



Energy saving agitators

Energy consumption on storage tanks at Danish Dairy plant



ALS side-mounted agitators

Alfa Laval ALS agitators are side-mounted units widely used in storage tanks and silos. They are normally used for low-viscosity products and for keeping the product inside the tank homogeneous. These units are notable for being a cost-effective design that is easy to install and has exceptionally low maintenance and operating costs.

Designed for effect

Alfa Laval agitators are designed to provide maximum mixing effect with a minimum of energy input.

To achieve this, Alfa Laval experts use many different computerized analysis methods and design systems. These include FEM (Finite Element Method) calculation software, the SALS design system and advanced 3D CAD systems.

Cost reductions all round

Alfa Laval agitators are specially designed for extra-low energy consumption. This enables you to reduce your energy costs for agitation by as much as 80%.



Other benefits include low maintenance costs due to a very long seal service life, and greater productivity because of reduced downtime.

You can also replace the seals from outside the tank, with no need to enter and dismantle anything inside the tank.

Danish Dairy plant

Energy consumption on storage tanks at Danish Dairy plant - comparison between direct drive agitators and Energy saving agitators:

Item	Volume	No. off	Installed power / power draw At full tank for low efficiency direct drives agitator 12 pole motors	Installed power / power draw At full tank for energy saving EnSaFoil type ALS	Total Energy Consumption Savings per. year at 24 hour running per day
Milk/Whey Storage tank	250 m ³	6	11 / 9.0 kW*	4.0 / 3.5 kW*	289,080 kWh / year
Whey concentrate tank	50 m ³	2	4.0 / 2.5 kW*	1.5 / 1.3 kW*	21,024 kWh / year
Milk/Whey Storage tank	100 m ³	5	4.0 / 2.3 kW*	1.5 / 1.2 kW*	48,180 kWh / year
Whey concentrate tank	25 m ³	12	1.1 / 0.9 kW*	0.55 / 0.44 kW*	48,355 kWh / year
Total		25			406,639 kWh / year
By assuming that in average 75% of the tanks are used all the time, the savings in energy consumption will be					~ 305,000 kWh / year
Total difference in costs between direct drive agitators vs. Energy saving agitators is					~14,600 EUR
Savings per year in electrical power, based on a kWh price of 0.07 EUR					21,350 EUR
Payback time based on savings in electrical power					8.2 month
Payback time when included the cost savings on the VSD incl. installation cost					0 years

*Use of VSD

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How to contact Alfa Laval

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