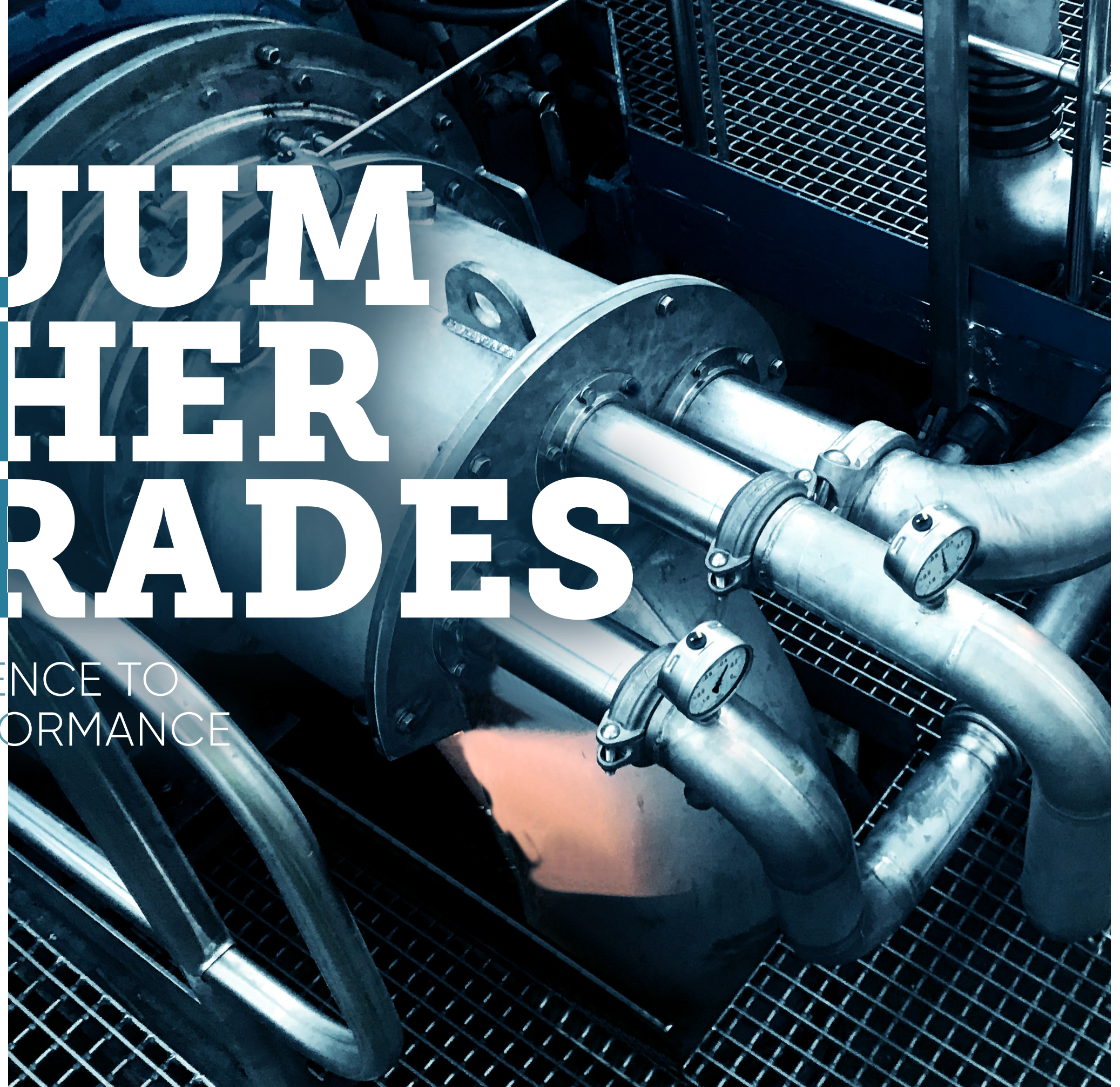


VACUUM WASHER UPGRADES

A WORLD OF DIFFERENCE TO PULP WASHING PERFORMANCE

ANDRITZ experts have gained almost a century of experience in the manufacturing and optimization of vacuum washers and provide a series of upgrades that can make a remarkable difference to washer performance.

