



Drilling mud

SUBMERSIBLE SOLUTIONS

FLYGT
a xylem brand

Prevent sedimentation

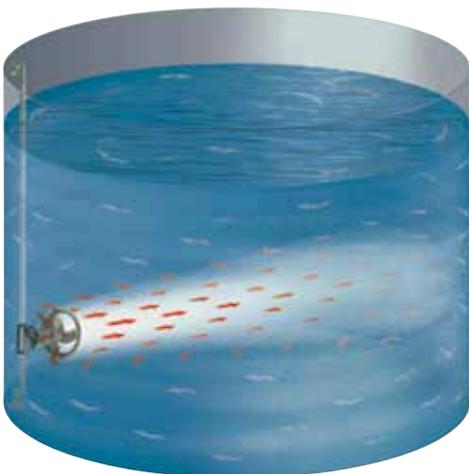
Drilling mud is composed of extremely small particles and has a thick consistency. Its settling velocity is therefore low, and sediment should not be a problem if the contents in a tank can be kept in motion. But, due to the combination of the irregular shape of tanks and the inefficiency of conventional mixing systems, sediment build-up is a time consuming and expensive problem.

Flygt - the world leader in submersible liquid handling technology - offers a solution that not only provides perfect mixing of any tank, but can also cut the energy consumption of your mixing operations.

In a submersible agitator, the motor and propeller are integrated in a compact unit. This results in practically unlimited installation flexibility: both in terms of where it is positioned in a tank and how the agitator's jet flow is aimed.

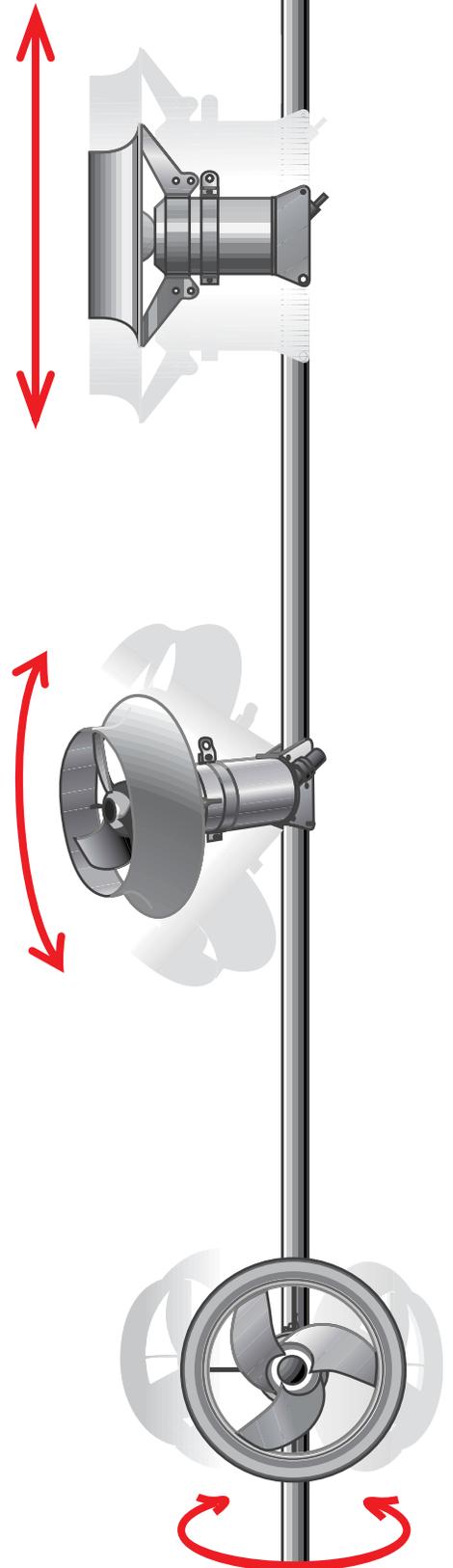
This means that instead of dissipating its energy against tank floors, baffles or facing walls - a problem with non-submersible agitators - the jet flow can be steered so that it follows the shape of the tank. With correct positioning and sizing of the agitator, the entire contents of the tank can be set in motion. By creating this motion, or bulk flow, we are able to prevent solids from settling.

Having invested substantial resources in defining the fluid dynamics of submersible mixing, we bring a high degree of predictability to mixing the contents of your tanks. Our PC-based sizing programs, coupled with a global network of application facilities, ensure that Flygt engineers will be able to configure a mixing system that prevents sedimentation in any tank, of any shape and size.



