



Case Study

Hot Savings: Plywood producer reduces maintenance costs with Fahrenheit® shredder pump

Overview

One of the world's largest suppliers of plywood was experiencing excessive repairs and replacement costs for the industrial wastewater solids-handling pumps used in plywood production. In the de-barking process, bark from timber is shredded into much smaller pieces and loaded into a condensation bark pit. Extremely hot water (180°F) is added to this bark pit along with a caustic solution that works to soften the wood.

The shredder pump operating inside the 12-foot deep bark pit is responsible for dewatering the bark pit and pumping the softened pine pieces to a separate holding container. The hot caustic water, large wood pieces, and 24/7 operation caused their main pump to repeatedly overheat, corrode, and fail. Repairs costing \$46,000 per year, for multiple years, motivated the plywood producer to source a new pump solution.

PROBLEM

- Extreme hot water causing pump failures
- Caustic solution and large solids degraded pump
- High repair and maintenance

The customer drastically reduced maintenance costs by switching the vertical turbine pump, pulled for repair every 6 to 7 months, to Fahrenheit® High Temperature Pumps





Solution

The plant sourced a BJM Pumps® SKXF Series, solids handling, high temperature pump through their long-time pump distributor. This shredding/cutting non-clog pump can withstand temperatures up to 200°F, ideal for the plywood de-barking application. SKXF series pumps' wear parts and wet end parts are made of corrosion-resistant 316 stainless steel. The wear-resistant shredding and cutting system is designed to tear, break, and rip solids up to 3.5". A tungsten carbide tipped impeller cuts against a spiral-shaped diffuser plate to continuously rip apart solids with a 360-degree shredding action. With side discharge and non-clog single impellers, the SKXF pump can shred and pass the bark pit slurry up to 911 gallons per minute.

SKXF pumps have a three-seal motor protection which helps prevent particulate from entering the seal chamber. Winding protection and (NEMA) Class R motor insulation exceeded standard Class A or B insulation. A thermal cut out switch allows for a winding temperature of up to 300°F, and helps protect the pump from overheating.

The Fahrenheit SKXF pump was installed in 2015. The pump has run smoothly with no repairs, saving the plywood producer over \$11,000 in purchase and maintenance expenses since installation.

“The SKXF pump has been working well for us and we are now exploring additional IFS pump solutions” - plywood producer customer



Features

- Fahrenheit® high temperature, corrosion-resistant 316 stainless steel, shredding/cutting solids- handling, non-clog shredder pump
- Wear-resistant shredding and cutting system designed to tear, break, or rip solids
- Tungsten carbide-tipped impeller
- Max solids from 1.6" - 3.5"

Applications

- Power Generation & Utilities
- Commercial Buildings
- Food & Beverage
- Municipal Water & Wastewater
- Pharmaceutical & Medical

RESULTS

- Continuous 24/7 non-clog, abrasion-free production
- Able to withstand extreme water temperatures required for de-barking
- Significant savings in maintenance, replacement and labor costs

