

CTXR

Closed tubing automatic gun release

APPLICATIONS

- Permanent completions with tubing-conveyed perforating (TCP)
- Deviated wells
- Closed or open tubing systems
- Closed-chamber perforating

BENEFITS

- Improves perforation cleanup by quickly removing guns
- Prevents sand packing around guns
- Minimizes need for slickline intervention

FEATURES

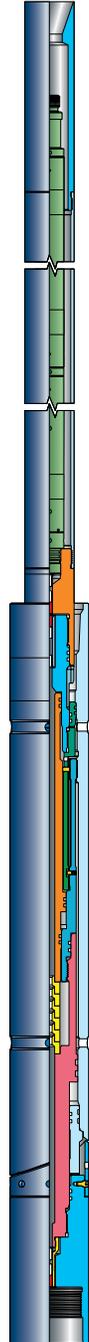
- Fast actuation
- Isolation valve function in closed systems
- Compatibility with many firing head options
- Activation with X-Tools* perforating gun-activated completion tools
- H₂S-resistant option
- Full opening of tubing after drop
- Wireline reentry guide after drop
- Tubing thread can be made to fit completion

The closed tubing automatic gun release (CTXR) uses reliable X-Tools completion tools to automatically disconnect TCP guns in both open and closed tubing systems, including closed systems in which the tubing pressure is less than the wellbore pressure, such as the PURE* perforating system for clean perforations.

Automatically dropping the perforating guns to the bottom of the well at the instant of the high-order detonation of the detonating cord prevents the gun string from becoming stuck or sanded-up in unconsolidated sand formations. It allows access to the perforated zone for production logging and other remedial wireline operations. The need for slickline or pressure-activated drop-off after the shot is eliminated.

The CTXR is compatible with a range of firing heads, including the eFire* electronic firing head system, drop-bar hydrostatic firing (BHF) heads, hydraulic-delay firing (HDF) heads, trigger charge firing (TCF) heads, and ProFire* programmable firing heads. Full tubing opening is provided after dropping the gun string, and the release housing attached to the tubing incorporates a wireline entry guide.

The CTXR consists of three sections: release section, pressure-balance section, and gun adapter. Because the CTXR is internally pressure balanced, the guns automatically drop, even in a closed system in which the tubing pressure is less than the pressure below the packer in the rathole. Without the pressure balancing, the upward force created by the pressure differential prevents gun drop and can force the guns upward. The CTXR system requires only the minimum 300-lbm weight of the perforating assembly to automatically initiate gun drop.

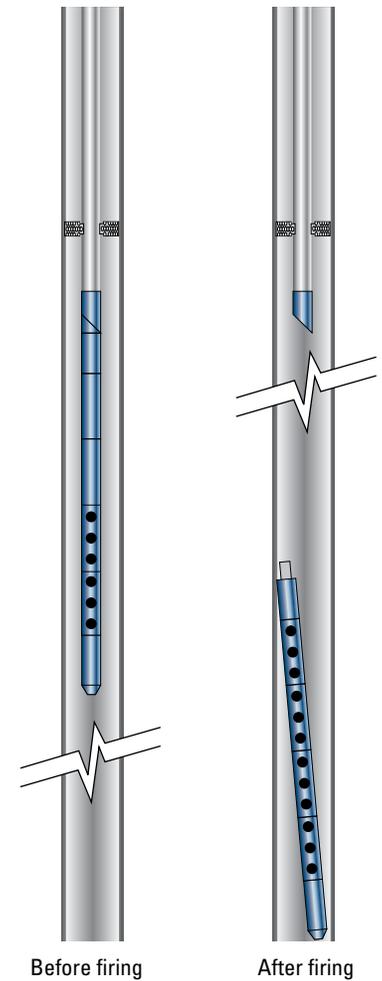


CTXR closed tubing automatic gun release.

Specifications

| Model | 3.69 in | 5.2 in |
|---------------------------------------|---------------|---------------|
| Max. OD, [†] in [mm] | 3.69 [93.7] | 5.2 [132.1] |
| Tool ID after drop, in [mm] | 2.395 [60.8] | 3.87 [98.3] |
| Pressure ratings | | |
| Differential, psi [MPa] | 10,000 [69] | 7,500 [52] |
| Max. hydrostatic, psi [MPa] | 15,000 [103] | 15,000 [103] |
| Max. to actuate, psi [MPa] | 300 [2] | 500 [3] |
| Temperature rating, degF [degC] | 330 [165] | 330 [165] |
| Min. weight to drop guns, lbm [kg] | 300 [136] | 500 [227] |
| Tensile strength min. yield, lbf [kN] | 113,371 [504] | 200,000 [890] |

[†] Can vary with material



CTXR closed tubing automatic gun release operation sequence.