

Challenge

Goals

- To refurbish 12 vertical mill mixers that required maintenance bi-monthly at a cost of \$1.9K/M
- Extend the MTBR to > 9 months to reduce downtime and maintenance cost

Root Cause

The high temperature caustic mix in mills were abrading and damaging the fiberglass and rubber linings from the OEM. Additionally, the lining adhesive disbonded and delamination occurred. The metal substrate corroded.



Worn mill after failure of rubber and fiberglass

Solution

Preparation

- Pressure wash and decontaminate surfaces
- Grit blasted to Sa 2.5 with 3 mil (75 µm) profile

Application

1. Apply **ARC BX1*** in lower section
2. Apply **ARC BX2*** in upper section
3. Smooth out irregularities with **ARC 858**
4. Topcoat with **ARC 855** to reduce friction and protect against corrosion

*ARC BX1 is the "Bulk" package size of ARC 890

*ARC BX2 is the "Bulk" package size of ARC 897



Application of ARC coatings

Results

Total applied cost ARC (12 mixers): \$ 47K

Client Reported After 24 Months

Extended MTBR of mills to >18 months vs. 2 months

First Year Savings: \$ 89K

1st year maintenance cost avoidance: \$136K
(based on 12 mixers)

Total Savings: \$178K

\$=USD



First mill after repair ready for delivery