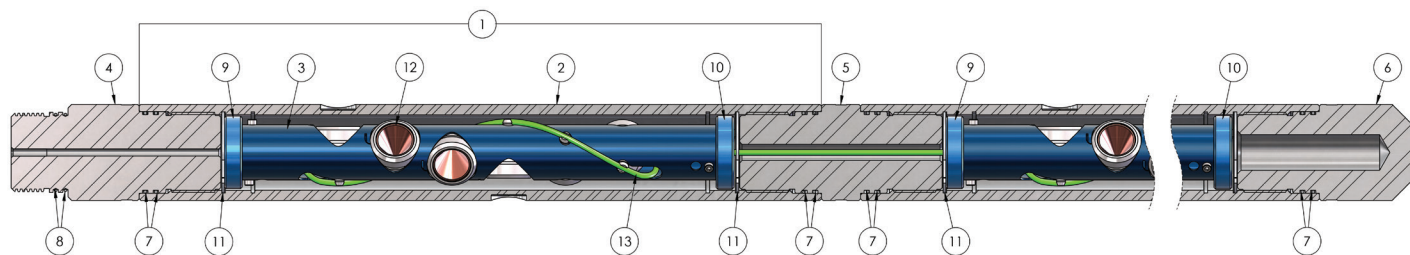


3-3/8 in. (86 mm) EXP Scalloped Hollow Carrier Gun



4 SPF (13 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])



02 Scalloped Guns

Expendable (EXP) Scalloped Hollow Carrier Assembly and Components						
	ITEM	PART NO.	DESCRIPTION	Gun Assy. #	Phase	
Gun Assy.	1	0365-B**-041	3-3/8 in. (86 mm) Gun Assy.	1	0°	
		0365-1A**-041	3-3/8 in. (86 mm) Gun Assy.	2	0°	
		0365-B**-046	3-3/8 in. (86 mm) Gun Assy.	1	60°	
		0365-1A**-046	3-3/8 in. (86 mm) Gun Assy.	2	60°	
		0365-B**-044	3-3/8 in. (86 mm) Gun Assy.	1	90°	
		0365-1A**-044	3-3/8 in. (86 mm) Gun Assy.	2	90°	
		0365-B**-042	3-3/8 in. (86 mm) Gun Assy.	1	180°	
	0365-1A**-042	3-3/8 in. (86 mm) Gun Assy.	2	180°		
	2	0365-1**-041	3-3/8 in. (86 mm) Carrier Body			0°
		0365-1**-046	3-3/8 in. (86 mm) Carrier Body			60°
		0365-1**-044	3-3/8 in. (86 mm) Carrier Body			90°
		0365-1**-042	3-3/8 in. (86 mm) Carrier Body			180°
	3	0363-17**-041	Charge Tube		1	0°
		0365-3A**-041	Charge Tube		2	0°
0363-17**-046		Charge Tube		1	60°	
0365-3A**-046		Charge Tube		2	60°	
0363-17**-044		Charge Tube		1	90°	
0365-3A**-044		Charge Tube		2	90°	
	0363-17**-042	Charge Tube		1	180°	
	0365-3A**-042	Charge Tube		2	180°	
Common Parts	4	0365-000-001	Top Sub			
	5	0365-000-002	Tandem Sub			
	5A	0365-000-389A	Alternate Tandem Sub w/Port			
	5B	0365-000-489A	Alternate Window Tandem Sub			
	6	0365-000-003	Gun Bottom			
	7	0111-231-V95	O-Ring			
	8	0111-230-V95	O-Ring			
	9	0365-700-031	Chg. Tube End Fitting - Aligning		1	
		0365-800-031	Chg. Tube End Fitting - Aligning		2	
	10	0365-700-041	Chg. Tube End Fitting		1	
		0365-800-041	Chg. Tube End Fitting		2	
	11	0403-200-037	Snap Ring			
	12		Shaped Charge			
13		Detonating Cord				
TCP Conversion Kits (Not Pictured)						
		0503-500-150	Top TCP Booster Kit			
		0503-500-160	Tandem TCP Booster Kit			
			Associated Hardware (Page 72)			

** Gun length. Common Lengths are 2, 3, 4, 5, 7, 11, 15, & 21 foot.
 Example: Use "02" for 2ft gun assembly; etc. (0365-B02-046)