Two of the latest upgrade products ANDRITZ offers for vacuum washers are the MaxFlo drum for higher capacity and better washing, and MaxVac high-capacity valves that increase capacity and improve washing efficiency by applying extra vacuum to the critical stages of filtering, washing, and drying.





“Vacuum washers have proved to be excellent and vital pieces of equipment for the pulp washing process over the years, and there are over 1,000 installations around the globe,” says Jarkko Lintunen, Global Product Manager Vacuum washers. “However, there is a lot more ANDRITZ can do to increase the performance of existing vacuum washers, as well to assist in increasing the capacity of the washing lines at pulp mills.”

BENEFITS OF THE MAXFLO DRUM INCLUDE:

- FEM analyzed structure ensures maximum lifetime of the construction
- Less internal pressure drop leading to more vacuum applied to pulp mat
- Higher discharge consistency
- Improved washing efficiency
- A higher dilution factor

THE MAXFLO DRUM

A lot of existing vacuum washers across the industry are being pushed to the limit when it comes to capacity, and many are operating beyond their original design specifications. ANDRITZ has used the latest calculation tools to optimize flow pattern and mechanical durability and have produced the new MaxFlo drum, which has high vacuum and a good pulp mat formation, essential to efficient pulp washing. However, the technology has extended beyond simulations and computations – current MaxFlo drum installations have demonstrated excellent performance and cost-effectiveness, already delivering a strong return on investment. Its modular and flexible design enables seamless integration with nearly all vacuum washers available on the market, making it a versatile and efficient solution for various applications.

Jarkko Lintunen concludes, “We have evidenced huge improvements in runnability with our MaxFlo drums. In best cases they have the ability to run almost double loading when compared to the original design value.”

MAXVAC HIGH-CAPACITY VALVE

High quality pulp relies on good washing efficiency and as capacity at a mill increases, negative impacts can occur if the production rate increases beyond design specifications. ANDRITZ has developed the MaxVac high-capacity valve replacement system that allows a mill to increase capacity at the same time as ensure washing efficiency.

BENEFITS OF THE MAXVAC GASFREE VALVE INCLUDE:

- Reduced defoamer usage
- Increased dropleg vacuum
- Increased effective filtrate capacity
- Increased drainage
- Improved mat formation

Importantly, mills facing high defoamer consumption can benefit from ANDRITZ GasFree™ technology to save on chemical costs and reduce air entrainment.

CASE STUDY: SAPPI SAICCOR BLEACHING PLANT UPGRADE

Sappi Saiccor mill, situated near Durban, KwaZulu-Natal, South Africa, produces 890,000 t/a of ECF dissolving wood pulp for the export market. In 2022 the mill was looking to increase its pulp capacity and chose ANDRITZ for the upgrade of its bleaching plants, including its vacuum washers.

“Basically we had three choices to enable us to reach the new capacity,” says Wayne Weston, the mill’s Project Director, “change the washing equipment completely, replace the retention tower, or upgrade the bleaching plant. Both of the first options were very expensive; however, ANDRITZ came to us with the idea of a vacuum boost by upgrading the vacuum washers in bleaching plant three and four with the MaxVac technology.

“The valves were installed on our existing washers and we were really pleased with the result. The performance test proved that all expectations in the bleaching plant were met, including the capacity increase and the reduction in chemical use. Another plus was that ANDRITZ assisted us with further service inspections that made sure the new valves were operating at their full performance levels.”

UPGRADE AND IMPROVE OPERATIONAL EFFICIENCY

It is clear that retrofitting the latest technology and upgrading vacuum washers is a more attractive financial alternative to replacing the whole washing line or equipment. With ANDRITZ’s extensive experience in improving the operation and efficiency of existing equipment, major financial benefits are realized.

The experience and know-how that ANDRITZ provides goes beyond its own technology for vacuum washers, and the company is able to provide audits, upgrades, and retrofits on all manufacturers’ equipment.

CONTACT
Jarkko Lintunen
jarkko.lintunen@andritz.com