A *Measurable* Difference

J&L Fiber Services Product Case Study

V-MAX

vs. Conventionals in I-4 Thick Stock Screening

MILL INFORMATION

Location: Midwest
Furnish: 50% NBSWK, 15% Broke, 35% NBHWK
Product: Dairy Labels
Screen: Fiber-Prep Thick Stock Screens
Installed: August 2001

Originally the mill was operating with a 0.008", 6 spi, T5 contour conventional cylinder in the primary position.

OBJECTIVE

Increase efficiency by reducing slot width to 0.006" in an aggressive application.

TRIAL PROCESS

First Trial
- ☐ Tertiary CH3 (high wear)
- ☐ Mill follow up positive CH-3

Second Trial
- ☐ Primary CH10 (quality)
- ☐ Mill removed due to runnability CH10, Feed Cs = 3.7%, Reject Cs = +6.0%

Second Trial (2)
- ☐ Submit Trial Plan to Mill Mgr.
- ☐ Change process feed consistency to 3.0%, obstructions from papermakers
- ☐ 4-days of in mill assistance CH-10
- ☐ Ran well at reduced feed Cs, Reject Cs = 4.5%

Third Trial
- ☐ Secondary CH3 (quality)
- ☐ Change process, smaller slots, runnability, mill education process

Passing Velocity
(Conv. vs V-MAX)
- ☐ Primary CH10 – 0.72 m/s – 0.57 m/s
- ☐ Secondary CH3 – 2.1m/s – 1.77 m/s
- ☐ Tertiary CH3 – 0.5 m/s – 0.45 m/s

Primary CH10 – 20% RRm, 15% RRv
Secondary CH3 – 20% RRm, 24% RRv
Tertiary CH3 – 25% RRm, 26% RRv

RESULTS

- ☐ Increased Broke usage from 15% to 30%
- ☐ Reduction in cull by 75%
- ☐ Customer Satisfaction / New Customers
- ☐ New Grades Run (Dairy Label)
- ☐ Mill Savings over $1,000,000 / yr.
- ☐ Mill may add larger Secondary and add CH3 to make quaternary position

CONCLUSION

After 16 months run time, the life of the Primary CH-10 is 1.5 times the normal life of the milled cylinders. The Secondary and Tertiary CH3's have improved their cylinder life by two to three times normal life.

The quality improvements have been significant with reduced breaks, customer complaints and increased orders and up-time on this paper machine.

The mill is totally committed to the J&L V-MAX and has made this cylinder the standard on this thick stock system.

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