

Challenge

Issue

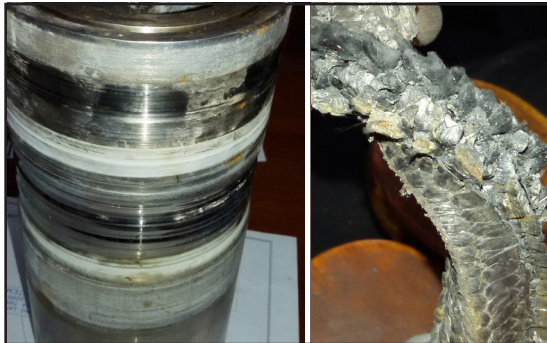
Existing packing lasted only three days due to abrasive gypsum slurry in fertilizer mineral manufacturing process. Shaft required replacement every few days.

Root Cause

Existing packing failed due to a loss of compression, allowing the gypsum mineral to enter the stuffing box, fret the shaft, damage the packing, and cause uncontrollable leakage.

Goal

Achieve 15 days of continuous service to support plant cycle.

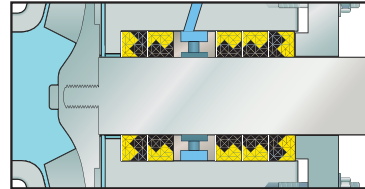


Gypsum slurry was getting under the packing set, resulting in damage to both the shaft and packing.

Solution

Overview

- Installed five rings of **DualPac® 2211 Packing** as shown below.



- DualPac Packing** uses patented braiding technology that combines graphite filled ePTFE with a high strength and resiliency aramid. It results in significantly longer packing life and low wear on shafts.



DualPac 2211 Packing installed. Note that middle rings are oriented with the aramid on the OD to create a tight seal that needs fewer adjustments.

Results

Client Reported

- Achieved over 25 days of continuous service to support plant cycle.

Repair Costs/MTBF/Savings

- Sleeve Savings \$351/month
- Machining Savings \$281/month
- Labor Savings \$1,054/month
- Product Savings \$4,215/month
- Packing cost \$271/month

Total Savings **\$5,630/month**
\$67,560/year

\$=USD



Client saved nearly \$70K US each year.