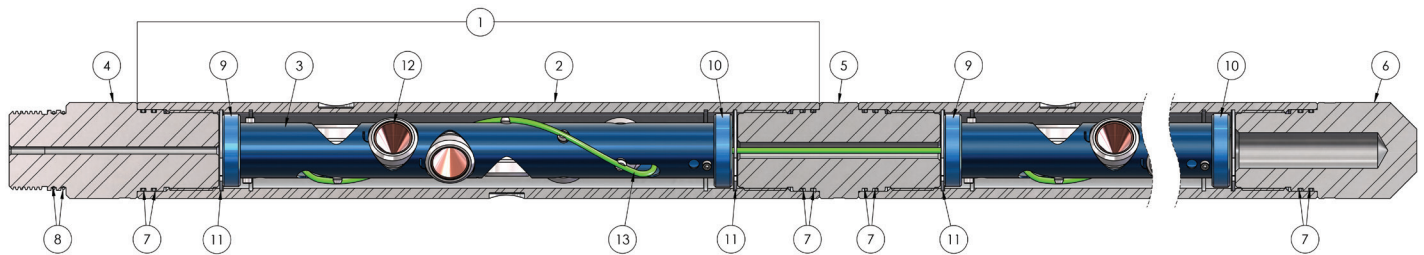


# 4 in. (102 mm) EXP Scalloped Hollow Carrier Gun



## 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             | 0400-A**-044    | 4 in. (102 mm) Gun Assy.         | 1           | 90°   |
|   |               | 0400-C**-044    | 4 in. (102 mm) Gun Assy.         | 2           | 90°   |
|   |               | 0400-1A**-044   | 4 in. (102 mm) Gun Assy.         | 3           | 90°   |
|   | 2             | 0400-1**-044    | 4 in. (102 mm) Carrier Body      |             | 90°   |
|   |               | 0400-5**-044    | Charge Tube                      | 1           | 90°   |
|   |               | 0400-7**-044    | Charge Tube                      | 2           | 90°   |
|   | 0445-3A**-044 | Charge Tube     | 3                                | 90°         |       |
| Common Parts  | 4             | 0400-000-001    | Top Sub                          |             |       |
|   | 5             | 0400-000-002    | Tandem Sub                       |             |       |
|   | 5A            | 0400-000-389A   | Alternate Window Tandem Sub      |             |       |
|   | 6             | 0400-000-003    | Gun Bottom                       |             |       |
|   | 7             | 0111-236-090    | O-Ring                           |             |       |
|   | 8             | 0111-230-090    | O-Ring                           |             |       |
|   | 9             | 0400-500-031    | Chg. Tube End Fitting - Aligning | 1           |       |
|   |               | 0400-700-031    | Chg. Tube End Fitting - Aligning | 2           |       |
|   |               | 0400-300-031    | Chg. Tube End Fitting - Aligning | 3           |       |
|   | 10            | 0400-500-041    | Chg. Tube End Fitting            | 1           |       |
|   |               | 0400-700-041    | Chg. Tube End Fitting            | 2           |       |
|   |               | 0400-300-047    | Chg. Tube End Fitting            | 3           |       |
|   | 11            | 0404-200-037    | Snap Ring                        |             |       |
| 12  |               | Shaped Charge   |                                  |             |       |
| 13  |               | Detonating Cord |                                  |             |       |
| <b>TCP Conversion Kits (Not Pictured)</b>                         |               |                 |                                  |             |       |
|   |               | 0504-500-150    | Top TCP Booster Kit              |             |       |
|   |               | 0504-500-160    | 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. (0400-B02-044)

