

The HELLFire® perforating system allows more effective multi-stage plug-and-perf operations. At just 9.5-inches total length, HELLFire's three- or six-shot cluster options unlock stage completions not possible with lengthy conventional spiral-phased technology. The short-bodied HELLFire system minimizes tool string length, and delivers more clusters per stage. HELLFire's flexible design options allow engineers to specify ideal cluster count and spacing, resulting in lower costs, fewer stages, maximized injectivity, and optimal proppant placement, all with less equipment and a smaller crane.

The factory-loaded, built for wireline system improves convenience, safety, and reliability, whether run with addressable initiators or with tried and trusted pressure switches.

FEATURES

- Compatible with industry standard addressable or mechanical switch technology
- Pinpoint shot placement for fracture initiation
- Integrated redundant grounding and charge tube retention
- · Zero wired connections between guns

APPLICATIONS

- · Limited entry perforating design
- · Unconventional Reservoirs
- · Conveyable on wireline and slickline

BENEFITS

- Constant entry hole size & penetration regardless of gun position or casing size and weight
- Provides more control of perf friction and near wellbore tortuosity
- Allows the operator to accurately determine the number of open perforations, resulting in efficient treatment of all perf clusters within the stage
- Creates predictable and repeatable pressure diversion across 100% of the perforations
- · Factory loaded and delivered
- · Reduces risk at the wellsite location
- Reduces length of crane and lubricator



STAGED PERFORATING REIMAGINED

PERFORATING SYSTEM SPECIFICALLY BUILT FOR FRAC

Carrier OD	Product Name	Part Number	Perforating Condition	Explosive	Shot Density	API 19B Targeted Pipe	Entrance Hole (in)[cm]	EHD Variation	Rock Penetration API 19B-Sec. 2 (in)[cm]
3-1/8" External Scallops	HELLFire 26	EC2-31K0671-26	Fluid	6.0g, RDX	1 to 6 shots per cluster	4.5" OD, P110	0.26 [0.66]	7.4 %	3.2 [8.13]
	HELLFire 28	EC2-31K0671-28		6.0g, RDX			0.28 [0.71]	5.5 %	
	HELLFire 33	EC2-31K0771-33		7.0g, RDX			0.33 [0.84]	2.9 %	
	HELLFire 36	EC2-31K0771-36		7.0g, RDX			0.36 [0.91]	1.6 %	
	HELLFire 42	EC2-31K0771-42		7.0g, RDX			0.42 [1.07]	3.8 %	
3-3/8" Internal Scallops	HELLFire 25	EC2-33K0571	Fluid	5.0g, RDX	1 to 6 shots per cluster	5.5" - 6.0" OD, P-110	0.25 [0.64]	4.3 %	3.5 [8.89]
	HELLFire 30	EC2-33K0771		7.0g, RDX			0.30 [0.76]	2.7 %	
	HELLFire 36	EC2-33K0771-RX		7.0g, RDX			0.36 [0.91]	4.6 %	
3-3/8" External Scallops	HELLFire 25	EC2-33K0671-25	Fluid	6.0g, RDX	1 to 6 shots per cluster	5.5" OD, P-110	0.25 [0.64]	3.9%	3.5 [8.89]
	HELLFire 30	EC2-33K0771-30		7.0g, RDX			0.30 [0.76]	5.5%	
	HELLFire 33	EC2-33K0771-33		7.0g, RDX			0.33 [0.84]	3.6%	
	HELLFire 34	EC2-33K0771-34		7.0g, RDX			0.34 [0.86]	5.8%	
4" Internal Scallops	HELLFire 40	EC2-40K1271	Fluid	12.0g, RDX	1 to 6 shots per cluster	6.0" OD, 26# P-110	0.40 [1.02]	3.9%	3.0 [7.62]

HELLFire 31K and 33K charges are NOT interchangeable. EC2-31K series are for 3-1/8" HELLFire; EC2-33K series are for 3-3/8" HELLFire.

GEODynamics charges are available in RDX, HMX, and HNS. Please contact your sales representative for more information. FLUID: Qualified for shooting in FLUID only with perforating systems qualified by GEODynamics. IN FLUID or DRY: Qualified for shooting in FLUID or DRY GAS with perforating systems qualified by GEODynamics.