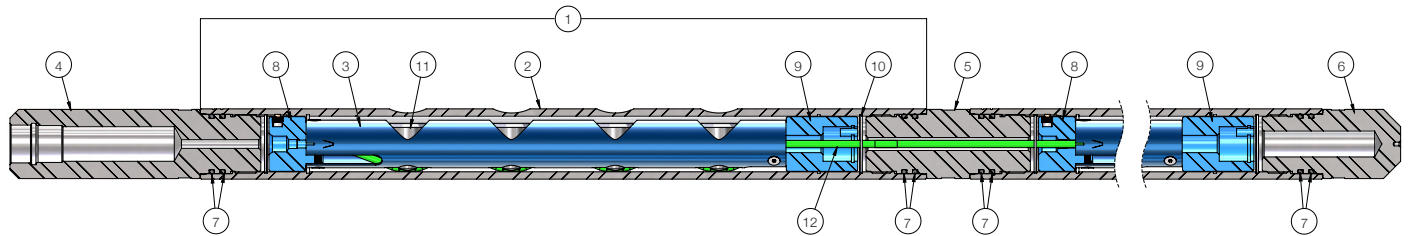


# 2-1/2 in. (64 mm) Scalloped Hollow Carrier Gun - Threaded



## 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: 40 grains/foot, FLAT RIBBON  
 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	Phase	
Gun Assy.	1	0228-A**-041	2-1/2 in. (64 mm) Gun Assy.	0°
		0228-A**-046	2-1/2 in. (64 mm) Gun Assy.	60°
		0228-A**-044	2-1/2 in. (64 mm) Gun Assy.	90°
		0228-A**-042	2-1/2 in. (64 mm) Gun Assy.	180°
	2	0228-1**-041	2-1/2 in. (64 mm) Carrier Body	0°
		0228-1**-046	2-1/2 in. (64 mm) Carrier Body	60°
		0228-1**-044	2-1/2 in. (64 mm) Carrier Body	90°
		0228-1**-042	2-1/2 in. (64 mm) Carrier Body	180°
	3	0328-5**-041	Charge Tube	0°
		0328-5**-046	Charge Tube	60°
		0328-5**-044	Charge Tube	90°
		0328-5**-042	Charge Tube	180°
Common Parts	4	0228-000-001	Top Sub	
	5	0228-000-002	Tandem Sub	
	6	0228-000-003	Gun Bottom	
	7	0111-225-V95	O-Ring	
	8	0228-500-131	Chg. Tube End Fitting - Aligning	
	9	0228-500-131	Chg. Tube End Fitting	
	10	0228-200-037	Snap Ring	
	11		Shaped Charge	
12		Detonating Cord		
<b>TCP Conversion Kits (Not Pictured)</b>				
	0520-500-150	Top TCP Booster Kit		
	0520-500-160	Tandem TCP Booster Kit		
		Associated Hardware (Page 72)		

Compatible Shaped Charges (Shaped Charge Summary - Page 86)				
Part Number	Type	Explosive Weight (g)	Application	Explosive Type
<b>RTG-2512-421T</b>	SDP	12.0	F	HMX
<b>RTG-2512-431</b>	GH	12.0	F	HMX
<i>FLO-2511-310B</i>	BH	11.0	F, G	RDX

xxx-xxx-3xxx for RDX, xxx-xxx-4xxx for HMX, xxx-xxx-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

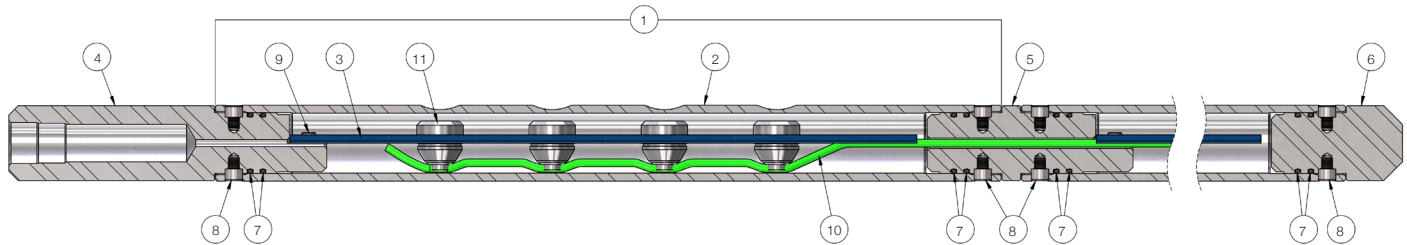
\*\* Gun length. Common Lengths are 2, 3, 4, 5, 7, 11, 15, & 21 foot.  
 Example: Use "02" for 2ft gun assembly; etc. (0228-A02-046)