| Compatible Shaped Charges (Shaped Charge Summary - Page 87) |             |      |                      |             |                |
|---|-------------|------|----------------------|-------------|----------------|
| Part Number   | Gun Assy. # | Type | Explosive Weight (g) | Application | Explosive Type |
| EXP-3321-421T   | 2           | SDP  | 21.0                 | F, G        | HMX            |
| EXP-3323-423T   | 2           | SDP  | 22.7                 | F, G        | HMX            |
| <u>EXP-3326-421T</u>  | 2           | SDP  | 26.0                 | F, G        | HMX            |
| <u>EXP-4039-423T</u>  | 1           | SDP  | 38.5                 | F, G        | HMX            |
| EXP-4539-425T   | 3           | SDP  | 38.5                 | F, G        | HMX            |
| <u>EXP-3319-302</u>   | 2           | DP   | 19.0                 | F, G        | RDX            |
| <u>EXP-3323-302</u>   | 2           | DP   | 22.7                 | F, G        | RDX            |
| <u>EXP-3323-461T</u>  | 2           | DP   | 22.7                 | F, G        | HMX            |
| EXP-3319-431  | 2           | GH   | 19.0                 | F, G        | HMX            |
| EXP-3323-431  | 2           | GH   | 22.7                 | F, G        | HMX            |
| <u>EXP-3325-331</u>   | 2           | GH   | 25.0                 | F, G        | RDX            |

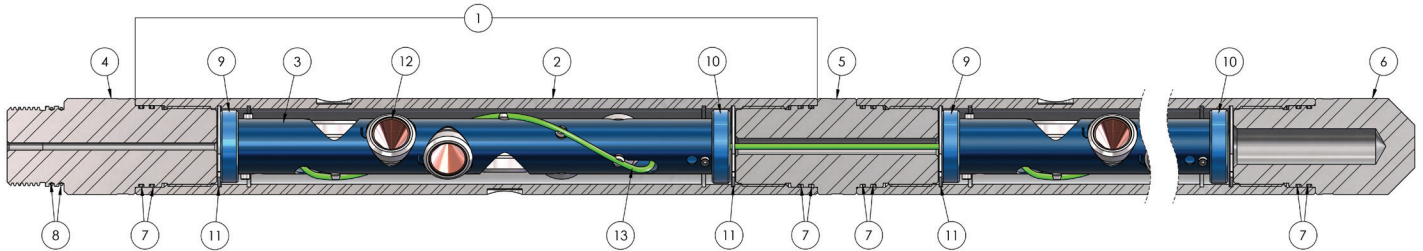
xxx-xxxx-3xxx for RDX, xxx-xxxx-4xxx for HMX, xxx-xxxx-5xxx for HNS  
**Bold** indicates API-19B certification  
*Italics* indicate API RP-43 certification  
Underlined Part Number indicates link to API Data Sheet available  
 Application: "F" indicates that system is able to be fired in fluid  
 "G"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

| Specifications - EXP Scalloped Hollow Carrier Assy. | 4 SPF (13 SPM)        |
|---|-----------------------|
|   | 90°                   |
| Nominal O.D. (in) [mm]                              | 4.00 [102]            |
| Nominal Thickness (in) [mm]                         | 0.38 [9.7]            |
| Gun Swell (in) [mm]: Ambient Fluid.                 | 4.28 [109]<br>≤ 38.5g |
| Gun Swell (in) [mm]: Ambient Gas.                   | 4.41 [112]<br>≤ 38.5g |
| Minimum Recommended Restriction (in) [mm]           | 4.60 [117]            |
| Maximum Pressure (psi) [MPa]                        | 19,500 [134]          |
| Distance to First Scallop (in) [mm]                 | 7.50 [191]            |
| Approximate Weight - Loaded (lb/ft) [kg/m]          | 21.0 [31.2]           |
| Max. Tension (lbf) [kN]                             | 410,000 [1,824]       |

