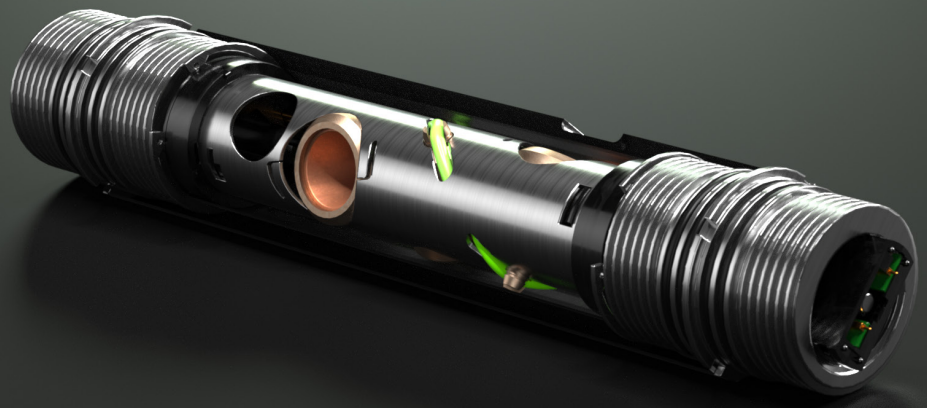
GEODynamics®



STRATX® 3-3/8”

GEODynamics STRATX® offers a factory-loaded, plug-and-play, limited entry perforating system for unconventional reservoirs. STRATX integrates EPIC™ Switch addressable technology with industry-standard detonator options into a programmable initiation control (PIC) module, delivering an intrinsically-safe, deployment-ready design. Quick and simple gun-string assembly saves time and increases efficiencies at the wellsite.

STRATX carriers accommodate a variety of GEODynamics shaped charge options. FracIQ®, Basix™, Razor®, Connex®, and Refrax™ charge technologies offer precision performance in spiral shot carriers. HELLFire® charges offer effective multistage plug-and-perf operations in shorter-bodied planar shot cluster carriers.

GEODynamics delivers STRATX carriers fully loaded to match customer specifications and preferences.

FEATURES

- Operation-readiness eliminates wellsite handling effort and streamlines run-in execution
- Utilizes EPIC™ Command state-of-the-art shooting panel
- Integrated EPIC™ Switch technology (fastest configurable and programmable addressable on the market)
- Factory-installed shunted detonator, compatible with numerous industry-standard electric detonators
- Zero wired connections between guns and in tandem subs
- Disposable portless subs cut costs and reduce risk
- Carriers available as a turn-key system

BENEFITS

- Top-fire configuration facilitates safe shipment of loaded perforating carriers (meets all DOT requirements)
- Streamlined, intrinsically safe, factory-assembled reliability
- Spiral shot configurations with multiple phasing options offer one (1) to 10 shots per carrier, using FracIQ®, Basix™, Razor®, Connex®, or Refrax™ charge technologies
- Shorter than competitor designs
- Completely disposable high-efficiency perforating

STRATX® 3-3/8”

Industry-leading shaped charge performance=

BETTER WELL PERFORMANCE

This performance is achieved by combining cutting edge designs, state of the art production processes, and rigorous quality control.

3-3/8" SPIRAL CHARGES

BIG HOLE

Carrier O.D.	Shaped Charge	Part Number	Perforating Condition	Explosive	Shot Density / Phasing	^Casing O.D.	Performance in Concrete		Performance in Stressed Berea	
						Application	**EHD** *(in)[cm]*	**TTP** *(in)[cm]*	**EHD^** *(in)[cm]*	**TTP** *(in)[cm]*
3-3/8" 23g	3323 Basix BH	EC2-33A2331	Fluid	22.7g, RDX	6 spf / 60°	5-1/2" L-80	0.70 [1.78]	5.79 [14.71]	0.69 [1.75]	4.05 [10.29]
		EC2-33A2332		22.7g, HMX						

CONSTANT ENTRY HOLE AND PENETRATION

Carrier O.D.	Shaped Charge	Part Number	Perforating Condition	Explosive	Shot Density / Phasing	API 19B Targeted Pipe*	Performance in Stressed Berea *(API RP19B Sec. 2)*		
							EHD^ *(in)[cm]*	**EHD Variation Decentralized**	**TTP** *(in)[cm]*
3-3/8" 12g-13g	FracIQ 20	EC2-33A1271	Fluid	12.0g, RDX	6 spf / 60°	4.5"-5.5" OD P110	0.22 [0.56]	5.5%	5.0 [12.70]
	FracIQ 25	EC2-33A1371		13.0g, RDX		6.0" OD P110	0.26 [0.66]	2.3 %	

