



Double seals solve reliability problem for US company

A New England pulp and paper company was reporting the persistent failure of its single seals, caused by pressure/flow fluctuations in the seal water supply, and poor piping plans.

The failure of the seals every two to three months was resulting in the dilution of a sensitive process fluid (Heavy Black Liquor). Attempts to remedy the problem by adding water back in was only causing further issues, as well as being wasteful and inefficient.

In addition, the seal failures sometimes led to external leaks, causing loss of product, product to drain WWTP costs, and the potential for safety and environmental issues.

With the installation in September 2023 of the AESSEAL® DMSF™ Dual Seals and the SW325™ water management system, seal life is expected to be at least three times as long. As part of a closed loop system, dual seals and systems allow for variations in seal water supply pressure and flow. They will maintain a constant pressure to the seal even when the supply to the system is variable.

The result is already being seen in lower energy costs and reduced downtime, with the company no longer having to waste time and money in the constant replacement of failed single seals. In addition, employees are no longer at risk from the leakage of Black Liquor, which is hot and can cause skin irritation. The savings in waste water alone have been estimated to be two million gallons per pump per year. The return on investment is expected to be achieved within 12 months, based on seal replacement costs alone.

A company spokesman said that the new system had led to improvements across the board. "This is a little of everything," he said, "better safety and reliability, reduced maintenance, and higher levels of production."

'Saving 2 million gallons of water per pump per year'

Industry:	Pulp & Paper
Product:	DMSF™ and SW325™
Application:	Heavy Black Liquor
Water Savings:	2 million gallons per pump per year
Reference N.O:	TD3099998

