

# Maximizing Bearing Reliability in a Paper Machine

Pulp and Paper Industry Chesterton 630 SXCF 220 #1 IL/MRO Case Study

## Challenge

#### Background

A paper machine experienced 15 bearing failures in the wet end over the past year due to a condition called "skidding." Despite the use of seals, water consistently found its way into the bearings, displacing and mixing with the grease. This leads to skidding where the rolling elements slide instead of roll—causing high friction, excessive wear, and premature failure.

To prevent this, a specialized grease is required. It must stay in place under constant water intrusion, resist corrosion, handle both fine and large paper dust, and perform under high pressure. Additionally, it should maintain its integrity under speed and heat without separating.

## Solution

#### Product

On the paper machine, **Chesterton**<sup>®</sup> **630 SXCF 220 #1** was used on machine #1, while the contracted competitor's grease was continued to be used on machine #2.

**630 SXCF 220 #1** is a high performing grease designed to work on bearings with heavy exposure to water. It has phenomenal water washout and corrosion resistance.

### **Results**

#### **Reduced Bearing Failures**

During the annual outage, machine #2 experienced 15 bearing failures with the contracted competitor's grease. In contrast, machine #1 using **Chesterton 630 SXCF 220 #1** grease had zero bearing failures.

#### **Cost Savings:** (paper machine #1)

<b>Total Estimated Yearly Savings</b>	\$132,200.
Chesterton 630 SXCF 220 #1	\$144,000.
Total failure cost	\$276,200.
Downtime cost	\$150,000. (can vary)
Labor \$6,400 per roller x 8	\$51,200.
Bearings \$5,000 $ imes$ 15	\$75,000.

#### \$ = USD



Paper machine wet end bearing undergoing "skidding".



630 SXCF 220 #1 high performing grease with excellent water washout and corrosion resistance.



Wet end of a paper machine.

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