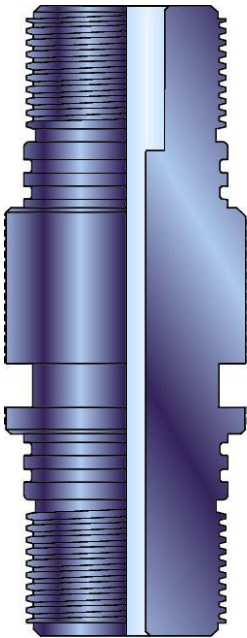


Description

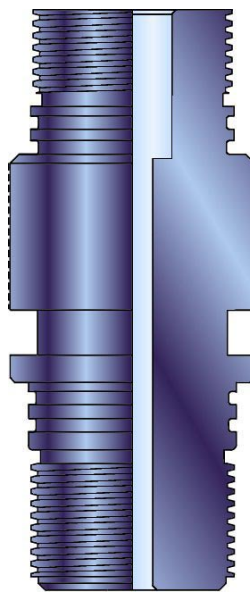
Gun connections (or subs) are used to connect several gun lengths together and provide a means of attaching the gun system to wireline tools such as a collar locator. The gun subs also provide an automatic ballistic connection between guns when used in conjunction with the End to End Booster Kit or the Tandem Booster Kit. This combination ensures a simple and field proven method of ballistic transfer between subsequent gun systems. The same subs may be used when gun systems are configured for either wireline or tubing conveyed perforating application.

Features and Benefits

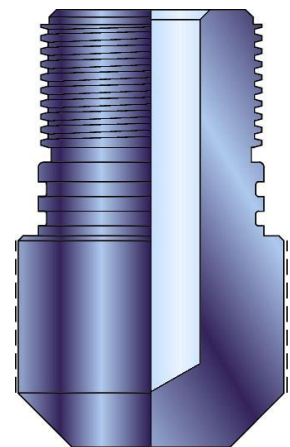
- The Top Sub is compatible with Gearhart - Owen (GO) Thread (2.750-6 TPI Acme) making it a universal connector.
- Simple design of the Tandem Sub and Tandem Booster Kit permit easy installation even in field conditions or with long gun systems.
- Bottom Sub features a generous cavity that will accept a variety of industry standard detonators.
- A groove is provided in all Top and Tandem Subs, for easy installation of the Owen Safety Support Plate Assembly, when running multiple gun assemblies.
- Various Tandem Sub designs allow for the use of a variety of select fire systems. Side ports are available to assist in arming the intermediate gun sections.
- Versions of top, tandem and bottom subs are available to hold propellant on the exterior of carriers.
- Pickup Subs provide a means of securing the guns for transport, protection the gun thread and provide a fire protection melt out plug.



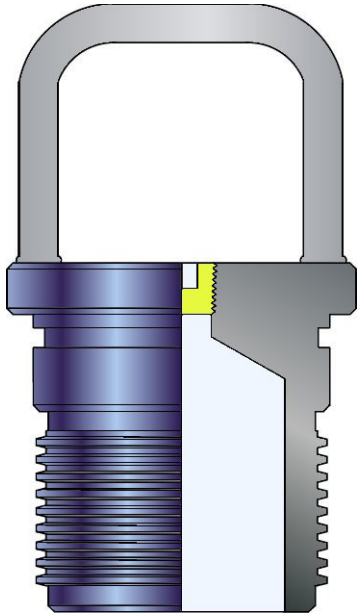
Tandem Sub



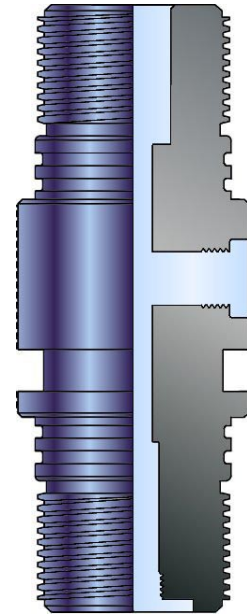
Top Sub



Bottom Sub



Gun Box Thread Protector



Tandem Sub, E & B Select Fire

Expendable Orienting Tandem Subs

Orienting Tandem Subs are used with oriented gun systems in horizontal perforating. The sub features a lock ring that allows adjacent guns to be aligned and rotationally locked prior to running.