Compatible Shaped Charges (Shaped Charge Summary - Page 87 & Page 90)					
Part Number	Gun Assy. #	Type	Explosive Weight (g)	Application	Explosive Type
EXP-3319-423T	1	SDP	19.0	F, G	HMX
EXP-3321-421T	1	SDP	21.0	F, G	HMX
<u>EXP-3323-423T</u>	1	SDP	22.7	F, G	HMX
<u>EXP-3326-421T</u>	1	SDP	26.0	F, G	HMX
EXP-3323-471T	1	EQF	23.0	F, G	HMX
<u>EXP-3319-302</u>	1	DP	19.0	F, G	RDX
<u>EXP-3323-302</u>	1	DP	22.7	F, G	RDX
<u>EXP-3323-461T</u>	1	DP	22.7	F, G	HMX
<u>EXP-3325-331</u>	2	GH	25.0	F, G	RDX
EXP-3319-431	1	GH	19.0	F, G	HMX
<u>EXP-3323-431</u>	1	GH	22.7	F, G	HMX
FLO-3323-311CF	1	BH	22.7	F, G	RDX
FLO-3323-310B	1	BH	22.7	F, G	RDX

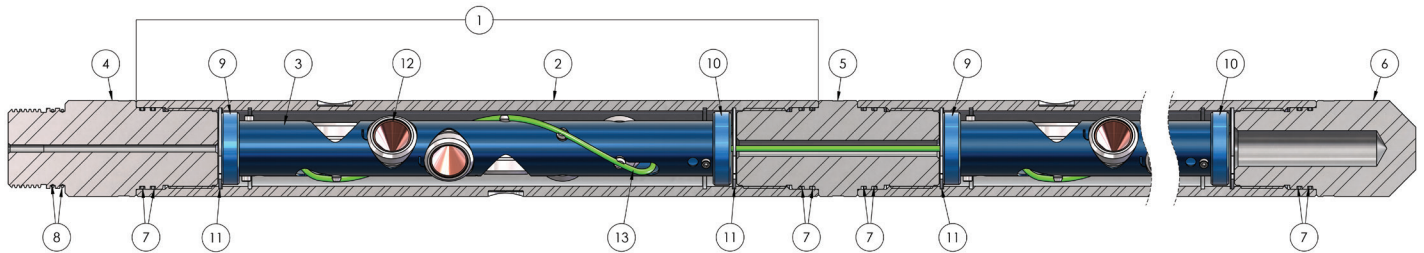
xxx-xxxx-3xxx for RDX, xxx-xxxx-4xxx for HMX, xxx-xxxx-5xxx for HNS
Bold indicates API-19B certification
Italics indicate API RP-43 certification
 Underlined Part Number indicates link to API Data Sheet available
 EQF indicates EQUAfrac® consistent hole shaped charges
 Application: "F" indicates that system is able to be fired in fluid
 "G" indicates that system is able to be fired in gas
 Phasing Compatibility: Refer to listed phasing(s) in Specifications table below

Specifications - EXP Scalloped Hollow Carrier Assy.	4 SPF (13 SPM)			
	0°	60°	90°	180°
Nominal O.D. (in) [mm]	3.38 [86]			
Nominal Thickness (in) [mm]	0.37 [9.4]			
Gun Swell (in) [mm]: Ambient Fluid.	3.61 [92] ≤ 22.7g	3.58 [91] ≤ 26.0g	3.61 [92] ≤ 26.0g	3.56 [90] ≤ 22.7g
Gun Swell (in) [mm]: Ambient Gas.	NR	3.68 [93] ≤ 26.0g	3.62 [92] ≤ 26.0g	NR
Minimum Recommended Restriction (in) [mm]	3.80 [97]			
Maximum Pressure (psi) [MPa]	18,000 [124]	20,000 [138]	18,000 [124]	
Distance to First Scallop (in) [mm]	7.50 [191]			
Approximate Weight - Loaded (lb/ft) [kg/m]	16.0 [23.8]			
Max. Tension (lb) [kN]	270,000 [1,200]			

