AgitatorHE On-Demand System



Leveraging experience from our 125,000 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

Nominal size	133 mm	165 mm	178 mm
True outside diameter	133 mm	165 mm	178 mm
Overall length	4.11 m	4.36 m	4.30 m
Weight	319 kg	526 kg	578 kg
Flow rate range	755 - 1,705 LPM	1,515 - 2,840 LPM	1,705 - 3,405 LPM
Pressure drop (not activated), standard setup	345 - 690 kPa	345 - 690 kPa	345 - 690 kPa
Pressure drop (activated), standard setup	3,450 - 4,140 kPa	3,450 - 4,140 kPa	3,450 - 4,140 kPa
Pressure drop (activated), low pressure setup	2,410 - 3,100 kPa	2,410 - 3,100 kPa	2,410 - 3,100 kPa
Tensile yield	207,000 daN	351,500 daN	362,500 daN
Torsional yield	42,710 Nm	80,260 Nm	88,130 Nm
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
Maximum temperature	160°C / 190°C	160°C / 190°C	160°C / 190°C
Available rig connections (box up, pin down)	Delta™ 425, GPDS40, GPDS42, 4" FH, CET43, CET40, XT39, XT43	4½" IF, Delta 494, Delta 527, XT50	4½" IF, XT57, XT54, HT55, GPDS50, GPDS55, Delta 544, Delta 576

Benefits

- Activate the tool on demand as downhole conditions change
- Avoid tripping out to add an Agitator system when sliding becomes critical or ROP slows
- Manage weight transfer when it's needed most

Benefits of non-activated system

- Reduce pressure drop across the tool
- Minimize stress on pumping equipment
- Improve MWD signal decoding with a larger bypass ID
- Avoid high-pressure pulses that could affect other BHA, string, or rig components
- Enable higher flow rates to improve ROP
- Reduce axial oscillations in casing

Benefits of activated system

- Transfer weight efficiently
- Improve drilling efficiency while rotating and sliding
- Reduce stick-slip and torsional vibration with RSS BHAs
- Minimize friction losses
- Maintain ROP in long lateral sections (3,000 - 6,000 m)
- Increase ROP in curve and lateral sections
- Reduce torque and drag
- Deliver consistent weight transfer and torque response
- Improve performance without changing drilling parameters
- Reduce or eliminate hanging issues in vertical applications
- Reach TD reliably

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