

ReSOLVE Machining Tool



Precise machining of completion elements with real-time measurement of milling progress

Applications

Precision milling of completion components

How it improves performance

- Advanced and automated milling processes
- Downhole measurement of rate of penetration (ROP)
- Accurate knowledge of milling progress and bit position with real-time readout for quickly identifying when adjustments to milling parameters are required
- Precise control of weight on bit (WOB)
- High-force milling
- Ability to pull up to 40,000 lbf in case of stuck bit

Features

- Compatible with MillOptimizer™ autonomous milling system for stall prevention and recovery
- Three operating modes for delivering constant feed, WOB, and torque

How it works

A component of the ReSOLVE™ instrumented wireline intervention service, the ReSOLVE machining tool provides complete control of downhole WOB and feed rate for precision milling of completion components. Unlike conventional techniques that use a tractor for torque reaction and WOB, the ReSOLVE machining tool leverages the ReSOLVE anchor-linear actuator. Downhole automation enables a wide variety of control algorithms for optimal milling with a wide range of bits and milling targets.



The ReSOLVE machining tool equipped with the ball valve remover bit.



The ReSOLVE machining tool leverages the ReSOLVE anchor-linear actuator and ReSOLVE milling tool, delivering greater control and real-time measurements.

Specifications

Maximum torque,† lbf.ft	250
Maximum WOB, lbf	40,000
Maximum bit speed,† rpm	440
Maximum bit retraction force, lbf	40,000
Milling progress resolution, in	0.01

All specifications are subject to change without notice.

† Dependent on gearing