Agitator[™]PLUS System

Proven friction reduction, improved weight transfer.

The *Agitator*™PLUS system gently oscillates the BHA to significantly improve weight transfer and reduce friction. This tool provides the same friction reduction effect as the standard Agitator system with a lower overall pressure drop across the tool.

The Agitator PLUS system consists of a low pressure shock tool with a low pressure Agitator system. It can be combined as a low pressure system with a target pressure drop of 300-400 psi, or as a harder hitting system with a standard pressure drop of 500-600 psi.

The tool is compatible with all downhole motors, rotary steerable systems, and MWD/LWD systems with pre-job planning.

Features and Benefits

- · Reduces downhole friction and stick-slip
- Maintains higher flow rates in long laterals
- Improves weight transfer and toolface control
- · Extends bit life
- Prevents weight stacking and drill string buckling
- Increases sliding and rotary ROP



Agitator™ PLUS System Specifications

Tool Size (OD)	4 ¾ in	5 in	6 ½ in	6 ¾ in
	4 ¾ in (High Flow)	5 in (High Flow)	6 ½ in (High Flow)	6 ¾ in (High Flow)
Overall length	22.7 ft (LPST)*	23.9 ft (LPST)*	28.8 ft (LPST)*	25.8 ft (LPST)*
	23.2 ft (LPST)*	24.4 ft (LPST)*	28.8 ft (LPST)*	26.6 ft (LPST)*
Weight	760 lbs	850 lbs	1,850 lbs	2,100 lbs
Recommended flow range	150-270 gpm	150-270 gpm	375-475 gpm	400-600 gpm
	250-330 gpm	250-330 gpm	400-600 gpm	400-900 gpm
Temperature range	320°F	320°F	320°F	320°F
Operating frequency	18-19 Hz @ 250 gpm	18-19 Hz @ 250 gpm	15 Hz @ 400 gpm	16-17 Hz @ 500 gpm
	16-17 Hz @ 250 gpm	16-17 Hz @ 250 gpm	16-17 Hz @ 500 gpm	13-19 Hz @ 600-900 gpm
Optimal pressure drop generated	300-400 psi	300-400 psi	300-400 psi	300-400 psi
Max pull	260,000 lbs	500,000 lbs	570,000 lbs	570,000 lbs
	260,000 lbs	500,000 lbs	690,000 lbs	566,000 lbs
Connections	3.5 in IF pin/box	4 in GRANT PRIDECO, XT39 pin/box	4.5 in XH, 4 in IF pin/box, NC-46 pin/box	4.5 in IF pin/box

*Includes NOV Low Pressure Shock Tool.