Put simply, the principles of mixing are:

- *To create one well-defined circulation with a minimum of losses*
- *To distribute the flow as evenly as possible throughout the tank*
- *To position the agitators to reach the "dead" zones*

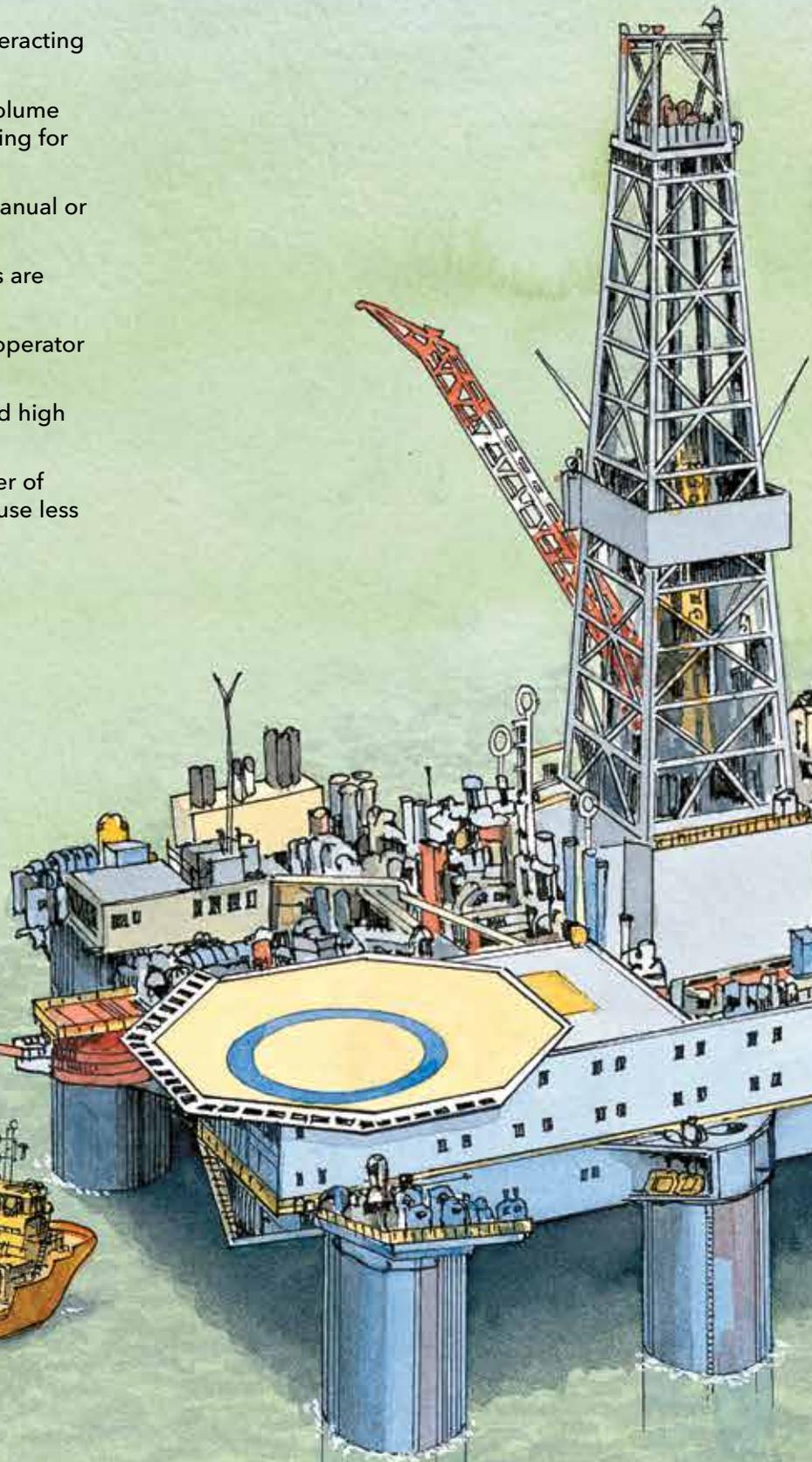
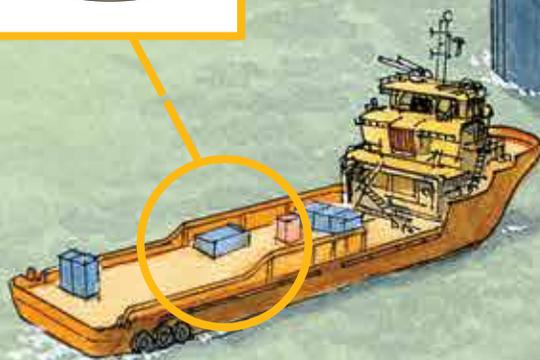


