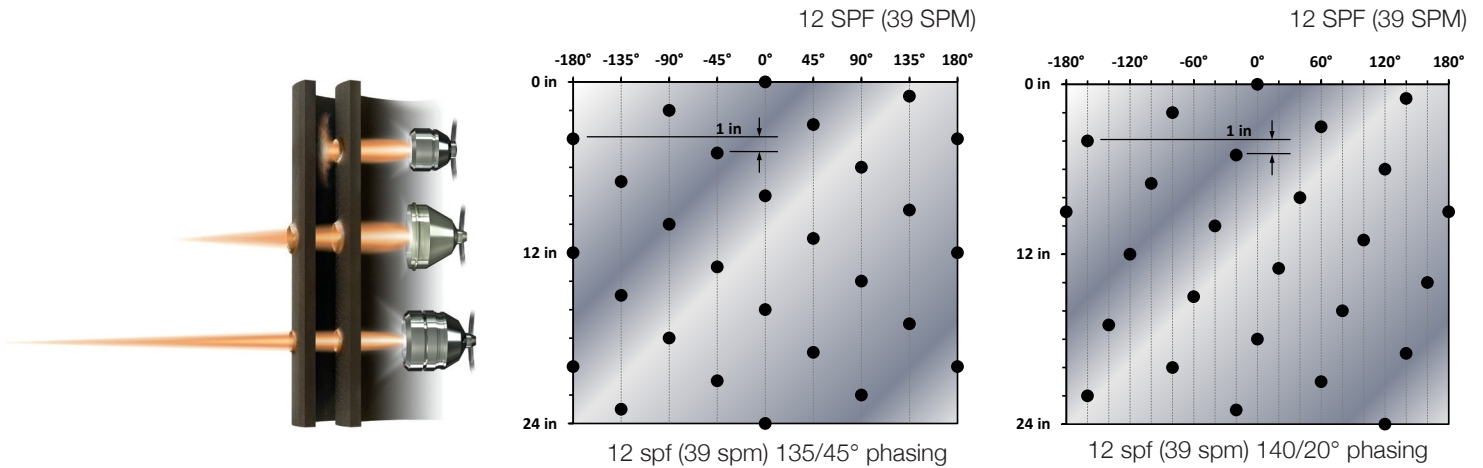


Squeeze Gun (S-Gun)

Titan Division | Perforating



Using increased shot density, Hunting’s S-Gun allows for maximum surface area access during cementing operations. This 360° coverage enables the complete distribution of cement over the desired area during plug and abandonment operations.

Features

- Various gun lengths to cover all areas needed
- Variety of entry hole sizes and penetration depths
- Offers the ability to run a “Salt and Pepper” configuration by allowing different charge types at the same time

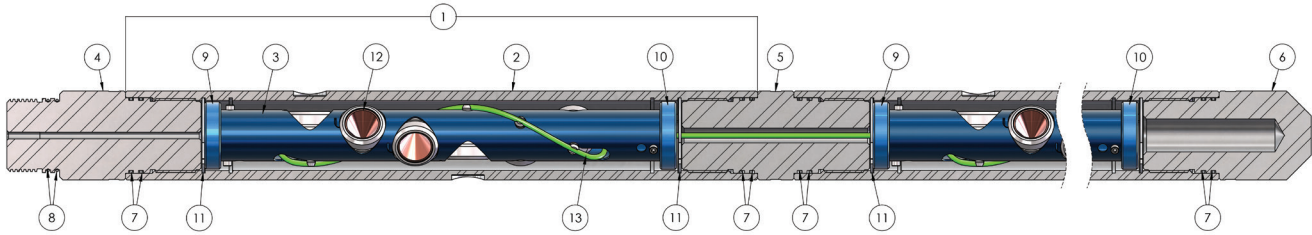
Benefits

- Tighter Perforations to allow better cement placement on desired area
- Easier and more consistent pump operations due to denser perforation points
- Efficient and cost effective
- Does not require special hardware for deployment

Hunting's Squeeze Gun - EXP Scalloped Hollow Carrier

12 SPF (39 SPM) GUNFACTS®

Gun Body Material:	Heat treated, seamless steel tubing
Gun Body Configuration:	Threaded and scalloped
Charge Tube Type:	Round steel tube
Mode of Fire:	Simultaneous or selective firing systems such as EBFire® and ControlFire®
Initiation Point:	Top or bottom fired options available for wireline and TCP
Detonating Cord:	80 grains/foot
O-Ring Material:	Nitrile - 90 Durometer (Viton - 95 Durometer for temperatures >325°F [163°C])



ITEM	ASSY. PART NO.	DESCRIPTION	SPF (SPM)	Phase
1	0363-G**-12E	3-1/8 in. (79 mm) Gun Assy.	12 (39)	140/20°
2	0365-G**-12E	3-3/8 in. (86 mm) Gun Assy.	12 (39)	140/20°
3	0445-1K**-12D	4-1/2 in. (114 mm) Gun Assy.	12 (39)	135/45°