Specifications - EXP Scalloped Hollow Carrier Assy.	4 SPF (13 SPM)			
	0°	60°	90°	180°
Nominal O.D. (in) [mm]	2.50 [64]			
Nominal Thickness (in) [mm]	0.25 [6.4]			
Gun Swell (in) [mm]: Ambient Fluid.	2.71 [69] ≤ 12.0g	2.69 [68] ≤ 12.0g	2.69 [68] ≤ 12.0g	2.69 [68] ≤ 12.0g
Gun Swell (in) [mm]: Ambient Gas.	N/R	No Test	No Test	2.66 [68] ≤ 11.0g
Minimum Recommended Restriction (in) [mm]	2.77 [70]			
Maximum Pressure (psi) [MPa]	13,000 [90]	20,000 [138]	18,000 [124]	
Distance to First Scallop (in) [mm]	7.50 [191]			
Approximate Weight - Loaded (lb/ft) [kg/m]	8.00 [11.91]			
Max. Tension (lbf) [kN]	80,000 [356]			

N/R Not Recommended

## 4 SPF (13 SPM) GUNFACTS®

Gun Body Material: Heat treated, seamless steel tubing  
 Gun Body Configuration: Bolted and scalloped  
 Charge Tube Type: Round steel tube or flat strip option (for 0° and 180°)  
 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: 40 grains/foot, FLAT RIBBON  
 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	0328-A**-041	2-1/2 in. (64 mm) Gun Assy.	0°
		0328-A**-046	2-1/2 in. (64 mm) Gun Assy.	60°
		0328-A**-044	2-1/2 in. (64 mm) Gun Assy.	90°
		0328-A**-042	2-1/2 in. (64 mm) Gun Assy.	180°
	2	0328-***-041	2-1/2 in. (64 mm) Carrier Body	0°
		0328-***-046	2-1/2 in. (64 mm) Carrier Body	60°
		0328-***-044	2-1/2 in. (64 mm) Carrier Body	90°
		0328-***-042	2-1/2 in. (64 mm) Carrier Body	180°
	3	0328-800-†††	Charge Strip	0°
		0328-5**-046	Charge Tube	60°
		0328-5**-044	Charge Tube	90°
		0328-800-†††	Charge Tube	180°
Common Parts	4	0328-000-001	Top Sub	
	5	0328-000-002	Tandem Sub	
	6	0328-000-004	Gun Bottom	
	7	0111-224-V95	O-Ring	
	8	0328-000-019	Cap Screw	
	9	0320-000-003	Cap Screw	
	10		Detonating Cord	
11		Shaped Charge		

Compatible Shaped Charges (Shaped Charge Summary - Page 86)				
Part Number	Type	Explosive Weight (g)	Application	Explosive Type
<u>RTG-2512-421T</u>	SDP	12.0	F	HMX
<u>RTG-2512-431</u>	GH	12.0	F	HMX
<u>FLO-2511-310B</u>	BH	11.0	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

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 assembly length. Common Lengths are 2, 3, 4, 5, 7, 11, 15, & 21 foot.  
Example: Use "02" for 2ft gun; etc. (0328-A02-046)

\*\*\* Carrier body length. Example: Use "021" for a 21 in carrier

††† Number of shots on the charge strip. Example: Use "080" for 80 shots.

