

AgitatorHE On-Demand System

Leveraging experience from our 95,000 plus Agitator™ system runs, we have developed the latest addition to our friction reduction tool portfolio, the AgitatorHE On-Demand. This technology allows drillers to activate the system downhole using a single-drop dart, when and where it is needed the most to manage friction and weight transfer.

The On-Demand feature improves the operational flexibility of the Agitator system to better manage different downhole conditions, like the ability to pump higher flow rates for faster ROP until weight transfer becomes an issue, improve MWD decoding through the larger pass ID, or reduce pressure drop across the system until the Agitator system functionality is needed.

Activate the Agitator system when friction and downhole conditions have a negative effect on ROP. The tool will provide the gentle axial oscillations needed to break friction, ensure efficient weight transfer, and achieve high ROP, providing the reliability and performance proven in all Agitator systems at no additional risk.

Technical Data AgitatorHE On-Demand

OD	5¼ in.	6½ in.	7 in.
Length	13.5 ft	14.3 ft	14.1 ft
Weight	704 lb	1,160 lb	1,275 lb
Flow rate	200 - 450 gpm	400 - 750 gpm	450 - 900 gpm
Pressure drop (not activated)	50 - 100 psi	50 - 100 psi	50 - 100 psi
Pressure drop (activated)	500 - 600 psi	500 - 600 psi	500 - 600 psi
Temperature rating	320° F	320° F	320° F
Operating frequency	8-12 Hz activated, 2-4 Hz not activated	8-12 Hz activated, 2-4 Hz not activated	8-12 Hz activated, 2-4 Hz not activated
Max pull (at recommended makeup torque)	465,000 lb	790,000 lb	815,000 lb
Recommended makeup torque	23,000 ft-lbs	37,000 ft-lbs	41,000 ft-lbs
Connections	XT39, XT43, 4" FH Delta™ 425, GPDS40, GPDS42, CET43,	Delta™ 494, Delta™ 527, XT50, 4½" IF	GPDS50, GPDS55, Delta™ 544, Delta™ 576, XT57, HT55, 4½" IF



Benefits

- Flexibility to activate the tool as needed
- Cost savings of not having to trip out to include an Agitator system in the string when sliding becomes critical or ROP is low
- Weight transfer management on demand

Benefits of non-activated system

- Lower pressure drop across the tool
- Less stress on pumping equipment
- Improved MWD signal decoding with larger bypass ID
- No high pressure pulses possibly affecting other BHA/string and rig components
- Capability to pump higher flow rates – increase ROP
- Reduction of axial oscillations in casing

Benefits of activated system

- Efficient weight transfer
- Improve drilling efficiency rotating and sliding
- Reduction of stick-slip and torsional vibration with RSS BHAs
- Reduce/minimize friction losses
- Maintain ROP in long lateral sections (10,000-20,000 ft laterals)
- Increase ROP in curve and lateral sections
- Reduce torque and drag
- Consistent weight transfer and torque response
- Performance increase with same drilling parameters
- Reduce/eliminate hanging issues in vertical applications
- Reach TD every time