

SUCCESS STORY

Optibelt Red Power - Pulp & Paper Mill



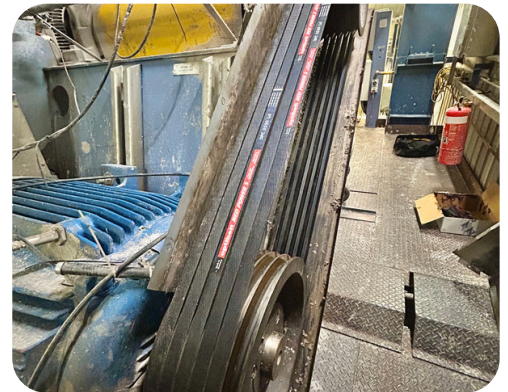
PROBLEM

A pulp and paper manufacturer experienced reliability issues with brand G - 6 x SPC 3550 v-belts used on a recirculation fan, which frequently slipped and cracked. The v-belts, operating in extreme conditions with ambient temperatures above 80°C, stretched and developed cracks within three months, hindering performance. This high-heat environment causes significant thermal stress, leading to accelerated material degradation, hardening, loss of flexibility, and cracking at the base of the v-belts.



RECOMMENDATIONS

Update the recirculation fan drive by replacing brand G v-belts with 5 x SPC 3550 RP Optibelt RED POWER 3 v-belts. These new belts offer up to 50% higher performance due to their high-modulus polyester tension cord, allowing the system to use one less belt while maintaining a strong service factor of 1.7. They are maintenance-free, capable of withstanding temperatures up to 100°C, and resist stretching, eliminating the need for re-tensioning. Proper tensioning with an Optibelt tension gauge during installation is crucial to prevent premature wear, reduce slippage, and enhance energy efficiency, ensuring reliable and cost-effective operation.



BENEFITS

The implementation of Optibelt RED POWER 3 V-belts was very beneficial: longer belt lifespan, less pulley wear, reduced bearing heat, elimination of unexpected failures, and a notable decrease in energy consumption. A recirculation fan drive powered by a 160 kW motor, operating continuously five days a week, showed a 4% increase in drive efficiency. This efficiency improvement led to annual energy savings of approximately 38,400 kWh, equating to \$3,840 in cost savings at an energy rate of \$0.10 per kWh. Overall, these advantages underscore the significant operational and financial benefits of using these V-belts.

