

# 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.



Fiber flow drum

## **Solution**

#### **Preparation**

Abrasive blast to Sa 2.5 with 3 mil (75  $\mu\text{m})$  angular profile

## **Application**

- 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



Weld seam grit blasted awaiting coating

## **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



ARC 858 and ARC 855 being applied to weld zones

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