Specifications - EXP Scalloped Hollow Carrier Assy.	4 SPF (13 SPM)			
	0°	60°	90°	180°
Nominal O.D. (in) [mm]	2.50 [64]			
Nominal Thickness (in) [mm]	0.25 [6.4]			
Gun Swell (in) [mm]: Ambient Fluid.	2.71 [69] ≤ 12.0g	2.69 [68] ≤ 12.0g	2.69 [68] ≤ 12.0g	2.69 [68] ≤ 12.0g
Gun Swell (in) [mm]: Ambient Gas.	NR	No Test	No Test	2.66 [68] ≤ 11.0g
Minimum Recommended Restriction (in) [mm]	2.77 [70]			
Maximum Pressure (psi) [MPa]	13,000 [90]	20,000 [138]	18,000 [124]	
Distance to First Scallop (in) [mm]	7.00 [178]			
Approximate Weight - Loaded (lb/ft) [kg/m]	8.00 [11.91]			
Max. Tension (lbf) [kN]	80,000 [356]			

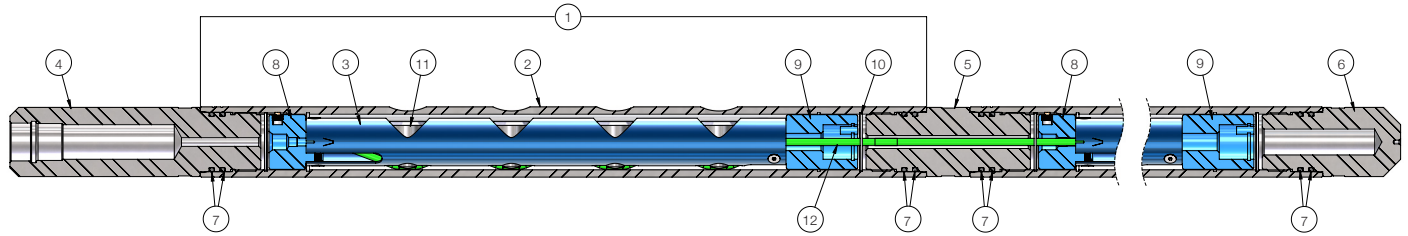
NR Not Recommended

# 2-1/2 in. (64 mm) Scalloped Hollow Carrier Gun - Threaded



## 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: 40 grains/foot, FLAT RIBBON  
 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	Phase	
Gun Assy.	1	0228-A**-061	2-1/2 in. (64 mm) Gun Assy.	0°	
		0228-A**-066	2-1/2 in. (64 mm) Gun Assy.	60°	
	2	0228-1**-061	2-1/2 in. (64 mm) Carrier Body	0°	
		0228-1**-066	2-1/2 in. (64 mm) Carrier Body	60°	
	3	0328-5**-061	Charge Tube	0°	
		0328-5**-066	Charge Tube	60°	
Common Parts	4	0228-000-001	Top Sub		
	5	0228-000-002	Tandem Sub		
	6	0228-000-003	Gun Bottom		
	7	0111-225-V95	O-Ring		
	8	0228-500-131	Chg. Tube End Fitting - Aligning		
	9	0228-500-131	Chg. Tube End Fitting		
	10	0228-200-037	Snap Ring		
	11		Shaped Charge		
	12		Detonating Cord		
	<b>TCP Conversion Kits (Not Pictured)</b>				
			0520-500-150	Top TCP Booster Kit	
			0520-500-160	Tandem TCP Booster Kit	
			Associated Hardware (Page 72)		

Compatible Shaped Charges (Shaped Charge Summary - Page 86)				
Part Number	Type	Explosive Weight (g)	Application	Explosive Type
<b>RTG-2512-421T</b>	SDP	12.0	F	HMX
<b>RTG-2512-431</b>	GH	12.0	F	HMX
<i>FLO-2511-310B</i>	BH	11.0	F	RDX

xxx-xxx-3xxx for RDX, xxx-xxx-4xxx for HMX, xxx-xxx-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

