

Challenge

Issue

Hard face weld overlay was not meeting 12 month maintenance cycle. Associated repair costs every 12 months equal \$4.5K.

Goals

- Restore and protect conveyor screw from abrasion, improving reliability
- Eliminate need to for weld overlay on entire flight

Root Cause

Severe abrasion from bark with up to 10% sand abrade drum and flights.



Abraded screw conveyor

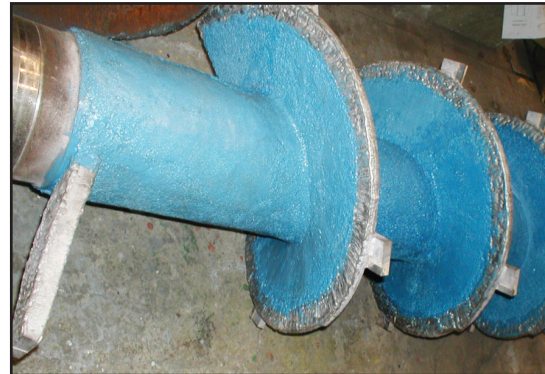
Solution

Preparation

- Grit blast to Sa 2.5 with 3 mil (75 µm) profile

Application

1. Apply **ARC MX1** at ¼ inch (6 mm) to flight faces and shaft
2. Reinforce flight tips only with hardened weld overlay



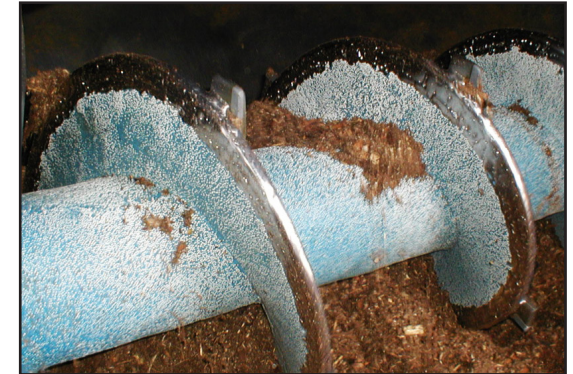
ARC MX1 applied and tips welded

Results

Client Reported

- Maintenance cycle increased from <12 months to >72 months
- Est'd. 72-month savings per screw: \$27K

\$=USD



After 12 months: perfect performance