Rubber Coated Press Rolls

Challenge

Issue
Area of rubber lining failure encroach into press section and damage paper mat as it passes over damaged section. Increased scrap costs are incurred and result in 1 week downtime for rubber repair.

Goals
Reduce scrap cost and increase resistance to underfilm corrosion.

Root Cause
Process fluid leaks into end caps causing underfilm corrosion at rubber lining interface leading to delamination.

Solution

Preparation
- Undercut rubber to tightly adhered area
- Create beveled cut into adhered rubber
- Mechanically prepare exposed metal to Sa 2.5 with 3 mil (75 μm) profile

Application
1. Install oversized platen on outer edge of roll coating internal face with release agent
2. Apply bead of ARC 858 between platen and existing rubber to fill area of removed rubber
3. When cured, remove platen, grind ARC 858 to RMS finish of 12

Results

Client Reported:
- Repair time reduced from 7 days to half day for ARC repair
- >48 months of operation without coating failure

Client Estimated Savings:
- Elimination of scrap and associated downtime
- Savings per roll over 48 months $24K+

Delamination cover plate transition
Surface prepared for ARC 858
Rebuilt and ground for production