Fiber Flow Drum

Pulp & Paper — Pulping
ARC 858 Coating
Case Study 013

Challenge

Goals

Provide a viable alternative to existing method to protect the structural integrity of a fiber flow drum.
NOTE: must last 2X longer than welding or conventional coatings.

Root Cause

A combination of mechanical stress, corrosion at the weld seams, and abrasion induced metal loss weakened the structural integrity of the flow drum. The longitudinal vanes were particularly damaged.

Solution

Preparation

Abrasive blast to Sa 2.5 with 3 mil (75 µm) angular profile

Application

1. Apply ARC 858 to the weld seams to build up irregularities, pits, and damage. Curve out angles and corners too prevent pulp collecting on longitudinal vanes
2. Apply ARC 858 as a topcoat to provide corrosion protection over a larger area and to reduce surface friction

Results

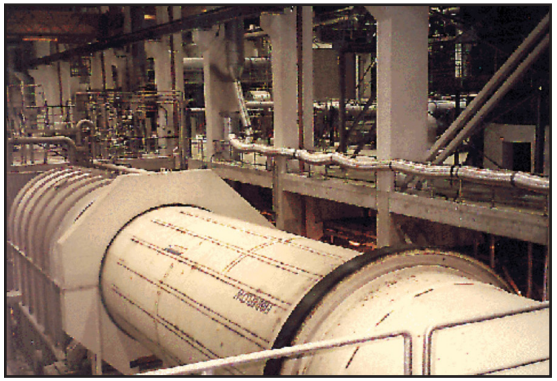
Client Reported Outcome After 3 Years

- All weld repairs were eliminated
- No unscheduled shutdowns occurred

Plant Reported Savings: $100K

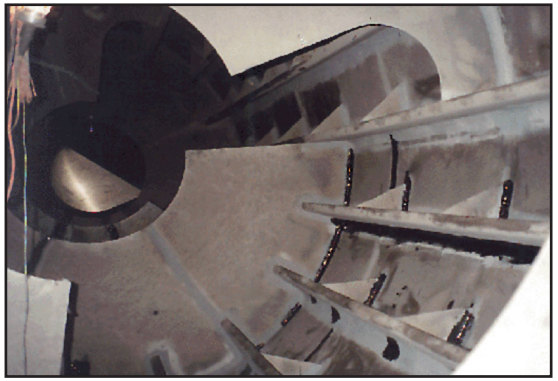
The client estimated that the combination of eliminating unscheduled downtime and weld repairs, less the cost of the ARC solution.

$=USD



Fiber flow drum

Weld seam grit blasted awaiting coating



ARC 858 and ARC 855 being applied to weld zones

Technical data reflects results of laboratory tests and is intended to indicate general characteristics only.
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