NR Not Recommended

5 SPF (16 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])



Expendable (EXP) Scalloped Hollow Carrier Assembly and Components				
	ITEM	PART NO.	DESCRIPTION	Phase
Gun Assy.	1	0365-B**-051	3-3/8 in. (86 mm) Gun Assy.	0°
		0365-B**-056	3-3/8 in. (86 mm) Gun Assy.	60°
		0365-B**-052	3-3/8 in. (86 mm) Gun Assy.	180°
	2	0365-1**-051	3-3/8 in. (86 mm) Carrier Body	0°
		0365-1**-056	3-3/8 in. (86 mm) Carrier Body	60°
		0365-1**-052	3-3/8 in. (86 mm) Carrier Body	180°
	3	0363-17**-051	Charge Tube	0°
		0363-17**-056	Charge Tube	60°
		0363-17**-052	Charge Tube	180°
Common Parts	4	0365-000-001	Top Sub	
	5	0365-000-002	Tandem Sub	
	5A	0365-000-389A	Alternate Tandem Sub w/Port	
	5B	0365-000-489A	Alternate Window Tandem Sub	
	6	0365-000-003	Gun Bottom	
	7	0111-231-V95	O-Ring	
	8	0111-230-V95	O-Ring	
	9	0365-700-031	Chg. Tube End Fitting - Aligning	
	10	0365-700-041	Chg. Tube End Fitting	
	11	0403-200-037	Snap Ring	
	12		Shaped Charge	
	13		Detonating Cord	
	TCP Conversion Kits (Not Pictured)			
		0503-500-150	Top TCP Booster Kit	
		0503-500-160	Tandem TCP Booster Kit	
			Associated Hardware (Page 72)	

** Gun length. Common Lengths are 2, 3, 4, 5, 7, 11, 15, & 21 foot.
 Example: Use "02" for 2ft gun assembly; etc. (0365-B02-056)

Compatible Shaped Charges (Shaped Charge Summary - Page 87)				
Part Number	Type	Explosive Weight (g)	Application	Explosive Type
EXP-3319-423T	SDP	19.0	F	HMX
EXP-3321-421T	SDP	21.0	F	HMX
<u>EXP-3323-423T</u>	SDP	22.7	F	HMX
EXP-3319-302	DP	19.0	F	RDX
EXP-3323-302	DP	22.7	F	RDX
<u>EXP-3323-461T</u>	DP	22.7	F	HMX
EXP-3319-431	GH	19.0	F	HMX
<u>EXP-3323-431</u>	GH	22.7	F	HMX

xxx-xxxx-3xxx for RDX, xxx-xxxx-4xxx for HMX, xxx-xxxx-5xxx for HNS

Bold indicates API-19B certification

Italics indicate API RP-43 certification

Underlined Part Number indicates link to API Data Sheet available

Application: "F" indicates that system is able to be fired in fluid

"G" indicates that system is able to be fired in gas

Phasing Compatibility: Refer to listed phasing(s) in Specifications table below

Specifications - EXP Scalloped Hollow Carrier Assy.	5 SPF (16 SPM)		
	0°	60°	180°
Nominal O.D. (in) [mm]	3.38 [86]		
Nominal Thickness (in) [mm]	0.37 [9.4]		
Gun Swell (in) [mm]: Ambient Fluid. ≤ 22.7g	3.60 [91] ≤ 22.7g	No Test	3.56 [90] ≤ 22.7g
Gun Swell (in) [mm]: Ambient Gas.	NR	No Test	NR
Minimum Recommended Restriction (in) [mm]	3.80 [97]		
Maximum Pressure (psi) [MPa]	15,800 [109]	20,000 [138]	19,500 [135]
Distance to First Scallop (in) [mm]	7.20 [183]		
Approximate Weight - Loaded (lb/ft) [kg/m]	16.0 [23.8]		
Max. Tension (lb/ft) [kN]	270,000 [1,200]		

