

# 5.25-in. 190 Series Shock Tool



The new 190 Series shock tool enhances the efficiency, reliability and friction reduction force the Agitator™HE generates, further improving weight transfer and increasing drilling efficiency.

Available on all high torque connections, the new 190 Series has been specifically designed to run with the new Agitator Systems operating at 8–12Hz, and is also compatible with all legacy systems.

The 190 Series features larger bearing support for increased bending capacity and better performance in the most demanding directional applications. With a typical standard pressure drop of 500–600 psi, the simple addition of a booster module allows the tool to be run as a low pressure system with 350–450 psi pressure drop, ideal for applications where pump capacity is a challenge. The low pressure configuration also helps improve MWD signal decoding.

The new series features a 10% increase in pump open area to maximize friction reduction force, a 150% increase in upstroke length with more than double tensile load to fully open the tool, which makes this technology more suitable for vertical or S-shaped well profiles. A new seal design arrangement across the tool completes the slick and reliable design for this tool.

Series	190	190B
Tool OD	5.25 in.	5.25 in.
Tool ID	2 in.	2 in.
Length	17.2 ft	19.1 ft
Axial load to compress tool completely	64,000 lb	64,000 lb
Tensile load to fully open tool	80,000 lb	80,000 lb
Tensile load at yield	395,000 lb	395,000 lb
Maximum torsional load (to yield body connections)	36,000 lb-ft	36,000 lb-ft
Spring rate	32,000 lb/in.	32,000 lb/in.
Opening travel	2.5 in.	2.5 in.
Closing travel	2 in.	2 in.
Pump open area	11.8 in. <sup>2</sup>	18.7 in. <sup>2</sup>
<b>Booster Module</b>	<b>No</b>	<b>Yes</b>