

HydroPull™ Extended Reach

Motor Gas Separator

HydroPull™ SC Tool (Stimulation and Cleanout)

(MGS™)

Water Bypass AV Sub (WBS)

High Pressure Rotary Jet (JetRotor™)

Job Planning Software

Engineering Services

Custom Tool Development

U.S. Patents 7,201,238

Tempress JetRotor™ Tool

JetRotor^{\mathbf{m}} is a tool equipped with a Mechanically Assisted jet-Drilling (MAD) nozzle creating a high-pressure rotary jetting tool that removes mineral scale safely and quickly and stimulates well completions with **no risk of damage to production tubing or downhole equipment.**

The JetRotor™ tool is compatible with a broad range of fluids making it applicable in almost all coiled tubing well service jobs, including nitrogen and carbon dioxide energized fluids. The design is highly compact, which greatly simplifies transport, BHA setup, and job execution. The tool is available in several sizes including 1.69-in. (43 mm), 2.06-in. (52 mm) and 2.12-in. (54 mm)

The JetRotor tool operates at the highest power and pressure levels available in the industry. The patented open-flow seal design virtually eliminates power losses due to leakage and friction. This seal design ensures that maximum hydraulic power is delivered to the jets. **The tool is fully tunable for various applications.**

Applications

- · Coiled and Jointed tubing
- Sand and fill cleanout
- · Scale cleanout
- · Cement removal
- Openhole stimulation

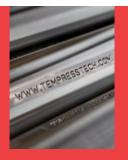
- Acidizing
- · Sand screen flushing
- Perforation cleaning
- Depleted well service
- Commingled flow





Feature	Benefit
High-pressure, High-power jets	 One-trip cleanout and stimulation Eliminates need for a motor and mill Better sand and cuttings transport at low flow Most powerful jetting pressure available
Fluid compatibility	 Water, nitrogen, carbon dioxide, polymers, solvents, brine, surfactants, foam, acid
Severe service	 Fully acid capable and routinely run in the most severe high-temperature (400°F/200°C) and sour gas environments
Easy make-up	Short and compact length, 14.6-in. long
Field tunable	 Field-changeable nozzle heads & nozzles for specific applications
High reliability	 Multiday extreme-reach jobs without tripping Over 99% downhole success rate





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Case Histories

The JetRotor tool is consistently the most sought after high-pressure jetting tool available. Please contact us or visit our website for the most recent JetRotor Case Histories.

CONTACT INFORMATION:

Tempress Technologies Inc.

2200 Lind Avenue SW Building A, Suite 108 Renton, WA 98057 Phone: 425.251.8120

www.tempresstech.com



Last Chance Screen



Clean fluid with no sand should be run. A last chance screen is available for each tool to prevent gravel and other debris from interfering with the operation of the tool and to minimize the chance for premature failure of other bottomhole assembly components. The screen openings are available in range of sizes depending on tool size and job requirements.

JetRotor Operation Guide

An operation guide is included with the JetRotor tool that provides operating instructions and job reporting requirements. These guides are also located within our Client Login site on our website.

