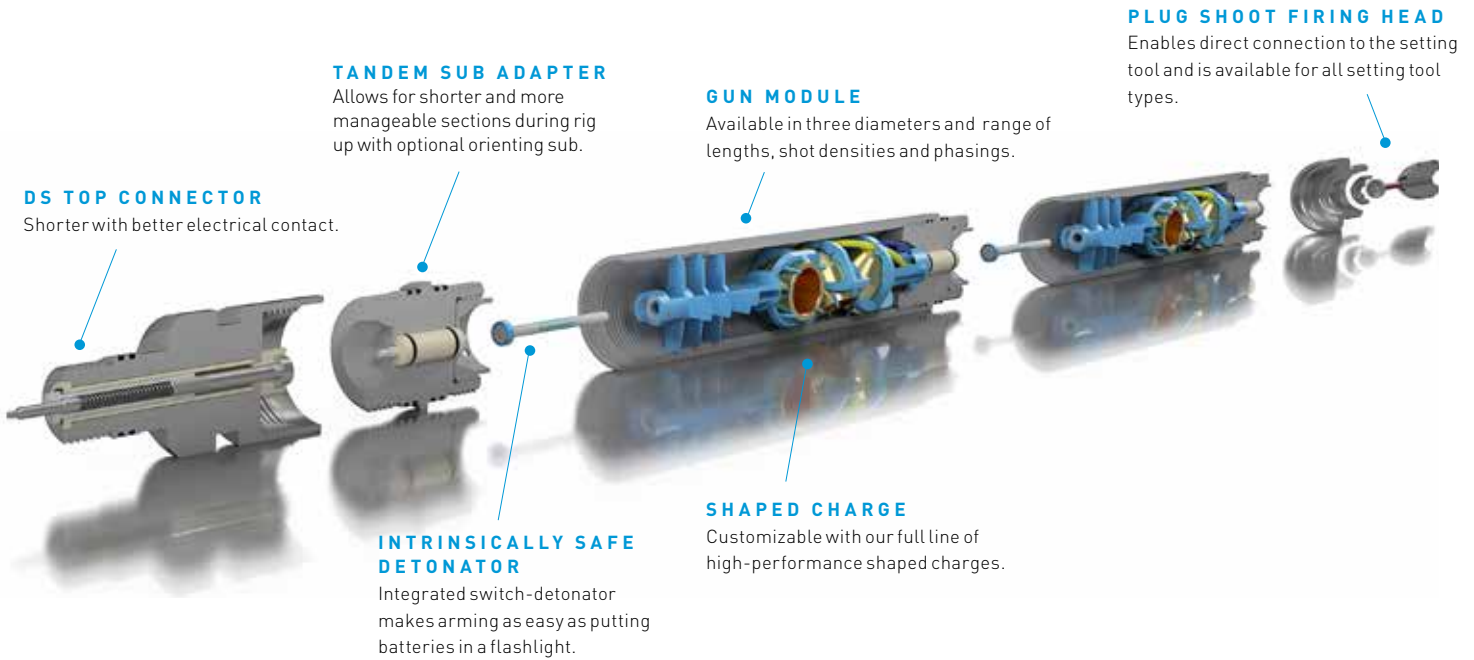
3 PERFORMANCE ELEVATED
Intrinsically safe detonator enables API RP-67 compliant surface testing, promotes safety, ensures down-hole reliability and streamlines concurrent operations.

4 LENGTH OPTIMIZED PERFORATION
DynaStage is length-optimized, allowing for more manageable sections, easier rig-up and additional carriers per stage.

5 RETURN ON INVESTMENT
As a single-source solution, DynaStage simplifies the supply chain and reduces working capital requirements.