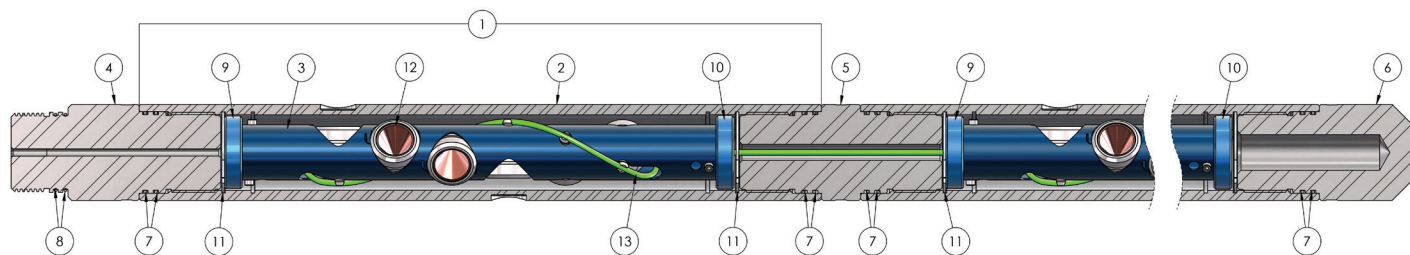
NR Not Recommended

3-3/8 in. (86 mm) EXP Scalloped Hollow Carrier Gun



6 SPF (20 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])



02 Scalloped Guns

Expendable (EXP) Scalloped Hollow Carrier Assembly and Components					
	ITEM	PART NO.	DESCRIPTION	Gun Assy. #	Phase
Gun Assy.	1	0365-B**-066	3-3/8 in. (86 mm) Gun Assy.	1	60°
		0365-1A**-066	3-3/8 in. (86 mm) Gun Assy.	2	60°
	2	0365-1**-066	3-3/8 in. (86 mm) Carrier Body		60°
	3	0363-17**-066	Charge Tube	1	60°
		0365-3A**-066	Charge Tube	2	60°
Common Parts	4	0365-000-001	Top Sub		
	5	0365-000-002	Tandem Sub		
	5A	0365-000-389A	Alternate Tandem Sub w/Port		
	5B	0365-000-489A	Alternate Window Tandem Sub		
	6	0365-000-003	Gun Bottom		
	7	0111-231-V95	O-Ring		
	8	0111-230-V95	O-Ring		
	9	0365-700-031	Chg. Tube End Fitting - Aligning	1	
		0365-800-031	Chg. Tube End Fitting - Aligning	2	
	10	0365-700-041	Chg. Tube End Fitting	1	
		0365-800-041	Chg. Tube End Fitting	2	
	11	0403-200-037	Snap Ring		
	12		Shaped Charge		
13		Detonating Cord			
TCP Conversion Kits (Not Pictured)					
		0503-500-150	Top TCP Booster Kit		
		0503-500-160	Tandem TCP Booster Kit		
			Associated Hardware (Page 72)		

Compatible Shaped Charges (Shaped Charge Summary - Page 87 & Page 90)					
Part Number	Gun Assy. #	Type	Explosive Weight (g)	Application	Explosive Type
EXP-3319-423T	2	SDP	19.0	F, G	HMX
EXP-3321-421T	1	SDP	21.0	F, G	HMX
<u>EXP-3323-423T</u>	1	SDP	22.7	F	HMX
<u>EXP-3326-421T</u>	2	SDP	26.0	F	HMX
EXP-3323-471T	1	EQF	23.0	F	HMX
<u>EXP-3319-302</u>	1	DP	19.0	F, G	RDX
<u>EXP-3323-302</u>	1	DP	22.7	F	RDX
<u>EXP-3323-461T</u>	1	DP	22.7	F	HMX
<u>EXP-3325-331</u>	2	GH	25.0	F	RDX
EXP-3319-431	1	GH	19.0	F, G	HMX
<u>EXP-3323-431</u>	1	GH	22.7	F	HMX
FLO-3323-311CF	1	BH	22.7	F	RDX
FLO-3323-310B	1	BH	22.7	F	RDX

xxx-xxxx-3xxx for RDX, xxx-xxxx-4xxx for HMX, xxx-xxxx-5xxx for HNS

Bold indicates API-19B certification

Italics indicate API RP-43 certification

Underlined Part Number indicates link to API Data Sheet available

EQF indicates EQUAfrac® consistent hole shaped charges

Application: "F" indicates that system is able to be fired in fluid

"G" indicates that system is able to be fired in gas

Phasing Compatibility: Refer to listed phasing(s) in Specifications table below

** Gun length. Common Lengths are 2, 3, 4, 5, 7, 11, 15, & 21 foot.

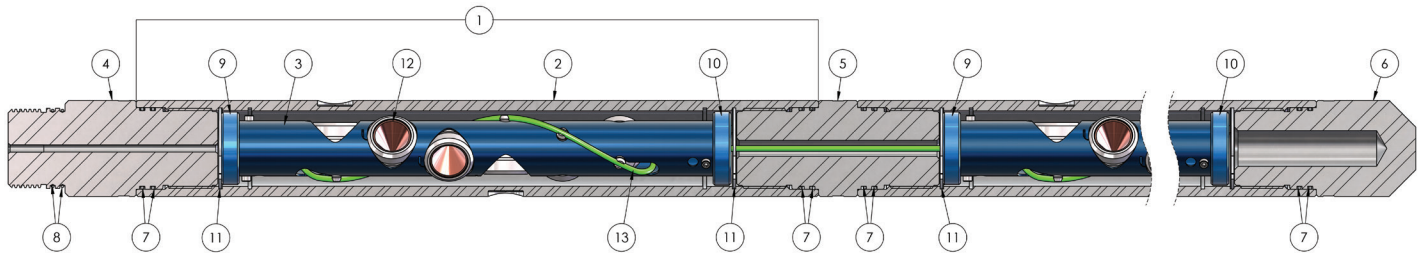
Example: Use "02" for 2ft gun assembly; etc. (0365-B02-066)

