

DualPac® 2212 Reduces Leakage and Extends Packing Life in Phosphate Mine

Challenge

Issue

- Customer was using a competitor's PTFE packing on large centrifugal pumps used in phosphate mining.
- Heavy leakage led to frequent adjustments and costly repacking.

Goal

Increase the length of continuous service to support plant cycle and reduce maintenance costs.

Solution

Application

- Two large 20 x 20 centrifugal pumps with 54" impellers and 2000 hp motors.
- Three rings of *DualPac*® 2212 were installed as shown in figure 2 with a *SpiralTrac*™. This active throat bushing enables particulates to be removed from the stuffing box and away from packing. It also reduces the need for flush water.
- Bolts were fitted with *Chesterton Live Loading* and torqued to engineering specifications.

Results

Client Reported

After four months and no adjustments, the pumps are still maintaining the required minimal leakage.

Repair Costs / MTBR / Savings

Labor Savings: \$8,000/year

Water Savings: \$4,000/year

Total Savings: \$12,000/year



Figure 1: Large pump required adjustments every few days due to severe leakage.

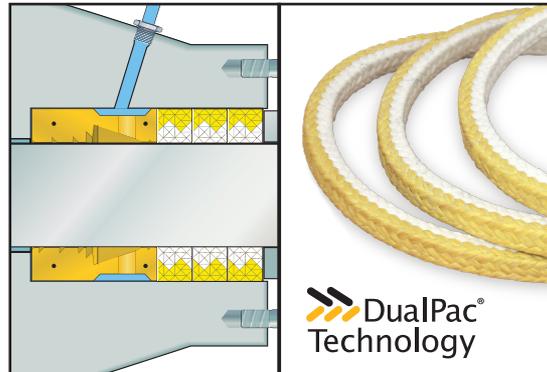


Figure 2: Superior sealing is achieved with three rings of *DualPac* 2212 and *SpiralTrac*.

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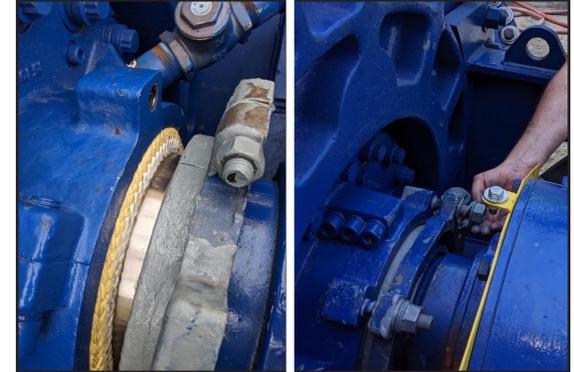


Figure 3: Large pump with *DualPac* 2212 and *Live Loading* being installed.