NR Not Recommended

## 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])



| Expendable (EXP) Scalloped Hollow Carrier Assembly and Components |      |                 |                                  |       |
|---|------|-----------------|----------------------------------|-------|
|   | ITEM | PART NO.        | DESCRIPTION                      | Phase |
| Gun Assy.   | 1    | 0400-C**-066    | 4 in. (102 mm) Gun Assy.         | 60°   |
|   | 2    | 0400-1**-066    | 4 in. (102 mm) Carrier Body      | 60°   |
|   | 3    | 0400-7**-066    | Charge Tube                      | 60°   |
| Common Parts  | 4    | 0400-000-001    | Top Sub                          |       |
|   | 5    | 0400-000-002    | Tandem Sub                       |       |
|   | 5A   | 0400-000-389A   | Alternate Window Tandem Sub      |       |
|   | 6    | 0400-000-003    | Gun Bottom                       |       |
|   | 7    | 0111-236-V95    | O-Ring                           |       |
|   | 8    | 0111-230-V95    | O-Ring                           |       |
|   | 9    | 0400-700-031    | Chg. Tube End Fitting - Aligning |       |
|   | 10   | 0400-700-041    | Chg. Tube End Fitting            |       |
|   | 11   | 0404-200-037    | Snap Ring                        |       |
|   | 12   |                 | Shaped Charge                    |       |
| 13  |      | Detonating Cord |                                  |       |
| <b>TCP Conversion Kits (Not Pictured)</b>                         |      |                 |                                  |       |
|   |      | 0504-500-150    | Top TCP Booster Kit              |       |
|   |      | 0504-500-160    | 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. (0400-B02-066)

| Compatible Shaped Charges (Shaped Charge Summary - Page 87) |      |                      |             |                |
|---|------|----------------------|-------------|----------------|
| Part Number   | Type | Explosive Weight (g) | Application | Explosive Type |
| EXP-3321-421T   | SDP  | 21.0                 | F, G        | HMX            |
| EXP-3323-423T   | SDP  | 22.7                 | F, G        | HMX            |
| EXP-3326-421T   | SDP  | 26.0                 | F, G        | HMX            |
| <i>EXP-3319-302</i>   | DP   | 19.0                 | F, G        | RDX            |
| <i>EXP-3323-302</i>   | DP   | 22.7                 | F, G        | RDX            |
| <i>EXP-3323-461T</i>  | DP   | 22.7                 | F, G        | HMX            |
| EXP-3319-431  | GH   | 19.0                 | F, G        | HMX            |
| EXP-3323-431  | GH   | 22.7                 | F, G        | HMX            |
| <i>EXP-3325-331</i>   | GH   | 25.0                 | 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

| Specifications - EXP Scalloped Hollow Carrier Assy. | 6 SPF (20 SPM)        |
|---|-----------------------|
|   | 60°                   |
| Nominal O.D. (in) [mm]                              | 4.00 [102]            |
| Nominal Thickness (in) [mm]                         | 0.38 [9.7]            |
| Gun Swell (in) [mm]: Ambient Fluid.                 | 4.27 [108]<br>≤ 25.0g |
| Gun Swell (in) [mm]: Ambient Gas.                   | 4.41 [112]<br>≤ 25.0g |
| Minimum Recommended Restriction (in) [mm]           | 4.60 [117]            |
| Maximum Pressure (psi) [MPa]                        | 19,500 [134]          |
| Distance to First Scallop (in) [mm]                 | 7.00 [178]            |
| Approximate Weight - Loaded (lb/ft) [kg/m]          | 19.0 [28.2]           |
| Max. Tension (lbf) [kN]                             | 410,000 [1,824]       |