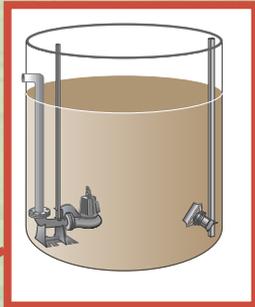
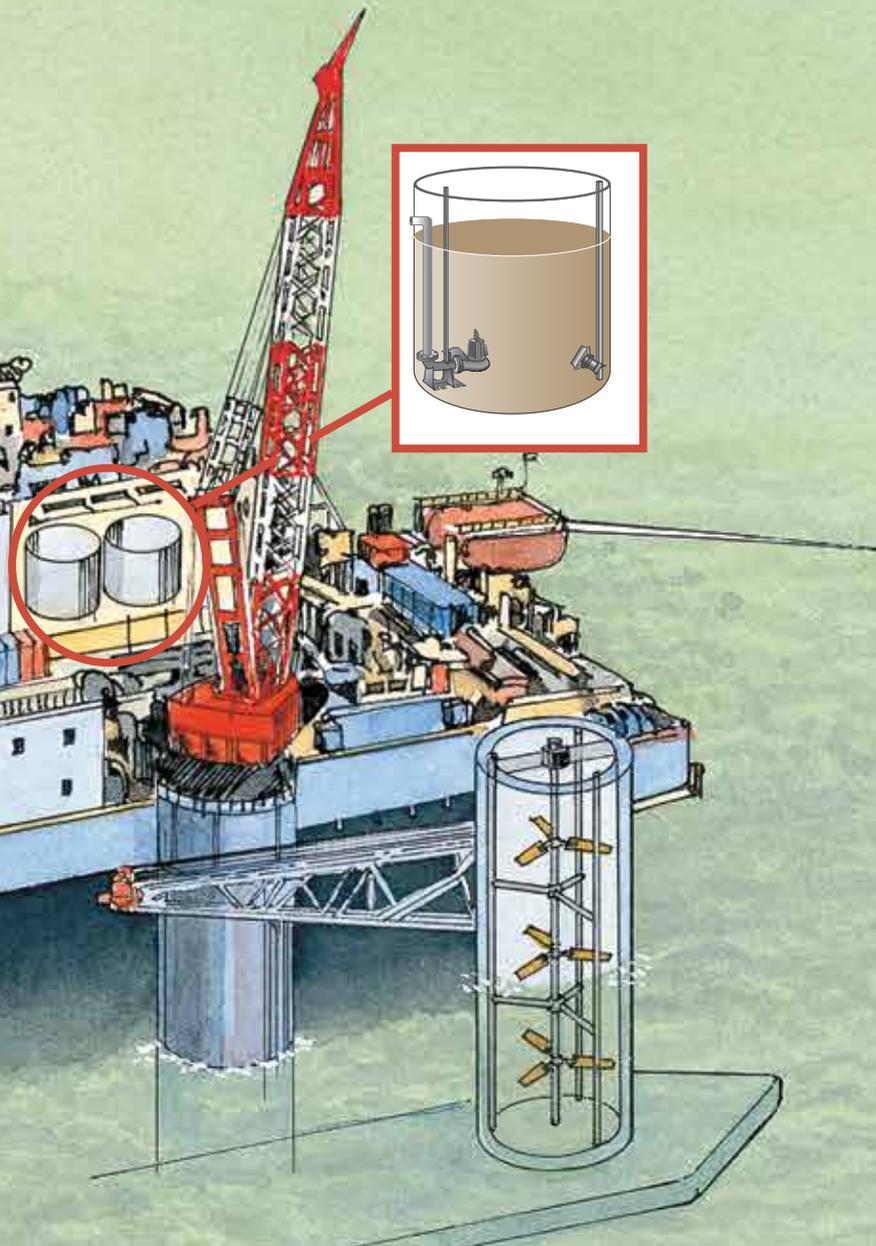
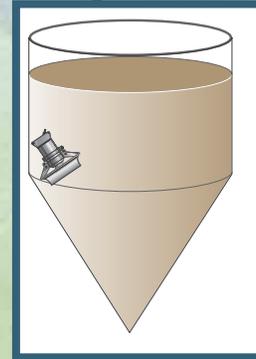
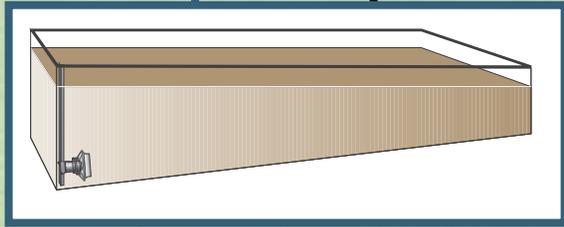
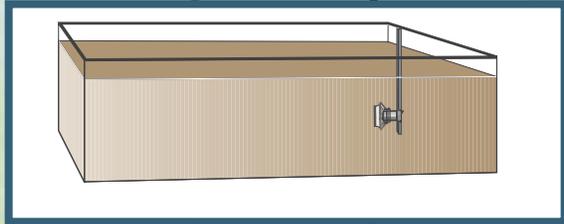
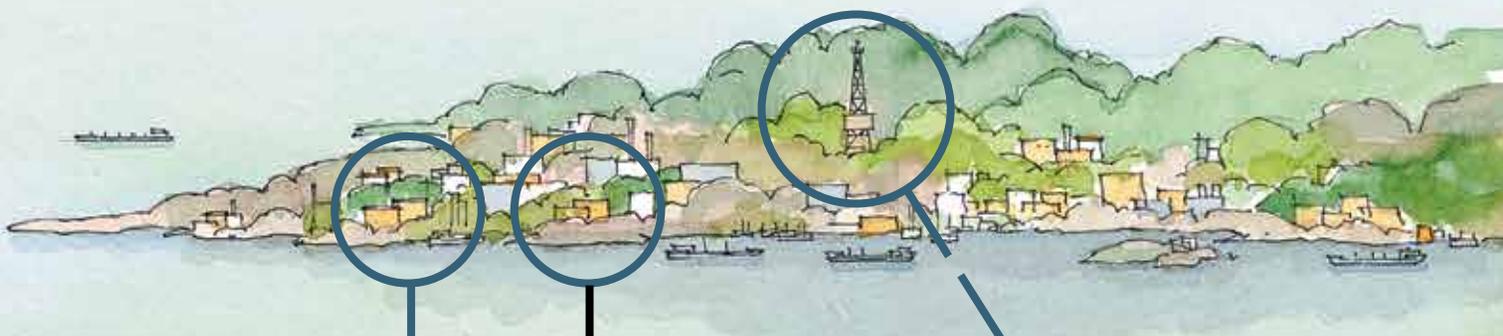
A submersible agitator offers almost unlimited freedom in positioning and aiming.

