

Pro Damper Downhole Shock Absorber

Shock & Vibration Abatement



*Patent Pending

Q: Does the shock and vibration produced during the process of drilling wells cause damage to the components within your Measurement While Drilling (MWD) tool string?

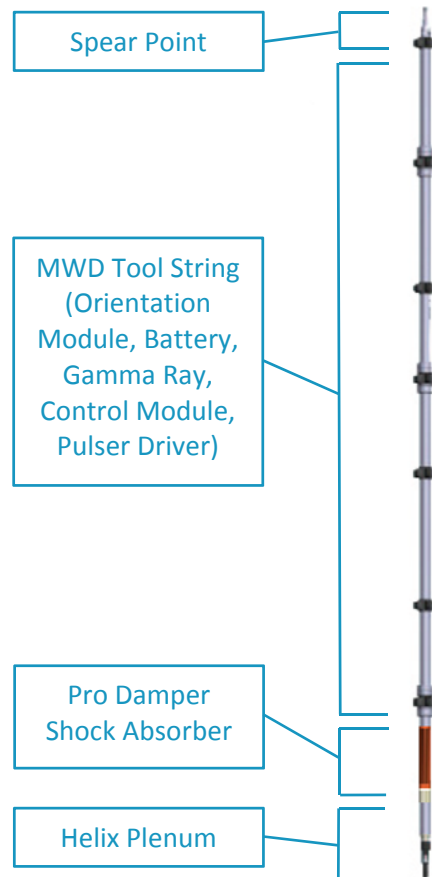
A: Our Pro Damper Downhole Shock Absorber can help. It protects against rotational (torsional), and axial modes of shock and vibration. What makes our solutions more effective is its compliant and flexible material, which breaks up and significantly diminishes potentially detrimental percussions.

What sets Stag's Shock Absorber apart from some of our competitors is that it does not require oil, as well as the fact that its internal components are sealed from the mud system, preventing costly maintenance activities.

The Pro Damper works by minimizing shock and vibrations travelling through the drill collar into the anchor (muleshoe and helix plenum), and then into the MWD tool string where sensitive electronics and sensors are located. By significantly reducing physical agitation in this area, our Shock Absorber helps prevent equipment failure caused by damage and, as such, reduces costly disruptions in your operations and equipment repairs.

Features and Benefits

- Protects against rotational (torsional), and axial modes of shock and vibration.
- Increases MTBF (Mean Time Between Failures) for the MWD tool string by helping to mitigate damage to sensitive electronics and sensors contained within the MWD.
- Recommended for use when a downhole agitator or vibrator is used in, or close to the BHA (Bottom Hole Assembly).
- The robust internal design requires minimal maintenance.
- End connections can be customized to fit your MWD threads and equipment.



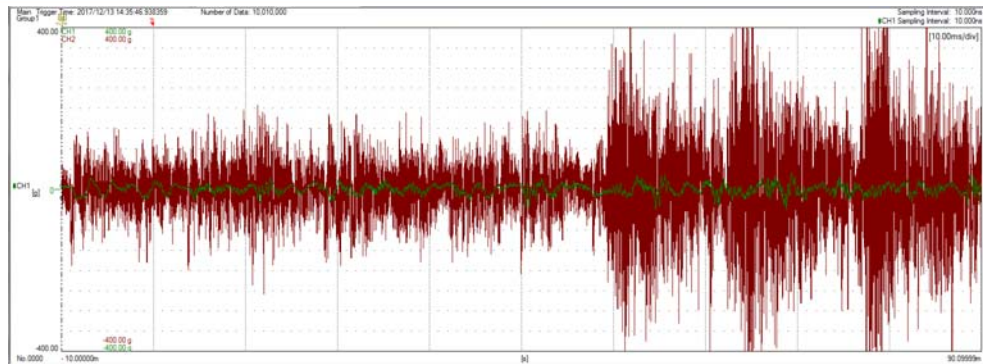
MWD tool string showing location of Pro Damper Shock Absorber