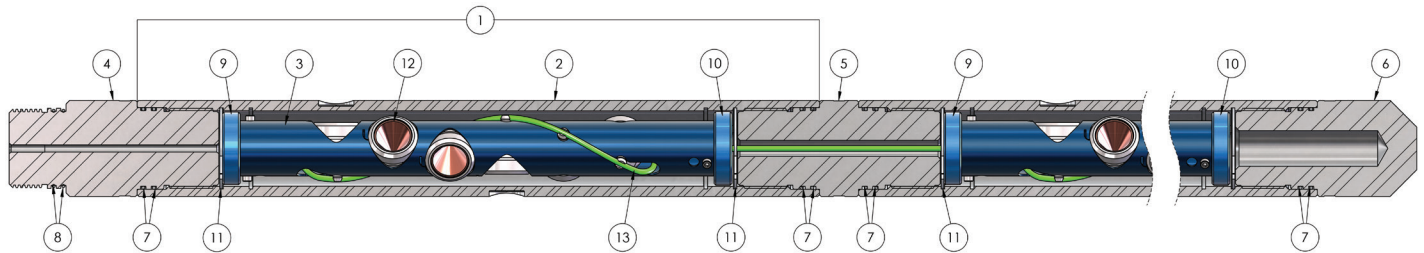
NR Not Recommended

# 4 in. (102 mm) EXP Scalloped Hollow Carrier Gun



## 8 SPF (26 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                      | Phase   |
| Gun Assy.   | 1    | 0400-1D**-08D   | 4 in. (102 mm) Gun Assy.         | 135/45° |
|   | 2    | 0400-1**-08D    | 4 in. (102 mm) Carrier Body      | 135/45° |
|   | 3    | 0400-18**-08D   | Charge Tube                      | 135/45° |
| Common Parts  | 4    | 0400-000-001    | Top Sub                          |         |
|   | 5    | 0400-000-002    | Tandem Sub                       |         |
|   | 5A   | 0400-000-389A   | Alternate Window Tandem Sub      |         |
|   | 6    | 0400-000-003    | Gun Bottom                       |         |
|   | 7    | 0111-236-V95    | O-Ring                           |         |
|   | 8    | 0111-230-V95    | O-Ring                           |         |
|   | 9    | 0400-1800-031   | Chg. Tube End Fitting - Aligning |         |
|   | 10   | 0400-1800-031   | Chg. Tube End Fitting            |         |
|   | 11   | 0404-200-037    | Snap Ring                        |         |
|   | 12   |                 | Shaped Charge                    |         |
| 13  |      | Detonating Cord |                                  |         |
| <b>TCP Conversion Kits (Not Pictured)</b>                         |      |                 |                                  |         |
|   |      | 0504-500-150    | Top TCP Booster Kit              |         |
|   |      | 0504-500-160    | Tandem TCP Booster Kit           |         |
|   |      |                 | Associated Hardware (Page 72)    |         |

| Compatible Shaped Charges (Shaped Charge Summary - Page 87) |      |                      |             |                |
|---|------|----------------------|-------------|----------------|
| Part Number   | Type | Explosive Weight (g) | Application | Explosive Type |
| EXP-4521-423T   | SDP  | 21.0                 | F, G        | HMX            |
| EXP-4521-431  | GH   | 21.0                 | F, G        | HMX            |
| FLO-4521-310B   | BH   | 21.0                 | 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 length. Common Lengths are 2, 3, 4, 5, 7, 11, 15, & 21 foot.  
 Example: Use "02" for 2ft gun assembly; etc. (0400-1D02-08D)

| Specifications - EXP Scalloped Hollow Carrier Assy. | 8 SPF (26 SPM)        |
|---|-----------------------|
|   | 135/45°               |
| Nominal O.D. (in) [mm]                              | 4.00 [102]            |
| Nominal Thickness (in) [mm]                         | 0.38 [9.7]            |
| Gun Swell (in) [mm]: Ambient Fluid.                 | 4.13 [105]<br>≤ 21.0g |
| Gun Swell (in) [mm]: Ambient Gas.                   | 4.25 [108]<br>≤ 21.0g |
| Minimum Recommended Restriction (in) [mm]           | 4.60 [117]            |
| Maximum Pressure (psi) [MPa]                        | 19,500 [134]          |
| Distance to First Scallop (in) [mm]                 | 6.75 [171]            |
| Approximate Weight - Loaded (lb/ft) [kg/m]          | 19.0 [28.2]           |
| Max. Tension (lbf) [kN]                             | 410,000 [1,824]       |

*NR* Not Recommended