

StimTube™/StimGun™ Stimulation Tools

StimGun™ and StimTube™ are oxidizer-based tools designed for near wellbore reservoir stimulation

StimGun™ is a combination perforating gun/oxidizer sleeve that can be conveyed via slickline, electric line, coiled tubing or tubing conveyed perforating systems. A sleeve of oxidizer of predetermined length is placed over the perforating gun and deployed in the wellbore. The detonation of the perforating gun and the confinement created by wellbore hydrostatic pressure ignites the oxidizer resulting in the generation of large amounts of non-reactive gas at high pressures. Pressures can in fact be as high as 20,000 psi for 10 to 20 milli seconds, resulting in fracture generation and perforation breakdown.

StimTube™ is designed as a through tubing tool to treat existing perforations or zones. StimTube™ is a solid tube of oxidizer cast on to a stainless steel tube. It can be deployed to the wellbore via slickline, electric line, coiled tubing, or tubing conveyed. It is ignited by a length of detonating cord running the length of the tool. As in StimGun™, the shock of the detonating cord and the confinement of wellbore pressures ignites the tool generating a large surge pressure at the perforations. Perforation breakdown and fracturing through near wellbore damage are the result.

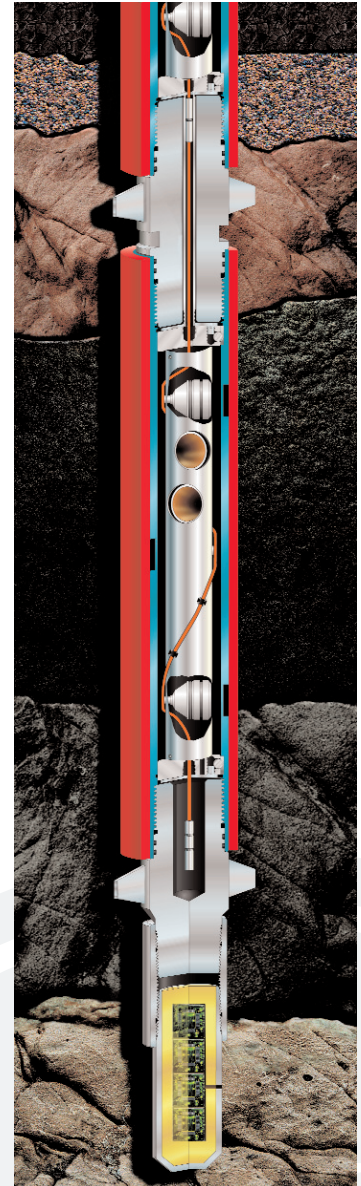
These tools are field proven to reduce near wellbore damage, enhance hydraulic fracture operations, open plugged perforations and generally enhance production in new and old wells.

Applications:

- Perforation breakdown
- Pre-Hydraulic Frac Perforating
- Near Wellbore Damage Clean up
- Pre-Frac Pack and Gravel Pack Perforating

Benefits:

- Can reduce horse power requirements by up to 35% during hydraulic fracturing operations.
- StimTube™ is a cost effective way to remove near wellbore damage in older producing wells with existing perforations.
- Can dramatically improve frac pack operations by opening up all the perforations in the interval.
- StimGun™ can enhance well productivity in older lower pressure reservoirs.
- StimGun™ proven beneficial when combined with underbalanced TCP operation



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Technical Specifications:

Oxidizer

Pressure Rating: 25,000 psi (172 MPa)

Temperature Rating: 375° F. (190°C)

Transportation: Potassium Perchlorate, DOT class 5.1, UN number UN1489.

Diameter

StimGun™ – Oxidizer is molded into sleeves to fit most popular gun sizes. The sleeves are available from 2³/₈" (60.3mm) to 7" (177.8mm) OD. The sleeves must be secured with retainer rings and the gun must be centralized.

StimTube™– Oxidizer is molded to a stainless steel tube. The tubes are available from 1.5" (38.1mm) to 3" (76.2mm) OD. Can be made in lengths to suit the perforating interval. Adapters are available to crossover to most electric line or slickline firing systems.

Conveyance

Slickline

Electric Line

Coiled Tubing

Tubing Conveyed