** Gun length. Common Lengths are 2, 3, 4, 5, 7, 11, 15, & 21 foot. Example: Use "02" for 2ft gun; etc. (0365-B02-12E)

Compatible Hardware

ITEM	PART NO.			DESCRIPTION
	3-1/8 inch	3-3/8 inch	4-1/2 inch	
4	0363-000-001	0365-000-001	0445-000-001	Top Sub
5	0363-000-002	0365-000-002	0445-000-002	Tandem Sub
5A	0363-000-389A	0365-000-389A	0445-000-389A	Alternate Tandem Sub w/Port
5B	0363-000-489A	0365-000-489A	-	Alternate Window Tandem Sub
6	0363-000-003	0365-000-003	0445-000-003	Gun Bottom
7	0111-230-V95	0111-231-V95	0111-342-V95	O-Ring
8	0111-230-V95	0111-230-V95	0111-230-V95	O-Ring
TCP Conversion Kits (Not Pictured)				
	0503-500-150	0503-500-150	0514-500-150	Top TCP Booster Kit
	0503-500-160	0503-500-160	0514-500-160	Tandem TCP Booster Kit

Assembly Specifications	12 SPF (39 SPM)	12 SPF (39 SPM)	12 SPF (39 SPM)
	140/20°	140/20°	135/45°
Nominal O.D. (in) [mm]	3.13 [79]	3.38 [86]	4.50 [114]
Nominal Thickness (in) [mm]	0.31 [7.9]	0.37 [9.4]	0.38 [9.7]
Gun Swell (in) [mm]: Ambient Fluid.	Data Pending	Data Pending	4.62 [117] ≤ 22.7g
Gun Swell (in) [mm]: Ambient Gas.	Not Recommended	Not Recommended	Not Recommended
Minimum Recommended Restriction (in) [mm]	3.58 [91]	3.80 [97]	4.92 [125]
Maximum Pressure (psi) [MPa]	20,000 [138]	20,000 [138]	16,000 [110]
Approximate Weight Loaded (lb/ft) [kg/m]	13.0 [19.3]	16.0 [23.8]	24.0 [35.7]
Max. Tension (lbf) [kN]	220,000 [978]	270,000 [1,200]	453,000 [2,015]

Compatible Shaped Charges

Gun OD (in)[mm]	Part Number	Type	Explosive Weight (g)	Application	Exp. Type	Shot Density (spf)[spm], Phasing	Entry Hole (in)[mm]	Penetration (in)[cm]	Burr Height (in)[cm]	Casing Size (in)[mm]	Target Strength (psi)[MPa]
3-1/8 [79] & 3-3/8 [86]	<i>EXP-3112-421T</i>	DP	12.0	Fluid	HMX	12 [39] 135/45°	0.31 [8]	19.82 [50.34]	0.06 [0.15]	5 [127]	9,960 [68.7]
	FLO-3112-411CFZ	BH	12.0	Fluid	HMX	12 [39] 140/20°	0.55 [14]	4.68 [11.89]	0.06 [0.15]	5 [127]	5,860 [40.4]
4-1/2 [114]	<i>FLO-3112-410B</i>	BH	12.0	Fluid	HMX	12 [39] 135/45°	0.61 [15]	5.89 [14.96]	0.07 [0.18]	5-1/2 [140]	6,510 [44.9]
	EXP-4521-423T	SDP	21.0	F	HMX	12 [39] 135/45°	0.37 [9]	35.97 [91.36]	0.05 [0.13]	7 [178]	8,470 [58.4]
4-1/2 [114]	EXP-4521-431	GH	21.0	F	HMX	12 [39] 135/45°	0.46 [12]	22.02 [55.93]	0.07 [0.18]	7 [178]	5,350 [36.9]
	<i>FLO-4521-310B</i>	BH	21.0	F	RDX	12 [39] 135/45°	0.67 [17]	5.49 [13.94]	0.05 [0.13]	7 [178]	6,025 [41.5]

xxx-xxxx-3xxx for RDX, xxx-xxxx-4xxx for HMX, xxx-xxxx-5xxx for HNS. Italics indicate API RP-43 certification, Bold indicates API-19B certification

Contact Information

Sales
sales.titan@hunting-intl.com

Perforating
Pampa, TX USA
Milford, TX USA
Calgary, AB CAN

Instruments
Pampa, TX USA
Wichita Falls, TX USA
Houston, TX USA

Energetics
Milford, TX USA

Support
support.titan@hunting-intl.com

Distribution
Hunting's distribution centers are strategically placed globally. For more information, visit us at: www.hunting-intl.com/titan