



# Customer Success Story

AN EXAMPLE OF HOW GE HELPS CUSTOMERS IN THE OIL & GAS INDUSTRY

*GE's DECT cuts Inconel 718 packer mandrel in less than two minutes.*

## Background

As part of a workover operation at a high-cost offshore installation, our customer needed a quick, efficient solution for cutting two 4.5-inch outer diameter (OD) Inconel 718 packer mandrels. Traditionally, releasing and removing the packers is performed using a milling process that requires a great deal of rig time.

## Solution

GE's downhole electric cutting tool (DECT) was selected for these operations due to its:

- Fast cutting speed (less than two minutes), which significantly reduces rig time
- Versatility to cut pipe quickly in both tension and compression stress states
- Proficiency at cutting high alloy steels, including Inconel 718 and 25Cr stainless steel
- Real-time data reporting ability confirming cut success (cutter position, downhole microphone response, and motor load)
- Extreme range—2.69-inch tool outer diameter can cut out to 5.1 inches
- Flexibility to cut in a variety of well deviations and fluids (gas, drilling mud, and brine)
- Ability to be deployed on mono/multi-conductor cables, all standard tractor platforms and coiled tubing
- Low power requirements (110/240V AC) reduce the risk of cable/surface equipment related failures

## Result

Both cuts in the Inconel 718, 4.5-inch OD packer mandrels were successful – taking place in less than two minutes each and allowing the packers to be pulled from the well without issue.

The DECT's real-time cut progress feedback helped ensure that no damage was done to the outer packer components and external control lines. In addition, the tool confirmed when the cut was complete, saving additional hours of cutting time.

By using GE's DECT, this customer saved hundreds of thousands of dollars in reduced rig time, compared with a milling operation. In addition, the DECT's fast cutting speed reduced overall costs even further.



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## Job Details

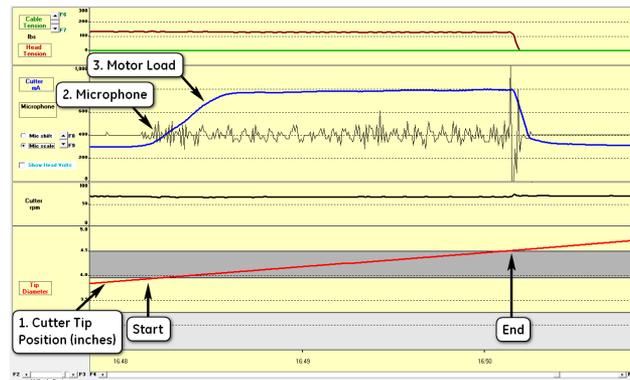
Cutting tool used: GE DECT001, OD: 2.6875"

Operational Details			
Material:	718 Inconel	Tubing State:	Tension
Pipe OD:	4.5"		
Pipe ID:	3.8"	Minimum Restriction Above the Cut Point:	2.75" (all components measured pre-run)
Well Fluid:	OBM (1.25 SG)		
BHT:	72°C	Dev:	67°
BHP:	3500 psi	Cutting Depth:	~3100 m

## Precision Cutting: When Control Matters

GE's DECT delivers continuous cut data to the wellsite team throughout the operation:

1. Cutter tip position – displayed to monitor cut progress and confirm cut success
2. Downhole microphone response – identifies changes in downhole conditions such as cut initiation and cut completion
3. Motor load – provides a quality control check, and verifies correct tool function and cut completion



### Example of DECT's real-time software display

Horizontal axis shows time. The total cutting time is less than two minutes in 4.5-inch OD tubing.

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