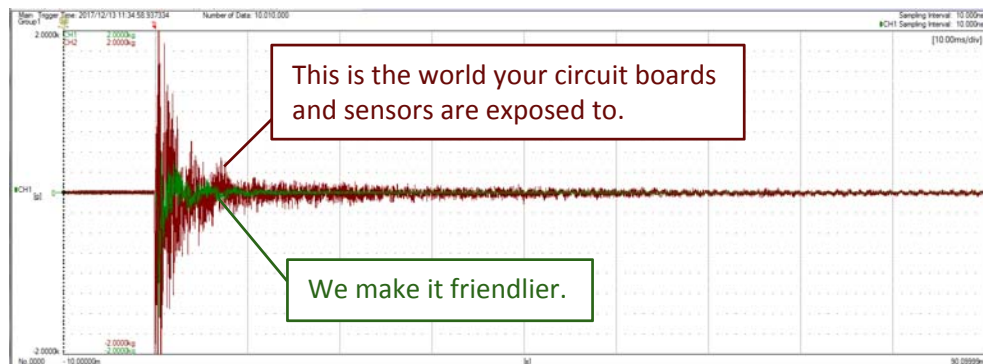
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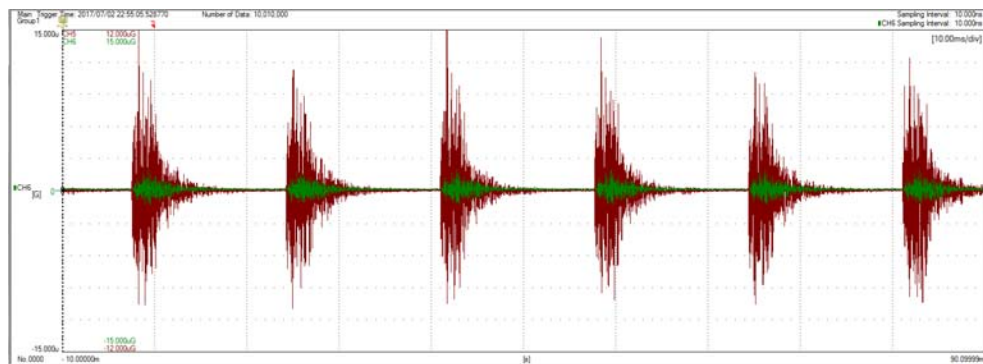
Air Hammer Testing Under Load in the Axial Direction



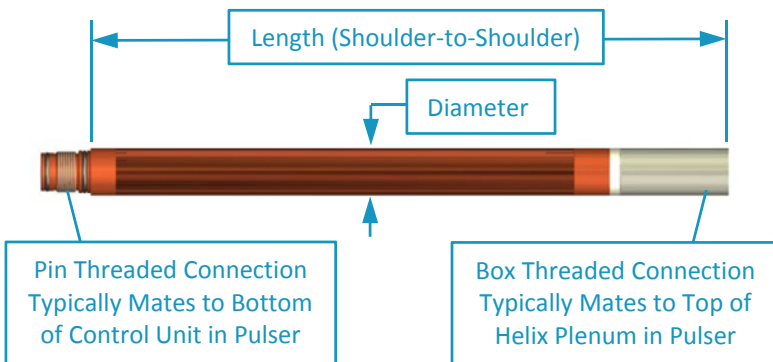
Drop Test (Single Impact) in the Axial Direction



Air Hammer Testing in the Torsional Direction



— Shock/Vibration Input — Shock Absorber Output



Length x Diameter	25" X Ø1.875" (635mm X Ø47.6 mm)
Pressure Rating	20,000 psi (137.9 MPa) Max.
Operating Temp. Range	-40 to 150°C (-40 to 302°F)

We worry about the downhole environment so you don't have to. Contact us to discuss current Shock Absorber configurations that will fit your MWD, or let us customize a solution for you.

