

EasyCut sand jet perforator

Perforate successfully in a variety of wellbore conditions

Applications

- Perforating before fracturing
- Unconventional formations where larger perforations are advantageous
- Alternative to conventional perforating where minimum number of perforations are required

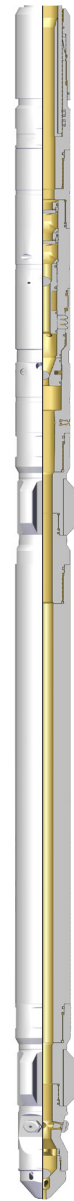
Features and benefits

- Creates clean, relatively large-diameter perforations
 - Reduces fracturing tortuosity
 - Increases flow area for high-rate fracturing and production
- Proven nozzle design permits more than 50 cuts with a single tool
 - Increases reliability
- Includes both reverse and forward washing feature
 - Removes residual sand that may lead to a premature screenout
- Compatible with the Baker Hughes EasyTag™ casing collar locator
 - Provides accurate depth control in monobore completions
- Aligned centralizers
 - Maintains proper standoff regardless of deviation
- Powered by Baker Hughes CIRCA software
 - Optimizes time on location by providing accurate job design, simulation, tool setup, and safe operating guidelines based on actual operations and amount of material pumped
- Compatible with acid systems
 - Aids in perforation cleanup

The Baker Hughes **EasyCut™ sand jet perforator** is a robust tool capable of performing multiple perforation cuts in a single run. Sand-laden slurry is pumped down the coiled tubing and through the nozzles to form three large-diameter perforations set at 120° planar phasing. A variety of nozzle inserts allow for customization, enabling successful application in a wide range of wellbore conditions.

During fracturing operations, sand remaining in the wellbore is compacted, forming hard sand bridges that prohibit forward movement. The jetting nozzle's unique design allows clean fluid to fluidize the compacted fill and remove it with conventional circulation. Alternatively, unconsolidated fill may be reverse-circulated through the tool and out of the well.

The Baker Hughes **CIRCA™ simulation software** is the result of years of laboratory testing and enables our engineering staff to optimally configure the tool and design of the job. The software accounts for all variables, including nozzle size, stand-off distance, flow rate, sand concentration, jetting time, and casing size, and will calculate perforation diameter and penetration depth for a variety of conditions.



The EasyCut perforator shown with the Baker Hughes Tornado™ motorhead assembly