

Agitators

RM 1000 series

Agitators for circulate drilling mud and other solids containing liquids to prevent settling. With minimal energy consumption and maximum reliability, our agitators improve your operational performance.

Product description

Our agitator design is optimized with computational fluid dynamics (CFD), resulting in significant improvements in the energy consumption and fluid volume mix as compared to existing solutions in the market.

By use of CFD in the design, the impellers have a more balanced pitch, twist, blade width and diameter selection with a contour shape that minimizes turbulence. The impeller accelerates the fluid evenly over the entire blade, optimizing energy transmission and efficiency. Dependent on the tank design, the agitator does not require a bottom stabilizer. Optionally, we can provide documentation with CFD analysis to verify motor size and quality of agitation, by simulating the agitation in the tank design.

Agitators are selected such that the average fluid velocity is between 0.1 – 1.0 m/s, the subsequent turn over rate (TOR) is dependent on the provided volume of the tank.

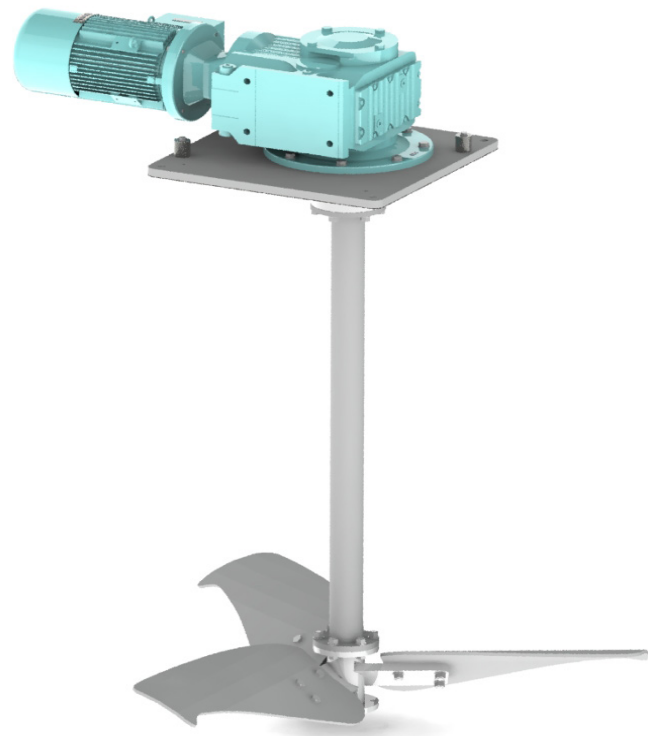
Benefits

- Limited need for bottom stabilizer resulting in reduced maintenance
- Limited need to enter the tank for installation and maintenance
- Drive unit with field proven gear box, with extensive offshore track record
- Typical deep water vessel
 - Up to USD 100 000 annual energy savings
 - Weight reductions of approx. 3 000 lbs (1 500 kg)

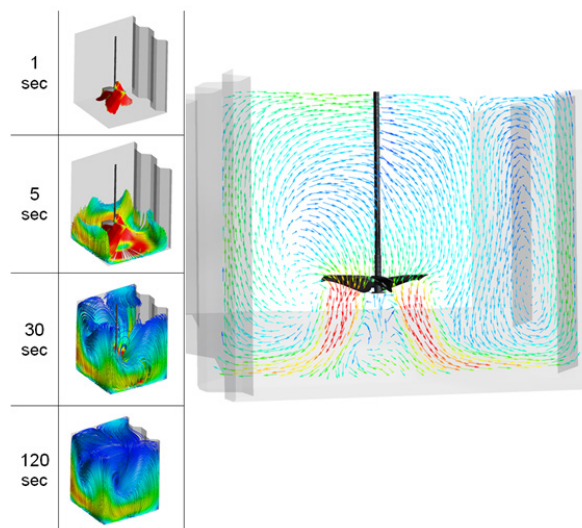
Key features

- Designed based on CFD analyzes for best operational performance
- Reduced energy consumption
- High efficiency
- Available in carbon and stainless steel
- Available for installation in non-hazardous area, Zone 1 and 2

All agitators meet all relevant offshore health, safety, security and environment requirements, such as HSE Offshore COSHH OCE8, OSHA 1910.212, NORSOK D001 and Machine Directive EN60204..



This sample graph shows terminal velocity at different time intervals, calculated with CFD calculations.



Technical specifications

Impeller diameter	23.6 in (600 mm)	31.5 in (800 mm)	39.4 in (1 000 mm)	47.2 in (1 200 mm)	55.1 in (1 400 mm)	63 in (1 600 mm)	70.9 in (1 800 mm)	78.7 in (2 000 mm)
Motor size at 60 Hz (single impeller)	3.5 hp (2.6 kW)	6.3 hp (4.7 kW)	11.5 hp (8.6 kW)	17.1hp (12.8 kW)	22.8 hp (17.0 kW)	33.5 hp (25.0 kW)	46.9 hp (35.0 kW)	57.7 hp (43.0 kW)
Motor size at 60 Hz (double impeller)	3.5 hp (2.6 kW)	11.5 hp (8.6 kW)	17.1 hp (12.8 kW)	22.8 hp (17.0 kW)	22.8 hp (17.0 kW)	46.9 hp (35.0 kW)	57.7 hp (43.0 kW)	57.7 hp (43.0 kW)
Maximum tank height without need for bottom stabilizer	13.7 ft (4 200 mm)	14.4 ft (4 400 mm)	17.7 ft (4 500 mm)	15 ft (4 600 mm)	15.4 ft (4 700 mm)	15.7 ft (4 800 mm)	16 ft (4 900 mm)	16.4 ft (5 000 mm)
Bottom stabilizer	Required above certain shaft length to reduce forces on tank top and tangential forces on shaft due to liquid movements							
Hazardous area classification (according to IEC 60079-10-1)	Non-hazardous Optional: zone 1, zone 2							
EX certification type	Optional: ATEX, IECEx							
Design temperature	+14 to +122°F (-10 to +50°C)							

Data is subject to confirmation by the manufacturer.

