

Location: Lohja, Finland

case study: 04-2021

VS3A60 PMB

*The Pump People®*

BACKGROUND

On the site of a wood mill in Lohja, Finland, a wood processing company, tree trunks are collected for further processing into a final wooden product.

These tree trunks must be kept wet for a period between 9 months and 3 years, to prevent the trunks from warping. Also, keeping the trunks wet is better for the durability of the final product and it is easier to peel off the bark.

THE CHALLENGE

On this industrial plant, submersible pumps were used to pump the water from a collecting sump to the site where the trunks are stored. On site, the spray water is collected in the sump, in fact forming a closed recirculation system. When the tree trunks are wet, loose parts of the bark are sprayed off in the process, which flow back into the sump where the submersible pumps were installed. These pumps cannot handle the continuous flow with chunks and blocks, causing frequent blockage and rapid wear on the submersible pumps.

For the engineers of the wood processing plant this was reason enough to look for a solution. A site inspection with a Gorman-Rupp technician, and a hydraulic analysis of the system formed the basis of the solution.

THE OPTIONS

- The first option was upgrading the old installation with submersibles
- The second option was to go for a Gorman Rupp self-priming pump.

Based on the experience of the old submersible pump station (which included high maintenance interval, frequent downtime and high costs), combined with the experience this customer has with Gorman-Rupp self-priming pumps on other plants, the decision was made to go for the solution with a Gorman Rupp self-priming pump.

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THE SOLUTION

A Gorman Rupp VS3A60 self priming centrifugal pump has been installed. This pump operates 24 hours /day and has been in operation since 2017 without any problem. Thanks to the robust construction and the large solids handling capacity of the Gorman-Rupp pumps, clogging is now a thing of the past. Once per year (in spring time) the local Gorman-Rupp representative performs the maintenance on the pump. This involves an oil change, adjusting clearances and an overall inspection.



This picture shows the spray beam, keeping the tree trunks wet and being pressure fed by the Gorman-Rupp pump.



Gorman Rupp VS3A60 self priming centrifugal pump

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