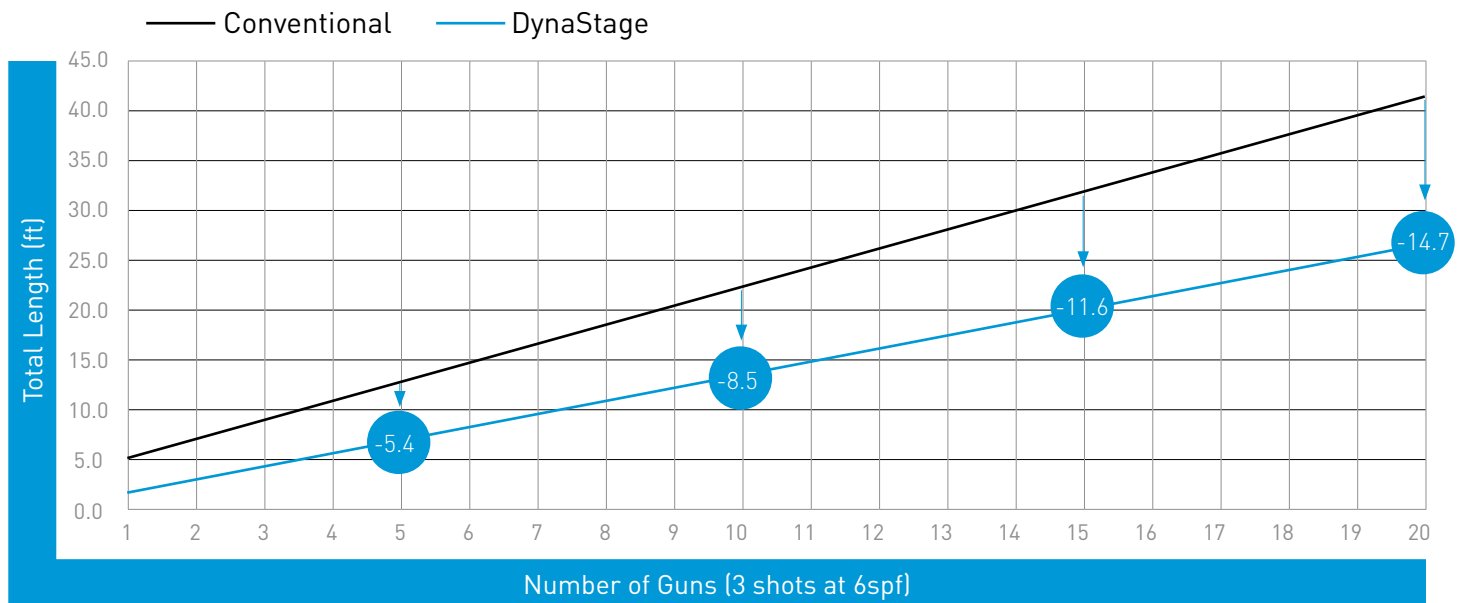
LENGTH OPTIMIZATION AND FASTER ASSEMBLY

The length-optimized systems are easy to use reducing field assembly and disassembly by up to 80%. Gun strings built with DynaStage are up to 40% shorter and 40% lighter than conventional strings, allowing for more manageable sections, easier rig up and additional guns per stage.



LENGTH OPTIMIZATION CHART

Large reductions in gun string length, compared to conventional systems, are achieved by optimizing every component of the DynaStage system. Depending on the gun type and configuration, length optimization in excess of 40% is observed.



NEXT GENERATION PERFORATING

DynaStage enables unmatched reliability and effectively eliminates perforating misruns. Our certified technicians custom-build DynaStage to meet your specifications for phasing, shot density and charge type. Each gun is quality tested prior to delivery, and can be re-tested at the well site using the Infinity Surface Tester. Our commitment to quality and safety has greatly reduced lost-time mishaps, mis-runs, and misfires



Significantly Safer, Intrinsically Safe

The wireless DynaStage integrated switch-detonator is immune to electrical hazards, and exceeds the API RP67 standards for electrical and operational safety. The detonator is only energized once it receives a series of digitally coded signals from the Infinity Firing Panel. If the DynaStage detonator is damaged by excessive current or voltage, it is designed to fail safe. The detonator also is available in HMX temperature rating.



Specifications

Available in 2-3/4", 3-1/8" and 3-3/8"

Customizable with DynaEnergetics' full line of high performance, formation tuned shaped charges.

A New Standard In Safety

The technological core of DynaStage is an intrinsically safe initiating system, which eliminates the risk of inadvertent detonation and enables concurrent well-site operations during perforating. The result is vastly improved safety and increased peace of mind for operators and service providers alike.

Protected from:	DynaStage	Conventional EB switch when used with a resistorized detonator	Conventional switch-resistorized detonator combinations
RF Energy	Yes, always	No	Yes, if wired correctly
Stray and direct voltage and current	Yes. 100% safe. Cannot be energized by AC or DC electrical power, a cathodic protection system, or by any type of battery, induced power or static electricity.	No	Yes, if wired correctly Single-point failure potential
Megger tests	Yes, 100% safe. Lives have been saved using DynaStage when accidental Megger tests were conducted and no unintentional initiation occurred.	No	Yes, if wired correctly Single-point failure potential
Indirect lightning strikes or another supplier's hardware or equipment	Yes, always	No	Yes, if wired correctly Single-point failure potential
API RP 67 requirements	Exceeds	Meets minimum	Meets minimum

STREAMLINED EXECUTION

As a factory-assembled, single-source solution, DynaStage eliminates the need for gun-assembly personnel and infrastructure, enabling streamlined completion teams, a safer well-site environment, and lower operating costs. Arming a DynaStage gun in the field is as easy as installing a battery in a flashlight. No wires to connect. No detonators to crimp.



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Compare the Impact of DynaEnergetics perforating systems against conventional options, and we guarantee that you'll see a measurable difference in performance, reliability and well productivity.

Contact us from anywhere on the globe at performance@dynaenergetics.com or visit us online at dynaenergetics.com, and we'll show you how.