Specifications - EXP Scalloped Hollow Carrier Assy.	6 SPF (20 SPM)
	60°
Nominal O.D. (in) [mm]	3.38 [86]
Nominal Thickness (in) [mm]	0.37 [9.4]
Gun Swell (in) [mm]: Ambient Fluid. ≤ 26.0g	3.58 [91] ≤ 26.0g
Gun Swell (in) [mm]: Ambient Gas. ≤ 21.0g	3.62 [92] ≤ 21.0g
Minimum Recommended Restriction (in) [mm]	3.80 [97]
Maximum Pressure (psi) [MPa]	20,000 [138]
Distance to First Scallop (in) [mm]	7.00 [178]
Approximate Weight - Loaded (lb/ft) [kg/m]	16.0 [23.8]
Max. Tension (lbf) [kN]	270,000 [1,200]

NR Not Recommended

8 SPF (26 SPM) & 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])



Expendable (EXP) Scalloped Hollow Carrier Assembly and Components					
	ITEM	PART NO.	DESCRIPTION	SPF (SPM)	Phase
Gun Assy.	1	0365-G**-08D	3-3/8 in. (86 mm) Gun Assy.	8 (26)	135/45°
		0365-G**-12E	3-3/8 in. (86 mm) Gun Assy.	12 (39)	140/20°
	2	0365-1**-08D	3-3/8 in. (86 mm) Carrier Body	8 (26)	135/45°
		0365-1**-12E	3-3/8 in. (86 mm) Carrier Body	12 (39)	140/20°
	3	0365-4**-08D	Charge Tube	8 (26)	135/45°
		0365-4**-12E	Charge Tube	12 (39)	140/20°
Common Parts	4	0365-000-001	Top Sub		
	5	0365-000-002	Tandem Sub		
	5A	0365-000-389A	Alternate Tandem Sub w/Port		
	5B	0365-000-489A	Alternate Window Tandem Sub		
	6	0365-000-003	Gun Bottom		
	7	0111-231-V95	O-Ring		
	8	0111-230-V95	O-Ring		
	9	0365-700-031	Chg. Tube End Fitting - Aligning		
	10	0365-700-041	Chg. Tube End Fitting		
	11	0403-200-037	Snap Ring		
	12		Shaped Charge		
	13		Detonating Cord		
	TCP Conversion Kits (Not Pictured)				
		0503-500-150	Top TCP Booster Kit		
		0503-500-160	Tandem TCP Booster Kit		
			Associated Hardware (Page 72)		

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

Compatible Shaped Charges (Shaped Charge Summary - Page 87)				
Part Number	Type	Explosive Weight (g)	Application	Explosive Type
<i>EXP-3112-421T</i>	DP	12.0	F	HMX
<u>FLO-3112-411CF</u>	BH	12.0	F	HMX
<i>FLO-3112-410B</i>	BH	12.0	F	HMX

xxx-xxxx-3xxx for RDX, xxx-xxxx-4xxx for HMX, xxx-xxxx-5xxx for HNS
Bold indicates API-19B certification
Italics indicate API RP-43 certification
 Underlined Part Number indicates link to API Data Sheet available
 Application: "F" indicates that system is able to be fired in fluid
 "G" indicates that system is able to be fired in gas
 Phasing Compatibility: Refer to listed phasing(s) in Specifications table below

Specifications - EXP Scalloped Hollow Carrier Assy.	8 SPF (26 SPM)	12 SPF (39 SPM)
	135/45°	140/20°
Nominal O.D. (in) [mm]	3.38 [86]	
Nominal Thickness (in) [mm]	0.37 [9.4]	
Gun Swell (in) [mm]: Ambient Fluid.	Data Pending	Data Pending
Gun Swell (in) [mm]: Ambient Gas.	NR	NR
Minimum Recommended Restriction (in) [mm]	3.80 [97]	
Maximum Pressure (psi) [MPa]	20,000 [138]	
Distance to First Scallop (in) [mm]	6.75 [171]	6.50 [165]
Approximate Weight - Loaded (lb/ft) [kg/m]	15.0 [22.3]	16.0 [23.8]
Max. Tension (lbf) [kN]	270,000 [1,200]	

NR Not Recommended