DEEP PENETRATING/EXTREME DEEP PENETRATING

Carrier O.D.	Shaped Charge	Part Number	Perforating Condition	Explosive	Shot Density / Phasing	^Casing O.D.	Performance in Concrete		Performance in Stressed Berea	
						Application	**EHD** *(in)[cm]*	**TTP** *(in)[cm]*	**EHD^** *(in)[cm]*	**TTP** *(in)[cm]*
3-3/8" 19g	3319 Connex RX	EC2-33A1991-RX	In Fluid or Dry	19.0g, RDX	6 spf / 60°	5-1/2"			0.32 [0.81]	11.30 [28.70]
		EC2-33A1992-RX		19.0g, HMX					0.32 [0.81]	11.60 [29.46]
	3319 Razor XDP	EC2-33A1921		19.0g, RDX		4-1/2"	0.51 [1.30]	42.07 [106.86]		
		EC2-33A1922		19.0g, HMX					0.43 [1.09]	14.60 [37.08]
3-3/8" 23g	3323 Connex SDP	EC2-33A2321-RC	In Fluid or Dry	22.7g, RDX	6 spf / 60°	4-1/2" L-80			0.40 [1.02]	15.60 [39.62]
		EC2-33A2322-RC		22.7g, HMX					0.46 [1.17]	15.31 [38.89]
		EC2-33A2323-RC		22.7g, HNS					0.36 [0.91]	11.85 [30.10]
	3323 Razor XDP	EC2-33A2321		22.7g, RDX					0.41 [1.04]	16.40 [41.66]
		EC2-33A2322		22.7g, HMX			0.45 [1.14]	46.32 [117.65]	0.44 [1.12]	15.68 [39.83]
		EC2-33A2323		22.7g, HNS					0.37 [0.94]	12.12 [30.78]
	3323 Basix XDP	EC2-33A2321-E	In Fluid or Dry	22.7g, RDX			0.45 [1.14]	46.32 [117.65]	0.39 [0.99]	12.30 [31.24]
		EC2-33A2322-E		22.7g, HMX			0.44 [1.12]	46.90 [119.13]		
	3323 Basix GH	EC2-33A2321-EG	Fluid	22.7g, RDX					0.41 [1.04]	11.90 [30.23]
		EC2-33A2322-EG		22.7g, HMX					0.40 [1.02]	11.90 [30.23]
	3323 Basix DP	EC2-33A2351	In Fluid or Dry	22.7g, RDX			0.47 [1.19]	32.10 [81.53]		
		EC2-33A2352		22.7g, HMX						
3-3/8" 25g	3325 Connex SDP	EC2-33B2521-RC	Fluid	25.0g, RDX	6 spf / 60°	4-1/2" L-80			0.40 [1.02]	15.10 [38.35]
		EC2-33B2522-RC		25.0g, HMX					0.48 [1.22]	15.45 [39.24]
		EC2-33B2523-RC		25.0g, HNS					0.35 [0.89]	12.30 [31.24]
	3325 Razor XDP	EC2-33B2521		25.0g, RDX			0.45 [1.14]	44.58 [113.23]	0.39 [0.99]	17.10 [43.43]
		EC2-33B2522		25.0g, HMX			0.53 [1.35]	47.30 [120.14]	0.50 [1.27]	16.27 [41.33]
		EC2-33B2523		25.0g, HNS			0.37 [0.94]	30.20 [76.71]	0.36 [0.91]	13.20 [33.53]
	3325 Basix XDP	EC2-33B2521-E		25.0g, RDX			0.45 [1.14]	50.08 [127.20]	0.40 [1.02]	12.30 [31.24]
		EC2-33B2522-E		25.0g, HMX			0.47 [1.19]	47.42 [120.45]		

GOOD HOLE

Carrier O.D.	Shaped Charge	Part Number	Perforating Condition	Explosive	Shot Density / Phasing	^Casing O.D.	Performance in Concrete		Performance in Stressed Berea	
						Application	**EHD** *(in)[cm]*	**TTP** *(in)[cm]*	**EHD^** *(in)[cm]*	**TTP** *(in)[cm]*
3-3/8" 19g	3319 Connex XEH	EC2-33A1941-RC	In Fluid or Dry	19.0g, RDX	6 spf / 60°	4-1/2" L-80			0.41 [1.04]	14.20 [36.07]
		EC2-33A1942-RC		19.0g, HMX					0.42 [1.07]	14.37 [36.50]
3-3/8" 23g	3323 Connex XEH	EC2-33A2341-RC	In Fluid or Dry	22.7g, RDX					0.43 [1.09]	15.60 [39.62]
		EC2-33A2342-RC		22.7g, HMX					0.43 [1.09]	15.89 [40.36]
	3323 Basix GH	EC2-33A2341		22.7g, RDX			0.52 [1.32]	33.58 [85.29]		
		EC2-33A2342		22.7g, HMX						
3-3/8" 25g	3325 Connex XEH	EC2-33B2541-RC	Fluid	25.0g, RDX						
		EC2-33B2542-RC		25.0g, HMX					0.40 [1.02]	14.92 [37.90]
	3325 Basix GH	EC2-33B2541		25.0g, RDX			0.57 [1.45]	25.91 [65.81]	0.50 [1.27]	16.50 [41.91]

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.
Performance in concrete represents API RP43 or API RP19B Section I testing results with the shot density/phasing, casing OD, and casing grade specified.
^EHD performance in stressed berea represents API RP19B Section 2 testing results with casing flat metal plate equivalent to 0.500" 120KSI yield and penetration (TTP) in stressed berea rock.