

A *Measurable* Difference

J&L Fiber Services Product Case Study

V-MAX Coarse Screen Black Clawson Conversions

MILL A **INFORMATION**

Black Clawson Coarse Screen System:

- Produces 1500 T/D linerboard from 100% OCC
- Existing coarse screen: 0.062" UV500 cylinder with breaker bars

OBJECTIVE

- Increase capacity by 10%
- Increase efficiency by 20%

RESULTS

Perforated Hole (0.062")

- Feed Consistency: 2.40%
- Thickening Factor: 1.53
- %FLA: 54%
- Efficiency on 0.006" Pulmac: 44%
- Acc Capacity: 550 T/D

Slotted Coarse (0.024")

- Feed Consistency: 2.40%
- Thickening Factor: 1.44
- %FLA: 50%
- Efficiency on 0.006" Pulmac: 82%
- Acc Capacity: 620 T/D

MILL B **INFORMATION**

Existing Cylinder:

- 0.062" BC UIII cylinder with breaker bars
- 225 tpd
- 45 amps

V-MAX Coarse Screen Update:

- 0.028", 6 spi
- 225 tpd
- 28 amps

OBJECTIVE

Fiber recovery

RESULTS

- 38% energy reduction
- Mill converted all coarse screens

MILL C **INFORMATION**

Black Clawson Coarse Screen System:

- Produces 600 T/D linerboard from 100% OCC
- Existing coarse screen: 0.079" UIII with breaker bars
- V-MAX Conversion: 0.024" UIII V-MAX with four breaker bars

OBJECTIVE

- Decrease energy
- Remove Styrofoam

RESULTS

- \$86K in Energy Savings
- 95% Styrofoam removal
- 15% system efficiency increase
- Reduced thickening factor from 1.25 to 1.05
- Feed consistency is 2.5 to 3.5%

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MILL D **INFORMATION**

Location: Midwest
Furnish: 100% OCC
Product: Linerboard
Existing
Coarse Screen: 0.079" Black Clawson UV400
with breaker bars
Installed: 0.024" UV 400 V-MAX with four
breaker bars

OBJECTIVE

Prevent capital investment of \$600K for new coarse screen system to eliminate Styrofoam contaminants.

RESULTS

90% Styrofoam removal. A new screen system was not needed. V-MAX saved the mill from a \$600K capital investment.

MILL E **INFORMATION**

Location: Midwest
Furnish: 100% OCC
Product: Linerboard
Existing
Coarse Screen: 0.062" Black Clawson UV300
with breaker bars, 250 tpd @
3%, 145 amps
Installed: 0.024" UV 300 V-MAX, 6 spi,
105 amps

OBJECTIVE

Better efficiency required to prevent mill closure.

RESULTS

- Efficiency and Styrofoam removal significantly improved
- Energy savings are \$12,960 per year
- 12% Reject Rate (volume)
- Increased capacity to maintain stock chest per mill request

Mill was allowed to stay open due to improved efficiency.

MILL F **INFORMATION**

Location: Midwest
Furnish: 100% OCC
Product: Linerboard
Existing
Coarse Screen: 0.062" Black Clawson UV400
with breaker bars, 45% FLA
Installed: 0.026" UV 400 V-MAX, 6 spi,
41% FLA

OBJECTIVE

Decrease debris going forward to fine screens in order to perform a slot width reduction on the fine screen system.

RESULTS

- 20 tpd reduction in accept debris at the same volumetric reject rate
- Large Yield Increase
- Allows for slot reduction in fine screens
- 10% energy reduction

V-MAX met all the requirements of the objective and gave the mill the added benefit of energy reduction.