

CASE STUDY

AGISTAR™ SSA Cuts the Energy Bill in Pulp Mill Fiber Recovery

Our customer, a leading European pulp and paper producer, has a long tradition in testing new technologies, and is an early adaptor of new inventions. Energy savings are high on the daily agenda. The mill was, therefore, keen to install the world's first AGISTAR SSA agitator and to cut the energy bill, without compromising the process up-time.



The Sulzer difference

With the new AGISTAR SSA, Sulzer has taken another significant step to reduce the power consumption with new groundbreaking hydraulics. Thanks to the efficient propeller design, robust construction, high flexibility and service-friendly design of the new agitator, Sulzer lowers the total cost of ownership for the customers.

“ *Sulzer continuously strives to lower the environmental impact and increase the competitiveness of the customers.* ”

Patrik Kolmodin, Product Line Manager Agitators

The challenge

To save energy in an already optimized process is not an easy task. Our customer had the opportunity to install the new AGISTAR SSA in a fiber recovery tank in the mill's wastewater treatment process. The tank has a pulp consistency of 2-5%. The previous cantilever type agitator was installed with a variable speed drive and a 15 kW motor. The normal consistency is about 2-3%, so the previous agitator was optimized with reduced speed, running at less than 40 Hz. Power savings for the AGISTAR SSA can, therefore, be evaluated at the same agitation level as for the previous agitator.

The solution

Sulzer delivered an AGISTAR SSA to replace the existing cantilever type of agitator:

- Supply of one agitator AGISTAR SSA60
- Newly developed EX3 propeller with high efficiency
- Sturdy bearing frame with a minimal bearing lifetime of 200 000 hours
- Strong and reliable belt drive unit
- The existing motor and frequency converter were utilized

Customer benefit

- New efficient EX3 propeller; the pulp and paper mill was able to cut the power consumption with 3 kW, while keeping the same agitation level. This is a significant achievement, considering that the previous agitator already had reduced operating speed through a frequency converter.
- Smooth and quick installation process through flexible design
- Rigid installation and strong construction
- Very low vibration levels



Product data

AGISTAR SSA60-B	
Agitator size	SSA60-B
Propeller	EX3-800 with adjustable blade angles
Seal	Gland packing
Motor power	15 kW
Drive	Belt drive unit with frequency converter
Tank volume	10 m ³
Pulp consistency	2-5%

Contact

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Applicable markets

Pulp and paper, general, and chemical processing industry, wastewater treatment

Applicable products

AGISTAR SSA