Better, cleaner, faster

The advantages with Flygt submersible agitators are many:

- The agitator suspends the solids, counteracting the mud's tendency to stratify.
- By preventing sedimentation, the full volume of a tank will always be available, allowing for prolonged drilling operations.
- Ends time-consuming and expensive manual or mechanical removal of sediment.
- With well-mixed drilling mud, problems are avoided when pumping the mud.
- We supply monitoring devices, for full operator control.
- The combination of high turbulence and high flow results in fast batch turnover.
- By using a Flygt agitator, a major supplier of drilling mud has found that they could use less additives and still achieve the same high quality.





Applications

Supply ships

- Storage tanks

Drilling rigs

- Storage tanks
- Active mud tanks
- Killing tanks
- Recycling tanks
- Emergency dump tanks
- Slug tanks

Mud plants

- Preparation tanks
- Storage tanks
- Recycling mud tanks

The submersible advantage

Not only did we invent the submersible agitator at Flygt, but we also launched the world's first heavy-duty submersible pump. Submersible pumps and agitators offer some very interesting benefits:

Submersibles eliminate downtime

One of the reasons for the success of our submersibles, whether agitators or pumps, is that they are so accessible: a Flygt submersible can be raised in a matter of minutes, without having to empty the tank.

Because these compact machines are so easy to winch up and reinstall, a standby unit can replace an agitator or pump that needs servicing, thereby eliminating downtime entirely.

Submersibles take less space

Operating submerged, submersible agitators and pumps take virtually no space. And submersibles do not need the extra head space

that long-shaft units require when they are winched up.

No alignment problems

With a submersible, expensive alignment equipment and time-consuming realignment procedures can be avoided altogether.

The absence of a long shaft also makes for a more robust and more reliable machine.

Retrofit and upgrade

Flygt submersibles offer a high degree of installation flexibility and can replace nonsubmersible units in most applications. Submersible agitators can easily be installed in tanks which have previously had no agitators.



Flygt offers the market's widest range of heavy-duty submersible pumps and agitators. They are available in a large number of different materials to meet varied corrosion, abrasion and temperature requirements.

The agitators are manufactured in 0.75 kW to 30 kW versions. Flygt pumps are available in a wide range of models, from portable 1.9 kW units delivering 150 l/min, to 450 kW mammoth machines with capacities of up to 150 000 l/min.

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

For more information on how Xylem can help you, go to www.xyleminc.com



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