

Challenge

Issue

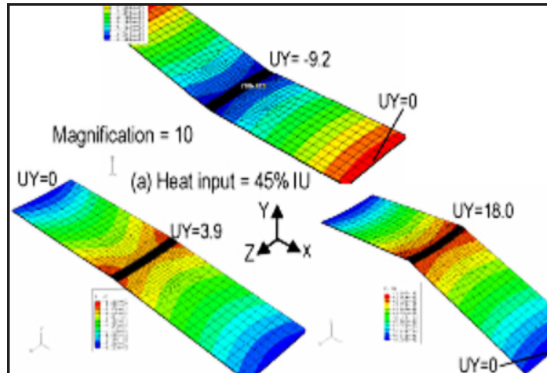
Transport screw flights were failing under abrasive load. This resulted in poor bark transport to boiler.

Goals

- Protect transport screws from abrasion
- Provide alternative to welding
- Prevent flights shearing from drum
- Increase efficiency and reduce fuel cost

Root Cause

Severe abrasion on the drum and flights from bark processing. Hard-face welding distorted equipment, adversely impacting performance.



Weld-induced distortion patterns

Solution

Preparation

- Steam clean at 100 bar (1400 psi)
- Grit blast to Sa 2.5 with 3 mil (75 µm) angular profile

Application

1. Apply **ARC BX2*** to drum and drum/flight transition. ½ inch (12 mm) at cove and up to leading face of flight
2. Apply 2 coats (alternating colors) of **ARC 855** ~DFT: 60 mils (1.5 mm)

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



Cleaned and blasted surface

Results

Client Reports

- Months of optimal service: >48
- Minimized inefficiency related to weld induced distortion of flights
- 48 month cost avoidance*: \$40K

*Cost avoidance: New screw, annual welding, bearing blocks, downtime

\$=USD



Repaired transport screw