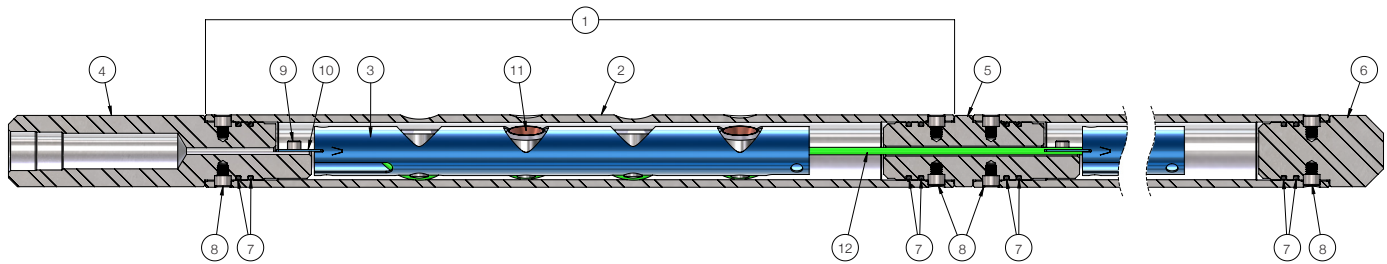
\*\* Gun length. Common Lengths are 2, 3, 4, 5, 7, 11, 15, & 21 foot.  
 Example: Use "02" for 2ft gun assembly; etc. (0228-A02-066)

Specifications - EXP Scalloped Hollow Carrier Assy.	6 SPF (20 SPM)	
	0°	60°
Nominal O.D. (in) [mm]	2.50 [64]	
Nominal Thickness (in) [mm]	0.25 [6.4]	
Gun Swell (in) [mm]: Ambient Fluid.	2.71 [69] ≤ 11.0g	2.68 [68] ≤ 12.0g
Gun Swell (in) [mm]: Ambient Gas.	NR	NR
Minimum Recommended Restriction (in) [mm]	2.73 [69]	
Maximum Pressure (psi) [MPa]	8,000 [55]	20,000 [138]
Distance to First Scallop (in) [mm]	7.00 [178]	
Approximate Weight - Loaded (lb/ft) [kg/m]	9.00 [13.39]	
Max. Tension (lbf) [kN]	80,000 [356]	

NR Not Recommended

## 6 SPF (20 SPM) GUNFACTS®

Gun Body Material: Heat treated, seamless steel tubing  
 Gun Body Configuration: Bolted 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: 40 grains/foot, FLAT RIBBON  
 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	0328-A**-061	2-1/2 in. (64 mm) Gun Assy.	0°
		0328-A**-066	2-1/2 in. (64 mm) Gun Assy.	60°
	2	0328-***-061	2-1/2 in. (64 mm) Carrier Body	0°
		0328-***-066	2-1/2 in. (64 mm) Carrier Body	60°
	3	0328-5**-061	Charge Tube	0°
		0328-5**-066	Charge Tube	60°
Common Parts	4	0328-000-001	Top Sub	
	5	0328-000-002	Tandem Sub	
	6	0328-000-004	Gun Bottom	
	7	0111-224-V95	O-Ring	
	8	0328-000-019	Cap Screw	
	9	0320-000-003	Cap Screw	
	10	0325-500-031	Charge Tube Mounting Piece	
	11		Shaped Charge	
12		Detonating Cord		

Compatible Shaped Charges (Shaped Charge Summary - Page 86)				
Part Number	Type	Explosive Weight (g)	Application	Explosive Type
<u>RTG-2512-421T</u>	SDP	12.0	F	HMX
<u>RTG-2512-431</u>	GH	12.0	F	HMX
<u>FLO-2511-310B</u>	BH	11.0	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

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. (0328-A02-066)

\*\*\* Carrier body length. Example: Use "021" for a 21 in carrier

††† Number of shots on the charge strip. Example: Use "080" for 80 shots.

Specifications - EXP Scalloped Hollow Carrier Assy.	6 SPF (20 SPM)	
	0°	60°
Nominal O.D. (in) [mm]	2.50 [64]	
Nominal Thickness (in) [mm]	0.25 [6.4]	
Gun Swell (in) [mm]: Ambient Fluid.	2.71 [69] ≤ 11.0g	2.68 [68] ≤ 12.0g
Gun Swell (in) [mm]: Ambient Gas.	NR	NR
Minimum Recommended Restriction (in) [mm]	2.73 [69]	
Maximum Pressure (psi) [MPa]	8,000 [55]	20,000 [138]
Distance to First Scallop (in) [mm]	7.00 [178]	
Approximate Weight - Loaded (lb/ft) [kg/m]	9.00 [13.39]	
Max. Tension (lbf) [kN]	80,000 [356]	

NR Not Recommended